



Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

December 9, 2016

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

RE: Notice of Exempt Modification for AT&T/ LTE 3C Crown Site BU: 842873
AT&T Site ID: CT5431
30 Oliver Terrace, Shelton, CT 06484
Latitude: 41° 17' 38.21"/ Longitude: -73° 6' 25.83"

Dear Ms. Bachman:

AT&T currently maintains six (6) antennas at the 95-foot level of the existing 140-foot self-support tower at 30 Oliver Terrace in Shelton, CT. The tower is owned by Crown Castle. The property is owned by Brennan Realty LLC. AT&T now intends to three (3) RRU12/A2s with three (3) RRU32/B2s and add two (2) DC lines.

This facility was approved by the by the Connecticut Siting Council on in Petition 608 on March 25, 2003. There were no conditions listed in this approval.

This modification complies with the aforementioned condition(s).

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.S.C.A. § 16-50j-73, a copy of this letter is being sent to The Honorable Mark A. Lauretto, Mayor, City of Shelton, as well as the property owner, and Crown Castle is the tower 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.

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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.

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). Please send approval/rejection letter to Attn: Jeffrey Barbadora.

Sincerely,

Jeffrey Barbadora
Real Estate Specialist
12 Gill Street, Suite 5800, Woburn, MA 01801
781-729-0053
Jeff.Barbadora@crowncastle.com

Attachments:

- Tab 1: Exhibit-1: Compound plan and elevation depicting the planned changes
- Tab 2: Exhibit-2: Structural Modification Report
- Tab 3: Exhibit-3: General Power Density Table Report (RF Emissions Analysis Report)

cc: The Honorable Mark A. Lauretti, Mayor
City Hall, Room 202
54 Hill Street
Shelton CT, 06484

Brennan Realty LLC
70 Platt Road
PO Box 788
Shelton, CT 06484

Petition No. 608
AT&T Wireless PCS, LLC
Shelton, Connecticut
Staff Report
March 25, 2003

On February 4, 2003, Connecticut Siting Council (Council) member Gerald Heffernan and Robert Mercier of Council staff met with AT&T Wireless PCS, Inc. (AT&T) representative Christopher Fisher at 70 Platt Road in Shelton to review this petition. AT&T proposes to replace an existing 75-foot monopole with a 100-foot monopole 275 feet west of its existing location. AT&T is petitioning the Council for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the tower replacement and relocation.

The existing monopole is owned by the John J. Brennan Construction Company and is located adjacent to an office/garage building. The existing monopole, with a base diameter of 8 inches tapering to 4 inches at the top, has limited structural capability and supports one whip antenna extending to a height of 81 feet above ground level. The proposed 100-foot replacement tower would be located approximately 275 feet west of the existing tower, adjacent to a warehouse building in an area used for equipment storage.

The new tower would have a base diameter of 3.5 feet tapering to 1.5 feet at the top and would be designed to support three antenna platforms and the whip antenna. AT&T would place 6 panel antennas at the 95-foot level of the tower. The whip antenna would be placed at the top of the tower and would extend to a height of 107 feet above ground level. Nextel and Sprint intend on locating on the tower at the 85-foot and 75-foot levels at a future date. The existing monopole would be removed once the new tower is operational.

AT&T would install equipment cabinets on a concrete pad within a fenced compound at the base of the tower. Compound expansion would be necessary to accommodate future carriers. Utilities would be installed underground from a utility pole on Oliver Terrace, an abutting street.

The proposed site is located in an industrial and commercial area adjacent to Route 8. A residence is located approximately 200 feet north of the proposed tower site. A band of mature trees along the north property boundary would provide some screening of views from Platt Road and the adjacent residence.

The worst-case power density for the telecommunications operations at the site has been calculated to be 4.3% of the applicable standard for uncontrolled environments.



Property Information

Owner	BRENNAN REALTY LLC
Address	30 OLIVER TERR
Mailing Address	PO BOX 788 70 PLATT RD 06484
Land Use	- RESIDENTIAL
Land Class	3-2

Census Tract	1102
Neighborhood	
Zoning	IA-2
Acreage	1.18
Utilities	GAS/ELECTRIC
Lot Setting/ Desc	/

Photo



PARCEL VALUATIONS (Assessed value = 70% of Appraised Value)

	Appraised	Assessed
Buildings		
Outbuildings		
Improvements		
Extras		
Land		
Total	238000	166600
Previous		

Construction Details

Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Total Rooms	
Bedrooms	
Full Bathrooms	
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	

EXTERIOR WALLS:

Primary	
Secondary	

INTERIOR WALLS:

Primary	
Secondary	

FLOORS:

Primary	
Secondary	

HEATING/AC:

Heating Type	
Heating Fuel	
AC Type	

BUILDING AREA:

Effective Building Area	
Gross Building Area	
Total Living Area	

SALES HISTORY:

Sale Date	20040702
Sale Price	0
Book/ Page	2400/316-2

PROJECT TEAM

CLIENT REPRESENTATIVE:

EMPIRE TELECOM
16 ESQUIRE ROAD
BILLERICA, MA 01821
DAVID COOPER
617-639-4908
dcooper@empiretelecomm.com

SITE ACQUISITION & ZONING:

EMPIRE TELECOM
16 ESQUIRE ROAD
BILLERICA, MA 01821
DAVID COOPER
617-639-4908
dcooper@empiretelecomm.com

ENGINEERING:

TRYLON TSF
1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038
PHONE: 1-855-669-5421

RF ENGINEER:

AT&T MOBILITY - NEW ENGLAND
550 COCHITUATE ROAD
SUITE 550 13 & 14
FRAMINGHAM, MA 01701
CAMERON SYME
508-596-7146
cs6970@att.com

CONSTRUCTION MANAGEMENT:

EMPIRE TELECOM
16 ESQUIRE ROAD
BILLERICA, MA 01821
GRZEGORZ "GREG" DORMAN
484-683-1750
gdorman@empiretelecomm.com

TOWER OWNER:

-



**LTE BWE
CT5431
SHELTON NE
30 OLIVER TERRACE
SHELTON, CT 06484
FA CODE: 10071231**

APPROVALS

AT&T (RF): _____ DATE: _____

AT&T (CONST.): _____ DATE: _____

AT&T (OPS): _____ DATE: _____

TOWER OWNER: _____ DATE: _____

JURISDICTIONAL APPROVAL

BASED ON INFORMATION PROVIDED BY AT&T REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW OR ADMINISTRATIVE REVIEW).

PROJECT DESCRIPTION

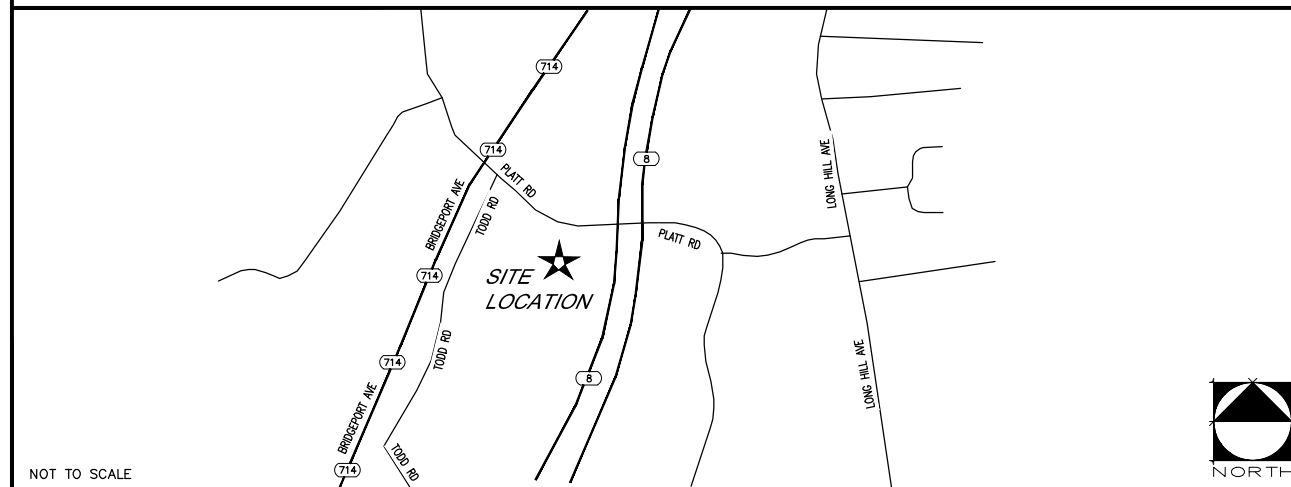
- THIS PROJECT WILL BE COMPRISED OF:
CHANGES ON THE EXISTING MONOPOLE:
- REMOVE (3) EXISTING RRUS-12+RRUS-A2 (1) PER SECTOR FOR (3) SECTORS.
 - INSTALL (3) NEW RRUS-32 B2 (1) PER SECTOR FOR (3) SECTORS.
 - REUSE (1) EXISTING DC6 SQUID.
 - REUSE (2) EXISTING DC POWER TRUNK.
 - REUSE (1) EXISTING FIBER TRUNK.
 - REUSE (1) EXISTING RET CABLE.
 - REUSE (6) EXISTING RF CABLES.

- CHANGES IN THE EXISTING AT&T EQUIPMENT ENCLOSURE AREA:
- INSTALL (1) NEW XMU.

GENERAL NOTES

DO NOT SCALE DRAWINGS
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

VICINITY MAP



NOT TO SCALE



DRIVING DIRECTIONS

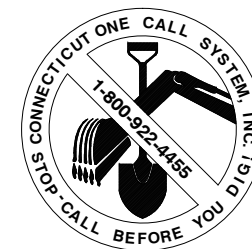
FROM I-84 TO ROUTE 8 SOUTH. TAKE EXIT 13, TURN LEFT ONTO BRIDGEPORT AVE, TAKE NEXT LEFT ONTO PLATT ROAD, THEN SECOND RIGHT ONTO OLIVER TERRACE.

SITE INFORMATION

LATITUDE: 41° 17' 37.65084" N
LONGITUDE: 73° 06' 26.27604" W
LAT./LONG. TYPE: NAD 83
GROUND ELEVATION: N/A
APN/UPC: N/A
AREA OF CONSTRUCTION: EXISTING
ZONING/JURISDICTION: CITY OF SHELTON
CURRENT ZONING: N/A
EXISTING USE: TELECOMMUNICATIONS FACILITY
COUNTY: FAIRFIELD COUNTY
HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.

CODE COMPLIANCE

BUILDING CODE: 2012 CONNECTICUT COMMERCIAL BUILDING CODE
ELECTRICAL CODE: 2014 CONNECTICUT ELECTRICAL CODE
LIGHTNING PROTECTION CODE: NFPA 780 - 2000, LIGHTNING PROTECTION CODE
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.



CONNECTICUT LAW REQUIRES TWO WORKING DAYS NOTICE PRIOR TO ANY EARTH MOVING ACTIVITIES BY CALLING 800-922-4455 OR DIAL 811

SHEET

DESCRIPTION

T-1	TITLE SHEET
GN-1	GROUNDING & GENERAL NOTES
A-1	COMPOUND PLAN
A-2	EQUIPMENT LAYOUTS
A-3	ANTENNA LAYOUTS
A-4	TOWER ELEVATION
A-5	DETAILS
G-1	GROUNDING, ONE-LINE DIAGRAM & DETAILS



1355 WEST UNIVERSITY DRIVE
MESA, AZ 85201-5419



PLANS PREPARED BY:



1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038

NO.	DATE	DESCRIPTION	BY
A	11/04/16	FOR REVIEW	NPS
0	12/03/16	ISSUE FOR CONSTRUCTION	NPS

SITE INFORMATION:

**CT5431
SHELTON NE
FA CODE: 10071231**

30 OLIVER TERRACE
SHELTON, CT 06484

SEAL:

MICHAEL F. PLAHOVINSAK, P.E. #25849
Sole Proprietor - Independent Engineer
18301 S.R. 161, Plain City, OH 43064
614-398-6250 / mike@mpeng.com

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 - CONTRACTOR - EMPIRE TELECOM
 - SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
 - OWNER - AT&T MOBILITY
 - DEM - ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR 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 CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR 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.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
8. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR. ROUTING OF TRENCHING SHALL BE APPROVED BY CONTRACTOR
9. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
10. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OFF ALL SCR1 'AP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
11. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
13. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS UNLESS OTHERWISE SPECIFIED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
14. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy=36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
15. CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 25741-000-3APS-A00Z-00002, "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
17. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK MAY NEED TO BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
18. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
19. SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
 - INTERNATIONAL BUILDING CODE: IBC 2009 WITH LOCAL & COUNTY AMENDMENTS
 - NATIONAL ELECTRICAL CODE: NEC 2011 WITH LOCAL & COUNTY AMENDMENTS
 - FIRE/LIFE SAFETY CODE: NFPA-101 2009 WITH LOCAL & COUNTY AMENDMENTS
20. SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
 - AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION
 - AMERICAN SOCIETY OF TESTING OF MATERIALS, ASTM
 - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (ANSI/TIA-222-G-1), STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES:
 - TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS
 - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OSHA
 - INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVELY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT
 - TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS
21. FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

GROUNDING NOTES:

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. 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.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH 25471-000-3PS-EG00-0001, DESIGN & TESTING OF FACILITY GROUNDING FOR CELL SITES.
4. 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.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED WITH STAINLESS STEEL HARDWARE TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. GROUND CONDUCTORS USED IN THE FACILITY GROUND 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 PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
13. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANSI/TIA 222. FOR TOWERS BEING BUILT TO REV-G OF THE STANDARD, THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE CHANGED FROM 2 AWG TO 2/0 AWG. IN ADDITION, THE MINIMUM LENGTH OF THE GROUND RODS SHALL BE INCREASED FROM EIGHT FEET (8') TO TEN FEET (10').
14. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID TINNED COPPER GROUND WIRE, PER NEC 250.50.



1355 WEST UNIVERSITY DRIVE
MESA, AZ 85201-5419



16 ESQUIRE ROAD
BILLERICA, MA 01821

PLANS PREPARED BY:



1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038

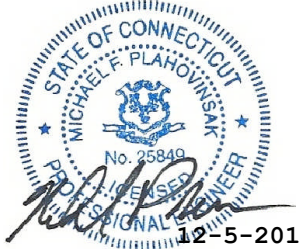
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SITE INFORMATION:

CT5431
SHELTON NE
FA CODE: 10071231

30 OLIVER TERRACE
SHELTON, CT 06484

SEAL:



MICHAEL F. PLAHOVINSAK, P.E. #25849
Sole Proprietor - Independent Engineer
18301 S.R. 161, Plain City, OH 43064
614-398-6250 / mike@mpeng.com

SHEET TITLE:

GENERAL NOTES &
GROUNDING NOTES

SHEET NUMBER:

GN-1



1355 WEST UNIVERSITY DRIVE
MESA, AZ 85201-5419



16 ESQUIRE ROAD
BILLERICA, MA 01821

PLANS PREPARED BY:



1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038

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SHELTON NE
FA CODE: 10071231
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SEAL:

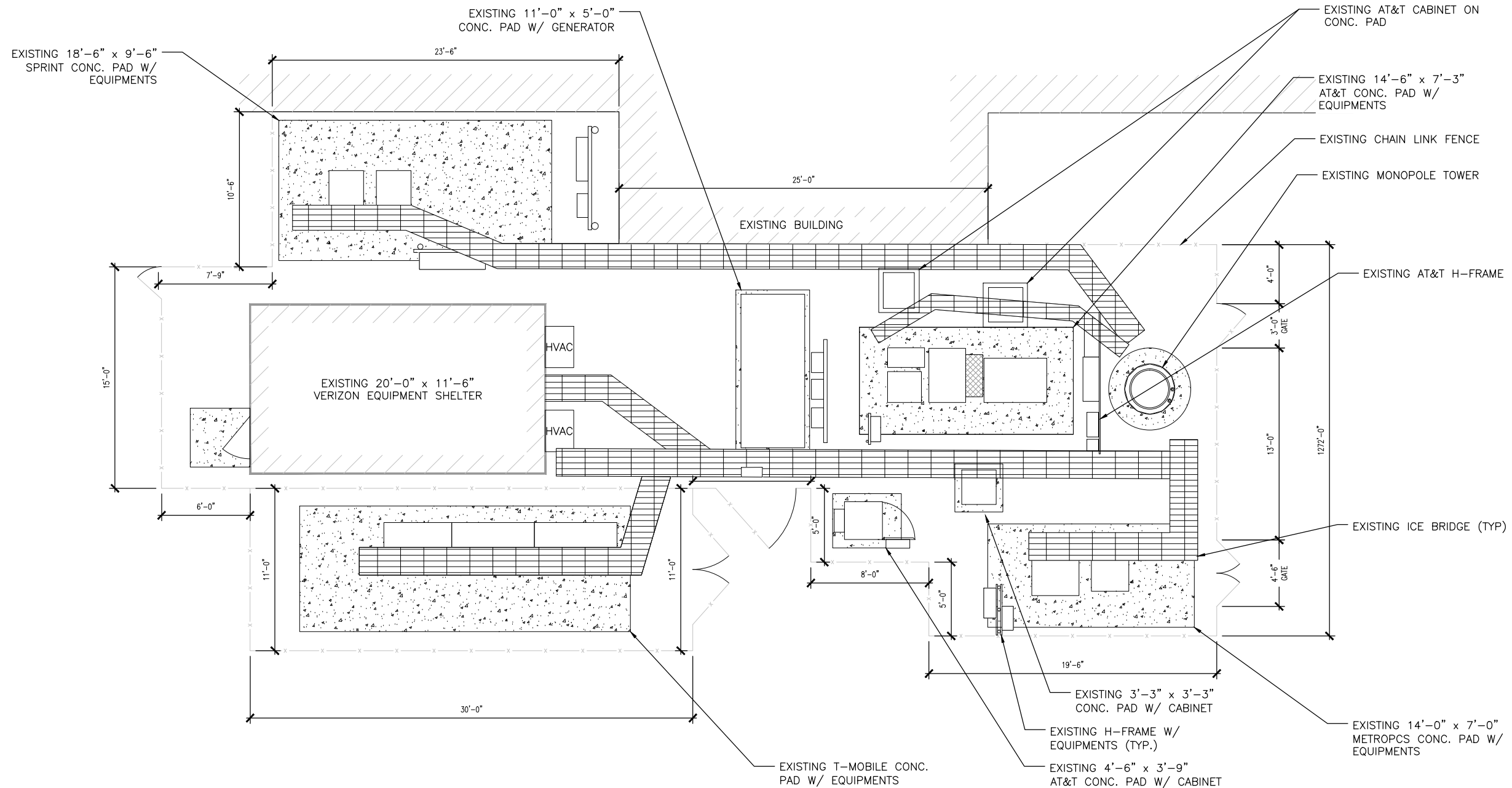
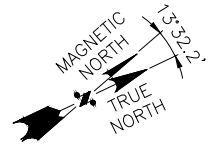


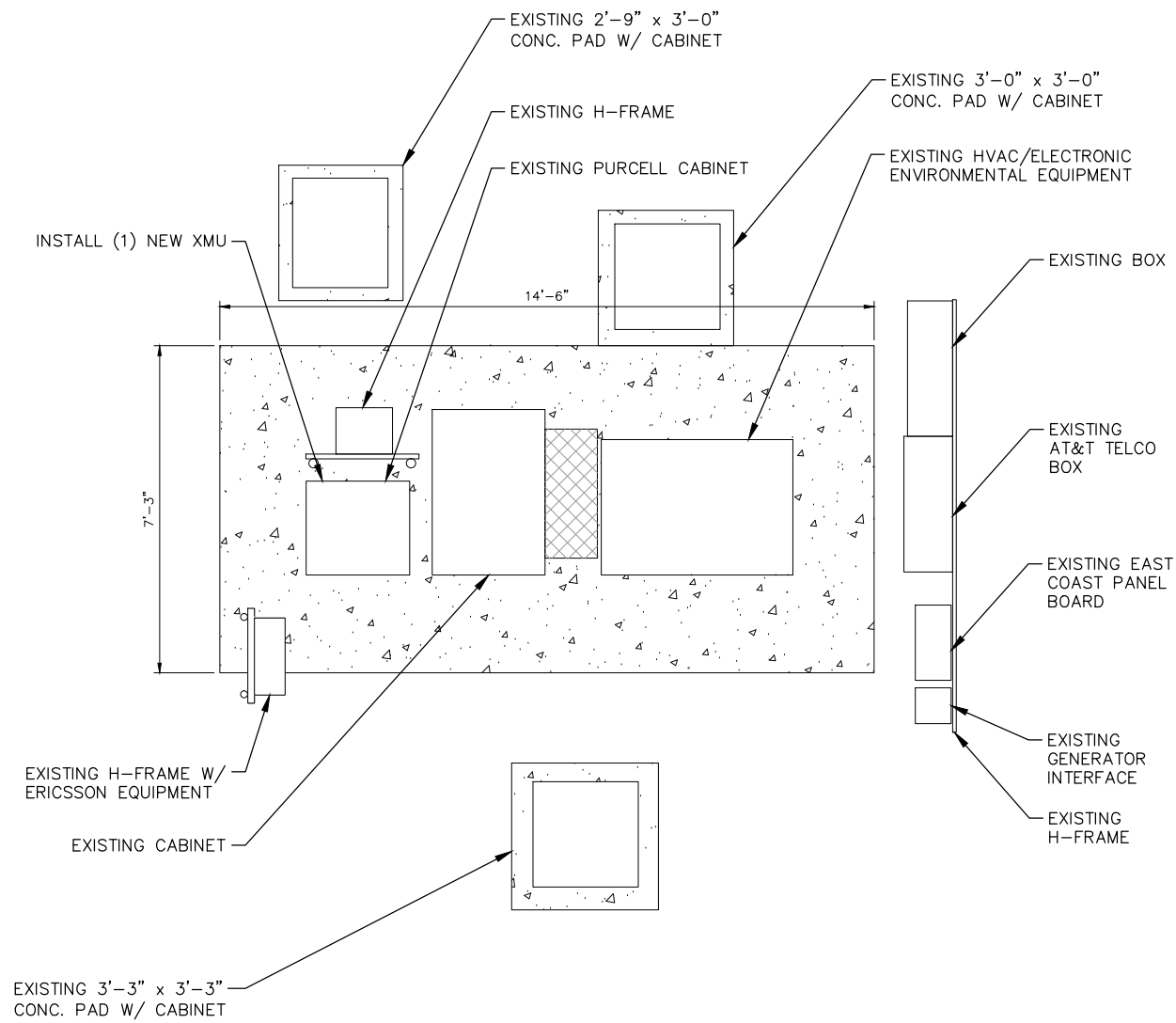
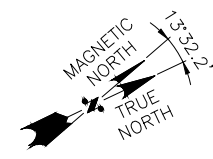
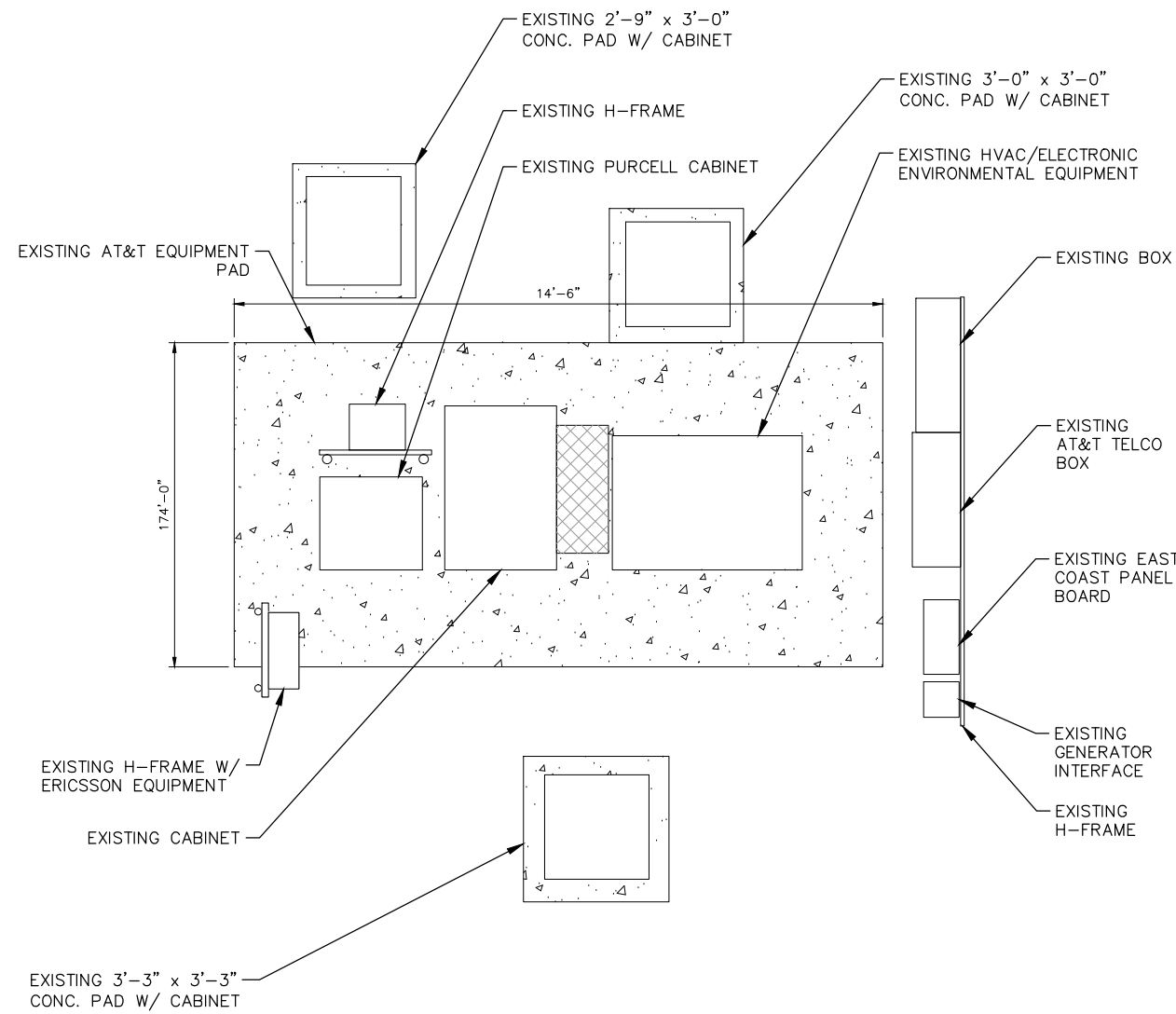
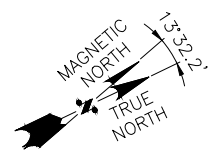
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COMPOUND PLAN

SHEET NUMBER:

A-1





1355 WEST UNIVERSITY DRIVE
MESA, AZ 85201-5419



16 ESQUIRE ROAD
BILLERICA, MA 01821

PLANS PREPARED BY:



1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038

NO.	DATE	DESCRIPTION	BY
A	11/04/16	FOR REVIEW	NPS
0	12/03/16	ISSUE FOR CONSTRUCTION	NPS

SITE INFORMATION:

CT5431
SHELTON NE
FA CODE: 10071231
30 OLIVER TERRACE
SHELTON, CT 06484

SEAL:

MICHAEL F. PLAHOVINSAK, P.E. #25849
18301 S.R. 161, Plain City, OH 43064
614-398-6250 / mike@mpeng.com

SHEET TITLE:
EQUIPMENT LAYOUTS

SHEET NUMBER:
A-2



1355 WEST UNIVERSITY DRIVE
MESA, AZ 85201-5419



16 ESQUIRE ROAD
BILLERICA, MA 01821

PLANS PREPARED BY:



1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038

NO.	DATE	DESCRIPTION	BY
A	11/04/16	FOR REVIEW	NPS
0	12/03/16	ISSUE FOR CONSTRUCTION	NPS

SITE INFORMATION:

CT5431
SHELTON NE
FA CODE: 10071231

30 OLIVER TERRACE
SHELTON, CT 06484

SEAL:



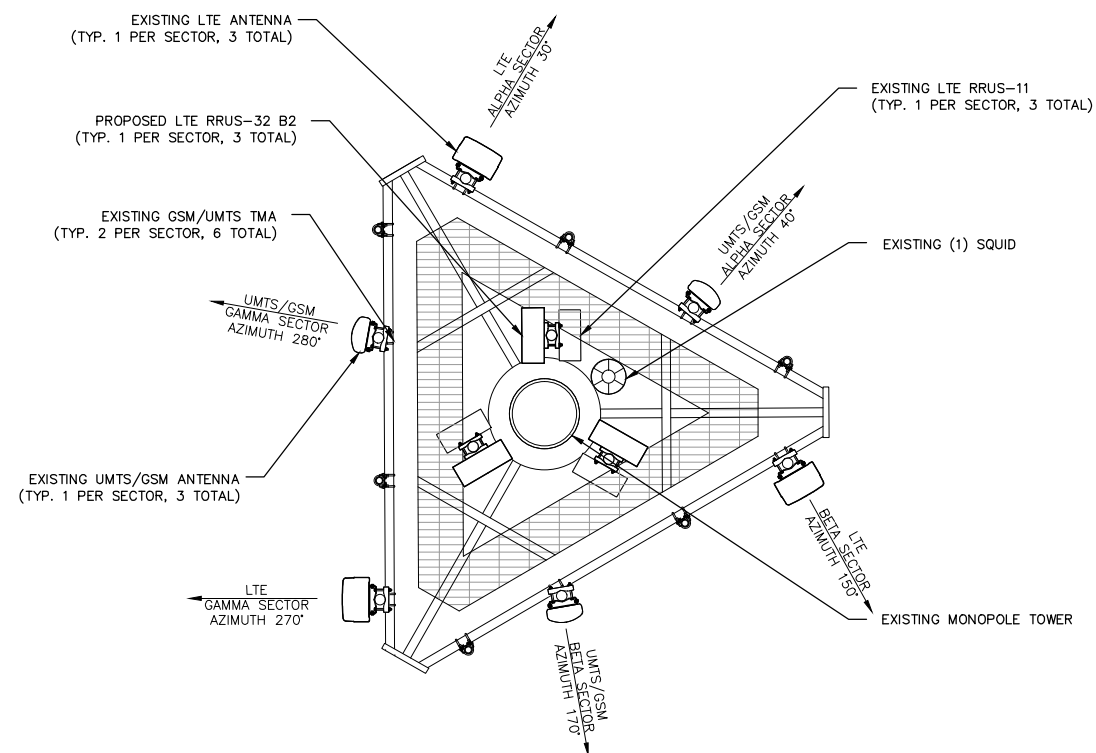
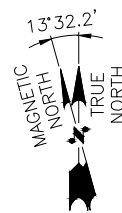
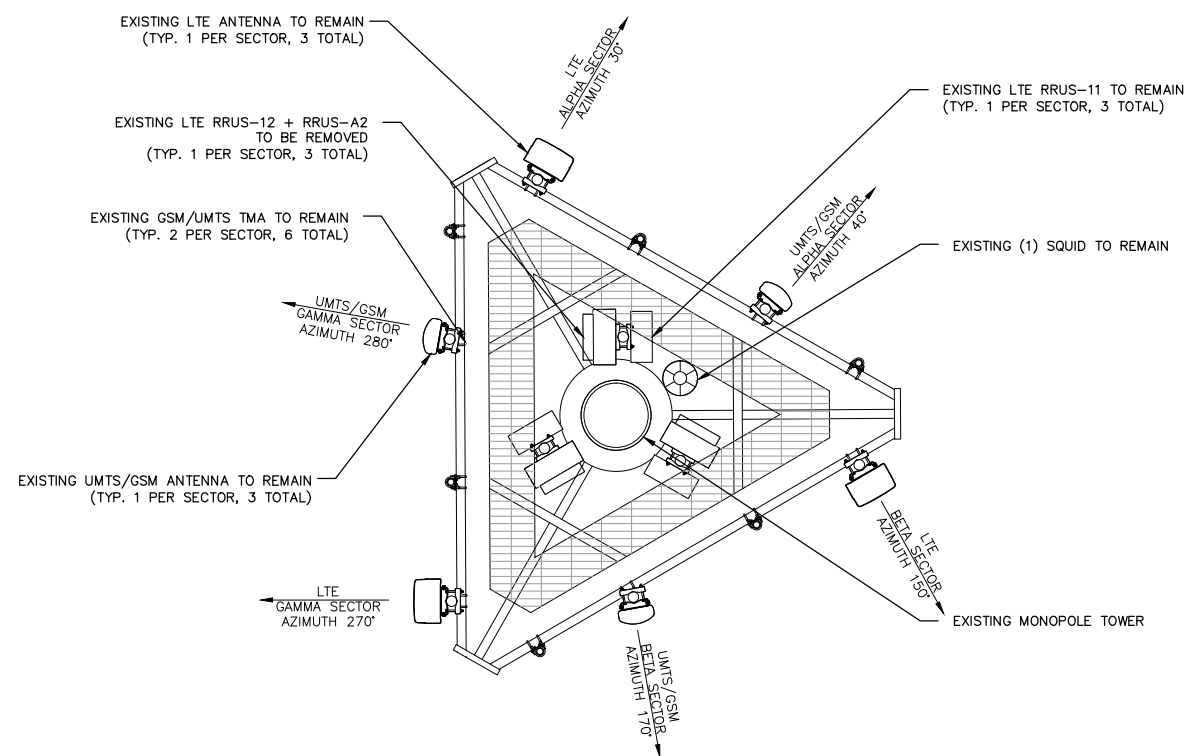
MICHAEL F. PLAHOVINSAK, P.E. #25849
Sole Proprietor - Independent Engineer
18301 S.R. 161, Plain City, OH 43064
614-398-6250 / mike@mpeng.com

SHEET TITLE:

ANTENNA LAYOUTS

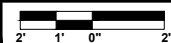
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EXISTING ANTENNA LAYOUT

22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"



1

PROPOSED ANTENNA LAYOUT

22"x34" SCALE: 1/2" = 1'-0"
11"x17" SCALE: 1/4" = 1'-0"



2



1355 WEST UNIVERSITY DRIVE
MESA, AZ 85201-5419

16 ESQUIRE ROAD
BILLERICA, MA 01821

PLANS PREPARED BY:

1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038

NO.	DATE	DESCRIPTION	BY
A	11/04/16	FOR REVIEW	NPS
0	12/03/16	ISSUE FOR CONSTRUCTION	NPS

SITE INFORMATION:

CT5431
SHELTON NE
FA CODE: 10071231

30 OLIVER TERRACE
SHELTON, CT 06484

SEAL:

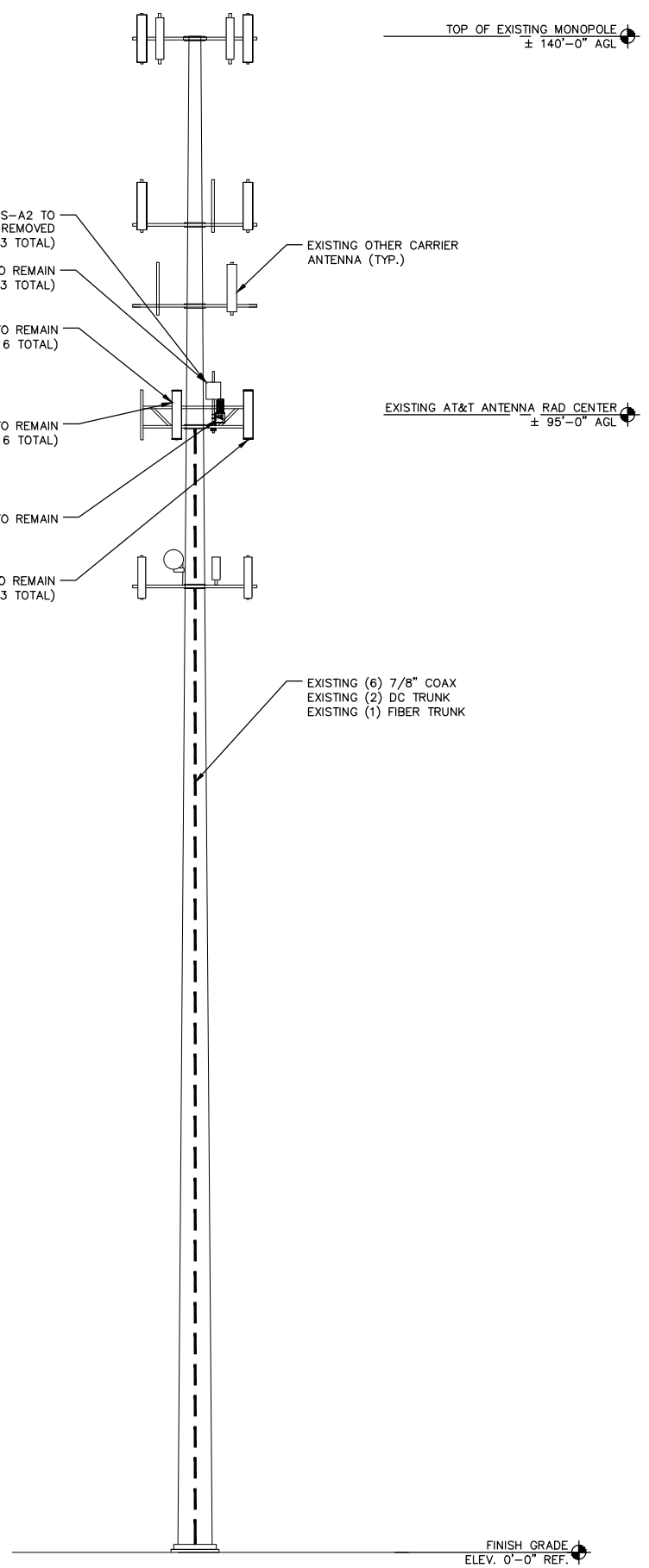


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TOWER ELEVATION

SHEET NUMBER:

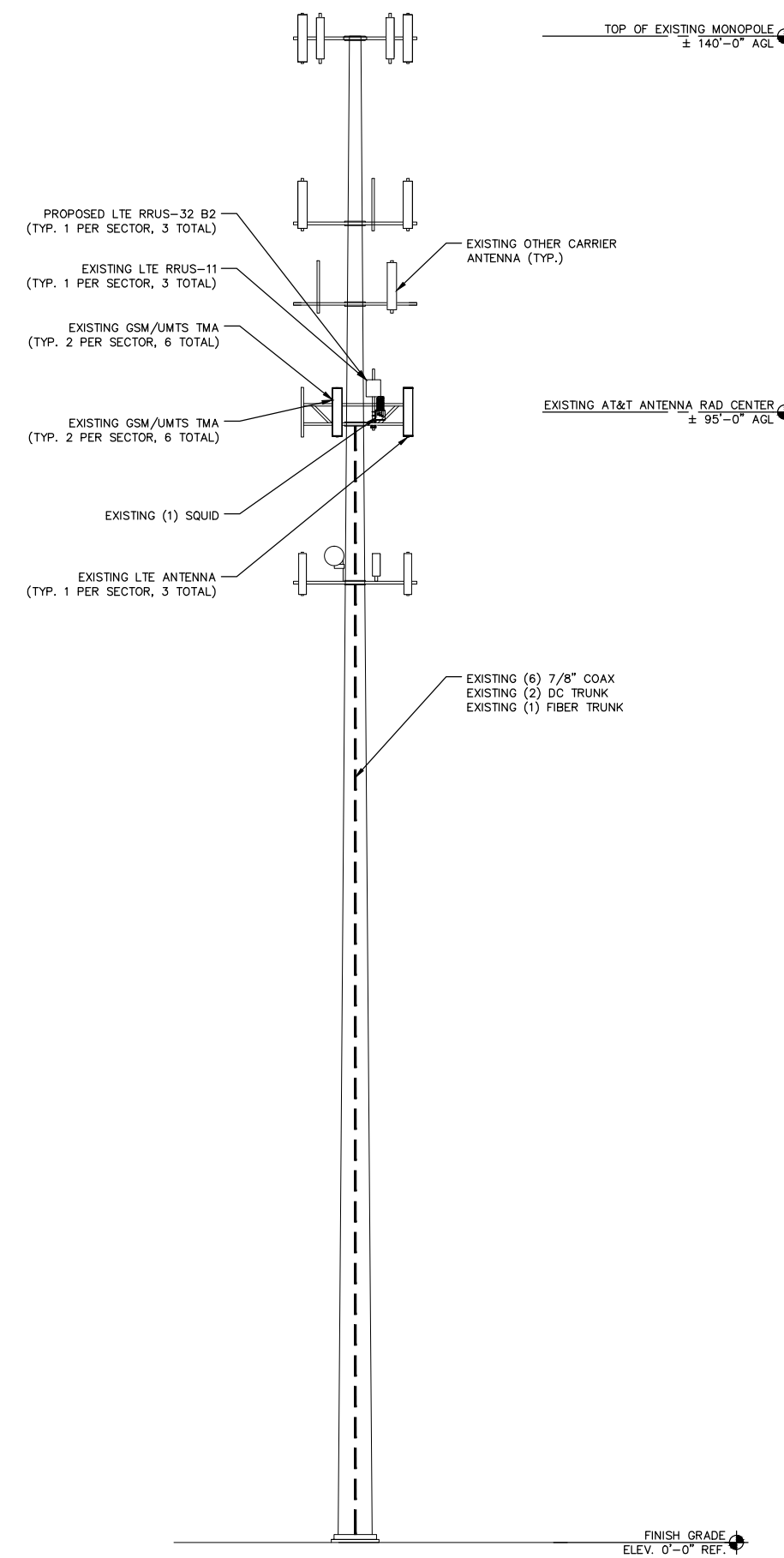
A-4



EXISTING TOWER ELEVATION

22"x34" SCALE: 1/8" = 1'-0"
11"x17" SCALE: 1/16" = 1'-0"
8' 6" 4" 2" 0" 8'

1



PROPOSED TOWER ELEVATION

22"x34" SCALE: 1/8" = 1'-0"
11"x17" SCALE: 1/16" = 1'-0"
8' 6" 4" 2" 0" 8'

2



1355 WEST UNIVERSITY DRIVE
MESA, AZ 85201-5419

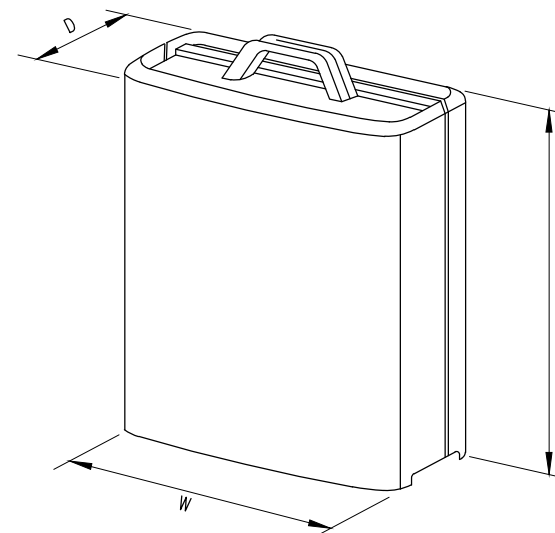


16 ESQUIRE ROAD
BILLERICA, MA 01821

PLANS PREPARED BY:



1825 W. WALNUT HILL LANE SUITE 302
IRVING, TX 75038



MODEL	L x W x H	WEIGHT
RRUS-11	19.69' x 16.97' x 7.17'	50.7 LBS
RRUS-12	20.4' x 18.5' x 7.5'	58 LBS
RRUS-32	29.9' x 13.3' x 9.5'	77 LBS
RRUS-32 B2	20.9' x 9.5' x 3.3'	77 LBS
RRUS-E2	20.4' x 18.5' x 7.5'	58 LBS
A2 MODULE	16.4' x 15.2' x 3.4'	22 LBS

NO.	DATE	DESCRIPTION	BY
A	11/04/16	FOR REVIEW	NPS
0	12/03/16	ISSUE FOR CONSTRUCTION	NPS

NOT USED

N.T.S 1

RRUS DETAILS

N.T.S 2

SITE INFORMATION:

CT5431
SHELTON NE
FA CODE: 10071231
30 OLIVER TERRACE
SHELTON, CT 06484

SEAL:



SHEET TITLE:

DETAILS

SHEET NUMBER:

A-5

NOT USED

N.T.S 3

NOT USED

N.T.S 4

Date: November 08, 2016

Charles McGuirt
Crown Castle
3530 Toringdon Way Suite 300
Charlotte, NC 28277

JACOBS®

Jacobs Engineering Group, Inc.
5449 Bells Ferry Rd.
Acworth, GA 30102
(770) 701-2500

Subject: Structural Analysis Report

Carrier Designation: AT&T Mobility Co-Locate
Carrier Site Number: CT5431
Carrier Site Name: Shelton NE

Crown Castle Designation: Crown Castle BU Number: 842873
Crown Castle Site Name: SHELTON NE
Crown Castle JDE Job Number: 401496
Crown Castle Work Order Number: 1319738
Crown Castle Application Number: 365393 Rev. 1

Engineering Firm Designation: Jacobs Engineering Group, Inc. Project Number: 1319738 Rev.1

Site Data: 30 Oliver Terrace, SHELTON, Fairfield County, CT
Latitude 41°17'38.21", Longitude -73°6'25.83"
140 Foot - Monopole Tower

Dear Charles McGuirt,

Jacobs Engineering Group, Inc. is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 965906, in accordance with application 365393, revision 1.

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:

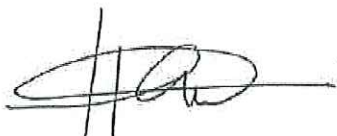
LC7: Existing + Reserved + Proposed Equipment **Sufficient Capacity**
Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

This analysis has been performed in accordance with the 2016 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per section 1609.3.1 and Appendix N as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category B and Risk Category II were used in this analysis.

All modifications and equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

We at Jacobs Engineering Group, Inc. appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:



Hector Vergara
Structural Engineer



Reviewed by:

Matthews E. Watkins
Engineering Project Manager

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1) INTRODUCTION

This tower is a 101.58-ft Monopole tower designed by FWT, INC. in January of 2003. The tower was originally designed for a wind speed of 85 mph per TIA/EIA-222-F. A 38.42-ft tower extension was added by Paul J. Ford and Company in October of 2004 bringing the overall height to 140-ft. The tower has been modified multiple times in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA-222-G Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a 3-second gust wind speed of 97 mph with no ice, 50 mph with 0.75 inch ice thickness and 60 mph under service loads, exposure category B.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
95.0	95.0	3	cci antennas	HPA-65R-BUU-H6 w/ Mount Pipe	2	5/8	-
		2			2	3/4	
		3	ericsson	RRUS 32 B2	1	3/8	

Table 2 - Existing and Reserved Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note	
138.0	140.0	3	css	X7C-FRO-660-VR0 w/ Mount Pipe	2	1-5/8	2	
		6	andrew	HBXX-6516DS-A2M w/ Mount Pipe				
		3	alcatel lucent	AWS4 (B66) 4x45 RRH				
		3	alcatel lucent	RRH2X60-PCS				
		3	alcatel lucent	RRH2x60-700				
		1	rfs celwave	DB-T1-6Z-8AB-0Z				
		145.0	1	andrew	DB636-C	12 1	1-5/8 1-1/4	1
		140.0	3	amphenol	BXA-80063-6BF-EDIN-4 w/ Mount Pipe			
			1	rfs celwave	DB-T1-6Z-8AB-0Z			
		138.0	1	crown mounts	Platform Mount [LP 403-1]			
120.0	120.0	3	commscope	LNx-6515DS-A1M w/ Mount Pipe	18	1-5/8	1	
		3	rfs celwave	APX16PV-16PVL w/ Mount Pipe				
		3	ericsson	KRY 112 144/1				
		3	ericsson	KRY 112 489/2				
		3	rfs celwave	APX16DWV-16DWVS-E-A20 w/ Mount Pipe				
		1	crown mounts	T-Arm Mount [TA 602-3]				

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
99.0	99.0	3	ericsson	TME-RRUS-11	1	5/8	3
		1	crown mounts	Side Arm Mount [SO 102-3]	2	7/8	1
		3	ericsson	TME-RRUS-11			
		1	raycap	DC6-48-60-18-8F			
95.0	95.0	1	crown mounts	Platform Mount [LP 1001-1]	6	7/8	1
		3	kathrein	800 10121 w/ Mount Pipe			
		6	powerwave technologies	LGP21401			
		3	powerwave technologies	P65-16-XLH-RR w/ Mount Pipe	-	-	3
73.0	75.0	3	alcatel lucent	1900MHz 4X40W RRH	3	1-1/4	1
		3	alcatel lucent	800 EXTERNAL NOTCH FILTER			
		3	alcatel lucent	800MHZ 2X50W RRH			
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe			
	73.0	1	crown mounts	Platform Mount [LP 1201-1]	-	-	-
50.0	50.0	1	crown mounts	Pipe Mount [PM 601-1]	-	-	1
		1	pctel	GPS-TMG-HR-26NCM			

Notes:

- 1) Existing Equipment
- 2) Reserved Equipment
- 3) Existing Equipment To Be Removed; Not Considered In This Analysis

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
100.0	100.0	6	Allgon	7920.XX Dual Band Antenna	-	-
		2	Generic	4' Diam. Std. Dish		
90.0	90.0	9	Generic	4' x 1' x 3" Panel Antenna	-	-
80.0	80.0	9	Generic	4' x 1' x 3" Panel Antenna	-	-

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Clarence Welti Assoc., Inc.	4529442	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Dewberry-Goodkind, Inc.	4598376	CCISITES
4-TOWER MANUFACTURER DRAWINGS	FWT, Inc.	4598387	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	B+T Group	4858944	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD Associates	5461041	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD Associates	5461043	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	FDH Velocitel	5785413	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Jacobs Engineering Group, Inc.	5963243	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Jacobs Engineering Group, Inc.	6087139	CCISITES
4-POST-MODIFICATION INSPECTION	B+T Group	5095590	CCISITES
4-POST-MODIFICATION INSPECTION	Tower Engineering Professionals	5994609	CCISITES
4-POST-MODIFICATION INSPECTION	FDH Velocitel	6231105	CCISITES
4-POST-MODIFICATION INSPECTION	FDH Velocitel	6086125	CCISITES
4-TOWER STRUCTURAL ANALYSIS REPORTS	Paul J. Ford and Company	4964551	CCISITES
4-TOWER STRUCTURAL ANALYSIS REPORTS	Jacobs Engineering Group, Inc.	6087134	CCISITES
Tower Rating Data	Crown Castle	Aug 13 2016	CCISITES

3.1) Analysis Method

tnxTower (version 7.0.7.0), 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.

3.2) Assumptions

- 1) Tower and structures were built in accordance with the manufacturer's specifications.
- 2) The tower and structures have been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 4) The existing base plate grout was not considered in this analysis.
- 5) Specifications of the weld connecting the tower shaft to the base plate have not been provided to Jacobs at time of analysis and are outside the scope of this report.
- 6) Porthole dimensions, placement, and weld specifications have not been provided to Jacobs and are outside the scope of this report.

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

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
140 - 135	Pole	TP14.296x13.161x0.1875	Pole	16.1%	Pass
135 - 130	Pole	TP15.431x14.296x0.1875	Pole	27.8%	Pass
130 - 125	Pole	TP16.566x15.431x0.1875	Pole	36.6%	Pass
125 - 120	Pole	TP17.701x16.566x0.1875	Pole	43.3%	Pass
120 - 115	Pole	TP18.836x17.701x0.1875	Pole	52.9%	Pass
115 - 114.75	Pole + Reinf.	TP18.893x18.836x0.4625	Reinf. 11 Tension Rupture	39.7%	Pass
114.75 - 109.75	Pole + Reinf.	TP20.027x18.893x0.45	Reinf. 11 Tension Rupture	47.2%	Pass
109.75 - 104.75	Pole + Reinf.	TP21.162x20.027x0.425	Reinf. 11 Tension Rupture	54.3%	Pass
104.75 - 101.58	Pole + Reinf.	TP21.882x21.162x0.4188	Reinf. 11 Tension Rupture	58.7%	Pass
101.58 - 101.33	Pole	TP21.939x21.882x0.3125	Pole	44.2%	Pass
101.33 - 96.33	Pole	TP23.074x21.939x0.3125	Pole	48.0%	Pass
96.33 - 91.33	Pole	TP24.209x23.074x0.3125	Pole	53.4%	Pass
91.33 - 91	Pole	TP24.284x24.209x0.3125	Pole	53.7%	Pass
91 - 90.75	Pole + Reinf.	TP24.34x24.284x0.6	Reinf. 10 Compression	34.2%	Pass
90.75 - 85.75	Pole + Reinf.	TP25.475x24.34x0.5875	Reinf. 10 Compression	38.2%	Pass
85.75 - 80.75	Pole + Reinf.	TP26.61x25.475x0.5625	Reinf. 10 Compression	41.9%	Pass
80.75 - 75.75	Pole + Reinf.	TP27.745x26.61x0.55	Reinf. 10 Compression	45.2%	Pass
75.75 - 70.75	Pole + Reinf.	TP28.88x27.745x0.5438	Reinf. 10 Compression	49.0%	Pass
70.75 - 69.98	Pole + Reinf.	TP29.055x28.88x0.5313	Reinf. 4 Tension Rupture	70.6%	Pass
69.98 - 69.73	Pole + Reinf.	TP29.112x29.055x0.5313	Reinf. 4 Tension Rupture	70.9%	Pass
69.73 - 64.73	Pole + Reinf.	TP30.247x29.112x0.525	Reinf. 4 Tension Rupture	75.8%	Pass
64.73 - 63	Pole	TP30.64x30.247x0.3125	Pole	77.4%	Pass
63 - 62.75	Pole + Reinf.	TP30.696x30.64x0.7	Reinf. 4 Tension Rupture	59.8%	Pass
62.75 - 59.08	Pole + Reinf.	TP31.53x30.696x0.6875	Reinf. 4 Tension Rupture	62.6%	Pass
59.08 - 58.82	Pole + Reinf.	TP31.589x31.53x0.625	Reinf. 5 Tension Rupture	64.1%	Pass
58.82 - 58.67	Pole + Reinf.	TP31.623x31.589x0.625	Reinf. 5 Tension Rupture	64.2%	Pass
58.67 - 53.67	Pole + Reinf.	TP32.758x31.623x0.6125	Reinf. 5 Tension Rupture	67.8%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
53.67 - 53	Pole + Reinf.	TP33.913x32.758x0.6125	Reinf. 5 Tension Rupture	68.2%	Pass
53 - 47.58	Pole + Reinf.	TP33.515x32.285x0.6375	Reinf. 3 Tension Rupture	73.7%	Pass
47.58 - 42.58	Pole + Reinf.	TP34.65x33.515x0.625	Reinf. 3 Tension Rupture	76.9%	Pass
42.58 - 40	Pole + Reinf.	TP35.236x34.65x0.6125	Reinf. 3 Tension Rupture	78.5%	Pass
40 - 39.75	Pole + Reinf.	TP35.293x35.236x0.8125	Reinf. 3 Tension Rupture	60.9%	Pass
39.75 - 34.75	Pole + Reinf.	TP36.428x35.293x0.7875	Reinf. 3 Tension Rupture	63.4%	Pass
34.75 - 32.5	Pole + Reinf.	TP36.939x36.428x0.7875	Reinf. 3 Tension Rupture	64.5%	Pass
32.5 - 32.25	Pole + Reinf.	TP36.995x36.939x0.6125	Reinf. 7 Tension Rupture	79.9%	Pass
32.25 - 31.42	Pole + Reinf.	TP37.184x36.995x0.6	Reinf. 7 Tension Rupture	80.3%	Pass
31.42 - 31.17	Pole + Reinf.	TP37.241x37.184x0.775	Reinf. 1 Tension Rupture	65.2%	Pass
31.17 - 29	Pole + Reinf.	TP37.733x37.241x0.7625	Reinf. 1 Tension Rupture	66.2%	Pass
29 - 28.75	Pole + Reinf.	TP37.79x37.733x0.675	Reinf. 1 Tension Rupture	78.8%	Pass
28.75 - 23.75	Pole + Reinf.	TP38.925x37.79x0.6625	Reinf. 1 Tension Rupture	81.3%	Pass
23.75 - 23.5	Pole + Reinf.	TP38.982x38.925x0.6625	Reinf. 1 Tension Rupture	81.4%	Pass
23.5 - 23.25	Pole + Reinf.	TP39.039x38.982x0.7875	Reinf. 1 Tension Rupture	66.6%	Pass
23.25 - 23	Pole + Reinf.	TP39.095x39.039x0.7875	Reinf. 1 Tension Rupture	66.7%	Pass
23 - 22.75	Pole + Reinf.	TP39.152x39.095x0.65	Reinf. 1 Tension Rupture	81.1%	Pass
22.75 - 17.75	Pole + Reinf.	TP40.287x39.152x0.6375	Reinf. 1 Tension Rupture	83.4%	Pass
17.75 - 12.75	Pole + Reinf.	TP41.422x40.287x0.625	Reinf. 1 Tension Rupture	85.6%	Pass
12.75 - 7.75	Pole + Reinf.	TP42.558x41.422x0.6125	Reinf. 1 Tension Rupture	87.7%	Pass
7.75 - 5.25	Pole + Reinf.	TP43.125x42.558x0.6125	Reinf. 1 Tension Rupture	88.7%	Pass
5.25 - 5	Pole + Reinf.	TP43.182x43.125x0.6875	Reinf. 1 Tension Rupture	75.3%	Pass
5 - 0	Pole + Reinf.	TP44.317x43.182x0.675	Reinf. 12 Weldment	78.1%	Pass
				Summary	
			Pole	77.4%	Pass
			Reinforcement	88.7%	Pass
			Overall	88.7%	Pass

Table 6 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	71.1	Pass
1	Base Plate	0	62.1	Pass
1	Base Foundation Structural	0	58.2	Pass
1	Base Foundation Soil Interaction	0	46.4	Pass
1	Flange Plate	101.58	34.8	Pass
1	Flange Bolt		63.8	Pass

Structure Rating (max from all components) =	88.7%
---	--------------

Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the existing, reserved, and proposed loads. No modifications are required at this time.

APPENDIX A
TNXTOWER OUTPUT

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 2"x15'	140	TME-RRUS-11	99
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	TME-RRUS-11	99
		TME-RRUS-11	99
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	DC6-48-60-18-8F	99
		(2) 6' x 2" Mount Pipe	99
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	(2) 6' x 2" Mount Pipe	99
		(2) 6' x 2" Mount Pipe	99
DB636-C	138	Side Arm Mount [SO 102-3]	99
DB-T1-6Z-8AB-0Z	138	800 10121 w/ Mount Pipe	95
X7C-FRO-660-VR0 w/ Mount Pipe	138	800 10121 w/ Mount Pipe	95
X7C-FRO-660-VR0 w/ Mount Pipe	138	800 10121 w/ Mount Pipe	95
X7C-FRO-660-VR0 w/ Mount Pipe	138	(2) LGP21401	95
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	(2) LGP21401	95
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	(2) LGP21401	95
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	HPA-65R-BUU-H6 w/ Mount Pipe	95
AWS4 (B66) 4x45 RRH	138	HPA-65R-BUU-H6 w/ Mount Pipe	95
AWS4 (B66) 4x45 RRH	138	HPA-65R-BUU-H6 w/ Mount Pipe	95
AWS4 (B66) 4x45 RRH	138	RRUS 32 B2	95
RRH2X60-PCS	138	RRUS 32 B2	95
RRH2X60-PCS	138	RRUS 32 B2	95
RRH2X60-PCS	138	6' x 2" Mount Pipe	95
RRH2x60-700	138	6' x 2" Mount Pipe	95
RRH2x60-700	138	6' x 2" Mount Pipe	95
RRH2x60-700	138	Platform Mount [LP 1001-1]	95
DB-T1-6Z-8AB-0Z	138	APXVSP18-C-A20 w/ Mount Pipe	73
Platform Mount [LP 403-1]	138	APXVSP18-C-A20 w/ Mount Pipe	73
APX16PV-16PVL w/ Mount Pipe	120	APXVSP18-C-A20 w/ Mount Pipe	73
APX16PV-16PVL w/ Mount Pipe	120	800MHZ 2X50W RRH	73
APX16PV-16PVL w/ Mount Pipe	120	800MHZ 2X50W RRH	73
LNX-6515DS-A1M w/ Mount Pipe	120	800MHZ 2X50W RRH	73
LNX-6515DS-A1M w/ Mount Pipe	120	800 EXTERNAL NOTCH FILTER	73
LNX-6515DS-A1M w/ Mount Pipe	120	800 EXTERNAL NOTCH FILTER	73
LNX-6515DS-A1M w/ Mount Pipe	120	800 EXTERNAL NOTCH FILTER	73
APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120	1900MHz 4X40W RRH	73
APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120	1900MHz 4X40W RRH	73
APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120	1900MHz 4X40W RRH	73
KRY 112 489/2	120	6' x 2" Mount Pipe	73
KRY 112 489/2	120	6' x 2" Mount Pipe	73
KRY 112 489/2	120	10'x3" Pipe Mount	73
KRY 112 144/1	120	10'x3" Pipe Mount	73
KRY 112 144/1	120	10'x3" Pipe Mount	73
KRY 112 144/1	120	Platform Mount [LP 1201-1]	73
T-Arm Mount [TA 602-3]	120	GPS-TMG-HR-26NCM	50
		Pipe Mount [PM 601-1]	50

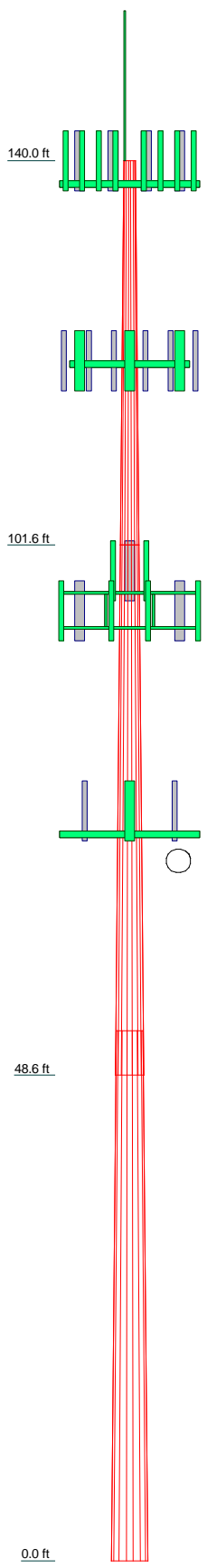
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 97 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.0000 ft

Section	1	2	3
Length (ft)	38.4200	53.0000	53.0000
Number of Sides	18	18	18
Thickness (in)	0.1875	0.3125	0.3125
Socket Length (ft)		4.4200	
Top Dia (in)	13.1610	21.8820	32.2847
Bot Dia (in)	21.8820	33.9130	44.3170
Grade		A572-65	
Weight (K)	1.3	4.9	6.8



<p>Jacobs Engineering Group, Inc.</p> <p>5449 Bells Ferry Rd Acworth, GA 30102 Phone: (770) 701-2500 FAX: (770) 701-2501</p> <p>Jacobs Engineering Group, Inc</p>	<p>Job: Shelton NE</p> <p>Project: BU#842873 WO#1319738</p>
	<p>Client: Crown Castle Drawn by: Vincent Jiang App'd:</p> <p>Code: TIA-222-G Date: 11/08/16 Scale: NTS</p> <p>Path: C:\Users\Jiang\...\Analysis\LC7-BU842873_WO1319738_LC7_20161102.dwg Dwg No. E-1</p>

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 2"x15'	140	TME-RRUS-11	99
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	TME-RRUS-11	99
		TME-RRUS-11	99
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	DC6-48-60-18-8F	99
		(2) 6' x 2" Mount Pipe	99
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	(2) 6' x 2" Mount Pipe	99
		(2) 6' x 2" Mount Pipe	99
DB636-C	138	Side Arm Mount [SO 102-3]	99
DB-T1-6Z-8AB-0Z	138	800 10121 w/ Mount Pipe	95
X7C-FRO-660-VR0 w/ Mount Pipe	138	800 10121 w/ Mount Pipe	95
X7C-FRO-660-VR0 w/ Mount Pipe	138	800 10121 w/ Mount Pipe	95
X7C-FRO-660-VR0 w/ Mount Pipe	138	(2) LGP21401	95
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	(2) LGP21401	95
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	(2) LGP21401	95
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	HPA-65R-BUU-H6 w/ Mount Pipe	95
AWS4 (B66) 4x45 RRH	138	HPA-65R-BUU-H6 w/ Mount Pipe	95
AWS4 (B66) 4x45 RRH	138	HPA-65R-BUU-H6 w/ Mount Pipe	95
AWS4 (B66) 4x45 RRH	138	RRUS 32 B2	95
RRH2X60-PCS	138	RRUS 32 B2	95
RRH2X60-PCS	138	RRUS 32 B2	95
RRH2X60-PCS	138	6' x 2" Mount Pipe	95
RRH2x60-700	138	6' x 2" Mount Pipe	95
RRH2x60-700	138	6' x 2" Mount Pipe	95
RRH2x60-700	138	Platform Mount [LP 1001-1]	95
DB-T1-6Z-8AB-0Z	138	APXVSP18-C-A20 w/ Mount Pipe	73
Platform Mount [LP 403-1]	138	APXVSP18-C-A20 w/ Mount Pipe	73
APX16PV-16PVL w/ Mount Pipe	120	APXVSP18-C-A20 w/ Mount Pipe	73
APX16PV-16PVL w/ Mount Pipe	120	800MHZ 2X50W RRH	73
APX16PV-16PVL w/ Mount Pipe	120	800MHZ 2X50W RRH	73
LNX-6515DS-A1M w/ Mount Pipe	120	800MHZ 2X50W RRH	73
LNX-6515DS-A1M w/ Mount Pipe	120	800 EXTERNAL NOTCH FILTER	73
LNX-6515DS-A1M w/ Mount Pipe	120	800 EXTERNAL NOTCH FILTER	73
LNX-6515DS-A1M w/ Mount Pipe	120	800 EXTERNAL NOTCH FILTER	73
APX16DWW-16DWWV-E-A20 w/ Mount Pipe	120	1900MHz 4X40W RRH	73
APX16DWW-16DWWV-E-A20 w/ Mount Pipe	120	1900MHz 4X40W RRH	73
APX16DWW-16DWWV-E-A20 w/ Mount Pipe	120	1900MHz 4X40W RRH	73
APX16DWW-16DWWV-E-A20 w/ Mount Pipe	120	6' x 2" Mount Pipe	73
KRY 112 489/2	120	6' x 2" Mount Pipe	73
KRY 112 489/2	120	6' x 2" Mount Pipe	73
KRY 112 489/2	120	10"x3" Pipe Mount	73
KRY 112 144/1	120	10"x3" Pipe Mount	73
KRY 112 144/1	120	10"x3" Pipe Mount	73
KRY 112 144/1	120	Platform Mount [LP 1201-1]	73
T-Arm Mount [TA 602-3]	120	GPS-TMG-HR-26NCM	50
		Pipe Mount [PM 601-1]	50

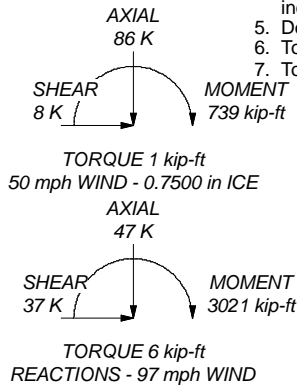
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

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2. Tower designed for Exposure B to the TIA-222-G Standard.
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4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.0000 ft

ALL REACTIONS ARE FACTORED



Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
2	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
3	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
4	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
5	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
6	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
7	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
8	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
9	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
10	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
11	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
12	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
13	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
14	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
15	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
16	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
17	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
18	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
19	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
20	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
21	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
22	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
23	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
24	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
25	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
26	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
27	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
28	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
29	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
30	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
31	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
32	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
33	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
34	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
35	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
36	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
37	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
38	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
39	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
40	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
41	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
42	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
43	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
44	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
45	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
46	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
47	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
48	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
49	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1
50	5.0000	18	0.6750	4.4200	43.1483	44.3426	A572-65	0.1

Jacobs Engineering Group. Inc.
 5449 Bells Ferry Rd
 Acworth, GA 30102
 Phone: (770) 701-2500
 FAX: (770) 701-2501

Job: **Shelton NE**
 Project: **BU#842873 WO#1319738**
 Client: Crown Castle
 Code: TIA-222-G
 Path: C:\Users\Jiang\VD\Desktop\WO 1319738\Analysis\LC7\MODCat.B.er

Drawn by: Vincent Jiang
 Date: 11/08/16
 Scale: NTS
 Dwg No. E-1

Tower Input Data

There is a pole section.
 This tower is designed using the TIA-222-G standard.
 The following design criteria apply:

- 4) Tower is located in Fairfield County, Connecticut.
- 5) Basic wind speed of 97 mph.
- 6) Structure Class II.
- 7) Exposure Category B.
- 8) Topographic Category 1.
- 9) Crest Height 0.0000 ft.
- 10) Nominal ice thickness of 0.7500 in.
- 11) Ice thickness is considered to increase with height.
- 12) Ice density of 56.00 pcf.
- 13) A wind speed of 50 mph is used in combination with ice.
- 14) Temperature drop of 50 °F.
- 15) Deflections calculated using a wind speed of 60 mph.
- 16) A non-linear (P-delta) analysis was used.
- 17) Pressures are calculated at each section.
- 18) Stress ratio used in pole design is 1.
- 19) 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 | 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-G Bracing Resist.
Exemption
Use TIA-222-G Tension Splice
Exemption

<div style="text-align: center; background-color: #e0e0e0; padding: 2px;">Poles</div> ✓ Include Shear-Torsion Interaction
Always Use Sub-Critical Flow
Use Top Mounted Sockets |
|--|--|---|

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	140.0000- 135.0000	5.0000	0.00	18	13.1610	14.2960	0.1875	0.7500	A572-65 (65 ksi)
L2	135.0000- 130.0000	5.0000	0.00	18	14.2960	15.4309	0.1875	0.7500	A572-65 (65 ksi)
L3	130.0000- 125.0000	5.0000	0.00	18	15.4309	16.5659	0.1875	0.7500	A572-65 (65 ksi)
L4	125.0000- 120.0000	5.0000	0.00	18	16.5659	17.7008	0.1875	0.7500	A572-65 (65 ksi)
L5	120.0000- 115.0000	5.0000	0.00	18	17.7008	18.8358	0.1875	0.7500	A572-65 (65 ksi)
L6	115.0000-	0.2500	0.00	18	18.8358	18.8925	0.4625	1.8500	A572-65

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
	114.7500								(65 ksi)
L7	114.7500- 109.7500	5.0000	0.00	18	18.8925	20.0275	0.4500	1.8000	A572-65 (65 ksi)
L8	109.7500- 104.7500	5.0000	0.00	18	20.0275	21.1624	0.4250	1.7000	A572-65 (65 ksi)
L9	104.7500- 101.5800	3.1700	0.00	18	21.1624	21.8820	0.4188	1.6750	A572-65 (65 ksi)
L10	101.5800- 101.3300	0.2500	0.00	18	21.8820	21.9387	0.3125	1.2500	A572-65 (65 ksi)
L11	101.3300- 96.3300	5.0000	0.00	18	21.9387	23.0738	0.3125	1.2500	A572-65 (65 ksi)
L12	96.3300- 91.3300	5.0000	0.00	18	23.0738	24.2087	0.3125	1.2500	A572-65 (65 ksi)
L13	91.3300- 91.0000	0.3300	0.00	18	24.2087	24.2837	0.3125	1.2500	A572-65 (65 ksi)
L14	91.0000- 90.7500	0.2500	0.00	18	24.2837	24.3404	0.6000	2.4000	A572-65 (65 ksi)
L15	90.7500- 85.7500	5.0000	0.00	18	24.3404	25.4754	0.5875	2.3500	A572-65 (65 ksi)
L16	85.7500- 80.7500	5.0000	0.00	18	25.4754	26.6104	0.5625	2.2500	A572-65 (65 ksi)
L17	80.7500- 75.7500	5.0000	0.00	18	26.6104	27.7454	0.5500	2.2000	A572-65 (65 ksi)
L18	75.7500- 70.7500	5.0000	0.00	18	27.7454	28.8804	0.5437	2.1750	A572-65 (65 ksi)
L19	70.7500- 69.9800	0.7700	0.00	18	28.8804	29.0552	0.5313	2.1250	A572-65 (65 ksi)
L20	69.9800- 69.7300	0.2500	0.00	18	29.0552	29.1120	0.5313	2.1250	A572-65 (65 ksi)
L21	69.7300- 64.7300	5.0000	0.00	18	29.1120	30.2469	0.5250	2.1000	A572-65 (65 ksi)
L22	64.7300- 63.0000	1.7300	0.00	18	30.2469	30.6397	0.3125	1.2500	A572-65 (65 ksi)
L23	63.0000- 62.7500	0.2500	0.00	18	30.6397	30.6964	0.7000	2.8000	A572-65 (65 ksi)
L24	62.7500- 59.0800	3.6700	0.00	18	30.6964	31.5295	0.6875	2.7500	A572-65 (65 ksi)
L25	59.0800- 58.8200	0.2600	0.00	18	31.5295	31.5885	0.6250	2.5000	A572-65 (65 ksi)
L26	58.8200- 58.6700	0.1500	0.00	18	31.5885	31.6226	0.6250	2.5000	A572-65 (65 ksi)
L27	58.6700- 53.6700	5.0000	0.00	18	31.6226	32.7576	0.6125	2.4500	A572-65 (65 ksi)
L28	53.6700- 48.5800	5.0900	4.42	18	32.7576	33.9130	0.6125	2.4500	A572-65 (65 ksi)
L29	48.5800- 47.5800	5.4200	0.00	18	32.2847	33.5151	0.6375	2.5500	A572-65 (65 ksi)
L30	47.5800- 42.5800	5.0000	0.00	18	33.5151	34.6503	0.6250	2.5000	A572-65 (65 ksi)
L31	42.5800- 40.0000	2.5800	0.00	18	34.6503	35.2360	0.6125	2.4500	A572-65 (65 ksi)
L32	40.0000- 39.7500	0.2500	0.00	18	35.2360	35.2927	0.8125	3.2500	A572-65 (65 ksi)
L33	39.7500- 34.7500	5.0000	0.00	18	35.2927	36.4279	0.7875	3.1500	A572-65 (65 ksi)
L34	34.7500- 32.5000	2.2500	0.00	18	36.4279	36.9387	0.7875	3.1500	A572-65 (65 ksi)
L35	32.5000- 32.2500	0.2500	0.00	18	36.9387	36.9954	0.6125	2.4500	A572-65 (65 ksi)
L36	32.2500- 31.4200	0.8300	0.00	18	36.9954	37.1839	0.6000	2.4000	A572-65 (65 ksi)
L37	31.4200- 31.1700	0.2500	0.00	18	37.1839	37.2406	0.7750	3.1000	A572-65 (65 ksi)
L38	31.1700- 29.0000	2.1700	0.00	18	37.2406	37.7333	0.7625	3.0500	A572-65 (65 ksi)
L39	29.0000- 28.7500	0.2500	0.00	18	37.7333	37.7900	0.6750	2.7000	A572-65 (65 ksi)
L40	28.7500- 23.7500	5.0000	0.00	18	37.7900	38.9252	0.6625	2.6500	A572-65 (65 ksi)

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
L41	23.7500- 23.5000	0.2500	0.00	18	38.9252	38.9819	0.6625	2.6500	A572-65 (65 ksi)
L42	23.5000- 23.2500	0.2500	0.00	18	38.9819	39.0387	0.7875	3.1500	A572-65 (65 ksi)
L43	23.2500- 23.0000	0.2500	0.00	18	39.0387	39.0954	0.7875	3.1500	A572-65 (65 ksi)
L44	23.0000- 22.7500	0.2500	0.00	18	39.0954	39.1522	0.6500	2.6000	A572-65 (65 ksi)
L45	22.7500- 17.7500	5.0000	0.00	18	39.1522	40.2873	0.6375	2.5500	A572-65 (65 ksi)
L46	17.7500- 12.7500	5.0000	0.00	18	40.2873	41.4224	0.6250	2.5000	A572-65 (65 ksi)
L47	12.7500- 7.7500	5.0000	0.00	18	41.4224	42.5576	0.6125	2.4500	A572-65 (65 ksi)
L48	7.7500-5.2500	2.5000	0.00	18	42.5576	43.1251	0.6125	2.4500	A572-65 (65 ksi)
L49	5.2500-5.0000	0.2500	0.00	18	43.1251	43.1819	0.6875	2.7500	A572-65 (65 ksi)
L50	5.0000-0.0000	5.0000		18	43.1819	44.3170	0.6750	2.7000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	13.3640	7.7209	164.1788	4.6056	6.6858	24.5564	328.5737	3.8612	1.9863	10.594
	14.5165	8.3963	211.1466	5.0085	7.2623	29.0742	422.5710	4.1989	2.1861	11.659
L2	14.5165	8.3963	211.1466	5.0085	7.2623	29.0742	422.5710	4.1989	2.1861	11.659
	15.6690	9.0717	266.3129	5.4114	7.8389	33.9732	532.9762	4.5367	2.3858	12.724
L3	15.6690	9.0717	266.3129	5.4114	7.8389	33.9732	532.9762	4.5367	2.3858	12.724
	16.8214	9.7472	330.3372	5.8143	8.4155	39.2536	661.1090	4.8745	2.5856	13.79
L4	16.8214	9.7472	330.3372	5.8143	8.4155	39.2536	661.1090	4.8745	2.5856	13.79
	17.9739	10.4226	403.8790	6.2172	8.9920	44.9153	808.2895	5.2123	2.7853	14.855
L5	17.9739	10.4226	403.8790	6.2172	8.9920	44.9153	808.2895	5.2123	2.7853	14.855
	19.1264	11.0981	487.5980	6.6201	9.5686	50.9583	975.8376	5.5501	2.9851	15.921
L6	19.1264	26.9715	1150.3132	6.5225	9.5686	120.2178	2302.1401	13.4883	2.5011	5.408
	19.1840	27.0548	1161.0048	6.5427	9.5974	120.9707	2323.5373	13.5300	2.5111	5.429
L7	19.1840	26.3415	1131.9264	6.5471	9.5974	117.9409	2265.3421	13.1732	2.5331	5.629
	20.3364	27.9625	1354.0272	6.9500	10.1740	133.0875	2709.8360	13.9839	2.7328	6.073
L8	20.3364	26.4428	1283.7087	6.9589	10.1740	126.1759	2569.1066	13.2239	2.7768	6.534
	21.4889	27.9738	1519.8426	7.3618	10.7505	141.3739	3041.6850	13.9895	2.9766	7.004
L9	21.4889	27.5707	1498.8463	7.3640	10.7505	139.4208	2999.6649	13.7880	2.9876	7.135
	22.2196	28.5271	1660.2965	7.6195	11.1161	149.3602	3322.7776	14.2662	3.1142	7.437
L10	22.2196	21.3942	1257.5192	7.6572	11.1161	113.1264	2516.6931	10.6992	3.3012	10.564
	22.2772	21.4505	1267.4711	7.6773	11.1449	113.7267	2536.6099	10.7273	3.3112	10.596
L11	22.2772	21.4505	1267.4711	7.6773	11.1449	113.7267	2536.6099	10.7273	3.3112	10.596
	23.4297	22.5763	1477.6879	8.0802	11.7215	126.0668	2957.3202	11.2903	3.5110	11.235
L12	23.4297	22.5763	1477.6879	8.0802	11.7215	126.0668	2957.3202	11.2903	3.5110	11.235
	24.5822	23.7021	1709.9510	8.4832	12.2980	139.0425	3422.1519	11.8533	3.7107	11.874
L13	24.5822	23.7021	1709.9510	8.4832	12.2980	139.0425	3422.1519	11.8533	3.7107	11.874
	24.6583	23.7764	1726.0825	8.5098	12.3361	139.9213	3454.4362	11.8905	3.7239	11.917
L14	24.6583	45.1032	3196.2598	8.4077	12.3361	259.0981	6396.7254	22.5559	3.2179	5.363
	24.7159	45.2112	3219.2912	8.4278	12.3649	260.3566	6442.8185	22.6099	3.2279	5.38
L15	24.7159	44.2926	3157.2045	8.4323	12.3649	255.3354	6318.5633	22.1505	3.2499	5.532
	25.8684	46.4091	3631.7632	8.8352	12.9415	280.6291	7268.3052	23.2090	3.4497	5.872
L16	25.8684	44.4789	3487.7093	8.8441	12.9415	269.4979	6980.0078	22.2437	3.4937	6.211
	27.0209	46.5053	3986.4429	9.2470	13.5181	294.8969	7978.1313	23.2571	3.6934	6.566
L17	27.0209	45.4937	3903.4695	9.2514	13.5181	288.7590	7812.0754	22.7512	3.7154	6.755
	28.1734	47.4750	4436.0241	9.6544	14.0947	314.7306	8877.8852	23.7420	3.9152	7.119
L18	28.1734	46.9463	4388.6391	9.6566	14.0947	311.3687	8783.0529	23.4776	3.9262	7.221
	29.3259	48.9052	4961.2330	10.0595	14.6712	338.1602	9928.9940	24.4572	4.1260	7.588
L19	29.3259	47.8020	4853.5991	10.0640	14.6712	330.8239	9713.5847	23.9055	4.1480	7.808
	29.5034	48.0967	4943.9300	10.1260	14.7600	334.9537	9894.3654	24.0529	4.1787	7.866
L20	29.5034	48.0967	4943.9300	10.1260	14.7600	334.9537	9894.3654	24.0529	4.1787	7.866
	29.5610	48.1924	4973.4975	10.1461	14.7889	336.3000	9953.5392	24.1008	4.1887	7.885

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L21	29.5610	47.6359	4918.2108	10.1484	14.7889	332.5616	9842.8932	23.8225	4.1997	7.999
	30.7136	49.5272	5527.5868	10.5513	15.3655	359.7413	11062.447	24.7683	4.3995	8.38
L22	30.7136	29.6912	3361.3075	10.6267	15.3655	218.7575	6727.0379	14.8484	4.7735	15.275
	31.1123	30.0808	3495.3416	10.7661	15.5649	224.5649	6995.2824	15.0432	4.8426	15.496
L23	31.1123	66.5199	7533.2608	10.6286	15.5649	483.9888	15076.434	33.2663	4.1606	5.944
	31.1700	66.6460	7576.1795	10.6487	15.5938	485.8464	15162.327	33.3293	4.1706	5.958
L24	31.1700	65.4832	7450.1967	10.6532	15.5938	477.7673	14910.196	32.7478	4.1926	6.098
	32.0159	67.3011	8088.0658	10.9489	16.0170	504.9680	16186.774	33.6569	4.3392	6.312
L25	32.0159	61.3068	7397.5780	10.9711	16.0170	461.8583	14804.890	30.6592	4.4492	7.119
	32.0758	61.4239	7440.0417	10.9920	16.0470	463.6416	14889.873	30.7178	4.4596	7.135
L26	32.0758	61.4239	7440.0417	10.9920	16.0470	463.6416	14889.873	30.7178	4.4596	7.135
	32.1104	61.4914	7464.6137	11.0041	16.0643	464.6720	14939.049	30.7516	4.4656	7.145
L27	32.1104	60.2859	7324.1749	11.0086	16.0643	455.9296	14657.987	30.1487	4.4876	7.327
	33.2629	62.4924	8158.1858	11.4115	16.6408	490.2507	16327.106	31.2522	4.6873	7.653
L28	33.2629	62.4924	8158.1858	11.4115	16.6408	490.2507	16327.106	31.2522	4.6873	7.653
	34.4362	64.7387	9069.9048	11.8217	17.2278	526.4690	18151.744	32.3755	4.8907	7.985
L29	33.8016	64.0357	8102.6819	11.2347	16.4006	494.0477	16216.025	32.0239	4.5601	7.153
	34.0322	66.5254	9085.0297	11.6716	17.0257	533.6071	18182.013	33.2690	4.7767	7.493
L30	34.0322	65.2458	8917.0548	11.6760	17.0257	523.7412	17845.843	32.6291	4.7987	7.678
	35.1848	67.4976	9872.5391	12.0790	17.6023	560.8654	19758.068	33.7552	4.9984	7.998
L31	35.1848	66.1720	9685.7554	12.0834	17.6023	550.2541	19384.255	33.0923	5.0204	8.197
	35.7796	67.3107	10194.430	12.2913	17.8999	569.5250	20402.274	33.6617	5.1235	8.365
L32	35.7796	88.7739	13290.227	12.2203	17.8999	742.4757	26597.941	44.3954	4.7715	5.873
	35.8372	88.9202	13356.072	12.2405	17.9287	744.9543	26729.719	44.4686	4.7815	5.885
L33	35.8372	86.2467	12973.294	12.2494	17.9287	723.6043	25963.659	43.1316	4.8255	6.128
	36.9898	89.0840	14296.231	12.6523	18.5054	772.5455	28611.275	44.5505	5.0253	6.381
L34	36.9898	89.0840	14296.231	12.6523	18.5054	772.5455	28611.275	44.5505	5.0253	6.381
	37.5085	90.3608	14919.775	12.8337	18.7648	795.0917	29859.183	45.1890	5.1152	6.496
L35	37.5085	70.6208	11773.608	12.8958	18.7648	627.4289	23562.708	35.3171	5.4232	8.854
	37.5661	70.7312	11828.880	12.9159	18.7937	629.4073	23673.326	35.3723	5.4332	8.871
L36	37.5661	69.3115	11599.422	12.9204	18.7937	617.1980	23214.107	34.6623	5.4552	9.092
	37.7575	69.6703	11780.518	12.9873	18.8894	623.6575	23576.538	34.8418	5.4884	9.147
L37	37.7575	89.5603	14999.180	12.9251	18.8894	794.0526	30018.097	44.7887	5.1804	6.684
	37.8151	89.7000	15069.434	12.9453	18.9182	796.5560	30158.697	44.8585	5.1903	6.697
L38	37.8151	88.2834	14841.631	12.9497	18.9182	784.5145	29702.791	44.1501	5.2123	6.836
	38.3154	89.4757	15451.107	13.1246	19.1685	806.0676	30922.545	44.7464	5.2991	6.95
L39	38.3154	79.3955	13775.376	13.1557	19.1685	718.6465	27568.878	39.7053	5.4531	8.079

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
	38.3730	79.5171	13838.765	13.1758	19.1973	720.8692	27695.740	39.7661	5.4630	8.093
L40	38.3730	78.0708	13596.220	13.1803	19.1973	708.2349	27210.330	39.0428	5.4850	8.279
	39.5256	80.4577	14881.797	13.5832	19.7740	752.5951	29783.176	40.2365	5.6848	8.581
L41	39.5256	80.4577	14881.797	13.5832	19.7740	752.5951	29783.176	40.2365	5.6848	8.581
	39.5833	80.5771	14948.119	13.6034	19.8028	754.8485	29915.908	40.2962	5.6948	8.596
L42	39.5833	95.4679	17595.200	13.5590	19.8028	888.5205	35213.552	47.7430	5.4748	6.952
	39.6409	95.6097	17673.755	13.5792	19.8316	891.1898	35370.765	47.8140	5.4848	6.965
L43	39.6409	95.6097	17673.755	13.5792	19.8316	891.1898	35370.765	47.8140	5.4848	6.965
	39.6985	95.7516	17752.543	13.5993	19.8605	893.8631	35528.446	47.8849	5.4948	6.978
L44	39.6985	79.3167	14811.242	13.6481	19.8605	745.7649	29641.973	39.6659	5.7368	8.826
	39.7562	79.4338	14876.936	13.6683	19.8893	747.9868	29773.449	39.7245	5.7468	8.841
L45	39.7562	77.9316	14605.057	13.6727	19.8893	734.3171	29229.332	38.9732	5.7688	9.049
	40.9088	80.2284	15934.836	14.0757	20.4659	778.6024	31890.639	40.1218	5.9686	9.362
L46	40.9088	78.6801	15637.168	14.0801	20.4659	764.0578	31294.912	39.3475	5.9906	9.585
	42.0614	80.9319	17018.557	14.4831	21.0426	808.7671	34059.508	40.4736	6.1903	9.905
L47	42.0614	79.3376	16693.521	14.4875	21.0426	793.3205	33409.008	39.6763	6.2123	10.143
	43.2141	81.5443	18125.614	14.8905	21.6192	838.4021	36275.079	40.7799	6.4121	10.469
L48	43.2141	81.5443	18125.614	14.8905	21.6192	838.4021	36275.079	40.7799	6.4121	10.469
	43.7904	82.6477	18871.394	15.0920	21.9076	861.4102	37767.619	41.3317	6.5120	10.632
L49	43.7904	92.6042	21070.267	15.0654	21.9076	961.7807	42168.259	46.3109	6.3800	9.28
	43.8480	92.7280	21154.919	15.0855	21.9364	964.3755	42337.675	46.3728	6.3900	9.295
L50	43.8480	91.0689	20788.619	15.0899	21.9364	947.6772	41604.593	45.5431	6.4120	9.499
	45.0007	93.5008	22498.941	15.4929	22.5130	999.3739	45027.487	46.7593	6.6118	9.795

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	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L1 140.0000-135.0000				1	1	1			
L2 135.0000-130.0000				1	1	1			
L3 130.0000-125.0000				1	1	1			
L4 125.0000-120.0000				1	1	1			
L5 120.0000-115.0000				1	1	1			
L6 115.0000-114.7500				1	1	0.910459			
L7 114.7500-109.7500				1	1	0.90506			
L8 109.7500-104.7500				1	1	0.928842			

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 ²	in							
L9 104.7500-101.5800				1	1	0.925837			
L10 101.5800-101.3300				1	1	1			
L11 101.3300-96.3300				1	1	1			
L12 96.3300-91.3300				1	1	1			
L13 91.3300-91.0000				1	1	1			
L14 91.0000-90.7500				1	1	0.925286			
L15 90.7500-85.7500				1	1	0.925661			
L16 85.7500-80.7500				1	1	0.947954			
L17 80.7500-75.7500				1	1	0.952304			
L18 75.7500-70.7500				1	1	0.947475			
L19 70.7500-69.9800				1	1	0.951412			
L20 69.9800-69.7300				1	1	0.950691			
L21 69.7300-64.7300				1	1	0.9478			
L22 64.7300-63.0000				1	1	1			
L23 63.0000-62.7500				1	1	0.981128			
L24 62.7500-59.0800				1	1	0.983857			
L25 59.0800-58.8200				1	1	0.999823			
L26 58.8200-58.6700				1	1	0.999274			
L27 58.6700-53.6700				1	1	1.00128			
L28 53.6700-48.5800				1	1	0.99897			
L29 48.5800-47.5800				1	1	0.940602			
L30 47.5800-42.5800				1	1	0.943735			
L31 42.5800-40.0000				1	1	0.954987			
L32 40.0000-39.7500				1	1	0.925973			
L33 39.7500-34.7500				1	1	0.93691			
L34 34.7500-32.5000				1	1	0.929278			
L35 32.5000-32.2500				1	1	0.944082			
L36 32.2500-31.4200				1	1	0.961139			
L37 31.4200-31.1700				1	1	0.939463			
L38 31.1700-29.0000				1	1	0.947279			
L39 29.0000-28.7500				1	1	0.991165			
L40 28.7500-23.7500				1	1	0.99357			
L41 23.7500-				1	1	0.992797			

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	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
23.5000									
L42 23.5000-23.2500				1	1	1.02556			
L43 23.2500-23.0000				1	1	1.02463			
L44 23.0000-22.7500				1	1	1.08475			
L45 22.7500-17.7500				1	1	1.08804			
L46 17.7500-12.7500				1	1	1.09249			
L47 12.7500-7.7500				1	1	1.0981			
L48 7.7500-5.2500				1	1	1.09025			
L49 5.2500-5.0000				1	1	0.914314			
L50 5.0000-0.0000				1	1	0.918799			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Section	Component Type	Placement	Total Number	Number Per Row	Start/End Position	Width or Diameter	Perimeter	Weight
			ft				in	in	plf
*** Existing Flat Plates ***									
5.75" x 1" Flat Plate (F)	A	Surface Af (CaAa)	33.3300 - 0.5000	1	1	0.500 0.500	1.0000	13.5000	0.00
5.75" x 1" Flat Plate (F)	B	Surface Af (CaAa)	33.3300 - 0.5000	1	1	0.500 0.500	1.0000	13.5000	0.00
5.75" x 1" Flat Plate (F)	C	Surface Af (CaAa)	33.3300 - 0.5000	1	1	0.500 0.500	1.0000	13.5000	0.00

5.75" x 1" Flat Plate (F)	A	Surface Af (CaAa)	50.5800 - 30.5800	1	1	-0.300 -0.300	1.0000	13.5000	0.00
5.75" x 1" Flat Plate (F)	B	Surface Af (CaAa)	50.5800 - 30.5800	1	1	-0.300 -0.300	1.0000	13.5000	0.00
5.75" x 1" Flat Plate (F)	C	Surface Af (CaAa)	50.5800 - 30.5800	1	1	-0.300 -0.300	1.0000	13.5000	0.00

5.75" x 1" Flat Plate (F)	A	Surface Af (CaAa)	72.0000 - 57.0000	1	1	-0.300 -0.300	1.0000	13.5000	0.00
5.75" x 1" Flat Plate (F)	B	Surface Af (CaAa)	72.0000 - 57.0000	1	1	-0.300 -0.300	1.0000	13.5000	0.00
5.75" x 1" Flat Plate (F)	C	Surface Af (CaAa)	72.0000 - 57.0000	1	1	-0.300 -0.300	1.0000	13.5000	0.00

Aero MP304	A	Surface Af (CaAa)	60.5000 - 0.5000	1	1	0.000 0.000	4.7800	12.7800	0.00
Aero MP304	B	Surface Af (CaAa)	60.5000 - 0.5000	1	1	0.000 0.000	4.7800	12.7800	0.00
Aero MP304	C	Surface Af (CaAa)	60.5000 - 0.5000	1	1	0.000 0.000	4.7800	12.7800	0.00

6" x 1" Flat Plate (F)	A	Surface Af (CaAa)	41.6700 - 26.6700	1	1	0.200 0.200	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	B	Surface Af (CaAa)	41.6700 - 26.6700	1	1	0.200 0.200	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	C	Surface Af (CaAa)	41.6700 - 26.6700	1	1	0.200 0.200	1.0000	14.0000	0.00

6" x 1" Flat Plate (F)	A	Surface Af	25.5000 - 0.5000	1	1	0.300	1.0000	14.0000	0.00

Description	Sector	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
6" x 1" Flat Plate (F)	B	(CaAa) Surface Af (CaAa)	25.5000 - 0.5000	1	1	0.300 -0.200	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	C	Surface Af (CaAa)	25.5000 - 0.5000	1	1	0.200 0.200	1.0000	14.0000	0.00

6" x 1" Flat Plate (F)	A	Surface Af (CaAa)	65.0000 - 50.0000	1	1	0.200 0.200	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	B	Surface Af (CaAa)	65.0000 - 50.0000	1	1	0.300 0.300	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	C	Surface Af (CaAa)	65.0000 - 50.0000	1	1	0.200 0.200	1.0000	14.0000	0.00

6" x 1" Flat Plate (F)	A	Surface Af (CaAa)	93.0000 - 68.0000	1	1	0.300 0.300	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	B	Surface Af (CaAa)	93.0000 - 68.0000	1	1	0.300 0.300	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	C	Surface Af (CaAa)	93.0000 - 68.0000	1	1	0.300 0.300	1.0000	14.0000	0.00

4.5" x 1" Flat Plate (F)	A	Surface Af (CaAa)	117.0000 - 102.0000	1	1	0.300 0.300	1.0000	11.0000	0.00
4.5" x 1" Flat Plate (F)	B	Surface Af (CaAa)	117.0000 - 102.0000	1	1	0.300 0.300	1.0000	11.0000	0.00
4.5" x 1" Flat Plate (F)	C	Surface Af (CaAa)	117.0000 - 102.0000	1	1	0.300 0.300	1.0000	11.0000	0.00
Proposed Flat Plates									
6" x 1" Flat Plate (F)	A	Surface Af (CaAa)	31.2500 - 21.2500	1	1	-0.200 -0.200	1.0000	14.0000	0.00
6" x 1" Flat Plate (F)	C	Surface Af (CaAa)	31.2500 - 21.2500	1	1	-0.200 -0.200	1.0000	14.0000	0.00
Top of Monopole									
Safety Line 5/8	A	Surface Ar (CaAa)	140.0000 - 0.0000	1	1	0.500 0.500	0.8800		0.40
Level 120									
LDF7-50A(1-5/8")	B	Surface Ar (CaAa)	120.0000 - 0.0000	18	6	-0.100 0.100	1.9800		0.82

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf
Level 138								
LDF7-50A(1-5/8")	B	No	Inside Pole	138.0000 - 0.0000	12	No Ice	0.0000	0.82
						1/2" Ice	0.0000	0.82
						1" Ice	0.0000	0.82
AVA6-50(1-1/4")	B	No	Inside Pole	138.0000 - 0.0000	1	No Ice	0.0000	0.45
						1/2" Ice	0.0000	0.45
						1" Ice	0.0000	0.45
HB158-1-08U8-S8J18(1-5/8")	B	No	Inside Pole	138.0000 - 0.0000	2	No Ice	0.0000	1.30
						1/2" Ice	0.0000	1.30
						1" Ice	0.0000	1.30
Level 99								
LDF5-50A(7/8")	A	No	Inside Pole	99.0000 - 0.0000	2	No Ice	0.0000	0.33
						1/2" Ice	0.0000	0.33
						1" Ice	0.0000	0.33
Level 95								
LDF5-50A(7/8")	A	No	Inside Pole	95.0000 - 0.0000	6	No Ice	0.0000	0.33
						1/2" Ice	0.0000	0.33
						1" Ice	0.0000	0.33
9776(5/8")	A	No	Inside Pole	95.0000 - 0.0000	2	No Ice	0.0000	0.28
						1/2" Ice	0.0000	0.28
						1" Ice	0.0000	0.28
WR-VG86ST-	A	No	Inside Pole	95.0000 - 0.0000	2	No Ice	0.0000	0.58

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf
BRD(3/4")						1/2" Ice	0.0000	0.58
						1" Ice	0.0000	0.58
FB-L98B-034-XXX(3/8")	A	No	Inside Pole	95.0000 - 0.0000	1	No Ice	0.0000	0.06
						1/2" Ice	0.0000	0.06
						1" Ice	0.0000	0.06
Level 73								
LDF6-50A(1-1/4")	A	No	Inside Pole	73.0000 - 0.0000	3	No Ice	0.0000	0.66
						1/2" Ice	0.0000	0.66
						1" Ice	0.0000	0.66

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	140.0000-135.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.000	0.000	0.0387
		C	0.000	0.000	0.000	0.000	0.0000
L2	135.0000-130.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.000	0.000	0.0644
		C	0.000	0.000	0.000	0.000	0.0000
L3	130.0000-125.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.000	0.000	0.0644
		C	0.000	0.000	0.000	0.000	0.0000
L4	125.0000-120.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.000	0.000	0.0644
		C	0.000	0.000	0.000	0.000	0.0000
L5	120.0000-115.0000	A	0.000	0.000	0.773	0.000	0.0020
		B	0.000	0.000	6.273	0.000	0.1382
		C	0.000	0.000	0.333	0.000	0.0000
L6	115.0000-114.7500	A	0.000	0.000	0.064	0.000	0.0001
		B	0.000	0.000	0.339	0.000	0.0069
		C	0.000	0.000	0.042	0.000	0.0000
L7	114.7500-109.7500	A	0.000	0.000	1.273	0.000	0.0020
		B	0.000	0.000	6.773	0.000	0.1382
		C	0.000	0.000	0.833	0.000	0.0000
L8	109.7500-104.7500	A	0.000	0.000	1.273	0.000	0.0020
		B	0.000	0.000	6.773	0.000	0.1382
		C	0.000	0.000	0.833	0.000	0.0000
L9	104.7500-101.5800	A	0.000	0.000	0.737	0.000	0.0013
		B	0.000	0.000	4.224	0.000	0.0877
		C	0.000	0.000	0.458	0.000	0.0000
L10	101.5800-101.3300	A	0.000	0.000	0.022	0.000	0.0001
		B	0.000	0.000	0.297	0.000	0.0069
		C	0.000	0.000	0.000	0.000	0.0000
L11	101.3300-96.3300	A	0.000	0.000	0.440	0.000	0.0038
		B	0.000	0.000	5.940	0.000	0.1382
		C	0.000	0.000	0.000	0.000	0.0000
L12	96.3300-91.3300	A	0.000	0.000	0.718	0.000	0.0191
		B	0.000	0.000	6.218	0.000	0.1382
		C	0.000	0.000	0.278	0.000	0.0000
L13	91.3300-91.0000	A	0.000	0.000	0.084	0.000	0.0016
		B	0.000	0.000	0.447	0.000	0.0091
		C	0.000	0.000	0.055	0.000	0.0000
L14	91.0000-90.7500	A	0.000	0.000	0.064	0.000	0.0012
		B	0.000	0.000	0.339	0.000	0.0069
		C	0.000	0.000	0.042	0.000	0.0000
L15	90.7500-85.7500	A	0.000	0.000	1.273	0.000	0.0241
		B	0.000	0.000	6.773	0.000	0.1382
		C	0.000	0.000	0.833	0.000	0.0000
L16	85.7500-80.7500	A	0.000	0.000	1.273	0.000	0.0241
		B	0.000	0.000	6.773	0.000	0.1382
		C	0.000	0.000	0.833	0.000	0.0000
L17	80.7500-75.7500	A	0.000	0.000	1.273	0.000	0.0241
		B	0.000	0.000	6.773	0.000	0.1382
		C	0.000	0.000	0.833	0.000	0.0000

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L18	75.7500-70.7500	A	0.000	0.000	1.482	0.000	0.0285
		B	0.000	0.000	6.982	0.000	0.1382
		C	0.000	0.000	1.042	0.000	0.0000
L19	70.7500-69.9800	A	0.000	0.000	0.324	0.000	0.0052
		B	0.000	0.000	1.171	0.000	0.0213
		C	0.000	0.000	0.257	0.000	0.0000
L20	69.9800-69.7300	A	0.000	0.000	0.105	0.000	0.0017
		B	0.000	0.000	0.380	0.000	0.0069
		C	0.000	0.000	0.083	0.000	0.0000
L21	69.7300-64.7300	A	0.000	0.000	1.607	0.000	0.0340
		B	0.000	0.000	7.107	0.000	0.1382
		C	0.000	0.000	1.167	0.000	0.0000
L22	64.7300-63.0000	A	0.000	0.000	0.729	0.000	0.0118
		B	0.000	0.000	2.632	0.000	0.0478
		C	0.000	0.000	0.577	0.000	0.0000
L23	63.0000-62.7500	A	0.000	0.000	0.105	0.000	0.0017
		B	0.000	0.000	0.380	0.000	0.0069
		C	0.000	0.000	0.083	0.000	0.0000
L24	62.7500-59.0800	A	0.000	0.000	2.678	0.000	0.0249
		B	0.000	0.000	6.715	0.000	0.1015
		C	0.000	0.000	2.355	0.000	0.0000
L25	59.0800-58.8200	A	0.000	0.000	0.317	0.000	0.0018
		B	0.000	0.000	0.603	0.000	0.0072
		C	0.000	0.000	0.294	0.000	0.0000
L26	58.8200-58.6700	A	0.000	0.000	0.183	0.000	0.0010
		B	0.000	0.000	0.348	0.000	0.0041
		C	0.000	0.000	0.170	0.000	0.0000
L27	58.6700-53.6700	A	0.000	0.000	5.535	0.000	0.0340
		B	0.000	0.000	11.035	0.000	0.1382
		C	0.000	0.000	5.095	0.000	0.0000
L28	53.6700-48.5800	A	0.000	0.000	5.448	0.000	0.0346
		B	0.000	0.000	11.047	0.000	0.1407
		C	0.000	0.000	5.000	0.000	0.0000
L29	48.5800-47.5800	A	0.000	0.000	1.051	0.000	0.0068
		B	0.000	0.000	2.151	0.000	0.0276
		C	0.000	0.000	0.963	0.000	0.0000
L30	47.5800-42.5800	A	0.000	0.000	5.257	0.000	0.0340
		B	0.000	0.000	10.757	0.000	0.1382
		C	0.000	0.000	4.817	0.000	0.0000
L31	42.5800-40.0000	A	0.000	0.000	2.991	0.000	0.0175
		B	0.000	0.000	5.829	0.000	0.0713
		C	0.000	0.000	2.764	0.000	0.0000
L32	40.0000-39.7500	A	0.000	0.000	0.304	0.000	0.0017
		B	0.000	0.000	0.580	0.000	0.0069
		C	0.000	0.000	0.282	0.000	0.0000
L33	39.7500-34.7500	A	0.000	0.000	6.090	0.000	0.0340
		B	0.000	0.000	11.590	0.000	0.1382
		C	0.000	0.000	5.650	0.000	0.0000
L34	34.7500-32.5000	A	0.000	0.000	2.879	0.000	0.0153
		B	0.000	0.000	5.354	0.000	0.0622
		C	0.000	0.000	2.681	0.000	0.0000
L35	32.5000-32.2500	A	0.000	0.000	0.346	0.000	0.0017
		B	0.000	0.000	0.621	0.000	0.0069
		C	0.000	0.000	0.324	0.000	0.0000
L36	32.2500-31.4200	A	0.000	0.000	1.149	0.000	0.0056
		B	0.000	0.000	2.062	0.000	0.0229
		C	0.000	0.000	1.076	0.000	0.0000
L37	31.4200-31.1700	A	0.000	0.000	0.359	0.000	0.0017
		B	0.000	0.000	0.621	0.000	0.0069
		C	0.000	0.000	0.338	0.000	0.0000
L38	31.1700-29.0000	A	0.000	0.000	3.103	0.000	0.0147
		B	0.000	0.000	5.128	0.000	0.0600
		C	0.000	0.000	2.912	0.000	0.0000
L39	29.0000-28.7500	A	0.000	0.000	0.346	0.000	0.0017
		B	0.000	0.000	0.580	0.000	0.0069
		C	0.000	0.000	0.324	0.000	0.0000
L40	28.7500-23.7500	A	0.000	0.000	6.728	0.000	0.0340
		B	0.000	0.000	11.395	0.000	0.1382
		C	0.000	0.000	6.288	0.000	0.0000

Tower Section n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L41	23.7500-23.5000	A	0.000	0.000	0.346	0.000	0.0017
		B	0.000	0.000	0.580	0.000	0.0069
		C	0.000	0.000	0.324	0.000	0.0000
L42	23.5000-23.2500	A	0.000	0.000	0.346	0.000	0.0017
		B	0.000	0.000	0.580	0.000	0.0069
		C	0.000	0.000	0.324	0.000	0.0000
L43	23.2500-23.0000	A	0.000	0.000	0.346	0.000	0.0017
		B	0.000	0.000	0.580	0.000	0.0069
		C	0.000	0.000	0.324	0.000	0.0000
L44	23.0000-22.7500	A	0.000	0.000	0.346	0.000	0.0017
		B	0.000	0.000	0.580	0.000	0.0069
		C	0.000	0.000	0.324	0.000	0.0000
L45	22.7500-17.7500	A	0.000	0.000	6.340	0.000	0.0340
		B	0.000	0.000	11.590	0.000	0.1382
		C	0.000	0.000	5.900	0.000	0.0000
L46	17.7500-12.7500	A	0.000	0.000	6.090	0.000	0.0340
		B	0.000	0.000	11.590	0.000	0.1382
		C	0.000	0.000	5.650	0.000	0.0000
L47	12.7500-7.7500	A	0.000	0.000	6.090	0.000	0.0340
		B	0.000	0.000	11.590	0.000	0.1382
		C	0.000	0.000	5.650	0.000	0.0000
L48	7.7500-5.2500	A	0.000	0.000	3.045	0.000	0.0170
		B	0.000	0.000	5.795	0.000	0.0691
		C	0.000	0.000	2.825	0.000	0.0000
L49	5.2500-5.0000	A	0.000	0.000	0.304	0.000	0.0017
		B	0.000	0.000	0.580	0.000	0.0069
		C	0.000	0.000	0.282	0.000	0.0000
L50	5.0000-0.0000	A	0.000	0.000	5.525	0.000	0.0340
		B	0.000	0.000	11.025	0.000	0.1382
		C	0.000	0.000	5.085	0.000	0.0000

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section n	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	140.0000- 135.0000	A	1.730	0.000	0.000	2.170	0.000	0.0296
		B		0.000	0.000	0.000	0.000	0.0387
		C		0.000	0.000	0.000	0.000	0.0000
L2	135.0000- 130.0000	A	1.724	0.000	0.000	2.164	0.000	0.0294
		B		0.000	0.000	0.000	0.000	0.0644
		C		0.000	0.000	0.000	0.000	0.0000
L3	130.0000- 125.0000	A	1.717	0.000	0.000	2.157	0.000	0.0292
		B		0.000	0.000	0.000	0.000	0.0644
		C		0.000	0.000	0.000	0.000	0.0000
L4	125.0000- 120.0000	A	1.710	0.000	0.000	2.150	0.000	0.0291
		B		0.000	0.000	0.000	0.000	0.0644
		C		0.000	0.000	0.000	0.000	0.0000
L5	120.0000- 115.0000	A	1.703	0.000	0.000	3.158	0.000	0.0520
		B		0.000	0.000	10.568	0.000	0.4370
		C		0.000	0.000	1.015	0.000	0.0231
L6	115.0000- 114.7500	A	1.699	0.000	0.000	0.234	0.000	0.0043
		B		0.000	0.000	0.604	0.000	0.0236
		C		0.000	0.000	0.127	0.000	0.0029
L7	114.7500- 109.7500	A	1.695	0.000	0.000	4.664	0.000	0.0861
		B		0.000	0.000	12.073	0.000	0.4705
		C		0.000	0.000	2.529	0.000	0.0574
L8	109.7500- 104.7500	A	1.688	0.000	0.000	4.649	0.000	0.0855
		B		0.000	0.000	12.055	0.000	0.4694
		C		0.000	0.000	2.521	0.000	0.0571
L9	104.7500- 101.5800	A	1.681	0.000	0.000	2.728	0.000	0.0492
		B		0.000	0.000	7.423	0.000	0.2922
		C		0.000	0.000	1.383	0.000	0.0312
L10	101.5800- 101.3300	A	1.678	0.000	0.000	0.106	0.000	0.0014
		B		0.000	0.000	0.476	0.000	0.0206
		C		0.000	0.000	0.000	0.000	0.0000

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L11	101.3300-96.3300	A	1.674	0.000	0.000	2.114	0.000	0.0299
		B		0.000	0.000	9.517	0.000	0.4109
		C		0.000	0.000	0.000	0.000	0.0000
L12	96.3300-91.3300	A	1.665	0.000	0.000	2.940	0.000	0.0669
		B		0.000	0.000	10.341	0.000	0.4320
		C		0.000	0.000	0.835	0.000	0.0220
L13	91.3300-91.0000	A	1.660	0.000	0.000	0.303	0.000	0.0076
		B		0.000	0.000	0.792	0.000	0.0314
		C		0.000	0.000	0.165	0.000	0.0043
L14	91.0000-90.7500	A	1.660	0.000	0.000	0.230	0.000	0.0058
		B		0.000	0.000	0.600	0.000	0.0237
		C		0.000	0.000	0.125	0.000	0.0033
L15	90.7500-85.7500	A	1.655	0.000	0.000	4.583	0.000	0.1149
		B		0.000	0.000	11.982	0.000	0.4742
		C		0.000	0.000	2.488	0.000	0.0652
L16	85.7500-80.7500	A	1.645	0.000	0.000	4.564	0.000	0.1142
		B		0.000	0.000	11.960	0.000	0.4727
		C		0.000	0.000	2.479	0.000	0.0647
L17	80.7500-75.7500	A	1.635	0.000	0.000	4.544	0.000	0.1134
		B		0.000	0.000	11.938	0.000	0.4712
		C		0.000	0.000	2.469	0.000	0.0642
L18	75.7500-70.7500	A	1.624	0.000	0.000	5.137	0.000	0.1325
		B		0.000	0.000	12.528	0.000	0.4850
		C		0.000	0.000	3.072	0.000	0.0792
L19	70.7500-69.9800	A	1.618	0.000	0.000	1.072	0.000	0.0283
		B		0.000	0.000	2.210	0.000	0.0817
		C		0.000	0.000	0.755	0.000	0.0193
L20	69.9800-69.7300	A	1.617	0.000	0.000	0.348	0.000	0.0092
		B		0.000	0.000	0.717	0.000	0.0265
		C		0.000	0.000	0.245	0.000	0.0062
L21	69.7300-64.7300	A	1.611	0.000	0.000	5.472	0.000	0.1450
		B		0.000	0.000	12.860	0.000	0.4910
		C		0.000	0.000	3.421	0.000	0.0865
L22	64.7300-63.0000	A	1.602	0.000	0.000	2.392	0.000	0.0629
		B		0.000	0.000	4.948	0.000	0.1824
		C		0.000	0.000	1.686	0.000	0.0427
L23	63.0000-62.7500	A	1.600	0.000	0.000	0.345	0.000	0.0091
		B		0.000	0.000	0.715	0.000	0.0263
		C		0.000	0.000	0.243	0.000	0.0062
L24	62.7500-59.0800	A	1.595	0.000	0.000	6.642	0.000	0.1493
		B		0.000	0.000	12.062	0.000	0.4024
		C		0.000	0.000	5.149	0.000	0.1066
L25	59.0800-58.8200	A	1.590	0.000	0.000	0.647	0.000	0.0124
		B		0.000	0.000	1.031	0.000	0.0303
		C		0.000	0.000	0.542	0.000	0.0094
L26	58.8200-58.6700	A	1.589	0.000	0.000	0.373	0.000	0.0071
		B		0.000	0.000	0.595	0.000	0.0175
		C		0.000	0.000	0.313	0.000	0.0054
L27	58.6700-53.6700	A	1.582	0.000	0.000	10.809	0.000	0.1970
		B		0.000	0.000	18.190	0.000	0.5408
		C		0.000	0.000	8.787	0.000	0.1392
L28	53.6700-48.5800	A	1.567	0.000	0.000	10.416	0.000	0.1847
		B		0.000	0.000	17.925	0.000	0.5336
		C		0.000	0.000	8.372	0.000	0.1263
L29	48.5800-47.5800	A	1.558	0.000	0.000	1.992	0.000	0.0347
		B		0.000	0.000	3.467	0.000	0.1033
		C		0.000	0.000	1.590	0.000	0.0232
L30	47.5800-42.5800	A	1.547	0.000	0.000	9.899	0.000	0.1713
		B		0.000	0.000	17.271	0.000	0.5125
		C		0.000	0.000	7.912	0.000	0.1143
L31	42.5800-40.0000	A	1.534	0.000	0.000	5.878	0.000	0.1073
		B		0.000	0.000	9.680	0.000	0.2828
		C		0.000	0.000	4.859	0.000	0.0781
L32	40.0000-39.7500	A	1.529	0.000	0.000	0.610	0.000	0.0114
		B		0.000	0.000	0.979	0.000	0.0284
		C		0.000	0.000	0.512	0.000	0.0086
L33	39.7500-34.7500	A	1.518	0.000	0.000	12.163	0.000	0.2260
		B		0.000	0.000	19.527	0.000	0.5650
		C		0.000	0.000	10.205	0.000	0.1698

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		in	ft ²	ft ²	ft ²	ft ²	K
L34	34.7500-32.5000	A	1.503	0.000	0.000	5.833	0.000	0.1098
		B		0.000	0.000	9.146	0.000	0.2619
		C		0.000	0.000	4.959	0.000	0.0847
L35	32.5000-32.2500	A	1.497	0.000	0.000	0.720	0.000	0.0139
		B		0.000	0.000	1.088	0.000	0.0308
		C		0.000	0.000	0.624	0.000	0.0111
L36	32.2500-31.4200	A	1.495	0.000	0.000	2.390	0.000	0.0461
		B		0.000	0.000	3.611	0.000	0.1021
		C		0.000	0.000	2.069	0.000	0.0369
L37	31.4200-31.1700	A	1.492	0.000	0.000	0.756	0.000	0.0148
		B		0.000	0.000	1.087	0.000	0.0307
		C		0.000	0.000	0.660	0.000	0.0120
L38	31.1700-29.0000	A	1.486	0.000	0.000	6.503	0.000	0.1269
		B		0.000	0.000	8.690	0.000	0.2483
		C		0.000	0.000	5.667	0.000	0.1028
L39	29.0000-28.7500	A	1.480	0.000	0.000	0.716	0.000	0.0138
		B		0.000	0.000	0.968	0.000	0.0278
		C		0.000	0.000	0.620	0.000	0.0110
L40	28.7500-23.7500	A	1.466	0.000	0.000	13.715	0.000	0.2599
		B		0.000	0.000	18.767	0.000	0.5392
		C		0.000	0.000	11.809	0.000	0.2050
L41	23.7500-23.5000	A	1.451	0.000	0.000	0.709	0.000	0.0135
		B		0.000	0.000	0.962	0.000	0.0274
		C		0.000	0.000	0.614	0.000	0.0108
L42	23.5000-23.2500	A	1.449	0.000	0.000	0.708	0.000	0.0135
		B		0.000	0.000	0.962	0.000	0.0274
		C		0.000	0.000	0.614	0.000	0.0107
L43	23.2500-23.0000	A	1.448	0.000	0.000	0.708	0.000	0.0135
		B		0.000	0.000	0.961	0.000	0.0274
		C		0.000	0.000	0.614	0.000	0.0107
L44	23.0000-22.7500	A	1.446	0.000	0.000	0.708	0.000	0.0134
		B		0.000	0.000	0.961	0.000	0.0274
		C		0.000	0.000	0.613	0.000	0.0107
L45	22.7500-17.7500	A	1.428	0.000	0.000	12.482	0.000	0.2272
		B		0.000	0.000	19.146	0.000	0.5432
		C		0.000	0.000	10.614	0.000	0.1731
L46	17.7500-12.7500	A	1.388	0.000	0.000	11.644	0.000	0.2045
		B		0.000	0.000	18.976	0.000	0.5336
		C		0.000	0.000	9.815	0.000	0.1513
L47	12.7500-7.7500	A	1.334	0.000	0.000	11.427	0.000	0.1958
		B		0.000	0.000	18.746	0.000	0.5208
		C		0.000	0.000	9.653	0.000	0.1438
L48	7.7500-5.2500	A	1.275	0.000	0.000	5.595	0.000	0.0933
		B		0.000	0.000	9.247	0.000	0.2535
		C		0.000	0.000	4.738	0.000	0.0679
L49	5.2500-5.0000	A	1.245	0.000	0.000	0.554	0.000	0.0091
		B		0.000	0.000	0.918	0.000	0.0250
		C		0.000	0.000	0.469	0.000	0.0066
L50	5.0000-0.0000	A	1.158	0.000	0.000	9.811	0.000	0.1567
		B		0.000	0.000	17.086	0.000	0.4683
		C		0.000	0.000	8.213	0.000	0.1083

Feed Line Center of Pressure

Section	Elevation	CP _x	CP _z	CP _x Ice	CP _z Ice
	ft	in	in	in	in
L1	140.0000-135.0000	0.0000	-0.1286	0.0000	-0.4207
L2	135.0000-130.0000	0.0000	-0.1287	0.0000	-0.4306
L3	130.0000-125.0000	0.0000	-0.1288	0.0000	-0.4394
L4	125.0000-120.0000	0.0000	-0.1289	0.0000	-0.4473

Section	Elevation	CP _x	CP _z	CP _x Ice	CP _z Ice
	ft	in	in	in	in
L5	120.0000-115.0000	1.1988	-0.7618	1.0689	-0.8053
L6	115.0000-114.7500	1.0970	-0.6977	0.9279	-0.7005
L7	114.7500-109.7500	1.1032	-0.7023	0.9401	-0.7110
L8	109.7500-104.7500	1.1146	-0.7106	0.9628	-0.7306
L9	104.7500-101.5800	1.1445	-0.7305	1.0115	-0.7694
L10	101.5800-101.3300	1.3070	-0.8347	1.2787	-0.9736
L11	101.3300-96.3300	1.3104	-0.8374	1.2902	-0.9837
L12	96.3300-91.3300	1.2527	-0.8016	1.1975	-0.9152
L13	91.3300-91.0000	1.1473	-0.7346	1.0317	-0.7895
L14	91.0000-90.7500	1.1478	-0.7350	1.0329	-0.7905
L15	90.7500-85.7500	1.1526	-0.7385	1.0436	-0.7996
L16	85.7500-80.7500	1.1615	-0.7450	1.0636	-0.8164
L17	80.7500-75.7500	1.1699	-0.7512	1.0830	-0.8327
L18	75.7500-70.7500	1.1437	-0.7351	1.0476	-0.8066
L19	70.7500-69.9800	1.0574	-0.6799	0.9228	-0.7110
L20	69.9800-69.7300	1.0584	-0.6806	0.9246	-0.7125
L21	69.7300-64.7300	1.1335	-0.7264	1.0381	-0.7957
L22	64.7300-63.0000	1.0556	-0.6297	0.9234	-0.6340
L23	63.0000-62.7500	1.0574	-0.6307	0.9267	-0.6364
L24	62.7500-59.0800	0.8926	-0.5325	0.8130	-0.5585
L25	59.0800-58.8200	0.7174	-0.4281	0.6806	-0.4676
L26	58.8200-58.6700	0.7178	-0.4284	0.6811	-0.4680
L27	58.6700-53.6700	0.7571	-0.4519	0.7477	-0.5139
L28	53.6700-48.5800	0.7820	-0.4776	0.7896	-0.5623
L29	48.5800-47.5800	0.7964	-0.5137	0.8164	-0.6310
L30	47.5800-42.5800	0.8023	-0.5178	0.8258	-0.6377
L31	42.5800-40.0000	0.7745	-0.5001	0.7715	-0.5958
L32	40.0000-39.7500	0.7593	-0.4903	0.7439	-0.5745
L33	39.7500-34.7500	0.7642	-0.4937	0.7513	-0.5801
L34	34.7500-32.5000	0.7531	-0.4868	0.7308	-0.5640
L35	32.5000-32.2500	0.7267	-0.4698	0.6871	-0.5302
L36	32.2500-31.4200	0.7277	-0.4704	0.6885	-0.5313
L37	31.4200-31.1700	0.7089	-0.4305	0.6576	-0.4631
L38	31.1700-29.0000	0.6999	-0.3640	0.6406	-0.3512
L39	29.0000-28.7500	0.7137	-0.3711	0.6620	-0.3630
L40	28.7500-23.7500	0.7146	-0.4336	0.6615	-0.4707
L41	23.7500-23.5000	0.6834	-0.5299	0.6088	-0.6343
L42	23.5000-23.2500	0.6838	-0.5302	0.6094	-0.6348
L43	23.2500-23.0000	0.6842	-0.5305	0.6100	-0.6354
L44	23.0000-22.7500	0.6846	-0.5309	0.6107	-0.6359
L45	22.7500-17.7500	0.7337	-0.6331	0.6923	-0.8191
L46	17.7500-12.7500	0.7617	-0.6849	0.7404	-0.9120
L47	12.7500-7.7500	0.7695	-0.6929	0.7554	-0.9223
L48	7.7500-5.2500	0.7752	-0.6987	0.7682	-0.9278
L49	5.2500-5.0000	0.7773	-0.7008	0.7736	-0.9289
L50	5.0000-0.0000	0.8188	-0.7167	0.8318	-0.9422

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	41	Safety Line 5/8	135.00 - 140.00	1.0000	1.0000
L2	41	Safety Line 5/8	130.00 - 135.00	1.0000	1.0000
L3	41	Safety Line 5/8	125.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L4	41	Safety Line 5/8	130.00 120.00 - 125.00	1.0000	1.0000
L5	34	4.5" x 1" Flat Plate (F)	115.00 - 117.00	1.0000	1.0000
L5	35	4.5" x 1" Flat Plate (F)	115.00 - 117.00	1.0000	1.0000
L5	36	4.5" x 1" Flat Plate (F)	115.00 - 117.00	1.0000	1.0000
L5	41	Safety Line 5/8	115.00 - 120.00	1.0000	1.0000
L5	47	LDF7-50A(1-5/8")	115.00 - 120.00	1.0000	1.0000
L6	34	4.5" x 1" Flat Plate (F)	114.75 - 115.00	1.0000	1.0000
L6	35	4.5" x 1" Flat Plate (F)	114.75 - 115.00	1.0000	1.0000
L6	36	4.5" x 1" Flat Plate (F)	114.75 - 115.00	1.0000	1.0000
L6	41	Safety Line 5/8	114.75 - 115.00	1.0000	1.0000
L6	47	LDF7-50A(1-5/8")	114.75 - 115.00	1.0000	1.0000
L7	34	4.5" x 1" Flat Plate (F)	109.75 - 114.75	1.0000	1.0000
L7	35	4.5" x 1" Flat Plate (F)	109.75 - 114.75	1.0000	1.0000
L7	36	4.5" x 1" Flat Plate (F)	109.75 - 114.75	1.0000	1.0000
L7	41	Safety Line 5/8	109.75 - 114.75	1.0000	1.0000
L7	47	LDF7-50A(1-5/8")	109.75 - 114.75	1.0000	1.0000
L8	34	4.5" x 1" Flat Plate (F)	104.75 - 109.75	1.0000	1.0000
L8	35	4.5" x 1" Flat Plate (F)	104.75 - 109.75	1.0000	1.0000
L8	36	4.5" x 1" Flat Plate (F)	104.75 - 109.75	1.0000	1.0000
L8	41	Safety Line 5/8	104.75 - 109.75	1.0000	1.0000
L8	47	LDF7-50A(1-5/8")	104.75 - 109.75	1.0000	1.0000
L9	34	4.5" x 1" Flat Plate (F)	102.00 - 104.75	1.0000	1.0000
L9	35	4.5" x 1" Flat Plate (F)	102.00 - 104.75	1.0000	1.0000
L9	36	4.5" x 1" Flat Plate (F)	102.00 - 104.75	1.0000	1.0000
L9	41	Safety Line 5/8	101.58 - 104.75	1.0000	1.0000
L9	47	LDF7-50A(1-5/8")	101.58 - 104.75	1.0000	1.0000
L10	41	Safety Line 5/8	101.33 - 101.58	1.0000	1.0000
L10	47	LDF7-50A(1-5/8")	101.33 - 101.58	1.0000	1.0000
L11	41	Safety Line 5/8	96.33 - 101.33	1.0000	1.0000
L11	47	LDF7-50A(1-5/8")	96.33 - 101.33	1.0000	1.0000
L12	30	6" x 1" Flat Plate (F)	91.33 - 93.00	1.0000	1.0000
L12	31	6" x 1" Flat Plate (F)	91.33 - 93.00	1.0000	1.0000
L12	32	6" x 1" Flat Plate (F)	91.33 - 93.00	1.0000	1.0000
L12	41	Safety Line 5/8	91.33 - 96.33	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L12	47	LDF7-50A(1-5/8")	91.33 - 96.33	1.0000	1.0000
L13	30	6" x 1" Flat Plate (F)	91.00 - 91.33	1.0000	1.0000
L13	31	6" x 1" Flat Plate (F)	91.00 - 91.33	1.0000	1.0000
L13	32	6" x 1" Flat Plate (F)	91.00 - 91.33	1.0000	1.0000
L13	41	Safety Line 5/8	91.00 - 91.33	1.0000	1.0000
L13	47	LDF7-50A(1-5/8")	91.00 - 91.33	1.0000	1.0000
L14	30	6" x 1" Flat Plate (F)	90.75 - 91.00	1.0000	1.0000
L14	31	6" x 1" Flat Plate (F)	90.75 - 91.00	1.0000	1.0000
L14	32	6" x 1" Flat Plate (F)	90.75 - 91.00	1.0000	1.0000
L14	41	Safety Line 5/8	90.75 - 91.00	1.0000	1.0000
L14	47	LDF7-50A(1-5/8")	90.75 - 91.00	1.0000	1.0000
L15	30	6" x 1" Flat Plate (F)	85.75 - 90.75	1.0000	1.0000
L15	31	6" x 1" Flat Plate (F)	85.75 - 90.75	1.0000	1.0000
L15	32	6" x 1" Flat Plate (F)	85.75 - 90.75	1.0000	1.0000
L15	41	Safety Line 5/8	85.75 - 90.75	1.0000	1.0000
L15	47	LDF7-50A(1-5/8")	85.75 - 90.75	1.0000	1.0000
L16	30	6" x 1" Flat Plate (F)	80.75 - 85.75	1.0000	1.0000
L16	31	6" x 1" Flat Plate (F)	80.75 - 85.75	1.0000	1.0000
L16	32	6" x 1" Flat Plate (F)	80.75 - 85.75	1.0000	1.0000
L16	41	Safety Line 5/8	80.75 - 85.75	1.0000	1.0000
L16	47	LDF7-50A(1-5/8")	80.75 - 85.75	1.0000	1.0000
L17	30	6" x 1" Flat Plate (F)	75.75 - 80.75	1.0000	1.0000
L17	31	6" x 1" Flat Plate (F)	75.75 - 80.75	1.0000	1.0000
L17	32	6" x 1" Flat Plate (F)	75.75 - 80.75	1.0000	1.0000
L17	41	Safety Line 5/8	75.75 - 80.75	1.0000	1.0000
L17	47	LDF7-50A(1-5/8")	75.75 - 80.75	1.0000	1.0000
L18	10	5.75" x 1" Flat Plate (F)	70.75 - 72.00	1.0000	1.0000
L18	11	5.75" x 1" Flat Plate (F)	70.75 - 72.00	1.0000	1.0000
L18	12	5.75" x 1" Flat Plate (F)	70.75 - 72.00	1.0000	1.0000
L18	30	6" x 1" Flat Plate (F)	70.75 - 75.75	1.0000	1.0000
L18	31	6" x 1" Flat Plate (F)	70.75 - 75.75	1.0000	1.0000
L18	32	6" x 1" Flat Plate (F)	70.75 - 75.75	1.0000	1.0000
L18	41	Safety Line 5/8	70.75 - 75.75	1.0000	1.0000
L18	47	LDF7-50A(1-5/8")	70.75 - 75.75	1.0000	1.0000
L19	10	5.75" x 1" Flat Plate (F)	69.98 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L19	11	5.75" x 1" Flat Plate (F)	70.75 69.98 - 70.75	1.0000	1.0000
L19	12	5.75" x 1" Flat Plate (F)	69.98 - 70.75	1.0000	1.0000
L19	30	6" x 1" Flat Plate (F)	69.98 - 70.75	1.0000	1.0000
L19	31	6" x 1" Flat Plate (F)	69.98 - 70.75	1.0000	1.0000
L19	32	6" x 1" Flat Plate (F)	69.98 - 70.75	1.0000	1.0000
L19	41	Safety Line 5/8	69.98 - 70.75	1.0000	1.0000
L19	47	LDF7-50A(1-5/8")	69.98 - 70.75	1.0000	1.0000
L20	10	5.75" x 1" Flat Plate (F)	69.73 - 69.98	1.0000	1.0000
L20	11	5.75" x 1" Flat Plate (F)	69.73 - 69.98	1.0000	1.0000
L20	12	5.75" x 1" Flat Plate (F)	69.73 - 69.98	1.0000	1.0000
L20	30	6" x 1" Flat Plate (F)	69.73 - 69.98	1.0000	1.0000
L20	31	6" x 1" Flat Plate (F)	69.73 - 69.98	1.0000	1.0000
L20	32	6" x 1" Flat Plate (F)	69.73 - 69.98	1.0000	1.0000
L20	41	Safety Line 5/8	69.73 - 69.98	1.0000	1.0000
L20	47	LDF7-50A(1-5/8")	69.73 - 69.98	1.0000	1.0000
L21	10	5.75" x 1" Flat Plate (F)	64.73 - 69.73	1.0000	1.0000
L21	11	5.75" x 1" Flat Plate (F)	64.73 - 69.73	1.0000	1.0000
L21	12	5.75" x 1" Flat Plate (F)	64.73 - 69.73	1.0000	1.0000
L21	26	6" x 1" Flat Plate (F)	64.73 - 65.00	1.0000	1.0000
L21	27	6" x 1" Flat Plate (F)	64.73 - 65.00	1.0000	1.0000
L21	28	6" x 1" Flat Plate (F)	64.73 - 65.00	1.0000	1.0000
L21	30	6" x 1" Flat Plate (F)	68.00 - 69.73	1.0000	1.0000
L21	31	6" x 1" Flat Plate (F)	68.00 - 69.73	1.0000	1.0000
L21	32	6" x 1" Flat Plate (F)	68.00 - 69.73	1.0000	1.0000
L21	41	Safety Line 5/8	64.73 - 69.73	1.0000	1.0000
L21	47	LDF7-50A(1-5/8")	64.73 - 69.73	1.0000	1.0000
L22	10	5.75" x 1" Flat Plate (F)	63.00 - 64.73	1.0000	1.0000
L22	11	5.75" x 1" Flat Plate (F)	63.00 - 64.73	1.0000	1.0000
L22	12	5.75" x 1" Flat Plate (F)	63.00 - 64.73	1.0000	1.0000
L22	26	6" x 1" Flat Plate (F)	63.00 - 64.73	1.0000	1.0000
L22	27	6" x 1" Flat Plate (F)	63.00 - 64.73	1.0000	1.0000
L22	28	6" x 1" Flat Plate (F)	63.00 - 64.73	1.0000	1.0000
L22	41	Safety Line 5/8	63.00 - 64.73	1.0000	1.0000
L22	47	LDF7-50A(1-5/8")	63.00 - 64.73	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L23	10	5.75" x 1" Flat Plate (F)	62.75 - 63.00	1.0000	1.0000
L23	11	5.75" x 1" Flat Plate (F)	62.75 - 63.00	1.0000	1.0000
L23	12	5.75" x 1" Flat Plate (F)	62.75 - 63.00	1.0000	1.0000
L23	26	6" x 1" Flat Plate (F)	62.75 - 63.00	1.0000	1.0000
L23	27	6" x 1" Flat Plate (F)	62.75 - 63.00	1.0000	1.0000
L23	28	6" x 1" Flat Plate (F)	62.75 - 63.00	1.0000	1.0000
L23	41	Safety Line 5/8	62.75 - 63.00	1.0000	1.0000
L23	47	LDF7-50A(1-5/8")	62.75 - 63.00	1.0000	1.0000
L24	10	5.75" x 1" Flat Plate (F)	59.08 - 62.75	1.0000	1.0000
L24	11	5.75" x 1" Flat Plate (F)	59.08 - 62.75	1.0000	1.0000
L24	12	5.75" x 1" Flat Plate (F)	59.08 - 62.75	1.0000	1.0000
L24	14	Aero MP304	59.08 - 60.50	1.0000	1.0000
L24	15	Aero MP304	59.08 - 60.50	1.0000	1.0000
L24	16	Aero MP304	59.08 - 60.50	1.0000	1.0000
L24	26	6" x 1" Flat Plate (F)	59.08 - 62.75	1.0000	1.0000
L24	27	6" x 1" Flat Plate (F)	59.08 - 62.75	1.0000	1.0000
L24	28	6" x 1" Flat Plate (F)	59.08 - 62.75	1.0000	1.0000
L24	41	Safety Line 5/8	59.08 - 62.75	1.0000	1.0000
L24	47	LDF7-50A(1-5/8")	59.08 - 62.75	1.0000	1.0000
L25	10	5.75" x 1" Flat Plate (F)	58.82 - 59.08	1.0000	1.0000
L25	11	5.75" x 1" Flat Plate (F)	58.82 - 59.08	1.0000	1.0000
L25	12	5.75" x 1" Flat Plate (F)	58.82 - 59.08	1.0000	1.0000
L25	14	Aero MP304	58.82 - 59.08	1.0000	1.0000
L25	15	Aero MP304	58.82 - 59.08	1.0000	1.0000
L25	16	Aero MP304	58.82 - 59.08	1.0000	1.0000
L25	26	6" x 1" Flat Plate (F)	58.82 - 59.08	1.0000	1.0000
L25	27	6" x 1" Flat Plate (F)	58.82 - 59.08	1.0000	1.0000
L25	28	6" x 1" Flat Plate (F)	58.82 - 59.08	1.0000	1.0000
L25	41	Safety Line 5/8	58.82 - 59.08	1.0000	1.0000
L25	47	LDF7-50A(1-5/8")	58.82 - 59.08	1.0000	1.0000
L26	10	5.75" x 1" Flat Plate (F)	58.67 - 58.82	1.0000	1.0000
L26	11	5.75" x 1" Flat Plate (F)	58.67 - 58.82	1.0000	1.0000
L26	12	5.75" x 1" Flat Plate (F)	58.67 - 58.82	1.0000	1.0000
L26	14	Aero MP304	58.67 - 58.82	1.0000	1.0000
L26	15	Aero MP304	58.67 - 58.82	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L26	16	Aero MP304	58.82 58.67 - 58.82	1.0000	1.0000
L26	26	6" x 1" Flat Plate (F)	58.67 - 58.82	1.0000	1.0000
L26	27	6" x 1" Flat Plate (F)	58.67 - 58.82	1.0000	1.0000
L26	28	6" x 1" Flat Plate (F)	58.67 - 58.82	1.0000	1.0000
L26	41	Safety Line 5/8	58.67 - 58.82	1.0000	1.0000
L26	47	LDF7-50A(1-5/8")	58.67 - 58.82	1.0000	1.0000
L27	10	5.75" x 1" Flat Plate (F)	57.00 - 58.67	1.0000	1.0000
L27	11	5.75" x 1" Flat Plate (F)	57.00 - 58.67	1.0000	1.0000
L27	12	5.75" x 1" Flat Plate (F)	57.00 - 58.67	1.0000	1.0000
L27	14	Aero MP304	53.67 - 58.67	1.0000	1.0000
L27	15	Aero MP304	53.67 - 58.67	1.0000	1.0000
L27	16	Aero MP304	53.67 - 58.67	1.0000	1.0000
L27	26	6" x 1" Flat Plate (F)	53.67 - 58.67	1.0000	1.0000
L27	27	6" x 1" Flat Plate (F)	53.67 - 58.67	1.0000	1.0000
L27	28	6" x 1" Flat Plate (F)	53.67 - 58.67	1.0000	1.0000
L27	41	Safety Line 5/8	53.67 - 58.67	1.0000	1.0000
L27	47	LDF7-50A(1-5/8")	53.67 - 58.67	1.0000	1.0000
L28	6	5.75" x 1" Flat Plate (F)	48.58 - 50.58	1.0000	1.0000
L28	7	5.75" x 1" Flat Plate (F)	48.58 - 50.58	1.0000	1.0000
L28	8	5.75" x 1" Flat Plate (F)	48.58 - 50.58	1.0000	1.0000
L28	14	Aero MP304	48.58 - 53.67	1.0000	1.0000
L28	15	Aero MP304	48.58 - 53.67	1.0000	1.0000
L28	16	Aero MP304	48.58 - 53.67	1.0000	1.0000
L28	26	6" x 1" Flat Plate (F)	50.00 - 53.67	1.0000	1.0000
L28	27	6" x 1" Flat Plate (F)	50.00 - 53.67	1.0000	1.0000
L28	28	6" x 1" Flat Plate (F)	50.00 - 53.67	1.0000	1.0000
L28	41	Safety Line 5/8	48.58 - 53.67	1.0000	1.0000
L28	47	LDF7-50A(1-5/8")	48.58 - 53.67	1.0000	1.0000
L30	6	5.75" x 1" Flat Plate (F)	42.58 - 47.58	1.0000	1.0000
L30	7	5.75" x 1" Flat Plate (F)	42.58 - 47.58	1.0000	1.0000
L30	8	5.75" x 1" Flat Plate (F)	42.58 - 47.58	1.0000	1.0000
L30	14	Aero MP304	42.58 - 47.58	1.0000	1.0000
L30	15	Aero MP304	42.58 - 47.58	1.0000	1.0000
L30	16	Aero MP304	42.58 - 47.58	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L30	41	Safety Line 5/8	42.58 - 47.58	1.0000	1.0000
L30	47	LDF7-50A(1-5/8")	42.58 - 47.58	1.0000	1.0000
L31	6	5.75" x 1" Flat Plate (F)	40.00 - 42.58	1.0000	1.0000
L31	7	5.75" x 1" Flat Plate (F)	40.00 - 42.58	1.0000	1.0000
L31	8	5.75" x 1" Flat Plate (F)	40.00 - 42.58	1.0000	1.0000
L31	14	Aero MP304	40.00 - 42.58	1.0000	1.0000
L31	15	Aero MP304	40.00 - 42.58	1.0000	1.0000
L31	16	Aero MP304	40.00 - 42.58	1.0000	1.0000
L31	18	6" x 1" Flat Plate (F)	40.00 - 41.67	1.0000	1.0000
L31	19	6" x 1" Flat Plate (F)	40.00 - 41.67	1.0000	1.0000
L31	20	6" x 1" Flat Plate (F)	40.00 - 41.67	1.0000	1.0000
L31	41	Safety Line 5/8	40.00 - 42.58	1.0000	1.0000
L31	47	LDF7-50A(1-5/8")	40.00 - 42.58	1.0000	1.0000
L32	6	5.75" x 1" Flat Plate (F)	39.75 - 40.00	1.0000	1.0000
L32	7	5.75" x 1" Flat Plate (F)	39.75 - 40.00	1.0000	1.0000
L32	8	5.75" x 1" Flat Plate (F)	39.75 - 40.00	1.0000	1.0000
L32	14	Aero MP304	39.75 - 40.00	1.0000	1.0000
L32	15	Aero MP304	39.75 - 40.00	1.0000	1.0000
L32	16	Aero MP304	39.75 - 40.00	1.0000	1.0000
L32	18	6" x 1" Flat Plate (F)	39.75 - 40.00	1.0000	1.0000
L32	19	6" x 1" Flat Plate (F)	39.75 - 40.00	1.0000	1.0000
L32	20	6" x 1" Flat Plate (F)	39.75 - 40.00	1.0000	1.0000
L32	41	Safety Line 5/8	39.75 - 40.00	1.0000	1.0000
L32	47	LDF7-50A(1-5/8")	39.75 - 40.00	1.0000	1.0000
L33	6	5.75" x 1" Flat Plate (F)	34.75 - 39.75	1.0000	1.0000
L33	7	5.75" x 1" Flat Plate (F)	34.75 - 39.75	1.0000	1.0000
L33	8	5.75" x 1" Flat Plate (F)	34.75 - 39.75	1.0000	1.0000
L33	14	Aero MP304	34.75 - 39.75	1.0000	1.0000
L33	15	Aero MP304	34.75 - 39.75	1.0000	1.0000
L33	16	Aero MP304	34.75 - 39.75	1.0000	1.0000
L33	18	6" x 1" Flat Plate (F)	34.75 - 39.75	1.0000	1.0000
L33	19	6" x 1" Flat Plate (F)	34.75 - 39.75	1.0000	1.0000
L33	20	6" x 1" Flat Plate (F)	34.75 - 39.75	1.0000	1.0000
L33	41	Safety Line 5/8	34.75 - 39.75	1.0000	1.0000
L33	47	LDF7-50A(1-5/8")	34.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			39.75		
L34	2	5.75" x 1" Flat Plate (F)	32.50 - 33.33	1.0000	1.0000
L34	3	5.75" x 1" Flat Plate (F)	32.50 - 33.33	1.0000	1.0000
L34	4	5.75" x 1" Flat Plate (F)	32.50 - 33.33	1.0000	1.0000
L34	6	5.75" x 1" Flat Plate (F)	32.50 - 34.75	1.0000	1.0000
L34	7	5.75" x 1" Flat Plate (F)	32.50 - 34.75	1.0000	1.0000
L34	8	5.75" x 1" Flat Plate (F)	32.50 - 34.75	1.0000	1.0000
L34	14	Aero MP304	32.50 - 34.75	1.0000	1.0000
L34	15	Aero MP304	32.50 - 34.75	1.0000	1.0000
L34	16	Aero MP304	32.50 - 34.75	1.0000	1.0000
L34	18	6" x 1" Flat Plate (F)	32.50 - 34.75	1.0000	1.0000
L34	19	6" x 1" Flat Plate (F)	32.50 - 34.75	1.0000	1.0000
L34	20	6" x 1" Flat Plate (F)	32.50 - 34.75	1.0000	1.0000
L34	41	Safety Line 5/8	32.50 - 34.75	1.0000	1.0000
L34	47	LDF7-50A(1-5/8")	32.50 - 34.75	1.0000	1.0000
L35	2	5.75" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	3	5.75" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	4	5.75" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	6	5.75" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	7	5.75" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	8	5.75" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	14	Aero MP304	32.25 - 32.50	1.0000	1.0000
L35	15	Aero MP304	32.25 - 32.50	1.0000	1.0000
L35	16	Aero MP304	32.25 - 32.50	1.0000	1.0000
L35	18	6" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	19	6" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	20	6" x 1" Flat Plate (F)	32.25 - 32.50	1.0000	1.0000
L35	41	Safety Line 5/8	32.25 - 32.50	1.0000	1.0000
L35	47	LDF7-50A(1-5/8")	32.25 - 32.50	1.0000	1.0000
L36	2	5.75" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	3	5.75" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	4	5.75" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	6	5.75" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	7	5.75" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	8	5.75" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L36	14	Aero MP304	31.42 - 32.25	1.0000	1.0000
L36	15	Aero MP304	31.42 - 32.25	1.0000	1.0000
L36	16	Aero MP304	31.42 - 32.25	1.0000	1.0000
L36	18	6" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	19	6" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	20	6" x 1" Flat Plate (F)	31.42 - 32.25	1.0000	1.0000
L36	41	Safety Line 5/8	31.42 - 32.25	1.0000	1.0000
L36	47	LDF7-50A(1-5/8")	31.42 - 32.25	1.0000	1.0000
L37	2	5.75" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	3	5.75" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	4	5.75" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	6	5.75" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	7	5.75" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	8	5.75" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	14	Aero MP304	31.17 - 31.42	1.0000	1.0000
L37	15	Aero MP304	31.17 - 31.42	1.0000	1.0000
L37	16	Aero MP304	31.17 - 31.42	1.0000	1.0000
L37	18	6" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	19	6" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	20	6" x 1" Flat Plate (F)	31.17 - 31.42	1.0000	1.0000
L37	38	6" x 1" Flat Plate (F)	31.17 - 31.25	1.0000	1.0000
L37	39	6" x 1" Flat Plate (F)	31.17 - 31.25	1.0000	1.0000
L37	41	Safety Line 5/8	31.17 - 31.42	1.0000	1.0000
L37	47	LDF7-50A(1-5/8")	31.17 - 31.42	1.0000	1.0000
L38	2	5.75" x 1" Flat Plate (F)	29.00 - 31.17	1.0000	1.0000
L38	3	5.75" x 1" Flat Plate (F)	29.00 - 31.17	1.0000	1.0000
L38	4	5.75" x 1" Flat Plate (F)	29.00 - 31.17	1.0000	1.0000
L38	6	5.75" x 1" Flat Plate (F)	30.58 - 31.17	1.0000	1.0000
L38	7	5.75" x 1" Flat Plate (F)	30.58 - 31.17	1.0000	1.0000
L38	8	5.75" x 1" Flat Plate (F)	30.58 - 31.17	1.0000	1.0000
L38	14	Aero MP304	29.00 - 31.17	1.0000	1.0000
L38	15	Aero MP304	29.00 - 31.17	1.0000	1.0000
L38	16	Aero MP304	29.00 - 31.17	1.0000	1.0000
L38	18	6" x 1" Flat Plate (F)	29.00 - 31.17	1.0000	1.0000
L38	19	6" x 1" Flat Plate (F)	29.00 - 31.17	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L38	20	6" x 1" Flat Plate (F)	31.17 29.00 - 31.17	1.0000	1.0000
L38	38	6" x 1" Flat Plate (F)	29.00 - 31.17	1.0000	1.0000
L38	39	6" x 1" Flat Plate (F)	29.00 - 31.17	1.0000	1.0000
L38	41	Safety Line 5/8	29.00 - 31.17	1.0000	1.0000
L38	47	LDF7-50A(1-5/8")	29.00 - 31.17	1.0000	1.0000
L39	2	5.75" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	3	5.75" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	4	5.75" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	14	Aero MP304	28.75 - 29.00	1.0000	1.0000
L39	15	Aero MP304	28.75 - 29.00	1.0000	1.0000
L39	16	Aero MP304	28.75 - 29.00	1.0000	1.0000
L39	18	6" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	19	6" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	20	6" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	38	6" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	39	6" x 1" Flat Plate (F)	28.75 - 29.00	1.0000	1.0000
L39	41	Safety Line 5/8	28.75 - 29.00	1.0000	1.0000
L39	47	LDF7-50A(1-5/8")	28.75 - 29.00	1.0000	1.0000
L40	2	5.75" x 1" Flat Plate (F)	23.75 - 28.75	1.0000	1.0000
L40	3	5.75" x 1" Flat Plate (F)	23.75 - 28.75	1.0000	1.0000
L40	4	5.75" x 1" Flat Plate (F)	23.75 - 28.75	1.0000	1.0000
L40	14	Aero MP304	23.75 - 28.75	1.0000	1.0000
L40	15	Aero MP304	23.75 - 28.75	1.0000	1.0000
L40	16	Aero MP304	23.75 - 28.75	1.0000	1.0000
L40	18	6" x 1" Flat Plate (F)	26.67 - 28.75	1.0000	1.0000
L40	19	6" x 1" Flat Plate (F)	26.67 - 28.75	1.0000	1.0000
L40	20	6" x 1" Flat Plate (F)	26.67 - 28.75	1.0000	1.0000
L40	22	6" x 1" Flat Plate (F)	23.75 - 25.50	1.0000	1.0000
L40	23	6" x 1" Flat Plate (F)	23.75 - 25.50	1.0000	1.0000
L40	24	6" x 1" Flat Plate (F)	23.75 - 25.50	1.0000	1.0000
L40	38	6" x 1" Flat Plate (F)	23.75 - 28.75	1.0000	1.0000
L40	39	6" x 1" Flat Plate (F)	23.75 - 28.75	1.0000	1.0000
L40	41	Safety Line 5/8	23.75 - 28.75	1.0000	1.0000
L40	47	LDF7-50A(1-5/8")	23.75 - 28.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L41	2	5.75" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	3	5.75" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	4	5.75" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	14	Aero MP304	23.50 - 23.75	1.0000	1.0000
L41	15	Aero MP304	23.50 - 23.75	1.0000	1.0000
L41	16	Aero MP304	23.50 - 23.75	1.0000	1.0000
L41	22	6" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	23	6" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	24	6" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	38	6" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	39	6" x 1" Flat Plate (F)	23.50 - 23.75	1.0000	1.0000
L41	41	Safety Line 5/8	23.50 - 23.75	1.0000	1.0000
L41	47	LDF7-50A(1-5/8")	23.50 - 23.75	1.0000	1.0000
L42	2	5.75" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	3	5.75" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	4	5.75" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	14	Aero MP304	23.25 - 23.50	1.0000	1.0000
L42	15	Aero MP304	23.25 - 23.50	1.0000	1.0000
L42	16	Aero MP304	23.25 - 23.50	1.0000	1.0000
L42	22	6" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	23	6" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	24	6" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	38	6" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	39	6" x 1" Flat Plate (F)	23.25 - 23.50	1.0000	1.0000
L42	41	Safety Line 5/8	23.25 - 23.50	1.0000	1.0000
L42	47	LDF7-50A(1-5/8")	23.25 - 23.50	1.0000	1.0000
L43	2	5.75" x 1" Flat Plate (F)	23.00 - 23.25	1.0000	1.0000
L43	3	5.75" x 1" Flat Plate (F)	23.00 - 23.25	1.0000	1.0000
L43	4	5.75" x 1" Flat Plate (F)	23.00 - 23.25	1.0000	1.0000
L43	14	Aero MP304	23.00 - 23.25	1.0000	1.0000
L43	15	Aero MP304	23.00 - 23.25	1.0000	1.0000
L43	16	Aero MP304	23.00 - 23.25	1.0000	1.0000
L43	22	6" x 1" Flat Plate (F)	23.00 - 23.25	1.0000	1.0000
L43	23	6" x 1" Flat Plate (F)	23.00 - 23.25	1.0000	1.0000
L43	24	6" x 1" Flat Plate (F)	23.00 - 23.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L43	38	6" x 1" Flat Plate (F)	23.25 23.00 - 23.25	1.0000	1.0000
L43	39	6" x 1" Flat Plate (F)	23.00 - 23.25	1.0000	1.0000
L43	41	Safety Line 5/8	23.00 - 23.25	1.0000	1.0000
L43	47	LDF7-50A(1-5/8")	23.00 - 23.25	1.0000	1.0000
L44	2	5.75" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	3	5.75" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	4	5.75" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	14	Aero MP304	22.75 - 23.00	1.0000	1.0000
L44	15	Aero MP304	22.75 - 23.00	1.0000	1.0000
L44	16	Aero MP304	22.75 - 23.00	1.0000	1.0000
L44	22	6" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	23	6" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	24	6" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	38	6" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	39	6" x 1" Flat Plate (F)	22.75 - 23.00	1.0000	1.0000
L44	41	Safety Line 5/8	22.75 - 23.00	1.0000	1.0000
L44	47	LDF7-50A(1-5/8")	22.75 - 23.00	1.0000	1.0000
L45	2	5.75" x 1" Flat Plate (F)	17.75 - 22.75	1.0000	1.0000
L45	3	5.75" x 1" Flat Plate (F)	17.75 - 22.75	1.0000	1.0000
L45	4	5.75" x 1" Flat Plate (F)	17.75 - 22.75	1.0000	1.0000
L45	14	Aero MP304	17.75 - 22.75	1.0000	1.0000
L45	15	Aero MP304	17.75 - 22.75	1.0000	1.0000
L45	16	Aero MP304	17.75 - 22.75	1.0000	1.0000
L45	22	6" x 1" Flat Plate (F)	17.75 - 22.75	1.0000	1.0000
L45	23	6" x 1" Flat Plate (F)	17.75 - 22.75	1.0000	1.0000
L45	24	6" x 1" Flat Plate (F)	17.75 - 22.75	1.0000	1.0000
L45	38	6" x 1" Flat Plate (F)	21.25 - 22.75	1.0000	1.0000
L45	39	6" x 1" Flat Plate (F)	21.25 - 22.75	1.0000	1.0000
L45	41	Safety Line 5/8	17.75 - 22.75	1.0000	1.0000
L45	47	LDF7-50A(1-5/8")	17.75 - 22.75	1.0000	1.0000
L46	2	5.75" x 1" Flat Plate (F)	12.75 - 17.75	1.0000	1.0000
L46	3	5.75" x 1" Flat Plate (F)	12.75 - 17.75	1.0000	1.0000
L46	4	5.75" x 1" Flat Plate (F)	12.75 - 17.75	1.0000	1.0000
L46	14	Aero MP304	12.75 - 17.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L46	15	Aero MP304	12.75 - 17.75	1.0000	1.0000
L46	16	Aero MP304	12.75 - 17.75	1.0000	1.0000
L46	22	6" x 1" Flat Plate (F)	12.75 - 17.75	1.0000	1.0000
L46	23	6" x 1" Flat Plate (F)	12.75 - 17.75	1.0000	1.0000
L46	24	6" x 1" Flat Plate (F)	12.75 - 17.75	1.0000	1.0000
L46	41	Safety Line 5/8	12.75 - 17.75	1.0000	1.0000
L46	47	LDF7-50A(1-5/8")	12.75 - 17.75	1.0000	1.0000
L47	2	5.75" x 1" Flat Plate (F)	7.75 - 12.75	1.0000	1.0000
L47	3	5.75" x 1" Flat Plate (F)	7.75 - 12.75	1.0000	1.0000
L47	4	5.75" x 1" Flat Plate (F)	7.75 - 12.75	1.0000	1.0000
L47	14	Aero MP304	7.75 - 12.75	1.0000	1.0000
L47	15	Aero MP304	7.75 - 12.75	1.0000	1.0000
L47	16	Aero MP304	7.75 - 12.75	1.0000	1.0000
L47	22	6" x 1" Flat Plate (F)	7.75 - 12.75	1.0000	1.0000
L47	23	6" x 1" Flat Plate (F)	7.75 - 12.75	1.0000	1.0000
L47	24	6" x 1" Flat Plate (F)	7.75 - 12.75	1.0000	1.0000
L47	41	Safety Line 5/8	7.75 - 12.75	1.0000	1.0000
L47	47	LDF7-50A(1-5/8")	7.75 - 12.75	1.0000	1.0000
L48	2	5.75" x 1" Flat Plate (F)	5.25 - 7.75	1.0000	1.0000
L48	3	5.75" x 1" Flat Plate (F)	5.25 - 7.75	1.0000	1.0000
L48	4	5.75" x 1" Flat Plate (F)	5.25 - 7.75	1.0000	1.0000
L48	14	Aero MP304	5.25 - 7.75	1.0000	1.0000
L48	15	Aero MP304	5.25 - 7.75	1.0000	1.0000
L48	16	Aero MP304	5.25 - 7.75	1.0000	1.0000
L48	22	6" x 1" Flat Plate (F)	5.25 - 7.75	1.0000	1.0000
L48	23	6" x 1" Flat Plate (F)	5.25 - 7.75	1.0000	1.0000
L48	24	6" x 1" Flat Plate (F)	5.25 - 7.75	1.0000	1.0000
L48	41	Safety Line 5/8	5.25 - 7.75	1.0000	1.0000
L48	47	LDF7-50A(1-5/8")	5.25 - 7.75	1.0000	1.0000
L49	2	5.75" x 1" Flat Plate (F)	5.00 - 5.25	1.0000	1.0000
L49	3	5.75" x 1" Flat Plate (F)	5.00 - 5.25	1.0000	1.0000
L49	4	5.75" x 1" Flat Plate (F)	5.00 - 5.25	1.0000	1.0000
L49	14	Aero MP304	5.00 - 5.25	1.0000	1.0000
L49	15	Aero MP304	5.00 - 5.25	1.0000	1.0000
L49	16	Aero MP304	5.00 - 5.25	1.0000	1.0000
L49	22	6" x 1" Flat Plate (F)	5.00 - 5.25	1.0000	1.0000
L49	23	6" x 1" Flat Plate (F)	5.00 - 5.25	1.0000	1.0000
L49	24	6" x 1" Flat Plate (F)	5.00 - 5.25	1.0000	1.0000
L49	41	Safety Line 5/8	5.00 - 5.25	1.0000	1.0000
L49	47	LDF7-50A(1-5/8")	5.00 - 5.25	1.0000	1.0000
L50	2	5.75" x 1" Flat Plate (F)	0.50 - 5.00	1.0000	1.0000
L50	3	5.75" x 1" Flat Plate (F)	0.50 - 5.00	1.0000	1.0000
L50	4	5.75" x 1" Flat Plate (F)	0.50 - 5.00	1.0000	1.0000
L50	14	Aero MP304	0.50 - 5.00	1.0000	1.0000
L50	15	Aero MP304	0.50 - 5.00	1.0000	1.0000
L50	16	Aero MP304	0.50 - 5.00	1.0000	1.0000
L50	22	6" x 1" Flat Plate (F)	0.50 - 5.00	1.0000	1.0000
L50	23	6" x 1" Flat Plate (F)	0.50 - 5.00	1.0000	1.0000
L50	24	6" x 1" Flat Plate (F)	0.50 - 5.00	1.0000	1.0000
L50	41	Safety Line 5/8	0.00 - 5.00	1.0000	1.0000
L50	47	LDF7-50A(1-5/8")	0.00 - 5.00	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Lateral Vert						ft
Lightning Rod 2"x15'	C	From Leg	0.0000	0.0000	0.000	140.0000	No Ice	3.0000	3.0000	0.0800
			0.0000				1/2"	4.5250	4.5250	0.1031
			7.5000				Ice	6.0667	6.0667	0.1358
							1" Ice			
Level 138										
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	7.4998	5.6302	0.0437
			0.0000				1/2"	8.0328	6.7191	0.1029
			2.0000				Ice	8.5348	7.5606	0.1695
							1" Ice			
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	7.4998	5.6302	0.0437
			0.0000				1/2"	8.0328	6.7191	0.1029
			2.0000				Ice	8.5348	7.5606	0.1695
							1" Ice			
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	7.4998	5.6302	0.0437
			0.0000				1/2"	8.0328	6.7191	0.1029
			2.0000				Ice	8.5348	7.5606	0.1695
							1" Ice			
DB636-C	A	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	2.3750	2.3750	0.0300
			0.0000				1/2"	3.3542	3.3542	0.0477
			7.0000				Ice	4.3500	4.3500	0.0717
							1" Ice			
DB-T1-6Z-8AB-OZ	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	4.8000	2.0000	0.0440
			0.0000				1/2"	5.0704	2.1926	0.0801
			2.0000				Ice	5.3481	2.3926	0.1202
							1" Ice			
X7C-FRO-660-VR0 w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	9.7864	7.5292	0.0606
			0.0000				1/2"	10.3601	8.7153	0.1387
			2.0000				Ice	10.8989	9.6153	0.2250
							1" Ice			
X7C-FRO-660-VR0 w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	9.7864	7.5292	0.0606
			0.0000				1/2"	10.3601	8.7153	0.1387
			2.0000				Ice	10.8989	9.6153	0.2250
							1" Ice			
X7C-FRO-660-VR0 w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	9.7864	7.5292	0.0606
			0.0000				1/2"	10.3601	8.7153	0.1387
			2.0000				Ice	10.8989	9.6153	0.2250
							1" Ice			
(2) HBXX-6516DS-A2M w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	5.6558	4.5251	0.0497
			0.0000				1/2"	6.0642	5.2049	0.0990
			2.0000				Ice	6.4748	5.8567	0.1544
							1" Ice			
(2) HBXX-6516DS-A2M w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	5.6558	4.5251	0.0497
			0.0000				1/2"	6.0642	5.2049	0.0990
			2.0000				Ice	6.4748	5.8567	0.1544
							1" Ice			
(2) HBXX-6516DS-A2M w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	5.6558	4.5251	0.0497
			0.0000				1/2"	6.0642	5.2049	0.0990
			2.0000				Ice	6.4748	5.8567	0.1544
							1" Ice			
AWS4 (B66) 4x45 RRH	A	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	2.6600	1.5861	0.0640
			0.0000				1/2"	2.8781	1.7690	0.0844
			2.0000				Ice	3.1037	1.9588	0.1078
							1" Ice			
AWS4 (B66) 4x45 RRH	B	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	2.6600	1.5861	0.0640
			0.0000				1/2"	2.8781	1.7690	0.0844
			2.0000				Ice	3.1037	1.9588	0.1078
							1" Ice			
AWS4 (B66) 4x45 RRH	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	2.6600	1.5861	0.0640
			0.0000				1/2"	2.8781	1.7690	0.0844
			2.0000				Ice	3.1037	1.9588	0.1078
							1" Ice			
RRH2X60-PCS	A	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	2.2000	1.7233	0.0550
			0.0000				1/2"	2.3926	1.9015	0.0754
			2.0000				Ice	2.5926	2.0870	0.0987
							1" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Lateral Vert						ft
RRH2X60-PCS	B	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	2.2000	1.7233	0.0550
			0.0000				1/2"	2.3926	1.9015	0.0754
			2.0000				Ice	2.5926	2.0870	0.0987
RRH2X60-PCS	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	2.2000	1.7233	0.0550
			0.0000				1/2"	2.3926	1.9015	0.0754
			2.0000				Ice	2.5926	2.0870	0.0987
RRH2x60-700	A	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	3.5002	1.8157	0.0600
			0.0000				1/2"	3.7609	2.0519	0.0827
			2.0000				Ice	4.0285	2.2894	0.1091
RRH2x60-700	B	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	3.5002	1.8157	0.0600
			0.0000				1/2"	3.7609	2.0519	0.0827
			2.0000				Ice	4.0285	2.2894	0.1091
RRH2x60-700	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	3.5002	1.8157	0.0600
			0.0000				1/2"	3.7609	2.0519	0.0827
			2.0000				Ice	4.0285	2.2894	0.1091
DB-T1-6Z-8AB-0Z	C	From Leg	4.0000	0.0000	0.000	138.0000	No Ice	4.8000	2.0000	0.0440
			0.0000				1/2"	5.0704	2.1926	0.0801
			2.0000				Ice	5.3481	2.3926	0.1202
Platform Mount [LP 403-1]	C	None			0.000	138.0000	No Ice	18.8500	18.8500	1.5000
							1/2"	24.3000	24.3000	1.7966
							Ice	29.7500	29.7500	2.0931
Level 120										
APX16PV-16PVL w/ Mount Pipe	A	From Face	4.0000	0.0000	0.000	120.0000	No Ice	6.2744	3.2678	0.0594
			0.0000				1/2"	6.7026	3.9735	0.1048
			0.0000				Ice	7.1290	4.6395	0.1564
APX16PV-16PVL w/ Mount Pipe	B	From Face	4.0000	0.0000	0.000	120.0000	No Ice	6.2744	3.2678	0.0594
			0.0000				1/2"	6.7026	3.9735	0.1048
			0.0000				Ice	7.1290	4.6395	0.1564
APX16PV-16PVL w/ Mount Pipe	C	From Face	4.0000	0.0000	0.000	120.0000	No Ice	6.2744	3.2678	0.0594
			0.0000				1/2"	6.7026	3.9735	0.1048
			0.0000				Ice	7.1290	4.6395	0.1564
LNX-6515DS-A1M w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	11.4453	9.3589	0.0759
			0.0000				1/2"	12.0637	10.6795	0.1602
			0.0000				Ice	12.6895	11.7139	0.2541
LNX-6515DS-A1M w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	11.4453	9.3589	0.0759
			0.0000				1/2"	12.0637	10.6795	0.1602
			0.0000				Ice	12.6895	11.7139	0.2541
LNX-6515DS-A1M w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	11.4453	9.3589	0.0759
			0.0000				1/2"	12.0637	10.6795	0.1602
			0.0000				Ice	12.6895	11.7139	0.2541
APX16DWV-16DWVS-E-A20 w/ Mount Pipe	A	From Face	4.0000	0.0000	0.000	120.0000	No Ice	7.2332	3.7823	0.0637
			0.0000				1/2"	7.7120	4.6432	0.1147
			0.0000				Ice	8.1762	5.3818	0.1725
APX16DWV-16DWVS-E-A20 w/ Mount Pipe	B	From Face	4.0000	0.0000	0.000	120.0000	No Ice	7.2332	3.7823	0.0637
			0.0000				1/2"	7.7120	4.6432	0.1147
			0.0000				Ice	8.1762	5.3818	0.1725
APX16DWV-16DWVS-E-A20 w/ Mount Pipe	C	From Face	4.0000	0.0000	0.000	120.0000	No Ice	7.2332	3.7823	0.0637
			0.0000				1/2"	7.7120	4.6432	0.1147
			0.0000				Ice	8.1762	5.3818	0.1725
						1" Ice				

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA}		Weight	
			Horz	Lateral Vert			Front	Side		
			ft	ft	°	ft	ft ²	ft ²	K	
KRY 112 489/2	A	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	0.5592	0.3651	0.0154
			0.0000	0.0000			1/2"	0.6579	0.4484	0.0205
			0.0000	0.0000			Ice	0.7640	0.5420	0.0271
KRY 112 489/2	B	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	0.5592	0.3651	0.0154
			0.0000	0.0000			1/2"	0.6579	0.4484	0.0205
			0.0000	0.0000			Ice	0.7640	0.5420	0.0271
KRY 112 489/2	C	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	0.5592	0.3651	0.0154
			0.0000	0.0000			1/2"	0.6579	0.4484	0.0205
			0.0000	0.0000			Ice	0.7640	0.5420	0.0271
KRY 112 144/1	A	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	0.3523	0.1617	0.0110
			0.0000	0.0000			1/2"	0.4284	0.2195	0.0141
			0.0000	0.0000			Ice	0.5119	0.2846	0.0184
KRY 112 144/1	B	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	0.3523	0.1617	0.0110
			0.0000	0.0000			1/2"	0.4284	0.2195	0.0141
			0.0000	0.0000			Ice	0.5119	0.2846	0.0184
KRY 112 144/1	C	From Leg	4.0000	0.0000	0.000	120.0000	No Ice	0.3523	0.1617	0.0110
			0.0000	0.0000			1/2"	0.4284	0.2195	0.0141
			0.0000	0.0000			Ice	0.5119	0.2846	0.0184
T-Arm Mount [TA 602-3]	C	None			0.000	120.0000	No Ice	11.5900	11.5900	0.2581
							1/2"	15.4400	15.4400	0.3301
							Ice	19.2900	19.2900	0.4222
Level 99 TME-RRUS-11	A	From Leg	1.0000	0.0000	0.000	99.0000	No Ice	2.8463	1.5312	0.0549
			0.0000	0.0000			1/2"	3.0770	1.8083	0.0812
			0.0000	0.0000			Ice	3.3168	2.1031	0.1114
TME-RRUS-11	B	From Leg	1.0000	0.0000	0.000	99.0000	No Ice	2.8463	1.5312	0.0549
			0.0000	0.0000			1/2"	3.0770	1.8083	0.0812
			0.0000	0.0000			Ice	3.3168	2.1031	0.1114
TME-RRUS-11	C	From Leg	1.0000	0.0000	0.000	99.0000	No Ice	2.8463	1.5312	0.0549
			0.0000	0.0000			1/2"	3.0770	1.8083	0.0812
			0.0000	0.0000			Ice	3.3168	2.1031	0.1114
DC6-48-60-18-8F	A	From Leg	1.0000	0.0000	0.000	99.0000	No Ice	0.9167	0.9167	0.0328
			0.0000	0.0000			1/2"	1.4583	1.4583	0.0505
			0.0000	0.0000			Ice	1.6431	1.6431	0.0707
(2) 6' x 2" Mount Pipe	A	From Leg	1.0000	0.0000	0.000	99.0000	No Ice	1.4250	1.4250	0.0220
			0.0000	0.0000			1/2"	1.4963	1.4963	0.0286
			0.0000	0.0000			Ice	1.5675	1.5675	0.0352
(2) 6' x 2" Mount Pipe	B	From Leg	1.0000	0.0000	0.000	99.0000	No Ice	1.4250	1.4250	0.0220
			0.0000	0.0000			1/2"	1.4963	1.4963	0.0286
			0.0000	0.0000			Ice	1.5675	1.5675	0.0352
(2) 6' x 2" Mount Pipe	C	From Leg	1.0000	0.0000	0.000	99.0000	No Ice	1.4250	1.4250	0.0220
			0.0000	0.0000			1/2"	1.4963	1.4963	0.0286
			0.0000	0.0000			Ice	1.5675	1.5675	0.0352
Side Arm Mount [SO 102-3]	C	None			0.000	99.0000	No Ice	3.0000	3.0000	0.0810
							1/2"	3.4800	3.4800	0.1110
							Ice	3.9600	3.9600	0.1410
Level 95 800 10121 w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.000	95.0000	No Ice	5.3879	4.5996	0.0665
			0.0000	0.0000			1/2"	5.8131	5.3507	0.1140
			0.0000	0.0000			Ice	6.2340	6.0464	0.1679

Description	Face or Leg	Offset Type	Offsets:			Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Lateral	Vert						ft
			ft	ft	ft	°	ft	ft ²	ft ²	K	
800 10121 w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	5.3879	4.5996	0.0665
			0.0000	0.0000	0.0000			1/2"	5.8131	5.3507	0.1140
			0.0000	0.0000	0.0000			Ice	6.2340	6.0464	0.1679
800 10121 w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	5.3879	4.5996	0.0665
			0.0000	0.0000	0.0000			1/2"	5.8131	5.3507	0.1140
			0.0000	0.0000	0.0000			Ice	6.2340	6.0464	0.1679
(2) LGP21401	A	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	1.1040	0.2070	0.0141
			0.0000	0.0000	0.0000			1/2"	1.2388	0.2738	0.0213
			0.0000	0.0000	0.0000			Ice	1.3810	0.3475	0.0303
(2) LGP21401	B	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	1.1040	0.2070	0.0141
			0.0000	0.0000	0.0000			1/2"	1.2388	0.2738	0.0213
			0.0000	0.0000	0.0000			Ice	1.3810	0.3475	0.0303
(2) LGP21401	C	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	1.1040	0.2070	0.0141
			0.0000	0.0000	0.0000			1/2"	1.2388	0.2738	0.0213
			0.0000	0.0000	0.0000			Ice	1.3810	0.3475	0.0303
HPA-65R-BUU-H6 w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	9.8953	8.1125	0.0766
			0.0000	0.0000	0.0000			1/2"	10.4700	9.3041	0.1580
			0.0000	0.0000	0.0000			Ice	11.0098	10.2095	0.2478
HPA-65R-BUU-H6 w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	9.8953	8.1125	0.0766
			0.0000	0.0000	0.0000			1/2"	10.4700	9.3041	0.1580
			0.0000	0.0000	0.0000			Ice	11.0098	10.2095	0.2478
HPA-65R-BUU-H6 w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	9.8953	8.1125	0.0766
			0.0000	0.0000	0.0000			1/2"	10.4700	9.3041	0.1580
			0.0000	0.0000	0.0000			Ice	11.0098	10.2095	0.2478
RRUS 32 B2	A	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	2.7313	1.6681	0.0529
			0.0000	0.0000	0.0000			1/2"	2.9531	1.8552	0.0740
			0.0000	0.0000	0.0000			Ice	3.1823	2.0493	0.0982
RRUS 32 B2	B	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	2.7313	1.6681	0.0529
			0.0000	0.0000	0.0000			1/2"	2.9531	1.8552	0.0740
			0.0000	0.0000	0.0000			Ice	3.1823	2.0493	0.0982
RRUS 32 B2	C	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	2.7313	1.6681	0.0529
			0.0000	0.0000	0.0000			1/2"	2.9531	1.8552	0.0740
			0.0000	0.0000	0.0000			Ice	3.1823	2.0493	0.0982
6' x 2" Mount Pipe	A	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	1.4250	1.4250	0.0220
			0.0000	0.0000	0.0000			1/2"	1.4963	1.4963	0.0286
			0.0000	0.0000	0.0000			Ice	1.5675	1.5675	0.0352
6' x 2" Mount Pipe	B	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	1.4250	1.4250	0.0220
			0.0000	0.0000	0.0000			1/2"	1.4963	1.4963	0.0286
			0.0000	0.0000	0.0000			Ice	1.5675	1.5675	0.0352
6' x 2" Mount Pipe	C	From Leg	4.0000	0.0000	0.0000	0.000	95.0000	1" Ice No Ice	1.4250	1.4250	0.0220
			0.0000	0.0000	0.0000			1/2"	1.4963	1.4963	0.0286
			0.0000	0.0000	0.0000			Ice	1.5675	1.5675	0.0352
Platform Mount [LP 1001-1]	C	None				0.000	95.0000	1" Ice No Ice	47.7000	47.7000	3.0170
								1/2"	59.5000	59.5000	3.6210
								Ice	71.3000	71.3000	4.2250
Level 73 APXVSP18-C-A20 w/ Mount Pipe	A	From Face	4.0000	0.0000	2.0000	0.000	73.0000	1" Ice No Ice	8.2619	6.9458	0.0826
			0.0000	0.0000	0.0000			1/2"	8.8215	8.1266	0.1506
			0.0000	0.0000	0.0000			Ice	9.3462	9.0212	0.2265

Description	Face or Leg	Offset Type	Offsets:			Azimuth Adjustment	Placement	C _{AA}		Weight	
			Horz	Lateral	Vert			Front	Side		
			ft	ft	ft	°	ft	ft ²	ft ²	K	
APXVSPP18-C-A20 w/ Mount Pipe	B	From Face	4.0000	0.0000	0.0000	0.000	73.0000	1" Ice	8.2619	6.9458	0.0826
			0.0000	0.0000	0.0000			No Ice	8.8215	8.1266	0.1506
			2.0000	2.0000	2.0000			Ice	9.3462	9.0212	0.2265
APXVSPP18-C-A20 w/ Mount Pipe	C	From Face	4.0000	0.0000	0.0000	0.000	73.0000	1" Ice	8.2619	6.9458	0.0826
			0.0000	0.0000	0.0000			No Ice	8.8215	8.1266	0.1506
			2.0000	2.0000	2.0000			Ice	9.3462	9.0212	0.2265
800MHZ 2X50W RRH	A	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	2.1342	1.7730	0.0530
			0.0000	0.0000	0.0000			No Ice	2.3195	1.9461	0.0742
			2.0000	2.0000	2.0000			Ice	2.5123	2.1267	0.0984
800MHZ 2X50W RRH	B	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	2.1342	1.7730	0.0530
			0.0000	0.0000	0.0000			No Ice	2.3195	1.9461	0.0742
			2.0000	2.0000	2.0000			Ice	2.5123	2.1267	0.0984
800MHZ 2X50W RRH	C	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	2.1342	1.7730	0.0530
			0.0000	0.0000	0.0000			No Ice	2.3195	1.9461	0.0742
			2.0000	2.0000	2.0000			Ice	2.5123	2.1267	0.0984
800 EXTERNAL NOTCH FILTER	A	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	0.6601	0.3211	0.0110
			0.0000	0.0000	0.0000			No Ice	0.7627	0.3983	0.0168
			2.0000	2.0000	2.0000			Ice	0.8727	0.4830	0.0243
800 EXTERNAL NOTCH FILTER	B	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	0.6601	0.3211	0.0110
			0.0000	0.0000	0.0000			No Ice	0.7627	0.3983	0.0168
			2.0000	2.0000	2.0000			Ice	0.8727	0.4830	0.0243
800 EXTERNAL NOTCH FILTER	C	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	0.6601	0.3211	0.0110
			0.0000	0.0000	0.0000			No Ice	0.7627	0.3983	0.0168
			2.0000	2.0000	2.0000			Ice	0.8727	0.4830	0.0243
1900MHz 4X40W RRH	A	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	2.3218	2.2360	0.0595
			0.0000	0.0000	0.0000			No Ice	2.5266	2.4385	0.0826
			2.0000	2.0000	2.0000			Ice	2.7388	2.6485	0.1090
1900MHz 4X40W RRH	B	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	2.3218	2.2360	0.0595
			0.0000	0.0000	0.0000			No Ice	2.5266	2.4385	0.0826
			2.0000	2.0000	2.0000			Ice	2.7388	2.6485	0.1090
1900MHz 4X40W RRH	C	From Face	1.0000	0.0000	0.0000	0.000	73.0000	1" Ice	2.3218	2.2360	0.0595
			0.0000	0.0000	0.0000			No Ice	2.5266	2.4385	0.0826
			2.0000	2.0000	2.0000			Ice	2.7388	2.6485	0.1090
6' x 2" Mount Pipe	A	From Face	4.0000	0.0000	0.0000	0.000	73.0000	1" Ice	1.4250	1.4250	0.0220
			0.0000	0.0000	0.0000			No Ice	1.4963	1.4963	0.0286
			2.0000	2.0000	2.0000			Ice	1.5675	1.5675	0.0352
6' x 2" Mount Pipe	B	From Face	4.0000	0.0000	0.0000	0.000	73.0000	1" Ice	1.4250	1.4250	0.0220
			0.0000	0.0000	0.0000			No Ice	1.4963	1.4963	0.0286
			2.0000	2.0000	2.0000			Ice	1.5675	1.5675	0.0352
6' x 2" Mount Pipe	C	From Face	4.0000	0.0000	0.0000	0.000	73.0000	1" Ice	1.4250	1.4250	0.0220
			0.0000	0.0000	0.0000			No Ice	1.4963	1.4963	0.0286
			2.0000	2.0000	2.0000			Ice	1.5675	1.5675	0.0352
10'x3" Pipe Mount	A	From Face	4.0000	0.0000	0.0000	0.000	73.0000	1" Ice	3.0000	3.0000	0.0200
			0.0000	0.0000	0.0000			No Ice	4.0333	4.0333	0.0418
			2.0000	2.0000	2.0000			Ice	5.0269	5.0269	0.0701
10'x3" Pipe Mount	B	From Face	4.0000	0.0000	0.0000	0.000	73.0000	1" Ice	3.0000	3.0000	0.0200
			0.0000	0.0000	0.0000			No Ice	4.0333	4.0333	0.0418
			2.0000	2.0000	2.0000			Ice	5.0269	5.0269	0.0701
							1" Ice				

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
10'x3" Pipe Mount	C	From Face	4.0000	0.000	73.0000	No Ice	3.0000	3.0000	0.0200
			0.0000			1/2"	4.0333	4.0333	0.0418
			2.0000			Ice	5.0269	5.0269	0.0701
Platform Mount [LP 1201-1]	C	None		0.000	73.0000	1" Ice			
						No Ice	23.1000	23.1000	2.1000
						1/2"	26.8000	26.8000	2.5000
						Ice	30.5000	30.5000	2.9000
Level 50 GPS-TMG-HR-26NCM	C	From Leg	1.0000 0.0000 0.0000	0.000	50.0000	1" Ice			
						No Ice	0.1333	0.1333	0.0006
						1/2"	0.1826	0.1826	0.0024
						Ice	0.2393	0.2393	0.0051
Pipe Mount [PM 601-1]	C	From Leg	0.0000 0.0000 0.0000	0.000	50.0000	1" Ice			
						No Ice	3.0000	0.9000	0.0650
						1/2"	3.7400	1.1200	0.0791
						Ice	4.4800	1.3400	0.0933

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 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

Comb. No.	Description
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

Section 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	39	0.0000	-0.00	-0.00
			Max. Compression	26	-9.0220	1.67	-0.36
			Max. Mx	20	-2.9952	27.84	-0.60
			Max. My	14	-2.9866	0.87	-26.96
			Max. Vy	20	-5.7305	27.84	-0.60
			Max. Vx	2	-5.6323	-0.11	26.75
			Max. Torque	14			-0.75
L2	135 - 130	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-9.4840	1.68	-0.33
			Max. Mx	20	-3.2562	56.96	-1.09
			Max. My	14	-3.2457	1.37	-55.59
			Max. Vy	20	-5.9216	56.96	-1.09
			Max. Vx	2	-5.8247	-0.60	55.39
			Max. Torque	14			-0.75
L3	130 - 125	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-9.9708	1.69	-0.30
			Max. Mx	20	-3.5416	87.04	-1.58
			Max. My	14	-3.5290	1.87	-85.19
			Max. Vy	20	-6.1174	87.04	-1.58
			Max. Vx	2	-6.0221	-1.10	85.00
			Max. Torque	14			-0.75
L4	125 - 120	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-10.4824	1.68	-0.26
			Max. Mx	20	-3.8485	118.11	-2.07
			Max. My	14	-3.8334	2.36	-115.79
			Max. Vy	8	6.3185	-117.18	1.89
			Max. Vx	2	-6.2249	-1.60	115.60
			Max. Torque	14			-0.75
L5	120 - 115	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-15.2314	1.30	-0.00
			Max. Mx	20	-5.1198	164.50	-2.52
			Max. My	14	-5.0743	2.79	-162.16
			Max. Vy	8	9.5493	-163.75	2.45
			Max. Vx	2	-9.6198	-2.18	162.08
			Max. Torque	14			-0.75
L6	115 - 114.75	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-15.2994	1.28	0.01
			Max. Mx	20	-5.1595	166.89	-2.54
			Max. My	14	-5.1130	2.81	-164.57
			Max. Vy	8	9.5768	-166.15	2.48
			Max. Vx	2	-9.6550	-2.21	164.49
			Max. Torque	16			-0.68
L7	114.75 - 109.75	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-16.6646	0.88	0.28
			Max. Mx	20	-5.8102	216.23	-2.98
			Max. My	2	-5.7464	-2.79	214.75

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L8	109.75 - 104.75	Pole	Max. Vy	8	10.2072	-215.68	3.03
			Max. Vx	2	-10.4364	-2.79	214.75
			Max. Torque	16			-0.68
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-18.0526	0.46	0.56
L9	104.75 - 101.58	Pole	Max. Mx	20	-6.4864	268.74	-3.43
			Max. My	2	-6.4078	-3.38	268.93
			Max. Vy	8	10.8453	-268.38	3.59
			Max. Vx	2	-11.2237	-3.38	268.93
			Max. Torque	16			-0.61
L10	101.58 - 101.33	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-18.9317	0.18	0.74
			Max. Mx	20	-6.9284	303.67	-3.71
			Max. My	2	-6.8415	-3.75	305.32
			Max. Vy	8	11.2441	-303.45	3.95
L11	101.33 - 96.33	Pole	Max. Vx	2	-11.7173	-3.75	305.32
			Max. Torque	11			0.63
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-18.9892	0.16	0.76
			Max. Mx	20	-6.9648	306.48	-3.73
L12	96.33 - 91.33	Pole	Max. My	2	-6.8764	-3.78	308.26
			Max. Vy	8	11.2544	-306.26	3.98
			Max. Vx	2	-11.7486	-3.78	308.26
			Max. Torque	11			0.64
			Max Tension	1	0.0000	0.00	0.00
L13	91.33 - 91	Pole	Max. Compression	26	-21.2727	-0.29	1.27
			Max. Mx	20	-8.0746	365.03	-4.09
			Max. My	2	-7.9533	-4.38	370.57
			Max. Vy	8	12.1675	-365.02	4.62
			Max. Vx	2	-13.0860	-4.38	370.57
L14	91 - 90.75	Pole	Max. Torque	13			0.94
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-31.0880	-0.76	1.58
			Max. Mx	8	-13.0447	-441.21	5.20
			Max. My	2	-12.8856	-4.99	452.39
L15	90.75 - 85.75	Pole	Max. Vy	8	16.4227	-441.21	5.20
			Max. Vx	2	-17.7668	-4.99	452.39
			Max. Torque	13			1.29
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-31.1829	-0.79	1.60
L16	85.75 - 80.75	Pole	Max. Mx	8	-13.1005	-446.64	5.24
			Max. My	2	-12.9421	-5.03	458.26
			Max. Vy	8	16.4604	-446.64	5.24
			Max. Vx	2	-17.8134	-5.03	458.26
			Max. Torque	13			1.31
L17	80.75 - 75.75	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-31.2733	-0.81	1.62
			Max. Mx	8	-13.1554	-450.77	5.27
			Max. My	2	-12.9969	-5.07	462.72
			Max. Vy	8	16.4947	-450.77	5.27
L18	75.75 - 70.75	Pole	Max. Vx	2	-17.8546	-5.07	462.72
			Max. Torque	13			1.33
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-33.0885	-1.30	1.94
			Max. Mx	8	-14.2172	-535.12	5.85
L19	70.75 - 65.75	Pole	Max. My	2	-14.0533	-5.68	554.17
			Max. Vy	8	17.2142	-535.12	5.85
			Max. Vx	2	-18.7111	-5.68	554.17
			Max. Torque	13			1.73
			Max Tension	1	0.0000	0.00	0.00
L20	65.75 - 60.75	Pole	Max. Compression	26	-34.9342	-1.80	2.27
			Max. Mx	8	-15.3157	-623.06	6.43
			Max. My	2	-14.0533	-5.68	554.17

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L17	80.75 - 75.75	Pole	Max. My	2	-15.1491	-6.31	649.88
			Max. Vy	8	17.9310	-623.06	6.43
			Max. Vx	2	-19.5620	-6.31	649.88
			Max. Torque	13			2.13
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-36.8100	-2.32	2.61
			Max. Mx	8	-16.4454	-714.59	7.01
			Max. My	2	-16.2785	-6.93	749.84
			Max. Vy	8	18.6474	-714.59	7.01
			Max. Vx	2	-20.4096	-6.93	749.84
L18	75.75 - 70.75	Pole	Max. Torque	13			2.53
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-45.1963	-2.85	2.96
			Max. Mx	8	-20.9040	-818.30	7.60
			Max. My	2	-20.7302	-7.56	862.65
			Max. Vy	8	21.8748	-818.30	7.60
			Max. Vx	2	-23.7761	-7.56	862.65
			Max. Torque	13			2.95
			Max Tension	1	0.0000	0.00	0.00
			L19	70.75 - 69.98	Pole	Max. Compression	26
Max. Mx	8	-21.0886				-835.20	7.69
Max. My	2	-20.9156				-7.66	881.02
Max. Vy	8	22.0003				-835.20	7.69
Max. Vx	2	-23.9206				-7.66	881.02
Max. Torque	13						3.01
Max Tension	1	0.0000				0.00	0.00
Max. Compression	26	-45.6270				-2.96	3.04
Max. Mx	8	-21.1529				-840.71	7.72
Max. My	2	-20.9808				-7.69	887.01
L20	69.98 - 69.73	Pole	Max. Vy	8	22.0375	-840.71	7.72
			Max. Vx	2	-23.9637	-7.69	887.01
			Max. Torque	13			3.04
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-47.6352	-3.51	3.40
			Max. Mx	8	-22.3510	-952.83	8.31
			Max. My	2	-22.1829	-8.33	1009.04
			Max. Vy	8	22.7751	-952.83	8.31
			Max. Vx	2	-24.8340	-8.33	1009.04
			Max. Torque	13			3.44
L21	69.73 - 64.73	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-48.2559	-3.70	3.51
			Max. Mx	8	-22.6577	-992.48	8.51
			Max. My	2	-22.4922	-8.55	1052.27
			Max. Vy	8	23.0435	-992.48	8.51
			Max. Vx	2	-25.1484	-8.55	1052.27
			Max. Torque	13			3.57
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-48.3818	-3.72	3.53
			Max. Mx	8	-22.7625	-998.24	8.54
L22	64.73 - 63	Pole	Max. My	2	-22.6011	-8.58	1058.56
			Max. Vy	8	23.0603	-998.24	8.54
			Max. Vx	2	-25.1708	-8.58	1058.56
			Max. Torque	13			3.59
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-50.2805	-4.13	3.77
			Max. Mx	8	-23.9161	-1084.09	8.97
			Max. My	2	-23.7568	-9.05	1152.28
			Max. Vy	8	23.6868	-1084.09	8.97
			Max. Vx	2	-25.8866	-9.05	1152.28
L23	63 - 62.75	Pole	Max. Torque	13			3.78
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-50.4164	-4.16	3.79

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L26	58.82 - 58.67	Pole	Max. Mx	8	-24.0021	-1090.26	9.00
			Max. My	2	-23.8443	-9.09	1159.02
			Max. Vy	8	23.7239	-1090.26	9.00
			Max. Vx	2	-25.9284	-9.09	1159.02
			Max. Torque	13			3.79
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-50.4949	-4.18	3.80
			Max. Mx	8	-24.0484	-1093.83	9.02
			Max. My	2	-23.8910	-9.11	1162.91
			Max. Vy	8	23.7494	-1093.83	9.02
L27	58.67 - 53.67	Pole	Max. Vx	2	-25.9568	-9.11	1162.91
			Max. Torque	13			3.80
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-52.9911	-4.74	4.14
			Max. Mx	8	-25.5613	-1214.59	9.61
			Max. My	2	-25.4110	-9.76	1294.89
			Max. Vy	8	24.5168	-1214.59	9.61
			Max. Vx	2	-26.8215	-9.76	1294.89
			Max. Torque	13			3.97
			Max Tension	1	0.0000	0.00	0.00
L28	53.67 - 48.58	Pole	Max. Compression	26	-53.3233	-4.82	4.18
			Max. Mx	8	-25.7717	-1231.06	9.69
			Max. My	2	-25.6232	-9.84	1312.91
			Max. Vy	8	24.6088	-1231.06	9.69
			Max. Vx	2	-26.9264	-9.84	1312.91
			Max. Torque	13			3.99
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-57.5591	-5.27	4.48
			Max. Mx	8	-28.6079	-1367.03	10.36
			Max. My	2	-28.4636	-10.53	1461.64
L29	48.58 - 47.58	Pole	Max. Vy	8	25.5489	-1367.03	10.36
			Max. Vx	2	-27.9465	-10.53	1461.64
			Max. Torque	13			4.13
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-60.0107	-5.86	4.86
			Max. Mx	8	-30.1685	-1496.50	11.10
			Max. My	2	-30.0357	-11.33	1603.29
			Max. Vy	8	26.2087	-1496.50	11.10
			Max. Vx	2	-28.7075	-11.33	1603.29
			Max. Torque	13			4.30
L30	47.58 - 42.58	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-61.3462	-6.17	5.06
			Max. Mx	8	-30.9841	-1564.63	11.48
			Max. My	2	-30.8572	-11.74	1677.91
			Max. Vy	8	26.5796	-1564.63	11.48
			Max. Vx	2	-29.1329	-11.74	1677.91
			Max. Torque	13			4.40
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-61.4976	-6.20	5.08
			Max. Mx	8	-31.0924	-1571.29	11.52
L31	42.58 - 40	Pole	Max. My	2	-30.9679	-11.78	1685.20
			Max. Vy	8	26.6060	-1571.29	11.52
			Max. Vx	2	-29.1640	-11.78	1685.20
			Max. Torque	13			4.41
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-64.5201	-6.80	5.47
			Max. Mx	8	-33.0298	-1706.35	12.26
			Max. My	2	-32.9139	-12.58	1833.27
			Max. Vy	8	27.3768	-1706.35	12.26
			Max. Vx	2	-30.0429	-12.58	1833.27
L32	40 - 39.75	Pole	Max. Torque	13			4.62
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-65.9174	-7.07	5.65
			Max. Mx	8	-33.0298	-1706.35	12.26
			Max. My	2	-32.9139	-12.58	1833.27
			Max. Vy	8	27.3768	-1706.35	12.26
			Max. Vx	2	-30.0429	-12.58	1833.27
			Max. Torque	13			4.62
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-65.9174	-7.07	5.65
L33	39.75 - 34.75	Pole	Max. Mx	8	-33.0298	-1706.35	12.26
			Max. My	2	-32.9139	-12.58	1833.27
			Max. Vy	8	27.3768	-1706.35	12.26
			Max. Vx	2	-30.0429	-12.58	1833.27
			Max. Torque	13			4.62
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-65.9174	-7.07	5.65
			Max. Mx	8	-33.0298	-1706.35	12.26
			Max. My	2	-32.9139	-12.58	1833.27
			Max. Vy	8	27.3768	-1706.35	12.26
L34	34.75 - 32.5	Pole	Max. Vx	2	-30.0429	-12.58	1833.27
			Max. Torque	13			4.62
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-65.9174	-7.07	5.65
			Max. Mx	8	-33.0298	-1706.35	12.26
			Max. My	2	-32.9139	-12.58	1833.27
			Max. Vy	8	27.3768	-1706.35	12.26
			Max. Vx	2	-30.0429	-12.58	1833.27
			Max. Torque	13			4.62
			Max Tension	1	0.0000	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L35	32.5 - 32.25	Pole	Max. Mx	8	-33.9156	-1768.39	12.59
			Max. My	2	-33.8044	-12.94	1901.33
			Max. Vy	8	27.7313	-1768.39	12.59
			Max. Vx	2	-30.4406	-12.94	1901.33
			Max. Torque	13			4.71
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-66.0608	-7.10	5.67
			Max. Mx	8	-34.0049	-1775.33	12.63
			Max. My	2	-33.8956	-12.98	1908.94
			Max. Vy	8	27.7641	-1775.33	12.63
L36	32.25 - 31.42	Pole	Max. Vx	2	-30.4767	-12.98	1908.94
			Max. Torque	13			4.72
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-66.5370	-7.20	5.73
			Max. Mx	8	-34.2736	-1798.46	12.75
			Max. My	2	-34.1657	-13.11	1934.31
			Max. Vy	8	27.9045	-1798.46	12.75
			Max. Vx	2	-30.6306	-13.11	1934.31
			Max. Torque	13			4.76
			Max Tension	1	0.0000	0.00	0.00
L37	31.42 - 31.17	Pole	Max. Compression	26	-66.7000	-7.23	5.75
			Max. Mx	8	-34.3797	-1805.44	12.79
			Max. My	2	-34.2736	-13.15	1941.98
			Max. Vy	8	27.9396	-1805.44	12.79
			Max. Vx	2	-30.6697	-13.15	1941.98
			Max. Torque	13			4.77
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-68.0941	-7.48	5.88
			Max. Mx	8	-35.2370	-1866.52	13.11
			Max. My	2	-35.1345	-13.50	2009.00
L38	31.17 - 29	Pole	Max. Vy	8	28.3069	-1866.52	13.11
			Max. Vx	2	-31.0838	-13.50	2009.00
			Max. Torque	13			4.85
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-68.2468	-7.51	5.89
			Max. Mx	8	-35.3385	-1873.61	13.15
			Max. My	2	-35.2380	-13.54	2016.78
			Max. Vy	8	28.3382	-1873.61	13.15
			Max. Vx	2	-31.1196	-13.54	2016.78
			Max. Torque	13			4.86
L39	29 - 28.75	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-71.2536	-8.06	6.21
			Max. Mx	8	-37.2274	-2017.39	13.89
			Max. My	2	-37.1410	-14.34	2174.52
			Max. Vy	8	29.1327	-2017.39	13.89
			Max. Vx	2	-31.9592	-14.34	2174.52
			Max. Torque	13			5.04
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-71.4067	-8.08	6.24
			Max. Mx	8	-37.3309	-2024.68	13.93
L40	28.75 - 23.75	Pole	Max. My	2	-37.2467	-14.38	2182.51
			Max. Vy	8	29.1659	-2024.68	13.93
			Max. Vx	2	-31.9889	-14.38	2182.51
			Max. Torque	13			5.05
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-71.5781	-8.11	6.26
			Max. Mx	8	-37.4450	-2031.99	13.96
			Max. My	2	-37.3616	-14.43	2190.52
			Max. Vy	8	29.2090	-2031.99	13.96
			Max. Vx	2	-32.0292	-14.43	2190.52
L41	23.75 - 23.5	Pole	Max. Torque	13			5.06
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-71.7496	-8.14	6.28
			Max. Mx	8	-37.5588	-2039.30	14.00
			Max. My	2	-37.4762	-14.47	2198.54
			Max. Vy	8	29.2525	-2039.30	14.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L44	23 - 22.75	Pole	Max. Vx	2	-32.0701	-14.47	2198.54
			Max. Torque	13			5.07
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-71.9088	-8.16	6.30
			Max. Mx	8	-37.6609	-2046.63	14.04
			Max. My	2	-37.5791	-14.51	2206.56
			Max. Vy	8	29.2953	-2046.63	14.04
L45	22.75 - 17.75	Pole	Max. Vx	2	-32.1102	-14.51	2206.56
			Max. Torque	13			5.08
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-75.0063	-8.72	6.79
			Max. Mx	8	-39.7064	-2195.23	14.78
			Max. My	2	-39.6417	-15.31	2368.98
			Max. Vy	8	30.1039	-2195.23	14.78
L46	17.75 - 12.75	Pole	Max. Vx	2	-32.8378	-15.31	2368.98
			Max. Torque	13			5.29
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-78.0723	-9.29	7.32
			Max. Mx	8	-41.7890	-2347.79	15.51
			Max. My	2	-41.7428	-16.11	2534.90
			Max. Vy	8	30.8853	-2347.79	15.51
L47	12.75 - 7.75	Pole	Max. Vx	2	-33.5255	-16.11	2534.90
			Max. Torque	13			5.52
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-81.1275	-9.87	7.85
			Max. Mx	8	-43.9008	-2504.27	16.25
			Max. My	2	-43.8731	-16.91	2704.27
			Max. Vy	8	31.6687	-2504.27	16.25
L48	7.75 - 5.25	Pole	Max. Vx	2	-34.2141	-16.91	2704.27
			Max. Torque	13			5.75
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-82.6466	-10.16	8.11
			Max. Mx	8	-44.9676	-2583.97	16.61
			Max. My	2	-44.9485	-17.31	2790.25
			Max. Vy	8	32.0660	-2583.97	16.61
L49	5.25 - 5	Pole	Max. Vx	2	-34.5638	-17.31	2790.25
			Max. Torque	13			5.86
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-82.7926	-10.19	8.13
			Max. Mx	8	-45.0804	-2592.00	16.65
			Max. My	2	-45.0639	-17.35	2798.89
			Max. Vy	8	32.0905	-2592.00	16.65
L50	5 - 0	Pole	Max. Vx	2	-34.5823	-17.35	2798.89
			Max. Torque	13			5.87
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-85.6126	-10.76	8.62
			Max. Mx	8	-47.1088	-2754.54	17.38
			Max. My	2	-47.1072	-18.14	2973.64
			Max. Vy	8	32.8782	-2754.54	17.38
			Max. Vx	2	-35.2951	-18.14	2973.64
			Max. Torque	13			6.11

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	26	85.6126	-0.0000	0.0000
	Max. H _x	20	47.1189	32.8638	-0.1253
	Max. H _z	2	47.1189	-0.1253	35.2796
	Max. M _x	2	2973.64	-0.1253	35.2796
	Max. M _z	8	2754.54	-32.8638	0.1253
	Max. Torsion	13	6.11	-18.2507	-31.6111

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Min. Vert	19	35.3391	26.0166	-15.0207
	Min. H _x	8	47.1189	-32.8638	0.1253
	Min. H _z	14	47.1189	0.1253	-35.2796
	Min. M _x	14	-2969.89	0.1253	-35.2796
	Min. M _z	20	-2749.25	32.8638	-0.1253
	Min. Torsion	25	-6.11	18.2507	31.6111

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overtuning Moment, M _x kip-ft	Overtuning Moment, M _z kip-ft	Torque kip-ft
Dead Only	39.2657	0.0000	0.0000	-1.51	-2.15	-0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	47.1189	0.1253	-35.2796	-2973.64	-18.14	4.08
0.9 Dead+1.6 Wind 0 deg - No Ice	35.3391	0.1253	-35.2796	-2947.37	-17.30	4.09
1.2 Dead+1.6 Wind 30 deg - No Ice	47.1189	15.8136	-27.1393	-2330.46	-1364.97	0.64
0.9 Dead+1.6 Wind 30 deg - No Ice	35.3391	15.8136	-27.1393	-2309.51	-1352.28	0.65
1.2 Dead+1.6 Wind 60 deg - No Ice	47.1189	26.0166	-15.0207	-1294.95	-2242.33	-0.64
0.9 Dead+1.6 Wind 60 deg - No Ice	35.3391	26.0166	-15.0207	-1282.94	-2221.68	-0.64
1.2 Dead+1.6 Wind 90 deg - No Ice	47.1189	32.8638	-0.1253	-17.38	-2754.54	-2.24
0.9 Dead+1.6 Wind 90 deg - No Ice	35.3391	32.8638	-0.1253	-16.73	-2729.71	-2.25
1.2 Dead+1.6 Wind 120 deg - No Ice	47.1189	31.3299	17.9436	1474.66	-2591.06	-5.38
0.9 Dead+1.6 Wind 120 deg - No Ice	35.3391	31.3299	17.9436	1462.39	-2567.96	-5.39
1.2 Dead+1.6 Wind 150 deg - No Ice	47.1189	18.2507	31.6111	2614.57	-1513.23	-6.10
0.9 Dead+1.6 Wind 150 deg - No Ice	35.3391	18.2507	31.6111	2592.47	-1499.52	-6.11
1.2 Dead+1.6 Wind 180 deg - No Ice	47.1189	-0.1253	35.2796	2969.89	12.88	-4.05
0.9 Dead+1.6 Wind 180 deg - No Ice	35.3391	-0.1253	35.2796	2944.59	13.38	-4.07
1.2 Dead+1.6 Wind 210 deg - No Ice	47.1189	-15.8136	27.1393	2326.72	1359.68	-0.62
0.9 Dead+1.6 Wind 210 deg - No Ice	35.3391	-15.8136	27.1393	2306.73	1348.33	-0.63
1.2 Dead+1.6 Wind 240 deg - No Ice	47.1189	-26.0166	15.0207	1291.21	2237.03	0.64
0.9 Dead+1.6 Wind 240 deg - No Ice	35.3391	-26.0166	15.0207	1280.16	2217.74	0.64
1.2 Dead+1.6 Wind 270 deg - No Ice	47.1189	-32.8638	0.1253	13.64	2749.25	2.22
0.9 Dead+1.6 Wind 270 deg - No Ice	35.3391	-32.8638	0.1253	13.95	2725.77	2.23
1.2 Dead+1.6 Wind 300 deg - No Ice	47.1189	-31.3299	-17.9436	-1478.37	2585.78	5.35
0.9 Dead+1.6 Wind 300 deg - No Ice	35.3391	-31.3299	-17.9436	-1465.15	2564.03	5.36
1.2 Dead+1.6 Wind 330 deg - No Ice	47.1189	-18.2507	-31.6111	-2618.29	1507.97	6.10
0.9 Dead+1.6 Wind 330 deg - No Ice	35.3391	-18.2507	-31.6111	-2595.24	1495.60	6.11
1.2 Dead+1.0 Ice+1.0 Temp	85.6126	0.0000	-0.0000	-8.62	-10.76	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	85.6126	0.0262	-7.7586	-729.56	-14.01	0.46
1.2 Dead+1.0 Wind 30	85.6126	3.7160	-6.3841	-606.18	-359.47	-0.03

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 60	85.6126	6.0944	-3.5186	-341.95	-588.08	-0.25
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 90	85.6126	7.6893	-0.0262	-11.85	-716.28	-0.58
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 120	85.6126	6.8908	3.9482	350.53	-639.35	-0.89
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 150	85.6126	4.0532	7.0203	629.79	-379.47	-0.92
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 180	85.6126	-0.0262	7.7586	712.18	-7.69	-0.46
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 210	85.6126	-3.7160	6.3841	588.81	337.76	0.03
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 240	85.6126	-6.0944	3.5186	324.58	566.38	0.25
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 270	85.6126	-7.6893	0.0262	-5.53	694.58	0.58
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 300	85.6126	-6.8908	-3.9482	-367.90	617.64	0.89
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 330	85.6126	-4.0532	-7.0203	-647.16	357.77	0.92
deg+1.0 Ice+1.0 Temp						
Dead+Wind 0 deg - Service	39.2657	0.0268	-7.5484	-634.40	-5.50	-0.17
Dead+Wind 30 deg - Service	39.2657	3.3835	-5.8067	-497.33	-292.25	-0.15
Dead+Wind 60 deg - Service	39.2657	5.5665	-3.2138	-276.84	-479.00	-0.10
Dead+Wind 90 deg - Service	39.2657	7.0316	-0.0268	-4.86	-588.13	-0.02
Dead+Wind 120 deg - Service	39.2657	6.7034	3.8392	312.88	-553.41	0.06
Dead+Wind 150 deg - Service	39.2657	3.9049	6.7635	555.64	-323.90	0.13
Dead+Wind 180 deg - Service	39.2657	-0.0268	7.5484	631.28	1.10	0.17
Dead+Wind 210 deg - Service	39.2657	-3.3835	5.8067	494.22	287.85	0.15
Dead+Wind 240 deg - Service	39.2657	-5.5665	3.2138	273.72	474.60	0.10
Dead+Wind 270 deg - Service	39.2657	-7.0316	0.0268	1.74	583.73	0.02
Dead+Wind 300 deg - Service	39.2657	-6.7034	-3.8392	-315.99	549.01	-0.06
Dead+Wind 330 deg - Service	39.2657	-3.9049	-6.7635	-558.75	319.50	-0.13

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	0.0000	-39.2657	0.0000	0.0000	39.2657	0.0000	0.000%
2	0.1253	-47.1189	-35.2796	-0.1253	47.1189	35.2796	0.000%
3	0.1253	-35.3391	-35.2796	-0.1253	35.3391	35.2796	0.000%
4	15.8136	-47.1189	-27.1393	-15.8136	47.1189	27.1393	0.000%
5	15.8136	-35.3391	-27.1393	-15.8136	35.3391	27.1393	0.000%
6	26.0166	-47.1189	-15.0207	-26.0166	47.1189	15.0207	0.000%
7	26.0166	-35.3391	-15.0207	-26.0166	35.3391	15.0207	0.000%
8	32.8638	-47.1189	-0.1253	-32.8638	47.1189	0.1253	0.000%
9	32.8638	-35.3391	-0.1253	-32.8638	35.3391	0.1253	0.000%
10	31.3299	-47.1189	17.9436	-31.3299	47.1189	-17.9436	0.000%
11	31.3299	-35.3391	17.9436	-31.3299	35.3391	-17.9436	0.000%
12	18.2507	-47.1189	31.6111	-18.2507	47.1189	-31.6111	0.000%
13	18.2507	-35.3391	31.6111	-18.2507	35.3391	-31.6111	0.000%
14	-0.1253	-47.1189	35.2796	0.1253	47.1189	-35.2796	0.000%
15	-0.1253	-35.3391	35.2796	0.1253	35.3391	-35.2796	0.000%
16	-15.8136	-47.1189	27.1393	15.8136	47.1189	-27.1393	0.000%
17	-15.8136	-35.3391	27.1393	15.8136	35.3391	-27.1393	0.000%
18	-26.0166	-47.1189	15.0207	26.0166	47.1189	-15.0207	0.000%
19	-26.0166	-35.3391	15.0207	26.0166	35.3391	-15.0207	0.000%

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
20	-32.8638	-47.1189	0.1253	32.8638	47.1189	-0.1253	0.000%
21	-32.8638	-35.3391	0.1253	32.8638	35.3391	-0.1253	0.000%
22	-31.3299	-47.1189	-17.9436	31.3299	47.1189	17.9436	0.000%
23	-31.3299	-35.3391	-17.9436	31.3299	35.3391	17.9436	0.000%
24	-18.2507	-47.1189	-31.6111	18.2507	47.1189	31.6111	0.000%
25	-18.2507	-35.3391	-31.6111	18.2507	35.3391	31.6111	0.000%
26	0.0000	-85.6126	0.0000	-0.0000	85.6126	0.0000	0.000%
27	0.0262	-85.6126	-7.7586	-0.0262	85.6126	7.7586	0.000%
28	3.7160	-85.6126	-6.3840	-3.7160	85.6126	6.3841	0.000%
29	6.0944	-85.6126	-3.5186	-6.0944	85.6126	3.5186	0.000%
30	7.6892	-85.6126	-0.0262	-7.6893	85.6126	0.0262	0.000%
31	6.8908	-85.6126	3.9482	-6.8908	85.6126	-3.9482	0.000%
32	4.0532	-85.6126	7.0203	-4.0532	85.6126	-7.0203	0.000%
33	-0.0262	-85.6126	7.7586	0.0262	85.6126	-7.7586	0.000%
34	-3.7160	-85.6126	6.3840	3.7160	85.6126	-6.3841	0.000%
35	-6.0944	-85.6126	3.5186	6.0944	85.6126	-3.5186	0.000%
36	-7.6892	-85.6126	0.0262	7.6893	85.6126	-0.0262	0.000%
37	-6.8908	-85.6126	-3.9482	6.8908	85.6126	3.9482	0.000%
38	-4.0532	-85.6126	-7.0203	4.0532	85.6126	7.0203	0.000%
39	0.0268	-39.2657	-7.5484	-0.0268	39.2657	7.5484	0.000%
40	3.3835	-39.2657	-5.8067	-3.3835	39.2657	5.8067	0.000%
41	5.5665	-39.2657	-3.2138	-5.5665	39.2657	3.2138	0.000%
42	7.0316	-39.2657	-0.0268	-7.0316	39.2657	0.0268	0.000%
43	6.7034	-39.2657	3.8392	-6.7034	39.2657	-3.8392	0.000%
44	3.9049	-39.2657	6.7635	-3.9049	39.2657	-6.7635	0.000%
45	-0.0268	-39.2657	7.5484	0.0268	39.2657	-7.5484	0.000%
46	-3.3835	-39.2657	5.8067	3.3835	39.2657	-5.8067	0.000%
47	-5.5665	-39.2657	3.2138	5.5665	39.2657	-3.2138	0.000%
48	-7.0316	-39.2657	0.0268	7.0316	39.2657	-0.0268	0.000%
49	-6.7034	-39.2657	-3.8392	6.7034	39.2657	3.8392	0.000%
50	-3.9049	-39.2657	-6.7635	3.9049	39.2657	6.7635	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	5	0.00000001	0.00090511
3	Yes	5	0.00000001	0.00041387
4	Yes	6	0.00000001	0.00026639
5	Yes	6	0.00000001	0.00008518
6	Yes	6	0.00000001	0.00025660
7	Yes	6	0.00000001	0.00008315
8	Yes	5	0.00000001	0.00050615
9	Yes	5	0.00000001	0.00023190
10	Yes	6	0.00000001	0.00028169
11	Yes	6	0.00000001	0.00008663
12	Yes	6	0.00000001	0.00034040
13	Yes	6	0.00000001	0.00010651
14	Yes	5	0.00000001	0.00069759
15	Yes	5	0.00000001	0.00032066
16	Yes	6	0.00000001	0.00026428
17	Yes	6	0.00000001	0.00008457
18	Yes	6	0.00000001	0.00024729
19	Yes	6	0.00000001	0.00007995
20	Yes	5	0.00000001	0.00031383
21	Yes	5	0.00000001	0.00014277
22	Yes	6	0.00000001	0.00032932
23	Yes	6	0.00000001	0.00010341
24	Yes	6	0.00000001	0.00028612
25	Yes	6	0.00000001	0.00008744
26	Yes	4	0.00000001	0.00092396
27	Yes	6	0.00000001	0.00071007
28	Yes	6	0.00000001	0.00077337
29	Yes	6	0.00000001	0.00075233

30	Yes	6	0.00000001	0.00069789
31	Yes	6	0.00000001	0.00078477
32	Yes	6	0.00000001	0.00080056
33	Yes	6	0.00000001	0.00069478
34	Yes	6	0.00000001	0.00074628
35	Yes	6	0.00000001	0.00072360
36	Yes	6	0.00000001	0.00068572
37	Yes	6	0.00000001	0.00079056
38	Yes	6	0.00000001	0.00079858
39	Yes	4	0.00000001	0.00065481
40	Yes	5	0.00000001	0.00008038
41	Yes	5	0.00000001	0.00008114
42	Yes	4	0.00000001	0.00057326
43	Yes	5	0.00000001	0.00010218
44	Yes	5	0.00000001	0.00010018
45	Yes	4	0.00000001	0.00067811
46	Yes	5	0.00000001	0.00008696
47	Yes	5	0.00000001	0.00007393
48	Yes	4	0.00000001	0.00056498
49	Yes	5	0.00000001	0.00009860
50	Yes	5	0.00000001	0.00010798

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L1	140 - 139	TP14.296x13.161x0.1875	5.0000	0.0000	0.0	7.8559	-0.1182	583.6570	0.000
	139 - 138					7.9910	-0.1564	593.6940	0.000
	138 - 137					8.1261	-2.9215	603.7300	0.005
	137 - 136					8.2612	-2.9632	613.7660	0.005
	136 - 135					8.3963	-3.0060	623.8030	0.005
L2	135 - 134	TP15.4309x14.296x0.1875	5.0000	0.0000	0.0	8.5314	-3.0563	633.8390	0.005
	134 - 133					8.6665	-3.1076	643.8750	0.005
	133 - 132					8.8016	-3.1601	653.9120	0.005
	132 - 131					8.9367	-3.2135	663.9480	0.005
	131 - 130					9.0717	-3.2680	673.9850	0.005
L3	130 - 129	TP16.5659x15.4309x0.1875	5.0000	0.0000	0.0	9.2068	-3.3235	684.0210	0.005
	129 - 128					9.3419	-3.3799	694.0570	0.005
	128 - 127					9.4770	-3.4373	704.0940	0.005
	127 - 126					9.6121	-3.4956	714.1300	0.005
	126 - 125					9.7472	-3.5547	724.1660	0.005
L4	125 - 124	TP17.7008x16.5659x0.1875	5.0000	0.0000	0.0	9.8823	-3.6147	734.2030	0.005
	124 - 123					10.0174	-3.6755	744.2390	0.005
	123 - 122					10.1524	-3.7372	754.2760	0.005
	122 - 121					10.2875	-3.7996	764.3120	0.005
	121 - 120					10.4226	-3.8629	774.3480	0.005
L5	120 - 119	TP18.8358x17.7008x0.1875	5.0000	0.0000	0.0	10.5577	-4.8165	784.3850	0.006
	119 - 118					10.6928	-4.9033	794.4210	0.006
	118 - 117					10.8279	-4.9911	804.4570	0.006
	117 - 116					10.9630	-5.0800	814.4940	0.006
	116 - 115					11.0980	-5.1700	824.5300	0.006

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L6	115 - 114.75 (6)	TP18.8925x18.8358x0.46 25	0.2500	0.0000	0.0	27.054 1	-5.2098	2010.0400	0.003
L7	114.75 - 113.75 113.75 - 112.75 112.75 - 111.75 111.75 - 110.75 110.75 - 109.75	TP20.0275x18.8925x0.45	5.0000	0.0000	0.0	26.665 7 26.989 9 27.314 1 27.638 3 27.962 5	-5.3365 -5.4140 -5.5447 -5.6768 -5.8102	1981.1300 2005.2100 2029.3000 2053.3900 2077.4800	0.003 0.003 0.003 0.003 0.003
L8	109.75 - 108.75 108.75 - 107.75 107.75 - 106.75 106.75 - 105.75 105.75 - 104.75	TP21.1624x20.0275x0.42 5	5.0000	0.0000	0.0	26.749 0 27.055 2 27.361 4 27.667 6 27.973 8	-5.9426 -6.0765 -6.2118 -6.3484 -6.4085	1987.3100 2010.0600 2032.8100 2055.5600 2078.3100	0.003 0.003 0.003 0.003 0.003
L9	104.75 - 103.693 103.693 - 102.637 102.637 - 101.58	TP21.882x21.1624x0.418 8	3.1700	0.0000	0.0	27.889 5 28.208 3 28.527 1	-6.5513 -6.6960 -6.8422	2072.0500 2095.7300 2119.4200	0.003 0.003 0.003
L10	101.58 - 101.33 (10)	TP21.9388x21.882x0.312 5	0.2500	0.0000	0.0	21.450 5	-6.8771	1593.6700	0.004
L11	101.33 - 100.33 100.33 - 99.33 99.33 - 98.33 98.33 - 97.33 97.33 - 96.33	TP23.0738x21.9388x0.31 25	5.0000	0.0000	0.0	21.675 7 21.900 8 22.126 0 22.351 2 22.576 3	-6.9971 -7.1229 -7.6924 -7.8222 -7.9338	1610.4000 1627.1200 1643.8500 1660.5800 1677.3100	0.004 0.004 0.005 0.005 0.005
L12	96.33 - 95.33 95.33 - 94.33 94.33 - 93.33 93.33 - 92.33 92.33 - 91.33	TP24.2088x23.0738x0.31 25	5.0000	0.0000	0.0	22.801 5 23.026 6 23.251 8 23.476 9 23.702 1	-8.0690 -12.4281 -12.5709 -12.7153 -12.8612	1694.0400 1710.7600 1727.4900 1744.2200 1760.9500	0.005 0.007 0.007 0.007 0.007
L13	91.33 - 91 (13)	TP24.2837x24.2088x0.31 25	0.3300	0.0000	0.0	23.776 4	-12.9176	1766.4700	0.007
L14	91 - 90.75 (14)	TP24.3404x24.2837x0.6	0.2500	0.0000	0.0	45.211 2	-12.9724	3358.9700	0.004
L15	90.75 - 89.75 89.75 - 88.75 88.75 - 87.75 87.75 - 86.75 86.75 - 85.75	TP25.4754x24.3404x0.58 75	5.0000	0.0000	0.0	44.715 9 45.139 2 45.562 5 45.985 8 46.409 1	-13.1753 -13.3851 -13.5967 -13.8103 -14.0257	3322.1700 3353.6200 3385.0700 3416.5200 3447.9600	0.004 0.004 0.004 0.004 0.004
L16	85.75 - 84.75 84.75 - 83.75	TP26.6104x25.4754x0.56 25	5.0000	0.0000	0.0	44.884 2 45.289 4	-14.2405 -14.4574	3334.6700 3364.7800	0.004 0.004

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
	83.75 - 82.75					45.694	-14.6762	3394.8900	0.004
	82.75 - 81.75					46.100	-14.8968	3425.0000	0.004
	81.75 - 80.75					46.505	-15.1193	3455.1100	0.004
L17	80.75 - 79.75	TP27.7454x26.6104x0.55	5.0000	0.0000	0.0	45.889	-15.3411	3409.3900	0.004
	79.75 - 78.75					46.286	-15.5648	3438.8300	0.005
	78.75 - 77.75					46.682	-15.7904	3468.2700	0.005
	77.75 - 76.75					47.078	-16.0178	3497.7200	0.005
	76.75 - 75.75					47.475	-16.2471	3527.1600	0.005
L18	75.75 - 74.75	TP28.8804x27.7454x0.54	5.0000	0.0000	0.0	47.338	-16.4763	3516.9800	0.005
	74.75 - 73.75	38				47.729	-16.7074	3546.0900	0.005
	73.75 - 72.75					48.121	-20.2205	3575.2000	0.006
	72.75 - 71.75					48.513	-20.4574	3604.3000	0.006
	71.75 - 70.75					48.905	-20.6962	3633.4100	0.006
L19	70.75 - 69.98	TP29.0552x28.8804x0.53	0.7700	0.0000	0.0	48.096	-20.8816	3573.3500	0.006
	(19)	13				48.192	-20.9468	3580.4600	0.006
L20	69.98 - 69.73	TP29.112x29.0552x0.531	0.2500	0.0000	0.0	48.192	-20.9468	3580.4600	0.006
	(20)	3				48.014	-21.1771	3567.2100	0.006
L21	69.73 - 68.73	TP30.247x29.112x0.525	5.0000	0.0000	0.0	48.014	-21.1771	3567.2100	0.006
	68.73 - 67.73					48.392	-21.4174	3595.3100	0.006
	67.73 - 66.73					48.770	-21.6596	3623.4200	0.006
	66.73 - 65.73					49.148	-21.9035	3651.5200	0.006
	65.73 - 64.73					49.527	-22.1493	3679.6200	0.006
L22	64.73 - 63	TP30.6397x30.247x0.312	1.7300	0.0000	0.0	30.080	-22.4598	2234.8500	0.010
	(22)	5				66.646	-22.5696	4951.4700	0.005
L23	63 - 62.75	TP30.6964x30.6397x0.7	0.2500	0.0000	0.0	66.646	-22.5696	4951.4700	0.005
	(23)					66.089	-22.9460	4910.0900	0.005
L24	62.75 - 61.5267	TP31.5295x30.6964x0.68	3.6700	0.0000	0.0	66.089	-22.9460	4910.0900	0.005
	61.5267 - 60.3033	75				66.695	-23.3346	4955.1100	0.005
	60.3033 - 59.08					67.301	-23.7266	5000.1400	0.005
L25	59.08 - 58.82	TP31.5885x31.5295x0.62	0.2600	0.0000	0.0	61.423	-23.8144	4563.4900	0.005
	(25)	5				61.491	-23.8611	4568.5100	0.005
L26	58.82 - 58.67	TP31.6226x31.5885x0.62	0.1500	0.0000	0.0	61.491	-23.8611	4568.5100	0.005
	(26)	5				60.727	-24.1541	4511.7300	0.005
L27	58.67 - 57.67	TP32.7576x31.6226x0.61	5.0000	0.0000	0.0	60.727	-24.1541	4511.7300	0.005
	57.67 - 56.67	25				61.168	-24.4582	4544.5100	0.005
	56.67 - 55.67					61.609	-24.7642	4577.3000	0.005
	55.67 - 54.67					62.051	-25.0724	4610.0900	0.005
	54.67 - 53.67					62.492	-25.3826	4642.8800	0.005
L28	53.67 - 53	TP33.913x32.7576x0.612	5.0900	0.0000	0.0	62.788	-25.5950	4664.8400	0.005
	53 - 48.58	5				64.738	-13.9968	4809.7600	0.003
L29	53 - 48.58	TP33.5151x32.2847x0.63	5.4200	0.0000	0.0	66.066	-14.1131	4908.3800	0.003

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
		75				1			
	48.58 - 47.58					66.525	-28.4363	4942.5100	0.006
L30	47.58 - 46.58	TP34.6503x33.5151x0.62	5.0000	0.0000	0.0	65.696	-28.7469	4880.9000	0.006
	46.58 - 45.58	5				66.146	-29.0597	4914.3600	0.006
	45.58 - 44.58					66.596	-29.3744	4947.8200	0.006
	44.58 - 43.58					67.047	-29.6911	4981.2800	0.006
	43.58 - 42.58					67.497	-30.0097	5014.7400	0.006
L31	42.58 - 41.29	TP35.236x34.6503x0.612	2.5800	0.0000	0.0	66.741	-30.4174	4958.5500	0.006
	41.29 - 40	5				67.310	-30.8321	5000.8500	0.006
L32	40 - 39.75 (32)	TP35.2927x35.236x0.812	0.2500	0.0000	0.0	88.920	-30.9432	6606.3300	0.005
L33	39.75 - 38.75	TP36.4279x35.2927x0.78	5.0000	0.0000	0.0	86.814	-31.3221	6449.8600	0.005
	38.75 - 37.75	75				87.381	-31.7107	6492.0200	0.005
	37.75 - 36.75					87.949	-32.1016	6534.1800	0.005
	36.75 - 35.75					88.516	-32.4949	6576.3400	0.005
	35.75 - 34.75					89.084	-32.8905	6618.5000	0.005
L34	34.75 - 33.625	TP36.9387x36.4279x0.78	2.2500	0.0000	0.0	89.722	-33.3340	6665.9200	0.005
	33.625 - 32.5	75				90.360	-33.7816	6713.3500	0.005
L35	32.5 - 32.25 (35)	TP36.9954x36.9387x0.61	0.2500	0.0000	0.0	70.731	-33.8732	5254.9700	0.006
L36	32.25 - 31.42 (36)	TP37.1839x36.9954x0.6	0.8300	0.0000	0.0	69.670	-34.1435	5176.1600	0.007
L37	31.42 - 31.17 (37)	TP37.2406x37.1839x0.77	0.2500	0.0000	0.0	89.700	-34.2517	6664.2600	0.005
L38	31.17 - 30.085	TP37.7333x37.2406x0.76	2.1700	0.0000	0.0	88.879	-34.6771	6603.3100	0.005
	30.085 - 29	25				89.475	-35.1138	6647.6000	0.005
L39	29 - 28.75 (39)	TP37.79x37.7333x0.675	0.2500	0.0000	0.0	79.517	-35.2177	5907.7200	0.006
L40	28.75 - 27.75	TP38.9251x37.79x0.6625	5.0000	0.0000	0.0	78.548	-35.5874	5835.7400	0.006
	27.75 - 26.75					79.025	-35.9682	5871.2100	0.006
	26.75 - 25.75					79.503	-36.3512	5906.6700	0.006
	25.75 - 24.75					79.980	-36.7362	5942.1400	0.006
	24.75 - 23.75					80.457	-37.1234	5977.6100	0.006
L41	23.75 - 23.5 (41)	TP38.9819x38.9251x0.66	0.2500	0.0000	0.0	80.577	-37.2295	5986.4800	0.006
L42	23.5 - 23.25 (42)	TP39.0387x38.9819x0.78	0.2500	0.0000	0.0	95.609	-37.3445	7103.3300	0.005
L43	23.25 - 23 (43)	TP39.0954x39.0387x0.78	0.2500	0.0000	0.0	95.751	-37.4591	7113.8700	0.005
L44	23 - 22.75 (44)	TP39.1522x39.0954x0.65	0.2500	0.0000	0.0	79.433	-37.5621	5901.5400	0.006
L45	22.75 - 21.75	TP40.2873x39.1522x0.63	5.0000	0.0000	0.0	78.390	-37.9630	5824.0500	0.007
	21.75 - 20.75	75				78.850	-38.3754	5858.1800	0.007
	20.75 - 19.75					79.309	-38.7901	5892.3100	0.007

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
	19.75 - 18.75					79.769	-39.2071	5926.4400	0.007
	18.75 - 17.75					80.228	-39.6262	5960.5700	0.007
L46	17.75 - 16.75	TP41.4224x40.2873x0.62 5	5.0000	0.0000	0.0	79.130	-40.0424	5879.0000	0.007
	16.75 - 15.75					79.580	-40.4610	5912.4600	0.007
	15.75 - 14.75					80.031	-40.8819	5945.9200	0.007
	14.75 - 13.75					80.481	-41.3049	5979.3800	0.007
	13.75 - 12.75					80.931	-41.7301	6012.8400	0.007
L47	12.75 - 11.75	TP42.5576x41.4224x0.61 25	5.0000	0.0000	0.0	79.778	-42.1524	5927.1700	0.007
	11.75 - 10.75					80.220	-42.5772	5959.9700	0.007
	10.75 - 9.75					80.661	-43.0041	5992.7600	0.007
	9.75 - 8.75					81.103	-43.4332	6025.5500	0.007
	8.75 - 7.75					81.544	-43.8644	6058.3400	0.007
L48	7.75 - 6.5	TP43.1251x42.5576x0.61 25	2.5000	0.0000	0.0	82.096	-44.3999	6099.3200	0.007
	6.5 - 5.25					82.647	-44.9421	6140.3100	0.007
L49	5.25 - 5 (49)	TP43.1819x43.1251x0.68 75	0.2500	0.0000	0.0	92.728	-45.0584	6889.2300	0.007
L50	5 - 4	TP44.317x43.1819x0.675	5.0000	0.0000	0.0	91.555	-45.4567	6802.1000	0.007
	4 - 3					92.041	-45.8662	6838.2300	0.007
	3 - 2					92.528	-46.2777	6874.3700	0.007
	2 - 1					93.014	-46.6912	6910.5100	0.007
	1 - 0					93.500	-47.1066	6946.6400	0.007

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{rx} kip-ft	Ratio M _{ux} / φM _{rx}	M _{uy} kip-ft	φM _{ry} kip-ft	Ratio M _{uy} / φM _{ry}
L1	140 - 139	TP14.296x13.161x0.1875	1.21	157.44	0.008	0.00	157.44	0.000
	139 - 138		1.41	162.94	0.009	0.00	162.94	0.000
	138 - 137		16.60	168.53	0.098	0.00	168.53	0.000
	137 - 136		22.32	174.22	0.128	0.00	174.22	0.000
	136 - 135		28.07	180.01	0.156	0.00	180.01	0.000
L2	135 - 134	TP15.4309x14.296x0.187 5	33.87	185.88	0.182	0.00	185.88	0.000
	134 - 133		39.70	191.85	0.207	0.00	191.85	0.000
	133 - 132		45.57	197.92	0.230	0.00	197.92	0.000
	132 - 131		51.48	204.08	0.252	0.00	204.08	0.000
	131 - 130		57.42	210.34	0.273	0.00	210.34	0.000
L3	130 - 129	TP16.5659x15.4309x0.18 75	63.40	216.69	0.293	0.00	216.69	0.000
	129 - 128		69.43	223.13	0.311	0.00	223.13	0.000
	128 - 127		75.49	229.67	0.329	0.00	229.67	0.000
	127 - 126		81.59	236.30	0.345	0.00	236.30	0.000
	126 - 125		87.73	243.03	0.361	0.00	243.03	0.000
L4	125 - 124	TP17.7008x16.5659x0.18 75	93.91	249.85	0.376	0.00	249.85	0.000

Section No.	Elevation ft	Size	M_{ux}	ϕM_{rx}	Ratio	M_{uy}	ϕM_{ry}	Ratio
			kip-ft	kip-ft	$\frac{M_{ux}}{\phi M_{rx}}$		kip-ft	kip-ft
	124 - 123		100.12	256.77	0.390	0.00	256.77	0.000
	123 - 122		106.38	263.78	0.403	0.00	263.78	0.000
	122 - 121		112.68	270.88	0.416	0.00	270.88	0.000
	121 - 120		119.02	278.08	0.428	0.00	278.08	0.000
L5	120 - 119	TP18.8358x17.7008x0.18 75	128.11	285.38	0.449	0.00	285.38	0.000
	119 - 118		137.24	292.76	0.469	0.00	292.76	0.000
	118 - 117		146.41	300.25	0.488	0.00	300.25	0.000
	117 - 116		155.63	307.82	0.506	0.00	307.82	0.000
	116 - 115		164.88	315.50	0.523	0.00	315.50	0.000
L6	115 - 114.75	TP18.8925x18.8358x0.46 25	167.20	748.96	0.223	0.00	748.96	0.000
L7	114.75 - 113.75	TP20.0275x18.8925x0.45	176.56	748.50	0.236	0.00	748.50	0.000
	113.75 - 112.75		186.27	767.03	0.243	0.00	767.03	0.000
	112.75 - 111.75		196.14	785.79	0.250	0.00	785.79	0.000
	111.75 - 110.75		206.13	804.77	0.256	0.00	804.77	0.000
	110.75 - 109.75		216.26	823.98	0.262	0.00	823.98	0.000
L8	109.75 - 108.75	TP21.1624x20.0275x0.42 5	226.50	799.58	0.283	0.00	799.58	0.000
	108.75 - 107.75		236.88	818.18	0.290	0.00	818.18	0.000
	107.75 - 106.75		247.38	837.00	0.296	0.00	837.00	0.000
	106.75 - 105.75		258.01	856.03	0.301	0.00	856.03	0.000
	105.75 - 104.75		269.07	875.28	0.307	0.00	875.28	0.000
L9	104.75 - 103.693	TP21.882x21.1624x0.418 8	281.00	883.47	0.318	0.00	883.47	0.000
	103.693 - 102.637		293.11	903.98	0.324	0.00	903.98	0.000
	102.637 - 101.58		305.39	924.73	0.330	0.00	924.73	0.000
L10	101.58 - 101.33 (10)	TP21.9388x21.882x0.312 5	308.32	704.11	0.438	0.00	704.11	0.000
L11	101.33 - 100.33	TP23.0738x21.9388x0.31 25	320.12	719.08	0.445	0.00	719.08	0.000
	100.33 - 99.33		332.07	734.20	0.452	0.00	734.20	0.000
	99.33 - 98.33		344.68	749.48	0.460	0.00	749.48	0.000
	98.33 - 97.33		357.57	764.92	0.467	0.00	764.92	0.000
	97.33 - 96.33		370.61	780.51	0.475	0.00	780.51	0.000
L12	96.33 - 95.33	TP24.2088x23.0738x0.31 25	383.91	796.26	0.482	0.00	796.26	0.000
	95.33 - 94.33		400.02	812.17	0.493	0.00	812.17	0.000
	94.33 - 93.33		417.60	828.24	0.504	0.00	828.24	0.000
	93.33 - 92.33		435.32	844.47	0.515	0.00	844.47	0.000
	92.33 - 91.33		453.18	860.85	0.526	0.00	860.85	0.000
L13	91.33 - 91 (13)	TP24.2837x24.2088x0.31 25	459.11	866.29	0.530	0.00	866.29	0.000
L14	91 - 90.75 (14)	TP24.3404x24.2837x0.6	463.62	1611.93	0.288	0.00	1611.93	0.000
L15	90.75 - 89.75	TP25.4754x24.3404x0.58 75	481.75	1611.58	0.299	0.00	1611.58	0.000
	89.75 - 88.75		500.05	1642.60	0.304	0.00	1642.60	0.000
	88.75 - 87.75		518.54	1673.92	0.310	0.00	1673.92	0.000
	87.75 - 86.75		537.21	1705.53	0.315	0.00	1705.53	0.000
	86.75 - 85.75		556.06	1737.44	0.320	0.00	1737.44	0.000
L16	85.75 - 84.75	TP26.6104x25.4754x0.56 25	575.09	1699.42	0.338	0.00	1699.42	0.000
	84.75 - 83.75		594.30	1730.58	0.343	0.00	1730.58	0.000
	83.75 - 82.75		613.69	1762.03	0.348	0.00	1762.03	0.000
	82.75 - 81.75		633.26	1793.77	0.353	0.00	1793.77	0.000
	81.75 - 80.75		653.01	1825.78	0.358	0.00	1825.78	0.000

Section No.	Elevation ft	Size	M_{ux}	ϕM_{rx}	Ratio	M_{uy} kip-ft	ϕM_{ry}	Ratio
			kip-ft	kip-ft	$\frac{M_{ux}}{\phi M_{rx}}$		kip-ft	$\frac{M_{uy}}{\phi M_{ry}}$
L17	80.75 - 79.75	TP27.7454x26.6104x0.55	672.93	1819.38	0.370	0.00	1819.38	0.000
	79.75 - 78.75		693.04	1851.27	0.374	0.00	1851.27	0.000
	78.75 - 77.75		713.32	1883.43	0.379	0.00	1883.43	0.000
	77.75 - 76.75		733.78	1915.87	0.383	0.00	1915.87	0.000
	76.75 - 75.75		754.43	1948.58	0.387	0.00	1948.58	0.000
L18	75.75 - 74.75	TP28.8804x27.7454x0.54 38	775.25	1960.39	0.395	0.00	1960.39	0.000
	74.75 - 73.75		796.26	1993.29	0.399	0.00	1993.29	0.000
	73.75 - 72.75		821.02	2026.47	0.405	0.00	2026.47	0.000
	72.75 - 71.75		844.88	2059.91	0.410	0.00	2059.91	0.000
	71.75 - 70.75		868.94	2093.63	0.415	0.00	2093.63	0.000
L19	70.75 - 69.98 (19)	TP29.0552x28.8804x0.53 13	887.59	2073.78	0.428	0.00	2073.78	0.000
L20	69.98 - 69.73 (20)	TP29.112x29.0552x0.531 3	893.67	2082.12	0.429	0.00	2082.12	0.000
L21	69.73 - 68.73	TP30.247x29.112x0.525	918.11	2092.10	0.439	0.00	2092.10	0.000
	68.73 - 67.73		942.73	2125.49	0.444	0.00	2125.49	0.000
	67.73 - 66.73		967.52	2159.14	0.448	0.00	2159.14	0.000
	66.73 - 65.73		992.49	2193.07	0.453	0.00	2193.07	0.000
	65.73 - 64.73		1017.65	2227.25	0.457	0.00	2227.25	0.000
L22	64.73 - 63 (22)	TP30.6397x30.247x0.312 5	1061.57	1390.34	0.764	0.00	1390.34	0.000
L23	63 - 62.75 (23)	TP30.6964x30.6397x0.7	1067.96	3008.00	0.355	0.00	3008.00	0.000
L24	62.75 - 61.5267	TP31.5295x30.6964x0.68 75	1099.39	3013.59	0.365	0.00	3013.59	0.000
	61.5267 - 60.3033		1131.12	3069.73	0.368	0.00	3069.73	0.000
	60.3033 - 59.08		1163.13	3126.38	0.372	0.00	3126.38	0.000
	59.08 - 58.82 (25)		1169.97	2870.53	0.408	0.00	2870.53	0.000
L26	58.82 - 58.67 (26)	TP31.6226x31.5885x0.62 5	1173.92	2876.90	0.408	0.00	2876.90	0.000
L27	58.67 - 57.67	TP32.7576x31.6226x0.61 25	1200.37	2864.66	0.419	0.00	2864.66	0.000
	57.67 - 56.67		1226.98	2906.84	0.422	0.00	2906.84	0.000
	56.67 - 55.67		1253.78	2949.34	0.425	0.00	2949.34	0.000
	55.67 - 54.67		1280.75	2992.15	0.428	0.00	2992.15	0.000
	54.67 - 53.67		1307.89	3035.27	0.431	0.00	3035.27	0.000
L28	53.67 - 53 (27)	TP33.913x32.7576x0.612 5	1326.18	3064.32	0.433	0.00	3064.32	0.000
	53 - 48.58		731.86	3259.50	0.225	0.00	3259.50	0.000
L29	53 - 48.58 (28)	TP33.5151x32.2847x0.63 75	717.05	3257.80	0.220	0.00	3257.80	0.000
L30	48.58 - 47.58	TP34.6503x33.5151x0.62 5	1477.20	3303.69	0.447	0.00	3303.69	0.000
	47.58 - 46.58		1505.65	3287.95	0.458	0.00	3287.95	0.000
	46.58 - 45.58		1534.26	3333.61	0.460	0.00	3333.61	0.000
	45.58 - 44.58		1563.03	3379.57	0.462	0.00	3379.57	0.000
	44.58 - 43.58		1591.96	3425.86	0.465	0.00	3425.86	0.000
L31	43.58 - 42.58	TP35.236x34.6503x0.612 5	1621.05	3472.46	0.467	0.00	3472.46	0.000
	42.58 - 41.29		1658.83	3466.16	0.479	0.00	3466.16	0.000
	41.29 - 40		1696.88	3526.07	0.481	0.00	3526.07	0.000
	40 - 39.75 (32)		1704.29	4612.20	0.370	0.00	4612.20	0.000
	39.75 - 38.75		1734.04	4539.82	0.382	0.00	4539.82	0.000
L33	38.75 - 37.75	TP36.4279x35.2927x0.78 75	1763.97	4600.02	0.383	0.00	4600.02	0.000
	37.75 - 36.75		1794.08	4660.63	0.385	0.00	4660.63	0.000
	36.75 - 35.75		1824.38	4721.63	0.386	0.00	4721.63	0.000
	35.75 - 34.75		1854.84	4783.02	0.388	0.00	4783.02	0.000
	34.75 - 33.625		1889.34	4852.57	0.389	0.00	4852.57	0.000
L34	33.625 - 32.5	TP36.9387x36.4279x0.78 75	1924.08	4922.61	0.391	0.00	4922.61	0.000
L35	32.5 - 32.25 (35)	TP36.9954x36.9387x0.61 25	1931.83	3896.82	0.496	0.00	3896.82	0.000
L36	32.25 - 31.42	TP37.1839x36.9954x0.6	1957.63	3861.22	0.507	0.00	3861.22	0.000

Section No.	Elevation ft	Size	M_{ux}	ϕM_{rx}	Ratio	M_{uy}	ϕM_{ry}	Ratio
			kip-ft	kip-ft	$\frac{M_{ux}}{\phi M_{rx}}$	kip-ft	kip-ft	$\frac{M_{uy}}{\phi M_{ry}}$
L37	31.42 - 31.17 (36)	TP37.2406x37.1839x0.77 5	1965.43	4931.68	0.399	0.00	4931.68	0.000
L38	31.17 - 30.085 30.085 - 29	TP37.7333x37.2406x0.76 25	1999.43	4923.62	0.406	0.00	4923.62	0.000
L39	29 - 28.75 (39)	TP37.79x37.7333x0.675	2033.63	4990.57	0.407	0.00	4990.57	0.000
L40	28.75 - 27.75 27.75 - 26.75 26.75 - 25.75 25.75 - 24.75 24.75 - 23.75	TP38.9251x37.79x0.6625	2073.28 2105.19 2137.28 2169.53 2201.95	4439.12 4493.72 4548.64 4603.91 4659.51	0.467 0.468 0.470 0.471 0.473	0.00 0.00 0.00 0.00 0.00	4439.12 4493.72 4548.64 4603.91 4659.51	0.000 0.000 0.000 0.000 0.000
L41	23.75 - 23.5 (41)	TP38.9819x38.9251x0.66 25	2210.08	4673.46	0.473	0.00	4673.46	0.000
L42	23.5 - 23.25 (42)	TP39.0387x38.9819x0.78 75	2218.22	5517.57	0.402	0.00	5517.57	0.000
L43	23.25 - 23 (43)	TP39.0954x39.0387x0.78 75	2226.38	5534.13	0.402	0.00	5534.13	0.000
L44	23 - 22.75 (44)	TP39.1522x39.0954x0.65	2234.54	4630.98	0.483	0.00	4630.98	0.000
L45	22.75 - 21.75	TP40.2873x39.1522x0.63 75	2267.31	4600.53	0.493	0.00	4600.53	0.000
	21.75 - 20.75 20.75 - 19.75 19.75 - 18.75 18.75 - 17.75		2300.24 2333.34 2366.61 2400.04	4655.05 4709.88 4765.04 4820.52	0.494 0.495 0.497 0.498	0.00 0.00 0.00 0.00	4655.05 4709.88 4765.04 4820.52	0.000 0.000 0.000 0.000
L46	17.75 - 16.75	TP41.4224x40.2873x0.62 5	2433.65	4785.21	0.509	0.00	4785.21	0.000
	16.75 - 15.75 15.75 - 14.75 14.75 - 13.75 13.75 - 12.75		2467.43 2501.37 2535.47 2569.75	4840.25 4895.61 4951.29 5007.28	0.510 0.511 0.512 0.513	0.00 0.00 0.00 0.00	4840.25 4895.61 4951.29 5007.28	0.000 0.000 0.000 0.000
L47	12.75 - 11.75	TP42.5576x41.4224x0.61 25	2604.20	4966.85	0.524	0.00	4966.85	0.000
	11.75 - 10.75 10.75 - 9.75 9.75 - 8.75 8.75 - 7.75		2638.81 2673.59 2708.53 2743.65	5022.37 5078.18 5134.32 5190.76	0.525 0.526 0.528 0.529	0.00 0.00 0.00 0.00	5022.37 5078.18 5134.32 5190.76	0.000 0.000 0.000 0.000
L48	7.75 - 6.5	TP43.1251x42.5576x0.61 25	2787.78	5261.74	0.530	0.00	5261.74	0.000
	6.5 - 5.25		2832.18	5333.21	0.531	0.00	5333.21	0.000
L49	5.25 - 5 (49)	TP43.1819x43.1251x0.68 75	2841.08	5970.69	0.476	0.00	5970.69	0.000
L50	5 - 4 4 - 3 3 - 2 2 - 1 1 - 0	TP44.317x43.1819x0.675	2876.83 2912.75 2948.82 2985.07 3021.50	5930.64 5994.32 6058.32 6122.68 6187.37	0.485 0.486 0.487 0.488 0.488	0.00 0.00 0.00 0.00 0.00	5930.64 5994.32 6058.32 6122.68 6187.37	0.000 0.000 0.000 0.000 0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual	ϕV_n	Ratio	Actual	ϕT_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 - 139 139 - 138 138 - 137 137 - 136 136 - 135	TP14.296x13.161x0.1875	0.1797 0.2166 5.7028 5.7396 5.7766	291.8290 296.8470 301.8650 306.8830 311.9010	0.001 0.001 0.019 0.019 0.019	0.00 0.00 0.43 0.43 0.43	315.26 326.28 337.48 348.87 360.45	0.000 0.000 0.001 0.001 0.001
L2	135 - 134 134 - 133 133 - 132 132 - 131	TP15.4309x14.296x0.187 5	5.8141 5.8519 5.8900 5.9282	316.9200 321.9380 326.9560 331.9740	0.018 0.018 0.018 0.018	0.43 0.43 0.43 0.43	372.22 384.18 396.33 408.66	0.001 0.001 0.001 0.001

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$		
L3	131 - 130	TP16.5659x15.4309x0.18 75	5.9668	336.9920	0.018	0.43	421.19	0.001		
	130 - 129		6.0052	342.0100	0.018	0.43	433.90	0.001		
	129 - 128		6.0438	347.0290	0.017	0.43	446.81	0.001		
	128 - 127		6.0828	352.0470	0.017	0.43	459.90	0.001		
	127 - 126		6.1220	357.0650	0.017	0.43	473.18	0.001		
L4	126 - 125	TP17.7008x16.5659x0.18 75	6.1616	362.0830	0.017	0.43	486.65	0.001		
	125 - 124		6.2010	367.1010	0.017	0.43	500.31	0.001		
	124 - 123		6.2406	372.1200	0.017	0.43	514.16	0.001		
	123 - 122		6.2806	377.1380	0.017	0.43	528.20	0.001		
	122 - 121		6.3209	382.1560	0.017	0.43	542.43	0.001		
L5	121 - 120	TP18.8358x17.7008x0.18 75	6.3615	387.1740	0.016	0.43	556.84	0.001		
	120 - 119		9.1355	392.1920	0.023	0.43	571.45	0.001		
	119 - 118		9.1763	397.2110	0.023	0.43	586.24	0.001		
	118 - 117		9.2173	402.2290	0.023	0.43	601.23	0.001		
	117 - 116		9.2584	407.2470	0.023	0.43	616.40	0.001		
L6	116 - 115	TP18.8925x18.8358x0.46 (6) 25	9.2996	412.2650	0.023	0.43	631.76	0.001		
	115 - 114.75		9.3246	1005.0200	0.009	0.43	1499.75	0.000		
	L7		114.75 - 113.75	TP20.0275x18.8925x0.45	9.4332	990.5630	0.010	0.43	1498.84	0.000
			113.75 - 112.75		9.8262	1002.6100	0.010	0.16	1535.94	0.000
			112.75 - 111.75		9.9519	1014.6500	0.010	0.17	1573.50	0.000
111.75 - 110.75		10.0789	1026.6900		0.010	0.19	1611.51	0.000		
L8	110.75 - 109.75	TP21.1624x20.0275x0.42 5	10.2072	1038.7400	0.010	0.21	1649.97	0.000		
	109.75 - 108.75		10.3325	993.6570	0.010	0.22	1601.11	0.000		
	108.75 - 107.75		10.4589	1005.0300	0.010	0.24	1638.37	0.000		
	107.75 - 106.75		10.5865	1016.4100	0.010	0.26	1676.05	0.000		
	106.75 - 105.75		10.7152	1027.7800	0.010	0.28	1714.16	0.000		
L9	105.75 - 104.75	TP21.882x21.1624x0.418 8	11.2239	1039.1600	0.011	0.43	1752.70	0.000		
	104.75 - 103.693		11.3870	1036.0200	0.011	0.48	1769.09	0.000		
	103.693 - 102.637		11.5514	1047.8700	0.011	0.54	1810.17	0.000		
L10	102.637 - 101.58	TP21.9388x21.882x0.312 5	11.7174	1059.7100	0.011	0.59	1851.72	0.000		
	101.58 - 101.33 (10)		11.7497	796.8340	0.015	0.61	1409.94	0.000		
L11	101.33 - 100.33	TP23.0738x21.9388x0.31 25	11.8836	805.1980	0.015	0.65	1439.91	0.000		
	100.33 - 99.33		12.0170	813.5620	0.015	0.25	1470.19	0.000		
	99.33 - 98.33		12.8160	821.9260	0.016	0.29	1500.79	0.000		
	98.33 - 97.33		12.9507	830.2900	0.016	0.34	1531.70	0.000		
	97.33 - 96.33		13.2283	838.6540	0.016	0.93	1562.93	0.001		
L12	96.33 - 95.33	TP24.2088x23.0738x0.31 25	13.3779	847.0180	0.016	0.99	1594.47	0.001		
	95.33 - 94.33		17.5066	855.3820	0.020	1.06	1626.33	0.001		
	94.33 - 93.33		17.6531	863.7460	0.020	1.13	1658.51	0.001		
	93.33 - 92.33		17.8005	872.1100	0.020	1.20	1690.99	0.001		
	92.33 - 91.33		17.9490	880.4740	0.020	1.27	1723.80	0.001		
L13	91.33 - 91 (13)	TP24.2837x24.2088x0.31 25	17.9992	883.2340	0.020	1.30	1734.69	0.001		
	91 - 90.75 (14)		18.0440	1679.4800	0.011	1.32	3227.81	0.000		
L15	90.75 - 89.75	TP25.4754x24.3404x0.58 75	18.2234	1661.0900	0.011	1.40	3227.09	0.000		
	89.75 - 88.75		18.4024	1676.8100	0.011	1.47	3289.22	0.000		

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio V_u ϕV_n	Actual T_u kip-ft	ϕT_n kip-ft	Ratio T_u ϕT_n
L16	88.75 - 87.75	TP26.6104x25.4754x0.56 25	18.5828	1692.5300	0.011	1.55	3351.93	0.000
	87.75 - 86.75		18.7644	1708.2600	0.011	1.63	3415.24	0.000
	86.75 - 85.75		18.9474	1723.9800	0.011	1.71	3479.14	0.000
	85.75 - 84.75		19.1248	1667.3300	0.011	1.79	3402.98	0.001
L17	84.75 - 83.75	TP27.7454x26.6104x0.55	19.3032	1682.3900	0.011	1.87	3465.39	0.001
	83.75 - 82.75		19.4828	1697.4400	0.011	1.95	3528.37	0.001
	82.75 - 81.75		19.6637	1712.5000	0.011	2.03	3591.92	0.001
	81.75 - 80.75		19.8458	1727.5600	0.011	2.11	3656.03	0.001
	80.75 - 79.75		20.0224	1704.7000	0.012	2.19	3643.22	0.001
	79.75 - 78.75		20.2000	1719.4200	0.012	2.27	3707.06	0.001
L18	78.75 - 77.75	TP28.8804x27.7454x0.54 38	20.3788	1734.1400	0.012	2.35	3771.46	0.001
	77.75 - 76.75		20.5588	1748.8600	0.012	2.43	3836.41	0.001
	76.75 - 75.75		20.7399	1763.5800	0.012	2.52	3901.92	0.001
	75.75 - 74.75		20.9219	1758.4900	0.012	2.60	3925.57	0.001
	74.75 - 73.75		21.1050	1773.0500	0.012	2.68	3991.45	0.001
	73.75 - 72.75		23.7883	1787.6000	0.013	2.76	4057.88	0.001
L19	72.75 - 71.75	TP29.0552x28.8804x0.53 13	23.9708	1802.1500	0.013	2.85	4124.87	0.001
	71.75 - 70.75		24.1544	1816.7100	0.013	2.93	4192.39	0.001
	70.75 - 69.98		24.3060	1786.6700	0.014	3.00	4152.63	0.001
	(19)							
L20	69.98 - 69.73	TP29.112x29.0552x0.531 3	24.3521	1790.2300	0.014	3.02	4169.32	0.001
L21	(20)							
	69.73 - 68.73	TP30.247x29.112x0.525	24.5352	1783.6000	0.014	3.10	4189.32	0.001
	68.73 - 67.73		24.7133	1797.6600	0.014	3.18	4256.18	0.001
	67.73 - 66.73		24.8925	1811.7100	0.014	3.26	4323.57	0.001
	66.73 - 65.73		25.0727	1825.7600	0.014	3.35	4391.49	0.001
L22	65.73 - 64.73	TP30.6397x30.247x0.312 5	25.2540	1839.8100	0.014	3.43	4459.94	0.001
	64.73 - 63		25.5611	1117.4200	0.023	3.55	2784.07	0.001
L23	63 - 62.75	TP30.6964x30.6397x0.7 (23)	25.5829	2475.7300	0.010	3.57	6023.35	0.001
L24	62.75 - 61.5267	TP31.5295x30.6964x0.68 75	25.8226	2455.0500	0.011	3.64	6034.56	0.001
	61.5267 - 60.3033		26.0571	2477.5600	0.011	3.70	6146.97	0.001
	60.3033 - 59.08		26.2931	2500.0700	0.011	3.77	6260.42	0.001
	59.08 - 58.82		26.3360	2281.7400	0.012	3.78	5748.07	0.001
L25	(25)							
L26	58.82 - 58.67	TP31.6226x31.5885x0.62 5	26.3655	2284.2500	0.012	3.79	5760.83	0.001
L27	(26)							
	58.67 - 57.67	TP32.7576x31.6226x0.61 25	26.5436	2255.8600	0.012	3.82	5736.32	0.001
	57.67 - 56.67		26.7169	2272.2600	0.012	3.85	5820.80	0.001
	56.67 - 55.67		26.8911	2288.6500	0.012	3.89	5905.90	0.001
	55.67 - 54.67		27.0662	2305.0400	0.012	3.92	5991.62	0.001
	54.67 - 53.67		27.2422	2321.4400	0.012	3.96	6077.95	0.001
L28	53.67 - 53	TP33.913x32.7576x0.612 5	27.3498	2332.4200	0.012	3.98	6136.14	0.001
	53 - 48.58		14.4670	2404.8800	0.006	2.08	6526.97	0.000
L29	53 - 48.58	TP33.5151x32.2847x0.63 75	13.7637	2454.1900	0.006	2.00	6523.56	0.000
	48.58 - 47.58		28.3807	2471.2500	0.011	4.11	6615.47	0.001
L30	47.58 - 46.58	TP34.6503x33.5151x0.62 5	28.5404	2440.4500	0.012	4.15	6583.95	0.001
	46.58 - 45.58		28.7007	2457.1800	0.012	4.18	6675.37	0.001
	45.58 - 44.58		28.8618	2473.9100	0.012	4.22	6767.42	0.001
	44.58 - 43.58		29.0236	2490.6400	0.012	4.25	6860.10	0.001
	43.58 - 42.58		29.1862	2507.3700	0.012	4.29	6953.41	0.001
	42.58 - 41.29	TP35.236x34.6503x0.612 5	29.4094	2479.2700	0.012	4.34	6940.80	0.001
L31	41.29 - 40		29.6301	2500.4200	0.012	4.39	7060.77	0.001
	(32)							
L32	40 - 39.75	TP35.2927x35.236x0.812 5	29.6625	3303.1600	0.009	4.40	9235.67	0.000
	39.75 - 38.75	TP36.4279x35.2927x0.78 75	29.8486	3224.9300	0.009	4.44	9090.75	0.000
L33	38.75 - 37.75		30.0283	3246.0100	0.009	4.48	9211.33	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio V_u ϕV_n	Actual T_u kip-ft	ϕT_n kip-ft	Ratio T_u ϕT_n
	37.75 - 36.75		30.2089	3267.0900	0.009	4.52	9332.67	0.000
	36.75 - 35.75		30.3903	3288.1700	0.009	4.56	9454.83	0.000
	35.75 - 34.75		30.5724	3309.2500	0.009	4.60	9577.75	0.000
L34	34.75 - 33.625	TP36.9387x36.4279x0.7875	30.7800	3332.9600	0.009	4.65	9717.00	0.000
	33.625 - 32.5		30.9872	3356.6800	0.009	4.70	9857.25	0.000
L35	32.5 - 32.25 (35)	TP36.9954x36.9387x0.6125	31.0256	2627.4900	0.012	4.71	7803.17	0.001
L36	32.25 - 31.42 (36)	TP37.1839x36.9954x0.6	31.1882	2588.0800	0.012	4.75	7731.88	0.001
L37	31.42 - 31.17 (37)	TP37.2406x37.1839x0.775	31.2281	3332.1300	0.009	4.76	9875.42	0.000
L38	31.17 - 30.085	TP37.7333x37.2406x0.7625	31.4342	3301.6500	0.010	4.80	9859.25	0.000
	30.085 - 29		31.6319	3323.8000	0.010	4.84	9993.33	0.000
L39	29 - 28.75 (39)	TP37.79x37.7333x0.675	31.6662	2953.8600	0.011	4.85	8937.08	0.001
L40	28.75 - 27.75	TP38.9251x37.79x0.6625	31.8431	2917.8700	0.011	4.88	8889.08	0.001
	27.75 - 26.75		32.0109	2935.6000	0.011	4.92	8998.42	0.001
	26.75 - 25.75		32.1794	2953.3400	0.011	4.96	9108.42	0.001
	25.75 - 24.75		32.3486	2971.0700	0.011	4.99	9219.08	0.001
	24.75 - 23.75		32.5185	2988.8000	0.011	5.03	9330.42	0.001
L41	23.75 - 23.5 (41)	TP38.9819x38.9251x0.6625	32.5513	2993.2400	0.011	5.04	9358.33	0.001
L42	23.5 - 23.25 (42)	TP39.0387x38.9819x0.7875	32.5951	3551.6600	0.009	5.05	11048.67	0.000
L43	23.25 - 23 (43)	TP39.0954x39.0387x0.7875	32.6394	3556.9300	0.009	5.06	11081.83	0.000
L44	23 - 22.75 (44)	TP39.1522x39.0954x0.65	32.6829	2950.7700	0.011	5.07	9273.25	0.001
L45	22.75 - 21.75	TP40.2873x39.1522x0.6375	32.8612	2912.0300	0.011	5.11	9212.33	0.001
	21.75 - 20.75		33.0294	2929.0900	0.011	5.15	9321.50	0.001
	20.75 - 19.75		33.1982	2946.1600	0.011	5.19	9431.33	0.001
	19.75 - 18.75		33.3677	2963.2200	0.011	5.24	9541.75	0.001
	18.75 - 17.75		33.5377	2980.2800	0.011	5.28	9652.83	0.001
L46	17.75 - 16.75	TP41.4224x40.2873x0.625	33.7045	2939.5000	0.011	5.32	9582.08	0.001
	16.75 - 15.75		33.8717	2956.2300	0.011	5.37	9692.33	0.001
	15.75 - 14.75		34.0394	2972.9600	0.011	5.41	9803.17	0.001
	14.75 - 13.75		34.2077	2989.6900	0.011	5.46	9914.67	0.001
	13.75 - 12.75		34.3766	3006.4200	0.011	5.50	10026.83	0.001
L47	12.75 - 11.75	TP42.5576x41.4224x0.6125	34.5435	2963.5900	0.012	5.55	9945.83	0.001
	11.75 - 10.75		34.7108	2979.9800	0.012	5.59	10057.00	0.001
	10.75 - 9.75		34.8786	2996.3800	0.012	5.64	10168.83	0.001
	9.75 - 8.75		35.0470	3012.7700	0.012	5.68	10281.17	0.001
	8.75 - 7.75		35.2159	3029.1700	0.012	5.73	10394.25	0.001
L48	7.75 - 6.5	TP43.1251x42.5576x0.6125	35.4301	3049.6600	0.012	5.79	10536.33	0.001
	6.5 - 5.25		35.6410	3070.1600	0.012	5.85	10679.42	0.001
L49	5.25 - 5 (49)	TP43.1819x43.1251x0.6875	35.6667	3444.6100	0.010	5.86	11956.00	0.000
L50	5 - 4	TP44.317x43.1819x0.675	35.8449	3401.0500	0.011	5.91	11875.75	0.000
	4 - 3		36.0120	3419.1200	0.011	5.95	12003.25	0.000
	3 - 2		36.1798	3437.1800	0.011	6.00	12131.50	0.000
	2 - 1		36.3482	3455.2500	0.011	6.05	12260.33	0.000
	1 - 0		36.5172	3473.3200	0.011	6.10	12389.92	0.000

Pole Interaction Design Data

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			
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
L1	140 - 139	0.000	0.008	0.000	0.001	0.000	0.008	1.000	4.8.2
	139 - 138	0.000	0.009	0.000	0.001	0.000	0.009	1.000	4.8.2
	138 - 137	0.005	0.098	0.000	0.019	0.001	0.104	1.000	4.8.2
	137 - 136	0.005	0.128	0.000	0.019	0.001	0.133	1.000	4.8.2
	136 - 135	0.005	0.156	0.000	0.019	0.001	0.161	1.000	4.8.2
L2	135 - 134	0.005	0.182	0.000	0.018	0.001	0.187	1.000	4.8.2
	134 - 133	0.005	0.207	0.000	0.018	0.001	0.212	1.000	4.8.2
	133 - 132	0.005	0.230	0.000	0.018	0.001	0.235	1.000	4.8.2
	132 - 131	0.005	0.252	0.000	0.018	0.001	0.257	1.000	4.8.2
	131 - 130	0.005	0.273	0.000	0.018	0.001	0.278	1.000	4.8.2
L3	130 - 129	0.005	0.293	0.000	0.018	0.001	0.298	1.000	4.8.2
	129 - 128	0.005	0.311	0.000	0.017	0.001	0.316	1.000	4.8.2
	128 - 127	0.005	0.329	0.000	0.017	0.001	0.334	1.000	4.8.2
	127 - 126	0.005	0.345	0.000	0.017	0.001	0.350	1.000	4.8.2
	126 - 125	0.005	0.361	0.000	0.017	0.001	0.366	1.000	4.8.2
L4	125 - 124	0.005	0.376	0.000	0.017	0.001	0.381	1.000	4.8.2
	124 - 123	0.005	0.390	0.000	0.017	0.001	0.395	1.000	4.8.2
	123 - 122	0.005	0.403	0.000	0.017	0.001	0.409	1.000	4.8.2
	122 - 121	0.005	0.416	0.000	0.017	0.001	0.421	1.000	4.8.2
	121 - 120	0.005	0.428	0.000	0.016	0.001	0.433	1.000	4.8.2
L5	120 - 119	0.006	0.449	0.000	0.023	0.001	0.456	1.000	4.8.2
	119 - 118	0.006	0.469	0.000	0.023	0.001	0.476	1.000	4.8.2
	118 - 117	0.006	0.488	0.000	0.023	0.001	0.494	1.000	4.8.2
	117 - 116	0.006	0.506	0.000	0.023	0.001	0.512	1.000	4.8.2
	116 - 115	0.006	0.523	0.000	0.023	0.001	0.529	1.000	4.8.2
L6	115 - 114.75 (6)	0.003	0.223	0.000	0.009	0.000	0.226	1.000	4.8.2
L7	114.75 - 113.75	0.003	0.236	0.000	0.010	0.000	0.239	1.000	4.8.2
	113.75 - 112.75	0.003	0.243	0.000	0.010	0.000	0.246	1.000	4.8.2
	112.75 - 111.75	0.003	0.250	0.000	0.010	0.000	0.252	1.000	4.8.2
	111.75 - 110.75	0.003	0.256	0.000	0.010	0.000	0.259	1.000	4.8.2
	110.75 - 109.75	0.003	0.262	0.000	0.010	0.000	0.265	1.000	4.8.2
L8	109.75 - 108.75	0.003	0.283	0.000	0.010	0.000	0.286	1.000	4.8.2
	108.75 - 107.75	0.003	0.290	0.000	0.010	0.000	0.293	1.000	4.8.2
	107.75 - 106.75	0.003	0.296	0.000	0.010	0.000	0.299	1.000	4.8.2
	106.75 - 105.75	0.003	0.301	0.000	0.010	0.000	0.305	1.000	4.8.2
	105.75 - 104.75	0.003	0.307	0.000	0.011	0.000	0.311	1.000	4.8.2
L9	104.75 - 103.693	0.003	0.318	0.000	0.011	0.000	0.321	1.000	4.8.2
	103.693 - 102.637	0.003	0.324	0.000	0.011	0.000	0.328	1.000	4.8.2
	102.637 - 101.58	0.003	0.330	0.000	0.011	0.000	0.334	1.000	4.8.2
L10	101.58 - 101.33 (10)	0.004	0.438	0.000	0.015	0.000	0.442	1.000	4.8.2
L11	101.33 - 100.33	0.004	0.445	0.000	0.015	0.000	0.450	1.000	4.8.2
	100.33 - 99.33	0.004	0.452	0.000	0.015	0.000	0.457	1.000	4.8.2
	99.33 - 98.33	0.005	0.460	0.000	0.016	0.000	0.465	1.000	4.8.2
	98.33 - 97.33	0.005	0.467	0.000	0.016	0.000	0.472	1.000	4.8.2
	97.33 - 96.33	0.005	0.475	0.000	0.016	0.001	0.480	1.000	4.8.2
L12	96.33 - 95.33	0.005	0.482	0.000	0.016	0.001	0.487	1.000	4.8.2
	95.33 - 94.33	0.007	0.493	0.000	0.020	0.001	0.500	1.000	4.8.2
	94.33 - 93.33	0.007	0.504	0.000	0.020	0.001	0.512	1.000	4.8.2
	93.33 - 92.33	0.007	0.515	0.000	0.020	0.001	0.523	1.000	4.8.2
	92.33 - 91.33	0.007	0.526	0.000	0.020	0.001	0.534	1.000	4.8.2
L13	91.33 - 91 (13)	0.007	0.530	0.000	0.020	0.001	0.538	1.000	4.8.2

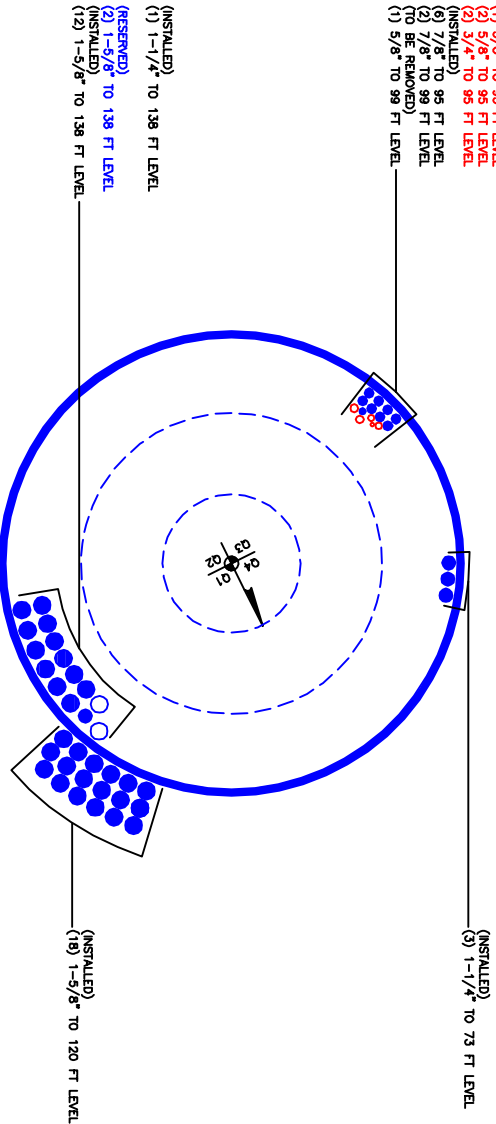
Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u	M_{ux}	M_{uy}	V_u	T_u			
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
L14	91 - 90.75 (14)	0.004	0.288	0.000	0.011	0.000	0.292	1.000	4.8.2
L15	90.75 - 89.75	0.004	0.299	0.000	0.011	0.000	0.303	1.000	4.8.2
	89.75 - 88.75	0.004	0.304	0.000	0.011	0.000	0.309	1.000	4.8.2
	88.75 - 87.75	0.004	0.310	0.000	0.011	0.000	0.314	1.000	4.8.2
	87.75 - 86.75	0.004	0.315	0.000	0.011	0.000	0.319	1.000	4.8.2
	86.75 - 85.75	0.004	0.320	0.000	0.011	0.000	0.324	1.000	4.8.2
L16	85.75 - 84.75	0.004	0.338	0.000	0.011	0.001	0.343	1.000	4.8.2
	84.75 - 83.75	0.004	0.343	0.000	0.011	0.001	0.348	1.000	4.8.2
	83.75 - 82.75	0.004	0.348	0.000	0.011	0.001	0.353	1.000	4.8.2
	82.75 - 81.75	0.004	0.353	0.000	0.011	0.001	0.358	1.000	4.8.2
	81.75 - 80.75	0.004	0.358	0.000	0.011	0.001	0.362	1.000	4.8.2
L17	80.75 - 79.75	0.004	0.370	0.000	0.012	0.001	0.375	1.000	4.8.2
	79.75 - 78.75	0.005	0.374	0.000	0.012	0.001	0.379	1.000	4.8.2
	78.75 - 77.75	0.005	0.379	0.000	0.012	0.001	0.383	1.000	4.8.2
	77.75 - 76.75	0.005	0.383	0.000	0.012	0.001	0.388	1.000	4.8.2
	76.75 - 75.75	0.005	0.387	0.000	0.012	0.001	0.392	1.000	4.8.2
L18	75.75 - 74.75	0.005	0.395	0.000	0.012	0.001	0.400	1.000	4.8.2
	74.75 - 73.75	0.005	0.399	0.000	0.012	0.001	0.404	1.000	4.8.2
	73.75 - 72.75	0.006	0.405	0.000	0.013	0.001	0.411	1.000	4.8.2
	72.75 - 71.75	0.006	0.410	0.000	0.013	0.001	0.416	1.000	4.8.2
	71.75 - 70.75	0.006	0.415	0.000	0.013	0.001	0.421	1.000	4.8.2
L19	70.75 - 69.98 (19)	0.006	0.428	0.000	0.014	0.001	0.434	1.000	4.8.2
L20	69.98 - 69.73 (20)	0.006	0.429	0.000	0.014	0.001	0.435	1.000	4.8.2
L21	69.73 - 68.73	0.006	0.439	0.000	0.014	0.001	0.445	1.000	4.8.2
	68.73 - 67.73	0.006	0.444	0.000	0.014	0.001	0.450	1.000	4.8.2
	67.73 - 66.73	0.006	0.448	0.000	0.014	0.001	0.454	1.000	4.8.2
	66.73 - 65.73	0.006	0.453	0.000	0.014	0.001	0.459	1.000	4.8.2
	65.73 - 64.73	0.006	0.457	0.000	0.014	0.001	0.463	1.000	4.8.2
L22	64.73 - 63 (22)	0.010	0.764	0.000	0.023	0.001	0.774	1.000	4.8.2
L23	63 - 62.75 (23)	0.005	0.355	0.000	0.010	0.001	0.360	1.000	4.8.2
L24	62.75 - 61.5267	0.005	0.365	0.000	0.011	0.001	0.370	1.000	4.8.2
	61.5267 - 60.3033	0.005	0.368	0.000	0.011	0.001	0.373	1.000	4.8.2
	60.3033 - 59.08	0.005	0.372	0.000	0.011	0.001	0.377	1.000	4.8.2
L25	59.08 - 58.82 (25)	0.005	0.408	0.000	0.012	0.001	0.413	1.000	4.8.2
L26	58.82 - 58.67 (26)	0.005	0.408	0.000	0.012	0.001	0.413	1.000	4.8.2
L27	58.67 - 57.67	0.005	0.419	0.000	0.012	0.001	0.425	1.000	4.8.2
	57.67 - 56.67	0.005	0.422	0.000	0.012	0.001	0.428	1.000	4.8.2
	56.67 - 55.67	0.005	0.425	0.000	0.012	0.001	0.431	1.000	4.8.2
	55.67 - 54.67	0.005	0.428	0.000	0.012	0.001	0.434	1.000	4.8.2
	54.67 - 53.67	0.005	0.431	0.000	0.012	0.001	0.437	1.000	4.8.2
L28	53.67 - 53	0.005	0.433	0.000	0.012	0.001	0.438	1.000	4.8.2
	53 - 48.58	0.003	0.225	0.000	0.006	0.000	0.227	1.000	4.8.2
L29	53 - 48.58	0.003	0.220	0.000	0.006	0.000	0.223	1.000	4.8.2
	48.58 - 47.58	0.006	0.447	0.000	0.011	0.001	0.453	1.000	4.8.2
L30	47.58 - 46.58	0.006	0.458	0.000	0.012	0.001	0.464	1.000	4.8.2
	46.58 - 45.58	0.006	0.460	0.000	0.012	0.001	0.466	1.000	4.8.2
	45.58 - 44.58	0.006	0.462	0.000	0.012	0.001	0.469	1.000	4.8.2
	44.58 - 43.58	0.006	0.465	0.000	0.012	0.001	0.471	1.000	4.8.2
	43.58 - 42.58	0.006	0.467	0.000	0.012	0.001	0.473	1.000	4.8.2
L31	42.58 - 41.29	0.006	0.479	0.000	0.012	0.001	0.485	1.000	4.8.2
	41.29 - 40	0.006	0.481	0.000	0.012	0.001	0.488	1.000	4.8.2
L32	40 - 39.75 (32)	0.005	0.370	0.000	0.009	0.000	0.374	1.000	4.8.2
L33	39.75 - 38.75	0.005	0.382	0.000	0.009	0.000	0.387	1.000	4.8.2
	38.75 - 37.75	0.005	0.383	0.000	0.009	0.000	0.388	1.000	4.8.2
	37.75 - 36.75	0.005	0.385	0.000	0.009	0.000	0.390	1.000	4.8.2
	36.75 - 35.75	0.005	0.386	0.000	0.009	0.000	0.391	1.000	4.8.2
	35.75 - 34.75	0.005	0.388	0.000	0.009	0.000	0.393	1.000	4.8.2
L34	34.75 -	0.005	0.389	0.000	0.009	0.000	0.394	1.000	4.8.2

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u ϕP_n	M_{ux} ϕM_{nx}	M_{uy} ϕM_{ny}	V_u ϕV_n	T_u ϕT_n			
	33.625								
L35	33.625 - 32.5	0.005	0.391	0.000	0.009	0.000	0.396	1.000	4.8.2
	32.5 - 32.25 (35)	0.006	0.496	0.000	0.012	0.001	0.502	1.000	4.8.2
L36	32.25 - 31.42 (36)	0.007	0.507	0.000	0.012	0.001	0.514	1.000	4.8.2
L37	31.42 - 31.17 (37)	0.005	0.399	0.000	0.009	0.000	0.404	1.000	4.8.2
L38	31.17 - 30.085	0.005	0.406	0.000	0.010	0.000	0.411	1.000	4.8.2
L39	30.085 - 29	0.005	0.407	0.000	0.010	0.000	0.413	1.000	4.8.2
	29 - 28.75 (39)	0.006	0.457	0.000	0.011	0.001	0.464	1.000	4.8.2
L40	28.75 - 27.75	0.006	0.467	0.000	0.011	0.001	0.473	1.000	4.8.2
	27.75 - 26.75	0.006	0.468	0.000	0.011	0.001	0.475	1.000	4.8.2
	26.75 - 25.75	0.006	0.470	0.000	0.011	0.001	0.476	1.000	4.8.2
	25.75 - 24.75	0.006	0.471	0.000	0.011	0.001	0.478	1.000	4.8.2
	24.75 - 23.75	0.006	0.473	0.000	0.011	0.001	0.479	1.000	4.8.2
L41	23.75 - 23.5 (41)	0.006	0.473	0.000	0.011	0.001	0.479	1.000	4.8.2
L42	23.5 - 23.25 (42)	0.005	0.402	0.000	0.009	0.000	0.407	1.000	4.8.2
L43	23.25 - 23 (43)	0.005	0.402	0.000	0.009	0.000	0.408	1.000	4.8.2
L44	23 - 22.75 (44)	0.006	0.483	0.000	0.011	0.001	0.489	1.000	4.8.2
L45	22.75 - 21.75	0.007	0.493	0.000	0.011	0.001	0.499	1.000	4.8.2
	21.75 - 20.75	0.007	0.494	0.000	0.011	0.001	0.501	1.000	4.8.2
	20.75 - 19.75	0.007	0.495	0.000	0.011	0.001	0.502	1.000	4.8.2
	19.75 - 18.75	0.007	0.497	0.000	0.011	0.001	0.503	1.000	4.8.2
	18.75 - 17.75	0.007	0.498	0.000	0.011	0.001	0.505	1.000	4.8.2
	17.75 - 16.75	0.007	0.509	0.000	0.011	0.001	0.516	1.000	4.8.2
L46	16.75 - 15.75	0.007	0.510	0.000	0.011	0.001	0.517	1.000	4.8.2
	15.75 - 14.75	0.007	0.511	0.000	0.011	0.001	0.518	1.000	4.8.2
	14.75 - 13.75	0.007	0.512	0.000	0.011	0.001	0.519	1.000	4.8.2
	13.75 - 12.75	0.007	0.513	0.000	0.011	0.001	0.520	1.000	4.8.2
	12.75 - 11.75	0.007	0.524	0.000	0.012	0.001	0.532	1.000	4.8.2
	11.75 - 10.75	0.007	0.525	0.000	0.012	0.001	0.533	1.000	4.8.2
	10.75 - 9.75	0.007	0.526	0.000	0.012	0.001	0.534	1.000	4.8.2
	9.75 - 8.75	0.007	0.528	0.000	0.012	0.001	0.535	1.000	4.8.2
L48	8.75 - 7.75	0.007	0.529	0.000	0.012	0.001	0.536	1.000	4.8.2
	7.75 - 6.5	0.007	0.530	0.000	0.012	0.001	0.537	1.000	4.8.2
	6.5 - 5.25	0.007	0.531	0.000	0.012	0.001	0.539	1.000	4.8.2
L49	5.25 - 5 (49)	0.007	0.476	0.000	0.010	0.000	0.482	1.000	4.8.2
L50	5 - 4	0.007	0.485	0.000	0.011	0.000	0.492	1.000	4.8.2
	4 - 3	0.007	0.486	0.000	0.011	0.000	0.493	1.000	4.8.2
	3 - 2	0.007	0.487	0.000	0.011	0.000	0.494	1.000	4.8.2
	2 - 1	0.007	0.488	0.000	0.011	0.000	0.494	1.000	4.8.2
	1 - 0	0.007	0.488	0.000	0.011	0.000	0.495	1.000	4.8.2

APPENDIX B
BASE LEVEL DRAWING



(PROPOSED)
 (1) 3/8" TO 95 FT LEVEL
 (2) 5/8" TO 95 FT LEVEL
 (3) 3/4" TO 95 FT LEVEL
 (INSTALLED)
 (6) 7/8" TO 95 FT LEVEL
 (2) 7/8" TO 99 FT LEVEL
 (TO BE REMOVED)
 (1) 5/8" TO 99 FT LEVEL



BUSINESS UNIT: 842873 TOWER ID: C-BASELEVEL

BASE LEVEL DRAWING

1" = 1'-0"

1

CROWN REGION ADDRESS
 USA

10/06/14	UPDATED PER WORK ORDER # 780884	TG
10/06/14	UPDATED PER WORK ORDER # 780887	TG
15/07/14	UPDATED PER WORK ORDER # 748882	DB
08/08/15	UPDATED PER WORK ORDER #1116370	AP
22/10/2015	UPDATED PER WORK ORDER 1141484	AP
8/12/2015	UPDATED PER WORK ORDER 1163208	BM
16/03/16	UPDATED PER WORK ORDER 1180168	AP
01/08/16	UPDATED PER WORK ORDER 1223889	GO
28/10/16	UPDATED PER WORK ORDER 1318736 1301785	CM

DRAWN BY: MMW
 CHECKED BY: MMW
 DRAWING DATE: 27/03/14

SITE NUMBER:

SITE NAME:

SITE NAME:

SHELTON NE

BUSINESS UNIT NUMBER:

842873

SITE ADDRESS:

30 OLIVER TERRACE
 SHELTON, CT 06484
 SHELTON FIELD COUNTY
 USA

SHEET TITLE:

BASE LEVEL

SHEET NUMBER:

A1-0

APPENDIX C
ADDITIONAL CALCULATIONS

TNX Geometry Input

Increment (ft): 5

	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		18	13.161	14.296	0.1875	A572-65	1.000
2	135 - 130	5		18	14.296	15.431	0.1875	A572-65	1.000
3	130 - 125	5		18	15.431	16.566	0.1875	A572-65	1.000
4	125 - 120	5		18	16.566	17.701	0.1875	A572-65	1.000
5	120 - 115	5		18	17.701	18.836	0.1875	A572-65	1.000
6	115 - 114.75	0.25		18	18.836	18.893	0.4625	A572-65	0.910
7	114.75 - 109.75	5		18	18.893	20.027	0.45	A572-65	0.905
8	109.75 - 104.75	5		18	20.027	21.162	0.425	A572-65	0.929
9	104.75 - 101.58	3.17	0	18	21.162	21.882	0.41875	A572-65	0.926
10	101.58 - 101.33	0.25		18	21.882	21.939	0.3125	A572-65	1.000
11	101.33 - 96.33	5		18	21.939	23.074	0.3125	A572-65	1.000
12	96.33 - 91.33	5		18	23.074	24.209	0.3125	A572-65	1.000
13	91.33 - 91	0.33		18	24.209	24.284	0.3125	A572-65	1.000
14	91 - 90.75	0.25		18	24.284	24.340	0.6	A572-65	0.925
15	90.75 - 85.75	5		18	24.340	25.475	0.5875	A572-65	0.926
16	85.75 - 80.75	5		18	25.475	26.610	0.5625	A572-65	0.948
17	80.75 - 75.75	5		18	26.610	27.745	0.55	A572-65	0.952
18	75.75 - 70.75	5		18	27.745	28.880	0.54375	A572-65	0.947
19	70.75 - 69.98	0.77		18	28.880	29.055	0.53125	A572-65	0.951
20	69.98 - 69.73	0.25		18	29.055	29.112	0.53125	A572-65	0.951
21	69.73 - 64.73	5		18	29.112	30.247	0.525	A572-65	0.948
22	64.73 - 63	1.73		18	30.247	30.640	0.3125	A572-65	1.000
23	63 - 62.75	0.25		18	30.640	30.696	0.7	A572-65	0.981
24	62.75 - 59.08	3.67		18	30.696	31.530	0.6875	A572-65	0.984
25	59.08 - 58.82	0.26		18	31.530	31.589	0.625	A572-65	1.000
26	58.82 - 58.67	0.15		18	31.589	31.623	0.625	A572-65	0.999
27	58.67 - 53.67	5		18	31.623	32.758	0.6125	A572-65	1.001
28	53.67 - 53	5.09	4.42	18	32.758	33.913	0.6125	A572-65	0.999
29	53 - 47.58	5.42		18	32.285	33.515	0.6375	A572-65	0.941
30	47.58 - 42.58	5		18	33.515	34.650	0.625	A572-65	0.944
31	42.58 - 40	2.58		18	34.650	35.236	0.6125	A572-65	0.955
32	40 - 39.75	0.25		18	35.236	35.293	0.8125	A572-65	0.926
33	39.75 - 34.75	5		18	35.293	36.428	0.7875	A572-65	0.937
34	34.75 - 32.5	2.25		18	36.428	36.939	0.7875	A572-65	0.929
35	32.5 - 32.25	0.25		18	36.939	36.995	0.6125	A572-65	0.944
36	32.25 - 31.42	0.83		18	36.995	37.184	0.6	A572-65	0.961
37	31.42 - 31.17	0.25		18	37.184	37.241	0.775	A572-65	0.939
38	31.17 - 29	2.17		18	37.241	37.733	0.7625	A572-65	0.947
39	29 - 28.75	0.25		18	37.733	37.790	0.675	A572-65	0.991
40	28.75 - 23.75	5		18	37.790	38.925	0.6625	A572-65	0.994
41	23.75 - 23.5	0.25		18	38.925	38.982	0.6625	A572-65	0.993
42	23.5 - 23.25	0.25		18	38.982	39.039	0.7875	A572-65	1.026
43	23.25 - 23	0.25		18	39.039	39.095	0.7875	A572-65	1.025
44	23 - 22.75	0.25		18	39.095	39.152	0.65	A572-65	1.085
45	22.75 - 17.75	5		18	39.152	40.287	0.6375	A572-65	1.088
46	17.75 - 12.75	5		18	40.287	41.422	0.625	A572-65	1.092
47	12.75 - 7.75	5		18	41.422	42.558	0.6125	A572-65	1.098
48	7.75 - 5.25	2.5		18	42.558	43.125	0.6125	A572-65	1.090
49	5.25 - 5	0.25		18	43.125	43.182	0.6875	A572-65	0.914
50	5 - 0	5		18	43.182	44.317	0.675	A572-65	0.919

TNX Section Forces

Increment (ft):		5	TNX Output		
	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)	
1	140 - 135	3.006	28.073	5.7766	
2	135 - 130	3.268	57.421	5.9668	
3	130 - 125	3.5547	87.728	6.1616	
4	125 - 120	3.8629	119.02	6.3615	
5	120 - 115	5.17	164.88	9.2996	
6	115 - 114.75	5.2098	167.2	9.3246	
7	114.75 - 109.75	5.8102	216.26	10.207	
8	109.75 - 104.75	6.4085	269.07	11.224	
9	104.75 - 101.58	6.8422	305.39	11.717	
10	101.58 - 101.33	6.8771	308.32	11.75	
11	101.33 - 96.33	7.9338	370.61	13.228	
12	96.33 - 91.33	12.861	453.18	17.949	
13	91.33 - 91	12.918	459.11	17.999	
14	91 - 90.75	12.972	463.62	18.044	
15	90.75 - 85.75	14.026	556.06	18.947	
16	85.75 - 80.75	15.119	653	19.846	
17	80.75 - 75.75	16.247	754.43	20.74	
18	75.75 - 70.75	20.696	868.94	24.154	
19	70.75 - 69.98	20.882	887.59	24.306	
20	69.98 - 69.73	20.947	893.67	24.352	
21	69.73 - 64.73	22.149	1017.6	25.254	
22	64.73 - 63	22.46	1061.6	25.561	
23	63 - 62.75	22.57	1068	25.583	
24	62.75 - 59.08	23.727	1163.1	26.293	
25	59.08 - 58.82	23.814	1170	26.336	
26	58.82 - 58.67	23.861	1173.9	26.366	
27	58.67 - 53.67	25.383	1307.9	27.242	
28	53.67 - 53	25.595	1326.2	27.35	
29	53 - 47.58	28.436	1477.2	28.381	
30	47.58 - 42.58	30.01	1621	29.186	
31	42.58 - 40	30.832	1696.9	29.63	
32	40 - 39.75	30.943	1704.3	29.663	
33	39.75 - 34.75	32.891	1854.8	30.572	
34	34.75 - 32.5	33.782	1924.1	30.987	
35	32.5 - 32.25	33.873	1931.8	31.026	
36	32.25 - 31.42	34.143	1957.6	31.188	
37	31.42 - 31.17	34.252	1965.4	31.228	
38	31.17 - 29	35.114	2033.6	31.632	
39	29 - 28.75	35.2	2041.5	31.7	
40	28.75 - 23.75	37.1	2201.9	32.5	
41	23.75 - 23.5	37.2	2210.1	32.6	
42	23.5 - 23.25	37.3	2218.2	32.6	
43	23.25 - 23	37.5	2226.4	32.6	
44	23 - 22.75	37.6	2234.5	32.7	
45	22.75 - 17.75	39.6	2400.0	33.5	
46	17.75 - 12.75	41.7	2569.8	34.4	
47	12.75 - 7.75	43.9	2743.7	35.2	
48	7.75 - 5.25	44.9	2832.2	35.6	
49	5.25 - 5	45.1	2841.1	35.7	
50	5 - 0	47.1	3021.5	36.5	

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
140 - 135	Pole	TP14.296x13.161x0.1875	Pole	16.1%	Pass
135 - 130	Pole	TP15.431x14.296x0.1875	Pole	27.8%	Pass
130 - 125	Pole	TP16.566x15.431x0.1875	Pole	36.6%	Pass
125 - 120	Pole	TP17.701x16.566x0.1875	Pole	43.3%	Pass
120 - 115	Pole	TP18.836x17.701x0.1875	Pole	52.9%	Pass
115 - 114.75	Pole + Reinf.	TP18.893x18.836x0.4625	Reinf. 11 Tension Rupture	39.7%	Pass
114.75 - 109.75	Pole + Reinf.	TP20.027x18.893x0.45	Reinf. 11 Tension Rupture	47.2%	Pass
109.75 - 104.75	Pole + Reinf.	TP21.162x20.027x0.425	Reinf. 11 Tension Rupture	54.3%	Pass
104.75 - 101.58	Pole + Reinf.	TP21.882x21.162x0.4188	Reinf. 11 Tension Rupture	58.7%	Pass
101.58 - 101.33	Pole	TP21.939x21.882x0.3125	Pole	44.2%	Pass
101.33 - 96.33	Pole	TP23.074x21.939x0.3125	Pole	48.0%	Pass
96.33 - 91.33	Pole	TP24.209x23.074x0.3125	Pole	53.4%	Pass
91.33 - 91	Pole	TP24.284x24.209x0.3125	Pole	53.7%	Pass
91 - 90.75	Pole + Reinf.	TP24.34x24.284x0.6	Reinf. 10 Compression	34.2%	Pass
90.75 - 85.75	Pole + Reinf.	TP25.475x24.34x0.5875	Reinf. 10 Compression	38.2%	Pass
85.75 - 80.75	Pole + Reinf.	TP26.61x25.475x0.5625	Reinf. 10 Compression	41.9%	Pass
80.75 - 75.75	Pole + Reinf.	TP27.745x26.61x0.55	Reinf. 10 Compression	45.2%	Pass
75.75 - 70.75	Pole + Reinf.	TP28.88x27.745x0.5438	Reinf. 10 Compression	49.0%	Pass
70.75 - 69.98	Pole + Reinf.	TP29.055x28.88x0.5313	Reinf. 4 Tension Rupture	70.6%	Pass
69.98 - 69.73	Pole + Reinf.	TP29.112x29.055x0.5313	Reinf. 4 Tension Rupture	70.9%	Pass
69.73 - 64.73	Pole + Reinf.	TP30.247x29.112x0.525	Reinf. 4 Tension Rupture	75.8%	Pass
64.73 - 63	Pole	TP30.64x30.247x0.3125	Pole	77.4%	Pass
63 - 62.75	Pole + Reinf.	TP30.696x30.64x0.7	Reinf. 4 Tension Rupture	59.8%	Pass
62.75 - 59.08	Pole + Reinf.	TP31.53x30.696x0.6875	Reinf. 4 Tension Rupture	62.6%	Pass
59.08 - 58.82	Pole + Reinf.	TP31.589x31.53x0.625	Reinf. 5 Tension Rupture	64.1%	Pass
58.82 - 58.67	Pole + Reinf.	TP31.623x31.589x0.625	Reinf. 5 Tension Rupture	64.2%	Pass
58.67 - 53.67	Pole + Reinf.	TP32.758x31.623x0.6125	Reinf. 5 Tension Rupture	67.8%	Pass
53.67 - 53	Pole + Reinf.	TP33.913x32.758x0.6125	Reinf. 5 Tension Rupture	68.2%	Pass
53 - 47.58	Pole + Reinf.	TP33.515x32.285x0.6375	Reinf. 3 Tension Rupture	73.7%	Pass
47.58 - 42.58	Pole + Reinf.	TP34.65x33.515x0.625	Reinf. 3 Tension Rupture	76.9%	Pass
42.58 - 40	Pole + Reinf.	TP35.236x34.65x0.6125	Reinf. 3 Tension Rupture	78.5%	Pass
40 - 39.75	Pole + Reinf.	TP35.293x35.236x0.8125	Reinf. 3 Tension Rupture	60.9%	Pass
39.75 - 34.75	Pole + Reinf.	TP36.428x35.293x0.7875	Reinf. 3 Tension Rupture	63.4%	Pass
34.75 - 32.5	Pole + Reinf.	TP36.939x36.428x0.7875	Reinf. 3 Tension Rupture	64.5%	Pass
32.5 - 32.25	Pole + Reinf.	TP36.995x36.939x0.6125	Reinf. 7 Tension Rupture	79.9%	Pass
32.25 - 31.42	Pole + Reinf.	TP37.184x36.995x0.6	Reinf. 7 Tension Rupture	80.3%	Pass
31.42 - 31.17	Pole + Reinf.	TP37.241x37.184x0.775	Reinf. 1 Tension Rupture	65.2%	Pass
31.17 - 29	Pole + Reinf.	TP37.733x37.241x0.7625	Reinf. 1 Tension Rupture	66.2%	Pass
29 - 28.75	Pole + Reinf.	TP37.79x37.733x0.675	Reinf. 1 Tension Rupture	78.8%	Pass
28.75 - 23.75	Pole + Reinf.	TP38.925x37.79x0.6625	Reinf. 1 Tension Rupture	81.3%	Pass
23.75 - 23.5	Pole + Reinf.	TP38.982x38.925x0.6625	Reinf. 1 Tension Rupture	81.4%	Pass
23.5 - 23.25	Pole + Reinf.	TP39.039x38.982x0.7875	Reinf. 1 Tension Rupture	66.6%	Pass
23.25 - 23	Pole + Reinf.	TP39.095x39.039x0.7875	Reinf. 1 Tension Rupture	66.7%	Pass
23 - 22.75	Pole + Reinf.	TP39.152x39.095x0.65	Reinf. 1 Tension Rupture	81.1%	Pass
22.75 - 17.75	Pole + Reinf.	TP40.287x39.152x0.6375	Reinf. 1 Tension Rupture	83.4%	Pass
17.75 - 12.75	Pole + Reinf.	TP41.422x40.287x0.625	Reinf. 1 Tension Rupture	85.6%	Pass
12.75 - 7.75	Pole + Reinf.	TP42.558x41.422x0.6125	Reinf. 1 Tension Rupture	87.7%	Pass
7.75 - 5.25	Pole + Reinf.	TP43.125x42.558x0.6125	Reinf. 1 Tension Rupture	88.7%	Pass
5.25 - 5	Pole + Reinf.	TP43.182x43.125x0.6875	Reinf. 1 Tension Rupture	75.3%	Pass
5 - 0	Pole + Reinf.	TP44.317x43.182x0.675	Reinf. 12 Weldment	78.1%	Pass
				Summary	
			Pole	77.4%	Pass
			Reinforcement	88.7%	Pass
			Overall	88.7%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity													
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13
140 - 135	211	n/a	211	8.40	n/a	8.40	16.1%													
135 - 130	266	n/a	266	9.07	n/a	9.07	27.8%													
130 - 125	330	n/a	330	9.75	n/a	9.75	36.6%													
125 - 120	404	n/a	404	10.42	n/a	10.42	43.3%													
120 - 115	487	n/a	487	11.10	n/a	11.10	52.9%													
115 - 114.75	492	680	1172	11.13	13.50	24.63	22.2%													39.7%
114.75 - 109.75	587	758	1345	11.81	13.50	25.31	26.8%													47.2%
109.75 - 104.75	694	841	1534	12.48	13.50	25.98	31.3%													54.3%
104.75 - 101.58	767	896	1663	12.91	13.50	26.41	34.3%													58.7%
101.58 - 101.33	1267	n/a	1267	21.45	n/a	21.45	44.2%													
101.33 - 96.33	1477	n/a	1477	22.58	n/a	22.58	48.0%													
96.33 - 91.33	1709	n/a	1709	23.70	n/a	23.70	53.4%													
91.33 - 91	1726	n/a	1726	23.78	n/a	23.78	53.7%													
91 - 90.75	1738	1473	3210	23.83	18.00	41.83	28.8%													34.2%
90.75 - 85.75	1996	1605	3601	24.96	18.00	42.96	32.2%													38.2%
85.75 - 80.75	2278	1743	4021	26.08	18.00	44.08	35.4%													41.9%
80.75 - 75.75	2586	1887	4473	27.21	18.00	45.21	38.3%													45.2%
75.75 - 70.75	2921	2037	4957	28.33	18.00	46.33	41.5%													49.0%
70.75 - 69.98	2975	1972	4947	28.51	17.25	45.76	42.8%				70.6%									
69.98 - 69.73	2992	1980	4972	28.56	17.25	45.81	43.0%				70.9%									
69.73 - 64.73	3360	2130	5490	29.69	17.25	46.94	46.0%				75.8%									
64.73 - 63	3494	n/a	3494	30.08	n/a	30.08	77.4%													
63 - 62.75	3520	4069	7589	30.14	35.25	65.39	36.9%				59.8%									55.1%
62.75 - 59.08	3817	4283	8100	30.96	35.25	66.21	38.6%				62.6%									57.7%
59.08 - 58.82	3836	3575	7411	31.02	30.39	61.41	42.2%					64.1%	56.8%							62.6%
58.82 - 58.67	3848	3583	7431	31.05	30.39	61.44	42.3%					64.2%	56.9%							62.8%
58.67 - 53.67	4282	3833	8115	32.18	30.39	62.57	45.0%					67.8%	60.2%							66.3%
53.67 - 53	4342	3867	8209	32.33	30.39	62.72	45.4%					68.2%	60.6%							66.8%
53 - 47.58	4455	4469	9054	32.93	29.64	62.57	45.6%				73.7%									
47.58 - 42.58	5072	4764	9836	34.06	29.64	63.70	48.1%				76.9%	72.1%	72.1%							
42.58 - 40	5336	4921	10256	34.64	29.64	64.28	49.3%				78.5%	73.6%	73.6%							
40 - 39.75	5362	7927	13289	34.69	47.64	82.33	38.3%				60.9%	57.2%	57.2%	59.4%						
39.75 - 34.75	5901	8427	14327	35.82	47.64	83.46	40.3%				63.4%	59.5%	59.5%	61.9%						
34.75 - 32.5	6155	8656	14811	36.33	47.64	83.97	41.2%				64.5%	60.5%	60.5%	62.9%						
32.5 - 32.25	6183	5544	11728	36.38	30.39	66.77	52.3%					76.8%	76.8%	79.9%						
32.25 - 31.42	6279	5599	11878	36.57	30.39	66.96	52.7%					77.2%	77.2%	80.3%						
31.42 - 31.17	6308	8793	15102	36.63	47.64	84.27	41.7%	65.2%	65.2%			61.1%	61.1%	63.5%						
31.17 - 29	6564	9019	15584	37.12	47.64	84.76	42.5%	66.2%	66.2%			62.1%	62.1%	64.5%						
29 - 28.75	6655	7158	13813	37.17	41.64	78.81	52.2%	78.8%	71.5%			77.6%	61.8%							65.0%
28.75 - 23.75	7276	7581	14857	38.30	41.64	79.94	54.4%	81.3%	73.9%			80.0%	63.9%							67.2%
23.75 - 23.5	7308	7603	14911	38.35	41.64	79.99	54.5%	81.4%	74.0%			80.1%	64.0%							67.3%
23.5 - 23.25	7299	10570	17870	38.41	59.64	98.05	44.6%	66.6%	61.6%			62.4%	57.7%		60.8%					62.0%
23.25 - 23	7331	10600	17931	38.47	59.64	98.11	44.7%	66.7%	61.7%			62.5%	57.8%		60.9%					62.1%
23 - 22.75	7349	7433	14783	38.52	47.64	86.16	53.5%	81.1%	72.5%			66.4%	72.3%		63.8%					
22.75 - 17.75	8012	7855	15867	39.65	47.64	87.29	55.7%	83.4%	74.7%			68.4%	74.4%		65.8%					
17.75 - 12.75	8714	8288	17002	40.77	47.64	88.41	57.7%	85.6%	76.8%			70.3%	76.4%		67.7%					
12.75 - 7.75	9456	8733	18189	41.90	47.64	89.54	59.8%	87.7%	78.7%			72.1%	78.3%		69.5%					
7.75 - 5.25	9842	8960	18802	42.46	47.64	90.10	60.8%	88.7%	79.7%			73.0%	79.3%		70.4%					
5.25 - 5	9878	11455	21333	42.52	42.26	84.78	53.8%	75.3%				73.9%								70.6%
5 - 0	10696	11734	22431	43.65	42.26	85.91	57.0%	77.2%				75.8%								78.1%

Note: Section capacity checked in 5 degree increments.

Stiffened or Unstiffened, Exterior Flange Plate - Any Bolt Material TIA Rev G

Site Data

BU#: 842873
 Site Name: Shelton NE
 App #: 365393 Rev. 1

Pole Manufacturer: Other

Bolt Data

Qty:	16		
Diameter (in.):	1	Bolt Fu:	120
Bolt Material:	A325	Bolt Fy:	92
N/A:	100	<-- Disregard	
N/A:	75	<-- Disregard	
Circle (in.):	26		

Plate Data

Diam:	30	in
Thick, t:	1.5	in
Grade (Fy):	50	ksi
Strength, Fu:	65	ksi
Single-Rod B-eff:	4.34	in

Stiffener Data (Welding at Both Sides)

Config:	0	*
Weld Type:		
Groove Depth:		<-- Disregard
Groove Angle:		<-- Disregard
Fillet H. Weld:		in
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

Pole Data

Diam:	21.882	in
Thick:	0.3125	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None

Reactions

Mu	305.39	ft-kips
Axial, Pu:	6.84	kips
Shear, Vu:	11.71	kips
Elevation:	101.58	feet

Bolt Threads:

X-Excluded
$\phi V_n = \phi(0.55 A_b F_u)$
$\phi = 0.75, \phi V_n$ (kips):
38.88

If No stiffeners, Criteria: TIA G

<-Only Applicable to Unstiffened Cases

Flange Bolt Results

Bolt Tension Capacity, $\phi^*T_n, B1$:	54.54 kips
Adjusted ϕ^*T_n (due to $V_u = V_u/Q_t$), B:	54.53 kips
Max Bolt directly applied Tu:	34.81 Kips
Min. PL "tc" for B cap. w/o Pry:	1.163 in
Min PL "treq" for actual T w/ Pry:	0.702 in
Min PL "t1" for actual T w/o Pry:	0.929 in
T allowable w/o Prying:	54.54 kips
Prying Force, q:	0.00 kips
Total Bolt Tension=Tu+q:	34.81 kips
Non-Prying Bolt Stress Ratio, Tu/B:	63.8% Pass

Rigid
ϕ^*T_n
$\phi T_n [1 - (V_u / \phi V_n)^2]^{0.5}$

$\alpha' < 0$ case

Exterior Flange Plate Results

Flexural Check	
Compression Side Plate Stress:	15.7 ksi
Allowable Plate Stress:	45.0 ksi
Compression Plate Stress Ratio:	34.8% Pass
No Prying	
Tension Side Stress Ratio, (treq/t) ² :	21.9% Pass

Rigid
TIA G
ϕ^*F_y
Comp. Y.L. Length:
14.04

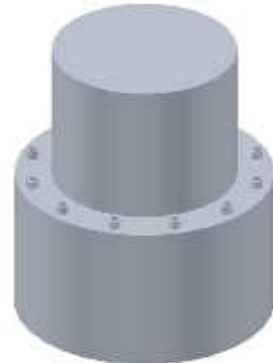
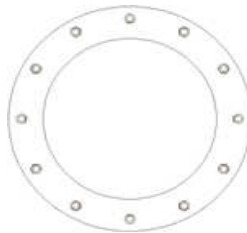
n/a

Stiffener Results

Horizontal Weld :	n/a
Vertical Weld:	n/a
Plate Flex+Shear, $f_b/F_b + (f_v/F_v)^2$:	n/a
Plate Tension+Shear, $f_t/F_t + (f_v/F_v)^2$:	n/a
Plate Comp. (AISC Bracket):	n/a

Pole Results

Pole Punching Shear Check: n/a



* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

Stiffened or Unstiffened, UngROUTed, Circular Base Plate - Any Rod Material

TIA Rev G Assumption: Clear space between bottom of leveling nut and top of concrete **not** exceeding (1)*(Rod Diameter)

Site Data

BU#: 842873
 Site Name: Shelton NE
 App #: 365393 Rev. 1

Pole Manufacturer: *Other*

Anchor Rod Data

Qty: 16
 Diam: 2.25 in
 Rod Material: A615-J
 Strength (Fu): 100 ksi
 Yield (Fy): 75 ksi
 Bolt Circle: 51 in

Plate Data

Diam: 57 in
 Thick: 2.25 in
 Grade: 60 ksi
 Single-Rod B-eff: 8.79 in

Stiffener Data (Welding at both sides)

Config: 0 *
 Weld Type:
 Groove Depth: <-- Disregard
 Groove Angle: <-- Disregard
 Fillet H. Weld: in
 Fillet V. Weld: in
 Width: in
 Height: in
 Thick: in
 Notch: in
 Grade: ksi
 Weld str.: ksi

Pole Data

Diam: 44.317 in
 Thick: 0.3125 in
 Grade: 65 ksi
 # of Sides: 18 "0" IF Round
 Fu: 80 ksi
 Reinf. Fillet Weld: 0 "0" if None

Reactions

Mu:	3022	ft-kips
Axial, Pu:	47	kips
Shear, Vu:	37	kips
Eta Factor, η	0.55	TIA G (Fig. 4-4)

If No stiffeners, Criteria: **AISC LRFD** <-Only Applicable to Unstiffened Cases

Anchor Rod Results

Max Rod (Cu+ Vu/r): 184.8 Kips
 Allowable Axial, $\Phi \cdot Fu \cdot Anet$: 260.0 Kips
 Anchor Rod Stress Ratio: 71.1% **Pass**

Rigid
AISC LRFD
$\phi \cdot Tn$

Base Plate Results

Base Plate Stress: 33.6 ksi
 Allowable Plate Stress: 54.0 ksi
 Base Plate Stress Ratio: 62.1% **Pass**

Flexural Check

Rigid
AISC LRFD
$\phi \cdot Fy$
Y.L. Length: 25.24

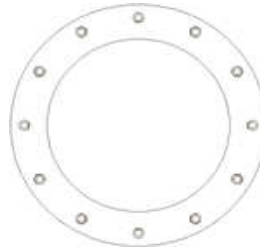
n/a

Stiffener Results

Horizontal Weld : n/a
 Vertical Weld: n/a
 Plate Flex+Shear, $fb/Fb+(fv/Fv)^2$: n/a
 Plate Tension+Shear, $ft/Ft+(fv/Fv)^2$: n/a
 Plate Comp. (AISC Bracket): n/a

Pole Results

Pole Punching Shear Check: n/a



* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes



[ASCE 7 Windspeed](#)
[ASCE 7 Ground Snow Load](#)
[Related Resources](#)
[Sponsors](#)
[About ATC](#)
[Contact](#)

Search Results

Query Date: Wed Nov 02 2016

Latitude: 41.2939

Longitude: -73.1072

**ASCE 7-10 Windspeeds
(3-sec peak gust in mph*):**

Risk Category I: 112

Risk Category II: 123

Risk Category III-IV: 133

MRI 10-Year:** 76

MRI 25-Year:** 86

MRI 50-Year:** 93

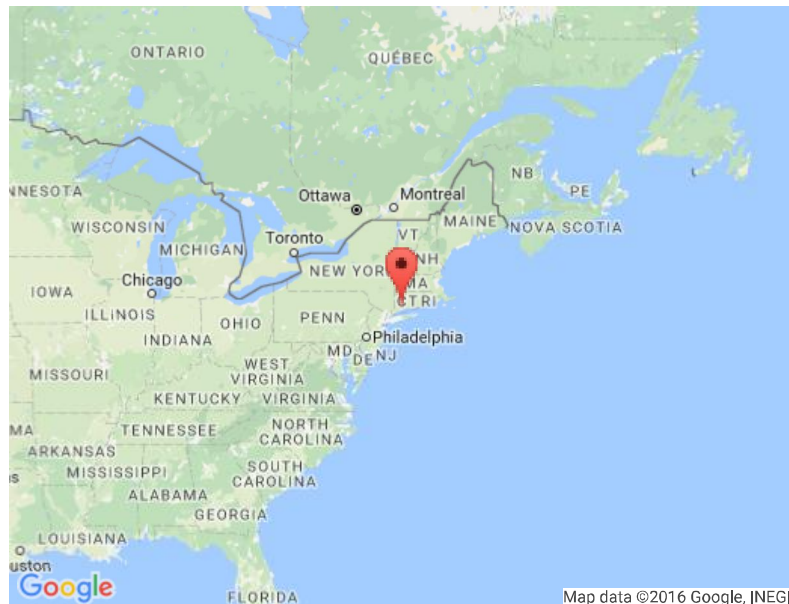
MRI 100-Year:** 99

ASCE 7-05 Windspeed:

110 (3-sec peak gust in mph)

ASCE 7-93 Windspeed:

81 (fastest mile in mph)



*Miles per hour

**Mean Recurrence Interval

Users should consult with local building officials to determine if there are community-specific wind speed requirements that govern.



[Print your results](#)

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

AT&T Existing Facility

Site ID: CT5431

Shelton NE
Oliver Terrace
Shelton, CT 06484

November 17, 2016

EBI Project Number: 6216005365

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	16.79 %



November 17, 2016

AT&T Mobility – New England
Attn: Cameron Syme, RF Manager
550 Cochituate Road
Suite 550 – 13&14
Framingham, MA 06040

Emissions Analysis for Site: **CT5431 – Shelton NE**

EBI Consulting was directed to analyze the proposed AT&T facility located at **Oliver Terrace, Shelton, CT**, for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

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

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

General population/uncontrolled exposure limits apply to situations in which the general 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 limits for the 700 and 850 MHz Bands are approximately $467 \mu\text{W}/\text{cm}^2$ and $567 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed AT&T Wireless antenna facility located at **Oliver Terrace, Shelton, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 LTE channels (700 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 2) 2 LTE channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 3) 2 UMTS channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 4) 2 UMTS channels (1900 MHz (PCS)) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 5) 2 GSM channels (850 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.



- 6) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 7) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antennas used in this modeling are the **CCI HPA-65R-BUU-H6 and the Kathrein 800-10121** for transmission in the 700 MHz, 850 MHz and 1900 MHz (PCS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 9) The antenna mounting height centerlines of the proposed antennas are **95 feet** above ground level (AGL) for **Sector A**, **95 feet** above ground level (AGL) for **Sector B** and **95 feet** above ground level (AGL) for Sector C.
- 10) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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



AT&T Site Inventory and Power Data by Antenna

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	CCI HPA-65R-BUU-H6	Make / Model:	CCI HPA-65R-BUU-H6	Make / Model:	CCI HPA-65R-BUU-H6
Gain:	11.95 / 14.75 dBd	Gain:	11.95 / 14.75 dBd	Gain:	11.95 / 14.75 dBd
Height (AGL):	95 feet	Height (AGL):	95 feet	Height (AGL):	95 feet
Frequency Bands	700 MHz / 1900 MHz (PCS)	Frequency Bands	700 MHz / 1900 MHz (PCS)	Frequency Bands	700 MHz / 1900 MHz (PCS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	240 Watts	Total TX Power(W):	240 Watts	Total TX Power(W):	240 Watts
ERP (W):	5,462.56	ERP (W):	5,462.56	ERP (W):	5,462.56
Antenna A1 MPE%	3.45 %	Antenna B1 MPE%	3.45 %	Antenna C1 MPE%	3.45 %
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Kathrein 800-10121	Make / Model:	Kathrein 800-10121	Make / Model:	Kathrein 800-10121
Gain:	11.45 / 14.35 dBd	Gain:	11.45 / 14.35 dBd	Gain:	11.45 / 14.35 dBd
Height (AGL):	95 feet	Height (AGL):	95 feet	Height (AGL):	95 feet
Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)	Frequency Bands	850 MHz / 1900 MHz (PCS)
Channel Count	6	Channel Count	6	Channel Count	6
Total TX Power(W):	180 Watts	Total TX Power(W):	180 Watts	Total TX Power(W):	180 Watts
ERP (W):	3,309.26	ERP (W):	3,309.26	ERP (W):	3,309.26
Antenna A2 MPE%	2.08 %	Antenna B2 MPE%	2.08 %	Antenna C2 MPE%	2.08 %

Site Composite MPE%	
Carrier	MPE%
AT&T – Max per sector	5.54 %
MetroPCS	0.44 %
T-Mobile	3.35 %
J. Brennan Constren	2.20 %
Clearwire	0.39 %
Sprint	2.64 %
Verizon Wireless	2.23 %
Site Total MPE %:	16.79 %

AT&T Sector A Total:	5.54 %
AT&T Sector B Total:	5.54 %
AT&T Sector C Total:	5.54 %
Site Total:	16.79 %

AT&T _ Frequency Band / Technology Per Sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
AT&T 700 MHz LTE	2	940.05	95	8.53	700 MHz	467	1.83%
AT&T 1900 MHz (PCS) LTE	2	1,791.23	95	16.26	1900 MHz (PCS)	1000	1.63%
AT&T 850 MHz UMTS	2	418.91	95	3.80	850 MHz	567	0.67%
AT&T 1900 MHz (PCS) UMTS	2	816.81	95	7.41	1900 MHz (PCS)	1000	0.74%
AT&T 850 MHz GSM	2	418.91	95	3.80	850 MHz	567	0.67%
						Total:	5.54%



Summary

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

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general public exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	5.54 %
Sector B:	5.54 %
Sector C:	5.54 %
AT&T Maximum Total (per sector):	5.54 %
Site Total:	16.79 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **16.79 %** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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