



1 Cityplace Dr, Suite 490  
Creve Coeur, MO 63141

Phone: (314) 513-0147  
www.crowncastle.com

July 22, 2022

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

**RE: Notice of Exempt Modification for AT&T  
Crown Site ID #876335; AT&T Site ID #CTL05255  
130A Birdseye Road, Farmington, CT 06030  
Latitude: 41° 42 56.94 / Longitude: -72° 48 37.42**

Dear Ms. Bachman:

AT&T currently maintains (9) antennas at the 131.9, 130, and 128.3-foot mounts on the existing 139-foot Monopole Tower located at **130A Birdseye Road**. The property is owned by GOIS Holdings of Connecticut LLC and the Tower by Crown Castle. AT&T now intends to remove six (6) antennas, relocate three (3) antennas, and add (9) antennas. This modification/proposal includes hardware that is both 4G (LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

**Planned Modifications:**

Tower:

**REMOVE AND RELOCATE:**

- (3) AT&T Antennas- KMW – EPBQ-654L8H8-L2 (**RELOCATE**)
- (3) AT&T Radios- Ericsson – 4478 B5 (**REMOVE**)
- (3) AT&T Antennas- PowerWave – 7770 (**REMOVE**)
- (6) AT&T TMAs- PowerWave – LGP 21401 (**REMOVE**)
- (3) AT&T Radios- Ericsson – RRUS-32 B30 (**RELOCATE**)
- (2) AT&T Antennas- CCI – HPA-65R-BUU-H6 (**REMOVE**)
- (3) AT&T Radios- Ericsson – 4426 B66 (**RELOCATE**)
- (3) AT&T RRUs- Ericsson – RRUS-11 B12 (**REMOVE**)
- (3) AT&T Radios- Ericsson – RRUS-32 B2 (**REMOVE**)
- (1) AT&T Antenna- CCI – HPA-65R-BUU-H8 (**REMOVE**)

**INSTALL:**

- (6) AT&T Antennas- Ericsson – AIR6449 B77D (below) + AIR6419 B77G (above)
- (3) AT&T Radios- Ericsson – 4478 B14
- (1) AT&T Squid- Raycap – DC6-48-60-18-8C-EV
- (3) AT&T Radios- Ericsson – 4415 B25
- (3) AT&T Radios- Ericsson – 4449 B5/B12
- (3) AT&T Galvanized Pipe- Valmont – BBPM-K1 – Crossover Hardware



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- (3) AT&T Antennas- CCI – DMP65R-BU8DA
- (9) AT&T Back to Back Mounts
- (2) AT&T Feedlines- 6AWG DC Cables (7/8")
- (1) AT&T Feedlines- 18 Pair Fiber Cable (3/8")
- (1) Mount Modification per Mount modification analysis by TEP dated 4/12/22

Ground:

**REMOVE:**

- (4) AT&T Equipment on Battery Rack- ENERSYS 190AH Battery Strings (**REMOVE**)
- (4) AT&T Equipment on DC Plant- VERTIC 48-24V Converters (**REMOVE**)
- (6) AT&T Equipment- PowerWave – LGP 21901 Diplexers (**REMOVE**)

**INSTALL:**

- (5) AT&T Equipment on Battery Rack- EAST PENN 170AH Battery Strings
- (3) AT&T Equipment on DC Plant- VERTIV 48V Rectifiers
- (1) AT&T Equipment on LTE Rack- GEN 2 RM DC12
- (1) AT&T Equipment on LTE Rack- 6648 +XCEDE

A zoning permit was issued by Farmington Planning & Zoning Commission on November 26, 1997. The approval was with conditions which this exempt modification complies with.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b)(2). In accordance with R.C.S.A. §16-50j-73, a copy of this letter is being sent to C.J. Thomas, Town of Farmington Town Council Chair, Russell M. Arnold, Jr., Town of Farmington Director of Public Works/Town Engineer, and GOIS Holdings of Connecticut LLC as the recorded property owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.



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For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. §16-50j-72(b)(2).

Sincerely,

*Ersilia Davis*

Ersilia Davis  
Crown Castle, Agent for AT&T  
[edavis@nbcllc.com](mailto:edavis@nbcllc.com)  
(551)804-0667

cc:

C.J. Thomas, Town Council Chair  
18 Hobart Street  
Farmington, CT 06032  
(860) 675-2300  
*(Via FedEx)*

Russell M. Arnold, Jr., Director of Public Works/Town Engineer  
1 Monteith Drive  
Farmington, CT 06032  
(860) 675-2325  
*(Via FedEx)*

GOIS Holdings of Connecticut LLC, Owner  
125 Brookside Drive  
Uxbridge, MA 01569  
*(Via FedEx)*

# Exhibit A

## **Original Facility Approval**



## Mark Roberts

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**From:** Sandra Michaud <michauds@farmington-ct.org>  
**Sent:** Monday, February 27, 2017 4:16 PM  
**To:** Mark Roberts  
**Subject:** 130 Birdseye Road

Hi Mark

I was able to go through documents for this address and it appears on November 4, 1997 a federal judge ordered the Town (within 20 days) to issue a zoning permit so that Sprint Spectrum could install a 140 foot high communications tower. I do not have an approval letter from the Plan & Zoning Commission as it appears they did not formally make a decision in support of the Court's Order but a zoning permit was issued on November 26, 1997.

The Town did appeal this Order but did later withdraw in March 1998.

Sandy

*Sandra Michaud  
Land Use Coordinator  
Town of Farmington  
Planning Division  
Department of Public Works  
1 Monteith Drive  
Farmington, CT 06032  
860.675.2325 Office  
860.675.2319 Fax*

# Exhibit B

## Property Card



# Town of Farmington, CT

## Property Listing Report

Map Block Lot **119 3A**

Building #

Unique Identifier

**01358040**

### Property Information

Property Location	<b>8040 BIRDSEYE RD</b>
Mailing Address	<b>125 BROOKSIDE DR UXBRIDGE MA 01569</b>
Land Use	<b>Use Vacant w OB</b>
Zoning Code	<b>R80</b>
Neighborhood	<b>99</b>

Owner	<b>GOIS HOLDINGS OF CONNECTICUT</b>
Co-Owner	<b>LLC</b>
Book / Page	<b>0928/0470</b>
Land Class	<b>Commercial</b>
Census Tract	<b>4602</b>
Acreage	<b>13.53</b>

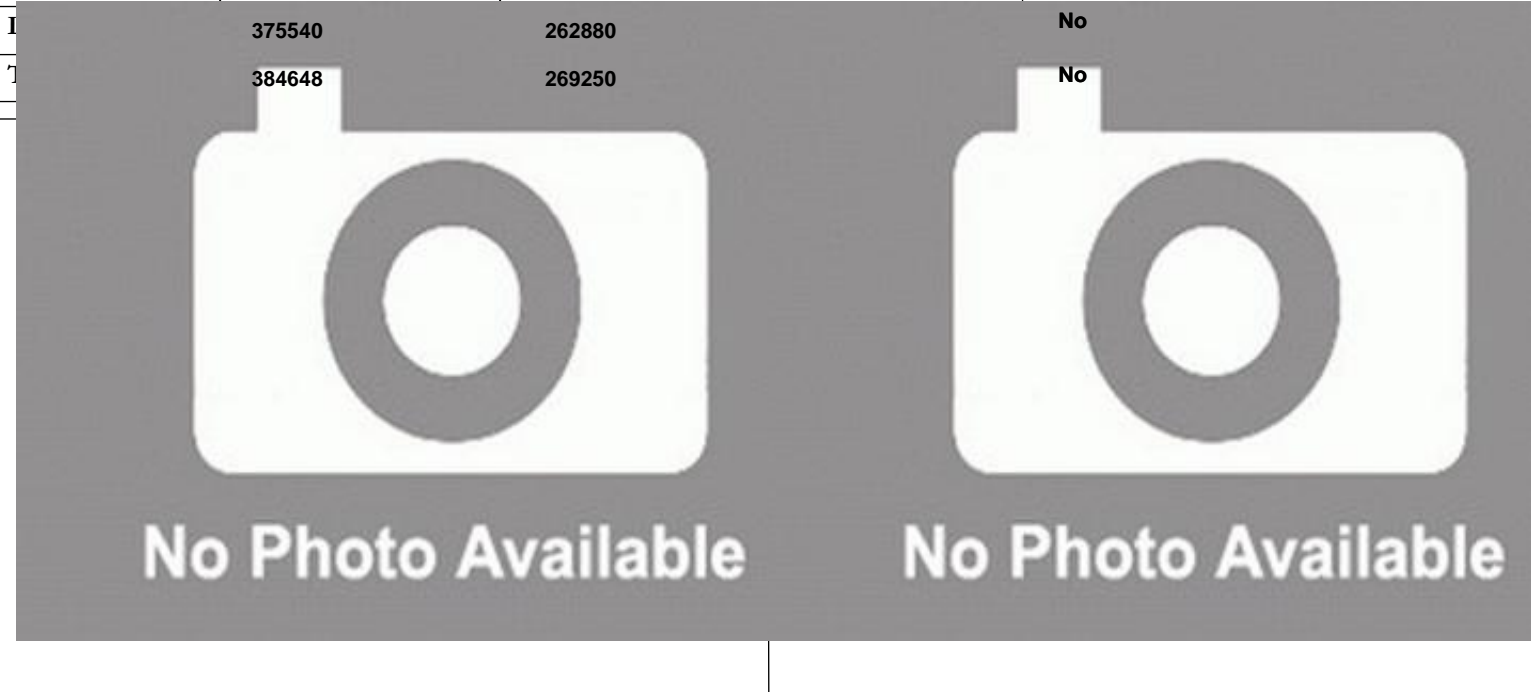
### Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	<b>0</b>	<b>0</b>
Outbuildings	<b>9108</b>	<b>6370</b>
	<b>375540</b>	<b>262880</b>
	<b>384648</b>	<b>269250</b>

### Utility Information

Electric	<b>No</b>
Gas	<b>No</b>
Sewer	<b>No</b>



### Primary Construction Details

Year Built	
Building Desc.	
Building Style	
Stories	
Exterior Walls	
Exterior Walls 2	
Interior Walls	
Interior Walls 2	
Interior Floors 1	
Interior Floors 2	

Heating Fuel	
Heating Type	
AC Type	
Bedrooms	
Full Bathrooms	
Half Bathrooms	
Extra Fixtures	
Total Rooms	
Bath Style	
Kitchen Style	
Occupancy	

Building Use	
Building Condition	
Frame Type	
Fireplaces	
Bsmt Gar	
Fin Bsmt Area	
Fin Bsmt Quality	
Building Grade	
Roof Style	
Roof Cover	

Report Created On

**7/18/2022**



# Town of Farmington, CT

Property Listing Report

Map Block Lot

119 3A

Building #

Unique Identifier

01358040

## Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
Utility	Building	220	Average	1996
Utility	Building	200	Average	1996
Utility	Building	100	Average	1996
Utility	Building	360	Average	1996
Other	Tower	200	Average	0

## Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built

## Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
GOIS HOLDINGS OF CONNECTICUT	0928_0470	4/9/2008	518000
UNISON SITE MANAGEMENT LLC	0862_0062	12/7/2005	385000
CELL TOWER LEASE	0862_0083	12/7/2005	0
FREEDON COMMUNICATIONS OF	0809_0324	6/15/2004	280000
MEGA BROADCASTING	0530_0225	12/17/1996	75000
AMERICAN RADIO SYSTEMS INC	0484_0674	1/1/1900	0
MEGA COMMUNICATIONS OC NB LL	0585_0272	1/1/1900	0

# Exhibit C

## **Construction Drawings**





**AT&T SITE NUMBER:** CTL05255  
**AT&T SITE NAME:** FARMINGTON-DEAD SWAMP WOOD  
**AT&T FA CODE:** 10071036  
**AT&T PACE NUMBER:** MRCTB057008, MRCTB056879, MRCTB056971, MRCTB056981, MRCTB056976, MRCTB056943, MRCTB062619, MRCTB057045  
**AT&T PROJECT:** BBU RECONFIGURATION WITH NEW IDS, 5G NR ACTIVATION, 5G NR 1SR CBAND, LTE 6C, 4TX4RX SOFTWARE RETROFIT, 4TXRX ANTENNA RETROFIT

**BUSINESS UNIT #:** 876335  
**SITE ADDRESS:** 130 A BIRDSEYE ROAD FARMINGTON, CT 06030  
**COUNTY:** HARTFORD  
**SITE TYPE:** MONOPOLE  
**TOWER HEIGHT:** 139'-0"



AT&T SITE NUMBER: CTL05255

BU #: 876335  
 EAST FARMINGTON

130 A BIRDSEYE ROAD  
 FARMINGTON, CT 06030

EXISTING  
 139'-0" MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/27/22	YX	PRELIMINARY REVIEW	KT
0	6/3/22	YX	CONSTRUCTION	KT



B&T ENGINEERING, INC.  
 PEC.0001564  
 Expires 2/10/23

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: REVISION:

T-1 0

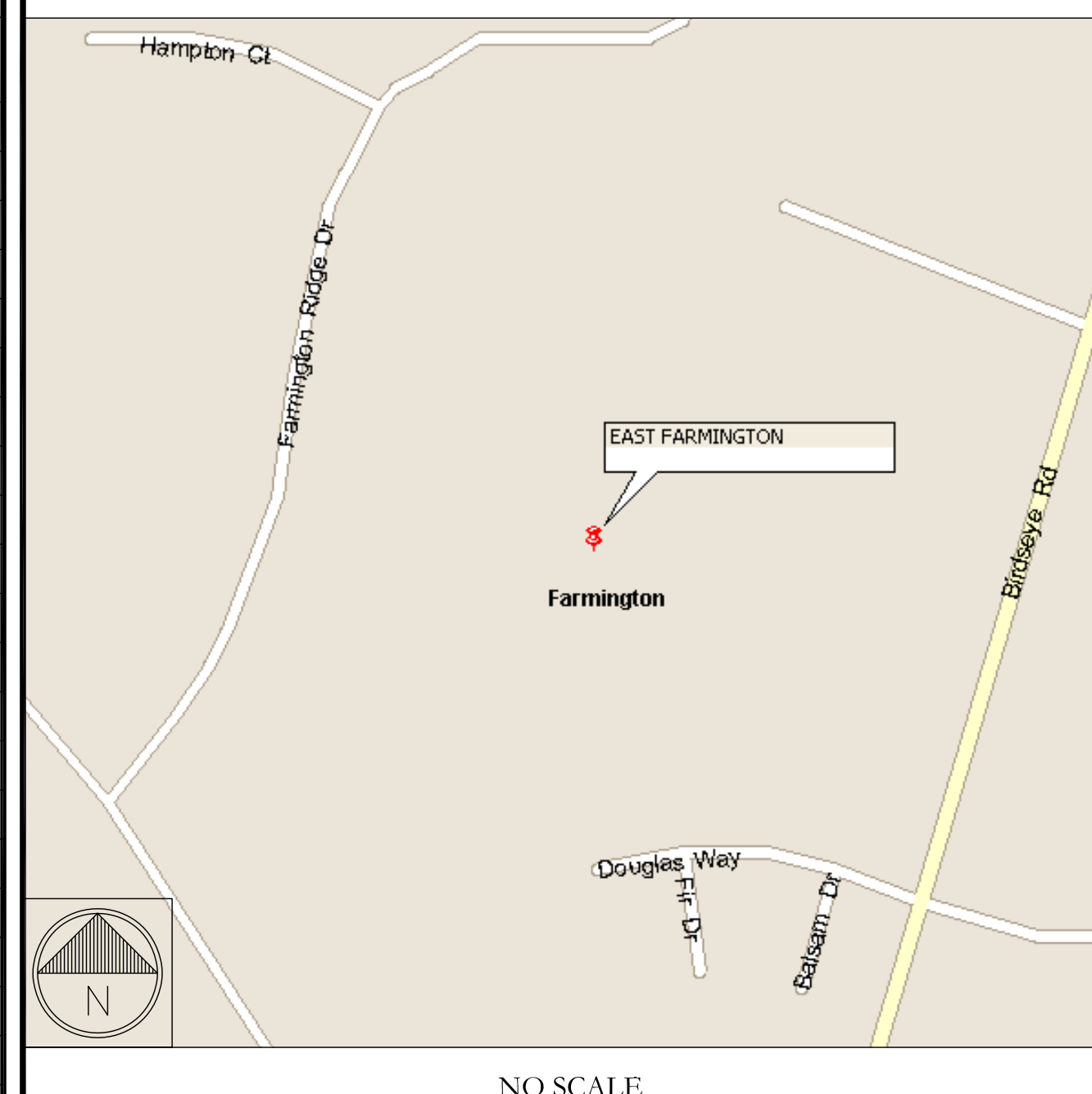
**SITE INFORMATION**

CROWN CASTLE USA INC. EAST FARMINGTON  
 SITE NAME:  
 SITE ADDRESS: 130 A BIRDSEYE ROAD FARMINGTON, CT 06030  
 COUNTY: HARTFORD  
 MAP/PARCEL #: 119 3A  
 AREA OF CONSTRUCTION: EXISTING  
 LATITUDE: 41° 42' 56.94"  
 LONGITUDE: -72° 48' 37.42"  
 LAT/LONG TYPE: NAD83  
 GROUND ELEVATION: 456'  
 CURRENT ZONING: R80 - RESIDENTIAL R80  
 JURISDICTION: CONNECTICUT SITING COUNCIL  
 OCCUPANCY CLASSIFICATION: U  
 TYPE OF CONSTRUCTION: IIB  
 A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION  
 PROPERTY OWNER: GOIS HOLDINGS OF CONNECTICUT 125 BROOKSIDE DR UXBRIDGE, MA 01569  
 TOWER OWNER: CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317  
 CARRIER/APPLICANT: AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300  
 ELECTRIC PROVIDER: NORTHEAST UTILITIES 800.286.2000  
 TELCO PROVIDER: AT&T 800.331.0500

**DRAWING INDEX**

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EQUIPMENT PLANS
C-2	TOWER ELEVATION & ANTENNA PLANS
C-3	ANTENNA SCHEDULE
C-4	EQUIPMENT DETAILS
C-5	EQUIPMENT SPECS.
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	MOUNT MODIFICATION DESIGN
ATTACHED	HARDWARE SPECS

**LOCATION MAP**



**SITE PHOTO**



**PROJECT DESCRIPTION**

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

- TOWER SCOPE OF WORK:
- REMOVE (3) POWERWAVE - 7770 ANTENNAS
  - REMOVE (1) CCI - HPA-65R-BUU-H8 ANTENNAS
  - REMOVE (2) CCI - HPA-65R-BUU-H6 ANTENNAS
  - REMOVE (6) POWERWAVE - LGP 21401 TMAS
  - REMOVE (3) ERICSSON - 4478 B5 RADIOS
  - REMOVE (3) ERICSSON - RRUS-32 B2 RADIOS
  - REMOVE (3) ERICSSON - RRUS-11 B12 RADIOS
  - RELOCATE (3) KMW - EPBQ-654L8H8-L2 ANTENNAS
  - RELOCATE (3) ERICSSON - 4426 B66 RADIOS
  - RELOCATE (3) ERICSSON - RRUS-32 B30 RADIOS
  - INSTALL MOUNT MODIFICATION PER MOUNT MODIFICATION ANALYSIS BY TEP DATED 4/12/22
  - INSTALL (6) ERICSSON - AIR6449 B77D+AIR6419 B77G STACKED ANTENNAS
  - INSTALL (3) CCI - DMP65R-BU8DA ANTENNAS
  - INSTALL (1) RAYCAP - DC6-48-60-18-8C-EV SQUID
  - INSTALL (3) ERICSSON - 4478 B14 RADIOS
  - INSTALL (3) ERICSSON - 4415 B25 RADIOS
  - INSTALL (3) ERICSSON - 4449 B5/B12 RADIOS
  - INSTALL (1) 3/8" 18-PAIR FIBER
  - INSTALL (2) 7/8" 6AWG DC LINES
  - INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS BY TEP DATED 4/12/22
  - INSTALL (9) DUAL RADIO MOUNTS
  - INSTALL (3) 2" GALVANIZED PIPES
  - INSTALL (3) VALMONT - BBPM-K1 CROSSOVER HARDWARE
  - INSTALL (3) Y CABLES
- GROUND SCOPE OF WORK:
- REMOVE (6) POWERWAVE - LGP 21901 DIPLEXERS
  - REMOVE (4) ENERSYS 190AH BATTERY STRINGS
  - INSTALL (3) VERTIV 48V RECTIFIERS
  - INSTALL (5) EAST PENN 170AH BATTERY STRINGS
  - INSTALL (1) GEN 2 RM DC12 ON LTE RACK
  - INSTALL (1) 6648 + XCEDE

**APPLICABLE CODES & REFERENCE DOCUMENTS**

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED 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:

CODE TYPE	CODE
BUILDING	2018 CONNETTICUT SBC/2015 IBC
MECHANICAL	2018 CONNETTICUT SBC/2015 IMC
ELECTRICAL	2018 CONNETTICUT SBC/2017 NEC

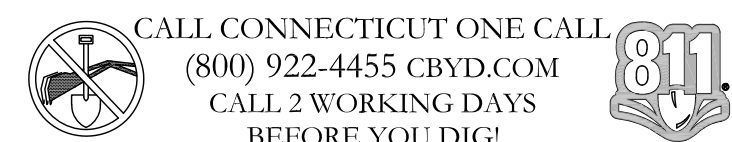
**REFERENCE DOCUMENTS:**

STRUCTURAL ANALYSIS:	CROWN CASTLE
DATED:	4/22/22
MOUNT ANALYSIS:	TEP
DATED:	4/12/22
RFDS REVISION:	PRELIMINARY
DATED:	2/19/22
ORDER ID:	586268
REVISION:	0

**PROJECT TEAM**

A&E FIRM: B+T GROUP 1717 S. BOULDER AVE. TULSA, OK 74119 MARVIN PHILLIPS marvin.phillips@btgrp.com  
 CROWN CASTLE USA INC. DISTRICT CONTACTS: 3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065  
 VERONICA CHAPMAN - PROJECT MANAGER VERONICA.CHAPMAN@CROWNCastle.COM  
 JASON D'AMICO - CONSTRUCTION MANAGER JASON.DAMICO@CROWNCastle.COM

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



**NOTE:**  
 PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.



**CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:**

- NOTICE TO PROCEED-- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- "LOOK UP" - CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT: THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

**GREENFIELD GROUNDING NOTES:**

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDING AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTI-OXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (I.E., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
- BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

**GENERAL NOTES:**

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION  
CARRIER: AT&T  
TOWER OWNER: CROWN CASTLE USA INC.
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

**CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:**

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE--THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:  
#4 BARS AND SMALLER.....40 ksi  
#5 BARS AND LARGER.....60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
#6 BARS AND LARGER.....2"  
#5 BARS AND SMALLER.....1-1/2"  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:  
SLAB AND WALLS.....3/4"  
BEAMS AND COLUMNS.....1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

**ELECTRICAL INSTALLATION NOTES:**

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.  
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.  
4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIG MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET WITH NEW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOULD SPECMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (I.E. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKRUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
277/480V, 3Ø	GROUND	GREEN
	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
DC VOLTAGE	NEUTRAL	GREY
	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

\* SEE NEC 210.5(C)(1) AND (2)  
\*\* POLARITY MARKED AT TERMINATION

**ABBREVIATIONS:**

- ANT ANTENNA
- (E) EXISTING
- FIF FACILITY INTERFACE FRAME
- GEN GENERATOR
- GPS GLOBAL POSITIONING SYSTEM
- GSM GLOBAL SYSTEM FOR MOBILE
- LTE LONG TERM EVOLUTION
- MGB MASTER GROUND BAR
- MW MICROWAVE
- (N) NEW
- NEC NATIONAL ELECTRIC CODE
- (P) PROPOSED
- PP POWER PLANT
- QTY QUANTITY
- RECT RECTIFIER
- RBS RADIO BASE STATION
- RET REMOTE ELECTRIC TILT
- RFDS RADIO FREQUENCY DATA SHEET
- RRH REMOTE RADIO HEAD
- RRU REMOTE RADIO UNIT
- SIAD SMART INTEGRATED DEVICE
- TMA TOWER MOUNTED AMPLIFIER
- TYP TYPICAL
- UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
- W.P. WORK POINT

**APWA UNIFORM COLOR CODE:**


- WHITE PROPOSED EXCAVATION
- PINK TEMPORARY SURVEY MARKINGS
- RED ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
- YELLOW GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
- ORANGE COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
- BLUE POTABLE WATER
- PURPLE RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
- GREEN SEWERS AND DRAIN LINES



575 MOROSGO DRIVE  
ATLANTA, GA 30324-3300



3530 TORINGDON WAY, SUITE 300  
CHARLOTTE, NC 28277



1717 S. BOULDER  
SUITE 300  
TULSA, OK 74119  
PH: (918) 587-4630  
www.btgrp.com

AT&T SITE NUMBER: **CTL05255**

BU #: **876335**  
**EAST FARMINGTON**

130 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

EXISTING  
139'-0" MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/27/22	YX	PRELIMINARY REVIEW	KT
0	6/3/22	YX	CONSTRUCTION	KT



6/3/22

B&T ENGINEERING, INC.  
PEC.0001564  
Expires 2/10/23

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **T-2** REVISION: **0**



AT&T SITE NUMBER: **CTL05255**

BU #: **876335**  
**EAST FARMINGTON**

130 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

EXISTING  
139'-0" MONOPOLE

**ISSUED FOR:**

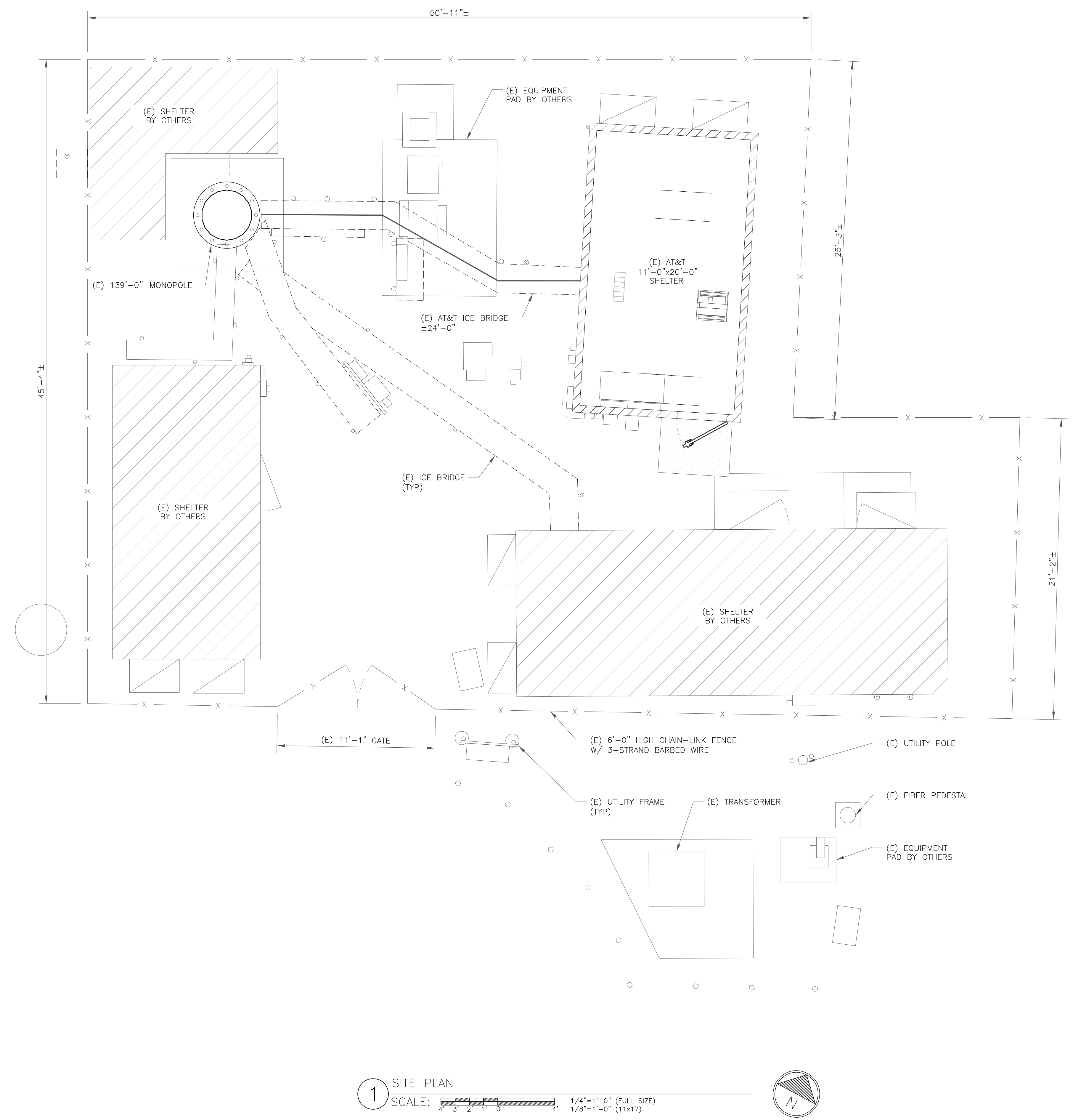
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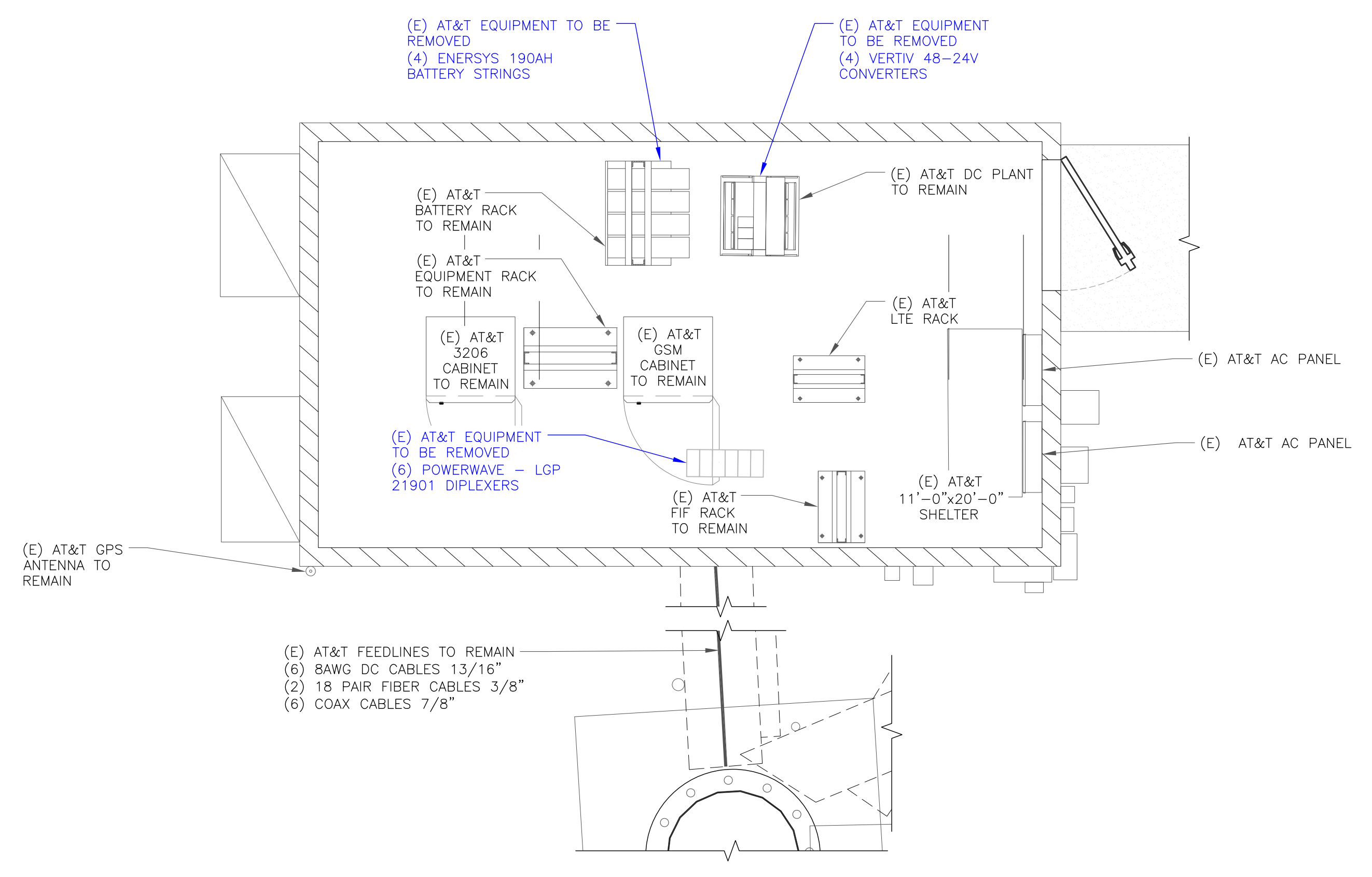


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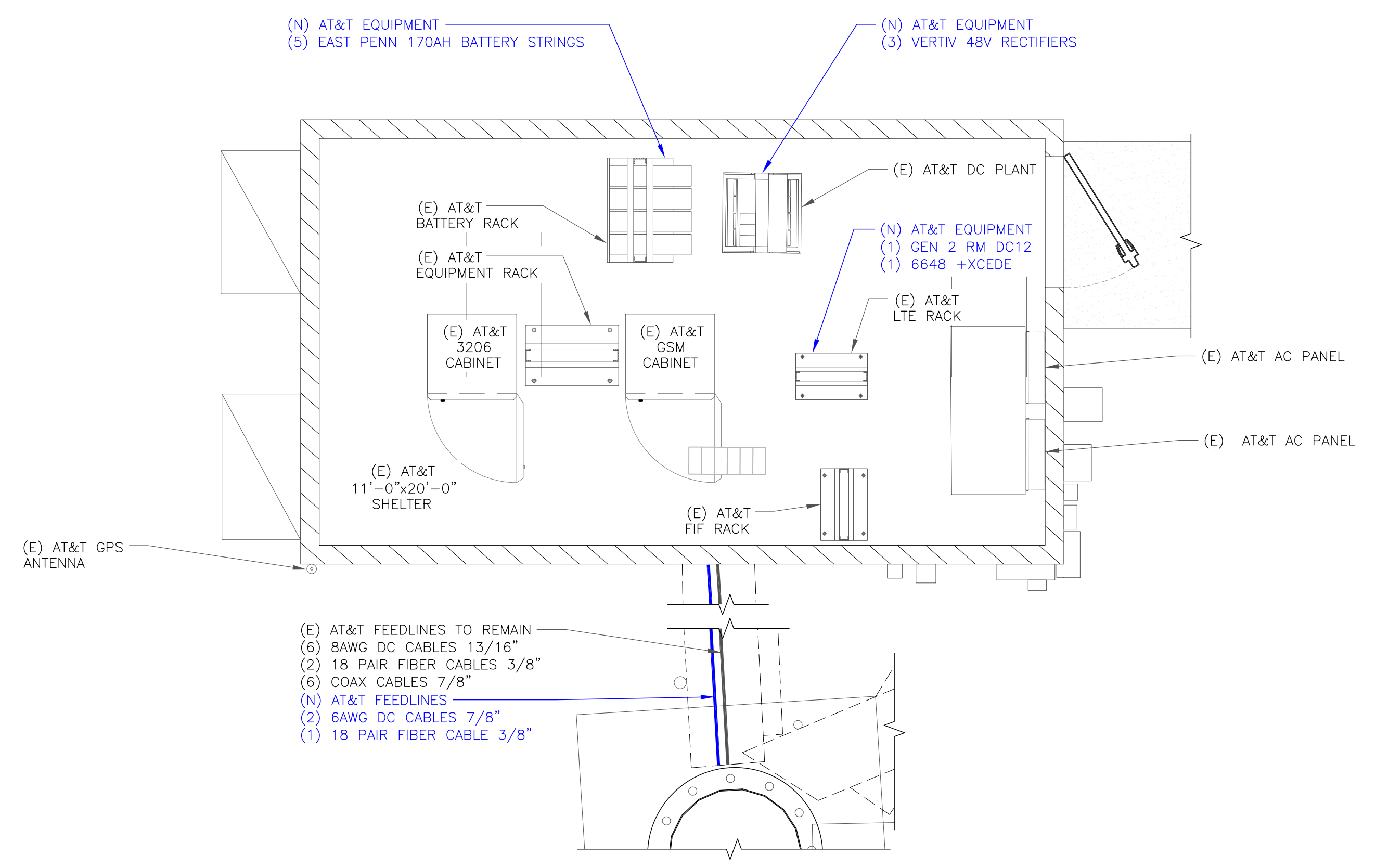
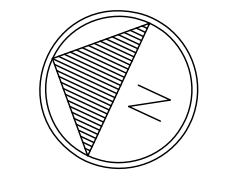
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**EAST FARMINGTON**

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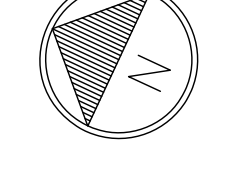
EXISTING  
139'-0" MONOPOLE



**1** EXISTING EQUIPMENT PLAN  
SCALE: 3/8"=1'-0" (FULL SIZE)  
3/16"=1'-0" (11x17)



**2** FINAL EQUIPMENT PLAN  
SCALE: 3/8"=1'-0" (FULL SIZE)  
3/16"=1'-0" (11x17)



- GROUND SCOPE OF WORK:
- REMOVE (6) POWERWAVE - LGP 21901 DIPLEXERS
  - REMOVE (4) ENERSYS 190AH BATTERY STRINGS
  - INSTALL (3) VERTIV 48V RECTIFIERS
  - INSTALL (5) EAST PENN 170AH BATTERY STRINGS
  - INSTALL (1) GEN 2 RM DC12 ON LTE RACK
  - INSTALL (1) 6648 + XCEDE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/27/22	YX	PRELIMINARY REVIEW	KT
0	6/3/22	YX	CONSTRUCTION	KT



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SHEET NUMBER: **C-1.2** REVISION: **0**



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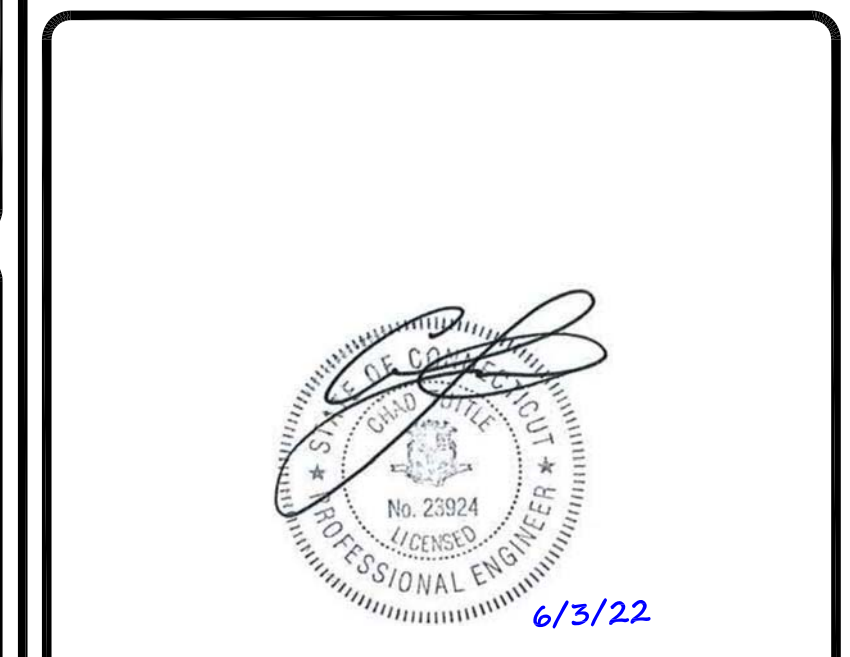
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EXISTING  
139'-0" MONOPOLE

**ISSUED FOR:**

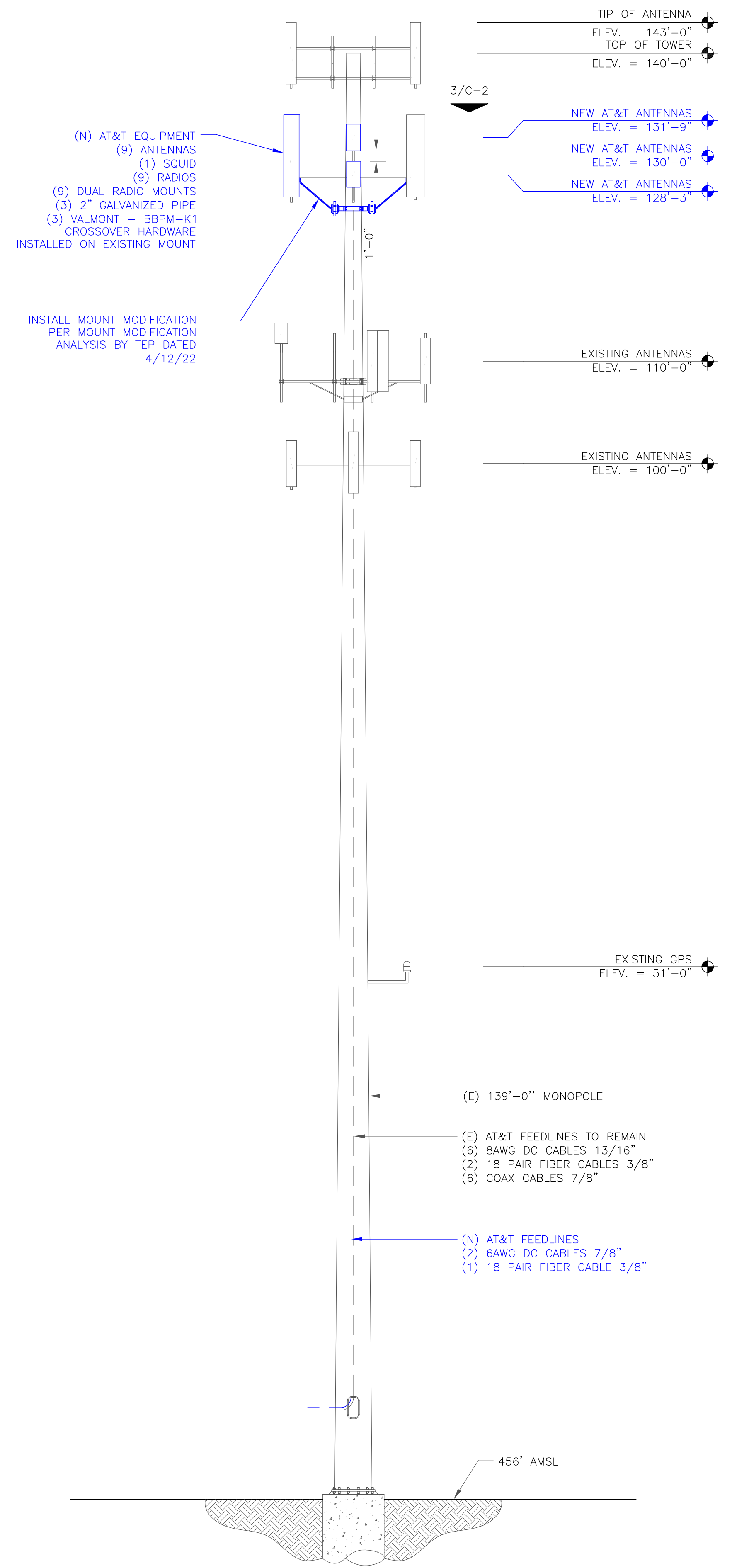
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0	6/3/22	YX	CONSTRUCTION	KT



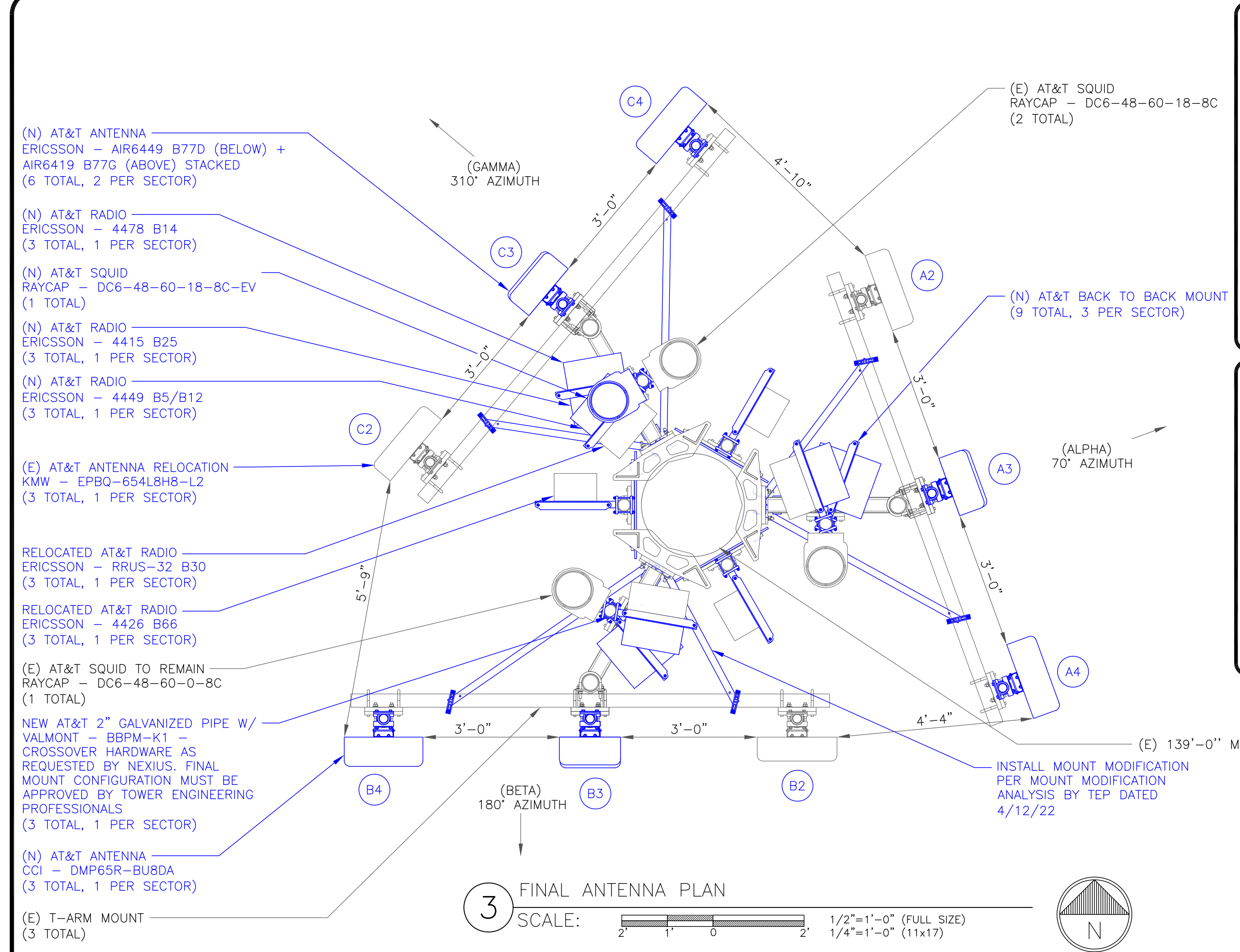
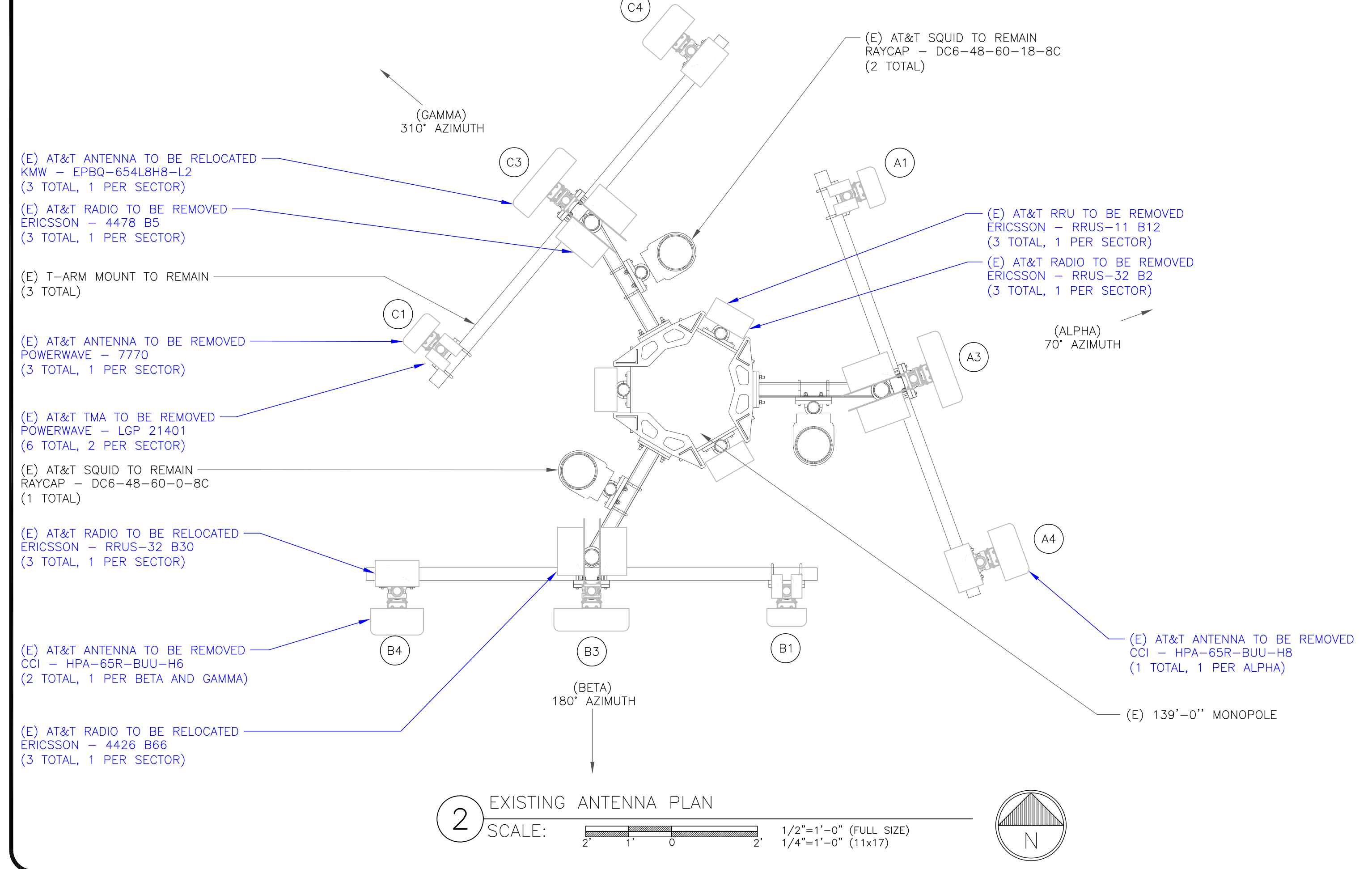
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SHEET NUMBER: **C-2** REVISION: **0**



1 FINAL ELEVATION  
SCALE: NOT TO SCALE



"LOOK UP" - CROWN CASTLE USA INC.  
SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

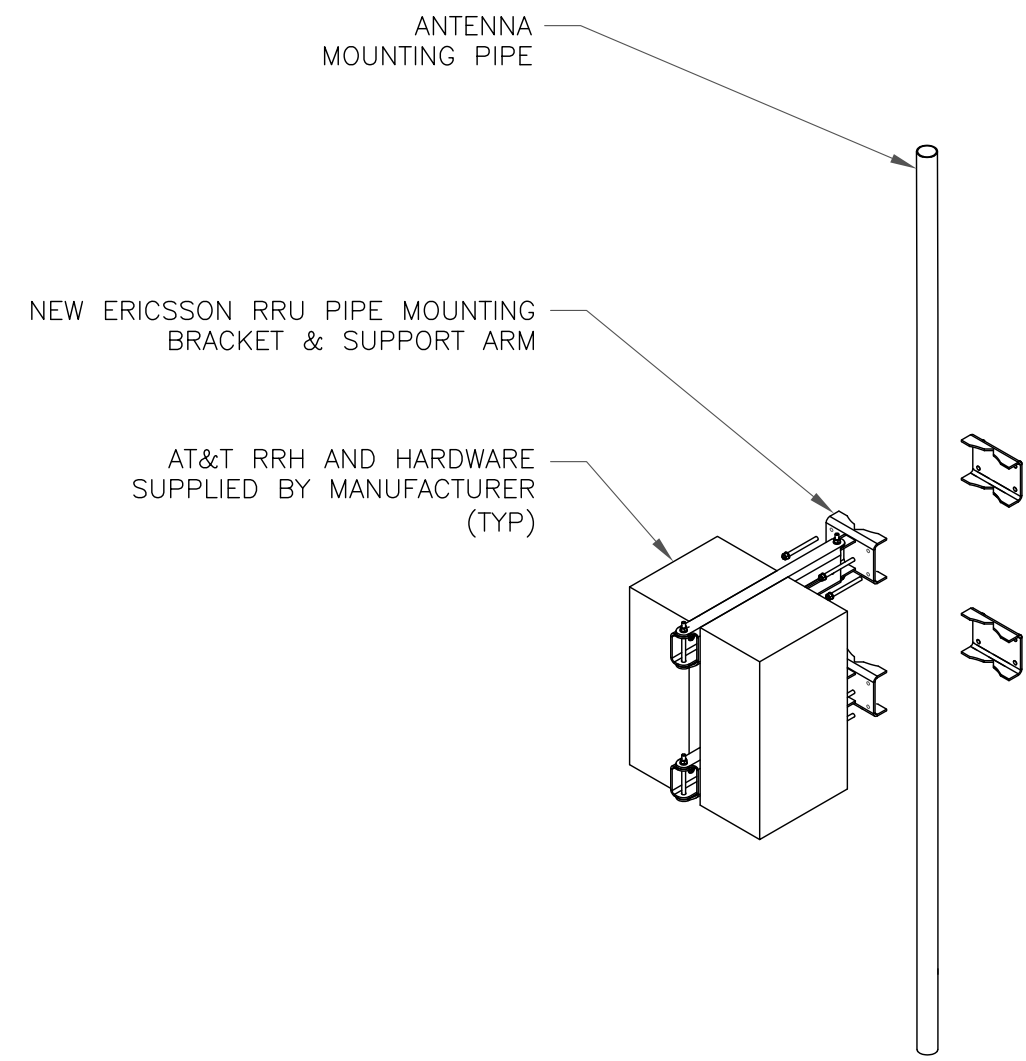
- INSTALLER NOTES:
- REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
  - REFERENCE C-4 FOR NEW EQUIPMENT SPECIFICATIONS.
  - CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
  - 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
  - 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN 700BC & 700DE ANTENNAS ON SAME SECTOR.
  - 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
  - ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
  - 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.



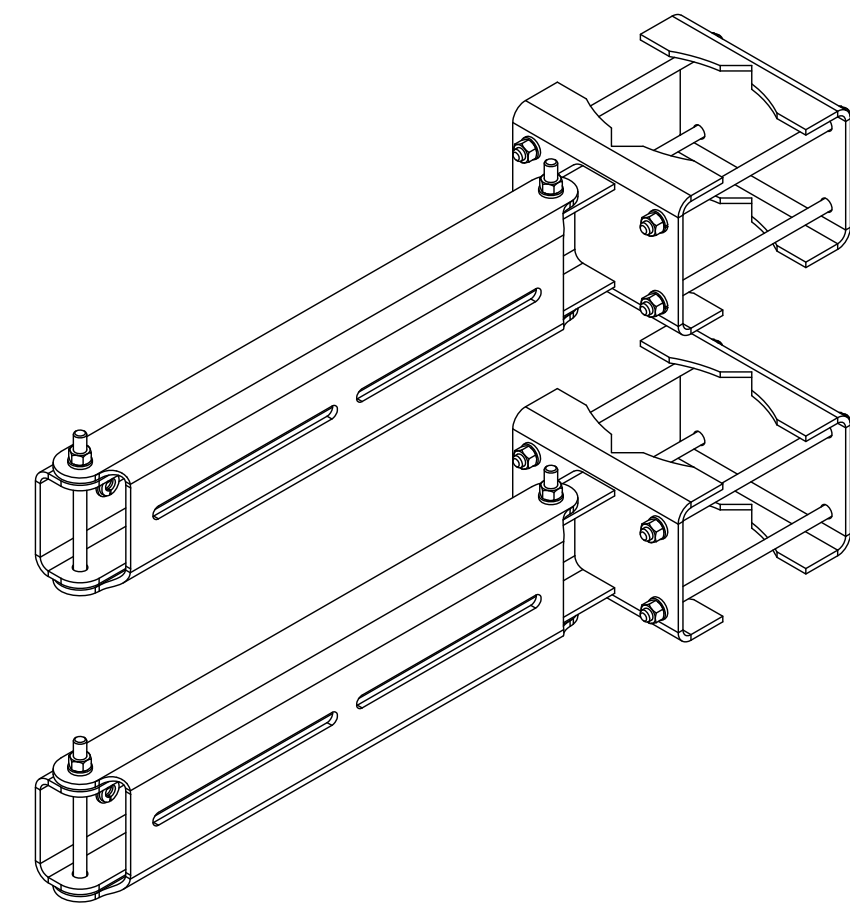


**INSTALLER NOTES:**

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHS RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



1 DUAL RRH MOUNTING DETAIL  
SCALE: NOT TO SCALE

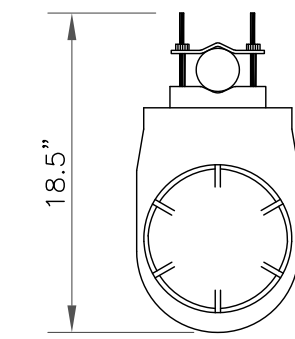


2 DUAL RADIO MOUNT  
SCALE: NOT TO SCALE

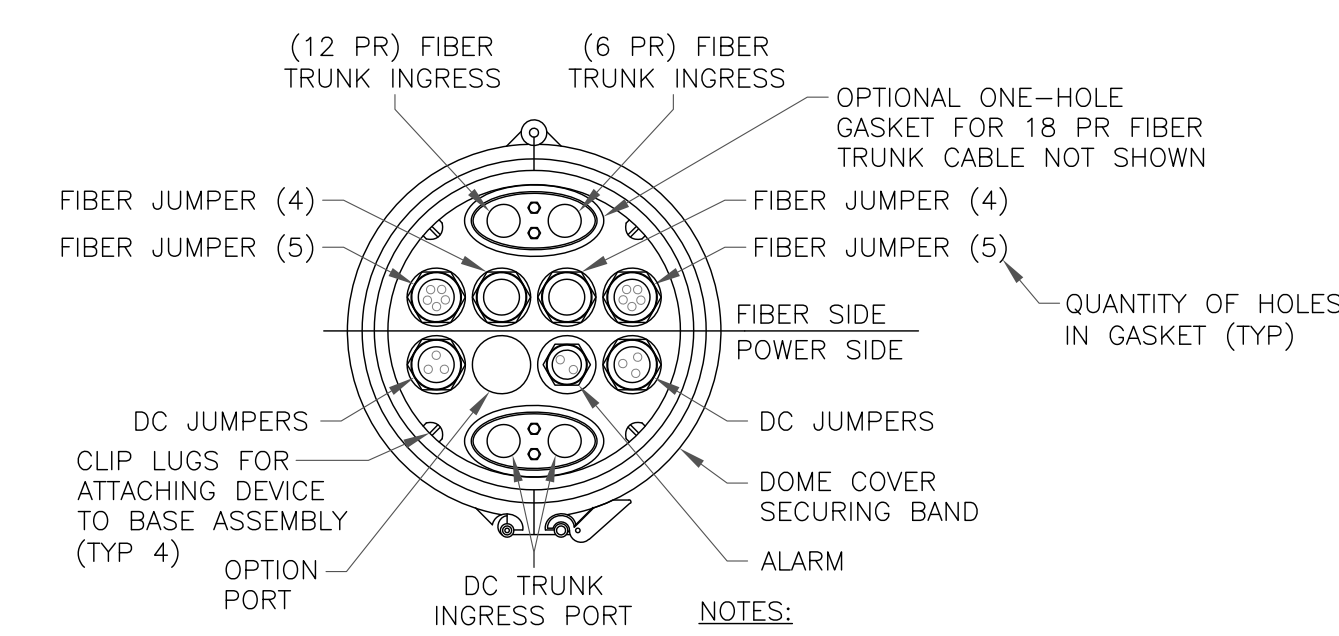
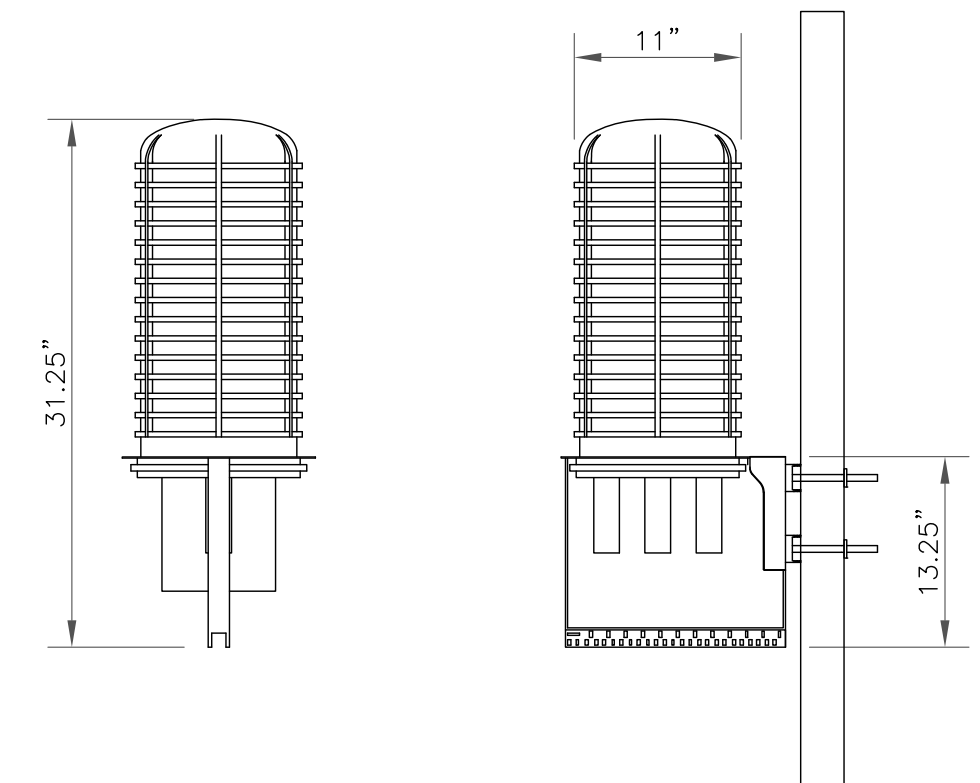
3 NOT USED  
SCALE: NOT TO SCALE

**RAYCAP**  
DC6-48-60-18-8F

RAYCAP - DC6-48-60-18-8F  
SIZE: 11x31.25 IN.  
WEIGHT: 32.8 LBS  
NOMINAL OPERATING VOLTAGE: 48 VDC  
VOLTAGE PROTECTION RATING: 400 V  
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)  
WIND LOADING: 195 MPH GUST (213.6 LBS)



CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION



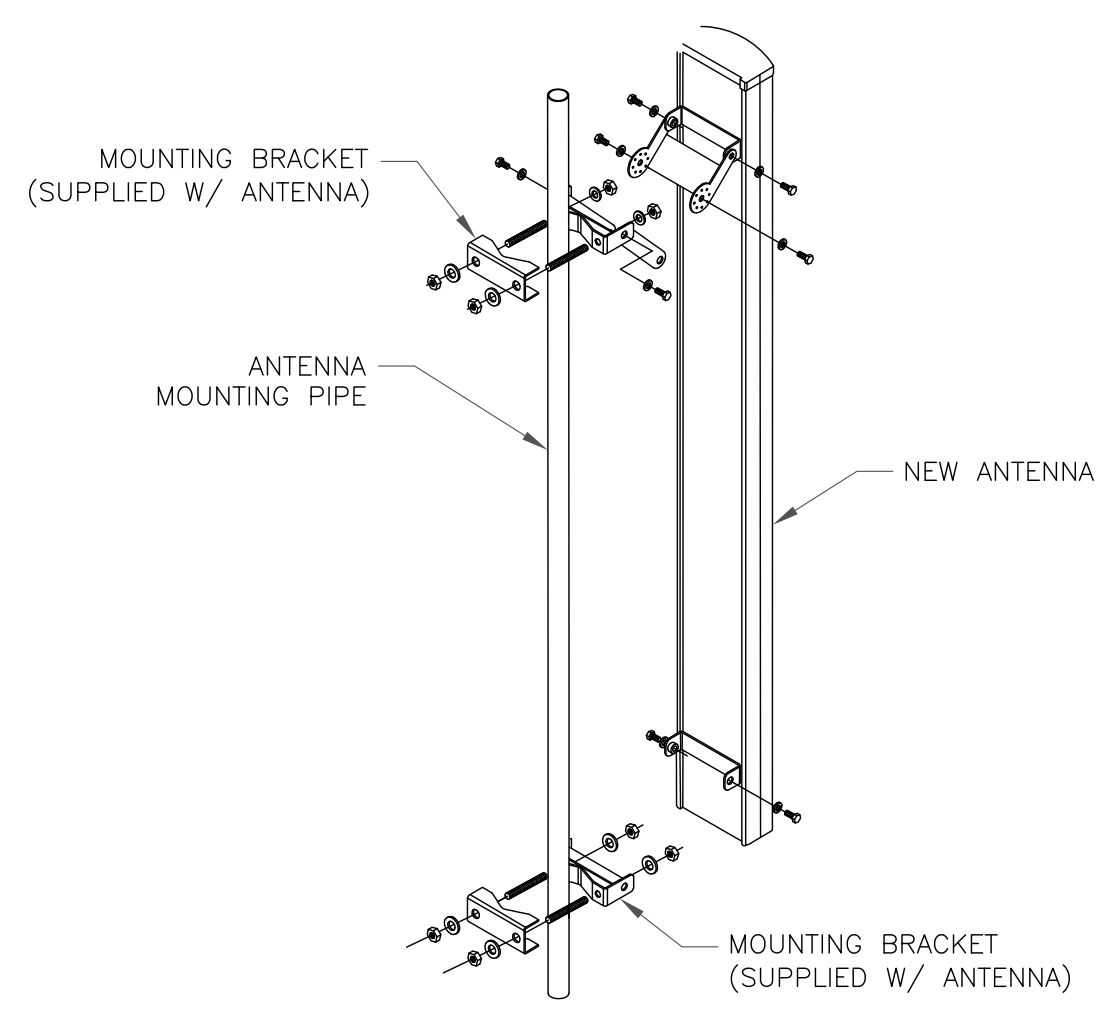
**NOTES:**

1. REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC-TO-1" NPT ADAPTER (COOPER CROUSE-HINES P/N CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP.

6 SQUID MOUNTING DETAIL  
SCALE: NOT TO SCALE

**INSTALLER NOTES:**

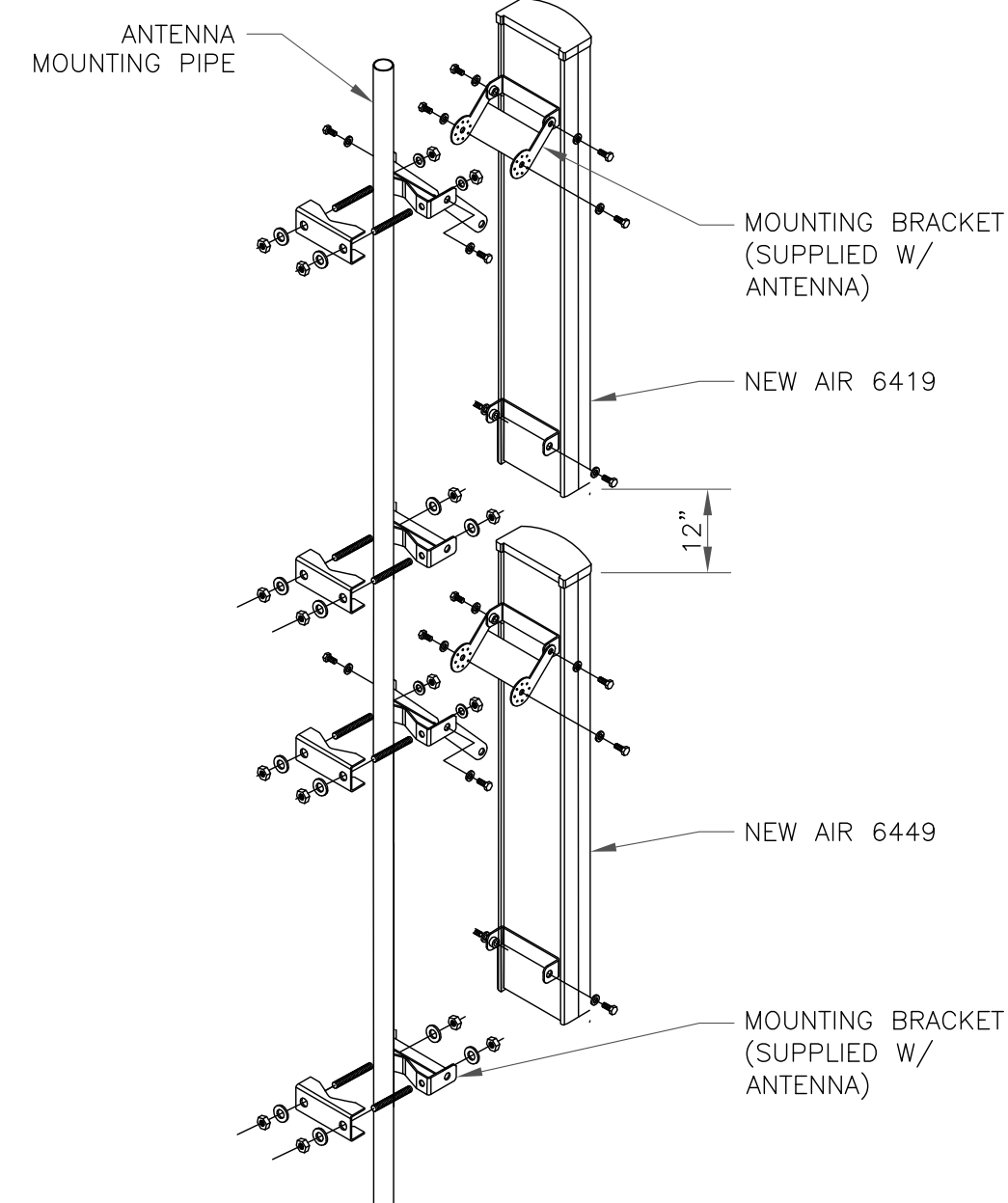
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHS RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.
4. RRHS SHALL NOT BE INSTALLED CLOSER THAN 8" TO ANTENNAS.



4 ANTENNA WITH TMA MOUNTING DETAIL  
SCALE: NOT TO SCALE

**INSTALLER NOTES:**

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHS RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



5 AEQU ANTENNA WITH RRHS MOUNTING DETAIL  
SCALE: NOT TO SCALE

575 MOROSGO DRIVE  
ATLANTA, GA 30324-3300

3530 TORINGDON WAY, SUITE 300  
CHARLOTTE, NC 28277

1717 S. BOULDER  
SUITE 300  
TULSA, OK 74119  
PH: (918) 587-4630  
www.blgrp.com

AT&T SITE NUMBER: CTL05255

BU #: 876335  
EAST FARMINGTON

130 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

EXISTING  
139'-0" MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/27/22	YX	PRELIMINARY REVIEW	KT
0	6/3/22	YX	CONSTRUCTION	KT

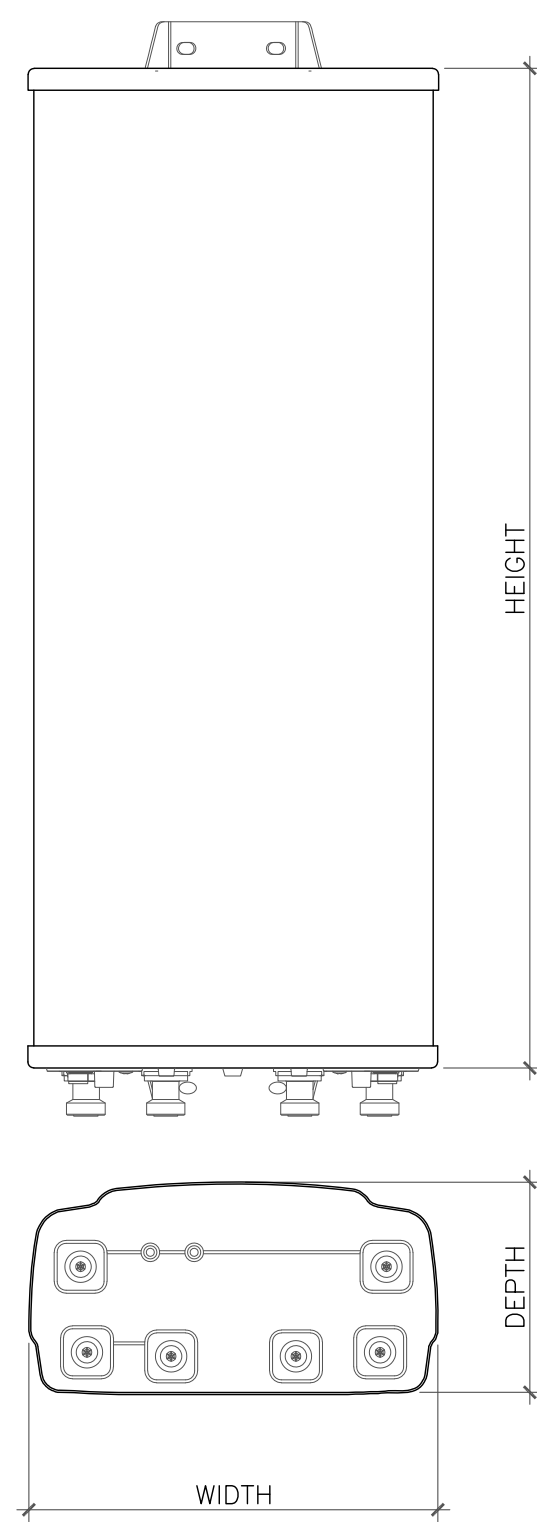


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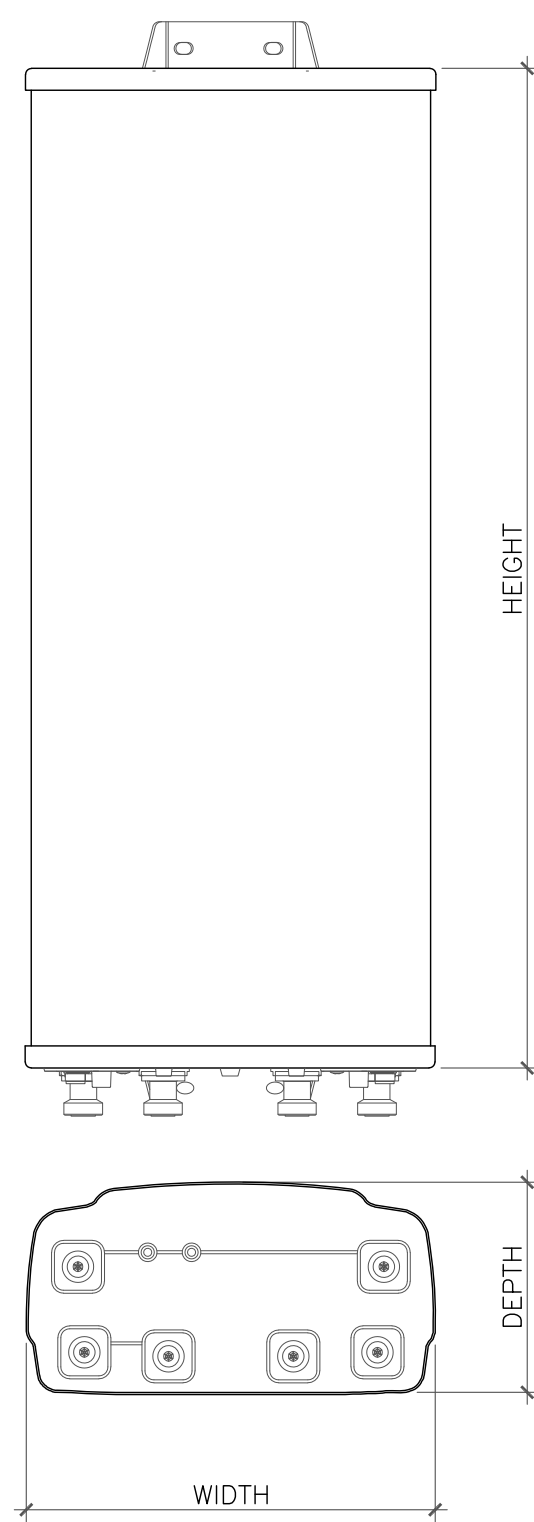
SHEET NUMBER: **C-4** REVISION: **0**





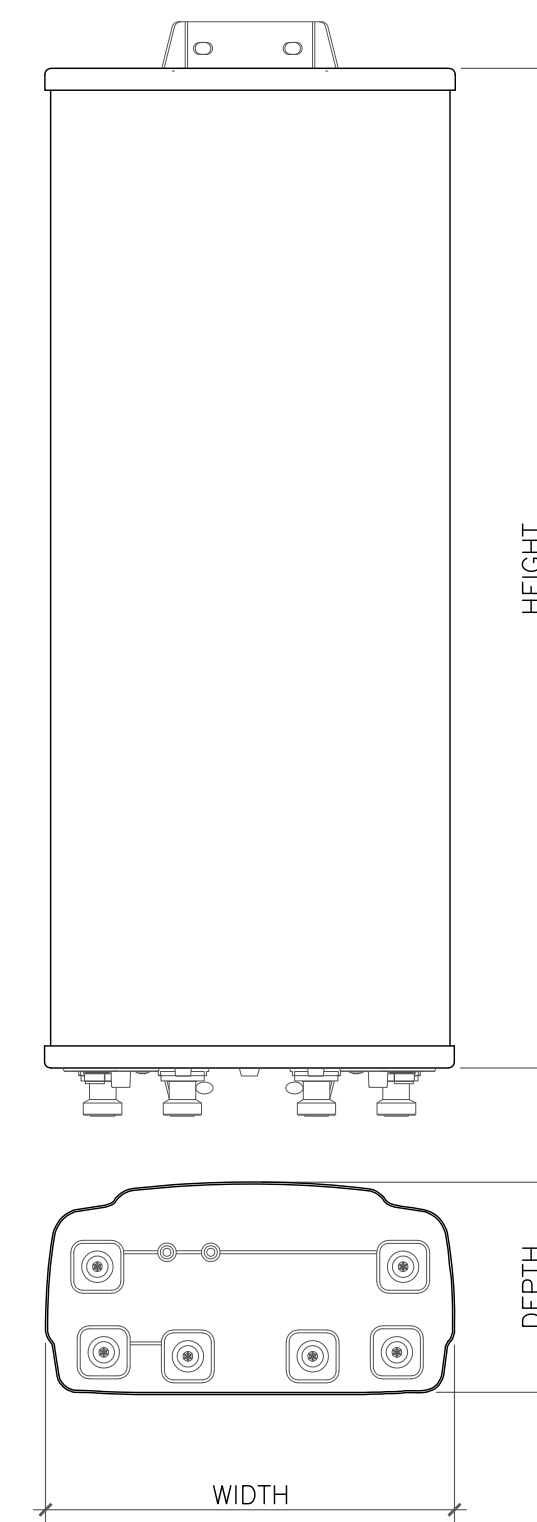
ANTENNA DIMENSIONS (INCHES)					
MANUFACTURER	MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
CCI ANTENNAS	DMP65R-BU8D	96"	20.7"	7.7"	105.6 lbs

1 ANTENNA DETAIL  
SCALE: NOT TO SCALE



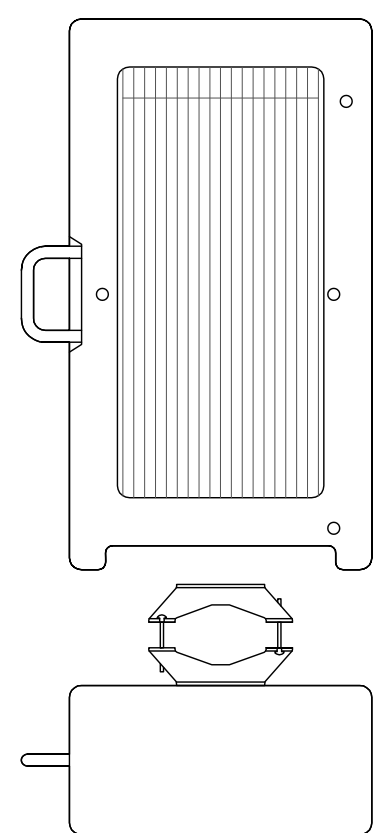
ANTENNA DIMENSIONS (INCHES)					
MANUFACTURER	MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
ERICSSON	AIR6419 B77G	27.95"	15.75"	6.68"	66.2 LBS

2 ANTENNA DETAIL  
SCALE: NOT TO SCALE



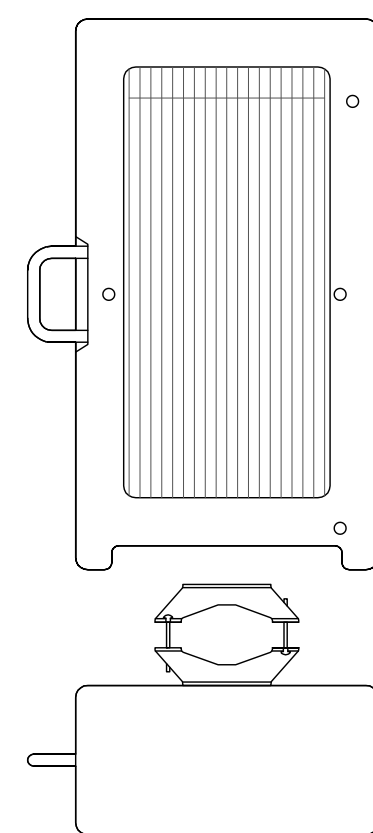
ANTENNA DIMENSIONS (INCHES)					
MANUFACTURER	MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
ERICSSON	AIR 6449 B77D	30.63"	15.87"	10.55"	103.62 LBS

3 ANTENNA DETAIL  
SCALE: NOT TO SCALE



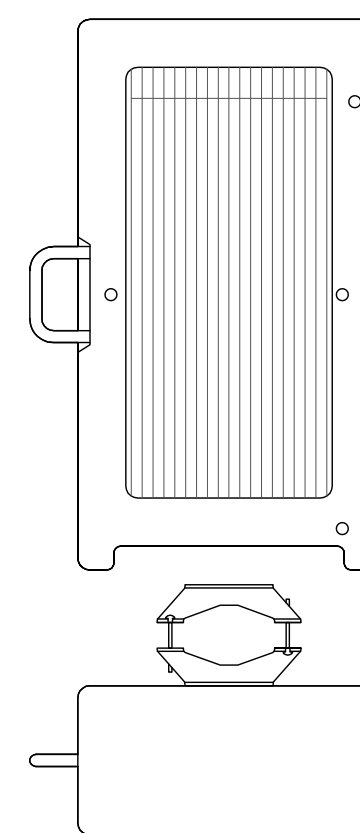
ERICSSON - 4478 B14  
WEIGHT (FULLY EQUIPPED): 59.40 LBS  
SIZE (HxWxD): 18.1x13.40x8.26 IN.  
CONNECTOR TYPE: 4.3-10 FEMALE (4 TOTAL PORTS)

4 RADIO DETAILS  
SCALE: NOT TO SCALE



ERICSSON - 4415 B25  
WEIGHT (FULLY EQUIPPED): 46.0 LBS  
SIZE (HxWxD): 16.50x13.40x5.90 IN.  
CONNECTOR TYPE: 4.3-10 FEMALE (4 TOTAL PORTS)

5 RADIO DETAILS  
SCALE: NOT TO SCALE



ERICSSON - 4449 B5/B12  
WEIGHT (FULLY EQUIPPED): 71.0 LBS  
SIZE (HxWxD): 17.90x13.19x9.44 IN.  
CONNECTOR TYPE: 4.3-10 FEMALE (4 TOTAL PORTS)

6 RADIO DETAILS  
SCALE: NOT TO SCALE

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SUITE 300  
TULSA, OK 74119  
PH: (918) 587-4630  
www.blgrp.com

AT&T SITE NUMBER: **CTL05255**

BU #: **876335**  
**EAST FARMINGTON**

130 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

EXISTING  
139'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/27/22	YX	PRELIMINARY REVIEW	KT
0	6/3/22	YX	CONSTRUCTION	KT

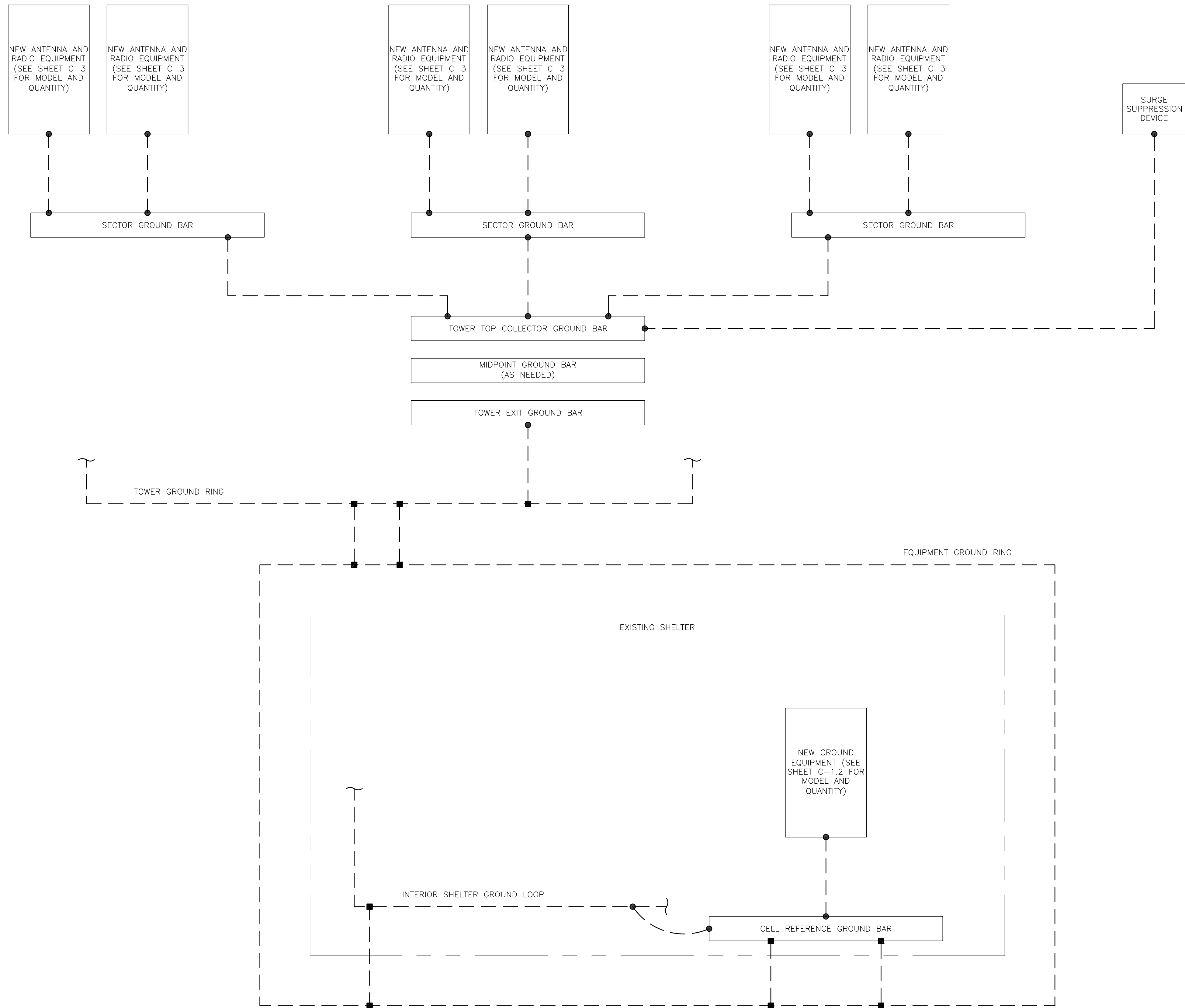


6/3/22

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SHEET NUMBER: <b>C-5</b>	REVISION: <b>0</b>
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**GROUNDING PLAN LEGEND:**

---	GROUND WIRE	⊙	COPPER GROUND ROD
■	EXOTHERMIC WELD	⊗	GROUND ROD W/ TEST WELL
●	MECHANICAL CONNECTION		

**CELL REFERENCE GROUND BAR:** POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUITS (ATT-TP-76416 7.6.7).

**HATCH PLATE GROUND BAR:** BOND TO THE INTERIOR GROUND RING WITH (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CELL SITE REFERENCE GROUND BAR MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS.

**EXTERIOR CABLE ENTRY PORT GROUND BARS:** LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416 7.6.7.2).

DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.

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AT&T SITE NUMBER: **CTL05255**

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**EAST FARMINGTON**

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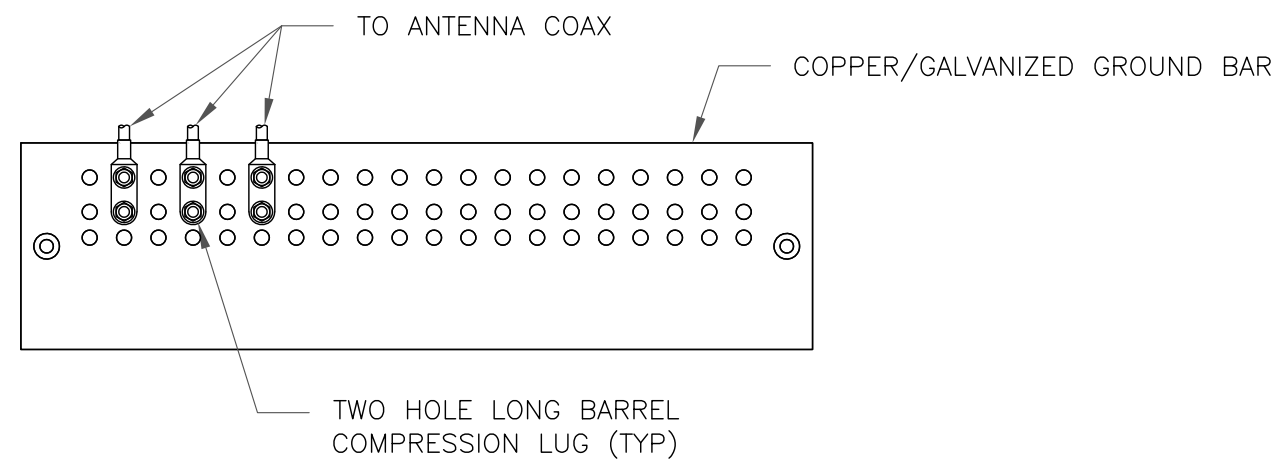
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SHEET NUMBER: **G-1** REVISION: **0**

1 GROUNDING SCHEMATIC  
SCALE: NOT TO SCALE

77969.021.01\_876335\_EAST\_FARMINGTON.dwg - Sheet:G-1 - User: kevin.turkhal - Jun 03, 2022 - 2:16pm

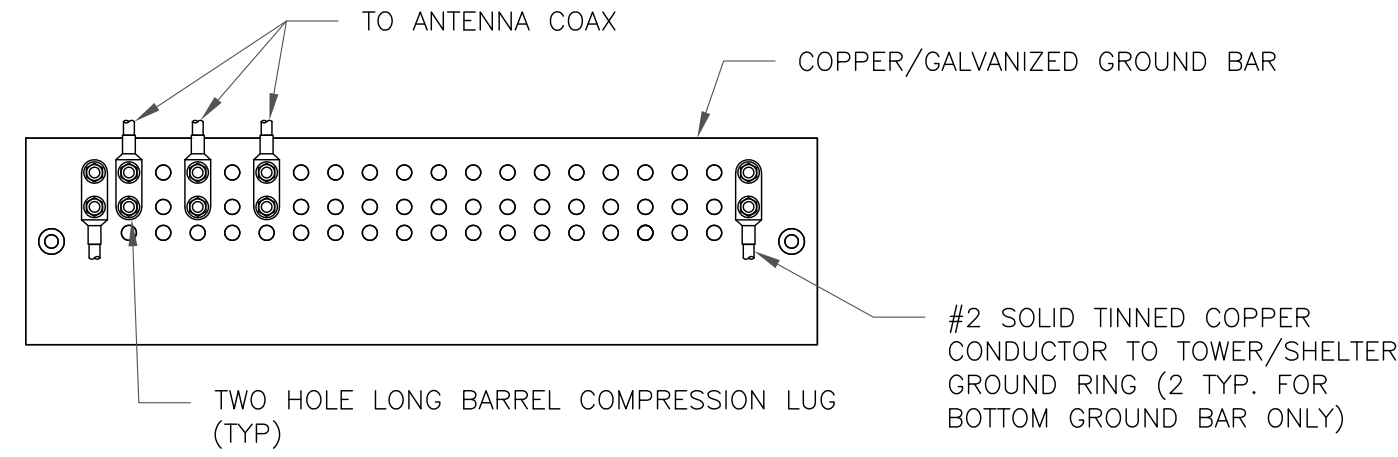




NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

1 ANTENNA SECTOR GROUND BAR DETAIL  
SCALE: NOT TO SCALE

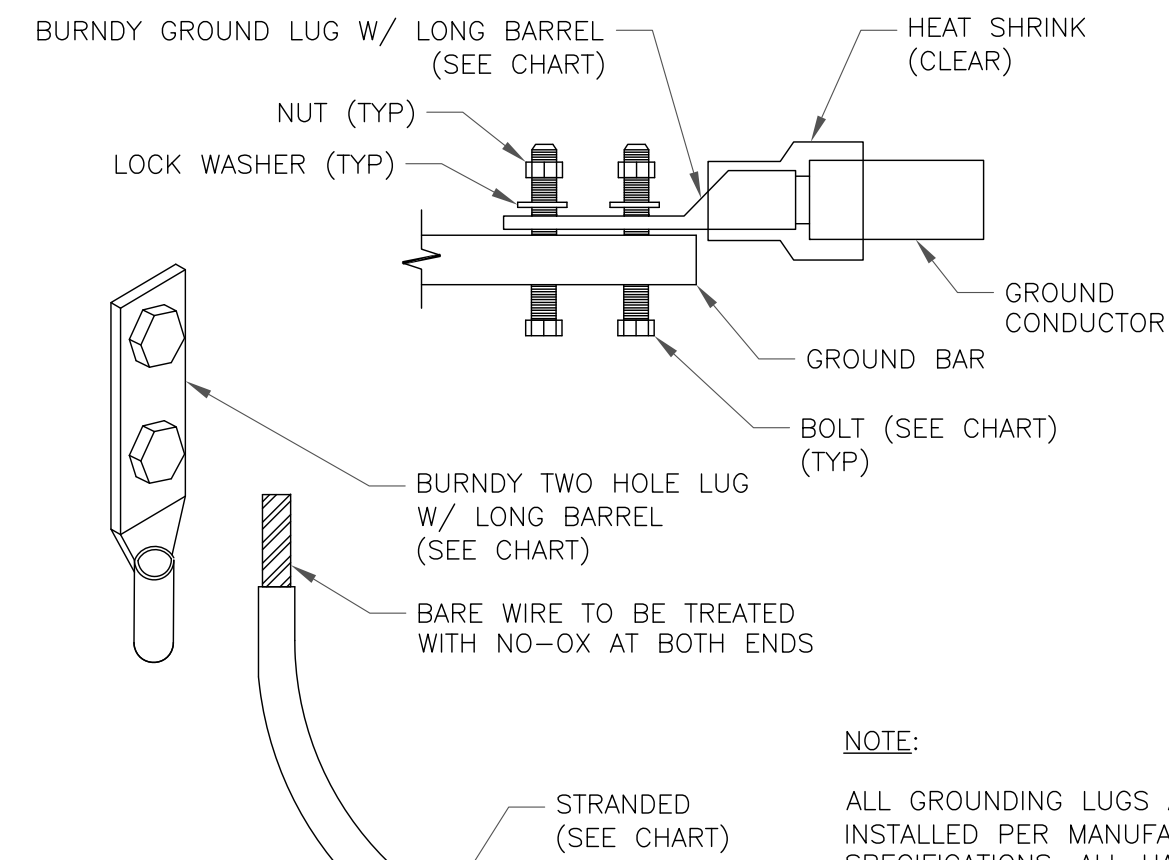


NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL  
SCALE: NOT TO SCALE

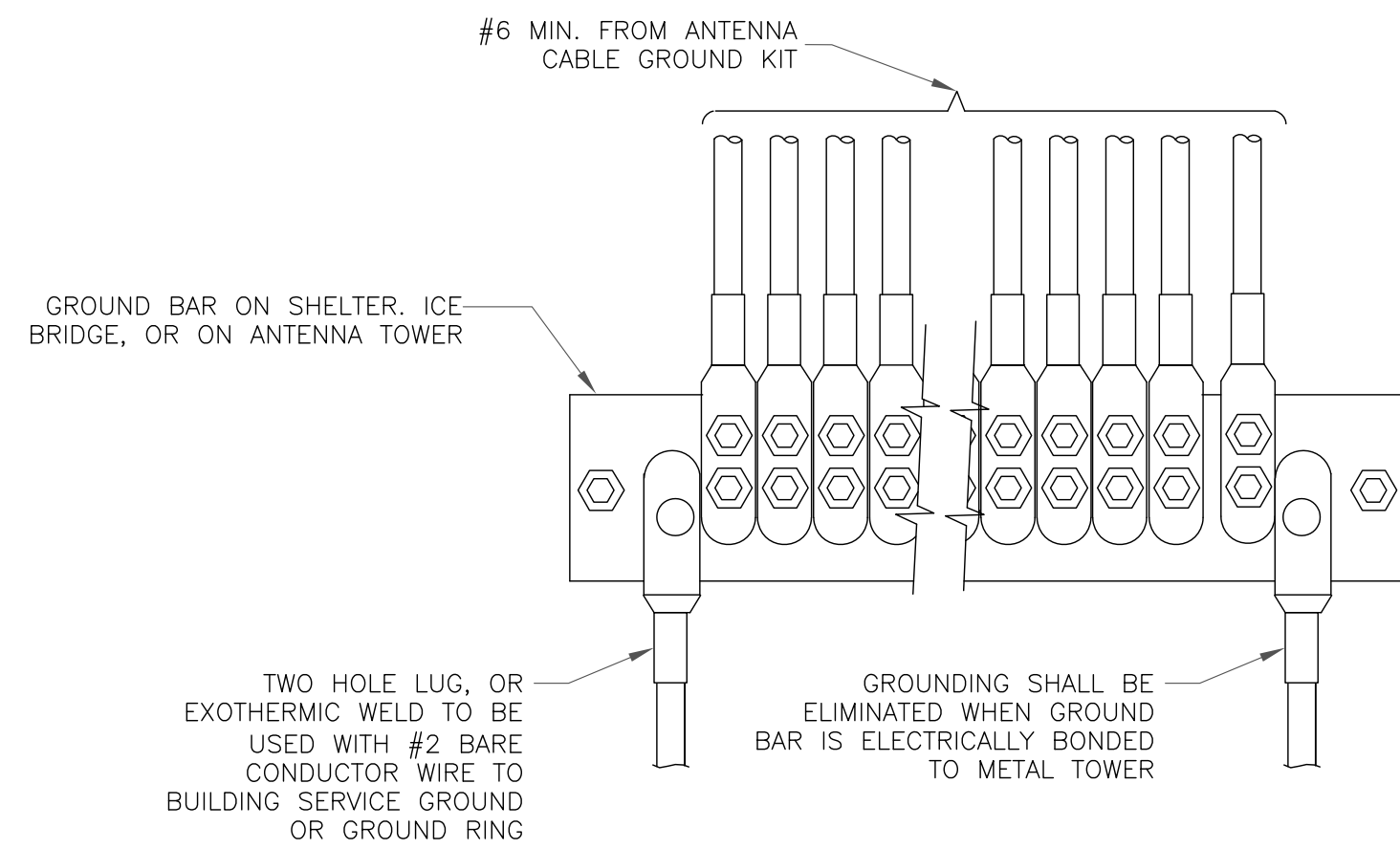
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



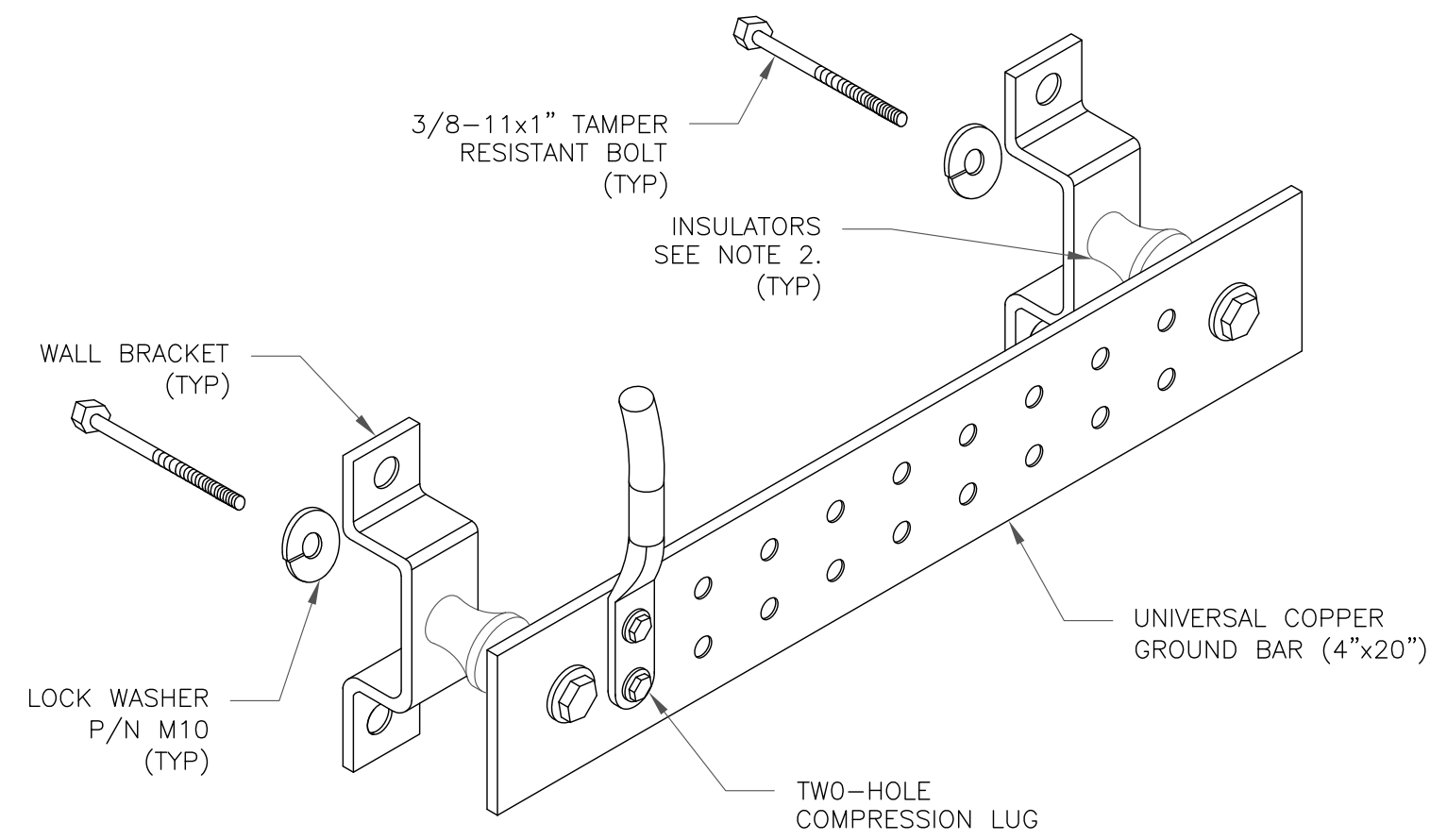
NOTE:

ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

3 MECHANICAL LUG CONNECTION  
SCALE: NOT TO SCALE



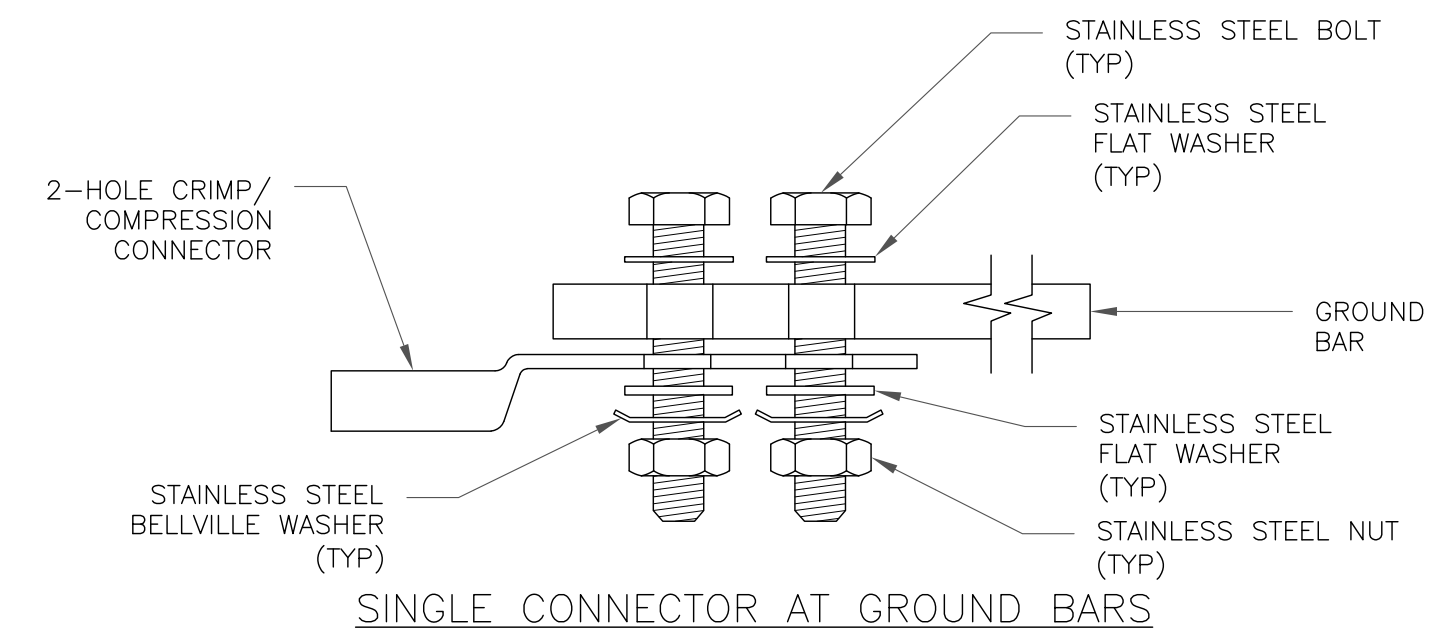
4 GROUNDWIRE INSTALLATION  
SCALE: NOT TO SCALE



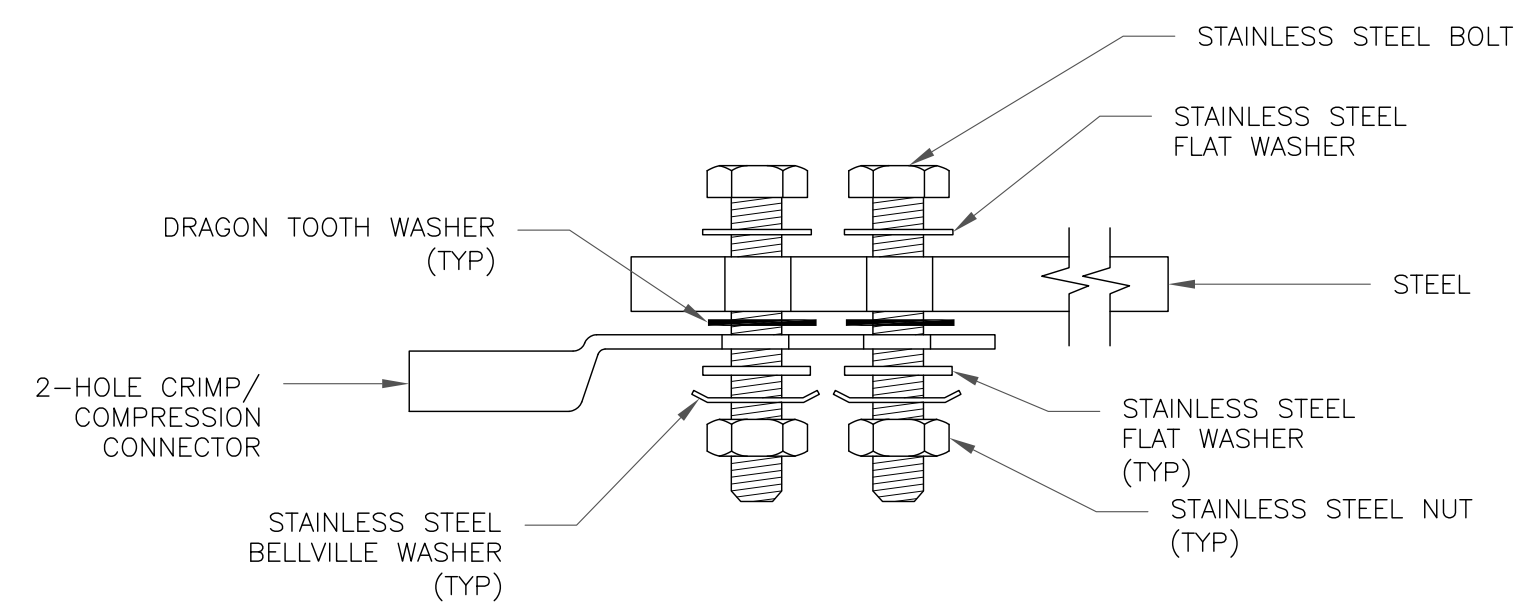
NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

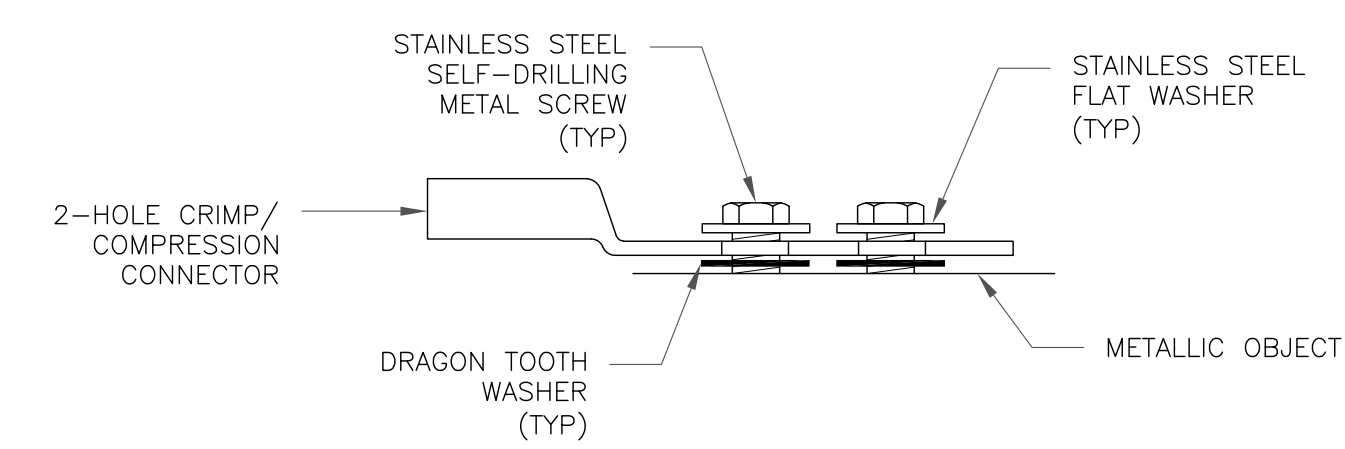
5 GROUND BAR DETAIL  
SCALE: NOT TO SCALE



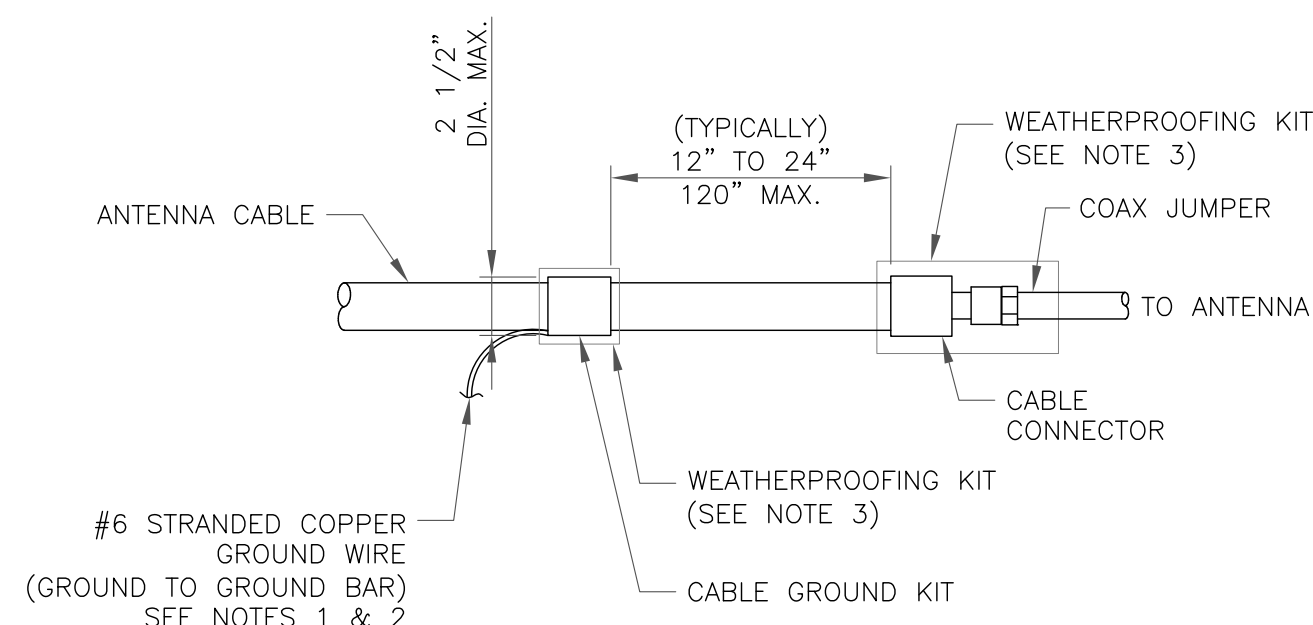
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



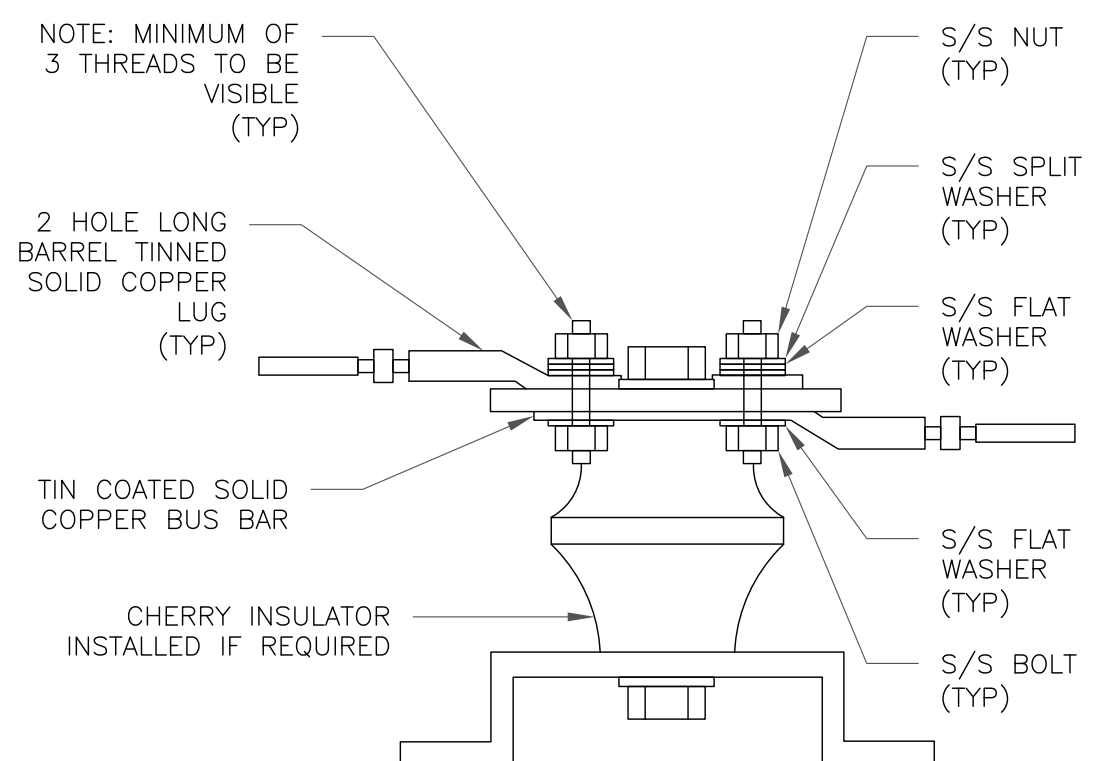
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION  
SCALE: NOT TO SCALE



7 LUG DETAIL  
SCALE: NOT TO SCALE

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS  
SCALE: NOT TO SCALE

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AT&T SITE NUMBER: CTL05255

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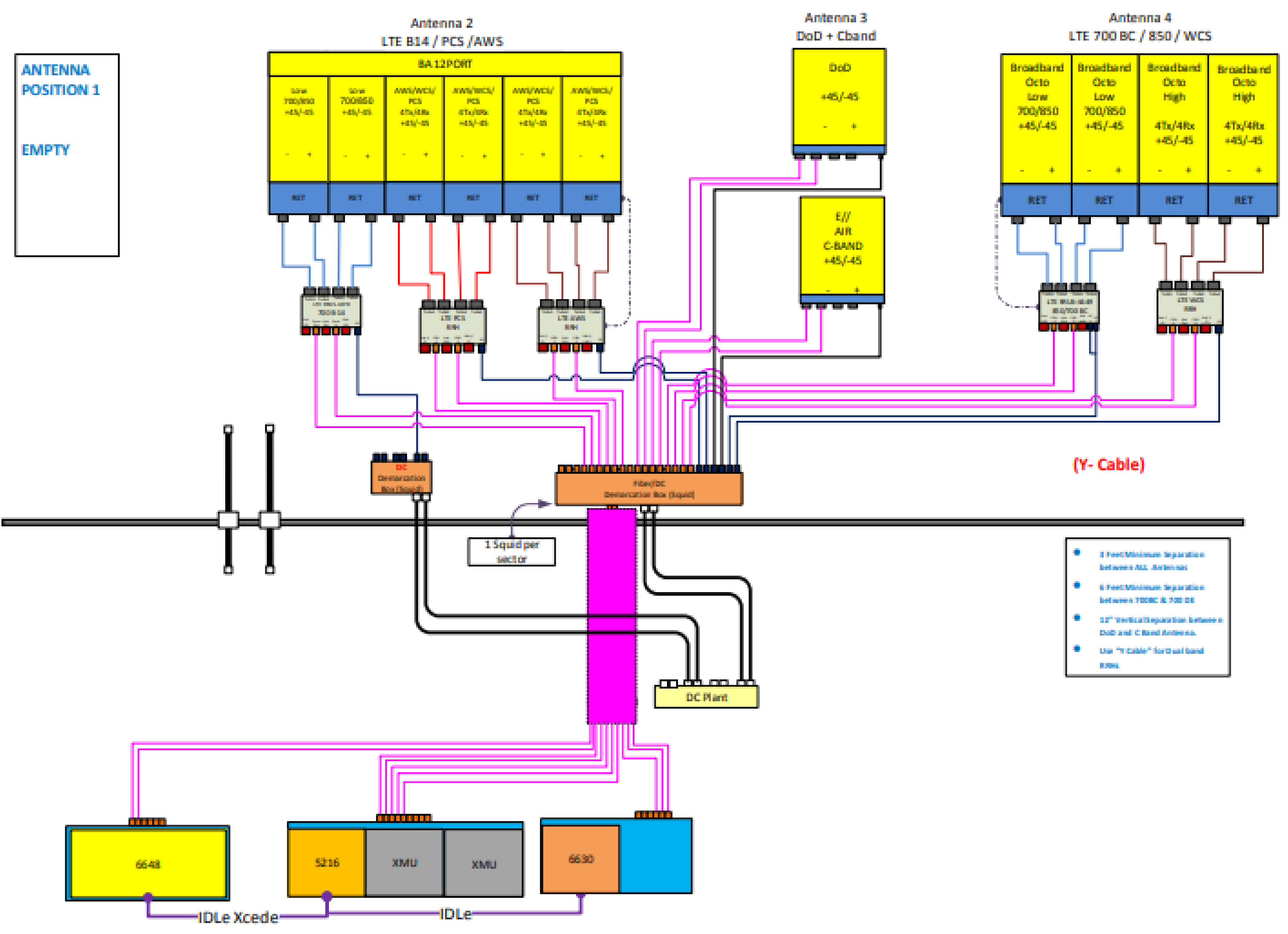


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SHEET NUMBER: **G-2** REVISION: **0**

Diagram - Sector A Diagram File Name - Cband\_3Ant\_BA12\_COAX\_DoD\_CB\_DMP\_AWS\_PCS\_1DC\_1DCFIB\_5216\_2XMU\_6630\_6648.vsd  
 Atoll Site Name - CTL05255 Location Name - FARMINGTON-DEAD SWAMP WOOD Market - CONNECTICUT Market Cluster - NEW ENGLAND  
 Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna Radio Connection Drawings Playbook v6.0 Ericsson



ANTENNA POSITION 1  
 EMPTY

(Y- Cable)

- 3 Feet Minimum Separation between ALL Antennas
- 6 Feet Minimum Separation between 700BC & 700 DC
- 12" Vertical Separation between a DoD and C Band Antenna
- Use "Y Cable" for dual band RRU

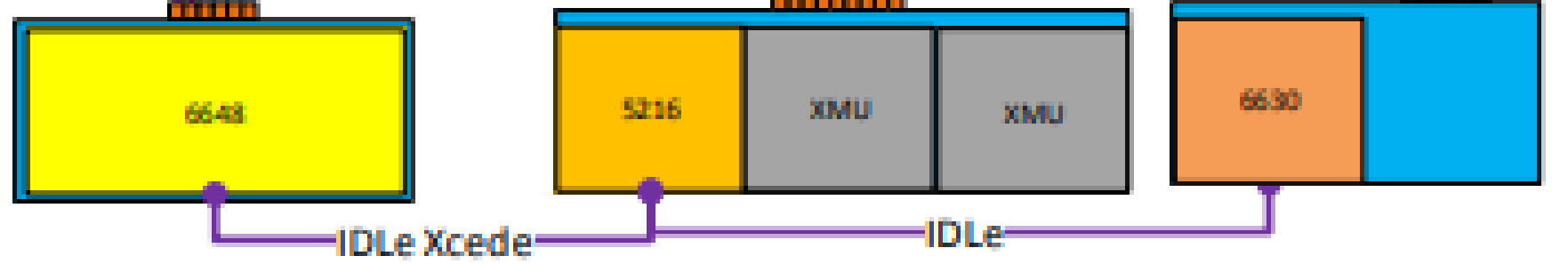
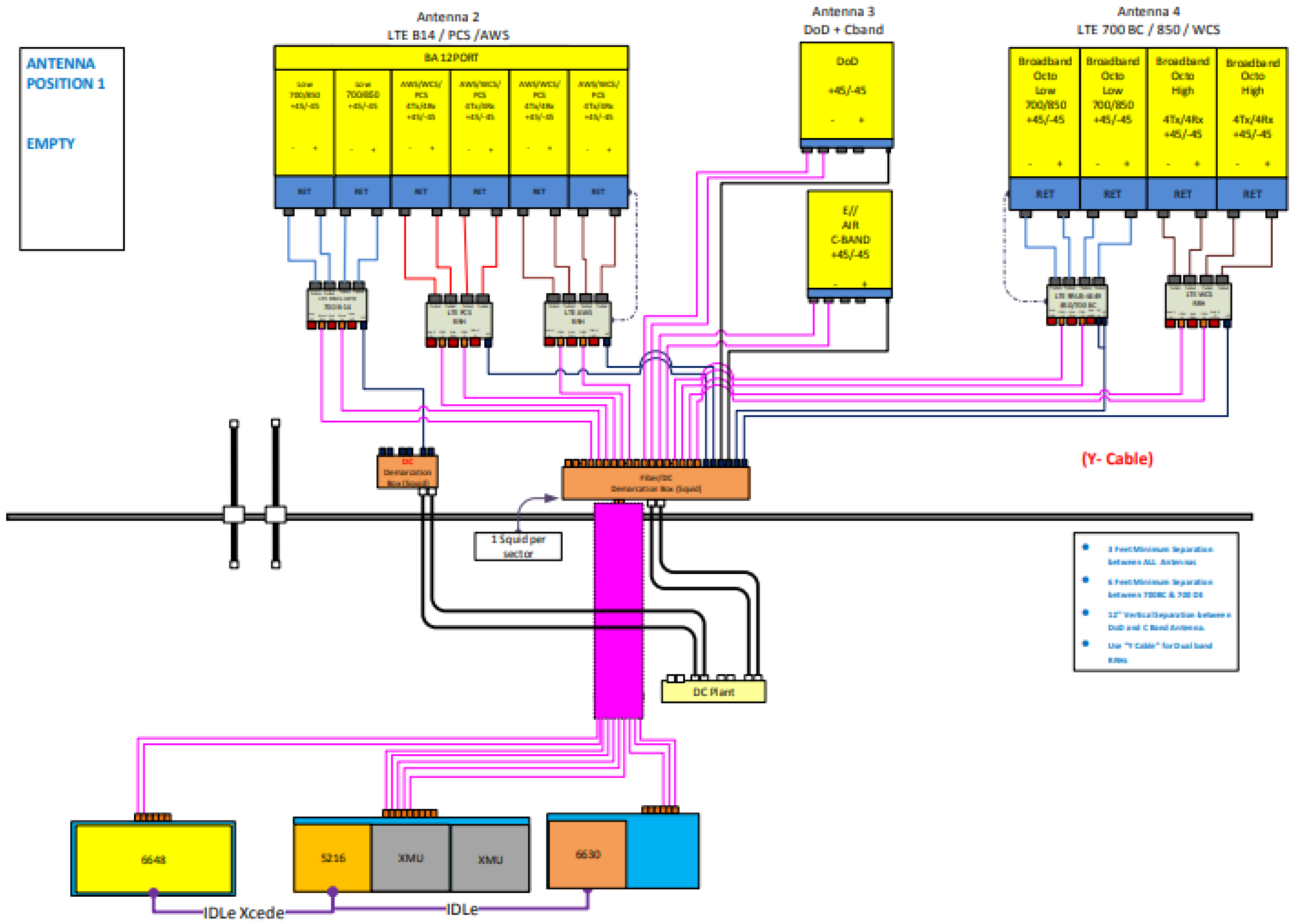




Diagram - Sector B Diagram File Name - Cband\_3Ant\_BA12\_COAX\_DoD\_CB\_DMP\_AWS\_PCS\_1DC\_1DCFIB\_5216\_2XMU\_6630\_6648.vsd  
 Atoll Site Name - CTL05255 Location Name - FARMINGTON-DEAD SWAMP WOOD Market - CONNECTICUT Market Cluster - NEW ENGLAND  
 Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna Radio Connection Drawings Playbook v6.0. Ericsson



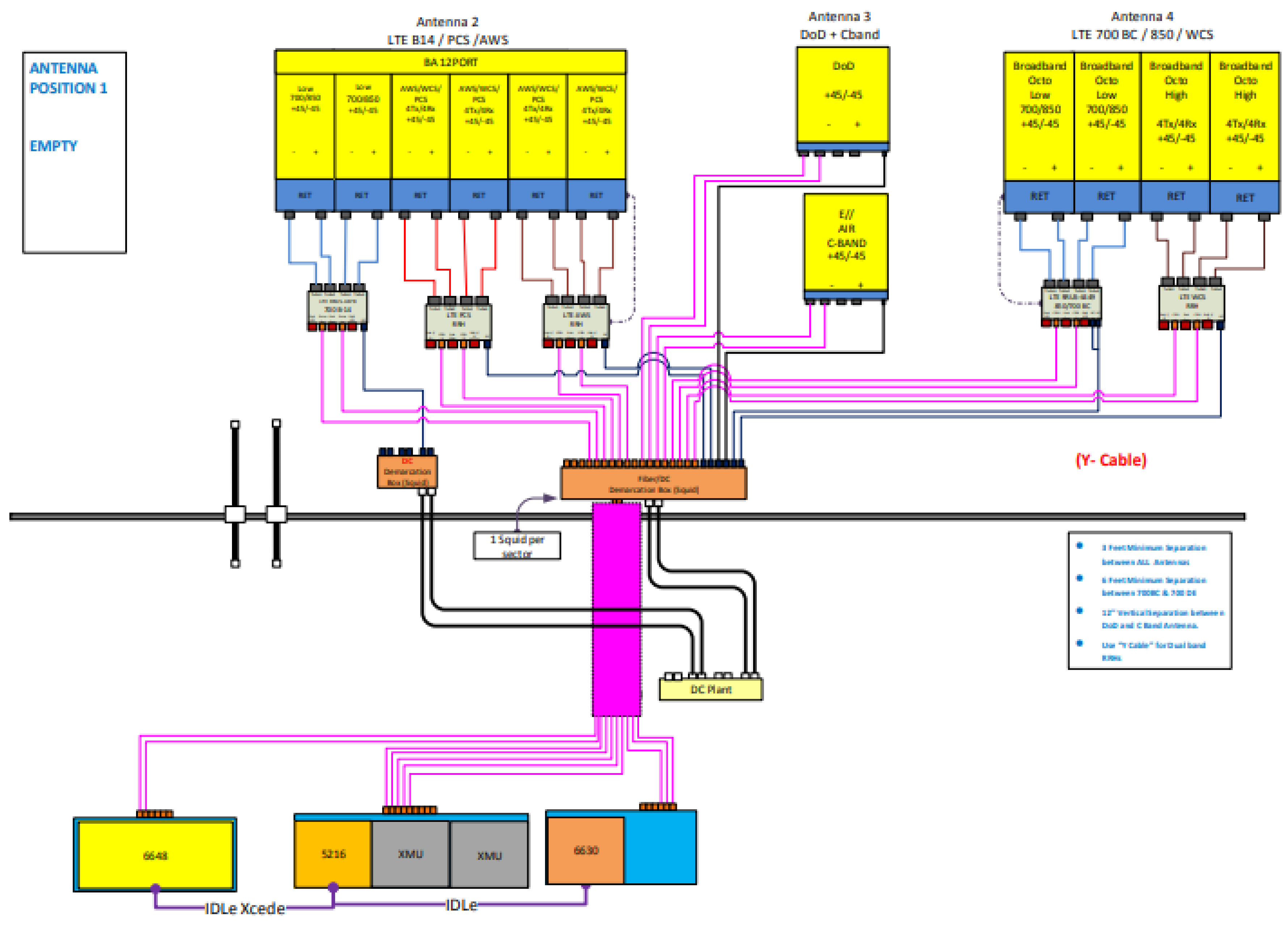
ANTENNA POSITION 1  
EMPTY

(Y-Cable)

- 3 Feet Minimum Separation between ALL Antennas
- 6 Feet Minimum Separation between 700BC & 700 DC
- 12" Vertical Separation between DoD and C-Band Antennas
- Use "Y-Cable" for C-Band RRU



Diagram - Sector C Diagram File Name - Cband\_3Ant\_BA12\_COAX\_DoD\_CB\_DMP\_AWS\_PCS\_1DC\_1DCFIB\_5216\_2XMU\_6630\_6648.vsd  
 Aerial Site Name - CTL05255 Location Name - FARMINGTON-DEAD SWAMP WOOD Market - CONNECTICUT Market Cluster - NEW ENGLAND  
 Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna\_Radio\_Connection\_Drawings\_Playbook\_v6.0\_Ericsson



(Y- Cable)

- 3 Feet Minimum Separation between ALL Antennas
- 6 Feet Minimum Separation between 700BC & 700DC
- 12" Vertical Separation between DoD and C-Band Antenna.
- Use "Y-Cable" for C-Band RRM.

IDLe Xcede IDLe



**GENERAL NOTES:**

1. The Contract Documents are the property of Crown Castle (Crown). They are provided to the GC and its Lower Tier Contractors and material suppliers for the limited purpose of use in completing the Work for this Site, and shall be kept in strict confidence and not disclosed to any third parties. The Contract Documents shall not be used for any other purpose whatsoever without the prior written consent of Crown.
2. Detail drawings, including notes and tables, shall govern over general notes and typical details. Contact the Crown Point of Contact (POC) and Engineer of Record (EOR) for clarification as needed.
3. Do not scale drawings.
4. Any Work performed without a prefabrication mapping is done at the risk of the GC and/or fabricator. All dimensions of existing structural elements are assumed based on the available documentation and are preliminary until field-verified by the GC, unless noted otherwise (UNO). Where discrepancies are found, GC shall contact the Crown POC and EOR through RFI.
5. For this analysis and modification, the mount has been assumed to be in good condition without any structural defects, UNO. If the GC discovers any indication of an existing structural defect, contact the Crown POC and EOR immediately.
6. All construction means and methods, including but not limited to erection plans, rigging plans, climbing plans, and rescue plans, shall be the responsibility of the GC responsible for the execution of the Work contained herein, and shall meet ANSI/ASSE A10.48 (latest edition); federal, state, and local regulations; and any applicable industry consensus standards related to the construction activities being performed. All rigging plans shall adhere to ANSI/ASSE A10.48 (latest edition) and Crown standard CED-STD-10253, "Rigging Program", including the required involvement of a qualified engineer for class IV construction to certify the supporting structure(s) in accordance with the ANSI/TIA-322 (latest edition).
7. The structural integrity of the modification design extends to the complete condition only. The GC must be cognizant that the removal of any structural component of an existing tower has the potential to cause the partial or complete collapse of the structure. All necessary precautions must be taken to ensure structural integrity, including, but not limited to, engineering assessment of construction stresses with installation maximum wind speed and/or temporary bracing and shoring.
8. Aerial and underground utilities and facilities may or may not be shown on the drawings. The GC shall take every precaution to preserve and protect these items, which may include aerial or underground power lines, telephone lines, water lines, sewer lines, cable television facilities, pipelines, structures and other public and private improvements within or adjacent to the work area. The responsibility for determining the actual on-site location of these items shall rest exclusively with the GC.
9. All manufacturer's hardware assembly instructions shall be followed, UNO. Conflicting notes shall be brought to the attention of the EOR and the Crown POC.
10. The GC shall fabricate all required items per the materials specified below, UNO on the detail drawing sheets. If the GC finds for any component that the materials have not been clearly specified, the GC shall submit an RFI to the EOR to confirm the required material.
11. Contractor Personnel shall not drill holes in any new or existing structural members, other than those drilled holes shown on structural drawings, without the approval of the EOR.
12. For a list of Crown-approved cold galvanizing compounds, refer to the ENG-STD-10149, "Tower Protective Coatings Guidelines".
13. All exposes structural steel as the result of this scope of work including but not limited to: field drilled holes, and shaft interiors (were accessible), shall be cleaned and two (2) coats cold galvanizing shall be applied by brush in accordance with ENG-STD-10149, "Tower Protective Coatings Guidelines".
14. All tower grounding affected by the work shall be repaired or replaced in accordance with OPS-STD-10090, "TOWER GROUNDING", and OPS-BUL-10133, "GROUNDING REPAIR RECOMMENDATION".
15. Any hardware removed from the existing tower shall be replaced with new hardware of equal size and quality, UNO. No existing fasteners shall be reused.
16. All joints using ASTM A325 or A490 bolts, U-bolts, V-bolts, and threaded rods shall be snug tightened, UNO.
17. A nut locking device shall be installed on all proposed and/or replaced snug tightened ASTM A325 or A490 bolts, U-bolts, V-bolts, and threaded rods.
18. All joints are bearing type connections UNO. If no bolt length is given in the bill of materials, the connection may include threads in the shear planes, and the GC is responsible for sizing the length of the bolt.
19. If ASTM A325 or A490 bolts, and/or threaded rods are specified to be pre-tensioned, these shall be installed and tightened to the pre-tensioned condition according to the requirements of the RCSC specification for structural joints using ASTM high strength bolts.
20. All proposed and/or replaced bolts shall be of sufficient length such that the end of the bolt be at least flush with the face of the nut. It is not permitted for the bolt end to be below the face of the nut after tightening is completed.

PLANS PREPARED FOR:

**CROWN CASTLE**

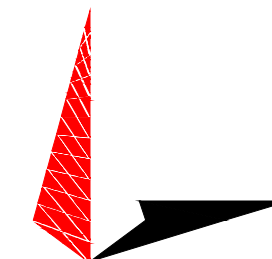
8000 AVALON BLVD., SUITE 700  
ALPHARETTA, GA 30009

PROJECT INFORMATION:

**EAST FARMINGTON**  
**BU #: 876335**  
**CARRIER: AT&T MOBILITY**

3 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

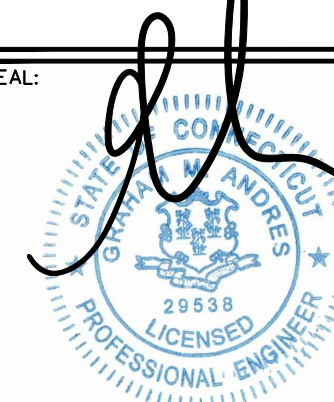
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



Electronic Copy

April 12, 2022

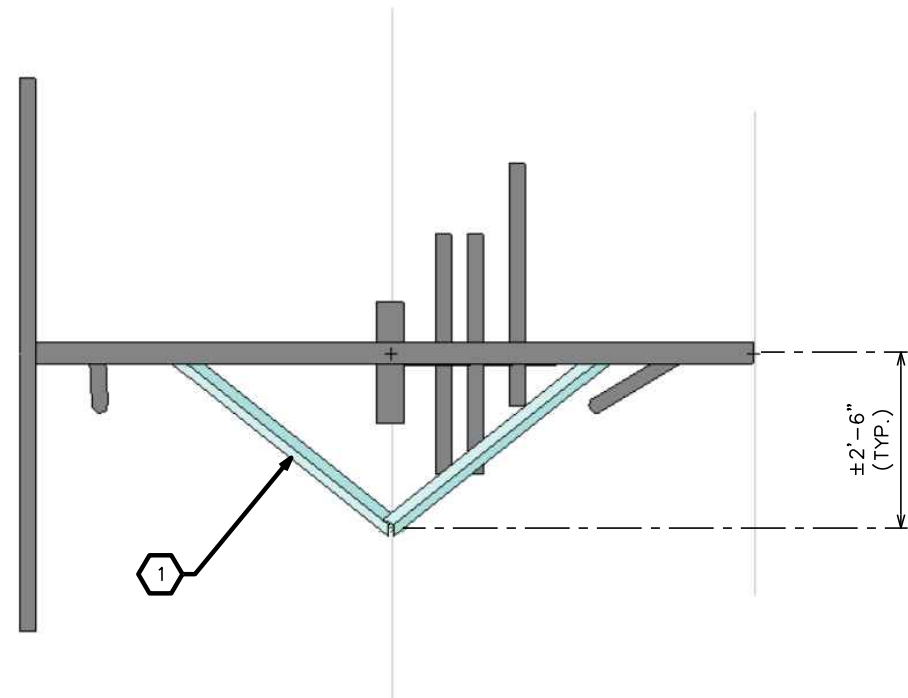
0	04-12-22	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: DJM | CHECKED BY: JCM

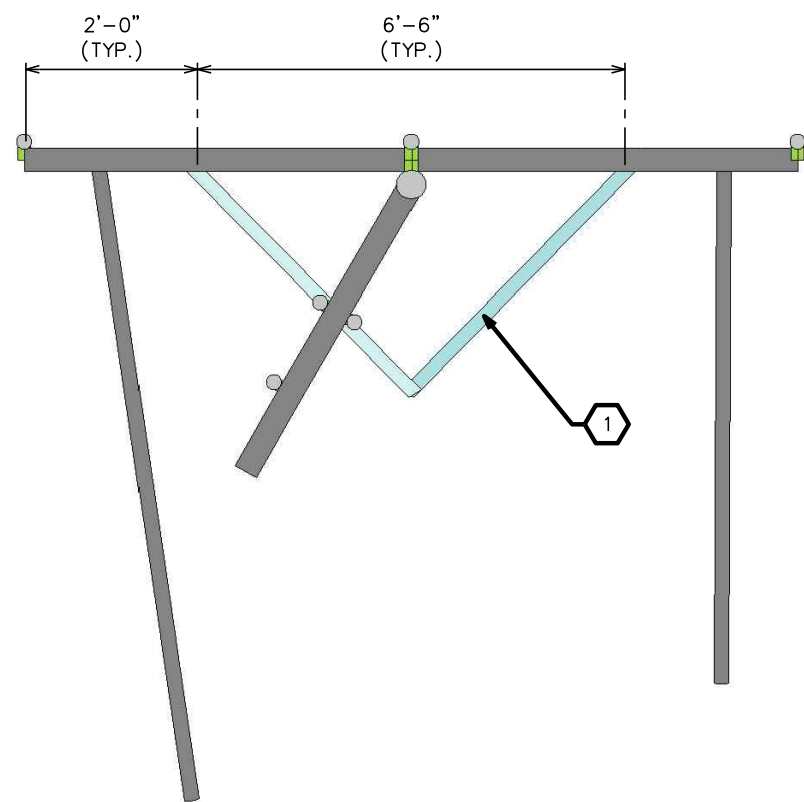
SHEET TITLE:

**PROJECT NOTES**

SHEET NUMBER: <b>N-1</b>	REVISION: <b>0</b>
	TEP#: 25672.681030



**ELEVATION VIEW**

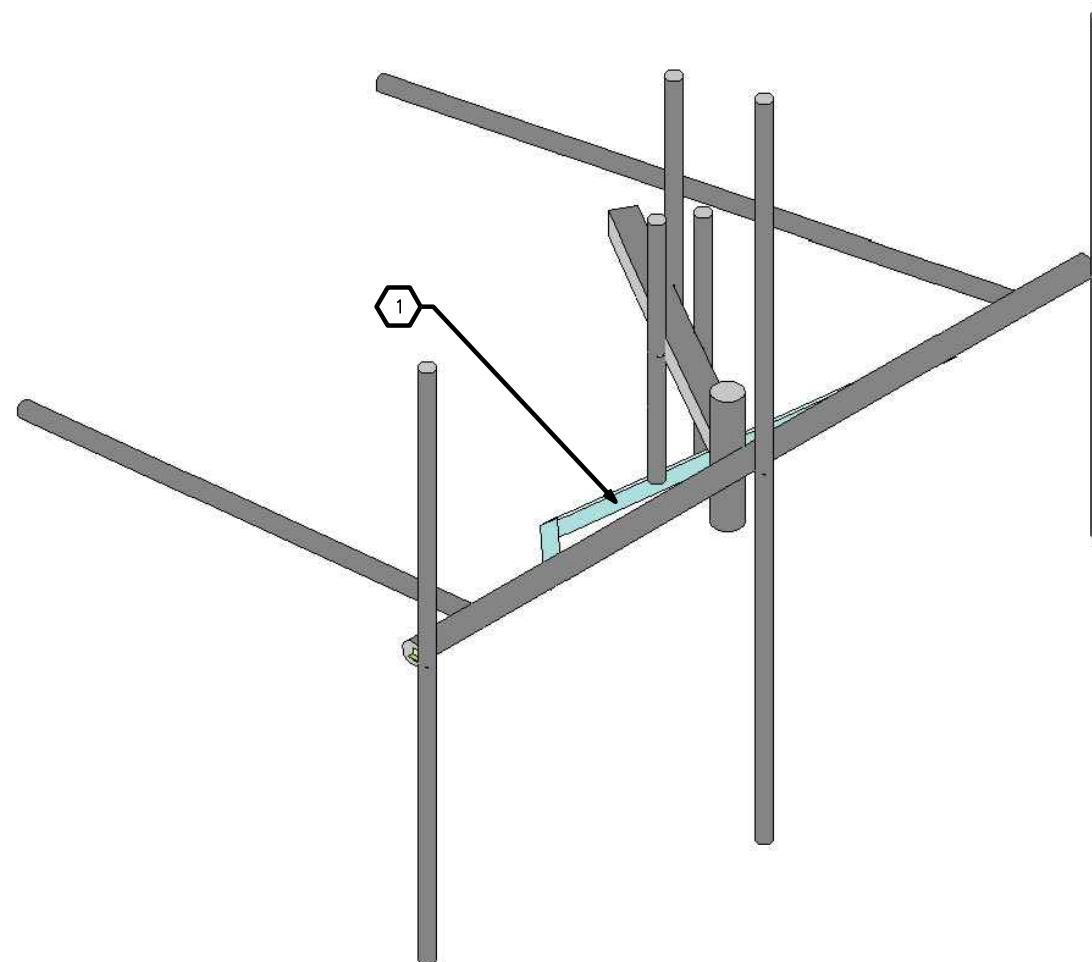


**PLAN VIEW**

MODIFICATION SCHEDULE			
NO.	MODIFICATION DESCRIPTION	ELEVATION (FT.)	SHEET
1	ADD NEW KICKER SUPPORT KIT. CONNECT TO EXISTING FACE HORIZONTAL USING PROVIDED HARDWARE.	128	S-2

**NOTES:**

- PRIOR TO FABRICATION, CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND QUANTITIES GIVEN. LENGTHS AND QUANTITIES PROVIDED ARE FOR QUOTING PURPOSES ONLY AND SHALL NOT BE USED FOR FABRICATION.
- PROPER FIT-UP OF THE PROPOSED MODIFICATIONS MAY REQUIRE FIELD CUTTING/TRIMMING. CONTACT EOR FOR APPROVAL UNO.



**ISOMETRIC VIEW**

PLANS PREPARED FOR:  
**CROWN CASTLE**  
 8000 AVALON BLVD., SUITE 700  
 ALPHARETTA, GA 30009

PROJECT INFORMATION:  
**EAST FARMINGTON**  
**BU #: 876335**  
**CARRIER: AT&T MOBILITY**  
 3 A BIRDSEYE ROAD  
 FARMINGTON, CT 06030

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

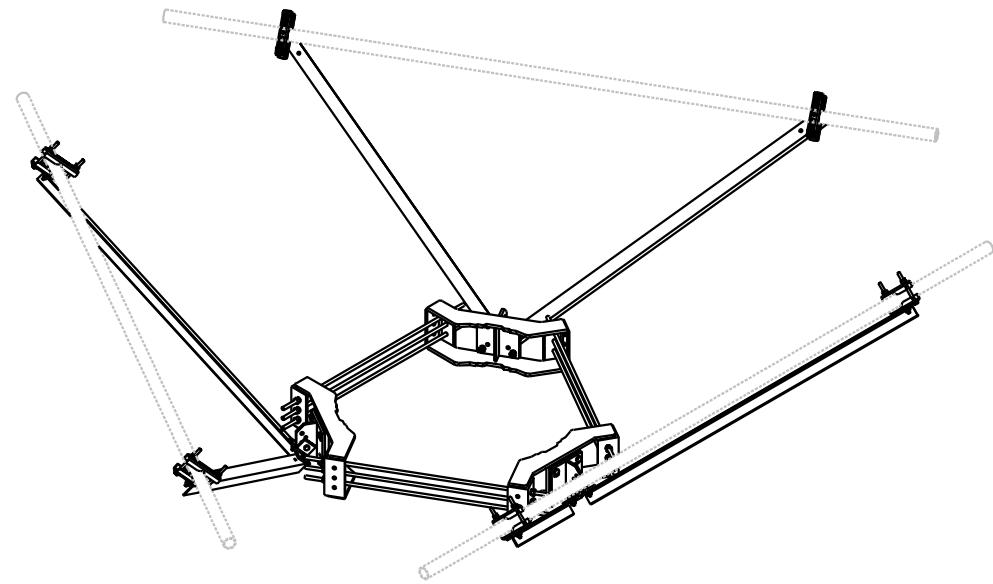
SEAL:  
  
 Electronic Copy April 12, 2022

REV	DATE	ISSUED FOR:
0	04-12-22	MODIFICATION DRAWINGS

DRAWN BY: DJM CHECKED BY: JCM

SHEET TITLE:  
**MOUNT  
 MODIFICATION  
 SCHEDULE**

SHEET NUMBER: **S-1** REVISION: **0**  
 TEP#: 25672.681030



**SITEPRO PRK-SFS-L**  
SCALE: N.T.S.

BILL OF MATERIALS				
MANUFACTURER	PART NUMBER/DESCRIPTION	MATERIAL GRADE	QUANTITY	NOTES
SITEPRO	PRK-SFS-L (CONMAT ITEM NO. ANT.16818)	-	1	1,2

**NOTES:**

- CONTRACTOR MAY SUBSTITUTE EQUIVALENT PARTS WITH EOR APPROVAL.
- UNO, CONNECTION HARDWARE IS INCLUDED WITH REINFORCEMENT KITS.

PLANS PREPARED FOR:

**CROWN CASTLE**

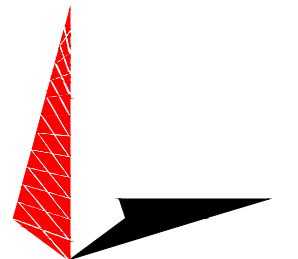
8000 AVALON BLVD., SUITE 700  
ALPHARETTA, GA 30009

PROJECT INFORMATION:

**EAST FARMINGTON**  
**BU #: 876335**  
**CARRIER: AT&T MOBILITY**

3 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

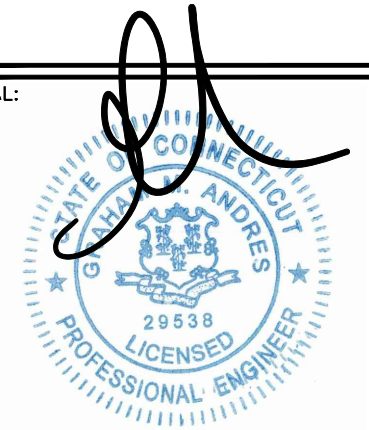
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



Electronic Copy

April 12, 2022

REV	DATE	ISSUED FOR:
0	04-12-22	MODIFICATION DRAWINGS

DRAWN BY: DJM | CHECKED BY: JCM

SHEET TITLE:

**REINFORCEMENT  
DETAILS/PARTS**

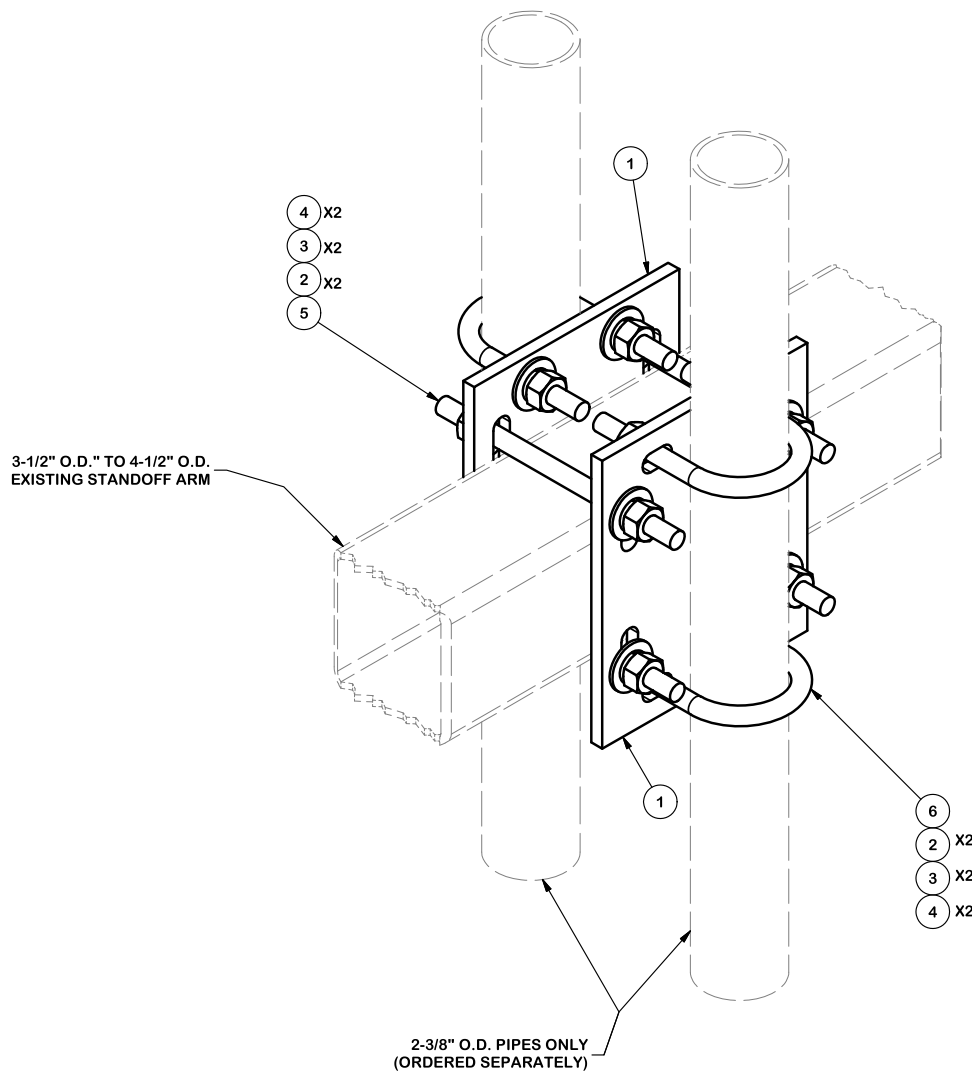
SHEET NUMBER:

**S-2**

REVISION:

**0**

TEP#: 25672.681030



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	12.04
2	16	G12FW	1/2" HDG USS FLATWASHER		0.03	0.55
3	16	G12LW	1/2" HDG LOCKWASHER		0.01	0.22
4	16	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.15
5	4	G12R-8	1/2" x 8" THREADED ROD (HDG.)		0.35	1.41
6	4	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	2.50
TOTAL WT. #						17.87

3-1/2" O.D." TO 4-1/2" O.D.  
EXISTING STANDOFF ARM

2-3/8" O.D. PIPES ONLY  
(ORDERED SEPARATELY)

**TOLERANCE NOTES**  
 TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
 SAWED, SHEARED AND GAS CUT EDGES ( $\pm 0.030"$ )  
 DRILLED AND GAS CUT HOLES ( $\pm 0.030"$ ) - NO CONING OF HOLES  
 LASER CUT EDGES AND HOLES ( $\pm 0.010"$ ) - NO CONING OF HOLES  
 BENDS ARE  $\pm 1/2$  DEGREE  
 ALL OTHER MACHINING ( $\pm 0.030"$ )  
 ALL OTHER ASSEMBLY ( $\pm 0.060"$ )

PROPRIETARY NOTE:  
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT  
 INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF  
 VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION		
BACK TO BACK PIPE MOUNT		
CPD NO.	DRAWN BY	ENG. APPROVAL
	CEK 1/17/2013	
CLASS	SUB	DRAWING USAGE
81	03	CUSTOMER

 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
	Engineering Support Team: 1-888-753-7446
PART NO.	BBPM-K1
DWG. NO.	BBPM-K1

# Exhibit D

## **Structural Analysis Report**



Date: **April 22, 2022**



Crown Castle  
2000 Corporate Drive  
Canonsburg, PA 15317  
(724) 416-2000

**Subject:** **Structural Analysis Report**

**Carrier Designation:** **AT&T Mobility Co-Locate**  
**Site Number:** 10071036  
**Site Name:** FARMINGTON-DEAD SWAMP WOOD  
**FA Number:** 10071036

**Crown Castle Designation:** **BU Number:** 876335  
**Site Name:** EAST FARMINGTON  
**JDE Job Number:** 686298  
**Work Order Number:** 2092421  
**Order Number:** 586268 Rev. 0

**Engineering Firm Designation:** **Crown Castle Project Number:** 2092421

**Site Data:** **3 A Birdseye Road, Farmington, HARTFORD County, CT**  
**Latitude 41° 42' 56.94", Longitude -72° 48' 37.42"**  
**140 Foot - Monopole Tower**

Crown Castle is pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

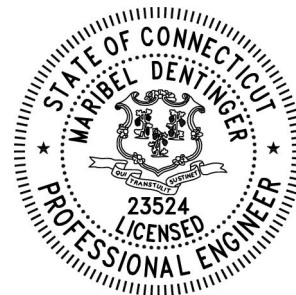
**Sufficient Capacity – 77.3%**

This analysis has been performed in accordance with the 2018 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 117 mph. Applicable Standard references and design criteria are listed in Section 2 - "Analysis Criteria".

Structural analysis prepared by: Patrick Himes

Respectfully submitted by:

*Maribel Dentinger*  
Maribel Dentinger, P.E.  
Senior Project Engineer



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tnxTower Output

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## 1) INTRODUCTION

This tower is a 140 ft Monopole tower designed by SUMMIT. The tower has been modified multiple times to accommodate additional loading.

## 2) ANALYSIS CRITERIA

<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Wind Speed:</b>	117 mph
<b>Exposure Category:</b>	B
<b>Topographic Factor:</b>	1
<b>Ice Thickness:</b>	1.5 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Service Wind Speed:</b>	60 mph

**Table 1 - Proposed Equipment Configuration**

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
128.0	132.0	3	ericsson	AIR 6419 B77G_CCIV3 w/ Mount Pipe	2 6 3	7/8 13/16 3/8
	130.0	3	cci antennas	DMP65R-BU8D w/ Mount Pipe		
		3	ericsson	RRUS 32 B30		
		3	ericsson	RRUS 4415 B25_CCIV2		
		3	ericsson	RRUS 4426 B66		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14_CCIV2		
		3	kmw communications	EPBQ-654L8H8-L2 w/ Mount Pipe		
		1	raycap	DC6-48-60-0-8C-EV		
	2	raycap	DC6-48-60-18-8C			
	128.0	3	ericsson	AIR 6449 B77D_CCIV2 w/ Mount Pipe		
		1	raycap	DC6-48-60-18-8F		
		1	tower mounts	Site Pro 1 PRK-SFS-L Kicker Support Kit		
		1	tower mounts	T-Arm Mount [TA 602-3]		

**Table 2 - Other Considered Equipment**

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
139.0	140.0	3	alcatel lucent	TD-RRH8x20-25	3	1-1/4
		3	rfs celwave	APXV9ERR18-C-A20		
		3	rfs celwave	APXVTM14-C-120		
	139.0	1	tower mounts	Platform Mount [LP 1201-1_HR-3]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
137.0	140.0	3	alcatel lucent	800MHz 2X50W RRH W/FILTER	-	-
	137.0	3	alcatel lucent	PCS 1900MHz 4x45W-65MHz		
		1	tower mounts	Pipe Mount [PM 601-3]		
118.0	118.0	3	fujitsu	TA08025-B604	1	1-1/2
		3	fujitsu	TA08025-B605		
		3	jma wireless	MX08FRO665-21 w/ Mount Pipe		
		1	raycap	RDIDC-9181-PF-48		
		1	tower mounts	Commscope MC-PK8-DSH		
108.0	110.0	3	antel	BXA-70063-4CF-EDIN-X w/ Mount Pipe	8	1-5/8
		3	samsung telecommunications	CBRS w/ Mount Pipe		
	109.0	6	andrew	SBNHH-1D65B w/ Mount Pipe		
		1	rfs celwave	DB-T1-6Z-8AB-0Z		
		3	samsung telecommunications	20W CBRS		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
108.0	1	tower mounts	Platform Mount [LP 304-1_KCKR]			
100.0	100.0	3	commscope	VV-65A-R1_TMO	3 1	1-5/8 1-3/8
		3	ericsson	AIR 6419 B41_TMO		
		3	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	ericsson	RADIO 4460 B2/B25 B66_TMO		
		3	rfs celwave	APXVAARR24_43-U-NA20_T-MOBILE		
		1	tower mounts	Platform Mount [LP 301-1]		
49.0	51.0	1	lucent	KS24019-L112A	1	1/2
	49.0	1	tower mounts	Side Arm Mount [SO 701-1]		

### 3) ANALYSIS PROCEDURE

**Table 3 - Documents Provided**

Document	Reference	Source
4-GEOTECHNICAL REPORTS	1531892	CCISITES
4-POST-MODIFICATION INSPECTION	5400317	CCISITES
4-POST-MODIFICATION INSPECTION	4836434	CCISITES
4-POST-MODIFICATION INSPECTION	3413367	CCISITES
4-POST-MODIFICATION INSPECTION	2397526	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	1440555	CCISITES
4-TOWER MANUFACTURER DRAWINGS	1615361	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	4456376	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3672042	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3262310	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	2397525	CCISITES

#### 3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the reinforcing elements. These calculations are presented in Appendix C.

#### 3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Crown Castle should be notified to determine the effect on the structural integrity of the tower.

### 4) ANALYSIS RESULTS

**Table 4 - Section Capacity (Summary)**

Section No.	Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
L1	140 - 135	Pole	TP17.025x16x0.25	Pole	4.7%	Pass
L2	135 - 130	Pole	TP18.05x17.025x0.25	Pole	9.1%	Pass
L3	130 - 125	Pole	TP19.075x18.05x0.25	Pole	18.9%	Pass
L4	125 - 120	Pole	TP20.099x19.075x0.25	Pole	27.3%	Pass
L5	120 - 115	Pole	TP21.124x20.099x0.25	Pole	36.3%	Pass
L6	115 - 110	Pole	TP22.149x21.124x0.25	Pole	44.7%	Pass
L7	110 - 105	Pole	TP23.174x22.149x0.25	Pole	54.4%	Pass
L8	105 - 102	Pole	TP23.789x23.174x0.25	Pole	59.7%	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
L9	102 - 101.75	Pole + Reinf.	TP23.84x23.789x0.3875	Reinf. 12 Tension Rupture	53.1%	Pass
L10	101.75 - 96.75	Pole + Reinf.	TP24.865x23.84x0.375	Reinf. 12 Tension Rupture	61.7%	Pass
L11	96.75 - 95	Pole + Reinf.	TP25.89x24.865x0.375	Reinf. 12 Tension Rupture	64.6%	Pass
L12	95 - 90.75	Pole + Reinf.	TP25.595x24.724x0.3563	Pole	55.9%	Pass
L13	90.75 - 85.75	Pole + Reinf.	TP26.62x25.595x0.3563	Pole	61.0%	Pass
L14	85.75 - 85.33	Pole + Reinf.	TP26.706x26.62x0.3563	Pole	61.4%	Pass
L15	85.33 - 85.08	Pole + Reinf.	TP26.757x26.706x0.55	Reinf. 11 Tension Rupture	55.3%	Pass
L16	85.08 - 82.5	Pole + Reinf.	TP27.287x26.757x0.5438	Reinf. 11 Tension Rupture	57.5%	Pass
L17	82.5 - 82.25	Pole + Reinf.	TP27.338x27.287x0.5375	Reinf. 11 Tension Rupture	57.8%	Pass
L18	82.25 - 82	Pole + Reinf.	TP27.389x27.338x0.5375	Reinf. 11 Tension Rupture	58.0%	Pass
L19	82 - 81.75	Pole + Reinf.	TP27.44x27.389x0.3563	Pole	64.8%	Pass
L20	81.75 - 78.83	Pole + Reinf.	TP28.038x27.44x0.3563	Pole	67.4%	Pass
L21	78.83 - 78.58	Pole + Reinf.	TP28.09x28.038x0.6125	Reinf. 11 Tension Rupture	56.7%	Pass
L22	78.58 - 77.67	Pole + Reinf.	TP28.277x28.09x0.6125	Reinf. 11 Tension Rupture	57.4%	Pass
L23	77.67 - 77.42	Pole + Reinf.	TP28.329x28.277x0.55	Reinf. 8 Tension Rupture	61.5%	Pass
L24	77.42 - 77.17	Pole + Reinf.	TP28.38x28.329x0.55	Reinf. 8 Tension Rupture	61.7%	Pass
L25	77.17 - 72.17	Pole + Reinf.	TP29.406x28.38x0.5375	Reinf. 8 Tension Rupture	65.2%	Pass
L26	72.17 - 67.17	Pole + Reinf.	TP30.431x29.406x0.525	Reinf. 8 Tension Rupture	68.4%	Pass
L27	67.17 - 66.58	Pole + Reinf.	TP30.551x30.431x0.525	Reinf. 8 Tension Rupture	68.7%	Pass
L28	66.58 - 66.33	Pole + Reinf.	TP30.602x30.551x0.625	Reinf. 8 Tension Rupture	58.0%	Pass
L29	66.33 - 66.17	Pole + Reinf.	TP30.636x30.602x0.625	Reinf. 8 Tension Rupture	58.1%	Pass
L30	66.17 - 65.92	Pole + Reinf.	TP30.687x30.636x0.5125	Reinf. 3 Tension Rupture	67.5%	Pass
L31	65.92 - 62.67	Pole + Reinf.	TP31.354x30.687x0.5125	Reinf. 3 Tension Rupture	69.3%	Pass
L32	62.67 - 62.42	Pole + Reinf.	TP31.405x31.354x0.5125	Reinf. 3 Tension Rupture	69.5%	Pass
L33	62.42 - 60	Pole + Reinf.	TP31.901x31.405x0.5063	Reinf. 3 Tension Rupture	70.7%	Pass
L34	60 - 59.75	Pole + Reinf.	TP31.952x31.901x0.5	Reinf. 3 Tension Rupture	70.9%	Pass
L35	59.75 - 58.33	Pole + Reinf.	TP32.243x31.952x0.5	Reinf. 3 Tension Rupture	71.6%	Pass
L36	58.33 - 58.08	Pole + Reinf.	TP32.294x32.243x0.5	Reinf. 3 Tension Rupture	71.7%	Pass
L37	58.08 - 53.08	Pole + Reinf.	TP33.32x32.294x0.5	Reinf. 3 Tension Rupture	74.0%	Pass
L38	53.08 - 52.83	Pole + Reinf.	TP33.371x33.32x0.5	Reinf. 3 Tension Rupture	74.1%	Pass
L39	52.83 - 52.58	Pole + Reinf.	TP33.422x33.371x0.6875	Reinf. 3 Tension Rupture	54.6%	Pass
L40	52.58 - 51.42	Pole + Reinf.	TP33.661x33.422x0.6875	Reinf. 3 Tension Rupture	55.1%	Pass
L41	51.42 - 51.17	Pole + Reinf.	TP33.713x33.661x0.5063	Reinf. 7 Tension Rupture	69.1%	Pass
L42	51.17 - 51	Pole + Reinf.	TP34.67x33.713x0.5063	Reinf. 7 Tension Rupture	69.2%	Pass
L43	51 - 45.5	Pole + Reinf.	TP34.25x33.122x0.55	Reinf. 7 Tension Rupture	70.6%	Pass
L44	45.5 - 44.25	Pole + Reinf.	TP34.506x34.25x0.55	Reinf. 7 Tension Rupture	71.0%	Pass
L45	44.25 - 44	Pole + Reinf.	TP34.557x34.506x0.625	Reinf. 7 Tension Rupture	58.2%	Pass
L46	44 - 43.08	Pole + Reinf.	TP34.745x34.557x0.625	Reinf. 7 Tension Rupture	58.5%	Pass
L47	43.08 - 42.83	Pole + Reinf.	TP34.797x34.745x0.6625	Reinf. 6 Tension Rupture	60.8%	Pass
L48	42.83 - 37.83	Pole + Reinf.	TP35.822x34.797x0.6625	Reinf. 6 Tension Rupture	62.2%	Pass
L49	37.83 - 32.83	Pole + Reinf.	TP36.847x35.822x0.65	Reinf. 6 Tension Rupture	63.5%	Pass
L50	32.83 - 29.25	Pole + Reinf.	TP37.582x36.847x0.6375	Reinf. 6 Tension Rupture	64.3%	Pass
L51	29.25 - 29	Pole + Reinf.	TP37.633x37.582x0.6375	Reinf. 5 Tension Rupture	64.4%	Pass
L52	29 - 27.75	Pole + Reinf.	TP37.89x37.633x0.6375	Reinf. 5 Tension Rupture	64.7%	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
L53	27.75 - 27.5	Pole + Reinf.	TP37.941x37.89x0.6375	Reinf. 5 Tension Rupture	64.7%	Pass
L54	27.5 - 24.08	Pole + Reinf.	TP38.642x37.941x0.6375	Reinf. 5 Tension Rupture	65.4%	Pass
L55	24.08 - 23.83	Pole + Reinf.	TP38.693x38.642x0.7	Reinf. 14 Tension Rupture	63.2%	Pass
L56	23.83 - 23.5	Pole + Reinf.	TP38.761x38.693x0.7	Reinf. 14 Tension Rupture	63.3%	Pass
L57	23.5 - 23.25	Pole + Reinf.	TP38.812x38.761x0.4438	Pole	69.7%	Pass
L58	23.25 - 18.92	Pole + Reinf.	TP39.701x38.812x0.4438	Pole	70.9%	Pass
L59	18.92 - 18.67	Pole + Reinf.	TP39.752x39.701x0.525	Reinf. 5 Tension Rupture	77.2%	Pass
L60	18.67 - 18.08	Pole + Reinf.	TP39.872x39.752x0.525	Reinf. 5 Tension Rupture	77.3%	Pass
L61	18.08 - 17.83	Pole + Reinf.	TP39.923x39.872x0.6625	Reinf. 1 Compression	66.8%	Pass
L62	17.83 - 14.08	Pole + Reinf.	TP40.692x39.923x0.65	Reinf. 1 Compression	67.4%	Pass
L63	14.08 - 13.83	Pole + Reinf.	TP40.743x40.692x0.625	Reinf. 1 Compression	68.0%	Pass
L64	13.83 - 8.83	Pole + Reinf.	TP41.769x40.743x0.625	Reinf. 1 Compression	68.7%	Pass
L65	8.83 - 3.83	Pole + Reinf.	TP42.794x41.769x0.6125	Reinf. 1 Compression	69.3%	Pass
L66	3.83 - 0	Pole + Reinf.	TP43.58x42.794x0.6125	Reinf. 1 Compression	69.8%	Pass
					Summary	
				Pole	70.9%	Pass
				Reinforcement	77.3%	Pass
				Overall	77.3%	Pass

**Table 5 - Tower Component Stresses vs. Capacity - LC7**

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	75.6	Pass
1	Base Plate	0	69.7	Pass
1	Base Foundation (Structure)	0	38.3	Pass
1	Base Foundation (Soil Interaction)	0	51.7	Pass

<b>Structure Rating (max from all components) =</b>	<b>77.3%</b>
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Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed. Rating per TIA-222-H Section 15.5.

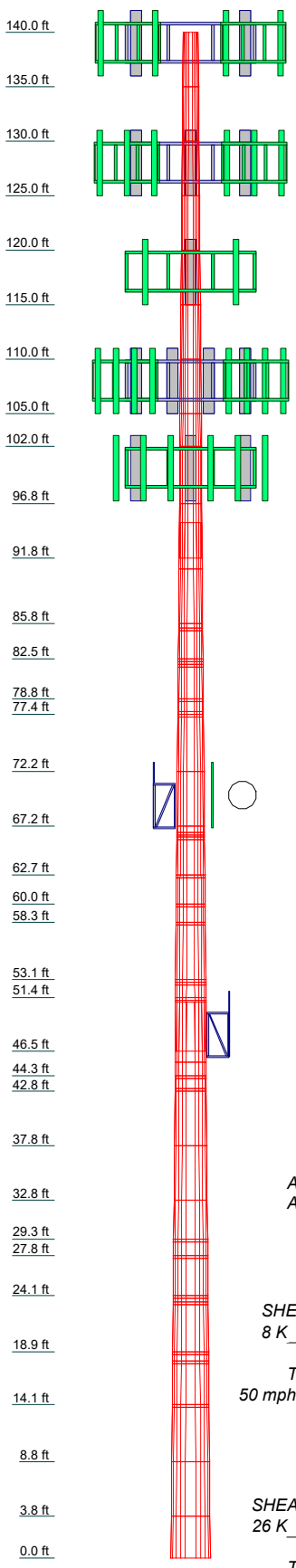
#### 4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

**APPENDIX A**  
**TNXTOWER OUTPUT**



Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.00	12	0.2500	3.25	16.0000	17.0249	A607-60	0.2
2	5.00	12	0.2500	3.25	17.0249	18.0497	A607-60	0.2
3	5.00	12	0.2500	3.25	18.0497	19.0746	A607-60	0.3
4	5.00	12	0.2500	3.25	19.0746	20.0995	A607-60	0.3
5	5.00	12	0.2500	3.25	20.0995	21.1244	A607-60	0.3
6	5.00	12	0.2500	3.25	21.1244	22.1492	A607-60	0.3
7	5.00	12	0.2500	3.25	22.1492	23.1741	A607-60	0.3
8	5.00	12	0.2500	3.25	23.1741	24.1989	A607-60	0.3
9	5.00	12	0.2500	3.25	24.1989	25.2238	A607-60	0.3
10	5.00	12	0.2500	3.25	25.2238	26.2486	A607-60	0.3
11	5.00	12	0.2500	3.25	26.2486	27.2735	A607-60	0.3
12	5.00	12	0.2500	3.25	27.2735	28.2983	A607-60	0.3
13	5.00	12	0.2500	3.25	28.2983	29.3232	A607-60	0.3
14	5.00	12	0.2500	3.25	29.3232	30.3480	A607-60	0.3
15	5.00	12	0.2500	3.25	30.3480	31.3729	A607-60	0.3
16	5.00	12	0.2500	3.25	31.3729	32.3977	A607-60	0.3
17	5.00	12	0.2500	3.25	32.3977	33.4226	A607-60	0.3
18	5.00	12	0.2500	3.25	33.4226	34.4474	A607-60	0.3
19	5.00	12	0.2500	3.25	34.4474	35.4723	A607-60	0.3
20	5.00	12	0.2500	3.25	35.4723	36.4971	A607-60	0.3
21	5.00	12	0.2500	3.25	36.4971	37.5220	A607-60	0.3
22	5.00	12	0.2500	3.25	37.5220	38.5468	A607-60	0.3
23	5.00	12	0.2500	3.25	38.5468	39.5717	A607-60	0.3
24	5.00	12	0.2500	3.25	39.5717	40.5965	A607-60	0.3
25	5.00	12	0.2500	3.25	40.5965	41.6214	A607-60	0.3
26	5.00	12	0.2500	3.25	41.6214	42.6462	A607-60	0.3
27	5.00	12	0.2500	3.25	42.6462	43.6711	A607-60	0.3
28	5.00	12	0.2500	3.25	43.6711	44.6959	A607-60	0.3
29	5.00	12	0.2500	3.25	44.6959	45.7208	A607-60	0.3
30	5.00	12	0.2500	3.25	45.7208	46.7456	A607-60	0.3
31	5.00	12	0.2500	3.25	46.7456	47.7705	A607-60	0.3
32	5.00	12	0.2500	3.25	47.7705	48.7953	A607-60	0.3
33	5.00	12	0.2500	3.25	48.7953	49.8202	A607-60	0.3
34	5.00	12	0.2500	3.25	49.8202	50.8450	A607-60	0.3
35	5.00	12	0.2500	3.25	50.8450	51.8699	A607-60	0.3
36	5.00	12	0.2500	3.25	51.8699	52.8947	A607-60	0.3
37	5.00	12	0.2500	3.25	52.8947	53.9196	A607-60	0.3
38	5.00	12	0.2500	3.25	53.9196	54.9444	A607-60	0.3
39	5.00	12	0.2500	3.25	54.9444	55.9693	A607-60	0.3
40	5.00	12	0.2500	3.25	55.9693	56.9941	A607-60	0.3
41	5.00	12	0.2500	3.25	56.9941	58.0190	A607-60	0.3
42	5.00	12	0.2500	3.25	58.0190	59.0438	A607-60	0.3
43	5.00	12	0.2500	3.25	59.0438	60.0687	A607-60	0.3
44	5.00	12	0.2500	3.25	60.0687	61.0935	A607-60	0.3
45	5.00	12	0.2500	3.25	61.0935	62.1184	A607-60	0.3
46	5.00	12	0.2500	3.25	62.1184	63.1432	A607-60	0.3
47	5.00	12	0.2500	3.25	63.1432	64.1681	A607-60	0.3
48	5.00	12	0.2500	3.25	64.1681	65.1929	A607-60	0.3
49	5.00	12	0.2500	3.25	65.1929	66.2178	A607-60	0.3
50	5.00	12	0.2500	3.25	66.2178	67.2426	A607-60	0.3
51	5.00	12	0.2500	3.25	67.2426	68.2675	A607-60	0.3
52	5.00	12	0.2500	3.25	68.2675	69.2923	A607-60	0.3
53	5.00	12	0.2500	3.25	69.2923	70.3172	A607-60	0.3
54	5.00	12	0.2500	3.25	70.3172	71.3420	A607-60	0.3
55	5.00	12	0.2500	3.25	71.3420	72.3669	A607-60	0.3
56	5.00	12	0.2500	3.25	72.3669	73.3917	A607-60	0.3
57	5.00	12	0.2500	3.25	73.3917	74.4166	A607-60	0.3
58	5.00	12	0.2500	3.25	74.4166	75.4414	A607-60	0.3
59	5.00	12	0.2500	3.25	75.4414	76.4663	A607-60	0.3
60	5.00	12	0.2500	3.25	76.4663	77.4911	A607-60	0.3
61	5.00	12	0.2500	3.25	77.4911	78.5160	A607-60	0.3
62	5.00	12	0.2500	3.25	78.5160	79.5408	A607-60	0.3
63	5.00	12	0.2500	3.25	79.5408	80.5657	A607-60	0.3
64	5.00	12	0.2500	3.25	80.5657	81.5905	A607-60	0.3
65	5.00	12	0.2500	3.25	81.5905	82.6154	A607-60	0.3
66	5.00	12	0.2500	3.25	82.6154	83.6402	A607-60	0.3
67	5.00	12	0.2500	3.25	83.6402	84.6651	A607-60	0.3
68	5.00	12	0.2500	3.25	84.6651	85.6899	A607-60	0.3
69	5.00	12	0.2500	3.25	85.6899	86.7148	A607-60	0.3
70	5.00	12	0.2500	3.25	86.7148	87.7396	A607-60	0.3
71	5.00	12	0.2500	3.25	87.7396	88.7645	A607-60	0.3
72	5.00	12	0.2500	3.25	88.7645	89.7893	A607-60	0.3
73	5.00	12	0.2500	3.25	89.7893	90.8142	A607-60	0.3
74	5.00	12	0.2500	3.25	90.8142	91.8390	A607-60	0.3
75	5.00	12	0.2500	3.25	91.8390	92.8639	A607-60	0.3
76	5.00	12	0.2500	3.25	92.8639	93.8887	A607-60	0.3
77	5.00	12	0.2500	3.25	93.8887	94.9136	A607-60	0.3
78	5.00	12	0.2500	3.25	94.9136	95.9384	A607-60	0.3
79	5.00	12	0.2500	3.25	95.9384	96.9633	A607-60	0.3
80	5.00	12	0.2500	3.25	96.9633	97.9881	A607-60	0.3
81	5.00	12	0.2500	3.25	97.9881	99.0130	A607-60	0.3
82	5.00	12	0.2500	3.25	99.0130	100.0378	A607-60	0.3
83	5.00	12	0.2500	3.25	100.0378	101.0627	A607-60	0.3
84	5.00	12	0.2500	3.25	101.0627	102.0875	A607-60	0.3
85	5.00	12	0.2500	3.25	102.0875	103.1124	A607-60	0.3
86	5.00	12	0.2500	3.25	103.1124	104.1372	A607-60	0.3
87	5.00	12	0.2500	3.25	104.1372	105.1621	A607-60	0.3
88	5.00	12	0.2500	3.25	105.1621	106.1869	A607-60	0.3
89	5.00	12	0.2500	3.25	106.1869	107.2118	A607-60	0.3
90	5.00	12	0.2500	3.25	107.2118	108.2366	A607-60	0.3
91	5.00	12	0.2500	3.25	108.2366	109.2615	A607-60	0.3
92	5.00	12	0.2500	3.25	109.2615	110.2863	A607-60	0.3
93	5.00	12	0.2500	3.25	110.2863	111.3112	A607-60	0.3
94	5.00	12	0.2500	3.25	111.3112	112.3360	A607-60	0.3
95	5.00	12	0.2500	3.25	112.3360	113.3609	A607-60	0.3
96	5.00	12	0.2500	3.25	113.3609	114.3857	A607-60	0.3
97	5.00	12	0.2500	3.25	114.3857	115.4106	A607-60	0.3
98	5.00	12	0.2500	3.25	115.4106	116.4354	A607-60	0.3
99	5.00	12	0.2500	3.25	116.4354	117.4603	A607-60	0.3
100	5.00	12	0.2500	3.25	117.4603	118.4851	A607-60	0.3

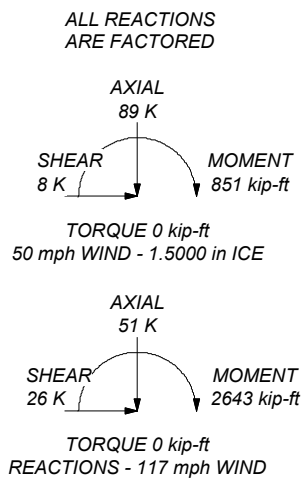


### MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A607-60	60 ksi	75 ksi	A607-65	65 ksi	80 ksi

### TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 117 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 77.3%



<b>Crown Castle</b> 2000 Corporate Drive Canonsburg, PA 15317 The Pathway to Possible Phone: (724) 416-2000 FAX:		Job: <b>BU 876335</b>	
		Project:	Client: Crown Castle
Code: TIA-222-H		Date: 04/22/22	Scale: NTS
Path:		Dwg No. E-1	

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## Tower Input Data

The tower is a monopole.  
 This tower is designed using the TIA-222-H standard.  
 The following design criteria apply:

- Tower base elevation above sea level: 414.00 ft.
- Basic wind speed of 117 mph.
- Risk Category II.
- Exposure Category B.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.5000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- TOWER RATING: 77.3%.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used:  $K_{es}(F_w) = 0.95$ ,  $K_{es}(t_i) = 0.85$ .
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification ✓ Use Code Stress Ratios ✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile  Include Bolts In Member Capacity  Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric	Distribute Leg Loads As Uniform Assume Legs Pinned ✓ Assume Rigid Index Plate ✓ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension ✓ Bypass Mast Stability Checks ✓ Use Azimuth Dish Coefficients ✓ Project Wind Area of Appurt.  Autocalc Torque Arm Areas  Add IBC .6D+W Combination ✓ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs	Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation ✓ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption  <div style="text-align: center; background-color: #e0e0e0; padding: 2px;"><b>Poles</b></div> ✓ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
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## Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	140.00-135.00	5.00	0.00	12	16.0000	17.0249	0.2500	1.0000	A607-60 (60 ksi)
L2	135.00-130.00	5.00	0.00	12	17.0249	18.0497	0.2500	1.0000	A607-60 (60 ksi)
L3	130.00-125.00	5.00	0.00	12	18.0497	19.0746	0.2500	1.0000	A607-60 (60 ksi)
L4	125.00-120.00	5.00	0.00	12	19.0746	20.0995	0.2500	1.0000	A607-60 (60 ksi)
L5	120.00-115.00	5.00	0.00	12	20.0995	21.1244	0.2500	1.0000	A607-60 (60 ksi)
L6	115.00-110.00	5.00	0.00	12	21.1244	22.1492	0.2500	1.0000	A607-60 (60 ksi)
L7	110.00-105.00	5.00	0.00	12	22.1492	23.1741	0.2500	1.0000	A607-60 (60 ksi)
L8	105.00-102.00	3.00	0.00	12	23.1741	23.7890	0.2500	1.0000	A607-60 (60 ksi)
L9	102.00-101.75	0.25	0.00	12	23.7890	23.8403	0.3875	1.5500	A607-60 (60 ksi)
L10	101.75-96.75	5.00	0.00	12	23.8403	24.8651	0.3750	1.5000	A607-60 (60 ksi)
L11	96.75-91.75	5.00	3.25	12	24.8651	25.8900	0.3750	1.5000	A607-60 (60 ksi)
L12	91.75-90.75	4.25	0.00	12	24.7238	25.5952	0.3563	1.4250	A607-65 (65 ksi)
L13	90.75-85.75	5.00	0.00	12	25.5952	26.6203	0.3563	1.4250	A607-65 (65 ksi)
L14	85.75-85.33	0.42	0.00	12	26.6203	26.7058	0.3563	1.4250	A607-65 (65 ksi)
L15	85.33-85.08	0.25	0.00	12	26.7058	26.7570	0.5500	2.2000	A607-65 (65 ksi)
L16	85.08-82.50	2.58	0.00	12	26.7570	27.2866	0.5437	2.1750	A607-65 (65 ksi)
L17	82.50-82.25	0.25	0.00	12	27.2866	27.3379	0.5375	2.1500	A607-65 (65 ksi)
L18	82.25-82.00	0.25	0.00	12	27.3379	27.3891	0.5375	2.1500	A607-65 (65 ksi)
L19	82.00-81.75	0.25	0.00	12	27.3891	27.4404	0.3563	1.4250	A607-65 (65 ksi)
L20	81.75-78.83	2.92	0.00	12	27.4404	28.0384	0.3563	1.4250	A607-65 (65 ksi)
L21	78.83-78.58	0.25	0.00	12	28.0384	28.0897	0.6125	2.4500	A607-65 (65 ksi)
L22	78.58-77.67	0.92	0.00	12	28.0897	28.2775	0.6125	2.4500	A607-65 (65 ksi)
L23	77.67-77.42	0.25	0.00	12	28.2775	28.3287	0.5500	2.2000	A607-65 (65 ksi)
L24	77.42-77.17	0.25	0.00	12	28.3287	28.3800	0.5500	2.2000	A607-65 (65 ksi)
L25	77.17-72.17	5.00	0.00	12	28.3800	29.4055	0.5375	2.1500	A607-65 (65 ksi)
L26	72.17-67.17	5.00	0.00	12	29.4055	30.4311	0.5250	2.1000	A607-65 (65 ksi)
L27	67.17-66.58	0.58	0.00	12	30.4311	30.5508	0.5250	2.1000	A607-65 (65 ksi)
L28	66.58-66.33	0.25	0.00	12	30.5508	30.6021	0.6250	2.5000	A607-65 (65 ksi)
L29	66.33-66.17	0.17	0.00	12	30.6021	30.6362	0.6250	2.5000	A607-65 (65 ksi)
L30	66.17-65.92	0.25	0.00	12	30.6362	30.6874	0.5125	2.0500	A607-65 (65 ksi)
L31	65.92-62.67	3.25	0.00	12	30.6874	31.3540	0.5125	2.0500	A607-65 (65 ksi)
L32	62.67-62.42	0.25	0.00	12	31.3540	31.4053	0.5125	2.0500	A607-65 (65 ksi)
L33	62.42-60.00	2.42	0.00	12	31.4053	31.9011	0.5062	2.0250	A607-65 (65 ksi)
L34	60.00-59.75	0.25	0.00	12	31.9011	31.9523	0.5000	2.0000	A607-65 (65 ksi)
L35	59.75-58.33	1.42	0.00	12	31.9523	32.2430	0.5000	2.0000	A607-65

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L36	58.33-58.08	0.25	0.00	12	32.2430	32.2943	0.5000	2.0000	(65 ksi) A607-65
L37	58.08-53.08	5.00	0.00	12	32.2943	33.3198	0.5000	2.0000	(65 ksi) A607-65
L38	53.08-52.83	0.25	0.00	12	33.3198	33.3711	0.5000	2.0000	(65 ksi) A607-65
L39	52.83-52.58	0.25	0.00	12	33.3711	33.4223	0.6875	2.7500	(65 ksi) A607-65
L40	52.58-51.42	1.17	0.00	12	33.4223	33.6615	0.6875	2.7500	(65 ksi) A607-65
L41	51.42-51.17	0.25	0.00	12	33.6615	33.7128	0.5062	2.0250	(65 ksi) A607-65
L42	51.17-46.50	4.67	4.50	12	33.7128	34.6700	0.5062	2.0250	(65 ksi) A607-65
L43	46.50-45.50	5.50	0.00	12	33.1220	34.2498	0.5500	2.2000	(65 ksi) A607-65
L44	45.50-44.25	1.25	0.00	12	34.2498	34.5062	0.5500	2.2000	(65 ksi) A607-65
L45	44.25-44.00	0.25	0.00	12	34.5062	34.5574	0.6250	2.5000	(65 ksi) A607-65
L46	44.00-43.08	0.92	0.00	12	34.5574	34.7455	0.6250	2.5000	(65 ksi) A607-65
L47	43.08-42.83	0.25	0.00	12	34.7455	34.7967	0.6625	2.6500	(65 ksi) A607-65
L48	42.83-37.83	5.00	0.00	12	34.7967	35.8220	0.6625	2.6500	(65 ksi) A607-65
L49	37.83-32.83	5.00	0.00	12	35.8220	36.8473	0.6500	2.6000	(65 ksi) A607-65
L50	32.83-29.25	3.58	0.00	12	36.8473	37.5820	0.6375	2.5500	(65 ksi) A607-65
L51	29.25-29.00	0.25	0.00	12	37.5820	37.6333	0.6375	2.5500	(65 ksi) A607-65
L52	29.00-27.75	1.25	0.00	12	37.6333	37.8896	0.6375	2.5500	(65 ksi) A607-65
L53	27.75-27.50	0.25	0.00	12	37.8896	37.9409	0.6375	2.5500	(65 ksi) A607-65
L54	27.50-24.08	3.42	0.00	12	37.9409	38.6416	0.6375	2.5500	(65 ksi) A607-65
L55	24.08-23.83	0.25	0.00	12	38.6416	38.6928	0.7000	2.8000	(65 ksi) A607-65
L56	23.83-23.50	0.33	0.00	12	38.6928	38.7611	0.7000	2.8000	(65 ksi) A607-65
L57	23.50-23.25	0.25	0.00	12	38.7611	38.8124	0.4437	1.7750	(65 ksi) A607-65
L58	23.25-18.92	4.33	0.00	12	38.8124	39.7009	0.4437	1.7750	(65 ksi) A607-65
L59	18.92-18.67	0.25	0.00	12	39.7009	39.7522	0.5250	2.1000	(65 ksi) A607-65
L60	18.67-18.08	0.58	0.00	12	39.7522	39.8719	0.5250	2.1000	(65 ksi) A607-65
L61	18.08-17.83	0.25	0.00	12	39.8719	39.9232	0.6625	2.6500	(65 ksi) A607-65
L62	17.83-14.08	3.75	0.00	12	39.9232	40.6922	0.6500	2.6000	(65 ksi) A607-65
L63	14.08-13.83	0.25	0.00	12	40.6922	40.7434	0.6250	2.5000	(65 ksi) A607-65
L64	13.83-8.83	5.00	0.00	12	40.7434	41.7687	0.6250	2.5000	(65 ksi) A607-65
L65	8.83-3.83	5.00	0.00	12	41.7687	42.7940	0.6125	2.4500	(65 ksi) A607-65
L66	3.83-0.00	3.83		12	42.7940	43.5800	0.6125	2.4500	(65 ksi) A607-65

**Tapered Pole Properties**

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	It/Q in <sup>2</sup>	w in	w/t
L1	16.4762	12.6788	401.4426	5.6385	8.2880	48.4366	813.4316	6.2401	3.6180	14.472
	17.5373	13.5038	485.0197	6.0054	8.8189	54.9979	982.7814	6.6461	3.8927	15.571
L2	17.5373	13.5038	485.0197	6.0054	8.8189	54.9979	982.7814	6.6461	3.8927	15.571
	18.5983	14.3288	579.4592	6.3723	9.3498	61.9758	1174.1415	7.0522	4.1673	16.669
L3	18.5983	14.3288	579.4592	6.3723	9.3498	61.9758	1174.1415	7.0522	4.1673	16.669
	19.6593	15.1538	685.4249	6.7392	9.8806	69.3704	1388.8567	7.4582	4.4420	17.768
L4	19.6593	15.1538	685.4249	6.7392	9.8806	69.3704	1388.8567	7.4582	4.4420	17.768
	20.7203	15.9788	803.5804	7.1061	10.4115	77.1818	1628.2718	7.8643	4.7167	18.867
L5	20.7203	15.9788	803.5804	7.1061	10.4115	77.1818	1628.2718	7.8643	4.7167	18.867
	21.7813	16.8039	934.5894	7.4730	10.9424	85.4098	1893.7315	8.2703	4.9913	19.965
L6	21.7813	16.8039	934.5894	7.4730	10.9424	85.4098	1893.7315	8.2703	4.9913	19.965
	22.8424	17.6289	1079.1155	7.8399	11.4733	94.0545	2186.5806	8.6764	5.2660	21.064
L7	22.8424	17.6289	1079.1155	7.8399	11.4733	94.0545	2186.5806	8.6764	5.2660	21.064
	23.9034	18.4539	1237.8224	8.2068	12.0042	103.1159	2508.1637	9.0824	5.5407	22.163
L8	23.9034	18.4539	1237.8224	8.2068	12.0042	103.1159	2508.1637	9.0824	5.5407	22.163
	24.5400	18.9489	1340.1293	8.4270	12.3227	108.7528	2715.4654	9.3261	5.7055	22.822
L9	24.5400	18.9489	1340.1293	8.4270	12.3227	108.7528	2715.4654	9.3261	5.7055	22.822
	24.4915	29.1992	2041.0116	8.3777	12.3227	165.6301	4135.6429	14.3710	5.3370	13.773
L10	24.5446	29.2632	2054.4490	8.3961	12.3493	166.3622	4162.8706	14.4024	5.3507	13.808
	24.5490	28.3343	1991.3571	8.4006	12.3493	161.2532	4035.0294	13.9453	5.3842	14.358
L11	25.6100	29.5718	2263.8432	8.7675	12.8801	175.7623	4587.1600	14.5544	5.6589	15.09
	25.6100	29.5718	2263.8432	8.7675	12.8801	175.7623	4587.1600	14.5544	5.6589	15.09
L12	26.6710	30.8094	2560.1170	9.1344	13.4110	190.8965	5187.4911	15.1634	5.9335	15.823
	26.1602	27.9527	2118.5276	8.7236	12.8069	165.4202	4292.7112	13.7575	5.6712	15.919
L13	26.3724	28.9522	2354.0165	9.0355	13.2583	177.5504	4769.8756	14.2494	5.9048	16.575
	26.3724	28.9522	2354.0165	9.0355	13.2583	177.5504	4769.8756	14.2494	5.9048	16.575
L14	27.4337	30.1281	2652.6588	9.4025	13.7893	192.3707	5375.0059	14.8282	6.1795	17.346
	27.4337	30.1281	2652.6588	9.4025	13.7893	192.3707	5375.0059	14.8282	6.1795	17.346
L15	27.5222	30.2262	2678.6479	9.4331	13.8336	193.6335	5427.6669	14.8764	6.2024	17.41
	27.4538	46.3219	4044.9007	9.3638	13.8336	292.3969	8196.0654	22.7982	5.6832	10.333
L16	27.5069	46.4127	4068.7268	9.3821	13.8601	293.5558	8244.3436	22.8429	5.6969	10.358
	27.5091	45.8962	4025.3699	9.3844	13.8601	290.4276	8156.4907	22.5887	5.7136	10.508
L17	28.0574	46.8234	4274.2990	9.5739	14.1345	302.4026	8660.8885	23.0451	5.8556	10.769
	28.0596	46.2960	4228.1321	9.5762	14.1345	299.1363	8567.3420	22.7855	5.8723	10.925
L18	28.1126	46.3847	4252.4841	9.5945	14.1610	300.2951	8616.6857	22.8292	5.8860	10.951
	28.1126	46.3847	4252.4841	9.5945	14.1610	300.2951	8616.6857	22.8292	5.8860	10.951
L19	28.1657	46.4735	4276.9294	9.6129	14.1876	301.4561	8666.2184	22.8728	5.8998	10.976
	28.2296	31.0101	2892.5007	9.6778	14.1876	203.8757	5860.9906	15.2622	6.3855	17.924
L20	28.2827	31.0689	2908.9849	9.6961	14.2141	204.6546	5894.3920	15.2912	6.3993	17.963
	28.2827	31.0689	2908.9849	9.6961	14.2141	204.6546	5894.3920	15.2912	6.3993	17.963
L21	28.9018	31.7549	3105.9730	9.9102	14.5239	213.8524	6293.5434	15.6288	6.5595	18.413
	28.8115	54.0908	5193.1651	9.8185	14.5239	357.5598	10522.760	26.6218	5.8728	9.588
L22	28.8645	54.1919	5222.3356	9.8368	14.5505	358.9121	10581.867	26.6716	5.8865	9.611
	28.8645	54.1919	5222.3356	9.8368	14.5505	358.9121	10581.867	26.6716	5.8865	9.611
L23	29.0589	54.5623	5330.1497	9.9041	14.6477	363.8889	10800.328	26.8539	5.9369	9.693
	29.0810	49.1054	4818.7692	9.9264	14.6477	328.9770	9764.1328	24.1682	6.1044	11.099
L24	29.1341	49.1962	4845.5418	9.9448	14.6743	330.2062	9818.3814	24.2129	6.1181	11.124
	29.1341	49.1962	4845.5418	9.9448	14.6743	330.2062	9818.3814	24.2129	6.1181	11.124
L25	29.1871	49.2869	4872.4134	9.9631	14.7008	331.4378	9872.8306	24.2575	6.1318	11.149
	29.1915	48.1884	4768.0958	9.9676	14.7008	324.3417	9661.4548	23.7169	6.1653	11.47
L26	30.2532	49.9633	5314.6154	10.3348	15.2321	348.9097	10768.851	24.5904	6.4402	11.982
	30.2576	48.8225	5197.7658	10.3392	15.2321	341.2384	10532.082	24.0290	6.4737	12.331
L27	31.3194	50.5562	5771.3702	10.7064	15.7633	366.1272	11694.360	24.8822	6.7485	12.854
	31.3194	50.5562	5771.3702	10.7064	15.7633	366.1272	11694.360	24.8822	6.7485	12.854
L28	31.4434	50.7587	5840.9962	10.7493	15.8253	369.0914	11835.441	24.9819	6.7806	12.915
	31.4081	60.2258	6884.3222	10.7135	15.8253	435.0189	13949.503	29.6413	6.5126	10.42
L29	31.4612	60.3290	6919.7708	10.7318	15.8519	436.5263	14021.331	29.6921	6.5264	10.442
	31.4612	60.3290	6919.7708	10.7318	15.8519	436.5263	14021.331	29.6921	6.5264	10.442

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	It/Q in <sup>2</sup>	w in	w/t
	31.4964	60.3975	6943.3758	10.7440	15.8695	437.5286	14069.161	29.7258	6.5355	10.457
L30	31.5361	49.7116	5757.8372	10.7843	15.8695	362.8233	11666.939	24.4665	6.8370	13.34
	31.5892	49.7962	5787.2904	10.8026	15.8961	364.0699	11726.619	24.5082	6.8507	13.367
L31	31.5892	49.7962	5787.2904	10.8026	15.8961	364.0699	11726.619	24.5082	6.8507	13.367
	32.2793	50.8963	6179.3674	11.0413	16.2414	380.4702	12521.073	25.0496	7.0294	13.716
L32	32.2793	50.8963	6179.3674	11.0413	16.2414	380.4702	12521.073	25.0496	7.0294	13.716
	32.3324	50.9809	6210.2398	11.0596	16.2680	381.7468	12583.629	25.0912	7.0431	13.743
L33	32.3346	50.3693	6138.2292	11.0619	16.2680	377.3202	12437.716	24.7903	7.0599	13.945
	32.8478	51.1775	6438.4384	11.2393	16.5248	389.6239	13046.021	25.1880	7.1927	14.208
L34	32.8500	50.5557	6362.7501	11.2416	16.5248	385.0436	12892.656	24.8820	7.2095	14.419
	32.9031	50.6383	6393.9713	11.2599	16.5513	386.3121	12955.919	24.9226	7.2232	14.446
L35	32.9031	50.6383	6393.9713	11.2599	16.5513	386.3121	12955.919	24.9226	7.2232	14.446
	33.2040	51.1062	6572.8650	11.3640	16.7019	393.5409	13318.406	25.1529	7.3011	14.602
L36	33.2040	51.1062	6572.8650	11.3640	16.7019	393.5409	13318.406	25.1529	7.3011	14.602
	33.2571	51.1887	6604.7693	11.3823	16.7284	394.8232	13383.053	25.1935	7.3149	14.63
L37	33.2571	51.1887	6604.7693	11.3823	16.7284	394.8232	13383.053	25.1935	7.3149	14.63
	34.3188	52.8399	7264.7218	11.7495	17.2596	420.9079	14720.295	26.0062	7.5897	15.179
L38	34.3188	52.8399	7264.7218	11.7495	17.2596	420.9079	14720.295	26.0062	7.5897	15.179
	34.3719	52.9224	7298.8255	11.7678	17.2862	422.2340	14789.399	26.0468	7.6034	15.207
L39	34.3057	72.3532	9865.1256	11.7007	17.2862	570.6934	19989.419	35.6101	7.1009	10.329
	34.3588	72.4667	9911.6301	11.7191	17.3128	572.5040	20083.649	35.6659	7.1147	10.349
L40	34.3588	72.4667	9911.6301	11.7191	17.3128	572.5040	20083.649	35.6659	7.1147	10.349
	34.6064	72.9962	10130.458	11.8047	17.4367	580.9864	20527.054	35.9265	7.1788	10.442
L41	34.6704	54.0472	7583.3909	11.8696	17.4367	434.9109	15366.006	26.6004	7.6645	15.14
	34.7234	54.1308	7618.6299	11.8879	17.4632	436.2673	15437.409	26.6415	7.6783	15.167
L42	34.7234	54.1308	7618.6299	11.8879	17.4632	436.2673	15437.409	26.6415	7.6783	15.167
	35.7144	55.6912	8296.6633	12.2306	17.9591	461.9765	16811.289	27.4095	7.9348	15.674
L43	35.0517	57.6850	7811.5753	11.6608	17.1572	455.2941	15828.369	28.3908	7.4027	13.459
	35.2640	59.6824	8651.4343	12.0645	17.7414	487.6405	17530.151	29.3739	7.7050	14.009
L44	35.2640	59.6824	8651.4343	12.0645	17.7414	487.6405	17530.151	29.3739	7.7050	14.009
	35.5294	60.1364	8850.3496	12.1563	17.8742	495.1468	17933.207	29.5973	7.7737	14.134
L45	35.5029	68.1858	9990.7215	12.1295	17.8742	558.9467	20243.910	33.5590	7.5727	12.116
	35.5560	68.2890	10036.140	12.1478	17.9007	560.6548	20335.940	33.6098	7.5864	12.138
L46	35.5560	68.2890	10036.140	12.1478	17.9007	560.6548	20335.940	33.6098	7.5864	12.138
	35.7507	68.6674	10203.914	12.2151	17.9982	566.9423	20675.896	33.7960	7.6368	12.219

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	It/Q in <sup>2</sup>	w in	w/t
L47	35.7375	72.7075	10780.525 7	12.2017	17.9982	598.9796	21844.267 8	35.7844	7.5363	11.376
	35.7905	72.8169	10829.244 2	12.2201	18.0247	600.8000	21942.984 8	35.8382	7.5500	11.396
L48	35.7905	72.8169	10829.244 2	12.2201	18.0247	600.8000	21942.984 8	35.8382	7.5500	11.396
	36.8520	75.0041	11834.685 0	12.5871	18.5558	637.7887	23980.280 4	36.9147	7.8248	11.811
L49	36.8564	73.6150	11623.777 8	12.5916	18.5558	626.4226	23552.925 2	36.2311	7.8583	12.09
	37.9179	75.7610	12670.225 0	12.9586	19.0869	663.8175	25673.310 8	37.2873	8.1331	12.512
L50	37.9223	74.3297	12439.445 0	12.9631	19.0869	651.7265	25205.688 1	36.5828	8.1666	12.81
	38.6829	75.8379	13212.130 4	13.2261	19.4675	678.6764	26771.358 1	37.3251	8.3635	13.119
L51	38.6829	75.8379	13212.130 4	13.2261	19.4675	678.6764	26771.358 1	37.3251	8.3635	13.119
	38.7360	75.9431	13267.206 6	13.2445	19.4941	680.5771	26882.957 4	37.3769	8.3772	13.141
L52	38.7360	75.9431	13267.206 6	13.2445	19.4941	680.5771	26882.957 4	37.3769	8.3772	13.141
	39.0013	76.4693	13544.884 5	13.3363	19.6268	690.1209	27445.608 2	37.6359	8.4459	13.249
L53	39.0013	76.4693	13544.884 5	13.3363	19.6268	690.1209	27445.608 2	37.6359	8.4459	13.249
	39.0544	76.5745	13600.881 0	13.3546	19.6534	692.0377	27559.072 2	37.6877	8.4597	13.27
L54	39.0544	76.5745	13600.881 0	13.3546	19.6534	692.0377	27559.072 2	37.6877	8.4597	13.27
	39.7798	78.0129	14381.779 3	13.6055	20.0163	718.5020	29141.384 0	38.3956	8.6474	13.565
L55	39.7578	85.5203	15713.974 3	13.5831	20.0163	785.0574	31840.772 1	42.0905	8.4799	12.114
	39.8108	85.6359	15777.756 0	13.6014	20.0429	787.1995	31970.011 2	42.1474	8.4937	12.134
L56	39.8108	85.6359	15777.756 0	13.6014	20.0429	787.1995	31970.011 2	42.1474	8.4937	12.134
	39.8815	85.7898	15862.980 9	13.6259	20.0783	790.0574	32142.700 1	42.2231	8.5120	12.16
L57	39.9719	54.7507	10260.476 1	13.7176	20.0783	511.0241	20790.506 3	26.9467	9.1987	20.73
	40.0250	54.8240	10301.713 5	13.7360	20.1048	512.4002	20874.064 5	26.9827	9.2125	20.76
L58	40.0250	54.8240	10301.713 5	13.7360	20.1048	512.4002	20874.064 5	26.9827	9.2125	20.76
	40.9449	56.0936	11034.097 6	14.0541	20.5651	536.5456	22358.073 3	27.6076	9.4506	21.297
L59	40.9162	66.2269	12973.537 3	14.0250	20.5651	630.8530	26287.903 9	32.5949	9.2328	17.586
	40.9693	66.3135	13024.534 5	14.0433	20.5916	632.5161	26391.238 0	32.6375	9.2466	17.613
L60	40.9693	66.3135	13024.534 5	14.0433	20.5916	632.5161	26391.238 0	32.6375	9.2466	17.613
	41.0933	66.5160	13144.184 3	14.0862	20.6537	636.4095	26633.681 0	32.7371	9.2787	17.674
L61	41.0448	83.6435	16413.426 2	14.0370	20.6537	794.6982	33258.051 5	41.1668	8.9102	13.449
	41.0978	83.7529	16477.890 0	14.0553	20.6802	796.7949	33388.672 4	41.2206	8.9239	13.47
L62	41.1022	82.1988	16182.433 2	14.0598	20.6802	782.5080	32789.997 0	40.4557	8.9574	13.781
	41.8983	83.8082	17151.722 6	14.3351	21.0785	813.7054	34754.040 1	41.2479	9.1635	14.098
L63	41.9072	80.6352	16522.950 3	14.3440	21.0785	783.8755	33479.976 9	39.6862	9.2305	14.769
	41.9602	80.7383	16586.453 2	14.3624	21.1051	785.8981	33608.651 0	39.7370	9.2442	14.791
L64	41.9602	80.7383	16586.453 2	14.3624	21.1051	785.8981	33608.651 0	39.7370	9.2442	14.791

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	It/Q in <sup>2</sup>	w in	w/t
	43.0217	82.8017	17890.9118	14.7295	21.6362	826.8973	36251.8379	40.7525	9.5190	15.23
L65	43.0261	81.1704	17549.0788	14.7339	21.6362	811.0981	35559.1915	39.9496	9.5525	15.596
	44.0876	83.1925	18893.5826	15.1010	22.1673	852.3178	38283.5206	40.9448	9.8273	16.045
L66	44.0876	83.1925	18893.5826	15.1010	22.1673	852.3178	38283.5206	40.9448	9.8273	16.045
	44.9013	84.7427	19969.5451	15.3824	22.5744	884.6087	40463.7124	41.7078	10.0379	16.388

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A <sub>r</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft <sup>2</sup>	in					in	in	in
L1 140.00-135.00				1	1	1			
L2 135.00-130.00				1	1	1			
L3 130.00-125.00				1	1	1			
L4 125.00-120.00				1	1	1			
L5 120.00-115.00				1	1	1			
L6 115.00-110.00				1	1	1			
L7 110.00-105.00				1	1	1			
L8 105.00-102.00				1	1	1			
L9 102.00-101.75				1	1	0.948725			
L10 101.75-96.75				1	1	0.966722			
L11 96.75-91.75				1	1	0.96239			
L12 91.75-90.75				1	1	1.29378			
L13 90.75-85.75				1	1	1.27752			
L14 85.75-85.33				1	1	1.27623			
L15 85.33-85.08				1	1	0.95826			
L16 85.08-82.50				1	1	0.961234			
L17 82.50-82.25				1	1	0.971437			
L18 82.25-82.00				1	1	0.970692			
L19 82.00-81.75				1	1	1.2654			
L20 81.75-78.83				1	1	1.25702			
L21 78.83-78.58				1	1	1.00733			
L22 78.58-77.67				1	1	1.00395			
L23 77.67-77.42				1	1	0.995629			
L24 77.42-77.17				1	1	0.994842			
L25 77.17-72.17				1	1	1.00203			
L26 72.17-67.17				1	1	1.01069			
L27 67.17-				1	1	1.00903			



Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_r$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
66.58									
L28 66.58-66.33				1	1	0.931987			
L29 66.33-66.17				1	1	0.931497			
L30 66.17-65.92				1	1	0.954673			
L31 65.92-62.67				1	1	0.947218			
L32 62.67-62.42				1	1	0.946658			
L33 62.42-60.00				1	1	0.952769			
L34 60.00-59.75				1	1	0.963933			
L35 59.75-58.33				1	1	0.96083			
L36 58.33-58.08				1	1	0.960288			
L37 58.08-53.08				1	1	0.949811			
L38 53.08-52.83				1	1	0.949304			
L39 52.83-52.58				1	1	1.01114			
L40 52.58-51.42				1	1	1.0071			
L41 51.42-51.17				1	1	1.04547			
L42 51.17-46.50				1	1	1.04503			
L43 46.50-45.50				1	1	0.969769			
L44 45.50-44.25				1	1	0.967596			
L45 44.25-44.00				1	1	1.11182			
L46 44.00-43.08				1	1	1.109			
L47 43.08-42.83				1	1	0.968948			
L48 42.83-37.83				1	1	0.957199			
L49 37.83-32.83				1	1	0.963977			
L50 32.83-29.25				1	1	0.974697			
L51 29.25-29.00				1	1	0.974162			
L52 29.00-27.75				1	1	0.971506			
L53 27.75-27.50				1	1	0.97098			
L54 27.50-24.08				1	1	0.963923			
L55 24.08-23.83				1	1	0.944912			
L56 23.83-23.50				1	1	0.944178			
L57 23.50-23.25				1	1	1.30461			
L58 23.25-18.92				1	1	1.29421			
L59 18.92-18.67				1	1	0.972987			
L60 18.67-18.08				1	1	0.9722			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A <sub>r</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
L61 18.08-17.83				1	1	1.00512			
L62 17.83-14.08				1	1	1.01553			
L63 14.08-13.83				1	1	0.984835			
L64 13.83-8.83				1	1	0.975245			
L65 8.83-3.83				1	1	0.985546			
L66 3.83-0.00				1	1	0.978717			

**Feed Line/Linear Appurtenances - Entered As Round Or Flat**

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight pif
**100** MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	A	No	Surface Ar (CaAa)	100.00 - 0.00	4	4	0.200 0.350	1.6250		1.07
**70** 9207(5/16")	B	No	Surface Ar (CaAa)	70.00 - 0.00	2	1	0.150 0.180	0.3300		0.60
**118** CU12PSM9P6XXX(1- 1/2)	C	No	Surface Ar (CaAa)	118.00 - 0.00	1	1	-0.500 -0.450	1.6000		2.35
*** **RF 4456376** (Area) CCI-65FP- 065125 (H)	C	No	Surface Af (CaAa)	30.50 - 0.50	1	1	0.500 0.500	6.5000	15.5000	0.00
(Area) CCI-65FP- 060100 (H)	A	No	Surface Af (CaAa)	46.50 - 21.50	1	1	0.250 0.250	6.0000	14.0000	0.00
(Area) CCI-65FP- 060100 (H)	C	No	Surface Af (CaAa)	46.50 - 21.50	1	1	0.250 0.250	6.0000	14.0000	0.00
(Area) CCI-65FP- 060100 (H)	A	No	Surface Af (CaAa)	62.00 - 47.00	1	1	0.000 0.000	6.0000	14.0000	0.00
(Area) CCI-65FP- 060100 (H)	A	No	Surface Af (CaAa)	84.50 - 64.50	1	1	0.000 0.000	6.0000	14.0000	0.00
(Area) CCI-65FP- 060100 (H)	C	No	Surface Af (CaAa)	84.50 - 64.50	1	1	0.000 0.000	6.0000	14.0000	0.00
(Area) CCI-65FP- 060100 (H)	A	No	Surface Af (CaAa)	95.00 - 80.00	1	1	-0.250 -0.250	6.0000	14.0000	0.00
(Area) CCI-65FP- 060100 (H)	C	No	Surface Af (CaAa)	95.00 - 80.00	1	1	-0.250 -0.250	6.0000	14.0000	0.00
*** ** **RF 3672042** (Area) Aero MP3-05 (H)	B	No	Surface Af (CaAa)	26.50 - 16.50	1	1	0.250 0.250	5.3300	14.8400	0.00
(Area) Aero MP3-03 (H)	A	No	Surface Af (CaAa)	86.50 - 61.50	1	1	0.250 0.250	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	C	No	Surface Af (CaAa)	86.50 - 76.50	1	1	0.250 0.250	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	B	No	Surface Af (CaAa)	86.50 - 76.50	1	1	0.250 0.250	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	A	No	Surface Af (CaAa)	103.17 - 93.17	1	1	0.000 0.000	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	B	No	Surface Af (CaAa)	103.17 - 93.17	1	1	0.000 0.000	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	C	No	Surface Af (CaAa)	103.17 - 93.17	1	1	0.000 0.000	4.0600	11.2600	0.00

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
<b>**RF 3262310**</b>										
(Area) Aero MP3-05 (H)	A	No	Surface Af (CaAa)	52.25 - 40.25	1	1	0.500 0.500	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	B	No	Surface Af (CaAa)	52.25 - 40.25	1	1	0.500 0.500	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	C	No	Surface Af (CaAa)	52.25 - 40.25	1	1	0.500 0.500	5.3300	14.8400	0.00
(Area) Aero MP3-03 (H)	A	No	Surface Af (CaAa)	80.00 - 65.00	1	1	0.500 0.500	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	B	No	Surface Af (CaAa)	80.00 - 65.00	1	1	0.500 0.500	4.0600	11.2600	0.00
(Area) Aero MP3-03 (H)	C	No	Surface Af (CaAa)	80.00 - 65.00	1	1	0.500 0.500	4.0600	11.2600	0.00
<b>**RF 2397525**</b>										
(Area) Aero MP3-05 (H)	B	No	Surface Af (CaAa)	20.50 - 0.50	1	1	0.500 0.500	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	C	No	Surface Af (CaAa)	20.50 - 0.50	1	1	0.000 0.000	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	A	No	Surface Af (CaAa)	45.50 - 0.50	1	1	-0.250 -0.250	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	B	No	Surface Af (CaAa)	45.50 - 0.50	1	1	-0.250 -0.250	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	C	No	Surface Af (CaAa)	46.67 - 11.67	1	1	-0.250 -0.250	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	A	No	Surface Af (CaAa)	69.00 - 49.00	1	1	-0.250 -0.250	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	B	No	Surface Af (CaAa)	69.00 - 49.00	1	1	-0.250 -0.250	5.3300	14.8400	0.00
(Area) Aero MP3-05 (H)	C	No	Surface Af (CaAa)	69.00 - 49.00	1	1	-0.250 -0.250	5.3300	14.8400	0.00
***										
***										

### Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		CAAA ft <sup>2</sup> /ft	Weight plf
<b>**139**</b>									
HB114-1-08U4-M5J(1 1/4")	B	No	No	Inside Pole	139.00 - 0.00	3	No Ice	0.00	1.08
							1/2" Ice	0.00	1.08
							1" Ice	0.00	1.08
							2" Ice	0.00	1.08
<b>**128**</b>									
PWRT-608-S(13/16")	B	No	No	Inside Pole	130.00 - 0.00	6	No Ice	0.00	0.62
							1/2" Ice	0.00	0.62
							1" Ice	0.00	0.62
							2" Ice	0.00	0.62
LDF5-50A(7/8")	A	No	No	Inside Pole	130.00 - 0.00	2	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
FB-L98B-034-XXX(3/8)	B	No	No	Inside Pole	128.00 - 0.00	3	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
<b>**108**</b>									
LDF7-50A(1-5/8")	C	No	No	Inside Pole	108.00 - 0.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
HB158-1-08U8-S8J18( 1-5/8)	C	No	No	Inside Pole	108.00 - 0.00	2	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C <sub>AA</sub> ft <sup>2</sup> /ft	Weight plf
							1" Ice	0.00	1.30
							2" Ice	0.00	1.30
**49**									
LDF4-50A(1/2")	B	No	No	Inside Pole	49.00 - 0.00	1	No Ice	0.00	0.15
							1/2" Ice	0.00	0.15
							1" Ice	0.00	0.15
							2" Ice	0.00	0.15
5/16"	B	No	No	Inside Pole	49.00 - 0.00	1	No Ice	0.00	0.20
							1/2" Ice	0.00	0.20
							1" Ice	0.00	0.20
							2" Ice	0.00	0.20
***									
AM Detuner	A	No	No	CaAa (Out Of Face)	135.00 - 0.00	1	No Ice	0.03	1.00
							1/2" Ice	0.13	1.48
							1" Ice	0.23	2.56
							2" Ice	0.43	6.57
AM Detuner	B	No	No	CaAa (Out Of Face)	135.00 - 0.00	1	No Ice	0.03	1.00
							1/2" Ice	0.13	1.48
							1" Ice	0.23	2.56
							2" Ice	0.43	6.57
AM Detuner	C	No	No	CaAa (Out Of Face)	135.00 - 0.00	1	No Ice	0.03	1.00
							1/2" Ice	0.13	1.48
							1" Ice	0.23	2.56
							2" Ice	0.43	6.57
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**Feed Line/Linear Appurtenances Section Areas**

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L1	140.00-135.00	A	0.000	0.000	0.000	0.000	0
		B	0.000	0.000	0.000	0.000	0
		C	0.000	0.000	0.000	0.000	0
L2	135.00-130.00	A	0.000	0.000	0.000	0.140	0
		B	0.000	0.000	0.000	0.140	0
		C	0.000	0.000	0.000	0.140	0
L3	130.00-125.00	A	0.000	0.000	0.000	0.140	0
		B	0.000	0.000	0.000	0.140	0
		C	0.000	0.000	0.000	0.140	0
L4	125.00-120.00	A	0.000	0.000	0.000	0.140	0
		B	0.000	0.000	0.000	0.140	0
		C	0.000	0.000	0.000	0.140	0
L5	120.00-115.00	A	0.000	0.000	0.000	0.140	0
		B	0.000	0.000	0.000	0.140	0
		C	0.000	0.000	0.480	0.140	0
L6	115.00-110.00	A	0.000	0.000	0.000	0.140	0
		B	0.000	0.000	0.000	0.140	0
		C	0.000	0.000	0.800	0.140	0
L7	110.00-105.00	A	0.000	0.000	0.000	0.140	0
		B	0.000	0.000	0.000	0.140	0
		C	0.000	0.000	0.800	0.140	0
L8	105.00-102.00	A	0.000	0.000	0.790	0.084	0
		B	0.000	0.000	0.790	0.084	0
		C	0.000	0.000	1.270	0.084	0
L9	102.00-101.75	A	0.000	0.000	0.169	0.007	0

Tower Section	Tower Elevation	Face	A <sub>R</sub>	A <sub>F</sub>	C <sub>AA</sub> In Face	C <sub>AA</sub> Out Face	Weight
n	ft		ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	K
		B	0.000	0.000	0.169	0.007	0
		C	0.000	0.000	0.209	0.007	0
L10	101.75-96.75	A	0.000	0.000	5.496	0.140	0
		B	0.000	0.000	3.383	0.140	0
		C	0.000	0.000	4.183	0.140	0
L11	96.75-91.75	A	0.000	0.000	8.924	0.140	0
		B	0.000	0.000	2.424	0.140	0
		C	0.000	0.000	6.474	0.140	0
L12	91.75-90.75	A	0.000	0.000	1.650	0.028	0
		B	0.000	0.000	0.000	0.028	0
		C	0.000	0.000	1.160	0.028	0
L13	90.75-85.75	A	0.000	0.000	8.758	0.140	0
		B	0.000	0.000	0.507	0.140	0
		C	0.000	0.000	6.308	0.140	0
L14	85.75-85.33	A	0.000	0.000	0.970	0.012	0
		B	0.000	0.000	0.282	0.012	0
		C	0.000	0.000	0.766	0.012	0
L15	85.33-85.08	A	0.000	0.000	0.582	0.007	0
		B	0.000	0.000	0.169	0.007	0
		C	0.000	0.000	0.459	0.007	0
L16	85.08-82.50	A	0.000	0.000	8.010	0.072	0
		B	0.000	0.000	1.748	0.072	0
		C	0.000	0.000	6.744	0.072	0
L17	82.50-82.25	A	0.000	0.000	0.832	0.007	0
		B	0.000	0.000	0.169	0.007	0
		C	0.000	0.000	0.709	0.007	0
L18	82.25-82.00	A	0.000	0.000	0.832	0.007	0
		B	0.000	0.000	0.169	0.007	0
		C	0.000	0.000	0.709	0.007	0
L19	82.00-81.75	A	0.000	0.000	0.832	0.007	0
		B	0.000	0.000	0.169	0.007	0
		C	0.000	0.000	0.709	0.007	0
L20	81.75-78.83	A	0.000	0.000	9.327	0.082	0
		B	0.000	0.000	2.764	0.082	0
		C	0.000	0.000	7.897	0.082	0
L21	78.83-78.58	A	0.000	0.000	0.751	0.007	0
		B	0.000	0.000	0.338	0.007	0
		C	0.000	0.000	0.628	0.007	0
L22	78.58-77.67	A	0.000	0.000	2.751	0.026	0
		B	0.000	0.000	1.240	0.026	0
		C	0.000	0.000	2.302	0.026	0
L23	77.67-77.42	A	0.000	0.000	0.751	0.007	0
		B	0.000	0.000	0.338	0.007	0
		C	0.000	0.000	0.628	0.007	0
L24	77.42-77.17	A	0.000	0.000	0.751	0.007	0
		B	0.000	0.000	0.338	0.007	0
		C	0.000	0.000	0.628	0.007	0
L25	77.17-72.17	A	0.000	0.000	15.017	0.140	0
		B	0.000	0.000	3.835	0.140	0
		C	0.000	0.000	9.635	0.140	0
L26	72.17-67.17	A	0.000	0.000	16.645	0.140	0
		B	0.000	0.000	5.105	0.140	0
		C	0.000	0.000	10.812	0.140	0
L27	67.17-66.58	A	0.000	0.000	2.273	0.016	0
		B	0.000	0.000	0.933	0.016	0
		C	0.000	0.000	1.591	0.016	0
L28	66.58-66.33	A	0.000	0.000	0.973	0.007	0
		B	0.000	0.000	0.400	0.007	0
		C	0.000	0.000	0.681	0.007	0
L29	66.33-66.17	A	0.000	0.000	0.646	0.005	0
		B	0.000	0.000	0.265	0.005	0
		C	0.000	0.000	0.452	0.005	0
L30	66.17-65.92	A	0.000	0.000	0.973	0.007	0
		B	0.000	0.000	0.400	0.007	0
		C	0.000	0.000	0.681	0.007	0
L31	65.92-62.67	A	0.000	0.000	9.236	0.091	0
		B	0.000	0.000	3.615	0.091	0
		C	0.000	0.000	5.445	0.091	0
L32	62.67-62.42	A	0.000	0.000	0.554	0.007	0

Tower Section	Tower Elevation	Face	A <sub>R</sub>	A <sub>F</sub>	C <sub>AA</sub> In Face	C <sub>AA</sub> Out Face	Weight
n	ft		ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>	K
		B	0.000	0.000	0.230	0.007	0
		C	0.000	0.000	0.262	0.007	0
L33	62.42-60.00	A	0.000	0.000	6.339	0.068	0
		B	0.000	0.000	2.227	0.068	0
		C	0.000	0.000	2.534	0.068	0
L34	60.00-59.75	A	0.000	0.000	0.635	0.007	0
		B	0.000	0.000	0.230	0.007	0
		C	0.000	0.000	0.262	0.007	0
L35	59.75-58.33	A	0.000	0.000	3.597	0.040	0
		B	0.000	0.000	1.306	0.040	0
		C	0.000	0.000	1.485	0.040	0
L36	58.33-58.08	A	0.000	0.000	0.635	0.007	0
		B	0.000	0.000	0.230	0.007	0
		C	0.000	0.000	0.262	0.007	0
L37	58.08-53.08	A	0.000	0.000	12.692	0.140	0
		B	0.000	0.000	4.607	0.140	0
		C	0.000	0.000	5.242	0.140	0
L38	53.08-52.83	A	0.000	0.000	0.635	0.007	0
		B	0.000	0.000	0.230	0.007	0
		C	0.000	0.000	0.262	0.007	0
L39	52.83-52.58	A	0.000	0.000	0.635	0.007	0
		B	0.000	0.000	0.230	0.007	0
		C	0.000	0.000	0.262	0.007	0
L40	52.58-51.42	A	0.000	0.000	3.700	0.033	0
		B	0.000	0.000	1.814	0.033	0
		C	0.000	0.000	1.962	0.033	0
L41	51.42-51.17	A	0.000	0.000	0.857	0.007	0
		B	0.000	0.000	0.452	0.007	0
		C	0.000	0.000	0.484	0.007	0
L42	51.17-46.50	A	0.000	0.000	13.271	0.131	0
		B	0.000	0.000	6.225	0.131	0
		C	0.000	0.000	6.966	0.131	0
L43	46.50-45.50	A	0.000	0.000	2.538	0.028	0
		B	0.000	0.000	0.921	0.028	0
		C	0.000	0.000	2.937	0.028	0
L44	45.50-44.25	A	0.000	0.000	4.283	0.035	0
		B	0.000	0.000	2.262	0.035	0
		C	0.000	0.000	3.671	0.035	0
L45	44.25-44.00	A	0.000	0.000	0.857	0.007	0
		B	0.000	0.000	0.452	0.007	0
		C	0.000	0.000	0.734	0.007	0
L46	44.00-43.08	A	0.000	0.000	3.142	0.026	0
		B	0.000	0.000	1.659	0.026	0
		C	0.000	0.000	2.693	0.026	0
L47	43.08-42.83	A	0.000	0.000	0.857	0.007	0
		B	0.000	0.000	0.452	0.007	0
		C	0.000	0.000	0.734	0.007	0
L48	42.83-37.83	A	0.000	0.000	14.986	0.140	0
		B	0.000	0.000	6.901	0.140	0
		C	0.000	0.000	12.536	0.140	0
L49	37.83-32.83	A	0.000	0.000	12.692	0.140	0
		B	0.000	0.000	4.607	0.140	0
		C	0.000	0.000	10.242	0.140	0
L50	32.83-29.25	A	0.000	0.000	9.095	0.100	0
		B	0.000	0.000	3.301	0.100	0
		C	0.000	0.000	8.693	0.100	0
L51	29.25-29.00	A	0.000	0.000	0.635	0.007	0
		B	0.000	0.000	0.230	0.007	0
		C	0.000	0.000	0.783	0.007	0
L52	29.00-27.75	A	0.000	0.000	3.173	0.035	0
		B	0.000	0.000	1.152	0.035	0
		C	0.000	0.000	3.915	0.035	0
L53	27.75-27.50	A	0.000	0.000	0.635	0.007	0
		B	0.000	0.000	0.230	0.007	0
		C	0.000	0.000	0.783	0.007	0
L54	27.50-24.08	A	0.000	0.000	8.673	0.096	0
		B	0.000	0.000	5.151	0.096	0
		C	0.000	0.000	10.701	0.096	0
L55	24.08-23.83	A	0.000	0.000	0.635	0.007	0

Tower Section n	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
		B	0.000	0.000	0.437	0.007	0
		C	0.000	0.000	0.783	0.007	0
L56	23.83-23.50	A	0.000	0.000	0.845	0.009	0
		B	0.000	0.000	0.583	0.009	0
		C	0.000	0.000	1.043	0.009	0
L57	23.50-23.25	A	0.000	0.000	0.635	0.007	0
		B	0.000	0.000	0.437	0.007	0
		C	0.000	0.000	0.783	0.007	0
L58	23.25-18.92	A	0.000	0.000	8.416	0.121	0
		B	0.000	0.000	8.988	0.121	0
		C	0.000	0.000	12.393	0.121	0
L59	18.92-18.67	A	0.000	0.000	0.385	0.007	0
		B	0.000	0.000	0.660	0.007	0
		C	0.000	0.000	0.755	0.007	0
L60	18.67-18.08	A	0.000	0.000	0.898	0.016	0
		B	0.000	0.000	1.541	0.016	0
		C	0.000	0.000	1.764	0.016	0
L61	18.08-17.83	A	0.000	0.000	0.385	0.007	0
		B	0.000	0.000	0.660	0.007	0
		C	0.000	0.000	0.755	0.007	0
L62	17.83-14.08	A	0.000	0.000	5.769	0.105	0
		B	0.000	0.000	7.891	0.105	0
		C	0.000	0.000	11.325	0.105	0
L63	14.08-13.83	A	0.000	0.000	0.385	0.007	0
		B	0.000	0.000	0.452	0.007	0
		C	0.000	0.000	0.755	0.007	0
L64	13.83-8.83	A	0.000	0.000	7.692	0.140	0
		B	0.000	0.000	9.048	0.140	0
		C	0.000	0.000	12.582	0.140	0
L65	8.83-3.83	A	0.000	0.000	7.692	0.140	0
		B	0.000	0.000	9.048	0.140	0
		C	0.000	0.000	10.658	0.140	0
L66	3.83-0.00	A	0.000	0.000	5.452	0.107	0
		B	0.000	0.000	6.048	0.107	0
		C	0.000	0.000	7.185	0.107	0

**Feed Line/Linear Appurtenances Section Areas - With Ice**

Tower Section n	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L1	140.00-135.00	A	1.471	0.000	0.000	0.000	0.000	0
		B		0.000	0.000	0.000	0.000	0
		C		0.000	0.000	0.000	0.000	0
L2	135.00-130.00	A	1.465	0.000	0.000	0.000	1.605	0
		B		0.000	0.000	0.000	1.605	0
		C		0.000	0.000	0.000	1.605	0
L3	130.00-125.00	A	1.459	0.000	0.000	0.000	1.600	0
		B		0.000	0.000	0.000	1.600	0
		C		0.000	0.000	0.000	1.600	0
L4	125.00-120.00	A	1.454	0.000	0.000	0.000	1.594	0
		B		0.000	0.000	0.000	1.594	0
		C		0.000	0.000	0.000	1.594	0
L5	120.00-115.00	A	1.448	0.000	0.000	0.000	1.588	0
		B		0.000	0.000	0.000	1.588	0
		C		0.000	0.000	1.349	1.588	0
L6	115.00-110.00	A	1.441	0.000	0.000	0.000	1.581	0
		B		0.000	0.000	0.000	1.581	0
		C		0.000	0.000	2.241	1.581	0
L7	110.00-105.00	A	1.435	0.000	0.000	0.000	1.575	0
		B		0.000	0.000	0.000	1.575	0
		C		0.000	0.000	2.235	1.575	0
L8	105.00-102.00	A	1.429	0.000	0.000	1.001	0.942	0
		B		0.000	0.000	1.001	0.942	0
		C		0.000	0.000	2.339	0.942	0
L9	102.00-101.75	A	1.427	0.000	0.000	0.214	0.078	0

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
		B		0.000	0.000	0.214	0.078	0
		C		0.000	0.000	0.326	0.078	0
L10	101.75-96.75	A	1.423	0.000	0.000	8.085	1.563	0
		B		0.000	0.000	4.287	1.563	0
		C		0.000	0.000	6.511	1.563	0
L11	96.75-91.75	A	1.416	0.000	0.000	12.878	1.556	0
		B		0.000	0.000	3.070	1.556	0
		C		0.000	0.000	9.261	1.556	0
L12	91.75-90.75	A	1.412	0.000	0.000	2.390	0.311	0
		B		0.000	0.000	0.000	0.311	0
		C		0.000	0.000	1.667	0.311	0
L13	90.75-85.75	A	1.407	0.000	0.000	12.651	1.547	0
		B		0.000	0.000	0.642	1.547	0
		C		0.000	0.000	8.961	1.547	0
L14	85.75-85.33	A	1.402	0.000	0.000	1.394	0.129	0
		B		0.000	0.000	0.357	0.129	0
		C		0.000	0.000	1.050	0.129	0
L15	85.33-85.08	A	1.402	0.000	0.000	0.835	0.077	0
		B		0.000	0.000	0.214	0.077	0
		C		0.000	0.000	0.629	0.077	0
L16	85.08-82.50	A	1.400	0.000	0.000	11.189	0.795	0
		B		0.000	0.000	2.209	0.795	0
		C		0.000	0.000	9.060	0.795	0
L17	82.50-82.25	A	1.397	0.000	0.000	1.155	0.077	0
		B		0.000	0.000	0.214	0.077	0
		C		0.000	0.000	0.949	0.077	0
L18	82.25-82.00	A	1.397	0.000	0.000	1.155	0.077	0
		B		0.000	0.000	0.214	0.077	0
		C		0.000	0.000	0.949	0.077	0
L19	82.00-81.75	A	1.396	0.000	0.000	1.155	0.077	0
		B		0.000	0.000	0.214	0.077	0
		C		0.000	0.000	0.949	0.077	0
L20	81.75-78.83	A	1.394	0.000	0.000	13.155	0.895	0
		B		0.000	0.000	3.607	0.895	0
		C		0.000	0.000	10.754	0.895	0
L21	78.83-78.58	A	1.391	0.000	0.000	1.087	0.077	0
		B		0.000	0.000	0.452	0.077	0
		C		0.000	0.000	0.881	0.077	0
L22	78.58-77.67	A	1.390	0.000	0.000	3.982	0.280	0
		B		0.000	0.000	1.657	0.280	0
		C		0.000	0.000	3.228	0.280	0
L23	77.67-77.42	A	1.389	0.000	0.000	1.087	0.076	0
		B		0.000	0.000	0.452	0.076	0
		C		0.000	0.000	0.881	0.076	0
L24	77.42-77.17	A	1.388	0.000	0.000	1.086	0.076	0
		B		0.000	0.000	0.452	0.076	0
		C		0.000	0.000	0.881	0.076	0
L25	77.17-72.17	A	1.383	0.000	0.000	21.709	1.523	0
		B		0.000	0.000	5.336	1.523	0
		C		0.000	0.000	13.903	1.523	0
L26	72.17-67.17	A	1.374	0.000	0.000	23.800	1.514	0
		B		0.000	0.000	7.761	1.514	0
		C		0.000	0.000	15.437	1.514	0
L27	67.17-66.58	A	1.368	0.000	0.000	3.207	0.176	0
		B		0.000	0.000	1.413	0.176	0
		C		0.000	0.000	2.231	0.176	0
L28	66.58-66.33	A	1.367	0.000	0.000	1.372	0.075	0
		B		0.000	0.000	0.605	0.075	0
		C		0.000	0.000	0.955	0.075	0
L29	66.33-66.17	A	1.367	0.000	0.000	0.911	0.050	0
		B		0.000	0.000	0.401	0.050	0
		C		0.000	0.000	0.634	0.050	0
L30	66.17-65.92	A	1.367	0.000	0.000	1.372	0.075	0
		B		0.000	0.000	0.604	0.075	0
		C		0.000	0.000	0.955	0.075	0
L31	65.92-62.67	A	1.363	0.000	0.000	13.280	0.977	0
		B		0.000	0.000	5.637	0.977	0
		C		0.000	0.000	7.853	0.977	0
L32	62.67-62.42	A	1.359	0.000	0.000	0.815	0.075	0



Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
		B		0.000	0.000	0.366	0.075	0
		C		0.000	0.000	0.398	0.075	0
L33	62.42-60.00	A	1.356	0.000	0.000	8.890	0.723	0
		B		0.000	0.000	3.538	0.723	0
		C		0.000	0.000	3.845	0.723	0
L34	60.00-59.75	A	1.353	0.000	0.000	0.882	0.075	0
		B		0.000	0.000	0.366	0.075	0
		C		0.000	0.000	0.397	0.075	0
L35	59.75-58.33	A	1.351	0.000	0.000	4.996	0.423	0
		B		0.000	0.000	2.071	0.423	0
		C		0.000	0.000	2.251	0.423	0
L36	58.33-58.08	A	1.349	0.000	0.000	0.881	0.074	0
		B		0.000	0.000	0.365	0.074	0
		C		0.000	0.000	0.397	0.074	0
L37	58.08-53.08	A	1.343	0.000	0.000	17.607	1.483	0
		B		0.000	0.000	7.293	1.483	0
		C		0.000	0.000	7.928	1.483	0
L38	53.08-52.83	A	1.337	0.000	0.000	0.879	0.074	0
		B		0.000	0.000	0.364	0.074	0
		C		0.000	0.000	0.396	0.074	0
L39	52.83-52.58	A	1.336	0.000	0.000	0.879	0.074	0
		B		0.000	0.000	0.364	0.074	0
		C		0.000	0.000	0.396	0.074	0
L40	52.58-51.42	A	1.334	0.000	0.000	4.963	0.344	0
		B		0.000	0.000	2.559	0.344	0
		C		0.000	0.000	2.707	0.344	0
L41	51.42-51.17	A	1.332	0.000	0.000	1.138	0.074	0
		B		0.000	0.000	0.622	0.074	0
		C		0.000	0.000	0.654	0.074	0
L42	51.17-46.50	A	1.326	0.000	0.000	17.727	1.368	0
		B		0.000	0.000	8.720	1.368	0
		C		0.000	0.000	9.505	1.368	0
L43	46.50-45.50	A	1.318	0.000	0.000	3.444	0.293	0
		B		0.000	0.000	1.333	0.293	0
		C		0.000	0.000	3.879	0.293	0
L44	45.50-44.25	A	1.315	0.000	0.000	5.736	0.364	0
		B		0.000	0.000	3.101	0.364	0
		C		0.000	0.000	4.838	0.364	0
L45	44.25-44.00	A	1.313	0.000	0.000	1.147	0.073	0
		B		0.000	0.000	0.620	0.073	0
		C		0.000	0.000	0.967	0.073	0
L46	44.00-43.08	A	1.311	0.000	0.000	4.205	0.266	0
		B		0.000	0.000	2.273	0.266	0
		C		0.000	0.000	3.547	0.266	0
L47	43.08-42.83	A	1.309	0.000	0.000	1.146	0.072	0
		B		0.000	0.000	0.619	0.072	0
		C		0.000	0.000	0.967	0.072	0
L48	42.83-37.83	A	1.301	0.000	0.000	20.397	1.441	0
		B		0.000	0.000	9.874	1.441	0
		C		0.000	0.000	16.810	1.441	0
L49	37.83-32.83	A	1.284	0.000	0.000	17.676	1.424	0
		B		0.000	0.000	7.174	1.424	0
		C		0.000	0.000	14.093	1.424	0
L50	32.83-29.25	A	1.267	0.000	0.000	12.628	1.008	0
		B		0.000	0.000	5.117	1.008	0
		C		0.000	0.000	11.734	1.008	0
L51	29.25-29.00	A	1.259	0.000	0.000	0.880	0.070	0
		B		0.000	0.000	0.356	0.070	0
		C		0.000	0.000	1.035	0.070	0
L52	29.00-27.75	A	1.256	0.000	0.000	4.396	0.349	0
		B		0.000	0.000	1.780	0.349	0
		C		0.000	0.000	5.170	0.349	0
L53	27.75-27.50	A	1.253	0.000	0.000	0.879	0.070	0
		B		0.000	0.000	0.356	0.070	0
		C		0.000	0.000	1.033	0.070	0
L54	27.50-24.08	A	1.244	0.000	0.000	11.992	0.946	0
		B		0.000	0.000	7.180	0.946	0
		C		0.000	0.000	14.101	0.946	0
L55	24.08-23.83	A	1.235	0.000	0.000	0.876	0.069	0

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
		B		0.000	0.000	0.595	0.069	0
		C		0.000	0.000	1.030	0.069	0
L56	23.83-23.50	A	1.233	0.000	0.000	1.166	0.091	0
		B		0.000	0.000	0.792	0.091	0
		C		0.000	0.000	1.371	0.091	0
L57	23.50-23.25	A	1.232	0.000	0.000	0.875	0.069	0
		B		0.000	0.000	0.594	0.069	0
		C		0.000	0.000	1.029	0.069	0
L58	23.25-18.92	A	1.219	0.000	0.000	11.923	1.178	0
		B		0.000	0.000	12.065	1.178	0
		C		0.000	0.000	16.375	1.178	0
L59	18.92-18.67	A	1.205	0.000	0.000	0.561	0.067	0
		B		0.000	0.000	0.873	0.067	0
		C		0.000	0.000	0.996	0.067	0
L60	18.67-18.08	A	1.202	0.000	0.000	1.309	0.157	0
		B		0.000	0.000	2.039	0.157	0
		C		0.000	0.000	2.325	0.157	0
L61	18.08-17.83	A	1.200	0.000	0.000	0.560	0.067	0
		B		0.000	0.000	0.872	0.067	0
		C		0.000	0.000	0.995	0.067	0
L62	17.83-14.08	A	1.186	0.000	0.000	8.379	0.994	0
		B		0.000	0.000	10.731	0.994	0
		C		0.000	0.000	14.882	0.994	0
L63	14.08-13.83	A	1.170	0.000	0.000	0.557	0.065	0
		B		0.000	0.000	0.628	0.065	0
		C		0.000	0.000	0.989	0.065	0
L64	13.83-8.83	A	1.146	0.000	0.000	11.082	1.286	0
		B		0.000	0.000	12.485	1.286	0
		C		0.000	0.000	16.516	1.286	0
L65	8.83-3.83	A	1.081	0.000	0.000	10.936	1.221	0
		B		0.000	0.000	12.291	1.221	0
		C		0.000	0.000	13.901	1.221	0
L66	3.83-0.00	A	0.959	0.000	0.000	7.633	0.842	0
		B		0.000	0.000	8.062	0.842	0
		C		0.000	0.000	9.198	0.842	0

### Feed Line Center of Pressure

Section	Elevation ft	CP <sub>x</sub> in	CP <sub>z</sub> in	CP <sub>x</sub> Ice in	CP <sub>z</sub> Ice in
L1	140.00-135.00	0.0000	0.0000	0.0000	0.0000
L2	135.00-130.00	0.0000	0.0000	0.0000	0.0000
L3	130.00-125.00	0.0000	0.0000	0.0000	0.0000
L4	125.00-120.00	0.0000	0.0000	0.0000	0.0000
L5	120.00-115.00	0.4846	0.3147	0.6971	0.4527
L6	115.00-110.00	0.7755	0.5036	1.1153	0.7243
L7	110.00-105.00	0.7772	0.5047	1.1323	0.7353
L8	105.00-102.00	0.5702	0.3703	0.9201	0.5975
L9	102.00-101.75	0.4045	0.2627	0.7089	0.4604
L10	101.75-96.75	-0.1639	-0.8101	0.0420	-0.7251
L11	96.75-91.75	-0.5059	0.5084	-0.3198	0.0962
L12	91.75-90.75	-0.6610	1.6057	-0.4134	0.8413
L13	90.75-85.75	-0.6301	1.5348	-0.4037	0.7913
L14	85.75-85.33	-0.4818	1.1763	-0.3364	0.5220
L15	85.33-85.08	-0.4829	1.1793	-0.3372	0.5235
L16	85.08-82.50	-1.4848	1.6027	-1.1998	0.9752
L17	82.50-82.25	-1.7222	1.7089	-1.4130	1.0895
L18	82.25-82.00	-1.7245	1.7112	-1.4150	1.0912
L19	82.00-81.75	-1.7258	1.7126	-1.4164	1.0924
L20	81.75-78.83	-1.6863	1.0290	-1.3707	0.5328
L21	78.83-78.58	-1.6212	-0.0042	-1.2987	-0.2909
L22	78.58-77.67	-1.6262	-0.0041	-1.3030	-0.2917
L23	77.67-77.42	-1.6308	-0.0041	-1.3071	-0.2925
L24	77.42-77.17	-1.6329	-0.0041	-1.3090	-0.2928

Section	Elevation	CP <sub>x</sub>	CP <sub>z</sub>	CP <sub>x</sub>	CP <sub>z</sub>
	ft	in	in	Ice in	Ice in
L25	77.17-72.17	-1.9916	-1.2184	-1.5587	-1.2956
L26	72.17-67.17	-1.8362	-1.3105	-1.2867	-1.3841
L27	67.17-66.58	-1.5462	-1.1215	-1.0000	-1.2273
L28	66.58-66.33	-1.5497	-1.1240	-1.0026	-1.2302
L29	66.33-66.17	-1.5512	-1.1252	-1.0037	-1.2315
L30	66.17-65.92	-1.5523	-1.1260	-1.0046	-1.2325
L31	65.92-62.67	-1.1032	-2.0418	-0.5226	-2.0115
L32	62.67-62.42	-0.4561	-3.0065	0.0689	-2.7686
L33	62.42-60.00	-1.9626	-2.7194	-1.0792	-2.4641
L34	60.00-59.75	-2.2835	-2.3047	-1.3126	-2.0877
L35	59.75-58.33	-2.2909	-2.3121	-1.3183	-2.0955
L36	58.33-58.08	-2.2982	-2.3194	-1.3240	-2.1033
L37	58.08-53.08	-2.3211	-2.3423	-1.3421	-2.1277
L38	53.08-52.83	-2.3437	-2.3649	-1.3602	-2.1519
L39	52.83-52.58	-2.3475	-2.3687	-1.3627	-2.1554
L40	52.58-51.42	-1.8679	-1.8847	-1.1494	-1.8169
L41	51.42-51.17	-1.7298	-1.7454	-1.0841	-1.7128
L42	51.17-46.50	-1.7996	-1.9187	-1.0550	-1.8657
L43	46.50-45.50	-0.5692	-0.7872	-0.0768	-0.9123
L44	45.50-44.25	-1.8101	-1.5874	-1.2499	-1.6060
L45	44.25-44.00	-1.8162	-1.5928	-1.2549	-1.6117
L46	44.00-43.08	-1.8207	-1.5968	-1.2587	-1.6160
L47	43.08-42.83	-1.8253	-1.6009	-1.2625	-1.6204
L48	42.83-37.83	-2.0869	-1.8305	-1.4097	-1.8063
L49	37.83-32.83	-2.4699	-2.1669	-1.6200	-2.0686
L50	32.83-29.25	-3.4982	-2.3819	-2.4877	-2.2554
L51	29.25-29.00	-5.1596	-2.6986	-3.9199	-2.5278
L52	29.00-27.75	-5.1735	-2.7061	-3.9329	-2.5355
L53	27.75-27.50	-5.1874	-2.7136	-3.9458	-2.5433
L54	27.50-24.08	-3.7765	-2.0319	-2.8958	-2.0190
L55	24.08-23.83	-3.2148	-1.7589	-2.5004	-1.8232
L56	23.83-23.50	-3.2187	-1.7610	-2.5037	-1.8253
L57	23.50-23.25	-3.2211	-1.7624	-2.5056	-1.8264
L58	23.25-18.92	-1.9971	0.2197	-1.4137	-0.0949
L59	18.92-18.67	-0.7575	3.1491	-0.3513	2.4848
L60	18.67-18.08	-0.7590	3.1541	-0.3528	2.4887
L61	18.08-17.83	-0.7607	3.1600	-0.3544	2.4934
L62	17.83-14.08	-1.9495	2.8521	-1.2680	2.1938
L63	14.08-13.83	-2.6635	2.6516	-1.8164	2.0227
L64	13.83-8.83	-3.9065	2.0775	-2.8445	1.5050
L65	8.83-3.83	-4.9952	1.6069	-3.7606	1.0841
L66	3.83-0.00	-4.7527	1.3408	-3.5660	0.8234

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

### Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L5	22	CU12PSM9P6XXX(1-1/2)	115.00 - 118.00	1.0000	1.0000
L6	22	CU12PSM9P6XXX(1-1/2)	110.00 - 115.00	1.0000	1.0000
L7	22	CU12PSM9P6XXX(1-1/2)	105.00 - 110.00	1.0000	1.0000
L8	22	CU12PSM9P6XXX(1-1/2)	102.00 - 105.00	1.0000	1.0000
L8	47	(Area) Aero MP3-03 (H)	102.00 - 103.17	1.0000	1.0000
L8	48	(Area) Aero MP3-03 (H)	102.00 - 103.17	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L8	49	(Area) Aero MP3-03 (H)	102.00 - 103.17	1.0000	1.0000
L9	22	CU12PSM9P6XXX(1-1/2)	101.75 - 102.00	1.0000	1.0000
L9	47	(Area) Aero MP3-03 (H)	101.75 - 102.00	1.0000	1.0000
L9	48	(Area) Aero MP3-03 (H)	101.75 - 102.00	1.0000	1.0000
L9	49	(Area) Aero MP3-03 (H)	101.75 - 102.00	1.0000	1.0000
L10	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	96.75 - 100.00	1.0000	1.0000
L10	22	CU12PSM9P6XXX(1-1/2)	96.75 - 101.75	1.0000	1.0000
L10	47	(Area) Aero MP3-03 (H)	96.75 - 101.75	1.0000	1.0000
L10	48	(Area) Aero MP3-03 (H)	96.75 - 101.75	1.0000	1.0000
L10	49	(Area) Aero MP3-03 (H)	96.75 - 101.75	1.0000	1.0000
L11	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	91.75 - 96.75	1.0000	1.0000
L11	22	CU12PSM9P6XXX(1-1/2)	91.75 - 96.75	1.0000	1.0000
L11	35	(Area) CCI-65FP-060100 (H)	91.75 - 95.00	1.0000	1.0000
L11	36	(Area) CCI-65FP-060100 (H)	91.75 - 95.00	1.0000	1.0000
L11	47	(Area) Aero MP3-03 (H)	93.17 - 96.75	1.0000	1.0000
L11	48	(Area) Aero MP3-03 (H)	93.17 - 96.75	1.0000	1.0000
L11	49	(Area) Aero MP3-03 (H)	93.17 - 96.75	1.0000	1.0000
L12	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	90.75 - 91.75	1.0000	1.0000
L12	22	CU12PSM9P6XXX(1-1/2)	90.75 - 91.75	1.0000	1.0000
L12	35	(Area) CCI-65FP-060100 (H)	90.75 - 91.75	1.0000	1.0000
L12	36	(Area) CCI-65FP-060100 (H)	90.75 - 91.75	1.0000	1.0000
L13	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	85.75 - 90.75	1.0000	1.0000
L13	22	CU12PSM9P6XXX(1-1/2)	85.75 - 90.75	1.0000	1.0000
L13	35	(Area) CCI-65FP-060100 (H)	85.75 - 90.75	1.0000	1.0000
L13	36	(Area) CCI-65FP-060100 (H)	85.75 - 90.75	1.0000	1.0000
L13	44	(Area) Aero MP3-03 (H)	85.75 - 86.50	1.0000	1.0000
L13	45	(Area) Aero MP3-03 (H)	85.75 - 86.50	1.0000	1.0000
L13	46	(Area) Aero MP3-03 (H)	85.75 - 86.50	1.0000	1.0000
L14	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	85.33 - 85.75	1.0000	1.0000
L14	22	CU12PSM9P6XXX(1-1/2)	85.33 - 85.75	1.0000	1.0000
L14	35	(Area) CCI-65FP-060100 (H)	85.33 - 85.75	1.0000	1.0000
L14	36	(Area) CCI-65FP-060100 (H)	85.33 - 85.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L14	44	(Area) Aero MP3-03 (H)	85.33 - 85.75	1.0000	1.0000
L14	45	(Area) Aero MP3-03 (H)	85.33 - 85.75	1.0000	1.0000
L14	46	(Area) Aero MP3-03 (H)	85.33 - 85.75	1.0000	1.0000
L15	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	85.08 - 85.33	1.0000	1.0000
L15	22	CU12PSM9P6XXX(1-1/2)	85.08 - 85.33	1.0000	1.0000
L15	35	(Area) CCI-65FP-060100 (H)	85.08 - 85.33	1.0000	1.0000
L15	36	(Area) CCI-65FP-060100 (H)	85.08 - 85.33	1.0000	1.0000
L15	44	(Area) Aero MP3-03 (H)	85.08 - 85.33	1.0000	1.0000
L15	45	(Area) Aero MP3-03 (H)	85.08 - 85.33	1.0000	1.0000
L15	46	(Area) Aero MP3-03 (H)	85.08 - 85.33	1.0000	1.0000
L16	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	82.50 - 85.08	1.0000	1.0000
L16	22	CU12PSM9P6XXX(1-1/2)	82.50 - 85.08	1.0000	1.0000
L16	33	(Area) CCI-65FP-060100 (H)	82.50 - 84.50	1.0000	1.0000
L16	34	(Area) CCI-65FP-060100 (H)	82.50 - 84.50	1.0000	1.0000
L16	35	(Area) CCI-65FP-060100 (H)	82.50 - 85.08	1.0000	1.0000
L16	36	(Area) CCI-65FP-060100 (H)	82.50 - 85.08	1.0000	1.0000
L16	44	(Area) Aero MP3-03 (H)	82.50 - 85.08	1.0000	1.0000
L16	45	(Area) Aero MP3-03 (H)	82.50 - 85.08	1.0000	1.0000
L16	46	(Area) Aero MP3-03 (H)	82.50 - 85.08	1.0000	1.0000
L17	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	82.25 - 82.50	1.0000	1.0000
L17	22	CU12PSM9P6XXX(1-1/2)	82.25 - 82.50	1.0000	1.0000
L17	33	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	1.0000	1.0000
L17	34	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	1.0000	1.0000
L17	35	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	1.0000	1.0000
L17	36	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	1.0000	1.0000
L17	44	(Area) Aero MP3-03 (H)	82.25 - 82.50	1.0000	1.0000
L17	45	(Area) Aero MP3-03 (H)	82.25 - 82.50	1.0000	1.0000
L17	46	(Area) Aero MP3-03 (H)	82.25 - 82.50	1.0000	1.0000
L18	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	82.00 - 82.25	1.0000	1.0000
L18	22	CU12PSM9P6XXX(1-1/2)	82.00 - 82.25	1.0000	1.0000
L18	33	(Area) CCI-65FP-060100 (H)	82.00 - 82.25	1.0000	1.0000
L18	34	(Area) CCI-65FP-060100 (H)	82.00 - 82.25	1.0000	1.0000
L18	35	(Area) CCI-65FP-060100	82.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L18	36	(H) (Area) CCI-65FP-060100	82.25 82.00 -	1.0000	1.0000
L18	44	(H) (Area) Aero MP3-03 (H)	82.25 82.00 -	1.0000	1.0000
L18	45	(Area) Aero MP3-03 (H)	82.25 82.00 -	1.0000	1.0000
L18	46	(Area) Aero MP3-03 (H)	82.25 82.00 -	1.0000	1.0000
L19	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	81.75 - 82.00	1.0000	1.0000
L19	22	CU12PSM9P6XXX(1-1/2)	81.75 - 82.00	1.0000	1.0000
L19	33	(Area) CCI-65FP-060100	81.75 - 82.00	1.0000	1.0000
L19	34	(Area) CCI-65FP-060100	81.75 - 82.00	1.0000	1.0000
L19	35	(Area) CCI-65FP-060100	81.75 - 82.00	1.0000	1.0000
L19	36	(Area) CCI-65FP-060100	81.75 - 82.00	1.0000	1.0000
L19	44	(Area) Aero MP3-03 (H)	81.75 - 82.00	1.0000	1.0000
L19	45	(Area) Aero MP3-03 (H)	81.75 - 82.00	1.0000	1.0000
L19	46	(Area) Aero MP3-03 (H)	81.75 - 82.00	1.0000	1.0000
L20	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	78.83 - 81.75	1.0000	1.0000
L20	22	CU12PSM9P6XXX(1-1/2)	78.83 - 81.75	1.0000	1.0000
L20	33	(Area) CCI-65FP-060100	78.83 - 81.75	1.0000	1.0000
L20	34	(Area) CCI-65FP-060100	78.83 - 81.75	1.0000	1.0000
L20	35	(Area) CCI-65FP-060100	80.00 - 81.75	1.0000	1.0000
L20	36	(Area) CCI-65FP-060100	80.00 - 81.75	1.0000	1.0000
L20	44	(Area) Aero MP3-03 (H)	78.83 - 81.75	1.0000	1.0000
L20	45	(Area) Aero MP3-03 (H)	78.83 - 81.75	1.0000	1.0000
L20	46	(Area) Aero MP3-03 (H)	78.83 - 81.75	1.0000	1.0000
L20	55	(Area) Aero MP3-03 (H)	78.83 - 80.00	1.0000	1.0000
L20	56	(Area) Aero MP3-03 (H)	78.83 - 80.00	1.0000	1.0000
L20	57	(Area) Aero MP3-03 (H)	78.83 - 80.00	1.0000	1.0000
L21	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	78.58 - 78.83	1.0000	1.0000
L21	22	CU12PSM9P6XXX(1-1/2)	78.58 - 78.83	1.0000	1.0000
L21	33	(Area) CCI-65FP-060100	78.58 - 78.83	1.0000	1.0000
L21	34	(Area) CCI-65FP-060100	78.58 - 78.83	1.0000	1.0000
L21	44	(Area) Aero MP3-03 (H)	78.58 - 78.83	1.0000	1.0000
L21	45	(Area) Aero MP3-03 (H)	78.58 - 78.83	1.0000	1.0000
L21	46	(Area) Aero MP3-03 (H)	78.58 - 78.83	1.0000	1.0000
L21	55	(Area) Aero MP3-03 (H)	78.58 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L21	56	(Area) Aero MP3-03 (H)	78.83 78.58 - 78.83	1.0000	1.0000
L21	57	(Area) Aero MP3-03 (H)	78.58 - 78.83	1.0000	1.0000
L22	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	77.67 - 78.58	1.0000	1.0000
L22	22	CU12PSM9P6XXX(1-1/2)	77.67 - 78.58	1.0000	1.0000
L22	33	(Area) CCI-65FP-060100 (H)	77.67 - 78.58	1.0000	1.0000
L22	34	(Area) CCI-65FP-060100 (H)	77.67 - 78.58	1.0000	1.0000
L22	44	(Area) Aero MP3-03 (H)	77.67 - 78.58	1.0000	1.0000
L22	45	(Area) Aero MP3-03 (H)	77.67 - 78.58	1.0000	1.0000
L22	46	(Area) Aero MP3-03 (H)	77.67 - 78.58	1.0000	1.0000
L22	55	(Area) Aero MP3-03 (H)	77.67 - 78.58	1.0000	1.0000
L22	56	(Area) Aero MP3-03 (H)	77.67 - 78.58	1.0000	1.0000
L22	57	(Area) Aero MP3-03 (H)	77.67 - 78.58	1.0000	1.0000
L23	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	77.42 - 77.67	1.0000	1.0000
L23	22	CU12PSM9P6XXX(1-1/2)	77.42 - 77.67	1.0000	1.0000
L23	33	(Area) CCI-65FP-060100 (H)	77.42 - 77.67	1.0000	1.0000
L23	34	(Area) CCI-65FP-060100 (H)	77.42 - 77.67	1.0000	1.0000
L23	44	(Area) Aero MP3-03 (H)	77.42 - 77.67	1.0000	1.0000
L23	45	(Area) Aero MP3-03 (H)	77.42 - 77.67	1.0000	1.0000
L23	46	(Area) Aero MP3-03 (H)	77.42 - 77.67	1.0000	1.0000
L23	55	(Area) Aero MP3-03 (H)	77.42 - 77.67	1.0000	1.0000
L23	56	(Area) Aero MP3-03 (H)	77.42 - 77.67	1.0000	1.0000
L23	57	(Area) Aero MP3-03 (H)	77.42 - 77.67	1.0000	1.0000
L24	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	77.17 - 77.42	1.0000	1.0000
L24	22	CU12PSM9P6XXX(1-1/2)	77.17 - 77.42	1.0000	1.0000
L24	33	(Area) CCI-65FP-060100 (H)	77.17 - 77.42	1.0000	1.0000
L24	34	(Area) CCI-65FP-060100 (H)	77.17 - 77.42	1.0000	1.0000
L24	44	(Area) Aero MP3-03 (H)	77.17 - 77.42	1.0000	1.0000
L24	45	(Area) Aero MP3-03 (H)	77.17 - 77.42	1.0000	1.0000
L24	46	(Area) Aero MP3-03 (H)	77.17 - 77.42	1.0000	1.0000
L24	55	(Area) Aero MP3-03 (H)	77.17 - 77.42	1.0000	1.0000
L24	56	(Area) Aero MP3-03 (H)	77.17 - 77.42	1.0000	1.0000
L24	57	(Area) Aero MP3-03 (H)	77.17 - 77.42	1.0000	1.0000
L25	14	MLE Hybrid	72.17 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
		9Power/18Fiber RL 2( 1 5/8)	77.17		
L25	22	CU12PSM9P6XXX(1-1/2)	72.17 - 77.17	1.0000	1.0000
L25	33	(Area) CCI-65FP-060100 (H)	72.17 - 77.17	1.0000	1.0000
L25	34	(Area) CCI-65FP-060100 (H)	72.17 - 77.17	1.0000	1.0000
L25	44	(Area) Aero MP3-03 (H)	72.17 - 77.17	1.0000	1.0000
L25	45	(Area) Aero MP3-03 (H)	76.50 - 77.17	1.0000	1.0000
L25	46	(Area) Aero MP3-03 (H)	76.50 - 77.17	1.0000	1.0000
L25	55	(Area) Aero MP3-03 (H)	72.17 - 77.17	1.0000	1.0000
L25	56	(Area) Aero MP3-03 (H)	72.17 - 77.17	1.0000	1.0000
L25	57	(Area) Aero MP3-03 (H)	72.17 - 77.17	1.0000	1.0000
L26	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	67.17 - 72.17	1.0000	1.0000
L26	17	9207(5/16")	67.17 - 70.00	1.0000	1.0000
L26	22	CU12PSM9P6XXX(1-1/2)	67.17 - 72.17	1.0000	1.0000
L26	33	(Area) CCI-65FP-060100 (H)	67.17 - 72.17	1.0000	1.0000
L26	34	(Area) CCI-65FP-060100 (H)	67.17 - 72.17	1.0000	1.0000
L26	44	(Area) Aero MP3-03 (H)	67.17 - 72.17	1.0000	1.0000
L26	55	(Area) Aero MP3-03 (H)	67.17 - 72.17	1.0000	1.0000
L26	56	(Area) Aero MP3-03 (H)	67.17 - 72.17	1.0000	1.0000
L26	57	(Area) Aero MP3-03 (H)	67.17 - 72.17	1.0000	1.0000
L26	65	(Area) Aero MP3-05 (H)	67.17 - 69.00	1.0000	1.0000
L26	66	(Area) Aero MP3-05 (H)	67.17 - 69.00	1.0000	1.0000
L26	67	(Area) Aero MP3-05 (H)	67.17 - 69.00	1.0000	1.0000
L27	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	66.58 - 67.17	1.0000	1.0000
L27	17	9207(5/16")	66.58 - 67.17	1.0000	1.0000
L27	22	CU12PSM9P6XXX(1-1/2)	66.58 - 67.17	1.0000	1.0000
L27	33	(Area) CCI-65FP-060100 (H)	66.58 - 67.17	1.0000	1.0000
L27	34	(Area) CCI-65FP-060100 (H)	66.58 - 67.17	1.0000	1.0000
L27	44	(Area) Aero MP3-03 (H)	66.58 - 67.17	1.0000	1.0000
L27	55	(Area) Aero MP3-03 (H)	66.58 - 67.17	1.0000	1.0000
L27	56	(Area) Aero MP3-03 (H)	66.58 - 67.17	1.0000	1.0000
L27	57	(Area) Aero MP3-03 (H)	66.58 - 67.17	1.0000	1.0000
L27	65	(Area) Aero MP3-05 (H)	66.58 - 67.17	1.0000	1.0000
L27	66	(Area) Aero MP3-05 (H)	66.58 - 67.17	1.0000	1.0000
L27	67	(Area) Aero MP3-05 (H)	66.58 -	1.0000	1.0000



Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L28	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	67.17 66.33 - 66.58	1.0000	1.0000
L28	17	9207(5/16")	66.33 - 66.58	1.0000	1.0000
L28	22	CU12PSM9P6XXX(1-1/2)	66.33 - 66.58	1.0000	1.0000
L28	33	(Area) CCI-65FP-060100 (H)	66.33 - 66.58	1.0000	1.0000
L28	34	(Area) CCI-65FP-060100 (H)	66.33 - 66.58	1.0000	1.0000
L28	44	(Area) Aero MP3-03 (H)	66.33 - 66.58	1.0000	1.0000
L28	55	(Area) Aero MP3-03 (H)	66.33 - 66.58	1.0000	1.0000
L28	56	(Area) Aero MP3-03 (H)	66.33 - 66.58	1.0000	1.0000
L28	57	(Area) Aero MP3-03 (H)	66.33 - 66.58	1.0000	1.0000
L28	65	(Area) Aero MP3-05 (H)	66.33 - 66.58	1.0000	1.0000
L28	66	(Area) Aero MP3-05 (H)	66.33 - 66.58	1.0000	1.0000
L28	67	(Area) Aero MP3-05 (H)	66.33 - 66.58	1.0000	1.0000
L29	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	66.17 - 66.33	1.0000	1.0000
L29	17	9207(5/16")	66.17 - 66.33	1.0000	1.0000
L29	22	CU12PSM9P6XXX(1-1/2)	66.17 - 66.33	1.0000	1.0000
L29	33	(Area) CCI-65FP-060100 (H)	66.17 - 66.33	1.0000	1.0000
L29	34	(Area) CCI-65FP-060100 (H)	66.17 - 66.33	1.0000	1.0000
L29	44	(Area) Aero MP3-03 (H)	66.17 - 66.33	1.0000	1.0000
L29	55	(Area) Aero MP3-03 (H)	66.17 - 66.33	1.0000	1.0000
L29	56	(Area) Aero MP3-03 (H)	66.17 - 66.33	1.0000	1.0000
L29	57	(Area) Aero MP3-03 (H)	66.17 - 66.33	1.0000	1.0000
L29	65	(Area) Aero MP3-05 (H)	66.17 - 66.33	1.0000	1.0000
L29	66	(Area) Aero MP3-05 (H)	66.17 - 66.33	1.0000	1.0000
L29	67	(Area) Aero MP3-05 (H)	66.17 - 66.33	1.0000	1.0000
L30	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	65.92 - 66.17	1.0000	1.0000
L30	17	9207(5/16")	65.92 - 66.17	1.0000	1.0000
L30	22	CU12PSM9P6XXX(1-1/2)	65.92 - 66.17	1.0000	1.0000
L30	33	(Area) CCI-65FP-060100 (H)	65.92 - 66.17	1.0000	1.0000
L30	34	(Area) CCI-65FP-060100 (H)	65.92 - 66.17	1.0000	1.0000
L30	44	(Area) Aero MP3-03 (H)	65.92 - 66.17	1.0000	1.0000
L30	55	(Area) Aero MP3-03 (H)	65.92 - 66.17	1.0000	1.0000
L30	56	(Area) Aero MP3-03 (H)	65.92 - 66.17	1.0000	1.0000
L30	57	(Area) Aero MP3-03 (H)	65.92 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L30	65	(Area) Aero MP3-05 (H)	66.17 65.92 - 66.17	1.0000	1.0000
L30	66	(Area) Aero MP3-05 (H)	65.92 - 66.17	1.0000	1.0000
L30	67	(Area) Aero MP3-05 (H)	65.92 - 66.17	1.0000	1.0000
L31	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	62.67 - 65.92	1.0000	1.0000
L31	17	9207(5/16")	62.67 - 65.92	1.0000	1.0000
L31	22	CU12PSM9P6XXX(1-1/2)	62.67 - 65.92	1.0000	1.0000
L31	33	(Area) CCI-65FP-060100 (H)	64.50 - 65.92	1.0000	1.0000
L31	34	(Area) CCI-65FP-060100 (H)	64.50 - 65.92	1.0000	1.0000
L31	44	(Area) Aero MP3-03 (H)	62.67 - 65.92	1.0000	1.0000
L31	55	(Area) Aero MP3-03 (H)	65.00 - 65.92	1.0000	1.0000
L31	56	(Area) Aero MP3-03 (H)	65.00 - 65.92	1.0000	1.0000
L31	57	(Area) Aero MP3-03 (H)	65.00 - 65.92	1.0000	1.0000
L31	65	(Area) Aero MP3-05 (H)	62.67 - 65.92	1.0000	1.0000
L31	66	(Area) Aero MP3-05 (H)	62.67 - 65.92	1.0000	1.0000
L31	67	(Area) Aero MP3-05 (H)	62.67 - 65.92	1.0000	1.0000
L32	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	62.42 - 62.67	1.0000	1.0000
L32	17	9207(5/16")	62.42 - 62.67	1.0000	1.0000
L32	22	CU12PSM9P6XXX(1-1/2)	62.42 - 62.67	1.0000	1.0000
L32	44	(Area) Aero MP3-03 (H)	62.42 - 62.67	1.0000	1.0000
L32	65	(Area) Aero MP3-05 (H)	62.42 - 62.67	1.0000	1.0000
L32	66	(Area) Aero MP3-05 (H)	62.42 - 62.67	1.0000	1.0000
L32	67	(Area) Aero MP3-05 (H)	62.42 - 62.67	1.0000	1.0000
L33	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	60.00 - 62.42	1.0000	1.0000
L33	17	9207(5/16")	60.00 - 62.42	1.0000	1.0000
L33	22	CU12PSM9P6XXX(1-1/2)	60.00 - 62.42	1.0000	1.0000
L33	32	(Area) CCI-65FP-060100 (H)	60.00 - 62.00	1.0000	1.0000
L33	44	(Area) Aero MP3-03 (H)	61.50 - 62.42	1.0000	1.0000
L33	65	(Area) Aero MP3-05 (H)	60.00 - 62.42	1.0000	1.0000
L33	66	(Area) Aero MP3-05 (H)	60.00 - 62.42	1.0000	1.0000
L33	67	(Area) Aero MP3-05 (H)	60.00 - 62.42	1.0000	1.0000
L34	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	59.75 - 60.00	1.0000	1.0000
L34	17	9207(5/16")	59.75 - 60.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L34	22	CU12PSM9P6XXX(1-1/2)	59.75 - 60.00	1.0000	1.0000
L34	32	(Area) CCI-65FP-060100 (H)	59.75 - 60.00	1.0000	1.0000
L34	65	(Area) Aero MP3-05 (H)	59.75 - 60.00	1.0000	1.0000
L34	66	(Area) Aero MP3-05 (H)	59.75 - 60.00	1.0000	1.0000
L34	67	(Area) Aero MP3-05 (H)	59.75 - 60.00	1.0000	1.0000
L35	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	58.33 - 59.75	1.0000	1.0000
L35	17	9207(5/16")	58.33 - 59.75	1.0000	1.0000
L35	22	CU12PSM9P6XXX(1-1/2)	58.33 - 59.75	1.0000	1.0000
L35	32	(Area) CCI-65FP-060100 (H)	58.33 - 59.75	1.0000	1.0000
L35	65	(Area) Aero MP3-05 (H)	58.33 - 59.75	1.0000	1.0000
L35	66	(Area) Aero MP3-05 (H)	58.33 - 59.75	1.0000	1.0000
L35	67	(Area) Aero MP3-05 (H)	58.33 - 59.75	1.0000	1.0000
L36	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	58.08 - 58.33	1.0000	1.0000
L36	17	9207(5/16")	58.08 - 58.33	1.0000	1.0000
L36	22	CU12PSM9P6XXX(1-1/2)	58.08 - 58.33	1.0000	1.0000
L36	32	(Area) CCI-65FP-060100 (H)	58.08 - 58.33	1.0000	1.0000
L36	65	(Area) Aero MP3-05 (H)	58.08 - 58.33	1.0000	1.0000
L36	66	(Area) Aero MP3-05 (H)	58.08 - 58.33	1.0000	1.0000
L36	67	(Area) Aero MP3-05 (H)	58.08 - 58.33	1.0000	1.0000
L37	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	53.08 - 58.08	1.0000	1.0000
L37	17	9207(5/16")	53.08 - 58.08	1.0000	1.0000
L37	22	CU12PSM9P6XXX(1-1/2)	53.08 - 58.08	1.0000	1.0000
L37	32	(Area) CCI-65FP-060100 (H)	53.08 - 58.08	1.0000	1.0000
L37	65	(Area) Aero MP3-05 (H)	53.08 - 58.08	1.0000	1.0000
L37	66	(Area) Aero MP3-05 (H)	53.08 - 58.08	1.0000	1.0000
L37	67	(Area) Aero MP3-05 (H)	53.08 - 58.08	1.0000	1.0000
L38	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	52.83 - 53.08	1.0000	1.0000
L38	17	9207(5/16")	52.83 - 53.08	1.0000	1.0000
L38	22	CU12PSM9P6XXX(1-1/2)	52.83 - 53.08	1.0000	1.0000
L38	32	(Area) CCI-65FP-060100 (H)	52.83 - 53.08	1.0000	1.0000
L38	65	(Area) Aero MP3-05 (H)	52.83 - 53.08	1.0000	1.0000
L38	66	(Area) Aero MP3-05 (H)	52.83 - 53.08	1.0000	1.0000
L38	67	(Area) Aero MP3-05 (H)	52.83 - 53.08	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L39	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	53.08 52.58 - 52.83	1.0000	1.0000
L39	17	9207(5/16")	52.58 - 52.83	1.0000	1.0000
L39	22	CU12PSM9P6XXX(1-1/2)	52.58 - 52.83	1.0000	1.0000
L39	32	(Area) CCI-65FP-060100 (H)	52.58 - 52.83	1.0000	1.0000
L39	65	(Area) Aero MP3-05 (H)	52.58 - 52.83	1.0000	1.0000
L39	66	(Area) Aero MP3-05 (H)	52.58 - 52.83	1.0000	1.0000
L39	67	(Area) Aero MP3-05 (H)	52.58 - 52.83	1.0000	1.0000
L40	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	51.42 - 52.58	1.0000	1.0000
L40	17	9207(5/16")	51.42 - 52.58	1.0000	1.0000
L40	22	CU12PSM9P6XXX(1-1/2)	51.42 - 52.58	1.0000	1.0000
L40	32	(Area) CCI-65FP-060100 (H)	51.42 - 52.58	1.0000	1.0000
L40	52	(Area) Aero MP3-05 (H)	51.42 - 52.25	1.0000	1.0000
L40	53	(Area) Aero MP3-05 (H)	51.42 - 52.25	1.0000	1.0000
L40	54	(Area) Aero MP3-05 (H)	51.42 - 52.25	1.0000	1.0000
L40	65	(Area) Aero MP3-05 (H)	51.42 - 52.58	1.0000	1.0000
L40	66	(Area) Aero MP3-05 (H)	51.42 - 52.58	1.0000	1.0000
L40	67	(Area) Aero MP3-05 (H)	51.42 - 52.58	1.0000	1.0000
L41	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	51.17 - 51.42	1.0000	1.0000
L41	17	9207(5/16")	51.17 - 51.42	1.0000	1.0000
L41	22	CU12PSM9P6XXX(1-1/2)	51.17 - 51.42	1.0000	1.0000
L41	32	(Area) CCI-65FP-060100 (H)	51.17 - 51.42	1.0000	1.0000
L41	52	(Area) Aero MP3-05 (H)	51.17 - 51.42	1.0000	1.0000
L41	53	(Area) Aero MP3-05 (H)	51.17 - 51.42	1.0000	1.0000
L41	54	(Area) Aero MP3-05 (H)	51.17 - 51.42	1.0000	1.0000
L41	65	(Area) Aero MP3-05 (H)	51.17 - 51.42	1.0000	1.0000
L41	66	(Area) Aero MP3-05 (H)	51.17 - 51.42	1.0000	1.0000
L41	67	(Area) Aero MP3-05 (H)	51.17 - 51.42	1.0000	1.0000
L42	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	46.50 - 51.17	1.0000	1.0000
L42	17	9207(5/16")	46.50 - 51.17	1.0000	1.0000
L42	22	CU12PSM9P6XXX(1-1/2)	46.50 - 51.17	1.0000	1.0000
L42	32	(Area) CCI-65FP-060100 (H)	47.00 - 51.17	1.0000	1.0000
L42	52	(Area) Aero MP3-05 (H)	46.50 - 51.17	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L42	53	(Area) Aero MP3-05 (H)	46.50 - 51.17	1.0000	1.0000
L42	54	(Area) Aero MP3-05 (H)	46.50 - 51.17	1.0000	1.0000
L42	64	(Area) Aero MP3-05 (H)	46.50 - 46.67	1.0000	1.0000
L42	65	(Area) Aero MP3-05 (H)	49.00 - 51.17	1.0000	1.0000
L42	66	(Area) Aero MP3-05 (H)	49.00 - 51.17	1.0000	1.0000
L42	67	(Area) Aero MP3-05 (H)	49.00 - 51.17	1.0000	1.0000
L43	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	45.50 - 46.50	1.0000	1.0000
L43	17	9207(5/16")	45.50 - 46.50	1.0000	1.0000
L43	22	CU12PSM9P6XXX(1-1/2)	45.50 - 46.50	1.0000	1.0000
L43	30	(Area) CCI-65FP-060100 (H)	45.50 - 46.50	1.0000	1.0000
L43	31	(Area) CCI-65FP-060100 (H)	45.50 - 46.50	1.0000	1.0000
L43	52	(Area) Aero MP3-05 (H)	45.50 - 46.50	1.0000	1.0000
L43	53	(Area) Aero MP3-05 (H)	45.50 - 46.50	1.0000	1.0000
L43	54	(Area) Aero MP3-05 (H)	45.50 - 46.50	1.0000	1.0000
L43	64	(Area) Aero MP3-05 (H)	45.50 - 46.50	1.0000	1.0000
L44	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	44.25 - 45.50	1.0000	1.0000
L44	17	9207(5/16")	44.25 - 45.50	1.0000	1.0000
L44	22	CU12PSM9P6XXX(1-1/2)	44.25 - 45.50	1.0000	1.0000
L44	30	(Area) CCI-65FP-060100 (H)	44.25 - 45.50	1.0000	1.0000
L44	31	(Area) CCI-65FP-060100 (H)	44.25 - 45.50	1.0000	1.0000
L44	52	(Area) Aero MP3-05 (H)	44.25 - 45.50	1.0000	1.0000
L44	53	(Area) Aero MP3-05 (H)	44.25 - 45.50	1.0000	1.0000
L44	54	(Area) Aero MP3-05 (H)	44.25 - 45.50	1.0000	1.0000
L44	62	(Area) Aero MP3-05 (H)	44.25 - 45.50	1.0000	1.0000
L44	63	(Area) Aero MP3-05 (H)	44.25 - 45.50	1.0000	1.0000
L44	64	(Area) Aero MP3-05 (H)	44.25 - 45.50	1.0000	1.0000
L45	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	44.00 - 44.25	1.0000	1.0000
L45	17	9207(5/16")	44.00 - 44.25	1.0000	1.0000
L45	22	CU12PSM9P6XXX(1-1/2)	44.00 - 44.25	1.0000	1.0000
L45	30	(Area) CCI-65FP-060100 (H)	44.00 - 44.25	1.0000	1.0000
L45	31	(Area) CCI-65FP-060100 (H)	44.00 - 44.25	1.0000	1.0000
L45	52	(Area) Aero MP3-05 (H)	44.00 - 44.25	1.0000	1.0000
L45	53	(Area) Aero MP3-05 (H)	44.00 - 44.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L45	54	(Area) Aero MP3-05 (H)	44.00 - 44.25	1.0000	1.0000
L45	62	(Area) Aero MP3-05 (H)	44.00 - 44.25	1.0000	1.0000
L45	63	(Area) Aero MP3-05 (H)	44.00 - 44.25	1.0000	1.0000
L45	64	(Area) Aero MP3-05 (H)	44.00 - 44.25	1.0000	1.0000
L46	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	43.08 - 44.00	1.0000	1.0000
L46	17	9207(5/16")	43.08 - 44.00	1.0000	1.0000
L46	22	CU12PSM9P6XXX(1-1/2)	43.08 - 44.00	1.0000	1.0000
L46	30	(Area) CCI-65FP-060100 (H)	43.08 - 44.00	1.0000	1.0000
L46	31	(Area) CCI-65FP-060100 (H)	43.08 - 44.00	1.0000	1.0000
L46	52	(Area) Aero MP3-05 (H)	43.08 - 44.00	1.0000	1.0000
L46	53	(Area) Aero MP3-05 (H)	43.08 - 44.00	1.0000	1.0000
L46	54	(Area) Aero MP3-05 (H)	43.08 - 44.00	1.0000	1.0000
L46	62	(Area) Aero MP3-05 (H)	43.08 - 44.00	1.0000	1.0000
L46	63	(Area) Aero MP3-05 (H)	43.08 - 44.00	1.0000	1.0000
L46	64	(Area) Aero MP3-05 (H)	43.08 - 44.00	1.0000	1.0000
L47	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	42.83 - 43.08	1.0000	1.0000
L47	17	9207(5/16")	42.83 - 43.08	1.0000	1.0000
L47	22	CU12PSM9P6XXX(1-1/2)	42.83 - 43.08	1.0000	1.0000
L47	30	(Area) CCI-65FP-060100 (H)	42.83 - 43.08	1.0000	1.0000
L47	31	(Area) CCI-65FP-060100 (H)	42.83 - 43.08	1.0000	1.0000
L47	52	(Area) Aero MP3-05 (H)	42.83 - 43.08	1.0000	1.0000
L47	53	(Area) Aero MP3-05 (H)	42.83 - 43.08	1.0000	1.0000
L47	54	(Area) Aero MP3-05 (H)	42.83 - 43.08	1.0000	1.0000
L47	62	(Area) Aero MP3-05 (H)	42.83 - 43.08	1.0000	1.0000
L47	63	(Area) Aero MP3-05 (H)	42.83 - 43.08	1.0000	1.0000
L47	64	(Area) Aero MP3-05 (H)	42.83 - 43.08	1.0000	1.0000
L48	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	37.83 - 42.83	1.0000	1.0000
L48	17	9207(5/16")	37.83 - 42.83	1.0000	1.0000
L48	22	CU12PSM9P6XXX(1-1/2)	37.83 - 42.83	1.0000	1.0000
L48	30	(Area) CCI-65FP-060100 (H)	37.83 - 42.83	1.0000	1.0000
L48	31	(Area) CCI-65FP-060100 (H)	37.83 - 42.83	1.0000	1.0000
L48	52	(Area) Aero MP3-05 (H)	40.25 - 42.83	1.0000	1.0000
L48	53	(Area) Aero MP3-05 (H)	40.25 - 42.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L48	54	(Area) Aero MP3-05 (H)	40.25 - 42.83	1.0000	1.0000
L48	62	(Area) Aero MP3-05 (H)	37.83 - 42.83	1.0000	1.0000
L48	63	(Area) Aero MP3-05 (H)	37.83 - 42.83	1.0000	1.0000
L48	64	(Area) Aero MP3-05 (H)	37.83 - 42.83	1.0000	1.0000
L49	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	32.83 - 37.83	1.0000	1.0000
L49	17	9207(5/16")	32.83 - 37.83	1.0000	1.0000
L49	22	CU12PSM9P6XXX(1-1/2)	32.83 - 37.83	1.0000	1.0000
L49	30	(Area) CCI-65FP-060100 (H)	32.83 - 37.83	1.0000	1.0000
L49	31	(Area) CCI-65FP-060100 (H)	32.83 - 37.83	1.0000	1.0000
L49	62	(Area) Aero MP3-05 (H)	32.83 - 37.83	1.0000	1.0000
L49	63	(Area) Aero MP3-05 (H)	32.83 - 37.83	1.0000	1.0000
L49	64	(Area) Aero MP3-05 (H)	32.83 - 37.83	1.0000	1.0000
L50	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	29.25 - 32.83	1.0000	1.0000
L50	17	9207(5/16")	29.25 - 32.83	1.0000	1.0000
L50	22	CU12PSM9P6XXX(1-1/2)	29.25 - 32.83	1.0000	1.0000
L50	29	(Area) CCI-65FP-065125 (H)	29.25 - 30.50	1.0000	1.0000
L50	30	(Area) CCI-65FP-060100 (H)	29.25 - 32.83	1.0000	1.0000
L50	31	(Area) CCI-65FP-060100 (H)	29.25 - 32.83	1.0000	1.0000
L50	62	(Area) Aero MP3-05 (H)	29.25 - 32.83	1.0000	1.0000
L50	63	(Area) Aero MP3-05 (H)	29.25 - 32.83	1.0000	1.0000
L50	64	(Area) Aero MP3-05 (H)	29.25 - 32.83	1.0000	1.0000
L51	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	29.00 - 29.25	1.0000	1.0000
L51	17	9207(5/16")	29.00 - 29.25	1.0000	1.0000
L51	22	CU12PSM9P6XXX(1-1/2)	29.00 - 29.25	1.0000	1.0000
L51	29	(Area) CCI-65FP-065125 (H)	29.00 - 29.25	1.0000	1.0000
L51	30	(Area) CCI-65FP-060100 (H)	29.00 - 29.25	1.0000	1.0000
L51	31	(Area) CCI-65FP-060100 (H)	29.00 - 29.25	1.0000	1.0000
L51	62	(Area) Aero MP3-05 (H)	29.00 - 29.25	1.0000	1.0000
L51	63	(Area) Aero MP3-05 (H)	29.00 - 29.25	1.0000	1.0000
L51	64	(Area) Aero MP3-05 (H)	29.00 - 29.25	1.0000	1.0000
L52	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	27.75 - 29.00	1.0000	1.0000
L52	17	9207(5/16")	27.75 - 29.00	1.0000	1.0000
L52	22	CU12PSM9P6XXX(1-1/2)	27.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L52	29	(Area) CCI-65FP-065125 (H)	29.00 27.75 - 29.00	1.0000	1.0000
L52	30	(Area) CCI-65FP-060100 (H)	29.00 27.75 - 29.00	1.0000	1.0000
L52	31	(Area) CCI-65FP-060100 (H)	29.00 27.75 - 29.00	1.0000	1.0000
L52	62	(Area) Aero MP3-05 (H)	27.75 - 29.00	1.0000	1.0000
L52	63	(Area) Aero MP3-05 (H)	27.75 - 29.00	1.0000	1.0000
L52	64	(Area) Aero MP3-05 (H)	27.75 - 29.00	1.0000	1.0000
L53	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	27.50 - 27.75	1.0000	1.0000
L53	17	9207(5/16")	27.50 - 27.75	1.0000	1.0000
L53	22	CU12PSM9P6XXX(1-1/2)	27.50 - 27.75	1.0000	1.0000
L53	29	(Area) CCI-65FP-065125 (H)	27.50 - 27.75	1.0000	1.0000
L53	30	(Area) CCI-65FP-060100 (H)	27.50 - 27.75	1.0000	1.0000
L53	31	(Area) CCI-65FP-060100 (H)	27.50 - 27.75	1.0000	1.0000
L53	62	(Area) Aero MP3-05 (H)	27.50 - 27.75	1.0000	1.0000
L53	63	(Area) Aero MP3-05 (H)	27.50 - 27.75	1.0000	1.0000
L53	64	(Area) Aero MP3-05 (H)	27.50 - 27.75	1.0000	1.0000
L54	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	24.08 - 27.50	1.0000	1.0000
L54	17	9207(5/16")	24.08 - 27.50	1.0000	1.0000
L54	22	CU12PSM9P6XXX(1-1/2)	24.08 - 27.50	1.0000	1.0000
L54	29	(Area) CCI-65FP-065125 (H)	24.08 - 27.50	1.0000	1.0000
L54	30	(Area) CCI-65FP-060100 (H)	24.08 - 27.50	1.0000	1.0000
L54	31	(Area) CCI-65FP-060100 (H)	24.08 - 27.50	1.0000	1.0000
L54	40	(Area) Aero MP3-05 (H)	24.08 - 26.50	1.0000	1.0000
L54	62	(Area) Aero MP3-05 (H)	24.08 - 27.50	1.0000	1.0000
L54	63	(Area) Aero MP3-05 (H)	24.08 - 27.50	1.0000	1.0000
L54	64	(Area) Aero MP3-05 (H)	24.08 - 27.50	1.0000	1.0000
L55	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	23.83 - 24.08	1.0000	1.0000
L55	17	9207(5/16")	23.83 - 24.08	1.0000	1.0000
L55	22	CU12PSM9P6XXX(1-1/2)	23.83 - 24.08	1.0000	1.0000
L55	29	(Area) CCI-65FP-065125 (H)	23.83 - 24.08	1.0000	1.0000
L55	30	(Area) CCI-65FP-060100 (H)	23.83 - 24.08	1.0000	1.0000
L55	31	(Area) CCI-65FP-060100 (H)	23.83 - 24.08	1.0000	1.0000
L55	40	(Area) Aero MP3-05 (H)	23.83 - 24.08	1.0000	1.0000
L55	62	(Area) Aero MP3-05 (H)	23.83 -	1.0000	1.0000



Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L55	63	(Area) Aero MP3-05 (H)	24.08 23.83 -	1.0000	1.0000
L55	64	(Area) Aero MP3-05 (H)	24.08 23.83 -	1.0000	1.0000
L56	14	MLE Hybrid 9Power/18Fiber RL 2( 1	24.08 23.50 -	1.0000	1.0000
L56	17	5/8) 9207(5/16")	23.83 23.50 -	1.0000	1.0000
L56	22	CU12PSM9P6XXX(1-1/2)	23.83 23.50 -	1.0000	1.0000
L56	29	(Area) CCI-65FP-065125 (H)	23.83 23.50 -	1.0000	1.0000
L56	30	(Area) CCI-65FP-060100 (H)	23.83 23.50 -	1.0000	1.0000
L56	31	(Area) CCI-65FP-060100 (H)	23.83 23.50 -	1.0000	1.0000
L56	40	(Area) Aero MP3-05 (H)	23.83 23.50 -	1.0000	1.0000
L56	62	(Area) Aero MP3-05 (H)	23.83 23.50 -	1.0000	1.0000
L56	63	(Area) Aero MP3-05 (H)	23.83 23.50 -	1.0000	1.0000
L56	64	(Area) Aero MP3-05 (H)	23.83 23.50 -	1.0000	1.0000
L57	14	MLE Hybrid 9Power/18Fiber RL 2( 1	23.25 - 23.50	1.0000	1.0000
L57	17	5/8) 9207(5/16")	23.25 - 23.50	1.0000	1.0000
L57	22	CU12PSM9P6XXX(1-1/2)	23.25 - 23.50	1.0000	1.0000
L57	29	(Area) CCI-65FP-065125 (H)	23.25 - 23.50	1.0000	1.0000
L57	30	(Area) CCI-65FP-060100 (H)	23.25 - 23.50	1.0000	1.0000
L57	31	(Area) CCI-65FP-060100 (H)	23.25 - 23.50	1.0000	1.0000
L57	40	(Area) Aero MP3-05 (H)	23.25 - 23.50	1.0000	1.0000
L57	62	(Area) Aero MP3-05 (H)	23.25 - 23.50	1.0000	1.0000
L57	63	(Area) Aero MP3-05 (H)	23.25 - 23.50	1.0000	1.0000
L57	64	(Area) Aero MP3-05 (H)	23.25 - 23.50	1.0000	1.0000
L58	14	MLE Hybrid 9Power/18Fiber RL 2( 1	18.92 - 23.25	1.0000	1.0000
L58	17	5/8) 9207(5/16")	18.92 - 23.25	1.0000	1.0000
L58	22	CU12PSM9P6XXX(1-1/2)	18.92 - 23.25	1.0000	1.0000
L58	29	(Area) CCI-65FP-065125 (H)	18.92 - 23.25	1.0000	1.0000
L58	30	(Area) CCI-65FP-060100 (H)	21.50 - 23.25	1.0000	1.0000
L58	31	(Area) CCI-65FP-060100 (H)	21.50 - 23.25	1.0000	1.0000
L58	40	(Area) Aero MP3-05 (H)	18.92 - 23.25	1.0000	1.0000
L58	60	(Area) Aero MP3-05 (H)	18.92 - 20.50	1.0000	1.0000
L58	61	(Area) Aero MP3-05 (H)	18.92 - 20.50	1.0000	1.0000
L58	62	(Area) Aero MP3-05 (H)	18.92 - 23.25	1.0000	1.0000
L58	63	(Area) Aero MP3-05 (H)	18.92 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L58	64	(Area) Aero MP3-05 (H)	23.25 18.92 -	1.0000	1.0000
L59	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	23.25 18.67 - 18.92	1.0000	1.0000
L59	17	9207(5/16")	18.67 - 18.92	1.0000	1.0000
L59	22	CU12PSM9P6XXX(1-1/2)	18.67 - 18.92	1.0000	1.0000
L59	29	(Area) CCI-65FP-065125 (H)	18.67 - 18.92	1.0000	1.0000
L59	40	(Area) Aero MP3-05 (H)	18.67 - 18.92	1.0000	1.0000
L59	60	(Area) Aero MP3-05 (H)	18.67 - 18.92	1.0000	1.0000
L59	61	(Area) Aero MP3-05 (H)	18.67 - 18.92	1.0000	1.0000
L59	62	(Area) Aero MP3-05 (H)	18.67 - 18.92	1.0000	1.0000
L59	63	(Area) Aero MP3-05 (H)	18.67 - 18.92	1.0000	1.0000
L59	64	(Area) Aero MP3-05 (H)	18.67 - 18.92	1.0000	1.0000
L60	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	18.08 - 18.67	1.0000	1.0000
L60	17	9207(5/16")	18.08 - 18.67	1.0000	1.0000
L60	22	CU12PSM9P6XXX(1-1/2)	18.08 - 18.67	1.0000	1.0000
L60	29	(Area) CCI-65FP-065125 (H)	18.08 - 18.67	1.0000	1.0000
L60	40	(Area) Aero MP3-05 (H)	18.08 - 18.67	1.0000	1.0000
L60	60	(Area) Aero MP3-05 (H)	18.08 - 18.67	1.0000	1.0000
L60	61	(Area) Aero MP3-05 (H)	18.08 - 18.67	1.0000	1.0000
L60	62	(Area) Aero MP3-05 (H)	18.08 - 18.67	1.0000	1.0000
L60	63	(Area) Aero MP3-05 (H)	18.08 - 18.67	1.0000	1.0000
L60	64	(Area) Aero MP3-05 (H)	18.08 - 18.67	1.0000	1.0000
L61	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	17.83 - 18.08	1.0000	1.0000
L61	17	9207(5/16")	17.83 - 18.08	1.0000	1.0000
L61	22	CU12PSM9P6XXX(1-1/2)	17.83 - 18.08	1.0000	1.0000
L61	29	(Area) CCI-65FP-065125 (H)	17.83 - 18.08	1.0000	1.0000
L61	40	(Area) Aero MP3-05 (H)	17.83 - 18.08	1.0000	1.0000
L61	60	(Area) Aero MP3-05 (H)	17.83 - 18.08	1.0000	1.0000
L61	61	(Area) Aero MP3-05 (H)	17.83 - 18.08	1.0000	1.0000
L61	62	(Area) Aero MP3-05 (H)	17.83 - 18.08	1.0000	1.0000
L61	63	(Area) Aero MP3-05 (H)	17.83 - 18.08	1.0000	1.0000
L61	64	(Area) Aero MP3-05 (H)	17.83 - 18.08	1.0000	1.0000
L62	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	14.08 - 17.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L62	17	9207(5/16")	14.08 - 17.83	1.0000	1.0000
L62	22	CU12PSM9P6XXX(1-1/2)	14.08 - 17.83	1.0000	1.0000
L62	29	(Area) CCI-65FP-065125 (H)	14.08 - 17.83	1.0000	1.0000
L62	40	(Area) Aero MP3-05 (H)	16.50 - 17.83	1.0000	1.0000
L62	60	(Area) Aero MP3-05 (H)	14.08 - 17.83	1.0000	1.0000
L62	61	(Area) Aero MP3-05 (H)	14.08 - 17.83	1.0000	1.0000
L62	62	(Area) Aero MP3-05 (H)	14.08 - 17.83	1.0000	1.0000
L62	63	(Area) Aero MP3-05 (H)	14.08 - 17.83	1.0000	1.0000
L62	64	(Area) Aero MP3-05 (H)	14.08 - 17.83	1.0000	1.0000
L63	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	13.83 - 14.08	1.0000	1.0000
L63	17	9207(5/16")	13.83 - 14.08	1.0000	1.0000
L63	22	CU12PSM9P6XXX(1-1/2)	13.83 - 14.08	1.0000	1.0000
L63	29	(Area) CCI-65FP-065125 (H)	13.83 - 14.08	1.0000	1.0000
L63	60	(Area) Aero MP3-05 (H)	13.83 - 14.08	1.0000	1.0000
L63	61	(Area) Aero MP3-05 (H)	13.83 - 14.08	1.0000	1.0000
L63	62	(Area) Aero MP3-05 (H)	13.83 - 14.08	1.0000	1.0000
L63	63	(Area) Aero MP3-05 (H)	13.83 - 14.08	1.0000	1.0000
L63	64	(Area) Aero MP3-05 (H)	13.83 - 14.08	1.0000	1.0000
L64	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	8.83 - 13.83	1.0000	1.0000
L64	17	9207(5/16")	8.83 - 13.83	1.0000	1.0000
L64	22	CU12PSM9P6XXX(1-1/2)	8.83 - 13.83	1.0000	1.0000
L64	29	(Area) CCI-65FP-065125 (H)	8.83 - 13.83	1.0000	1.0000
L64	60	(Area) Aero MP3-05 (H)	8.83 - 13.83	1.0000	1.0000
L64	61	(Area) Aero MP3-05 (H)	8.83 - 13.83	1.0000	1.0000
L64	62	(Area) Aero MP3-05 (H)	8.83 - 13.83	1.0000	1.0000
L64	63	(Area) Aero MP3-05 (H)	8.83 - 13.83	1.0000	1.0000
L64	64	(Area) Aero MP3-05 (H)	11.67 - 13.83	1.0000	1.0000
L65	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	3.83 - 8.83	1.0000	1.0000
L65	17	9207(5/16")	3.83 - 8.83	1.0000	1.0000
L65	22	CU12PSM9P6XXX(1-1/2)	3.83 - 8.83	1.0000	1.0000
L65	29	(Area) CCI-65FP-065125 (H)	3.83 - 8.83	1.0000	1.0000
L65	60	(Area) Aero MP3-05 (H)	3.83 - 8.83	1.0000	1.0000
L65	61	(Area) Aero MP3-05 (H)	3.83 - 8.83	1.0000	1.0000
L65	62	(Area) Aero MP3-05 (H)	3.83 - 8.83	1.0000	1.0000
L65	63	(Area) Aero MP3-05 (H)	3.83 - 8.83	1.0000	1.0000
L66	14	MLE Hybrid 9Power/18Fiber RL 2( 1 5/8)	0.00 - 3.83	1.0000	1.0000
L66	17	9207(5/16")	0.00 - 3.83	1.0000	1.0000
L66	22	CU12PSM9P6XXX(1-1/2)	0.00 - 3.83	1.0000	1.0000
L66	29	(Area) CCI-65FP-065125 (H)	0.50 - 3.83	1.0000	1.0000
L66	60	(Area) Aero MP3-05 (H)	0.50 - 3.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L66	61	(Area) Aero MP3-05 (H)	0.50 - 3.83	1.0000	1.0000
L66	62	(Area) Aero MP3-05 (H)	0.50 - 3.83	1.0000	1.0000
L66	63	(Area) Aero MP3-05 (H)	0.50 - 3.83	1.0000	1.0000

**Effective Width of Flat Linear Attachments / Feed Lines**

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L8	47	(Area) Aero MP3-03 (H)	102.00 - 103.17	Auto	0.0000
L8	48	(Area) Aero MP3-03 (H)	102.00 - 103.17	Auto	0.0000
L8	49	(Area) Aero MP3-03 (H)	102.00 - 103.17	Auto	0.0000
L9	47	(Area) Aero MP3-03 (H)	101.75 - 102.00	Auto	0.0000
L9	48	(Area) Aero MP3-03 (H)	101.75 - 102.00	Auto	0.0000
L9	49	(Area) Aero MP3-03 (H)	101.75 - 102.00	Auto	0.0000
L10	47	(Area) Aero MP3-03 (H)	96.75 - 101.75	Auto	0.0000
L10	48	(Area) Aero MP3-03 (H)	96.75 - 101.75	Auto	0.0000
L10	49	(Area) Aero MP3-03 (H)	96.75 - 101.75	Auto	0.0000
L11	35	(Area) CCI-65FP-060100 (H)	91.75 - 95.00	Auto	0.0260
L11	36	(Area) CCI-65FP-060100 (H)	91.75 - 95.00	Auto	0.0260
L11	47	(Area) Aero MP3-03 (H)	93.17 - 96.75	Auto	0.0000
L11	48	(Area) Aero MP3-03 (H)	93.17 - 96.75	Auto	0.0000
L11	49	(Area) Aero MP3-03 (H)	93.17 - 96.75	Auto	0.0000
L12	35	(Area) CCI-65FP-060100 (H)	90.75 - 91.75	Auto	0.0205
L12	36	(Area) CCI-65FP-060100 (H)	90.75 - 91.75	Auto	0.0205
L13	35	(Area) CCI-65FP-060100 (H)	85.75 - 90.75	Auto	0.0028
L13	36	(Area) CCI-65FP-060100 (H)	85.75 - 90.75	Auto	0.0028
L13	44	(Area) Aero MP3-03 (H)	85.75 - 86.50	Auto	0.0000
L13	45	(Area) Aero MP3-03 (H)	85.75 - 86.50	Auto	0.0000
L13	46	(Area) Aero MP3-03 (H)	85.75 - 86.50	Auto	0.0000
L14	35	(Area) CCI-65FP-060100 (H)	85.33 - 85.75	Auto	0.0000
L14	36	(Area) CCI-65FP-060100 (H)	85.33 - 85.75	Auto	0.0000
L14	44	(Area) Aero MP3-03 (H)	85.33 - 85.75	Auto	0.0000
L14	45	(Area) Aero MP3-03 (H)	85.33 - 85.75	Auto	0.0000
L14	46	(Area) Aero MP3-03 (H)	85.33 - 85.75	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L15	35	(Area) CCI-65FP-060100 (H)	85.75 - 85.08 - 85.33	Auto	0.0517
L15	36	(Area) CCI-65FP-060100 (H)	85.08 - 85.33	Auto	0.0517
L15	44	(Area) Aero MP3-03 (H)	85.08 - 85.33	Auto	0.0000
L15	45	(Area) Aero MP3-03 (H)	85.08 - 85.33	Auto	0.0000
L15	46	(Area) Aero MP3-03 (H)	85.08 - 85.33	Auto	0.0000
L16	33	(Area) CCI-65FP-060100 (H)	82.50 - 84.50	Auto	0.0332
L16	34	(Area) CCI-65FP-060100 (H)	82.50 - 84.50	Auto	0.0332
L16	35	(Area) CCI-65FP-060100 (H)	82.50 - 85.08	Auto	0.0359
L16	36	(Area) CCI-65FP-060100 (H)	82.50 - 85.08	Auto	0.0359
L16	44	(Area) Aero MP3-03 (H)	82.50 - 85.08	Auto	0.0000
L16	45	(Area) Aero MP3-03 (H)	82.50 - 85.08	Auto	0.0000
L16	46	(Area) Aero MP3-03 (H)	82.50 - 85.08	Auto	0.0000
L17	33	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	Auto	0.0201
L17	34	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	Auto	0.0201
L17	35	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	Auto	0.0201
L17	36	(Area) CCI-65FP-060100 (H)	82.25 - 82.50	Auto	0.0201
L17	44	(Area) Aero MP3-03 (H)	82.25 - 82.50	Auto	0.0000
L17	45	(Area) Aero MP3-03 (H)	82.25 - 82.50	Auto	0.0000
L17	46	(Area) Aero MP3-03 (H)	82.25 - 82.50	Auto	0.0000
L18	33	(Area) CCI-65FP-060100 (H)	82.00 - 82.25	Auto	0.0178
L18	34	(Area) CCI-65FP-060100 (H)	82.00 - 82.25	Auto	0.0178
L18	35	(Area) CCI-65FP-060100 (H)	82.00 - 82.25	Auto	0.0178
L18	36	(Area) CCI-65FP-060100 (H)	82.00 - 82.25	Auto	0.0178
L18	44	(Area) Aero MP3-03 (H)	82.00 - 82.25	Auto	0.0000
L18	45	(Area) Aero MP3-03 (H)	82.00 - 82.25	Auto	0.0000
L18	46	(Area) Aero MP3-03 (H)	82.00 - 82.25	Auto	0.0000
L19	33	(Area) CCI-65FP-060100 (H)	81.75 - 82.00	Auto	0.0000
L19	34	(Area) CCI-65FP-060100 (H)	81.75 - 82.00	Auto	0.0000
L19	35	(Area) CCI-65FP-060100 (H)	81.75 - 82.00	Auto	0.0000
L19	36	(Area) CCI-65FP-060100 (H)	81.75 - 82.00	Auto	0.0000
L19	44	(Area) Aero MP3-03 (H)	81.75 - 82.00	Auto	0.0000
L19	45	(Area) Aero MP3-03 (H)	81.75 - 82.00	Auto	0.0000
L19	46	(Area) Aero MP3-03 (H)	81.75 - 82.00	Auto	0.0000
L20	33	(Area) CCI-65FP-060100	78.83 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L20	34	(Area) CCI-65FP-060100 (H)	81.75	Auto	0.0000
L20	35	(Area) CCI-65FP-060100 (H)	78.83 - 81.75	Auto	0.0000
L20	36	(Area) CCI-65FP-060100 (H)	80.00 - 81.75	Auto	0.0000
L20	44	(Area) Aero MP3-03 (H)	80.00 - 81.75	Auto	0.0000
L20	45	(Area) Aero MP3-03 (H)	78.83 - 81.75	Auto	0.0000
L20	46	(Area) Aero MP3-03 (H)	78.83 - 81.75	Auto	0.0000
L20	55	(Area) Aero MP3-03 (H)	78.83 - 80.00	Auto	0.0000
L20	56	(Area) Aero MP3-03 (H)	78.83 - 80.00	Auto	0.0000
L20	57	(Area) Aero MP3-03 (H)	78.83 - 80.00	Auto	0.0000
L21	33	(Area) CCI-65FP-060100 (H)	78.58 - 78.83	Auto	0.0201
L21	34	(Area) CCI-65FP-060100 (H)	78.58 - 78.83	Auto	0.0201
L21	44	(Area) Aero MP3-03 (H)	78.58 - 78.83	Auto	0.0000
L21	45	(Area) Aero MP3-03 (H)	78.58 - 78.83	Auto	0.0000
L21	46	(Area) Aero MP3-03 (H)	78.58 - 78.83	Auto	0.0000
L21	55	(Area) Aero MP3-03 (H)	78.58 - 78.83	Auto	0.0000
L21	56	(Area) Aero MP3-03 (H)	78.58 - 78.83	Auto	0.0000
L21	57	(Area) Aero MP3-03 (H)	78.58 - 78.83	Auto	0.0000
L22	33	(Area) CCI-65FP-060100 (H)	77.67 - 78.58	Auto	0.0147
L22	34	(Area) CCI-65FP-060100 (H)	77.67 - 78.58	Auto	0.0147
L22	44	(Area) Aero MP3-03 (H)	77.67 - 78.58	Auto	0.0000
L22	45	(Area) Aero MP3-03 (H)	77.67 - 78.58	Auto	0.0000
L22	46	(Area) Aero MP3-03 (H)	77.67 - 78.58	Auto	0.0000
L22	55	(Area) Aero MP3-03 (H)	77.67 - 78.58	Auto	0.0000
L22	56	(Area) Aero MP3-03 (H)	77.67 - 78.58	Auto	0.0000
L22	57	(Area) Aero MP3-03 (H)	77.67 - 78.58	Auto	0.0000
L23	33	(Area) CCI-65FP-060100 (H)	77.42 - 77.67	Auto	0.0000
L23	34	(Area) CCI-65FP-060100 (H)	77.42 - 77.67	Auto	0.0000
L23	44	(Area) Aero MP3-03 (H)	77.42 - 77.67	Auto	0.0000
L23	45	(Area) Aero MP3-03 (H)	77.42 - 77.67	Auto	0.0000
L23	46	(Area) Aero MP3-03 (H)	77.42 - 77.67	Auto	0.0000
L23	55	(Area) Aero MP3-03 (H)	77.42 - 77.67	Auto	0.0000
L23	56	(Area) Aero MP3-03 (H)	77.42 - 77.67	Auto	0.0000
L23	57	(Area) Aero MP3-03 (H)	77.42 - 77.67	Auto	0.0000
L24	33	(Area) CCI-65FP-060100	77.17 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L24	34	(Area) CCI-65FP-060100 (H)	77.42	Auto	0.0000
L24	44	(Area) Aero MP3-03 (H)	77.17 - 77.42	Auto	0.0000
L24	45	(Area) Aero MP3-03 (H)	77.17 - 77.42	Auto	0.0000
L24	46	(Area) Aero MP3-03 (H)	77.17 - 77.42	Auto	0.0000
L24	55	(Area) Aero MP3-03 (H)	77.17 - 77.42	Auto	0.0000
L24	56	(Area) Aero MP3-03 (H)	77.17 - 77.42	Auto	0.0000
L24	57	(Area) Aero MP3-03 (H)	77.17 - 77.42	Auto	0.0000
L25	33	(Area) CCI-65FP-060100 (H)	72.17 - 77.17	Auto	0.0000
L25	34	(Area) CCI-65FP-060100 (H)	72.17 - 77.17	Auto	0.0000
L25	44	(Area) Aero MP3-03 (H)	72.17 - 77.17	Auto	0.0000
L25	45	(Area) Aero MP3-03 (H)	76.50 - 77.17	Auto	0.0000
L25	46	(Area) Aero MP3-03 (H)	76.50 - 77.17	Auto	0.0000
L25	55	(Area) Aero MP3-03 (H)	72.17 - 77.17	Auto	0.0000
L25	56	(Area) Aero MP3-03 (H)	72.17 - 77.17	Auto	0.0000
L25	57	(Area) Aero MP3-03 (H)	72.17 - 77.17	Auto	0.0000
L26	33	(Area) CCI-65FP-060100 (H)	67.17 - 72.17	Auto	0.0000
L26	34	(Area) CCI-65FP-060100 (H)	67.17 - 72.17	Auto	0.0000
L26	44	(Area) Aero MP3-03 (H)	67.17 - 72.17	Auto	0.0000
L26	55	(Area) Aero MP3-03 (H)	67.17 - 72.17	Auto	0.0000
L26	56	(Area) Aero MP3-03 (H)	67.17 - 72.17	Auto	0.0000
L26	57	(Area) Aero MP3-03 (H)	67.17 - 72.17	Auto	0.0000
L26	65	(Area) Aero MP3-05 (H)	67.17 - 69.00	Auto	0.0000
L26	66	(Area) Aero MP3-05 (H)	67.17 - 69.00	Auto	0.0000
L26	67	(Area) Aero MP3-05 (H)	67.17 - 69.00	Auto	0.0000
L27	33	(Area) CCI-65FP-060100 (H)	66.58 - 67.17	Auto	0.0000
L27	34	(Area) CCI-65FP-060100 (H)	66.58 - 67.17	Auto	0.0000
L27	44	(Area) Aero MP3-03 (H)	66.58 - 67.17	Auto	0.0000
L27	55	(Area) Aero MP3-03 (H)	66.58 - 67.17	Auto	0.0000
L27	56	(Area) Aero MP3-03 (H)	66.58 - 67.17	Auto	0.0000
L27	57	(Area) Aero MP3-03 (H)	66.58 - 67.17	Auto	0.0000
L27	65	(Area) Aero MP3-05 (H)	66.58 - 67.17	Auto	0.0000
L27	66	(Area) Aero MP3-05 (H)	66.58 - 67.17	Auto	0.0000
L27	67	(Area) Aero MP3-05 (H)	66.58 - 67.17	Auto	0.0000
L28	33	(Area) CCI-65FP-060100	66.33 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L28	34	(Area) CCI-65FP-060100 (H)	66.58	Auto	0.0000
L28	44	(Area) Aero MP3-03 (H)	66.33 - 66.58	Auto	0.0000
L28	55	(Area) Aero MP3-03 (H)	66.33 - 66.58	Auto	0.0000
L28	56	(Area) Aero MP3-03 (H)	66.33 - 66.58	Auto	0.0000
L28	57	(Area) Aero MP3-03 (H)	66.33 - 66.58	Auto	0.0000
L28	65	(Area) Aero MP3-05 (H)	66.33 - 66.58	Auto	0.0000
L28	66	(Area) Aero MP3-05 (H)	66.33 - 66.58	Auto	0.0000
L28	67	(Area) Aero MP3-05 (H)	66.33 - 66.58	Auto	0.0000
L29	33	(Area) CCI-65FP-060100 (H)	66.17 - 66.33	Auto	0.0000
L29	34	(Area) CCI-65FP-060100 (H)	66.17 - 66.33	Auto	0.0000
L29	44	(Area) Aero MP3-03 (H)	66.17 - 66.33	Auto	0.0000
L29	55	(Area) Aero MP3-03 (H)	66.17 - 66.33	Auto	0.0000
L29	56	(Area) Aero MP3-03 (H)	66.17 - 66.33	Auto	0.0000
L29	57	(Area) Aero MP3-03 (H)	66.17 - 66.33	Auto	0.0000
L29	65	(Area) Aero MP3-05 (H)	66.17 - 66.33	Auto	0.0000
L29	66	(Area) Aero MP3-05 (H)	66.17 - 66.33	Auto	0.0000
L29	67	(Area) Aero MP3-05 (H)	66.17 - 66.33	Auto	0.0000
L30	33	(Area) CCI-65FP-060100 (H)	65.92 - 66.17	Auto	0.0000
L30	34	(Area) CCI-65FP-060100 (H)	65.92 - 66.17	Auto	0.0000
L30	44	(Area) Aero MP3-03 (H)	65.92 - 66.17	Auto	0.0000
L30	55	(Area) Aero MP3-03 (H)	65.92 - 66.17	Auto	0.0000
L30	56	(Area) Aero MP3-03 (H)	65.92 - 66.17	Auto	0.0000
L30	57	(Area) Aero MP3-03 (H)	65.92 - 66.17	Auto	0.0000
L30	65	(Area) Aero MP3-05 (H)	65.92 - 66.17	Auto	0.0000
L30	66	(Area) Aero MP3-05 (H)	65.92 - 66.17	Auto	0.0000
L30	67	(Area) Aero MP3-05 (H)	65.92 - 66.17	Auto	0.0000
L31	33	(Area) CCI-65FP-060100 (H)	64.50 - 65.92	Auto	0.0000
L31	34	(Area) CCI-65FP-060100 (H)	64.50 - 65.92	Auto	0.0000
L31	44	(Area) Aero MP3-03 (H)	62.67 - 65.92	Auto	0.0000
L31	55	(Area) Aero MP3-03 (H)	65.00 - 65.92	Auto	0.0000
L31	56	(Area) Aero MP3-03 (H)	65.00 - 65.92	Auto	0.0000
L31	57	(Area) Aero MP3-03 (H)	65.00 - 65.92	Auto	0.0000
L31	65	(Area) Aero MP3-05 (H)	62.67 - 65.92	Auto	0.0000
L31	66	(Area) Aero MP3-05 (H)	62.67 - 65.92	Auto	0.0000



Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L31	67	(Area) Aero MP3-05 (H)	65.92 62.67 - 65.92	Auto	0.0000
L32	44	(Area) Aero MP3-03 (H)	62.42 - 62.67	Auto	0.0000
L32	65	(Area) Aero MP3-05 (H)	62.42 - 62.67	Auto	0.0000
L32	66	(Area) Aero MP3-05 (H)	62.42 - 62.67	Auto	0.0000
L32	67	(Area) Aero MP3-05 (H)	62.42 - 62.67	Auto	0.0000
L33	32	(Area) CCI-65FP-060100 (H)	60.00 - 62.00	Auto	0.0000
L33	44	(Area) Aero MP3-03 (H)	61.50 - 62.42	Auto	0.0000
L33	65	(Area) Aero MP3-05 (H)	60.00 - 62.42	Auto	0.0000
L33	66	(Area) Aero MP3-05 (H)	60.00 - 62.42	Auto	0.0000
L33	67	(Area) Aero MP3-05 (H)	60.00 - 62.42	Auto	0.0000
L34	32	(Area) CCI-65FP-060100 (H)	59.75 - 60.00	Auto	0.0000
L34	65	(Area) Aero MP3-05 (H)	59.75 - 60.00	Auto	0.0000
L34	66	(Area) Aero MP3-05 (H)	59.75 - 60.00	Auto	0.0000
L34	67	(Area) Aero MP3-05 (H)	59.75 - 60.00	Auto	0.0000
L35	32	(Area) CCI-65FP-060100 (H)	58.33 - 59.75	Auto	0.0000
L35	65	(Area) Aero MP3-05 (H)	58.33 - 59.75	Auto	0.0000
L35	66	(Area) Aero MP3-05 (H)	58.33 - 59.75	Auto	0.0000
L35	67	(Area) Aero MP3-05 (H)	58.33 - 59.75	Auto	0.0000
L36	32	(Area) CCI-65FP-060100 (H)	58.08 - 58.33	Auto	0.0000
L36	65	(Area) Aero MP3-05 (H)	58.08 - 58.33	Auto	0.0000
L36	66	(Area) Aero MP3-05 (H)	58.08 - 58.33	Auto	0.0000
L36	67	(Area) Aero MP3-05 (H)	58.08 - 58.33	Auto	0.0000
L37	32	(Area) CCI-65FP-060100 (H)	53.08 - 58.08	Auto	0.0000
L37	65	(Area) Aero MP3-05 (H)	53.08 - 58.08	Auto	0.0000
L37	66	(Area) Aero MP3-05 (H)	53.08 - 58.08	Auto	0.0000
L37	67	(Area) Aero MP3-05 (H)	53.08 - 58.08	Auto	0.0000
L38	32	(Area) CCI-65FP-060100 (H)	52.83 - 53.08	Auto	0.0000
L38	65	(Area) Aero MP3-05 (H)	52.83 - 53.08	Auto	0.0000
L38	66	(Area) Aero MP3-05 (H)	52.83 - 53.08	Auto	0.0000
L38	67	(Area) Aero MP3-05 (H)	52.83 - 53.08	Auto	0.0000
L39	32	(Area) CCI-65FP-060100 (H)	52.58 - 52.83	Auto	0.0000
L39	65	(Area) Aero MP3-05 (H)	52.58 - 52.83	Auto	0.0000
L39	66	(Area) Aero MP3-05 (H)	52.58 - 52.83	Auto	0.0000
L39	67	(Area) Aero MP3-05 (H)	52.58 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L40	32	(Area) CCI-65FP-060100 (H)	52.83 51.42 - 52.58	Auto	0.0000
L40	52	(Area) Aero MP3-05 (H)	51.42 - 52.25	Auto	0.0000
L40	53	(Area) Aero MP3-05 (H)	51.42 - 52.25	Auto	0.0000
L40	54	(Area) Aero MP3-05 (H)	51.42 - 52.25	Auto	0.0000
L40	65	(Area) Aero MP3-05 (H)	51.42 - 52.58	Auto	0.0000
L40	66	(Area) Aero MP3-05 (H)	51.42 - 52.58	Auto	0.0000
L40	67	(Area) Aero MP3-05 (H)	51.42 - 52.58	Auto	0.0000
L41	32	(Area) CCI-65FP-060100 (H)	51.17 - 51.42	Auto	0.0000
L41	52	(Area) Aero MP3-05 (H)	51.17 - 51.42	Auto	0.0000
L41	53	(Area) Aero MP3-05 (H)	51.17 - 51.42	Auto	0.0000
L41	54	(Area) Aero MP3-05 (H)	51.17 - 51.42	Auto	0.0000
L41	65	(Area) Aero MP3-05 (H)	51.17 - 51.42	Auto	0.0000
L41	66	(Area) Aero MP3-05 (H)	51.17 - 51.42	Auto	0.0000
L41	67	(Area) Aero MP3-05 (H)	51.17 - 51.42	Auto	0.0000
L42	32	(Area) CCI-65FP-060100 (H)	47.00 - 51.17	Auto	0.0000
L42	52	(Area) Aero MP3-05 (H)	46.50 - 51.17	Auto	0.0000
L42	53	(Area) Aero MP3-05 (H)	46.50 - 51.17	Auto	0.0000
L42	54	(Area) Aero MP3-05 (H)	46.50 - 51.17	Auto	0.0000
L42	64	(Area) Aero MP3-05 (H)	46.50 - 46.67	Auto	0.0000
L42	65	(Area) Aero MP3-05 (H)	49.00 - 51.17	Auto	0.0000
L42	66	(Area) Aero MP3-05 (H)	49.00 - 51.17	Auto	0.0000
L42	67	(Area) Aero MP3-05 (H)	49.00 - 51.17	Auto	0.0000
L43	30	(Area) CCI-65FP-060100 (H)	45.50 - 46.50	Auto	0.0000
L43	31	(Area) CCI-65FP-060100 (H)	45.50 - 46.50	Auto	0.0000
L43	52	(Area) Aero MP3-05 (H)	45.50 - 46.50	Auto	0.0000
L43	53	(Area) Aero MP3-05 (H)	45.50 - 46.50	Auto	0.0000
L43	54	(Area) Aero MP3-05 (H)	45.50 - 46.50	Auto	0.0000
L43	64	(Area) Aero MP3-05 (H)	45.50 - 46.50	Auto	0.0000
L44	30	(Area) CCI-65FP-060100 (H)	44.25 - 45.50	Auto	0.0000
L44	31	(Area) CCI-65FP-060100 (H)	44.25 - 45.50	Auto	0.0000
L44	52	(Area) Aero MP3-05 (H)	44.25 - 45.50	Auto	0.0000
L44	53	(Area) Aero MP3-05 (H)	44.25 - 45.50	Auto	0.0000
L44	54	(Area) Aero MP3-05 (H)	44.25 - 45.50	Auto	0.0000
L44	62	(Area) Aero MP3-05 (H)	44.25 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L44	63	(Area) Aero MP3-05 (H)	45.50 44.25 - 45.50	Auto	0.0000
L44	64	(Area) Aero MP3-05 (H)	44.25 - 45.50	Auto	0.0000
L45	30	(Area) CCI-65FP-060100 (H)	44.00 - 44.25	Auto	0.0000
L45	31	(Area) CCI-65FP-060100 (H)	44.00 - 44.25	Auto	0.0000
L45	52	(Area) Aero MP3-05 (H)	44.00 - 44.25	Auto	0.0000
L45	53	(Area) Aero MP3-05 (H)	44.00 - 44.25	Auto	0.0000
L45	54	(Area) Aero MP3-05 (H)	44.00 - 44.25	Auto	0.0000
L45	62	(Area) Aero MP3-05 (H)	44.00 - 44.25	Auto	0.0000
L45	63	(Area) Aero MP3-05 (H)	44.00 - 44.25	Auto	0.0000
L45	64	(Area) Aero MP3-05 (H)	44.00 - 44.25	Auto	0.0000
L46	30	(Area) CCI-65FP-060100 (H)	43.08 - 44.00	Auto	0.0000
L46	31	(Area) CCI-65FP-060100 (H)	43.08 - 44.00	Auto	0.0000
L46	52	(Area) Aero MP3-05 (H)	43.08 - 44.00	Auto	0.0000
L46	53	(Area) Aero MP3-05 (H)	43.08 - 44.00	Auto	0.0000
L46	54	(Area) Aero MP3-05 (H)	43.08 - 44.00	Auto	0.0000
L46	62	(Area) Aero MP3-05 (H)	43.08 - 44.00	Auto	0.0000
L46	63	(Area) Aero MP3-05 (H)	43.08 - 44.00	Auto	0.0000
L46	64	(Area) Aero MP3-05 (H)	43.08 - 44.00	Auto	0.0000
L47	30	(Area) CCI-65FP-060100 (H)	42.83 - 43.08	Auto	0.0000
L47	31	(Area) CCI-65FP-060100 (H)	42.83 - 43.08	Auto	0.0000
L47	52	(Area) Aero MP3-05 (H)	42.83 - 43.08	Auto	0.0000
L47	53	(Area) Aero MP3-05 (H)	42.83 - 43.08	Auto	0.0000
L47	54	(Area) Aero MP3-05 (H)	42.83 - 43.08	Auto	0.0000
L47	62	(Area) Aero MP3-05 (H)	42.83 - 43.08	Auto	0.0000
L47	63	(Area) Aero MP3-05 (H)	42.83 - 43.08	Auto	0.0000
L47	64	(Area) Aero MP3-05 (H)	42.83 - 43.08	Auto	0.0000
L48	30	(Area) CCI-65FP-060100 (H)	37.83 - 42.83	Auto	0.0000
L48	31	(Area) CCI-65FP-060100 (H)	37.83 - 42.83	Auto	0.0000
L48	52	(Area) Aero MP3-05 (H)	40.25 - 42.83	Auto	0.0000
L48	53	(Area) Aero MP3-05 (H)	40.25 - 42.83	Auto	0.0000
L48	54	(Area) Aero MP3-05 (H)	40.25 - 42.83	Auto	0.0000
L48	62	(Area) Aero MP3-05 (H)	37.83 - 42.83	Auto	0.0000
L48	63	(Area) Aero MP3-05 (H)	37.83 - 42.83	Auto	0.0000
L48	64	(Area) Aero MP3-05 (H)	37.83 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L49	30	(Area) CCI-65FP-060100 (H)	42.83 32.83 - 37.83	Auto	0.0000
L49	31	(Area) CCI-65FP-060100 (H)	32.83 - 37.83	Auto	0.0000
L49	62	(Area) Aero MP3-05 (H)	32.83 - 37.83	Auto	0.0000
L49	63	(Area) Aero MP3-05 (H)	32.83 - 37.83	Auto	0.0000
L49	64	(Area) Aero MP3-05 (H)	32.83 - 37.83	Auto	0.0000
L50	29	(Area) CCI-65FP-065125 (H)	29.25 - 30.50	Auto	0.0000
L50	30	(Area) CCI-65FP-060100 (H)	29.25 - 32.83	Auto	0.0000
L50	31	(Area) CCI-65FP-060100 (H)	29.25 - 32.83	Auto	0.0000
L50	62	(Area) Aero MP3-05 (H)	29.25 - 32.83	Auto	0.0000
L50	63	(Area) Aero MP3-05 (H)	29.25 - 32.83	Auto	0.0000
L50	64	(Area) Aero MP3-05 (H)	29.25 - 32.83	Auto	0.0000
L51	29	(Area) CCI-65FP-065125 (H)	29.00 - 29.25	Auto	0.0000
L51	30	(Area) CCI-65FP-060100 (H)	29.00 - 29.25	Auto	0.0000
L51	31	(Area) CCI-65FP-060100 (H)	29.00 - 29.25	Auto	0.0000
L51	62	(Area) Aero MP3-05 (H)	29.00 - 29.25	Auto	0.0000
L51	63	(Area) Aero MP3-05 (H)	29.00 - 29.25	Auto	0.0000
L51	64	(Area) Aero MP3-05 (H)	29.00 - 29.25	Auto	0.0000
L52	29	(Area) CCI-65FP-065125 (H)	27.75 - 29.00	Auto	0.0000
L52	30	(Area) CCI-65FP-060100 (H)	27.75 - 29.00	Auto	0.0000
L52	31	(Area) CCI-65FP-060100 (H)	27.75 - 29.00	Auto	0.0000
L52	62	(Area) Aero MP3-05 (H)	27.75 - 29.00	Auto	0.0000
L52	63	(Area) Aero MP3-05 (H)	27.75 - 29.00	Auto	0.0000
L52	64	(Area) Aero MP3-05 (H)	27.75 - 29.00	Auto	0.0000
L53	29	(Area) CCI-65FP-065125 (H)	27.50 - 27.75	Auto	0.0000
L53	30	(Area) CCI-65FP-060100 (H)	27.50 - 27.75	Auto	0.0000
L53	31	(Area) CCI-65FP-060100 (H)	27.50 - 27.75	Auto	0.0000
L53	62	(Area) Aero MP3-05 (H)	27.50 - 27.75	Auto	0.0000
L53	63	(Area) Aero MP3-05 (H)	27.50 - 27.75	Auto	0.0000
L53	64	(Area) Aero MP3-05 (H)	27.50 - 27.75	Auto	0.0000
L54	29	(Area) CCI-65FP-065125 (H)	24.08 - 27.50	Auto	0.0000
L54	30	(Area) CCI-65FP-060100 (H)	24.08 - 27.50	Auto	0.0000
L54	31	(Area) CCI-65FP-060100 (H)	24.08 - 27.50	Auto	0.0000
L54	40	(Area) Aero MP3-05 (H)	24.08 - 26.50	Auto	0.0000
L54	62	(Area) Aero MP3-05 (H)	24.08 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L54	63	(Area) Aero MP3-05 (H)	27.50 24.08 - 27.50	Auto	0.0000
L54	64	(Area) Aero MP3-05 (H)	24.08 - 27.50	Auto	0.0000
L55	29	(Area) CCI-65FP-065125 (H)	23.83 - 24.08	Auto	0.0000
L55	30	(Area) CCI-65FP-060100 (H)	23.83 - 24.08	Auto	0.0000
L55	31	(Area) CCI-65FP-060100 (H)	23.83 - 24.08	Auto	0.0000
L55	40	(Area) Aero MP3-05 (H)	23.83 - 24.08	Auto	0.0000
L55	62	(Area) Aero MP3-05 (H)	23.83 - 24.08	Auto	0.0000
L55	63	(Area) Aero MP3-05 (H)	23.83 - 24.08	Auto	0.0000
L55	64	(Area) Aero MP3-05 (H)	23.83 - 24.08	Auto	0.0000
L56	29	(Area) CCI-65FP-065125 (H)	23.50 - 23.83	Auto	0.0000
L56	30	(Area) CCI-65FP-060100 (H)	23.50 - 23.83	Auto	0.0000
L56	31	(Area) CCI-65FP-060100 (H)	23.50 - 23.83	Auto	0.0000
L56	40	(Area) Aero MP3-05 (H)	23.50 - 23.83	Auto	0.0000
L56	62	(Area) Aero MP3-05 (H)	23.50 - 23.83	Auto	0.0000
L56	63	(Area) Aero MP3-05 (H)	23.50 - 23.83	Auto	0.0000
L56	64	(Area) Aero MP3-05 (H)	23.50 - 23.83	Auto	0.0000
L57	29	(Area) CCI-65FP-065125 (H)	23.25 - 23.50	Auto	0.0000
L57	30	(Area) CCI-65FP-060100 (H)	23.25 - 23.50	Auto	0.0000
L57	31	(Area) CCI-65FP-060100 (H)	23.25 - 23.50	Auto	0.0000
L57	40	(Area) Aero MP3-05 (H)	23.25 - 23.50	Auto	0.0000
L57	62	(Area) Aero MP3-05 (H)	23.25 - 23.50	Auto	0.0000
L57	63	(Area) Aero MP3-05 (H)	23.25 - 23.50	Auto	0.0000
L57	64	(Area) Aero MP3-05 (H)	23.25 - 23.50	Auto	0.0000
L58	29	(Area) CCI-65FP-065125 (H)	18.92 - 23.25	Auto	0.0000
L58	30	(Area) CCI-65FP-060100 (H)	21.50 - 23.25	Auto	0.0000
L58	31	(Area) CCI-65FP-060100 (H)	21.50 - 23.25	Auto	0.0000
L58	40	(Area) Aero MP3-05 (H)	18.92 - 23.25	Auto	0.0000
L58	60	(Area) Aero MP3-05 (H)	18.92 - 20.50	Auto	0.0000
L58	61	(Area) Aero MP3-05 (H)	18.92 - 20.50	Auto	0.0000
L58	62	(Area) Aero MP3-05 (H)	18.92 - 23.25	Auto	0.0000
L58	63	(Area) Aero MP3-05 (H)	18.92 - 23.25	Auto	0.0000
L58	64	(Area) Aero MP3-05 (H)	18.92 - 23.25	Auto	0.0000
L59	29	(Area) CCI-65FP-065125 (H)	18.67 - 18.92	Auto	0.0000
L59	40	(Area) Aero MP3-05 (H)	18.67 -	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L59	60	(Area) Aero MP3-05 (H)	18.92 18.67 - 18.92	Auto	0.0000
L59	61	(Area) Aero MP3-05 (H)	18.67 - 18.92	Auto	0.0000
L59	62	(Area) Aero MP3-05 (H)	18.67 - 18.92	Auto	0.0000
L59	63	(Area) Aero MP3-05 (H)	18.67 - 18.92	Auto	0.0000
L59	64	(Area) Aero MP3-05 (H)	18.67 - 18.92	Auto	0.0000
L60	29	(Area) CCI-65FP-065125 (H)	18.08 - 18.67	Auto	0.0000
L60	40	(Area) Aero MP3-05 (H)	18.08 - 18.67	Auto	0.0000
L60	60	(Area) Aero MP3-05 (H)	18.08 - 18.67	Auto	0.0000
L60	61	(Area) Aero MP3-05 (H)	18.08 - 18.67	Auto	0.0000
L60	62	(Area) Aero MP3-05 (H)	18.08 - 18.67	Auto	0.0000
L60	63	(Area) Aero MP3-05 (H)	18.08 - 18.67	Auto	0.0000
L60	64	(Area) Aero MP3-05 (H)	18.08 - 18.67	Auto	0.0000
L61	29	(Area) CCI-65FP-065125 (H)	17.83 - 18.08	Auto	0.0000
L61	40	(Area) Aero MP3-05 (H)	17.83 - 18.08	Auto	0.0000
L61	60	(Area) Aero MP3-05 (H)	17.83 - 18.08	Auto	0.0000
L61	61	(Area) Aero MP3-05 (H)	17.83 - 18.08	Auto	0.0000
L61	62	(Area) Aero MP3-05 (H)	17.83 - 18.08	Auto	0.0000
L61	63	(Area) Aero MP3-05 (H)	17.83 - 18.08	Auto	0.0000
L61	64	(Area) Aero MP3-05 (H)	17.83 - 18.08	Auto	0.0000
L62	29	(Area) CCI-65FP-065125 (H)	14.08 - 17.83	Auto	0.0000
L62	40	(Area) Aero MP3-05 (H)	16.50 - 17.83	Auto	0.0000
L62	60	(Area) Aero MP3-05 (H)	14.08 - 17.83	Auto	0.0000
L62	61	(Area) Aero MP3-05 (H)	14.08 - 17.83	Auto	0.0000
L62	62	(Area) Aero MP3-05 (H)	14.08 - 17.83	Auto	0.0000
L62	63	(Area) Aero MP3-05 (H)	14.08 - 17.83	Auto	0.0000
L62	64	(Area) Aero MP3-05 (H)	14.08 - 17.83	Auto	0.0000
L63	29	(Area) CCI-65FP-065125 (H)	13.83 - 14.08	Auto	0.0000
L63	60	(Area) Aero MP3-05 (H)	13.83 - 14.08	Auto	0.0000
L63	61	(Area) Aero MP3-05 (H)	13.83 - 14.08	Auto	0.0000
L63	62	(Area) Aero MP3-05 (H)	13.83 - 14.08	Auto	0.0000
L63	63	(Area) Aero MP3-05 (H)	13.83 - 14.08	Auto	0.0000
L63	64	(Area) Aero MP3-05 (H)	13.83 - 14.08	Auto	0.0000
L64	29	(Area) CCI-65FP-065125 (H)	8.83 - 13.83	Auto	0.0000
L64	60	(Area) Aero MP3-05 (H)	8.83 - 13.83	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L64	61	(Area) Aero MP3-05 (H)	8.83 - 13.83	Auto	0.0000
L64	62	(Area) Aero MP3-05 (H)	8.83 - 13.83	Auto	0.0000
L64	63	(Area) Aero MP3-05 (H)	8.83 - 13.83	Auto	0.0000
L64	64	(Area) Aero MP3-05 (H)	11.67 - 13.83	Auto	0.0000
L65	29	(Area) CCI-65FP-065125 (H)	3.83 - 8.83	Auto	0.0000
L65	60	(Area) Aero MP3-05 (H)	3.83 - 8.83	Auto	0.0000
L65	61	(Area) Aero MP3-05 (H)	3.83 - 8.83	Auto	0.0000
L65	62	(Area) Aero MP3-05 (H)	3.83 - 8.83	Auto	0.0000
L65	63	(Area) Aero MP3-05 (H)	3.83 - 8.83	Auto	0.0000
L66	29	(Area) CCI-65FP-065125 (H)	0.50 - 3.83	Auto	0.0000
L66	60	(Area) Aero MP3-05 (H)	0.50 - 3.83	Auto	0.0000
L66	61	(Area) Aero MP3-05 (H)	0.50 - 3.83	Auto	0.0000
L66	62	(Area) Aero MP3-05 (H)	0.50 - 3.83	Auto	0.0000
L66	63	(Area) Aero MP3-05 (H)	0.50 - 3.83	Auto	0.0000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
***					
**139**					
APXV9ERR18-C-A20	A	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
APXV9ERR18-C-A20	B	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
APXV9ERR18-C-A20	C	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
APXVTM14-C-120	A	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
APXVTM14-C-120	B	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
APXVTM14-C-120	C	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
TD-RRH8x20-25	A	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
TD-RRH8x20-25	B	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
TD-RRH8x20-25	C	From Centroid-Face	4.00 0.00 1.00	0.0000	139.00
Platform Mount [LP 1201-1_HR-3] **137**	C	None		0.0000	139.00
800MHz 2X50W RRH W/FILTER	A	From Face	1.00 0.00 3.00	0.0000	137.00

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment  °	Placement  ft
			Horz Lateral ft	Vert ft		
800MHz 2X50W RRH W/FILTER	B	From Face	1.00	0.00	0.0000	137.00
			0.00	3.00		
800MHz 2X50W RRH W/FILTER	C	From Face	1.00	0.00	0.0000	137.00
			0.00	3.00		
PCS 1900MHz 4x45W-65MHz	A	From Face	1.00	0.00	0.0000	137.00
			0.00	0.00		
PCS 1900MHz 4x45W-65MHz	B	From Face	1.00	0.00	0.0000	137.00
			0.00	0.00		
PCS 1900MHz 4x45W-65MHz	C	From Face	1.00	0.00	0.0000	137.00
			0.00	0.00		
Pipe Mount [PM 601-3] **130** **128**	C	None			0.0000	137.00
AIR 6419 B77G_CCIV3 w/ Mount Pipe	A	From Face	1.00	0.00	0.0000	128.00
			0.00	4.00		
AIR 6419 B77G_CCIV3 w/ Mount Pipe	B	From Face	1.00	0.00	0.0000	128.00
			0.00	4.00		
AIR 6419 B77G_CCIV3 w/ Mount Pipe	C	From Face	1.00	0.00	0.0000	128.00
			0.00	4.00		
AIR 6449 B77D_CCIV2 w/ Mount Pipe	A	From Face	4.00	0.00	0.0000	128.00
			0.00	0.00		
AIR 6449 B77D_CCIV2 w/ Mount Pipe	B	From Face	4.00	0.00	0.0000	128.00
			0.00	0.00		
AIR 6449 B77D_CCIV2 w/ Mount Pipe	C	From Face	4.00	0.00	0.0000	128.00
			0.00	0.00		
EPBQ-654L8H8-L2 w/ Mount Pipe	A	From Face	4.00	0.00	0.0000	128.00
			0.00	2.00		
EPBQ-654L8H8-L2 w/ Mount Pipe	B	From Face	4.00	0.00	0.0000	128.00
			0.00	2.00		
EPBQ-654L8H8-L2 w/ Mount Pipe	C	From Face	4.00	0.00	0.0000	128.00
			0.00	2.00		
DMP65R-BU8D w/ Mount Pipe	A	From Face	1.00	0.00	0.0000	128.00
			0.00	2.00		
DMP65R-BU8D w/ Mount Pipe	B	From Face	1.00	0.00	0.0000	128.00
			0.00	2.00		
DMP65R-BU8D w/ Mount Pipe	C	From Face	1.00	0.00	0.0000	128.00
			0.00	2.00		
(2) RRUS 4449 B5/B12	A	From Face	1.00	0.00	0.0000	128.00
			0.00	2.00		
RRUS 4449 B5/B12	C	From Face	4.00	0.00	0.0000	128.00
			0.00	2.00		
RRUS 4478 B14_CCIV2	A	From Face	1.00	0.00	0.0000	128.00
			0.00	2.00		
RRUS 4478 B14_CCIV2	B	From Face	1.00	0.00	0.0000	128.00
			0.00	2.00		



Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement
			Horz Lateral	Vert ft ft		
RRUS 4478 B14_CCIV2	C	From Face	2.00	1.00	0.0000	128.00
			0.00	2.00		
RRUS 4415 B25_CCIV2	A	From Face	1.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 4415 B25_CCIV2	B	From Face	1.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 4415 B25_CCIV2	C	From Face	1.00	0.00	0.0000	128.00
			2.00	0.00		
DC6-48-60-0-8C-EV	B	From Face	1.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 4426 B66	A	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 4426 B66	B	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 4426 B66	C	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 32 B30	A	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 32 B30	B	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
RRUS 32 B30	C	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
DC6-48-60-18-8C	A	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
DC6-48-60-18-8F	B	From Face	4.00	0.00	0.0000	128.00
			0.00	0.00		
DC6-48-60-18-8C	C	From Face	4.00	0.00	0.0000	128.00
			2.00	0.00		
T-Arm Mount [TA 602-3]	C	None			0.0000	128.00
(2) Miscellaneous [NA 509-1]	A	From Face	2.00	0.00	0.0000	128.00
			0.00	0.00		
(2) Miscellaneous [NA 509-1]	B	From Face	2.00	0.00	0.0000	128.00
			0.00	0.00		
(2) Miscellaneous [NA 509-1]	C	From Face	2.00	0.00	0.0000	128.00
			0.00	0.00		
**118**						
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00	0.00	0.0000	118.00
			0.00	0.00		
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00	0.00	0.0000	118.00
			0.00	0.00		
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00	0.00	0.0000	118.00
			0.00	0.00		
TA08025-B604	A	From Leg	4.00	0.00	0.0000	118.00
			0.00	0.00		

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement
			Horz Lateral	Vert ft ft		
TA08025-B604	B	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
TA08025-B604	C	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
TA08025-B605	A	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
TA08025-B605	B	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
TA08025-B605	C	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
RDIDC-9181-PF-48	B	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
Commscope MC-PK8-DSH	C	None			0.0000	118.00
(2) 8' x 2" Mount Pipe	A	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
(2) 8' x 2" Mount Pipe	B	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
(2) 8' x 2" Mount Pipe	C	From Leg	0.00	4.00	0.0000	118.00
			0.00	0.00		
**108**						
(2) SBNHH-1D65B w/ Mount Pipe	A	From Centroid-Face	0.00	4.00	0.0000	108.00
			1.00	0.00		
(2) SBNHH-1D65B w/ Mount Pipe	B	From Centroid-Face	0.00	4.00	0.0000	108.00
			1.00	0.00		
(2) SBNHH-1D65B w/ Mount Pipe	C	From Centroid-Face	0.00	4.00	0.0000	108.00
			1.00	0.00		
BXA-70063-4CF-EDIN-X w/ Mount Pipe	A	From Centroid-Face	0.00	4.00	0.0000	108.00
			2.00	0.00		
BXA-70063-4CF-EDIN-X w/ Mount Pipe	B	From Centroid-Face	0.00	4.00	0.0000	108.00
			2.00	0.00		
BXA-70063-4CF-EDIN-X w/ Mount Pipe	C	From Centroid-Face	0.00	4.00	0.0000	108.00
			2.00	0.00		
CBRS w/ Mount Pipe	A	From Centroid-Face	0.00	4.00	0.0000	108.00
			2.00	0.00		
CBRS w/ Mount Pipe	B	From Centroid-Face	0.00	4.00	0.0000	108.00
			2.00	0.00		
CBRS w/ Mount Pipe	C	From Centroid-Face	0.00	4.00	0.0000	108.00
			2.00	0.00		
DB-T1-6Z-8AB-0Z	A	From Centroid-Face	0.00	4.00	0.0000	108.00
			1.00	0.00		
RFV01U-D1A	A	From Centroid-Face	0.00	4.00	0.0000	108.00
			1.00	0.00		
RFV01U-D1A	B	From Centroid-Face	0.00	4.00	0.0000	108.00
			0.00	0.00		

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
RFV01U-D1A	C	From Centroid-Face	1.00 4.00 0.00	0.0000	108.00
20W CBRS	A	From Centroid-Face	1.00 4.00 0.00	0.0000	108.00
20W CBRS	B	From Centroid-Face	1.00 4.00 0.00	0.0000	108.00
20W CBRS	C	From Centroid-Face	1.00 4.00 0.00	0.0000	108.00
RFV01U-D2A	A	From Centroid-Face	1.00 4.00 0.00	0.0000	108.00
RFV01U-D2A	B	From Centroid-Face	1.00 4.00 0.00	0.0000	108.00
RFV01U-D2A	C	From Centroid-Face	1.00 4.00 0.00	0.0000	108.00
Platform Mount [LP 304-1_KCKR] **100**	C	None	1.00	0.0000	108.00
VV-65A-R1_TMO	A	From Leg	4.00 0.00 0.00	0.0000	100.00
VV-65A-R1_TMO	B	From Leg	4.00 0.00 0.00	0.0000	100.00
VV-65A-R1_TMO	C	From Leg	4.00 0.00 0.00	0.0000	100.00
AIR 6419 B41_TMO	A	From Leg	4.00 0.00 0.00	0.0000	100.00
AIR 6419 B41_TMO	B	From Leg	4.00 0.00 0.00	0.0000	100.00
AIR 6419 B41_TMO	C	From Leg	4.00 0.00 0.00	0.0000	100.00
APXVAARR24_43-U-NA20_T-MOBILE	A	From Leg	4.00 0.00 0.00	0.0000	100.00
APXVAARR24_43-U-NA20_T-MOBILE	B	From Leg	4.00 0.00 0.00	0.0000	100.00
APXVAARR24_43-U-NA20_T-MOBILE	C	From Leg	4.00 0.00 0.00	0.0000	100.00
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.00 0.00 0.00	0.0000	100.00
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.00 0.00 0.00	0.0000	100.00
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.00 0.00 0.00	0.0000	100.00
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.00 0.00 0.00	0.0000	100.00
RADIO 4460 B2/B25 B66_TMO	B	From Leg	4.00 0.00 0.00	0.0000	100.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
RADIO 4460 B2/B25 B66_TMO	C	From Leg	0.00 4.00 0.00 0.00	0.0000	100.00
Platform Mount [LP 301-1] **70**	C	None		0.0000	100.00
KS24019-L112A	A	From Face	3.00 0.00 2.00	0.0000	70.00
KS24019-L112A	C	From Face	3.00 0.00 2.00	0.0000	70.00
Side Arm Mount [SO 701-1]	A	From Face	1.50 0.00 0.00	0.0000	70.00
Side Arm Mount [SO 701-1]	C	From Face	1.50 0.00 0.00	0.0000	70.00
**49** KS24019-L112A	B	From Face	3.00 0.00 2.00	0.0000	49.00
Side Arm Mount [SO 701-1]	B	From Face	1.50 0.00 0.00	0.0000	49.00
*** L 2-1/2x2-1/2x3/16 (36" Long)	A	From Leg	1.50 0.00 0.00	0.0000	6.00
L 2-1/2x2-1/2x3/16 (36" Long)	B	From Leg	1.50 0.00 0.00	0.0000	6.00
L 2-1/2x2-1/2x3/16 (36" Long)	C	From Leg	1.50 0.00 0.00	0.0000	6.00
L 2-1/2x2-1/2x3/16 (36" Long)	A	From Leg	1.50 0.00 0.00	0.0000	85.00
L 2-1/2x2-1/2x3/16 (36" Long)	B	From Leg	1.50 0.00 0.00	0.0000	85.00
L 2-1/2x2-1/2x3/16 (36" Long)	C	From Leg	1.50 0.00 0.00	0.0000	85.00
L 2-1/2x2-1/2x3/16 (36" Long)	A	From Leg	1.50 0.00 0.00	0.0000	135.00
L 2-1/2x2-1/2x3/16 (36" Long)	B	From Leg	1.50 0.00 0.00	0.0000	135.00
L 2-1/2x2-1/2x3/16 (36" Long)	C	From Leg	1.50 0.00 0.00	0.0000	135.00
*** ***					

**Load Combinations**

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

**Maximum Member Forces**

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	140 - 135	Pole	Max Tension	21	0	0	0
			Max. Compression	26	-9	0	0
			Max. Mx	20	-4	13	0
			Max. My	14	-4	0	-13
			Max. Vy	20	-3	13	0
			Max. Vx	14	3	0	-13
			Max. Torque	2			0
L2	135 - 130	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-10	0	0
			Max. Mx	20	-5	31	0
			Max. My	14	-5	0	-31

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L3	130 - 125	Pole	Max. Vy	20	-4	31	0
			Max. Vx	14	4	0	-31
			Max. Torque	2			0
			Max Tension	1	0	0	0
			Max. Compression	26	-21	0	0
			Max. Mx	20	-9	73	0
			Max. My	14	-9	0	-73
			Max. Vy	20	-9	73	0
L4	125 - 120	Pole	Max. Vx	14	9	0	-73
			Max. Torque	10			0
			Max Tension	1	0	0	0
			Max. Compression	26	-22	0	0
			Max. Mx	20	-9	120	0
			Max. My	14	-9	0	-120
			Max. Vy	20	-10	120	0
			Max. Vx	14	10	0	-120
L5	120 - 115	Pole	Max. Torque	10			0
			Max Tension	1	0	0	0
			Max. Compression	26	-28	0	-1
			Max. Mx	20	-13	177	0
			Max. My	14	-13	0	-177
			Max. Vy	20	-13	177	0
			Max. Vx	14	13	0	-177
			Max. Torque	18			0
L6	115 - 110	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-29	0	-1
			Max. Mx	20	-13	240	0
			Max. My	14	-13	0	-241
			Max. Vy	20	-13	240	0
			Max. Vx	14	13	0	-241
			Max. Torque	18			0
			Max Tension	1	0	0	0
L7	110 - 105	Pole	Max. Compression	26	-37	1	0
			Max. Mx	20	-17	316	0
			Max. My	14	-17	0	-315
			Max. Vy	20	-16	316	0
			Max. Vx	14	16	0	-315
			Max. Torque	18			0
			Max Tension	1	0	0	0
			Max. Compression	26	-38	1	0
L8	105 - 102	Pole	Max. Mx	20	-17	364	1
			Max. My	14	-17	-1	-363
			Max. Vy	20	-16	364	1
			Max. Vx	14	16	-1	-363
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-38	1	0
			Max. Mx	20	-17	368	1
L9	102 - 101.75	Pole	Max. My	14	-17	-1	-367
			Max. Vy	20	-16	368	1
			Max. Vx	14	16	-1	-367
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-38	1	0
			Max. Mx	20	-17	368	1
			Max. My	14	-17	-1	-367
L10	101.75 - 96.75	Pole	Max. Vy	20	-16	368	1
			Max. Vx	14	16	-1	-367
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-47	1	0
			Max. Mx	20	-21	459	1
			Max. My	14	-21	-1	-458
			Max. Vy	20	-19	459	1
L11	96.75 - 91.75	Pole	Max. Vx	14	19	-1	-458
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-47	1	0
			Max. Mx	20	-21	492	1
			Max. My	14	-21	-1	-491
			Max. Vy	20	-19	492	1
			Max. Vx	14	19	-1	-491
L12	91.75 -	Pole	Max. Torque	24			0
			Max Tension	1	0	0	0

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
	90.75		Max. Compression	26	-49	1	-1
			Max. Mx	20	-23	575	1
			Max. My	14	-23	-1	-574
			Max. Vy	20	-20	575	1
			Max. Vx	14	20	-1	-574
			Max. Torque	24			0
L13	90.75 - 85.75	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-50	1	-1
			Max. Mx	20	-24	675	2
			Max. My	14	-24	-2	-673
			Max. Vy	20	-20	675	2
			Max. Vx	14	20	-2	-673
			Max. Torque	24			0
L14	85.75 - 85.333	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-50	1	-1
			Max. Mx	20	-24	683	2
			Max. My	14	-24	-2	-681
			Max. Vy	20	-20	683	2
			Max. Vx	14	20	-2	-681
			Max. Torque	24			0
L15	85.333 - 85.083	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-50	1	-1
			Max. Mx	20	-24	688	2
			Max. My	14	-24	-2	-686
			Max. Vy	20	-20	688	2
			Max. Vx	14	20	-2	-686
			Max. Torque	24			0
L16	85.083 - 82.5	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-52	1	-1
			Max. Mx	20	-24	740	2
			Max. My	14	-24	-2	-738
			Max. Vy	20	-20	740	2
			Max. Vx	14	20	-2	-738
			Max. Torque	24			0
L17	82.5 - 82.25	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-52	1	-1
			Max. Mx	20	-24	745	2
			Max. My	14	-24	-2	-743
			Max. Vy	20	-20	745	2
			Max. Vx	14	20	-2	-743
			Max. Torque	24			0
L18	82.25 - 82	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-52	1	-1
			Max. Mx	20	-25	750	2
			Max. My	14	-25	-2	-748
			Max. Vy	20	-20	750	2
			Max. Vx	14	20	-2	-748
			Max. Torque	24			0
L19	82 - 81.75	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-52	1	-1
			Max. Mx	20	-25	755	2
			Max. My	14	-25	-2	-753
			Max. Vy	20	-20	755	2
			Max. Vx	14	20	-2	-753
			Max. Torque	24			0
L20	81.75 - 78.833	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-53	1	-1
			Max. Mx	20	-25	815	2
			Max. My	14	-25	-2	-813
			Max. Vy	20	-20	815	2
			Max. Vx	14	20	-2	-813
			Max. Torque	24			0
L21	78.833 -	Pole	Max Tension	1	0	0	0

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
	78.583		Max. Compression	26	-53	1	-1
			Max. Mx	20	-25	820	2
			Max. My	14	-25	-2	-818
			Max. Vy	20	-20	820	2
			Max. Vx	14	20	-2	-818
			Max. Torque	24			0
L22	78.583 - 77.667	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-53	1	-1
			Max. Mx	20	-25	839	2
			Max. My	14	-25	-2	-836
			Max. Vy	20	-21	839	2
			Max. Vx	14	20	-2	-836
			Max. Torque	24			0
L23	77.667 - 77.417	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-53	1	-1
			Max. Mx	20	-26	844	2
			Max. My	14	-26	-2	-842
			Max. Vy	20	-21	844	2
			Max. Vx	14	20	-2	-842
			Max. Torque	24			0
L24	77.417 - 77.167	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-53	1	-1
			Max. Mx	20	-26	849	2
			Max. My	14	-26	-2	-847
			Max. Vy	20	-21	849	2
			Max. Vx	14	21	-2	-847
			Max. Torque	24			0
L25	77.167 - 72.167	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-55	1	-1
			Max. Mx	20	-27	953	3
			Max. My	14	-27	-2	-950
			Max. Vy	20	-21	953	3
			Max. Vx	14	21	-2	-950
			Max. Torque	24			0
L26	72.167 - 67.167	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-57	2	-1
			Max. Mx	20	-28	1058	3
			Max. My	14	-28	-2	-1055
			Max. Vy	20	-21	1058	3
			Max. Vx	14	21	-2	-1055
			Max. Torque	24			0
L27	67.167 - 66.583	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-58	2	-1
			Max. Mx	20	-28	1071	3
			Max. My	14	-28	-2	-1068
			Max. Vy	20	-21	1071	3
			Max. Vx	14	21	-2	-1068
			Max. Torque	24			0
L28	66.583 - 66.333	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-58	2	-1
			Max. Mx	20	-28	1076	3
			Max. My	14	-28	-2	-1073
			Max. Vy	20	-21	1076	3
			Max. Vx	14	21	-2	-1073
			Max. Torque	24			0
L29	66.333 - 66.167	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-58	2	-1
			Max. Mx	20	-29	1080	3
			Max. My	14	-29	-2	-1077
			Max. Vy	20	-21	1080	3



Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L30	66.167 - 65.917	Pole	Max. Vx	14	21	-2	-1077
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-58	2	-1
			Max. Mx	20	-29	1085	3
			Max. My	14	-29	-2	-1082
			Max. Vy	20	-21	1085	3
L31	65.917 - 62.667	Pole	Max. Vx	14	21	-2	-1082
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-59	2	-1
			Max. Mx	20	-29	1155	3
			Max. My	14	-29	-3	-1152
			Max. Vy	20	-22	1155	3
L32	62.667 - 62.417	Pole	Max. Vx	14	22	-3	-1152
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-59	2	-1
			Max. Mx	20	-29	1161	3
			Max. My	14	-29	-3	-1157
			Max. Vy	20	-22	1161	3
L33	62.417 - 60	Pole	Max. Vx	14	22	-3	-1157
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-60	2	-1
			Max. Mx	20	-30	1213	3
			Max. My	14	-30	-3	-1209
			Max. Vy	20	-22	1213	3
L34	60 - 59.75	Pole	Max. Vx	14	22	-3	-1209
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-60	2	-1
			Max. Mx	20	-30	1218	3
			Max. My	14	-30	-3	-1215
			Max. Vy	20	-22	1218	3
L35	59.75 - 58.333	Pole	Max. Vx	14	22	-3	-1215
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-61	2	-1
			Max. Mx	20	-30	1249	3
			Max. My	14	-30	-3	-1245
			Max. Vy	20	-22	1249	3
L36	58.333 - 58.083	Pole	Max. Vx	14	22	-3	-1245
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-61	2	-1
			Max. Mx	20	-30	1255	3
			Max. My	14	-30	-3	-1251
			Max. Vy	20	-22	1255	3
L37	58.083 - 53.083	Pole	Max. Vx	14	22	-3	-1251
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-63	2	-1
			Max. Mx	20	-32	1365	4
			Max. My	14	-32	-3	-1361
			Max. Vy	20	-22	1365	4
L38	53.083 - 52.833	Pole	Max. Vx	14	22	-3	-1361
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-63	2	-1
			Max. Mx	20	-32	1371	4
			Max. My	14	-32	-3	-1366

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L39	52.833 - 52.583	Pole	Max. Vy	20	-22	1371	4
			Max. Vx	14	22	-3	-1366
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-63	2	-1
			Max. Mx	20	-32	1376	4
			Max. My	14	-32	-3	-1372
			Max. Vy	20	-22	1376	4
			Max. Vx	14	22	-3	-1372
			Max. Torque	24			0
L40	52.583 - 51.417	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-63	2	-1
			Max. Mx	20	-32	1402	4
			Max. My	14	-32	-3	-1397
			Max. Vy	20	-22	1402	4
			Max. Vx	14	22	-3	-1397
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-63	2	-1
			Max. Mx	20	-32	1408	4
L41	51.417 - 51.167	Pole	Max. My	14	-32	-3	-1403
			Max. Vy	20	-22	1408	4
			Max. Vx	14	22	-3	-1403
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-63	2	-1
			Max. Mx	20	-32	1408	4
			Max. My	14	-32	-3	-1403
			Max. Vy	20	-22	1408	4
			Max. Vx	14	22	-3	-1403
L42	51.167 - 46.5	Pole	Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-64	2	-1
			Max. Mx	20	-32	1412	4
			Max. My	14	-32	-3	-1407
			Max. Vy	20	-22	1412	4
			Max. Vx	14	22	-3	-1407
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-67	2	0
L43	46.5 - 45.5	Pole	Max. Mx	20	-35	1535	4
			Max. My	14	-35	-4	-1530
			Max. Vy	20	-23	1535	4
			Max. Vx	14	23	-4	-1530
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-68	2	0
			Max. Mx	20	-35	1564	4
			Max. My	14	-35	-4	-1559
			Max. Vy	20	-23	1564	4
L44	45.5 - 44.25	Pole	Max. Vx	14	23	-4	-1559
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-68	2	0
			Max. Mx	20	-35	1564	4
			Max. My	14	-35	-4	-1559
			Max. Vy	20	-23	1564	4
			Max. Vx	14	23	-4	-1559
			Max. Torque	24			0
			Max Tension	1	0	0	0
L45	44.25 - 44	Pole	Max. Compression	26	-68	2	0
			Max. Mx	20	-35	1570	4
			Max. My	14	-35	-4	-1564
			Max. Vy	20	-23	1570	4
			Max. Vx	14	23	-4	-1564
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-68	2	0
			Max. Mx	20	-36	1591	4
			Max. My	14	-36	-4	-1585
L46	44 - 43.083	Pole	Max. Vy	20	-23	1591	4
			Max. Vx	14	23	-4	-1585
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-68	2	0
			Max. Mx	20	-36	1591	4
			Max. My	14	-36	-4	-1585
			Max. Vy	20	-23	1591	4
			Max. Vx	14	23	-4	-1585
			Max. Torque	24			0
L47	43.083 - 42.833	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-68	2	0
			Max. Mx	20	-36	1596	4
			Max. My	14	-36	-4	-1591
			Max. Vy	20	-23	1596	4
			Max. Vx	14	23	-4	-1591

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L48	42.833 - 37.833	Pole	Max. Vx	14	23	-4	-1591
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-71	2	0
			Max. Mx	20	-38	1712	5
			Max. My	14	-38	-4	-1706
			Max. Vy	20	-23	1712	5
			Max. Vx	14	23	-4	-1706
			Max. Torque	24			0
			Max Tension	1	0	0	0
L49	37.833 - 32.833	Pole	Max. Compression	26	-73	2	0
			Max. Mx	20	-39	1829	5
			Max. My	14	-39	-4	-1823
			Max. Vy	20	-24	1829	5
			Max. Vx	14	23	-4	-1823
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-75	3	0
			Max. Mx	20	-41	1914	5
			Max. My	14	-41	-5	-1907
L50	32.833 - 29.25	Pole	Max. Vy	20	-24	1914	5
			Max. Vx	14	24	-5	-1907
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-75	3	0
			Max. Mx	20	-41	1914	5
			Max. My	14	-41	-5	-1907
			Max. Vy	20	-24	1914	5
			Max. Vx	14	24	-5	-1907
			Max. Torque	24			0
L51	29.25 - 29	Pole	Max Tension	1	0	0	0
			Max. Compression	26	-75	3	0
			Max. Mx	20	-41	1919	5
			Max. My	14	-41	-5	-1913
			Max. Vy	20	-24	1919	5
			Max. Vx	14	24	-5	-1913
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-76	3	0
			Max. Mx	20	-41	1949	5
L52	29 - 27.75	Pole	Max. My	14	-41	-5	-1942
			Max. Vy	20	-24	1949	5
			Max. Vx	14	24	-5	-1942
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-76	3	0
			Max. Mx	20	-41	1949	5
			Max. My	14	-41	-5	-1942
			Max. Vy	20	-24	1949	5
			Max. Vx	14	24	-5	-1942
L53	27.75 - 27.5	Pole	Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-76	3	0
			Max. Mx	20	-41	1955	5
			Max. My	14	-41	-5	-1948
			Max. Vy	20	-24	1955	5
			Max. Vx	14	24	-5	-1948
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-77	3	0
L54	27.5 - 24.083	Pole	Max. Mx	20	-42	2037	5
			Max. My	14	-42	-5	-2030
			Max. Vy	20	-24	2037	5
			Max. Vx	14	24	-5	-2030
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-77	3	0
			Max. Mx	20	-42	2043	5
			Max. My	14	-42	-5	-2036
			Max. Vy	20	-24	2043	5
L55	24.083 - 23.833	Pole	Max. Vx	14	24	-5	-2036
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-77	3	0
			Max. Mx	20	-42	2043	5
			Max. My	14	-42	-5	-2036
			Max. Vy	20	-24	2043	5
			Max. Vx	14	24	-5	-2036
			Max. Torque	24			0
			Max Tension	1	0	0	0
L56	23.833 - 23.5	Pole	Max. Compression	26	-78	3	0
			Max. Mx	20	-43	2051	5
			Max. My	14	-43	-5	-2044
			Max. Vy	20	-24	2051	5

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L57	23.5 - 23.25	Pole	Max. Vx	14	24	-5	-2044
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-78	3	0
			Max. Mx	20	-43	2057	5
			Max. My	14	-43	-5	-2050
			Max. Vy	20	-24	2057	5
L58	23.25 - 18.917	Pole	Max. Vx	14	24	-5	-2050
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-80	3	0
			Max. Mx	20	-44	2161	6
			Max. My	14	-44	-5	-2154
			Max. Vy	20	-24	2161	6
L59	18.917 - 18.667	Pole	Max. Vx	14	24	-5	-2154
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-80	3	-1
			Max. Mx	20	-44	2168	6
			Max. My	14	-44	-5	-2160
			Max. Vy	20	-24	2168	6
L60	18.667 - 18.083	Pole	Max. Vx	14	24	-5	-2160
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-80	3	-1
			Max. Mx	20	-44	2182	6
			Max. My	14	-44	-5	-2174
			Max. Vy	20	-24	2182	6
L61	18.083 - 17.833	Pole	Max. Vx	14	24	-5	-2174
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-80	3	-1
			Max. Mx	20	-45	2188	6
			Max. My	14	-45	-5	-2180
			Max. Vy	20	-24	2188	6
L62	17.833 - 14.083	Pole	Max. Vx	14	24	-5	-2180
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-82	3	-1
			Max. Mx	20	-46	2279	6
			Max. My	14	-46	-5	-2271
			Max. Vy	20	-24	2279	6
L63	14.083 - 13.833	Pole	Max. Vx	14	24	-5	-2271
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-82	3	-1
			Max. Mx	20	-46	2285	6
			Max. My	14	-46	-5	-2277
			Max. Vy	20	-24	2285	6
L64	13.833 - 8.833	Pole	Max. Vx	14	24	-5	-2277
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-85	3	-1
			Max. Mx	20	-48	2408	6
			Max. My	14	-48	-6	-2400
			Max. Vy	20	-25	2408	6
L65	8.833 - 3.833	Pole	Max. Vx	14	25	-6	-2400
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-87	3	-1
			Max. Mx	20	-50	2533	7

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L66	3.833 - 0	Pole	Max. My	14	-50	-6	-2525
			Max. Vy	20	-25	2533	7
			Max. Vx	14	25	-6	-2525
			Max. Torque	24			0
			Max Tension	1	0	0	0
			Max. Compression	26	-89	3	-1
			Max. Mx	20	-51	2629	7
			Max. My	14	-51	-6	-2621
			Max. Vy	20	-25	2629	7
			Max. Vx	14	25	-6	-2621
			Max. Torque	24			0

### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	36	89	8	0
	Max. H <sub>x</sub>	21	38	25	0
	Max. H <sub>z</sub>	3	38	0	25
	Max. M <sub>x</sub>	2	2620	0	25
	Max. M <sub>z</sub>	8	2628	-25	0
	Max. Torsion	24	0	13	22
	Min. Vert	13	38	-13	-22
	Min. H <sub>x</sub>	9	38	-25	0
	Min. H <sub>z</sub>	15	38	0	-25
	Min. M <sub>x</sub>	14	-2621	0	-25
	Min. M <sub>z</sub>	20	-2629	25	0
	Min. Torsion	12	0	-13	-22

### Tower Mast Reaction Summary

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturing Moment, M <sub>x</sub> kip-ft	Overturing Moment, M <sub>z</sub> kip-ft	Torque kip-ft
Dead Only	43	0	0	0	1	0
1.2 Dead+1.0 Wind 0 deg - No Ice	51	0	-25	-2620	8	0
0.9 Dead+1.0 Wind 0 deg - No Ice	38	0	-25	-2579	8	0
1.2 Dead+1.0 Wind 30 deg - No Ice	51	13	-22	-2278	-1314	0
0.9 Dead+1.0 Wind 30 deg - No Ice	38	13	-22	-2242	-1293	0
1.2 Dead+1.0 Wind 60 deg - No Ice	51	22	-13	-1315	-2291	0
0.9 Dead+1.0 Wind 60 deg - No Ice	38	22	-13	-1295	-2255	0
1.2 Dead+1.0 Wind 90 deg - No Ice	51	25	0	7	-2628	0
0.9 Dead+1.0 Wind 90 deg - No Ice	38	25	0	7	-2587	0
1.2 Dead+1.0 Wind 120 deg - No Ice	51	22	13	1316	-2277	0
0.9 Dead+1.0 Wind 120 deg - No Ice	38	22	13	1296	-2242	0
1.2 Dead+1.0 Wind 150 deg - No Ice	51	13	22	2273	-1319	0
0.9 Dead+1.0 Wind 150 deg - No Ice	38	13	22	2237	-1298	0
1.2 Dead+1.0 Wind 180 deg	51	0	25	2621	-6	0

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>z</sub> kip-ft	Torque kip-ft
- No Ice						
0.9 Dead+1.0 Wind 180 deg	38	0	25	2579	-6	0
- No Ice						
1.2 Dead+1.0 Wind 210 deg	51	-13	22	2278	1315	0
- No Ice						
0.9 Dead+1.0 Wind 210 deg	38	-13	22	2243	1295	0
- No Ice						
1.2 Dead+1.0 Wind 240 deg	51	-22	13	1316	2292	0
- No Ice						
0.9 Dead+1.0 Wind 240 deg	38	-22	13	1295	2256	0
- No Ice						
1.2 Dead+1.0 Wind 270 deg	51	-25	0	-7	2629	0
- No Ice						
0.9 Dead+1.0 Wind 270 deg	38	-25	0	-7	2588	0
- No Ice						
1.2 Dead+1.0 Wind 300 deg	51	-22	-13	-1316	2279	0
- No Ice						
0.9 Dead+1.0 Wind 300 deg	38	-22	-13	-1295	2243	0
- No Ice						
1.2 Dead+1.0 Wind 330 deg	51	-13	-22	-2272	1320	0
- No Ice						
0.9 Dead+1.0 Wind 330 deg	38	-13	-22	-2237	1299	0
- No Ice						
1.2 Dead+1.0 Ice+1.0 Temp	89	0	0	1	3	0
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	89	0	-8	-846	5	0
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	89	4	-7	-732	-420	0
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	89	7	-4	-421	-731	0
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	89	8	0	2	-845	0
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	89	7	4	426	-732	0
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	89	4	7	735	-422	0
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	89	0	8	848	2	0
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	89	-4	7	733	426	0
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	89	-7	4	423	737	0
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	89	-8	0	-1	851	0
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	89	-7	-4	-424	739	0
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	89	-4	-7	-733	429	0
Dead+Wind 0 deg - Service	43	0	-6	-644	2	0
Dead+Wind 30 deg - Service	43	3	-5	-560	-322	0
Dead+Wind 60 deg - Service	43	5	-3	-323	-562	0
Dead+Wind 90 deg - Service	43	6	0	2	-645	0
Dead+Wind 120 deg - Service	43	5	3	324	-559	0
Dead+Wind 150 deg - Service	43	3	5	559	-324	0
Dead+Wind 180 deg - Service	43	0	6	644	-1	0
Dead+Wind 210 deg - Service	43	-3	5	560	324	0
Dead+Wind 240 deg - Service	43	-5	3	324	564	0
Dead+Wind 270 deg - Service	43	-6	0	-2	647	0
Dead+Wind 300 deg - Service	43	-5	-3	-323	561	0
Dead+Wind 330 deg - Service	43	-3	-5	-558	325	0

**Solution Summary**

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0	-43	0	0	43	0	0.000%
2	0	-51	-25	0	51	25	0.000%
3	0	-38	-25	0	38	25	0.000%
4	13	-51	-22	-13	51	22	0.000%
5	13	-38	-22	-13	38	22	0.000%
6	22	-51	-13	-22	51	13	0.000%
7	22	-38	-13	-22	38	13	0.000%
8	25	-51	0	-25	51	0	0.000%
9	25	-38	0	-25	38	0	0.000%
10	22	-51	13	-22	51	-13	0.000%
11	22	-38	13	-22	38	-13	0.000%
12	13	-51	22	-13	51	-22	0.000%
13	13	-38	22	-13	38	-22	0.000%
14	0	-51	25	0	51	-25	0.000%
15	0	-38	25	0	38	-25	0.000%
16	-13	-51	22	13	51	-22	0.000%
17	-13	-38	22	13	38	-22	0.000%
18	-22	-51	13	22	51	-13	0.000%
19	-22	-38	13	22	38	-13	0.000%
20	-25	-51	0	25	51	0	0.000%
21	-25	-38	0	25	38	0	0.000%
22	-22	-51	-13	22	51	13	0.000%
23	-22	-38	-13	22	38	13	0.000%
24	-13	-51	-22	13	51	22	0.000%
25	-13	-38	-22	13	38	22	0.000%
26	0	-89	0	0	89	0	0.000%
27	0	-89	-8	0	89	8	0.000%
28	4	-89	-7	-4	89	7	0.000%
29	7	-89	-4	-7	89	4	0.000%
30	8	-89	0	-8	89	0	0.000%
31	7	-89	4	-7	89	-4	0.000%
32	4	-89	7	-4	89	-7	0.000%
33	0	-89	8	0	89	-8	0.000%
34	-4	-89	7	4	89	-7	0.000%
35	-7	-89	4	7	89	-4	0.000%
36	-8	-89	0	8	89	0	0.000%
37	-7	-89	-4	7	89	4	0.000%
38	-4	-89	-7	4	89	7	0.000%
39	0	-43	-6	0	43	6	0.000%
40	3	-43	-5	-3	43	5	0.000%
41	5	-43	-3	-5	43	3	0.000%
42	6	-43	0	-6	43	0	0.000%
43	5	-43	3	-5	43	-3	0.000%
44	3	-43	5	-3	43	-5	0.000%
45	0	-43	6	0	43	-6	0.000%
46	-3	-43	5	3	43	-5	0.000%
47	-5	-43	3	5	43	-3	0.000%
48	-6	-43	0	6	43	0	0.000%
49	-5	-43	-3	5	43	3	0.000%
50	-3	-43	-5	3	43	5	0.000%

**Non-Linear Convergence Results**

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	6	0.00000001	0.00010934
3	Yes	5	0.00000001	0.00058006
4	Yes	7	0.00000001	0.00037540
5	Yes	7	0.00000001	0.00009449

6	Yes	7	0.00000001	0.00037698
7	Yes	7	0.00000001	0.00009482
8	Yes	6	0.00000001	0.00010045
9	Yes	5	0.00000001	0.00052101
10	Yes	7	0.00000001	0.00038011
11	Yes	7	0.00000001	0.00009561
12	Yes	7	0.00000001	0.00037679
13	Yes	7	0.00000001	0.00009474
14	Yes	6	0.00000001	0.00008270
15	Yes	5	0.00000001	0.00039200
16	Yes	7	0.00000001	0.00037792
17	Yes	7	0.00000001	0.00009507
18	Yes	7	0.00000001	0.00037806
19	Yes	7	0.00000001	0.00009502
20	Yes	6	0.00000001	0.00008353
21	Yes	5	0.00000001	0.00039932
22	Yes	7	0.00000001	0.00037750
23	Yes	7	0.00000001	0.00009488
24	Yes	7	0.00000001	0.00038045
25	Yes	7	0.00000001	0.00009569
26	Yes	4	0.00000001	0.00087379
27	Yes	7	0.00000001	0.00093143
28	Yes	8	0.00000001	0.00020209
29	Yes	8	0.00000001	0.00020233
30	Yes	7	0.00000001	0.00093035
31	Yes	8	0.00000001	0.00020427
32	Yes	8	0.00000001	0.00020380
33	Yes	7	0.00000001	0.00093490
34	Yes	8	0.00000001	0.00020505
35	Yes	8	0.00000001	0.00020502
36	Yes	7	0.00000001	0.00093885
37	Yes	8	0.00000001	0.00020521
38	Yes	8	0.00000001	0.00020546
39	Yes	5	0.00000001	0.00020357
40	Yes	6	0.00000001	0.00007258
41	Yes	6	0.00000001	0.00007319
42	Yes	5	0.00000001	0.00020275
43	Yes	6	0.00000001	0.00007445
44	Yes	6	0.00000001	0.00007290
45	Yes	5	0.00000001	0.00020253
46	Yes	6	0.00000001	0.00007404
47	Yes	6	0.00000001	0.00007396
48	Yes	5	0.00000001	0.00020256
49	Yes	6	0.00000001	0.00007328
50	Yes	6	0.00000001	0.00007471

### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	140 - 135	23.232	47	1.5519	0.0005
L2	135 - 130	21.609	47	1.5478	0.0005
L3	130 - 125	19.995	47	1.5334	0.0005
L4	125 - 120	18.402	47	1.5061	0.0005
L5	120 - 115	16.847	47	1.4608	0.0004
L6	115 - 110	15.348	47	1.4021	0.0004
L7	110 - 105	13.917	47	1.3302	0.0003
L8	105 - 102	12.567	47	1.2470	0.0003
L9	102 - 101.75	11.801	47	1.1919	0.0003
L10	101.75 - 96.75	11.739	47	1.1888	0.0003
L11	96.75 - 91.75	10.529	47	1.1213	0.0002
L12	95 - 90.75	10.123	47	1.0963	0.0002
L13	90.75 - 85.75	9.163	47	1.0539	0.0002
L14	85.75 - 85.333	8.105	47	0.9669	0.0002
L15	85.333 - 85.083	8.021	47	0.9596	0.0002
L16	85.083 - 82.5	7.971	47	0.9566	0.0002
L17	82.5 - 82.25	7.461	47	0.9257	0.0002



Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L18	82.25 - 82	7.413	47	0.9227	0.0002
L19	82 - 81.75	7.365	47	0.9197	0.0002
L20	81.75 - 78.833	7.317	47	0.9152	0.0002
L21	78.833 - 78.583	6.774	47	0.8622	0.0002
L22	78.583 - 77.667	6.729	47	0.8595	0.0002
L23	77.667 - 77.417	6.565	47	0.8496	0.0002
L24	77.417 - 77.167	6.520	47	0.8466	0.0002
L25	77.167 - 72.167	6.476	47	0.8435	0.0002
L26	72.167 - 67.167	5.625	47	0.7814	0.0001
L27	67.167 - 66.583	4.841	47	0.7175	0.0001
L28	66.583 - 66.333	4.753	47	0.7101	0.0001
L29	66.333 - 66.167	4.716	47	0.7074	0.0001
L30	66.167 - 65.917	4.692	47	0.7056	0.0001
L31	65.917 - 62.667	4.655	47	0.7023	0.0001
L32	62.667 - 62.417	4.191	47	0.6599	0.0001
L33	62.417 - 60	4.157	47	0.6567	0.0001
L34	60 - 59.75	3.832	47	0.6249	0.0001
L35	59.75 - 58.333	3.800	47	0.6216	0.0001
L36	58.333 - 58.083	3.618	47	0.6030	0.0001
L37	58.083 - 53.083	3.586	47	0.5997	0.0001
L38	53.083 - 52.833	2.993	47	0.5338	0.0001
L39	52.833 - 52.583	2.965	47	0.5305	0.0001
L40	52.583 - 51.417	2.937	47	0.5281	0.0001
L41	51.417 - 51.167	2.810	47	0.5169	0.0001
L42	51.167 - 46.5	2.783	47	0.5137	0.0001
L43	51 - 45.5	2.765	47	0.5116	0.0001
L44	45.5 - 44.25	2.196	47	0.4707	0.0000
L45	44.25 - 44	2.075	47	0.4554	0.0000
L46	44 - 43.083	2.051	47	0.4527	0.0000
L47	43.083 - 42.833	1.965	47	0.4427	0.0000
L48	42.833 - 37.833	1.942	47	0.4402	0.0000
L49	37.833 - 32.833	1.508	47	0.3891	0.0000
L50	32.833 - 29.25	1.127	47	0.3381	0.0000
L51	29.25 - 29	0.887	47	0.3015	0.0000
L52	29 - 27.75	0.871	47	0.2990	0.0000
L53	27.75 - 27.5	0.795	47	0.2865	0.0000
L54	27.5 - 24.083	0.780	47	0.2840	0.0000
L55	24.083 - 23.833	0.589	47	0.2498	0.0000
L56	23.833 - 23.5	0.576	47	0.2476	0.0000
L57	23.5 - 23.25	0.559	47	0.2446	0.0000
L58	23.25 - 18.917	0.546	47	0.2411	0.0000
L59	18.917 - 18.667	0.355	47	0.1810	0.0000
L60	18.667 - 18.083	0.345	47	0.1781	0.0000
L61	18.083 - 17.833	0.324	47	0.1713	0.0000
L62	17.833 - 14.083	0.315	47	0.1690	0.0000
L63	14.083 - 13.833	0.196	47	0.1337	0.0000
L64	13.833 - 8.833	0.189	47	0.1313	0.0000
L65	8.833 - 3.833	0.077	47	0.0835	0.0000
L66	3.833 - 0	0.014	47	0.0358	0.0000

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
139.00	APXV9ERR18-C-A20	47	22.907	1.5515	0.0005	30572
137.00	800MHz 2X50W RRH W/FILTER	47	22.257	1.5503	0.0005	30572
135.00	L 2-1/2x2-1/2x3/16 (36" Long)	47	21.609	1.5478	0.0005	30572
128.00	AIR 6419 B77G_CCIv3 w/ Mount Pipe	47	19.354	1.5244	0.0005	10952
118.00	MX08FRO665-21 w/ Mount Pipe	47	16.240	1.4390	0.0004	4959
108.00	(2) SBNHH-1D65B w/ Mount Pipe	47	13.366	1.2995	0.0003	3487
100.00	VV-65A-R1_TMO	47	11.307	1.1667	0.0003	3985
85.00	L 2-1/2x2-1/2x3/16 (36" Long)	47	7.954	0.9557	0.0002	3830

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
70.00	KS24019-L112A	47	5.277	0.7541	0.0001	4512
49.00	KS24019-L112A	47	2.553	0.4943	0.0001	7073
6.00	L 2-1/2x2-1/2x3/16 (36" Long)	47	0.035	0.0564	0.0000	5746

**Maximum Tower Deflections - Design Wind**

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	140 - 135	94.521	22	6.3338	0.0023
L2	135 - 130	87.917	22	6.3167	0.0023
L3	130 - 125	81.353	22	6.2575	0.0023
L4	125 - 120	74.873	22	6.1465	0.0021
L5	120 - 115	68.556	18	5.9621	0.0018
L6	115 - 110	62.459	18	5.7220	0.0015
L7	110 - 105	56.640	18	5.4273	0.0013
L8	105 - 102	51.150	18	5.0875	0.0012
L9	102 - 101.75	48.034	18	4.8622	0.0011
L10	101.75 - 96.75	47.781	18	4.8495	0.0011
L11	96.75 - 91.75	42.859	18	4.5740	0.0010
L12	95 - 90.75	41.206	18	4.4716	0.0009
L13	90.75 - 85.75	37.299	18	4.2984	0.0009
L14	85.75 - 85.333	32.992	18	3.9425	0.0008
L15	85.333 - 85.083	32.649	18	3.9124	0.0008
L16	85.083 - 82.5	32.445	18	3.9004	0.0008
L17	82.5 - 82.25	30.373	18	3.7737	0.0007
L18	82.25 - 82	30.176	18	3.7613	0.0007
L19	82 - 81.75	29.979	18	3.7488	0.0007
L20	81.75 - 78.833	29.784	18	3.7304	0.0007
L21	78.833 - 78.583	27.574	18	3.5136	0.0007
L22	78.583 - 77.667	27.390	18	3.5025	0.0007
L23	77.667 - 77.417	26.723	18	3.4620	0.0006
L24	77.417 - 77.167	26.542	18	3.4497	0.0006
L25	77.167 - 72.167	26.362	18	3.4374	0.0006
L26	72.167 - 67.167	22.898	18	3.1836	0.0006
L27	67.167 - 66.583	19.703	18	2.9231	0.0005
L28	66.583 - 66.333	19.348	18	2.8929	0.0005
L29	66.333 - 66.167	19.197	18	2.8819	0.0005
L30	66.167 - 65.917	19.097	18	2.8746	0.0005
L31	65.917 - 62.667	18.947	18	2.8613	0.0005
L32	62.667 - 62.417	17.059	18	2.6884	0.0004
L33	62.417 - 60	16.919	18	2.6751	0.0004
L34	60 - 59.75	15.598	18	2.5454	0.0004
L35	59.75 - 58.333	15.466	18	2.5319	0.0004
L36	58.333 - 58.083	14.726	18	2.4563	0.0003
L37	58.083 - 53.083	14.598	18	2.4428	0.0003
L38	53.083 - 52.833	12.182	18	2.1740	0.0003
L39	52.833 - 52.583	12.068	18	2.1607	0.0003
L40	52.583 - 51.417	11.955	18	2.1508	0.0003
L41	51.417 - 51.167	11.436	18	2.1053	0.0002
L42	51.167 - 46.5	11.326	18	2.0922	0.0002
L43	51 - 45.5	11.253	18	2.0834	0.0002
L44	45.5 - 44.25	8.938	18	1.9167	0.0002
L45	44.25 - 44	8.444	18	1.8543	0.0002
L46	44 - 43.083	8.347	18	1.8432	0.0002
L47	43.083 - 42.833	7.997	18	1.8028	0.0002
L48	42.833 - 37.833	7.903	18	1.7923	0.0002
L49	37.833 - 32.833	6.136	18	1.5843	0.0002
L50	32.833 - 29.25	4.586	18	1.3765	0.0001
L51	29.25 - 29	3.610	18	1.2274	0.0001
L52	29 - 27.75	3.546	18	1.2171	0.0001
L53	27.75 - 27.5	3.234	18	1.1661	0.0001
L54	27.5 - 24.083	3.173	18	1.1559	0.0001
L55	24.083 - 23.833	2.396	18	1.0168	0.0001
L56	23.833 - 23.5	2.343	18	1.0075	0.0001

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L57	23.5 - 23.25	2.273	18	0.9953	0.0001
L58	23.25 - 18.917	2.221	18	0.9811	0.0001
L59	18.917 - 18.667	1.442	18	0.7364	0.0001
L60	18.667 - 18.083	1.404	18	0.7245	0.0001
L61	18.083 - 17.833	1.317	18	0.6970	0.0001
L62	17.833 - 14.083	1.281	18	0.6875	0.0001
L63	14.083 - 13.833	0.797	18	0.5439	0.0000
L64	13.833 - 8.833	0.769	18	0.5341	0.0000
L65	8.833 - 3.833	0.312	18	0.3395	0.0000
L66	3.833 - 0	0.058	18	0.1456	0.0000

### Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
139.00	APXV9ERR18-C-A20	22	93.199	6.3321	0.0023	7586
137.00	800MHz 2X50W RRR W/FILTER	22	90.556	6.3269	0.0023	7586
135.00	L 2-1/2x2-1/2x3/16 (36" Long)	22	87.917	6.3167	0.0024	7586
128.00	AIR 6419 B77G_CCIIV3 w/ Mount Pipe	22	78.747	6.2208	0.0023	2745
118.00	MX08FRO665-21 w/ Mount Pipe	18	66.087	5.8728	0.0017	1241
108.00	(2) SBNHH-1D65B w/ Mount Pipe	18	54.402	5.3022	0.0014	868
100.00	VV-65A-R1 TMO	18	46.026	4.7594	0.0011	989
85.00	L 2-1/2x2-1/2x3/16 (36" Long)	18	32.377	3.8967	0.0008	947
70.00	KS24019-L112A	18	21.480	3.0724	0.0006	1112
49.00	KS24019-L112A	18	10.389	2.0130	0.0002	1739
6.00	L 2-1/2x2-1/2x3/16 (36" Long)	18	0.141	0.2293	0.0000	1413

### Compression Checks

### Pole Design Data

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio P <sub>u</sub> / φP <sub>n</sub>
L1	140 - 135 (1)	TP17.0249x16x0.25	5.00	0.00	0.0	13.503 8	-4	729	0.006
L2	135 - 130 (2)	TP18.0497x17.0249x0.25	5.00	0.00	0.0	14.328 8	-5	774	0.006
L3	130 - 125 (3)	TP19.0746x18.0497x0.25	5.00	0.00	0.0	15.153 8	-9	818	0.011
L4	125 - 120 (4)	TP20.0995x19.0746x0.25	5.00	0.00	0.0	15.978 8	-9	863	0.011
L5	120 - 115 (5)	TP21.1244x20.0995x0.25	5.00	0.00	0.0	16.803 9	-13	907	0.014
L6	115 - 110 (6)	TP22.1492x21.1244x0.25	5.00	0.00	0.0	17.628 9	-13	952	0.014
L7	110 - 105 (7)	TP23.1741x22.1492x0.25	5.00	0.00	0.0	18.453 9	-17	997	0.017
L8	105 - 102 (8)	TP23.789x23.1741x0.25	3.00	0.00	0.0	18.948 9	-17	1023	0.017
L9	102 - 101.75 (9)	TP23.8403x23.789x0.387 5	0.25	0.00	0.0	29.263 2	-17	1580	0.011
L10	101.75 - 96.75 (10)	TP24.8651x23.8403x0.37 5	5.00	0.00	0.0	29.571 8	-21	1597	0.013
L11	96.75 - 91.75	TP25.89x24.8651x0.375	5.00	0.00	0.0	30.005	-21	1620	0.013

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio P <sub>u</sub> / φP <sub>n</sub>
	(11)					0			
L12	91.75 - 90.75	TP25.5952x24.7238x0.35	4.25	0.00	0.0	28.952	-23	1694	0.013
	(12)	63				2			
L13	90.75 - 85.75	TP26.6203x25.5952x0.35	5.00	0.00	0.0	30.128	-24	1763	0.013
	(13)	63				1			
L14	85.75 - 85.333 (14)	TP26.7058x26.6203x0.35	0.42	0.00	0.0	30.226	-24	1768	0.013
	(14)	63				2			
L15	85.333 - 85.083 (15)	TP26.757x26.7058x0.55	0.25	0.00	0.0	46.412	-24	2715	0.009
	(15)					7			
L16	85.083 - 82.5 (16)	TP27.2866x26.757x0.543	2.58	0.00	0.0	46.823	-24	2739	0.009
	(16)	8				4			
L17	82.5 - 82.25 (17)	TP27.3379x27.2866x0.53	0.25	0.00	0.0	46.384	-24	2714	0.009
	(17)	75				7			
L18	82.25 - 82 (18)	TP27.3891x27.3379x0.53	0.25	0.00	0.0	46.473	-25	2719	0.009
	(18)	75				5			
L19	82 - 81.75 (19)	TP27.4404x27.3891x0.35	0.25	0.00	0.0	31.068	-25	1818	0.014
	(19)	63				9			
L20	81.75 - 78.833 (20)	TP28.0384x27.4404x0.35	2.92	0.00	0.0	31.754	-25	1858	0.014
	(20)	63				9			
L21	78.833 - 78.583 (21)	TP28.0897x28.0384x0.61	0.25	0.00	0.0	54.191	-25	3170	0.008
	(21)	25				9			
L22	78.583 - 77.667 (22)	TP28.2775x28.0897x0.61	0.92	0.00	0.0	54.562	-25	3192	0.008
	(22)	25				3			
L23	77.667 - 77.417 (23)	TP28.3287x28.2775x0.55	0.25	0.00	0.0	49.196	-26	2878	0.009
	(23)					2			
L24	77.417 - 77.167 (24)	TP28.38x28.3287x0.55	0.25	0.00	0.0	49.286	-26	2883	0.009
	(24)					9			
L25	77.167 - 72.167 (25)	TP29.4055x28.38x0.5375	5.00	0.00	0.0	49.963	-27	2923	0.009
	(25)					3			
L26	72.167 - 67.167 (26)	TP30.4311x29.4055x0.52	5.00	0.00	0.0	50.556	-28	2958	0.010
	(26)	5				2			
L27	67.167 - 66.583 (27)	TP30.5508x30.4311x0.52	0.58	0.00	0.0	50.758	-28	2969	0.010
	(27)	5				7			
L28	66.583 - 66.333 (28)	TP30.6021x30.5508x0.62	0.25	0.00	0.0	60.329	-28	3529	0.008
	(28)	5				0			
L29	66.333 - 66.167 (29)	TP30.6362x30.6021x0.62	0.17	0.00	0.0	60.397	-29	3533	0.008
	(29)	5				5			
L30	66.167 - 65.917 (30)	TP30.6874x30.6362x0.51	0.25	0.00	0.0	49.796	-29	2913	0.010
	(30)	25				2			
L31	65.917 - 62.667 (31)	TP31.354x30.6874x0.512	3.25	0.00	0.0	50.896	-29	2977	0.010
	(31)	5				3			
L32	62.667 - 62.417 (32)	TP31.4053x31.354x0.512	0.25	0.00	0.0	50.980	-29	2982	0.010
	(32)	5				9			
L33	62.417 - 60 (33)	TP31.9011x31.4053x0.50	2.42	0.00	0.0	51.177	-30	2994	0.010
	(33)	63				5			
L34	60 - 59.75 (34)	TP31.9523x31.9011x0.5	0.25	0.00	0.0	50.638	-30	2962	0.010
	(34)					3			
L35	59.75 - 58.333 (35)	TP32.243x31.9523x0.5	1.42	0.00	0.0	51.106	-30	2990	0.010
	(35)					2			
L36	58.333 - 58.083 (36)	TP32.2943x32.243x0.5	0.25	0.00	0.0	51.188	-30	2995	0.010
	(36)					7			
L37	58.083 - 53.083 (37)	TP33.3198x32.2943x0.5	5.00	0.00	0.0	52.839	-32	3091	0.010
	(37)					9			
L38	53.083 - 52.833 (38)	TP33.3711x33.3198x0.5	0.25	0.00	0.0	52.922	-32	3096	0.010
	(38)					4			
L39	52.833 - 52.583 (39)	TP33.4223x33.3711x0.68	0.25	0.00	0.0	72.466	-32	4239	0.008
	(39)	75				7			
L40	52.583 - 51.417 (40)	TP33.6615x33.4223x0.68	1.17	0.00	0.0	72.996	-32	4270	0.008
	(40)	75				2			
L41	51.417 - 51.167 (41)	TP33.7128x33.6615x0.50	0.25	0.00	0.0	54.130	-32	3167	0.010
	(41)	63				8			
L42	51.167 - 46.5 (42)	TP34.67x33.7128x0.5063	4.67	0.00	0.0	54.186	-32	3170	0.010
	(42)					6			
L43	46.5 - 45.5 (43)	TP34.2498x33.122x0.55	5.50	0.00	0.0	59.682	-35	3491	0.010
	(43)					4			
L44	45.5 - 44.25 (44)	TP34.5062x34.2498x0.55	1.25	0.00	0.0	60.136	-35	3518	0.010
	(44)					4			
L45	44.25 - 44 (45)	TP34.5574x34.5062x0.62	0.25	0.00	0.0	68.289	-35	3995	0.009
	(45)	5				0			

Section No.	Elevation ft	Size	L ft	$L_u$ ft	$Kl/r$	A $in^2$	$P_u$ K	$\phi P_n$ K	Ratio $\frac{P_u}{\phi P_n}$
L46	44 - 43.083 (46)	TP34.7455x34.5574x0.625	0.92	0.00	0.0	68.6674	-36	4017	0.009
L47	43.083 - 42.833 (47)	TP34.7967x34.7455x0.6625	0.25	0.00	0.0	72.8168	-36	4260	0.008
L48	42.833 - 37.833 (48)	TP35.822x34.7967x0.6625	5.00	0.00	0.0	75.0041	-38	4388	0.009
L49	37.833 - 32.833 (49)	TP36.8473x35.822x0.65	5.00	0.00	0.0	75.7610	-39	4432	0.009
L50	32.833 - 29.25 (50)	TP37.582x36.8473x0.6375	3.58	0.00	0.0	75.8379	-41	4437	0.009
L51	29.25 - 29 (51)	TP37.6333x37.582x0.6375	0.25	0.00	0.0	75.9431	-41	4443	0.009
L52	29 - 27.75 (52)	TP37.8896x37.6333x0.6375	1.25	0.00	0.0	76.4693	-41	4473	0.009
L53	27.75 - 27.5 (53)	TP37.9409x37.8896x0.6375	0.25	0.00	0.0	76.5745	-41	4480	0.009
L54	27.5 - 24.083 (54)	TP38.6416x37.9409x0.6375	3.42	0.00	0.0	78.0129	-42	4564	0.009
L55	24.083 - 23.833 (55)	TP38.6928x38.6416x0.7	0.25	0.00	0.0	85.6359	-42	5010	0.008
L56	23.833 - 23.5 (56)	TP38.7611x38.6928x0.7	0.33	0.00	0.0	85.7898	-43	5019	0.008
L57	23.5 - 23.25 (57)	TP38.8124x38.7611x0.4438	0.25	0.00	0.0	54.8240	-43	3207	0.013
L58	23.25 - 18.917 (58)	TP39.7009x38.8124x0.4438	4.33	0.00	0.0	56.0936	-44	3281	0.013
L59	18.917 - 18.667 (59)	TP39.7522x39.7009x0.525	0.25	0.00	0.0	66.3135	-44	3879	0.011
L60	18.667 - 18.083 (60)	TP39.8719x39.7522x0.525	0.58	0.00	0.0	66.5160	-44	3891	0.011
L61	18.083 - 17.833 (61)	TP39.9232x39.8719x0.6625	0.25	0.00	0.0	83.7529	-45	4900	0.009
L62	17.833 - 14.083 (62)	TP40.6922x39.9232x0.65	3.75	0.00	0.0	83.8082	-46	4903	0.009
L63	14.083 - 13.833 (63)	TP40.7434x40.6922x0.625	0.25	0.00	0.0	80.7383	-46	4723	0.010
L64	13.833 - 8.833 (64)	TP41.7687x40.7434x0.625	5.00	0.00	0.0	82.8017	-48	4844	0.010
L65	8.833 - 3.833 (65)	TP42.794x41.7687x0.6125	5.00	0.00	0.0	83.1925	-50	4867	0.010
L66	3.833 - 0 (66)	TP43.58x42.794x0.6125	3.83	0.00	0.0	84.7427	-51	4957	0.010

### Pole Bending Design Data

Section No.	Elevation ft	Size	$M_{ux}$ kip-ft	$\phi M_{nx}$ kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	$M_{uy}$ kip-ft	$\phi M_{ny}$ kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	140 - 135 (1)	TP17.0249x16x0.25	13	312	0.043	0	312	0.000
L2	135 - 130 (2)	TP18.0497x17.0249x0.25	31	351	0.089	0	351	0.000
L3	130 - 125 (3)	TP19.0746x18.0497x0.25	73	393	0.187	0	393	0.000
L4	125 - 120 (4)	TP20.0995x19.0746x0.25	120	438	0.275	0	438	0.000
L5	120 - 115 (5)	TP21.1244x20.0995x0.25	177	484	0.366	0	484	0.000
L6	115 - 110 (6)	TP22.1492x21.1244x0.25	241	529	0.455	0	529	0.000
L7	110 - 105 (7)	TP23.1741x22.1492x0.25	316	572	0.553	0	572	0.000
L8	105 - 102 (8)	TP23.789x23.1741x0.25	364	598	0.610	0	598	0.000
L9	102 - 101.75 (9)	TP23.8403x23.789x0.3875	368	943	0.391	0	943	0.000
L10	101.75 - 96.75 (10)	TP24.8651x23.8403x0.375	459	997	0.461	0	997	0.000
L11	96.75 - 91.75 (11)	TP25.89x24.8651x0.375	493	1026	0.481	0	1026	0.000
L12	91.75 - 90.75 (12)	TP25.5952x24.7238x0.3563	576	1091	0.529	0	1091	0.000
L13	90.75 - 85.75	TP26.6203x25.5952x0.35	676	1182	0.572	0	1182	0.000

Section No.	Elevation ft	Size	$M_{ux}$ kip-ft	$\phi M_{nx}$ kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	$M_{uy}$ kip-ft	$\phi M_{ny}$ kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L14	(13) 85.75 - 85.333 (14)	63 TP26.7058x26.6203x0.35	684	1189	0.575	0	1189	0.000
L15	85.333 - 85.083 (15)	63 TP26.757x26.7058x0.55	689	1803	0.382	0	1803	0.000
L16	85.083 - 82.5 (16)	8 TP27.2866x26.757x0.543	741	1858	0.399	0	1858	0.000
L17	82.5 - 82.25 (17)	75 TP27.3379x27.2866x0.53	746	1845	0.405	0	1845	0.000
L18	82.25 - 82 (18)	75 TP27.3891x27.3379x0.53	752	1852	0.406	0	1852	0.000
L19	82 - 81.75 (19)	63 TP27.4404x27.3891x0.35	757	1257	0.602	0	1257	0.000
L20	81.75 - 78.833 (20)	63 TP28.0384x27.4404x0.35	816	1314	0.621	0	1314	0.000
L21	78.833 - 78.583 (21)	25 TP28.0897x28.0384x0.61	821	2205	0.373	0	2205	0.000
L22	78.583 - 77.667 (22)	25 TP28.2775x28.0897x0.61	840	2235	0.376	0	2235	0.000
L23	77.667 - 77.417 (23)	25 TP28.3287x28.2775x0.55	845	2028	0.417	0	2028	0.000
L24	77.417 - 77.167 (24)	TP28.38x28.3287x0.55	850	2036	0.418	0	2036	0.000
L25	77.167 - 72.167 (25)	TP29.4055x28.38x0.5375	954	2143	0.445	0	2143	0.000
L26	72.167 - 67.167 (26)	5 TP30.4311x29.4055x0.52	1060	2249	0.471	0	2249	0.000
L27	67.167 - 66.583 (27)	5 TP30.5508x30.4311x0.52	1073	2267	0.473	0	2267	0.000
L28	66.583 - 66.333 (28)	5 TP30.6021x30.5508x0.62	1078	2681	0.402	0	2681	0.000
L29	66.333 - 66.167 (29)	5 TP30.6362x30.6021x0.62	1081	2688	0.402	0	2688	0.000
L30	66.167 - 65.917 (30)	25 TP30.6874x30.6362x0.51	1087	2236	0.486	0	2236	0.000
L31	65.917 - 62.667 (31)	5 TP31.354x30.6874x0.512	1157	2337	0.495	0	2337	0.000
L32	62.667 - 62.417 (32)	5 TP31.4053x31.354x0.512	1162	2345	0.496	0	2345	0.000
L33	62.417 - 60 (33)	63 TP31.9011x31.4053x0.50	1215	2393	0.508	0	2393	0.000
L34	60 - 59.75 (34)	TP31.9523x31.9011x0.5	1220	2373	0.514	0	2373	0.000
L35	59.75 - 58.333 (35)	TP32.243x31.9523x0.5	1251	2417	0.518	0	2417	0.000
L36	58.333 - 58.083 (36)	TP32.2943x32.243x0.5	1257	2425	0.518	0	2425	0.000
L37	58.083 - 53.083 (37)	TP33.3198x32.2943x0.5	1367	2585	0.529	0	2585	0.000
L38	53.083 - 52.833 (38)	TP33.3711x33.3198x0.5	1372	2594	0.529	0	2594	0.000
L39	52.833 - 52.583 (39)	75 TP33.4223x33.3711x0.68	1378	3517	0.392	0	3517	0.000
L40	52.583 - 51.417 (40)	75 TP33.6615x33.4223x0.68	1404	3569	0.393	0	3569	0.000
L41	51.417 - 51.167 (41)	63 TP33.7128x33.6615x0.50	1409	2680	0.526	0	2680	0.000
L42	51.167 - 46.5 (42)	TP34.67x33.7128x0.5063	1413	2685	0.526	0	2685	0.000
L43	46.5 - 45.5 (43)	TP34.2498x33.122x0.55	1537	2995	0.513	0	2995	0.000
L44	45.5 - 44.25 (44)	TP34.5062x34.2498x0.55	1566	3041	0.515	0	3041	0.000
L45	44.25 - 44 (45)	5 TP34.5574x34.5062x0.62	1571	3444	0.456	0	3444	0.000
L46	44 - 43.083 (46)	5 TP34.7455x34.5574x0.62	1593	3482	0.457	0	3482	0.000
L47	43.083 - 42.833 (47)	25 TP34.7967x34.7455x0.66	1598	3690	0.433	0	3690	0.000

Section No.	Elevation ft	Size	$M_{ux}$	$\phi M_{nx}$	Ratio	$M_{uy}$	$\phi M_{ny}$	Ratio
			kip-ft	kip-ft	$\frac{M_{ux}}{\phi M_{nx}}$	kip-ft	kip-ft	$\frac{M_{uy}}{\phi M_{ny}}$
L48	42.833 - 37.833 (48)	TP35.822x34.7967x0.6625	1715	3918	0.438	0	3918	0.000
L49	37.833 - 32.833 (49)	TP36.8473x35.822x0.65	1833	4078	0.450	0	4078	0.000
L50	32.833 - 29.25 (50)	TP37.582x36.8473x0.6375	1918	4169	0.460	0	4169	0.000
L51	29.25 - 29 (51)	TP37.6333x37.582x0.6375	1924	4180	0.460	0	4180	0.000
L52	29 - 27.75 (52)	TP37.8896x37.6333x0.6375	1955	4239	0.461	0	4239	0.000
L53	27.75 - 27.5 (53)	TP37.9409x37.8896x0.6375	1961	4251	0.461	0	4251	0.000
L54	27.5 - 24.083 (54)	TP38.6416x37.9409x0.6375	2043	4413	0.463	0	4413	0.000
L55	24.083 - 23.833 (55)	TP38.6928x38.6416x0.7	2049	4835	0.424	0	4835	0.000
L56	23.833 - 23.5 (56)	TP38.7611x38.6928x0.7	2057	4853	0.424	0	4853	0.000
L57	23.5 - 23.25 (57)	TP38.8124x38.7611x0.4438	2064	3098	0.666	0	3098	0.000
L58	23.25 - 18.917 (58)	TP39.7009x38.8124x0.4438	2169	3220	0.674	0	3220	0.000
L59	18.917 - 18.667 (59)	TP39.7522x39.7009x0.525	2176	3885	0.560	0	3885	0.000
L60	18.667 - 18.083 (60)	TP39.8719x39.7522x0.525	2190	3909	0.560	0	3909	0.000
L61	18.083 - 17.833 (61)	TP39.9232x39.8719x0.6625	2196	4894	0.449	0	4894	0.000
L62	17.833 - 14.083 (62)	TP40.6922x39.9232x0.65	2289	4998	0.458	0	4998	0.000
L63	14.083 - 13.833 (63)	TP40.7434x40.6922x0.625	2295	4827	0.475	0	4827	0.000
L64	13.833 - 8.833 (64)	TP41.7687x40.7434x0.625	2420	5079	0.476	0	5079	0.000
L65	8.833 - 3.833 (65)	TP42.794x41.7687x0.6125	2546	5235	0.486	0	5235	0.000
L66	3.833 - 0 (66)	TP43.58x42.794x0.6125	2643	5434	0.486	0	5434	0.000

### Pole Shear Design Data

Section No.	Elevation ft	Size	Actual	$\phi V_n$	Ratio	Actual	$\phi T_n$	Ratio
			$V_u$ K	K	$\frac{V_u}{\phi V_n}$	$T_u$ kip-ft	kip-ft	$\frac{T_u}{\phi T_n}$
L1	140 - 135 (1)	TP17.0249x16x0.25	3	219	0.015	0	323	0.000
L2	135 - 130 (2)	TP18.0497x17.0249x0.25	4	232	0.016	0	363	0.000
L3	130 - 125 (3)	TP19.0746x18.0497x0.25	9	245	0.038	0	407	0.000
L4	125 - 120 (4)	TP20.0995x19.0746x0.25	10	259	0.037	0	452	0.000
L5	120 - 115 (5)	TP21.1244x20.0995x0.25	13	272	0.046	0	500	0.000
L6	115 - 110 (6)	TP22.1492x21.1244x0.25	13	286	0.045	0	550	0.000
L7	110 - 105 (7)	TP23.1741x22.1492x0.25	16	299	0.053	0	603	0.000
L8	105 - 102 (8)	TP23.789x23.1741x0.25	16	307	0.053	0	636	0.000
L9	102 - 101.75 (9)	TP23.8403x23.789x0.3875	16	474	0.034	0	978	0.000
L10	101.75 - 96.75 (10)	TP24.8651x23.8403x0.375	19	479	0.040	0	1032	0.000
L11	96.75 - 91.75 (11)	TP25.89x24.8651x0.375	19	486	0.040	0	1062	0.000
L12	91.75 - 90.75 (12)	TP25.5952x24.7238x0.3563	20	508	0.039	0	1128	0.000
L13	90.75 - 85.75 (13)	TP26.6203x25.5952x0.3563	20	529	0.038	0	1222	0.000
L14	85.75 - 85.333 (14)	TP26.7058x26.6203x0.3563	20	530	0.038	0	1230	0.000
L15	85.333 - 85.083 (15)	TP26.757x26.7058x0.55	20	815	0.025	0	1878	0.000

Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $V_u$ $\phi V_n$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $T_u$ $\phi T_n$
L16	85.083 - 82.5 (16)	TP27.2866x26.757x0.543 8	20	822	0.025	0	1933	0.000
L17	82.5 - 82.25 (17)	TP27.3379x27.2866x0.53 75	20	814	0.025	0	1919	0.000
L18	82.25 - 82 (18)	TP27.3891x27.3379x0.53 75	20	816	0.025	0	1926	0.000
L19	82 - 81.75 (19)	TP27.4404x27.3891x0.35 63	20	545	0.037	0	1299	0.000
L20	81.75 - 78.833 (20)	TP28.0384x27.4404x0.35 63	21	557	0.037	0	1357	0.000
L21	78.833 - 78.583 (21)	TP28.0897x28.0384x0.61 25	21	951	0.022	0	2299	0.000
L22	78.583 - 77.667 (22)	TP28.2775x28.0897x0.61 25	21	958	0.021	0	2330	0.000
L23	77.667 - 77.417 (23)	TP28.3287x28.2775x0.55	21	863	0.024	0	2110	0.000
L24	77.417 - 77.167 (24)	TP28.38x28.3287x0.55	21	865	0.024	0	2117	0.000
L25	77.167 - 72.167 (25)	TP29.4055x28.38x0.5375	21	877	0.024	0	2227	0.000
L26	72.167 - 67.167 (26)	TP30.4311x29.4055x0.52 5	21	887	0.024	0	2334	0.000
L27	67.167 - 66.583 (27)	TP30.5508x30.4311x0.52 5	21	891	0.024	0	2353	0.000
L28	66.583 - 66.333 (28)	TP30.6021x30.5508x0.62 5	21	1059	0.020	0	2792	0.000
L29	66.333 - 66.167 (29)	TP30.6362x30.6021x0.62 5	21	1060	0.020	0	2798	0.000
L30	66.167 - 65.917 (30)	TP30.6874x30.6362x0.51 25	21	874	0.025	0	2320	0.000
L31	65.917 - 62.667 (31)	TP31.354x30.6874x0.512 5	22	893	0.024	0	2423	0.000
L32	62.667 - 62.417 (32)	TP31.4053x31.354x0.512 5	22	895	0.024	0	2431	0.000
L33	62.417 - 60 (33)	TP31.9011x31.4053x0.50 63	22	898	0.024	0	2480	0.000
L34	60 - 59.75 (34)	TP31.9523x31.9011x0.5	22	889	0.025	0	2459	0.000
L35	59.75 - 58.333 (35)	TP32.243x31.9523x0.5	22	897	0.024	0	2504	0.000
L36	58.333 - 58.083 (36)	TP32.2943x32.243x0.5	22	898	0.024	0	2512	0.000
L37	58.083 - 53.083 (37)	TP33.3198x32.2943x0.5	22	927	0.024	0	2677	0.000
L38	53.083 - 52.833 (38)	TP33.3711x33.3198x0.5	22	929	0.024	0	2686	0.000
L39	52.833 - 52.583 (39)	TP33.4223x33.3711x0.68 75	22	1272	0.017	0	3662	0.000
L40	52.583 - 51.417 (40)	TP33.6615x33.4223x0.68 75	22	1281	0.017	0	3716	0.000
L41	51.417 - 51.167 (41)	TP33.7128x33.6615x0.50 63	22	950	0.023	0	2775	0.000
L42	51.167 - 46.5 (42)	TP34.67x33.7128x0.5063	22	951	0.023	0	2781	0.000
L43	46.5 - 45.5 (43)	TP34.2498x33.122x0.55	23	1047	0.022	0	3105	0.000
L44	45.5 - 44.25 (44)	TP34.5062x34.2498x0.55	23	1055	0.022	0	3152	0.000
L45	44.25 - 44 (45)	TP34.5574x34.5062x0.62 5	23	1198	0.019	0	3577	0.000
L46	44 - 43.083 (46)	TP34.7455x34.5574x0.62 5	23	1205	0.019	0	3617	0.000
L47	43.083 - 42.833 (47)	TP34.7967x34.7455x0.66 25	23	1278	0.018	0	3837	0.000
L48	42.833 - 37.833 (48)	TP35.822x34.7967x0.662 5	23	1316	0.018	0	4071	0.000
L49	37.833 - 32.833 (49)	TP36.8473x35.822x0.65	24	1330	0.018	0	4233	0.000
L50	32.833 -	TP37.582x36.8473x0.637	24	1331	0.018	0	4325	0.000



Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $\frac{V_u}{\phi V_n}$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L51	29.25 (50) 29.25 - 29 (51)	5 TP37.6333x37.582x0.637 5	24	1333	0.018	0	4337	0.000
L52	29 - 27.75 (52)	75 TP37.8896x37.6333x0.63 75	24	1342	0.018	0	4398	0.000
L53	27.75 - 27.5 (53)	75 TP37.9409x37.8896x0.63 75	24	1344	0.018	0	4410	0.000
L54	27.5 - 24.083 (54)	75 TP38.6416x37.9409x0.63 75	24	1369	0.018	0	4577	0.000
L55	24.083 - 23.833 (55)	TP38.6928x38.6416x0.7	24	1503	0.016	0	5023	0.000
L56	23.833 - 23.5 (56)	TP38.7611x38.6928x0.7	24	1506	0.016	0	5041	0.000
L57	23.5 - 23.25 (57)	38 TP38.8124x38.7611x0.44 38	24	962	0.025	0	3247	0.000
L58	23.25 - 18.917 (58)	38 TP39.7009x38.8124x0.44 38	25	984	0.025	0	3399	0.000
L59	18.917 - 18.667 (59)	5 TP39.7522x39.7009x0.52 5	25	1164	0.021	0	4016	0.000
L60	18.667 - 18.083 (60)	5 TP39.8719x39.7522x0.52 5	25	1167	0.021	0	4040	0.000
L61	18.083 - 17.833 (61)	25 TP39.9232x39.8719x0.66 25	25	1470	0.017	0	5076	0.000
L62	17.833 - 14.083 (62)	TP40.6922x39.9232x0.65	25	1471	0.017	0	5181	0.000
L63	14.083 - 13.833 (63)	5 TP40.7434x40.6922x0.62 5	25	1417	0.018	0	5000	0.000
L64	13.833 - 8.833 (64)	5 TP41.7687x40.7434x0.62 5	25	1453	0.017	0	5259	0.000
L65	8.833 - 3.833 (65)	5 TP42.794x41.7687x0.612 5	25	1460	0.017	0	5417	0.000
L66	3.833 - 0 (66)	TP43.58x42.794x0.6125	26	1487	0.017	0	5621	0.000

### Pole Interaction Design Data

Section No.	Elevation ft	Ratio $P_u$ $\phi P_n$	Ratio $M_{ux}$ $\phi M_{nx}$	Ratio $M_{uy}$ $\phi M_{ny}$	Ratio $V_u$ $\phi V_n$	Ratio $T_u$ $\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	140 - 135 (1)	0.006	0.043	0.000	0.015	0.000	0.050	1.050	4.8.2
L2	135 - 130 (2)	0.006	0.089	0.000	0.016	0.000	0.096	1.050	4.8.2
L3	130 - 125 (3)	0.011	0.187	0.000	0.038	0.000	0.199	1.050	4.8.2
L4	125 - 120 (4)	0.011	0.275	0.000	0.037	0.000	0.287	1.050	4.8.2
L5	120 - 115 (5)	0.014	0.366	0.000	0.046	0.000	0.382	1.050	4.8.2
L6	115 - 110 (6)	0.014	0.455	0.000	0.045	0.000	0.471	1.050	4.8.2
L7	110 - 105 (7)	0.017	0.553	0.000	0.053	0.000	0.573	1.050	4.8.2
L8	105 - 102 (8)	0.017	0.610	0.000	0.053	0.000	0.629	1.050	4.8.2
L9	102 - 101.75 (9)	0.011	0.391	0.000	0.034	0.000	0.403	1.050	4.8.2
L10	101.75 - 96.75 (10)	0.013	0.461	0.000	0.040	0.000	0.476	1.050	4.8.2
L11	96.75 - 91.75 (11)	0.013	0.481	0.000	0.040	0.000	0.495	1.050	4.8.2
L12	91.75 - 90.75 (12)	0.013	0.529	0.000	0.039	0.000	0.543	1.050	4.8.2
L13	90.75 - 85.75 (13)	0.013	0.572	0.000	0.038	0.000	0.587	1.050	4.8.2
L14	85.75 - 85.333 (14)	0.013	0.575	0.000	0.038	0.000	0.590	1.050	4.8.2
L15	85.333 - 85.083 (15)	0.009	0.382	0.000	0.025	0.000	0.392	1.050	4.8.2
L16	85.083 - 82.5 (16)	0.009	0.399	0.000	0.025	0.000	0.409	1.050	4.8.2
L17	82.5 - 82.25	0.009	0.405	0.000	0.025	0.000	0.414	1.050	4.8.2

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		$P_u$ $\phi P_n$	$M_{ux}$ $\phi M_{nx}$	$M_{uy}$ $\phi M_{ny}$	$V_u$ $\phi V_n$	$T_u$ $\phi T_n$			
L18	82.25 - 82 (17)	0.009	0.406	0.000	0.025	0.000	0.416	1.050	4.8.2
L19	82 - 81.75 (18)	0.014	0.602	0.000	0.037	0.000	0.617	1.050	4.8.2
L20	81.75 - 78.833 (20)	0.014	0.621	0.000	0.037	0.000	0.636	1.050	4.8.2
L21	78.833 - 78.583 (21)	0.008	0.373	0.000	0.022	0.000	0.381	1.050	4.8.2
L22	78.583 - 77.667 (22)	0.008	0.376	0.000	0.021	0.000	0.384	1.050	4.8.2
L23	77.667 - 77.417 (23)	0.009	0.417	0.000	0.024	0.000	0.426	1.050	4.8.2
L24	77.417 - 77.167 (24)	0.009	0.418	0.000	0.024	0.000	0.427	1.050	4.8.2
L25	77.167 - 72.167 (25)	0.009	0.445	0.000	0.024	0.000	0.455	1.050	4.8.2
L26	72.167 - 67.167 (26)	0.010	0.471	0.000	0.024	0.000	0.481	1.050	4.8.2
L27	67.167 - 66.583 (27)	0.010	0.473	0.000	0.024	0.000	0.483	1.050	4.8.2
L28	66.583 - 66.333 (28)	0.008	0.402	0.000	0.020	0.000	0.410	1.050	4.8.2
L29	66.333 - 66.167 (29)	0.008	0.402	0.000	0.020	0.000	0.411	1.050	4.8.2
L30	66.167 - 65.917 (30)	0.010	0.486	0.000	0.025	0.000	0.496	1.050	4.8.2
L31	65.917 - 62.667 (31)	0.010	0.495	0.000	0.024	0.000	0.505	1.050	4.8.2
L32	62.667 - 62.417 (32)	0.010	0.496	0.000	0.024	0.000	0.506	1.050	4.8.2
L33	62.417 - 60 (33)	0.010	0.508	0.000	0.024	0.000	0.518	1.050	4.8.2
L34	60 - 59.75 (34)	0.010	0.514	0.000	0.025	0.000	0.525	1.050	4.8.2
L35	59.75 - 58.333 (35)	0.010	0.518	0.000	0.024	0.000	0.528	1.050	4.8.2
L36	58.333 - 58.083 (36)	0.010	0.518	0.000	0.024	0.000	0.529	1.050	4.8.2
L37	58.083 - 53.083 (37)	0.010	0.529	0.000	0.024	0.000	0.539	1.050	4.8.2
L38	53.083 - 52.833 (38)	0.010	0.529	0.000	0.024	0.000	0.540	1.050	4.8.2
L39	52.833 - 52.583 (39)	0.008	0.392	0.000	0.017	0.000	0.400	1.050	4.8.2
L40	52.583 - 51.417 (40)	0.008	0.393	0.000	0.017	0.000	0.401	1.050	4.8.2
L41	51.417 - 51.167 (41)	0.010	0.526	0.000	0.023	0.000	0.537	1.050	4.8.2
L42	51.167 - 46.5 (42)	0.010	0.526	0.000	0.023	0.000	0.537	1.050	4.8.2
L43	46.5 - 45.5 (43)	0.010	0.513	0.000	0.022	0.000	0.524	1.050	4.8.2
L44	45.5 - 44.25 (44)	0.010	0.515	0.000	0.022	0.000	0.525	1.050	4.8.2
L45	44.25 - 44 (45)	0.009	0.456	0.000	0.019	0.000	0.466	1.050	4.8.2
L46	44 - 43.083 (46)	0.009	0.457	0.000	0.019	0.000	0.467	1.050	4.8.2
L47	43.083 - 42.833 (47)	0.008	0.433	0.000	0.018	0.000	0.442	1.050	4.8.2
L48	42.833 - 37.833 (48)	0.009	0.438	0.000	0.018	0.000	0.447	1.050	4.8.2
L49	37.833 - 32.833 (49)	0.009	0.450	0.000	0.018	0.000	0.459	1.050	4.8.2
L50	32.833 - 29.25 (50)	0.009	0.460	0.000	0.018	0.000	0.470	1.050	4.8.2
L51	29.25 - 29 (51)	0.009	0.460	0.000	0.018	0.000	0.470	1.050	4.8.2

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		$P_u$	$M_{ux}$	$M_{uy}$	$V_u$	$T_u$			
L52	29 - 27.75 (52)	0.009	0.461	0.000	0.018	0.000	0.471	1.050	4.8.2
L53	27.75 - 27.5 (53)	0.009	0.461	0.000	0.018	0.000	0.471	1.050	4.8.2
L54	27.5 - 24.083 (54)	0.009	0.463	0.000	0.018	0.000	0.473	1.050	4.8.2
L55	24.083 - 23.833 (55)	0.008	0.424	0.000	0.016	0.000	0.433	1.050	4.8.2
L56	23.833 - 23.5 (56)	0.008	0.424	0.000	0.016	0.000	0.433	1.050	4.8.2
L57	23.5 - 23.25 (57)	0.013	0.666	0.000	0.025	0.000	0.680	1.050	4.8.2
L58	23.25 - 18.917 (58)	0.013	0.674	0.000	0.025	0.000	0.688	1.050	4.8.2
L59	18.917 - 18.667 (59)	0.011	0.560	0.000	0.021	0.000	0.572	1.050	4.8.2
L60	18.667 - 18.083 (60)	0.011	0.560	0.000	0.021	0.000	0.572	1.050	4.8.2
L61	18.083 - 17.833 (61)	0.009	0.449	0.000	0.017	0.000	0.458	1.050	4.8.2
L62	17.833 - 14.083 (62)	0.009	0.458	0.000	0.017	0.000	0.468	1.050	4.8.2
L63	14.083 - 13.833 (63)	0.010	0.475	0.000	0.018	0.000	0.485	1.050	4.8.2
L64	13.833 - 8.833 (64)	0.010	0.476	0.000	0.017	0.000	0.487	1.050	4.8.2
L65	8.833 - 3.833 (65)	0.010	0.486	0.000	0.017	0.000	0.497	1.050	4.8.2
L66	3.833 - 0 (66)	0.010	0.486	0.000	0.017	0.000	0.497	1.050	4.8.2

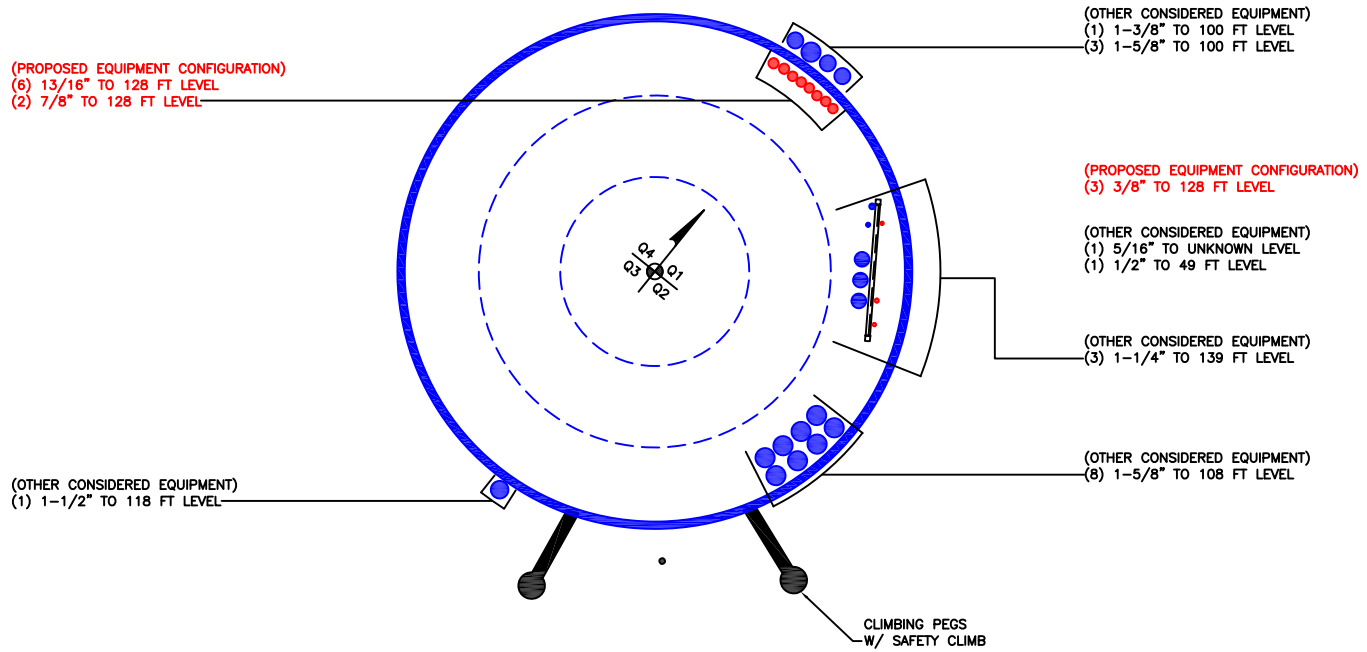
### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
L1	140 - 135	Pole	TP17.0249x16x0.25	1	-4	766	4.7	Pass
L2	135 - 130	Pole	TP18.0497x17.0249x0.25	2	-5	812	9.1	Pass
L3	130 - 125	Pole	TP19.0746x18.0497x0.25	3	-9	859	19.0	Pass
L4	125 - 120	Pole	TP20.0995x19.0746x0.25	4	-9	906	27.4	Pass
L5	120 - 115	Pole	TP21.1244x20.0995x0.25	5	-13	953	36.4	Pass
L6	115 - 110	Pole	TP22.1492x21.1244x0.25	6	-13	1000	44.9	Pass
L7	110 - 105	Pole	TP23.1741x22.1492x0.25	7	-17	1046	54.6	Pass
L8	105 - 102	Pole	TP23.789x23.1741x0.25	8	-17	1074	59.9	Pass
L9	102 - 101.75	Pole	TP23.8403x23.789x0.3875	9	-17	1659	38.3	Pass
L10	101.75 - 96.75	Pole	TP24.8651x23.8403x0.375	10	-21	1677	45.3	Pass
L11	96.75 - 91.75	Pole	TP25.89x24.8651x0.375	11	-21	1701	47.2	Pass
L12	91.75 - 90.75	Pole	TP25.5952x24.7238x0.3563	12	-23	1778	51.8	Pass
L13	90.75 - 85.75	Pole	TP26.6203x25.5952x0.3563	13	-24	1851	55.9	Pass
L14	85.75 - 85.333	Pole	TP26.7058x26.6203x0.3563	14	-24	1857	56.2	Pass
L15	85.333 - 85.083	Pole	TP26.757x26.7058x0.55	15	-24	2851	37.3	Pass
L16	85.083 - 82.5	Pole	TP27.2866x26.757x0.5438	16	-24	2876	38.9	Pass
L17	82.5 - 82.25	Pole	TP27.3379x27.2866x0.5375	17	-24	2849	39.5	Pass
L18	82.25 - 82	Pole	TP27.3891x27.3379x0.5375	18	-25	2855	39.6	Pass
L19	82 - 81.75	Pole	TP27.4404x27.3891x0.3563	19	-25	1908	58.7	Pass
L20	81.75 - 78.833	Pole	TP28.0384x27.4404x0.3563	20	-25	1951	60.6	Pass
L21	78.833 - 78.583	Pole	TP28.0897x28.0384x0.6125	21	-25	3329	36.3	Pass
L22	78.583 - 77.667	Pole	TP28.2775x28.0897x0.6125	22	-25	3351	36.6	Pass
L23	77.667 - 77.417	Pole	TP28.3287x28.2775x0.55	23	-26	3022	40.6	Pass
L24	77.417 - 77.167	Pole	TP28.38x28.3287x0.55	24	-26	3027	40.7	Pass
L25	77.167 - 72.167	Pole	TP29.4055x28.38x0.5375	25	-27	3069	43.3	Pass
L26	72.167 - 67.167	Pole	TP30.4311x29.4055x0.525	26	-28	3105	45.9	Pass
L27	67.167 - 66.583	Pole	TP30.5508x30.4311x0.525	27	-28	3118	46.0	Pass
L28	66.583 - 66.333	Pole	TP30.6021x30.5508x0.625	28	-28	3706	39.1	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail	
L29	66.333 - 66.167	Pole	TP30.6362x30.6021x0.625	29	-29	3710	39.1	Pass	
L30	66.167 - 65.917	Pole	TP30.6874x30.6362x0.5125	30	-29	3059	47.3	Pass	
L31	65.917 - 62.667	Pole	TP31.354x30.6874x0.5125	31	-29	3126	48.1	Pass	
L32	62.667 - 62.417	Pole	TP31.4053x31.354x0.5125	32	-29	3131	48.2	Pass	
L33	62.417 - 60	Pole	TP31.9011x31.4053x0.5063	33	-30	3144	49.3	Pass	
L34	60 - 59.75	Pole	TP31.9523x31.9011x0.5	34	-30	3110	50.0	Pass	
L35	59.75 - 58.333	Pole	TP32.243x31.9523x0.5	35	-30	3139	50.3	Pass	
L36	58.333 - 58.083	Pole	TP32.2943x32.243x0.5	36	-30	3144	50.4	Pass	
L37	58.083 - 53.083	Pole	TP33.3198x32.2943x0.5	37	-32	3246	51.4	Pass	
L38	53.083 - 52.833	Pole	TP33.3711x33.3198x0.5	38	-32	3251	51.4	Pass	
L39	52.833 - 52.583	Pole	TP33.4223x33.3711x0.6875	39	-32	4451	38.1	Pass	
L40	52.583 - 51.417	Pole	TP33.6615x33.4223x0.6875	40	-32	4484	38.2	Pass	
L41	51.417 - 51.167	Pole	TP33.7128x33.6615x0.5063	41	-32	3325	51.1	Pass	
L42	51.167 - 46.5	Pole	TP34.67x33.7128x0.5063	42	-32	3328	51.1	Pass	
L43	46.5 - 45.5	Pole	TP34.2498x33.122x0.55	43	-35	3666	49.9	Pass	
L44	45.5 - 44.25	Pole	TP34.5062x34.2498x0.55	44	-35	3694	50.0	Pass	
L45	44.25 - 44	Pole	TP34.5574x34.5062x0.625	45	-35	4195	44.3	Pass	
L46	44 - 43.083	Pole	TP34.7455x34.5574x0.625	46	-36	4218	44.4	Pass	
L47	43.083 - 42.833	Pole	TP34.7967x34.7455x0.6625	47	-36	4473	42.1	Pass	
L48	42.833 - 37.833	Pole	TP35.822x34.7967x0.6625	48	-38	4607	42.5	Pass	
L49	37.833 - 32.833	Pole	TP36.8473x35.822x0.65	49	-39	4654	43.7	Pass	
L50	32.833 - 29.25	Pole	TP37.582x36.8473x0.6375	50	-41	4658	44.7	Pass	
L51	29.25 - 29	Pole	TP37.6333x37.582x0.6375	51	-41	4665	44.7	Pass	
L52	29 - 27.75	Pole	TP37.8896x37.6333x0.6375	52	-41	4697	44.8	Pass	
L53	27.75 - 27.5	Pole	TP37.9409x37.8896x0.6375	53	-41	4704	44.8	Pass	
L54	27.5 - 24.083	Pole	TP38.6416x37.9409x0.6375	54	-42	4792	45.0	Pass	
L55	24.083 - 23.833	Pole	TP38.6928x38.6416x0.7	55	-42	5260	41.2	Pass	
L56	23.833 - 23.5	Pole	TP38.7611x38.6928x0.7	56	-43	5270	41.2	Pass	
L57	23.5 - 23.25	Pole	TP38.8124x38.7611x0.4438	57	-43	3368	64.8	Pass	
L58	23.25 - 18.917	Pole	TP39.7009x38.8124x0.4438	58	-44	3446	65.5	Pass	
L59	18.917 - 18.667	Pole	TP39.7522x39.7009x0.525	59	-44	4073	54.5	Pass	
L60	18.667 - 18.083	Pole	TP39.8719x39.7522x0.525	60	-44	4086	54.5	Pass	
L61	18.083 - 17.833	Pole	TP39.9232x39.8719x0.6625	61	-45	5145	43.6	Pass	
L62	17.833 - 14.083	Pole	TP40.6922x39.9232x0.65	62	-46	5148	44.5	Pass	
L63	14.083 - 13.833	Pole	TP40.7434x40.6922x0.625	63	-46	4959	46.2	Pass	
L64	13.833 - 8.833	Pole	TP41.7687x40.7434x0.625	64	-48	5086	46.3	Pass	
L65	8.833 - 3.833	Pole	TP42.794x41.7687x0.6125	65	-50	5110	47.3	Pass	
L66	3.833 - 0	Pole	TP43.58x42.794x0.6125	66	-51	5205	47.3	Pass	
							Summary		
							Pole (L58)	65.5	Pass
							<b>RATING =</b>	<b>65.5</b>	<b>Pass</b>

**\*NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.**

**APPENDIX B**  
**BASE LEVEL DRAWING**



**APPENDIX C**  
**ADDITIONAL CALCULATIONS**

Site BU: 876335  
Work Order: 2092421



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**Pole Geometry**

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	140	48.25	3.25	12	16	25.89	0.25	Auto	A607-60
2	95	17.833	0	12	24.72	28.38	0.3125	Auto	A607-65
3	77.167	30.667	4.5	12	28.38	34.67	0.3125	Auto	A607-65
4	51	51	0	12	33.12	43.58	0.375	Auto	A607-65

**Reinforcement Configuration**

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	0	27.75	channel	5 (1.1875in) - Bottom	2												
2	27.75	43.083	channel	MP3-05 (1.1875in)	2												
3	51.417	66.583	channel	MP3-05 (1.1875in)	3												
4	0	18.083	channel	5 (1.1875in) - Bottom	2												
5	14.083	29.25	channel	MP3-05 (1.1875in)	1												
6	29.25	44.25	channel	MP3-05 (1.1875in)	1												
7	43.083	52.833	channel	MP3-05 (1.1875in)	3												
8	66.167	78.833	channel	MP3-03 (1.1875in)	3												
9	18.917	24.083	channel	MP3-05 (1.1875in)	1												
10	62.667	58.333	channel	MP3-03 (1.1875in)	1												
11	77.667	85.333	channel	MP3-03 (1.1875in)	2												
12	94.333	102	channel	MP3-03 (1.1875in)	3												
13	0	27.75	plate	CCI-SFP-065125	1												
14	23.5	44.25	plate	CCI-SFP-060100	2												
15	49	60	plate	CCI-SFP-060100	1												
16	66.583	82.5	plate	CCI-SFP-060100	2												
17	82	93	plate	CCI-SFP-060100	2												
18																	

**Reinforcement Details**

	B (in)	H (in)	Gross Area (in <sup>2</sup> )	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in <sup>2</sup> )	Bolt Hole Size (in)	Reinforcement Material
1	5.33	2.09	5.65	0.79	Welded	n/a	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
2	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
3	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
4	5.33	2.09	5.65	0.79	Welded	n/a	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
5	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
6	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
7	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
8	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
9	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
10	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
11	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
12	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
13	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.000	6.563	1.1875	A572-65
14	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
15	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
16	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
17	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65

**Connection Details for Custom Reinforcements**

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
MP3-05 (1.1875in)	Top	10	N	3	2	-	-	-	-	-	-	-	-	-
Bottom Welded	Bottom	-	-	-	-	80	None	-	-	-	-	20	0.375	-



# TNX Geometry Input

Increment (ft):  [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	140 - 135	5		12	16.000	17.025	0.25	A607-60	1.000
2	135 - 130	5		12	17.025	18.050	0.25	A607-60	1.000
3	130 - 125	5		12	18.050	19.075	0.25	A607-60	1.000
4	125 - 120	5		12	19.075	20.099	0.25	A607-60	1.000
5	120 - 115	5		12	20.099	21.124	0.25	A607-60	1.000
6	115 - 110	5		12	21.124	22.149	0.25	A607-60	1.000
7	110 - 105	5		12	22.149	23.174	0.25	A607-60	1.000
8	105 - 102	3		12	23.174	23.789	0.25	A607-60	1.000
9	102 - 101.75	0.25		12	23.789	23.840	0.3875	A607-60	0.949
10	101.75 - 96.75	5		12	23.840	24.865	0.375	A607-60	0.967
11	96.75 - 95	5	3.25	12	24.865	25.890	0.375	A607-60	0.962
12	95 - 90.75	4.25		12	24.724	25.595	0.35625	A607-65	1.294
13	90.75 - 85.75	5		12	25.595	26.620	0.35625	A607-65	1.278
14	85.75 - 85.333	0.417		12	26.620	26.706	0.35625	A607-65	1.276
15	85.333 - 85.083	0.25		12	26.706	26.757	0.55	A607-65	0.958
16	85.083 - 82.5	2.583		12	26.757	27.287	0.54375	A607-65	0.961
17	82.5 - 82.25	0.25		12	27.287	27.338	0.5375	A607-65	0.971
18	82.25 - 82	0.25		12	27.338	27.389	0.5375	A607-65	0.971
19	82 - 81.75	0.25		12	27.389	27.440	0.35625	A607-65	1.265
20	81.75 - 78.833	2.917		12	27.440	28.038	0.35625	A607-65	1.257
21	78.833 - 78.583	0.25		12	28.038	28.090	0.6125	A607-65	1.007
22	78.583 - 77.667	0.916		12	28.090	28.277	0.6125	A607-65	1.004
23	77.667 - 77.417	0.25		12	28.277	28.329	0.55	A607-65	0.996
24	77.417 - 77.167	0.25	0	12	28.329	28.380	0.55	A607-65	0.995
25	77.167 - 72.167	5		12	28.380	29.406	0.5375	A607-65	1.002
26	72.167 - 67.167	5		12	29.406	30.431	0.525	A607-65	1.011
27	67.167 - 66.583	0.584		12	30.431	30.551	0.525	A607-65	1.009
28	66.583 - 66.333	0.25		12	30.551	30.602	0.625	A607-65	0.932
29	66.333 - 66.167	0.166		12	30.602	30.636	0.625	A607-65	0.931
30	66.167 - 65.917	0.25		12	30.636	30.687	0.5125	A607-65	0.955
31	65.917 - 62.667	3.25		12	30.687	31.354	0.5125	A607-65	0.947
32	62.667 - 62.417	0.25		12	31.354	31.405	0.5125	A607-65	0.947
33	62.417 - 60	2.417		12	31.405	31.901	0.50625	A607-65	0.953
34	60 - 59.75	0.25		12	31.901	31.952	0.5	A607-65	0.964
35	59.75 - 58.333	1.417		12	31.952	32.243	0.5	A607-65	0.961
36	58.333 - 58.083	0.25		12	32.243	32.294	0.5	A607-65	0.960
37	58.083 - 53.083	5		12	32.294	33.320	0.5	A607-65	0.950
38	53.083 - 52.833	0.25		12	33.320	33.371	0.5	A607-65	0.949
39	52.833 - 52.583	0.25		12	33.371	33.422	0.6875	A607-65	1.011
40	52.583 - 51.417	1.166		12	33.422	33.661	0.6875	A607-65	1.007
41	51.417 - 51.167	0.25		12	33.661	33.713	0.50625	A607-65	1.045
42	51.167 - 51	4.667	4.5	12	33.713	34.670	0.50625	A607-65	1.045
43	51 - 45.5	5.5		12	33.122	34.250	0.55	A607-65	0.970
44	45.5 - 44.25	1.25		12	34.250	34.506	0.55	A607-65	0.968
45	44.25 - 44	0.25		12	34.506	34.557	0.625	A607-65	1.112
46	44 - 43.083	0.917		12	34.557	34.745	0.625	A607-65	1.109
47	43.083 - 42.833	0.25		12	34.745	34.797	0.6625	A607-65	0.969
48	42.833 - 37.833	5		12	34.797	35.822	0.6625	A607-65	0.957
49	37.833 - 32.833	5		12	35.822	36.847	0.65	A607-65	0.964
50	32.833 - 29.25	3.583		12	36.847	37.582	0.6375	A607-65	0.975
51	29.25 - 29	0.25		12	37.582	37.633	0.6375	A607-65	0.974
52	29 - 27.75	1.25		12	37.633	37.890	0.6375	A607-65	0.972
53	27.75 - 27.5	0.25		12	37.890	37.941	0.6375	A607-65	0.971
54	27.5 - 24.083	3.417		12	37.941	38.642	0.6375	A607-65	0.964
55	24.083 - 23.833	0.25		12	38.642	38.693	0.7	A607-65	0.945
56	23.833 - 23.5	0.333		12	38.693	38.761	0.7	A607-65	0.944
57	23.5 - 23.25	0.25		12	38.761	38.812	0.44375	A607-65	1.305
58	23.25 - 18.917	4.333		12	38.812	39.701	0.44375	A607-65	1.294
59	18.917 - 18.667	0.25		12	39.701	39.752	0.525	A607-65	0.973
60	18.667 - 18.083	0.584		12	39.752	39.872	0.525	A607-65	0.972
61	18.083 - 17.833	0.25		12	39.872	39.923	0.6625	A607-65	1.005
62	17.833 - 14.083	3.75		12	39.923	40.692	0.65	A607-65	1.016
63	14.083 - 13.833	0.25		12	40.692	40.743	0.625	A607-65	0.985
64	13.833 - 8.833	5		12	40.743	41.769	0.625	A607-65	0.975
65	8.833 - 3.833	5		12	41.769	42.794	0.6125	A607-65	0.986
66	3.833 - 0	3.833		12	42.794	43.580	0.6125	A607-65	0.979

# TNX Section Forces

Increment (ft):		5	TNX Output		
	Section Height (ft)	P <sub>u</sub> (K)	M <sub>ux</sub> (kip-ft)	V <sub>u</sub> (K)	
1	140 - 135	4.47	13.50	3.38	
2	135 - 130	4.79	31.39	3.73	
3	130 - 125	8.80	73.48	9.23	
4	125 - 120	9.17	120.45	9.56	
5	120 - 115	12.56	177.22	12.57	
6	115 - 110	13.02	240.82	12.87	
7	110 - 105	16.65	316.29	15.97	
8	105 - 102	16.99	364.41	16.13	
9	102 - 101.75	17.04	368.44	16.14	
10	101.75 - 96.75	21.16	459.23	19.32	
11	96.75 - 95	21.43	493.13	19.44	
12	95 - 90.75	22.62	576.40	19.76	
13	90.75 - 85.75	23.64	675.85	20.04	
14	85.75 - 85.333	23.73	684.21	20.06	
15	85.333 - 85.083	23.79	689.23	20.07	
16	85.083 - 82.5	24.39	741.39	20.29	
17	82.5 - 82.25	24.45	746.46	20.30	
18	82.25 - 82	24.51	751.54	20.32	
19	82 - 81.75	24.56	756.62	20.33	
20	81.75 - 78.833	25.17	816.16	20.51	
21	78.833 - 78.583	25.25	821.28	20.51	
22	78.583 - 77.667	25.49	840.09	20.58	
23	77.667 - 77.417	25.55	845.24	20.59	
24	77.417 - 77.167	25.61	850.39	20.61	
25	77.167 - 72.167	26.83	954.23	20.94	
26	72.167 - 67.167	28.24	1060.07	21.35	
27	67.167 - 66.583	28.40	1072.54	21.38	
28	66.583 - 66.333	28.47	1077.89	21.40	
29	66.333 - 66.167	28.51	1081.44	21.41	
30	66.167 - 65.917	28.57	1086.80	21.42	
31	65.917 - 62.667	29.35	1156.74	21.63	
32	62.667 - 62.417	29.42	1162.15	21.64	
33	62.417 - 60	30.00	1214.63	21.80	
34	60 - 59.75	30.08	1220.08	21.80	
35	59.75 - 58.333	30.42	1251.03	21.90	
36	58.333 - 58.083	30.49	1256.50	21.90	
37	58.083 - 53.083	31.73	1366.74	22.21	
38	53.083 - 52.833	31.81	1372.29	22.21	
39	52.833 - 52.583	31.89	1377.85	22.23	
40	52.583 - 51.417	32.28	1403.81	22.32	
41	51.417 - 51.167	32.36	1409.39	22.32	
42	51.167 - 51	32.41	1413.12	22.33	
43	51 - 45.5	35.04	1537.22	22.81	
44	45.5 - 44.25	35.39	1565.77	22.89	
45	44.25 - 44	35.49	1571.49	22.89	
46	44 - 43.083	35.81	1592.51	22.95	
47	43.083 - 42.833	35.90	1598.24	22.96	
48	42.833 - 37.833	37.56	1714.71	23.48	
49	37.833 - 32.833	39.27	1832.85	23.80	
50	32.833 - 29.25	40.51	1918.46	24.01	
51	29.25 - 29	40.60	1924.46	24.01	
52	29 - 27.75	41.03	1954.52	24.10	
53	27.75 - 27.5	41.13	1960.55	24.10	
54	27.5 - 24.083	42.32	2043.25	24.32	
55	24.083 - 23.833	42.42	2049.33	24.32	
56	23.833 - 23.5	42.55	2057.43	24.34	
57	23.5 - 23.25	42.63	2063.52	24.35	
58	23.25 - 18.917	44.13	2169.42	24.55	
59	18.917 - 18.667	44.22	2175.55	24.54	
60	18.667 - 18.083	44.40	2189.89	24.58	
61	18.083 - 17.833	44.50	2196.04	24.58	
62	17.833 - 14.083	45.96	2288.61	24.80	
63	14.083 - 13.833	46.06	2294.81	24.80	
64	13.833 - 8.833	47.92	2419.50	25.08	
65	8.833 - 3.833	49.85	2545.57	25.38	
66	3.833 - 0	51.32	2643.18	25.59	

# Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
140 - 135	Pole	TP17.025x16x0.25	Pole	4.7%	Pass
135 - 130	Pole	TP18.05x17.025x0.25	Pole	9.1%	Pass
130 - 125	Pole	TP19.075x18.05x0.25	Pole	18.9%	Pass
125 - 120	Pole	TP20.099x19.075x0.25	Pole	27.3%	Pass
120 - 115	Pole	TP21.124x20.099x0.25	Pole	36.3%	Pass
115 - 110	Pole	TP22.149x21.124x0.25	Pole	44.7%	Pass
110 - 105	Pole	TP23.174x22.149x0.25	Pole	54.4%	Pass
105 - 102	Pole	TP23.789x23.174x0.25	Pole	59.7%	Pass
102 - 101.75	Pole + Reinf.	TP23.84x23.789x0.3875	Reinf. 12 Tension Rupture	53.1%	Pass
101.75 - 96.75	Pole + Reinf.	TP24.865x23.84x0.375	Reinf. 12 Tension Rupture	61.7%	Pass
96.75 - 95	Pole + Reinf.	TP25.89x24.865x0.375	Reinf. 12 Tension Rupture	64.6%	Pass
95 - 90.75	Pole + Reinf.	TP25.595x24.724x0.3563	Pole	55.9%	Pass
90.75 - 85.75	Pole + Reinf.	TP26.62x25.595x0.3563	Pole	61.0%	Pass
85.75 - 85.33	Pole + Reinf.	TP26.706x26.62x0.3563	Pole	61.4%	Pass
85.33 - 85.08	Pole + Reinf.	TP26.757x26.706x0.55	Reinf. 11 Tension Rupture	55.3%	Pass
85.08 - 82.5	Pole + Reinf.	TP27.287x26.757x0.5438	Reinf. 11 Tension Rupture	57.5%	Pass
82.5 - 82.25	Pole + Reinf.	TP27.338x27.287x0.5375	Reinf. 11 Tension Rupture	57.8%	Pass
82.25 - 82	Pole + Reinf.	TP27.389x27.338x0.5375	Reinf. 11 Tension Rupture	58.0%	Pass
82 - 81.75	Pole + Reinf.	TP27.44x27.389x0.3563	Pole	64.8%	Pass
81.75 - 78.83	Pole + Reinf.	TP28.038x27.44x0.3563	Pole	67.4%	Pass
78.83 - 78.58	Pole + Reinf.	TP28.09x28.038x0.6125	Reinf. 11 Tension Rupture	56.7%	Pass
78.58 - 77.67	Pole + Reinf.	TP28.277x28.09x0.6125	Reinf. 11 Tension Rupture	57.4%	Pass
77.67 - 77.42	Pole + Reinf.	TP28.329x28.277x0.55	Reinf. 8 Tension Rupture	61.5%	Pass
77.42 - 77.17	Pole + Reinf.	TP28.38x28.329x0.55	Reinf. 8 Tension Rupture	61.7%	Pass
77.17 - 72.17	Pole + Reinf.	TP29.406x28.38x0.5375	Reinf. 8 Tension Rupture	65.2%	Pass
72.17 - 67.17	Pole + Reinf.	TP30.431x29.406x0.525	Reinf. 8 Tension Rupture	68.4%	Pass
67.17 - 66.58	Pole + Reinf.	TP30.551x30.431x0.525	Reinf. 8 Tension Rupture	68.7%	Pass
66.58 - 66.33	Pole + Reinf.	TP30.602x30.551x0.625	Reinf. 8 Tension Rupture	58.0%	Pass
66.33 - 66.17	Pole + Reinf.	TP30.636x30.602x0.625	Reinf. 8 Tension Rupture	58.1%	Pass
66.17 - 65.92	Pole + Reinf.	TP30.687x30.636x0.5125	Reinf. 3 Tension Rupture	67.5%	Pass
65.92 - 62.67	Pole + Reinf.	TP31.354x30.687x0.5125	Reinf. 3 Tension Rupture	69.3%	Pass
62.67 - 62.42	Pole + Reinf.	TP31.405x31.354x0.5125	Reinf. 3 Tension Rupture	69.5%	Pass
62.42 - 60	Pole + Reinf.	TP31.901x31.405x0.5063	Reinf. 3 Tension Rupture	70.7%	Pass
60 - 59.75	Pole + Reinf.	TP31.952x31.901x0.5	Reinf. 3 Tension Rupture	70.9%	Pass
59.75 - 58.33	Pole + Reinf.	TP32.243x31.952x0.5	Reinf. 3 Tension Rupture	71.6%	Pass
58.33 - 58.08	Pole + Reinf.	TP32.294x32.243x0.5	Reinf. 3 Tension Rupture	71.7%	Pass
58.08 - 53.08	Pole + Reinf.	TP33.32x32.294x0.5	Reinf. 3 Tension Rupture	74.0%	Pass
53.08 - 52.83	Pole + Reinf.	TP33.371x33.32x0.5	Reinf. 3 Tension Rupture	74.1%	Pass
52.83 - 52.58	Pole + Reinf.	TP33.422x33.371x0.6875	Reinf. 3 Tension Rupture	54.6%	Pass
52.58 - 51.42	Pole + Reinf.	TP33.661x33.422x0.6875	Reinf. 3 Tension Rupture	55.1%	Pass
51.42 - 51.17	Pole + Reinf.	TP33.713x33.661x0.5063	Reinf. 7 Tension Rupture	69.1%	Pass
51.17 - 51	Pole + Reinf.	TP34.67x33.713x0.5063	Reinf. 7 Tension Rupture	69.2%	Pass
51 - 45.5	Pole + Reinf.	TP34.25x33.122x0.55	Reinf. 7 Tension Rupture	70.6%	Pass
45.5 - 44.25	Pole + Reinf.	TP34.506x34.25x0.55	Reinf. 7 Tension Rupture	71.0%	Pass
44.25 - 44	Pole + Reinf.	TP34.557x34.506x0.625	Reinf. 7 Tension Rupture	58.2%	Pass
44 - 43.08	Pole + Reinf.	TP34.745x34.557x0.625	Reinf. 7 Tension Rupture	58.5%	Pass
43.08 - 42.83	Pole + Reinf.	TP34.797x34.745x0.6625	Reinf. 6 Tension Rupture	60.8%	Pass
42.83 - 37.83	Pole + Reinf.	TP35.822x34.797x0.6625	Reinf. 6 Tension Rupture	62.2%	Pass
37.83 - 32.83	Pole + Reinf.	TP36.847x35.822x0.65	Reinf. 6 Tension Rupture	63.5%	Pass
32.83 - 29.25	Pole + Reinf.	TP37.582x36.847x0.6375	Reinf. 6 Tension Rupture	64.3%	Pass
29.25 - 29	Pole + Reinf.	TP37.633x37.582x0.6375	Reinf. 5 Tension Rupture	64.4%	Pass
29 - 27.75	Pole + Reinf.	TP37.89x37.633x0.6375	Reinf. 5 Tension Rupture	64.7%	Pass
27.75 - 27.5	Pole + Reinf.	TP37.941x37.89x0.6375	Reinf. 5 Tension Rupture	64.7%	Pass
27.5 - 24.08	Pole + Reinf.	TP38.642x37.941x0.6375	Reinf. 5 Tension Rupture	65.4%	Pass
24.08 - 23.83	Pole + Reinf.	TP38.693x38.642x0.7	Reinf. 14 Tension Rupture	63.2%	Pass
23.83 - 23.5	Pole + Reinf.	TP38.761x38.693x0.7	Reinf. 14 Tension Rupture	63.3%	Pass
23.5 - 23.25	Pole + Reinf.	TP38.812x38.761x0.4438	Pole	69.7%	Pass
23.25 - 18.92	Pole + Reinf.	TP39.701x38.812x0.4438	Pole	70.9%	Pass
18.92 - 18.67	Pole + Reinf.	TP39.752x39.701x0.525	Reinf. 5 Tension Rupture	77.2%	Pass
18.67 - 18.08	Pole + Reinf.	TP39.872x39.752x0.525	Reinf. 5 Tension Rupture	77.3%	Pass
18.08 - 17.83	Pole + Reinf.	TP39.923x39.872x0.6625	Reinf. 1 Compression	66.8%	Pass
17.83 - 14.08	Pole + Reinf.	TP40.692x39.923x0.65	Reinf. 1 Compression	67.4%	Pass
14.08 - 13.83	Pole + Reinf.	TP40.743x40.692x0.625	Reinf. 1 Compression	68.0%	Pass
13.83 - 8.83	Pole + Reinf.	TP41.769x40.743x0.625	Reinf. 1 Compression	68.7%	Pass
8.83 - 3.83	Pole + Reinf.	TP42.794x41.769x0.6125	Reinf. 1 Compression	69.3%	Pass
3.83 - 0	Pole + Reinf.	TP43.58x42.794x0.6125	Reinf. 1 Compression	69.8%	Pass
				Summary	
			Pole	70.9%	Pass
			Reinforcement	77.3%	Pass
			Overall	77.3%	Pass

# Additional Calculations

Section Elevation (ft)	Moment of Inertia (in <sup>4</sup> )			Area (in <sup>2</sup> )			% Capacity*																		
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	
140 - 135	486	n/a	486	13.48	n/a	13.48	4.7%																		
135 - 130	580	n/a	580	14.31	n/a	14.31	9.1%																		
130 - 125	686	n/a	686	15.13	n/a	15.13	18.9%																		
125 - 120	805	n/a	805	15.96	n/a	15.96	27.3%																		
120 - 115	936	n/a	936	16.78	n/a	16.78	36.3%																		
115 - 110	1081	n/a	1081	17.60	n/a	17.60	44.7%																		
110 - 105	1240	n/a	1240	18.43	n/a	18.43	54.4%																		
105 - 102	1342	n/a	1342	18.92	n/a	18.92	59.7%																		
102 - 101.75	1351	688	2039	18.96	8.76	27.72	38.5%																		
101.75 - 96.75	1535	746	2280	19.79	8.76	28.55	45.5%																		
96.75 - 95	1603	766	2369	20.08	8.76	28.84	47.9%																		
95 - 90.75	2193	282	2475	25.40	12.00	37.40	55.9%																		52.3%
90.75 - 85.75	2464	309	2772	26.43	12.00	38.43	61.0%																		57.4%
85.75 - 85.33	2487	311	2798	26.52	12.00	38.52	61.4%																		52.0%
85.33 - 85.08	2435	1681	4115	26.57	17.84	44.41	40.5%																		57.8%
85.08 - 82.5	2582	1746	4328	27.10	17.84	44.94	42.4%																		54.2%
82.5 - 82.25	2597	1752	4349	27.16	17.84	45.00	42.6%																		54.4%
82.25 - 82	2612	1758	4370	27.21	17.84	45.05	42.8%																		54.6%
82 - 81.75	2695	331	3027	27.26	12.00	39.26	64.8%																		61.1%
81.75 - 78.83	2873	348	3221	27.86	12.00	39.86	67.4%																		63.6%
78.83 - 78.58	2799	2490	5289	27.91	26.60	54.51	39.6%								55.7%										50.3%
78.58 - 77.67	2856	2522	5377	28.10	26.60	54.70	40.2%								56.4%										50.9%
77.67 - 77.42	2882	2008	4890	28.15	20.76	48.91	45.0%								61.5%										53.5%
77.42 - 77.17	2897	2015	4913	28.20	20.76	48.96	45.1%								61.7%										53.7%
77.17 - 72.17	3224	2159	5383	29.23	20.76	49.99	48.3%								65.2%										57.0%
72.17 - 67.17	3575	2307	5882	30.26	20.76	51.02	51.4%								68.4%										60.1%
67.17 - 66.58	3617	2325	5942	30.38	20.76	51.14	51.7%								68.7%										60.4%
66.58 - 66.33	3574	3314	6888	30.44	25.71	56.15	40.1%								58.0%										
66.33 - 66.17	3586	3321	6907	30.47	25.71	56.18	40.2%								58.1%										
66.17 - 65.92	3604	2217	5821	30.52	16.95	47.47	48.0%								67.5%										
65.92 - 62.67	3847	2309	6156	31.19	16.95	48.14	49.7%								69.3%										
62.67 - 62.42	3866	2316	6182	31.24	16.95	48.19	49.9%								69.5%										
62.42 - 60	4054	2386	6440	31.74	16.95	48.69	51.1%								70.7%										
60 - 59.75	4074	2393	6467	31.79	16.95	48.74	51.2%								70.9%										
59.75 - 58.33	4187	2435	6622	32.08	16.95	49.03	52.0%								71.6%										
58.33 - 58.08	4207	2442	6649	32.14	16.95	49.09	52.1%								71.7%										
58.08 - 53.08	4625	2591	7216	33.17	16.95	50.12	54.5%								74.0%										
53.08 - 52.83	4647	2599	7246	33.22	16.95	50.17	54.6%								74.1%										
52.83 - 52.58	4669	5243	9912	33.27	39.90	73.17	41.2%								54.6%										46.3%
52.58 - 51.42	4771	5314	10085	33.51	39.90	73.41	41.7%								51.2%										46.7%
51.42 - 51.17	4805	2841	7647	33.56	22.95	56.51	57.5%								69.1%										59.1%
51.17 - 51	4820	2847	7667	33.60	22.95	56.55	57.5%								69.2%										59.1%
51 - 45.5	5999	2731	8730	40.85	16.95	57.80	49.2%								70.6%										
45.5 - 44.25	6136	2770	8906	41.15	16.95	58.10	49.6%								71.0%										
44.25 - 44	6219	3952	10171	41.22	34.60	75.82	47.3%								48.1%										56.0%
44 - 43.08	6322	3993	10315	41.44	34.60	76.04	47.6%								48.4%										56.3%
43.08 - 42.83	6343	4625	10968	41.50	28.95	70.45	45.5%								60.8%										58.5%
42.83 - 37.83	6925	4891	11816	42.74	28.95	71.69	47.1%								62.2%										60.0%
37.83 - 32.83	7541	5165	12706	43.98	28.95	72.93	48.6%								63.5%										61.4%
32.83 - 29.25	8005	5366	13370	44.86	28.95	73.81	49.7%								64.3%										62.3%
29.25 - 29	8038	5380	13417	44.92	28.95	73.87	49.7%								64.4%										62.4%
29 - 27.75	8204	5451	13655	45.23	28.95	74.18	50.1%								64.7%										62.7%
27.75 - 27.5	8238	5465	13703	45.30	28.95	74.25	50.2%								64.7%										62.7%
27.5 - 24.08	8706	5662	14368	46.14	28.95	75.09	51.1%								65.4%										63.6%
24.08 - 23.83	8683	6993	15676	46.20	34.60	80.80	43.2%								59.1%										63.2%
23.83 - 23.5	8729	7017	15746	46.28	34.60	80.88	43.3%								59.2%										63.3%
23.5 - 23.25	8783	1585	10368	46.35	25.08	71.42	69.7%								66.6%										57.5%
23.25 - 18.92	9405	1655	11060	47.42	25.08	72.49	70.9%								67.1%										58.3%
18.92 - 18.67	9423	3630	13053	47.48	16.95	64.43	57.1%								77.2%										
18.67 - 18.08	9509	3651	13161	47.62	16.95	64.57	57.3%								77.3%										
18.08 - 17.83	9980	6808	16788	47.69	36.38	84.06	52.6%								66.8%										56.0%
17.83 - 14.08	10563	7072	17635	48.61	36.38	84.99	53.6%								67.4%										56.7%
14.08 - 13.83	10423	6479	16902	48.68	30.73	79.40	55.1%								68.0%										56.4%
13.83 - 8.83	11228	6805	18033	49.91	30.73	80.64	56.3%								68.7%										57.2%
8.83 - 3.83	12073	7139	19212	51.15	30.73	81.87	57.5%								69.3%										58.1%
3.83 - 0	12749	7401	20150	52.10	30.73	82.82	58.4%								69.8%										58.6%

Note: Section capacity checked using 5 degree increments.  
Rating per TIA-222-H Section 15.5.

# Monopole Base Plate Connection

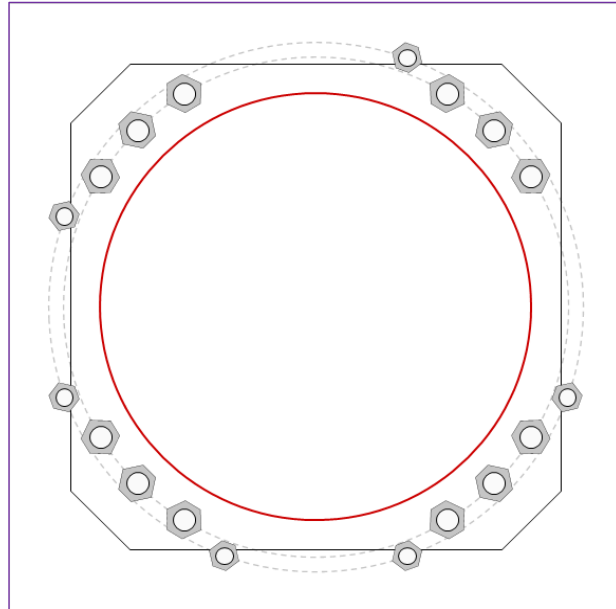


Site Info	
BU #	876335
Site Name	EAST FARMINGTON
Order #	586268, Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	See Custom Sheet
$I_{ar}$ (in)	See Custom Sheet

Applied Loads	
Moment (kip-ft)	2643.18
Axial Force (kips)	51.32
Shear Force (kips)	25.59

\*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data
GROUP 1: (12) 2-1/4" $\phi$ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 51" BC <i>Anchor Spacing: 6 in</i>
GROUP 2: (6) 1-3/4" $\phi$ bolts (A193 Gr. B7 N; $F_y=105$ ksi, $F_u=125$ ksi) on 54.08" BC <i>pos. (deg): 70, 160, 200, 250, 290, 340</i>
Base Plate Data
49.5" W x 3" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi); Clip: 6 in
Stiffener Data
N/A
Pole Data
43.58" x 0.375" 12-sided pole (A607-65; $F_y=65$ ksi, $F_u=80$ ksi)

Anchor Rod Summary			<i>(units of kips, kip-in)</i>
<b>GROUP 1:</b>			
$Pu_c = 205.74$	$\phi Pn_c = 268.39$	<b>Stress Rating</b>	
$Vu = 2.13$	$\phi Vn = 120.77$	<b>75.6%</b>	
$Mu = 3.46$	$\phi Mn = 128.14$	<b>Pass</b>	
<b>GROUP 2:</b>			
$Pu_t = 110.87$	$\phi Pn_t = 178.13$	<b>Stress Rating</b>	
$Vu = 0$	$\phi Vn = 112.75$	<b>59.3%</b>	
$Mu = 0$	$\phi Mn = 84.41$	<b>Pass</b>	
<b>Base Plate Summary</b>			
Max Stress (ksi):	32.95	(Flexural)	
Allowable Stress (ksi):	45		
Stress Rating:	<b>69.7%</b>	<b>Pass</b>	

# CCIplate

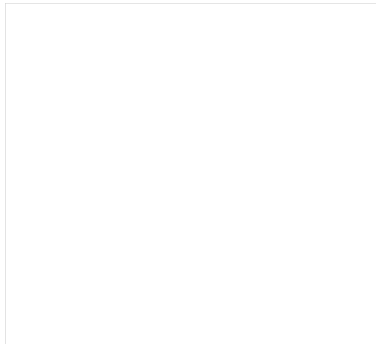
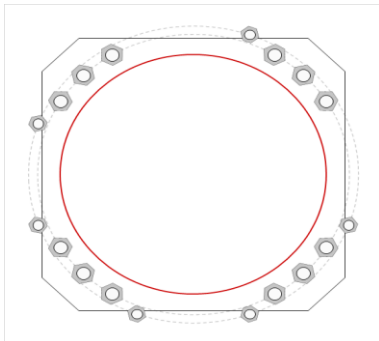
Elevation (ft) 0 (Base)

note: Bending interaction not considered when Grout Considered = "Yes"

Bolt Group	Resist Axial	Resist Shear	Induce Plate Bending	Grout Considered	Apply at BARB Elevation	BARB CL Elevation (ft)
1	Yes	Yes	Yes	No	No	
2	No	No	No	No	No	

Custom Bolt Connection										
Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, n:	$l_{ar}$ (in):	Thread Type	Area Override, in <sup>2</sup>	Tension Only
1	1	31.4873459	2.25	A615-75	51	0.5	2.5	N-Included		No
2	1	45	2.25	A615-75	51	0.5	2.5	N-Included		No
3	1	58.5126541	2.25	A615-75	51	0.5	2.5	N-Included		No
4	1	121.487346	2.25	A615-75	51	0.5	2.5	N-Included		No
5	1	135	2.25	A615-75	51	0.5	2.5	N-Included		No
6	1	148.512654	2.25	A615-75	51	0.5	2.5	N-Included		No
7	1	211.487346	2.25	A615-75	51	0.5	2.5	N-Included		No
8	1	225	2.25	A615-75	51	0.5	2.5	N-Included		No
9	1	238.512654	2.25	A615-75	51	0.5	2.5	N-Included		No
10	1	301.487346	2.25	A615-75	51	0.5	2.5	N-Included		No
11	1	315	2.25	A615-75	51	0.5	2.5	N-Included		No
12	1	328.512654	2.25	A615-75	51	0.5	2.5	N-Included		No
13	2	70	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
14	2	160	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
15	2	200	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
16	2	250	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
17	2	290	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
18	2	340	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes

## Plot Graphic



# Pier and Pad Foundation



**BU # :** 876335  
**Site Name:** EAST FARMINGTON  
**App. Number:** 586268, Rev. 0

**TIA-222 Revision:** H  
**Tower Type:** Monopole

**Top & Bot. Pad Rein. Different?:**   
**Block Foundation?:**   
**Rectangular Pad?:**

Superstructure Analysis Reactions		
Compression, $P_{comp}$ :	51	kips
Base Shear, $V_{u\_comp}$ :	25.55	kips
Moment, $M_u$ :	2642.94	ft-kips
Tower Height, $H$ :	140	ft
BP Dist. Above Fdn, $bp_{dist}$ :	4.5	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	383.47	25.55	6.3%	Pass
<i>Bearing Pressure (ksf)</i>	23.38	3.17	13.6%	Pass
<i>Overtuning (kip*ft)</i>	5601.70	2895.25	51.7%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	6926.02	2783.47	38.3%	Pass
<i>Pier Compression (kip)</i>	30551.04	114.36	0.4%	Pass
<i>Pad Flexure (kip*ft)</i>	5101.11	795.09	14.8%	Pass
<i>Pad Shear - 1-way (kips)</i>	853.95	117.75	13.1%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.164	0.016	9.3%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	10202.23	1670.08	15.6%	Pass

Pier Properties		
Pier Shape:	Square	
Pier Diameter, $dpier$ :	8	ft
Ext. Above Grade, $E$ :	0.5	ft
Pier Rebar Size, $Sc$ :	11	
Pier Rebar Quantity, $mc$ :	24	
Pier Tie/Spiral Size, $St$ :	5	
Pier Tie/Spiral Quantity, $mt$ :	12	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, $cc_{pier}$ :	3	in

\*Rating per TIA-222-H Section 15.5

Structural Rating*:	38.3%
Soil Rating*:	51.7%

Pad Properties		
Depth, $D$ :	9	ft
Pad Width, $W_1$ :	20	ft
Pad Thickness, $T$ :	4	ft
Pad Rebar Size (Bottom dir. 2), $Sp_2$ :	9	
Pad Rebar Quantity (Bottom dir. 2), $mp_2$ :	27	
Pad Clear Cover, $cc_{pad}$ :	3	in

Material Properties		
Rebar Grade, $F_y$ :	60	ksi
Concrete Compressive Strength, $F'_c$ :	3	ksi
Dry Concrete Density, $\delta_c$ :	150	pcf

Soil Properties		
Total Soil Unit Weight, $\gamma$ :	130	pcf
Ultimate Net Bearing, $Q_{net}$ :	30.000	ksf
Cohesion, $C_u$ :	0.000	ksf
Friction Angle, $\phi$ :	38	degrees
SPT Blow Count, $N_{blows}$ :	100	
Base Friction, $\mu$ :	0.35	
Neglected Depth, $N$ :	3.30	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, $gw$ :	N/A	ft

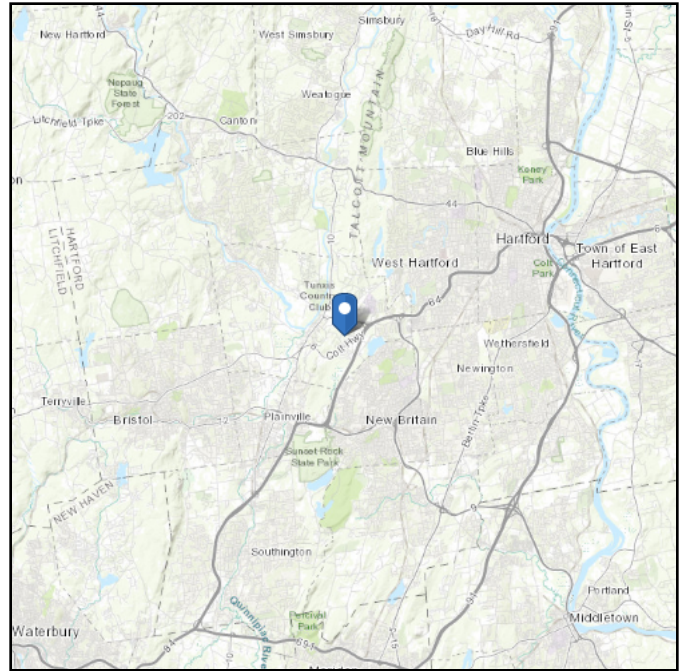
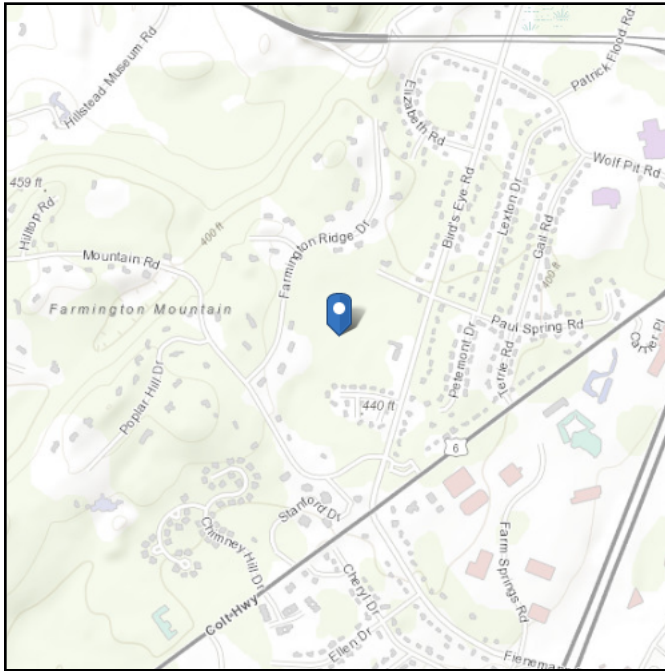
-- Toggle between Gross and Net

# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see Section 11.4.3)

**Elevation:** 413.61 ft (NAVD 88)  
**Latitude:** 41.715817  
**Longitude:** -72.810394



## Wind

### Results:

Wind Speed	117 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2  
Date Accessed: Tue Mar 15 2022

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

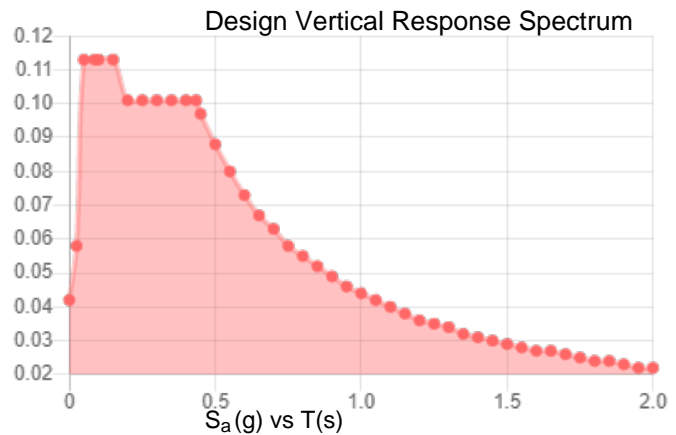
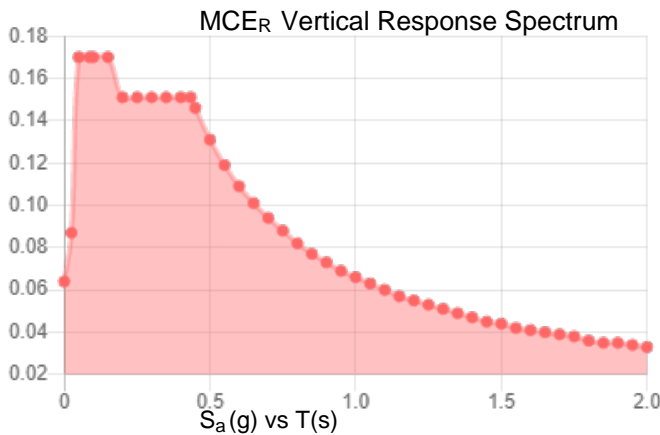
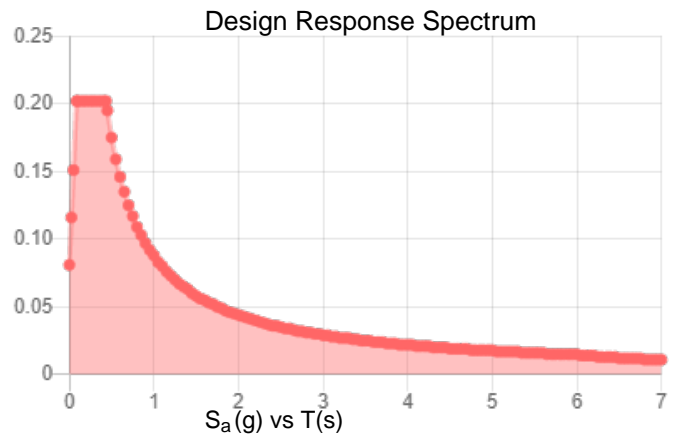
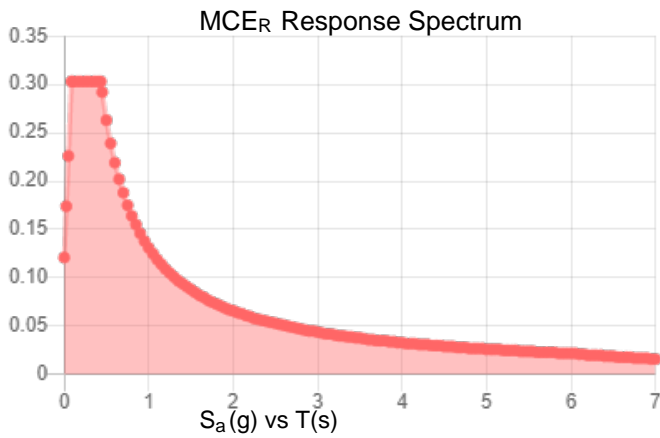


**Site Soil Class:** D - Default (see Section 11.4.3)

**Results:**

$S_s$ :	0.189	$S_{D1}$ :	0.088
$S_1$ :	0.055	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.102
$F_v$ :	2.4	PGA <sub>M</sub> :	0.163
$S_{MS}$ :	0.303	$F_{PGA}$ :	1.595
$S_{M1}$ :	0.131	$I_e$ :	1
$S_{DS}$ :	0.202	$C_v$ :	0.7

**Seismic Design Category** B



**Data Accessed:** Tue Mar 15 2022

**Date Source:**

**USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.**

## Ice

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**Results:**

Ice Thickness: 1.50 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Tue Mar 15 2022

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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# Exhibit E

## **Mount Analysis**

April 12, 2022



Tower Engineering Professionals  
326 Tryon Road  
Raleigh, NC 27603  
(919) 661-6351  
[CrownMA@tepgroup.net](mailto:CrownMA@tepgroup.net)

**Subject:** **Mount Modification Analysis**

**Carrier Designation:** **AT&T Mobility Reconfiguration**  
**Client Site Number:** 10071036  
**Client Site Name:** Farmington-Dead Swamp Wood  
**FA Location Code:** 10071036

**Crown Castle Designation:** **Crown Castle BU Number:** 876335  
**Crown Castle Site Name:** East Farmington  
**Crown Castle JDE Job Number:** 686298  
**Crown Castle Order Number:** 586268 Rev. 0

**Engineering Firm Designation:** **TEP Project Number:** 25672.681030

**Site Data:** **3 A Birdseye Road, Farmington, Hartford County, CT 06030**  
**Latitude 41° 42' 56.94", Longitude -72° 48' 37.42"**

**Structure Information:** **Tower Height & Type:** 139.0± ft Monopole  
**Mount Elevation:** 128.0 ft  
**Mount Width & Type:** 10.5 ft T-Arm

Tower Engineering Professionals is pleased to submit this “**Mount Modification Analysis**” to determine the structural integrity of AT&T Mobility’s antenna mounting system with proposed appurtenance and equipment addition on the above-mentioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis, we have determined the mount stress level to be:

**T-Arm Mount**

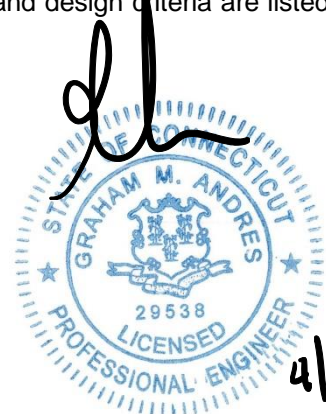
**Sufficient Capacity**

The analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 125 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Danny Murillo / JCM

Respectfully submitted by:

Graham M. Andres, P.E.  
Executive Vice-President  
919-661-6351  
[gandres@tepgroup.net](mailto:gandres@tepgroup.net)



Electronic Copy

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Mount Modification Design Drawings

## 1) INTRODUCTION

The mounts are existing 10.5-ft 3-sector T-Arm mounts, mapped by Tower Engineering Professionals. The mounts are installed at the 128.0 ft elevation on the 139.0± ft Monopole.

## 2) ANALYSIS CRITERIA

<b>Building Code:</b>	2018 IBC
<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Ultimate Wind Speed:</b>	125 mph
<b>Exposure Category:</b>	B
<b>Topographic Category at Base:</b>	1.0
<b>Topographic Category at Mount:</b>	1.0
<b>Ice Thickness:</b>	1.50 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Seismic Design Category:</b>	B
<b>Seismic S<sub>s</sub>:</b>	0.189
<b>Seismic S<sub>1</sub>:</b>	0.055
<b>Live Loading Wind Speed:</b>	30 mph
<b>Live Loading at Mid/End-Points:</b>	250 lb
<b>Man Live Loading at Mount Pipes:</b>	500 lb

**Table 1 - Proposed Equipment Configuration**

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
128.0	132.0	3	Ericsson	AIR 6419 B77G_CCIV3	(3) T-Arm Mounts
	130.0	3	KMW Comm.	EPBQ-654L8H8-L2	
		3	CCI Antennas	DMP65R-BU8D	
		3	Ericsson	RRUS 32 B30	
		3	Ericsson	RRUS 4426 B66	
		3	Ericsson	RRUS 4449 B5/B12	
		2	Raycap	DC6-48-60-18-8C	
		3	Ericsson	RRUS 4415 B25_CCIV2	
		3	Ericsson	RRUS 4478 B14_CCIV2	
		1	Raycap	DC6-48-60-0-8C-EV	
	128.0	3	Ericsson	AIR 6449 B77D_CCIV2	
		1	Raycap	DC6-48-60-18-8C	

### 3) ANALYSIS PROCEDURE

**Table 2 - Documents Provided**

Document	Remarks	Reference	Source
Mount Mapping	Tower Engineering Professionals	10021930	CCIsites
Loading Application	AT&T Mobility	Order 586268 Rev. 0	CCIsites
Previous Mount Analysis	Tower Engineering Professionals	10261991	CCIsites

#### 3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A and Appendix C.

TEP Mount Analysis Tool, a tool internally developed by TEP using Microsoft Excel, was used to calculate member loading for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Tower Mount Analysis (Revision E)*.

In addition, this analysis is in accordance with AT&T's *Mount Technical Guidance – Revision 16*.

#### 3.2) Assumptions

- 1) The mount was built in accordance with the manufacturer's specifications.
- 2) The mount has been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, mounts and other appurtenances are as specified in Table 1. All mount components have been assumed to be in sufficient condition to carry their full design capacity for this analysis. Refer to the issued mapping for any structural and/or maintenance issues found during our site visit if applicable.
- 4) All mount components are in sufficient condition to carry their full design capacity.
- 5) TEP did not analyze the collar mount connection to the pole and assumes it to have sufficient structural capacity to transfer the applied forces from the mount to the tower.
- 6) All material grades used for this analysis, unless verified by mount manufacturer design, were assumed per AISC Table 2-4, 15<sup>th</sup> Edition. See RISA-3D output for confirmation on grades used in this analysis.

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the antenna mounting system.

**4) ANALYSIS RESULTS**

**Table 3 - Mount Component Stresses vs. Capacity (T-Arm Mount)<sup>3</sup>**

Notes	Component	Critical Member	Mount Centerline (ft)	% Capacity	Pass / Fail
1	Face Horizontals	M33	128.0	47.6	Pass
1	Support Arms	M47	128.0	33.7	Pass
1	Mount Pipes	MP-5	128.0	73.6	Pass
1	Stabilizer Arms	SA-5	128.0	8.5	Pass
1	Kickers	K-6	128.0	36.4	Pass
2	Connection Bolts	-	128.0	17.9	Pass
2	Connection Plate	-	128.0	30.3	Pass

<b>Structure Rating (max from all components) =</b>	<b>73.6%</b>
---	--------------

Notes:

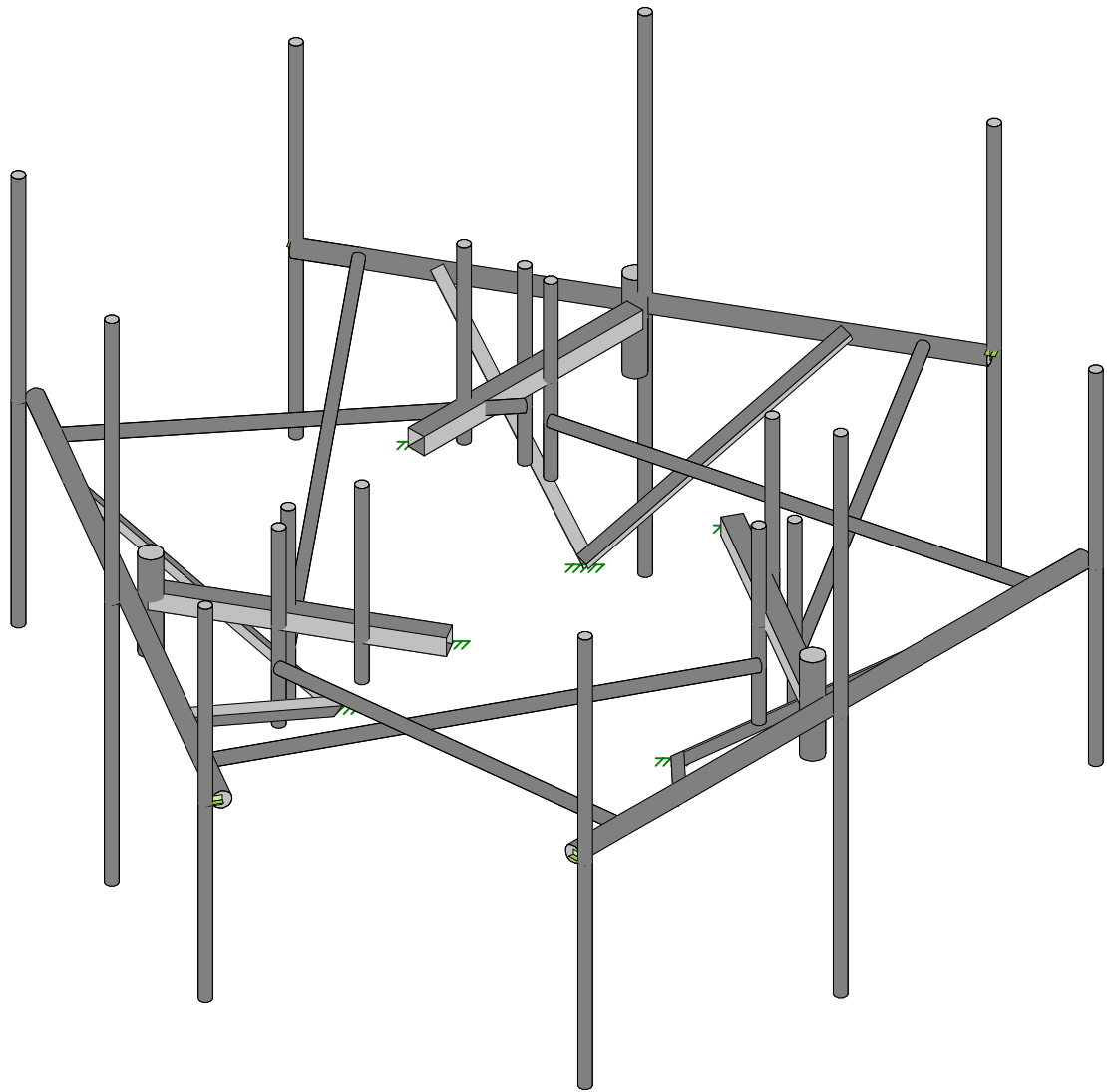
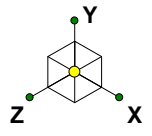
- 1) See additional documentation in "Appendix C - Analysis Output" for calculations supporting the % capacity listed.
- 2) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity listed.
- 3) All sectors are typical.

**4.1) Recommendations**

- 1) If the load differs from that described in Table 1 of this report or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
- 2) The modifications depicted in "Appendix E – Mount Modification Design Drawings" shall be installed and, upon completion, inspected. The mount has sufficient capacity to support the proposed loading configuration once the proposed modifications listed below are completed.
  - a) Add (1) Kicker Support Kit, SitePro Part No. PRK-SFS-L (AT&T CONMAT Item No. ANT.16818), or approved equivalent



**APPENDIX A**  
**WIRE FRAME AND RENDERED MODELS**



Envelope Only Solution

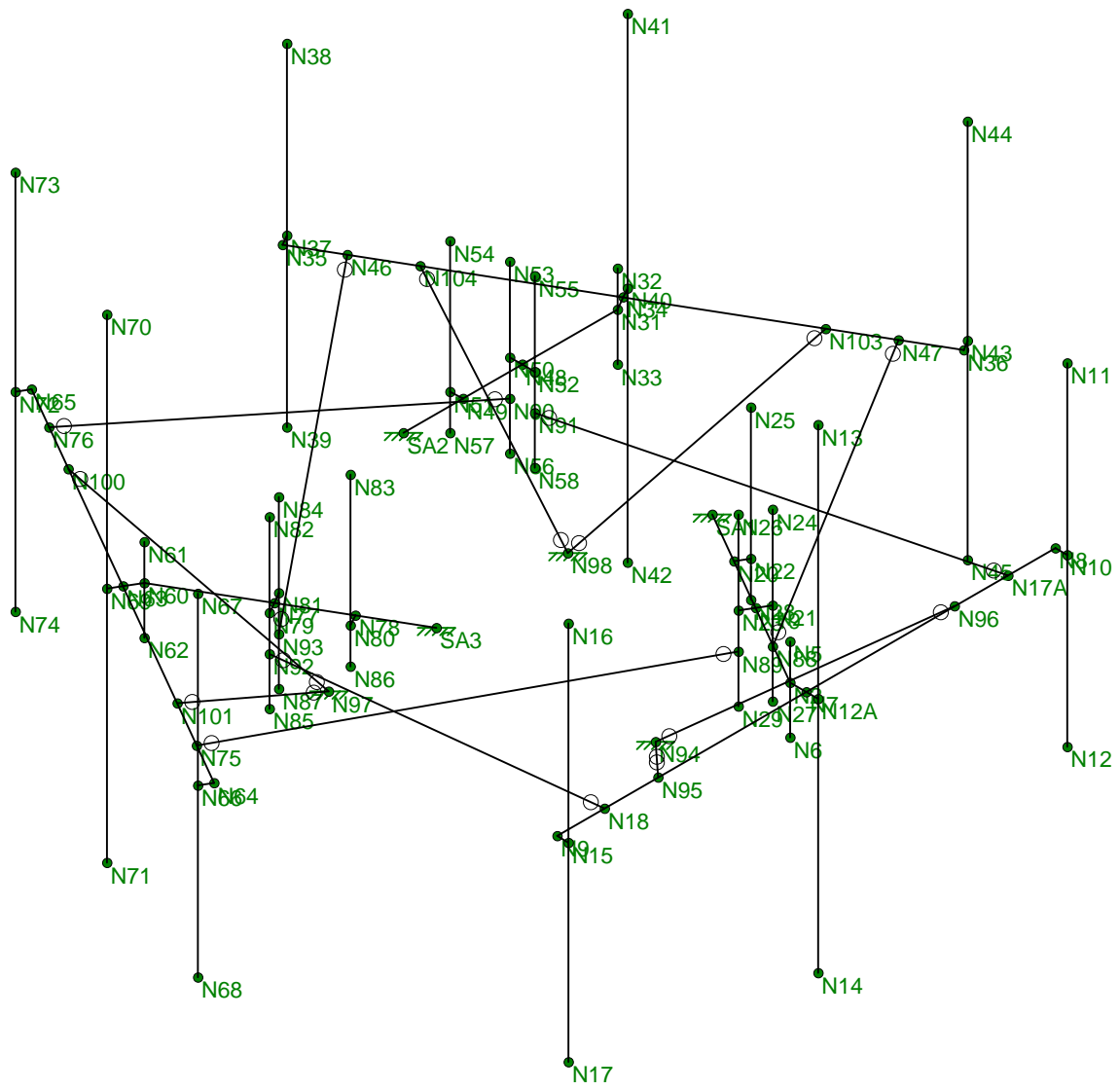
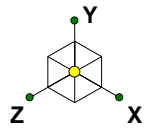
Tower Engineering Profess...  
DJM  
TEP No. 25672.681030

CCI BU No. 876335

SK - 1

Apr 11, 2022 at 1:27 PM

Mount Rev H.r3d



Envelope Only Solution

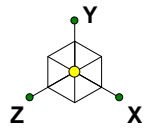
Tower Engineering Profess...  
 DJM  
 TEP No. 25672.681030

CCI BU No. 876335

SK - 2

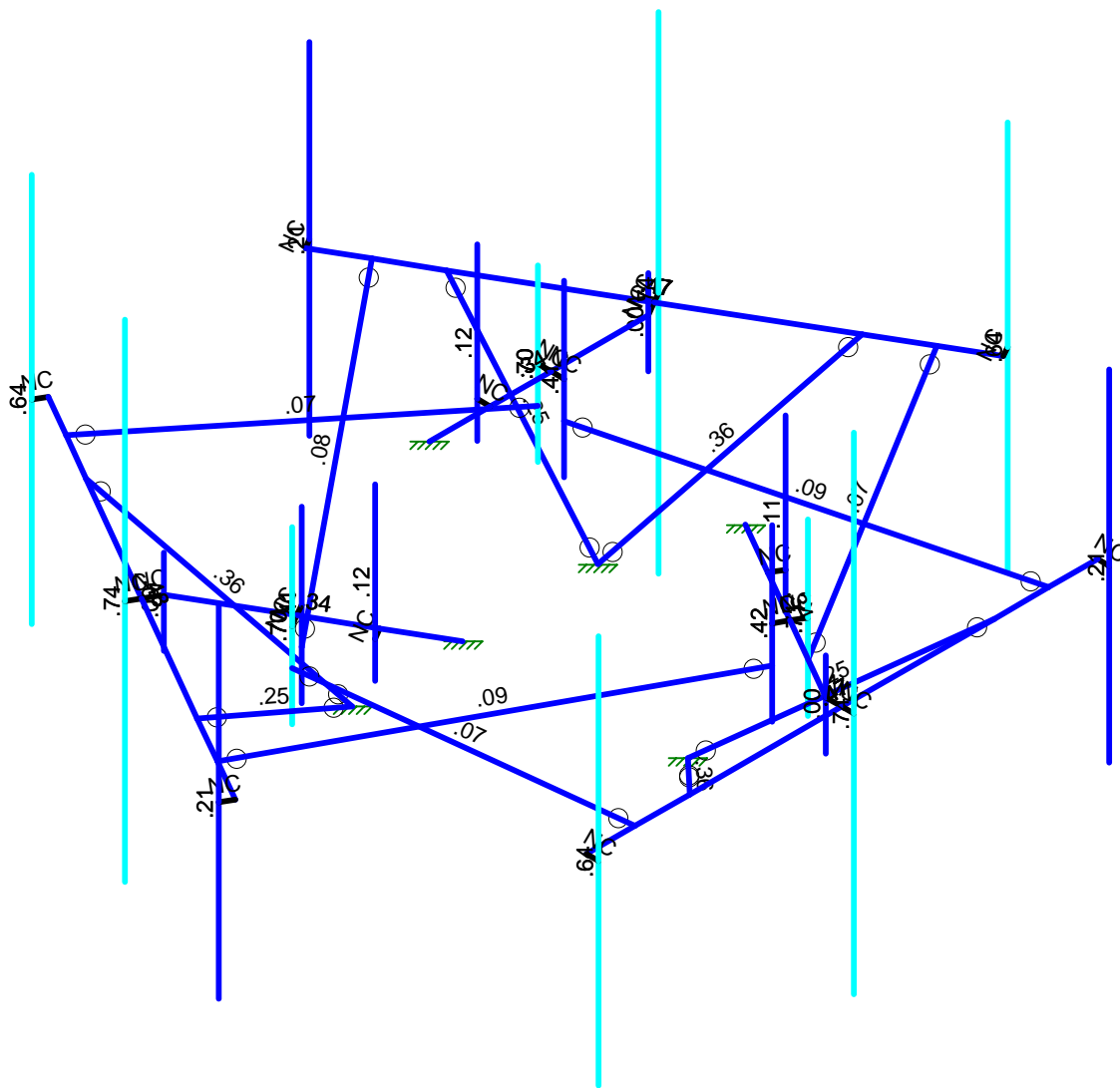
Apr 11, 2022 at 1:28 PM

Mount Rev H.r3d



Code Check ( Env )

Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0-.50

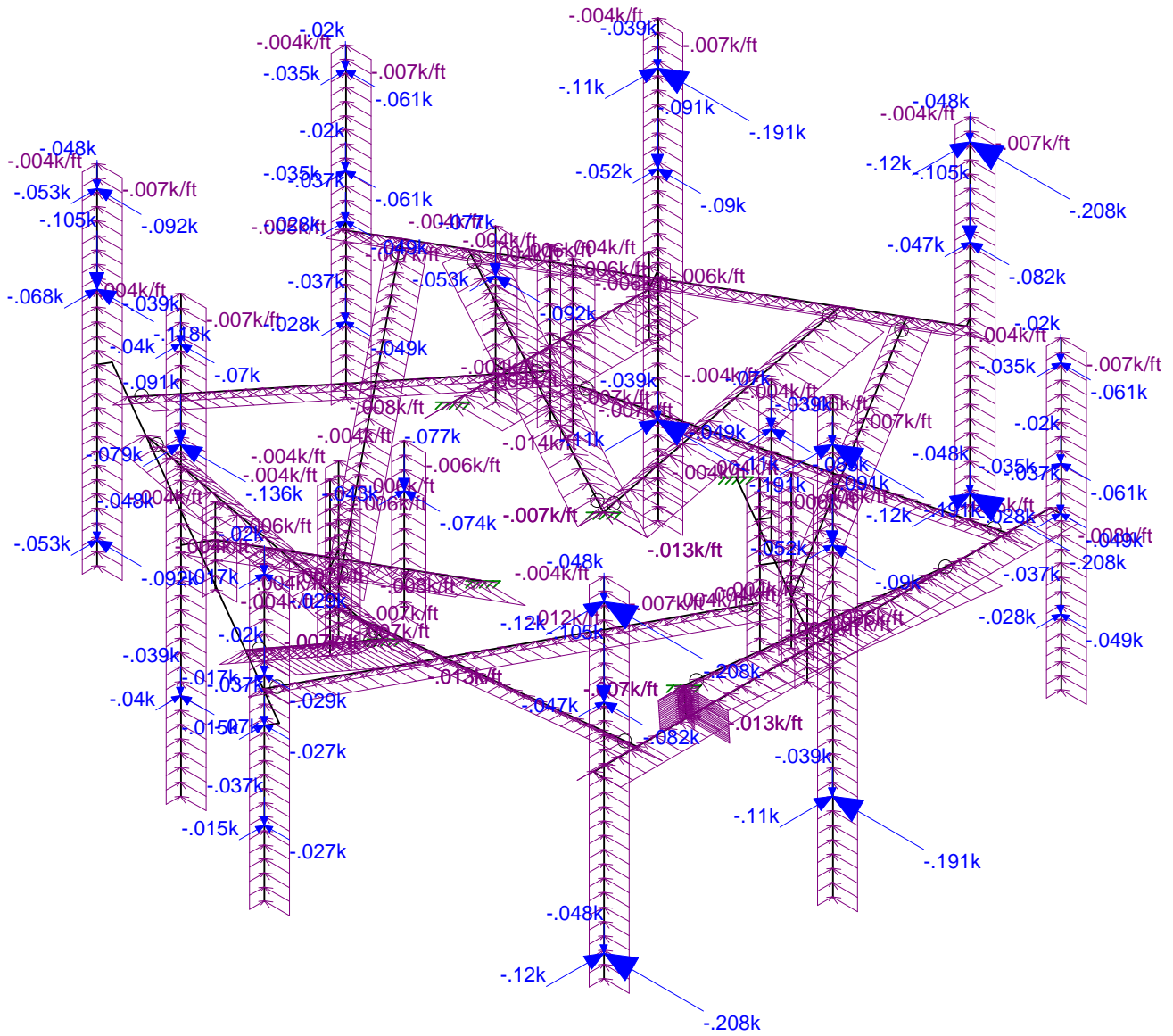
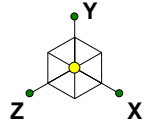


Member Code Checks Displayed (Enveloped)  
Envelope Only Solution

Tower Engineering Profess...	CCI BU No. 876335	SK - 3
DJM		Apr 11, 2022 at 1:28 PM
TEP No. 25672.681030		Mount Rev H.r3d







Loads: LC 3, 0.9D+1.0 30-Wind  
Envelope Only Solution

Tower Engineering Profess...  
DJM  
TEP No. 25672.681030

CCI BU No. 876335

SK - 6

Apr 11, 2022 at 1:28 PM

Mount Rev H.r3d







**APPENDIX B**  
**SOFTWARE INPUT CALCULATIONS**



Code Revisions:	TIA-222-H	IBC 2018
Tower Type:	Monopole	

**Wind Inputs:**

Ult. Wind Velocity:	125.0	mph
Live Load Velocity:	30.0	mph
Ice Wind Velocity:	50.0	mph
Base Ice Thickness:	1.50	inches
Mount Centerline:	128.0	ft
Antenna Centerline:	130.0	ft
Exposure Category:	B	
Topo Category:	1	
Risk Category:	II	
Ground Elevation:	414	ft

**Wind Calculations:**

$K_{zt}$ :	1.000	Section 2.6.6
$K_d$ :	0.950	
$K_{z-Mount}$ :	1.060	Section 2.6.5.2
$K_{z-Antenna}$ :	1.065	Section 2.6.5.2
$K_{iz}$ :	1.146	Section 2.6.10
Ice Thickness:	1.719	inches - Section 2.6.10

Without Ice - (psf)	With Ice - (psf)
$(q_z G_h)_{Mount}$ : 39.70	$(q_z G_h)_{Mount}$ : 6.35
$(q_z G_h)_{Antenna}$ : 39.87	$(q_z G_h)_{Antenna}$ : 6.38

Seismic Code Revisions:	TIA-222-H
Seismic Risk Category:	II

**Seismic Input**

$S_{DS}$ :	0.202	Design Short Period Spectral Accel.
$I_p$ :	1.0	Importance Factor
$R_p$ :	2.0	Response Modification Factor
$\rho$ :	1.0	
$A_s$ :	1.0	Applification Factor - TIA-222-H Section 2.7.8.1
$S_1$ :	0.055	Spectral Acceleration at a Period of 1 Second

**Seismic Design Force**

Cs:	0.101	kips/kip	TIA-H Sec 2.7.7.1.1
Cs-min:	0.030	kips/kip	TIA-H Sec 2.7.7.1.1



Antenna Loads are Calculated in Accordance with TIA-222-H

Azimuth is the absolute angle measured clockwise from RISA-3D global X-axis.

MFR	Model	Height (in)	Width (in)	Depth (in)	Wt. (lbs)	Azimuth°	Qty	Shape	Member Label	Distance from start node of the member		
										Location #1 (ft,%)	Location #2 (ft,%)	Location #3 (ft,%)
ERICSSON	AIR 6419 B77G	31.10	16.10	7.30	44.00	0.00	1	Flat	MP-1	0.50	2.50	
ERICSSON	AIR 6449 B77D	30.39	15.87	8.07	81.60	0.00	1	Flat	MP-1	3.50	5.50	
KMW COMMUNICATIONS	EPBQ-654L8H8-L2	96.00	21.00	6.30	86.00	0.00	1	Flat	MP-2	1.00	8.00	
ERICSSON	RRUS 32 B30	27.20	12.05	7.00	52.90	90.00	1	Flat	MP-2	3.00		
ERICSSON	RRUS 4426 B66	14.96	13.19	5.80	48.40	90.00	1	Flat	MP-2	3.00		
ERICSSON	RRUS 4478 B14_CCIV2	18.10	13.40	8.26	59.40	0.00	1	Flat	MP-12	1.00		
CCI ANTENNAS	DMP65R-BU8D	96.00	20.70	7.70	105.60	0.00	1	Flat	MP-3	0.50	7.50	
ERICSSON	RRUS 4415 B25_CCIV2	16.50	13.40	5.90	46.00	90.00	1	Flat	MP-3	2.50		
ERICSSON	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	90.00	1	Flat	MP-3	2.50		
RAYCAP	DC6-48-60-18-8F	24.00	11.00	11.00	18.90	90.00	1	Round	MP-12	1.00		
ERICSSON	AIR 6419 B77G	31.10	16.10	7.30	44.00	120.00	1	Flat	MP-4	0.50	2.50	
ERICSSON	AIR 6449 B77D	30.39	15.87	8.07	81.60	120.00	1	Flat	MP-4	3.50	5.50	
KMW COMMUNICATIONS	EPBQ-654L8H8-L2	96.00	21.00	6.30	86.00	120.00	1	Flat	MP-5	1.00	8.00	
ERICSSON	RRUS 32 B30	27.20	12.05	7.00	52.90	210.00	1	Flat	MP-5	3.00		
ERICSSON	RRUS 4426 B66	14.96	13.19	5.80	48.40	210.00	1	Flat	MP-5	3.00		
ERICSSON	RRUS 4478 B14_CCIV2	18.10	13.40	8.26	59.40	120.00	1	Flat	MP-15	1.00		
CCI ANTENNAS	DMP65R-BU8D	96.00	20.70	7.70	105.60	120.00	1	Flat	MP-6	0.50	7.50	
ERICSSON	RRUS 4415 B25_CCIV2	16.50	13.40	5.90	46.00	210.00	1	Flat	MP-6	2.50		
ERICSSON	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	210.00	1	Flat	MP-6	2.50		
RAYCAP	DC6-48-60-18-8C	31.41	10.24	10.24	26.20	210.00	1	Round	MP-15	1.00		
ERICSSON	AIR 6419 B77G	31.10	16.10	7.30	44.00	240.00	1	Flat	MP-7	0.50	2.50	
ERICSSON	AIR 6449 B77D	30.39	15.87	8.07	81.60	240.00	1	Flat	MP-7	3.50	5.50	
KMW COMMUNICATIONS	EPBQ-654L8H8-L2	96.00	21.00	6.30	86.00	240.00	1	Flat	MP-8	1.00	8.00	
ERICSSON	RRUS 32 B30	27.20	12.05	7.00	52.90	330.00	1	Flat	MP-8	3.00		
ERICSSON	RRUS 4426 B66	14.96	13.19	5.80	48.40	330.00	1	Flat	MP-8	3.00		
ERICSSON	RRUS 4478 B14_CCIV2	18.10	13.40	8.26	59.40	240.00	1	Flat	MP-18	1.00		
CCI ANTENNAS	DMP65R-BU8D	96.00	20.70	7.70	105.60	240.00	1	Flat	MP-9	0.50	7.50	
ERICSSON	RRUS 4415 B25_CCIV2	16.50	13.40	5.90	46.00	330.00	1	Flat	MP-9	2.50		
ERICSSON	RRUS 4449 B5/B12	17.90	13.19	9.44	71.00	330.00	1	Flat	MP-9	2.50		
RAYCAP	DC6-48-60-18-8C	31.41	10.24	10.24	26.20	330.00	1	Round	MP-18	1.00		



**TOWER  
ENGINEERING  
PROFESSIONALS**

**CCI BU No. 876335**

**TEP No.** 25672.681030  
**Analysis By:** DJM 4/11/2022  
**Checked By:** JCM 4/11/2022

**Member Forces are Calculated in Accordance with TIA-222-H**

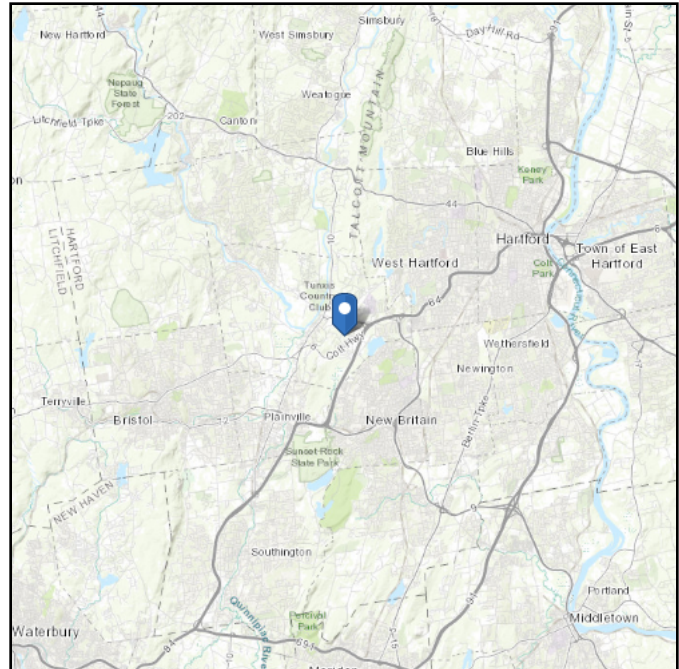
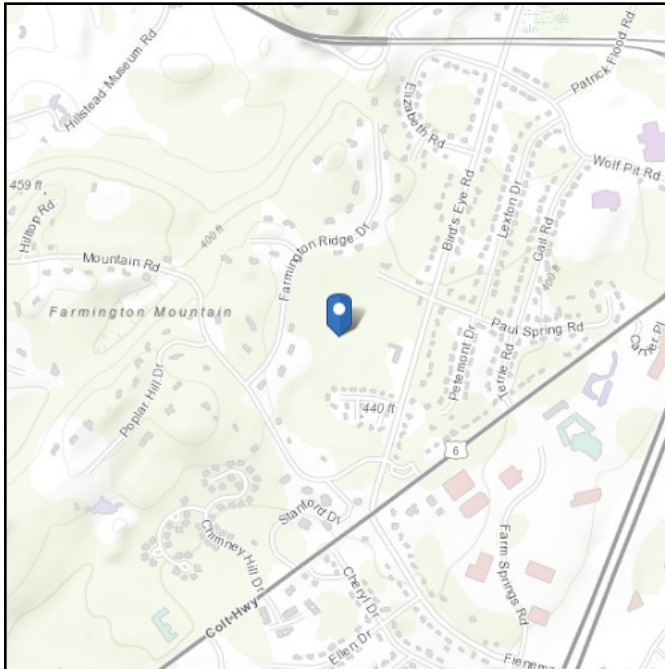
Member Name	Wind Proj. (in)	Length (in)	Shape	θ (°)	Perimeter (in)
FFTH	3.500	126.00	Round	90.00	11.00
M17	3.500	126.00	Round	30.00	11.00
M31	4.000	54.00	Flat	90.00	16.00
M32	4.500	21.00	Round		14.14
M33	3.500	126.00	Round	-30.00	11.00
M47	4.000	54.00	Flat	30.00	16.00
M48	4.500	21.00	Round		14.14
MP-1	2.375	84.00	Round		7.46
MP-2	2.375	120.00	Round		7.46
MP-3	2.375	96.00	Round		7.46
MP-4	2.375	84.00	Round		7.46
MP-5	2.375	120.00	Round		7.46
MP-6	2.375	96.00	Round		7.46
MP-7	2.375	84.00	Round		7.46
MP-8	2.375	120.00	Round		7.46
MP-9	2.375	96.00	Round		7.46
MP-10	2.375	42.00	Round		7.46
MP-11	2.375	42.00	Round		7.46
MP-12	2.375	42.00	Round		7.46
MP-13	2.375	42.00	Round		7.46
MP-14	2.375	42.00	Round		7.46
MP-15	2.375	42.00	Round		7.46
MP-16	2.375	42.00	Round		7.46
MP-17	2.375	42.00	Round		7.46
MP-18	2.375	42.00	Round		7.46
SA-1	2.375	105.79	Round		7.46
SA-2	2.375	85.59	Round		7.46
SA-3	2.375	105.79	Round		7.46
SA-4	2.375	85.59	Round		7.46
SA-5	2.375	105.79	Round		7.46
SA-6	2.375	85.59	Round		7.46
SF1-TH	4.000	54.00	Flat	-30.00	16.00
SF1-V1	4.500	21.00	Round		14.14
K-2	2.500	61.25	Flat		10.00
K-1	2.500	61.25	Flat		10.00
K-4	2.500	61.25	Flat		10.00
K-3	2.500	61.25	Flat		10.00
K-6	2.500	61.25	Flat		10.00
K-5	2.500	61.25	Flat		10.00

# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see Section 11.4.3)

**Elevation:** 413.52 ft (NAVD 88)  
**Latitude:** 41.715872  
**Longitude:** -72.810394



## Wind

### Results:

Wind Speed	117 Vmph	*125 Vmph per Connecticut State Building Code
10-year MRI	75 Vmph	
25-year MRI	84 Vmph	
50-year MRI	90 Vmph	
100-year MRI	97 Vmph	

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2  
Date Accessed: Tue Mar 22 2022

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

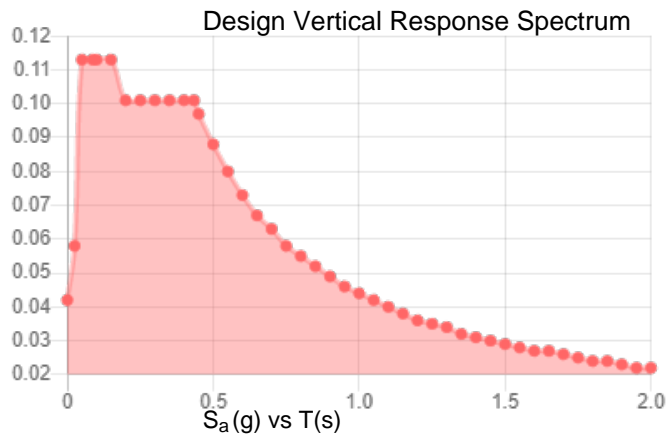
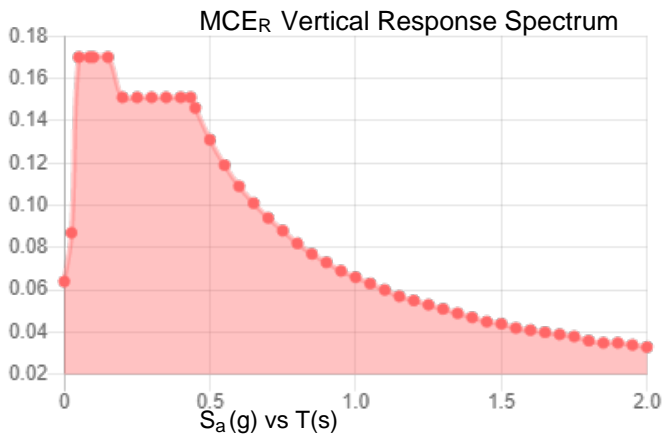
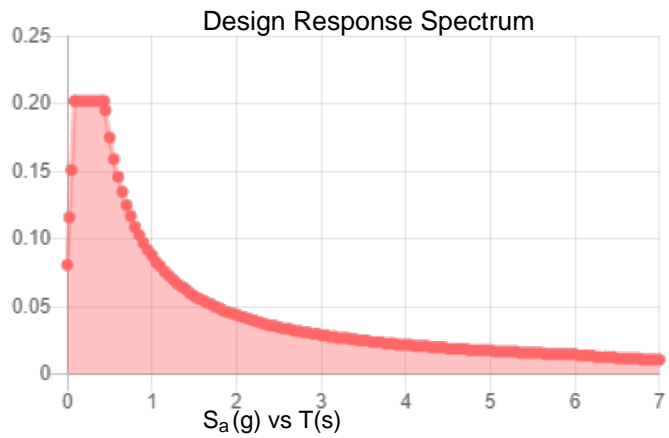
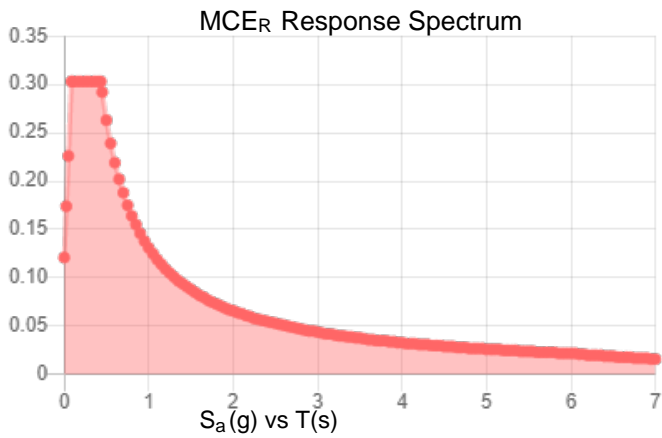
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

**Site Soil Class:** D - Default (see Section 11.4.3)

**Results:**

$S_s$ :	0.189	$S_{D1}$ :	0.088
$S_1$ :	0.055	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.102
$F_v$ :	2.4	PGA <sub>M</sub> :	0.163
$S_{MS}$ :	0.303	$F_{PGA}$ :	1.595
$S_{M1}$ :	0.131	$I_e$ :	1
$S_{DS}$ :	0.202	$C_v$ :	0.7

**Seismic Design Category** B



**Data Accessed:** Tue Mar 22 2022

**Date Source:**

**USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.**

## Ice

---

**Results:**

Ice Thickness: 1.50 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Tue Mar 22 2022

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

---

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



**APPENDIX C**  
**SOFTWARE ANALYSIS OUTPUT**

**(Global) Model Settings**

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	No
RISACONNECTION CODE	None
Cold Formed Steel Code	None
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET ASTM615
Min % Steel for Column	1
Max % Steel for Column	8

**(Global) Model Settings, Continued**

Seismic Code	ASCE 7-16
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	1
Cd X	1
Rho Z	1
Rho X	1

**Hot Rolled Steel Properties**

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.4	58	1.3
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.4	58	1.3
6	A53-B-35	29000	11154	.3	.65	.49	35	1.5	60	1.2

**Cold Formed Steel Properties**

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A570 Gr.33	29500	11346	.3	.65	.49	33	52
2	A607 C1 Gr.55	29500	11346	.3	.65	.49	55	70

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horiz	PIPE 3.0	None	None	A53-B-35	Typical	2.07	2.85	2.85	5.69
2	Support Arm	HSS4X4X3	None	None	A500 Gr.46	Typical	2.58	6.21	6.21	10
3	Support Vert	PIPE 4.0	None	None	A53-B-35	Typical	2.96	6.82	6.82	13.6
4	Stab Arm	PIPE 2.0	None	None	A53-B-35	Typical	1.02	.627	.627	1.25
5	Mount Pipe	PIPE 2.0	None	None	A53-B-35	Typical	1.02	.627	.627	1.25
6	Threaded Rods	TR 1/2	None	None	A36 Gr.36	Typical	.142	.002	.002	.003
7	TR Plate	PL 2.375x.25	None	None	A36 Gr.36	Typical	1.188	.025	.558	.086
8	Kickers	L2.5x2.5x3	None	None	A36 Gr.36	Typical	.901	.535	.535	.011

**Cold Formed Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1A	1.5CU1.25X035	Beam	CU	A570 Gr.33	Typical	.131	.022	.052	5.4e-5

### General Material Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]
1	gen Conc3NW	3155	1372	.15	.6	.145
2	gen Conc4NW	3644	1584	.15	.6	.145
3	gen Conc3LW	2085	906	.15	.6	.11
4	gen Conc4LW	2408	1047	.15	.6	.11
5	gen Alum	10600	4077	.3	1.29	.173
6	gen Steel	29000	11154	.3	.65	.49
7	RIGID	1e+6		.3	0	0

### Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	SA1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	SA2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	SA3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N94	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N97	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N98	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

### Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(de...)	Section/Shape	Type	Design List	Material	Design Rules
1	FFTH	N8	N9			Face Horiz	None	None	A53-B-35	Typical
2	M4	N2	N7			RIGID	None	None	RIGID	Typical
3	M5	N8	N10			RIGID	None	None	RIGID	Typical
4	M7	N7	N12A			RIGID	None	None	RIGID	Typical
5	M9	N9	N15			RIGID	None	None	RIGID	Typical
6	M11	N20	N22			RIGID	None	None	RIGID	Typical
7	M12	N19	N21			RIGID	None	None	RIGID	Typical
8	M13	N19	N23			RIGID	None	None	RIGID	Typical
9	M17	N35	N36			Face Horiz	None	None	A53-B-35	Typical
10	M18	N31	N34			RIGID	None	None	RIGID	Typical
11	M19	N35	N37			RIGID	None	None	RIGID	Typical
12	M20	N34	N40			RIGID	None	None	RIGID	Typical
13	M21	N36	N43			RIGID	None	None	RIGID	Typical
14	M22	N49	N51			RIGID	None	None	RIGID	Typical
15	M23	N48	N50			RIGID	None	None	RIGID	Typical
16	M24	N48	N52			RIGID	None	None	RIGID	Typical
17	M31	SA2	N31			Support Arm	None	None	A500 Gr...	Typical
18	M32	N32	N33			Support Vert	None	None	A53-B-35	Typical
19	M33	N64	N65			Face Horiz	None	None	A53-B-35	Typical
20	M34	N60	N63			RIGID	None	None	RIGID	Typical
21	M35	N64	N66			RIGID	None	None	RIGID	Typical
22	M36	N63	N69			RIGID	None	None	RIGID	Typical
23	M37	N65	N72			RIGID	None	None	RIGID	Typical
24	M38	N78	N80			RIGID	None	None	RIGID	Typical
25	M39	N77	N79			RIGID	None	None	RIGID	Typical
26	M40	N77	N81			RIGID	None	None	RIGID	Typical
27	M47	SA3	N60			Support Arm	None	None	A500 Gr...	Typical
28	M48	N61	N62			Support Vert	None	None	A53-B-35	Typical
29	MP-1	N11	N12			Mount Pipe	None	None	A53-B-35	Typical
30	MP-2	N13	N14			Mount Pipe	None	None	A53-B-35	Typical
31	MP-3	N16	N17			Mount Pipe	None	None	A53-B-35	Typical
32	MP-4	N67	N68			Mount Pipe	None	None	A53-B-35	Typical
33	MP-5	N70	N71			Mount Pipe	None	None	A53-B-35	Typical
34	MP-6	N73	N74			Mount Pipe	None	None	A53-B-35	Typical
35	MP-7	N38	N39			Mount Pipe	None	None	A53-B-35	Typical
36	MP-8	N41	N42			Mount Pipe	None	None	A53-B-35	Typical
37	MP-9	N44	N45			Mount Pipe	None	None	A53-B-35	Typical
38	MP-10	N24	N27			Mount Pipe	None	None	A53-B-35	Typical
39	MP-11	N26	N29			Mount Pipe	None	None	A53-B-35	Typical
40	MP-12	N25	N28			Mount Pipe	None	None	A53-B-35	Typical
41	MP-13	N82	N85			Mount Pipe	None	None	A53-B-35	Typical

### Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(de...)	Section/Shape	Type	Design List	Material	Design Rules
42	MP-14	N84	N87			Mount Pipe	None	None	A53-B-35	Typical
43	MP-15	N83	N86			Mount Pipe	None	None	A53-B-35	Typical
44	MP-16	N53	N56			Mount Pipe	None	None	A53-B-35	Typical
45	MP-17	N55	N58			Mount Pipe	None	None	A53-B-35	Typical
46	MP-18	N54	N57			Mount Pipe	None	None	A53-B-35	Typical
47	SA-1	N91	N17A			Stab Arm	None	None	A53-B-35	Typical
48	SA-2	N92	N18			Stab Arm	None	None	A53-B-35	Typical
49	SA-3	N93	N46			Stab Arm	None	None	A53-B-35	Typical
50	SA-4	N88	N47			Stab Arm	None	None	A53-B-35	Typical
51	SA-5	N89	N75			Stab Arm	None	None	A53-B-35	Typical
52	SA-6	N90	N76			Stab Arm	None	None	A53-B-35	Typical
53	SF1-TH	SA1	N2			Support Arm	None	None	A500 Gr...	Typical
54	SF1-V1	N5	N6			Support Vert	None	None	A53-B-35	Typical
55	K-2	N94	N95		205	Kickers	None	None	A36 Gr.36	Typical
56	K-1	N94	N96		65	Kickers	None	None	A36 Gr.36	Typical
57	K-4	N97	N100		205	Kickers	None	None	A36 Gr.36	Typical
58	K-3	N97	N101		65	Kickers	None	None	A36 Gr.36	Typical
59	K-6	N98	N103		205	Kickers	None	None	A36 Gr.36	Typical
60	K-5	N98	N104		65	Kickers	None	None	A36 Gr.36	Typical

### Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis...	Inactive	Seismic
1	FFTH						Yes	** NA **			None
2	M4						Yes	** NA **			None
3	M5						Yes	** NA **			None
4	M7						Yes	** NA **			None
5	M9						Yes	** NA **			None
6	M11						Yes	** NA **			None
7	M12						Yes	** NA **			None
8	M13						Yes	** NA **			None
9	M17						Yes	** NA **			None
10	M18						Yes	** NA **			None
11	M19						Yes	** NA **			None
12	M20						Yes	** NA **			None
13	M21						Yes	** NA **			None
14	M22						Yes	** NA **			None
15	M23						Yes	** NA **			None
16	M24						Yes	** NA **			None
17	M31						Yes	** NA **			None
18	M32						Yes	** NA **			None
19	M33						Yes	** NA **			None
20	M34						Yes	** NA **			None
21	M35						Yes	** NA **			None
22	M36						Yes	** NA **			None
23	M37						Yes	** NA **			None
24	M38						Yes	** NA **			None
25	M39						Yes	** NA **			None
26	M40						Yes	** NA **			None
27	M47						Yes	** NA **			None
28	M48						Yes	** NA **			None
29	MP-1						Yes	** NA **			None
30	MP-2						Yes	** NA **			None
31	MP-3						Yes	** NA **			None
32	MP-4						Yes	** NA **			None
33	MP-5						Yes	** NA **			None
34	MP-6						Yes	** NA **			None
35	MP-7						Yes	** NA **			None
36	MP-8						Yes	** NA **			None
37	MP-9						Yes	** NA **			None
38	MP-10						Yes	** NA **			None
39	MP-11						Yes	** NA **			None

**Member Advanced Data (Continued)**

Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic ...
40	MP-12					Yes	** NA **			None
41	MP-13					Yes	** NA **			None
42	MP-14					Yes	** NA **			None
43	MP-15					Yes	** NA **			None
44	MP-16					Yes	** NA **			None
45	MP-17					Yes	** NA **			None
46	MP-18					Yes	** NA **			None
47	SA-1	BenPIN	BenPIN			Yes	** NA **			None
48	SA-2	BenPIN	BenPIN			Yes	** NA **			None
49	SA-3	BenPIN	BenPIN			Yes	** NA **			None
50	SA-4	BenPIN	BenPIN			Yes	** NA **			None
51	SA-5	BenPIN	BenPIN			Yes	** NA **			None
52	SA-6	BenPIN	BenPIN			Yes	** NA **			None
53	SF1-TH					Yes	** NA **			None
54	SF1-V1					Yes	** NA **			None
55	K-2	BenPIN	BenPIN			Yes	** NA **			None
56	K-1	BenPIN	BenPIN			Yes	** NA **			None
57	K-4	BenPIN	BenPIN			Yes	** NA **			None
58	K-3	BenPIN	BenPIN			Yes	** NA **			None
59	K-6	BenPIN	BenPIN			Yes	** NA **			None
60	K-5	BenPIN	BenPIN			Yes	** NA **			None

**Hot Rolled Steel Design Parameters**

Label	Shape	Length[...]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torg...	Kyy	Kzz	Cb	Funct...
1	FFTH	Face Horiz	10.5	3.125	3.125			2.1	2.1		Lateral
2	M17	Face Horiz	10.5	3.125	3.125			2.1	2.1		Lateral
3	M31	Support Arm	4.5					2.1	2.1		Lateral
4	M32	Support Vert	1.75	Segment	Segment			2.1	2.1		Lateral
5	M33	Face Horiz	10.5	3.125	3.125			2.1	2.1		Lateral
6	M47	Support Arm	4.5					2.1	2.1		Lateral
7	M48	Support Vert	1.75	Segment	Segment			2.1	2.1		Lateral
8	MP-1	Mount Pipe	7	Segment	Segment			2.1	2.1		Lateral
9	MP-2	Mount Pipe	10	Segment	Segment			2.1	2.1		Lateral
10	MP-3	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
11	MP-4	Mount Pipe	7	Segment	Segment			2.1	2.1		Lateral
12	MP-5	Mount Pipe	10	Segment	Segment			2.1	2.1		Lateral
13	MP-6	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
14	MP-7	Mount Pipe	7	Segment	Segment			2.1	2.1		Lateral
15	MP-8	Mount Pipe	10	Segment	Segment			2.1	2.1		Lateral
16	MP-9	Mount Pipe	8	Segment	Segment			2.1	2.1		Lateral
17	MP-10	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
18	MP-11	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
19	MP-12	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
20	MP-13	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
21	MP-14	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
22	MP-15	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
23	MP-16	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
24	MP-17	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
25	MP-18	Mount Pipe	3.5	Segment	Segment			2.1	2.1		Lateral
26	SA-1	Stab Arm	8.816					1	1		Lateral
27	SA-2	Stab Arm	7.133					1	1		Lateral
28	SA-3	Stab Arm	8.816					1	1		Lateral
29	SA-4	Stab Arm	7.133					1	1		Lateral
30	SA-5	Stab Arm	8.816					1	1		Lateral
31	SA-6	Stab Arm	7.133					1	1		Lateral
32	SF1-TH	Support Arm	4.5					2.1	2.1		Lateral
33	SF1-V1	Support Vert	1.75	Segment	Segment			2.1	2.1		Lateral
34	K-2	Kickers	5.104					1	1		Lateral
35	K-1	Kickers	5.104					1	1		Lateral
36	K-4	Kickers	5.104					1	1		Lateral
37	K-3	Kickers	5.104					1	1		Lateral

**Hot Rolled Steel Design Parameters (Continued)**

Label	Shape	Length[...]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torg...	Kyy	Kzz	Cb	Funct...
38	K-6	Kickers	5.104					1	1		Lateral
39	K-5	Kickers	5.104					1	1		Lateral

**Cold Formed Steel Design Parameters**

Label	Shape	Length...	Lbyy[ft]	Lbzz[ft]	Lcomp to...Lcomp b...	Kyy	Kzz	Cm-vy	Cm-zz	Cb	R	y sway	sway
No Data to Print ...													

**Basic Load Cases**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Dead	None	-1			42			
2	0 Wind - No Ice	None				42	39		
3	30 Wind - No Ice	None				84	78		
4	45 Wind - No Ice	None				84	78		
5	60 Wind - No Ice	None				84	78		
6	90 Wind - No Ice	None				42	39		
7	120 Wind - No Ice	None				84	78		
8	135 Wind - No Ice	None				84	78		
9	150 Wind - No Ice	None				84	78		
10	180 Wind - No Ice	None				42	39		
11	210 Wind - No Ice	None				84	78		
12	225 Wind - No Ice	None				84	78		
13	240 Wind - No Ice	None				84	78		
14	270 Wind - No Ice	None				42	39		
15	300 Wind - No Ice	None				84	78		
16	315 Wind - No Ice	None				84	78		
17	330 Wind - No Ice	None				84	78		
18	Ice Weight	None				42	39		
19	0 Wind - Ice	None				42	39		
20	30 Wind - Ice	None				84	78		
21	45 Wind - Ice	None				84	78		
22	60 Wind - Ice	None				84	78		
23	90 Wind - Ice	None				42	39		
24	120 Wind - Ice	None				84	78		
25	135 Wind - Ice	None				84	78		
26	150 Wind - Ice	None				84	78		
27	180 Wind - Ice	None				42	39		
28	210 Wind - Ice	None				84	78		
29	225 Wind - Ice	None				84	78		
30	240 Wind - Ice	None				84	78		
31	270 Wind - Ice	None				42	39		
32	300 Wind - Ice	None				84	78		
33	315 Wind - Ice	None				84	78		
34	330 Wind - Ice	None				84	78		
35	Lm	None			1				
36	Lv	None			1				
37	Seismic Load X	ELX	-1			42			
38	Seismic Load Z	ELZ		-1		42			

**Load Combinations**

Description	Solve	PDelta S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y	1	1.4													
2	0.9D+1.0 0-Wind	Yes	Y	1	.9	2	1											
3	0.9D+1.0 30-Wind	Yes	Y	1	.9	3	1											
4	0.9D+1.0 45-Wind	Yes	Y	1	.9	4	1											
5	0.9D+1.0 60-Wind	Yes	Y	1	.9	5	1											
6	0.9D+1.0 90-Wind	Yes	Y	1	.9	6	1											
7	0.9D+1.0 120-W...	Yes	Y	1	.9	7	1											
8	0.9D+1.0 135-W...	Yes	Y	1	.9	8	1											



**Member Point Loads (BLC 1 : Dead) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
32	MP-1	Y	-041	5.5
33	MP-2	Y	-043	8
34	MP-3	Y	-053	7.5
35	MP-4	Y	-022	2.5
36	MP-4	Y	-041	5.5
37	MP-5	Y	-043	8
38	MP-6	Y	-053	7.5
39	MP-7	Y	-022	2.5
40	MP-7	Y	-041	5.5
41	MP-8	Y	-043	8
42	MP-9	Y	-053	7.5

**Member Point Loads (BLC 2 : 0 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-083	.5
2	MP-1	X	-065	3.5
3	MP-2	X	-268	1
4	MP-2	X	-06	3
5	MP-2	X	-026	3
6	MP-12	X	-073	1
7	MP-3	X	-285	.5
8	MP-3	X	-029	2.5
9	MP-3	X	-051	2.5
10	MP-12	X	-033	1
11	MP-4	X	-046	.5
12	MP-4	X	-039	3.5
13	MP-5	X	-127	1
14	MP-5	X	-088	3
15	MP-5	X	-051	3
16	MP-15	X	-052	1
17	MP-6	X	-151	.5
18	MP-6	X	-057	2.5
19	MP-6	X	-066	2.5
20	MP-15	X	-041	1
21	MP-7	X	-046	.5
22	MP-7	X	-039	3.5
23	MP-8	X	-127	1
24	MP-8	X	-088	3
25	MP-8	X	-051	3
26	MP-18	X	-052	1
27	MP-9	X	-151	.5
28	MP-9	X	-057	2.5
29	MP-9	X	-066	2.5
30	MP-18	X	-041	1
31	MP-1	X	-083	2.5
32	MP-1	X	-065	5.5
33	MP-2	X	-268	8
34	MP-3	X	-285	7.5
35	MP-4	X	-046	2.5
36	MP-4	X	-039	5.5
37	MP-5	X	-127	8
38	MP-6	X	-151	7.5
39	MP-7	X	-046	2.5
40	MP-7	X	-039	5.5
41	MP-8	X	-127	8
42	MP-9	X	-151	7.5

**Member Point Loads (BLC 3 : 30 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-061	.5
2	MP-1	X	-049	3.5
3	MP-2	X	-191	1

**Member Point Loads (BLC 3 : 30 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
4	MP-2	X	-06	3
5	MP-2	X	-03	3
6	MP-12	X	-057	1
7	MP-3	X	-208	.5
8	MP-3	X	-033	2.5
9	MP-3	X	-048	2.5
10	MP-12	X	-028	1
11	MP-4	X	-029	.5
12	MP-4	X	-027	3.5
13	MP-5	X	-07	1
14	MP-5	X	-085	3
15	MP-5	X	-051	3
16	MP-15	X	-039	1
17	MP-6	X	-092	.5
18	MP-6	X	-057	2.5
19	MP-6	X	-061	2.5
20	MP-15	X	-036	1
21	MP-7	X	-061	.5
22	MP-7	X	-049	3.5
23	MP-8	X	-191	1
24	MP-8	X	-06	3
25	MP-8	X	-03	3
26	MP-18	X	-057	1
27	MP-9	X	-208	.5
28	MP-9	X	-033	2.5
29	MP-9	X	-048	2.5
30	MP-18	X	-036	1
31	MP-1	X	-061	2.5
32	MP-1	X	-049	5.5
33	MP-2	X	-191	8
34	MP-3	X	-208	7.5
35	MP-4	X	-029	2.5
36	MP-4	X	-027	5.5
37	MP-5	X	-07	8
38	MP-6	X	-092	7.5
39	MP-7	X	-061	2.5
40	MP-7	X	-049	5.5
41	MP-8	X	-191	8
42	MP-9	X	-208	7.5
43	MP-1	Z	-035	.5
44	MP-1	Z	-028	3.5
45	MP-2	Z	-11	1
46	MP-2	Z	-035	3
47	MP-2	Z	-017	3
48	MP-12	Z	-033	1
49	MP-3	Z	-12	.5
50	MP-3	Z	-019	2.5
51	MP-3	Z	-028	2.5
52	MP-12	Z	-016	1
53	MP-4	Z	-017	.5
54	MP-4	Z	-015	3.5
55	MP-5	Z	-04	1
56	MP-5	Z	-049	3
57	MP-5	Z	-03	3
58	MP-15	Z	-022	1
59	MP-6	Z	-053	.5
60	MP-6	Z	-033	2.5
61	MP-6	Z	-035	2.5
62	MP-15	Z	-021	1
63	MP-7	Z	-035	.5
64	MP-7	Z	-028	3.5
65	MP-8	Z	-11	1
66	MP-8	Z	-035	3

**Member Point Loads (BLC 3 : 30 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
67	MP-8	Z	-0.17	3
68	MP-18	Z	-0.33	1
69	MP-9	Z	-0.12	.5
70	MP-9	Z	-0.19	2.5
71	MP-9	Z	-0.28	2.5
72	MP-18	Z	-0.21	1
73	MP-1	Z	-0.35	2.5
74	MP-1	Z	-0.28	5.5
75	MP-2	Z	-0.11	8
76	MP-3	Z	-0.12	7.5
77	MP-4	Z	-0.17	2.5
78	MP-4	Z	-0.15	5.5
79	MP-5	Z	-0.04	8
80	MP-6	Z	-0.53	7.5
81	MP-7	Z	-0.35	2.5
82	MP-7	Z	-0.28	5.5
83	MP-8	Z	-0.11	8
84	MP-9	Z	-0.12	7.5

**Member Point Loads (BLC 4 : 45 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-0.41	.5
2	MP-1	X	-0.34	3.5
3	MP-2	X	-0.123	1
4	MP-2	X	-0.566	3
5	MP-2	X	-0.03	3
6	MP-12	X	-0.41	1
7	MP-3	X	-0.138	.5
8	MP-3	X	-0.34	2.5
9	MP-3	X	-0.43	2.5
10	MP-12	X	-0.23	1
11	MP-4	X	-0.26	.5
12	MP-4	X	-0.23	3.5
13	MP-5	X	-0.66	1
14	MP-5	X	-0.68	3
15	MP-5	X	-0.04	3
16	MP-15	X	-0.33	1
17	MP-6	X	-0.84	.5
18	MP-6	X	-0.45	2.5
19	MP-6	X	-0.49	2.5
20	MP-15	X	-0.29	1
21	MP-7	X	-0.57	.5
22	MP-7	X	-0.45	3.5
23	MP-8	X	-0.18	1
24	MP-8	X	-0.44	3
25	MP-8	X	-0.02	3
26	MP-18	X	-0.05	1
27	MP-9	X	-0.193	.5
28	MP-9	X	-0.23	2.5
29	MP-9	X	-0.37	2.5
30	MP-18	X	-0.29	1
31	MP-1	X	-0.41	2.5
32	MP-1	X	-0.34	5.5
33	MP-2	X	-0.123	8
34	MP-3	X	-0.138	7.5
35	MP-4	X	-0.26	2.5
36	MP-4	X	-0.23	5.5
37	MP-5	X	-0.66	8
38	MP-6	X	-0.84	7.5
39	MP-7	X	-0.57	2.5
40	MP-7	X	-0.45	5.5
41	MP-8	X	-0.18	8

**Member Point Loads (BLC 4 : 45 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
42	MP-9	X	-0.193	7.5
43	MP-1	Z	-0.41	.5
44	MP-1	Z	-0.34	3.5
45	MP-2	Z	-0.123	1
46	MP-2	Z	-0.566	3
47	MP-2	Z	-0.03	3
48	MP-12	Z	-0.41	1
49	MP-3	Z	-0.138	.5
50	MP-3	Z	-0.34	2.5
51	MP-3	Z	-0.43	2.5
52	MP-12	Z	-0.23	1
53	MP-4	Z	-0.26	.5
54	MP-4	Z	-0.23	3.5
55	MP-5	Z	-0.66	1
56	MP-5	Z	-0.68	3
57	MP-5	Z	-0.04	3
58	MP-15	Z	-0.33	1
59	MP-6	Z	-0.84	.5
60	MP-6	Z	-0.45	2.5
61	MP-6	Z	-0.49	2.5
62	MP-15	Z	-0.29	1
63	MP-7	Z	-0.57	.5
64	MP-7	Z	-0.45	3.5
65	MP-8	Z	-0.18	1
66	MP-8	Z	-0.44	3
67	MP-8	Z	-0.02	3
68	MP-18	Z	-0.05	1
69	MP-9	Z	-0.193	.5
70	MP-9	Z	-0.23	2.5
71	MP-9	Z	-0.37	2.5
72	MP-18	Z	-0.29	1
73	MP-1	Z	-0.41	2.5
74	MP-1	Z	-0.34	5.5
75	MP-2	Z	-0.123	8
76	MP-3	Z	-0.138	7.5
77	MP-4	Z	-0.26	2.5
78	MP-4	Z	-0.23	5.5
79	MP-5	Z	-0.66	8
80	MP-6	Z	-0.84	7.5
81	MP-7	Z	-0.57	2.5
82	MP-7	Z	-0.45	5.5
83	MP-8	Z	-0.18	8
84	MP-9	Z	-0.193	7.5

**Member Point Loads (BLC 5 : 60 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-0.23	.5
2	MP-1	X	-0.02	3.5
3	MP-2	X	-0.064	1
4	MP-2	X	-0.44	3
5	MP-2	X	-0.25	3
6	MP-12	X	-0.26	1
7	MP-3	X	-0.76	.5
8	MP-3	X	-0.28	2.5
9	MP-3	X	-0.33	2.5
10	MP-12	X	-0.16	1
11	MP-4	X	-0.23	.5
12	MP-4	X	-0.02	3.5
13	MP-5	X	-0.64	1
14	MP-5	X	-0.44	3
15	MP-5	X	-0.25	3
16	MP-15	X	-0.26	1



**Member Point Loads (BLC 5 : 60 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
17	MP-6	X	-076	.5
18	MP-6	X	-028	2.5
19	MP-6	X	-033	2.5
20	MP-15	X	-021	1
21	MP-7	X	-042	.5
22	MP-7	X	-033	3.5
23	MP-8	X	-134	1
24	MP-8	X	-.03	3
25	MP-8	X	-.013	3
26	MP-18	X	-.036	1
27	MP-9	X	-.142	.5
28	MP-9	X	-.015	2.5
29	MP-9	X	-.025	2.5
30	MP-18	X	-.021	1
31	MP-1	X	-.023	2.5
32	MP-1	X	-.02	5.5
33	MP-2	X	-.064	8
34	MP-3	X	-.076	7.5
35	MP-4	X	-.023	2.5
36	MP-4	X	-.02	5.5
37	MP-5	X	-.064	8
38	MP-6	X	-.076	7.5
39	MP-7	X	-.042	2.5
40	MP-7	X	-.033	5.5
41	MP-8	X	-.134	8
42	MP-9	X	-.142	7.5
43	MP-1	Z	-.04	.5
44	MP-1	Z	-.034	3.5
45	MP-2	Z	-.11	1
46	MP-2	Z	-.077	3
47	MP-2	Z	-.044	3
48	MP-12	Z	-.045	1
49	MP-3	Z	-.131	.5
50	MP-3	Z	-.049	2.5
51	MP-3	Z	-.057	2.5
52	MP-12	Z	-.028	1
53	MP-4	Z	-.04	.5
54	MP-4	Z	-.034	3.5
55	MP-5	Z	-.11	1
56	MP-5	Z	-.077	3
57	MP-5	Z	-.044	3
58	MP-15	Z	-.045	1
59	MP-6	Z	-.131	.5
60	MP-6	Z	-.049	2.5
61	MP-6	Z	-.057	2.5
62	MP-15	Z	-.036	1
63	MP-7	Z	-.072	.5
64	MP-7	Z	-.057	3.5
65	MP-8	Z	-.232	1
66	MP-8	Z	-.052	3
67	MP-8	Z	-.023	3
68	MP-18	Z	-.063	1
69	MP-9	Z	-.246	.5
70	MP-9	Z	-.025	2.5
71	MP-9	Z	-.044	2.5
72	MP-18	Z	-.036	1
73	MP-1	Z	-.04	2.5
74	MP-1	Z	-.034	5.5
75	MP-2	Z	-.11	8
76	MP-3	Z	-.131	7.5
77	MP-4	Z	-.04	2.5
78	MP-4	Z	-.034	5.5
79	MP-5	Z	-.11	8

**Member Point Loads (BLC 5 : 60 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
80	MP-6	Z	-.131	7.5
81	MP-7	Z	-.072	2.5
82	MP-7	Z	-.057	5.5
83	MP-8	Z	-.232	8
84	MP-9	Z	-.246	7.5

**Member Point Loads (BLC 6 : 90 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	Z	-.034	.5
2	MP-1	Z	-.031	3.5
3	MP-2	Z	-.08	1
4	MP-2	Z	-.098	3
5	MP-2	Z	-.059	3
6	MP-12	Z	-.045	1
7	MP-3	Z	-.107	.5
8	MP-3	Z	-.066	2.5
9	MP-3	Z	-.071	2.5
10	MP-12	Z	-.033	1
11	MP-4	Z	-.071	.5
12	MP-4	Z	-.057	3.5
13	MP-5	Z	-.221	1
14	MP-5	Z	-.069	3
15	MP-5	Z	-.034	3
16	MP-15	Z	-.066	1
17	MP-6	Z	-.24	.5
18	MP-6	Z	-.039	2.5
19	MP-6	Z	-.056	2.5
20	MP-15	Z	-.041	1
21	MP-7	Z	-.071	.5
22	MP-7	Z	-.057	3.5
23	MP-8	Z	-.221	1
24	MP-8	Z	-.069	3
25	MP-8	Z	-.034	3
26	MP-18	Z	-.066	1
27	MP-9	Z	-.24	.5
28	MP-9	Z	-.039	2.5
29	MP-9	Z	-.056	2.5
30	MP-18	Z	-.041	1
31	MP-1	Z	-.034	2.5
32	MP-1	Z	-.031	5.5
33	MP-2	Z	-.08	8
34	MP-3	Z	-.107	7.5
35	MP-4	Z	-.071	2.5
36	MP-4	Z	-.057	5.5
37	MP-5	Z	-.221	8
38	MP-6	Z	-.24	7.5
39	MP-7	Z	-.071	2.5
40	MP-7	Z	-.057	5.5
41	MP-8	Z	-.221	8
42	MP-9	Z	-.24	7.5

**Member Point Loads (BLC 7 : 120 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.023	.5
2	MP-1	X	.02	3.5
3	MP-2	X	.064	1
4	MP-2	X	.044	3
5	MP-2	X	.025	3
6	MP-12	X	.026	1
7	MP-3	X	.076	.5
8	MP-3	X	.028	2.5
9	MP-3	X	.033	2.5



**Member Point Loads (BLC 7 : 120 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
10	MP-12	X	.016	1
11	MP-4	X	.042	.5
12	MP-4	X	.033	3.5
13	MP-5	X	.134	1
14	MP-5	X	.03	3
15	MP-5	X	.013	3
16	MP-15	X	.036	1
17	MP-6	X	.142	.5
18	MP-6	X	.015	2.5
19	MP-6	X	.025	2.5
20	MP-15	X	.021	1
21	MP-7	X	.023	.5
22	MP-7	X	.02	3.5
23	MP-8	X	.064	1
24	MP-8	X	.044	3
25	MP-8	X	.025	3
26	MP-18	X	.026	1
27	MP-9	X	.076	.5
28	MP-9	X	.028	2.5
29	MP-9	X	.033	2.5
30	MP-18	X	.021	1
31	MP-1	X	.023	2.5
32	MP-1	X	.02	5.5
33	MP-2	X	.064	8
34	MP-3	X	.076	7.5
35	MP-4	X	.042	2.5
36	MP-4	X	.033	5.5
37	MP-5	X	.134	8
38	MP-6	X	.142	7.5
39	MP-7	X	.023	2.5
40	MP-7	X	.02	5.5
41	MP-8	X	.064	8
42	MP-9	X	.076	7.5
43	MP-1	Z	-.04	.5
44	MP-1	Z	-.034	3.5
45	MP-2	Z	-.11	1
46	MP-2	Z	-.077	3
47	MP-2	Z	-.044	3
48	MP-12	Z	-.045	1
49	MP-3	Z	-.131	.5
50	MP-3	Z	-.049	2.5
51	MP-3	Z	-.057	2.5
52	MP-12	Z	-.028	1
53	MP-4	Z	-.072	.5
54	MP-4	Z	-.057	3.5
55	MP-5	Z	-.232	1
56	MP-5	Z	-.052	3
57	MP-5	Z	-.023	3
58	MP-15	Z	-.063	1
59	MP-6	Z	-.246	.5
60	MP-6	Z	-.025	2.5
61	MP-6	Z	-.044	2.5
62	MP-15	Z	-.036	1
63	MP-7	Z	-.04	.5
64	MP-7	Z	-.034	3.5
65	MP-8	Z	-.11	1
66	MP-8	Z	-.077	3
67	MP-8	Z	-.044	3
68	MP-18	Z	-.045	1
69	MP-9	Z	-.131	.5
70	MP-9	Z	-.049	2.5
71	MP-9	Z	-.057	2.5
72	MP-18	Z	-.036	1

**Member Point Loads (BLC 7 : 120 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
73	MP-1	Z	-.04	2.5
74	MP-1	Z	-.034	5.5
75	MP-2	Z	-.11	8
76	MP-3	Z	-.131	7.5
77	MP-4	Z	-.072	2.5
78	MP-4	Z	-.057	5.5
79	MP-5	Z	-.232	8
80	MP-6	Z	-.246	7.5
81	MP-7	Z	-.04	2.5
82	MP-7	Z	-.034	5.5
83	MP-8	Z	-.11	8
84	MP-9	Z	-.131	7.5

**Member Point Loads (BLC 8 : 135 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.041	.5
2	MP-1	X	.034	3.5
3	MP-2	X	.123	1
4	MP-2	X	.056	3
5	MP-2	X	.03	3
6	MP-12	X	.041	1
7	MP-3	X	.138	.5
8	MP-3	X	.034	2.5
9	MP-3	X	.043	2.5
10	MP-12	X	.023	1
11	MP-4	X	.057	.5
12	MP-4	X	.045	3.5
13	MP-5	X	.18	1
14	MP-5	X	.044	3
15	MP-5	X	.02	3
16	MP-15	X	.05	1
17	MP-6	X	.193	.5
18	MP-6	X	.023	2.5
19	MP-6	X	.037	2.5
20	MP-15	X	.029	1
21	MP-7	X	.026	.5
22	MP-7	X	.023	3.5
23	MP-8	X	.066	1
24	MP-8	X	.068	3
25	MP-8	X	.04	3
26	MP-18	X	.033	1
27	MP-9	X	.084	.5
28	MP-9	X	.045	2.5
29	MP-9	X	.049	2.5
30	MP-18	X	.029	1
31	MP-1	X	.041	2.5
32	MP-1	X	.034	5.5
33	MP-2	X	.123	8
34	MP-3	X	.138	7.5
35	MP-4	X	.057	2.5
36	MP-4	X	.045	5.5
37	MP-5	X	.18	8
38	MP-6	X	.193	7.5
39	MP-7	X	.026	2.5
40	MP-7	X	.023	5.5
41	MP-8	X	.066	8
42	MP-9	X	.084	7.5
43	MP-1	Z	-.041	.5
44	MP-1	Z	-.034	3.5
45	MP-2	Z	-.123	1
46	MP-2	Z	-.056	3
47	MP-2	Z	-.03	3

**Member Point Loads (BLC 8 : 135 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
48	MP-12	Z	-.041	1
49	MP-3	Z	-.138	.5
50	MP-3	Z	-.034	2.5
51	MP-3	Z	-.043	2.5
52	MP-12	Z	-.023	1
53	MP-4	Z	-.057	.5
54	MP-4	Z	-.045	3.5
55	MP-5	Z	-.18	1
56	MP-5	Z	-.044	3
57	MP-5	Z	-.02	3
58	MP-15	Z	-.05	1
59	MP-6	Z	-.193	.5
60	MP-6	Z	-.023	2.5
61	MP-6	Z	-.037	2.5
62	MP-15	Z	-.029	1
63	MP-7	Z	-.026	.5
64	MP-7	Z	-.023	3.5
65	MP-8	Z	-.066	1
66	MP-8	Z	-.068	3
67	MP-8	Z	-.04	3
68	MP-18	Z	-.033	1
69	MP-9	Z	-.084	.5
70	MP-9	Z	-.045	2.5
71	MP-9	Z	-.049	2.5
72	MP-18	Z	-.029	1
73	MP-1	Z	-.041	2.5
74	MP-1	Z	-.034	5.5
75	MP-2	Z	-.123	8
76	MP-3	Z	-.138	7.5
77	MP-4	Z	-.057	2.5
78	MP-4	Z	-.045	5.5
79	MP-5	Z	-.18	8
80	MP-6	Z	-.193	7.5
81	MP-7	Z	-.026	2.5
82	MP-7	Z	-.023	5.5
83	MP-8	Z	-.066	8
84	MP-9	Z	-.084	7.5

**Member Point Loads (BLC 9 : 150 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	.061	.5
2	MP-1	X	.049	3.5
3	MP-2	X	.191	1
4	MP-2	X	.06	3
5	MP-2	X	.03	3
6	MP-12	X	.057	1
7	MP-3	X	.208	.5
8	MP-3	X	.033	2.5
9	MP-3	X	.048	2.5
10	MP-12	X	.028	1
11	MP-4	X	.061	.5
12	MP-4	X	.049	3.5
13	MP-5	X	.191	1
14	MP-5	X	.06	3
15	MP-5	X	.03	3
16	MP-15	X	.057	1
17	MP-6	X	.208	.5
18	MP-6	X	.033	2.5
19	MP-6	X	.048	2.5
20	MP-15	X	.036	1
21	MP-7	X	.029	.5
22	MP-7	X	.027	3.5

**Member Point Loads (BLC 9 : 150 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
23	MP-8	X	.07	1
24	MP-8	X	.085	3
25	MP-8	X	.051	3
26	MP-18	X	.039	1
27	MP-9	X	.092	.5
28	MP-9	X	.057	2.5
29	MP-9	X	.061	2.5
30	MP-18	X	.036	1
31	MP-1	X	.061	2.5
32	MP-1	X	.049	5.5
33	MP-2	X	.191	8
34	MP-3	X	.208	7.5
35	MP-4	X	.061	2.5
36	MP-4	X	.049	5.5
37	MP-5	X	.191	8
38	MP-6	X	.208	7.5
39	MP-7	X	.029	2.5
40	MP-7	X	.027	5.5
41	MP-8	X	.07	8
42	MP-9	X	.092	7.5
43	MP-1	Z	-.035	.5
44	MP-1	Z	-.028	3.5
45	MP-2	Z	-.11	1
46	MP-2	Z	-.035	3
47	MP-2	Z	-.017	3
48	MP-12	Z	-.033	1
49	MP-3	Z	-.12	.5
50	MP-3	Z	-.019	2.5
51	MP-3	Z	-.028	2.5
52	MP-12	Z	-.016	1
53	MP-4	Z	-.035	.5
54	MP-4	Z	-.028	3.5
55	MP-5	Z	-.11	1
56	MP-5	Z	-.035	3
57	MP-5	Z	-.017	3
58	MP-15	Z	-.033	1
59	MP-6	Z	-.12	.5
60	MP-6	Z	-.019	2.5
61	MP-6	Z	-.028	2.5
62	MP-15	Z	-.021	1
63	MP-7	Z	-.017	.5
64	MP-7	Z	-.015	3.5
65	MP-8	Z	-.04	1
66	MP-8	Z	-.049	3
67	MP-8	Z	-.03	3
68	MP-18	Z	-.022	1
69	MP-9	Z	-.053	.5
70	MP-9	Z	-.033	2.5
71	MP-9	Z	-.035	2.5
72	MP-18	Z	-.021	1
73	MP-1	Z	-.035	2.5
74	MP-1	Z	-.028	5.5
75	MP-2	Z	-.11	8
76	MP-3	Z	-.12	7.5
77	MP-4	Z	-.035	2.5
78	MP-4	Z	-.028	5.5
79	MP-5	Z	-.11	8
80	MP-6	Z	-.12	7.5
81	MP-7	Z	-.017	2.5
82	MP-7	Z	-.015	5.5
83	MP-8	Z	-.04	8
84	MP-9	Z	-.053	7.5

**Member Point Loads (BLC 10 : 180 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.083	.5
2	MP-1	X	.065	3.5
3	MP-2	X	.268	1
4	MP-2	X	.06	3
5	MP-2	X	.026	3
6	MP-12	X	.073	1
7	MP-3	X	.285	.5
8	MP-3	X	.029	2.5
9	MP-3	X	.051	2.5
10	MP-12	X	.033	1
11	MP-4	X	.046	.5
12	MP-4	X	.039	3.5
13	MP-5	X	.127	1
14	MP-5	X	.088	3
15	MP-5	X	.051	3
16	MP-15	X	.052	1
17	MP-6	X	.151	.5
18	MP-6	X	.057	2.5
19	MP-6	X	.066	2.5
20	MP-15	X	.041	1
21	MP-7	X	.046	.5
22	MP-7	X	.039	3.5
23	MP-8	X	.127	1
24	MP-8	X	.088	3
25	MP-8	X	.051	3
26	MP-18	X	.052	1
27	MP-9	X	.151	.5
28	MP-9	X	.057	2.5
29	MP-9	X	.066	2.5
30	MP-18	X	.041	1
31	MP-1	X	.083	2.5
32	MP-1	X	.065	5.5
33	MP-2	X	.268	8
34	MP-3	X	.285	7.5
35	MP-4	X	.046	2.5
36	MP-4	X	.039	5.5
37	MP-5	X	.127	8
38	MP-6	X	.151	7.5
39	MP-7	X	.046	2.5
40	MP-7	X	.039	5.5
41	MP-8	X	.127	8
42	MP-9	X	.151	7.5

**Member Point Loads (BLC 11 : 210 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.061	.5
2	MP-1	X	.049	3.5
3	MP-2	X	.191	1
4	MP-2	X	.06	3
5	MP-2	X	.03	3
6	MP-12	X	.057	1
7	MP-3	X	.208	.5
8	MP-3	X	.033	2.5
9	MP-3	X	.048	2.5
10	MP-12	X	.028	1
11	MP-4	X	.029	.5
12	MP-4	X	.027	3.5
13	MP-5	X	.07	1
14	MP-5	X	.085	3
15	MP-5	X	.051	3
16	MP-15	X	.039	1
17	MP-6	X	.092	.5

**Member Point Loads (BLC 11 : 210 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
18	MP-6	X	.057	2.5
19	MP-6	X	.061	2.5
20	MP-15	X	.036	1
21	MP-7	X	.061	.5
22	MP-7	X	.049	3.5
23	MP-8	X	.191	1
24	MP-8	X	.06	3
25	MP-8	X	.03	3
26	MP-18	X	.057	1
27	MP-9	X	.208	.5
28	MP-9	X	.033	2.5
29	MP-9	X	.048	2.5
30	MP-18	X	.036	1
31	MP-1	X	.061	2.5
32	MP-1	X	.049	5.5
33	MP-2	X	.191	8
34	MP-3	X	.208	7.5
35	MP-4	X	.029	2.5
36	MP-4	X	.027	5.5
37	MP-5	X	.07	8
38	MP-6	X	.092	7.5
39	MP-7	X	.061	2.5
40	MP-7	X	.049	5.5
41	MP-8	X	.191	8
42	MP-9	X	.208	7.5
43	MP-1	Z	.035	.5
44	MP-1	Z	.028	3.5
45	MP-2	Z	.11	1
46	MP-2	Z	.035	3
47	MP-2	Z	.017	3
48	MP-12	Z	.033	1
49	MP-3	Z	.12	.5
50	MP-3	Z	.019	2.5
51	MP-3	Z	.028	2.5
52	MP-12	Z	.016	1
53	MP-4	Z	.017	.5
54	MP-4	Z	.015	3.5
55	MP-5	Z	.04	1
56	MP-5	Z	.049	3
57	MP-5	Z	.03	3
58	MP-15	Z	.022	1
59	MP-6	Z	.053	.5
60	MP-6	Z	.033	2.5
61	MP-6	Z	.035	2.5
62	MP-15	Z	.021	1
63	MP-7	Z	.035	.5
64	MP-7	Z	.028	3.5
65	MP-8	Z	.11	1
66	MP-8	Z	.035	3
67	MP-8	Z	.017	3
68	MP-18	Z	.033	1
69	MP-9	Z	.12	.5
70	MP-9	Z	.019	2.5
71	MP-9	Z	.028	2.5
72	MP-18	Z	.021	1
73	MP-1	Z	.035	2.5
74	MP-1	Z	.028	5.5
75	MP-2	Z	.11	8
76	MP-3	Z	.12	7.5
77	MP-4	Z	.017	2.5
78	MP-4	Z	.015	5.5
79	MP-5	Z	.04	8
80	MP-6	Z	.053	7.5



**Member Point Loads (BLC 11 : 210 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]	
81	MP-7	Z	.035	2.5
82	MP-7	Z	.028	5.5
83	MP-8	Z	.11	8
84	MP-9	Z	.12	7.5

**Member Point Loads (BLC 12 : 225 Wind - No Ice)**

Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]	
1	MP-1	X	.041	.5
2	MP-1	X	.034	3.5
3	MP-2	X	.123	1
4	MP-2	X	.056	3
5	MP-2	X	.03	3
6	MP-12	X	.041	1
7	MP-3	X	.138	.5
8	MP-3	X	.034	2.5
9	MP-3	X	.043	2.5
10	MP-12	X	.023	1
11	MP-4	X	.026	.5
12	MP-4	X	.023	3.5
13	MP-5	X	.066	1
14	MP-5	X	.068	3
15	MP-5	X	.04	3
16	MP-15	X	.033	1
17	MP-6	X	.084	.5
18	MP-6	X	.045	2.5
19	MP-6	X	.049	2.5
20	MP-15	X	.029	1
21	MP-7	X	.057	.5
22	MP-7	X	.045	3.5
23	MP-8	X	.18	1
24	MP-8	X	.044	3
25	MP-8	X	.02	3
26	MP-18	X	.05	1
27	MP-9	X	.193	.5
28	MP-9	X	.023	2.5
29	MP-9	X	.037	2.5
30	MP-18	X	.029	1
31	MP-1	X	.041	2.5
32	MP-1	X	.034	5.5
33	MP-2	X	.123	8
34	MP-3	X	.138	7.5
35	MP-4	X	.026	2.5
36	MP-4	X	.023	5.5
37	MP-5	X	.066	8
38	MP-6	X	.084	7.5
39	MP-7	X	.057	2.5
40	MP-7	X	.045	5.5
41	MP-8	X	.18	8
42	MP-9	X	.193	7.5
43	MP-1	Z	.041	.5
44	MP-1	Z	.034	3.5
45	MP-2	Z	.123	1
46	MP-2	Z	.056	3
47	MP-2	Z	.03	3
48	MP-12	Z	.041	1
49	MP-3	Z	.138	.5
50	MP-3	Z	.034	2.5
51	MP-3	Z	.043	2.5
52	MP-12	Z	.023	1
53	MP-4	Z	.026	.5
54	MP-4	Z	.023	3.5
55	MP-5	Z	.066	1



**Member Point Loads (BLC 12 : 225 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]	
56	MP-5	Z	.068	3
57	MP-5	Z	.04	3
58	MP-15	Z	.033	1
59	MP-6	Z	.084	.5
60	MP-6	Z	.045	2.5
61	MP-6	Z	.049	2.5
62	MP-15	Z	.029	1
63	MP-7	Z	.057	.5
64	MP-7	Z	.045	3.5
65	MP-8	Z	.18	1
66	MP-8	Z	.044	3
67	MP-8	Z	.02	3
68	MP-18	Z	.05	1
69	MP-9	Z	.193	.5
70	MP-9	Z	.023	2.5
71	MP-9	Z	.037	2.5
72	MP-18	Z	.029	1
73	MP-1	Z	.041	2.5
74	MP-1	Z	.034	5.5
75	MP-2	Z	.123	8
76	MP-3	Z	.138	7.5
77	MP-4	Z	.026	2.5
78	MP-4	Z	.023	5.5
79	MP-5	Z	.066	8
80	MP-6	Z	.084	7.5
81	MP-7	Z	.057	2.5
82	MP-7	Z	.045	5.5
83	MP-8	Z	.18	8
84	MP-9	Z	.193	7.5

**Member Point Loads (BLC 13 : 240 Wind - No Ice)**

Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]	
1	MP-1	X	.023	.5
2	MP-1	X	.02	3.5
3	MP-2	X	.064	1
4	MP-2	X	.044	3
5	MP-2	X	.025	3
6	MP-12	X	.026	1
7	MP-3	X	.076	.5
8	MP-3	X	.028	2.5
9	MP-3	X	.033	2.5
10	MP-12	X	.016	1
11	MP-4	X	.023	.5
12	MP-4	X	.02	3.5
13	MP-5	X	.064	1
14	MP-5	X	.044	3
15	MP-5	X	.025	3
16	MP-15	X	.026	1
17	MP-6	X	.076	.5
18	MP-6	X	.028	2.5
19	MP-6	X	.033	2.5
20	MP-15	X	.021	1
21	MP-7	X	.042	.5
22	MP-7	X	.033	3.5
23	MP-8	X	.134	1
24	MP-8	X	.03	3
25	MP-8	X	.013	3
26	MP-18	X	.036	1
27	MP-9	X	.142	.5
28	MP-9	X	.015	2.5
29	MP-9	X	.025	2.5
30	MP-18	X	.021	1

**Member Point Loads (BLC 13 : 240 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
31	MP-1	X	.023	2.5
32	MP-1	X	.02	5.5
33	MP-2	X	.064	8
34	MP-3	X	.076	7.5
35	MP-4	X	.023	2.5
36	MP-4	X	.02	5.5
37	MP-5	X	.064	8
38	MP-6	X	.076	7.5
39	MP-7	X	.042	2.5
40	MP-7	X	.033	5.5
41	MP-8	X	.134	8
42	MP-9	X	.142	7.5
43	MP-1	Z	.04	.5
44	MP-1	Z	.034	3.5
45	MP-2	Z	.11	1
46	MP-2	Z	.077	3
47	MP-2	Z	.044	3
48	MP-12	Z	.045	1
49	MP-3	Z	.131	.5
50	MP-3	Z	.049	2.5
51	MP-3	Z	.057	2.5
52	MP-12	Z	.028	1
53	MP-4	Z	.04	.5
54	MP-4	Z	.034	3.5
55	MP-5	Z	.11	1
56	MP-5	Z	.077	3
57	MP-5	Z	.044	3
58	MP-15	Z	.045	1
59	MP-6	Z	.131	.5
60	MP-6	Z	.049	2.5
61	MP-6	Z	.057	2.5
62	MP-15	Z	.036	1
63	MP-7	Z	.072	.5
64	MP-7	Z	.057	3.5
65	MP-8	Z	.232	1
66	MP-8	Z	.052	3
67	MP-8	Z	.023	3
68	MP-18	Z	.063	1
69	MP-9	Z	.246	.5
70	MP-9	Z	.025	2.5
71	MP-9	Z	.044	2.5
72	MP-18	Z	.036	1
73	MP-1	Z	.04	2.5
74	MP-1	Z	.034	5.5
75	MP-2	Z	.11	8
76	MP-3	Z	.131	7.5
77	MP-4	Z	.04	2.5
78	MP-4	Z	.034	5.5
79	MP-5	Z	.11	8
80	MP-6	Z	.131	7.5
81	MP-7	Z	.072	2.5
82	MP-7	Z	.057	5.5
83	MP-8	Z	.232	8
84	MP-9	Z	.246	7.5

**Member Point Loads (BLC 14 : 270 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	Z	.034	.5
2	MP-1	Z	.031	3.5
3	MP-2	Z	.08	1
4	MP-2	Z	.098	3
5	MP-2	Z	.059	3

**Member Point Loads (BLC 14 : 270 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
6	MP-12	Z	.045	1
7	MP-3	Z	.107	.5
8	MP-3	Z	.066	2.5
9	MP-3	Z	.071	2.5
10	MP-12	Z	.033	1
11	MP-4	Z	.071	.5
12	MP-4	Z	.057	3.5
13	MP-5	Z	.221	1
14	MP-5	Z	.069	3
15	MP-5	Z	.034	3
16	MP-15	Z	.066	1
17	MP-6	Z	.24	.5
18	MP-6	Z	.039	2.5
19	MP-6	Z	.056	2.5
20	MP-15	Z	.041	1
21	MP-7	Z	.071	.5
22	MP-7	Z	.057	3.5
23	MP-8	Z	.221	1
24	MP-8	Z	.069	3
25	MP-8	Z	.034	3
26	MP-18	Z	.066	1
27	MP-9	Z	.24	.5
28	MP-9	Z	.039	2.5
29	MP-9	Z	.056	2.5
30	MP-18	Z	.041	1
31	MP-1	Z	.034	2.5
32	MP-1	Z	.031	5.5
33	MP-2	Z	.08	8
34	MP-3	Z	.107	7.5
35	MP-4	Z	.071	2.5
36	MP-4	Z	.057	5.5
37	MP-5	Z	.221	8
38	MP-6	Z	.24	7.5
39	MP-7	Z	.071	2.5
40	MP-7	Z	.057	5.5
41	MP-8	Z	.221	8
42	MP-9	Z	.24	7.5

**Member Point Loads (BLC 15 : 300 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-.023	.5
2	MP-1	X	-.02	3.5
3	MP-2	X	-.064	1
4	MP-2	X	-.044	3
5	MP-2	X	-.025	3
6	MP-12	X	-.026	1
7	MP-3	X	-.076	.5
8	MP-3	X	-.028	2.5
9	MP-3	X	-.033	2.5
10	MP-12	X	-.016	1
11	MP-4	X	-.042	.5
12	MP-4	X	-.033	3.5
13	MP-5	X	-.134	1
14	MP-5	X	-.03	3
15	MP-5	X	-.013	3
16	MP-15	X	-.036	1
17	MP-6	X	-.142	.5
18	MP-6	X	-.015	2.5
19	MP-6	X	-.025	2.5
20	MP-15	X	-.021	1
21	MP-7	X	-.023	.5
22	MP-7	X	-.02	3.5

**Member Point Loads (BLC 15 : 300 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
23	MP-8	X	-.064	1
24	MP-8	X	-.044	3
25	MP-8	X	-.025	3
26	MP-18	X	-.026	1
27	MP-9	X	-.076	.5
28	MP-9	X	-.028	2.5
29	MP-9	X	-.033	2.5
30	MP-18	X	-.021	1
31	MP-1	X	-.023	2.5
32	MP-1	X	-.02	5.5
33	MP-2	X	-.064	8
34	MP-3	X	-.076	7.5
35	MP-4	X	-.042	2.5
36	MP-4	X	-.033	5.5
37	MP-5	X	-.134	8
38	MP-6	X	-.142	7.5
39	MP-7	X	-.023	2.5
40	MP-7	X	-.02	5.5
41	MP-8	X	-.064	8
42	MP-9	X	-.076	7.5
43	MP-1	Z	.04	.5
44	MP-1	Z	.034	3.5
45	MP-2	Z	.11	1
46	MP-2	Z	.077	3
47	MP-2	Z	.044	3
48	MP-12	Z	.045	1
49	MP-3	Z	.131	.5
50	MP-3	Z	.049	2.5
51	MP-3	Z	.057	2.5
52	MP-12	Z	.028	1
53	MP-4	Z	.072	.5
54	MP-4	Z	.057	3.5
55	MP-5	Z	.232	1
56	MP-5	Z	.052	3
57	MP-5	Z	.023	3
58	MP-15	Z	.063	1
59	MP-6	Z	.246	.5
60	MP-6	Z	.025	2.5
61	MP-6	Z	.044	2.5
62	MP-15	Z	.036	1
63	MP-7	Z	.04	.5
64	MP-7	Z	.034	3.5
65	MP-8	Z	.11	1
66	MP-8	Z	.077	3
67	MP-8	Z	.044	3
68	MP-18	Z	.045	1
69	MP-9	Z	.131	.5
70	MP-9	Z	.049	2.5
71	MP-9	Z	.057	2.5
72	MP-18	Z	.036	1
73	MP-1	Z	.04	2.5
74	MP-1	Z	.034	5.5
75	MP-2	Z	.11	8
76	MP-3	Z	.131	7.5
77	MP-4	Z	.072	2.5
78	MP-4	Z	.057	5.5
79	MP-5	Z	.232	8
80	MP-6	Z	.246	7.5
81	MP-7	Z	.04	2.5
82	MP-7	Z	.034	5.5
83	MP-8	Z	.11	8
84	MP-9	Z	.131	7.5

**Member Point Loads (BLC 16 : 315 Wind - No Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP-1	X	-.041	.5
2	MP-1	X	-.034	3.5
3	MP-2	X	-.123	1
4	MP-2	X	-.056	3
5	MP-2	X	-.03	3
6	MP-12	X	-.041	1
7	MP-3	X	-.138	.5
8	MP-3	X	-.034	2.5
9	MP-3	X	-.043	2.5
10	MP-12	X	-.023	1
11	MP-4	X	-.057	.5
12	MP-4	X	-.045	3.5
13	MP-5	X	-.18	1
14	MP-5	X	-.044	3
15	MP-5	X	-.02	3
16	MP-15	X	-.05	1
17	MP-6	X	-.193	.5
18	MP-6	X	-.023	2.5
19	MP-6	X	-.037	2.5
20	MP-15	X	-.029	1
21	MP-7	X	-.026	.5
22	MP-7	X	-.023	3.5
23	MP-8	X	-.066	1
24	MP-8	X	-.068	3
25	MP-8	X	-.04	3
26	MP-18	X	-.033	1
27	MP-9	X	-.084	.5
28	MP-9	X	-.045	2.5
29	MP-9	X	-.049	2.5
30	MP-18	X	-.029	1
31	MP-1	X	-.041	2.5
32	MP-1	X	-.034	5.5
33	MP-2	X	-.123	8
34	MP-3	X	-.138	7.5
35	MP-4	X	-.057	2.5
36	MP-4	X	-.045	5.5
37	MP-5	X	-.18	8
38	MP-6	X	-.193	7.5
39	MP-7	X	-.026	2.5
40	MP-7	X	-.023	5.5
41	MP-8	X	-.066	8
42	MP-9	X	-.084	7.5
43	MP-1	Z	.041	.5
44	MP-1	Z	.034	3.5
45	MP-2	Z	.123	1
46	MP-2	Z	.056	3
47	MP-2	Z	.03	3
48	MP-12	Z	.041	1
49	MP-3	Z	.138	.5
50	MP-3	Z	.034	2.5
51	MP-3	Z	.043	2.5
52	MP-12	Z	.023	1
53	MP-4	Z	.057	.5
54	MP-4	Z	.045	3.5
55	MP-5	Z	.18	1
56	MP-5	Z	.044	3
57	MP-5	Z	.02	3
58	MP-15	Z	.05	1
59	MP-6	Z	.193	.5
60	MP-6	Z	.023	2.5
61	MP-6	Z	.037	2.5
62	MP-15	Z	.029	1
63	MP-7	Z	.026	.5

**Member Point Loads (BLC 16 : 315 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
64	MP-7	Z	.023	3.5
65	MP-8	Z	.066	1
66	MP-8	Z	.068	3
67	MP-8	Z	.04	3
68	MP-18	Z	.033	1
69	MP-9	Z	.084	.5
70	MP-9	Z	.045	2.5
71	MP-9	Z	.049	2.5
72	MP-18	Z	.029	1
73	MP-1	Z	.041	2.5
74	MP-1	Z	.034	5.5
75	MP-2	Z	.123	8
76	MP-3	Z	.138	7.5
77	MP-4	Z	.057	2.5
78	MP-4	Z	.045	5.5
79	MP-5	Z	.18	8
80	MP-6	Z	.193	7.5
81	MP-7	Z	.026	2.5
82	MP-7	Z	.023	5.5
83	MP-8	Z	.066	8
84	MP-9	Z	.084	7.5

**Member Point Loads (BLC 17 : 330 Wind - No Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	X	-.061	.5
2	MP-1	X	-.049	3.5
3	MP-2	X	-.191	1
4	MP-2	X	-.06	3
5	MP-2	X	-.03	3
6	MP-12	X	-.057	1
7	MP-3	X	-.208	.5
8	MP-3	X	-.033	2.5
9	MP-3	X	-.048	2.5
10	MP-12	X	-.028	1
11	MP-4	X	-.061	.5
12	MP-4	X	-.049	3.5
13	MP-5	X	-.191	1
14	MP-5	X	-.06	3
15	MP-5	X	-.03	3
16	MP-15	X	-.057	1
17	MP-6	X	-.208	.5
18	MP-6	X	-.033	2.5
19	MP-6	X	-.048	2.5
20	MP-15	X	-.036	1
21	MP-7	X	-.029	.5
22	MP-7	X	-.027	3.5
23	MP-8	X	-.07	1
24	MP-8	X	-.085	3
25	MP-8	X	-.051	3
26	MP-18	X	-.039	1
27	MP-9	X	-.092	.5
28	MP-9	X	-.057	2.5
29	MP-9	X	-.061	2.5
30	MP-18	X	-.036	1
31	MP-1	X	-.061	2.5
32	MP-1	X	-.049	5.5
33	MP-2	X	-.191	8
34	MP-3	X	-.208	7.5
35	MP-4	X	-.061	2.5
36	MP-4	X	-.049	5.5
37	MP-5	X	-.191	8
38	MP-6	X	-.208	7.5

**Member Point Loads (BLC 17 : 330 Wind - No Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
39	MP-7	X	-.029	2.5
40	MP-7	X	-.027	5.5
41	MP-8	X	-.07	8
42	MP-9	X	-.092	7.5
43	MP-1	Z	.035	.5
44	MP-1	Z	.028	3.5
45	MP-2	Z	.11	1
46	MP-2	Z	.035	3
47	MP-2	Z	.017	3
48	MP-12	Z	.033	1
49	MP-3	Z	.12	.5
50	MP-3	Z	.019	2.5
51	MP-3	Z	.028	2.5
52	MP-12	Z	.016	1
53	MP-4	Z	.035	.5
54	MP-4	Z	.028	3.5
55	MP-5	Z	.11	1
56	MP-5	Z	.035	3
57	MP-5	Z	.017	3
58	MP-15	Z	.033	1
59	MP-6	Z	.12	.5
60	MP-6	Z	.019	2.5
61	MP-6	Z	.028	2.5
62	MP-15	Z	.021	1
63	MP-7	Z	.017	.5
64	MP-7	Z	.015	3.5
65	MP-8	Z	.04	1
66	MP-8	Z	.049	3
67	MP-8	Z	.03	3
68	MP-18	Z	.022	1
69	MP-9	Z	.053	.5
70	MP-9	Z	.033	2.5
71	MP-9	Z	.035	2.5
72	MP-18	Z	.021	1
73	MP-1	Z	.035	2.5
74	MP-1	Z	.028	5.5
75	MP-2	Z	.11	8
76	MP-3	Z	.12	7.5
77	MP-4	Z	.035	2.5
78	MP-4	Z	.028	5.5
79	MP-5	Z	.11	8
80	MP-6	Z	.12	7.5
81	MP-7	Z	.017	2.5
82	MP-7	Z	.015	5.5
83	MP-8	Z	.04	8
84	MP-9	Z	.053	7.5

**Member Point Loads (BLC 18 : Ice Weight)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	Y	-.058	.5
2	MP-1	Y	-.059	3.5
3	MP-2	Y	-.178	1
4	MP-2	Y	-.086	3
5	MP-2	Y	-.055	3
6	MP-12	Y	-.073	1
7	MP-3	Y	-.185	.5
8	MP-3	Y	-.059	2.5
9	MP-3	Y	-.076	2.5
10	MP-12	Y	-.061	1
11	MP-4	Y	-.058	.5
12	MP-4	Y	-.059	3.5
13	MP-5	Y	-.178	1



**Member Point Loads (BLC 18 : Ice Weight) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
14	MP-5	Y	-0.86	3
15	MP-5	Y	-0.55	3
16	MP-15	Y	-0.73	1
17	MP-6	Y	-1.85	.5
18	MP-6	Y	-0.59	2.5
19	MP-6	Y	-0.76	2.5
20	MP-15	Y	-0.73	1
21	MP-7	Y	-0.58	.5
22	MP-7	Y	-0.59	3.5
23	MP-8	Y	-1.78	1
24	MP-8	Y	-0.86	3
25	MP-8	Y	-0.55	3
26	MP-18	Y	-0.73	1
27	MP-9	Y	-1.85	.5
28	MP-9	Y	-0.59	2.5
29	MP-9	Y	-0.76	2.5
30	MP-18	Y	-0.73	1
31	MP-1	Y	-0.58	2.5
32	MP-1	Y	-0.59	5.5
33	MP-2	Y	-1.78	8
34	MP-3	Y	-1.85	7.5
35	MP-4	Y	-0.58	2.5
36	MP-4	Y	-0.59	5.5
37	MP-5	Y	-1.78	8
38	MP-6	Y	-1.85	7.5
39	MP-7	Y	-0.58	2.5
40	MP-7	Y	-0.59	5.5
41	MP-8	Y	-1.78	8
42	MP-9	Y	-1.85	7.5

**Member Point Loads (BLC 19 : 0 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-0.18	.5
2	MP-1	X	-0.14	3.5
3	MP-2	X	-0.51	1
4	MP-2	X	-0.23	3
5	MP-2	X	-0.15	3
6	MP-12	X	-0.17	1
7	MP-3	X	-0.54	.5
8	MP-3	X	-0.16	2.5
9	MP-3	X	-0.17	2.5
10	MP-12	X	-0.08	1
11	MP-4	X	-0.18	.5
12	MP-4	X	-0.14	3.5
13	MP-5	X	-0.51	1
14	MP-5	X	-0.23	3
15	MP-5	X	-0.15	3
16	MP-15	X	-0.17	1
17	MP-6	X	-0.54	.5
18	MP-6	X	-0.16	2.5
19	MP-6	X	-0.17	2.5
20	MP-15	X	-0.1	1
21	MP-7	X	-0.18	.5
22	MP-7	X	-0.14	3.5
23	MP-8	X	-0.51	1
24	MP-8	X	-0.23	3
25	MP-8	X	-0.15	3
26	MP-18	X	-0.17	1
27	MP-9	X	-0.54	.5
28	MP-9	X	-0.16	2.5
29	MP-9	X	-0.17	2.5
30	MP-18	X	-0.1	1



**Member Point Loads (BLC 19 : 0 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
31	MP-1	X	-0.18	2.5
32	MP-1	X	-0.14	5.5
33	MP-2	X	-0.51	8
34	MP-3	X	-0.54	7.5
35	MP-4	X	-0.18	2.5
36	MP-4	X	-0.14	5.5
37	MP-5	X	-0.51	8
38	MP-6	X	-0.54	7.5
39	MP-7	X	-0.18	2.5
40	MP-7	X	-0.14	5.5
41	MP-8	X	-0.51	8
42	MP-9	X	-0.54	7.5

**Member Point Loads (BLC 20 : 30 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-0.13	.5
2	MP-1	X	-0.11	3.5
3	MP-2	X	-0.37	1
4	MP-2	X	-0.15	3
5	MP-2	X	-0.08	3
6	MP-12	X	-0.14	1
7	MP-3	X	-0.04	.5
8	MP-3	X	-0.09	2.5
9	MP-3	X	-0.12	2.5
10	MP-12	X	-0.07	1
11	MP-4	X	-0.08	.5
12	MP-4	X	-0.07	3.5
13	MP-5	X	-0.17	1
14	MP-5	X	-0.2	3
15	MP-5	X	-0.13	3
16	MP-15	X	-0.1	1
17	MP-6	X	-0.21	.5
18	MP-6	X	-0.14	2.5
19	MP-6	X	-0.15	2.5
20	MP-15	X	-0.08	1
21	MP-7	X	-0.13	.5
22	MP-7	X	-0.11	3.5
23	MP-8	X	-0.37	1
24	MP-8	X	-0.15	3
25	MP-8	X	-0.08	3
26	MP-18	X	-0.14	1
27	MP-9	X	-0.04	.5
28	MP-9	X	-0.09	2.5
29	MP-9	X	-0.12	2.5
30	MP-18	X	-0.08	1
31	MP-1	X	-0.13	2.5
32	MP-1	X	-0.11	5.5
33	MP-2	X	-0.37	8
34	MP-3	X	-0.04	7.5
35	MP-4	X	-0.08	2.5
36	MP-4	X	-0.07	5.5
37	MP-5	X	-0.17	8
38	MP-6	X	-0.21	7.5
39	MP-7	X	-0.13	2.5
40	MP-7	X	-0.11	5.5
41	MP-8	X	-0.37	8
42	MP-9	X	-0.04	7.5
43	MP-1	Z	-0.08	.5
44	MP-1	Z	-0.06	3.5
45	MP-2	Z	-0.21	1
46	MP-2	Z	-0.09	3
47	MP-2	Z	-0.05	3



**Member Point Loads (BLC 20 : 30 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
48	MP-12	Z	-0.08	1
49	MP-3	Z	-0.23	.5
50	MP-3	Z	-0.05	2.5
51	MP-3	Z	-0.07	2.5
52	MP-12	Z	-0.04	1
53	MP-4	Z	-0.04	.5
54	MP-4	Z	-0.04	3.5
55	MP-5	Z	-0.01	1
56	MP-5	Z	-0.11	3
57	MP-5	Z	-0.07	3
58	MP-15	Z	-0.06	1
59	MP-6	Z	-0.12	.5
60	MP-6	Z	-0.08	2.5
61	MP-6	Z	-0.08	2.5
62	MP-15	Z	-0.05	1
63	MP-7	Z	-0.08	.5
64	MP-7	Z	-0.06	3.5
65	MP-8	Z	-0.21	1
66	MP-8	Z	-0.09	3
67	MP-8	Z	-0.05	3
68	MP-18	Z	-0.08	1
69	MP-9	Z	-0.23	.5
70	MP-9	Z	-0.05	2.5
71	MP-9	Z	-0.07	2.5
72	MP-18	Z	-0.05	1
73	MP-1	Z	-0.08	2.5
74	MP-1	Z	-0.06	5.5
75	MP-2	Z	-0.21	8
76	MP-3	Z	-0.23	7.5
77	MP-4	Z	-0.04	2.5
78	MP-4	Z	-0.04	5.5
79	MP-5	Z	-0.01	8
80	MP-6	Z	-0.12	7.5
81	MP-7	Z	-0.08	2.5
82	MP-7	Z	-0.06	5.5
83	MP-8	Z	-0.21	8
84	MP-9	Z	-0.23	7.5

**Member Point Loads (BLC 21 : 45 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-0.09	.5
2	MP-1	X	-0.08	3.5
3	MP-2	X	-0.25	1
4	MP-2	X	-0.14	3
5	MP-2	X	-0.08	3
6	MP-12	X	-0.01	1
7	MP-3	X	-0.28	.5
8	MP-3	X	-0.09	2.5
9	MP-3	X	-0.11	2.5
10	MP-12	X	-0.06	1
11	MP-4	X	-0.07	.5
12	MP-4	X	-0.06	3.5
13	MP-5	X	-0.15	1
14	MP-5	X	-0.16	3
15	MP-5	X	-0.01	3
16	MP-15	X	-0.09	1
17	MP-6	X	-0.19	.5
18	MP-6	X	-0.11	2.5
19	MP-6	X	-0.12	2.5
20	MP-15	X	-0.07	1
21	MP-7	X	-0.12	.5
22	MP-7	X	-0.09	3.5

**Member Point Loads (BLC 21 : 45 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
23	MP-8	X	-0.34	1
24	MP-8	X	-0.11	3
25	MP-8	X	-0.06	3
26	MP-18	X	-0.12	1
27	MP-9	X	-0.37	.5
28	MP-9	X	-0.07	2.5
29	MP-9	X	-0.09	2.5
30	MP-18	X	-0.07	1
31	MP-1	X	-0.09	2.5
32	MP-1	X	-0.08	5.5
33	MP-2	X	-0.25	8
34	MP-3	X	-0.28	7.5
35	MP-4	X	-0.07	2.5
36	MP-4	X	-0.06	5.5
37	MP-5	X	-0.15	8
38	MP-6	X	-0.19	7.5
39	MP-7	X	-0.12	2.5
40	MP-7	X	-0.09	5.5
41	MP-8	X	-0.34	8
42	MP-9	X	-0.37	7.5
43	MP-1	Z	-0.09	.5
44	MP-1	Z	-0.08	3.5
45	MP-2	Z	-0.25	1
46	MP-2	Z	-0.14	3
47	MP-2	Z	-0.08	3
48	MP-12	Z	-0.01	1
49	MP-3	Z	-0.28	.5
50	MP-3	Z	-0.09	2.5
51	MP-3	Z	-0.11	2.5
52	MP-12	Z	-0.06	1
53	MP-4	Z	-0.07	.5
54	MP-4	Z	-0.06	3.5
55	MP-5	Z	-0.15	1
56	MP-5	Z	-0.16	3
57	MP-5	Z	-0.01	3
58	MP-15	Z	-0.09	1
59	MP-6	Z	-0.19	.5
60	MP-6	Z	-0.11	2.5
61	MP-6	Z	-0.12	2.5
62	MP-15	Z	-0.07	1
63	MP-7	Z	-0.12	.5
64	MP-7	Z	-0.09	3.5
65	MP-8	Z	-0.34	1
66	MP-8	Z	-0.11	3
67	MP-8	Z	-0.06	3
68	MP-18	Z	-0.12	1
69	MP-9	Z	-0.37	.5
70	MP-9	Z	-0.07	2.5
71	MP-9	Z	-0.09	2.5
72	MP-18	Z	-0.07	1
73	MP-1	Z	-0.09	2.5
74	MP-1	Z	-0.08	5.5
75	MP-2	Z	-0.25	8
76	MP-3	Z	-0.28	7.5
77	MP-4	Z	-0.07	2.5
78	MP-4	Z	-0.06	5.5
79	MP-5	Z	-0.15	8
80	MP-6	Z	-0.19	7.5
81	MP-7	Z	-0.12	2.5
82	MP-7	Z	-0.09	5.5
83	MP-8	Z	-0.34	8
84	MP-9	Z	-0.37	7.5



**Member Point Loads (BLC 22 : 60 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-0.05	.5
2	MP-1	X	-0.05	3.5
3	MP-2	X	-0.14	1
4	MP-2	X	-.01	3
5	MP-2	X	-0.07	3
6	MP-12	X	-0.07	1
7	MP-3	X	-0.16	.5
8	MP-3	X	-0.07	2.5
9	MP-3	X	-0.08	2.5
10	MP-12	X	-0.04	1
11	MP-4	X	-0.05	.5
12	MP-4	X	-0.05	3.5
13	MP-5	X	-0.14	1
14	MP-5	X	-.01	3
15	MP-5	X	-0.07	3
16	MP-15	X	-0.07	1
17	MP-6	X	-0.16	.5
18	MP-6	X	-0.07	2.5
19	MP-6	X	-0.08	2.5
20	MP-15	X	-0.05	1
21	MP-7	X	-0.09	.5
22	MP-7	X	-0.07	3.5
23	MP-8	X	-.025	1
24	MP-8	X	-.008	3
25	MP-8	X	-.004	3
26	MP-18	X	-0.09	1
27	MP-9	X	-0.27	.5
28	MP-9	X	-.004	2.5
29	MP-9	X	-0.07	2.5
30	MP-18	X	-0.05	1
31	MP-1	X	-0.05	2.5
32	MP-1	X	-0.05	5.5
33	MP-2	X	-0.14	8
34	MP-3	X	-0.16	7.5
35	MP-4	X	-0.05	2.5
36	MP-4	X	-0.05	5.5
37	MP-5	X	-0.14	8
38	MP-6	X	-0.16	7.5
39	MP-7	X	-0.09	2.5
40	MP-7	X	-0.07	5.5
41	MP-8	X	-0.25	8
42	MP-9	X	-0.27	7.5
43	MP-1	Z	-0.09	.5
44	MP-1	Z	-0.08	3.5
45	MP-2	Z	-0.24	1
46	MP-2	Z	-0.18	3
47	MP-2	Z	-0.11	3
48	MP-12	Z	-0.12	1
49	MP-3	Z	-0.28	.5
50	MP-3	Z	-0.12	2.5
51	MP-3	Z	-0.14	2.5
52	MP-12	Z	-0.07	1
53	MP-4	Z	-0.09	.5
54	MP-4	Z	-0.08	3.5
55	MP-5	Z	-0.24	1
56	MP-5	Z	-0.18	3
57	MP-5	Z	-0.11	3
58	MP-15	Z	-0.12	1
59	MP-6	Z	-0.28	.5
60	MP-6	Z	-0.12	2.5
61	MP-6	Z	-0.14	2.5
62	MP-15	Z	-0.08	1
63	MP-7	Z	-0.15	.5



**Member Point Loads (BLC 22 : 60 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
64	MP-7	Z	-.012	3.5
65	MP-8	Z	-.044	1
66	MP-8	Z	-.013	3
67	MP-8	Z	-.007	3
68	MP-18	Z	-.015	1
69	MP-9	Z	-.047	.5
70	MP-9	Z	-.008	2.5
71	MP-9	Z	-.011	2.5
72	MP-18	Z	-.008	1
73	MP-1	Z	-0.09	2.5
74	MP-1	Z	-0.08	5.5
75	MP-2	Z	-.024	8
76	MP-3	Z	-.028	7.5
77	MP-4	Z	-0.09	2.5
78	MP-4	Z	-0.08	5.5
79	MP-5	Z	-.024	8
80	MP-6	Z	-.028	7.5
81	MP-7	Z	-.015	2.5
82	MP-7	Z	-.012	5.5
83	MP-8	Z	-.044	8
84	MP-9	Z	-.047	7.5

**Member Point Loads (BLC 23 : 90 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	Z	-0.09	.5
2	MP-1	Z	-0.08	3.5
3	MP-2	Z	-.02	1
4	MP-2	Z	-.016	3
5	MP-2	Z	-0.08	3
6	MP-12	Z	-.012	1
7	MP-3	Z	-.024	.5
8	MP-3	Z	-0.09	2.5
9	MP-3	Z	-.013	2.5
10	MP-12	Z	-0.08	1
11	MP-4	Z	-0.09	.5
12	MP-4	Z	-0.08	3.5
13	MP-5	Z	-.02	1
14	MP-5	Z	-.016	3
15	MP-5	Z	-0.08	3
16	MP-15	Z	-.012	1
17	MP-6	Z	-.024	.5
18	MP-6	Z	-0.09	2.5
19	MP-6	Z	-.013	2.5
20	MP-15	Z	-.01	1
21	MP-7	Z	-0.09	.5
22	MP-7	Z	-0.08	3.5
23	MP-8	Z	-.02	1
24	MP-8	Z	-.016	3
25	MP-8	Z	-0.08	3
26	MP-18	Z	-.012	1
27	MP-9	Z	-.024	.5
28	MP-9	Z	-0.09	2.5
29	MP-9	Z	-.013	2.5
30	MP-18	Z	-.01	1
31	MP-1	Z	-0.09	2.5
32	MP-1	Z	-0.08	5.5
33	MP-2	Z	-.02	8
34	MP-3	Z	-.024	7.5
35	MP-4	Z	-0.09	2.5
36	MP-4	Z	-0.08	5.5
37	MP-5	Z	-.02	8
38	MP-6	Z	-.024	7.5

**Member Point Loads (BLC 23 : 90 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
39	MP-7	Z	-.009	2.5
40	MP-7	Z	-.008	5.5
41	MP-8	Z	-.02	8
42	MP-9	Z	-.024	7.5

**Member Point Loads (BLC 24 : 120 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.005	.5
2	MP-1	X	.005	3.5
3	MP-2	X	.014	1
4	MP-2	X	.01	3
5	MP-2	X	.007	3
6	MP-12	X	.007	1
7	MP-3	X	.016	.5
8	MP-3	X	.007	2.5
9	MP-3	X	.008	2.5
10	MP-12	X	.004	1
11	MP-4	X	.009	.5
12	MP-4	X	.007	3.5
13	MP-5	X	.025	1
14	MP-5	X	.008	3
15	MP-5	X	.004	3
16	MP-15	X	.009	1
17	MP-6	X	.027	.5
18	MP-6	X	.004	2.5
19	MP-6	X	.007	2.5
20	MP-15	X	.005	1
21	MP-7	X	.005	.5
22	MP-7	X	.005	3.5
23	MP-8	X	.014	1
24	MP-8	X	.01	3
25	MP-8	X	.007	3
26	MP-18	X	.007	1
27	MP-9	X	.016	.5
28	MP-9	X	.007	2.5
29	MP-9	X	.008	2.5
30	MP-18	X	.005	1
31	MP-1	X	.005	2.5
32	MP-1	X	.005	5.5
33	MP-2	X	.014	8
34	MP-3	X	.016	7.5
35	MP-4	X	.009	2.5
36	MP-4	X	.007	5.5
37	MP-5	X	.025	8
38	MP-6	X	.027	7.5
39	MP-7	X	.005	2.5
40	MP-7	X	.005	8
41	MP-8	X	.014	8
42	MP-9	X	.016	7.5
43	MP-1	Z	-.009	.5
44	MP-1	Z	-.008	3.5
45	MP-2	Z	-.024	1
46	MP-2	Z	-.018	3
47	MP-2	Z	-.011	3
48	MP-12	Z	-.012	1
49	MP-3	Z	-.028	.5
50	MP-3	Z	-.012	2.5
51	MP-3	Z	-.014	2.5
52	MP-12	Z	-.007	1
53	MP-4	Z	-.015	.5
54	MP-4	Z	-.012	3.5
55	MP-5	Z	-.044	1

**Member Point Loads (BLC 24 : 120 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
56	MP-5	Z	-.013	3
57	MP-5	Z	-.007	3
58	MP-15	Z	-.015	1
59	MP-6	Z	-.047	.5
60	MP-6	Z	-.008	2.5
61	MP-6	Z	-.011	2.5
62	MP-15	Z	-.008	1
63	MP-7	Z	-.009	.5
64	MP-7	Z	-.008	3.5
65	MP-8	Z	-.024	1
66	MP-8	Z	-.018	3
67	MP-8	Z	-.011	3
68	MP-18	Z	-.012	1
69	MP-9	Z	-.028	.5
70	MP-9	Z	-.012	2.5
71	MP-9	Z	-.014	2.5
72	MP-18	Z	-.008	1
73	MP-1	Z	-.009	2.5
74	MP-1	Z	-.008	5.5
75	MP-2	Z	-.024	8
76	MP-3	Z	-.028	7.5
77	MP-4	Z	-.015	2.5
78	MP-4	Z	-.012	5.5
79	MP-5	Z	-.044	8
80	MP-6	Z	-.047	7.5
81	MP-7	Z	-.009	2.5
82	MP-7	Z	-.008	5.5
83	MP-8	Z	-.024	8
84	MP-9	Z	-.028	7.5

**Member Point Loads (BLC 25 : 135 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.009	.5
2	MP-1	X	.008	3.5
3	MP-2	X	.025	1
4	MP-2	X	.014	3
5	MP-2	X	.008	3
6	MP-12	X	.01	1
7	MP-3	X	.028	.5
8	MP-3	X	.009	2.5
9	MP-3	X	.011	2.5
10	MP-12	X	.006	1
11	MP-4	X	.012	.5
12	MP-4	X	.009	3.5
13	MP-5	X	.034	1
14	MP-5	X	.011	3
15	MP-5	X	.006	3
16	MP-15	X	.012	1
17	MP-6	X	.037	.5
18	MP-6	X	.007	2.5
19	MP-6	X	.009	2.5
20	MP-15	X	.007	1
21	MP-7	X	.007	.5
22	MP-7	X	.006	3.5
23	MP-8	X	.015	1
24	MP-8	X	.016	3
25	MP-8	X	.01	3
26	MP-18	X	.009	1
27	MP-9	X	.019	.5
28	MP-9	X	.011	2.5
29	MP-9	X	.012	2.5
30	MP-18	X	.007	1

**Member Point Loads (BLC 25 : 135 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
31	MP-1	X	.009	2.5
32	MP-1	X	.008	5.5
33	MP-2	X	.025	8
34	MP-3	X	.028	7.5
35	MP-4	X	.012	2.5
36	MP-4	X	.009	5.5
37	MP-5	X	.034	8
38	MP-6	X	.037	7.5
39	MP-7	X	.007	2.5
40	MP-7	X	.006	5.5
41	MP-8	X	.015	8
42	MP-9	X	.019	7.5
43	MP-1	Z	-.009	.5
44	MP-1	Z	-.008	3.5
45	MP-2	Z	-.025	1
46	MP-2	Z	-.014	3
47	MP-2	Z	-.008	3
48	MP-12	Z	-.01	1
49	MP-3	Z	-.028	.5
50	MP-3	Z	-.009	2.5
51	MP-3	Z	-.011	2.5
52	MP-12	Z	-.006	1
53	MP-4	Z	-.012	.5
54	MP-4	Z	-.009	3.5
55	MP-5	Z	-.034	1
56	MP-5	Z	-.011	3
57	MP-5	Z	-.006	3
58	MP-15	Z	-.012	1
59	MP-6	Z	-.037	.5
60	MP-6	Z	-.007	2.5
61	MP-6	Z	-.009	2.5
62	MP-15	Z	-.007	1
63	MP-7	Z	-.007	.5
64	MP-7	Z	-.006	3.5
65	MP-8	Z	-.015	1
66	MP-8	Z	-.016	3
67	MP-8	Z	-.01	3
68	MP-18	Z	-.009	1
69	MP-9	Z	-.019	.5
70	MP-9	Z	-.011	2.5
71	MP-9	Z	-.012	2.5
72	MP-18	Z	-.007	1
73	MP-1	Z	-.009	2.5
74	MP-1	Z	-.008	5.5
75	MP-2	Z	-.025	8
76	MP-3	Z	-.028	7.5
77	MP-4	Z	-.012	2.5
78	MP-4	Z	-.009	5.5
79	MP-5	Z	-.034	8
80	MP-6	Z	-.037	7.5
81	MP-7	Z	-.007	2.5
82	MP-7	Z	-.006	5.5
83	MP-8	Z	-.015	8
84	MP-9	Z	-.019	7.5

**Member Point Loads (BLC 26 : 150 Wind - Ice)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	MP-1	X	.013	.5
2	MP-1	X	.011	3.5
3	MP-2	X	.037	1
4	MP-2	X	.015	3
5	MP-2	X	.008	3

**Member Point Loads (BLC 26 : 150 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
6	MP-12	X	.014	1
7	MP-3	X	.04	.5
8	MP-3	X	.009	2.5
9	MP-3	X	.012	2.5
10	MP-12	X	.007	1
11	MP-4	X	.013	.5
12	MP-4	X	.011	3.5
13	MP-5	X	.037	1
14	MP-5	X	.015	3
15	MP-5	X	.008	3
16	MP-15	X	.014	1
17	MP-6	X	.04	.5
18	MP-6	X	.009	2.5
19	MP-6	X	.012	2.5
20	MP-15	X	.008	1
21	MP-7	X	.008	.5
22	MP-7	X	.007	3.5
23	MP-8	X	.017	1
24	MP-8	X	.02	3
25	MP-8	X	.013	3
26	MP-18	X	.01	1
27	MP-9	X	.021	.5
28	MP-9	X	.014	2.5
29	MP-9	X	.015	2.5
30	MP-18	X	.008	1
31	MP-1	X	.013	2.5
32	MP-1	X	.011	5.5
33	MP-2	X	.037	8
34	MP-3	X	.04	7.5
35	MP-4	X	.013	2.5
36	MP-4	X	.011	5.5
37	MP-5	X	.037	8
38	MP-6	X	.04	7.5
39	MP-7	X	.008	2.5
40	MP-7	X	.007	5.5
41	MP-8	X	.017	8
42	MP-9	X	.021	7.5
43	MP-1	Z	-.008	.5
44	MP-1	Z	-.006	3.5
45	MP-2	Z	-.021	1
46	MP-2	Z	-.009	3
47	MP-2	Z	-.005	3
48	MP-12	Z	-.008	1
49	MP-3	Z	-.023	.5
50	MP-3	Z	-.005	2.5
51	MP-3	Z	-.007	2.5
52	MP-12	Z	-.004	1
53	MP-4	Z	-.008	.5
54	MP-4	Z	-.006	3.5
55	MP-5	Z	-.021	1
56	MP-5	Z	-.009	3
57	MP-5	Z	-.005	3
58	MP-15	Z	-.008	1
59	MP-6	Z	-.023	.5
60	MP-6	Z	-.005	2.5
61	MP-6	Z	-.007	2.5
62	MP-15	Z	-.005	1
63	MP-7	Z	-.004	.5
64	MP-7	Z	-.004	3.5
65	MP-8	Z	-.01	1
66	MP-8	Z	-.011	3
67	MP-8	Z	-.007	3
68	MP-18	Z	-.006	1

**Member Point Loads (BLC 26 : 150 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
69	MP-9	Z	-.012	.5
70	MP-9	Z	-.008	2.5
71	MP-9	Z	-.008	2.5
72	MP-18	Z	-.005	1
73	MP-1	Z	-.008	2.5
74	MP-1	Z	-.006	5.5
75	MP-2	Z	-.021	8
76	MP-3	Z	-.023	7.5
77	MP-4	Z	-.008	2.5
78	MP-4	Z	-.006	5.5
79	MP-5	Z	-.021	8
80	MP-6	Z	-.023	7.5
81	MP-7	Z	-.004	2.5
82	MP-7	Z	-.004	5.5
83	MP-8	Z	-.01	8
84	MP-9	Z	-.012	7.5

**Member Point Loads (BLC 27 : 180 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.018	.5
2	MP-1	X	.014	3.5
3	MP-2	X	.051	1
4	MP-2	X	.023	3
5	MP-2	X	.015	3
6	MP-12	X	.017	1
7	MP-3	X	.054	.5
8	MP-3	X	.016	2.5
9	MP-3	X	.017	2.5
10	MP-12	X	.008	1
11	MP-4	X	.018	.5
12	MP-4	X	.014	3.5
13	MP-5	X	.051	1
14	MP-5	X	.023	3
15	MP-5	X	.015	3
16	MP-15	X	.017	1
17	MP-6	X	.054	.5
18	MP-6	X	.016	2.5
19	MP-6	X	.017	2.5
20	MP-15	X	.01	1
21	MP-7	X	.018	.5
22	MP-7	X	.014	3.5
23	MP-8	X	.051	1
24	MP-8	X	.023	3
25	MP-8	X	.015	3
26	MP-18	X	.017	1
27	MP-9	X	.054	.5
28	MP-9	X	.016	2.5
29	MP-9	X	.017	2.5
30	MP-18	X	.01	1
31	MP-1	X	.018	2.5
32	MP-1	X	.014	5.5
33	MP-2	X	.051	8
34	MP-3	X	.054	7.5
35	MP-4	X	.018	2.5
36	MP-4	X	.014	5.5
37	MP-5	X	.051	8
38	MP-6	X	.054	7.5
39	MP-7	X	.018	2.5
40	MP-7	X	.014	5.5
41	MP-8	X	.051	8
42	MP-9	X	.054	7.5

**Member Point Loads (BLC 28 : 210 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.013	.5
2	MP-1	X	.011	3.5
3	MP-2	X	.037	1
4	MP-2	X	.015	3
5	MP-2	X	.008	3
6	MP-12	X	.014	1
7	MP-3	X	.04	.5
8	MP-3	X	.009	2.5
9	MP-3	X	.012	2.5
10	MP-12	X	.007	1
11	MP-4	X	.008	.5
12	MP-4	X	.007	3.5
13	MP-5	X	.017	1
14	MP-5	X	.02	3
15	MP-5	X	.013	3
16	MP-15	X	.01	1
17	MP-6	X	.021	.5
18	MP-6	X	.014	2.5
19	MP-6	X	.015	2.5
20	MP-15	X	.008	1
21	MP-7	X	.013	.5
22	MP-7	X	.011	3.5
23	MP-8	X	.037	1
24	MP-8	X	.015	3
25	MP-8	X	.008	3
26	MP-18	X	.014	1
27	MP-9	X	.04	.5
28	MP-9	X	.009	2.5
29	MP-9	X	.012	2.5
30	MP-18	X	.008	1
31	MP-1	X	.013	2.5
32	MP-1	X	.011	5.5
33	MP-2	X	.037	8
34	MP-3	X	.04	7.5
35	MP-4	X	.008	2.5
36	MP-4	X	.007	5.5
37	MP-5	X	.017	8
38	MP-6	X	.021	7.5
39	MP-7	X	.013	2.5
40	MP-7	X	.011	5.5
41	MP-8	X	.037	8
42	MP-9	X	.04	7.5
43	MP-1	Z	.008	.5
44	MP-1	Z	.006	3.5
45	MP-2	Z	.021	1
46	MP-2	Z	.009	3
47	MP-2	Z	.005	3
48	MP-12	Z	.008	1
49	MP-3	Z	.023	.5
50	MP-3	Z	.005	2.5
51	MP-3	Z	.007	2.5
52	MP-12	Z	.004	1
53	MP-4	Z	.004	.5
54	MP-4	Z	.004	3.5
55	MP-5	Z	.01	1
56	MP-5	Z	.011	3
57	MP-5	Z	.007	3
58	MP-15	Z	.006	1
59	MP-6	Z	.012	.5
60	MP-6	Z	.008	2.5
61	MP-6	Z	.008	2.5
62	MP-15	Z	.005	1
63	MP-7	Z	.008	.5

**Member Point Loads (BLC 28 : 210 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
64	MP-7	Z	.006	3.5
65	MP-8	Z	.021	1
66	MP-8	Z	.009	3
67	MP-8	Z	.005	3
68	MP-18	Z	.008	1
69	MP-9	Z	.023	.5
70	MP-9	Z	.005	2.5
71	MP-9	Z	.007	2.5
72	MP-18	Z	.005	1
73	MP-1	Z	.008	2.5
74	MP-1	Z	.006	5.5
75	MP-2	Z	.021	8
76	MP-3	Z	.023	7.5
77	MP-4	Z	.004	2.5
78	MP-4	Z	.004	5.5
79	MP-5	Z	.01	8
80	MP-6	Z	.012	7.5
81	MP-7	Z	.008	2.5
82	MP-7	Z	.006	5.5
83	MP-8	Z	.021	8
84	MP-9	Z	.023	7.5

**Member Point Loads (BLC 29 : 225 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.009	.5
2	MP-1	X	.008	3.5
3	MP-2	X	.025	1
4	MP-2	X	.014	3
5	MP-2	X	.008	3
6	MP-12	X	.01	1
7	MP-3	X	.028	.5
8	MP-3	X	.009	2.5
9	MP-3	X	.011	2.5
10	MP-12	X	.006	1
11	MP-4	X	.007	.5
12	MP-4	X	.006	3.5
13	MP-5	X	.015	1
14	MP-5	X	.016	3
15	MP-5	X	.01	3
16	MP-15	X	.009	1
17	MP-6	X	.019	.5
18	MP-6	X	.011	2.5
19	MP-6	X	.012	2.5
20	MP-15	X	.007	1
21	MP-7	X	.012	.5
22	MP-7	X	.009	3.5
23	MP-8	X	.034	1
24	MP-8	X	.011	3
25	MP-8	X	.006	3
26	MP-18	X	.012	1
27	MP-9	X	.037	.5
28	MP-9	X	.007	2.5
29	MP-9	X	.009	2.5
30	MP-18	X	.007	1
31	MP-1	X	.009	2.5
32	MP-1	X	.008	5.5
33	MP-2	X	.025	8
34	MP-3	X	.028	7.5
35	MP-4	X	.007	2.5
36	MP-4	X	.006	5.5
37	MP-5	X	.015	8
38	MP-6	X	.019	7.5

**Member Point Loads (BLC 29 : 225 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
39	MP-7	X	.012	2.5
40	MP-7	X	.009	5.5
41	MP-8	X	.034	8
42	MP-9	X	.037	7.5
43	MP-1	Z	.009	.5
44	MP-1	Z	.008	3.5
45	MP-2	Z	.025	1
46	MP-2	Z	.014	3
47	MP-2	Z	.008	3
48	MP-12	Z	.01	1
49	MP-3	Z	.028	.5
50	MP-3	Z	.009	2.5
51	MP-3	Z	.011	2.5
52	MP-12	Z	.006	1
53	MP-4	Z	.007	.5
54	MP-4	Z	.006	3.5
55	MP-5	Z	.015	1
56	MP-5	Z	.016	3
57	MP-5	Z	.01	3
58	MP-15	Z	.009	1
59	MP-6	Z	.019	.5
60	MP-6	Z	.011	2.5
61	MP-6	Z	.012	2.5
62	MP-15	Z	.007	1
63	MP-7	Z	.012	.5
64	MP-7	Z	.009	3.5
65	MP-8	Z	.034	1
66	MP-8	Z	.011	3
67	MP-8	Z	.006	3
68	MP-18	Z	.012	1
69	MP-9	Z	.037	.5
70	MP-9	Z	.007	2.5
71	MP-9	Z	.009	2.5
72	MP-18	Z	.007	1
73	MP-1	Z	.009	2.5
74	MP-1	Z	.008	5.5
75	MP-2	Z	.025	8
76	MP-3	Z	.028	7.5
77	MP-4	Z	.007	2.5
78	MP-4	Z	.006	5.5
79	MP-5	Z	.015	8
80	MP-6	Z	.019	7.5
81	MP-7	Z	.012	2.5
82	MP-7	Z	.009	5.5
83	MP-8	Z	.034	8
84	MP-9	Z	.037	7.5

**Member Point Loads (BLC 30 : 240 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	.005	.5
2	MP-1	X	.005	3.5
3	MP-2	X	.014	1
4	MP-2	X	.01	3
5	MP-2	X	.007	3
6	MP-12	X	.007	1
7	MP-3	X	.016	.5
8	MP-3	X	.007	2.5
9	MP-3	X	.008	2.5
10	MP-12	X	.004	1
11	MP-4	X	.005	.5
12	MP-4	X	.005	3.5
13	MP-5	X	.014	1

**Member Point Loads (BLC 30 : 240 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
14	MP-5	X	.01	3
15	MP-5	X	.007	3
16	MP-15	X	.007	1
17	MP-6	X	.016	.5
18	MP-6	X	.007	2.5
19	MP-6	X	.008	2.5
20	MP-15	X	.005	1
21	MP-7	X	.009	.5
22	MP-7	X	.007	3.5
23	MP-8	X	.025	1
24	MP-8	X	.008	3
25	MP-8	X	.004	3
26	MP-18	X	.009	1
27	MP-9	X	.027	.5
28	MP-9	X	.004	2.5
29	MP-9	X	.007	2.5
30	MP-18	X	.005	1
31	MP-1	X	.005	2.5
32	MP-1	X	.005	5.5
33	MP-2	X	.014	8
34	MP-3	X	.016	7.5
35	MP-4	X	.005	2.5
36	MP-4	X	.005	5.5
37	MP-5	X	.014	8
38	MP-6	X	.016	7.5
39	MP-7	X	.009	2.5
40	MP-7	X	.007	5.5
41	MP-8	X	.025	8
42	MP-9	X	.027	7.5
43	MP-1	Z	.009	.5
44	MP-1	Z	.008	3.5
45	MP-2	Z	.024	1
46	MP-2	Z	.018	3
47	MP-2	Z	.011	3
48	MP-12	Z	.012	1
49	MP-3	Z	.028	.5
50	MP-3	Z	.012	2.5
51	MP-3	Z	.014	2.5
52	MP-12	Z	.007	1
53	MP-4	Z	.009	.5
54	MP-4	Z	.008	3.5
55	MP-5	Z	.024	1
56	MP-5	Z	.018	3
57	MP-5	Z	.011	3
58	MP-15	Z	.012	1
59	MP-6	Z	.028	.5
60	MP-6	Z	.012	2.5
61	MP-6	Z	.014	2.5
62	MP-15	Z	.008	1
63	MP-7	Z	.015	.5
64	MP-7	Z	.012	3.5
65	MP-8	Z	.044	1
66	MP-8	Z	.013	3
67	MP-8	Z	.007	3
68	MP-18	Z	.015	1
69	MP-9	Z	.047	.5
70	MP-9	Z	.008	2.5
71	MP-9	Z	.011	2.5
72	MP-18	Z	.008	1
73	MP-1	Z	.009	2.5
74	MP-1	Z	.008	5.5
75	MP-2	Z	.024	8
76	MP-3	Z	.028	7.5

**Member Point Loads (BLC 30 : 240 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
77	MP-4	Z	.009	2.5
78	MP-4	Z	.008	5.5
79	MP-5	Z	.024	8
80	MP-6	Z	.028	7.5
81	MP-7	Z	.015	2.5
82	MP-7	Z	.012	5.5
83	MP-8	Z	.044	8
84	MP-9	Z	.047	7.5

**Member Point Loads (BLC 31 : 270 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	Z	.009	.5
2	MP-1	Z	.008	3.5
3	MP-2	Z	.02	1
4	MP-2	Z	.016	3
5	MP-2	Z	.008	3
6	MP-12	Z	.012	1
7	MP-3	Z	.024	.5
8	MP-3	Z	.009	2.5
9	MP-3	Z	.013	2.5
10	MP-12	Z	.008	1
11	MP-4	Z	.009	.5
12	MP-4	Z	.008	3.5
13	MP-5	Z	.02	1
14	MP-5	Z	.016	3
15	MP-5	Z	.008	3
16	MP-15	Z	.012	1
17	MP-6	Z	.024	.5
18	MP-6	Z	.009	2.5
19	MP-6	Z	.013	2.5
20	MP-15	Z	.01	1
21	MP-7	Z	.009	.5
22	MP-7	Z	.008	3.5
23	MP-8	Z	.02	1
24	MP-8	Z	.016	3
25	MP-8	Z	.008	3
26	MP-18	Z	.012	1
27	MP-9	Z	.024	.5
28	MP-9	Z	.009	2.5
29	MP-9	Z	.013	2.5
30	MP-18	Z	.01	1
31	MP-1	Z	.009	2.5
32	MP-1	Z	.008	5.5
33	MP-2	Z	.02	8
34	MP-3	Z	.024	7.5
35	MP-4	Z	.009	2.5
36	MP-4	Z	.008	5.5
37	MP-5	Z	.02	8
38	MP-6	Z	.024	7.5
39	MP-7	Z	.009	2.5
40	MP-7	Z	.008	5.5
41	MP-8	Z	.02	8
42	MP-9	Z	.024	7.5

**Member Point Loads (BLC 32 : 300 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-.005	.5
2	MP-1	X	-.005	3.5
3	MP-2	X	-.014	1
4	MP-2	X	-.01	3
5	MP-2	X	-.007	3
6	MP-12	X	-.007	1

**Member Point Loads (BLC 32 : 300 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
7	MP-3	X	-.016	.5
8	MP-3	X	-.007	2.5
9	MP-3	X	-.008	2.5
10	MP-12	X	-.004	1
11	MP-4	X	-.009	.5
12	MP-4	X	-.007	3.5
13	MP-5	X	-.025	1
14	MP-5	X	-.008	3
15	MP-5	X	-.004	3
16	MP-15	X	-.009	1
17	MP-6	X	-.027	.5
18	MP-6	X	-.004	2.5
19	MP-6	X	-.007	2.5
20	MP-15	X	-.005	1
21	MP-7	X	-.005	.5
22	MP-7	X	-.005	3.5
23	MP-8	X	-.014	1
24	MP-8	X	-.01	3
25	MP-8	X	-.007	3
26	MP-18	X	-.007	1
27	MP-9	X	-.016	.5
28	MP-9	X	-.007	2.5
29	MP-9	X	-.008	2.5
30	MP-18	X	-.005	1
31	MP-1	X	-.005	2.5
32	MP-1	X	-.005	5.5
33	MP-2	X	-.014	8
34	MP-3	X	-.016	7.5
35	MP-4	X	-.009	2.5
36	MP-4	X	-.007	5.5
37	MP-5	X	-.025	8
38	MP-6	X	-.027	7.5
39	MP-7	X	-.005	2.5
40	MP-7	X	-.005	5.5
41	MP-8	X	-.014	8
42	MP-9	X	-.016	7.5
43	MP-1	Z	.009	.5
44	MP-1	Z	.008	3.5
45	MP-2	Z	.024	1
46	MP-2	Z	.018	3
47	MP-2	Z	.011	3
48	MP-12	Z	.012	1
49	MP-3	Z	.028	.5
50	MP-3	Z	.012	2.5
51	MP-3	Z	.014	2.5
52	MP-12	Z	.007	1
53	MP-4	Z	.015	.5
54	MP-4	Z	.012	3.5
55	MP-5	Z	.044	1
56	MP-5	Z	.013	3
57	MP-5	Z	.007	3
58	MP-15	Z	.015	1
59	MP-6	Z	.047	.5
60	MP-6	Z	.008	2.5
61	MP-6	Z	.011	2.5
62	MP-15	Z	.008	1
63	MP-7	Z	.009	.5
64	MP-7	Z	.008	3.5
65	MP-8	Z	.024	1
66	MP-8	Z	.018	3
67	MP-8	Z	.011	3
68	MP-18	Z	.012	1
69	MP-9	Z	.028	.5

**Member Point Loads (BLC 32 : 300 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
70	MP-9	Z	.012	2.5
71	MP-9	Z	.014	2.5
72	MP-18	Z	.008	1
73	MP-1	Z	.009	2.5
74	MP-1	Z	.008	5.5
75	MP-2	Z	.024	8
76	MP-3	Z	.028	7.5
77	MP-4	Z	.015	2.5
78	MP-4	Z	.012	5.5
79	MP-5	Z	.044	8
80	MP-6	Z	.047	7.5
81	MP-7	Z	.009	2.5
82	MP-7	Z	.008	5.5
83	MP-8	Z	.024	8
84	MP-9	Z	.028	7.5

**Member Point Loads (BLC 33 : 315 Wind - Ice)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-.009	.5
2	MP-1	X	-.008	3.5
3	MP-2	X	-.025	1
4	MP-2	X	-.014	3
5	MP-2	X	-.008	3
6	MP-12	X	-.01	1
7	MP-3	X	-.028	.5
8	MP-3	X	-.009	2.5
9	MP-3	X	-.011	2.5
10	MP-12	X	-.006	1
11	MP-4	X	-.012	.5
12	MP-4	X	-.009	3.5
13	MP-5	X	-.034	1
14	MP-5	X	-.011	3
15	MP-5	X	-.006	3
16	MP-15	X	-.012	1
17	MP-6	X	-.037	.5
18	MP-6	X	-.007	2.5
19	MP-6	X	-.009	2.5
20	MP-15	X	-.007	1
21	MP-7	X	-.007	.5
22	MP-7	X	-.006	3.5
23	MP-8	X	-.015	1
24	MP-8	X	-.016	3
25	MP-8	X	-.01	3
26	MP-18	X	-.009	1
27	MP-9	X	-.019	.5
28	MP-9	X	-.011	2.5
29	MP-9	X	-.012	2.5
30	MP-18	X	-.007	1
31	MP-1	X	-.009	2.5
32	MP-1	X	-.008	5.5
33	MP-2	X	-.025	8
34	MP-3	X	-.028	7.5
35	MP-4	X	-.012	2.5
36	MP-4	X	-.009	5.5
37	MP-5	X	-.034	8
38	MP-6	X	-.037	7.5
39	MP-7	X	-.007	2.5
40	MP-7	X	-.006	5.5
41	MP-8	X	-.015	8
42	MP-9	X	-.019	7.5
43	MP-1	Z	.009	.5
44	MP-1	Z	.008	3.5



**Member Point Loads (BLC 33 : 315 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
45	MP-2	Z	.025	1
46	MP-2	Z	.014	3
47	MP-2	Z	.008	3
48	MP-12	Z	.01	1
49	MP-3	Z	.028	.5
50	MP-3	Z	.009	2.5
51	MP-3	Z	.011	2.5
52	MP-12	Z	.006	1
53	MP-4	Z	.012	.5
54	MP-4	Z	.009	3.5
55	MP-5	Z	.034	1
56	MP-5	Z	.011	3
57	MP-5	Z	.006	3
58	MP-15	Z	.012	1
59	MP-6	Z	.037	.5
60	MP-6	Z	.007	2.5
61	MP-6	Z	.009	2.5
62	MP-15	Z	.007	1
63	MP-7	Z	.007	.5
64	MP-7	Z	.006	3.5
65	MP-8	Z	.015	1
66	MP-8	Z	.016	3
67	MP-8	Z	.01	3
68	MP-18	Z	.009	1
69	MP-9	Z	.019	.5
70	MP-9	Z	.011	2.5
71	MP-9	Z	.012	2.5
72	MP-18	Z	.007	1
73	MP-1	Z	.009	2.5
74	MP-1	Z	.008	5.5
75	MP-2	Z	.025	8
76	MP-3	Z	.028	7.5
77	MP-4	Z	.012	2.5
78	MP-4	Z	.009	5.5
79	MP-5	Z	.034	8
80	MP-6	Z	.037	7.5
81	MP-7	Z	.007	2.5
82	MP-7	Z	.006	5.5
83	MP-8	Z	.015	8
84	MP-9	Z	.019	7.5

**Member Point Loads (BLC 34 : 330 Wind - Ice)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
1	MP-1	X	-.013	.5
2	MP-1	X	-.011	3.5
3	MP-2	X	-.037	1
4	MP-2	X	-.015	3
5	MP-2	X	-.008	3
6	MP-12	X	-.014	1
7	MP-3	X	-.04	.5
8	MP-3	X	-.009	2.5
9	MP-3	X	-.012	2.5
10	MP-12	X	-.007	1
11	MP-4	X	-.013	.5
12	MP-4	X	-.011	3.5
13	MP-5	X	-.037	1
14	MP-5	X	-.015	3
15	MP-5	X	-.008	3
16	MP-15	X	-.014	1
17	MP-6	X	-.04	.5
18	MP-6	X	-.009	2.5
19	MP-6	X	-.012	2.5

**Member Point Loads (BLC 34 : 330 Wind - Ice) (Continued)**

Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]	
20	MP-15	X	-.008	1
21	MP-7	X	-.008	.5
22	MP-7	X	-.007	3.5
23	MP-8	X	-.017	1
24	MP-8	X	-.02	3
25	MP-8	X	-.013	3
26	MP-18	X	-.01	1
27	MP-9	X	-.021	.5
28	MP-9	X	-.014	2.5
29	MP-9	X	-.015	2.5
30	MP-18	X	-.008	1
31	MP-1	X	-.013	2.5
32	MP-1	X	-.011	5.5
33	MP-2	X	-.037	8
34	MP-3	X	-.04	7.5
35	MP-4	X	-.013	2.5
36	MP-4	X	-.011	5.5
37	MP-5	X	-.037	8
38	MP-6	X	-.04	7.5
39	MP-7	X	-.008	2.5
40	MP-7	X	-.007	5.5
41	MP-8	X	-.017	8
42	MP-9	X	-.021	7.5
43	MP-1	Z	.008	.5
44	MP-1	Z	.006	3.5
45	MP-2	Z	.021	1
46	MP-2	Z	.009	3
47	MP-2	Z	.005	3
48	MP-12	Z	.008	1
49	MP-3	Z	.023	.5
50	MP-3	Z	.005	2.5
51	MP-3	Z	.007	2.5
52	MP-12	Z	.004	1
53	MP-4	Z	.008	.5
54	MP-4	Z	.006	3.5
55	MP-5	Z	.021	1
56	MP-5	Z	.009	3
57	MP-5	Z	.005	3
58	MP-15	Z	.008	1
59	MP-6	Z	.023	.5
60	MP-6	Z	.005	2.5
61	MP-6	Z	.007	2.5
62	MP-15	Z	.005	1
63	MP-7	Z	.004	.5
64	MP-7	Z	.004	3.5
65	MP-8	Z	.01	1
66	MP-8	Z	.011	3
67	MP-8	Z	.007	3
68	MP-18	Z	.006	1
69	MP-9	Z	.012	.5
70	MP-9	Z	.008	2.5
71	MP-9	Z	.008	2.5
72	MP-18	Z	.005	1
73	MP-1	Z	.008	2.5
74	MP-1	Z	.006	5.5
75	MP-2	Z	.021	8
76	MP-3	Z	.023	7.5
77	MP-4	Z	.008	2.5
78	MP-4	Z	.006	5.5
79	MP-5	Z	.021	8
80	MP-6	Z	.023	7.5
81	MP-7	Z	.004	2.5
82	MP-7	Z	.004	5.5

**Member Point Loads (BLC 34 : 330 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
83	MP-8	Z	.01	8
84	MP-9	Z	.012	7.5

**Member Point Loads (BLC 37 : Seismic Load Z)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	X	-0.22	.5
2	MP-1	X	-0.41	3.5
3	MP-2	X	-0.43	1
4	MP-2	X	-0.53	3
5	MP-2	X	-0.48	3
6	MP-12	X	-0.59	1
7	MP-3	X	-0.53	.5
8	MP-3	X	-0.46	2.5
9	MP-3	X	-0.71	2.5
10	MP-12	X	-0.19	1
11	MP-4	X	-0.22	.5
12	MP-4	X	-0.41	3.5
13	MP-5	X	-0.43	1
14	MP-5	X	-0.53	3
15	MP-5	X	-0.48	3
16	MP-15	X	-0.59	1
17	MP-6	X	-0.53	.5
18	MP-6	X	-0.46	2.5
19	MP-6	X	-0.71	2.5
20	MP-15	X	-0.26	1
21	MP-7	X	-0.22	.5
22	MP-7	X	-0.41	3.5
23	MP-8	X	-0.43	1
24	MP-8	X	-0.53	3
25	MP-8	X	-0.48	3
26	MP-18	X	-0.59	1
27	MP-9	X	-0.53	.5
28	MP-9	X	-0.46	2.5
29	MP-9	X	-0.71	2.5
30	MP-18	X	-0.26	1
31	MP-1	X	-0.22	2.5
32	MP-1	X	-0.41	5.5
33	MP-2	X	-0.43	8
34	MP-3	X	-0.53	7.5
35	MP-4	X	-0.22	2.5
36	MP-4	X	-0.41	5.5
37	MP-5	X	-0.43	8
38	MP-6	X	-0.53	7.5
39	MP-7	X	-0.22	2.5
40	MP-7	X	-0.41	5.5
41	MP-8	X	-0.43	8
42	MP-9	X	-0.53	7.5

**Member Point Loads (BLC 38 : Seismic Load Z)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
1	MP-1	Z	-0.22	.5
2	MP-1	Z	-0.41	3.5
3	MP-2	Z	-0.43	1
4	MP-2	Z	-0.53	3
5	MP-2	Z	-0.48	3
6	MP-12	Z	-0.59	1
7	MP-3	Z	-0.53	.5
8	MP-3	Z	-0.46	2.5
9	MP-3	Z	-0.71	2.5
10	MP-12	Z	-0.19	1
11	MP-4	Z	-0.22	.5
12	MP-4	Z	-0.41	3.5

**Member Point Loads (BLC 38 : Seismic Load Z) (Continued)**

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft.%]
13	MP-5	Z	-0.43	1
14	MP-5	Z	-0.53	3
15	MP-5	Z	-0.48	3
16	MP-15	Z	-0.59	1
17	MP-6	Z	-0.53	.5
18	MP-6	Z	-0.46	2.5
19	MP-6	Z	-0.71	2.5
20	MP-15	Z	-0.26	1
21	MP-7	Z	-0.22	.5
22	MP-7	Z	-0.41	3.5
23	MP-8	Z	-0.43	1
24	MP-8	Z	-0.53	3
25	MP-8	Z	-0.48	3
26	MP-18	Z	-0.59	1
27	MP-9	Z	-0.53	.5
28	MP-9	Z	-0.46	2.5
29	MP-9	Z	-0.71	2.5
30	MP-18	Z	-0.26	1
31	MP-1	Z	-0.22	2.5
32	MP-1	Z	-0.41	5.5
33	MP-2	Z	-0.43	8
34	MP-3	Z	-0.53	7.5
35	MP-4	Z	-0.22	2.5
36	MP-4	Z	-0.41	5.5
37	MP-5	Z	-0.43	8
38	MP-6	Z	-0.53	7.5
39	MP-7	Z	-0.22	2.5
40	MP-7	Z	-0.41	5.5
41	MP-8	Z	-0.43	8
42	MP-9	Z	-0.53	7.5

**Member Distributed Loads (BLC 2 : 0 Wind - No Ice)**

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft.%]	End Location[ft.%]
1	FFTH	X	-0.11	-0.11	0	%100
2	M17	X	-0.04	-0.04	0	%100
3	M31	X	-0.19	-0.19	0	%100
4	M32	X	-0.07	-0.07	0	%100
5	M33	X	-0.04	-0.04	0	%100
6	M47	X	-0.08	-0.08	0	%100
7	M48	X	-0.07	-0.07	0	%100
8	MP-1	X	-0.08	-0.08	0	%100
9	MP-2	X	-0.08	-0.08	0	%100
10	MP-3	X	-0.08	-0.08	0	%100
11	MP-4	X	-0.08	-0.08	0	%100
12	MP-5	X	-0.08	-0.08	0	%100
13	MP-6	X	-0.08	-0.08	0	%100
14	MP-7	X	-0.08	-0.08	0	%100
15	MP-8	X	-0.08	-0.08	0	%100
16	MP-9	X	-0.08	-0.08	0	%100
17	MP-10	X	-0.07	-0.07	0	%100
18	MP-11	X	-0.07	-0.07	0	%100
19	MP-12	X	-0.07	-0.07	0	%100
20	MP-13	X	-0.07	-0.07	0	%100
21	MP-14	X	-0.07	-0.07	0	%100
22	MP-15	X	-0.07	-0.07	0	%100
23	MP-16	X	-0.07	-0.07	0	%100
24	MP-17	X	-0.07	-0.07	0	%100
25	MP-18	X	-0.07	-0.07	0	%100
26	SA-1	X	-0.08	-0.08	0	%100
27	SA-2	X	-0.08	-0.08	0	%100
28	SA-3	X	-0.08	-0.08	0	%100

**Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
29	SA-4	X	-0.08	-0.08	0	%100
30	SA-5	X	-0.08	-0.08	0	%100
31	SA-6	X	-0.08	-0.08	0	%100
32	SF1-TH	X	-0.08	-0.08	0	%100
33	SF1-V1	X	-0.07	-0.07	0	%100
34	K-2	X	-0.15	-0.15	0	%100
35	K-1	X	-0.15	-0.15	0	%100
36	K-4	X	-0.15	-0.15	0	%100
37	K-3	X	-0.15	-0.15	0	%100
38	K-6	X	-0.15	-0.15	0	%100
39	K-5	X	-0.15	-0.15	0	%100

**Member Distributed Loads (BLC 3 : 30 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-0.08	-0.08	0	%100
2	M17	X	-0.07	-0.07	0	%100
3	M31	X	-0.14	-0.14	0	%100
4	M32	X	-0.06	-0.06	0	%100
5	M33	X	0	0	0	%100
6	M47	X	-0.12	-0.12	0	%100
7	M48	X	-0.06	-0.06	0	%100
8	MP-1	X	-0.07	-0.07	0	%100
9	MP-2	X	-0.07	-0.07	0	%100
10	MP-3	X	-0.07	-0.07	0	%100
11	MP-4	X	-0.07	-0.07	0	%100
12	MP-5	X	-0.07	-0.07	0	%100
13	MP-6	X	-0.07	-0.07	0	%100
14	MP-7	X	-0.07	-0.07	0	%100
15	MP-8	X	-0.07	-0.07	0	%100
16	MP-9	X	-0.07	-0.07	0	%100
17	MP-10	X	-0.06	-0.06	0	%100
18	MP-11	X	-0.06	-0.06	0	%100
19	MP-12	X	-0.06	-0.06	0	%100
20	MP-13	X	-0.06	-0.06	0	%100
21	MP-14	X	-0.06	-0.06	0	%100
22	MP-15	X	-0.06	-0.06	0	%100
23	MP-16	X	-0.06	-0.06	0	%100
24	MP-17	X	-0.06	-0.06	0	%100
25	MP-18	X	-0.06	-0.06	0	%100
26	SA-1	X	-0.07	-0.07	0	%100
27	SA-2	X	-0.07	-0.07	0	%100
28	SA-3	X	-0.07	-0.07	0	%100
29	SA-4	X	-0.07	-0.07	0	%100
30	SA-5	X	-0.07	-0.07	0	%100
31	SA-6	X	-0.07	-0.07	0	%100
32	SF1-TH	X	0	0	0	%100
33	SF1-V1	X	-0.06	-0.06	0	%100
34	K-2	X	-0.13	-0.13	0	%100
35	K-1	X	-0.13	-0.13	0	%100
36	K-4	X	-0.13	-0.13	0	%100
37	K-3	X	-0.13	-0.13	0	%100
38	K-6	X	-0.13	-0.13	0	%100
39	K-5	X	-0.13	-0.13	0	%100
40	FFTH	Z	-0.05	-0.05	0	%100
41	M17	Z	-0.05	-0.05	0	%100
42	M31	Z	-0.08	-0.08	0	%100
43	M32	Z	-0.04	-0.04	0	%100
44	M33	Z	0	0	0	%100
45	M47	Z	-0.08	-0.08	0	%100
46	M48	Z	-0.04	-0.04	0	%100
47	MP-1	Z	-0.04	-0.04	0	%100
48	MP-2	Z	-0.04	-0.04	0	%100

**Member Distributed Loads (BLC 3 : 30 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
49	MP-3	Z	-0.04	-0.04	0	%100
50	MP-4	Z	-0.04	-0.04	0	%100
51	MP-5	Z	-0.04	-0.04	0	%100
52	MP-6	Z	-0.04	-0.04	0	%100
53	MP-7	Z	-0.04	-0.04	0	%100
54	MP-8	Z	-0.04	-0.04	0	%100
55	MP-9	Z	-0.04	-0.04	0	%100
56	MP-10	Z	-0.04	-0.04	0	%100
57	MP-11	Z	-0.04	-0.04	0	%100
58	MP-12	Z	-0.04	-0.04	0	%100
59	MP-13	Z	-0.04	-0.04	0	%100
60	MP-14	Z	-0.04	-0.04	0	%100
61	MP-15	Z	-0.04	-0.04	0	%100
62	MP-16	Z	-0.04	-0.04	0	%100
63	MP-17	Z	-0.04	-0.04	0	%100
64	MP-18	Z	-0.04	-0.04	0	%100
65	SA-1	Z	-0.04	-0.04	0	%100
66	SA-2	Z	-0.04	-0.04	0	%100
67	SA-3	Z	-0.04	-0.04	0	%100
68	SA-4	Z	-0.04	-0.04	0	%100
69	SA-5	Z	-0.04	-0.04	0	%100
70	SA-6	Z	-0.04	-0.04	0	%100
71	SF1-TH	Z	0	0	0	%100
72	SF1-V1	Z	-0.04	-0.04	0	%100
73	K-2	Z	-0.07	-0.07	0	%100
74	K-1	Z	-0.07	-0.07	0	%100
75	K-4	Z	-0.07	-0.07	0	%100
76	K-3	Z	-0.07	-0.07	0	%100
77	K-6	Z	-0.07	-0.07	0	%100
78	K-5	Z	-0.07	-0.07	0	%100

**Member Distributed Loads (BLC 4 : 45 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-0.05	-0.05	0	%100
2	M17	X	-0.06	-0.06	0	%100
3	M31	X	-0.1	-0.1	0	%100
4	M32	X	-0.05	-0.05	0	%100
5	M33	X	-0.02	-0.02	0	%100
6	M47	X	-0.11	-0.11	0	%100
7	M48	X	-0.05	-0.05	0	%100
8	MP-1	X	-0.06	-0.06	0	%100
9	MP-2	X	-0.06	-0.06	0	%100
10	MP-3	X	-0.06	-0.06	0	%100
11	MP-4	X	-0.06	-0.06	0	%100
12	MP-5	X	-0.06	-0.06	0	%100
13	MP-6	X	-0.06	-0.06	0	%100
14	MP-7	X	-0.06	-0.06	0	%100
15	MP-8	X	-0.06	-0.06	0	%100
16	MP-9	X	-0.06	-0.06	0	%100
17	MP-10	X	-0.05	-0.05	0	%100
18	MP-11	X	-0.05	-0.05	0	%100
19	MP-12	X	-0.05	-0.05	0	%100
20	MP-13	X	-0.05	-0.05	0	%100
21	MP-14	X	-0.05	-0.05	0	%100
22	MP-15	X	-0.05	-0.05	0	%100
23	MP-16	X	-0.05	-0.05	0	%100
24	MP-17	X	-0.05	-0.05	0	%100
25	MP-18	X	-0.05	-0.05	0	%100
26	SA-1	X	-0.06	-0.06	0	%100
27	SA-2	X	-0.06	-0.06	0	%100
28	SA-3	X	-0.06	-0.06	0	%100
29	SA-4	X	-0.06	-0.06	0	%100

**Member Distributed Loads (BLC 4 : 45 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
30	SA-5	X	-0.06	-0.06	0 %100
31	SA-6	X	-0.06	-0.06	0 %100
32	SF1-TH	X	-0.03	-0.03	0 %100
33	SF1-V1	X	-0.05	-0.05	0 %100
34	K-2	X	-0.01	-0.01	0 %100
35	K-1	X	-0.01	-0.01	0 %100
36	K-4	X	-0.01	-0.01	0 %100
37	K-3	X	-0.01	-0.01	0 %100
38	K-6	X	-0.01	-0.01	0 %100
39	K-5	X	-0.01	-0.01	0 %100
40	FFTH	Z	-0.05	-0.05	0 %100
41	M17	Z	-0.07	-0.07	0 %100
42	M31	Z	-0.01	-0.01	0 %100
43	M32	Z	-0.05	-0.05	0 %100
44	M33	Z	-0.02	-0.02	0 %100
45	M47	Z	-0.13	-0.13	0 %100
46	M48	Z	-0.05	-0.05	0 %100
47	MP-1	Z	-0.06	-0.06	0 %100
48	MP-2	Z	-0.06	-0.06	0 %100
49	MP-3	Z	-0.06	-0.06	0 %100
50	MP-4	Z	-0.06	-0.06	0 %100
51	MP-5	Z	-0.06	-0.06	0 %100
52	MP-6	Z	-0.06	-0.06	0 %100
53	MP-7	Z	-0.06	-0.06	0 %100
54	MP-8	Z	-0.06	-0.06	0 %100
55	MP-9	Z	-0.06	-0.06	0 %100
56	MP-10	Z	-0.05	-0.05	0 %100
57	MP-11	Z	-0.05	-0.05	0 %100
58	MP-12	Z	-0.05	-0.05	0 %100
59	MP-13	Z	-0.05	-0.05	0 %100
60	MP-14	Z	-0.05	-0.05	0 %100
61	MP-15	Z	-0.05	-0.05	0 %100
62	MP-16	Z	-0.05	-0.05	0 %100
63	MP-17	Z	-0.05	-0.05	0 %100
64	MP-18	Z	-0.05	-0.05	0 %100
65	SA-1	Z	-0.06	-0.06	0 %100
66	SA-2	Z	-0.06	-0.06	0 %100
67	SA-3	Z	-0.06	-0.06	0 %100
68	SA-4	Z	-0.06	-0.06	0 %100
69	SA-5	Z	-0.06	-0.06	0 %100
70	SA-6	Z	-0.06	-0.06	0 %100
71	SF1-TH	Z	-0.03	-0.03	0 %100
72	SF1-V1	Z	-0.05	-0.05	0 %100
73	K-2	Z	-0.01	-0.01	0 %100
74	K-1	Z	-0.01	-0.01	0 %100
75	K-4	Z	-0.01	-0.01	0 %100
76	K-3	Z	-0.01	-0.01	0 %100
77	K-6	Z	-0.01	-0.01	0 %100
78	K-5	Z	-0.01	-0.01	0 %100

**Member Distributed Loads (BLC 5 : 60 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	FFTH	X	-0.03	-0.03	0 %100
2	M17	X	-0.04	-0.04	0 %100
3	M31	X	-0.05	-0.05	0 %100
4	M32	X	-0.04	-0.04	0 %100
5	M33	X	-0.02	-0.02	0 %100
6	M47	X	-0.08	-0.08	0 %100
7	M48	X	-0.04	-0.04	0 %100
8	MP-1	X	-0.04	-0.04	0 %100
9	MP-2	X	-0.04	-0.04	0 %100
10	MP-3	X	-0.04	-0.04	0 %100

**Member Distributed Loads (BLC 5 : 60 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
11	MP-4	X	-0.04	-0.04	0 %100
12	MP-5	X	-0.04	-0.04	0 %100
13	MP-6	X	-0.04	-0.04	0 %100
14	MP-7	X	-0.04	-0.04	0 %100
15	MP-8	X	-0.04	-0.04	0 %100
16	MP-9	X	-0.04	-0.04	0 %100
17	MP-10	X	-0.04	-0.04	0 %100
18	MP-11	X	-0.04	-0.04	0 %100
19	MP-12	X	-0.04	-0.04	0 %100
20	MP-13	X	-0.04	-0.04	0 %100
21	MP-14	X	-0.04	-0.04	0 %100
22	MP-15	X	-0.04	-0.04	0 %100
23	MP-16	X	-0.04	-0.04	0 %100
24	MP-17	X	-0.04	-0.04	0 %100
25	MP-18	X	-0.04	-0.04	0 %100
26	SA-1	X	-0.04	-0.04	0 %100
27	SA-2	X	-0.04	-0.04	0 %100
28	SA-3	X	-0.04	-0.04	0 %100
29	SA-4	X	-0.04	-0.04	0 %100
30	SA-5	X	-0.04	-0.04	0 %100
31	SA-6	X	-0.04	-0.04	0 %100
32	SF1-TH	X	-0.04	-0.04	0 %100
33	SF1-V1	X	-0.04	-0.04	0 %100
34	K-2	X	-0.07	-0.07	0 %100
35	K-1	X	-0.07	-0.07	0 %100
36	K-4	X	-0.07	-0.07	0 %100
37	K-3	X	-0.07	-0.07	0 %100
38	K-6	X	-0.07	-0.07	0 %100
39	K-5	X	-0.07	-0.07	0 %100
40	FFTH	Z	-0.05	-0.05	0 %100
41	M17	Z	-0.09	-0.09	0 %100
42	M31	Z	-0.08	-0.08	0 %100
43	M32	Z	-0.06	-0.06	0 %100
44	M33	Z	-0.05	-0.05	0 %100
45	M47	Z	-0.16	-0.16	0 %100
46	M48	Z	-0.06	-0.06	0 %100
47	MP-1	Z	-0.07	-0.07	0 %100
48	MP-2	Z	-0.07	-0.07	0 %100
49	MP-3	Z	-0.07	-0.07	0 %100
50	MP-4	Z	-0.07	-0.07	0 %100
51	MP-5	Z	-0.07	-0.07	0 %100
52	MP-6	Z	-0.07	-0.07	0 %100
53	MP-7	Z	-0.07	-0.07	0 %100
54	MP-8	Z	-0.07	-0.07	0 %100
55	MP-9	Z	-0.07	-0.07	0 %100
56	MP-10	Z	-0.06	-0.06	0 %100
57	MP-11	Z	-0.06	-0.06	0 %100
58	MP-12	Z	-0.06	-0.06	0 %100
59	MP-13	Z	-0.06	-0.06	0 %100
60	MP-14	Z	-0.06	-0.06	0 %100
61	MP-15	Z	-0.06	-0.06	0 %100
62	MP-16	Z	-0.06	-0.06	0 %100
63	MP-17	Z	-0.06	-0.06	0 %100
64	MP-18	Z	-0.06	-0.06	0 %100
65	SA-1	Z	-0.07	-0.07	0 %100
66	SA-2	Z	-0.07	-0.07	0 %100
67	SA-3	Z	-0.07	-0.07	0 %100
68	SA-4	Z	-0.07	-0.07	0 %100
69	SA-5	Z	-0.07	-0.07	0 %100
70	SA-6	Z	-0.07	-0.07	0 %100
71	SF1-TH	Z	-0.08	-0.08	0 %100
72	SF1-V1	Z	-0.06	-0.06	0 %100
73	K-2	Z	-0.13	-0.13	0 %100



**Member Distributed Loads (BLC 5 : 60 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
74	K-1	Z	-0.13	-0.13	0	%100
75	K-4	Z	-0.13	-0.13	0	%100
76	K-3	Z	-0.13	-0.13	0	%100
77	K-6	Z	-0.13	-0.13	0	%100
78	K-5	Z	-0.13	-0.13	0	%100

**Member Distributed Loads (BLC 6 : 90 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	Z	0	0	0	%100
2	M17	Z	-0.009	-0.009	0	%100
3	M31	Z	0	0	0	%100
4	M32	Z	-0.007	-0.007	0	%100
5	M33	Z	-0.009	-0.009	0	%100
6	M47	Z	-0.016	-0.016	0	%100
7	M48	Z	-0.007	-0.007	0	%100
8	MP-1	Z	-0.008	-0.008	0	%100
9	MP-2	Z	-0.008	-0.008	0	%100
10	MP-3	Z	-0.008	-0.008	0	%100
11	MP-4	Z	-0.008	-0.008	0	%100
12	MP-5	Z	-0.008	-0.008	0	%100
13	MP-6	Z	-0.008	-0.008	0	%100
14	MP-7	Z	-0.008	-0.008	0	%100
15	MP-8	Z	-0.008	-0.008	0	%100
16	MP-9	Z	-0.008	-0.008	0	%100
17	MP-10	Z	-0.007	-0.007	0	%100
18	MP-11	Z	-0.007	-0.007	0	%100
19	MP-12	Z	-0.007	-0.007	0	%100
20	MP-13	Z	-0.007	-0.007	0	%100
21	MP-14	Z	-0.007	-0.007	0	%100
22	MP-15	Z	-0.007	-0.007	0	%100
23	MP-16	Z	-0.007	-0.007	0	%100
24	MP-17	Z	-0.007	-0.007	0	%100
25	MP-18	Z	-0.007	-0.007	0	%100
26	SA-1	Z	-0.008	-0.008	0	%100
27	SA-2	Z	-0.008	-0.008	0	%100
28	SA-3	Z	-0.008	-0.008	0	%100
29	SA-4	Z	-0.008	-0.008	0	%100
30	SA-5	Z	-0.008	-0.008	0	%100
31	SA-6	Z	-0.008	-0.008	0	%100
32	SF1-TH	Z	-0.016	-0.016	0	%100
33	SF1-V1	Z	-0.007	-0.007	0	%100
34	K-2	Z	-0.015	-0.015	0	%100
35	K-1	Z	-0.015	-0.015	0	%100
36	K-4	Z	-0.015	-0.015	0	%100
37	K-3	Z	-0.015	-0.015	0	%100
38	K-6	Z	-0.015	-0.015	0	%100
39	K-5	Z	-0.015	-0.015	0	%100

**Member Distributed Loads (BLC 7 : 120 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.003	.003	0	%100
2	M17	X	.002	.002	0	%100
3	M31	X	.005	.005	0	%100
4	M32	X	.004	.004	0	%100
5	M33	X	.004	.004	0	%100
6	M47	X	.004	.004	0	%100
7	M48	X	.004	.004	0	%100
8	MP-1	X	.004	.004	0	%100
9	MP-2	X	.004	.004	0	%100
10	MP-3	X	.004	.004	0	%100
11	MP-4	X	.004	.004	0	%100
12	MP-5	X	.004	.004	0	%100



**Member Distributed Loads (BLC 7 : 120 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
13	MP-6	X	.004	.004	0	%100
14	MP-7	X	.004	.004	0	%100
15	MP-8	X	.004	.004	0	%100
16	MP-9	X	.004	.004	0	%100
17	MP-10	X	.004	.004	0	%100
18	MP-11	X	.004	.004	0	%100
19	MP-12	X	.004	.004	0	%100
20	MP-13	X	.004	.004	0	%100
21	MP-14	X	.004	.004	0	%100
22	MP-15	X	.004	.004	0	%100
23	MP-16	X	.004	.004	0	%100
24	MP-17	X	.004	.004	0	%100
25	MP-18	X	.004	.004	0	%100
26	SA-1	X	.004	.004	0	%100
27	SA-2	X	.004	.004	0	%100
28	SA-3	X	.004	.004	0	%100
29	SA-4	X	.004	.004	0	%100
30	SA-5	X	.004	.004	0	%100
31	SA-6	X	.004	.004	0	%100
32	SF1-TH	X	.008	.008	0	%100
33	SF1-V1	X	.004	.004	0	%100
34	K-2	X	.007	.007	0	%100
35	K-1	X	.007	.007	0	%100
36	K-4	X	.007	.007	0	%100
37	K-3	X	.007	.007	0	%100
38	K-6	X	.007	.007	0	%100
39	K-5	X	.007	.007	0	%100
40	FFTH	Z	-0.005	-0.005	0	%100
41	M17	Z	-0.005	-0.005	0	%100
42	M31	Z	-0.008	-0.008	0	%100
43	M32	Z	-0.006	-0.006	0	%100
44	M33	Z	-0.009	-0.009	0	%100
45	M47	Z	-0.008	-0.008	0	%100
46	M48	Z	-0.006	-0.006	0	%100
47	MP-1	Z	-0.007	-0.007	0	%100
48	MP-2	Z	-0.007	-0.007	0	%100
49	MP-3	Z	-0.007	-0.007	0	%100
50	MP-4	Z	-0.007	-0.007	0	%100
51	MP-5	Z	-0.007	-0.007	0	%100
52	MP-6	Z	-0.007	-0.007	0	%100
53	MP-7	Z	-0.007	-0.007	0	%100
54	MP-8	Z	-0.007	-0.007	0	%100
55	MP-9	Z	-0.007	-0.007	0	%100
56	MP-10	Z	-0.006	-0.006	0	%100
57	MP-11	Z	-0.006	-0.006	0	%100
58	MP-12	Z	-0.006	-0.006	0	%100
59	MP-13	Z	-0.006	-0.006	0	%100
60	MP-14	Z	-0.006	-0.006	0	%100
61	MP-15	Z	-0.006	-0.006	0	%100
62	MP-16	Z	-0.006	-0.006	0	%100
63	MP-17	Z	-0.006	-0.006	0	%100
64	MP-18	Z	-0.006	-0.006	0	%100
65	SA-1	Z	-0.007	-0.007	0	%100
66	SA-2	Z	-0.007	-0.007	0	%100
67	SA-3	Z	-0.007	-0.007	0	%100
68	SA-4	Z	-0.007	-0.007	0	%100
69	SA-5	Z	-0.007	-0.007	0	%100
70	SA-6	Z	-0.007	-0.007	0	%100
71	SF1-TH	Z	-0.016	-0.016	0	%100
72	SF1-V1	Z	-0.006	-0.006	0	%100
73	K-2	Z	-0.013	-0.013	0	%100
74	K-1	Z	-0.013	-0.013	0	%100
75	K-4	Z	-0.013	-0.013	0	%100



**Member Distributed Loads (BLC 7 : 120 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
76	K-3	Z	-0.13	-0.13	0	%100
77	K-6	Z	-0.13	-0.13	0	%100
78	K-5	Z	-0.13	-0.13	0	%100

**Member Distributed Loads (BLC 8 : 135 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.005	.005	0	%100
2	M17	X	.002	.002	0	%100
3	M31	X	.01	.01	0	%100
4	M32	X	.005	.005	0	%100
5	M33	X	.006	.006	0	%100
6	M47	X	.003	.003	0	%100
7	M48	X	.005	.005	0	%100
8	MP-1	X	.006	.006	0	%100
9	MP-2	X	.006	.006	0	%100
10	MP-3	X	.006	.006	0	%100
11	MP-4	X	.006	.006	0	%100
12	MP-5	X	.006	.006	0	%100
13	MP-6	X	.006	.006	0	%100
14	MP-7	X	.006	.006	0	%100
15	MP-8	X	.006	.006	0	%100
16	MP-9	X	.006	.006	0	%100
17	MP-10	X	.005	.005	0	%100
18	MP-11	X	.005	.005	0	%100
19	MP-12	X	.005	.005	0	%100
20	MP-13	X	.005	.005	0	%100
21	MP-14	X	.005	.005	0	%100
22	MP-15	X	.005	.005	0	%100
23	MP-16	X	.005	.005	0	%100
24	MP-17	X	.005	.005	0	%100
25	MP-18	X	.005	.005	0	%100
26	SA-1	X	.006	.006	0	%100
27	SA-2	X	.006	.006	0	%100
28	SA-3	X	.006	.006	0	%100
29	SA-4	X	.006	.006	0	%100
30	SA-5	X	.006	.006	0	%100
31	SA-6	X	.006	.006	0	%100
32	SF1-TH	X	.011	.011	0	%100
33	SF1-V1	X	.005	.005	0	%100
34	K-2	X	.01	.01	0	%100
35	K-1	X	.01	.01	0	%100
36	K-4	X	.01	.01	0	%100
37	K-3	X	.01	.01	0	%100
38	K-6	X	.01	.01	0	%100
39	K-5	X	.01	.01	0	%100
40	FFTH	Z	-.005	-.005	0	%100
41	M17	Z	-.002	-.002	0	%100
42	M31	Z	-.01	-.01	0	%100
43	M32	Z	-.005	-.005	0	%100
44	M33	Z	-.007	-.007	0	%100
45	M47	Z	-.003	-.003	0	%100
46	M48	Z	-.005	-.005	0	%100
47	MP-1	Z	-.006	-.006	0	%100
48	MP-2	Z	-.006	-.006	0	%100
49	MP-3	Z	-.006	-.006	0	%100
50	MP-4	Z	-.006	-.006	0	%100
51	MP-5	Z	-.006	-.006	0	%100
52	MP-6	Z	-.006	-.006	0	%100
53	MP-7	Z	-.006	-.006	0	%100
54	MP-8	Z	-.006	-.006	0	%100
55	MP-9	Z	-.006	-.006	0	%100
56	MP-10	Z	-.005	-.005	0	%100



**Member Distributed Loads (BLC 8 : 135 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
57	MP-11	Z	-.005	-.005	0	%100
58	MP-12	Z	-.005	-.005	0	%100
59	MP-13	Z	-.005	-.005	0	%100
60	MP-14	Z	-.005	-.005	0	%100
61	MP-15	Z	-.005	-.005	0	%100
62	MP-16	Z	-.005	-.005	0	%100
63	MP-17	Z	-.005	-.005	0	%100
64	MP-18	Z	-.005	-.005	0	%100
65	SA-1	Z	-.006	-.006	0	%100
66	SA-2	Z	-.006	-.006	0	%100
67	SA-3	Z	-.006	-.006	0	%100
68	SA-4	Z	-.006	-.006	0	%100
69	SA-5	Z	-.006	-.006	0	%100
70	SA-6	Z	-.006	-.006	0	%100
71	SF1-TH	Z	-.013	-.013	0	%100
72	SF1-V1	Z	-.005	-.005	0	%100
73	K-2	Z	-.01	-.01	0	%100
74	K-1	Z	-.01	-.01	0	%100
75	K-4	Z	-.01	-.01	0	%100
76	K-3	Z	-.01	-.01	0	%100
77	K-6	Z	-.01	-.01	0	%100
78	K-5	Z	-.01	-.01	0	%100

**Member Distributed Loads (BLC 9 : 150 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.008	.008	0	%100
2	M17	X	0	0	0	%100
3	M31	X	.014	.014	0	%100
4	M32	X	.006	.006	0	%100
5	M33	X	.007	.007	0	%100
6	M47	X	0	0	0	%100
7	M48	X	.006	.006	0	%100
8	MP-1	X	.007	.007	0	%100
9	MP-2	X	.007	.007	0	%100
10	MP-3	X	.007	.007	0	%100
11	MP-4	X	.007	.007	0	%100
12	MP-5	X	.007	.007	0	%100
13	MP-6	X	.007	.007	0	%100
14	MP-7	X	.007	.007	0	%100
15	MP-8	X	.007	.007	0	%100
16	MP-9	X	.007	.007	0	%100
17	MP-10	X	.006	.006	0	%100
18	MP-11	X	.006	.006	0	%100
19	MP-12	X	.006	.006	0	%100
20	MP-13	X	.006	.006	0	%100
21	MP-14	X	.006	.006	0	%100
22	MP-15	X	.006	.006	0	%100
23	MP-16	X	.006	.006	0	%100
24	MP-17	X	.006	.006	0	%100
25	MP-18	X	.006	.006	0	%100
26	SA-1	X	.007	.007	0	%100
27	SA-2	X	.007	.007	0	%100
28	SA-3	X	.007	.007	0	%100
29	SA-4	X	.007	.007	0	%100
30	SA-5	X	.007	.007	0	%100
31	SA-6	X	.007	.007	0	%100
32	SF1-TH	X	.012	.012	0	%100
33	SF1-V1	X	.006	.006	0	%100
34	K-2	X	.013	.013	0	%100
35	K-1	X	.013	.013	0	%100
36	K-4	X	.013	.013	0	%100
37	K-3	X	.013	.013	0	%100



**Member Distributed Loads (BLC 9 : 150 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
38	K-6	X	.013	.013	0	%100
39	K-5	X	.013	.013	0	%100
40	FFTH	Z	-.005	-.005	0	%100
41	M17	Z	0	0	0	%100
42	M31	Z	-.008	-.008	0	%100
43	M32	Z	-.004	-.004	0	%100
44	M33	Z	-.005	-.005	0	%100
45	M47	Z	0	0	0	%100
46	M48	Z	-.004	-.004	0	%100
47	MP-1	Z	-.004	-.004	0	%100
48	MP-2	Z	-.004	-.004	0	%100
49	MP-3	Z	-.004	-.004	0	%100
50	MP-4	Z	-.004	-.004	0	%100
51	MP-5	Z	-.004	-.004	0	%100
52	MP-6	Z	-.004	-.004	0	%100
53	MP-7	Z	-.004	-.004	0	%100
54	MP-8	Z	-.004	-.004	0	%100
55	MP-9	Z	-.004	-.004	0	%100
56	MP-10	Z	-.004	-.004	0	%100
57	MP-11	Z	-.004	-.004	0	%100
58	MP-12	Z	-.004	-.004	0	%100
59	MP-13	Z	-.004	-.004	0	%100
60	MP-14	Z	-.004	-.004	0	%100
61	MP-15	Z	-.004	-.004	0	%100
62	MP-16	Z	-.004	-.004	0	%100
63	MP-17	Z	-.004	-.004	0	%100
64	MP-18	Z	-.004	-.004	0	%100
65	SA-1	Z	-.004	-.004	0	%100
66	SA-2	Z	-.004	-.004	0	%100
67	SA-3	Z	-.004	-.004	0	%100
68	SA-4	Z	-.004	-.004	0	%100
69	SA-5	Z	-.004	-.004	0	%100
70	SA-6	Z	-.004	-.004	0	%100
71	SF1-TH	Z	-.008	-.008	0	%100
72	SF1-V1	Z	-.004	-.004	0	%100
73	K-2	Z	-.007	-.007	0	%100
74	K-1	Z	-.007	-.007	0	%100
75	K-4	Z	-.007	-.007	0	%100
76	K-3	Z	-.007	-.007	0	%100
77	K-6	Z	-.007	-.007	0	%100
78	K-5	Z	-.007	-.007	0	%100

**Member Distributed Loads (BLC 10 : 180 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.011	.011	0	%100
2	M17	X	.004	.004	0	%100
3	M31	X	.019	.019	0	%100
4	M32	X	.007	.007	0	%100
5	M33	X	.004	.004	0	%100
6	M47	X	.008	.008	0	%100
7	M48	X	.007	.007	0	%100
8	MP-1	X	.008	.008	0	%100
9	MP-2	X	.008	.008	0	%100
10	MP-3	X	.008	.008	0	%100
11	MP-4	X	.008	.008	0	%100
12	MP-5	X	.008	.008	0	%100
13	MP-6	X	.008	.008	0	%100
14	MP-7	X	.008	.008	0	%100
15	MP-8	X	.008	.008	0	%100
16	MP-9	X	.008	.008	0	%100
17	MP-10	X	.007	.007	0	%100
18	MP-11	X	.007	.007	0	%100

**Member Distributed Loads (BLC 10 : 180 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
19	MP-12	X	.007	.007	0	%100
20	MP-13	X	.007	.007	0	%100
21	MP-14	X	.007	.007	0	%100
22	MP-15	X	.007	.007	0	%100
23	MP-16	X	.007	.007	0	%100
24	MP-17	X	.007	.007	0	%100
25	MP-18	X	.007	.007	0	%100
26	SA-1	X	.008	.008	0	%100
27	SA-2	X	.008	.008	0	%100
28	SA-3	X	.008	.008	0	%100
29	SA-4	X	.008	.008	0	%100
30	SA-5	X	.008	.008	0	%100
31	SA-6	X	.008	.008	0	%100
32	SF1-TH	X	.008	.008	0	%100
33	SF1-V1	X	.007	.007	0	%100
34	K-2	X	.015	.015	0	%100
35	K-1	X	.015	.015	0	%100
36	K-4	X	.015	.015	0	%100
37	K-3	X	.015	.015	0	%100
38	K-6	X	.015	.015	0	%100
39	K-5	X	.015	.015	0	%100

**Member Distributed Loads (BLC 11 : 210 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.008	.008	0	%100
2	M17	X	.007	.007	0	%100
3	M31	X	.014	.014	0	%100
4	M32	X	.006	.006	0	%100
5	M33	X	0	0	0	%100
6	M47	X	.012	.012	0	%100
7	M48	X	.006	.006	0	%100
8	MP-1	X	.007	.007	0	%100
9	MP-2	X	.007	.007	0	%100
10	MP-3	X	.007	.007	0	%100
11	MP-4	X	.007	.007	0	%100
12	MP-5	X	.007	.007	0	%100
13	MP-6	X	.007	.007	0	%100
14	MP-7	X	.007	.007	0	%100
15	MP-8	X	.007	.007	0	%100
16	MP-9	X	.007	.007	0	%100
17	MP-10	X	.006	.006	0	%100
18	MP-11	X	.006	.006	0	%100
19	MP-12	X	.006	.006	0	%100
20	MP-13	X	.006	.006	0	%100
21	MP-14	X	.006	.006	0	%100
22	MP-15	X	.006	.006	0	%100
23	MP-16	X	.006	.006	0	%100
24	MP-17	X	.006	.006	0	%100
25	MP-18	X	.006	.006	0	%100
26	SA-1	X	.007	.007	0	%100
27	SA-2	X	.007	.007	0	%100
28	SA-3	X	.007	.007	0	%100
29	SA-4	X	.007	.007	0	%100
30	SA-5	X	.007	.007	0	%100
31	SA-6	X	.007	.007	0	%100
32	SF1-TH	X	0	0	0	%100
33	SF1-V1	X	.006	.006	0	%100
34	K-2	X	.013	.013	0	%100
35	K-1	X	.013	.013	0	%100
36	K-4	X	.013	.013	0	%100
37	K-3	X	.013	.013	0	%100
38	K-6	X	.013	.013	0	%100

**Member Distributed Loads (BLC 11 : 210 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]
39	K-5	.013	.013	0	%100
40	FFTH	.005	.005	0	%100
41	M17	.005	.005	0	%100
42	M31	.008	.008	0	%100
43	M32	.004	.004	0	%100
44	M33	0	0	0	%100
45	M47	.008	.008	0	%100
46	M48	.004	.004	0	%100
47	MP-1	.004	.004	0	%100
48	MP-2	.004	.004	0	%100
49	MP-3	.004	.004	0	%100
50	MP-4	.004	.004	0	%100
51	MP-5	.004	.004	0	%100
52	MP-6	.004	.004	0	%100
53	MP-7	.004	.004	0	%100
54	MP-8	.004	.004	0	%100
55	MP-9	.004	.004	0	%100
56	MP-10	.004	.004	0	%100
57	MP-11	.004	.004	0	%100
58	MP-12	.004	.004	0	%100
59	MP-13	.004	.004	0	%100
60	MP-14	.004	.004	0	%100
61	MP-15	.004	.004	0	%100
62	MP-16	.004	.004	0	%100
63	MP-17	.004	.004	0	%100
64	MP-18	.004	.004	0	%100
65	SA-1	.004	.004	0	%100
66	SA-2	.004	.004	0	%100
67	SA-3	.004	.004	0	%100
68	SA-4	.004	.004	0	%100
69	SA-5	.004	.004	0	%100
70	SA-6	.004	.004	0	%100
71	SF1-TH	0	0	0	%100
72	SF1-V1	.004	.004	0	%100
73	K-2	.007	.007	0	%100
74	K-1	.007	.007	0	%100
75	K-4	.007	.007	0	%100
76	K-3	.007	.007	0	%100
77	K-6	.007	.007	0	%100
78	K-5	.007	.007	0	%100

**Member Distributed Loads (BLC 12 : 225 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]
1	FFTH	.005	.005	0	%100
2	M17	.006	.006	0	%100
3	M31	.01	.01	0	%100
4	M32	.005	.005	0	%100
5	M33	.002	.002	0	%100
6	M47	.011	.011	0	%100
7	M48	.005	.005	0	%100
8	MP-1	.006	.006	0	%100
9	MP-2	.006	.006	0	%100
10	MP-3	.006	.006	0	%100
11	MP-4	.006	.006	0	%100
12	MP-5	.006	.006	0	%100
13	MP-6	.006	.006	0	%100
14	MP-7	.006	.006	0	%100
15	MP-8	.006	.006	0	%100
16	MP-9	.006	.006	0	%100
17	MP-10	.005	.005	0	%100
18	MP-11	.005	.005	0	%100
19	MP-12	.005	.005	0	%100

**Member Distributed Loads (BLC 12 : 225 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]
20	MP-13	.005	.005	0	%100
21	MP-14	.005	.005	0	%100
22	MP-15	.005	.005	0	%100
23	MP-16	.005	.005	0	%100
24	MP-17	.005	.005	0	%100
25	MP-18	.005	.005	0	%100
26	SA-1	.006	.006	0	%100
27	SA-2	.006	.006	0	%100
28	SA-3	.006	.006	0	%100
29	SA-4	.006	.006	0	%100
30	SA-5	.006	.006	0	%100
31	SA-6	.006	.006	0	%100
32	SF1-TH	.003	.003	0	%100
33	SF1-V1	.005	.005	0	%100
34	K-2	.01	.01	0	%100
35	K-1	.01	.01	0	%100
36	K-4	.01	.01	0	%100
37	K-3	.01	.01	0	%100
38	K-6	.01	.01	0	%100
39	K-5	.01	.01	0	%100
40	FFTH	.005	.005	0	%100
41	M17	.007	.007	0	%100
42	M31	.01	.01	0	%100
43	M32	.005	.005	0	%100
44	M33	.002	.002	0	%100
45	M47	.013	.013	0	%100
46	M48	.005	.005	0	%100
47	MP-1	.006	.006	0	%100
48	MP-2	.006	.006	0	%100
49	MP-3	.006	.006	0	%100
50	MP-4	.006	.006	0	%100
51	MP-5	.006	.006	0	%100
52	MP-6	.006	.006	0	%100
53	MP-7	.006	.006	0	%100
54	MP-8	.006	.006	0	%100
55	MP-9	.006	.006	0	%100
56	MP-10	.005	.005	0	%100
57	MP-11	.005	.005	0	%100
58	MP-12	.005	.005	0	%100
59	MP-13	.005	.005	0	%100
60	MP-14	.005	.005	0	%100
61	MP-15	.005	.005	0	%100
62	MP-16	.005	.005	0	%100
63	MP-17	.005	.005	0	%100
64	MP-18	.005	.005	0	%100
65	SA-1	.006	.006	0	%100
66	SA-2	.006	.006	0	%100
67	SA-3	.006	.006	0	%100
68	SA-4	.006	.006	0	%100
69	SA-5	.006	.006	0	%100
70	SA-6	.006	.006	0	%100
71	SF1-TH	.003	.003	0	%100
72	SF1-V1	.005	.005	0	%100
73	K-2	.01	.01	0	%100
74	K-1	.01	.01	0	%100
75	K-4	.01	.01	0	%100
76	K-3	.01	.01	0	%100
77	K-6	.01	.01	0	%100
78	K-5	.01	.01	0	%100

**Member Distributed Loads (BLC 13 : 240 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]
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**Member Distributed Loads (BLC 13 : 240 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.003	.003	0	%100
2	M17	X	.004	.004	0	%100
3	M31	X	.005	.005	0	%100
4	M32	X	.004	.004	0	%100
5	M33	X	.002	.002	0	%100
6	M47	X	.008	.008	0	%100
7	M48	X	.004	.004	0	%100
8	MP-1	X	.004	.004	0	%100
9	MP-2	X	.004	.004	0	%100
10	MP-3	X	.004	.004	0	%100
11	MP-4	X	.004	.004	0	%100
12	MP-5	X	.004	.004	0	%100
13	MP-6	X	.004	.004	0	%100
14	MP-7	X	.004	.004	0	%100
15	MP-8	X	.004	.004	0	%100
16	MP-9	X	.004	.004	0	%100
17	MP-10	X	.004	.004	0	%100
18	MP-11	X	.004	.004	0	%100
19	MP-12	X	.004	.004	0	%100
20	MP-13	X	.004	.004	0	%100
21	MP-14	X	.004	.004	0	%100
22	MP-15	X	.004	.004	0	%100
23	MP-16	X	.004	.004	0	%100
24	MP-17	X	.004	.004	0	%100
25	MP-18	X	.004	.004	0	%100
26	SA-1	X	.004	.004	0	%100
27	SA-2	X	.004	.004	0	%100
28	SA-3	X	.004	.004	0	%100
29	SA-4	X	.004	.004	0	%100
30	SA-5	X	.004	.004	0	%100
31	SA-6	X	.004	.004	0	%100
32	SF1-TH	X	.004	.004	0	%100
33	SF1-V1	X	.004	.004	0	%100
34	K-2	X	.007	.007	0	%100
35	K-1	X	.007	.007	0	%100
36	K-4	X	.007	.007	0	%100
37	K-3	X	.007	.007	0	%100
38	K-6	X	.007	.007	0	%100
39	K-5	X	.007	.007	0	%100
40	FFTH	Z	.005	.005	0	%100
41	M17	Z	.009	.009	0	%100
42	M31	Z	.008	.008	0	%100
43	M32	Z	.006	.006	0	%100
44	M33	Z	.005	.005	0	%100
45	M47	Z	.016	.016	0	%100
46	M48	Z	.006	.006	0	%100
47	MP-1	Z	.007	.007	0	%100
48	MP-2	Z	.007	.007	0	%100
49	MP-3	Z	.007	.007	0	%100
50	MP-4	Z	.007	.007	0	%100
51	MP-5	Z	.007	.007	0	%100
52	MP-6	Z	.007	.007	0	%100
53	MP-7	Z	.007	.007	0	%100
54	MP-8	Z	.007	.007	0	%100
55	MP-9	Z	.007	.007	0	%100
56	MP-10	Z	.006	.006	0	%100
57	MP-11	Z	.006	.006	0	%100
58	MP-12	Z	.006	.006	0	%100
59	MP-13	Z	.006	.006	0	%100
60	MP-14	Z	.006	.006	0	%100
61	MP-15	Z	.006	.006	0	%100
62	MP-16	Z	.006	.006	0	%100
63	MP-17	Z	.006	.006	0	%100

**Member Distributed Loads (BLC 13 : 240 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
64	MP-18	Z	.006	.006	0	%100
65	SA-1	Z	.007	.007	0	%100
66	SA-2	Z	.007	.007	0	%100
67	SA-3	Z	.007	.007	0	%100
68	SA-4	Z	.007	.007	0	%100
69	SA-5	Z	.007	.007	0	%100
70	SA-6	Z	.007	.007	0	%100
71	SF1-TH	Z	.008	.008	0	%100
72	SF1-V1	Z	.006	.006	0	%100
73	K-2	Z	.013	.013	0	%100
74	K-1	Z	.013	.013	0	%100
75	K-4	Z	.013	.013	0	%100
76	K-3	Z	.013	.013	0	%100
77	K-6	Z	.013	.013	0	%100
78	K-5	Z	.013	.013	0	%100

**Member Distributed Loads (BLC 14 : 270 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	Z	0	0	0	%100
2	M17	Z	.009	.009	0	%100
3	M31	Z	0	0	0	%100
4	M32	Z	.007	.007	0	%100
5	M33	Z	.009	.009	0	%100
6	M47	Z	.016	.016	0	%100
7	M48	Z	.007	.007	0	%100
8	MP-1	Z	.008	.008	0	%100
9	MP-2	Z	.008	.008	0	%100
10	MP-3	Z	.008	.008	0	%100
11	MP-4	Z	.008	.008	0	%100
12	MP-5	Z	.008	.008	0	%100
13	MP-6	Z	.008	.008	0	%100
14	MP-7	Z	.008	.008	0	%100
15	MP-8	Z	.008	.008	0	%100
16	MP-9	Z	.008	.008	0	%100
17	MP-10	Z	.007	.007	0	%100
18	MP-11	Z	.007	.007	0	%100
19	MP-12	Z	.007	.007	0	%100
20	MP-13	Z	.007	.007	0	%100
21	MP-14	Z	.007	.007	0	%100
22	MP-15	Z	.007	.007	0	%100
23	MP-16	Z	.007	.007	0	%100
24	MP-17	Z	.007	.007	0	%100
25	MP-18	Z	.007	.007	0	%100
26	SA-1	Z	.008	.008	0	%100
27	SA-2	Z	.008	.008	0	%100
28	SA-3	Z	.008	.008	0	%100
29	SA-4	Z	.008	.008	0	%100
30	SA-5	Z	.008	.008	0	%100
31	SA-6	Z	.008	.008	0	%100
32	SF1-TH	Z	.016	.016	0	%100
33	SF1-V1	Z	.007	.007	0	%100
34	K-2	Z	.015	.015	0	%100
35	K-1	Z	.015	.015	0	%100
36	K-4	Z	.015	.015	0	%100
37	K-3	Z	.015	.015	0	%100
38	K-6	Z	.015	.015	0	%100
39	K-5	Z	.015	.015	0	%100

**Member Distributed Loads (BLC 15 : 300 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-.003	-.003	0	%100
2	M17	X	-.002	-.002	0	%100

**Member Distributed Loads (BLC 15 : 300 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location(ft,%)	End Location(ft,%)	
3	M31	X	-0.05	-0.05	0	%100
4	M32	X	-0.04	-0.04	0	%100
5	M33	X	-0.04	-0.04	0	%100
6	M47	X	-0.04	-0.04	0	%100
7	M48	X	-0.04	-0.04	0	%100
8	MP-1	X	-0.04	-0.04	0	%100
9	MP-2	X	-0.04	-0.04	0	%100
10	MP-3	X	-0.04	-0.04	0	%100
11	MP-4	X	-0.04	-0.04	0	%100
12	MP-5	X	-0.04	-0.04	0	%100
13	MP-6	X	-0.04	-0.04	0	%100
14	MP-7	X	-0.04	-0.04	0	%100
15	MP-8	X	-0.04	-0.04	0	%100
16	MP-9	X	-0.04	-0.04	0	%100
17	MP-10	X	-0.04	-0.04	0	%100
18	MP-11	X	-0.04	-0.04	0	%100
19	MP-12	X	-0.04	-0.04	0	%100
20	MP-13	X	-0.04	-0.04	0	%100
21	MP-14	X	-0.04	-0.04	0	%100
22	MP-15	X	-0.04	-0.04	0	%100
23	MP-16	X	-0.04	-0.04	0	%100
24	MP-17	X	-0.04	-0.04	0	%100
25	MP-18	X	-0.04	-0.04	0	%100
26	SA-1	X	-0.04	-0.04	0	%100
27	SA-2	X	-0.04	-0.04	0	%100
28	SA-3	X	-0.04	-0.04	0	%100
29	SA-4	X	-0.04	-0.04	0	%100
30	SA-5	X	-0.04	-0.04	0	%100
31	SA-6	X	-0.04	-0.04	0	%100
32	SF1-TH	X	-0.08	-0.08	0	%100
33	SF1-V1	X	-0.04	-0.04	0	%100
34	K-2	X	-0.07	-0.07	0	%100
35	K-1	X	-0.07	-0.07	0	%100
36	K-4	X	-0.07	-0.07	0	%100
37	K-3	X	-0.07	-0.07	0	%100
38	K-6	X	-0.07	-0.07	0	%100
39	K-5	X	-0.07	-0.07	0	%100
40	FFTH	Z	.005	.005	0	%100
41	M17	Z	.005	.005	0	%100
42	M31	Z	.008	.008	0	%100
43	M32	Z	.006	.006	0	%100
44	M33	Z	.009	.009	0	%100
45	M47	Z	.008	.008	0	%100
46	M48	Z	.006	.006	0	%100
47	MP-1	Z	.007	.007	0	%100
48	MP-2	Z	.007	.007	0	%100
49	MP-3	Z	.007	.007	0	%100
50	MP-4	Z	.007	.007	0	%100
51	MP-5	Z	.007	.007	0	%100
52	MP-6	Z	.007	.007	0	%100
53	MP-7	Z	.007	.007	0	%100
54	MP-8	Z	.007	.007	0	%100
55	MP-9	Z	.007	.007	0	%100
56	MP-10	Z	.006	.006	0	%100
57	MP-11	Z	.006	.006	0	%100
58	MP-12	Z	.006	.006	0	%100
59	MP-13	Z	.006	.006	0	%100
60	MP-14	Z	.006	.006	0	%100
61	MP-15	Z	.006	.006	0	%100
62	MP-16	Z	.006	.006	0	%100
63	MP-17	Z	.006	.006	0	%100
64	MP-18	Z	.006	.006	0	%100
65	SA-1	Z	.007	.007	0	%100

**Member Distributed Loads (BLC 15 : 300 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location(ft,%)	End Location(ft,%)	
66	SA-2	Z	.007	.007	0	%100
67	SA-3	Z	.007	.007	0	%100
68	SA-4	Z	.007	.007	0	%100
69	SA-5	Z	.007	.007	0	%100
70	SA-6	Z	.007	.007	0	%100
71	SF1-TH	Z	.016	.016	0	%100
72	SF1-V1	Z	.006	.006	0	%100
73	K-2	Z	.013	.013	0	%100
74	K-1	Z	.013	.013	0	%100
75	K-4	Z	.013	.013	0	%100
76	K-3	Z	.013	.013	0	%100
77	K-6	Z	.013	.013	0	%100
78	K-5	Z	.013	.013	0	%100

**Member Distributed Loads (BLC 16 : 315 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location(ft,%)	End Location(ft,%)	
1	FFTH	X	-0.05	-0.05	0	%100
2	M17	X	-0.02	-0.02	0	%100
3	M31	X	-.01	-.01	0	%100
4	M32	X	-0.05	-0.05	0	%100
5	M33	X	-0.06	-0.06	0	%100
6	M47	X	-0.03	-0.03	0	%100
7	M48	X	-0.05	-0.05	0	%100
8	MP-1	X	-0.06	-0.06	0	%100
9	MP-2	X	-0.06	-0.06	0	%100
10	MP-3	X	-0.06	-0.06	0	%100
11	MP-4	X	-0.06	-0.06	0	%100
12	MP-5	X	-0.06	-0.06	0	%100
13	MP-6	X	-0.06	-0.06	0	%100
14	MP-7	X	-0.06	-0.06	0	%100
15	MP-8	X	-0.06	-0.06	0	%100
16	MP-9	X	-0.06	-0.06	0	%100
17	MP-10	X	-0.05	-0.05	0	%100
18	MP-11	X	-0.05	-0.05	0	%100
19	MP-12	X	-0.05	-0.05	0	%100
20	MP-13	X	-0.05	-0.05	0	%100
21	MP-14	X	-0.05	-0.05	0	%100
22	MP-15	X	-0.05	-0.05	0	%100
23	MP-16	X	-0.05	-0.05	0	%100
24	MP-17	X	-0.05	-0.05	0	%100
25	MP-18	X	-0.05	-0.05	0	%100
26	SA-1	X	-0.06	-0.06	0	%100
27	SA-2	X	-0.06	-0.06	0	%100
28	SA-3	X	-0.06	-0.06	0	%100
29	SA-4	X	-0.06	-0.06	0	%100
30	SA-5	X	-0.06	-0.06	0	%100
31	SA-6	X	-0.06	-0.06	0	%100
32	SF1-TH	X	-.011	-.011	0	%100
33	SF1-V1	X	-0.05	-0.05	0	%100
34	K-2	X	-.01	-.01	0	%100
35	K-1	X	-.01	-.01	0	%100
36	K-4	X	-.01	-.01	0	%100
37	K-3	X	-.01	-.01	0	%100
38	K-6	X	-.01	-.01	0	%100
39	K-5	X	-.01	-.01	0	%100
40	FFTH	Z	.005	.005	0	%100
41	M17	Z	.002	.002	0	%100
42	M31	Z	.01	.01	0	%100
43	M32	Z	.005	.005	0	%100
44	M33	Z	.007	.007	0	%100
45	M47	Z	.003	.003	0	%100
46	M48	Z	.005	.005	0	%100

**Member Distributed Loads (BLC 16 : 315 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
47	MP-1	Z	.006	.006	0	%100
48	MP-2	Z	.006	.006	0	%100
49	MP-3	Z	.006	.006	0	%100
50	MP-4	Z	.006	.006	0	%100
51	MP-5	Z	.006	.006	0	%100
52	MP-6	Z	.006	.006	0	%100
53	MP-7	Z	.006	.006	0	%100
54	MP-8	Z	.006	.006	0	%100
55	MP-9	Z	.006	.006	0	%100
56	MP-10	Z	.005	.005	0	%100
57	MP-11	Z	.005	.005	0	%100
58	MP-12	Z	.005	.005	0	%100
59	MP-13	Z	.005	.005	0	%100
60	MP-14	Z	.005	.005	0	%100
61	MP-15	Z	.005	.005	0	%100
62	MP-16	Z	.005	.005	0	%100
63	MP-17	Z	.005	.005	0	%100
64	MP-18	Z	.005	.005	0	%100
65	SA-1	Z	.006	.006	0	%100
66	SA-2	Z	.006	.006	0	%100
67	SA-3	Z	.006	.006	0	%100
68	SA-4	Z	.006	.006	0	%100
69	SA-5	Z	.006	.006	0	%100
70	SA-6	Z	.006	.006	0	%100
71	SF1-TH	Z	.013	.013	0	%100
72	SF1-V1	Z	.005	.005	0	%100
73	K-2	Z	.01	.01	0	%100
74	K-1	Z	.01	.01	0	%100
75	K-4	Z	.01	.01	0	%100
76	K-3	Z	.01	.01	0	%100
77	K-6	Z	.01	.01	0	%100
78	K-5	Z	.01	.01	0	%100

**Member Distributed Loads (BLC 17 : 330 Wind - No Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-.008	-.008	0	%100
2	M17	X	0	0	0	%100
3	M31	X	-.014	-.014	0	%100
4	M32	X	-.006	-.006	0	%100
5	M33	X	-.007	-.007	0	%100
6	M47	X	0	0	0	%100
7	M48	X	-.006	-.006	0	%100
8	MP-1	X	-.007	-.007	0	%100
9	MP-2	X	-.007	-.007	0	%100
10	MP-3	X	-.007	-.007	0	%100
11	MP-4	X	-.007	-.007	0	%100
12	MP-5	X	-.007	-.007	0	%100
13	MP-6	X	-.007	-.007	0	%100
14	MP-7	X	-.007	-.007	0	%100
15	MP-8	X	-.007	-.007	0	%100
16	MP-9	X	-.007	-.007	0	%100
17	MP-10	X	-.006	-.006	0	%100
18	MP-11	X	-.006	-.006	0	%100
19	MP-12	X	-.006	-.006	0	%100
20	MP-13	X	-.006	-.006	0	%100
21	MP-14	X	-.006	-.006	0	%100
22	MP-15	X	-.006	-.006	0	%100
23	MP-16	X	-.006	-.006	0	%100
24	MP-17	X	-.006	-.006	0	%100
25	MP-18	X	-.006	-.006	0	%100
26	SA-1	X	-.007	-.007	0	%100
27	SA-2	X	-.007	-.007	0	%100

**Member Distributed Loads (BLC 17 : 330 Wind - No Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
28	SA-3	X	-.007	-.007	0	%100
29	SA-4	X	-.007	-.007	0	%100
30	SA-5	X	-.007	-.007	0	%100
31	SA-6	X	-.007	-.007	0	%100
32	SF1-TH	X	-.012	-.012	0	%100
33	SF1-V1	X	-.006	-.006	0	%100
34	K-2	X	-.013	-.013	0	%100
35	K-1	X	-.013	-.013	0	%100
36	K-4	X	-.013	-.013	0	%100
37	K-3	X	-.013	-.013	0	%100
38	K-6	X	-.013	-.013	0	%100
39	K-5	X	-.013	-.013	0	%100
40	FFTH	Z	.005	.005	0	%100
41	M17	Z	0	0	0	%100
42	M31	Z	.008	.008	0	%100
43	M32	Z	.004	.004	0	%100
44	M33	Z	.005	.005	0	%100
45	M47	Z	0	0	0	%100
46	M48	Z	.004	.004	0	%100
47	MP-1	Z	.004	.004	0	%100
48	MP-2	Z	.004	.004	0	%100
49	MP-3	Z	.004	.004	0	%100
50	MP-4	Z	.004	.004	0	%100
51	MP-5	Z	.004	.004	0	%100
52	MP-6	Z	.004	.004	0	%100
53	MP-7	Z	.004	.004	0	%100
54	MP-8	Z	.004	.004	0	%100
55	MP-9	Z	.004	.004	0	%100
56	MP-10	Z	.004	.004	0	%100
57	MP-11	Z	.004	.004	0	%100
58	MP-12	Z	.004	.004	0	%100
59	MP-13	Z	.004	.004	0	%100
60	MP-14	Z	.004	.004	0	%100
61	MP-15	Z	.004	.004	0	%100
62	MP-16	Z	.004	.004	0	%100
63	MP-17	Z	.004	.004	0	%100
64	MP-18	Z	.004	.004	0	%100
65	SA-1	Z	.004	.004	0	%100
66	SA-2	Z	.004	.004	0	%100
67	SA-3	Z	.004	.004	0	%100
68	SA-4	Z	.004	.004	0	%100
69	SA-5	Z	.004	.004	0	%100
70	SA-6	Z	.004	.004	0	%100
71	SF1-TH	Z	.008	.008	0	%100
72	SF1-V1	Z	.004	.004	0	%100
73	K-2	Z	.007	.007	0	%100
74	K-1	Z	.007	.007	0	%100
75	K-4	Z	.007	.007	0	%100
76	K-3	Z	.007	.007	0	%100
77	K-6	Z	.007	.007	0	%100
78	K-5	Z	.007	.007	0	%100

**Member Distributed Loads (BLC 18 : Ice Weight)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	Y	-.011	-.011	0	%100
2	M17	Y	-.011	-.011	0	%100
3	M31	Y	-.011	-.011	0	%100
4	M32	Y	-.015	-.015	0	%100
5	M33	Y	-.011	-.011	0	%100
6	M47	Y	-.011	-.011	0	%100
7	M48	Y	-.015	-.015	0	%100
8	MP-1	Y	-.009	-.009	0	%100

**Member Distributed Loads (BLC 18 : Ice Weight) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
9	MP-2	Y	-0.09	-0.09	0	%100
10	MP-3	Y	-0.09	-0.09	0	%100
11	MP-4	Y	-0.09	-0.09	0	%100
12	MP-5	Y	-0.09	-0.09	0	%100
13	MP-6	Y	-0.09	-0.09	0	%100
14	MP-7	Y	-0.09	-0.09	0	%100
15	MP-8	Y	-0.09	-0.09	0	%100
16	MP-9	Y	-0.09	-0.09	0	%100
17	MP-10	Y	-0.09	-0.09	0	%100
18	MP-11	Y	-0.09	-0.09	0	%100
19	MP-12	Y	-0.09	-0.09	0	%100
20	MP-13	Y	-0.09	-0.09	0	%100
21	MP-14	Y	-0.09	-0.09	0	%100
22	MP-15	Y	-0.09	-0.09	0	%100
23	MP-16	Y	-0.09	-0.09	0	%100
24	MP-17	Y	-0.09	-0.09	0	%100
25	MP-18	Y	-0.09	-0.09	0	%100
26	SA-1	Y	-0.09	-0.09	0	%100
27	SA-2	Y	-0.09	-0.09	0	%100
28	SA-3	Y	-0.09	-0.09	0	%100
29	SA-4	Y	-0.09	-0.09	0	%100
30	SA-5	Y	-0.09	-0.09	0	%100
31	SA-6	Y	-0.09	-0.09	0	%100
32	SF1-TH	Y	-0.11	-0.11	0	%100
33	SF1-V1	Y	-0.15	-0.15	0	%100
34	K-2	Y	-0.07	-0.07	0	%100
35	K-1	Y	-0.07	-0.07	0	%100
36	K-4	Y	-0.07	-0.07	0	%100
37	K-3	Y	-0.07	-0.07	0	%100
38	K-6	Y	-0.07	-0.07	0	%100
39	K-5	Y	-0.07	-0.07	0	%100

**Member Distributed Loads (BLC 19 : 0 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-0.04	-0.04	0	%100
2	M17	X	-0.03	-0.03	0	%100
3	M31	X	-0.05	-0.05	0	%100
4	M32	X	-0.03	-0.03	0	%100
5	M33	X	-0.03	-0.03	0	%100
6	M47	X	-0.05	-0.05	0	%100
7	M48	X	-0.03	-0.03	0	%100
8	MP-1	X	-0.03	-0.03	0	%100
9	MP-2	X	-0.03	-0.03	0	%100
10	MP-3	X	-0.03	-0.03	0	%100
11	MP-4	X	-0.03	-0.03	0	%100
12	MP-5	X	-0.03	-0.03	0	%100
13	MP-6	X	-0.03	-0.03	0	%100
14	MP-7	X	-0.03	-0.03	0	%100
15	MP-8	X	-0.03	-0.03	0	%100
16	MP-9	X	-0.03	-0.03	0	%100
17	MP-10	X	-0.02	-0.02	0	%100
18	MP-11	X	-0.02	-0.02	0	%100
19	MP-12	X	-0.02	-0.02	0	%100
20	MP-13	X	-0.02	-0.02	0	%100
21	MP-14	X	-0.02	-0.02	0	%100
22	MP-15	X	-0.02	-0.02	0	%100
23	MP-16	X	-0.02	-0.02	0	%100
24	MP-17	X	-0.02	-0.02	0	%100
25	MP-18	X	-0.02	-0.02	0	%100
26	SA-1	X	-0.03	-0.03	0	%100
27	SA-2	X	-0.03	-0.03	0	%100
28	SA-3	X	-0.03	-0.03	0	%100

**Member Distributed Loads (BLC 19 : 0 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
29	SA-4	X	-0.03	-0.03	0	%100
30	SA-5	X	-0.03	-0.03	0	%100
31	SA-6	X	-0.03	-0.03	0	%100
32	SF1-TH	X	-0.05	-0.05	0	%100
33	SF1-V1	X	-0.03	-0.03	0	%100
34	K-2	X	-0.04	-0.04	0	%100
35	K-1	X	-0.04	-0.04	0	%100
36	K-4	X	-0.04	-0.04	0	%100
37	K-3	X	-0.04	-0.04	0	%100
38	K-6	X	-0.04	-0.04	0	%100
39	K-5	X	-0.04	-0.04	0	%100

**Member Distributed Loads (BLC 20 : 30 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-0.03	-0.03	0	%100
2	M17	X	-0.02	-0.02	0	%100
3	M31	X	-0.04	-0.04	0	%100
4	M32	X	-0.02	-0.02	0	%100
5	M33	X	0	0	0	%100
6	M47	X	-0.04	-0.04	0	%100
7	M48	X	-0.02	-0.02	0	%100
8	MP-1	X	-0.02	-0.02	0	%100
9	MP-2	X	-0.02	-0.02	0	%100
10	MP-3	X	-0.02	-0.02	0	%100
11	MP-4	X	-0.02	-0.02	0	%100
12	MP-5	X	-0.02	-0.02	0	%100
13	MP-6	X	-0.02	-0.02	0	%100
14	MP-7	X	-0.02	-0.02	0	%100
15	MP-8	X	-0.02	-0.02	0	%100
16	MP-9	X	-0.02	-0.02	0	%100
17	MP-10	X	-0.02	-0.02	0	%100
18	MP-11	X	-0.02	-0.02	0	%100
19	MP-12	X	-0.02	-0.02	0	%100
20	MP-13	X	-0.02	-0.02	0	%100
21	MP-14	X	-0.02	-0.02	0	%100
22	MP-15	X	-0.02	-0.02	0	%100
23	MP-16	X	-0.02	-0.02	0	%100
24	MP-17	X	-0.02	-0.02	0	%100
25	MP-18	X	-0.02	-0.02	0	%100
26	SA-1	X	-0.02	-0.02	0	%100
27	SA-2	X	-0.02	-0.02	0	%100
28	SA-3	X	-0.02	-0.02	0	%100
29	SA-4	X	-0.02	-0.02	0	%100
30	SA-5	X	-0.02	-0.02	0	%100
31	SA-6	X	-0.02	-0.02	0	%100
32	SF1-TH	X	0	0	0	%100
33	SF1-V1	X	-0.02	-0.02	0	%100
34	K-2	X	-0.04	-0.04	0	%100
35	K-1	X	-0.04	-0.04	0	%100
36	K-4	X	-0.04	-0.04	0	%100
37	K-3	X	-0.04	-0.04	0	%100
38	K-6	X	-0.04	-0.04	0	%100
39	K-5	X	-0.04	-0.04	0	%100
40	FFTH	Z	-0.01	-0.01	0	%100
41	M17	Z	-0.01	-0.01	0	%100
42	M31	Z	-0.02	-0.02	0	%100
43	M32	Z	-0.02	-0.02	0	%100
44	M33	Z	0	0	0	%100
45	M47	Z	-0.02	-0.02	0	%100
46	M48	Z	-0.02	-0.02	0	%100
47	MP-1	Z	-0.01	-0.01	0	%100
48	MP-2	Z	-0.02	-0.02	0	%100



**Member Distributed Loads (BLC 20 : 30 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
49	MP-3	Z	-0.01	-0.01	0	%100
50	MP-4	Z	-0.01	-0.01	0	%100
51	MP-5	Z	-0.02	-0.02	0	%100
52	MP-6	Z	-0.01	-0.01	0	%100
53	MP-7	Z	-0.01	-0.01	0	%100
54	MP-8	Z	-0.02	-0.02	0	%100
55	MP-9	Z	-0.01	-0.01	0	%100
56	MP-10	Z	-0.01	-0.01	0	%100
57	MP-11	Z	-0.01	-0.01	0	%100
58	MP-12	Z	-0.01	-0.01	0	%100
59	MP-13	Z	-0.01	-0.01	0	%100
60	MP-14	Z	-0.01	-0.01	0	%100
61	MP-15	Z	-0.01	-0.01	0	%100
62	MP-16	Z	-0.01	-0.01	0	%100
63	MP-17	Z	-0.01	-0.01	0	%100
64	MP-18	Z	-0.01	-0.01	0	%100
65	SA-1	Z	-0.02	-0.02	0	%100
66	SA-2	Z	-0.01	-0.01	0	%100
67	SA-3	Z	-0.02	-0.02	0	%100
68	SA-4	Z	-0.01	-0.01	0	%100
69	SA-5	Z	-0.02	-0.02	0	%100
70	SA-6	Z	-0.01	-0.01	0	%100
71	SF1-TH	Z	0	0	0	%100
72	SF1-V1	Z	-0.02	-0.02	0	%100
73	K-2	Z	-0.02	-0.02	0	%100
74	K-1	Z	-0.02	-0.02	0	%100
75	K-4	Z	-0.02	-0.02	0	%100
76	K-3	Z	-0.02	-0.02	0	%100
77	K-6	Z	-0.02	-0.02	0	%100
78	K-5	Z	-0.02	-0.02	0	%100

**Member Distributed Loads (BLC 21 : 45 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-0.02	-0.02	0	%100
2	M17	X	-0.02	-0.02	0	%100
3	M31	X	-0.03	-0.03	0	%100
4	M32	X	-0.02	-0.02	0	%100
5	M33	X	-0.00533	-0.00533	0	%100
6	M47	X	-0.03	-0.03	0	%100
7	M48	X	-0.02	-0.02	0	%100
8	MP-1	X	-0.02	-0.02	0	%100
9	MP-2	X	-0.02	-0.02	0	%100
10	MP-3	X	-0.02	-0.02	0	%100
11	MP-4	X	-0.02	-0.02	0	%100
12	MP-5	X	-0.02	-0.02	0	%100
13	MP-6	X	-0.02	-0.02	0	%100
14	MP-7	X	-0.02	-0.02	0	%100
15	MP-8	X	-0.02	-0.02	0	%100
16	MP-9	X	-0.02	-0.02	0	%100
17	MP-10	X	-0.02	-0.02	0	%100
18	MP-11	X	-0.02	-0.02	0	%100
19	MP-12	X	-0.02	-0.02	0	%100
20	MP-13	X	-0.02	-0.02	0	%100
21	MP-14	X	-0.02	-0.02	0	%100
22	MP-15	X	-0.02	-0.02	0	%100
23	MP-16	X	-0.02	-0.02	0	%100
24	MP-17	X	-0.02	-0.02	0	%100
25	MP-18	X	-0.02	-0.02	0	%100
26	SA-1	X	-0.02	-0.02	0	%100
27	SA-2	X	-0.02	-0.02	0	%100
28	SA-3	X	-0.02	-0.02	0	%100
29	SA-4	X	-0.02	-0.02	0	%100



**Member Distributed Loads (BLC 21 : 45 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
30	SA-5	X	-0.02	-0.02	0	%100
31	SA-6	X	-0.02	-0.02	0	%100
32	SF1-TH	X	-0.000877	-0.000877	0	%100
33	SF1-V1	X	-0.02	-0.02	0	%100
34	K-2	X	-0.03	-0.03	0	%100
35	K-1	X	-0.03	-0.03	0	%100
36	K-4	X	-0.03	-0.03	0	%100
37	K-3	X	-0.03	-0.03	0	%100
38	K-6	X	-0.03	-0.03	0	%100
39	K-5	X	-0.03	-0.03	0	%100
40	FFTH	Z	-0.02	-0.02	0	%100
41	M17	Z	-0.02	-0.02	0	%100
42	M31	Z	-0.02	-0.02	0	%100
43	M32	Z	-0.02	-0.02	0	%100
44	M33	Z	-0.00624	-0.00624	0	%100
45	M47	Z	-0.04	-0.04	0	%100
46	M48	Z	-0.02	-0.02	0	%100
47	MP-1	Z	-0.02	-0.02	0	%100
48	MP-2	Z	-0.02	-0.02	0	%100
49	MP-3	Z	-0.02	-0.02	0	%100
50	MP-4	Z	-0.02	-0.02	0	%100
51	MP-5	Z	-0.02	-0.02	0	%100
52	MP-6	Z	-0.02	-0.02	0	%100
53	MP-7	Z	-0.02	-0.02	0	%100
54	MP-8	Z	-0.02	-0.02	0	%100
55	MP-9	Z	-0.02	-0.02	0	%100
56	MP-10	Z	-0.02	-0.02	0	%100
57	MP-11	Z	-0.02	-0.02	0	%100
58	MP-12	Z	-0.02	-0.02	0	%100
59	MP-13	Z	-0.02	-0.02	0	%100
60	MP-14	Z	-0.02	-0.02	0	%100
61	MP-15	Z	-0.02	-0.02	0	%100
62	MP-16	Z	-0.02	-0.02	0	%100
63	MP-17	Z	-0.02	-0.02	0	%100
64	MP-18	Z	-0.02	-0.02	0	%100
65	SA-1	Z	-0.02	-0.02	0	%100
66	SA-2	Z	-0.02	-0.02	0	%100
67	SA-3	Z	-0.02	-0.02	0	%100
68	SA-4	Z	-0.02	-0.02	0	%100
69	SA-5	Z	-0.02	-0.02	0	%100
70	SA-6	Z	-0.02	-0.02	0	%100
71	SF1-TH	Z	-0.00958	-0.00958	0	%100
72	SF1-V1	Z	-0.02	-0.02	0	%100
73	K-2	Z	-0.03	-0.03	0	%100
74	K-1	Z	-0.03	-0.03	0	%100
75	K-4	Z	-0.03	-0.03	0	%100
76	K-3	Z	-0.03	-0.03	0	%100
77	K-6	Z	-0.03	-0.03	0	%100
78	K-5	Z	-0.03	-0.03	0	%100

**Member Distributed Loads (BLC 22 : 60 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-0.00899	-0.00899	0	%100
2	M17	X	-0.01	-0.01	0	%100
3	M31	X	-0.01	-0.01	0	%100
4	M32	X	-0.01	-0.01	0	%100
5	M33	X	-0.00728	-0.00728	0	%100
6	M47	X	-0.02	-0.02	0	%100
7	M48	X	-0.01	-0.01	0	%100
8	MP-1	X	-0.01	-0.01	0	%100
9	MP-2	X	-0.01	-0.01	0	%100
10	MP-3	X	-0.01	-0.01	0	%100



**Member Distributed Loads (BLC 22 : 60 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
11	MP-4	X	-0.01	-0.01	0
12	MP-5	X	-0.01	-0.01	0
13	MP-6	X	-0.01	-0.01	0
14	MP-7	X	-0.01	-0.01	0
15	MP-8	X	-0.01	-0.01	0
16	MP-9	X	-0.01	-0.01	0
17	MP-10	X	-0.01	-0.01	0
18	MP-11	X	-0.01	-0.01	0
19	MP-12	X	-0.01	-0.01	0
20	MP-13	X	-0.01	-0.01	0
21	MP-14	X	-0.01	-0.01	0
22	MP-15	X	-0.01	-0.01	0
23	MP-16	X	-0.01	-0.01	0
24	MP-17	X	-0.01	-0.01	0
25	MP-18	X	-0.01	-0.01	0
26	SA-1	X	-0.01	-0.01	0
27	SA-2	X	-0.01	-0.01	0
28	SA-3	X	-0.01	-0.01	0
29	SA-4	X	-0.01	-0.01	0
30	SA-5	X	-0.01	-0.01	0
31	SA-6	X	-0.01	-0.01	0
32	SF1-TH	X	-0.01	-0.01	0
33	SF1-V1	X	-0.01	-0.01	0
34	K-2	X	-0.02	-0.02	0
35	K-1	X	-0.02	-0.02	0
36	K-4	X	-0.02	-0.02	0
37	K-3	X	-0.02	-0.02	0
38	K-6	X	-0.02	-0.02	0
39	K-5	X	-0.02	-0.02	0
40	FFTH	Z	-0.01	-0.01	0
41	M17	Z	-0.03	-0.03	0
42	M31	Z	-0.02	-0.02	0
43	M32	Z	-0.03	-0.03	0
44	M33	Z	-0.01	-0.01	0
45	M47	Z	-0.05	-0.05	0
46	M48	Z	-0.03	-0.03	0
47	MP-1	Z	-0.02	-0.02	0
48	MP-2	Z	-0.03	-0.03	0
49	MP-3	Z	-0.03	-0.03	0
50	MP-4	Z	-0.02	-0.02	0
51	MP-5	Z	-0.03	-0.03	0
52	MP-6	Z	-0.03	-0.03	0
53	MP-7	Z	-0.02	-0.02	0
54	MP-8	Z	-0.03	-0.03	0
55	MP-9	Z	-0.03	-0.03	0
56	MP-10	Z	-0.02	-0.02	0
57	MP-11	Z	-0.02	-0.02	0
58	MP-12	Z	-0.02	-0.02	0
59	MP-13	Z	-0.02	-0.02	0
60	MP-14	Z	-0.02	-0.02	0
61	MP-15	Z	-0.02	-0.02	0
62	MP-16	Z	-0.02	-0.02	0
63	MP-17	Z	-0.02	-0.02	0
64	MP-18	Z	-0.02	-0.02	0
65	SA-1	Z	-0.03	-0.03	0
66	SA-2	Z	-0.02	-0.02	0
67	SA-3	Z	-0.03	-0.03	0
68	SA-4	Z	-0.02	-0.02	0
69	SA-5	Z	-0.03	-0.03	0
70	SA-6	Z	-0.02	-0.02	0
71	SF1-TH	Z	-0.02	-0.02	0
72	SF1-V1	Z	-0.03	-0.03	0
73	K-2	Z	-0.04	-0.04	0



**Member Distributed Loads (BLC 22 : 60 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
74	K-1	Z	-0.04	-0.04	0
75	K-4	Z	-0.04	-0.04	0
76	K-3	Z	-0.04	-0.04	0
77	K-6	Z	-0.04	-0.04	0
78	K-5	Z	-0.04	-0.04	0

**Member Distributed Loads (BLC 23 : 90 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	FFTH	Z	0	0	0
2	M17	Z	-0.03	-0.03	0
3	M31	Z	0	0	0
4	M32	Z	-0.03	-0.03	0
5	M33	Z	-0.03	-0.03	0
6	M47	Z	-0.05	-0.05	0
7	M48	Z	-0.03	-0.03	0
8	MP-1	Z	-0.03	-0.03	0
9	MP-2	Z	-0.03	-0.03	0
10	MP-3	Z	-0.03	-0.03	0
11	MP-4	Z	-0.03	-0.03	0
12	MP-5	Z	-0.03	-0.03	0
13	MP-6	Z	-0.03	-0.03	0
14	MP-7	Z	-0.03	-0.03	0
15	MP-8	Z	-0.03	-0.03	0
16	MP-9	Z	-0.03	-0.03	0
17	MP-10	Z	-0.02	-0.02	0
18	MP-11	Z	-0.02	-0.02	0
19	MP-12	Z	-0.02	-0.02	0
20	MP-13	Z	-0.02	-0.02	0
21	MP-14	Z	-0.02	-0.02	0
22	MP-15	Z	-0.02	-0.02	0
23	MP-16	Z	-0.02	-0.02	0
24	MP-17	Z	-0.02	-0.02	0
25	MP-18	Z	-0.02	-0.02	0
26	SA-1	Z	-0.03	-0.03	0
27	SA-2	Z	-0.03	-0.03	0
28	SA-3	Z	-0.03	-0.03	0
29	SA-4	Z	-0.03	-0.03	0
30	SA-5	Z	-0.03	-0.03	0
31	SA-6	Z	-0.03	-0.03	0
32	SF1-TH	Z	-0.05	-0.05	0
33	SF1-V1	Z	-0.03	-0.03	0
34	K-2	Z	-0.05	-0.05	0
35	K-1	Z	-0.05	-0.05	0
36	K-4	Z	-0.05	-0.05	0
37	K-3	Z	-0.05	-0.05	0
38	K-6	Z	-0.05	-0.05	0
39	K-5	Z	-0.05	-0.05	0

**Member Distributed Loads (BLC 24 : 120 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	FFTH	X	.000899	.000899	0
2	M17	X	.000728	.000728	0
3	M31	X	.001	.001	0
4	M32	X	.001	.001	0
5	M33	X	.001	.001	0
6	M47	X	.001	.001	0
7	M48	X	.001	.001	0
8	MP-1	X	.001	.001	0
9	MP-2	X	.001	.001	0
10	MP-3	X	.001	.001	0
11	MP-4	X	.001	.001	0
12	MP-5	X	.001	.001	0



**Member Distributed Loads (BLC 24 : 120 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
13	MP-6	X	.001	.001	0	%100
14	MP-7	X	.001	.001	0	%100
15	MP-8	X	.001	.001	0	%100
16	MP-9	X	.001	.001	0	%100
17	MP-10	X	.001	.001	0	%100
18	MP-11	X	.001	.001	0	%100
19	MP-12	X	.001	.001	0	%100
20	MP-13	X	.001	.001	0	%100
21	MP-14	X	.001	.001	0	%100
22	MP-15	X	.001	.001	0	%100
23	MP-16	X	.001	.001	0	%100
24	MP-17	X	.001	.001	0	%100
25	MP-18	X	.001	.001	0	%100
26	SA-1	X	.001	.001	0	%100
27	SA-2	X	.001	.001	0	%100
28	SA-3	X	.001	.001	0	%100
29	SA-4	X	.001	.001	0	%100
30	SA-5	X	.001	.001	0	%100
31	SA-6	X	.001	.001	0	%100
32	SF1-TH	X	.002	.002	0	%100
33	SF1-V1	X	.001	.001	0	%100
34	K-2	X	.002	.002	0	%100
35	K-1	X	.002	.002	0	%100
36	K-4	X	.002	.002	0	%100
37	K-3	X	.002	.002	0	%100
38	K-6	X	.002	.002	0	%100
39	K-5	X	.002	.002	0	%100
40	FFTH	Z	-.001	-.001	0	%100
41	M17	Z	-.001	-.001	0	%100
42	M31	Z	-.002	-.002	0	%100
43	M32	Z	-.003	-.003	0	%100
44	M33	Z	-.003	-.003	0	%100
45	M47	Z	-.002	-.002	0	%100
46	M48	Z	-.003	-.003	0	%100
47	MP-1	Z	-.002	-.002	0	%100
48	MP-2	Z	-.003	-.003	0	%100
49	MP-3	Z	-.003	-.003	0	%100
50	MP-4	Z	-.002	-.002	0	%100
51	MP-5	Z	-.003	-.003	0	%100
52	MP-6	Z	-.003	-.003	0	%100
53	MP-7	Z	-.002	-.002	0	%100
54	MP-8	Z	-.003	-.003	0	%100
55	MP-9	Z	-.003	-.003	0	%100
56	MP-10	Z	-.002	-.002	0	%100
57	MP-11	Z	-.002	-.002	0	%100
58	MP-12	Z	-.002	-.002	0	%100
59	MP-13	Z	-.002	-.002	0	%100
60	MP-14	Z	-.002	-.002	0	%100
61	MP-15	Z	-.002	-.002	0	%100
62	MP-16	Z	-.002	-.002	0	%100
63	MP-17	Z	-.002	-.002	0	%100
64	MP-18	Z	-.002	-.002	0	%100
65	SA-1	Z	-.003	-.003	0	%100
66	SA-2	Z	-.002	-.002	0	%100
67	SA-3	Z	-.003	-.003	0	%100
68	SA-4	Z	-.002	-.002	0	%100
69	SA-5	Z	-.003	-.003	0	%100
70	SA-6	Z	-.002	-.002	0	%100
71	SF1-TH	Z	-.005	-.005	0	%100
72	SF1-V1	Z	-.003	-.003	0	%100
73	K-2	Z	-.004	-.004	0	%100
74	K-1	Z	-.004	-.004	0	%100
75	K-4	Z	-.004	-.004	0	%100

**Member Distributed Loads (BLC 24 : 120 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
76	K-3	Z	-.004	-.004	0	%100
77	K-6	Z	-.004	-.004	0	%100
78	K-5	Z	-.004	-.004	0	%100

**Member Distributed Loads (BLC 25 : 135 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.002	.002	0	%100
2	M17	X	.000533	.000533	0	%100
3	M31	X	.003	.003	0	%100
4	M32	X	.002	.002	0	%100
5	M33	X	.002	.002	0	%100
6	M47	X	.000877	.000877	0	%100
7	M48	X	.002	.002	0	%100
8	MP-1	X	.002	.002	0	%100
9	MP-2	X	.002	.002	0	%100
10	MP-3	X	.002	.002	0	%100
11	MP-4	X	.002	.002	0	%100
12	MP-5	X	.002	.002	0	%100
13	MP-6	X	.002	.002	0	%100
14	MP-7	X	.002	.002	0	%100
15	MP-8	X	.002	.002	0	%100
16	MP-9	X	.002	.002	0	%100
17	MP-10	X	.002	.002	0	%100
18	MP-11	X	.002	.002	0	%100
19	MP-12	X	.002	.002	0	%100
20	MP-13	X	.002	.002	0	%100
21	MP-14	X	.002	.002	0	%100
22	MP-15	X	.002	.002	0	%100
23	MP-16	X	.002	.002	0	%100
24	MP-17	X	.002	.002	0	%100
25	MP-18	X	.002	.002	0	%100
26	SA-1	X	.002	.002	0	%100
27	SA-2	X	.002	.002	0	%100
28	SA-3	X	.002	.002	0	%100
29	SA-4	X	.002	.002	0	%100
30	SA-5	X	.002	.002	0	%100
31	SA-6	X	.002	.002	0	%100
32	SF1-TH	X	.003	.003	0	%100
33	SF1-V1	X	.002	.002	0	%100
34	K-2	X	.003	.003	0	%100
35	K-1	X	.003	.003	0	%100
36	K-4	X	.003	.003	0	%100
37	K-3	X	.003	.003	0	%100
38	K-6	X	.003	.003	0	%100
39	K-5	X	.003	.003	0	%100
40	FFTH	Z	-.002	-.002	0	%100
41	M17	Z	-.000624	-.000624	0	%100
42	M31	Z	-.002	-.002	0	%100
43	M32	Z	-.002	-.002	0	%100
44	M33	Z	-.002	-.002	0	%100
45	M47	Z	-.000958	-.000958	0	%100
46	M48	Z	-.002	-.002	0	%100
47	MP-1	Z	-.002	-.002	0	%100
48	MP-2	Z	-.002	-.002	0	%100
49	MP-3	Z	-.002	-.002	0	%100
50	MP-4	Z	-.002	-.002	0	%100
51	MP-5	Z	-.002	-.002	0	%100
52	MP-6	Z	-.002	-.002	0	%100
53	MP-7	Z	-.002	-.002	0	%100
54	MP-8	Z	-.002	-.002	0	%100
55	MP-9	Z	-.002	-.002	0	%100
56	MP-10	Z	-.002	-.002	0	%100

**Member Distributed Loads (BLC 25 : 135 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
57	MP-11	Z	-0.02	-0.02	0	%100
58	MP-12	Z	-0.02	-0.02	0	%100
59	MP-13	Z	-0.02	-0.02	0	%100
60	MP-14	Z	-0.02	-0.02	0	%100
61	MP-15	Z	-0.02	-0.02	0	%100
62	MP-16	Z	-0.02	-0.02	0	%100
63	MP-17	Z	-0.02	-0.02	0	%100
64	MP-18	Z	-0.02	-0.02	0	%100
65	SA-1	Z	-0.02	-0.02	0	%100
66	SA-2	Z	-0.02	-0.02	0	%100
67	SA-3	Z	-0.02	-0.02	0	%100
68	SA-4	Z	-0.02	-0.02	0	%100
69	SA-5	Z	-0.02	-0.02	0	%100
70	SA-6	Z	-0.02	-0.02	0	%100
71	SF1-TH	Z	-0.04	-0.04	0	%100
72	SF1-V1	Z	-0.02	-0.02	0	%100
73	K-2	Z	-0.03	-0.03	0	%100
74	K-1	Z	-0.03	-0.03	0	%100
75	K-4	Z	-0.03	-0.03	0	%100
76	K-3	Z	-0.03	-0.03	0	%100
77	K-6	Z	-0.03	-0.03	0	%100
78	K-5	Z	-0.03	-0.03	0	%100

**Member Distributed Loads (BLC 26 : 150 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.003	.003	0	%100
2	M17	X	0	0	0	%100
3	M31	X	.004	.004	0	%100
4	M32	X	.002	.002	0	%100
5	M33	X	.002	.002	0	%100
6	M47	X	0	0	0	%100
7	M48	X	.002	.002	0	%100
8	MP-1	X	.002	.002	0	%100
9	MP-2	X	.002	.002	0	%100
10	MP-3	X	.002	.002	0	%100
11	MP-4	X	.002	.002	0	%100
12	MP-5	X	.002	.002	0	%100
13	MP-6	X	.002	.002	0	%100
14	MP-7	X	.002	.002	0	%100
15	MP-8	X	.002	.002	0	%100
16	MP-9	X	.002	.002	0	%100
17	MP-10	X	.002	.002	0	%100
18	MP-11	X	.002	.002	0	%100
19	MP-12	X	.002	.002	0	%100
20	MP-13	X	.002	.002	0	%100
21	MP-14	X	.002	.002	0	%100
22	MP-15	X	.002	.002	0	%100
23	MP-16	X	.002	.002	0	%100
24	MP-17	X	.002	.002	0	%100
25	MP-18	X	.002	.002	0	%100
26	SA-1	X	.002	.002	0	%100
27	SA-2	X	.002	.002	0	%100
28	SA-3	X	.002	.002	0	%100
29	SA-4	X	.002	.002	0	%100
30	SA-5	X	.002	.002	0	%100
31	SA-6	X	.002	.002	0	%100
32	SF1-TH	X	.004	.004	0	%100
33	SF1-V1	X	.002	.002	0	%100
34	K-2	X	.004	.004	0	%100
35	K-1	X	.004	.004	0	%100
36	K-4	X	.004	.004	0	%100
37	K-3	X	.004	.004	0	%100

**Member Distributed Loads (BLC 26 : 150 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
38	K-6	X	.004	.004	0	%100
39	K-5	X	.004	.004	0	%100
40	FFTH	Z	-0.001	-0.001	0	%100
41	M17	Z	0	0	0	%100
42	M31	Z	-0.002	-0.002	0	%100
43	M32	Z	-0.002	-0.002	0	%100
44	M33	Z	-0.001	-0.001	0	%100
45	M47	Z	0	0	0	%100
46	M48	Z	-0.002	-0.002	0	%100
47	MP-1	Z	-0.001	-0.001	0	%100
48	MP-2	Z	-0.002	-0.002	0	%100
49	MP-3	Z	-0.001	-0.001	0	%100
50	MP-4	Z	-0.001	-0.001	0	%100
51	MP-5	Z	-0.002	-0.002	0	%100
52	MP-6	Z	-0.001	-0.001	0	%100
53	MP-7	Z	-0.001	-0.001	0	%100
54	MP-8	Z	-0.002	-0.002	0	%100
55	MP-9	Z	-0.001	-0.001	0	%100
56	MP-10	Z	-0.001	-0.001	0	%100
57	MP-11	Z	-0.001	-0.001	0	%100
58	MP-12	Z	-0.001	-0.001	0	%100
59	MP-13	Z	-0.001	-0.001	0	%100
60	MP-14	Z	-0.001	-0.001	0	%100
61	MP-15	Z	-0.001	-0.001	0	%100
62	MP-16	Z	-0.001	-0.001	0	%100
63	MP-17	Z	-0.001	-0.001	0	%100
64	MP-18	Z	-0.001	-0.001	0	%100
65	SA-1	Z	-0.002	-0.002	0	%100
66	SA-2	Z	-0.001	-0.001	0	%100
67	SA-3	Z	-0.002	-0.002	0	%100
68	SA-4	Z	-0.001	-0.001	0	%100
69	SA-5	Z	-0.002	-0.002	0	%100
70	SA-6	Z	-0.001	-0.001	0	%100
71	SF1-TH	Z	-0.002	-0.002	0	%100
72	SF1-V1	Z	-0.002	-0.002	0	%100
73	K-2	Z	-0.002	-0.002	0	%100
74	K-1	Z	-0.002	-0.002	0	%100
75	K-4	Z	-0.002	-0.002	0	%100
76	K-3	Z	-0.002	-0.002	0	%100
77	K-6	Z	-0.002	-0.002	0	%100
78	K-5	Z	-0.002	-0.002	0	%100

**Member Distributed Loads (BLC 27 : 180 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.004	.004	0	%100
2	M17	X	.003	.003	0	%100
3	M31	X	.005	.005	0	%100
4	M32	X	.003	.003	0	%100
5	M33	X	.003	.003	0	%100
6	M47	X	.005	.005	0	%100
7	M48	X	.003	.003	0	%100
8	MP-1	X	.003	.003	0	%100
9	MP-2	X	.003	.003	0	%100
10	MP-3	X	.003	.003	0	%100
11	MP-4	X	.003	.003	0	%100
12	MP-5	X	.003	.003	0	%100
13	MP-6	X	.003	.003	0	%100
14	MP-7	X	.003	.003	0	%100
15	MP-8	X	.003	.003	0	%100
16	MP-9	X	.003	.003	0	%100
17	MP-10	X	.002	.002	0	%100
18	MP-11	X	.002	.002	0	%100





**Member Distributed Loads (BLC 27 : 180 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
19	MP-12	X	.002	.002	0	%100
20	MP-13	X	.002	.002	0	%100
21	MP-14	X	.002	.002	0	%100
22	MP-15	X	.002	.002	0	%100
23	MP-16	X	.002	.002	0	%100
24	MP-17	X	.002	.002	0	%100
25	MP-18	X	.002	.002	0	%100
26	SA-1	X	.003	.003	0	%100
27	SA-2	X	.003	.003	0	%100
28	SA-3	X	.003	.003	0	%100
29	SA-4	X	.003	.003	0	%100
30	SA-5	X	.003	.003	0	%100
31	SA-6	X	.003	.003	0	%100
32	SF1-TH	X	.005	.005	0	%100
33	SF1-V1	X	.003	.003	0	%100
34	K-2	X	.004	.004	0	%100
35	K-1	X	.004	.004	0	%100
36	K-4	X	.004	.004	0	%100
37	K-3	X	.004	.004	0	%100
38	K-6	X	.004	.004	0	%100
39	K-5	X	.004	.004	0	%100

**Member Distributed Loads (BLC 28 : 210 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.003	.003	0	%100
2	M17	X	.002	.002	0	%100
3	M31	X	.004	.004	0	%100
4	M32	X	.002	.002	0	%100
5	M33	X	0	0	0	%100
6	M47	X	.004	.004	0	%100
7	M48	X	.002	.002	0	%100
8	MP-1	X	.002	.002	0	%100
9	MP-2	X	.002	.002	0	%100
10	MP-3	X	.002	.002	0	%100
11	MP-4	X	.002	.002	0	%100
12	MP-5	X	.002	.002	0	%100
13	MP-6	X	.002	.002	0	%100
14	MP-7	X	.002	.002	0	%100
15	MP-8	X	.002	.002	0	%100
16	MP-9	X	.002	.002	0	%100
17	MP-10	X	.002	.002	0	%100
18	MP-11	X	.002	.002	0	%100
19	MP-12	X	.002	.002	0	%100
20	MP-13	X	.002	.002	0	%100
21	MP-14	X	.002	.002	0	%100
22	MP-15	X	.002	.002	0	%100
23	MP-16	X	.002	.002	0	%100
24	MP-17	X	.002	.002	0	%100
25	MP-18	X	.002	.002	0	%100
26	SA-1	X	.002	.002	0	%100
27	SA-2	X	.002	.002	0	%100
28	SA-3	X	.002	.002	0	%100
29	SA-4	X	.002	.002	0	%100
30	SA-5	X	.002	.002	0	%100
31	SA-6	X	.002	.002	0	%100
32	SF1-TH	X	0	0	0	%100
33	SF1-V1	X	.002	.002	0	%100
34	K-2	X	.004	.004	0	%100
35	K-1	X	.004	.004	0	%100
36	K-4	X	.004	.004	0	%100
37	K-3	X	.004	.004	0	%100
38	K-6	X	.004	.004	0	%100



**Member Distributed Loads (BLC 28 : 210 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
39	K-5	X	.004	.004	0	%100
40	FFTH	Z	.001	.001	0	%100
41	M17	Z	.001	.001	0	%100
42	M31	Z	.002	.002	0	%100
43	M32	Z	.002	.002	0	%100
44	M33	Z	0	0	0	%100
45	M47	Z	.002	.002	0	%100
46	M48	Z	.002	.002	0	%100
47	MP-1	Z	.001	.001	0	%100
48	MP-2	Z	.002	.002	0	%100
49	MP-3	Z	.001	.001	0	%100
50	MP-4	Z	.001	.001	0	%100
51	MP-5	Z	.002	.002	0	%100
52	MP-6	Z	.001	.001	0	%100
53	MP-7	Z	.001	.001	0	%100
54	MP-8	Z	.002	.002	0	%100
55	MP-9	Z	.001	.001	0	%100
56	MP-10	Z	.001	.001	0	%100
57	MP-11	Z	.001	.001	0	%100
58	MP-12	Z	.001	.001	0	%100
59	MP-13	Z	.001	.001	0	%100
60	MP-14	Z	.001	.001	0	%100
61	MP-15	Z	.001	.001	0	%100
62	MP-16	Z	.001	.001	0	%100
63	MP-17	Z	.001	.001	0	%100
64	MP-18	Z	.001	.001	0	%100
65	SA-1	Z	.002	.002	0	%100
66	SA-2	Z	.001	.001	0	%100
67	SA-3	Z	.002	.002	0	%100
68	SA-4	Z	.001	.001	0	%100
69	SA-5	Z	.002	.002	0	%100
70	SA-6	Z	.001	.001	0	%100
71	SF1-TH	Z	0	0	0	%100
72	SF1-V1	Z	.002	.002	0	%100
73	K-2	Z	.002	.002	0	%100
74	K-1	Z	.002	.002	0	%100
75	K-4	Z	.002	.002	0	%100
76	K-3	Z	.002	.002	0	%100
77	K-6	Z	.002	.002	0	%100
78	K-5	Z	.002	.002	0	%100

**Member Distributed Loads (BLC 29 : 225 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	.002	.002	0	%100
2	M17	X	.002	.002	0	%100
3	M31	X	.003	.003	0	%100
4	M32	X	.002	.002	0	%100
5	M33	X	.000533	.000533	0	%100
6	M47	X	.003	.003	0	%100
7	M48	X	.002	.002	0	%100
8	MP-1	X	.002	.002	0	%100
9	MP-2	X	.002	.002	0	%100
10	MP-3	X	.002	.002	0	%100
11	MP-4	X	.002	.002	0	%100
12	MP-5	X	.002	.002	0	%100
13	MP-6	X	.002	.002	0	%100
14	MP-7	X	.002	.002	0	%100
15	MP-8	X	.002	.002	0	%100
16	MP-9	X	.002	.002	0	%100
17	MP-10	X	.002	.002	0	%100
18	MP-11	X	.002	.002	0	%100
19	MP-12	X	.002	.002	0	%100

**Member Distributed Loads (BLC 29 : 225 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
20	MP-13	X	.002	.002	0 %100
21	MP-14	X	.002	.002	0 %100
22	MP-15	X	.002	.002	0 %100
23	MP-16	X	.002	.002	0 %100
24	MP-17	X	.002	.002	0 %100
25	MP-18	X	.002	.002	0 %100
26	SA-1	X	.002	.002	0 %100
27	SA-2	X	.002	.002	0 %100
28	SA-3	X	.002	.002	0 %100
29	SA-4	X	.002	.002	0 %100
30	SA-5	X	.002	.002	0 %100
31	SA-6	X	.002	.002	0 %100
32	SF1-TH	X	.000877	.000877	0 %100
33	SF1-V1	X	.002	.002	0 %100
34	K-2	X	.003	.003	0 %100
35	K-1	X	.003	.003	0 %100
36	K-4	X	.003	.003	0 %100
37	K-3	X	.003	.003	0 %100
38	K-6	X	.003	.003	0 %100
39	K-5	X	.003	.003	0 %100
40	FFTH	Z	.002	.002	0 %100
41	M17	Z	.002	.002	0 %100
42	M31	Z	.002	.002	0 %100
43	M32	Z	.002	.002	0 %100
44	M33	Z	.000624	.000624	0 %100
45	M47	Z	.004	.004	0 %100
46	M48	Z	.002	.002	0 %100
47	MP-1	Z	.002	.002	0 %100
48	MP-2	Z	.002	.002	0 %100
49	MP-3	Z	.002	.002	0 %100
50	MP-4	Z	.002	.002	0 %100
51	MP-5	Z	.002	.002	0 %100
52	MP-6	Z	.002	.002	0 %100
53	MP-7	Z	.002	.002	0 %100
54	MP-8	Z	.002	.002	0 %100
55	MP-9	Z	.002	.002	0 %100
56	MP-10	Z	.002	.002	0 %100
57	MP-11	Z	.002	.002	0 %100
58	MP-12	Z	.002	.002	0 %100
59	MP-13	Z	.002	.002	0 %100
60	MP-14	Z	.002	.002	0 %100
61	MP-15	Z	.002	.002	0 %100
62	MP-16	Z	.002	.002	0 %100
63	MP-17	Z	.002	.002	0 %100
64	MP-18	Z	.002	.002	0 %100
65	SA-1	Z	.002	.002	0 %100
66	SA-2	Z	.002	.002	0 %100
67	SA-3	Z	.002	.002	0 %100
68	SA-4	Z	.002	.002	0 %100
69	SA-5	Z	.002	.002	0 %100
70	SA-6	Z	.002	.002	0 %100
71	SF1-TH	Z	.000958	.000958	0 %100
72	SF1-V1	Z	.002	.002	0 %100
73	K-2	Z	.003	.003	0 %100
74	K-1	Z	.003	.003	0 %100
75	K-4	Z	.003	.003	0 %100
76	K-3	Z	.003	.003	0 %100
77	K-6	Z	.003	.003	0 %100
78	K-5	Z	.003	.003	0 %100

**Member Distributed Loads (BLC 30 : 240 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
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**Member Distributed Loads (BLC 30 : 240 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	FFTH	X	.000899	.000899	0 %100
2	M17	X	.001	.001	0 %100
3	M31	X	.001	.001	0 %100
4	M32	X	.001	.001	0 %100
5	M33	X	.000728	.000728	0 %100
6	M47	X	.002	.002	0 %100
7	M48	X	.001	.001	0 %100
8	MP-1	X	.001	.001	0 %100
9	MP-2	X	.001	.001	0 %100
10	MP-3	X	.001	.001	0 %100
11	MP-4	X	.001	.001	0 %100
12	MP-5	X	.001	.001	0 %100
13	MP-6	X	.001	.001	0 %100
14	MP-7	X	.001	.001	0 %100
15	MP-8	X	.001	.001	0 %100
16	MP-9	X	.001	.001	0 %100
17	MP-10	X	.001	.001	0 %100
18	MP-11	X	.001	.001	0 %100
19	MP-12	X	.001	.001	0 %100
20	MP-13	X	.001	.001	0 %100
21	MP-14	X	.001	.001	0 %100
22	MP-15	X	.001	.001	0 %100
23	MP-16	X	.001	.001	0 %100
24	MP-17	X	.001	.001	0 %100
25	MP-18	X	.001	.001	0 %100
26	SA-1	X	.001	.001	0 %100
27	SA-2	X	.001	.001	0 %100
28	SA-3	X	.001	.001	0 %100
29	SA-4	X	.001	.001	0 %100
30	SA-5	X	.001	.001	0 %100
31	SA-6	X	.001	.001	0 %100
32	SF1-TH	X	.001	.001	0 %100
33	SF1-V1	X	.001	.001	0 %100
34	K-2	X	.002	.002	0 %100
35	K-1	X	.002	.002	0 %100
36	K-4	X	.002	.002	0 %100
37	K-3	X	.002	.002	0 %100
38	K-6	X	.002	.002	0 %100
39	K-5	X	.002	.002	0 %100
40	FFTH	Z	.001	.001	0 %100
41	M17	Z	.003	.003	0 %100
42	M31	Z	.002	.002	0 %100
43	M32	Z	.003	.003	0 %100
44	M33	Z	.001	.001	0 %100
45	M47	Z	.005	.005	0 %100
46	M48	Z	.003	.003	0 %100
47	MP-1	Z	.002	.002	0 %100
48	MP-2	Z	.003	.003	0 %100
49	MP-3	Z	.003	.003	0 %100
50	MP-4	Z	.002	.002	0 %100
51	MP-5	Z	.003	.003	0 %100
52	MP-6	Z	.003	.003	0 %100
53	MP-7	Z	.002	.002	0 %100
54	MP-8	Z	.003	.003	0 %100
55	MP-9	Z	.003	.003	0 %100
56	MP-10	Z	.002	.002	0 %100
57	MP-11	Z	.002	.002	0 %100
58	MP-12	Z	.002	.002	0 %100
59	MP-13	Z	.002	.002	0 %100
60	MP-14	Z	.002	.002	0 %100
61	MP-15	Z	.002	.002	0 %100
62	MP-16	Z	.002	.002	0 %100
63	MP-17	Z	.002	.002	0 %100

**Member Distributed Loads (BLC 30 : 240 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]	
64	MP-18	Z	.002	.002	0	%100
65	SA-1	Z	.003	.003	0	%100
66	SA-2	Z	.002	.002	0	%100
67	SA-3	Z	.003	.003	0	%100
68	SA-4	Z	.002	.002	0	%100
69	SA-5	Z	.003	.003	0	%100
70	SA-6	Z	.002	.002	0	%100
71	SF1-TH	Z	.002	.002	0	%100
72	SF1-V1	Z	.003	.003	0	%100
73	K-2	Z	.004	.004	0	%100
74	K-1	Z	.004	.004	0	%100
75	K-4	Z	.004	.004	0	%100
76	K-3	Z	.004	.004	0	%100
77	K-6	Z	.004	.004	0	%100
78	K-5	Z	.004	.004	0	%100

**Member Distributed Loads (BLC 31 : 270 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]	
1	FFTH	Z	0	0	0	%100
2	M17	Z	.003	.003	0	%100
3	M31	Z	0	0	0	%100
4	M32	Z	.003	.003	0	%100
5	M33	Z	.003	.003	0	%100
6	M47	Z	.005	.005	0	%100
7	M48	Z	.003	.003	0	%100
8	MP-1	Z	.003	.003	0	%100
9	MP-2	Z	.003	.003	0	%100
10	MP-3	Z	.003	.003	0	%100
11	MP-4	Z	.003	.003	0	%100
12	MP-5	Z	.003	.003	0	%100
13	MP-6	Z	.003	.003	0	%100
14	MP-7	Z	.003	.003	0	%100
15	MP-8	Z	.003	.003	0	%100
16	MP-9	Z	.003	.003	0	%100
17	MP-10	Z	.002	.002	0	%100
18	MP-11	Z	.002	.002	0	%100
19	MP-12	Z	.002	.002	0	%100
20	MP-13	Z	.002	.002	0	%100
21	MP-14	Z	.002	.002	0	%100
22	MP-15	Z	.002	.002	0	%100
23	MP-16	Z	.002	.002	0	%100
24	MP-17	Z	.002	.002	0	%100
25	MP-18	Z	.002	.002	0	%100
26	SA-1	Z	.003	.003	0	%100
27	SA-2	Z	.003	.003	0	%100
28	SA-3	Z	.003	.003	0	%100
29	SA-4	Z	.003	.003	0	%100
30	SA-5	Z	.003	.003	0	%100
31	SA-6	Z	.003	.003	0	%100
32	SF1-TH	Z	.005	.005	0	%100
33	SF1-V1	Z	.003	.003	0	%100
34	K-2	Z	.005	.005	0	%100
35	K-1	Z	.005	.005	0	%100
36	K-4	Z	.005	.005	0	%100
37	K-3	Z	.005	.005	0	%100
38	K-6	Z	.005	.005	0	%100
39	K-5	Z	.005	.005	0	%100

**Member Distributed Loads (BLC 32 : 300 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]	
1	FFTH	X	-.000899	-.000899	0	%100
2	M17	X	-.000728	-.000728	0	%100

**Member Distributed Loads (BLC 32 : 300 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft,%]	End Location[ft,%]	
3	M31	X	-.001	-.001	0	%100
4	M32	X	-.001	-.001	0	%100
5	M33	X	-.001	-.001	0	%100
6	M47	X	-.001	-.001	0	%100
7	M48	X	-.001	-.001	0	%100
8	MP-1	X	-.001	-.001	0	%100
9	MP-2	X	-.001	-.001	0	%100
10	MP-3	X	-.001	-.001	0	%100
11	MP-4	X	-.001	-.001	0	%100
12	MP-5	X	-.001	-.001	0	%100
13	MP-6	X	-.001	-.001	0	%100
14	MP-7	X	-.001	-.001	0	%100
15	MP-8	X	-.001	-.001	0	%100
16	MP-9	X	-.001	-.001	0	%100
17	MP-10	X	-.001	-.001	0	%100
18	MP-11	X	-.001	-.001	0	%100
19	MP-12	X	-.001	-.001	0	%100
20	MP-13	X	-.001	-.001	0	%100
21	MP-14	X	-.001	-.001	0	%100
22	MP-15	X	-.001	-.001	0	%100
23	MP-16	X	-.001	-.001	0	%100
24	MP-17	X	-.001	-.001	0	%100
25	MP-18	X	-.001	-.001	0	%100
26	SA-1	X	-.001	-.001	0	%100
27	SA-2	X	-.001	-.001	0	%100
28	SA-3	X	-.001	-.001	0	%100
29	SA-4	X	-.001	-.001	0	%100
30	SA-5	X	-.001	-.001	0	%100
31	SA-6	X	-.001	-.001	0	%100
32	SF1-TH	X	-.002	-.002	0	%100
33	SF1-V1	X	-.001	-.001	0	%100
34	K-2	X	-.002	-.002	0	%100
35	K-1	X	-.002	-.002	0	%100
36	K-4	X	-.002	-.002	0	%100
37	K-3	X	-.002	-.002	0	%100
38	K-6	X	-.002	-.002	0	%100
39	K-5	X	-.002	-.002	0	%100
40	FFTH	Z	.001	.001	0	%100
41	M17	Z	.001	.001	0	%100
42	M31	Z	.002	.002	0	%100
43	M32	Z	.003	.003	0	%100
44	M33	Z	.003	.003	0	%100
45	M47	Z	.002	.002	0	%100
46	M48	Z	.003	.003	0	%100
47	MP-1	Z	.002	.002	0	%100
48	MP-2	Z	.003	.003	0	%100
49	MP-3	Z	.003	.003	0	%100
50	MP-4	Z	.002	.002	0	%100
51	MP-5	Z	.003	.003	0	%100
52	MP-6	Z	.003	.003	0	%100
53	MP-7	Z	.002	.002	0	%100
54	MP-8	Z	.003	.003	0	%100
55	MP-9	Z	.003	.003	0	%100
56	MP-10	Z	.002	.002	0	%100
57	MP-11	Z	.002	.002	0	%100
58	MP-12	Z	.002	.002	0	%100
59	MP-13	Z	.002	.002	0	%100
60	MP-14	Z	.002	.002	0	%100
61	MP-15	Z	.002	.002	0	%100
62	MP-16	Z	.002	.002	0	%100
63	MP-17	Z	.002	.002	0	%100
64	MP-18	Z	.002	.002	0	%100
65	SA-1	Z	.003	.003	0	%100

**Member Distributed Loads (BLC 32 : 300 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
66	SA-2	Z	.002	.002	0	%100
67	SA-3	Z	.003	.003	0	%100
68	SA-4	Z	.002	.002	0	%100
69	SA-5	Z	.003	.003	0	%100
70	SA-6	Z	.002	.002	0	%100
71	SF1-TH	Z	.005	.005	0	%100
72	SF1-V1	Z	.003	.003	0	%100
73	K-2	Z	.004	.004	0	%100
74	K-1	Z	.004	.004	0	%100
75	K-4	Z	.004	.004	0	%100
76	K-3	Z	.004	.004	0	%100
77	K-6	Z	.004	.004	0	%100
78	K-5	Z	.004	.004	0	%100

**Member Distributed Loads (BLC 33 : 315 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-.002	-.002	0	%100
2	M17	X	-.000533	-.000533	0	%100
3	M31	X	-.003	-.003	0	%100
4	M32	X	-.002	-.002	0	%100
5	M33	X	-.002	-.002	0	%100
6	M47	X	-.000877	-.000877	0	%100
7	M48	X	-.002	-.002	0	%100
8	MP-1	X	-.002	-.002	0	%100
9	MP-2	X	-.002	-.002	0	%100
10	MP-3	X	-.002	-.002	0	%100
11	MP-4	X	-.002	-.002	0	%100
12	MP-5	X	-.002	-.002	0	%100
13	MP-6	X	-.002	-.002	0	%100
14	MP-7	X	-.002	-.002	0	%100
15	MP-8	X	-.002	-.002	0	%100
16	MP-9	X	-.002	-.002	0	%100
17	MP-10	X	-.002	-.002	0	%100
18	MP-11	X	-.002	-.002	0	%100
19	MP-12	X	-.002	-.002	0	%100
20	MP-13	X	-.002	-.002	0	%100
21	MP-14	X	-.002	-.002	0	%100
22	MP-15	X	-.002	-.002	0	%100
23	MP-16	X	-.002	-.002	0	%100
24	MP-17	X	-.002	-.002	0	%100
25	MP-18	X	-.002	-.002	0	%100
26	SA-1	X	-.002	-.002	0	%100
27	SA-2	X	-.002	-.002	0	%100
28	SA-3	X	-.002	-.002	0	%100
29	SA-4	X	-.002	-.002	0	%100
30	SA-5	X	-.002	-.002	0	%100
31	SA-6	X	-.002	-.002	0	%100
32	SF1-TH	X	-.003	-.003	0	%100
33	SF1-V1	X	-.002	-.002	0	%100
34	K-2	X	-.003	-.003	0	%100
35	K-1	X	-.003	-.003	0	%100
36	K-4	X	-.003	-.003	0	%100
37	K-3	X	-.003	-.003	0	%100
38	K-6	X	-.003	-.003	0	%100
39	K-5	X	-.003	-.003	0	%100
40	FFTH	Z	.002	.002	0	%100
41	M17	Z	.000624	.000624	0	%100
42	M31	Z	.002	.002	0	%100
43	M32	Z	.002	.002	0	%100
44	M33	Z	.002	.002	0	%100
45	M47	Z	.000958	.000958	0	%100
46	M48	Z	.002	.002	0	%100

**Member Distributed Loads (BLC 33 : 315 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
47	MP-1	Z	.002	.002	0	%100
48	MP-2	Z	.002	.002	0	%100
49	MP-3	Z	.002	.002	0	%100
50	MP-4	Z	.002	.002	0	%100
51	MP-5	Z	.002	.002	0	%100
52	MP-6	Z	.002	.002	0	%100
53	MP-7	Z	.002	.002	0	%100
54	MP-8	Z	.002	.002	0	%100
55	MP-9	Z	.002	.002	0	%100
56	MP-10	Z	.002	.002	0	%100
57	MP-11	Z	.002	.002	0	%100
58	MP-12	Z	.002	.002	0	%100
59	MP-13	Z	.002	.002	0	%100
60	MP-14	Z	.002	.002	0	%100
61	MP-15	Z	.002	.002	0	%100
62	MP-16	Z	.002	.002	0	%100
63	MP-17	Z	.002	.002	0	%100
64	MP-18	Z	.002	.002	0	%100
65	SA-1	Z	.002	.002	0	%100
66	SA-2	Z	.002	.002	0	%100
67	SA-3	Z	.002	.002	0	%100
68	SA-4	Z	.002	.002	0	%100
69	SA-5	Z	.002	.002	0	%100
70	SA-6	Z	.002	.002	0	%100
71	SF1-TH	Z	.004	.004	0	%100
72	SF1-V1	Z	.002	.002	0	%100
73	K-2	Z	.003	.003	0	%100
74	K-1	Z	.003	.003	0	%100
75	K-4	Z	.003	.003	0	%100
76	K-3	Z	.003	.003	0	%100
77	K-6	Z	.003	.003	0	%100
78	K-5	Z	.003	.003	0	%100

**Member Distributed Loads (BLC 34 : 330 Wind - Ice)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]	
1	FFTH	X	-.003	-.003	0	%100
2	M17	X	0	0	0	%100
3	M31	X	-.004	-.004	0	%100
4	M32	X	-.002	-.002	0	%100
5	M33	X	-.002	-.002	0	%100
6	M47	X	0	0	0	%100
7	M48	X	-.002	-.002	0	%100
8	MP-1	X	-.002	-.002	0	%100
9	MP-2	X	-.002	-.002	0	%100
10	MP-3	X	-.002	-.002	0	%100
11	MP-4	X	-.002	-.002	0	%100
12	MP-5	X	-.002	-.002	0	%100
13	MP-6	X	-.002	-.002	0	%100
14	MP-7	X	-.002	-.002	0	%100
15	MP-8	X	-.002	-.002	0	%100
16	MP-9	X	-.002	-.002	0	%100
17	MP-10	X	-.002	-.002	0	%100
18	MP-11	X	-.002	-.002	0	%100
19	MP-12	X	-.002	-.002	0	%100
20	MP-13	X	-.002	-.002	0	%100
21	MP-14	X	-.002	-.002	0	%100
22	MP-15	X	-.002	-.002	0	%100
23	MP-16	X	-.002	-.002	0	%100
24	MP-17	X	-.002	-.002	0	%100
25	MP-18	X	-.002	-.002	0	%100
26	SA-1	X	-.002	-.002	0	%100
27	SA-2	X	-.002	-.002	0	%100



**Member Distributed Loads (BLC 34 : 330 Wind - Ice) (Continued)**

Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F...	Start Location[ft, %]	End Location[ft, %]
28 SA-3	X	-0.02	-0.02	0	%100
29 SA-4	X	-0.02	-0.02	0	%100
30 SA-5	X	-0.02	-0.02	0	%100
31 SA-6	X	-0.02	-0.02	0	%100
32 SF1-TH	X	-0.04	-0.04	0	%100
33 SF1-V1	X	-0.02	-0.02	0	%100
34 K-2	X	-0.04	-0.04	0	%100
35 K-1	X	-0.04	-0.04	0	%100
36 K-4	X	-0.04	-0.04	0	%100
37 K-3	X	-0.04	-0.04	0	%100
38 K-6	X	-0.04	-0.04	0	%100
39 K-5	X	-0.04	-0.04	0	%100
40 FFTH	Z	.001	.001	0	%100
41 M17	Z	0	0	0	%100
42 M31	Z	.002	.002	0	%100
43 M32	Z	.002	.002	0	%100
44 M33	Z	.001	.001	0	%100
45 M47	Z	0	0	0	%100
46 M48	Z	.002	.002	0	%100
47 MP-1	Z	.001	.001	0	%100
48 MP-2	Z	.002	.002	0	%100
49 MP-3	Z	.001	.001	0	%100
50 MP-4	Z	.001	.001	0	%100
51 MP-5	Z	.002	.002	0	%100
52 MP-6	Z	.001	.001	0	%100
53 MP-7	Z	.001	.001	0	%100
54 MP-8	Z	.002	.002	0	%100
55 MP-9	Z	.001	.001	0	%100
56 MP-10	Z	.001	.001	0	%100
57 MP-11	Z	.001	.001	0	%100
58 MP-12	Z	.001	.001	0	%100
59 MP-13	Z	.001	.001	0	%100
60 MP-14	Z	.001	.001	0	%100
61 MP-15	Z	.001	.001	0	%100
62 MP-16	Z	.001	.001	0	%100
63 MP-17	Z	.001	.001	0	%100
64 MP-18	Z	.001	.001	0	%100
65 SA-1	Z	.002	.002	0	%100
66 SA-2	Z	.001	.001	0	%100
67 SA-3	Z	.002	.002	0	%100
68 SA-4	Z	.001	.001	0	%100
69 SA-5	Z	.002	.002	0	%100
70 SA-6	Z	.001	.001	0	%100
71 SF1-TH	Z	.002	.002	0	%100
72 SF1-V1	Z	.002	.002	0	%100
73 K-2	Z	.002	.002	0	%100
74 K-1	Z	.002	.002	0	%100
75 K-4	Z	.002	.002	0	%100
76 K-3	Z	.002	.002	0	%100
77 K-6	Z	.002	.002	0	%100
78 K-5	Z	.002	.002	0	%100

**Member Area Loads**

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[k/ksf]
No Data to Print ...						

**Envelope Joint Reactions**

Joint	X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1 SA1	max	1.555	3	.196	23	1.966	5	.713	56	3.505	15	1.097	24
2	min	-1.924	27	-.135	15	-2.273	29	-.437	15	-3.552	23	-.709	16



**Envelope Joint Reactions (Continued)**

Joint	X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
3 SA2	max	1.507	2	.204	18	2.636	22	.741	19	3.509	10	.713	10
4	min	-1.59	26	-.128	10	-2.165	14	-.407	11	-3.559	18	-.933	18
5 SA3	max	2.726	18	.205	29	1.269	6	.791	6	3.512	5	.169	9
6	min	-2.274	10	-.129	5	-1.437	30	-1.152	29	-3.56	29	-.418	34
7 N94	max	4.026	43	3.231	43	.977	39	0	56	0	56	0	8
8	min	.829	3	.611	2	-1.088	64	0	31	0	31	0	32
9 N97	max	-.357	6	3.238	34	3.115	34	0	21	0	12	0	11
10	min	-2.825	45	.601	8	.493	10	0	13	0	20	0	19
11 N98	max	-.032	16	3.23	37	-.747	12	0	5	0	2	.001	26
12	min	-1.347	42	.611	13	-3.935	35	0	29	0	26	0	2
13 Totals:	max	5.968	18	9.777	36	5.94	6						
14	min	-5.968	10	2.475	93	-5.94	30						

**Envelope AISC 15th(360-16): LRFD Steel Code Checks**

Member	Shape	Code Check	Loc[ft]	LC	Shear...	Loc[ft]	Dir	LC	Pn[...]	Pnc...	Pnt...	Mn...	Mn...	Cb	Eqn
1 MP-5	PIPE 2.0	.736	5	31	.041	5	31	8.922	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
2 MP-2	PIPE 2.0	.736	5	26	.041	5	26	8.922	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
3 MP-8	PIPE 2.0	.736	5	21	.041	5	21	8.922	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
4 MP-10	PIPE 2.0	.708	1.75	20	.183	1.75	20	27.327	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
5 MP-16	PIPE 2.0	.697	1.75	30	.181	1.75	30	27.327	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
6 MP-13	PIPE 2.0	.697	1.75	25	.183	1.75	41	27.327	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
7 MP-6	PIPE 2.0	.644	4	31	.042	4	31	13.788	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
8 MP-3	PIPE 2.0	.644	4	26	.042	4	26	13.788	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
9 MP-9	PIPE 2.0	.644	4	21	.042	4	21	13.788	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
10 M33	PIPE 3.0	.476	8.313	42	.147	8.422	45	51.78	65.205	5.749	5.749	5.749	5.749	5.749	1..H1-1b
11 FFTH	PIPE 3.0	.473	8.313	36	.150	8.422	42	51.78	65.205	5.749	5.749	5.749	5.749	5.749	1..H1-1b
12 M17	PIPE 3.0	.472	8.313	34	.150	8.422	34	51.78	65.205	5.749	5.749	5.749	5.749	5.749	1..H1-1b
13 MP-11	PIPE 2.0	.416	1.75	48	.108	1.75	48	27.327	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
14 MP-17	PIPE 2.0	.414	1.75	43	.108	1.75	43	27.327	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
15 MP-14	PIPE 2.0	.412	1.75	37	.108	1.75	37	27.327	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
16 K-6	L2.5x2.5x3	.364	2.552	36	.014	0	z	26	12.475	29.192	.873	1.608	1.608	1.608	1..H2-1
17 K-2	L2.5x2.5x3	.363	2.499	41	.014	0	z	31	12.475	29.192	.873	1.608	1.608	1.608	1..H2-1
18 K-4	L2.5x2.5x3	.363	2.552	47	.014	5.104	z	21	12.475	29.192	.873	1.608	1.608	1.608	1..H2-1
19 M47	HSS4X4X3	.337	0	29	.138	0	z	29	74.566	106.812	12.662	12.662	12.662	12.662	1..H1-1b
20 M31	HSS4X4X3	.337	0	18	.138	0	z	18	74.566	106.812	12.662	12.662	12.662	12.662	1..H1-1b
21 SF1-TH	HSS4X4X3	.335	0	23	.137	0	z	23	74.566	106.812	12.662	12.662	12.662	12.662	1..H1-1b
22 K-3	L2.5x2.5x3	.249	2.552	49	.007	0	y	26	12.475	29.192	.873	1.608	1.608	1.608	1..H2-1
23 K-1	L2.5x2.5x3	.249	2.499	43	.009	5.104	z	56	12.475	29.192	.873	1.608	1.608	1.608	1..H2-1
24 K-5	L2.5x2.5x3	.248	2.552	38	.007	5.104	y	31	12.475	29.192	.873	1.608	1.608	1.608	1..H2-1
25 MP-4	PIPE 2.0	.208	3.5	31	.020	3.5	31	16.812	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
26 MP-7	PIPE 2.0	.208	3.5	21	.020	3.5	21	16.812	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
27 MP-1	PIPE 2.0	.208	3.5	26	.020	3.5	26	16.812	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
28 MP-15	PIPE 2.0	.123	2.734	31	.014	2.734	31	21.54	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
29 MP-18	PIPE 2.0	.123	2.734	21	.014	2.734	21	21.54	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
30 MP-12	PIPE 2.0	.115	2.734	26	.013	2.734	26	21.54	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
31 SA-5	PIPE 2.0	.085	4.408	34	.041	8.816	29	12.653	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
32 SA-1	PIPE 2.0	.085	4.408	44	.084	0	56	12.653	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
33 SA-3	PIPE 2.0	.085	4.408	39	.041	0	18	12.653	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
34 SA-4	PIPE 2.0	.072	3.566	34	.057	0	42	17.458	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
35 SA-2	PIPE 2.0	.072	3.566	41	.055	7.133	48	17.458	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
36 SA-6	PIPE 2.0	.072	3.566	47	.055	0	37	17.458	32.13	1.872	1.872	1.872	1.872	1.872	1..H1-1b
37 SF1-V1	PIPE 4.0	.000	.766	24	.000	.766	24	91.934	93.24	10.631	10.631	10.631	10.631	10.631	1..H1-1b
38 M48	PIPE 4.0	.000	.766	29	.000	.766	29	91.934	93.24	10.631	10.631	10.631	10.631	10.631	1..H1-1b
39 M32	PIPE 4.0	.000	.766	18	.000	.766	18	91.934	93.24	10.631	10.631	10.631	10.631	10.631	1..H1-1b

**Envelope None Cold Formed Steel Code Checks**

Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc[ft]	Dir	LC	Pn[...]	Tn[...]	Mnyy[...]	Mnzz[...]	Cb	Cmy	Crzz	Eqn
No Data to Print ...																

**APPENDIX D**  
**ADDITIONAL CALCULATIONS**



CCI BU No. 876335

TEP No. 25672.681030

Analysis By: DJM 4/11/2022

Checked By: JCM 4/11/2022

## Moment Bolt Group - Collar Connection

Code Revisions:	ANSI/TIA-222-H
Bolt Type:	Headed Bolts

### Connection Inputs:

Bolt Size:	0.625	in
# Bolts:	4	
Plate Width:	10.00	in
Plate Height:	10.00	in
Bolt H Gap:	7.00	in
Bolt V Gap:	7.00	in
Plate T:	0.63	in
Slip Member Ø:	N/A	in
Bolt Grade:	A325N	

### Capacities:

Bolt Capacity=	17.9%	PASS
Plate Capacity=	30.3%	PASS

### Bolt Properties:

$F_{y_{bolt}}$ :	92.0	ksi
$F_{u_{bolt}}$ :	120.0	ksi
r:	4.9	in
J:	98.0	in <sup>4</sup> /in <sup>2</sup>
$A_{bolt}$ :	0.3	in <sup>2</sup>
$A_{bolt, Net Tensile}$ :	0.2	in <sup>2</sup>
Pretension:	19.0	kips

### Member Properties:

Member Shape:	Flat	
Plate $F_y$ :	36.0	ksi
Plate $F_u$ :	58.0	ksi
Member Height:	4.0	in
Member Width:	4.0	in

**APPENDIX E**  
**MOUNT MODIFICATION DESIGN DRAWINGS**





**GENERAL NOTES:**

1. The Contract Documents are the property of Crown Castle (Crown). They are provided to the GC and its Lower Tier Contractors and material suppliers for the limited purpose of use in completing the Work for this Site, and shall be kept in strict confidence and not disclosed to any third parties. The Contract Documents shall not be used for any other purpose whatsoever without the prior written consent of Crown.
2. Detail drawings, including notes and tables, shall govern over general notes and typical details. Contact the Crown Point of Contact (POC) and Engineer of Record (EOR) for clarification as needed.
3. Do not scale drawings.
4. Any Work performed without a prefabrication mapping is done at the risk of the GC and/or fabricator. All dimensions of existing structural elements are assumed based on the available documentation and are preliminary until field-verified by the GC, unless noted otherwise (UNO). Where discrepancies are found, GC shall contact the Crown POC and EOR through RFI.
5. For this analysis and modification, the mount has been assumed to be in good condition without any structural defects, UNO. If the GC discovers any indication of an existing structural defect, contact the Crown POC and EOR immediately.
6. All construction means and methods, including but not limited to erection plans, rigging plans, climbing plans, and rescue plans, shall be the responsibility of the GC responsible for the execution of the Work contained herein, and shall meet ANSI/ASSE A10.48 (latest edition); federal, state, and local regulations; and any applicable industry consensus standards related to the construction activities being performed. All rigging plans shall adhere to ANSI/ASSE A10.48 (latest edition) and Crown standard CED-STD-10253, "Rigging Program", including the required involvement of a qualified engineer for class IV construction to certify the supporting structure(s) in accordance with the ANSI/TIA-322 (latest edition).
7. The structural integrity of the modification design extends to the complete condition only. The GC must be cognizant that the removal of any structural component of an existing tower has the potential to cause the partial or complete collapse of the structure. All necessary precautions must be taken to ensure structural integrity, including, but not limited to, engineering assessment of construction stresses with installation maximum wind speed and/or temporary bracing and shoring.
8. Aerial and underground utilities and facilities may or may not be shown on the drawings. The GC shall take every precaution to preserve and protect these items, which may include aerial or underground power lines, telephone lines, water lines, sewer lines, cable television facilities, pipelines, structures and other public and private improvements within or adjacent to the work area. The responsibility for determining the actual on-site location of these items shall rest exclusively with the GC.
9. All manufacturer's hardware assembly instructions shall be followed, UNO. Conflicting notes shall be brought to the attention of the EOR and the Crown POC.
10. The GC shall fabricate all required items per the materials specified below, UNO on the detail drawing sheets. If the GC finds for any component that the materials have not been clearly specified, the GC shall submit an RFI to the EOR to confirm the required material.
11. Contractor Personnel shall not drill holes in any new or existing structural members, other than those drilled holes shown on structural drawings, without the approval of the EOR.
12. For a list of Crown-approved cold galvanizing compounds, refer to the ENG-STD-10149, "Tower Protective Coatings Guidelines".
13. All exposes structural steel as the result of this scope of work including but not limited to: field drilled holes, and shaft interiors (were accessible), shall be cleaned and two (2) coats cold galvanizing shall be applied by brush in accordance with ENG-STD-10149, "Tower Protective Coatings Guidelines".
14. All tower grounding affected by the work shall be repaired or replaced in accordance with OPS-STD-10090, "TOWER GROUNDING", and OPS-BUL-10133, "GROUNDING REPAIR RECOMMENDATION".
15. Any hardware removed from the existing tower shall be replaced with new hardware of equal size and quality, UNO. No existing fasteners shall be reused.
16. All joints using ASTM A325 or A490 bolts, U-bolts, V-bolts, and threaded rods shall be snug tightened, UNO.
17. A nut locking device shall be installed on all proposed and/or replaced snug tightened ASTM A325 or A490 bolts, U-bolts, V-bolts, and threaded rods.
18. All joints are bearing type connections UNO. If no bolt length is given in the bill of materials, the connection may include threads in the shear planes, and the GC is responsible for sizing the length of the bolt.
19. If ASTM A325 or A490 bolts, and/or threaded rods are specified to be pre-tensioned, these shall be installed and tightened to the pre-tensioned condition according to the requirements of the RCSC specification for structural joints using ASTM high strength bolts.
20. All proposed and/or replaced bolts shall be of sufficient length such that the end of the bolt be at least flush with the face of the nut. It is not permitted for the bolt end to be below the face of the nut after tightening is completed.

PLANS PREPARED FOR:

**CROWN CASTLE**

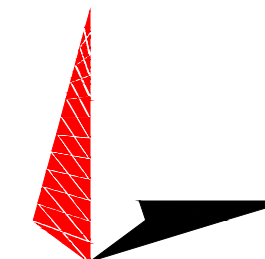
8000 AVALON BLVD., SUITE 700  
ALPHARETTA, GA 30009

PROJECT INFORMATION:

**EAST FARMINGTON  
BU #: 876335  
CARRIER: AT&T MOBILITY**

3 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

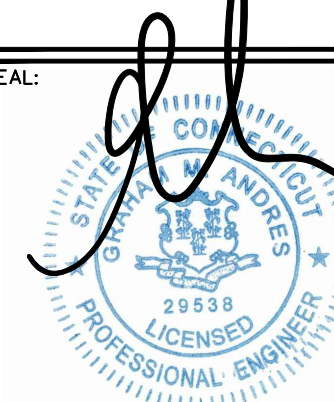
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



Electronic Copy

April 12, 2022

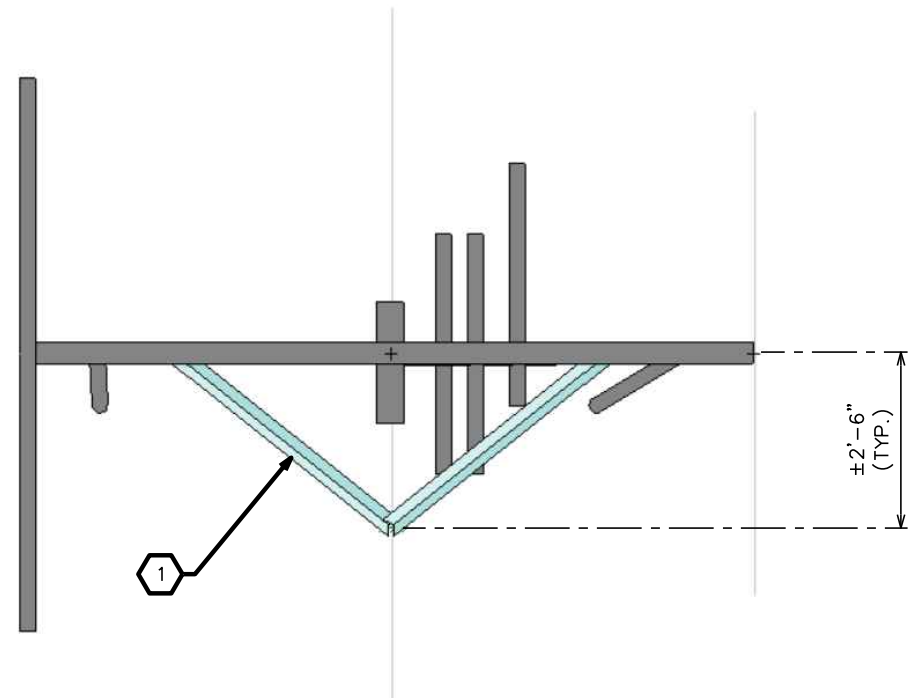
0	04-12-22	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: DJM | CHECKED BY: JCM

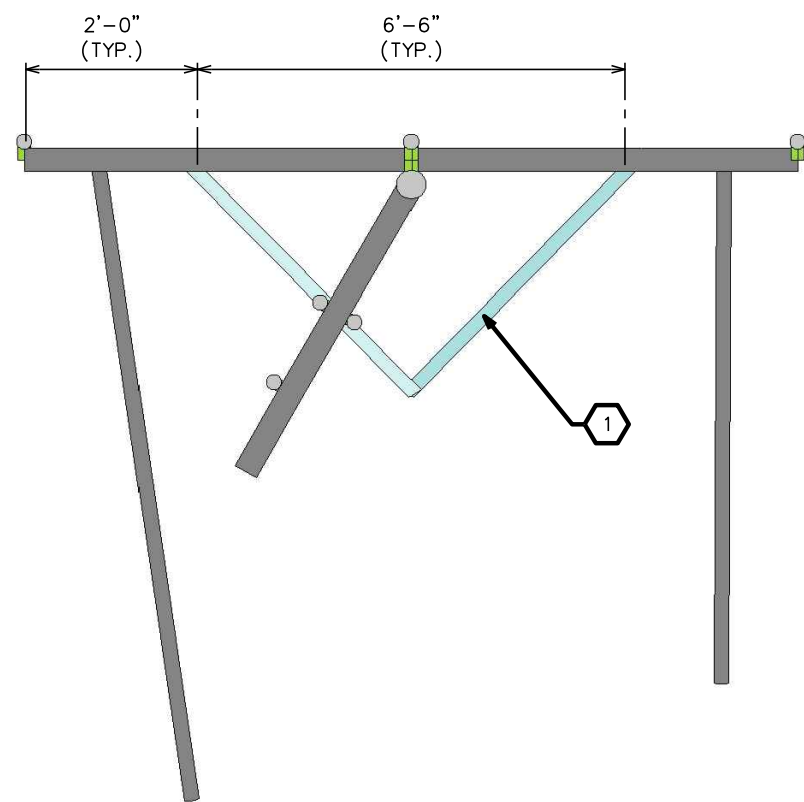
SHEET TITLE:

**PROJECT NOTES**

SHEET NUMBER: <b>N-1</b>	REVISION: <b>0</b>
TEP#: 25672.681030	



**ELEVATION VIEW**

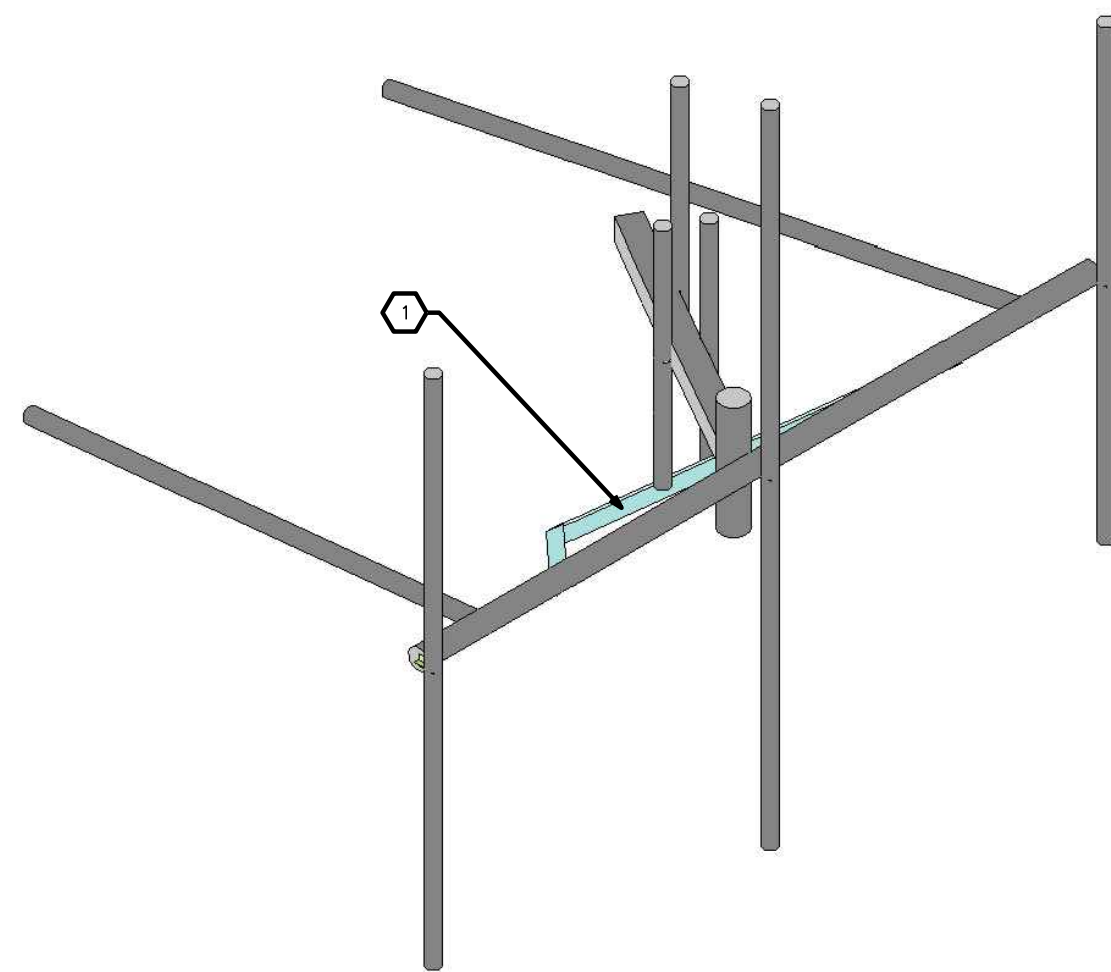


**PLAN VIEW**

MODIFICATION SCHEDULE			
NO.	MODIFICATION DESCRIPTION	ELEVATION (FT.)	SHEET
1	ADD NEW KICKER SUPPORT KIT. CONNECT TO EXISTING FACE HORIZONTAL USING PROVIDED HARDWARE.	128	S-2

**NOTES:**

- PRIOR TO FABRICATION, CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND QUANTITIES GIVEN. LENGTHS AND QUANTITIES PROVIDED ARE FOR QUOTING PURPOSES ONLY AND SHALL NOT BE USED FOR FABRICATION.
- PROPER FIT-UP OF THE PROPOSED MODIFICATIONS MAY REQUIRE FIELD CUTTING/TRIMMING. CONTACT EOR FOR APPROVAL UNO.




**ISOMETRIC VIEW**

PLANS PREPARED FOR:  
**CROWN CASTLE**  
 8000 AVALON BLVD., SUITE 700  
 ALPHARETTA, GA 30009

PROJECT INFORMATION:  
**EAST FARMINGTON**  
**BU #: 876335**  
**CARRIER: AT&T MOBILITY**  
 3 A BIRDSEYE ROAD  
 FARMINGTON, CT 06030

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
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 www.tepgroup.net

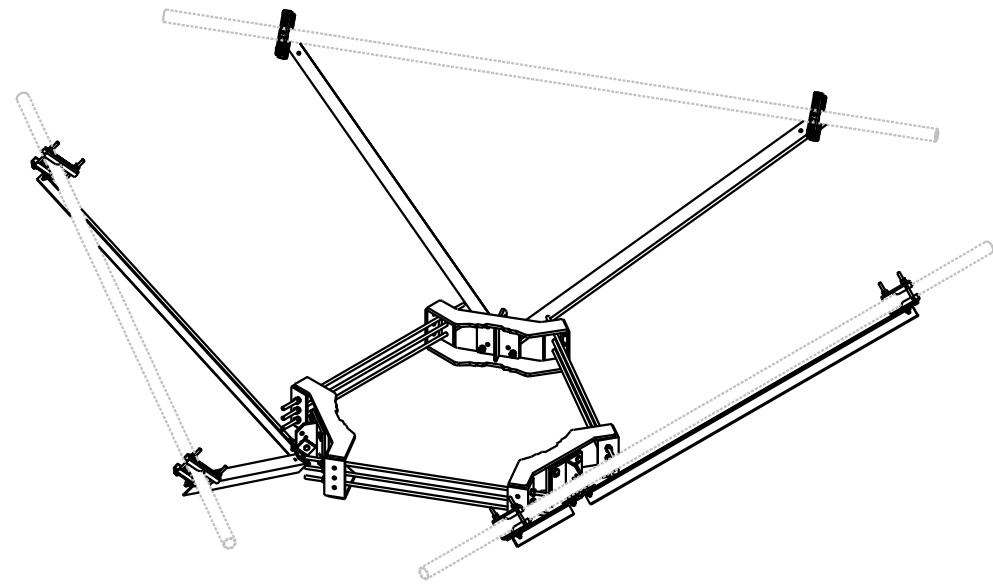
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 Electronic Copy April 12, 2022

REV	DATE	ISSUED FOR:
0	04-12-22	MODIFICATION DRAWINGS

DRAWN BY: DJM CHECKED BY: JCM

SHEET TITLE:  
**MOUNT  
 MODIFICATION  
 SCHEDULE**

SHEET NUMBER: **S-1** REVISION: **0**  
 TEP#: 25672.681030



**SITEPRO PRK-SFS-L**  
SCALE: N.T.S.

BILL OF MATERIALS				
MANUFACTURER	PART NUMBER/DESCRIPTION	MATERIAL GRADE	QUANTITY	NOTES
SITEPRO	PRK-SFS-L (CONMAT ITEM NO. ANT.16818)	-	1	1,2

**NOTES:**

- CONTRACTOR MAY SUBSTITUTE EQUIVALENT PARTS WITH EOR APPROVAL.
- UNO, CONNECTION HARDWARE IS INCLUDED WITH REINFORCEMENT KITS.

PLANS PREPARED FOR:

**CROWN CASTLE**

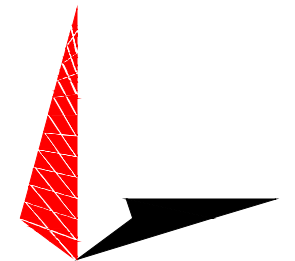
8000 AVALON BLVD., SUITE 700  
ALPHARETTA, GA 30009

PROJECT INFORMATION:

**EAST FARMINGTON**  
**BU #: 876335**  
**CARRIER: AT&T MOBILITY**

3 A BIRDSEYE ROAD  
FARMINGTON, CT 06030

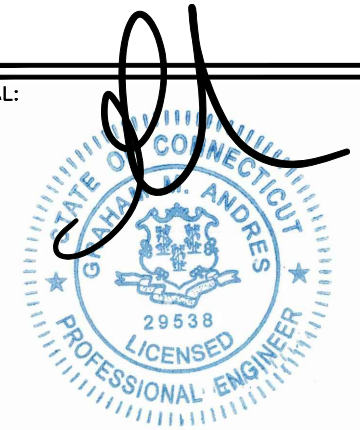
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



Electronic Copy

April 12, 2022

REV	DATE	ISSUED FOR:
0	04-12-22	MODIFICATION DRAWINGS

DRAWN BY: DJM | CHECKED BY: JCM

SHEET TITLE:

**REINFORCEMENT  
DETAILS/PARTS**

SHEET NUMBER:

**S-2**

REVISION:

**0**

TEP#: 25672.681030

# Exhibit F

## **Power Density/RF Emissions Report**



## Radio Frequency Safety Survey Report Predictive (RFSSRP) Prepared For AT&T



<b>Site Name:</b>	FARMINGTON-DEAD SWAMP WOOD
<b>FA#</b>	10071036
<b>USID:</b>	15581
<b>Site ID:</b>	CTL05255
<b>Address:</b>	130 A BIRDSEYE ROAD, FARMINGTON, CT 06030
<b>County:</b>	HARTFORD
<b>Latitude:</b>	41.7157919
<b>Longitude:</b>	-72.8105989
<b>Structure Type:</b>	MONOPOLE
<b>Property Owner:</b>	GOIS HOLDINGS OF CONNECTICUT
<b>Pace Job:</b>	MRCTB057008
<b>RFDS Technology:</b>	5G NR 1SR CBAND

### Report Information

**Report Writer:** Manoj Singh

**Report Generated Date:** 07-12-2022

### Compliance Statement

**AT&T Mobility Compliance Statement:** Based on the information collected, AT&T Mobility will be Compliant when the remediation recommended in section 5 or appropriate remediation determined by AT&T is implemented



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## 1. Executive Summary

### 1.1 Site Summary

Max Predictive Spatial Average MPE% & Location on Site (General Public)	39425.4% on Antenna Centerline Level & at AT&T Sec-C antenna no. #C3-2
Max Predictive Spatial Average MPE% at Ground Level (General Public)	1.81%
AT&T Mobility Site Compliance	AT&T Mobility will be Compliant by implementing remediation recommended as per section 5 in this report.
<b>TABLE 1: Site Summary</b>	

### 1.2 Signage Summary (Proposed)

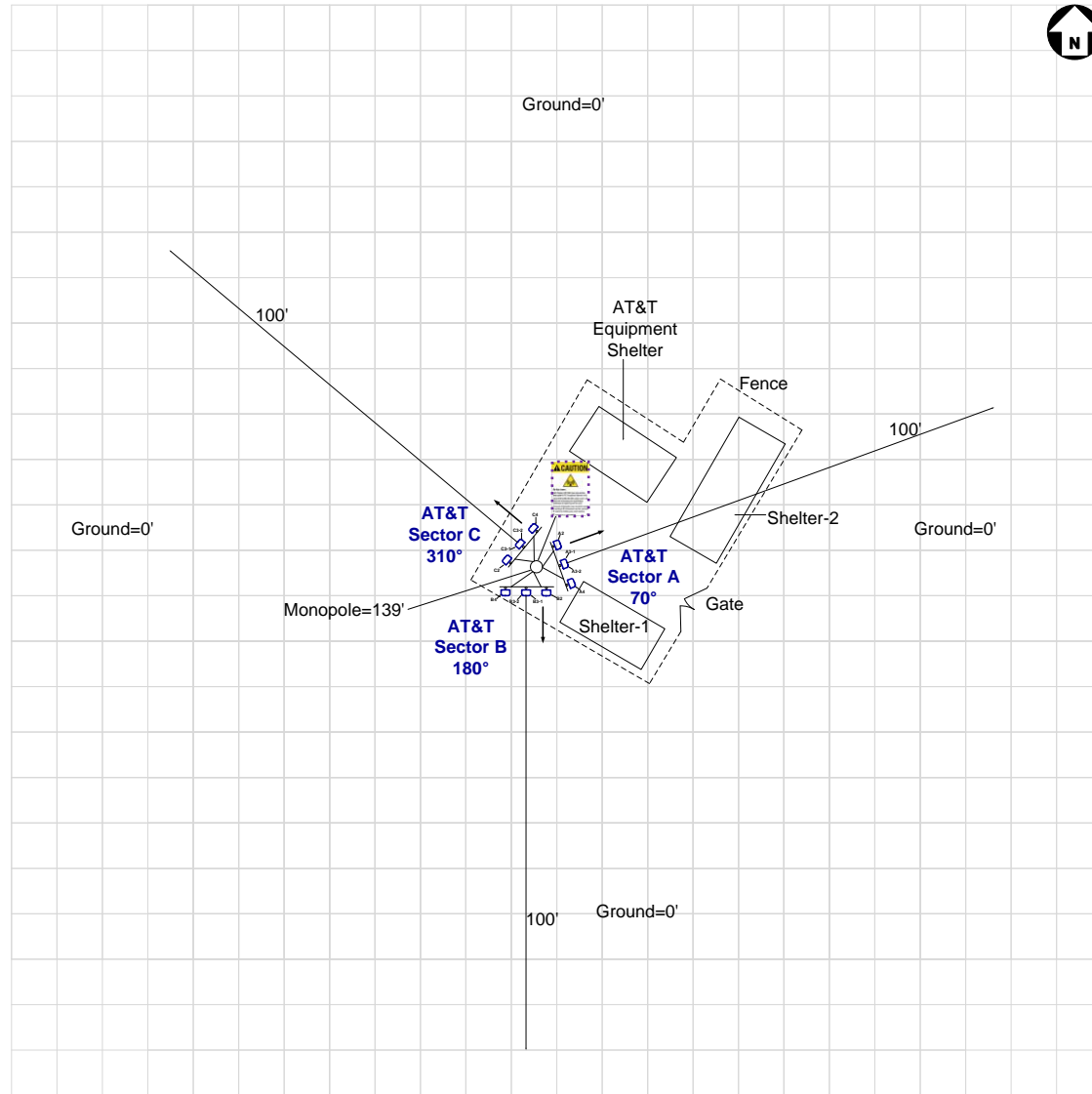
AT&T Signage Locations	Sign Type									
	Safety Instructions	Notice Sign 2	Caution Sign 2	Caution Sign 2B	Caution Sign 2C	Caution 7"x7"	Warning Sign 1B	RF Exposure Map	Lock	Barriers
Access Point(s)				1						
Alpha										
Beta										
Gamma										
<b>TABLE 2: Signage Summary (Proposed)</b>										

### 1.3 List of Documents used to prepare this Report

- 876335 CD
- 876335\_586268 RFDS



## 2. Site Scale Map



<b>AT&amp;T Antenna</b> Panel OMNI		<b>Proposed</b> Barrier Posts		<b>Proposed Signage</b>							<b>Map Scale = 10 ft</b>
		Safety Instructions	Notice 2	Caution 2	Caution 2B	Caution 2C	Caution 7"x7"	Warning 1B	RF Exposure Map	Lock	

### 3. Antenna Inventory

Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (°)	H B W (°)	Antenna Gain (dBd)	Antenna Aperture (ft)	Transmitter Power (Watts)	Total Loss (dB)	Total ERP (Watts)	Total EIRP (Watts)
A2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	700	LTE(FN)	70	68	13.21	8	120.00	0.5	2239.66	3674.36
A2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	1900	LTE/5G	70	57	15.02	8	120.00	0.5	3397.67	5574.18
A2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	2100	LTE/5G	70	62	15.39	8	180.00	0.5	5549.74	9104.84
A3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	70	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	70	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A4	AT&T	CCI	DMP65R-BU8D	Panel	700	LTE(B12)	70	75	12.95	8	120.00	0.5	2109.51	3460.84
A4	AT&T	CCI	DMP65R-BU8D	Panel	850	5G	70	64	13.85	8	120.00	0.5	2595.26	4257.76
A4	AT&T	CCI	DMP65R-BU8D	Panel	2300	LTE	70	64	15.95	8	75.00	0.5	2630.64	4315.80
B2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	700	LTE(FN)	180	68	13.21	8	120.00	0.5	2239.66	3674.36
B2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	1900	LTE/5G	180	57	15.02	8	120.00	0.5	3397.67	5574.18
B2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	2100	LTE/5G	180	62	15.39	8	180.00	0.5	5549.74	9104.84
B3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	180	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	180	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B4	AT&T	CCI	DMP65R-BU8D	Panel	700	LTE(B12)	180	75	12.95	8	120.00	0.5	2109.51	3460.84
B4	AT&T	CCI	DMP65R-BU8D	Panel	850	5G	180	64	13.85	8	120.00	0.5	2595.26	4257.76
B4	AT&T	CCI	DMP65R-BU8D	Panel	2300	LTE	180	64	15.95	8	75.00	0.5	2630.64	4315.80
C2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	700	LTE(FN)	310	68	13.21	8	120.00	0.5	2239.66	3674.36
C2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	1900	LTE/5G	310	57	15.02	8	120.00	0.5	3397.67	5574.18
C2	AT&T	KMW	EPBQ-654L8H8-L2	Panel	2100	LTE/5G	310	62	15.39	8	180.00	0.5	5549.74	9104.84
C3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	310	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	310	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C4	AT&T	CCI	DMP65R-BU8D	Panel	700	LTE(B12)	310	75	12.95	8	120.00	0.5	2109.51	3460.84
C4	AT&T	CCI	DMP65R-BU8D	Panel	850	5G	310	64	13.85	8	120.00	0.5	2595.26	4257.76
C4	AT&T	CCI	DMP65R-BU8D	Panel	2300	LTE	310	64	15.95	8	75.00	0.5	2630.64	4315.80

**Table 3.1: Antenna Inventory Table**

Note: ^ **Mechanical Tilt value of "0°" MUST be retained for C-BAND and/or DoD AAS antenna(s) at all times to ensure that "EME (Predictive) Study" shall remain valid.**

\* 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor<sup>1</sup> are used to calculate Transmitter Power & ERP/EIRP

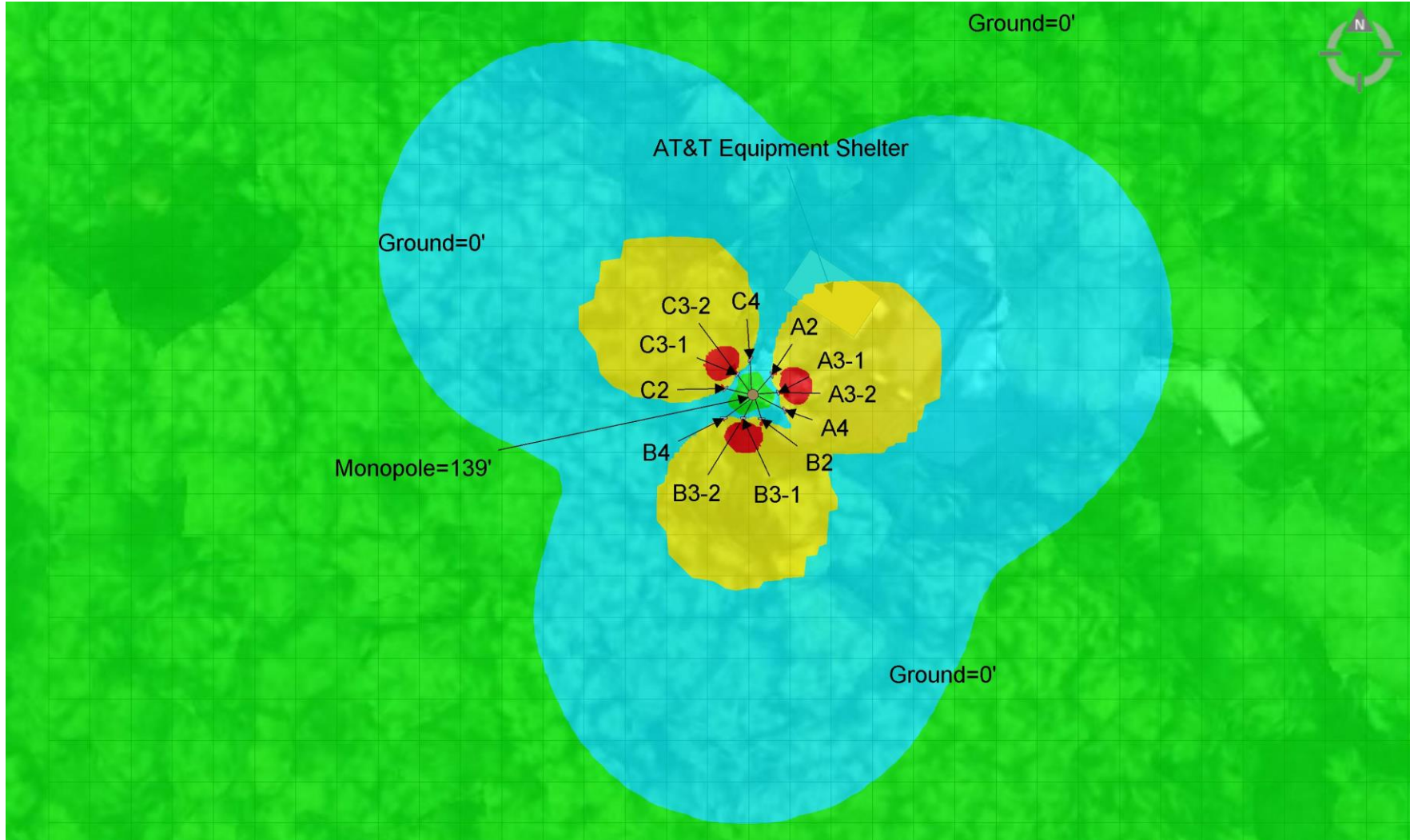
## Antenna Heights (Z)

Ant ID	Operator	Antenna Radiation Centerline	Z-Height from Ground
A2	AT&T	130.00	126.00
A3-1	AT&T	131.75	130.48
A3-2	AT&T	128.25	126.98
A4	AT&T	130.00	126.00
B2	AT&T	130.00	126.00
B3-1	AT&T	131.75	130.48
B3-2	AT&T	128.25	126.98
B4	AT&T	130.00	126.00
C2	AT&T	130.00	126.00
C3-1	AT&T	131.75	130.48
C3-2	AT&T	128.25	126.98
C4	AT&T	130.00	126.00

**Table 3.2: Antenna Height(s) Summary Table**

#### 4. Predicted Emission

##### 4.1 Predictive Cumulative MPE Contribution from All Sources at Antenna Centerline Level (130 ft.)



Max. Predictive Spatial Average MPE% = **39425.4%**

% of FCC General Public Exposure Limit (Predictive Spatial Average)

Proposed Barrier   
 Proposed Posts

Non-Simulated	0-1	1-100	100-500	500-5000	>5000

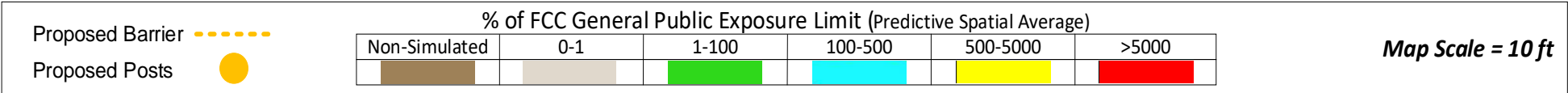
Map Scale = 10 ft

**4.2 Predictive Cumulative MPE Contribution from All Sources at Ground Level (0 ft.)**



Max. Predictive Spatial Average MPE% = 1.81%

% of FCC General Public Exposure Limit (Predictive Spatial Average)





## 5. Statement of Compliance

### 5.1 *Statement of AT&T Mobility Compliance*

At the time of our Analysis, AT&T Mobility is required to take action to fulfill their Obligations to comply with the FCC's mandate as defined in OET-65

#### **Recommendations.**

##### **AT&T Alpha Sector:**

- No action Required.

##### **AT&T Beta Sector:**

- No action Required.

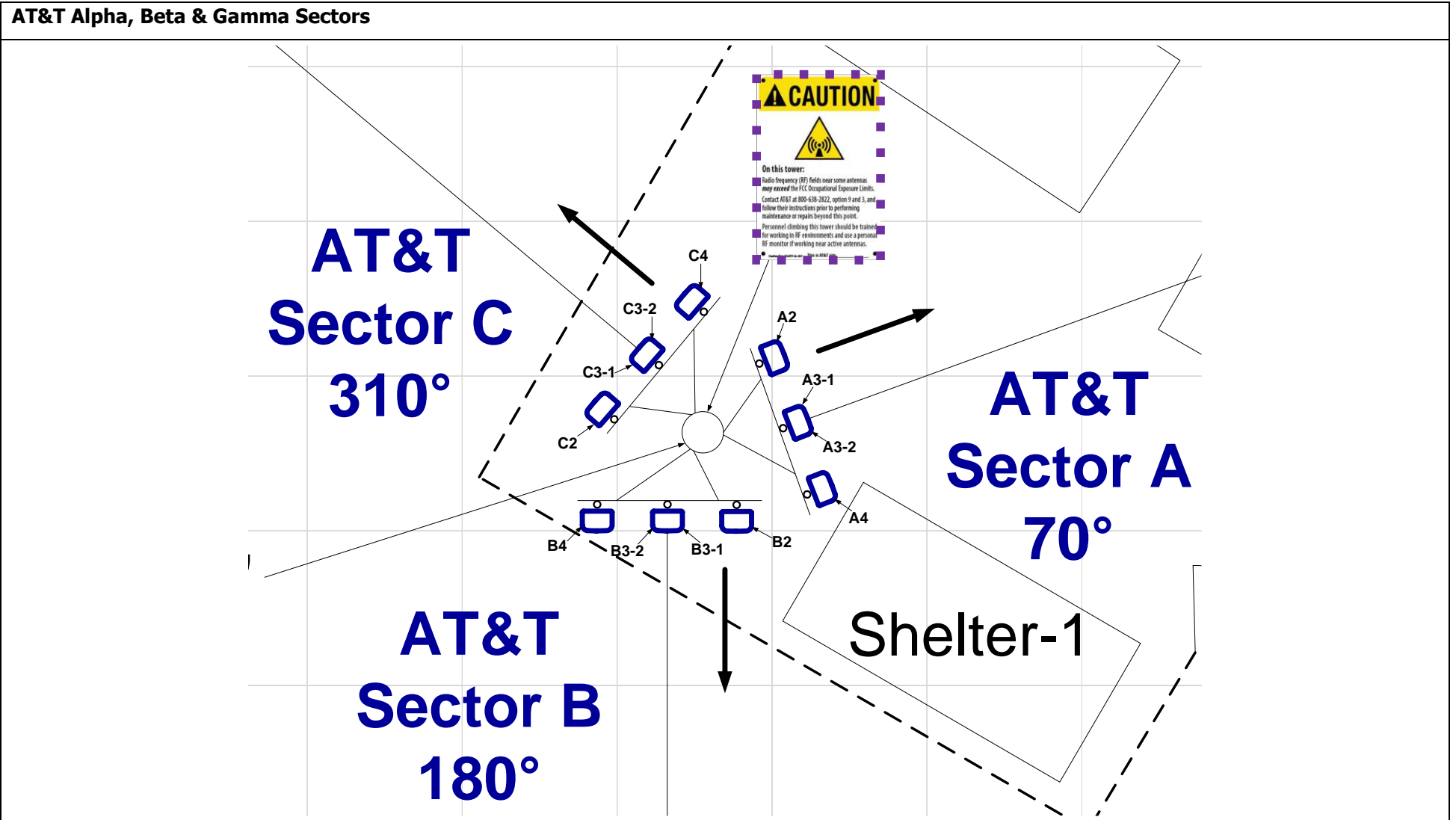
##### **AT&T Gamma Sector:**

- No action Required.

##### **Access:**

- One Caution 2B Sign to be posted on Monopole at the climbing access, facing outwards so approaching people can see as shown in "Recommendations Map – Detailed View" on page 10. (1 Total Sign)

Recommendations Map – Detailed View



<b>AT&amp;T Antenna</b> Panel OMNI		<b>Proposed</b> Barrier Posts		<b>Proposed Signage</b>								<b>Map Scale = 10 ft</b>
		Safety Instructions	Notice 2	Caution 2	Caution 2B	Caution 2C	Caution 7"x7"	Warning 1B	RF Exposure Map	Lock		

## Appendix A – Statement of Limiting Conditions

### General Model Assumptions

*In this site compliance report, it is assumed that all antennas are operating at full power at all times. AT&T has further recommended to assume a 75% duty cycle of maximum radiated power for all LTE & 5G carriers (& consider 100% duty cycle for all UMTS carriers).*

*In this site compliance report, it is assumed that Mechanical Tilt value of “0°” MUST be retained for C-BAND and/or DoD AAS<sup>^</sup> antenna(s) at all times to ensure that “EME (Predictive) Study” shall remain valid.*

*AT&T recommended to consider - For C-BAND and/or DoD AAS<sup>^</sup> antenna(s) 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor<sup>1</sup> are used to calculate Transmitter Power & ERP/EIRP.*

*AT&T recommended to use worst-case tilts for the simulations.*

<sup>1</sup> **Power Reduction Factor:** IEC Standard 62232: 2017 allows for a statistically conservative power density model to more realistically define the RF exposure area. AT&T recommends a “0.32” factor to calculate the “Actual Maximum” (time averaged) power value, which accounts for “Beam Scanning,” “Scheduling,” and “RBS Utilization” This recommended value is a conservative figure modelled and supported by other vendors and through measurements published in scientific articles and white papers by IEEE and others. Those publication are listed below:

1. IEEE Access, Time-Averaged Realistic Maximum Power Levels for the Assessment of RF Exposure for 5G Radio Base Stations Using Massive MIMO (Published Sept. 18, 2017 / BJÖRN THORS, ANDERS FURUSKÅR, DAVIDE COLOMBI, AND CHRISTER TÖRNEVIK)
2. IEEE Explore, A Statistical Approach for RF Exposure Compliance Boundary Assessment in Massive MIMO Systems (Published Jan. 25, 2018 / Paolo Baracca, Andreas Weber, Thorsten Wild, Christophe Grangeat)
3. IEEE Access, In-situ Measurement Methodology for the Assessment of 5G NR Massive MIMO Base Station Exposure at Sub-6 GHz Frequencies (Published Dec. 20, 2019 / SAM AERTS, LEEN VERLOOCK, MATTHIAS VAN DEN BOSSCHE, DAVIDE COLOMBI, LUC MARTENS, CHRISTER TÖRNEVIK AND WOUT JOSEPH)
4. Applied Sciences, Analysis of the Actual Power and EMF Exposure from Base Stations in a Commercial 5G Network (Published July 30, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)
5. Ofcom Technical Report, Electromagnetic Field (EMF) measurements near 5G mobile phone base stations (Published Feb. 21, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)

*MobileComm believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor). Thus, at any time, if power density measurements were made, we believe the real time measurements would indicate levels below those depicted in the RF emission diagram(s) in this report. By modelling in this way, MobileComm has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.*

### Use of Generic Antennas

*For the purposes of this report, the use of “Generic” as an antenna model, or “Other Carrier” for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer’s published data regarding the antenna’s physical characteristics makes more conservative assumptions.*

*Where the frequency is unknown, MobileComm uses the closest frequency in the antenna’s range that corresponds to the highest Maximum Exposure Limit (MPE), resulting in a conservative analysis.*



## Appendix B – FCC Guidelines and Emissions Threshold Limits

All power density values used in this report were analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The number of  $\mu\text{W}/\text{cm}^2$  calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General Population/Uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limit for the 700 and 800 MHz Bands is approximately  $467 \mu\text{W}/\text{cm}^2$  and  $567 \mu\text{W}/\text{cm}^2$  respectively, and the general population exposure limit for the 1900 MHz PCS and 2100 MHz AWS bands is  $1000 \mu\text{W}/\text{cm}^2$ . Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure, have been properly trained in RF safety 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, have been trained in RF safety and can exercise control over his or her exposure by leaving the area or by some other appropriate means. The Occupational/Controlled exposure limits all utilized frequency bands is five (5) times the FCC's General Public / Uncontrolled exposure limit.

Additional details can be found in FCC OET 65.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

## Appendix C – Rules & Regulations

### Explanation of Applicable Rules and Regulations

*FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.*

*It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with FCC rules and regulations.*

*A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.*

### Occupational Environment Explained

*The FCC definition of Occupational exposure limits apply to persons who:*

- *are exposed to RF energy as a consequence of their employment;*
- *have been made aware of the possibility of exposure; and*
- *can exercise control over their exposure.*

*FCC guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.*

*In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF Emissions diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.*

## Appendix D – General Safety Recommendations

The following are general recommendations appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

- All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.
- The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:
  - adding new antennas that may have been located on the site
  - removing of any existing antennas
  - changes in the radiating power or number of RF emitters
- Post the appropriate SAFETY INSTRUCTIONS, NOTICE, CAUTION & WARNING sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in the report section above, to inform everyone who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. The signs below are examples of signs meeting FCC guidelines.



- Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.
- For a General Public environment the five color levels identified in measured RF emission diagram can be interpreted in the following manner:
  - White represents areas predicted to be greater than or equal to 0% and less than 1% of the MPE general public limits
  - Green represents areas predicted to be greater than or equal to 1% and less than 100% of the MPE general public limits
  - Blue represents areas predicted to be greater than or equal to 100% and lesser than 500% of the MPE general public limits.
  - Yellow represents areas predicted to be greater than or equal to 500% and lesser than 5000% of the MPE general public limits.
  - Red areas indicates predicted levels greater than or equal to 5000% of the MPE general public limits.

## Appendix E – References

### **1 - FCC Definition**

*FCC defines an Occupational or Controlled environment as one where persons are exposed to RF fields as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Typical criteria for an Occupational or Controlled environment is restricted access (i.e. locked doors, gates, etc.) to areas where antennas are located coupled with proper RF warning signage.*

*FCC defines a site as a General Public or Uncontrolled environment when human exposure to RF fields occurs to the general public or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over the exposure. Typical criteria for a General Public or Uncontrolled environment are unrestricted access (i.e. unlocked or no restrictions) to areas where antennas are located without proper RF warning signage being posted.*

### **2 - Physical Testing measurement procedure and Tools**

*The Narda Broadband Field Meter NBM-550 can make rapid conformance measurements with evaluation in the time domain when used in conjunction EA5091 probe. This probe is a so-called Shaped Probe, i.e. it is frequency weighted so that it automatically takes account of the FCC Occupational limit values. To collect data, the probe is pointed towards the potential source(s) of EME radiation and moved slowly from ground level up to slightly above head height (approx. 6 ft).*

*Spatial Average Measurement A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.*

### **3 - Site Safety Procedures**

*The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.*

**General Maintenance Work:** *Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.*

**Training and Qualification Verification:** *All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).*

**Physical Access Control:** *Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:*

- *Locked door or gate*
- *Alarmed door*
- *Locked ladder access*
- *Restrictive Barrier at antenna locations (e.g. Chain link with posted RF Sign)*

**RF Signage:** *Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.*

**Assume all antennas are active:** *Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.*

**Maintain a 3 foot clearance from all antennas:** *There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.*

**Rooftop RF Emissions Diagram:** *Section 4 of this report contains an RF Emissions Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas on the rooftop. This analysis is all theoretical and assumes a duty cycle of 75% for each transmitting antenna at full power. This analysis is a worst case scenario. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.*

#### **4 - Definitions**

**Compliance-** *The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.*

**Decibel (dB)** – *A unit for measuring power or strength of a signal.*

**Duty Cycle** – *The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 75% corresponds to continuous operation.*

**Effective (or Equivalent) Isotropic Radiated Power (EIRP)** – *The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna, this product is divided by the cable losses*

**Effective Radiated Power (ERP)** – *In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.*

**Gain (of an antenna in dbd)** – *The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from a reference dipole. Gain is a measure of the relative efficiency of a directional antennas as compared to a reference dipole.*

**General Population/Uncontrolled Environment** – *Defined by the FCC, as an area where RFR exposure may occur to persons who are unaware of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.*

**Generic Antenna** – *For the purposes of this report, the use of “Generic” as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.*

**Isotropic Antenna** – *An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.*

**Maximum Measurement** – *This measurement represents the single largest measurement recorded when performing a spatial average measurement.*



**Maximum Exposure Limit (MPE)** – *The RMS and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.*

**Occupational/Controlled Environment** – *Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are aware of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.*

**Radio Frequency Radiation** – *Electromagnetic waves that are propagated from antennas through space.*

**Spatial Average Measurement** – *A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.*

**Transmitter Power Output (TPO)** – *The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.*

## Appendix F – Proprietary Statement

*This report was prepared for the use of AT&T Mobility, LLC to meet requirements specified in AT&T's corporate RF safety guidelines. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by MobileComm are based solely on the information provided by AT&T Mobility and all observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to MobileComm so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.*





July 26, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 777451481577

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**Delivery Information:**

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<b>Status:</b>	Delivered	<b>Delivered To:</b>	Residence
<b>Signed for by:</b>	Signature not required	<b>Delivery Location:</b>	18 HOBART ST
<b>Service type:</b>	FedEx 2Day		
<b>Special Handling:</b>	Deliver Weekday; Residential Delivery		FARMINGTON, CT, 06032
		<b>Delivery date:</b>	Jul 25, 2022 13:28

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**Shipping Information:**

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<b>Tracking number:</b>	777451481577	<b>Ship Date:</b>	Jul 21, 2022
		<b>Weight:</b>	1.0 LB/0.45 KG

**Recipient:**  
C.J. Thomas, Town Council  
18 Hobart Street  
FARMINGTON, CT, US, 06032

**Shipper:**  
Ersilia Davis, Crown Castle  
1777 Sentry Parkway W  
VEVA 17, Suite 400  
BLUE BELL, PA, US, 19422

**Reference** 100788

Thank you for choosing FedEx

Dear Customer,

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**Delivery Information:**

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<b>Status:</b>	Delivered	<b>Delivered To:</b>	Receptionist/Front Desk
<b>Signed for by:</b>	N.MOSES	<b>Delivery Location:</b>	1 MONTIETH DR
<b>Service type:</b>	FedEx 2Day		
<b>Special Handling:</b>	Deliver Weekday		FARMINGTON, CT, 06032
		<b>Delivery date:</b>	Jul 25, 2022 09:44

---

**Shipping Information:**

---

<b>Tracking number:</b>	777451545207	<b>Ship Date:</b>	Jul 21, 2022
		<b>Weight:</b>	1.0 LB/0.45 KG

**Recipient:**  
Russell M. Arnold, Jr.,  
1 Monteith Drive  
FARMINGTON, CT, US, 06032

**Shipper:**  
Ersilia Davis, Crown Castle  
1777 Sentry Parkway W  
VEVA 17, Suite 400  
BLUE BELL, PA, US, 19422

**Reference** 100788



July 26, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 777451615814

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**Delivery Information:**

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<b>Status:</b>	Delivered	<b>Delivered To:</b>	Residence
<b>Signed for by:</b>	Signature not required	<b>Delivery Location:</b>	125 BROOKSIDE DR
<b>Service type:</b>	FedEx 2Day		
<b>Special Handling:</b>	Deliver Weekday; Residential Delivery		UXBRIDGE, MA, 01569
		<b>Delivery date:</b>	Jul 25, 2022 11:54

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**Shipping Information:**

---

<b>Tracking number:</b>	777451615814	<b>Ship Date:</b>	Jul 21, 2022
		<b>Weight:</b>	0.5 LB/0.23 KG

**Recipient:**  
GOIS Holdings of Connecticut LLC,  
125 Brookside Drive  
UXBRIDGE, MA, US, 01569

**Shipper:**  
Ersilia Davis, Crown Castle  
1777 Sentry Parkway W  
VEVA 17, Suite 400  
BLUE BELL, PA, US, 19422

**Reference** 100788

Thank you for choosing FedEx