Crown Castle
300 Meridian Centre
Rochester, NY 14618

November 13, 2019

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

RE: **Notice of Exempt Modification for Verizon / Crown Castle Site BU: 841288**
Located at: 205 Kaechele Place, Bridgeport, CT 06610
Latitude: 41 ° 13' 24.04" / Longitude: -73° 13' .38"

Dear Ms. Bachman,

Verizon currently maintains twelve (12) antennas at the 100-foot level of the existing 150-foot monopole located at 205 Kaechele Place in Bridgeport. Verizon intends to make the following modifications:

Tower modifications:

- Replace nine (9) existing antennas with nine (9) new antennas
- Replace six (6) existing RRUs with nine (9) new RRUs
- Add one (1) Raycap
- Add three (3) diplexers
- Add one (1) hybrid cable
- Remove six (6) coaxial cables

Ground modifications:

- None

This facility was approved by the Connecticut Siting Council, Docket Number 45 on September 14, 1984. This approval included the condition(s) that:

1. The tower shall be no taller than necessary to provide the proposed service, and in no event shall exceed 167';
2. A fence not lower than eight feet shall surround each tower and its associated equipment
3. The applicant or its successor shall notify the Council if and when directional antennas or any other equipment is added to any of these facilities;
4. The applicant or its successor shall permit, in accordance with representations made by it during the proceeding, public or private entities to share space on the facilities, for due consideration received, or shall

provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing;

5. Unless necessary to comply with condition number six, below, no lights shall be installed on any of these towers;

6. The facilities shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations;

7. The applicant shall submit a development and management plan (D&M) for the Bridgeport site pursuant to sections 16-50j-85 through 16-50j-87 of the regulations of state agencies, except that irrelevant items in section 16-50j-86 need only be identified as such. The D&M plans shall include appropriate evergreen screening of the sites, erosion control measures, reseeding plans, and tree removal plans. The applicant shall comply with the reporting requirements of section
16-50j-87 for all sites;

8. Construction activities shall take place during daylight working hours;

9. This decision and order shall be void and the towers and associated equipment approved herein shall be dismantled and removed, or reapplication for any new use shall be made to the Connecticut Siting Council before any such new use it made, if the towers do not provide or permanently cease to provide cellular service following completion of construction.

10. This decision and order shall be void if all construction authorized is not completed within three years of the issuance of this decision.

This proposed 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 Joseph P. Ganim, Mayor for the Town of Bridgeport, the Planning & Economic Department for the Town of Bridgeport, and the property owner.

Additionally:

- The proposed modifications will not result in an increase in the height of the existing tower.
- The proposed modification will not require the extension of the site boundary.
- 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.
- 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.
- The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- The existing structure and its foundation can support the proposed loading.

For these reasons, Verizon proposes that the modifications to this facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

At your earliest convenience, please provide an approval/rejection letter to my attention at the address listed below. Do not hesitate to reach out to me directly with any questions or concerns.

Sincerely,

Richard Zajac
Network Real Estate Specialist
Crown Castle USA
300 Meridian Centre
Rochester, NY 14618
T: (585) 445-5896
E: Richard.Zajac@crowncastle.com

Cc: Joseph P. Ganim, Mayor
Town of Bridgeport
999 Broad Street
Bridgeport, CT 06604

Thomas F. Gill, Director of OPED
Office of Planning and Economic Development
999 Broad Street
Bridgeport, CT 06604

Southern New England Telephone (Property Owner)
One SBC Center 36-M-01
St. Louis, ME 63101

Exhibit A

Original Facility Approval

DOCKET NO. 45

AN APPLICATION SUBMITTED BY THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN FAIRFIELD COUNTY.	:	CONNECTICUT SITING COUNCIL
	:	September 14, 1984

DECISION AND ORDER

Pursuant to the foregoing opinion, the Council hereby directs that a certificate of environmental compatibility and public need as required by section 16-50k of the General Statutes of Connecticut, revisions of 1958, revised to 1983, as amended, be issued to the Southern New England Telephone Company for the construction, operation, and maintenance of a telecommunications tower and associated equipment to provide cellular service at each of the following sites:

Kaechele Place, Bridgeport, Connecticut;
Connecticut Avenue, Norwalk, Connecticut;
Nells Rock Road, Shelton, Connecticut;
Newfield Avenue, Stamford, Connecticut; and
Bayberry Lane, (former Nike site), Westport, Connecticut.

The facilities shall be constructed, operated, and maintained as specified in the Council's record on this matter, and subject to the following conditions:

1. The towers shall be no taller than necessary to provide the proposed service, and in no event shall exceed

   a) 167' at the Bridgeport site,
   b) 167' at the Norwalk site,
   c) 189.5' at the Shelton site,
   d) 167' at the Stamford site,
   e) 117' at the Westport site;

2. A fence not lower than eight feet shall surround each tower and its associated equipment;

3. The applicant or its successor shall notify the Council if and when directional antennas or any other equipment is added to any of these facilities;

4. The applicant or its successor shall permit, in accordance with representations made by it during the proceeding, public or private entities to share space on the facilities, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing;
5. Unless necessary to comply with condition number six, below, no lights shall be installed on any of these towers;
6. The facilities shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations;
7. The applicant shall submit a development and management plan (D&M) for the Bridgeport, Stamford, and Westport sites pursuant to sections 16-50j-85 through 16-50j-87 of the regulations of state agencies, except that irrelevant items in section 16-50j-86 need only be identified as such. The D&M plans shall include appropriate evergreen screening of the sites, erosion control measures, reseeding plans, and tree removal plans. The applicant shall consult with the Stamford Environmental Protection Board in the preparation of a drainage and erosion control plan for the Stamford tower. The applicant shall comply with the reporting requirements of section 16-50j-87 for all sites;
8. Construction activities shall take place during daylight working hours;
9. This decision and order shall be void and the towers and associated equipment approved herein shall be dismantled and

removed, or reapplication for any new use shall be made to the Connecticut Siting Council before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction;

10. This decision and order shall be void if all construction authorized is not completed within three years of the issuance of this decision.

Pursuant to section 16-50p of the General Statutes, we hereby direct that a copy of the opinion and decision and order be served on each person listed below. A notice of the issuance shall be published in the Bridgeport Post, the Norwalk Hour, the Stamford Advocate, and the Shelton Suburban News, and the Westport News.

The parties to this proceeding are

The Southern New England Telephone Company Room 314 227 Church Street New Haven, Connecticut 06506	(Applicant)
Attention: Mr. Peter J. Tyrrell Senior Attorney	(its attorney)
Rolnick Observatory 52 Sawyer Road Fairfield, Connecticut	represented by: Frederick H. Bump Director
Mr. Adam Norton 40 Highland Road Westport, Connecticut 06880	
Representative John Wayne Fox 13 Apple Tree Drive Stamford, Connecticut 06906	(service waived)
Mr. George C. Lenfest 4 Highland Road Westport, Connecticut	

Mr. William Seiden
First Selectman
Town of Westport
110 Myrtle Avenue
P.O. Box 549
Westport, Connecticut 06881

Mr. Arthur L. Schimel
174 Bayberry Lane
Westport, Connecticut

Mr. Seymour Bendremer
11 Apache Trail
Westport, Connecticut

Ms. Gladys Floch
32 Woody Lane
Westport, Connecticut

Ms. Helen S. Cohen
15 Highland Road
Westport, Connecticut
(service waived)

Mr. Jack Braverman
226 Bayberry Lane
Westport, Connecticut

Mr. Kevin Gavin
191 Bayberry Lane
Westport, Connecticut
(service waived)

Mr. A.B. Beiser
12 Highland Road
Westport, Connecticut

Mr. Edward V. Polusky
4 Hooper Road
Westport, Connecticut
(service waived)

Ms. Lois Schine
represented by:

Mary D. Mix, Esquire
830 Post Road - East
Suite 100
Westport, Connecticut 06880

Mr. Allen Witt
3 Apache Trail
Westport, Connecticut

Ms. Gayle Shiller
5 Apache Trail
Westport, Connecticut
(service waived)

Mrs. Ronnie Hammer
3 Hooper Road
Westport, Connecticut

Mr. Paul Rosenblatt (service waived)
7 Apache Trail
Westport, Connecticut

Mr. Henry J. Wolfson (service waived)
179 Bayberry Lane
Westport, Connecticut

Mr. Melvin H. Barr (service waived)
Planning Director
Town of Westport
110 Myrtle Avenue
P.O. Box 549
Westport, Connecticut 06881

Mr. Mark Infeld (service waived)
6 Apache Trail
Westport, Connecticut

Ms. Barbara Saipe (service waived)
Representative Town
Meeting Member
District #8
Town Hall
P.O. Box 549
Westport, Connecticut 06881

Ms. Peggy Goldenberg (service waived)
201 Bayberry Lane
Westport, Connecticut

Ms. Martha Hauhuth (service waived)
Board of Selectman
Town Hall
P.O. Box 549
Westport, Connecticut 06881

Ms. Meg Coffee
32 Otter Trail
Westport, Connecticut (service waived)

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut, this 14th day of September, 1984.

Council Members	Vote Cast
Gloria Dibble Pond Chairperson	Yes
Commissioner John Downey Designee: Commissioner Peter G. Boucher	Absent
Commissioner Stanley Pac	Absent
Owen L. Clark	Yes
Fred J. Ddocy	Yes
Mortimer A. Gelston	Yes
James G. Horsfall	Yes
Janet Sitty	Yes
Colin C. Tait	Absent

STATE OF CONNECTICUT)
: ss. New Britain, September 14, 1984
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

Christopher S. Wood

Christopher S. Wood, Executive Director
Connecticut Siting Council

Exhibit B

Property Card

205 KAECHELE PL

Location	205 KAECHELE PL	**Mblu**	81/ 2602/ 9/ /
Acct#	R--0148640	**Owner**	SOUTHERN NEW ENGLAND TEL
Assessment	$104,120	**Appraisal**	$148,730
PID	29859	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$51,340	$97,390	$148,730
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$35,950	$68,170	$104,120

Owner of Record

Owner	SOUTHERN NEW ENGLAND TEL	**Sale Price**	$0
Co-Owner	% SBC COMMUNICATIONS INC	**Certificate**	
Address	ONE SBC CENTER 36-M-01 ST LOUIS, MO 63101	**Book & Page**	0/ 0
		Sale Date	

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
SOUTHERN NEW ENGLAND TEL	$0		0/ 0	

Building Information

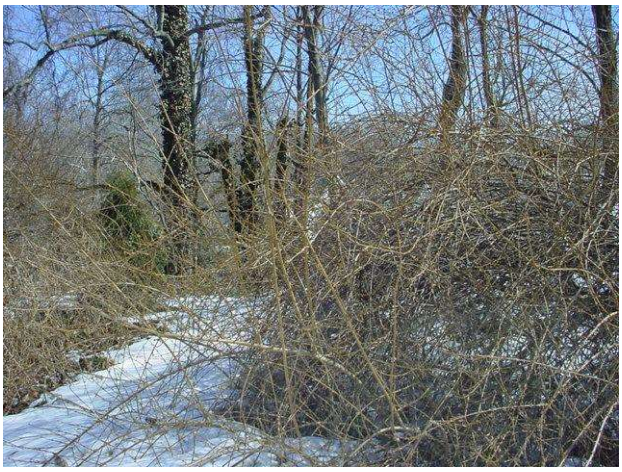
Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: $0
Building Percent Good:
Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**

Style	Vacant Land
Model	
Grade:	
Stories:	
Occupancy:	
Exterior Wall 1:	
Exterior Wall 2:	
Roof Structure:	
Roof Cover:	
Interior Wall 1:	
Interior Wall 2:	
Interior Flr 1:	
Interior Flr 2	
Heat Fuel:	
Heat Type:	
AC Type:	
Total Bedrooms	
Total Full Baths	
Total Half Baths	
Total Xtra Fixtrs:	
Total Rooms	
Bath Style:	
Kitchen Style:	
Fireplaces	
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Garages	
.	

Building Photo



(http://images.vgsi.com/photos/BridgeportCTPhotos//\00\03\05

Building Layout

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	499
Description	Utility Vac Ln
Zone	RA
Neighborhood	2080

Land Line Valuation

Size (Acres)	0.15
Frontage	0
Depth	0
Assessed Value	$68,170

Alt Land Appr Category No

Appraised Value $97,390

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
SHD3	Shed w/ Lt	CM	Comm	384 SF	$6,910	1
SHD3	Shed w/ Lt	CM	Comm	384 SF	$6,910	1
SHD3	Shed w/ Lt	CM	Comm	576 SF	$10,370	1
FN1	Fence, Chain	8	8 ft	350 LF	$3,150	1
TWR	Tower			120 LF	$24,000	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$51,340	$97,390	$148,730
2014	$51,340	$106,880	$158,220
2013	$51,340	$106,880	$158,220

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$35,950	$68,170	$104,120
2014	$35,950	$74,820	$110,770
2013	$35,950	$74,820	$110,770

Google Maps 205 Kaechele Pl

Exhibit C

Construction Drawings

verizon

TRUMBULL SW CT
205 KAECHELE PLACE
BRIDGEPORT, CT 06606

PROJECT SUMMARY

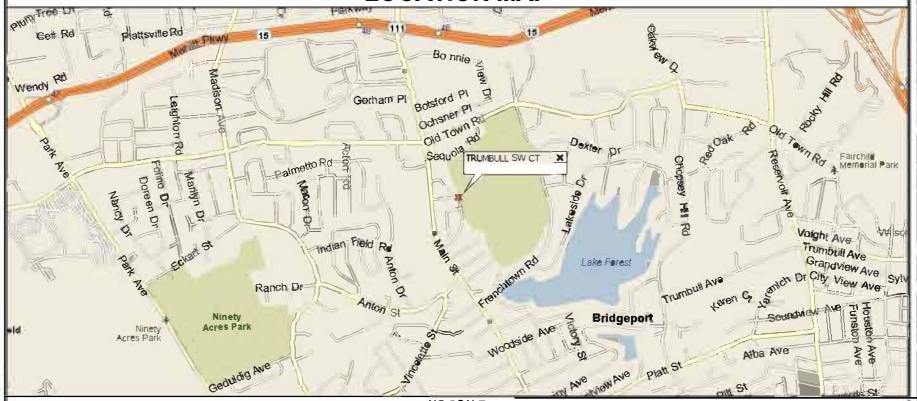
SITE NAME:	TRUMBULL SW CT
SITE ADDRESS:	205 KAECHELE PLACE BRIDGEPORT, CT 06606
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DR CANONSBURG, PA 15317
BU NUMBER:	841288
MAP NUMBER: LOT NUMBER:	81/2602 9
CUSTOMER/APPLICANT:	VERIZON WIRELESS 400 FRIEBERG PARKWAY WESTBOROUGH, MA 01581
CONTACT:	DAN MYZYRI (617) 945-7288
NAD83	
LATITUDE:	41° 13' 24.04" N
LONGITUDE:	73° 13' 0.38" W
ELEVATION:	240'
CURRENT ZONING:	RA
A&E FIRM:	B+T GROUP 1717 S. BOULDER, SUITE 300 TULSA, OK 74119 STEVE THORNHILL (918) 587-4630
OCCUPANCY TYPE:	UNMANNED
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING	2018 CT SBC
STRUCTURAL	2018 CT SBC
MECHANICAL	2018 CT SBC
ELECTRICAL	NEC 2017

LOCATION MAP



NO SCALE

DRIVING DIRECTIONS

DEPART LA GUARDIA AIRPORT ON LOCAL ROAD(S). TAKE LOCAL ROAD(S) (LEFT) ONTO CENTRAL TERMINAL DR. BEAR RIGHT ONTO 94TH ST. TAKE RAMP (RIGHT) ONTO GRAND CENTRAL PKWY. AT EXIT 9E, KEEP RIGHT ONTO RAMP. KEEP LEFT TO STAY ON RAMP. KEEP LEFT TO STAY ON RAMP. TAKE RAMP (LEFT) ONTO I-678 [WHITESTONE EXPY]. STAY ON I-678 [WHITESTONE EXPY]. STAY ON I-678 [HUTCHINSON RIVER PKWY]. ROAD NAME CHANGES TO HUTCHINSON RIVER PKWY N. AT EXIT 6, TAKE RAMP (RIGHT) ONTO I-95 [NEW ENGLAND THROUGHWAY]. AT EXIT 16, STAY ON I-95 [NEW ENGLAND THROUGHWAY]. STAY ON I-95 [NEW ENGLAND THROUGHWAY] INTO CONNECTICUT. AT EXIT 15, TURN RIGHT ONTO RAMP. ROAD NAME CHANGES TO US-7. AT EXIT 2, KEEP RIGHT ONTO RAMP. TURN LEFT ONTO CT-123 [NEW CANAAN AVE]. TURN LEFT ONTO MAIN ST. ROAD NAME CHANGES TO MAIN AVE [MAIN ST]. TAKE RAMP (RIGHT) ONTO CT-15 [MERRITT PKWY]. AT EXIT 48, KEEP RIGHT ONTO RAMP. KEEP RIGHT TO STAY ON RAMP. BEAR RIGHT ONTO CT-111 [MAIN ST]. ROAD NAME CHANGES TO MAIN ST. TURN LEFT ONTO KAECHELE PL. ARRIVE AT TRUMBULL SW CT.

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T-1	TITLE SHEET	0
A-1	COMPOUND PLAN AND TOWER ELEVATION	0
A-2	EQUIPMENT DETAILS	0

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
OWNER:		
R.F. ENGINEER:		
CONSTRUCTON MGR.:		
LEASING & ZONING:		
VERIZON WIRELESS:		

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11x17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL CONNECTICUT ONE CALL
(800) 922-4455
CALL 3 WORKING DAYS
BEFORE YOU DIG!

811

B+T GRP

verizon
400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

TRUMBULL SW CT
205 KAECHELE PLACE
BRIDGEPORT, CT 06606
EXISTING MONOPOLE

PROJECT NO:	126536.004.01
CHECKED BY:	RMC

ISSUED FOR:

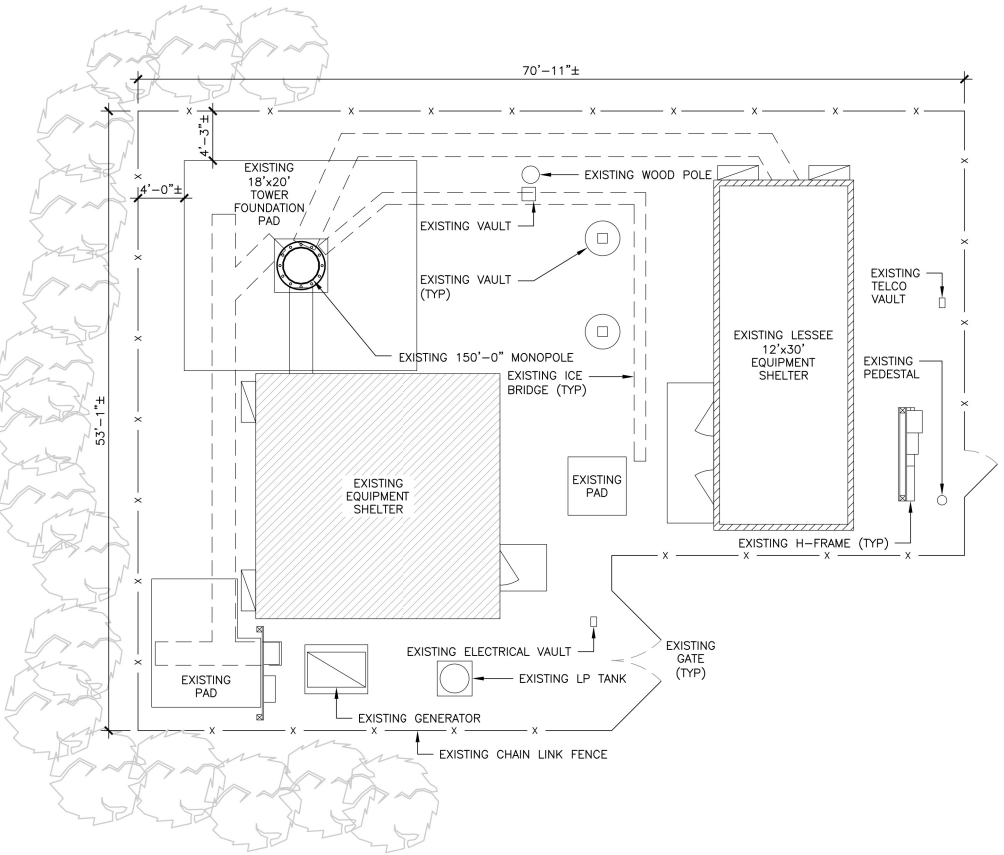
REV	DATE	DRWN	DESCRIPTION
0	10/22/19	DAC	CONSTRUCTION

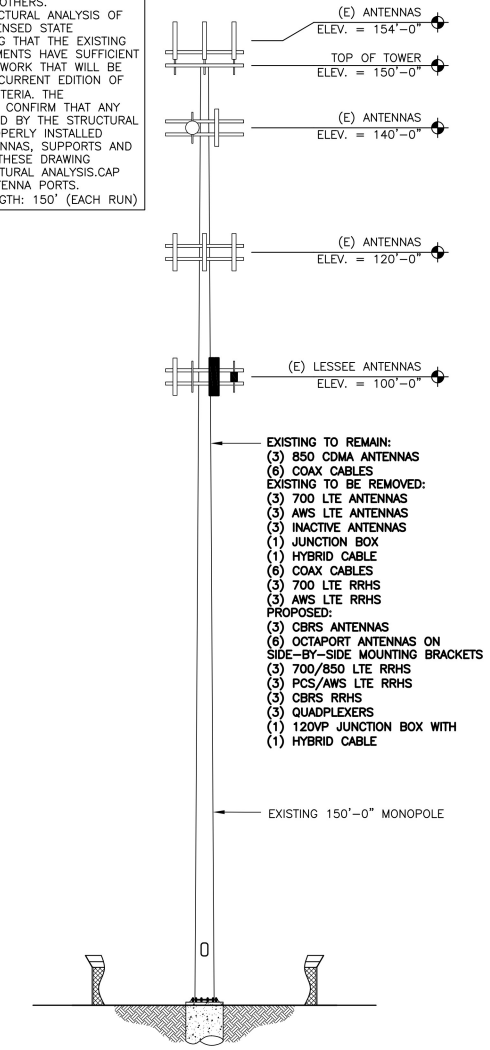
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

STATE OF CONNECTICUT
31627
LICENSED
PROFESSIONAL ENGINEER
10/22/19

SHEET NUMBER:	REVISION:
T-1	0

NOTES:
1. CONTRACTOR TO VERIFY EXACT COAX AND ANTENNA INSTALLATION AND ANTENNA HEIGHT WITH LATEST RF DATA SHEETS PRIOR TO INSTALLATION.
2. STRUCTURAL ANALYSIS DONE BY OTHERS.
3. VERIZON SHALL PROVIDE A STRUCTURAL ANALYSIS OF THE TOWER PREPARED BY A LICENSED STATE STRUCTURAL ENGINEER CERTIFYING THAT THE EXISTING TOWER AND PROPOSED IMPROVEMENTS HAVE SUFFICIENT CAPACITY TO SUPPORT ALL NEW WORK THAT WILL BE DONE IN COMPLIANCE WITH THE CURRENT EDITION OF BUILDING CODES AND EIA/TIA CRITERIA. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT ANY AND ALL IMPROVEMENTS REQUIRED BY THE STRUCTURAL ANALYSIS CERTIFICATION ARE PROPERLY INSTALLED PRIOR TO THE ADDITION OF ANTENNAS, SUPPORTS AND APPURTENANCES PROPOSED ON THESE DRAWING OTHERWISE NOTED IN THE STRUCTURAL ANALYSIS.CAP AND WEATHERPROFF UNUSED ANTENNA PORTS.
4. ESTIMATED HYBRIFLEX CABLE LENGTH: 150' (EACH RUN)





1 COMPOUND PLAN
SCALE: 0' 4' 8' 16' 32'

N

2 FINAL TOWER ELEVATION
SCALE: 0' 10' 20' 30' 40' 1"=20'

B+T GRP

verizon

400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

TRUMBULL SW CT

205 KAECHELE PLACE
BRIDGEPORT, CT 06606
EXISTING MONOPOLE

PROJECT NO:	126536.004.01
CHECKED BY:	RMC

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	10/22/19	DAC	CONSTRUCTION

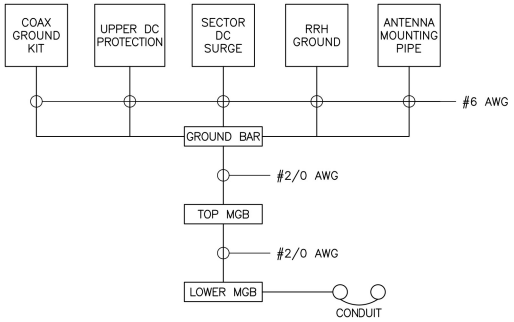
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/20

STATE OF CONNECTICUT 31627 LICENSED PROFESSIONAL ENGINEER

10/22/19

SHEET NUMBER: A-1
REVISION: 0

NOTE:
1. INSTALL ALL EQUIPMENT, MOUNTING BRACKETS AND HARDWARE ACCORDING WITH MANUFACTURE'S RECOMMENDATIONS.
2. GROUND DISTRIBUTION BOXES, MOUNTING PIPES AND RRHs IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
3. INSTALLED EQUIPMENT AND MOUNTING BRACKETS SHALL NOT INTERFERE WITH CLIMBING ACCESS NOR ANT INSTALLED SAFETY DEVICES.
4. EQUIPMENT TO BE INSTALLED AT VERIZON'S RAD. CENTER IN ACCORDANCE WITH TOWER STRUCTURAL ANALYSIS (ANALYSIS BY OTHERS).

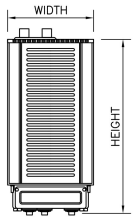


NOTE:
1. BOND ANTENNA GROUNDING KIT CABLES TO TOP CIBE.
2. BOND ANTENNA GROUNDING KIT CABLE TO BOTTOM CIBE.
3. TYPICAL FOR ALL SECTORS.

1 GROUNDING SCHEMATIC DIAGRAM
SCALE: N.T.S.

REMOTE RADIO HEAD DIMENSIONS (INCHES)

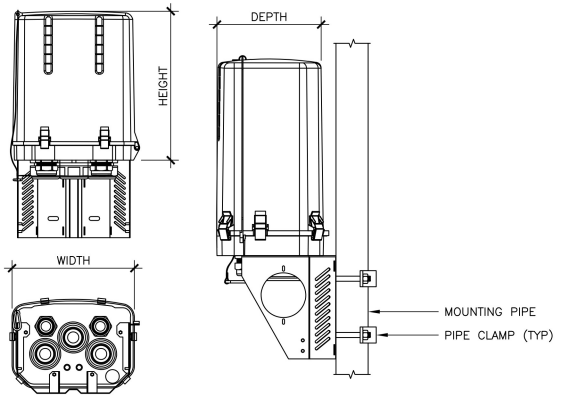
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
B2/B66A (RFV01U-D1A)	15.0"	15.0"	10.0"	84.4 LBS
B5/B13 (RFV01U-D2A)	15.0"	15.0"	8.1"	70.3 LBS
CBRS RRH-RT4401-48A	16.2"	11.4"	5.5"	23.1 LBS



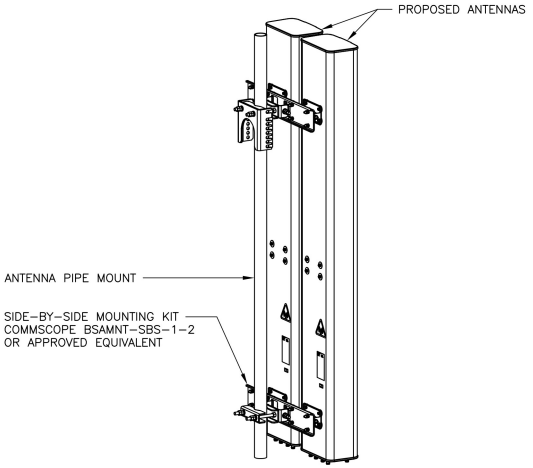
2 RRH SPECIFICATIONS
SCALE: N.T.S.

DC SURGE SUPPRESSION DIMENSIONS (INCHES)

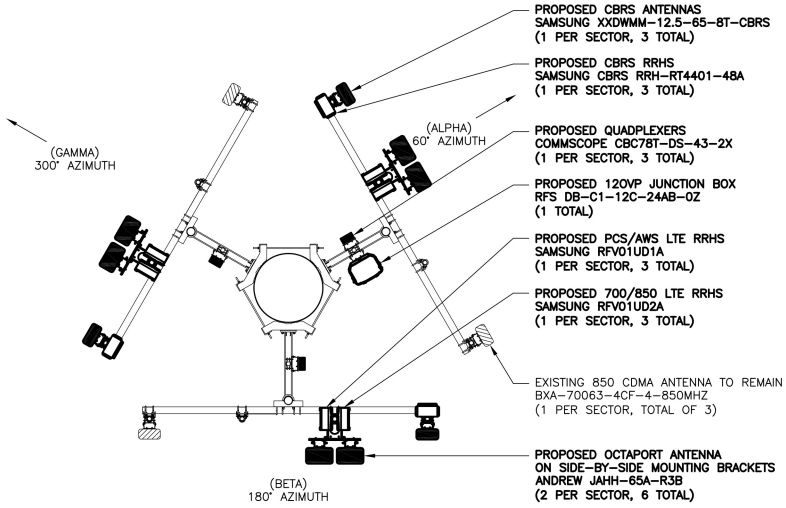
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
DB-C1-12C-24AB-0Z	29.5"	16.5"	12.6"	32 LBS



3 RAYCAP SPECIFICATIONS
SCALE: N.T.S.



4 ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



5 PROPOSED ANTENNA ORIENTATION
SCALE: N.T.S.

B+T GRP

verizon

400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

TRUMBULL SW CT

205 KAECHELE PLACE
BRIDGEPORT, CT 06606
EXISTING MONOPOLE

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B&T ENGINEERING, INC.
PEC.0001564
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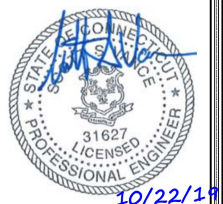


SHEET NUMBER: A-2
REVISION: 0

Exhibit D

Structural Analysis Report

PAUL J. FORD & COMPANY

Date: **October 08, 2019**

Denice Nicholson
Crown Castle
3 Corporate Dr
Clifton Park, NY 12065

Paul J. Ford and Company
250 E. Broad St., Ste 600
Columbus, OH 43215
614-221-6679

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Carrier Site Number:	NG39684
	Carrier Site Name:	TRUMBULL SW CT
Crown Castle Designation:	**Crown Castle BU Number:**	841288
	Crown Castle Site Name:	BRIDGEPORT NORTH
	Crown Castle JDE Job Number:	590341
	Crown Castle Work Order Number:	1795754
	Crown Castle Order Number:	504972 Rev. 0
Engineering Firm Designation:	**Paul J. Ford and Company Project Number:**	37519-1756.003.7805
Site Data:	**205 KAECHELE PLACE, BRIDGEPORT, Fairfield County, CT** **Latitude *41° 13' 24.04"*, Longitude *-73° 13' 0.38"*** **150 Foot - Monopole Tower**	

Dear Denice Nicholson,

Paul J. Ford and Company is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower.

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

LC7: Proposed Equipment Configuration **Sufficient Capacity (86.3%)**

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code and Appendix N. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully submitted by:

Grant J. Austin
Structural Designer
gaustin@pauljford.com

UY /

STATE OF CONNECTICUT
AUSTIN T. KLINE
No. 30301
LICENSED
PROFESSIONAL ENGINEER

2019.10.11
15:14:38-04'00'

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 150 ft Monopole tower designed by ITT MEYER INC. and mapped by GPD in April of 2008.

The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
99.0	100.0	3	antel	BXA-70063/4CF w/ Mount Pipe	1 6	1-1/4 1-5/8
		3	commscope	CBC78T-DS-43-2X		
		6	commscope	JAHH-65A-R3B w/ Mount Pipe		
		1	rfs celwave	DB-C1-12C-24AB-0Z		
		3	samsung telecommunications	20W CBRS		
		3	samsung telecommunications	CBRS w/ Mount Pipe		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
	99.0	1	tower mounts	T-Arm Mount [TA 602-3]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
150.0	154.0	3	cci antennas	HPA-65R-BUU-H6	2 4 12 2	3/8 3/4 1-5/8 2" Conduit
		6	cci antennas	TPX-070821		
		3	ericsson	RRUS 11		
		3	ericsson	RRUS 32		
		3	ericsson	RRUS 32 B2		
		3	ericsson	RRUS 32 B66		
		3	powerwave technologies	1001940		
		6	powerwave technologies	7020.00		
		3	powerwave technologies	7770.00		
		3	powerwave technologies	TT19-08BP111-001		
		3	quintel technology	QS66512-2		
		2	raycap	DC6-48-60-18-8F		
	150.0	1	tower mounts	Platform Mount (LP 101-1)		
147.0	147.0	3	ericsson	RRUS 11	--	--
		1	raycap	TME-DC6-48-60-18-8F		
		1	tower mounts	Pipe Mount [PM 601-3]		
138.0	143.0	1	andrew	VHLP2-18	2 3 1	1/2 1-1/4 1-5/8
		1	andrew	VHLP2-23		
		1	clearwire	CW JUNCTION BOX		
		2	dragonwave	HORIZON COMPACT		
	140.0	3	alcatel lucent	PCS 1900MHZ 4X45W-65MHZ		
		6	alcatel lucent	RRH2X50-800		
		3	commscope	NNVV-65B-R4 w/ Mount Pipe		
		3	nokia	AAHC w/ Mount Pipe		
	138.0	1	tower mounts	Miscellaneous [NA 509-3]		
		1	tower mounts	Platform Mount [LP 301-1]		
120.0	120.0	3	ericsson	AIR -32 B2A/B66AA	1 8	1-1/2 1-5/8
		3	ericsson	AIR 21 B2A/B4P		
		3	ericsson	KRY 112 144/1		
		3	ericsson	RADIO 4449 B12/B71		
		3	rfs celwave	APXVAARR24_43-U-NA20		
		1	tower mounts	Miscellaneous [NA 509-3]		
		1	tower mounts	Platform Mount [LP 301-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	FDH, 08-09065E G1, 09/23/2008	5110784	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	FDH, 08-09065E NA, 09/23/2008 (Mapping)	5110783	CCISITES
4-TOWER MANUFACTURER DRAWINGS	GPD, 2014777.841288.02, 04/11/2008 (Mapping)	4710143	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD, 2013801.02, 04/03/2013	4945043	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD, 2008264.38, 10/16/2008	5237204	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 25567.42283, 10/22/2014	5401472	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD, 2014777.814288.03, 09/19/2014	5303781	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 25567_26102, 06/05/2015	5739992	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD, 2017777.84128807, 01/09/2017	6650617	CCISITES
4-POST-MODIFICATION INSPECTION	Crown Castle, 841288, 05/31/2017	6894091	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	PJF, 37517-0750.003.7700, 03/31/2017	6801057	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 25567.87194, 06/08/2018	7594134	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.5.0), 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.

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

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 considered in this analysis. Grout must be maintained and inspected periodically and must be replaced if damaged or cracked. Refer to Crown Castle document ENG-PRC-10012, Base Plate Grout Repair.
5) The monopole manufacturer drawings are not available at the time of this analysis. Therefore, we have assumed the steel yield strength(s) (Fy) as per the following:
   Anchor rods: ASTM A615 (Fu = 100 ksi, Fy = 75 ksi)
   Pole Shaft: ASTM A572/A607 Gr 50
   Base Plate: ASTM A572 Gr 50
6) Monopole was modified in conformance with the referenced modification drawings.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP15.732x15x0.2188	Pole	21.7%	Pass
145 - 140	Pole	TP16.463x15.732x0.2188	Pole	34.5%	Pass
140 - 135	Pole	TP17.195x16.463x0.2188	Pole	52.3%	Pass
135 - 130	Pole	TP17.927x17.195x0.2188	Pole	68.5%	Pass
130 - 128.5	Pole	TP18.146x17.927x0.2188	Pole	72.9%	Pass
128.5 - 128.25	Pole + Reinf.	TP18.183x18.146x0.6688	Reinf. 12 Tension Rupture	36.7%	Pass
128.25 - 123.25	Pole + Reinf.	TP18.915x18.183x0.6438	Reinf. 12 Tension Rupture	44.7%	Pass
123.25 - 118.25	Pole + Reinf.	TP19.646x18.915x0.6188	Reinf. 12 Tension Rupture	53.7%	Pass
118.25 - 113.25	Pole + Reinf.	TP20.378x19.646x0.6063	Reinf. 12 Tension Rupture	64.0%	Pass
113.25 - 109	Pole + Reinf.	TP21x20.378x0.5938	Reinf. 12 Tension Rupture	72.5%	Pass
109 - 108.75	Pole + Reinf.	TP21.038x21x0.725	Reinf. 7 Tension Rupture	55.3%	Pass
108.75 - 104.17	Pole + Reinf.	TP21.729x21.038x0.7	Reinf. 7 Tension Rupture	62.3%	Pass
104.17 - 103.92	Pole + Reinf.	TP21.767x21.729x0.975	Reinf. 7 Tension Rupture	55.9%	Pass
103.92 - 103.17	Pole + Reinf.	TP21.88x21.767x0.95	Reinf. 7 Tension Rupture	56.9%	Pass
103.17 - 102.92	Pole + Reinf.	TP21.918x21.88x1.125	Reinf. 7 Tension Rupture	46.4%	Pass
102.92 - 102.42	Pole + Reinf.	TP21.994x21.918x1.1	Reinf. 7 Tension Rupture	47.0%	Pass
102.42 - 102.17	Pole + Reinf.	TP22.031x21.994x0.925	Reinf. 7 Tension Rupture	51.7%	Pass
102.17 - 100.92	Pole + Reinf.	TP22.22x22.031x0.925	Reinf. 7 Tension Rupture	53.2%	Pass
100.92 - 100.67	Pole + Reinf.	TP22.258x22.22x1	Reinf. 7 Tension Rupture	52.1%	Pass
100.67 - 99.58	Pole + Reinf.	TP22.422x22.258x1	Reinf. 7 Tension Rupture	53.3%	Pass
99.58 - 99.33	Pole + Reinf.	TP22.46x22.422x1.375	Reinf. 17 Tension Rupture	38.3%	Pass
99.33 - 95.25	Pole + Reinf.	TP23.076x22.46x1.325	Reinf. 17 Tension Rupture	42.4%	Pass
95.25 - 95	Pole + Reinf.	TP23.114x23.076x1.025	Reinf. 18 Tension Rupture	52.4%	Pass
95 - 90	Pole + Reinf.	TP23.869x23.114x1	Reinf. 18 Tension Rupture	58.1%	Pass
90 - 85	Pole + Reinf.	TP24.624x23.869x0.9625	Reinf. 18 Tension Rupture	63.5%	Pass
85 - 80.5	Pole + Reinf.	TP25.304x24.624x0.925	Reinf. 18 Tension Rupture	68.2%	Pass
80.5 - 80.25	Pole + Reinf.	TP25.341x25.304x1.3	Reinf. 6 Tension Rupture	56.6%	Pass
80.25 - 75.25	Pole + Reinf.	TP26.096x25.341x1.25	Reinf. 6 Tension Rupture	60.9%	Pass
75.25 - 73.58	Pole + Reinf.	TP26.348x26.096x1.225	Reinf. 6 Tension Rupture	62.4%	Pass
73.58 - 73.33	Pole + Reinf.	TP26.386x26.348x1.225	Reinf. 6 Tension Rupture	62.6%	Pass
73.33 - 72	Pole + Reinf.	TP27.04x26.386x1.2	Reinf. 6 Tension Rupture	63.7%	Pass
72 - 67	Pole + Reinf.	TP26.897x26.087x1.2625	Reinf. 6 Tension Rupture	65.5%	Pass
67 - 66.75	Pole + Reinf.	TP26.937x26.897x1.2625	Reinf. 6 Tension Rupture	65.7%	Pass
66.75 - 66.5	Pole + Reinf.	TP26.978x26.937x1.3625	Reinf. 5 Tension Rupture	57.2%	Pass
66.5 - 61.5	Pole + Reinf.	TP27.788x26.978x1.3125	Reinf. 5 Tension Rupture	60.3%	Pass
61.5 - 56.5	Pole + Reinf.	TP28.598x27.788x1.2625	Reinf. 5 Tension Rupture	63.4%	Pass
56.5 - 51.5	Pole + Reinf.	TP29.408x28.598x1.2375	Reinf. 5 Tension Rupture	66.4%	Pass
51.5 - 48.25	Pole + Reinf.	TP29.934x29.408x1.2125	Reinf. 5 Tension Rupture	68.2%	Pass
48.25 - 48	Pole + Reinf.	TP29.974x29.934x1.6375	Reinf. 2 Connection	59.9%	Pass
48 - 44.25	Pole + Reinf.	TP30.582x29.974x1.6125	Reinf. 2 Compression	61.7%	Pass
44.25 - 44	Pole + Reinf.	TP30.622x30.582x1.7125	Reinf. 2 Compression	58.3%	Pass
44 - 43.08	Pole + Reinf.	TP30.771x30.622x1.7125	Reinf. 2 Compression	58.7%	Pass
43.08 - 42.83	Pole + Reinf.	TP30.812x30.771x1.7125	Reinf. 2 Compression	58.8%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
42.83 - 37.83	Pole + Reinf.	TP31.622x30.812x1.6375	Reinf. 2 Compression	61.0%	Pass
37.83 - 34	Pole + Reinf.	TP32.89x31.622x1.6125	Reinf. 2 Compression	62.7%	Pass
34 - 29	Pole + Reinf.	TP32.462x31.617x1.7063	Reinf. 2 Compression	62.3%	Pass
29 - 24	Pole + Reinf.	TP33.306x32.462x1.6563	Reinf. 2 Compression	64.0%	Pass
24 - 23.75	Pole + Reinf.	TP33.348x33.306x1.6563	Reinf. 2 Compression	64.1%	Pass
23.75 - 23.5	Pole + Reinf.	TP33.391x33.348x1.6563	Reinf. 2 Compression	64.2%	Pass
23.5 - 18.5	Pole + Reinf.	TP34.235x33.391x1.6063	Reinf. 2 Compression	65.8%	Pass
18.5 - 13.5	Pole + Reinf.	TP35.08x34.235x1.5563	Reinf. 2 Compression	67.4%	Pass
13.5 - 11	Pole + Reinf.	TP35.502x35.08x1.5313	Reinf. 2 Connection	68.1%	Pass
11 - 10.75	Pole + Reinf.	TP35.544x35.502x1.2313	Reinf. 3 Tension Rupture	64.9%	Pass
10.75 - 6	Pole + Reinf.	TP36.347x35.544x1.2563	Reinf. 3 Tension Rupture	66.4%	Pass
6 - 5.75	Pole + Reinf.	TP36.389x36.347x1.5313	Reinf. 3 Tension Rupture	57.4%	Pass
5.75 - 3.25	Pole + Reinf.	TP36.811x36.389x1.5063	Reinf. 3 Tension Rupture	58.1%	Pass
3.25 - 3	Pole + Reinf.	TP36.853x36.811x1.1563	Reinf. 20 Compression	73.2%	Pass
3 - 0	Pole + Reinf.	TP37.36x36.853x1.1313	Reinf. 20 Compression	74.1%	Pass
				Summary	
			Pole	72.9%	Pass
			Reinforcement	74.1%	Pass
			Overall	74.1%	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Connection	109	74.7	Pass
1	Anchor Rods	0	86.3	Pass
1	Base Plate	0	55.9	Pass
1	Base Foundation Structural Steel	0	51.2	Pass
1	Base Foundation Soil Interaction	0	64.1	Pass

Structure Rating (max from all components) =	86.3%

Notes:

- All structural ratings are per TIA-222-H Section 15.5

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

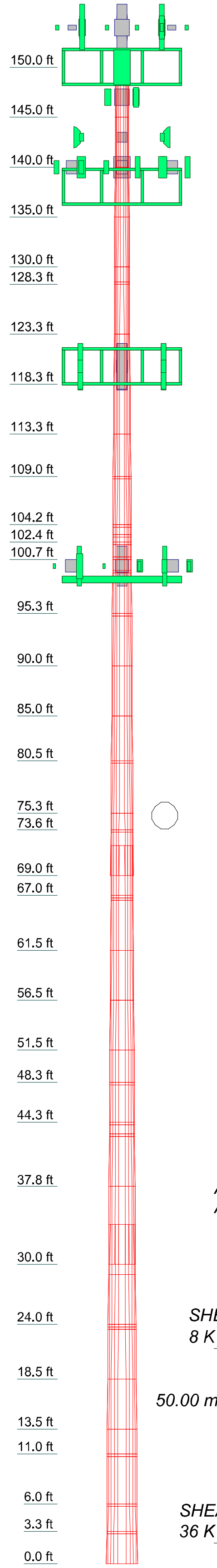
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.0000	12	0.2188		15.0000	15.7317		0.2
2	5.0000	12	0.2188		15.7317	16.4634		0.2
3	5.0000	12	0.2188		16.4634	17.1951		0.2
4	[illegible]	12	[illegible]		[illegible]	[illegible]		0.2
5–6	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
7	[illegible]	12	[illegible]		[illegible]	[illegible]		0.6
8	5.0000	12	0.6188		18.9146	19.6463		0.6
9	5.0000	12	0.6062		19.6463	20.3780		0.6
10–23	[illegible]	12	[illegible]		[illegible]	[illegible]		[illegible]
24	[illegible]	12	[illegible]		[illegible]	23.8690		1.0
25	5.0000	12	0.9625		23.8690	24.6240		1.0
26–34	[illegible]	12	[illegible]	3.0000	[illegible]	[illegible]	A572-50	[illegible]
35	[illegible]	12	[illegible]		[illegible]	27.7877		1.6
36	5.0000	12	1.2625		27.7877	28.5976		1.6
37	5.0000	12	1.2375		28.5976	29.4075		1.6
38–44	[illegible]	12	[illegible]		[illegible]	[illegible]		[illegible]
45	[illegible]	12	1.6125	4.0000	31.6217	32.8900		3.4
46–50	[illegible]	12	[illegible]		[illegible]	34.2352		2.3
51	5.0000	12	1.5563		34.2352	35.0797		2.3
52–58	[illegible]	12	[illegible]		[illegible]	[illegible]		[illegible]
								42.7



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 125.00 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50.00 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.0000 ft
8. TIA-222-H Annex S

ALL REACTIONS ARE FACTORED

AXIAL 113 K
SHEAR 8 K
MOMENT 872 kip-ft
TORQUE 1 kip-ft
50.00 mph WIND - 1.5000 in ICE

AXIAL 71 K
SHEAR 36 K
MOMENT 3620 kip-ft
TORQUE 2 kip-ft
REACTIONS - 125.00 mph WIND

Paul J. Ford and Company
250 E. Broad St., Ste 600
Columbus, OH 43215
Phone: 614-221-6679
FAX:

Job:	**150' Monopole | Bridgeport, CT**
Project:	**PJF# 37519-1756 | BU 841288 |**
Client: Crown Castle	Drawn by: Grant Austin | App'd:
Code: TIA-222-H	Date: 10/09/19 | Scale: NTS
Path:	Dwg No. E-1

Tower Input Data

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

1) Tower is located in Fairfield County, Connecticut.
2) Tower base elevation above sea level: 240.0000 ft.
3) Basic wind speed of 125.00 mph.
4) Risk Category II.
5) Exposure Category B.
6) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
7) Topographic Category: 1.
8) Crest Height: 0.0000 ft.
9) Nominal ice thickness of 1.5000 in.
10) Ice thickness is considered to increase with height.
11) Ice density of 56.00 pcf.
12) A wind speed of 50.00 mph is used in combination with ice.
13) Temperature drop of 50.00 °F.
14) Deflections calculated using a wind speed of 60.00 mph.
15) TIA-222-H Annex S.
16) A non-linear (P-delta) analysis was used.
17) Pressures are calculated at each section.
18) Stress ratio used in pole design is 1.05.
19) Tower analysis based on target reliabilities in accordance with Annex S.
20) Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
21) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

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	150.0000-145.0000	5.0000	0.00	12	15.0000	15.7317	0.2188	0.8750	A572-50 (50 ksi)
L2	145.0000-140.0000	5.0000	0.00	12	15.7317	16.4634	0.2188	0.8750	A572-50 (50 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
L3	140.0000-135.0000	5.0000	0.00	12	16.4634	17.1951	0.2188	0.8750	A572-50 (50 ksi)
L4	135.0000-130.0000	5.0000	0.00	12	17.1951	17.9268	0.2188	0.8750	A572-50 (50 ksi)
L5	130.0000-128.5000	1.5000	0.00	12	17.9268	18.1463	0.2188	0.8750	A572-50 (50 ksi)
L6	128.5000-128.2500	0.2500	0.00	12	18.1463	18.1829	0.6687	2.6750	A572-50 (50 ksi)
L7	128.2500-123.2500	5.0000	0.00	12	18.1829	18.9146	0.6438	2.5750	A572-50 (50 ksi)
L8	123.2500-118.2500	5.0000	0.00	12	18.9146	19.6463	0.6188	2.4750	A572-50 (50 ksi)
L9	118.2500-113.2500	5.0000	0.00	12	19.6463	20.3780	0.6062	2.4250	A572-50 (50 ksi)
L10	113.2500-109.0000	4.2500	0.00	12	20.3780	21.0000	0.5938	2.3750	A572-50 (50 ksi)
L11	109.0000-108.7500	0.2500	0.00	12	21.0000	21.0377	0.7250	2.9000	A572-50 (50 ksi)
L12	108.7500-104.1700	4.5800	0.00	12	21.0377	21.7293	0.7000	2.8000	A572-50 (50 ksi)
L13	104.1700-103.9200	0.2500	0.00	12	21.7293	21.7671	0.9750	3.9000	A572-50 (50 ksi)
L14	103.9200-103.1700	0.7500	0.00	12	21.7671	21.8803	0.9500	3.8000	A572-50 (50 ksi)
L15	103.1700-102.9200	0.2500	0.00	12	21.8803	21.9181	1.1250	4.5000	A572-50 (50 ksi)
L16	102.9200-102.4200	0.5000	0.00	12	21.9181	21.9936	1.1000	4.4000	A572-50 (50 ksi)
L17	102.4200-102.1700	0.2500	0.00	12	21.9936	22.0313	0.9250	3.7000	A572-50 (50 ksi)
L18	102.1700-100.9200	1.2500	0.00	12	22.0313	22.2201	0.9250	3.7000	A572-50 (50 ksi)
L19	100.9200-100.6700	0.2500	0.00	12	22.2201	22.2578	1.0000	4.0000	A572-50 (50 ksi)
L20	100.6700-99.5800	1.0900	0.00	12	22.2578	22.4224	1.0000	4.0000	A572-50 (50 ksi)
L21	99.5800-99.3300	0.2500	0.00	12	22.4224	22.4602	1.3750	5.5000	A572-50 (50 ksi)
L22	99.3300-95.2500	4.0800	0.00	12	22.4602	23.0763	1.3250	5.3000	A572-50 (50 ksi)
L23	95.2500-95.0000	0.2500	0.00	12	23.0763	23.1140	1.0250	4.1000	A572-50 (50 ksi)
L24	95.0000-90.0000	5.0000	0.00	12	23.1140	23.8690	1.0000	4.0000	A572-50 (50 ksi)
L25	90.0000-85.0000	5.0000	0.00	12	23.8690	24.6240	0.9625	3.8500	A572-50 (50 ksi)
L26	85.0000-80.5000	4.5000	0.00	12	24.6240	25.3035	0.9250	3.7000	A572-50 (50 ksi)
L27	80.5000-80.2500	0.2500	0.00	12	25.3035	25.3412	1.3000	5.2000	A572-50 (50 ksi)
L28	80.2500-75.2500	5.0000	0.00	12	25.3412	26.0963	1.2500	5.0000	A572-50 (50 ksi)
L29	75.2500-73.5800	1.6700	0.00	12	26.0963	26.3484	1.2250	4.9000	A572-50 (50 ksi)
L30	73.5800-73.3300	0.2500	0.00	12	26.3484	26.3862	1.2250	4.9000	A572-50 (50 ksi)
L31	73.3300-69.0000	4.3300	3.00	12	26.3862	27.0400	1.2000	4.8000	A572-50 (50 ksi)
L32	69.0000-67.0000	5.0000	0.00	12	26.0870	26.8969	1.2625	5.0500	A572-50 (50 ksi)
L33	67.0000-66.7500	0.2500	0.00	12	26.8969	26.9374	1.2625	5.0500	A572-50 (50 ksi)
L34	66.7500-66.5000	0.2500	0.00	12	26.9374	26.9779	1.3625	5.4500	A572-50 (50 ksi)
L35	66.5000-61.5000	5.0000	0.00	12	26.9779	27.7877	1.3125	5.2500	A572-50 (50 ksi)
L36	61.5000-56.5000	5.0000	0.00	12	27.7877	28.5976	1.2625	5.0500	A572-50 (50 ksi)
L37	56.5000-	5.0000	0.00	12	28.5976	29.4075	1.2375	4.9500	A572-50

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
	51.5000								(50 ksi)
L38	51.5000-48.2500	3.2500	0.00	12	29.4075	29.9339	1.2125	4.8500	A572-50 (50 ksi)
L39	48.2500-48.0000	0.2500	0.00	12	29.9339	29.9744	1.6375	6.5500	A572-50 (50 ksi)
L40	48.0000-44.2500	3.7500	0.00	12	29.9744	30.5818	1.6125	6.4500	A572-50 (50 ksi)
L41	44.2500-44.0000	0.2500	0.00	12	30.5818	30.6223	1.7125	6.8500	A572-50 (50 ksi)
L42	44.0000-43.0800	0.9200	0.00	12	30.6223	30.7714	1.7125	6.8500	A572-50 (50 ksi)
L43	43.0800-42.8300	0.2500	0.00	12	30.7714	30.8118	1.7125	6.8500	A572-50 (50 ksi)
L44	42.8300-37.8300	5.0000	0.00	12	30.8118	31.6217	1.6375	6.5500	A572-50 (50 ksi)
L45	37.8300-30.0000	7.8300	4.00	12	31.6217	32.8900	1.6125	6.4500	A572-50 (50 ksi)
L46	30.0000-29.0000	5.0000	0.00	12	31.6171	32.4616	1.7063	6.8252	A572-50 (50 ksi)
L47	29.0000-24.0000	5.0000	0.00	12	32.4616	33.3062	1.6563	6.6252	A572-50 (50 ksi)
L48	24.0000-23.7500	0.2500	0.00	12	33.3062	33.3484	1.6563	6.6252	A572-50 (50 ksi)
L49	23.7500-23.5000	0.2500	0.00	12	33.3484	33.3906	1.6563	6.6252	A572-50 (50 ksi)
L50	23.5000-18.5000	5.0000	0.00	12	33.3906	34.2352	1.6063	6.4252	A572-50 (50 ksi)
L51	18.5000-13.5000	5.0000	0.00	12	34.2352	35.0797	1.5563	6.2252	A572-50 (50 ksi)
L52	13.5000-11.0000	2.5000	0.00	12	35.0797	35.5020	1.5313	6.1252	A572-50 (50 ksi)
L53	11.0000-10.7500	0.2500	0.00	12	35.5020	35.5442	1.2313	4.9252	A572-50 (50 ksi)
L54	10.7500-6.0000	4.7500	0.00	12	35.5442	36.3465	1.2563	5.0252	A572-50 (50 ksi)
L55	6.0000-5.7500	0.2500	0.00	12	36.3465	36.3888	1.5313	6.1252	A572-50 (50 ksi)
L56	5.7500-3.2500	2.5000	0.00	12	36.3888	36.8110	1.5063	6.0252	A572-50 (50 ksi)
L57	3.2500-3.0000	0.2500	0.00	12	36.8110	36.8533	1.1563	4.6252	A572-50 (50 ksi)
L58	3.0000-0.0000	3.0000		12	36.8533	37.3600	1.1313	4.5252	A572-50 (50 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	15.4520	10.4115	290.3510	5.2917	7.7700	37.3682	588.3299	5.1242	3.4337	15.697
	16.2095	10.9269	335.6400	5.5536	8.1490	41.1877	680.0975	5.3779	3.6298	16.594
L2	16.2095	10.9269	335.6400	5.5536	8.1490	41.1877	680.0975	5.3779	3.6298	16.594
	16.9670	11.4423	385.4093	5.8156	8.5280	45.1931	780.9437	5.6316	3.8259	17.49
L3	16.9670	11.4423	385.4093	5.8156	8.5280	45.1931	780.9437	5.6316	3.8259	17.49
	17.7245	11.9577	439.8702	6.0775	8.9071	49.3844	891.2963	5.8852	4.0220	18.386
L4	17.7245	11.9577	439.8702	6.0775	8.9071	49.3844	891.2963	5.8852	4.0220	18.386
	18.4821	12.4731	499.2341	6.3395	9.2861	53.7615	1011.5836	6.1389	4.2181	19.283
L5	18.4821	12.4731	499.2341	6.3395	9.2861	53.7615	1011.5836	6.1389	4.2181	19.283
	18.7093	12.6277	518.0309	6.4181	9.3998	55.1108	1049.6711	6.2150	4.2770	19.552
L6	18.5506	37.6358	1467.4061	6.2570	9.3998	156.1103	2973.3627	18.5232	3.0710	4.592
	18.5884	37.7146	1476.6407	6.2701	9.4188	156.7766	2992.0743	18.5620	3.0808	4.607
L7	18.5973	36.3565	1427.5348	6.2790	9.4188	151.5630	2892.5725	17.8936	3.1478	4.89
	19.3548	37.8733	1613.7555	6.5410	9.7978	164.7062	3269.9062	18.6401	3.3439	5.194
L8	19.3636	36.4523	1557.4612	6.5499	9.7978	158.9606	3155.8386	17.9407	3.4109	5.513
	20.1211	37.9101	1751.8965	6.8119	10.1768	172.1460	3549.8174	18.6582	3.6070	5.829
L9	20.1255	37.1686	1719.8898	6.8164	10.1768	169.0010	3484.9631	18.2933	3.6405	6.005
	20.8830	38.5970	1925.8929	7.0783	10.5558	182.4483	3902.3812	18.9963	3.8366	6.328
L10	20.8875	37.8251	1889.7635	7.0828	10.5558	179.0256	3829.1731	18.6164	3.8701	6.518

Section	Tip Dia. in	Area in²	I in⁴	r in	C in	I/C in³	J in⁴	It/Q in²	w in	w/t
	21.5313	39.0142	2073.6481	7.3054	10.8780	190.6277	4201.7732	19.2016	4.0367	6.799
L11	21.4850	47.3320	2483.4900	7.2584	10.8780	228.3039	5032.2241	23.2954	3.6850	5.083
	21.5241	47.4201	2497.3879	7.2720	10.8976	229.1696	5060.3849	23.3387	3.6951	5.097
L12	21.5329	45.8413	2420.1851	7.2809	10.8976	222.0852	4903.9511	22.5617	3.7621	5.374
	22.2489	47.4001	2675.5691	7.5285	11.2558	237.7060	5421.4284	23.3289	3.9475	5.639
L13	22.1519	65.1582	3582.3878	7.4301	11.2558	318.2706	7258.8888	32.0689	3.2105	3.293
	22.1910	65.2767	3601.9713	7.4436	11.2753	319.4555	7298.5704	32.1272	3.2206	3.303
L14	22.1998	63.6794	3522.2880	7.4525	11.2753	312.3884	7137.1104	31.3411	3.2876	3.461
	22.3171	64.0259	3580.0876	7.4931	11.3340	315.8712	7254.2281	31.5116	3.3179	3.493
L15	22.2553	75.1862	4134.1218	7.4304	11.3340	364.7536	8376.8517	37.0044	2.8489	2.532
	22.2944	75.3229	4156.7204	7.4439	11.3536	366.1159	8422.6426	37.0717	2.8590	2.541
L16	22.3032	73.7376	4079.0265	7.4529	11.3536	359.2727	8265.2136	36.2914	2.9260	2.66
	22.3814	74.0051	4123.5673	7.4799	11.3927	361.9490	8355.4653	36.4230	2.9463	2.678
L17	22.4431	62.7528	3555.4072	7.5426	11.3927	312.0784	7204.2190	30.8850	3.4153	3.692
	22.4822	62.8652	3574.5529	7.5561	11.4122	313.2213	7243.0133	30.9403	3.4254	3.703
L18	22.4822	62.8652	3574.5529	7.5561	11.4122	313.2213	7243.0133	30.9403	3.4254	3.703
	22.6776	63.4274	3671.3127	7.6236	11.5100	318.9672	7439.0750	31.2170	3.4760	3.758
L19	22.6512	68.3287	3927.1987	7.5968	11.5100	341.1988	7957.5692	33.6293	3.2750	3.275
	22.6902	68.4502	3948.1952	7.6103	11.5296	342.4412	8000.1138	33.6891	3.2851	3.285
L20	22.6902	68.4502	3948.1952	7.6103	11.5296	342.4412	8000.1138	33.6891	3.2851	3.285
	22.8606	68.9802	4040.6144	7.6692	11.6148	347.8846	8187.3803	33.9500	3.3292	3.329
L21	22.7283	93.1875	5269.1568	7.5350	11.6148	453.6583	10676.7402	45.8640	2.3242	1.69
	22.7674	93.3546	5297.5595	7.5485	11.6344	455.3371	10734.2917	45.9463	2.3343	1.698
L22	22.7851	90.1732	5141.3236	7.5664	11.6344	441.9083	10417.7154	44.3805	2.4683	1.863
	23.4229	92.8017	5604.1579	7.7869	11.9535	468.8300	11355.5432	45.6742	2.6334	1.987
L23	23.5287	72.7802	4517.1585	7.8943	11.9535	377.8943	9152.9877	35.8202	3.4374	3.354
	23.5678	72.9047	4540.3973	7.9079	11.9731	379.2180	9200.0758	35.8815	3.4476	3.363
L24	23.5766	71.2071	4444.7131	7.9168	11.9731	371.2264	9006.1939	35.0460	3.5146	3.515
	24.3582	73.6382	4915.6771	8.1871	12.3641	397.5753	9960.4945	36.2425	3.7169	3.717
L25	24.3715	70.9930	4754.6524	8.2005	12.3641	384.5517	9634.2147	34.9406	3.8174	3.966
	25.1531	73.3329	5240.4596	8.4708	12.7552	410.8478	10618.5919	36.0922	4.0197	4.176
L26	25.1663	70.5875	5060.2692	8.4842	12.7552	396.7211	10253.4772	34.7410	4.1202	4.454
	25.8698	72.6114	5508.1340	8.7275	13.1072	420.2369	11160.9728	35.7371	4.3023	4.651
L27	25.7375	100.4787	7389.3951	8.5933	13.1072	563.7655	14972.9179	49.4525	3.2973	2.536
	25.7766	100.6367	7424.3136	8.6068	13.1268	565.5858	15043.6722	49.5303	3.3075	2.544
L28	25.7942	96.9673	7183.3965	8.6247	13.1268	547.2327	14555.5088	47.7243	3.4415	2.753
	26.5759	100.0062	7880.1482	8.8950	13.5179	582.9436	15967.3167	49.2200	3.6438	2.915
L29	26.5847	98.1046	7745.8797	8.9039	13.5179	573.0109	15695.2523	48.2841	3.7108	3.029
	26.8458	99.0993	7983.8834	8.9942	13.6485	584.9650	16177.5123	48.7737	3.7784	3.084
L30	26.8458	99.0993	7983.8834	8.9942	13.6485	584.9650	16177.5123	48.7737	3.7784	3.084
	26.8848	99.2482	8019.9268	9.0077	13.6680	586.7651	16250.5461	48.8470	3.7885	3.093
L31	26.8937	97.3194	7879.6959	9.0166	13.6680	576.5054	15966.4003	47.8976	3.8555	3.213
	27.5706	99.8458	8509.4325	9.2507	14.0067	607.5250	17242.4172	49.1410	4.0307	3.359
L32	27.0650	100.9178	7938.0666	8.8872	13.5131	587.4364	16084.6751	49.6687	3.6078	2.858
	27.4003	104.2102	8740.6094	9.1771	13.9326	627.3502	17710.8444	51.2891	3.8249	3.03
L33	27.4003	104.2102	8740.6094	9.1771	13.9326	627.3502	17710.8444	51.2891	3.8249	3.03
	27.4423	104.3748	8782.0969	9.1916	13.9536	629.3804	17794.9092	51.3701	3.8357	3.038
L34	27.4070	112.2034	9367.3963	9.1558	13.9536	671.3266	18980.8844	55.2231	3.5677	2.619

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
	27.4489	112.3810	9411.9624	9.1703	13.9745	673.5080	19071.1875	55.3105	3.5786	2.626
L35	27.4665	108.4683	9119.7655	9.1882	13.9745	652.5988	18479.1174	53.3848	3.7126	2.829
	28.3050	111.8910	10010.6285	9.4781	14.3941	695.4697	20284.2473	55.0694	3.9296	2.994
L36	28.3226	107.8318	9683.9305	9.4960	14.3941	672.7730	19622.2687	53.0715	4.0636	3.219
	29.1611	111.1241	10598.3117	9.7860	14.8136	715.4460	21475.0528	54.6919	4.2807	3.391
L37	29.1699	109.0233	10416.9732	9.7949	14.8136	703.2046	21107.6119	53.6579	4.3477	3.513
	30.0084	112.2505	11369.6770	10.0849	15.2331	746.3802	23038.0480	55.2463	4.5647	3.689
L38	30.0172	110.0804	11169.6720	10.0938	15.2331	733.2505	22632.7837	54.1782	4.6317	3.82
	30.5622	112.1357	11807.0655	10.2823	15.5058	761.4623	23924.3158	55.1898	4.7728	3.936
L39	30.4122	149.2000	15248.1902	10.1301	15.5058	983.3876	30896.9673	73.4317	3.6338	2.219
	30.4542	149.4135	15313.7473	10.1446	15.5268	986.2813	31029.8038	73.5368	3.6446	2.226
L40	30.4630	147.2622	15119.8973	10.1536	15.5268	973.7964	30637.0112	72.4780	3.7116	2.302
	31.0918	150.4161	16112.2912	10.3710	15.8414	1017.1007	32647.8703	74.0302	3.8744	2.403
L41	31.0565	159.1928	16934.9112	10.3352	15.8414	1069.0292	34314.7213	78.3498	3.6064	2.106
	31.0985	159.4160	17006.2732	10.3497	15.8624	1072.1144	34459.3201	78.4597	3.6173	2.112
L42	31.0985	159.4160	17006.2732	10.3497	15.8624	1072.1144	34459.3201	78.4597	3.6173	2.112
	31.2527	160.2378	17270.6116	10.4031	15.9396	1083.5062	34994.9413	78.8642	3.6572	2.136
L43	31.2527	160.2378	17270.6116	10.4031	15.9396	1083.5062	34994.9413	78.8642	3.6572	2.136
	31.2947	160.4611	17342.9129	10.4176	15.9605	1086.6122	35141.4434	78.9741	3.6681	2.142
L44	31.3211	153.8290	16711.9248	10.4444	15.9605	1047.0779	33862.8905	75.7100	3.8691	2.363
	32.1596	158.0993	18142.6891	10.7344	16.3801	1107.6086	36762.0068	77.8117	4.0861	2.495
L45	32.1684	155.8154	17910.4265	10.7433	16.3801	1093.4290	36291.3799	76.6876	4.1531	2.576
	33.4814	162.4006	20278.5848	11.1973	17.0370	1190.2660	41089.9106	79.9286	4.4930	2.786
L46	32.8300	164.3385	18766.4049	10.7081	16.3777	1145.8542	38025.8241	80.8824	3.9005	2.286
	33.0048	168.9786	20401.3455	11.0104	16.8151	1213.2732	41338.6570	83.1661	4.1268	2.419
L47	33.0225	164.2937	19900.2642	11.0283	16.8151	1183.4737	40323.3306	80.8604	4.2608	2.573
	33.8968	168.7979	21582.2755	11.3307	17.2526	1250.9576	43731.5415	83.0772	4.4872	2.709
L48	33.8968	168.7979	21582.2755	11.3307	17.2526	1250.9576	43731.5415	83.0772	4.4872	2.709
	33.9405	169.0231	21668.7755	11.3458	17.2745	1254.3810	43906.8138	83.1880	4.4985	2.716
L49	33.9405	169.0231	21668.7755	11.3458	17.2745	1254.3810	43906.8138	83.1880	4.4985	2.716
	33.9843	169.2483	21755.5063	11.3609	17.2964	1257.8090	44082.5539	83.2989	4.5098	2.723
L50	34.0019	164.3977	21198.6417	11.3788	17.2964	1225.6135	42954.1952	80.9115	4.6438	2.891
	34.8762	168.7659	22933.7535	11.6811	17.7338	1293.2209	46470.0023	83.0615	4.8701	3.032
L51	34.8939	163.7632	22322.1894	11.6990	17.7338	1258.7352	45230.8077	80.5993	5.0041	3.215
	35.7682	167.9955	24097.9691	12.0014	18.1713	1326.1555	48829.0187	82.6823	5.2305	3.361

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
L52	35.7770	165.4201	23763.9521	12.0103	18.1713	1307.7739	48152.2097	81.4148	5.2975	3.459
	36.2142	167.5023	24672.6405	12.1615	18.3900	1341.6309	49993.4587	82.4395	5.4107	3.533
L53	36.3200	135.8760	20369.2325	12.2689	18.3900	1107.6233	41273.5874	66.8740	6.2147	5.047
	36.3637	136.0434	20444.6216	12.2840	18.4119	1110.4020	41426.3461	66.9564	6.2260	5.056
L54	36.3549	138.7045	20814.1627	12.2751	18.4119	1130.4727	42175.1366	68.2661	6.1590	4.902
	37.1855	141.9501	22309.7354	12.5623	18.8275	1184.9541	45205.5725	69.8635	6.3740	5.074
L55	37.0885	171.6665	26558.9260	12.4639	18.8275	1410.6446	53815.5846	84.4890	5.6370	3.681
	37.1322	171.8747	26655.6823	12.4790	18.8494	1414.1407	54011.6390	84.5915	5.6483	3.689
L56	37.1411	169.1900	26276.9587	12.4879	18.8494	1394.0486	53244.2423	83.2702	5.7153	3.794
	37.5782	171.2381	27242.8521	12.6391	19.0681	1428.7119	55201.4042	84.2782	5.8285	3.869
L57	37.7017	132.7528	21540.9270	12.7644	19.0681	1129.6827	43647.7581	65.3369	6.7665	5.852
	37.7454	132.9100	21617.5524	12.7795	19.0900	1132.4022	43803.0219	65.4143	6.7778	5.862
L58	37.7542	130.1275	21194.6341	12.7885	19.0900	1110.2483	42946.0748	64.0448	6.8448	6.05
	38.2788	131.9734	22109.4460	12.9699	19.3525	1142.4606	44799.7318	64.9533	6.9806	6.17

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	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
L1 150.0000-145.0000				1	1	1			
L2 145.0000-140.0000				1	1	1			
L3 140.0000-135.0000				1	1	1			
L4 135.0000-130.0000				1	1	1			
L5 130.0000-128.5000				1	1	1			
L6 128.5000-128.2500				1	1	0.866566			
L7 128.2500-123.2500				1	1	0.876544			
L8 123.2500-118.2500				1	1	0.889288			
L9 118.2500-113.2500				1	1	0.886814			
L10 113.2500-109.0000				1	1	0.88856			
L11 109.0000-108.7500				1	1	0.880849			
L12 108.7500-104.1700				1	1	0.892966			
L13 104.1700-103.9200				1	1	0.971053			
L14 103.9200-103.1700				1	1	0.991449			
L15 103.1700-				1	1	0.982753			

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	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
102.9200									
L16				1	1	1.00107			
102.9200-									
102.4200									
L17				1	1	1.07939			
102.4200-									
102.1700									
L18				1	1	1.07222			
102.1700-									
100.9200									
L19				1	1	0.993983			
100.9200-									
100.6700									
L20				1	1	0.988267			
100.6700-									
99.5800									
L21 99.5800-				1	1	0.843197			
99.3300									
L22 99.3300-				1	1	0.853564			
95.2500									
L23 95.2500-				1	1	0.82938			
95.0000									
L24 95.0000-				1	1	0.829373			
90.0000									
L25 90.0000-				1	1	0.841113			
85.0000									
L26 85.0000-				1	1	0.857005			
80.5000									
L27 80.5000-				1	1	0.817668			
80.2500									
L28 80.2500-				1	1	0.8289			
75.2500									
L29 75.2500-				1	1	0.838534			
73.5800									
L30 73.5800-				1	1	0.837582			
73.3300									
L31 73.3300-				1	1	0.849073			
69.0000									
L32 69.0000-				1	1	0.852502			
67.0000									
L33 67.0000-				1	1	0.851548			
66.7500									
L34 66.7500-				1	1	0.8358			
66.5000									
L35 66.5000-				1	1	0.846744			
61.5000									
L36 61.5000-				1	1	0.859921			
56.5000									
L37 56.5000-				1	1	0.858553			
51.5000									
L38 51.5000-				1	1	0.864155			
48.2500									
L39 48.2500-				1	1	0.780428			
48.0000									
L40 48.0000-				1	1	0.77929			
44.2500									
L41 44.2500-				1	1	0.782664			
44.0000									
L42 44.0000-				1	1	0.779586			
43.0800									
L43 43.0800-				1	1	0.778755			
42.8300									
L44 42.8300-				1	1	0.795543			
37.8300									
L45 37.8300-				1	1	0.79478			
30.0000									
L46 30.0000-				1	1	0.806063			

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	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
29.0000									
L47 29.0000-24.0000				1	1	0.813472			
L48 24.0000-23.7500				1	1	0.812715			
L49 23.7500-23.5000				1	1	0.81196			
L50 23.5000-18.5000				1	1	0.820828			
L51 18.5000-13.5000				1	1	0.831169			
L52 13.5000-11.0000				1	1	0.836915			
L53 11.0000-10.7500				1	1	1.00049			
L54 10.7500-6.0000				1	1	0.966249			
L55 6.0000-5.7500				1	1	0.774305			
L56 5.7500-3.2500				1	1	0.78041			
L57 3.2500-3.0000				1	1	0.761			
L58 3.0000-0.0000				1	1	0.771424			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
2" flat Climb Ladder Rail *	C	No	Surface Af (CaAa)	150.0000 - 0.0000	1	1	0.000 0.000	2.0000	8.0000	1.65
HB114-21U3M12-XXXF(1-1/4)	B	No	Surface Ar (CaAa)	138.0000 - 0.0000	3	3	0.378 0.500	1.5400		1.22
HB158-21U6S12-60M-01(1-5/8) *	C	No	Surface Ar (CaAa)	138.0000 - 0.0000	1	1	-0.467 -0.467	1.9900		1.90
AL7-50(1-5/8)	C	No	Surface Ar (CaAa)	120.0000 - 0.0000	8	5	-0.250 -0.038	1.9600		0.52
MLC HYBRID 6x12 6AWGx6(1-1/2") *	C	No	Surface Ar (CaAa)	120.0000 - 0.0000	1	1	-0.051 -0.051	1.5300		0.59
LDF7-50A(1-5/8) ***	B	No	Surface Ar (CaAa)	99.0000 - 0.0000	3	2	0.277 0.362	1.9800		0.82
2.5" Solid Rod Reinforcing	C	No	Surface Ar (CaAa)	51.0000 - 0.0000	1	1	0.308 0.308	2.5000		0.00
2.5" Solid Rod Reinforcing	C	No	Surface Ar (CaAa)	51.0000 - 0.0000	1	1	-0.443 -0.443	2.5000		0.00
2.5" Solid Rod Reinforcing	B	No	Surface Ar (CaAa)	51.0000 - 0.0000	1	1	-0.193 -0.193	2.5000		0.00
2.5" Solid Rod Reinforcing *	A	No	Surface Ar (CaAa)	51.0000 - 0.0000	1	1	0.058 0.058	2.5000		0.00
CCI-065125 (L)	A	No	Surface Af (CaAa)	47.0000 - 0.0000	1	1	-0.443 -0.443	6.5000	15.5000	0.00
CCI-065125 (L)	C	No	Surface Af (CaAa)	47.0000 - 0.0000	1	1	-0.193 -0.193	6.5000	15.5000	0.00
CCI-065125 (L)	B	No	Surface Af (CaAa)	47.0000 - 0.0000	1	1	0.058 0.058	6.5000	15.5000	0.00
CCI-065125 (L)	A	No	Surface Af (CaAa)	47.0000 - 0.0000	1	1	0.308 0.308	6.5000	15.5000	0.00

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
CCI-050125 (W)	A	No	Surface Af (CaAa)	69.0000 - 47.0000	1	1	-0.443 -0.443	5.0000	12.5000	0.00
CCI-050125 (W)	C	No	Surface Af (CaAa)	69.0000 - 47.0000	1	1	-0.193 -0.193	5.0000	12.5000	0.00
CCI-050125 (W)	B	No	Surface Af (CaAa)	69.0000 - 47.0000	1	1	0.058 0.058	5.0000	12.5000	0.00
CCI-050125 (W)	A	No	Surface Af (CaAa)	69.0000 - 47.0000	1	1	0.308 0.308	5.0000	12.5000	0.00
CCI-040125 (L)	C	No	Surface Af (CaAa)	82.0000 - 66.5000	1	1	0.308 0.308	4.0000	10.5000	0.00
CCI-040125 (L)	C	No	Surface Af (CaAa)	82.0000 - 66.5000	1	1	-0.443 -0.443	4.0000	10.5000	0.00
CCI-040125 (L)	B	No	Surface Af (CaAa)	82.0000 - 66.5000	1	1	-0.193 -0.193	4.0000	10.5000	0.00
CCI-040125 (L)	A	No	Surface Af (CaAa)	82.0000 - 66.5000	1	1	0.058 0.058	4.0000	10.5000	0.00
CCI-050125 (W)	A	No	Surface Af (CaAa)	109.5000 - 93.5000	1	1	-0.443 -0.443	5.0000	12.5000	0.00
CCI-050125 (W)	C	No	Surface Af (CaAa)	109.5000 - 93.5000	1	1	-0.193 -0.193	5.0000	12.5000	0.00
CCI-050125 (W)	B	No	Surface Af (CaAa)	100.5000 - 93.5000	1	1	-0.193 -0.193	5.0000	12.5000	0.00
CCI-050125 (W)	B	No	Surface Af (CaAa)	109.5000 - 98.0000	1	1	0.058 0.058	5.0000	12.5000	0.00
CCI-050125 (W)	A	No	Surface Af (CaAa)	109.5000 - 98.0000	1	1	0.308 0.308	5.0000	12.5000	0.00
CCI-040125 (L)	A	No	Surface Af (CaAa)	130.0000 - 110.0000	1	1	-0.443 -0.443	4.0000	10.5000	0.00
CCI-040125 (L)	C	No	Surface Af (CaAa)	130.0000 - 110.0000	1	1	-0.193 -0.193	4.0000	10.5000	0.00
CCI-040125 (L)	B	No	Surface Af (CaAa)	130.0000 - 110.0000	1	1	0.058 0.058	4.0000	10.5000	0.00
CCI-040125 (L)	A	No	Surface Af (CaAa)	130.0000 - 110.0000	1	1	0.308 0.308	4.0000	10.5000	0.00
6x2	A	No	Surface Af (CaAa)	108.6670 - 3.5000	1	1	-0.193 -0.193	6.0000	16.0000	0.00
6x2	C	No	Surface Af (CaAa)	108.6670 - 8.5000	1	1	0.058 0.058	6.0000	16.0000	0.00
6x2	B	No	Surface Af (CaAa)	108.6670 - 3.5000	1	1	0.308 0.308	6.0000	16.0000	0.00
6x2	B	No	Surface Af (CaAa)	108.6670 - 8.5000	1	1	-0.443 -0.443	6.0000	16.0000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft²/ft	Weight plf
**********									
FXL-1873(1-5/8)	C	No	No	Inside Pole	150.0000 - 0.0000	12	No Ice	0.0000	0.67
							1/2" Ice	0.0000	0.67
							1" Ice	0.0000	0.67
							2" Ice	0.0000	0.67
FB-L98B-034-XXXXXX(3/8)	C	No	No	Inside Pole	150.0000 - 0.0000	2	No Ice	0.0000	0.05
							1/2" Ice	0.0000	0.05
							1" Ice	0.0000	0.05
							2" Ice	0.0000	0.05
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	150.0000 - 0.0000	4	No Ice	0.0000	0.58
							1/2" Ice	0.0000	0.58
							1" Ice	0.0000	0.58
							2" Ice	0.0000	0.58
2" (Nominal) Conduit	C	No	No	Inside Pole	150.0000 - 0.0000	2	No Ice	0.0000	0.72
							1/2" Ice	0.0000	0.72
							1" Ice	0.0000	0.72
							2" Ice	0.0000	0.72

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft²/ft	Weight plf
EC4-50(1/2")	C	No	No	Inside Pole	138.0000 - 0.0000	2	No Ice	0.0000	0.16
							1/2" Ice	0.0000	0.16
							1" Ice	0.0000	0.16
							2" Ice	0.0000	0.16
LDF7-50A(1-5/8)	C	No	No	Inside Pole	99.0000 - 0.0000	3	No Ice	0.0000	0.82
							1/2" Ice	0.0000	0.82
							1" Ice	0.0000	0.82
							2" Ice	0.0000	0.82
HB114-U6S12-XXX-LI(1-1/4)	C	No	No	Inside Pole	99.0000 - 0.0000	1	No Ice	0.0000	1.70
							1/2" Ice	0.0000	1.70
							1" Ice	0.0000	1.70
							2" Ice	0.0000	1.70

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L1	150.0000-145.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	1.667	0.000	0.07
L2	145.0000-140.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	1.667	0.000	0.07
L3	140.0000-135.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	1.386	0.000	0.01
		C	0.000	0.000	2.264	0.000	0.07
L4	135.0000-130.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	2.310	0.000	0.02
		C	0.000	0.000	2.662	0.000	0.08
L5	130.0000-128.5000	A	0.000	0.000	2.000	0.000	0.00
		B	0.000	0.000	1.693	0.000	0.01
		C	0.000	0.000	1.799	0.000	0.02
L6	128.5000-128.2500	A	0.000	0.000	0.333	0.000	0.00
		B	0.000	0.000	0.282	0.000	0.00
		C	0.000	0.000	0.300	0.000	0.00
L7	128.2500-123.2500	A	0.000	0.000	6.667	0.000	0.00
		B	0.000	0.000	5.643	0.000	0.02
		C	0.000	0.000	5.995	0.000	0.08
L8	123.2500-118.2500	A	0.000	0.000	6.667	0.000	0.00
		B	0.000	0.000	5.643	0.000	0.02
		C	0.000	0.000	7.978	0.000	0.09
L9	118.2500-113.2500	A	0.000	0.000	6.667	0.000	0.00
		B	0.000	0.000	5.643	0.000	0.02
		C	0.000	0.000	11.660	0.000	0.10
L10	113.2500-109.0000	A	0.000	0.000	5.167	0.000	0.00
		B	0.000	0.000	4.547	0.000	0.02
		C	0.000	0.000	9.661	0.000	0.09
L11	109.0000-108.7500	A	0.000	0.000	0.417	0.000	0.00
		B	0.000	0.000	0.324	0.000	0.00
		C	0.000	0.000	0.625	0.000	0.01
L12	108.7500-104.1700	A	0.000	0.000	12.130	0.000	0.00
		B	0.000	0.000	14.927	0.000	0.02
		C	0.000	0.000	15.941	0.000	0.09
L13	104.1700-103.9200	A	0.000	0.000	0.667	0.000	0.00
		B	0.000	0.000	0.824	0.000	0.00
		C	0.000	0.000	0.875	0.000	0.01
L14	103.9200-103.1700	A	0.000	0.000	2.000	0.000	0.00
		B	0.000	0.000	2.471	0.000	0.00
		C	0.000	0.000	2.624	0.000	0.02
L15	103.1700-102.9200	A	0.000	0.000	0.667	0.000	0.00
		B	0.000	0.000	0.824	0.000	0.00
		C	0.000	0.000	0.875	0.000	0.01
L16	102.9200-102.4200	A	0.000	0.000	1.333	0.000	0.00
		B	0.000	0.000	1.648	0.000	0.00
		C	0.000	0.000	1.749	0.000	0.01

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L17	102.4200-102.1700	A	0.000	0.000	0.667	0.000	0.00
		B	0.000	0.000	0.824	0.000	0.00
		C	0.000	0.000	0.875	0.000	0.01
L18	102.1700-100.9200	A	0.000	0.000	3.333	0.000	0.00
		B	0.000	0.000	4.119	0.000	0.00
		C	0.000	0.000	4.373	0.000	0.03
L19	100.9200-100.6700	A	0.000	0.000	0.667	0.000	0.00
		B	0.000	0.000	0.824	0.000	0.00
		C	0.000	0.000	0.875	0.000	0.01
L20	100.6700-99.5800	A	0.000	0.000	2.907	0.000	0.00
		B	0.000	0.000	4.247	0.000	0.00
		C	0.000	0.000	3.814	0.000	0.02
L21	99.5800-99.3300	A	0.000	0.000	0.667	0.000	0.00
		B	0.000	0.000	1.002	0.000	0.00
		C	0.000	0.000	0.875	0.000	0.01
L22	99.3300-95.2500	A	0.000	0.000	8.588	0.000	0.00
		B	0.000	0.000	15.545	0.000	0.02
		C	0.000	0.000	14.275	0.000	0.10
L23	95.2500-95.0000	A	0.000	0.000	0.458	0.000	0.00
		B	0.000	0.000	0.893	0.000	0.00
		C	0.000	0.000	0.875	0.000	0.01
L24	95.0000-90.0000	A	0.000	0.000	6.250	0.000	0.00
		B	0.000	0.000	15.359	0.000	0.03
		C	0.000	0.000	14.577	0.000	0.12
L25	90.0000-85.0000	A	0.000	0.000	5.000	0.000	0.00
		B	0.000	0.000	14.290	0.000	0.03
		C	0.000	0.000	13.327	0.000	0.12
L26	85.0000-80.5000	A	0.000	0.000	5.500	0.000	0.00
		B	0.000	0.000	13.861	0.000	0.03
		C	0.000	0.000	13.994	0.000	0.11
L27	80.5000-80.2500	A	0.000	0.000	0.417	0.000	0.00
		B	0.000	0.000	0.881	0.000	0.00
		C	0.000	0.000	1.000	0.000	0.01
L28	80.2500-75.2500	A	0.000	0.000	8.333	0.000	0.00
		B	0.000	0.000	17.623	0.000	0.03
		C	0.000	0.000	19.993	0.000	0.12
L29	75.2500-73.5800	A	0.000	0.000	2.783	0.000	0.00
		B	0.000	0.000	5.886	0.000	0.01
		C	0.000	0.000	6.678	0.000	0.04
L30	73.5800-73.3300	A	0.000	0.000	0.417	0.000	0.00
		B	0.000	0.000	0.881	0.000	0.00
		C	0.000	0.000	1.000	0.000	0.01
L31	73.3300-69.0000	A	0.000	0.000	7.217	0.000	0.00
		B	0.000	0.000	15.262	0.000	0.03
		C	0.000	0.000	17.314	0.000	0.11
L32	69.0000-67.0000	A	0.000	0.000	6.667	0.000	0.00
		B	0.000	0.000	8.716	0.000	0.01
		C	0.000	0.000	9.664	0.000	0.05
L33	67.0000-66.7500	A	0.000	0.000	0.833	0.000	0.00
		B	0.000	0.000	1.089	0.000	0.00
		C	0.000	0.000	1.208	0.000	0.01
L34	66.7500-66.5000	A	0.000	0.000	0.833	0.000	0.00
		B	0.000	0.000	1.089	0.000	0.00
		C	0.000	0.000	1.208	0.000	0.01
L35	66.5000-61.5000	A	0.000	0.000	13.333	0.000	0.00
		B	0.000	0.000	18.457	0.000	0.03
		C	0.000	0.000	17.493	0.000	0.12
L36	61.5000-56.5000	A	0.000	0.000	13.333	0.000	0.00
		B	0.000	0.000	18.457	0.000	0.03
		C	0.000	0.000	17.493	0.000	0.12
L37	56.5000-51.5000	A	0.000	0.000	13.333	0.000	0.00
		B	0.000	0.000	18.457	0.000	0.03
		C	0.000	0.000	17.493	0.000	0.12
L38	51.5000-48.2500	A	0.000	0.000	9.354	0.000	0.00
		B	0.000	0.000	12.684	0.000	0.02
		C	0.000	0.000	12.746	0.000	0.08
L39	48.2500-48.0000	A	0.000	0.000	0.729	0.000	0.00
		B	0.000	0.000	0.985	0.000	0.00
		C	0.000	0.000	1.000	0.000	0.01

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L40	48.0000-44.2500	A	0.000	0.000	12.313	0.000	0.00
		B	0.000	0.000	15.467	0.000	0.02
		C	0.000	0.000	15.683	0.000	0.09
L41	44.2500-44.0000	A	0.000	0.000	0.854	0.000	0.00
		B	0.000	0.000	1.048	0.000	0.00
		C	0.000	0.000	1.062	0.000	0.01
L42	44.0000-43.0800	A	0.000	0.000	3.143	0.000	0.00
		B	0.000	0.000	3.856	0.000	0.01
		C	0.000	0.000	3.909	0.000	0.02
L43	43.0800-42.8300	A	0.000	0.000	0.854	0.000	0.00
		B	0.000	0.000	1.048	0.000	0.00
		C	0.000	0.000	1.062	0.000	0.01
L44	42.8300-37.8300	A	0.000	0.000	17.083	0.000	0.00
		B	0.000	0.000	20.957	0.000	0.03
		C	0.000	0.000	21.243	0.000	0.12
L45	37.8300-30.0000	A	0.000	0.000	26.753	0.000	0.00
		B	0.000	0.000	32.818	0.000	0.05
		C	0.000	0.000	33.267	0.000	0.19
L46	30.0000-29.0000	A	0.000	0.000	3.417	0.000	0.00
		B	0.000	0.000	4.191	0.000	0.01
		C	0.000	0.000	4.249	0.000	0.02
L47	29.0000-24.0000	A	0.000	0.000	17.083	0.000	0.00
		B	0.000	0.000	20.957	0.000	0.03
		C	0.000	0.000	21.243	0.000	0.12
L48	24.0000-23.7500	A	0.000	0.000	0.854	0.000	0.00
		B	0.000	0.000	1.048	0.000	0.00
		C	0.000	0.000	1.062	0.000	0.01
L49	23.7500-23.5000	A	0.000	0.000	0.854	0.000	0.00
		B	0.000	0.000	1.048	0.000	0.00
		C	0.000	0.000	1.062	0.000	0.01
L50	23.5000-18.5000	A	0.000	0.000	17.083	0.000	0.00
		B	0.000	0.000	20.957	0.000	0.03
		C	0.000	0.000	21.243	0.000	0.12
L51	18.5000-13.5000	A	0.000	0.000	17.083	0.000	0.00
		B	0.000	0.000	20.957	0.000	0.03
		C	0.000	0.000	21.243	0.000	0.12
L52	13.5000-11.0000	A	0.000	0.000	8.542	0.000	0.00
		B	0.000	0.000	10.478	0.000	0.02
		C	0.000	0.000	10.622	0.000	0.06
L53	11.0000-10.7500	A	0.000	0.000	0.854	0.000	0.00
		B	0.000	0.000	1.048	0.000	0.00
		C	0.000	0.000	1.062	0.000	0.01
L54	10.7500-6.0000	A	0.000	0.000	16.229	0.000	0.00
		B	0.000	0.000	17.409	0.000	0.03
		C	0.000	0.000	17.681	0.000	0.12
L55	6.0000-5.7500	A	0.000	0.000	0.854	0.000	0.00
		B	0.000	0.000	0.798	0.000	0.00
		C	0.000	0.000	0.812	0.000	0.01
L56	5.7500-3.2500	A	0.000	0.000	8.292	0.000	0.00
		B	0.000	0.000	7.728	0.000	0.02
		C	0.000	0.000	8.122	0.000	0.06
L57	3.2500-3.0000	A	0.000	0.000	0.604	0.000	0.00
		B	0.000	0.000	0.548	0.000	0.00
		C	0.000	0.000	0.812	0.000	0.01
L58	3.0000-0.0000	A	0.000	0.000	7.250	0.000	0.00
		B	0.000	0.000	6.574	0.000	0.02
		C	0.000	0.000	9.746	0.000	0.07

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L1	150.0000-	A	1.481	0.000	0.000	0.000	0.000	0.00
	145.0000	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	3.148	0.000	0.11
L2	145.0000-	A	1.476	0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
	140.0000	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	3.142	0.000	0.11
L3	140.0000-135.0000	A	1.471	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	2.835	0.000	0.04
		C		0.000	0.000	4.617	0.000	0.13
L4	135.0000-130.0000	A	1.465	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	4.719	0.000	0.06
		C		0.000	0.000	5.592	0.000	0.15
L5	130.0000-128.5000	A	1.462	0.000	0.000	2.877	0.000	0.03
		B		0.000	0.000	2.853	0.000	0.03
		C		0.000	0.000	3.114	0.000	0.06
L6	128.5000-128.2500	A	1.461	0.000	0.000	0.479	0.000	0.00
		B		0.000	0.000	0.475	0.000	0.01
		C		0.000	0.000	0.519	0.000	0.01
L7	128.2500-123.2500	A	1.457	0.000	0.000	9.582	0.000	0.09
		B		0.000	0.000	9.500	0.000	0.11
		C		0.000	0.000	10.367	0.000	0.19
L8	123.2500-118.2500	A	1.452	0.000	0.000	9.570	0.000	0.09
		B		0.000	0.000	9.487	0.000	0.11
		C		0.000	0.000	13.904	0.000	0.24
L9	118.2500-113.2500	A	1.445	0.000	0.000	9.558	0.000	0.09
		B		0.000	0.000	9.473	0.000	0.11
		C		0.000	0.000	20.474	0.000	0.34
L10	113.2500-109.0000	A	1.440	0.000	0.000	7.268	0.000	0.07
		B		0.000	0.000	7.591	0.000	0.09
		C		0.000	0.000	16.980	0.000	0.28
L11	109.0000-108.7500	A	1.437	0.000	0.000	0.531	0.000	0.01
		B		0.000	0.000	0.486	0.000	0.01
		C		0.000	0.000	1.062	0.000	0.02
L12	108.7500-104.1700	A	1.433	0.000	0.000	15.517	0.000	0.15
		B		0.000	0.000	20.477	0.000	0.21
		C		0.000	0.000	25.228	0.000	0.36
L13	104.1700-103.9200	A	1.430	0.000	0.000	0.852	0.000	0.01
		B		0.000	0.000	1.129	0.000	0.01
		C		0.000	0.000	1.382	0.000	0.02
L14	103.9200-103.1700	A	1.429	0.000	0.000	2.557	0.000	0.02
		B		0.000	0.000	3.386	0.000	0.03
		C		0.000	0.000	4.145	0.000	0.06
L15	103.1700-102.9200	A	1.429	0.000	0.000	0.852	0.000	0.01
		B		0.000	0.000	1.129	0.000	0.01
		C		0.000	0.000	1.382	0.000	0.02
L16	102.9200-102.4200	A	1.428	0.000	0.000	1.704	0.000	0.02
		B		0.000	0.000	2.257	0.000	0.02
		C		0.000	0.000	2.763	0.000	0.04
L17	102.4200-102.1700	A	1.428	0.000	0.000	0.852	0.000	0.01
		B		0.000	0.000	1.128	0.000	0.01
		C		0.000	0.000	1.381	0.000	0.02
L18	102.1700-100.9200	A	1.427	0.000	0.000	4.260	0.000	0.04
		B		0.000	0.000	5.641	0.000	0.06
		C		0.000	0.000	6.904	0.000	0.10
L19	100.9200-100.6700	A	1.426	0.000	0.000	0.852	0.000	0.01
		B		0.000	0.000	1.128	0.000	0.01
		C		0.000	0.000	1.381	0.000	0.02
L20	100.6700-99.5800	A	1.425	0.000	0.000	3.714	0.000	0.03
		B		0.000	0.000	5.713	0.000	0.06
		C		0.000	0.000	6.018	0.000	0.09
L21	99.5800-99.3300	A	1.424	0.000	0.000	0.852	0.000	0.01
		B		0.000	0.000	1.344	0.000	0.01
		C		0.000	0.000	1.380	0.000	0.02
L22	99.3300-95.2500	A	1.421	0.000	0.000	11.124	0.000	0.10
		B		0.000	0.000	22.341	0.000	0.25
		C		0.000	0.000	22.506	0.000	0.34
L23	95.2500-95.0000	A	1.417	0.000	0.000	0.599	0.000	0.01
		B		0.000	0.000	1.303	0.000	0.01
		C		0.000	0.000	1.378	0.000	0.02
L24	95.0000-90.0000	A	1.413	0.000	0.000	8.083	0.000	0.07
		B		0.000	0.000	23.019	0.000	0.26
		C		0.000	0.000	23.641	0.000	0.38
L25	90.0000-85.0000	A	1.406	0.000	0.000	6.406	0.000	0.06

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		B		0.000	0.000	21.688	0.000	0.24
		C		0.000	0.000	21.931	0.000	0.36
L26	85.0000-80.5000	A	1.398	0.000	0.000	7.177	0.000	0.06
		B		0.000	0.000	20.906	0.000	0.23
		C		0.000	0.000	22.540	0.000	0.35
L27	80.5000-80.2500	A	1.394	0.000	0.000	0.556	0.000	0.01
		B		0.000	0.000	1.318	0.000	0.01
		C		0.000	0.000	1.566	0.000	0.02
L28	80.2500-75.2500	A	1.389	0.000	0.000	11.111	0.000	0.10
		B		0.000	0.000	26.336	0.000	0.28
		C		0.000	0.000	31.289	0.000	0.45
L29	75.2500-73.5800	A	1.383	0.000	0.000	3.707	0.000	0.03
		B		0.000	0.000	8.785	0.000	0.09
		C		0.000	0.000	10.436	0.000	0.15
L30	73.5800-73.3300	A	1.381	0.000	0.000	0.555	0.000	0.00
		B		0.000	0.000	1.315	0.000	0.01
		C		0.000	0.000	1.562	0.000	0.02
L31	73.3300-69.0000	A	1.377	0.000	0.000	9.601	0.000	0.09
		B		0.000	0.000	22.748	0.000	0.24
		C		0.000	0.000	27.019	0.000	0.38
L32	69.0000-67.0000	A	1.371	0.000	0.000	8.870	0.000	0.08
		B		0.000	0.000	12.725	0.000	0.13
		C		0.000	0.000	14.698	0.000	0.20
L33	67.0000-66.7500	A	1.368	0.000	0.000	1.107	0.000	0.01
		B		0.000	0.000	1.588	0.000	0.02
		C		0.000	0.000	1.834	0.000	0.02
L34	66.7500-66.5000	A	1.368	0.000	0.000	1.107	0.000	0.01
		B		0.000	0.000	1.588	0.000	0.02
		C		0.000	0.000	1.833	0.000	0.02
L35	66.5000-61.5000	A	1.362	0.000	0.000	17.420	0.000	0.15
		B		0.000	0.000	27.022	0.000	0.28
		C		0.000	0.000	27.233	0.000	0.40
L36	61.5000-56.5000	A	1.351	0.000	0.000	17.387	0.000	0.15
		B		0.000	0.000	26.961	0.000	0.28
		C		0.000	0.000	27.164	0.000	0.40
L37	56.5000-51.5000	A	1.339	0.000	0.000	17.351	0.000	0.15
		B		0.000	0.000	26.896	0.000	0.28
		C		0.000	0.000	27.089	0.000	0.40
L38	51.5000-48.2500	A	1.329	0.000	0.000	12.676	0.000	0.11
		B		0.000	0.000	18.863	0.000	0.20
		C		0.000	0.000	20.402	0.000	0.29
L39	48.2500-48.0000	A	1.324	0.000	0.000	0.994	0.000	0.01
		B		0.000	0.000	1.469	0.000	0.02
		C		0.000	0.000	1.607	0.000	0.02
L40	48.0000-44.2500	A	1.318	0.000	0.000	16.268	0.000	0.14
		B		0.000	0.000	22.699	0.000	0.23
		C		0.000	0.000	24.759	0.000	0.34
L41	44.2500-44.0000	A	1.313	0.000	0.000	1.117	0.000	0.01
		B		0.000	0.000	1.528	0.000	0.02
		C		0.000	0.000	1.665	0.000	0.02
L42	44.0000-43.0800	A	1.311	0.000	0.000	4.108	0.000	0.03
		B		0.000	0.000	5.621	0.000	0.06
		C		0.000	0.000	6.124	0.000	0.08
L43	43.0800-42.8300	A	1.309	0.000	0.000	1.116	0.000	0.01
		B		0.000	0.000	1.527	0.000	0.02
		C		0.000	0.000	1.663	0.000	0.02
L44	42.8300-37.8300	A	1.301	0.000	0.000	22.287	0.000	0.19
		B		0.000	0.000	30.484	0.000	0.31
		C		0.000	0.000	33.200	0.000	0.45
L45	37.8300-30.0000	A	1.278	0.000	0.000	34.760	0.000	0.29
		B		0.000	0.000	47.510	0.000	0.47
		C		0.000	0.000	51.702	0.000	0.70
L46	30.0000-29.0000	A	1.261	0.000	0.000	4.439	0.000	0.04
		B		0.000	0.000	6.068	0.000	0.06
		C		0.000	0.000	6.603	0.000	0.09
L47	29.0000-24.0000	A	1.247	0.000	0.000	22.072	0.000	0.18
		B		0.000	0.000	30.137	0.000	0.29
		C		0.000	0.000	32.758	0.000	0.44
L48	24.0000-23.7500	A	1.234	0.000	0.000	1.101	0.000	0.01

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		B		0.000	0.000	1.503	0.000	0.01
		C		0.000	0.000	1.633	0.000	0.02
L49	23.7500-23.5000	A	1.233	0.000	0.000	1.101	0.000	0.01
		B		0.000	0.000	1.502	0.000	0.01
		C		0.000	0.000	1.632	0.000	0.02
L50	23.5000-18.5000	A	1.219	0.000	0.000	21.958	0.000	0.17
		B		0.000	0.000	29.950	0.000	0.28
		C		0.000	0.000	32.522	0.000	0.43
L51	18.5000-13.5000	A	1.186	0.000	0.000	21.827	0.000	0.17
		B		0.000	0.000	29.737	0.000	0.28
		C		0.000	0.000	32.252	0.000	0.42
L52	13.5000-11.0000	A	1.155	0.000	0.000	10.851	0.000	0.08
		B		0.000	0.000	14.767	0.000	0.13
		C		0.000	0.000	15.997	0.000	0.20
L53	11.0000-10.7500	A	1.141	0.000	0.000	1.082	0.000	0.01
		B		0.000	0.000	1.472	0.000	0.01
		C		0.000	0.000	1.594	0.000	0.02
L54	10.7500-6.0000	A	1.112	0.000	0.000	20.453	0.000	0.15
		B		0.000	0.000	24.735	0.000	0.22
		C		0.000	0.000	27.001	0.000	0.36
L55	6.0000-5.7500	A	1.073	0.000	0.000	1.069	0.000	0.01
		B		0.000	0.000	1.147	0.000	0.01
		C		0.000	0.000	1.262	0.000	0.02
L56	5.7500-3.2500	A	1.045	0.000	0.000	10.329	0.000	0.07
		B		0.000	0.000	11.085	0.000	0.10
		C		0.000	0.000	12.521	0.000	0.17
L57	3.2500-3.0000	A	1.007	0.000	0.000	0.755	0.000	0.00
		B		0.000	0.000	0.828	0.000	0.01
		C		0.000	0.000	1.239	0.000	0.02
L58	3.0000-0.0000	A	0.936	0.000	0.000	8.934	0.000	0.05
		B		0.000	0.000	9.744	0.000	0.09
		C		0.000	0.000	14.552	0.000	0.19

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	150.0000-145.0000	0.0000	1.8242	0.0000	2.1788
L2	145.0000-140.0000	0.0000	1.8318	0.0000	2.2022
L3	140.0000-135.0000	1.5719	2.2642	1.8595	2.4649
L4	135.0000-130.0000	2.3411	2.4927	2.6040	2.6025
L5	130.0000-128.5000	2.3986	1.6391	2.7104	1.9409
L6	128.5000-128.2500	2.4161	1.6507	2.7294	1.9541
L7	128.2500-123.2500	2.4490	1.6724	2.7725	1.9838
L8	123.2500-118.2500	2.5528	2.3107	2.8006	2.6451
L9	118.2500-113.2500	2.6784	3.2961	2.7984	3.5881
L10	113.2500-109.0000	2.7234	3.4431	2.8514	3.7862
L11	109.0000-108.7500	2.8041	3.2005	2.8613	3.7808
L12	108.7500-104.1700	0.8820	2.8607	1.1566	3.3232
L13	104.1700-103.9200	0.8700	2.8943	1.1501	3.3627
L14	103.9200-103.1700	0.8720	2.9010	1.1529	3.3713
L15	103.1700-	0.8745	2.9098	1.1563	3.3815

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
	102.9200				
L16	102.9200-102.4200	0.8760	2.9148	1.1584	3.3879
L17	102.4200-102.1700	0.8769	2.9182	1.1601	3.3930
L18	102.1700-100.9200	0.8799	2.9287	1.1645	3.4061
L19	100.9200-100.6700	0.8832	2.9399	1.1690	3.4198
L20	100.6700-99.5800	1.0144	2.2518	1.2704	2.8221
L21	99.5800-99.3300	1.0412	2.1398	1.2929	2.7266
L22	99.3300-95.2500	0.8985	3.1450	1.3770	3.4718
L23	95.2500-95.0000	0.6737	3.7134	1.2394	3.9324
L24	95.0000-90.0000	0.5165	3.6877	1.2123	3.8849
L25	90.0000-85.0000	0.4321	3.7336	1.2150	3.9311
L26	85.0000-80.5000	0.3406	3.0686	1.0839	3.3398
L27	80.5000-80.2500	0.1973	1.9735	0.8539	2.3081
L28	80.2500-75.2500	0.1973	1.9945	0.8615	2.3351
L29	75.2500-73.5800	0.1975	2.0212	0.8712	2.3694
L30	73.5800-73.3300	0.1975	2.0289	0.8740	2.3792
L31	73.3300-69.0000	0.1976	2.0471	0.8804	2.4025
L32	69.0000-67.0000	1.0720	1.9677	1.5324	2.2654
L33	67.0000-66.7500	1.0769	1.9771	1.5390	2.2765
L34	66.7500-66.5000	1.0783	1.9797	1.5409	2.2795
L35	66.5000-61.5000	1.4569	3.3897	1.9951	3.6730
L36	61.5000-56.5000	1.4868	3.4630	2.0384	3.7584
L37	56.5000-51.5000	1.5164	3.5357	2.0811	3.8429
L38	51.5000-48.2500	1.4494	3.3821	1.9445	3.5952
L39	48.2500-48.0000	1.4451	3.3732	1.9311	3.5724
L40	48.0000-44.2500	1.6185	3.3178	2.0381	3.5396
L41	44.2500-44.0000	1.6861	3.3170	2.0865	3.5481
L42	44.0000-43.0800	1.6900	3.3248	2.0914	3.5569
L43	43.0800-42.8300	1.6939	3.3325	2.0963	3.5657
L44	42.8300-37.8300	1.7108	3.3668	2.1181	3.6047
L45	37.8300-30.0000	1.7525	3.4509	2.1708	3.6999
L46	30.0000-29.0000	1.7577	3.4613	2.1776	3.7117
L47	29.0000-24.0000	1.7776	3.5016	2.1999	3.7553
L48	24.0000-23.7500	1.7951	3.5369	2.2215	3.7949
L49	23.7500-23.5000	1.7968	3.5403	2.2235	3.7987
L50	23.5000-18.5000	1.8140	3.5751	2.2445	3.8376
L51	18.5000-13.5000	1.8467	3.6411	2.2832	3.9106
L52	13.5000-11.0000	1.8711	3.6903	2.3107	3.9640
L53	11.0000-10.7500	1.8788	3.7060	2.3194	3.9815
L54	10.7500-6.0000	2.6701	4.1020	3.0348	4.3456
L55	6.0000-5.7500	3.5013	4.5194	3.7727	4.7220
L56	5.7500-3.2500	3.5888	4.4790	3.8524	4.6921
L57	3.2500-3.0000	4.3673	3.8548	4.5390	4.1919
L58	3.0000-0.0000	4.3885	3.8729	4.5566	4.2021

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	4	2" flat Climb Ladder Rail	145.00 - 150.00	1.0000	1.0000
L2	4	2" flat Climb Ladder Rail	140.00 - 145.00	1.0000	1.0000
L3	4	2" flat Climb Ladder Rail	135.00 - 140.00	1.0000	1.0000
L3	38	HB114-21U3M12-XXXF(1-1/4)	135.00 - 138.00	1.0000	1.0000
L3	39	HB158-21U6S12-60M-01(1-5/8)	135.00 - 138.00	1.0000	1.0000
L4	4	2" flat Climb Ladder Rail	130.00 - 135.00	1.0000	1.0000
L4	38	HB114-21U3M12-XXXF(1-	130.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		1/4)	135.00		
L4	39	HB158-21U6S12-60M-01(1-5/8)	130.00 - 135.00	1.0000	1.0000
L5	4	2" flat Climb Ladder Rail	128.50 - 130.00	1.0000	1.0000
L5	38	HB114-21U3M12-XXXF(1-1/4)	128.50 - 130.00	1.0000	1.0000
L5	39	HB158-21U6S12-60M-01(1-5/8)	128.50 - 130.00	1.0000	1.0000
L5	71	CCI-040125 (L)	128.50 - 130.00	1.0000	1.0000
L5	72	CCI-040125 (L)	128.50 - 130.00	1.0000	1.0000
L5	73	CCI-040125 (L)	128.50 - 130.00	1.0000	1.0000
L5	74	CCI-040125 (L)	128.50 - 130.00	1.0000	1.0000
L6	4	2" flat Climb Ladder Rail	128.25 - 128.50	1.0000	1.0000
L6	38	HB114-21U3M12-XXXF(1-1/4)	128.25 - 128.50	1.0000	1.0000
L6	39	HB158-21U6S12-60M-01(1-5/8)	128.25 - 128.50	1.0000	1.0000
L6	71	CCI-040125 (L)	128.25 - 128.50	1.0000	1.0000
L6	72	CCI-040125 (L)	128.25 - 128.50	1.0000	1.0000
L6	73	CCI-040125 (L)	128.25 - 128.50	1.0000	1.0000
L6	74	CCI-040125 (L)	128.25 - 128.50	1.0000	1.0000
L7	4	2" flat Climb Ladder Rail	123.25 - 128.25	1.0000	1.0000
L7	38	HB114-21U3M12-XXXF(1-1/4)	123.25 - 128.25	1.0000	1.0000
L7	39	HB158-21U6S12-60M-01(1-5/8)	123.25 - 128.25	1.0000	1.0000
L7	71	CCI-040125 (L)	123.25 - 128.25	1.0000	1.0000
L7	72	CCI-040125 (L)	123.25 - 128.25	1.0000	1.0000
L7	73	CCI-040125 (L)	123.25 - 128.25	1.0000	1.0000
L7	74	CCI-040125 (L)	123.25 - 128.25	1.0000	1.0000
L8	4	2" flat Climb Ladder Rail	118.25 - 123.25	1.0000	1.0000
L8	38	HB114-21U3M12-XXXF(1-1/4)	118.25 - 123.25	1.0000	1.0000
L8	39	HB158-21U6S12-60M-01(1-5/8)	118.25 - 123.25	1.0000	1.0000
L8	42	AL7-50(1-5/8)	118.25 - 120.00	1.0000	1.0000
L8	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	118.25 - 120.00	1.0000	1.0000
L8	71	CCI-040125 (L)	118.25 - 123.25	1.0000	1.0000
L8	72	CCI-040125 (L)	118.25 - 123.25	1.0000	1.0000
L8	73	CCI-040125 (L)	118.25 - 123.25	1.0000	1.0000
L8	74	CCI-040125 (L)	118.25 - 123.25	1.0000	1.0000
L9	4	2" flat Climb Ladder Rail	113.25 - 118.25	1.0000	1.0000
L9	38	HB114-21U3M12-XXXF(1-1/4)	113.25 - 118.25	1.0000	1.0000
L9	39	HB158-21U6S12-60M-01(1-5/8)	113.25 - 118.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L9	42	AL7-50(1-5/8)	113.25 - 118.25	1.0000	1.0000
L9	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	113.25 - 118.25	1.0000	1.0000
L9	71	CCI-040125 (L)	113.25 - 118.25	1.0000	1.0000
L9	72	CCI-040125 (L)	113.25 - 118.25	1.0000	1.0000
L9	73	CCI-040125 (L)	113.25 - 118.25	1.0000	1.0000
L9	74	CCI-040125 (L)	113.25 - 118.25	1.0000	1.0000
L10	4	2" flat Climb Ladder Rail	109.00 - 113.25	1.0000	1.0000
L10	38	HB114-21U3M12-XXXF(1-1/4)	109.00 - 113.25	1.0000	1.0000
L10	39	HB158-21U6S12-60M-01(1-5/8)	109.00 - 113.25	1.0000	1.0000
L10	42	AL7-50(1-5/8)	109.00 - 113.25	1.0000	1.0000
L10	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	109.00 - 113.25	1.0000	1.0000
L10	66	CCI-050125 (W)	109.00 - 109.50	1.0000	1.0000
L10	67	CCI-050125 (W)	109.00 - 109.50	1.0000	1.0000
L10	69	CCI-050125 (W)	109.00 - 109.50	1.0000	1.0000
L10	70	CCI-050125 (W)	109.00 - 109.50	1.0000	1.0000
L10	71	CCI-040125 (L)	110.00 - 113.25	1.0000	1.0000
L10	72	CCI-040125 (L)	110.00 - 113.25	1.0000	1.0000
L10	73	CCI-040125 (L)	110.00 - 113.25	1.0000	1.0000
L10	74	CCI-040125 (L)	110.00 - 113.25	1.0000	1.0000
L11	4	2" flat Climb Ladder Rail	108.75 - 109.00	1.0000	1.0000
L11	38	HB114-21U3M12-XXXF(1-1/4)	108.75 - 109.00	1.0000	1.0000
L11	39	HB158-21U6S12-60M-01(1-5/8)	108.75 - 109.00	1.0000	1.0000
L11	42	AL7-50(1-5/8)	108.75 - 109.00	1.0000	1.0000
L11	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	108.75 - 109.00	1.0000	1.0000
L11	66	CCI-050125 (W)	108.75 - 109.00	1.0000	1.0000
L11	67	CCI-050125 (W)	108.75 - 109.00	1.0000	1.0000
L11	69	CCI-050125 (W)	108.75 - 109.00	1.0000	1.0000
L11	70	CCI-050125 (W)	108.75 - 109.00	1.0000	1.0000
L12	4	2" flat Climb Ladder Rail	104.17 - 108.75	1.0000	1.0000
L12	38	HB114-21U3M12-XXXF(1-1/4)	104.17 - 108.75	1.0000	1.0000
L12	39	HB158-21U6S12-60M-01(1-5/8)	104.17 - 108.75	1.0000	1.0000
L12	42	AL7-50(1-5/8)	104.17 - 108.75	1.0000	1.0000
L12	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	104.17 - 108.75	1.0000	1.0000
L12	66	CCI-050125 (W)	104.17 - 108.75	1.0000	1.0000
L12	67	CCI-050125 (W)	104.17 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L12	69	CCI-050125 (W)	108.75 104.17 - 108.75	1.0000	1.0000
L12	70	CCI-050125 (W)	104.17 - 108.75	1.0000	1.0000
L12	75	6x2	104.17 - 108.67	1.0000	1.0000
L12	76	6x2	104.17 - 108.67	1.0000	1.0000
L12	77	6x2	104.17 - 108.67	1.0000	1.0000
L12	78	6x2	104.17 - 108.67	1.0000	1.0000
L13	4	2" flat Climb Ladder Rail	103.92 - 104.17	1.0000	1.0000
L13	38	HB114-21U3M12-XXXF(1-1/4)	103.92 - 104.17	1.0000	1.0000
L13	39	HB158-21U6S12-60M-01(1-5/8)	103.92 - 104.17	1.0000	1.0000
L13	42	AL7-50(1-5/8)	103.92 - 104.17	1.0000	1.0000
L13	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	103.92 - 104.17	1.0000	1.0000
L13	66	CCI-050125 (W)	103.92 - 104.17	1.0000	1.0000
L13	67	CCI-050125 (W)	103.92 - 104.17	1.0000	1.0000
L13	69	CCI-050125 (W)	103.92 - 104.17	1.0000	1.0000
L13	70	CCI-050125 (W)	103.92 - 104.17	1.0000	1.0000
L13	75	6x2	103.92 - 104.17	1.0000	1.0000
L13	76	6x2	103.92 - 104.17	1.0000	1.0000
L13	77	6x2	103.92 - 104.17	1.0000	1.0000
L13	78	6x2	103.92 - 104.17	1.0000	1.0000
L14	4	2" flat Climb Ladder Rail	103.17 - 103.92	1.0000	1.0000
L14	38	HB114-21U3M12-XXXF(1-1/4)	103.17 - 103.92	1.0000	1.0000
L14	39	HB158-21U6S12-60M-01(1-5/8)	103.17 - 103.92	1.0000	1.0000
L14	42	AL7-50(1-5/8)	103.17 - 103.92	1.0000	1.0000
L14	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	103.17 - 103.92	1.0000	1.0000
L14	66	CCI-050125 (W)	103.17 - 103.92	1.0000	1.0000
L14	67	CCI-050125 (W)	103.17 - 103.92	1.0000	1.0000
L14	69	CCI-050125 (W)	103.17 - 103.92	1.0000	1.0000
L14	70	CCI-050125 (W)	103.17 - 103.92	1.0000	1.0000
L14	75	6x2	103.17 - 103.92	1.0000	1.0000
L14	76	6x2	103.17 - 103.92	1.0000	1.0000
L14	77	6x2	103.17 - 103.92	1.0000	1.0000
L14	78	6x2	103.17 - 103.92	1.0000	1.0000
L15	4	2" flat Climb Ladder Rail	102.92 - 103.17	1.0000	1.0000
L15	38	HB114-21U3M12-XXXF(1-1/4)	102.92 - 103.17	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L15	39	HB158-21U6S12-60M-01(1-5/8)	102.92 - 103.17	1.0000	1.0000
L15	42	AL7-50(1-5/8)	102.92 - 103.17	1.0000	1.0000
L15	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	102.92 - 103.17	1.0000	1.0000
L15	66	CCI-050125 (W)	102.92 - 103.17	1.0000	1.0000
L15	67	CCI-050125 (W)	102.92 - 103.17	1.0000	1.0000
L15	69	CCI-050125 (W)	102.92 - 103.17	1.0000	1.0000
L15	70	CCI-050125 (W)	102.92 - 103.17	1.0000	1.0000
L15	75	6x2	102.92 - 103.17	1.0000	1.0000
L15	76	6x2	102.92 - 103.17	1.0000	1.0000
L15	77	6x2	102.92 - 103.17	1.0000	1.0000
L15	78	6x2	102.92 - 103.17	1.0000	1.0000
L16	4	2" flat Climb Ladder Rail	102.42 - 102.92	1.0000	1.0000
L16	38	HB114-21U3M12-XXXF(1-1/4)	102.42 - 102.92	1.0000	1.0000
L16	39	HB158-21U6S12-60M-01(1-5/8)	102.42 - 102.92	1.0000	1.0000
L16	42	AL7-50(1-5/8)	102.42 - 102.92	1.0000	1.0000
L16	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	102.42 - 102.92	1.0000	1.0000
L16	66	CCI-050125 (W)	102.42 - 102.92	1.0000	1.0000
L16	67	CCI-050125 (W)	102.42 - 102.92	1.0000	1.0000
L16	69	CCI-050125 (W)	102.42 - 102.92	1.0000	1.0000
L16	70	CCI-050125 (W)	102.42 - 102.92	1.0000	1.0000
L16	75	6x2	102.42 - 102.92	1.0000	1.0000
L16	76	6x2	102.42 - 102.92	1.0000	1.0000
L16	77	6x2	102.42 - 102.92	1.0000	1.0000
L16	78	6x2	102.42 - 102.92	1.0000	1.0000
L17	4	2" flat Climb Ladder Rail	102.17 - 102.42	1.0000	1.0000
L17	38	HB114-21U3M12-XXXF(1-1/4)	102.17 - 102.42	1.0000	1.0000
L17	39	HB158-21U6S12-60M-01(1-5/8)	102.17 - 102.42	1.0000	1.0000
L17	42	AL7-50(1-5/8)	102.17 - 102.42	1.0000	1.0000
L17	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	102.17 - 102.42	1.0000	1.0000
L17	66	CCI-050125 (W)	102.17 - 102.42	1.0000	1.0000
L17	67	CCI-050125 (W)	102.17 - 102.42	1.0000	1.0000
L17	69	CCI-050125 (W)	102.17 - 102.42	1.0000	1.0000
L17	70	CCI-050125 (W)	102.17 - 102.42	1.0000	1.0000
L17	75	6x2	102.17 - 102.42	1.0000	1.0000
L17	76	6x2	102.17 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			102.42		
L17	77	6x2	102.17 - 102.42	1.0000	1.0000
L17	78	6x2	102.17 - 102.42	1.0000	1.0000
L18	4	2" flat Climb Ladder Rail	100.92 - 102.17	1.0000	1.0000
L18	38	HB114-21U3M12-XXXF(1-1/4)	100.92 - 102.17	1.0000	1.0000
L18	39	HB158-21U6S12-60M-01(1-5/8)	100.92 - 102.17	1.0000	1.0000
L18	42	AL7-50(1-5/8)	100.92 - 102.17	1.0000	1.0000
L18	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	100.92 - 102.17	1.0000	1.0000
L18	66	CCI-050125 (W)	100.92 - 102.17	1.0000	1.0000
L18	67	CCI-050125 (W)	100.92 - 102.17	1.0000	1.0000
L18	69	CCI-050125 (W)	100.92 - 102.17	1.0000	1.0000
L18	70	CCI-050125 (W)	100.92 - 102.17	1.0000	1.0000
L18	75	6x2	100.92 - 102.17	1.0000	1.0000
L18	76	6x2	100.92 - 102.17	1.0000	1.0000
L18	77	6x2	100.92 - 102.17	1.0000	1.0000
L18	78	6x2	100.92 - 102.17	1.0000	1.0000
L19	4	2" flat Climb Ladder Rail	100.67 - 100.92	1.0000	1.0000
L19	38	HB114-21U3M12-XXXF(1-1/4)	100.67 - 100.92	1.0000	1.0000
L19	39	HB158-21U6S12-60M-01(1-5/8)	100.67 - 100.92	1.0000	1.0000
L19	42	AL7-50(1-5/8)	100.67 - 100.92	1.0000	1.0000
L19	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	100.67 - 100.92	1.0000	1.0000
L19	66	CCI-050125 (W)	100.67 - 100.92	1.0000	1.0000
L19	67	CCI-050125 (W)	100.67 - 100.92	1.0000	1.0000
L19	69	CCI-050125 (W)	100.67 - 100.92	1.0000	1.0000
L19	70	CCI-050125 (W)	100.67 - 100.92	1.0000	1.0000
L19	75	6x2	100.67 - 100.92	1.0000	1.0000
L19	76	6x2	100.67 - 100.92	1.0000	1.0000
L19	77	6x2	100.67 - 100.92	1.0000	1.0000
L19	78	6x2	100.67 - 100.92	1.0000	1.0000
L20	4	2" flat Climb Ladder Rail	99.58 - 100.67	1.0000	1.0000
L20	38	HB114-21U3M12-XXXF(1-1/4)	99.58 - 100.67	1.0000	1.0000
L20	39	HB158-21U6S12-60M-01(1-5/8)	99.58 - 100.67	1.0000	1.0000
L20	42	AL7-50(1-5/8)	99.58 - 100.67	1.0000	1.0000
L20	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	99.58 - 100.67	1.0000	1.0000
L20	66	CCI-050125 (W)	99.58 - 100.67	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L20	67	CCI-050125 (W)	99.58 - 100.67	1.0000	1.0000
L20	68	CCI-050125 (W)	99.58 - 100.50	1.0000	1.0000
L20	69	CCI-050125 (W)	99.58 - 100.67	1.0000	1.0000
L20	70	CCI-050125 (W)	99.58 - 100.67	1.0000	1.0000
L20	75	6x2	99.58 - 100.67	1.0000	1.0000
L20	76	6x2	99.58 - 100.67	1.0000	1.0000
L20	77	6x2	99.58 - 100.67	1.0000	1.0000
L20	78	6x2	99.58 - 100.67	1.0000	1.0000
L21	4	2" flat Climb Ladder Rail	99.33 - 99.58	1.0000	1.0000
L21	38	HB114-21U3M12-XXXF(1-1/4)	99.33 - 99.58	1.0000	1.0000
L21	39	HB158-21U6S12-60M-01(1-5/8)	99.33 - 99.58	1.0000	1.0000
L21	42	AL7-50(1-5/8)	99.33 - 99.58	1.0000	1.0000
L21	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	99.33 - 99.58	1.0000	1.0000
L21	66	CCI-050125 (W)	99.33 - 99.58	1.0000	1.0000
L21	67	CCI-050125 (W)	99.33 - 99.58	1.0000	1.0000
L21	68	CCI-050125 (W)	99.33 - 99.58	1.0000	1.0000
L21	69	CCI-050125 (W)	99.33 - 99.58	1.0000	1.0000
L21	70	CCI-050125 (W)	99.33 - 99.58	1.0000	1.0000
L21	75	6x2	99.33 - 99.58	1.0000	1.0000
L21	76	6x2	99.33 - 99.58	1.0000	1.0000
L21	77	6x2	99.33 - 99.58	1.0000	1.0000
L21	78	6x2	99.33 - 99.58	1.0000	1.0000
L22	4	2" flat Climb Ladder Rail	95.25 - 99.33	1.0000	1.0000
L22	38	HB114-21U3M12-XXXF(1-1/4)	95.25 - 99.33	1.0000	1.0000
L22	39	HB158-21U6S12-60M-01(1-5/8)	95.25 - 99.33	1.0000	1.0000
L22	42	AL7-50(1-5/8)	95.25 - 99.33	1.0000	1.0000
L22	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	95.25 - 99.33	1.0000	1.0000
L22	45	LDF7-50A(1-5/8)	95.25 - 99.00	1.0000	1.0000
L22	66	CCI-050125 (W)	95.25 - 99.33	1.0000	1.0000
L22	67	CCI-050125 (W)	95.25 - 99.33	1.0000	1.0000
L22	68	CCI-050125 (W)	95.25 - 99.33	1.0000	1.0000
L22	69	CCI-050125 (W)	98.00 - 99.33	1.0000	1.0000
L22	70	CCI-050125 (W)	98.00 - 99.33	1.0000	1.0000
L22	75	6x2	95.25 - 99.33	1.0000	1.0000
L22	76	6x2	95.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			99.33		
L22	77	6x2	95.25 - 99.33	1.0000	1.0000
L22	78	6x2	95.25 - 99.33	1.0000	1.0000
L23	4	2" flat Climb Ladder Rail	95.00 - 95.25	1.0000	1.0000
L23	38	HB114-21U3M12-XXXF(1-1/4)	95.00 - 95.25	1.0000	1.0000
L23	39	HB158-21U6S12-60M-01(1-5/8)	95.00 - 95.25	1.0000	1.0000
L23	42	AL7-50(1-5/8)	95.00 - 95.25	1.0000	1.0000
L23	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	95.00 - 95.25	1.0000	1.0000
L23	45	LDF7-50A(1-5/8)	95.00 - 95.25	1.0000	1.0000
L23	66	CCI-050125 (W)	95.00 - 95.25	1.0000	1.0000
L23	67	CCI-050125 (W)	95.00 - 95.25	1.0000	1.0000
L23	68	CCI-050125 (W)	95.00 - 95.25	1.0000	1.0000
L23	75	6x2	95.00 - 95.25	1.0000	1.0000
L23	76	6x2	95.00 - 95.25	1.0000	1.0000
L23	77	6x2	95.00 - 95.25	1.0000	1.0000
L23	78	6x2	95.00 - 95.25	1.0000	1.0000
L24	4	2" flat Climb Ladder Rail	90.00 - 95.00	1.0000	1.0000
L24	38	HB114-21U3M12-XXXF(1-1/4)	90.00 - 95.00	1.0000	1.0000
L24	39	HB158-21U6S12-60M-01(1-5/8)	90.00 - 95.00	1.0000	1.0000
L24	42	AL7-50(1-5/8)	90.00 - 95.00	1.0000	1.0000
L24	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	90.00 - 95.00	1.0000	1.0000
L24	45	LDF7-50A(1-5/8)	90.00 - 95.00	1.0000	1.0000
L24	66	CCI-050125 (W)	93.50 - 95.00	1.0000	1.0000
L24	67	CCI-050125 (W)	93.50 - 95.00	1.0000	1.0000
L24	68	CCI-050125 (W)	93.50 - 95.00	1.0000	1.0000
L24	75	6x2	90.00 - 95.00	1.0000	1.0000
L24	76	6x2	90.00 - 95.00	1.0000	1.0000
L24	77	6x2	90.00 - 95.00	1.0000	1.0000
L24	78	6x2	90.00 - 95.00	1.0000	1.0000
L25	4	2" flat Climb Ladder Rail	85.00 - 90.00	1.0000	1.0000
L25	38	HB114-21U3M12-XXXF(1-1/4)	85.00 - 90.00	1.0000	1.0000
L25	39	HB158-21U6S12-60M-01(1-5/8)	85.00 - 90.00	1.0000	1.0000
L25	42	AL7-50(1-5/8)	85.00 - 90.00	1.0000	1.0000
L25	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	85.00 - 90.00	1.0000	1.0000
L25	45	LDF7-50A(1-5/8)	85.00 - 90.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L25	75	6x2	85.00 - 90.00	1.0000	1.0000
L25	76	6x2	85.00 - 90.00	1.0000	1.0000
L25	77	6x2	85.00 - 90.00	1.0000	1.0000
L25	78	6x2	85.00 - 90.00	1.0000	1.0000
L26	4	2" flat Climb Ladder Rail	80.50 - 85.00	1.0000	1.0000
L26	38	HB114-21U3M12-XXXF(1-1/4)	80.50 - 85.00	1.0000	1.0000
L26	39	HB158-21U6S12-60M-01(1-5/8)	80.50 - 85.00	1.0000	1.0000
L26	42	AL7-50(1-5/8)	80.50 - 85.00	1.0000	1.0000
L26	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	80.50 - 85.00	1.0000	1.0000
L26	45	LDF7-50A(1-5/8)	80.50 - 85.00	1.0000	1.0000
L26	62	CCI-040125 (L)	80.50 - 82.00	1.0000	1.0000
L26	63	CCI-040125 (L)	80.50 - 82.00	1.0000	1.0000
L26	64	CCI-040125 (L)	80.50 - 82.00	1.0000	1.0000
L26	65	CCI-040125 (L)	80.50 - 82.00	1.0000	1.0000
L26	75	6x2	80.50 - 85.00	1.0000	1.0000
L26	76	6x2	80.50 - 85.00	1.0000	1.0000
L26	77	6x2	80.50 - 85.00	1.0000	1.0000
L26	78	6x2	80.50 - 85.00	1.0000	1.0000
L27	4	2" flat Climb Ladder Rail	80.25 - 80.50	1.0000	1.0000
L27	38	HB114-21U3M12-XXXF(1-1/4)	80.25 - 80.50	1.0000	1.0000
L27	39	HB158-21U6S12-60M-01(1-5/8)	80.25 - 80.50	1.0000	1.0000
L27	42	AL7-50(1-5/8)	80.25 - 80.50	1.0000	1.0000
L27	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	80.25 - 80.50	1.0000	1.0000
L27	45	LDF7-50A(1-5/8)	80.25 - 80.50	1.0000	1.0000
L27	62	CCI-040125 (L)	80.25 - 80.50	1.0000	1.0000
L27	63	CCI-040125 (L)	80.25 - 80.50	1.0000	1.0000
L27	64	CCI-040125 (L)	80.25 - 80.50	1.0000	1.0000
L27	65	CCI-040125 (L)	80.25 - 80.50	1.0000	1.0000
L27	75	6x2	80.25 - 80.50	1.0000	1.0000
L27	76	6x2	80.25 - 80.50	1.0000	1.0000
L27	77	6x2	80.25 - 80.50	1.0000	1.0000
L27	78	6x2	80.25 - 80.50	1.0000	1.0000
L28	4	2" flat Climb Ladder Rail	75.25 - 80.25	1.0000	1.0000
L28	38	HB114-21U3M12-XXXF(1-1/4)	75.25 - 80.25	1.0000	1.0000
L28	39	HB158-21U6S12-60M-	75.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		01(1-5/8)	80.25		
L28	42	AL7-50(1-5/8)	75.25 - 80.25	1.0000	1.0000
L28	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	75.25 - 80.25	1.0000	1.0000
L28	45	LDF7-50A(1-5/8)	75.25 - 80.25	1.0000	1.0000
L28	62	CCI-040125 (L)	75.25 - 80.25	1.0000	1.0000
L28	63	CCI-040125 (L)	75.25 - 80.25	1.0000	1.0000
L28	64	CCI-040125 (L)	75.25 - 80.25	1.0000	1.0000
L28	65	CCI-040125 (L)	75.25 - 80.25	1.0000	1.0000
L28	75	6x2	75.25 - 80.25	1.0000	1.0000
L28	76	6x2	75.25 - 80.25	1.0000	1.0000
L28	77	6x2	75.25 - 80.25	1.0000	1.0000
L28	78	6x2	75.25 - 80.25	1.0000	1.0000
L29	4	2" flat Climb Ladder Rail	73.58 - 75.25	1.0000	1.0000
L29	38	HB114-21U3M12-XXXF(1-1/4)	73.58 - 75.25	1.0000	1.0000
L29	39	HB158-21U6S12-60M-01(1-5/8)	73.58 - 75.25	1.0000	1.0000
L29	42	AL7-50(1-5/8)	73.58 - 75.25	1.0000	1.0000
L29	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	73.58 - 75.25	1.0000	1.0000
L29	45	LDF7-50A(1-5/8)	73.58 - 75.25	1.0000	1.0000
L29	62	CCI-040125 (L)	73.58 - 75.25	1.0000	1.0000
L29	63	CCI-040125 (L)	73.58 - 75.25	1.0000	1.0000
L29	64	CCI-040125 (L)	73.58 - 75.25	1.0000	1.0000
L29	65	CCI-040125 (L)	73.58 - 75.25	1.0000	1.0000
L29	75	6x2	73.58 - 75.25	1.0000	1.0000
L29	76	6x2	73.58 - 75.25	1.0000	1.0000
L29	77	6x2	73.58 - 75.25	1.0000	1.0000
L29	78	6x2	73.58 - 75.25	1.0000	1.0000
L30	4	2" flat Climb Ladder Rail	73.33 - 73.58	1.0000	1.0000
L30	38	HB114-21U3M12-XXXF(1-1/4)	73.33 - 73.58	1.0000	1.0000
L30	39	HB158-21U6S12-60M-01(1-5/8)	73.33 - 73.58	1.0000	1.0000
L30	42	AL7-50(1-5/8)	73.33 - 73.58	1.0000	1.0000
L30	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	73.33 - 73.58	1.0000	1.0000
L30	45	LDF7-50A(1-5/8)	73.33 - 73.58	1.0000	1.0000
L30	62	CCI-040125 (L)	73.33 - 73.58	1.0000	1.0000
L30	63	CCI-040125 (L)	73.33 - 73.58	1.0000	1.0000
L30	64	CCI-040125 (L)	73.33 - 73.58	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L30	65	CCI-040125 (L)	73.33 - 73.58	1.0000	1.0000
L30	75	6x2	73.33 - 73.58	1.0000	1.0000
L30	76	6x2	73.33 - 73.58	1.0000	1.0000
L30	77	6x2	73.33 - 73.58	1.0000	1.0000
L30	78	6x2	73.33 - 73.58	1.0000	1.0000
L31	4	2" flat Climb Ladder Rail	69.00 - 73.33	1.0000	1.0000
L31	38	HB114-21U3M12-XXXF(1-1/4)	69.00 - 73.33	1.0000	1.0000
L31	39	HB158-21U6S12-60M-01(1-5/8)	69.00 - 73.33	1.0000	1.0000
L31	42	AL7-50(1-5/8)	69.00 - 73.33	1.0000	1.0000
L31	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	69.00 - 73.33	1.0000	1.0000
L31	45	LDF7-50A(1-5/8)	69.00 - 73.33	1.0000	1.0000
L31	62	CCI-040125 (L)	69.00 - 73.33	1.0000	1.0000
L31	63	CCI-040125 (L)	69.00 - 73.33	1.0000	1.0000
L31	64	CCI-040125 (L)	69.00 - 73.33	1.0000	1.0000
L31	65	CCI-040125 (L)	69.00 - 73.33	1.0000	1.0000
L31	75	6x2	69.00 - 73.33	1.0000	1.0000
L31	76	6x2	69.00 - 73.33	1.0000	1.0000
L31	77	6x2	69.00 - 73.33	1.0000	1.0000
L31	78	6x2	69.00 - 73.33	1.0000	1.0000
L31	58	CCI-050125 (W)	69.00 - 69.00	1.0000	1.0000
L31	59	CCI-050125 (W)	69.00 - 69.00	1.0000	1.0000
L31	60	CCI-050125 (W)	69.00 - 69.00	1.0000	1.0000
L31	61	CCI-050125 (W)	69.00 - 69.00	1.0000	1.0000
L33	4	2" flat Climb Ladder Rail	66.75 - 67.00	1.0000	1.0000
L33	38	HB114-21U3M12-XXXF(1-1/4)	66.75 - 67.00	1.0000	1.0000
L33	39	HB158-21U6S12-60M-01(1-5/8)	66.75 - 67.00	1.0000	1.0000
L33	42	AL7-50(1-5/8)	66.75 - 67.00	1.0000	1.0000
L33	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	66.75 - 67.00	1.0000	1.0000
L33	45	LDF7-50A(1-5/8)	66.75 - 67.00	1.0000	1.0000
L33	58	CCI-050125 (W)	66.75 - 67.00	1.0000	1.0000
L33	59	CCI-050125 (W)	66.75 - 67.00	1.0000	1.0000
L33	60	CCI-050125 (W)	66.75 - 67.00	1.0000	1.0000
L33	61	CCI-050125 (W)	66.75 - 67.00	1.0000	1.0000
L33	62	CCI-040125 (L)	66.75 - 67.00	1.0000	1.0000
L33	63	CCI-040125 (L)	66.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			67.00		
L33	64	CCI-040125 (L)	66.75 - 67.00	1.0000	1.0000
L33	65	CCI-040125 (L)	66.75 - 67.00	1.0000	1.0000
L33	75	6x2	66.75 - 67.00	1.0000	1.0000
L33	76	6x2	66.75 - 67.00	1.0000	1.0000
L33	77	6x2	66.75 - 67.00	1.0000	1.0000
L33	78	6x2	66.75 - 67.00	1.0000	1.0000
L34	4	2" flat Climb Ladder Rail	66.50 - 66.75	1.0000	1.0000
L34	38	HB114-21U3M12-XXXF(1-1/4)	66.50 - 66.75	1.0000	1.0000
L34	39	HB158-21U6S12-60M-01(1-5/8)	66.50 - 66.75	1.0000	1.0000
L34	42	AL7-50(1-5/8)	66.50 - 66.75	1.0000	1.0000
L34	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	66.50 - 66.75	1.0000	1.0000
L34	45	LDF7-50A(1-5/8)	66.50 - 66.75	1.0000	1.0000
L34	58	CCI-050125 (W)	66.50 - 66.75	1.0000	1.0000
L34	59	CCI-050125 (W)	66.50 - 66.75	1.0000	1.0000
L34	60	CCI-050125 (W)	66.50 - 66.75	1.0000	1.0000
L34	61	CCI-050125 (W)	66.50 - 66.75	1.0000	1.0000
L34	62	CCI-040125 (L)	66.50 - 66.75	1.0000	1.0000
L34	63	CCI-040125 (L)	66.50 - 66.75	1.0000	1.0000
L34	64	CCI-040125 (L)	66.50 - 66.75	1.0000	1.0000
L34	65	CCI-040125 (L)	66.50 - 66.75	1.0000	1.0000
L34	75	6x2	66.50 - 66.75	1.0000	1.0000
L34	76	6x2	66.50 - 66.75	1.0000	1.0000
L34	77	6x2	66.50 - 66.75	1.0000	1.0000
L34	78	6x2	66.50 - 66.75	1.0000	1.0000
L35	4	2" flat Climb Ladder Rail	61.50 - 66.50	1.0000	1.0000
L35	38	HB114-21U3M12-XXXF(1-1/4)	61.50 - 66.50	1.0000	1.0000
L35	39	HB158-21U6S12-60M-01(1-5/8)	61.50 - 66.50	1.0000	1.0000
L35	42	AL7-50(1-5/8)	61.50 - 66.50	1.0000	1.0000
L35	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	61.50 - 66.50	1.0000	1.0000
L35	45	LDF7-50A(1-5/8)	61.50 - 66.50	1.0000	1.0000
L35	58	CCI-050125 (W)	61.50 - 66.50	1.0000	1.0000
L35	59	CCI-050125 (W)	61.50 - 66.50	1.0000	1.0000
L35	60	CCI-050125 (W)	61.50 - 66.50	1.0000	1.0000
L35	61	CCI-050125 (W)	61.50 - 66.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L35	75	6x2	61.50 - 66.50	1.0000	1.0000
L35	76	6x2	61.50 - 66.50	1.0000	1.0000
L35	77	6x2	61.50 - 66.50	1.0000	1.0000
L35	78	6x2	61.50 - 66.50	1.0000	1.0000
L36	4	2" flat Climb Ladder Rail	56.50 - 61.50	1.0000	1.0000
L36	38	HB114-21U3M12-XXXF(1-1/4)	56.50 - 61.50	1.0000	1.0000
L36	39	HB158-21U6S12-60M-01(1-5/8)	56.50 - 61.50	1.0000	1.0000
L36	42	AL7-50(1-5/8)	56.50 - 61.50	1.0000	1.0000
L36	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	56.50 - 61.50	1.0000	1.0000
L36	45	LDF7-50A(1-5/8)	56.50 - 61.50	1.0000	1.0000
L36	58	CCI-050125 (W)	56.50 - 61.50	1.0000	1.0000
L36	59	CCI-050125 (W)	56.50 - 61.50	1.0000	1.0000
L36	60	CCI-050125 (W)	56.50 - 61.50	1.0000	1.0000
L36	61	CCI-050125 (W)	56.50 - 61.50	1.0000	1.0000
L36	75	6x2	56.50 - 61.50	1.0000	1.0000
L36	76	6x2	56.50 - 61.50	1.0000	1.0000
L36	77	6x2	56.50 - 61.50	1.0000	1.0000
L36	78	6x2	56.50 - 61.50	1.0000	1.0000
L37	4	2" flat Climb Ladder Rail	51.50 - 56.50	1.0000	1.0000
L37	38	HB114-21U3M12-XXXF(1-1/4)	51.50 - 56.50	1.0000	1.0000
L37	39	HB158-21U6S12-60M-01(1-5/8)	51.50 - 56.50	1.0000	1.0000
L37	42	AL7-50(1-5/8)	51.50 - 56.50	1.0000	1.0000
L37	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	51.50 - 56.50	1.0000	1.0000
L37	45	LDF7-50A(1-5/8)	51.50 - 56.50	1.0000	1.0000
L37	58	CCI-050125 (W)	51.50 - 56.50	1.0000	1.0000
L37	59	CCI-050125 (W)	51.50 - 56.50	1.0000	1.0000
L37	60	CCI-050125 (W)	51.50 - 56.50	1.0000	1.0000
L37	61	CCI-050125 (W)	51.50 - 56.50	1.0000	1.0000
L37	75	6x2	51.50 - 56.50	1.0000	1.0000
L37	76	6x2	51.50 - 56.50	1.0000	1.0000
L37	77	6x2	51.50 - 56.50	1.0000	1.0000
L37	78	6x2	51.50 - 56.50	1.0000	1.0000
L38	4	2" flat Climb Ladder Rail	48.25 - 51.50	1.0000	1.0000
L38	38	HB114-21U3M12-XXXF(1-1/4)	48.25 - 51.50	1.0000	1.0000
L38	39	HB158-21U6S12-60M-	48.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		01(1-5/8)	51.50		
L38	42	AL7-50(1-5/8)	48.25 - 51.50	1.0000	1.0000
L38	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	48.25 - 51.50	1.0000	1.0000
L38	45	LDF7-50A(1-5/8)	48.25 - 51.50	1.0000	1.0000
L38	49	2.5" Solid Rod Reinforcing	48.25 - 51.00	1.0000	1.0000
L38	50	2.5" Solid Rod Reinforcing	48.25 - 51.00	1.0000	1.0000
L38	51	2.5" Solid Rod Reinforcing	48.25 - 51.00	1.0000	1.0000
L38	52	2.5" Solid Rod Reinforcing	48.25 - 51.00	1.0000	1.0000
L38	58	CCI-050125 (W)	48.25 - 51.50	1.0000	1.0000
L38	59	CCI-050125 (W)	48.25 - 51.50	1.0000	1.0000
L38	60	CCI-050125 (W)	48.25 - 51.50	1.0000	1.0000
L38	61	CCI-050125 (W)	48.25 - 51.50	1.0000	1.0000
L38	75	6x2	48.25 - 51.50	1.0000	1.0000
L38	76	6x2	48.25 - 51.50	1.0000	1.0000
L38	77	6x2	48.25 - 51.50	1.0000	1.0000
L38	78	6x2	48.25 - 51.50	1.0000	1.0000
L39	4	2" flat Climb Ladder Rail	48.00 - 48.25	1.0000	1.0000
L39	38	HB114-21U3M12-XXXF(1-1/4)	48.00 - 48.25	1.0000	1.0000
L39	39	HB158-21U6S12-60M-01(1-5/8)	48.00 - 48.25	1.0000	1.0000
L39	42	AL7-50(1-5/8)	48.00 - 48.25	1.0000	1.0000
L39	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	48.00 - 48.25	1.0000	1.0000
L39	45	LDF7-50A(1-5/8)	48.00 - 48.25	1.0000	1.0000
L39	49	2.5" Solid Rod Reinforcing	48.00 - 48.25	1.0000	1.0000
L39	50	2.5" Solid Rod Reinforcing	48.00 - 48.25	1.0000	1.0000
L39	51	2.5" Solid Rod Reinforcing	48.00 - 48.25	1.0000	1.0000
L39	52	2.5" Solid Rod Reinforcing	48.00 - 48.25	1.0000	1.0000
L39	58	CCI-050125 (W)	48.00 - 48.25	1.0000	1.0000
L39	59	CCI-050125 (W)	48.00 - 48.25	1.0000	1.0000
L39	60	CCI-050125 (W)	48.00 - 48.25	1.0000	1.0000
L39	61	CCI-050125 (W)	48.00 - 48.25	1.0000	1.0000
L39	75	6x2	48.00 - 48.25	1.0000	1.0000
L39	76	6x2	48.00 - 48.25	1.0000	1.0000
L39	77	6x2	48.00 - 48.25	1.0000	1.0000
L39	78	6x2	48.00 - 48.25	1.0000	1.0000
L40	4	2" flat Climb Ladder Rail	44.25 - 48.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L40	38	HB114-21U3M12-XXXF(1-1/4)	44.25 - 48.00	1.0000	1.0000
L40	39	HB158-21U6S12-60M-01(1-5/8)	44.25 - 48.00	1.0000	1.0000
L40	42	AL7-50(1-5/8)	44.25 - 48.00	1.0000	1.0000
L40	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	44.25 - 48.00	1.0000	1.0000
L40	45	LDF7-50A(1-5/8)	44.25 - 48.00	1.0000	1.0000
L40	49	2.5" Solid Rod Reinforcing	44.25 - 48.00	1.0000	1.0000
L40	50	2.5" Solid Rod Reinforcing	44.25 - 48.00	1.0000	1.0000
L40	51	2.5" Solid Rod Reinforcing	44.25 - 48.00	1.0000	1.0000
L40	52	2.5" Solid Rod Reinforcing	44.25 - 48.00	1.0000	1.0000
L40	54	CCI-065125 (L)	44.25 - 47.00	1.0000	1.0000
L40	55	CCI-065125 (L)	44.25 - 47.00	1.0000	1.0000
L40	56	CCI-065125 (L)	44.25 - 47.00	1.0000	1.0000
L40	57	CCI-065125 (L)	44.25 - 47.00	1.0000	1.0000
L40	58	CCI-050125 (W)	47.00 - 48.00	1.0000	1.0000
L40	59	CCI-050125 (W)	47.00 - 48.00	1.0000	1.0000
L40	60	CCI-050125 (W)	47.00 - 48.00	1.0000	1.0000
L40	61	CCI-050125 (W)	47.00 - 48.00	1.0000	1.0000
L40	75	6x2	44.25 - 48.00	1.0000	1.0000
L40	76	6x2	44.25 - 48.00	1.0000	1.0000
L40	77	6x2	44.25 - 48.00	1.0000	1.0000
L40	78	6x2	44.25 - 48.00	1.0000	1.0000
L41	4	2" flat Climb Ladder Rail	44.00 - 44.25	1.0000	1.0000
L41	38	HB114-21U3M12-XXXF(1-1/4)	44.00 - 44.25	1.0000	1.0000
L41	39	HB158-21U6S12-60M-01(1-5/8)	44.00 - 44.25	1.0000	1.0000
L41	42	AL7-50(1-5/8)	44.00 - 44.25	1.0000	1.0000
L41	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	44.00 - 44.25	1.0000	1.0000
L41	45	LDF7-50A(1-5/8)	44.00 - 44.25	1.0000	1.0000
L41	49	2.5" Solid Rod Reinforcing	44.00 - 44.25	1.0000	1.0000
L41	50	2.5" Solid Rod Reinforcing	44.00 - 44.25	1.0000	1.0000
L41	51	2.5" Solid Rod Reinforcing	44.00 - 44.25	1.0000	1.0000
L41	52	2.5" Solid Rod Reinforcing	44.00 - 44.25	1.0000	1.0000
L41	54	CCI-065125 (L)	44.00 - 44.25	1.0000	1.0000
L41	55	CCI-065125 (L)	44.00 - 44.25	1.0000	1.0000
L41	56	CCI-065125 (L)	44.00 - 44.25	1.0000	1.0000
L41	57	CCI-065125 (L)	44.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L41	75	6x2	44.25 44.00 - 44.25	1.0000	1.0000
L41	76	6x2	44.00 - 44.25	1.0000	1.0000
L41	77	6x2	44.00 - 44.25	1.0000	1.0000
L41	78	6x2	44.00 - 44.25	1.0000	1.0000
L42	4	2" flat Climb Ladder Rail	43.08 - 44.00	1.0000	1.0000
L42	38	HB114-21U3M12-XXXF(1-1/4)	43.08 - 44.00	1.0000	1.0000
L42	39	HB158-21U6S12-60M-01(1-5/8)	43.08 - 44.00	1.0000	1.0000
L42	42	AL7-50(1-5/8)	43.08 - 44.00	1.0000	1.0000
L42	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	43.08 - 44.00	1.0000	1.0000
L42	45	LDF7-50A(1-5/8)	43.08 - 44.00	1.0000	1.0000
L42	49	2.5" Solid Rod Reinforcing	43.08 - 44.00	1.0000	1.0000
L42	50	2.5" Solid Rod Reinforcing	43.08 - 44.00	1.0000	1.0000
L42	51	2.5" Solid Rod Reinforcing	43.08 - 44.00	1.0000	1.0000
L42	52	2.5" Solid Rod Reinforcing	43.08 - 44.00	1.0000	1.0000
L42	54	CCI-065125 (L)	43.08 - 44.00	1.0000	1.0000
L42	55	CCI-065125 (L)	43.08 - 44.00	1.0000	1.0000
L42	56	CCI-065125 (L)	43.08 - 44.00	1.0000	1.0000
L42	57	CCI-065125 (L)	43.08 - 44.00	1.0000	1.0000
L42	75	6x2	43.08 - 44.00	1.0000	1.0000
L42	76	6x2	43.08 - 44.00	1.0000	1.0000
L42	77	6x2	43.08 - 44.00	1.0000	1.0000
L42	78	6x2	43.08 - 44.00	1.0000	1.0000
L43	4	2" flat Climb Ladder Rail	42.83 - 43.08	1.0000	1.0000
L43	38	HB114-21U3M12-XXXF(1-1/4)	42.83 - 43.08	1.0000	1.0000
L43	39	HB158-21U6S12-60M-01(1-5/8)	42.83 - 43.08	1.0000	1.0000
L43	42	AL7-50(1-5/8)	42.83 - 43.08	1.0000	1.0000
L43	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	42.83 - 43.08	1.0000	1.0000
L43	45	LDF7-50A(1-5/8)	42.83 - 43.08	1.0000	1.0000
L43	49	2.5" Solid Rod Reinforcing	42.83 - 43.08	1.0000	1.0000
L43	50	2.5" Solid Rod Reinforcing	42.83 - 43.08	1.0000	1.0000
L43	51	2.5" Solid Rod Reinforcing	42.83 - 43.08	1.0000	1.0000
L43	52	2.5" Solid Rod Reinforcing	42.83 - 43.08	1.0000	1.0000
L43	54	CCI-065125 (L)	42.83 - 43.08	1.0000	1.0000
L43	55	CCI-065125 (L)	42.83 - 43.08	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L43	56	CCI-065125 (L)	42.83 - 43.08	1.0000	1.0000
L43	57	CCI-065125 (L)	42.83 - 43.08	1.0000	1.0000
L43	75	6x2	42.83 - 43.08	1.0000	1.0000
L43	76	6x2	42.83 - 43.08	1.0000	1.0000
L43	77	6x2	42.83 - 43.08	1.0000	1.0000
L43	78	6x2	42.83 - 43.08	1.0000	1.0000
L44	4	2" flat Climb Ladder Rail	37.83 - 42.83	1.0000	1.0000
L44	38	HB114-21U3M12-XXXF(1-1/4)	37.83 - 42.83	1.0000	1.0000
L44	39	HB158-21U6S12-60M-01(1-5/8)	37.83 - 42.83	1.0000	1.0000
L44	42	AL7-50(1-5/8)	37.83 - 42.83	1.0000	1.0000
L44	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	37.83 - 42.83	1.0000	1.0000
L44	45	LDF7-50A(1-5/8)	37.83 - 42.83	1.0000	1.0000
L44	49	2.5" Solid Rod Reinforcing	37.83 - 42.83	1.0000	1.0000
L44	50	2.5" Solid Rod Reinforcing	37.83 - 42.83	1.0000	1.0000
L44	51	2.5" Solid Rod Reinforcing	37.83 - 42.83	1.0000	1.0000
L44	52	2.5" Solid Rod Reinforcing	37.83 - 42.83	1.0000	1.0000
L44	54	CCI-065125 (L)	37.83 - 42.83	1.0000	1.0000
L44	55	CCI-065125 (L)	37.83 - 42.83	1.0000	1.0000
L44	56	CCI-065125 (L)	37.83 - 42.83	1.0000	1.0000
L44	57	CCI-065125 (L)	37.83 - 42.83	1.0000	1.0000
L44	75	6x2	37.83 - 42.83	1.0000	1.0000
L44	76	6x2	37.83 - 42.83	1.0000	1.0000
L44	77	6x2	37.83 - 42.83	1.0000	1.0000
L44	78	6x2	37.83 - 42.83	1.0000	1.0000
L45	4	2" flat Climb Ladder Rail	30.00 - 37.83	1.0000	1.0000
L45	38	HB114-21U3M12-XXXF(1-1/4)	30.00 - 37.83	1.0000	1.0000
L45	39	HB158-21U6S12-60M-01(1-5/8)	30.00 - 37.83	1.0000	1.0000
L45	42	AL7-50(1-5/8)	30.00 - 37.83	1.0000	1.0000
L45	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	30.00 - 37.83	1.0000	1.0000
L45	45	LDF7-50A(1-5/8)	30.00 - 37.83	1.0000	1.0000
L45	49	2.5" Solid Rod Reinforcing	30.00 - 37.83	1.0000	1.0000
L45	50	2.5" Solid Rod Reinforcing	30.00 - 37.83	1.0000	1.0000
L45	51	2.5" Solid Rod Reinforcing	30.00 - 37.83	1.0000	1.0000
L45	52	2.5" Solid Rod Reinforcing	30.00 - 37.83	1.0000	1.0000
L45	54	CCI-065125 (L)	30.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L45	55	CCI-065125 (L)	37.83 30.00 - 37.83	1.0000	1.0000
L45	56	CCI-065125 (L)	30.00 - 37.83	1.0000	1.0000
L45	57	CCI-065125 (L)	30.00 - 37.83	1.0000	1.0000
L45	75	6x2	30.00 - 37.83	1.0000	1.0000
L45	76	6x2	30.00 - 37.83	1.0000	1.0000
L45	77	6x2	30.00 - 37.83	1.0000	1.0000
L45	78	6x2	30.00 - 37.83	1.0000	1.0000
L47	4	2" flat Climb Ladder Rail	24.00 - 29.00	1.0000	1.0000
L47	38	HB114-21U3M12-XXXF(1-1/4)	24.00 - 29.00	1.0000	1.0000
L47	39	HB158-21U6S12-60M-01(1-5/8)	24.00 - 29.00	1.0000	1.0000
L47	42	AL7-50(1-5/8)	24.00 - 29.00	1.0000	1.0000
L47	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	24.00 - 29.00	1.0000	1.0000
L47	45	LDF7-50A(1-5/8)	24.00 - 29.00	1.0000	1.0000
L47	49	2.5" Solid Rod Reinforcing	24.00 - 29.00	1.0000	1.0000
L47	50	2.5" Solid Rod Reinforcing	24.00 - 29.00	1.0000	1.0000
L47	51	2.5" Solid Rod Reinforcing	24.00 - 29.00	1.0000	1.0000
L47	52	2.5" Solid Rod Reinforcing	24.00 - 29.00	1.0000	1.0000
L47	54	CCI-065125 (L)	24.00 - 29.00	1.0000	1.0000
L47	55	CCI-065125 (L)	24.00 - 29.00	1.0000	1.0000
L47	56	CCI-065125 (L)	24.00 - 29.00	1.0000	1.0000
L47	57	CCI-065125 (L)	24.00 - 29.00	1.0000	1.0000
L47	75	6x2	24.00 - 29.00	1.0000	1.0000
L47	76	6x2	24.00 - 29.00	1.0000	1.0000
L47	77	6x2	24.00 - 29.00	1.0000	1.0000
L47	78	6x2	24.00 - 29.00	1.0000	1.0000
L48	4	2" flat Climb Ladder Rail	23.75 - 24.00	1.0000	1.0000
L48	38	HB114-21U3M12-XXXF(1-1/4)	23.75 - 24.00	1.0000	1.0000
L48	39	HB158-21U6S12-60M-01(1-5/8)	23.75 - 24.00	1.0000	1.0000
L48	42	AL7-50(1-5/8)	23.75 - 24.00	1.0000	1.0000
L48	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	23.75 - 24.00	1.0000	1.0000
L48	45	LDF7-50A(1-5/8)	23.75 - 24.00	1.0000	1.0000
L48	49	2.5" Solid Rod Reinforcing	23.75 - 24.00	1.0000	1.0000
L48	50	2.5" Solid Rod Reinforcing	23.75 - 24.00	1.0000	1.0000
L48	51	2.5" Solid Rod Reinforcing	23.75 - 24.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L48	52	2.5" Solid Rod Reinforcing	23.75 - 24.00	1.0000	1.0000
L48	54	CCI-065125 (L)	23.75 - 24.00	1.0000	1.0000
L48	55	CCI-065125 (L)	23.75 - 24.00	1.0000	1.0000
L48	56	CCI-065125 (L)	23.75 - 24.00	1.0000	1.0000
L48	57	CCI-065125 (L)	23.75 - 24.00	1.0000	1.0000
L48	75	6x2	23.75 - 24.00	1.0000	1.0000
L48	76	6x2	23.75 - 24.00	1.0000	1.0000
L48	77	6x2	23.75 - 24.00	1.0000	1.0000
L48	78	6x2	23.75 - 24.00	1.0000	1.0000
L49	4	2" flat Climb Ladder Rail	23.50 - 23.75	1.0000	1.0000
L49	38	HB114-21U3M12-XXXF(1-1/4)	23.50 - 23.75	1.0000	1.0000
L49	39	HB158-21U6S12-60M-01(1-5/8)	23.50 - 23.75	1.0000	1.0000
L49	42	AL7-50(1-5/8)	23.50 - 23.75	1.0000	1.0000
L49	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	23.50 - 23.75	1.0000	1.0000
L49	45	LDF7-50A(1-5/8)	23.50 - 23.75	1.0000	1.0000
L49	49	2.5" Solid Rod Reinforcing	23.50 - 23.75	1.0000	1.0000
L49	50	2.5" Solid Rod Reinforcing	23.50 - 23.75	1.0000	1.0000
L49	51	2.5" Solid Rod Reinforcing	23.50 - 23.75	1.0000	1.0000
L49	52	2.5" Solid Rod Reinforcing	23.50 - 23.75	1.0000	1.0000
L49	54	CCI-065125 (L)	23.50 - 23.75	1.0000	1.0000
L49	55	CCI-065125 (L)	23.50 - 23.75	1.0000	1.0000
L49	56	CCI-065125 (L)	23.50 - 23.75	1.0000	1.0000
L49	57	CCI-065125 (L)	23.50 - 23.75	1.0000	1.0000
L49	75	6x2	23.50 - 23.75	1.0000	1.0000
L49	76	6x2	23.50 - 23.75	1.0000	1.0000
L49	77	6x2	23.50 - 23.75	1.0000	1.0000
L49	78	6x2	23.50 - 23.75	1.0000	1.0000
L50	4	2" flat Climb Ladder Rail	18.50 - 23.50	1.0000	1.0000
L50	38	HB114-21U3M12-XXXF(1-1/4)	18.50 - 23.50	1.0000	1.0000
L50	39	HB158-21U6S12-60M-01(1-5/8)	18.50 - 23.50	1.0000	1.0000
L50	42	AL7-50(1-5/8)	18.50 - 23.50	1.0000	1.0000
L50	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	18.50 - 23.50	1.0000	1.0000
L50	45	LDF7-50A(1-5/8)	18.50 - 23.50	1.0000	1.0000
L50	49	2.5" Solid Rod Reinforcing	18.50 - 23.50	1.0000	1.0000
L50	50	2.5" Solid Rod Reinforcing	18.50 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			23.50		
L50	51	2.5" Solid Rod Reinforcing	18.50 - 23.50	1.0000	1.0000
L50	52	2.5" Solid Rod Reinforcing	18.50 - 23.50	1.0000	1.0000
L50	54	CCI-065125 (L)	18.50 - 23.50	1.0000	1.0000
L50	55	CCI-065125 (L)	18.50 - 23.50	1.0000	1.0000
L50	56	CCI-065125 (L)	18.50 - 23.50	1.0000	1.0000
L50	57	CCI-065125 (L)	18.50 - 23.50	1.0000	1.0000
L50	75	6x2	18.50 - 23.50	1.0000	1.0000
L50	76	6x2	18.50 - 23.50	1.0000	1.0000
L50	77	6x2	18.50 - 23.50	1.0000	1.0000
L50	78	6x2	18.50 - 23.50	1.0000	1.0000
L51	4	2" flat Climb Ladder Rail	13.50 - 18.50	1.0000	1.0000
L51	38	HB114-21U3M12-XXXF(1-1/4)	13.50 - 18.50	1.0000	1.0000
L51	39	HB158-21U6S12-60M-01(1-5/8)	13.50 - 18.50	1.0000	1.0000
L51	42	AL7-50(1-5/8)	13.50 - 18.50	1.0000	1.0000
L51	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	13.50 - 18.50	1.0000	1.0000
L51	45	LDF7-50A(1-5/8)	13.50 - 18.50	1.0000	1.0000
L51	49	2.5" Solid Rod Reinforcing	13.50 - 18.50	1.0000	1.0000
L51	50	2.5" Solid Rod Reinforcing	13.50 - 18.50	1.0000	1.0000
L51	51	2.5" Solid Rod Reinforcing	13.50 - 18.50	1.0000	1.0000
L51	52	2.5" Solid Rod Reinforcing	13.50 - 18.50	1.0000	1.0000
L51	54	CCI-065125 (L)	13.50 - 18.50	1.0000	1.0000
L51	55	CCI-065125 (L)	13.50 - 18.50	1.0000	1.0000
L51	56	CCI-065125 (L)	13.50 - 18.50	1.0000	1.0000
L51	57	CCI-065125 (L)	13.50 - 18.50	1.0000	1.0000
L51	75	6x2	13.50 - 18.50	1.0000	1.0000
L51	76	6x2	13.50 - 18.50	1.0000	1.0000
L51	77	6x2	13.50 - 18.50	1.0000	1.0000
L51	78	6x2	13.50 - 18.50	1.0000	1.0000
L52	4	2" flat Climb Ladder Rail	11.00 - 13.50	1.0000	1.0000
L52	38	HB114-21U3M12-XXXF(1-1/4)	11.00 - 13.50	1.0000	1.0000
L52	39	HB158-21U6S12-60M-01(1-5/8)	11.00 - 13.50	1.0000	1.0000
L52	42	AL7-50(1-5/8)	11.00 - 13.50	1.0000	1.0000
L52	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	11.00 - 13.50	1.0000	1.0000
L52	45	LDF7-50A(1-5/8)	11.00 - 13.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L52	49	2.5" Solid Rod Reinforcing	11.00 - 13.50	1.0000	1.0000
L52	50	2.5" Solid Rod Reinforcing	11.00 - 13.50	1.0000	1.0000
L52	51	2.5" Solid Rod Reinforcing	11.00 - 13.50	1.0000	1.0000
L52	52	2.5" Solid Rod Reinforcing	11.00 - 13.50	1.0000	1.0000
L52	54	CCI-065125 (L)	11.00 - 13.50	1.0000	1.0000
L52	55	CCI-065125 (L)	11.00 - 13.50	1.0000	1.0000
L52	56	CCI-065125 (L)	11.00 - 13.50	1.0000	1.0000
L52	57	CCI-065125 (L)	11.00 - 13.50	1.0000	1.0000
L52	75	6x2	11.00 - 13.50	1.0000	1.0000
L52	76	6x2	11.00 - 13.50	1.0000	1.0000
L52	77	6x2	11.00 - 13.50	1.0000	1.0000
L52	78	6x2	11.00 - 13.50	1.0000	1.0000
L53	4	2" flat Climb Ladder Rail	10.75 - 11.00	1.0000	1.0000
L53	38	HB114-21U3M12-XXXF(1-1/4)	10.75 - 11.00	1.0000	1.0000
L53	39	HB158-21U6S12-60M-01(1-5/8)	10.75 - 11.00	1.0000	1.0000
L53	42	AL7-50(1-5/8)	10.75 - 11.00	1.0000	1.0000
L53	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	10.75 - 11.00	1.0000	1.0000
L53	45	LDF7-50A(1-5/8)	10.75 - 11.00	1.0000	1.0000
L53	49	2.5" Solid Rod Reinforcing	10.75 - 11.00	1.0000	1.0000
L53	50	2.5" Solid Rod Reinforcing	10.75 - 11.00	1.0000	1.0000
L53	51	2.5" Solid Rod Reinforcing	10.75 - 11.00	1.0000	1.0000
L53	52	2.5" Solid Rod Reinforcing	10.75 - 11.00	1.0000	1.0000
L53	54	CCI-065125 (L)	10.75 - 11.00	1.0000	1.0000
L53	55	CCI-065125 (L)	10.75 - 11.00	1.0000	1.0000
L53	56	CCI-065125 (L)	10.75 - 11.00	1.0000	1.0000
L53	57	CCI-065125 (L)	10.75 - 11.00	1.0000	1.0000
L53	75	6x2	10.75 - 11.00	1.0000	1.0000
L53	76	6x2	10.75 - 11.00	1.0000	1.0000
L53	77	6x2	10.75 - 11.00	1.0000	1.0000
L53	78	6x2	10.75 - 11.00	1.0000	1.0000
L54	4	2" flat Climb Ladder Rail	6.00 - 10.75	1.0000	1.0000
L54	38	HB114-21U3M12-XXXF(1-1/4)	6.00 - 10.75	1.0000	1.0000
L54	39	HB158-21U6S12-60M-01(1-5/8)	6.00 - 10.75	1.0000	1.0000
L54	42	AL7-50(1-5/8)	6.00 - 10.75	1.0000	1.0000
L54	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	6.00 - 10.75	1.0000	1.0000
L54	45	LDF7-50A(1-5/8)	6.00 - 10.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L54	49	2.5" Solid Rod Reinforcing	6.00 - 10.75	1.0000	1.0000
L54	50	2.5" Solid Rod Reinforcing	6.00 - 10.75	1.0000	1.0000
L54	51	2.5" Solid Rod Reinforcing	6.00 - 10.75	1.0000	1.0000
L54	52	2.5" Solid Rod Reinforcing	6.00 - 10.75	1.0000	1.0000
L54	54	CCI-065125 (L)	6.00 - 10.75	1.0000	1.0000
L54	55	CCI-065125 (L)	6.00 - 10.75	1.0000	1.0000
L54	56	CCI-065125 (L)	6.00 - 10.75	1.0000	1.0000
L54	57	CCI-065125 (L)	6.00 - 10.75	1.0000	1.0000
L54	75	6x2	6.00 - 10.75	1.0000	1.0000
L54	76	6x2	8.50 - 10.75	1.0000	1.0000
L54	77	6x2	6.00 - 10.75	1.0000	1.0000
L54	78	6x2	8.50 - 10.75	1.0000	1.0000
L55	4	2" flat Climb Ladder Rail	5.75 - 6.00	1.0000	1.0000
L55	38	HB114-21U3M12-XXXF(1-1/4)	5.75 - 6.00	1.0000	1.0000
L55	39	HB158-21U6S12-60M-01(1-5/8)	5.75 - 6.00	1.0000	1.0000
L55	42	AL7-50(1-5/8)	5.75 - 6.00	1.0000	1.0000
L55	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	5.75 - 6.00	1.0000	1.0000
L55	45	LDF7-50A(1-5/8)	5.75 - 6.00	1.0000	1.0000
L55	49	2.5" Solid Rod Reinforcing	5.75 - 6.00	1.0000	1.0000
L55	50	2.5" Solid Rod Reinforcing	5.75 - 6.00	1.0000	1.0000
L55	51	2.5" Solid Rod Reinforcing	5.75 - 6.00	1.0000	1.0000
L55	52	2.5" Solid Rod Reinforcing	5.75 - 6.00	1.0000	1.0000
L55	54	CCI-065125 (L)	5.75 - 6.00	1.0000	1.0000
L55	55	CCI-065125 (L)	5.75 - 6.00	1.0000	1.0000
L55	56	CCI-065125 (L)	5.75 - 6.00	1.0000	1.0000
L55	57	CCI-065125 (L)	5.75 - 6.00	1.0000	1.0000
L55	75	6x2	5.75 - 6.00	1.0000	1.0000
L55	77	6x2	5.75 - 6.00	1.0000	1.0000
L56	4	2" flat Climb Ladder Rail	3.25 - 5.75	1.0000	1.0000
L56	38	HB114-21U3M12-XXXF(1-1/4)	3.25 - 5.75	1.0000	1.0000
L56	39	HB158-21U6S12-60M-01(1-5/8)	3.25 - 5.75	1.0000	1.0000
L56	42	AL7-50(1-5/8)	3.25 - 5.75	1.0000	1.0000
L56	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	3.25 - 5.75	1.0000	1.0000
L56	45	LDF7-50A(1-5/8)	3.25 - 5.75	1.0000	1.0000
L56	49	2.5" Solid Rod Reinforcing	3.25 - 5.75	1.0000	1.0000
L56	50	2.5" Solid Rod Reinforcing	3.25 - 5.75	1.0000	1.0000
L56	51	2.5" Solid Rod Reinforcing	3.25 - 5.75	1.0000	1.0000
L56	52	2.5" Solid Rod Reinforcing	3.25 - 5.75	1.0000	1.0000
L56	54	CCI-065125 (L)	3.25 - 5.75	1.0000	1.0000
L56	55	CCI-065125 (L)	3.25 - 5.75	1.0000	1.0000
L56	56	CCI-065125 (L)	3.25 - 5.75	1.0000	1.0000
L56	57	CCI-065125 (L)	3.25 - 5.75	1.0000	1.0000
L56	75	6x2	3.50 - 5.75	1.0000	1.0000
L56	77	6x2	3.50 - 5.75	1.0000	1.0000
L57	4	2" flat Climb Ladder Rail	3.00 - 3.25	1.0000	1.0000
L57	38	HB114-21U3M12-XXXF(1-1/4)	3.00 - 3.25	1.0000	1.0000
L57	39	HB158-21U6S12-60M-01(1-5/8)	3.00 - 3.25	1.0000	1.0000
L57	42	AL7-50(1-5/8)	3.00 - 3.25	1.0000	1.0000
L57	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	3.00 - 3.25	1.0000	1.0000
L57	45	LDF7-50A(1-5/8)	3.00 - 3.25	1.0000	1.0000
L57	49	2.5" Solid Rod Reinforcing	3.00 - 3.25	1.0000	1.0000
L57	50	2.5" Solid Rod Reinforcing	3.00 - 3.25	1.0000	1.0000
L57	51	2.5" Solid Rod Reinforcing	3.00 - 3.25	1.0000	1.0000
L57	52	2.5" Solid Rod Reinforcing	3.00 - 3.25	1.0000	1.0000
L57	54	CCI-065125 (L)	3.00 - 3.25	1.0000	1.0000
L57	55	CCI-065125 (L)	3.00 - 3.25	1.0000	1.0000
L57	56	CCI-065125 (L)	3.00 - 3.25	1.0000	1.0000
L57	57	CCI-065125 (L)	3.00 - 3.25	1.0000	1.0000
L58	4	2" flat Climb Ladder Rail	0.00 - 3.00	1.0000	1.0000
L58	38	HB114-21U3M12-XXXF(1-	0.00 - 3.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		1/4)			
L58	39	HB158-21U6S12-60M-01(1-5/8)	0.00 - 3.00	1.0000	1.0000
L58	42	AL7-50(1-5/8)	0.00 - 3.00	1.0000	1.0000
L58	43	MLC HYBRID 6x12 6AWGx6(1-1/2")	0.00 - 3.00	1.0000	1.0000
L58	45	LDF7-50A(1-5/8)	0.00 - 3.00	1.0000	1.0000
L58	49	2.5" Solid Rod Reinforcing	0.00 - 3.00	1.0000	1.0000
L58	50	2.5" Solid Rod Reinforcing	0.00 - 3.00	1.0000	1.0000
L58	51	2.5" Solid Rod Reinforcing	0.00 - 3.00	1.0000	1.0000
L58	52	2.5" Solid Rod Reinforcing	0.00 - 3.00	1.0000	1.0000
L58	54	CCI-065125 (L)	0.00 - 3.00	1.0000	1.0000
L58	55	CCI-065125 (L)	0.00 - 3.00	1.0000	1.0000
L58	56	CCI-065125 (L)	0.00 - 3.00	1.0000	1.0000
L58	57	CCI-065125 (L)	0.00 - 3.00	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
7770.00	A	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	5.5085 5.8673 6.2332 6.9859	2.9282 3.2730 3.6252 4.3517	0.04 0.07 0.11 0.20
7770.00	B	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	5.5085 5.8673 6.2332 6.9859	2.9282 3.2730 3.6252 4.3517	0.04 0.07 0.11 0.20
7770.00	C	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	5.5085 5.8673 6.2332 6.9859	2.9282 3.2730 3.6252 4.3517	0.04 0.07 0.11 0.20
QS66512-2	A	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	4.0100 4.4100 4.8100 5.6500	3.3700 3.7600 4.1500 4.9700	0.11 0.17 0.23 0.38
QS66512-2	B	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	4.0100 4.4100 4.8100 5.6500	3.3700 3.7600 4.1500 4.9700	0.11 0.17 0.23 0.38
QS66512-2	C	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	4.0100 4.4100 4.8100 5.6500	3.3700 3.7600 4.1500 4.9700	0.11 0.17 0.23 0.38
HPA-65R-BUU-H6	A	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	9.2200 10.0000 10.7900 12.4300	4.6500 5.3600 6.0900 7.6000	0.05 0.11 0.17 0.32
HPA-65R-BUU-H6	B	From Leg	4.0000 0.00 4.00	0.0000	150.0000	No Ice 1/2" Ice 1" Ice 2" Ice	9.2200 10.0000 10.7900 12.4300	4.6500 5.3600 6.0900 7.6000	0.05 0.11 0.17 0.32
HPA-65R-BUU-H6	C	From Leg	4.0000 0.00	0.0000	150.0000	No Ice 1/2"	9.2200 10.0000	4.6500 5.3600	0.05 0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			4.00			Ice	10.7900	6.0900	0.17
						1" Ice	12.4300	7.6000	0.32
						2" Ice			
TT19-08BP111-001	A	From Leg	4.0000	0.0000	150.0000	No Ice	0.5527	0.4455	0.02
			0.00			1/2"	0.6487	0.5342	0.02
			4.00			Ice	0.7520	0.6303	0.03
						1" Ice	0.9809	0.8448	0.05
						2" Ice			
TT19-08BP111-001	B	From Leg	4.0000	0.0000	150.0000	No Ice	0.5527	0.4455	0.02
			0.00			1/2"	0.6487	0.5342	0.02
			4.00			Ice	0.7520	0.6303	0.03
						1" Ice	0.9809	0.8448	0.05
						2" Ice			
TT19-08BP111-001	C	From Leg	4.0000	0.0000	150.0000	No Ice	0.5527	0.4455	0.02
			0.00			1/2"	0.6487	0.5342	0.02
			4.00			Ice	0.7520	0.6303	0.03
						1" Ice	0.9809	0.8448	0.05
						2" Ice			
(2) 7020.00	A	From Leg	4.0000	0.0000	150.0000	No Ice	0.1021	0.1750	0.00
			0.00			1/2"	0.1469	0.2393	0.01
			4.00			Ice	0.1991	0.3109	0.01
						1" Ice	0.3258	0.4765	0.02
						2" Ice			
(2) 7020.00	B	From Leg	4.0000	0.0000	150.0000	No Ice	0.1021	0.1750	0.00
			0.00			1/2"	0.1469	0.2393	0.01
			4.00			Ice	0.1991	0.3109	0.01
						1" Ice	0.3258	0.4765	0.02
						2" Ice			
(2) 7020.00	C	From Leg	4.0000	0.0000	150.0000	No Ice	0.1021	0.1750	0.00
			0.00			1/2"	0.1469	0.2393	0.01
			4.00			Ice	0.1991	0.3109	0.01
						1" Ice	0.3258	0.4765	0.02
						2" Ice			
RRUS 32	A	From Leg	4.0000	0.0000	150.0000	No Ice	2.8571	1.7766	0.06
			0.00			1/2"	3.0830	1.9677	0.08
			4.00			Ice	3.3163	2.1658	0.10
						1" Ice	3.8052	2.5829	0.16
						2" Ice			
RRUS 32	B	From Leg	4.0000	0.0000	150.0000	No Ice	2.8571	1.7766	0.06
			0.00			1/2"	3.0830	1.9677	0.08
			4.00			Ice	3.3163	2.1658	0.10
						1" Ice	3.8052	2.5829	0.16
						2" Ice			
RRUS 32	C	From Leg	4.0000	0.0000	150.0000	No Ice	2.8571	1.7766	0.06
			0.00			1/2"	3.0830	1.9677	0.08
			4.00			Ice	3.3163	2.1658	0.10
						1" Ice	3.8052	2.5829	0.16
						2" Ice			
1001940	A	From Leg	4.0000	0.0000	150.0000	No Ice	0.1758	0.0833	0.00
			0.00			1/2"	0.2317	0.1264	0.00
			4.00			Ice	0.2950	0.1778	0.01
						1" Ice	0.4439	0.3045	0.01
						2" Ice			
1001940	B	From Leg	4.0000	0.0000	150.0000	No Ice	0.1758	0.0833	0.00
			0.00			1/2"	0.2317	0.1264	0.00
			4.00			Ice	0.2950	0.1778	0.01
						1" Ice	0.4439	0.3045	0.01
						2" Ice			
1001940	C	From Leg	4.0000	0.0000	150.0000	No Ice	0.1758	0.0833	0.00
			0.00			1/2"	0.2317	0.1264	0.00
			4.00			Ice	0.2950	0.1778	0.01
						1" Ice	0.4439	0.3045	0.01
						2" Ice			
(2) DC6-48-60-18-8F	A	From Leg	4.0000	0.0000	150.0000	No Ice	1.2117	1.2117	0.03
			0.00			1/2"	1.8924	1.8924	0.05

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			4.00			Ice	2.1051	2.1051	0.08
						1" Ice	2.5703	2.5703	0.14
						2" Ice			
(2) TPX-070821	A	From Leg	4.0000	0.0000	150.0000	No Ice	0.4688	0.1009	0.01
			0.00			1/2"	0.5585	0.1471	0.01
			4.00			Ice	0.6556	0.2020	0.02
						1" Ice	0.8721	0.3340	0.03
						2" Ice			
(2) TPX-070821	B	From Leg	4.0000	0.0000	150.0000	No Ice	0.4688	0.1009	0.01
			0.00			1/2"	0.5585	0.1471	0.01
			4.00			Ice	0.6556	0.2020	0.02
						1" Ice	0.8721	0.3340	0.03
						2" Ice			
(2) TPX-070821	C	From Leg	4.0000	0.0000	150.0000	No Ice	0.4688	0.1009	0.01
			0.00			1/2"	0.5585	0.1471	0.01
			4.00			Ice	0.6556	0.2020	0.02
						1" Ice	0.8721	0.3340	0.03
						2" Ice			
RRUS 32 B2	A	From Leg	4.0000	0.0000	150.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2"	2.9647	1.8552	0.07
			4.00			Ice	3.1941	2.0493	0.10
						1" Ice	3.6753	2.4585	0.16
						2" Ice			
RRUS 32 B2	B	From Leg	4.0000	0.0000	150.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2"	2.9647	1.8552	0.07
			4.00			Ice	3.1941	2.0493	0.10
						1" Ice	3.6753	2.4585	0.16
						2" Ice			
RRUS 32 B2	C	From Leg	4.0000	0.0000	150.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2"	2.9647	1.8552	0.07
			4.00			Ice	3.1941	2.0493	0.10
						1" Ice	3.6753	2.4585	0.16
						2" Ice			
RRUS 11	A	From Leg	4.0000	0.0000	150.0000	No Ice	2.7908	1.1923	0.05
			0.00			1/2"	2.9984	1.3395	0.07
			4.00			Ice	3.2134	1.4957	0.10
						1" Ice	3.6656	1.8390	0.15
						2" Ice			
RRUS 11	B	From Leg	4.0000	0.0000	150.0000	No Ice	2.7908	1.1923	0.05
			0.00			1/2"	2.9984	1.3395	0.07
			4.00			Ice	3.2134	1.4957	0.10
						1" Ice	3.6656	1.8390	0.15
						2" Ice			
RRUS 11	C	From Leg	4.0000	0.0000	150.0000	No Ice	2.7908	1.1923	0.05
			0.00			1/2"	2.9984	1.3395	0.07
			4.00			Ice	3.2134	1.4957	0.10
						1" Ice	3.6656	1.8390	0.15
						2" Ice			
RRUS 32 B66	A	From Leg	4.0000	0.0000	150.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2"	2.9647	1.8552	0.07
			4.00			Ice	3.1941	2.0493	0.10
						1" Ice	3.6753	2.4585	0.16
						2" Ice			
RRUS 32 B66	B	From Leg	4.0000	0.0000	150.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2"	2.9647	1.8552	0.07
			4.00			Ice	3.1941	2.0493	0.10
						1" Ice	3.6753	2.4585	0.16
						2" Ice			
RRUS 32 B66	C	From Leg	4.0000	0.0000	150.0000	No Ice	2.7427	1.6681	0.05
			0.00			1/2"	2.9647	1.8552	0.07
			4.00			Ice	3.1941	2.0493	0.10
						1" Ice	3.6753	2.4585	0.16
						2" Ice			
Platform Mount (LP 101-1)	C	None		0.0000	150.0000	No Ice	35.8300	35.8300	1.50
						1/2"	40.9800	40.9800	2.32

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						Ice	46.5700	46.5700	3.26
						1" Ice	60.4600	60.4600	5.51
						2" Ice			
Top Hat 20" Diameter x 3'-6" Tall	C	None		0.0000	150.0000	No Ice	2.9167	2.9167	0.20
						1/2" Ice	4.3896	4.3896	0.26
						1" Ice	4.7056	4.7056	0.31
						2" Ice	5.3667	5.3667	0.45
***									
RRUS 11	A	From Leg	1.0000 0.00 0.00	0.0000	147.0000	No Ice	2.7908	1.1923	0.05
						1/2" Ice	2.9984	1.3395	0.07
						1" Ice	3.2134	1.4957	0.10
						2" Ice	3.6656	1.8390	0.15
RRUS 11	B	From Leg	1.0000 0.00 0.00	0.0000	147.0000	No Ice	2.7908	1.1923	0.05
						1/2" Ice	2.9984	1.3395	0.07
						1" Ice	3.2134	1.4957	0.10
						2" Ice	3.6656	1.8390	0.15
RRUS 11	C	From Leg	1.0000 0.00 0.00	0.0000	147.0000	No Ice	2.7908	1.1923	0.05
						1/2" Ice	2.9984	1.3395	0.07
						1" Ice	3.2134	1.4957	0.10
						2" Ice	3.6656	1.8390	0.15
TME-DC6-48-60-18-8F	B	From Leg	1.0000 0.00 0.00	0.0000	147.0000	No Ice	0.9167	0.9167	0.02
						1/2" Ice	1.4583	1.4583	0.04
						1" Ice	1.6431	1.6431	0.06
						2" Ice	2.0417	2.0417	0.11
Pipe Mount [PM 601-3]	C	None		0.0000	147.0000	No Ice	3.1700	3.1700	0.20
						1/2" Ice	3.7900	3.7900	0.23
						1" Ice	4.4200	4.4200	0.28
						2" Ice	5.7600	5.7600	0.40
***									
HORIZON COMPACT	B	From Leg	4.0000 0.00 5.00	0.0000	138.0000	No Ice	0.7208	0.3681	0.01
						1/2" Ice	0.8278	0.4499	0.02
						1" Ice	0.9422	0.5391	0.03
						2" Ice	1.1933	0.7396	0.05
HORIZON COMPACT	C	From Leg	4.0000 0.00 5.00	0.0000	138.0000	No Ice	0.7208	0.3681	0.01
						1/2" Ice	0.8278	0.4499	0.02
						1" Ice	0.9422	0.5391	0.03
						2" Ice	1.1933	0.7396	0.05
CW JUNCTION BOX	A	From Leg	4.0000 0.00 5.00	0.0000	138.0000	No Ice	1.2000	0.6000	0.00
						1/2" Ice	1.3370	0.7037	0.01
						1" Ice	1.4815	0.8148	0.02
						2" Ice	1.7926	1.0593	0.05
AAHC w/ Mount Pipe	A	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice	4.4091	2.6915	0.12
						1/2" Ice	4.7270	3.0786	0.16
						1" Ice	5.0553	3.4862	0.20
						2" Ice	5.7429	4.3595	0.31
AAHC w/ Mount Pipe	B	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice	4.4091	2.6915	0.12
						1/2" Ice	4.7270	3.0786	0.16
						1" Ice	5.0553	3.4862	0.20
						2" Ice	5.7429	4.3595	0.31
AAHC w/ Mount Pipe	C	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice	4.4091	2.6915	0.12
						1/2" Ice	4.7270	3.0786	0.16
						1" Ice	5.0553	3.4862	0.20
						2" Ice	5.7429	4.3595	0.31

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
NNVV-65B-R4 w/ Mount Pipe	A	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	7.5500 8.0400 8.5300 9.5600	4.2300 4.6700 5.1200 6.0500	0.11 0.20 0.30 0.53
NNVV-65B-R4 w/ Mount Pipe	B	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	7.5500 8.0400 8.5300 9.5600	4.2300 4.6700 5.1200 6.0500	0.11 0.20 0.30 0.53
NNVV-65B-R4 w/ Mount Pipe	C	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	7.5500 8.0400 8.5300 9.5600	4.2300 4.6700 5.1200 6.0500	0.11 0.20 0.30 0.53
(3) RRH2X50-800	A	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	1.7008 1.8640 2.0345 2.3979	1.2822 1.4275 1.5803 1.9081	0.05 0.07 0.09 0.14
(3) RRH2X50-800	C	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	1.7008 1.8640 2.0345 2.3979	1.2822 1.4275 1.5803 1.9081	0.05 0.07 0.09 0.14
(3) PCS 1900MHZ 4X45W-65MHZ	B	From Leg	4.0000 0.00 2.00	0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	2.3218 2.5266 2.7388 3.1855	2.2381 2.4407 2.6507 3.0929	0.06 0.08 0.11 0.17
Platform Mount [LP 301-1]	C	None		0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	23.8100 30.2400 36.3300 48.0500	23.8100 30.2400 36.3300 48.0500	1.59 2.10 2.73 4.34
Miscellaneous [NA 509-3]	C	None		0.0000	138.0000	No Ice 1/2" Ice 1" Ice 2" Ice	11.8400 16.9600 22.0800 32.3200	11.8400 16.9600 22.0800 32.3200	0.28 0.30 0.32 0.36
***									
AIR -32 B2A/B66AA	A	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	6.5099 6.8870 7.2712 8.0604	4.7123 5.0683 5.4313 6.1782	0.13 0.18 0.23 0.35
AIR -32 B2A/B66AA	B	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	6.5099 6.8870 7.2712 8.0604	4.7123 5.0683 5.4313 6.1782	0.13 0.18 0.23 0.35
AIR -32 B2A/B66AA	C	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	6.5099 6.8870 7.2712 8.0604	4.7123 5.0683 5.4313 6.1782	0.13 0.18 0.23 0.35
AIR 21 B2A/B4P	A	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	5.9244 6.2883 6.6592 7.4219	4.2192 4.5624 4.9126 5.6341	0.08 0.12 0.17 0.28
AIR 21 B2A/B4P	B	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice	5.9244 6.2883 6.6592 7.4219	4.2192 4.5624 4.9126 5.6341	0.08 0.12 0.17 0.28

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice			
AIR 21 B2A/B4P	C	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	5.9244 6.2883 6.6592 7.4219	4.2192 4.5624 4.9126 5.6341	0.08 0.12 0.17 0.28
KRY 112 144/1	A	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	0.3500 0.4259 0.5093 0.6981	0.1750 0.2343 0.3009 0.4565	0.01 0.01 0.02 0.03
KRY 112 144/1	B	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	0.3500 0.4259 0.5093 0.6981	0.1750 0.2343 0.3009 0.4565	0.01 0.01 0.02 0.03
KRY 112 144/1	C	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	0.3500 0.4259 0.5093 0.6981	0.1750 0.2343 0.3009 0.4565	0.01 0.01 0.02 0.03
APXVAARR24_43-U-NA20	A	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	14.6700 15.4300 16.2100 17.8100	5.3200 5.9900 6.6800 8.0800	0.15 0.27 0.39 0.66
APXVAARR24_43-U-NA20	B	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	14.6700 15.4300 16.2100 17.8100	5.3200 5.9900 6.6800 8.0800	0.15 0.27 0.39 0.66
APXVAARR24_43-U-NA20	C	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	14.6700 15.4300 16.2100 17.8100	5.3200 5.9900 6.6800 8.0800	0.15 0.27 0.39 0.66
RADIO 4449 B12/B71	A	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	1.6500 1.8104 1.9781 2.3359	1.1625 1.3012 1.4473 1.7618	0.07 0.09 0.11 0.16
RADIO 4449 B12/B71	B	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	1.6500 1.8104 1.9781 2.3359	1.1625 1.3012 1.4473 1.7618	0.07 0.09 0.11 0.16
RADIO 4449 B12/B71	C	From Leg	4.0000 0.00 0.00	0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	1.6500 1.8104 1.9781 2.3359	1.1625 1.3012 1.4473 1.7618	0.07 0.09 0.11 0.16
Platform Mount [LP 301-1]	C	None		0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	23.8100 30.2400 36.3300 48.0500	23.8100 30.2400 36.3300 48.0500	1.59 2.10 2.73 4.34
Miscellaneous [NA 509-3]	C	None		0.0000	120.0000	No Ice 1/2" Ice 1" Ice 2" Ice	11.8400 16.9600 22.0800 32.3200	11.8400 16.9600 22.0800 32.3200	0.28 0.30 0.32 0.36
***									
BXA-70063/4CF w/ Mount Pipe	A	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice 1/2" Ice	4.9453 5.3243 5.7120	3.6158 4.2169 4.8343	0.03 0.07 0.12

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice	6.5142	6.1053	0.23
						2" Ice			
BXA-70063/4CF w/ Mount Pipe	B	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	4.9453	3.6158	0.03
						1/2" Ice	5.3243	4.2169	0.07
						1" Ice	5.7120	4.8343	0.12
						2" Ice	6.5142	6.1053	0.23
BXA-70063/4CF w/ Mount Pipe	C	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	4.9453	3.6158	0.03
						1/2" Ice	5.3243	4.2169	0.07
						1" Ice	5.7120	4.8343	0.12
						2" Ice	6.5142	6.1053	0.23
CBRS w/ Mount Pipe	A	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	1.7135	1.1683	0.03
						1/2" Ice	1.9342	1.4373	0.05
						1" Ice	2.1662	1.7226	0.07
						2" Ice	2.6643	2.3506	0.13
CBRS w/ Mount Pipe	B	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	1.7135	1.1683	0.03
						1/2" Ice	1.9342	1.4373	0.05
						1" Ice	2.1662	1.7226	0.07
						2" Ice	2.6643	2.3506	0.13
CBRS w/ Mount Pipe	C	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	1.7135	1.1683	0.03
						1/2" Ice	1.9342	1.4373	0.05
						1" Ice	2.1662	1.7226	0.07
						2" Ice	2.6643	2.3506	0.13
(2) JAHH-65A-R3B w/ Mount Pipe	A	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	3.3500	2.6100	0.07
						1/2" Ice	3.6400	2.8900	0.13
						1" Ice	3.9500	3.1800	0.19
						2" Ice	4.5900	3.7900	0.35
(2) JAHH-65A-R3B w/ Mount Pipe	B	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	3.3500	2.6100	0.07
						1/2" Ice	3.6400	2.8900	0.13
						1" Ice	3.9500	3.1800	0.19
						2" Ice	4.5900	3.7900	0.35
(2) JAHH-65A-R3B w/ Mount Pipe	C	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	3.3500	2.6100	0.07
						1/2" Ice	3.6400	2.8900	0.13
						1" Ice	3.9500	3.1800	0.19
						2" Ice	4.5900	3.7900	0.35
CBC78T-DS-43-2X	A	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	0.3680	0.5120	0.02
						1/2" Ice	0.4456	0.6046	0.03
						1" Ice	0.5306	0.7046	0.04
						2" Ice	0.7228	0.9268	0.06
(2) CBC78T-DS-43-2X	C	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	0.3680	0.5120	0.02
						1/2" Ice	0.4456	0.6046	0.03
						1" Ice	0.5306	0.7046	0.04
						2" Ice	0.7228	0.9268	0.06
(3) RFV01U-D1A	A	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	1.8750	1.2500	0.08
						1/2" Ice	2.0454	1.3926	0.10
						1" Ice	2.2231	1.5426	0.12
						2" Ice	2.6009	1.8648	0.18
RFV01U-D2A	A	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	1.8750	1.0125	0.07
						1/2" Ice	2.0454	1.1445	0.09
						1" Ice	2.2231	1.2840	0.11
						2" Ice	2.6009	1.5851	0.15
(2) RFV01U-D2A	B	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice	1.8750	1.0125	0.07
						1/2" Ice	2.0454	1.1445	0.09
						1" Ice	2.2231	1.2840	0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice 2" Ice	2.6009	1.5851	0.15
(2) 20W CBRS	B	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice 1/2" Ice 1" Ice 2" Ice	0.8571 0.9752 1.1008 1.3741	0.4203 0.5105 0.6082 0.8327	0.02 0.03 0.03 0.06
20W CBRS	C	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice 1/2" Ice 1" Ice 2" Ice	0.8571 0.9752 1.1008 1.3741	0.4203 0.5105 0.6082 0.8327	0.02 0.03 0.03 0.06
DB-C1-12C-24AB-0Z	C	From Leg	4.0000 0.00 1.00	0.0000	99.0000	No Ice 1/2" Ice 1" Ice 2" Ice	4.0563 4.3155 4.5822 5.1377	3.0975 3.3351 3.5801 4.0923	0.03 0.07 0.11 0.20
T-Arm Mount [TA 602-3]	C	None		0.0000	99.0000	No Ice 1/2" Ice 1" Ice 2" Ice	14.5167 17.8100 21.1033 27.6899	14.5167 17.8100 21.1033 27.6899	0.83 1.08 1.33 1.83
***									
Bridge Stiffener (76" x 10.5" x 1.25")	A	None		0.0000	109.5000	No Ice 1/2" Ice 1" Ice 2" Ice	1.3194 2.0409 2.7747 3.9288	7.8023 8.2878 8.7656 9.7423	0.28 0.31 0.35 0.45
Bridge Stiffener (76" x 10.5" x 1.25")	B	None		0.0000	109.5000	No Ice 1/2" Ice 1" Ice 2" Ice	1.3194 2.0409 2.7747 3.9288	7.8023 8.2878 8.7656 9.7423	0.28 0.31 0.35 0.45
Bridge Stiffener (76" x 10.5" x 1.25")	C	None		0.0000	109.5000	No Ice 1/2" Ice 1" Ice 2" Ice	1.3194 2.0409 2.7747 3.9288	7.8023 8.2878 8.7656 9.7423	0.28 0.31 0.35 0.45

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
VHLP2-23	B	Paraboloid w/o Radome	From Leg	4.0000 0.00 5.00	0.0000		138.0000	2.1750	No Ice 1/2" Ice 1" Ice 2" Ice	3.7200 4.0100 4.3000 4.8800	0.03 0.05 0.07 0.11
VHLP2-18	C	Paraboloid w/o Radome	From Leg	4.0000 0.00 5.00	0.0000		138.0000	2.1750	No Ice 1/2" Ice 1" Ice 2" Ice	3.7200 4.0100 4.3000 4.8800	0.03 0.05 0.07 0.11

Tower Pressures - No Ice

G_H = 1.100

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 150.0000-145.0000	147.4802	1.104	39.519	6.596	A	0.000	6.596	6.596	100.00	0.000	0.000
					B	0.000	6.596		100.00	0.000	0.000
					C	0.000	6.596		100.00	1.667	0.000
L2 145.0000-140.0000	142.4811	1.093	39.131	6.912	A	0.000	6.912	6.912	100.00	0.000	0.000
					B	0.000	6.912		100.00	0.000	0.000
					C	0.000	6.912		100.00	1.667	0.000
L3 140.0000-135.0000	137.4819	1.082	38.734	7.227	A	0.000	7.227	7.227	100.00	0.000	0.000
					B	0.000	7.227		100.00	1.386	0.000
					C	0.000	7.227		100.00	2.264	0.000
L4 135.0000-130.0000	132.4826	1.071	38.326	7.543	A	0.000	7.543	7.543	100.00	0.000	0.000
					B	0.000	7.543		100.00	2.310	0.000
					C	0.000	7.543		100.00	2.662	0.000
L5 130.0000-128.5000	129.2485	1.063	38.056	2.324	A	0.000	2.324	2.324	100.00	2.000	0.000
					B	0.000	2.324		100.00	1.693	0.000
					C	0.000	2.324		100.00	1.799	0.000
L6 128.5000-128.2500	128.3750	1.061	37.983	0.387	A	0.000	0.387	0.387	100.00	0.333	0.000
					B	0.000	0.387		100.00	0.282	0.000
					C	0.000	0.387		100.00	0.300	0.000
L7 128.2500-123.2500	125.7336	1.055	37.758	7.907	A	0.000	7.907	7.907	100.00	6.667	0.000
					B	0.000	7.907		100.00	5.643	0.000
					C	0.000	7.907		100.00	5.995	0.000
L8 123.2500-118.2500	120.7342	1.043	37.323	8.226	A	0.000	8.226	8.226	100.00	6.667	0.000
					B	0.000	8.226		100.00	5.643	0.000
					C	0.000	8.226		100.00	7.978	0.000
L9 118.2500-113.2500	115.7348	1.03	36.874	8.543	A	0.000	8.543	8.543	100.00	6.667	0.000
					B	0.000	8.543		100.00	5.643	0.000
					C	0.000	8.543		100.00	11.660	0.000
L10 113.2500-109.0000	111.1144	1.018	36.448	7.512	A	0.000	7.512	7.512	100.00	5.167	0.000
					B	0.000	7.512		100.00	4.547	0.000
					C	0.000	7.512		100.00	9.661	0.000
L11 109.0000-108.7500	108.8750	1.013	36.236	0.448	A	0.000	0.448	0.448	100.00	0.417	0.000
					B	0.000	0.448		100.00	0.324	0.000
					C	0.000	0.448		100.00	0.625	0.000
L12 108.7500-104.1700	106.4477	1.006	36.004	8.355	A	0.000	8.355	8.355	100.00	12.130	0.000
					B	0.000	8.355		100.00	14.927	0.000
					C	0.000	8.355		100.00	15.941	0.000
L13 104.1700-103.9200	104.0450	0.999	35.770	0.462	A	0.000	0.462	0.462	100.00	0.667	0.000
					B	0.000	0.462		100.00	0.824	0.000
					C	0.000	0.462		100.00	0.875	0.000
L14 103.9200-103.1700	103.5447	0.998	35.720	1.391	A	0.000	1.391	1.391	100.00	2.000	0.000
					B	0.000	1.391		100.00	2.471	0.000
					C	0.000	1.391		100.00	2.624	0.000
L15 103.1700-102.9200	103.0450	0.997	35.671	0.464	A	0.000	0.464	0.464	100.00	0.667	0.000
					B	0.000	0.464		100.00	0.824	0.000
					C	0.000	0.464		100.00	0.875	0.000
L16 102.9200-102.4200	102.6699	0.996	35.634	0.931	A	0.000	0.931	0.931	100.00	1.333	0.000
					B	0.000	0.931		100.00	1.648	0.000
					C	0.000	0.931		100.00	1.749	0.000
L17 102.4200-102.1700	102.2950	0.995	35.597	0.468	A	0.000	0.468	0.468	100.00	0.667	0.000
					B	0.000	0.468		100.00	0.824	0.000
					C	0.000	0.468		100.00	0.875	0.000
L18 102.1700-100.9200	101.5441	0.993	35.522	2.352	A	0.000	2.352	2.352	100.00	3.333	0.000
					B	0.000	2.352		100.00	4.119	0.000
					C	0.000	2.352		100.00	4.373	0.000
L19 100.9200-100.6700	100.7950	0.99	35.447	0.472	A	0.000	0.472	0.472	100.00	0.667	0.000
					B	0.000	0.472		100.00	0.824	0.000
					C	0.000	0.472		100.00	0.875	0.000
L20 100.6700-99.5800	100.1243	0.989	35.379	2.069	A	0.000	2.069	2.069	100.00	2.907	0.000
					B	0.000	2.069		100.00	4.247	0.000
					C	0.000	2.069		100.00	3.814	0.000
L21 99.5800-	99.4550	0.987	35.312	0.474	A	0.000	0.474	0.474	100.00	0.667	0.000

Section Elevation	z	K_Z	q_z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	ft²		ft²	ft²	ft²		ft²	ft²
99.3300			1		B	0.000	0.474		100.00	1.002	0.000
					C	0.000	0.474		100.00	0.875	0.000
L22 99.3300-95.2500	97.2808	0.98	35.089	7.855	A	0.000	7.855	7.855	100.00	8.588	0.000
					B	0.000	7.855		100.00	15.545	0.000
					C	0.000	7.855		100.00	14.275	0.000
L23 95.2500-95.0000	95.1250	0.974	34.865	0.491	A	0.000	0.491	0.491	100.00	0.458	0.000
					B	0.000	0.491		100.00	0.893	0.000
					C	0.000	0.491		100.00	0.875	0.000
L24 95.0000-90.0000	92.4866	0.966	34.586	9.986	A	0.000	9.986	9.986	100.00	6.250	0.000
					B	0.000	9.986		100.00	15.359	0.000
					C	0.000	9.986		100.00	14.577	0.000
L25 90.0000-85.0000	87.4870	0.951	34.041	10.318	A	0.000	10.318	10.318	100.00	5.000	0.000
					B	0.000	10.318		100.00	14.290	0.000
					C	0.000	10.318		100.00	13.327	0.000
L26 85.0000-80.5000	82.7398	0.936	33.503	9.569	A	0.000	9.569	9.569	100.00	5.500	0.000
					B	0.000	9.569		100.00	13.861	0.000
					C	0.000	9.569		100.00	13.994	0.000
L27 80.5000-80.2500	80.3750	0.928	33.226	0.537	A	0.000	0.537	0.537	100.00	0.417	0.000
					B	0.000	0.537		100.00	0.881	0.000
					C	0.000	0.537		100.00	1.000	0.000
L28 80.2500-75.2500	77.7378	0.92	32.911	10.910	A	0.000	10.910	10.910	100.00	8.333	0.000
					B	0.000	10.910		100.00	17.623	0.000
					C	0.000	10.910		100.00	19.993	0.000
L29 75.2500-73.5800	74.4137	0.908	32.503	3.718	A	0.000	3.718	3.718	100.00	2.783	0.000
					B	0.000	3.718		100.00	5.886	0.000
					C	0.000	3.718		100.00	6.678	0.000
L30 73.5800-73.3300	73.4550	0.905	32.383	0.560	A	0.000	0.560	0.560	100.00	0.417	0.000
					B	0.000	0.560		100.00	0.881	0.000
					C	0.000	0.560		100.00	1.000	0.000
L31 73.3300-69.0000	71.1562	0.897	32.090	9.826	A	0.000	9.826	9.826	100.00	7.217	0.000
					B	0.000	9.826		100.00	15.262	0.000
					C	0.000	9.826		100.00	17.314	0.000
L32 69.0000-67.0000	67.9980	0.885	31.676	4.539	A	0.000	4.539	4.539	100.00	6.667	0.000
					B	0.000	4.539		100.00	8.716	0.000
					C	0.000	4.539		100.00	9.664	0.000
L33 67.0000-66.7500	66.8750	0.881	31.526	0.571	A	0.000	0.571	0.571	100.00	0.833	0.000
					B	0.000	0.571		100.00	1.089	0.000
					C	0.000	0.571		100.00	1.208	0.000
L34 66.7500-66.5000	66.6250	0.88	31.492	0.571	A	0.000	0.571	0.571	100.00	0.833	0.000
					B	0.000	0.571		100.00	1.089	0.000
					C	0.000	0.571		100.00	1.208	0.000
L35 66.5000-61.5000	63.9877	0.87	31.131	11.619	A	0.000	11.619	11.619	100.00	13.333	0.000
					B	0.000	11.619		100.00	18.457	0.000
					C	0.000	11.619		100.00	17.493	0.000
L36 61.5000-56.5000	58.9880	0.85	30.416	11.976	A	0.000	11.976	11.976	100.00	13.333	0.000
					B	0.000	11.976		100.00	18.457	0.000
					C	0.000	11.976		100.00	17.493	0.000
L37 56.5000-51.5000	53.9884	0.829	29.656	12.329	A	0.000	12.329	12.329	100.00	13.333	0.000
					B	0.000	12.329		100.00	18.457	0.000
					C	0.000	12.329		100.00	17.493	0.000
L38 51.5000-48.2500	49.8702	0.81	28.991	8.203	A	0.000	8.203	8.203	100.00	9.354	0.000
					B	0.000	8.203		100.00	12.684	0.000
					C	0.000	8.203		100.00	12.746	0.000
L39 48.2500-48.0000	48.1250	0.802	28.697	0.634	A	0.000	0.634	0.634	100.00	0.729	0.000
					B	0.000	0.634		100.00	0.985	0.000
					C	0.000	0.634		100.00	1.000	0.000
L40 48.0000-44.2500	46.1187	0.792	28.350	9.618	A	0.000	9.618	9.618	100.00	12.313	0.000
					B	0.000	9.618		100.00	15.467	0.000
					C	0.000	9.618		100.00	15.683	0.000
L41 44.2500-44.0000	44.1250	0.782	27.995	0.647	A	0.000	0.647	0.647	100.00	0.854	0.000
					B	0.000	0.647		100.00	1.048	0.000
					C	0.000	0.647		100.00	1.062	0.000
L42 44.0000-43.0800	43.5396	0.779	27.888	2.390	A	0.000	2.390	2.390	100.00	3.143	0.000
					B	0.000	2.390		100.00	3.856	0.000
					C	0.000	2.390		100.00	3.909	0.000
L43 43.0800-42.8300	42.9550	0.776	27.780	0.652	A	0.000	0.652	0.652	100.00	0.854	0.000
					B	0.000	0.652		100.00	1.048	0.000
					C	0.000	0.652		100.00	1.062	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L44 42.8300-37.8300	40.3192	0.762	27.282	13.225	A	0.000	13.225	13.225	100.00	17.083	0.000
					B	0.000	13.225		100.00	20.957	0.000
					C	0.000	13.225		100.00	21.243	0.000
L45 37.8300-30.0000	33.8893	0.725	25.961	21.418	A	0.000	21.418	21.418	100.00	26.753	0.000
					B	0.000	21.418		100.00	32.818	0.000
					C	0.000	21.418		100.00	33.267	0.000
L46 30.0000-29.0000	29.4996	0.7	25.051	2.743	A	0.000	2.743	2.743	100.00	3.417	0.000
					B	0.000	2.743		100.00	4.191	0.000
					C	0.000	2.743		100.00	4.249	0.000
L47 29.0000-24.0000	26.4893	0.7	25.051	13.942	A	0.000	13.942	13.942	100.00	17.083	0.000
					B	0.000	13.942		100.00	20.957	0.000
					C	0.000	13.942		100.00	21.243	0.000
L48 24.0000-23.7500	23.8750	0.7	25.051	0.707	A	0.000	0.707	0.707	100.00	0.854	0.000
					B	0.000	0.707		100.00	1.048	0.000
					C	0.000	0.707		100.00	1.062	0.000
L49 23.7500-23.5000	23.6250	0.7	25.051	0.708	A	0.000	0.708	0.708	100.00	0.854	0.000
					B	0.000	0.708		100.00	1.048	0.000
					C	0.000	0.708		100.00	1.062	0.000
L50 23.5000-18.5000	20.9896	0.7	25.051	14.350	A	0.000	14.350	14.350	100.00	17.083	0.000
					B	0.000	14.350		100.00	20.957	0.000
					C	0.000	14.350		100.00	21.243	0.000
L51 18.5000-13.5000	15.9898	0.7	25.051	14.721	A	0.000	14.721	14.721	100.00	17.083	0.000
					B	0.000	14.721		100.00	20.957	0.000
					C	0.000	14.721		100.00	21.243	0.000
L52 13.5000-11.0000	12.2475	0.7	25.051	7.499	A	0.000	7.499	7.499	100.00	8.542	0.000
					B	0.000	7.499		100.00	10.478	0.000
					C	0.000	7.499		100.00	10.622	0.000
L53 11.0000-10.7500	10.8750	0.7	25.051	0.757	A	0.000	0.757	0.757	100.00	0.854	0.000
					B	0.000	0.757		100.00	1.048	0.000
					C	0.000	0.757		100.00	1.062	0.000
L54 10.7500-6.0000	8.3662	0.7	25.051	14.555	A	0.000	14.555	14.555	100.00	16.229	0.000
					B	0.000	14.555		100.00	17.409	0.000
					C	0.000	14.555		100.00	17.681	0.000
L55 6.0000-5.7500	5.8750	0.7	25.051	0.773	A	0.000	0.773	0.773	100.00	0.854	0.000
					B	0.000	0.773		100.00	0.798	0.000
					C	0.000	0.773		100.00	0.812	0.000
L56 5.7500-3.2500	4.4976	0.7	25.051	7.783	A	0.000	7.783	7.783	100.00	8.292	0.000
					B	0.000	7.783		100.00	7.728	0.000
					C	0.000	7.783		100.00	8.122	0.000
L57 3.2500-3.0000	3.1250	0.7	25.051	0.786	A	0.000	0.786	0.786	100.00	0.604	0.000
					B	0.000	0.786		100.00	0.548	0.000
					C	0.000	0.786		100.00	0.812	0.000
L58 3.0000-0.0000	1.4966	0.7	25.051	9.504	A	0.000	9.504	9.504	100.00	7.250	0.000
					B	0.000	9.504		100.00	6.574	0.000
					C	0.000	9.504		100.00	9.746	0.000

Tower Pressure - With Ice

G_H = 1.100

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 150.0000-145.0000	147.4802	1.104	6.323	1.4809	7.830	A	0.000	7.830	7.830	100.00	0.000	0.000
						B	0.000	7.830		100.00	0.000	0.000
						C	0.000	7.830		100.00	3.148	0.000
L2 145.0000-140.0000	142.4811	1.093	6.261	1.4758	8.142	A	0.000	8.142	8.142	100.00	0.000	0.000
						B	0.000	8.142		100.00	0.000	0.000
						C	0.000	8.142		100.00	3.142	0.000
L3 140.0000-135.0000	137.4819	1.082	6.197	1.4706	8.453	A	0.000	8.453	8.453	100.00	0.000	0.000
						B	0.000	8.453		100.00	2.835	0.000
						C	0.000	8.453		100.00	4.617	0.000
L4 135.0000-130.0000	132.4826	1.071	6.132	1.4651	8.764	A	0.000	8.764	8.764	100.00	0.000	0.000
						B	0.000	8.764		100.00	4.719	0.000
						C	0.000	8.764		100.00	5.592	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L5 130.0000-128.5000	129.2485	1.063	6.089	1.4615	2.690	A	0.000	2.690	2.690	100.00	2.877	0.000
						B	0.000	2.690		100.00	2.853	0.000
						C	0.000	2.690		100.00	3.114	0.000
L6 128.5000-128.2500	128.3750	1.061	6.077	1.4605	0.448	A	0.000	0.448	0.448	100.00	0.479	0.000
						B	0.000	0.448		100.00	0.475	0.000
						C	0.000	0.448		100.00	0.519	0.000
L7 128.2500-123.2500	125.7336	1.055	6.041	1.4575	9.121	A	0.000	9.121	9.121	100.00	9.582	0.000
						B	0.000	9.121		100.00	9.500	0.000
						C	0.000	9.121		100.00	10.367	0.000
L8 123.2500-118.2500	120.7342	1.043	5.972	1.4516	9.436	A	0.000	9.436	9.436	100.00	9.570	0.000
						B	0.000	9.436		100.00	9.487	0.000
						C	0.000	9.436		100.00	13.904	0.000
L9 118.2500-113.2500	115.7348	1.03	5.900	1.4455	9.748	A	0.000	9.748	9.748	100.00	9.558	0.000
						B	0.000	9.748		100.00	9.473	0.000
						C	0.000	9.748		100.00	20.474	0.000
L10 113.2500-109.0000	111.1144	1.018	5.832	1.4396	8.531	A	0.000	8.531	8.531	100.00	7.268	0.000
						B	0.000	8.531		100.00	7.591	0.000
						C	0.000	8.531		100.00	16.980	0.000
L11 109.0000-108.7500	108.8750	1.013	5.798	1.4367	0.508	A	0.000	0.508	0.508	100.00	0.531	0.000
						B	0.000	0.508		100.00	0.486	0.000
						C	0.000	0.508		100.00	1.062	0.000
L12 108.7500-104.1700	106.4477	1.006	5.761	1.4334	9.449	A	0.000	9.449	9.449	100.00	15.517	0.000
						B	0.000	9.449		100.00	20.477	0.000
						C	0.000	9.449		100.00	25.228	0.000
L13 104.1700-103.9200	104.0450	0.999	5.723	1.4301	0.521	A	0.000	0.521	0.521	100.00	0.852	0.000
						B	0.000	0.521		100.00	1.129	0.000
						C	0.000	0.521		100.00	1.382	0.000
L14 103.9200-103.1700	103.5447	0.998	5.715	1.4295	1.570	A	0.000	1.570	1.570	100.00	2.557	0.000
						B	0.000	1.570		100.00	3.386	0.000
						C	0.000	1.570		100.00	4.145	0.000
L15 103.1700-102.9200	103.0450	0.997	5.707	1.4288	0.524	A	0.000	0.524	0.524	100.00	0.852	0.000
						B	0.000	0.524		100.00	1.129	0.000
						C	0.000	0.524		100.00	1.382	0.000
L16 102.9200-102.4200	102.6699	0.996	5.701	1.4282	1.050	A	0.000	1.050	1.050	100.00	1.704	0.000
						B	0.000	1.050		100.00	2.257	0.000
						C	0.000	1.050		100.00	2.763	0.000
L17 102.4200-102.1700	102.2950	0.995	5.695	1.4277	0.527	A	0.000	0.527	0.527	100.00	0.852	0.000
						B	0.000	0.527		100.00	1.128	0.000
						C	0.000	0.527		100.00	1.381	0.000
L18 102.1700-100.9200	101.5441	0.993	5.683	1.4267	2.649	A	0.000	2.649	2.649	100.00	4.260	0.000
						B	0.000	2.649		100.00	5.641	0.000
						C	0.000	2.649		100.00	6.904	0.000
L19 100.9200-100.6700	100.7950	0.99	5.671	1.4256	0.532	A	0.000	0.532	0.532	100.00	0.852	0.000
						B	0.000	0.532		100.00	1.128	0.000
						C	0.000	0.532		100.00	1.381	0.000
L20 100.6700-99.5800	100.1243	0.989	5.661	1.4247	2.328	A	0.000	2.328	2.328	100.00	3.714	0.000
						B	0.000	2.328		100.00	5.713	0.000
						C	0.000	2.328		100.00	6.018	0.000
L21 99.5800-99.3300	99.4550	0.987	5.650	1.4237	0.533	A	0.000	0.533	0.533	100.00	0.852	0.000
						B	0.000	0.533		100.00	1.344	0.000
						C	0.000	0.533		100.00	1.380	0.000
L22 99.3300-95.2500	97.2808	0.98	5.614	1.4206	8.821	A	0.000	8.821	8.821	100.00	11.124	0.000
						B	0.000	8.821		100.00	22.341	0.000
						C	0.000	8.821		100.00	22.506	0.000
L23 95.2500-95.0000	95.1250	0.974	5.578	1.4174	0.550	A	0.000	0.550	0.550	100.00	0.599	0.000
						B	0.000	0.550		100.00	1.303	0.000
						C	0.000	0.550		100.00	1.378	0.000
L24 95.0000-90.0000	92.4866	0.966	5.534	1.4134	11.164	A	0.000	11.164	11.164	100.00	8.083	0.000
						B	0.000	11.164		100.00	23.019	0.000
						C	0.000	11.164		100.00	23.641	0.000
L25 90.0000-85.0000	87.4870	0.951	5.447	1.4056	11.489	A	0.000	11.489	11.489	100.00	6.406	0.000
						B	0.000	11.489		100.00	21.688	0.000
						C	0.000	11.489		100.00	21.931	0.000
L26 85.0000-80.5000	82.7398	0.936	5.360	1.3978	10.618	A	0.000	10.618	10.618	100.00	7.177	0.000
						B	0.000	10.618		100.00	20.906	0.000
						C	0.000	10.618		100.00	22.540	0.000
L27 80.5000-80.2500	80.3750	0.928	5.316	1.3937	0.595	A	0.000	0.595	0.595	100.00	0.556	0.000
						B	0.000	0.595		100.00	1.318	0.000

Section Elevation	z	K_Z	q_z	t_Z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	in	ft²		ft²	ft²	ft²		ft²	ft²
						C	0.000	0.595		100.00	1.566	0.000
L28 80.2500-75.2500	77.7378	0.92	5.266	1.3891	12.068	A	0.000	12.068	12.068	100.00	11.111	0.000
						B	0.000	12.068		100.00	26.336	0.000
						C	0.000	12.068		100.00	31.289	0.000
L29 75.2500-73.5800	74.4137	0.908	5.200	1.3830	4.103	A	0.000	4.103	4.103	100.00	3.707	0.000
						B	0.000	4.103		100.00	8.785	0.000
						C	0.000	4.103		100.00	10.436	0.000
L30 73.5800-73.3300	73.4550	0.905	5.181	1.3812	0.617	A	0.000	0.617	0.617	100.00	0.555	0.000
						B	0.000	0.617		100.00	1.315	0.000
						C	0.000	0.617		100.00	1.562	0.000
L31 73.3300-69.0000	71.1562	0.897	5.134	1.3768	10.820	A	0.000	10.820	10.820	100.00	9.601	0.000
						B	0.000	10.820		100.00	22.748	0.000
						C	0.000	10.820		100.00	27.019	0.000
L32 69.0000-67.0000	67.9980	0.885	5.068	1.3706	4.998	A	0.000	4.998	4.998	100.00	8.870	0.000
						B	0.000	4.998		100.00	12.725	0.000
						C	0.000	4.998		100.00	14.698	0.000
L33 67.0000-66.7500	66.8750	0.881	5.044	1.3683	0.628	A	0.000	0.628	0.628	100.00	1.107	0.000
						B	0.000	0.628		100.00	1.588	0.000
						C	0.000	0.628		100.00	1.834	0.000
L34 66.7500-66.5000	66.6250	0.88	5.039	1.3678	0.628	A	0.000	0.628	0.628	100.00	1.107	0.000
						B	0.000	0.628		100.00	1.588	0.000
						C	0.000	0.628		100.00	1.833	0.000
L35 66.5000-61.5000	63.9877	0.87	4.981	1.3623	12.754	A	0.000	12.754	12.754	100.00	17.420	0.000
						B	0.000	12.754		100.00	27.022	0.000
						C	0.000	12.754		100.00	27.233	0.000
L36 61.5000-56.5000	58.9880	0.85	4.866	1.3512	13.102	A	0.000	13.102	13.102	100.00	17.387	0.000
						B	0.000	13.102		100.00	26.961	0.000
						C	0.000	13.102		100.00	27.164	0.000
L37 56.5000-51.5000	53.9884	0.829	4.745	1.3393	13.445	A	0.000	13.445	13.445	100.00	17.351	0.000
						B	0.000	13.445		100.00	26.896	0.000
						C	0.000	13.445		100.00	27.089	0.000
L38 51.5000-48.2500	49.8702	0.81	4.639	1.3287	8.923	A	0.000	8.923	8.923	100.00	12.676	0.000
						B	0.000	8.923		100.00	18.863	0.000
						C	0.000	8.923		100.00	20.402	0.000
L39 48.2500-48.0000	48.1250	0.802	4.592	1.3240	0.689	A	0.000	0.689	0.689	100.00	0.994	0.000
						B	0.000	0.689		100.00	1.469	0.000
						C	0.000	0.689		100.00	1.607	0.000
L40 48.0000-44.2500	46.1187	0.792	4.536	1.3184	10.442	A	0.000	10.442	10.442	100.00	16.268	0.000
						B	0.000	10.442		100.00	22.699	0.000
						C	0.000	10.442		100.00	24.759	0.000
L41 44.2500-44.0000	44.1250	0.782	4.479	1.3126	0.702	A	0.000	0.702	0.702	100.00	1.117	0.000
						B	0.000	0.702		100.00	1.528	0.000
						C	0.000	0.702		100.00	1.665	0.000
L42 44.0000-43.0800	43.5396	0.779	4.462	1.3108	2.591	A	0.000	2.591	2.591	100.00	4.108	0.000
						B	0.000	2.591		100.00	5.621	0.000
						C	0.000	2.591		100.00	6.124	0.000
L43 43.0800-42.8300	42.9550	0.776	4.445	1.3091	0.706	A	0.000	0.706	0.706	100.00	1.116	0.000
						B	0.000	0.706		100.00	1.527	0.000
						C	0.000	0.706		100.00	1.663	0.000
L44 42.8300-37.8300	40.3192	0.762	4.365	1.3008	14.309	A	0.000	14.309	14.309	100.00	22.287	0.000
						B	0.000	14.309		100.00	30.484	0.000
						C	0.000	14.309		100.00	33.200	0.000
L45 37.8300-30.0000	33.8893	0.725	4.154	1.2784	23.087	A	0.000	23.087	23.087	100.00	34.760	0.000
						B	0.000	23.087		100.00	47.510	0.000
						C	0.000	23.087		100.00	51.702	0.000
L46 30.0000-29.0000	29.4996	0.7	4.008	1.2608	2.956	A	0.000	2.956	2.956	100.00	4.439	0.000
						B	0.000	2.956		100.00	6.068	0.000
						C	0.000	2.956		100.00	6.603	0.000
L47 29.0000-24.0000	26.4893	0.7	4.008	1.2473	14.981	A	0.000	14.981	14.981	100.00	22.072	0.000
						B	0.000	14.981		100.00	30.137	0.000
						C	0.000	14.981		100.00	32.758	0.000
L48 24.0000-23.7500	23.8750	0.7	4.008	1.2344	0.758	A	0.000	0.758	0.758	100.00	1.101	0.000
						B	0.000	0.758		100.00	1.503	0.000
						C	0.000	0.758		100.00	1.633	0.000
L49 23.7500-23.5000	23.6250	0.7	4.008	1.2331	0.759	A	0.000	0.759	0.759	100.00	1.101	0.000
						B	0.000	0.759		100.00	1.502	0.000
						C	0.000	0.759		100.00	1.632	0.000
L50 23.5000-	20.9896	0.7	4.008	1.2186	15.365	A	0.000	15.365	15.365	100.00	21.958	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
18.5000						B	0.000	15.365		100.00	29.950	0.000
						C	0.000	15.365		100.00	32.522	0.000
L51 18.5000-13.5000	15.9898	0.7	4.008	1.1859	15.710	A	0.000	15.710	15.710	100.00	21.827	0.000
						B	0.000	15.710		100.00	29.737	0.000
						C	0.000	15.710		100.00	32.252	0.000
L52 13.5000-11.0000	12.2475	0.7	4.008	1.1547	7.980	A	0.000	7.980	7.980	100.00	10.851	0.000
						B	0.000	7.980		100.00	14.767	0.000
						C	0.000	7.980		100.00	15.997	0.000
L53 11.0000-10.7500	10.8750	0.7	4.008	1.1410	0.805	A	0.000	0.805	0.805	100.00	1.082	0.000
						B	0.000	0.805		100.00	1.472	0.000
						C	0.000	0.805		100.00	1.594	0.000
L54 10.7500-6.0000	8.3662	0.7	4.008	1.1115	15.435	A	0.000	15.435	15.435	100.00	20.453	0.000
						B	0.000	15.435		100.00	24.735	0.000
						C	0.000	15.435		100.00	27.001	0.000
L55 6.0000-5.7500	5.8750	0.7	4.008	1.0729	0.818	A	0.000	0.818	0.818	100.00	1.069	0.000
						B	0.000	0.818		100.00	1.147	0.000
						C	0.000	0.818		100.00	1.262	0.000
L56 5.7500-3.2500	4.4976	0.7	4.008	1.0446	8.219	A	0.000	8.219	8.219	100.00	10.329	0.000
						B	0.000	8.219		100.00	11.085	0.000
						C	0.000	8.219		100.00	12.521	0.000
L57 3.2500-3.0000	3.1250	0.7	4.008	1.0073	0.828	A	0.000	0.828	0.828	100.00	0.755	0.000
						B	0.000	0.828		100.00	0.828	0.000
						C	0.000	0.828		100.00	1.239	0.000
L58 3.0000-0.0000	1.4966	0.7	4.008	0.9358	9.972	A	0.000	9.972	9.972	100.00	8.934	0.000
						B	0.000	9.972		100.00	9.744	0.000
						C	0.000	9.972		100.00	14.552	0.000

Tower Pressure - Service

G_H = 1.100

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 150.0000-145.0000	147.4802	1.104	8.575	6.596	A	0.000	6.596	6.596	100.00	0.000	0.000
					B	0.000	6.596		100.00	0.000	0.000
					C	0.000	6.596		100.00	1.667	0.000
L2 145.0000-140.0000	142.4811	1.093	8.491	6.912	A	0.000	6.912	6.912	100.00	0.000	0.000
					B	0.000	6.912		100.00	0.000	0.000
					C	0.000	6.912		100.00	1.667	0.000
L3 140.0000-135.0000	137.4819	1.082	8.405	7.227	A	0.000	7.227	7.227	100.00	0.000	0.000
					B	0.000	7.227		100.00	1.386	0.000
					C	0.000	7.227		100.00	2.264	0.000
L4 135.0000-130.0000	132.4826	1.071	8.317	7.543	A	0.000	7.543	7.543	100.00	0.000	0.000
					B	0.000	7.543		100.00	2.310	0.000
					C	0.000	7.543		100.00	2.662	0.000
L5 130.0000-128.5000	129.2485	1.063	8.258	2.324	A	0.000	2.324	2.324	100.00	2.000	0.000
					B	0.000	2.324		100.00	1.693	0.000
					C	0.000	2.324		100.00	1.799	0.000
L6 128.5000-128.2500	128.3750	1.061	8.242	0.387	A	0.000	0.387	0.387	100.00	0.333	0.000
					B	0.000	0.387		100.00	0.282	0.000
					C	0.000	0.387		100.00	0.300	0.000
L7 128.2500-123.2500	125.7336	1.055	8.193	7.907	A	0.000	7.907	7.907	100.00	6.667	0.000
					B	0.000	7.907		100.00	5.643	0.000
					C	0.000	7.907		100.00	5.995	0.000
L8 123.2500-118.2500	120.7342	1.043	8.099	8.226	A	0.000	8.226	8.226	100.00	6.667	0.000
					B	0.000	8.226		100.00	5.643	0.000
					C	0.000	8.226		100.00	7.978	0.000
L9 118.2500-113.2500	115.7348	1.03	8.002	8.543	A	0.000	8.543	8.543	100.00	6.667	0.000
					B	0.000	8.543		100.00	5.643	0.000
					C	0.000	8.543		100.00	11.660	0.000
L10 113.2500-109.0000	111.1144	1.018	7.909	7.512	A	0.000	7.512	7.512	100.00	5.167	0.000
					B	0.000	7.512		100.00	4.547	0.000
					C	0.000	7.512		100.00	9.661	0.000
L11	108.8750	1.013	7.863	0.448	A	0.000	0.448	0.448	100.00	0.417	0.000

Section Elevation	z	K_Z	q_z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	ft^2		ft^2	ft^2	ft^2		ft^2	ft^2
109.0000-					B	0.000	0.448		100.00	0.324	0.000
108.7500					C	0.000	0.448		100.00	0.625	0.000
L12	106.4477	1.006	7.813	8.355	A	0.000	8.355	8.355	100.00	12.130	0.000
108.7500-					B	0.000	8.355		100.00	14.927	0.000
104.1700					C	0.000	8.355		100.00	15.941	0.000
L13	104.0450	0.999	7.762	0.462	A	0.000	0.462	0.462	100.00	0.667	0.000
104.1700-					B	0.000	0.462		100.00	0.824	0.000
103.9200					C	0.000	0.462		100.00	0.875	0.000
L14	103.5447	0.998	7.751	1.391	A	0.000	1.391	1.391	100.00	2.000	0.000
103.9200-					B	0.000	1.391		100.00	2.471	0.000
103.1700					C	0.000	1.391		100.00	2.624	0.000
L15	103.0450	0.997	7.740	0.464	A	0.000	0.464	0.464	100.00	0.667	0.000
103.1700-					B	0.000	0.464		100.00	0.824	0.000
102.9200					C	0.000	0.464		100.00	0.875	0.000
L16	102.6699	0.996	7.732	0.931	A	0.000	0.931	0.931	100.00	1.333	0.000
102.9200-					B	0.000	0.931		100.00	1.648	0.000
102.4200					C	0.000	0.931		100.00	1.749	0.000
L17	102.2950	0.995	7.724	0.468	A	0.000	0.468	0.468	100.00	0.667	0.000
102.4200-					B	0.000	0.468		100.00	0.824	0.000
102.1700					C	0.000	0.468		100.00	0.875	0.000
L18	101.5441	0.993	7.708	2.352	A	0.000	2.352	2.352	100.00	3.333	0.000
102.1700-					B	0.000	2.352		100.00	4.119	0.000
100.9200					C	0.000	2.352		100.00	4.373	0.000
L19	100.7950	0.99	7.692	0.472	A	0.000	0.472	0.472	100.00	0.667	0.000
100.9200-					B	0.000	0.472		100.00	0.824	0.000
100.6700					C	0.000	0.472		100.00	0.875	0.000
L20	100.1243	0.989	7.677	2.069	A	0.000	2.069	2.069	100.00	2.907	0.000
100.6700-					B	0.000	2.069		100.00	4.247	0.000
99.5800					C	0.000	2.069		100.00	3.814	0.000
L21 99.5800-	99.4550	0.987	7.662	0.474	A	0.000	0.474	0.474	100.00	0.667	0.000
99.3300					B	0.000	0.474		100.00	1.002	0.000
					C	0.000	0.474		100.00	0.875	0.000
L22 99.3300-	97.2808	0.98	7.614	7.855	A	0.000	7.855	7.855	100.00	8.588	0.000
95.2500					B	0.000	7.855		100.00	15.545	0.000
					C	0.000	7.855		100.00	14.275	0.000
L23 95.2500-	95.1250	0.974	7.566	0.491	A	0.000	0.491	0.491	100.00	0.458	0.000
95.0000					B	0.000	0.491		100.00	0.893	0.000
					C	0.000	0.491		100.00	0.875	0.000
L24 95.0000-	92.4866	0.966	7.505	9.986	A	0.000	9.986	9.986	100.00	6.250	0.000
90.0000					B	0.000	9.986		100.00	15.359	0.000
					C	0.000	9.986		100.00	14.577	0.000
L25 90.0000-	87.4870	0.951	7.387	10.318	A	0.000	10.318	10.318	100.00	5.000	0.000
85.0000					B	0.000	10.318		100.00	14.290	0.000
					C	0.000	10.318		100.00	13.327	0.000
L26 85.0000-	82.7398	0.936	7.270	9.569	A	0.000	9.569	9.569	100.00	5.500	0.000
80.5000					B	0.000	9.569		100.00	13.861	0.000
					C	0.000	9.569		100.00	13.994	0.000
L27 80.5000-	80.3750	0.928	7.210	0.537	A	0.000	0.537	0.537	100.00	0.417	0.000
80.2500					B	0.000	0.537		100.00	0.881	0.000
					C	0.000	0.537		100.00	1.000	0.000
L28 80.2500-	77.7378	0.92	7.142	10.910	A	0.000	10.910	10.910	100.00	8.333	0.000
75.2500					B	0.000	10.910		100.00	17.623	0.000
					C	0.000	10.910		100.00	19.993	0.000
L29 75.2500-	74.4137	0.908	7.053	3.718	A	0.000	3.718	3.718	100.00	2.783	0.000
73.5800					B	0.000	3.718		100.00	5.886	0.000
					C	0.000	3.718		100.00	6.678	0.000
L30 73.5800-	73.4550	0.905	7.027	0.560	A	0.000	0.560	0.560	100.00	0.417	0.000
73.3300					B	0.000	0.560		100.00	0.881	0.000
					C	0.000	0.560		100.00	1.000	0.000
L31 73.3300-	71.1562	0.897	6.963	9.826	A	0.000	9.826	9.826	100.00	7.217	0.000
69.0000					B	0.000	9.826		100.00	15.262	0.000
					C	0.000	9.826		100.00	17.314	0.000
L32 69.0000-	67.9980	0.885	6.874	4.539	A	0.000	4.539	4.539	100.00	6.667	0.000
67.0000					B	0.000	4.539		100.00	8.716	0.000
					C	0.000	4.539		100.00	9.664	0.000
L33 67.0000-	66.8750	0.881	6.841	0.571	A	0.000	0.571	0.571	100.00	0.833	0.000
66.7500					B	0.000	0.571		100.00	1.089	0.000
					C	0.000	0.571		100.00	1.208	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L34 66.7500-66.5000	66.6250	0.88	6.834	0.571	A	0.000	0.571	0.571	100.00	0.833	0.000
					B	0.000	0.571		100.00	1.089	0.000
					C	0.000	0.571		100.00	1.208	0.000
L35 66.5000-61.5000	63.9877	0.87	6.755	11.619	A	0.000	11.619	11.619	100.00	13.333	0.000
					B	0.000	11.619		100.00	18.457	0.000
					C	0.000	11.619		100.00	17.493	0.000
L36 61.5000-56.5000	58.9880	0.85	6.600	11.976	A	0.000	11.976	11.976	100.00	13.333	0.000
					B	0.000	11.976		100.00	18.457	0.000
					C	0.000	11.976		100.00	17.493	0.000
L37 56.5000-51.5000	53.9884	0.829	6.435	12.329	A	0.000	12.329	12.329	100.00	13.333	0.000
					B	0.000	12.329		100.00	18.457	0.000
					C	0.000	12.329		100.00	17.493	0.000
L38 51.5000-48.2500	49.8702	0.81	6.291	8.203	A	0.000	8.203	8.203	100.00	9.354	0.000
					B	0.000	8.203		100.00	12.684	0.000
					C	0.000	8.203		100.00	12.746	0.000
L39 48.2500-48.0000	48.1250	0.802	6.227	0.634	A	0.000	0.634	0.634	100.00	0.729	0.000
					B	0.000	0.634		100.00	0.985	0.000
					C	0.000	0.634		100.00	1.000	0.000
L40 48.0000-44.2500	46.1187	0.792	6.152	9.618	A	0.000	9.618	9.618	100.00	12.313	0.000
					B	0.000	9.618		100.00	15.467	0.000
					C	0.000	9.618		100.00	15.683	0.000
L41 44.2500-44.0000	44.1250	0.782	6.075	0.647	A	0.000	0.647	0.647	100.00	0.854	0.000
					B	0.000	0.647		100.00	1.048	0.000
					C	0.000	0.647		100.00	1.062	0.000
L42 44.0000-43.0800	43.5396	0.779	6.052	2.390	A	0.000	2.390	2.390	100.00	3.143	0.000
					B	0.000	2.390		100.00	3.856	0.000
					C	0.000	2.390		100.00	3.909	0.000
L43 43.0800-42.8300	42.9550	0.776	6.028	0.652	A	0.000	0.652	0.652	100.00	0.854	0.000
					B	0.000	0.652		100.00	1.048	0.000
					C	0.000	0.652		100.00	1.062	0.000
L44 42.8300-37.8300	40.3192	0.762	5.920	13.225	A	0.000	13.225	13.225	100.00	17.083	0.000
					B	0.000	13.225		100.00	20.957	0.000
					C	0.000	13.225		100.00	21.243	0.000
L45 37.8300-30.0000	33.8893	0.725	5.634	21.418	A	0.000	21.418	21.418	100.00	26.753	0.000
					B	0.000	21.418		100.00	32.818	0.000
					C	0.000	21.418		100.00	33.267	0.000
L46 30.0000-29.0000	29.4996	0.7	5.436	2.743	A	0.000	2.743	2.743	100.00	3.417	0.000
					B	0.000	2.743		100.00	4.191	0.000
					C	0.000	2.743		100.00	4.249	0.000
L47 29.0000-24.0000	26.4893	0.7	5.436	13.942	A	0.000	13.942	13.942	100.00	17.083	0.000
					B	0.000	13.942		100.00	20.957	0.000
					C	0.000	13.942		100.00	21.243	0.000
L48 24.0000-23.7500	23.8750	0.7	5.436	0.707	A	0.000	0.707	0.707	100.00	0.854	0.000
					B	0.000	0.707		100.00	1.048	0.000
					C	0.000	0.707		100.00	1.062	0.000
L49 23.7500-23.5000	23.6250	0.7	5.436	0.708	A	0.000	0.708	0.708	100.00	0.854	0.000
					B	0.000	0.708		100.00	1.048	0.000
					C	0.000	0.708		100.00	1.062	0.000
L50 23.5000-18.5000	20.9896	0.7	5.436	14.350	A	0.000	14.350	14.350	100.00	17.083	0.000
					B	0.000	14.350		100.00	20.957	0.000
					C	0.000	14.350		100.00	21.243	0.000
L51 18.5000-13.5000	15.9898	0.7	5.436	14.721	A	0.000	14.721	14.721	100.00	17.083	0.000
					B	0.000	14.721		100.00	20.957	0.000
					C	0.000	14.721		100.00	21.243	0.000
L52 13.5000-11.0000	12.2475	0.7	5.436	7.499	A	0.000	7.499	7.499	100.00	8.542	0.000
					B	0.000	7.499		100.00	10.478	0.000
					C	0.000	7.499		100.00	10.622	0.000
L53 11.0000-10.7500	10.8750	0.7	5.436	0.757	A	0.000	0.757	0.757	100.00	0.854	0.000
					B	0.000	0.757		100.00	1.048	0.000
					C	0.000	0.757		100.00	1.062	0.000
L54 10.7500-6.0000	8.3662	0.7	5.436	14.555	A	0.000	14.555	14.555	100.00	16.229	0.000
					B	0.000	14.555		100.00	17.409	0.000
					C	0.000	14.555		100.00	17.681	0.000
L55 6.0000-5.7500	5.8750	0.7	5.436	0.773	A	0.000	0.773	0.773	100.00	0.854	0.000
					B	0.000	0.773		100.00	0.798	0.000
					C	0.000	0.773		100.00	0.812	0.000
L56 5.7500-3.2500	4.4976	0.7	5.436	7.783	A	0.000	7.783	7.783	100.00	8.292	0.000
					B	0.000	7.783		100.00	7.728	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	0.000	7.783		100.00	8.122	0.000
L57 3.2500-3.0000	3.1250	0.7	5.436	0.786	A	0.000	0.786	0.786	100.00	0.604	0.000
					B	0.000	0.786		100.00	0.548	0.000
					C	0.000	0.786		100.00	0.812	0.000
L58 3.0000-0.0000	1.4966	0.7	5.436	9.504	A	0.000	9.504	9.504	100.00	7.250	0.000
					B	0.000	9.504		100.00	6.574	0.000
					C	0.000	9.504		100.00	9.746	0.000

Load Combinations

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

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	150 - 145	Pole	Max Tension	26	0.00	0.00	0.00
			Max. Compression	26	-10.91	-0.13	0.96
			Max. Mx	8	-3.75	-42.95	0.27
			Max. My	2	-3.77	-0.04	43.12
			Max. Vy	8	6.27	-42.95	0.27
			Max. Vx	2	-6.24	-0.04	43.12
			Max. Torque	20			-0.52
L2	145 - 140	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-11.61	-0.14	0.48
			Max. Mx	8	-4.08	-76.17	0.51
			Max. My	2	-4.10	-0.04	75.90
			Max. Vy	8	6.95	-76.17	0.51
			Max. Vx	2	-6.88	-0.04	75.90
			Max. Torque	20			-0.49
L3	140 - 135	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-19.82	-0.54	0.23
			Max. Mx	8	-7.72	-125.61	1.09
			Max. My	2	-7.76	-0.24	124.79
			Max. Vy	8	10.74	-125.61	1.09
			Max. Vx	2	-10.67	-0.24	124.79
			Max. Torque	4			-0.59
L4	135 - 130	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.48	-0.60	0.18
			Max. Mx	8	-8.14	-180.01	1.79
			Max. My	2	-8.17	-0.34	178.81
			Max. Vy	8	11.03	-180.01	1.79
			Max. Vx	2	-10.95	-0.34	178.81
			Max. Torque	4			-0.58
L5	130 - 128.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.73	-0.62	0.17
			Max. Mx	8	-8.26	-196.63	2.01
			Max. My	2	-8.30	-0.37	195.31
			Max. Vy	8	11.14	-196.63	2.01
			Max. Vx	2	-11.07	-0.37	195.31
			Max. Torque	4			-0.58
L6	128.5 - 128.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.80	-0.62	0.17
			Max. Mx	8	-8.32	-199.41	2.04
			Max. My	2	-8.35	-0.37	198.07
			Max. Vy	8	11.16	-199.41	2.04
			Max. Vx	2	-11.09	-0.37	198.07
			Max. Torque	4			-0.58
L7	128.25 - 123.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-22.06	-0.66	0.12
			Max. Mx	8	-9.09	-256.36	2.74
			Max. My	2	-9.12	-0.47	254.66
			Max. Vy	8	11.62	-256.36	2.74
			Max. Vx	2	-11.56	-0.47	254.66
			Max. Torque	4			-0.58
L8	123.25 - 118.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-31.30	-0.70	0.03
			Max. Mx	8	-13.37	-322.91	3.45
			Max. My	2	-13.42	-0.57	320.59
			Max. Vy	8	16.20	-322.91	3.45
			Max. Vx	2	-16.02	-0.57	320.59
			Max. Torque	4			-0.63
L9	118.25 - 113.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.74	-0.75	-0.17
			Max. Mx	8	-14.22	-405.49	4.14
			Max. My	2	-14.29	-0.67	401.76
			Max. Vy	8	16.85	-405.49	4.14

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	2	-16.48	-0.67	401.76
			Max. Torque	4			-0.69
L10	113.25 - 109	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.31	-0.79	-0.33
			Max. Mx	8	-15.90	-478.71	4.73
			Max. My	2	-15.98	-0.75	473.03
			Max. Vy	8	18.40	-478.71	4.73
			Max. Vx	2	-17.87	-0.75	473.03
			Max. Torque	4			-0.74
L11	109 - 108.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.39	-0.80	-0.34
			Max. Mx	8	-15.96	-483.32	4.76
			Max. My	2	-16.04	-0.76	477.50
			Max. Vy	8	18.43	-483.32	4.76
			Max. Vx	2	-17.89	-0.76	477.50
			Max. Torque	4			-0.75
L12	108.75 - 104.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.10	-0.86	-0.51
			Max. Mx	8	-16.88	-569.41	5.40
			Max. My	2	-16.98	-0.85	560.75
			Max. Vy	8	19.18	-569.41	5.40
			Max. Vx	2	-18.50	-0.85	560.75
			Max. Torque	4			-0.78
L13	104.17 - 103.92	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.22	-0.87	-0.52
			Max. Mx	8	-16.97	-574.21	5.43
			Max. My	2	-17.06	-0.86	565.37
			Max. Vy	8	19.22	-574.21	5.43
			Max. Vx	2	-18.53	-0.86	565.37
			Max. Torque	4			-0.78
L14	103.92 - 103.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.57	-0.87	-0.54
			Max. Mx	8	-17.18	-588.67	5.54
			Max. My	2	-17.27	-0.87	579.30
			Max. Vy	8	19.35	-588.67	5.54
			Max. Vx	2	-18.64	-0.87	579.30
			Max. Torque	4			-0.79
L15	103.17 - 102.92	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.69	-0.89	-0.55
			Max. Mx	8	-17.27	-593.51	5.57
			Max. My	2	-17.36	-0.88	583.96
			Max. Vy	8	19.40	-593.51	5.57
			Max. Vx	2	-18.68	-0.88	583.96
			Max. Torque	4			-0.79
L16	102.92 - 102.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.95	-0.89	-0.57
			Max. Mx	8	-17.43	-603.23	5.64
			Max. My	2	-17.52	-0.89	593.31
			Max. Vy	8	19.48	-603.23	5.64
			Max. Vx	2	-18.75	-0.89	593.31
			Max. Torque	4			-0.79
L17	102.42 - 102.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.07	-0.89	-0.58
			Max. Mx	8	-17.51	-608.11	5.68
			Max. My	2	-17.60	-0.89	598.00
			Max. Vy	8	19.53	-608.11	5.68
			Max. Vx	2	-18.79	-0.89	598.00
			Max. Torque	4			-0.79
L18	102.17 - 100.92	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.67	-0.91	-0.62
			Max. Mx	8	-17.89	-632.65	5.85
			Max. My	2	-17.98	-0.92	621.57

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	8	19.75	-632.65	5.85
			Max. Vx	2	-18.97	-0.92	621.57
			Max. Torque	4			-0.80
L19	100.92 - 100.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.79	-0.92	-0.63
			Max. Mx	8	-17.97	-637.59	5.88
			Max. My	2	-18.07	-0.92	626.31
			Max. Vy	8	19.79	-637.59	5.88
			Max. Vx	2	-19.00	-0.92	626.31
			Max. Torque	4			-0.81
L20	100.67 - 99.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-39.32	-0.93	-0.67
			Max. Mx	8	-18.30	-659.26	6.03
			Max. My	2	-18.40	-0.94	647.09
			Max. Vy	20	-19.98	658.60	4.79
			Max. Vx	2	-19.16	-0.94	647.09
			Max. Torque	4			-0.81
L21	99.58 - 99.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-39.46	-0.95	-0.67
			Max. Mx	8	-18.40	-664.26	6.07
			Max. My	2	-18.50	-0.95	651.88
			Max. Vy	20	-20.02	663.60	4.81
			Max. Vx	2	-19.19	-0.95	651.88
			Max. Torque	4			-0.81
L22	99.33 - 95.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.17	-1.39	0.85
			Max. Mx	8	-22.15	-758.06	7.69
			Max. My	2	-22.26	-1.43	742.96
			Max. Vy	20	-23.06	756.47	6.50
			Max. Vx	2	-22.19	-1.43	742.96
			Max. Torque	4			-0.81
L23	95.25 - 95	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.29	-1.41	0.84
			Max. Mx	8	-22.23	-763.82	7.72
			Max. My	2	-22.34	-1.43	748.51
			Max. Vy	20	-23.10	762.24	6.53
			Max. Vx	2	-22.23	-1.43	748.51
			Max. Torque	4			-0.56
L24	95 - 90	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.48	-1.55	0.68
			Max. Mx	8	-23.68	-881.09	8.32
			Max. My	2	-23.78	-1.44	861.39
			Max. Vy	20	-23.88	879.58	7.18
			Max. Vx	2	-22.96	-1.44	861.39
			Max. Torque	4			-0.62
L25	90 - 85	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.64	-1.70	0.52
			Max. Mx	8	-25.17	-1002.13	8.92
			Max. My	2	-25.27	-1.46	977.83
			Max. Vy	20	-24.61	1000.71	7.83
			Max. Vx	2	-23.66	-1.46	977.83
			Max. Torque	4			-0.67
L26	85 - 80.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-53.65	-1.84	0.36
			Max. Mx	8	-26.53	-1114.20	9.46
			Max. My	2	-26.62	-1.48	1085.59
			Max. Vy	20	-25.28	1112.87	8.41
			Max. Vx	2	-24.28	-1.48	1085.59
			Max. Torque	4			-0.72
L27	80.5 - 80.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-53.79	-1.86	0.35
			Max. Mx	8	-26.63	-1120.52	9.49
			Max. My	2	-26.73	-1.48	1091.66
			Max. Vy	20	-25.32	1119.19	8.44
			Max. Vx	2	-24.32	-1.48	1091.66

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	4			-0.72
L28	80.25 - 75.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.55	-2.01	0.16
			Max. Mx	8	-28.53	-1248.90	10.08
			Max. My	2	-28.63	-1.50	1215.03
			Max. Vy	20	-26.11	1247.66	9.08
			Max. Vx	2	-25.07	-1.50	1215.03
			Max. Torque	4			-0.76
L29	75.25 - 73.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.48	-2.07	0.09
			Max. Mx	8	-29.17	-1292.67	10.27
			Max. My	2	-29.26	-1.50	1257.08
			Max. Vy	20	-26.39	1291.46	9.30
			Max. Vx	2	-25.33	-1.50	1257.08
			Max. Torque	4			-0.77
L30	73.58 - 73.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.62	-2.09	0.08
			Max. Mx	8	-29.28	-1299.26	10.30
			Max. My	2	-29.37	-1.50	1263.41
			Max. Vy	20	-26.42	1298.06	9.33
			Max. Vx	2	-25.36	-1.50	1263.41
			Max. Torque	4			-0.77
L31	73.33 - 69	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.36	-2.12	0.03
			Max. Mx	8	-29.79	-1334.48	10.46
			Max. My	2	-29.88	-1.51	1297.24
			Max. Vy	20	-26.63	1333.30	9.50
			Max. Vx	2	-25.56	-1.51	1297.24
			Max. Torque	4			-0.78
L32	69 - 67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.49	-2.28	-0.17
			Max. Mx	8	-32.83	-1469.66	11.05
			Max. My	2	-32.92	-1.53	1427.04
			Max. Vy	20	-27.50	1468.57	10.14
			Max. Vx	2	-26.38	-1.53	1427.04
			Max. Torque	4			-0.82
L33	67 - 66.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.64	-2.30	-0.18
			Max. Mx	8	-32.94	-1476.53	11.08
			Max. My	2	-33.03	-1.53	1433.63
			Max. Vy	20	-27.53	1475.44	10.17
			Max. Vx	2	-26.41	-1.53	1433.63
			Max. Torque	4			-0.82
L34	66.75 - 66.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.80	-2.31	-0.19
			Max. Mx	8	-33.05	-1483.41	11.11
			Max. My	2	-33.14	-1.53	1440.23
			Max. Vy	20	-27.57	1482.32	10.20
			Max. Vx	2	-26.45	-1.53	1440.23
			Max. Torque	4			-0.83
L35	66.5 - 61.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-65.82	-2.43	-0.36
			Max. Mx	8	-35.20	-1622.97	11.70
			Max. My	2	-35.29	-1.55	1574.17
			Max. Vy	20	-28.33	1621.97	10.84
			Max. Vx	2	-27.17	-1.55	1574.17
			Max. Torque	4			-0.89
L36	61.5 - 56.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-68.84	-2.56	-0.52
			Max. Mx	8	-37.39	-1766.25	12.28
			Max. My	2	-37.47	-1.57	1711.64
			Max. Vy	20	-29.06	1765.34	11.47
			Max. Vx	2	-27.86	-1.57	1711.64
			Max. Torque	4			-0.96
L37	56.5 - 51.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-71.89	-2.70	-0.69

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	8	-39.61	-1913.13	12.86
			Max. My	2	-39.68	-1.59	1852.51
			Max. Vy	20	-29.77	1912.30	12.10
			Max. Vx	2	-28.53	-1.59	1852.51
			Max. Torque	4			-1.03
L38	51.5 - 48.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-73.95	-2.79	-0.83
			Max. Mx	8	-41.07	-2010.46	13.23
			Max. My	2	-41.14	-1.60	1945.85
			Max. Vy	20	-30.22	2009.69	12.51
			Max. Vx	2	-28.96	-1.60	1945.85
			Max. Torque	4			-1.09
L39	48.25 - 48	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.13	-2.81	-0.84
			Max. Mx	8	-41.21	-2018.01	13.26
			Max. My	2	-41.28	-1.60	1953.08
			Max. Vy	20	-30.25	2017.24	12.54
			Max. Vx	2	-28.99	-1.60	1953.08
			Max. Torque	4			-1.09
L40	48 - 44.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-76.83	-2.90	-1.00
			Max. Mx	8	-43.17	-2132.30	13.69
			Max. My	2	-43.24	-1.62	2062.66
			Max. Vy	20	-30.79	2131.59	13.01
			Max. Vx	2	-29.50	-1.62	2062.66
			Max. Torque	4			-1.16
L41	44.25 - 44	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-77.02	-2.92	-1.01
			Max. Mx	8	-43.32	-2139.99	13.72
			Max. My	2	-43.39	-1.62	2070.03
			Max. Vy	20	-30.82	2139.28	13.04
			Max. Vx	2	-29.53	-1.62	2070.03
			Max. Torque	4			-1.16
L42	44 - 43.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-77.72	-2.94	-1.05
			Max. Mx	8	-43.83	-2168.37	13.83
			Max. My	2	-43.90	-1.62	2097.24
			Max. Vy	20	-30.95	2167.68	13.16
			Max. Vx	2	-29.66	-1.62	2097.24
			Max. Torque	4			-1.18
L43	43.08 - 42.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-77.91	-2.95	-1.06
			Max. Mx	8	-43.98	-2176.10	13.85
			Max. My	2	-44.04	-1.63	2104.66
			Max. Vy	20	-30.99	2175.42	13.19
			Max. Vx	2	-29.70	-1.63	2104.66
			Max. Torque	4			-1.19
L44	42.83 - 37.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-81.69	-3.08	-1.28
			Max. Mx	8	-46.77	-2332.60	14.42
			Max. My	2	-46.83	-1.65	2254.68
			Max. Vy	20	-31.69	2331.99	13.81
			Max. Vx	2	-30.36	-1.65	2254.68
			Max. Torque	4			-1.28
L45	37.83 - 30	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-84.58	-3.19	-1.45
			Max. Mx	8	-48.93	-2454.77	14.86
			Max. My	2	-48.98	-1.66	2371.77
			Max. Vy	20	-32.19	2454.22	14.28
			Max. Vx	2	-30.84	-1.66	2371.77
			Max. Torque	4			-1.35
L46	30 - 29	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-90.85	-3.33	-1.67
			Max. Mx	8	-53.99	-2617.46	15.42
			Max. My	2	-54.04	-1.69	2527.69
			Max. Vy	20	-32.94	2616.98	14.89
			Max. Vx	2	-31.56	-1.69	2527.69

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	4			-1.44
L47	29 - 24	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-94.82	-3.47	-1.89
			Max. Mx	8	-57.04	-2783.48	15.98
			Max. My	2	-57.08	-1.71	2686.79
			Max. Vy	20	-33.55	2783.08	15.51
			Max. Vx	2	-32.14	-1.71	2686.79
			Max. Torque	4			-1.53
L48	24 - 23.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-95.02	-3.48	-1.91
			Max. Mx	8	-57.20	-2791.86	16.01
			Max. My	2	-57.24	-1.71	2694.82
			Max. Vy	20	-33.58	2791.46	15.54
			Max. Vx	2	-32.16	-1.71	2694.82
			Max. Torque	4			-1.54
L49	23.75 - 23.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-95.22	-3.49	-1.92
			Max. Mx	8	-57.35	-2800.25	16.04
			Max. My	2	-57.39	-1.71	2702.86
			Max. Vy	20	-33.61	2799.85	15.57
			Max. Vx	2	-32.19	-1.71	2702.86
			Max. Torque	4			-1.54
L50	23.5 - 18.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-99.20	-3.63	-2.14
			Max. Mx	8	-60.42	-2969.57	16.59
			Max. My	2	-60.46	-1.74	2865.11
			Max. Vy	20	-34.21	2969.25	16.17
			Max. Vx	2	-32.76	-1.74	2865.11
			Max. Torque	4			-1.63
L51	18.5 - 13.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-103.17	-3.77	-2.36
			Max. Mx	8	-63.52	-3141.85	17.14
			Max. My	2	-63.55	-1.76	3030.18
			Max. Vy	20	-34.79	3141.60	16.78
			Max. Vx	2	-33.32	-1.76	3030.18
			Max. Torque	4			-1.73
L52	13.5 - 11	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-105.16	-3.84	-2.47
			Max. Mx	8	-65.09	-3229.09	17.42
			Max. My	2	-65.11	-1.78	3113.76
			Max. Vy	20	-35.09	3228.87	17.08
			Max. Vx	2	-33.61	-1.78	3113.76
			Max. Torque	4			-1.77
L53	11 - 10.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-105.36	-3.85	-2.48
			Max. Mx	8	-65.25	-3237.85	17.44
			Max. My	2	-65.28	-1.78	3122.16
			Max. Vy	20	-35.10	3237.64	17.11
			Max. Vx	2	-33.62	-1.78	3122.16
			Max. Torque	4			-1.78
L54	10.75 - 6	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-108.98	-3.96	-2.69
			Max. Mx	8	-68.17	-3405.52	17.96
			Max. My	2	-68.18	-1.80	3282.87
			Max. Vy	20	-35.59	3405.37	17.67
			Max. Vx	2	-34.11	-1.80	3282.87
			Max. Torque	4			-1.90
L55	6 - 5.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-109.17	-3.97	-2.70
			Max. Mx	8	-68.34	-3414.41	17.99
			Max. My	2	-68.35	-1.80	3291.39
			Max. Vy	20	-35.58	3414.26	17.70
			Max. Vx	2	-34.12	-1.80	3291.39
			Max. Torque	4			-1.91
L56	5.75 - 3.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.00	-4.03	-2.81
			Max. Mx	8	-69.83	-3503.50	18.25
			Max. My	2	-69.84	-1.81	3376.96
			Max. Vy	20	-35.78	3503.38	17.99

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	2	-34.39	-1.81	3376.96
			Max. Torque	4			-1.98
L57	3.25 - 3	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.15	-4.03	-2.82
			Max. Mx	8	-69.96	-3512.43	18.28
			Max. My	2	-69.97	-1.82	3385.55
			Max. Vy	20	-35.77	3512.32	18.02
			Max. Vx	2	-34.39	-1.82	3385.55
			Max. Torque	4			-1.99
L58	3 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-112.86	-4.09	-2.95
			Max. Mx	8	-71.38	-3619.88	18.60
			Max. My	2	-71.39	-1.83	3488.90
			Max. Vy	20	-35.95	3619.81	18.37
			Max. Vx	2	-34.57	-1.83	3488.90
			Max. Torque	4			-2.09

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	26	112.86	0.00	0.00
	Max. H_x	21	53.55	35.92	0.13
	Max. H_z	3	53.55	0.01	34.55
	Max. M_x	2	3488.90	0.01	34.54
	Max. M_z	8	3619.88	-35.88	0.12
	Max. Torsion	16	1.74	18.01	-31.23
	Min. Vert	9	53.55	-35.88	0.12
	Min. H_x	9	53.55	-35.88	0.12
	Min. H_z	15	53.55	-0.01	-34.15
	Min. M_x	14	-3449.87	-0.01	-34.15
	Min. M_z	20	-3619.81	35.92	0.13
	Min. Torsion	4	-2.09	-18.29	31.47

Tower Mast Reaction Summary

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
Dead Only	59.50	0.00	-0.00	-0.08	-1.35	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	71.40	-0.01	-34.54	-3488.90	-1.83	0.74
0.9 Dead+1.0 Wind 0 deg - No Ice	53.55	-0.01	-34.55	-3445.37	-1.37	0.73
1.2 Dead+1.0 Wind 30 deg - No Ice	71.40	18.29	-31.47	-3102.12	-1812.46	2.09
0.9 Dead+1.0 Wind 30 deg - No Ice	53.55	18.29	-31.47	-3063.68	-1789.54	2.08
1.2 Dead+1.0 Wind 60 deg - No Ice	71.40	29.47	-17.00	-1727.27	-2995.79	1.43
0.9 Dead+1.0 Wind 60 deg - No Ice	53.55	29.47	-17.00	-1705.50	-2957.67	1.42
1.2 Dead+1.0 Wind 90 deg - No Ice	71.40	35.88	-0.12	-18.60	-3619.88	1.68
0.9 Dead+1.0 Wind 90 deg - No Ice	53.55	35.88	-0.12	-18.27	-3574.57	1.67
1.2 Dead+1.0 Wind 120 deg - No Ice	71.40	27.23	15.51	1612.62	-2853.21	-0.20
0.9 Dead+1.0 Wind 120 deg - No Ice	53.55	27.23	15.51	1592.18	-2816.40	-0.20
1.2 Dead+1.0 Wind 150 deg - No Ice	71.40	15.26	26.46	2801.65	-1617.17	-0.46
0.9 Dead+1.0 Wind 150 deg	53.55	15.26	26.46	2765.86	-1596.06	-0.46

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.0 Wind 180 deg - No Ice	71.40	0.01	34.15	3449.87	-1.60	-0.73
0.9 Dead+1.0 Wind 180 deg - No Ice	53.55	0.01	34.15	3406.90	-1.16	-0.73
1.2 Dead+1.0 Wind 210 deg - No Ice	71.40	-18.01	31.23	3085.15	1777.55	-1.74
0.9 Dead+1.0 Wind 210 deg - No Ice	53.55	-18.01	31.23	3046.95	1755.94	-1.74
1.2 Dead+1.0 Wind 240 deg - No Ice	71.40	-29.32	16.71	1692.53	2987.96	-1.23
0.9 Dead+1.0 Wind 240 deg - No Ice	53.55	-29.32	16.71	1671.31	2950.72	-1.22
1.2 Dead+1.0 Wind 270 deg - No Ice	71.40	-35.92	-0.13	-18.37	3619.81	-1.68
0.9 Dead+1.0 Wind 270 deg - No Ice	53.55	-35.92	-0.13	-18.06	3575.36	-1.67
1.2 Dead+1.0 Wind 300 deg - No Ice	71.40	-27.39	-15.81	-1647.82	2854.99	-0.01
0.9 Dead+1.0 Wind 300 deg - No Ice	53.55	-27.39	-15.81	-1626.83	2819.10	-0.01
1.2 Dead+1.0 Wind 330 deg - No Ice	71.40	-15.52	-26.65	-2814.61	1642.90	0.12
0.9 Dead+1.0 Wind 330 deg - No Ice	53.55	-15.52	-26.65	-2778.62	1622.30	0.12
1.2 Dead+1.0 Ice+1.0 Temp	112.86	-0.00	-0.00	2.95	-4.09	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	112.86	-0.00	-7.60	-830.61	-4.45	0.25
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	112.86	4.04	-6.96	-740.27	-437.81	0.57
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	112.86	6.60	-3.81	-414.89	-729.19	0.44
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	112.86	7.93	-0.02	-0.65	-872.28	0.41
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	112.86	5.82	3.32	383.40	-675.33	-0.10
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	112.86	3.23	5.59	660.50	-383.73	-0.14
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	112.86	0.00	7.53	829.10	-4.66	-0.25
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	112.86	-3.99	6.92	743.32	422.33	-0.50
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	112.86	-6.58	3.75	414.06	719.54	-0.39
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	112.86	-7.94	-0.03	-0.86	863.80	-0.41
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	112.86	-5.85	-3.38	-384.31	666.91	0.05
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	112.86	-3.28	-5.63	-656.69	380.57	0.06
Dead+Wind 0 deg - Service	59.50	-0.00	-7.50	-751.65	-1.45	0.16
Dead+Wind 30 deg - Service	59.50	3.97	-6.83	-668.45	-391.56	0.46
Dead+Wind 60 deg - Service	59.50	6.39	-3.69	-372.18	-646.43	0.31
Dead+Wind 90 deg - Service	59.50	7.79	-0.03	-4.08	-780.92	0.36
Dead+Wind 120 deg - Service	59.50	5.91	3.36	347.27	-615.60	-0.05
Dead+Wind 150 deg - Service	59.50	3.31	5.74	603.34	-349.36	-0.10
Dead+Wind 180 deg - Service	59.50	0.00	7.41	743.06	-1.40	-0.16
Dead+Wind 210 deg - Service	59.50	-3.91	6.78	664.62	381.92	-0.38
Dead+Wind 240 deg - Service	59.50	-6.36	3.63	364.54	642.62	-0.26
Dead+Wind 270 deg - Service	59.50	-7.79	-0.03	-4.03	778.80	-0.36
Dead+Wind 300 deg - Service	59.50	-5.94	-3.43	-355.01	613.90	-0.00
Dead+Wind 330 deg -	59.50	-3.37	-5.78	-606.30	352.80	0.02

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Service						

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.00	-59.50	0.00	-0.00	59.50	0.00	0.000%
2	-0.01	-71.40	-34.55	0.01	71.40	34.54	0.002%
3	-0.01	-53.55	-34.55	0.01	53.55	34.55	0.002%
4	18.29	-71.40	-31.47	-18.29	71.40	31.47	0.000%
5	18.29	-53.55	-31.47	-18.29	53.55	31.47	0.000%
6	29.47	-71.40	-17.00	-29.47	71.40	17.00	0.000%
7	29.47	-53.55	-17.00	-29.47	53.55	17.00	0.000%
8	35.89	-71.40	-0.12	-35.88	71.40	0.12	0.002%
9	35.89	-53.55	-0.12	-35.88	53.55	0.12	0.002%
10	27.23	-71.40	15.51	-27.23	71.40	-15.51	0.000%
11	27.23	-53.55	15.51	-27.23	53.55	-15.51	0.000%
12	15.26	-71.40	26.46	-15.26	71.40	-26.46	0.000%
13	15.26	-53.55	26.46	-15.26	53.55	-26.46	0.000%
14	0.01	-71.40	34.15	-0.01	71.40	-34.15	0.002%
15	0.01	-53.55	34.15	-0.01	53.55	-34.15	0.002%
16	-18.01	-71.40	31.23	18.01	71.40	-31.23	0.000%
17	-18.01	-53.55	31.23	18.01	53.55	-31.23	0.000%
18	-29.32	-71.40	16.71	29.32	71.40	-16.71	0.000%
19	-29.32	-53.55	16.71	29.32	53.55	-16.71	0.000%
20	-35.92	-71.40	-0.13	35.92	71.40	0.13	0.002%
21	-35.92	-53.55	-0.13	35.92	53.55	0.13	0.002%
22	-27.39	-71.40	-15.81	27.39	71.40	15.81	0.000%
23	-27.39	-53.55	-15.81	27.39	53.55	15.81	0.000%
24	-15.52	-71.40	-26.65	15.52	71.40	26.65	0.000%
25	-15.52	-53.55	-26.65	15.52	53.55	26.65	0.000%
26	0.00	-112.86	0.00	0.00	112.86	0.00	0.001%
27	-0.00	-112.86	-7.60	0.00	112.86	7.60	0.000%
28	4.04	-112.86	-6.96	-4.04	112.86	6.96	0.000%
29	6.60	-112.86	-3.81	-6.60	112.86	3.81	0.000%
30	7.93	-112.86	-0.02	-7.93	112.86	0.02	0.000%
31	5.82	-112.86	3.32	-5.82	112.86	-3.32	0.000%
32	3.23	-112.86	5.59	-3.23	112.86	-5.59	0.000%
33	0.00	-112.86	7.53	-0.00	112.86	-7.53	0.000%
34	-3.99	-112.86	6.92	3.99	112.86	-6.92	0.000%
35	-6.58	-112.86	3.75	6.58	112.86	-3.75	0.000%
36	-7.94	-112.86	-0.03	7.94	112.86	0.03	0.000%
37	-5.85	-112.86	-3.38	5.85	112.86	3.38	0.000%
38	-3.28	-112.86	-5.63	3.28	112.86	5.63	0.000%
39	-0.00	-59.50	-7.50	0.00	59.50	7.50	0.002%
40	3.97	-59.50	-6.83	-3.97	59.50	6.83	0.001%
41	6.39	-59.50	-3.69	-6.39	59.50	3.69	0.000%
42	7.79	-59.50	-0.03	-7.79	59.50	0.03	0.002%
43	5.91	-59.50	3.36	-5.91	59.50	-3.36	0.000%
44	3.31	-59.50	5.74	-3.31	59.50	-5.74	0.000%
45	0.00	-59.50	7.41	-0.00	59.50	-7.41	0.002%
46	-3.91	-59.50	6.78	3.91	59.50	-6.78	0.000%
47	-6.36	-59.50	3.63	6.36	59.50	-3.63	0.000%
48	-7.79	-59.50	-0.03	7.79	59.50	0.03	0.002%
49	-5.94	-59.50	-3.43	5.94	59.50	3.43	0.000%
50	-3.37	-59.50	-5.78	3.37	59.50	5.78	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00000001
2	Yes	18	0.00003186	0.00012918
3	Yes	18	0.00002072	0.00009796
4	Yes	25	0.00000001	0.00007390

5	Yes	24	0.00000001	0.00010558
6	Yes	24	0.00000001	0.00013979
7	Yes	24	0.00000001	0.00009881
8	Yes	18	0.00003174	0.00010280
9	Yes	18	0.00002063	0.00007992
10	Yes	24	0.00000001	0.00012628
11	Yes	24	0.00000001	0.00008999
12	Yes	24	0.00000001	0.00012688
13	Yes	24	0.00000001	0.00009063
14	Yes	18	0.00003191	0.00012098
15	Yes	18	0.00002075	0.00009160
16	Yes	24	0.00000001	0.00014233
17	Yes	24	0.00000001	0.00010026
18	Yes	24	0.00000001	0.00013867
19	Yes	24	0.00000001	0.00009828
20	Yes	18	0.00003174	0.00010679
21	Yes	18	0.00002063	0.00008345
22	Yes	24	0.00000001	0.00012997
23	Yes	24	0.00000001	0.00009259
24	Yes	24	0.00000001	0.00012860
25	Yes	24	0.00000001	0.00009175
26	Yes	8	0.00000001	0.00002906
27	Yes	22	0.00000001	0.00009445
28	Yes	22	0.00000001	0.00011604
29	Yes	22	0.00000001	0.00011386
30	Yes	22	0.00000001	0.00009818
31	Yes	22	0.00000001	0.00010566
32	Yes	22	0.00000001	0.00010503
33	Yes	22	0.00000001	0.00009383
34	Yes	22	0.00000001	0.00011316
35	Yes	22	0.00000001	0.00011217
36	Yes	22	0.00000001	0.00009697
37	Yes	22	0.00000001	0.00010502
38	Yes	22	0.00000001	0.00010423
39	Yes	16	0.00009939	0.00004589
40	Yes	18	0.00000001	0.00011736
41	Yes	18	0.00000001	0.00010037
42	Yes	16	0.00009925	0.00005296
43	Yes	18	0.00000001	0.00008972
44	Yes	18	0.00000001	0.00009378
45	Yes	16	0.00009938	0.00004513
46	Yes	18	0.00000001	0.00010198
47	Yes	18	0.00000001	0.00010301
48	Yes	16	0.00009923	0.00005291
49	Yes	18	0.00000001	0.00009439
50	Yes	18	0.00000001	0.00009204

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	21.6929	42	1.5092	0.0022
L2	145 - 140	20.1246	42	1.4820	0.0025
L3	140 - 135	18.5973	42	1.4317	0.0025
L4	135 - 130	17.1341	42	1.3582	0.0021
L5	130 - 128.5	15.7622	42	1.2583	0.0016
L6	128.5 - 128.25	15.3721	42	1.2249	0.0014
L7	128.25 - 123.25	15.3080	42	1.2228	0.0014
L8	123.25 - 118.25	14.0511	42	1.1769	0.0013
L9	118.25 - 113.25	12.8461	42	1.1237	0.0011
L10	113.25 - 109	11.7009	42	1.0625	0.0010
L11	109 - 108.75	10.7807	42	1.0045	0.0009
L12	108.75 - 104.17	10.7281	42	1.0016	0.0009
L13	104.17 - 103.92	9.7949	42	0.9436	0.0008
L14	103.92 - 103.17	9.7456	42	0.9412	0.0008
L15	103.17 - 102.92	9.5983	42	0.9338	0.0007
L16	102.92 - 102.42	9.5495	42	0.9316	0.0007
L17	102.42 - 102.17	9.4522	42	0.9271	0.0007
L18	102.17 - 100.92	9.4037	42	0.9245	0.0007
L19	100.92 - 100.67	9.1634	42	0.9116	0.0007

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L20	100.67 - 99.58	9.1157	42	0.9091	0.0007
L21	99.58 - 99.33	8.9094	42	0.8984	0.0007
L22	99.33 - 95.25	8.8624	42	0.8965	0.0007
L23	95.25 - 95	8.1104	42	0.8634	0.0007
L24	95 - 90	8.0652	42	0.8608	0.0007
L25	90 - 85	7.1918	42	0.8070	0.0006
L26	85 - 80.5	6.3768	42	0.7492	0.0006
L27	80.5 - 80.25	5.6966	42	0.6940	0.0005
L28	80.25 - 75.25	5.6604	42	0.6917	0.0005
L29	75.25 - 73.58	4.9612	42	0.6435	0.0005
L30	73.58 - 73.33	4.7389	42	0.6272	0.0004
L31	73.33 - 69	4.7062	42	0.6247	0.0004
L32	72 - 67	4.5340	42	0.6113	0.0004
L33	67 - 66.75	3.9094	42	0.5753	0.0004
L34	66.75 - 66.5	3.8793	42	0.5728	0.0004
L35	66.5 - 61.5	3.8494	42	0.5704	0.0004
L36	61.5 - 56.5	3.2782	42	0.5206	0.0004
L37	56.5 - 51.5	2.7599	42	0.4694	0.0003
L38	51.5 - 48.25	2.2954	42	0.4177	0.0003
L39	48.25 - 48	2.0227	42	0.3836	0.0003
L40	48 - 44.25	2.0027	42	0.3816	0.0003
L41	44.25 - 44	1.7149	42	0.3511	0.0003
L42	44 - 43.08	1.6966	42	0.3492	0.0003
L43	43.08 - 42.83	1.6300	42	0.3421	0.0002
L44	42.83 - 37.83	1.6121	42	0.3402	0.0002
L45	37.83 - 30	1.2767	42	0.3006	0.0002
L46	34 - 29	1.0478	42	0.2702	0.0002
L47	29 - 24	0.7755	42	0.2465	0.0002
L48	24 - 23.75	0.5384	42	0.2065	0.0001
L49	23.75 - 23.5	0.5276	42	0.2046	0.0001
L50	23.5 - 18.5	0.5170	42	0.2026	0.0001
L51	18.5 - 13.5	0.3259	42	0.1625	0.0001
L52	13.5 - 11	0.1769	42	0.1221	0.0001
L53	11 - 10.75	0.1182	42	0.1019	0.0001
L54	10.75 - 6	0.1130	42	0.0995	0.0001
L55	6 - 5.75	0.0364	42	0.0546	0.0000
L56	5.75 - 3.25	0.0335	42	0.0527	0.0000
L57	3.25 - 3	0.0112	42	0.0328	0.0000
L58	3 - 0	0.0095	42	0.0303	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
150.0000	7770.00	42	21.6929	1.5092	0.0027	7203
147.0000	RRUS 11	42	20.7490	1.4947	0.0025	7203
143.0000	VHLP2-23	42	19.5073	1.4652	0.0025	5787
138.0000	HORIZON COMPACT	42	18.0029	1.4044	0.0023	4036
120.0000	AIR -32 B2A/B66AA	42	13.2615	1.1428	0.0012	5266
109.5000	Bridge Stiffener (76" x 10.5" x 1.25")	42	10.8862	1.0106	0.0009	4352
99.0000	BXA-70063/4CF w/ Mount Pipe	42	8.8005	0.8941	0.0007	6473

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	100.5629	8	7.0015	0.0092
L2	145 - 140	93.3046	8	6.8759	0.0105
L3	140 - 135	86.2338	8	6.6431	0.0104
L4	135 - 130	79.4582	8	6.3028	0.0087
L5	130 - 128.5	73.1023	8	5.8409	0.0066
L6	128.5 - 128.25	71.2944	8	5.6858	0.0060

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L7	128.25 - 123.25	70.9975	8	5.6763	0.0060
L8	123.25 - 118.25	65.1716	8	5.4633	0.0054
L9	118.25 - 113.25	59.5853	8	5.2165	0.0048
L10	113.25 - 109	54.2753	8	4.9326	0.0042
L11	109 - 108.75	50.0082	8	4.6631	0.0037
L12	108.75 - 104.17	49.7646	8	4.6494	0.0037
L13	104.17 - 103.92	45.4368	8	4.3804	0.0033
L14	103.92 - 103.17	45.2080	8	4.3691	0.0032
L15	103.17 - 102.92	44.5251	8	4.3344	0.0032
L16	102.92 - 102.42	44.2986	8	4.3243	0.0032
L17	102.42 - 102.17	43.8473	8	4.3036	0.0032
L18	102.17 - 100.92	43.6225	8	4.2916	0.0031
L19	100.92 - 100.67	42.5078	8	4.2315	0.0030
L20	100.67 - 99.58	42.2867	8	4.2201	0.0030
L21	99.58 - 99.33	41.3299	8	4.1703	0.0030
L22	99.33 - 95.25	41.1119	8	4.1614	0.0029
L23	95.25 - 95	37.6241	8	4.0077	0.0028
L24	95 - 90	37.4147	8	3.9958	0.0028
L25	90 - 85	33.3634	8	3.7458	0.0026
L26	85 - 80.5	29.5829	8	3.4778	0.0024
L27	80.5 - 80.25	26.4273	8	3.2214	0.0022
L28	80.25 - 75.25	26.2589	8	3.2107	0.0022
L29	75.25 - 73.58	23.0151	8	2.9869	0.0021
L30	73.58 - 73.33	21.9840	8	2.9113	0.0020
L31	73.33 - 69	21.8320	8	2.8998	0.0020
L32	72 - 67	21.0332	8	2.8373	0.0019
L33	67 - 66.75	18.1352	8	2.6703	0.0018
L34	66.75 - 66.5	17.9958	8	2.6584	0.0018
L35	66.5 - 61.5	17.8569	8	2.6472	0.0018
L36	61.5 - 56.5	15.2066	8	2.4162	0.0017
L37	56.5 - 51.5	12.8016	8	2.1784	0.0015
L38	51.5 - 48.25	10.6469	8	1.9380	0.0013
L39	48.25 - 48	9.3817	8	1.7801	0.0012
L40	48 - 44.25	9.2887	8	1.7708	0.0012
L41	44.25 - 44	7.9539	8	1.6290	0.0011
L42	44 - 43.08	7.8688	8	1.6200	0.0011
L43	43.08 - 42.83	7.5599	8	1.5874	0.0011
L44	42.83 - 37.83	7.4770	8	1.5785	0.0011
L45	37.83 - 30	5.9208	8	1.3944	0.0010
L46	34 - 29	4.8590	8	1.2532	0.0009
L47	29 - 24	3.5964	8	1.1432	0.0008
L48	24 - 23.75	2.4966	8	0.9580	0.0007
L49	23.75 - 23.5	2.4467	8	0.9488	0.0007
L50	23.5 - 18.5	2.3972	8	0.9397	0.0007
L51	18.5 - 13.5	1.5109	8	0.7536	0.0005
L52	13.5 - 11	0.8202	8	0.5663	0.0004
L53	11 - 10.75	0.5482	8	0.4727	0.0003
L54	10.75 - 6	0.5237	8	0.4614	0.0003
L55	6 - 5.75	0.1685	8	0.2532	0.0002
L56	5.75 - 3.25	0.1555	8	0.2441	0.0002
L57	3.25 - 3	0.0518	8	0.1521	0.0001
L58	3 - 0	0.0441	8	0.1406	0.0001

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
150.0000	7770.00	8	100.5629	7.0015	0.0122	1626
147.0000	RRUS 11	8	96.1945	6.9345	0.0113	1626
143.0000	VHLP2-23	8	90.4469	6.7978	0.0107	1297
138.0000	HORIZON COMPACT	8	83.4817	6.5167	0.0099	894
120.0000	AIR -32 B2A/B66AA	8	61.5110	5.3054	0.0050	1154
109.5000	Bridge Stiffener (76" x 10.5" x 1.25")	8	50.4977	4.6916	0.0038	949
99.0000	BXA-70063/4CF w/ Mount Pipe	8	40.8250	4.1501	0.0029	1408

Compression Checks

Pole Design Data

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u
	ft		ft	ft		in^2	K
L1	150 - 145 (1)	TP15.7317x15x0.2188	5.0000	0.0000	0.0	10.9269	-3.76
L2	145 - 140 (2)	TP16.4634x15.7317x0.2188	5.0000	0.0000	0.0	11.4423	-4.08
L3	140 - 135 (3)	TP17.1951x16.4634x0.2188	5.0000	0.0000	0.0	11.9577	-7.72
L4	135 - 130 (4)	TP17.9268x17.1951x0.2188	5.0000	0.0000	0.0	12.4731	-8.14
L5	130 - 128.5 (5)	TP18.1463x17.9268x0.2188	1.5000	0.0000	0.0	12.6277	-8.26
L6	128.5 - 128.25 (6)	TP18.1829x18.1463x0.6688	0.2500	0.0000	0.0	37.7146	-8.32
L7	128.25 - 123.25 (7)	TP18.9146x18.1829x0.6438	5.0000	0.0000	0.0	37.8733	-9.09
L8	123.25 - 118.25 (8)	TP19.6463x18.9146x0.6188	5.0000	0.0000	0.0	37.9101	-13.37
L9	118.25 - 113.25 (9)	TP20.378x19.6463x0.6063	5.0000	0.0000	0.0	38.5970	-14.22
L10	113.25 - 109 (10)	TP21x20.378x0.5938	4.2500	0.0000	0.0	39.0142	-15.90
L11	109 - 108.75 (11)	TP21.0378x21x0.725	0.2500	0.0000	0.0	47.4201	-15.96
L12	108.75 - 104.17 (12)	TP21.7293x21.0378x0.7	4.5800	0.0000	0.0	47.4001	-16.88
L13	104.17 - 103.92 (13)	TP21.7671x21.7293x0.975	0.2500	0.0000	0.0	65.2767	-16.97
L14	103.92 - 103.17 (14)	TP21.8803x21.7671x0.95	0.7500	0.0000	0.0	64.0259	-17.18
L15	103.17 - 102.92 (15)	TP21.9181x21.8803x1.125	0.2500	0.0000	0.0	75.3229	-17.27
L16	102.92 - 102.42 (16)	TP21.9936x21.9181x1.1	0.5000	0.0000	0.0	74.0051	-17.43
L17	102.42 - 102.17 (17)	TP22.0313x21.9936x0.925	0.2500	0.0000	0.0	62.8652	-17.51
L18	102.17 - 100.92 (18)	TP22.2201x22.0313x0.925	1.2500	0.0000	0.0	63.4274	-17.89
L19	100.92 - 100.67 (19)	TP22.2578x22.2201x1	0.2500	0.0000	0.0	68.4502	-17.97
L20	100.67 - 99.58 (20)	TP22.4224x22.2578x1	1.0900	0.0000	0.0	68.9802	-18.30
L21	99.58 - 99.33 (21)	TP22.4602x22.4224x1.375	0.2500	0.0000	0.0	93.3546	-18.40
L22	99.33 - 95.25 (22)	TP23.0763x22.4602x1.325	4.0800	0.0000	0.0	92.8017	-22.15
L23	95.25 - 95 (23)	TP23.114x23.0763x1.025	0.2500	0.0000	0.0	72.9047	-22.23
L24	95 - 90 (24)	TP23.869x23.114x1	5.0000	0.0000	0.0	73.6382	-23.68
L25	90 - 85 (25)	TP24.624x23.869x0.9625	5.0000	0.0000	0.0	73.3329	-25.17
L26	85 - 80.5 (26)	TP25.3035x24.624x0.925	4.5000	0.0000	0.0	72.6114	-26.53
L27	80.5 - 80.25 (27)	TP25.3413x25.3035x1.3	0.2500	0.0000	0.0	100.6370	-26.63
L28	80.25 - 75.25 (28)	TP26.0963x25.3413x1.25	5.0000	0.0000	0.0	100.0060	-28.53
L29	75.25 - 73.58 (29)	TP26.3484x26.0963x1.225	1.6700	0.0000	0.0	99.0993	-29.17
L30	73.58 - 73.33 (30)	TP26.3862x26.3484x1.225	0.2500	0.0000	0.0	99.2482	-29.28
L31	73.33 - 69 (31)	TP27.04x26.3862x1.2	4.3300	0.0000	0.0	98.0954	-29.79

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u
	ft		ft	ft		in^2	K
L32	69 - 67 (32)	TP26.8969x26.087x1.2625	5.0000	0.0000	0.0	104.2100	-32.83
L33	67 - 66.75 (33)	TP26.9374x26.8969x1.2625	0.2500	0.0000	0.0	104.3750	-32.94
L34	66.75 - 66.5 (34)	TP26.9779x26.9374x1.3625	0.2500	0.0000	0.0	112.3810	-33.05
L35	66.5 - 61.5 (35)	TP27.7878x26.9779x1.3125	5.0000	0.0000	0.0	111.8910	-35.20
L36	61.5 - 56.5 (36)	TP28.5976x27.7878x1.2625	5.0000	0.0000	0.0	111.1240	-37.39
L37	56.5 - 51.5 (37)	TP29.4075x28.5976x1.2375	5.0000	0.0000	0.0	112.2500	-39.61
L38	51.5 - 48.25 (38)	TP29.9339x29.4075x1.2125	3.2500	0.0000	0.0	112.1360	-41.07
L39	48.25 - 48 (39)	TP29.9744x29.9339x1.6375	0.2500	0.0000	0.0	149.4140	-41.21
L40	48 - 44.25 (40)	TP30.5818x29.9744x1.6125	3.7500	0.0000	0.0	150.4160	-43.17
L41	44.25 - 44 (41)	TP30.6223x30.5818x1.7125	0.2500	0.0000	0.0	159.4160	-43.33
L42	44 - 43.08 (42)	TP30.7714x30.6223x1.7125	0.9200	0.0000	0.0	160.2380	-43.83
L43	43.08 - 42.83 (43)	TP30.8118x30.7714x1.7125	0.2500	0.0000	0.0	160.4610	-43.98
L44	42.83 - 37.83 (44)	TP31.6217x30.8118x1.6375	5.0000	0.0000	0.0	158.0990	-46.77
L45	37.83 - 30 (45)	TP32.89x31.6217x1.6125	7.8300	0.0000	0.0	159.0370	-48.93
L46	30 - 29 (46)	TP32.4616x31.6171x1.7063	5.0000	0.0000	0.0	168.9790	-53.99
L47	29 - 24 (47)	TP33.3062x32.4616x1.6563	5.0000	0.0000	0.0	168.7980	-57.04
L48	24 - 23.75 (48)	TP33.3484x33.3062x1.6563	0.2500	0.0000	0.0	169.0230	-57.20
L49	23.75 - 23.5 (49)	TP33.3906x33.3484x1.6563	0.2500	0.0000	0.0	169.2480	-57.35
L50	23.5 - 18.5 (50)	TP34.2352x33.3906x1.6063	5.0000	0.0000	0.0	168.7660	-60.42
L51	18.5 - 13.5 (51)	TP35.0797x34.2352x1.5563	5.0000	0.0000	0.0	167.9950	-63.52
L52	13.5 - 11 (52)	TP35.502x35.0797x1.5313	2.5000	0.0000	0.0	167.5020	-65.09
L53	11 - 10.75 (53)	TP35.5442x35.502x1.2313	0.2500	0.0000	0.0	136.0430	-65.25
L54	10.75 - 6 (54)	TP36.3465x35.5442x1.2563	4.7500	0.0000	0.0	141.9500	-68.17
L55	6 - 5.75 (55)	TP36.3888x36.3465x1.5313	0.2500	0.0000	0.0	171.8750	-68.34
L56	5.75 - 3.25 (56)	TP36.811x36.3888x1.5063	2.5000	0.0000	0.0	171.2380	-69.83
L57	3.25 - 3 (57)	TP36.8533x36.811x1.1563	0.2500	0.0000	0.0	132.9100	-69.96
L58	3 - 0 (58)	TP37.36x36.8533x1.1313	3.0000	0.0000	0.0	131.9730	-71.38

Pole Bending Design Data

Section No.	Elevation	Size	M_{ux}	M_{uy}
	ft		kip-ft	kip-ft
L1	150 - 145 (1)	TP15.7317x15x0.2188	43.13	0.00
L2	145 - 140 (2)	TP16.4634x15.7317x0.2188	76.17	0.00
L3	140 - 135 (3)	TP17.1951x16.4634x0.2188	125.61	0.00
L4	135 - 130 (4)	TP17.9268x17.1951x0.21	180.02	0.00

Section No.	Elevation	Size	M_{ux}	M_{uy}
	ft		kip-ft	kip-ft
		88		
L5	130 - 128.5 (5)	TP18.1463x17.9268x0.2188	196.64	0.00
L6	128.5 - 128.25 (6)	TP18.1829x18.1463x0.6688	199.42	0.00
L7	128.25 - 123.25 (7)	TP18.9146x18.1829x0.6438	256.38	0.00
L8	123.25 - 118.25 (8)	TP19.6463x18.9146x0.6188	322.92	0.00
L9	118.25 - 113.25 (9)	TP20.378x19.6463x0.6063	405.51	0.00
L10	113.25 - 109 (10)	TP21x20.378x0.5938	478.74	0.00
L11	109 - 108.75 (11)	TP21.0378x21x0.725	483.34	0.00
L12	108.75 - 104.17 (12)	TP21.7293x21.0378x0.7	569.44	0.00
L13	104.17 - 103.92 (13)	TP21.7671x21.7293x0.975	574.24	0.00
L14	103.92 - 103.17 (14)	TP21.8803x21.7671x0.95	588.70	0.00
L15	103.17 - 102.92 (15)	TP21.9181x21.8803x1.125	593.54	0.00
L16	102.92 - 102.42 (16)	TP21.9936x21.9181x1.1	603.26	0.00
L17	102.42 - 102.17 (17)	TP22.0313x21.9936x0.925	608.13	0.00
L18	102.17 - 100.92 (18)	TP22.2201x22.0313x0.925	632.67	0.00
L19	100.92 - 100.67 (19)	TP22.2578x22.2201x1	637.62	0.00
L20	100.67 - 99.58 (20)	TP22.4224x22.2578x1	659.28	0.00
L21	99.58 - 99.33 (21)	TP22.4602x22.4224x1.375	664.28	0.00
L22	99.33 - 95.25 (22)	TP23.0763x22.4602x1.325	758.10	0.00
L23	95.25 - 95 (23)	TP23.114x23.0763x1.025	763.86	0.00
L24	95 - 90 (24)	TP23.869x23.114x1	881.13	0.00
L25	90 - 85 (25)	TP24.624x23.869x0.9625	1002.17	0.00
L26	85 - 80.5 (26)	TP25.3035x24.624x0.925	1114.24	0.00
L27	80.5 - 80.25 (27)	TP25.3413x25.3035x1.3	1120.56	0.00
L28	80.25 - 75.25 (28)	TP26.0963x25.3413x1.25	1248.94	0.00
L29	75.25 - 73.58 (29)	TP26.3484x26.0963x1.225	1292.71	0.00
L30	73.58 - 73.33 (30)	TP26.3862x26.3484x1.225	1299.30	0.00
L31	73.33 - 69 (31)	TP27.04x26.3862x1.2	1334.53	0.00
L32	69 - 67 (32)	TP26.8969x26.087x1.2625	1469.70	0.00
L33	67 - 66.75 (33)	TP26.9374x26.8969x1.2625	1476.57	0.00
L34	66.75 - 66.5 (34)	TP26.9779x26.9374x1.3625	1483.45	0.00
L35	66.5 - 61.5 (35)	TP27.7878x26.9779x1.3125	1623.01	0.00
L36	61.5 - 56.5 (36)	TP28.5976x27.7878x1.2625	1766.29	0.00
L37	56.5 - 51.5 (37)	TP29.4075x28.5976x1.2375	1913.17	0.00
L38	51.5 - 48.25 (38)	TP29.9339x29.4075x1.2125	2010.50	0.00
L39	48.25 - 48 (39)	TP29.9744x29.9339x1.6375	2018.05	0.00
L40	48 - 44.25	TP30.5818x29.9744x1.61	2132.34	0.00

Section No.	Elevation ft	Size	M_{ux} kip-ft	M_{uy} kip-ft
	(40)	25		
L41	44.25 - 44	TP30.6223x30.5818x1.71	2140.03	0.00
	(41)	25		
L42	44 - 43.08	TP30.7714x30.6223x1.71	2168.42	0.00
	(42)	25		
L43	43.08 - 42.83	TP30.8118x30.7714x1.71	2176.15	0.00
	(43)	25		
L44	42.83 - 37.83	TP31.6217x30.8118x1.63	2332.65	0.00
	(44)	75		
L45	37.83 - 30	TP32.89x31.6217x1.6125	2454.81	0.00
	(45)			
L46	30 - 29 (46)	TP32.4616x31.6171x1.70	2617.51	0.00
		63		
L47	29 - 24 (47)	TP33.3062x32.4616x1.65	2783.53	0.00
		63		
L48	24 - 23.75	TP33.3484x33.3062x1.65	2791.91	0.00
	(48)	63		
L49	23.75 - 23.5	TP33.3906x33.3484x1.65	2800.29	0.00
	(49)	63		
L50	23.5 - 18.5	TP34.2352x33.3906x1.60	2969.62	0.00
	(50)	63		
L51	18.5 - 13.5	TP35.0797x34.2352x1.55	3141.90	0.00
	(51)	63		
L52	13.5 - 11 (52)	TP35.502x35.0797x1.531	3229.13	0.00
		3		
L53	11 - 10.75	TP35.5442x35.502x1.231	3237.90	0.00
	(53)	3		
L54	10.75 - 6 (54)	TP36.3465x35.5442x1.25	3405.57	0.00
		63		
L55	6 - 5.75 (55)	TP36.3888x36.3465x1.53	3414.46	0.00
		13		
L56	5.75 - 3.25	TP36.811x36.3888x1.506	3503.55	0.00
	(56)	3		
L57	3.25 - 3 (57)	TP36.8533x36.811x1.156	3512.48	0.00
		3		
L58	3 - 0 (58)	TP37.36x36.8533x1.1313	3619.93	0.00

Pole Shear Design Data

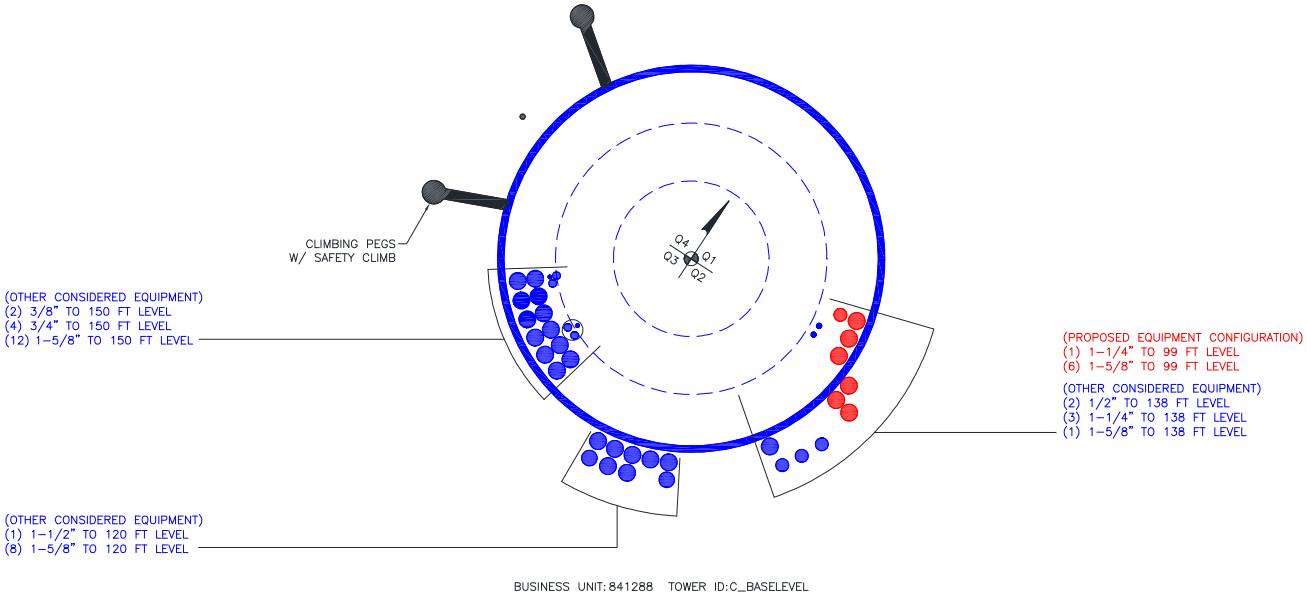
Section No.	Elevation ft	Size	Actual V_u K	Actual T_u kip-ft
L1	150 - 145 (1)	TP15.7317x15x0.2188	6.25	0.22
L2	145 - 140 (2)	TP16.4634x15.7317x0.21	6.95	0.18
		88		
L3	140 - 135 (3)	TP17.1951x16.4634x0.21	10.74	0.03
		88		
L4	135 - 130 (4)	TP17.9268x17.1951x0.21	11.03	0.03
		88		
L5	130 - 128.5	TP18.1463x17.9268x0.21	11.14	0.03
	(5)	88		
L6	128.5 -	TP18.1829x18.1463x0.66	11.16	0.03
	128.25 (6)	88		
L7	128.25 -	TP18.9146x18.1829x0.64	11.62	0.03
	123.25 (7)	38		
L8	123.25 -	TP19.6463x18.9146x0.61	16.20	0.06
	118.25 (8)	88		
L9	118.25 -	TP20.378x19.6463x0.606	16.85	0.15
	113.25 (9)	3		
L10	113.25 - 109	TP21x20.378x0.5938	18.40	0.22
	(10)			
L11	109 - 108.75	TP21.0378x21x0.725	18.43	0.22
	(11)			
L12	108.75 -	TP21.7293x21.0378x0.7	19.18	0.30
	104.17 (12)			
L13	104.17 -	TP21.7671x21.7293x0.97	19.22	0.31

Section No.	Elevation ft	Size	Actual V_u K	Actual T_u kip-ft
	103.92 (13)	5		
L14	103.92 - 103.17 (14)	TP21.8803x21.7671x0.95	19.35	0.32
L15	103.17 - 102.92 (15)	TP21.9181x21.8803x1.12 5	19.40	0.32
L16	102.92 - 102.42 (16)	TP21.9936x21.9181x1.1	19.48	0.33
L17	102.42 - 102.17 (17)	TP22.0313x21.9936x0.92 5	19.53	0.34
L18	102.17 - 100.92 (18)	TP22.2201x22.0313x0.92 5	19.75	0.36
L19	100.92 - 100.67 (19)	TP22.2578x22.2201x1	19.79	0.36
L20	100.67 - 99.58 (20)	TP22.4224x22.2578x1	19.98	0.38
L21	99.58 - 99.33 (21)	TP22.4602x22.4224x1.37 5	20.02	0.38
L22	99.33 - 95.25 (22)	TP23.0763x22.4602x1.32 5	23.03	0.24
L23	95.25 - 95 (23)	TP23.114x23.0763x1.025	23.08	0.25
L24	95 - 90 (24)	TP23.869x23.114x1	23.84	0.36
L25	90 - 85 (25)	TP24.624x23.869x0.9625	24.58	0.47
L26	85 - 80.5 (26)	TP25.3035x24.624x0.925	25.25	0.56
L27	80.5 - 80.25 (27)	TP25.3413x25.3035x1.3	25.28	0.56
L28	80.25 - 75.25 (28)	TP26.0963x25.3413x1.25	26.08	0.61
L29	75.25 - 73.58 (29)	TP26.3484x26.0963x1.22 5	26.35	0.63
L30	73.58 - 73.33 (30)	TP26.3862x26.3484x1.22 5	26.39	0.63
L31	73.33 - 69 (31)	TP27.04x26.3862x1.2	26.59	0.65
L32	69 - 67 (32)	TP26.8969x26.087x1.262 5	27.46	0.70
L33	67 - 66.75 (33)	TP26.9374x26.8969x1.26 25	27.50	0.71
L34	66.75 - 66.5 (34)	TP26.9779x26.9374x1.36 25	27.54	0.71
L35	66.5 - 61.5 (35)	TP27.7878x26.9779x1.31 25	28.30	0.80
L36	61.5 - 56.5 (36)	TP28.5976x27.7878x1.26 25	29.03	0.89
L37	56.5 - 51.5 (37)	TP29.4075x28.5976x1.23 75	29.74	0.98
L38	51.5 - 48.25 (38)	TP29.9339x29.4075x1.21 25	30.18	1.03
L39	48.25 - 48 (39)	TP29.9744x29.9339x1.63 75	30.21	1.04
L40	48 - 44.25 (40)	TP30.5818x29.9744x1.61 25	30.76	1.09
L41	44.25 - 44 (41)	TP30.6223x30.5818x1.71 25	30.79	1.10
L42	44 - 43.08 (42)	TP30.7714x30.6223x1.71 25	30.92	1.11
L43	43.08 - 42.83 (43)	TP30.8118x30.7714x1.71 25	30.96	1.12
L44	42.83 - 37.83 (44)	TP31.6217x30.8118x1.63 75	31.65	1.19
L45	37.83 - 30 (45)	TP32.89x31.6217x1.6125	32.16	1.25
L46	30 - 29 (46)	TP32.4616x31.6171x1.70 63	32.91	1.33
L47	29 - 24 (47)	TP33.3062x32.4616x1.65 63	33.52	1.40
L48	24 - 23.75 (48)	TP33.3484x33.3062x1.65 63	33.54	1.40
L49	23.75 - 23.5	TP33.3906x33.3484x1.65	33.57	1.41

Section No.	Elevation ft	Size	Actual V_u K	Actual T_u kip-ft
	(49)	63		
L50	23.5 - 18.5	TP34.2352x33.3906x1.60	34.17	1.48
	(50)	63		
L51	18.5 - 13.5	TP35.0797x34.2352x1.55	34.76	1.56
	(51)	63		
L52	13.5 - 11 (52)	TP35.502x35.0797x1.531	35.06	1.60
		3		
L53	11 - 10.75	TP35.5442x35.502x1.231	35.07	1.61
	(53)	3		
L54	10.75 - 6 (54)	TP36.3465x35.5442x1.25	35.55	1.68
		63		
L55	6 - 5.75 (55)	TP36.3888x36.3465x1.53	35.55	1.68
		13		
L56	5.75 - 3.25	TP36.811x36.3888x1.506	35.74	1.68
	(56)	3		
L57	3.25 - 3 (57)	TP36.8533x36.811x1.156	35.74	1.68
		3		
L58	3 - 0 (58)	TP37.36x36.8533x1.1313	35.91	1.68

APPENDIX B

BASE LEVEL DRAWING


CLIMBING PEGS
W/ SAFETY CLIMB
Q4
Q1
Q3
Q2
(OTHER CONSIDERED EQUIPMENT)
(2) 3/8" TO 150 FT LEVEL
(4) 3/4" TO 150 FT LEVEL
(12) 1-5/8" TO 150 FT LEVEL
(PROPOSED EQUIPMENT CONFIGURATION)
(1) 1-1/4" TO 99 FT LEVEL
(6) 1-5/8" TO 99 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 1/2" TO 138 FT LEVEL
(3) 1-1/4" TO 138 FT LEVEL
(1) 1-5/8" TO 138 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 1-1/2" TO 120 FT LEVEL
(8) 1-5/8" TO 120 FT LEVEL
BUSINESS UNIT: 841288 TOWER ID:C_BASELEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

H

Site BU: 841288

Work Order: _____

per

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	150	41	0	12	15	21	0.21875	Auto	A572-50
2	109	40	3	12	21.00	27.04	0.25	Auto	A572-50
3	72	42	4	12	26.09	32.89	0.3125	Auto	A572-50
4	34	34	0	12	31.62	37.36	0.4063	Auto	A572-50

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	0	11	solid round	yidag; (2.5 Max); (2.5	4			o			o			o			o
2	11	48.25	solid round	yidag; (2.5 Max); (2.5	4			o			o			o			o
3	3.25	23.75	plate	6.5 x 1.25; (1) (1.1875	4		o			o			o			o	
4	23.75	44.25	plate	6.5 x 1.25; (1) (1.1875	4		o			o			o			o	
5	44.25	66.75	plate	5 x 1.25; (1) (1.1875)	4		o			o			o			o	
6	66.75	80.5	plate	4 x 1.25; (1) (1.1875)	4			o			o			o			o
7	95.25	109	plate	5 x 1.25; (1) (1.1875)	2		o			o							
8	95.25	100.92	plate	5 x 1.25; (1) (1.1875)	1									o			
9	0	0	plate	5 x 1.25; (1) (1.1875)	1												o
10	100.92	109	plate	5 x 1.25; (1) (1.1875)	1								o				
11	102.42	109	plate	5 x 1.25; (1) (1.1875)	1											o	
12	109	128.5	plate	4 x 1.25; (1) (1.1875)	4		o			o			o			o	
13	6	43.08	plate	inst pole w/ FP 6 x 1; (	1	o											
14	11	43.08	plate	inst pole w/ FP 6 x 1; (	2				o						o		
15	6	43.08	plate	inst pole w/ FP 6 x 1; (	1							o					
16	43.08	73.58	plate	inst pole w/ FP 6 x 1; (	4	o			o			o			o		
17	73.58	104.17	plate	inst pole w/ FP 6 x 1; (	2	o									o		
18	73.58	99.58	plate	inst pole w/ FP 6 x 1; (	1				o								
19	73.58	103.17	plate	inst pole w/ FP 6 x 1; (	1							o					
20	0	6	plate	FP 1.25 x 6.75_1	2		c						c				
21	0	11	plate	FP 1.25 x 6.75_1	2					c						c	
22																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Length (in)	Top Termination Length (in)	L_u (in)	Net Area (in^2)	Bolt Hole Size (in)	Reinforcement Material
1	-	-	4.908738521	3.9375	n/a	n/a	34.440	4.909	0.0000	A722-07
2	-	-	4.908738521	3.9375	n/a	n/a	34.440	4.909	0.0000	A722-07
3	6.5	1.25	8.125	0.625	33.000	33.000	19.000	6.563	1.1875	A572-65
4	6.5	1.25	8.125	0.625	33.000	33.000	19.000	6.563	1.1875	A572-65
5	5	1.25	6.25	0.625	27.000	27.000	18.000	4.688	1.1875	A572-65
6	4	1.25	5	0.625	18.000	18.000	18.000	3.438	1.1875	A572-65
7	5	1.25	6.25	0.625	27.000	27.000	18.000	4.688	1.1875	A572-65
8	5	1.25	6.25	0.625	27.000	27.000	18.000	4.688	1.1875	A572-65
9	5	1.25	6.25	0.625	n/a	n/a	18.000	4.688	1.1875	A572-65
10	5	1.25	6.25	0.625	27.000	27.000	18.000	4.688	1.1875	A572-65
11	5	1.25	6.25	0.625	27.000	27.000	18.000	4.688	1.1875	A572-65
12	4	1.25	5	0.625	18.000	18.000	18.000	3.438	1.1875	A572-65
13	5.40898723	1.941213679	10.5	0.970606839	45.000	54.000	17.000	8.073	1.1875	A572-65
14	5.40898723	1.941213679	10.5	0.970606839	39.000	54.000	17.000	8.073	1.1875	A572-65
15	5.40898723	1.941213679	10.5	0.970606839	39.000	54.000	17.000	8.073	1.1875	A572-65
16	5.40898723	1.941213679	10.5	0.970606839	54.000	54.000	20.000	8.073	1.1875	A572-65
17	5.40898723	1.941213679	10.5	0.970606839	54.000	54.000	20.000	8.073	1.1875	A572-65
18	5.40898723	1.941213679	10.5	0.970606839	54.000	54.000	20.000	8.073	1.1875	A572-65
19	5.40898723	1.941213679	10.5	0.970606839	54.000	54.000	20.000	8.073	1.1875	A572-65
20	1.25	6.75	8.4375	3.375	n/a	n/a	6.000	8.438	0.0000	A572-65
21	1.25	6.75	8.4375	3.375	n/a	n/a	6.000	8.438	0.0000	A572-65

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	150 - 145	5		12	15.000	15.732	0.21875	A572-50	1.000
2	145 - 140	5		12	15.732	16.463	0.21875	A572-50	1.000
3	140 - 135	5		12	16.463	17.195	0.21875	A572-50	1.000
4	135 - 130	5		12	17.195	17.927	0.21875	A572-50	1.000
5	130 - 128.5	1.5		12	17.927	18.146	0.21875	A572-50	1.000
6	128.5 - 128.25	0.25		12	18.146	18.183	0.66875	A572-50	0.867
7	128.25 - 123.25	5		12	18.183	18.915	0.64375	A572-50	0.877
8	123.25 - 118.25	5		12	18.915	19.646	0.61875	A572-50	0.889
9	118.25 - 113.25	5		12	19.646	20.378	0.60625	A572-50	0.887
10	113.25 - 109	4.25	0	12	20.378	21.000	0.59375	A572-50	0.889
11	109 - 108.75	0.25		12	21.000	21.038	0.725	A572-50	0.881
12	108.75 - 104.17	4.58		12	21.038	21.729	0.7	A572-50	0.893
13	104.17 - 103.92	0.25		12	21.729	21.767	0.975	A572-50	0.971
14	103.92 - 103.17	0.75		12	21.767	21.880	0.95	A572-50	0.991
15	103.17 - 102.92	0.25		12	21.880	21.918	1.125	A572-50	0.983
16	102.92 - 102.42	0.5		12	21.918	21.994	1.1	A572-50	1.001
17	102.42 - 102.17	0.25		12	21.994	22.031	0.925	A572-50	1.079
18	102.17 - 100.92	1.25		12	22.031	22.220	0.925	A572-50	1.072
19	100.92 - 100.67	0.25		12	22.220	22.258	1	A572-50	0.994
20	100.67 - 99.58	1.09		12	22.258	22.422	1	A572-50	0.988
21	99.58 - 99.33	0.25		12	22.422	22.460	1.375	A572-50	0.843
22	99.33 - 95.25	4.08		12	22.460	23.076	1.325	A572-50	0.854
23	95.25 - 95	0.25		12	23.076	23.114	1.025	A572-50	0.829
24	95 - 90	5		12	23.114	23.869	1	A572-50	0.829
25	90 - 85	5		12	23.869	24.624	0.9625	A572-50	0.841
26	85 - 80.5	4.5		12	24.624	25.304	0.925	A572-50	0.857
27	80.5 - 80.25	0.25		12	25.304	25.341	1.3	A572-50	0.818
28	80.25 - 75.25	5		12	25.341	26.096	1.25	A572-50	0.829
29	75.25 - 73.58	1.67		12	26.096	26.348	1.225	A572-50	0.839
30	73.58 - 73.33	0.25		12	26.348	26.386	1.225	A572-50	0.838
31	73.33 - 72	4.33	3	12	26.386	27.040	1.2	A572-50	0.849
32	72 - 67	5		12	26.087	26.897	1.2625	A572-50	0.853
33	67 - 66.75	0.25		12	26.897	26.937	1.2625	A572-50	0.852
34	66.75 - 66.5	0.25		12	26.937	26.978	1.3625	A572-50	0.836
35	66.5 - 61.5	5		12	26.978	27.788	1.3125	A572-50	0.847
36	61.5 - 56.5	5		12	27.788	28.598	1.2625	A572-50	0.860
37	56.5 - 51.5	5		12	28.598	29.408	1.2375	A572-50	0.859
38	51.5 - 48.25	3.25		12	29.408	29.934	1.2125	A572-50	0.864
39	48.25 - 48	0.25		12	29.934	29.974	1.6375	A572-50	0.780
40	48 - 44.25	3.75		12	29.974	30.582	1.6125	A572-50	0.779
41	44.25 - 44	0.25		12	30.582	30.622	1.7125	A572-50	0.783
42	44 - 43.08	0.92		12	30.622	30.771	1.7125	A572-50	0.780
43	43.08 - 42.83	0.25		12	30.771	30.812	1.7125	A572-50	0.779
44	42.83 - 37.83	5		12	30.812	31.622	1.6375	A572-50	0.796
45	37.83 - 34	7.83	4	12	31.622	32.890	1.6125	A572-50	0.795
46	34 - 29	5		12	31.617	32.462	1.7063	A572-50	0.806
47	29 - 24	5		12	32.462	33.306	1.6563	A572-50	0.813
48	24 - 23.75	0.25		12	33.306	33.348	1.6563	A572-50	0.813
49	23.75 - 23.5	0.25		12	33.348	33.391	1.6563	A572-50	0.812
50	23.5 - 18.5	5		12	33.391	34.235	1.6063	A572-50	0.821
51	18.5 - 13.5	5		12	34.235	35.080	1.5563	A572-50	0.831
52	13.5 - 11	2.5		12	35.080	35.502	1.5313	A572-50	0.837
53	11 - 10.75	0.25		12	35.502	35.544	1.2313	A572-50	1.000
54	10.75 - 6	4.75		12	35.544	36.347	1.2563	A572-50	0.966
55	6 - 5.75	0.25		12	36.347	36.389	1.5313	A572-50	0.774
56	5.75 - 3.25	2.5		12	36.389	36.811	1.5063	A572-50	0.780
57	3.25 - 3	0.25		12	36.811	36.853	1.1563	A572-50	0.761
58	3 - 0	3		12	36.853	37.360	1.1313	A572-50	0.771

TNX Section Forces

Increment (ft): 5

	Section Height (ft)	TNX Output P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	150 - 145	3.76	43.13	6.25
2	145 - 140	4.08	76.17	6.95
3	140 - 135	7.72	125.61	10.74
4	135 - 130	8.14	180.02	11.03
5	130 - 128.5	8.26	196.64	11.14
6	128.5 - 128.25	8.32	199.42	11.16
7	128.25 - 123.25	9.09	256.38	11.62
8	123.25 - 118.25	13.37	322.92	16.20
9	118.25 - 113.25	14.22	405.51	16.85
10	113.25 - 109	15.90	478.74	18.40
11	109 - 108.75	15.96	483.34	18.43
12	108.75 - 104.17	16.88	569.44	19.18
13	104.17 - 103.92	16.97	574.24	19.22
14	103.92 - 103.17	17.18	588.70	19.35
15	103.17 - 102.92	17.27	593.54	19.40
16	102.92 - 102.42	17.43	603.26	19.48
17	102.42 - 102.17	17.51	608.13	19.53
18	102.17 - 100.92	17.89	632.67	19.75
19	100.92 - 100.67	17.97	637.62	19.79
20	100.67 - 99.58	18.30	659.29	19.98
21	99.58 - 99.33	18.40	664.29	20.02
22	99.33 - 95.25	22.15	758.10	23.03
23	95.25 - 95	22.23	763.86	23.08
24	95 - 90	23.68	881.13	23.84
25	90 - 85	25.17	1002.16	24.58
26	85 - 80.5	26.53	1114.24	25.25
27	80.5 - 80.25	26.63	1120.56	25.28
28	80.25 - 75.25	28.53	1248.94	26.08
29	75.25 - 73.58	29.17	1292.71	26.35
30	73.58 - 73.33	29.28	1299.30	26.39
31	73.33 - 72	29.79	1334.52	26.59
32	72 - 67	32.83	1469.70	27.46
33	67 - 66.75	32.94	1476.57	27.50
34	66.75 - 66.5	33.05	1483.45	27.54
35	66.5 - 61.5	35.20	1623.01	28.30
36	61.5 - 56.5	37.39	1766.29	29.03
37	56.5 - 51.5	39.61	1913.17	29.74
38	51.5 - 48.25	41.07	2010.50	30.18
39	48.25 - 48	41.21	2018.05	30.21
40	48 - 44.25	43.17	2132.34	30.76
41	44.25 - 44	43.32	2140.03	30.79
42	44 - 43.08	43.83	2168.41	30.92
43	43.08 - 42.83	43.98	2176.15	30.96
44	42.83 - 37.83	46.77	2332.65	31.65
45	37.83 - 34	48.93	2454.81	32.16
46	34 - 29	53.99	2617.51	32.91
47	29 - 24	57.04	2783.52	33.52
48	24 - 23.75	57.20	2791.91	33.54
49	23.75 - 23.5	57.35	2800.29	33.57
50	23.5 - 18.5	60.42	2969.62	34.17
51	18.5 - 13.5	63.52	3141.90	34.76
52	13.5 - 11	65.09	3229.14	35.06
53	11 - 10.75	65.25	3237.90	35.07
54	10.75 - 6	68.17	3405.57	35.55
55	6 - 5.75	68.34	3414.46	35.55
56	5.75 - 3.25	69.83	3503.55	35.74
57	3.25 - 3	69.96	3512.48	35.74
58	3 - 0	71.38	3619.93	35.91

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP15.732x15x0.2188	Pole	21.7%	Pass
145 - 140	Pole	TP16.463x15.732x0.2188	Pole	34.5%	Pass
140 - 135	Pole	TP17.195x16.463x0.2188	Pole	52.3%	Pass
135 - 130	Pole	TP17.927x17.195x0.2188	Pole	68.5%	Pass
130 - 128.5	Pole	TP18.146x17.927x0.2188	Pole	72.9%	Pass
128.5 - 128.25	Pole + Reinf.	TP18.183x18.146x0.6688	Reinf. 12 Tension Rupture	36.7%	Pass
128.25 - 123.25	Pole + Reinf.	TP18.915x18.183x0.6438	Reinf. 12 Tension Rupture	44.7%	Pass
123.25 - 118.25	Pole + Reinf.	TP19.646x18.915x0.6188	Reinf. 12 Tension Rupture	53.7%	Pass
118.25 - 113.25	Pole + Reinf.	TP20.378x19.646x0.6063	Reinf. 12 Tension Rupture	64.0%	Pass
113.25 - 109	Pole + Reinf.	TP21x20.378x0.5938	Reinf. 12 Tension Rupture	72.5%	Pass
109 - 108.75	Pole + Reinf.	TP21.038x21x0.725	Reinf. 7 Tension Rupture	55.3%	Pass
108.75 - 104.17	Pole + Reinf.	TP21.729x21.038x0.7	Reinf. 7 Tension Rupture	62.3%	Pass
104.17 - 103.92	Pole + Reinf.	TP21.767x21.729x0.975	Reinf. 7 Tension Rupture	55.9%	Pass
103.92 - 103.17	Pole + Reinf.	TP21.88x21.767x0.95	Reinf. 7 Tension Rupture	56.9%	Pass
103.17 - 102.92	Pole + Reinf.	TP21.918x21.88x1.125	Reinf. 7 Tension Rupture	46.4%	Pass
102.92 - 102.42	Pole + Reinf.	TP21.994x21.918x1.1	Reinf. 7 Tension Rupture	47.0%	Pass
102.42 - 102.17	Pole + Reinf.	TP22.031x21.994x0.925	Reinf. 7 Tension Rupture	51.7%	Pass
102.17 - 100.92	Pole + Reinf.	TP22.22x22.031x0.925	Reinf. 7 Tension Rupture	53.2%	Pass
100.92 - 100.67	Pole + Reinf.	TP22.258x22.22x1	Reinf. 7 Tension Rupture	52.1%	Pass
100.67 - 99.58	Pole + Reinf.	TP22.422x22.258x1	Reinf. 7 Tension Rupture	53.3%	Pass
99.58 - 99.33	Pole + Reinf.	TP22.46x22.422x1.375	Reinf. 17 Tension Rupture	38.3%	Pass
99.33 - 95.25	Pole + Reinf.	TP23.076x22.46x1.325	Reinf. 17 Tension Rupture	42.4%	Pass
95.25 - 95	Pole + Reinf.	TP23.114x23.076x1.025	Reinf. 18 Tension Rupture	52.4%	Pass
95 - 90	Pole + Reinf.	TP23.869x23.114x1	Reinf. 18 Tension Rupture	58.1%	Pass
90 - 85	Pole + Reinf.	TP24.624x23.869x0.9625	Reinf. 18 Tension Rupture	63.5%	Pass
85 - 80.5	Pole + Reinf.	TP25.304x24.624x0.925	Reinf. 18 Tension Rupture	68.2%	Pass
80.5 - 80.25	Pole + Reinf.	TP25.341x25.304x1.3	Reinf. 6 Tension Rupture	56.6%	Pass
80.25 - 75.25	Pole + Reinf.	TP26.096x25.341x1.25	Reinf. 6 Tension Rupture	60.9%	Pass
75.25 - 73.58	Pole + Reinf.	TP26.348x26.096x1.225	Reinf. 6 Tension Rupture	62.4%	Pass
73.58 - 73.33	Pole + Reinf.	TP26.386x26.348x1.225	Reinf. 6 Tension Rupture	62.6%	Pass
73.33 - 72	Pole + Reinf.	TP27.04x26.386x1.2	Reinf. 6 Tension Rupture	63.7%	Pass
72 - 67	Pole + Reinf.	TP26.897x26.087x1.2625	Reinf. 6 Tension Rupture	65.5%	Pass
67 - 66.75	Pole + Reinf.	TP26.937x26.897x1.2625	Reinf. 6 Tension Rupture	65.7%	Pass
66.75 - 66.5	Pole + Reinf.	TP26.978x26.937x1.3625	Reinf. 5 Tension Rupture	57.2%	Pass
66.5 - 61.5	Pole + Reinf.	TP27.788x26.978x1.3125	Reinf. 5 Tension Rupture	60.3%	Pass
61.5 - 56.5	Pole + Reinf.	TP28.598x27.788x1.2625	Reinf. 5 Tension Rupture	63.4%	Pass
56.5 - 51.5	Pole + Reinf.	TP29.408x28.598x1.2375	Reinf. 5 Tension Rupture	66.4%	Pass
51.5 - 48.25	Pole + Reinf.	TP29.934x29.408x1.2125	Reinf. 5 Tension Rupture	68.2%	Pass
48.25 - 48	Pole + Reinf.	TP29.974x29.934x1.6375	Reinf. 2 Connection	59.9%	Pass
48 - 44.25	Pole + Reinf.	TP30.582x29.974x1.6125	Reinf. 2 Compression	61.7%	Pass
44.25 - 44	Pole + Reinf.	TP30.622x30.582x1.7125	Reinf. 2 Compression	58.3%	Pass
44 - 43.08	Pole + Reinf.	TP30.771x30.622x1.7125	Reinf. 2 Compression	58.7%	Pass
43.08 - 42.83	Pole + Reinf.	TP30.812x30.771x1.7125	Reinf. 2 Compression	58.8%	Pass
42.83 - 37.83	Pole + Reinf.	TP31.622x30.812x1.6375	Reinf. 2 Compression	61.0%	Pass
37.83 - 34	Pole + Reinf.	TP32.89x31.622x1.6125	Reinf. 2 Compression	62.7%	Pass
34 - 29	Pole + Reinf.	TP32.462x31.617x1.7063	Reinf. 2 Compression	62.3%	Pass
29 - 24	Pole + Reinf.	TP33.306x32.462x1.6563	Reinf. 2 Compression	64.0%	Pass
24 - 23.75	Pole + Reinf.	TP33.348x33.306x1.6563	Reinf. 2 Compression	64.1%	Pass
23.75 - 23.5	Pole + Reinf.	TP33.391x33.348x1.6563	Reinf. 2 Compression	64.2%	Pass
23.5 - 18.5	Pole + Reinf.	TP34.235x33.391x1.6063	Reinf. 2 Compression	65.8%	Pass
18.5 - 13.5	Pole + Reinf.	TP35.08x34.235x1.5563	Reinf. 2 Compression	67.4%	Pass
13.5 - 11	Pole + Reinf.	TP35.502x35.08x1.5313	Reinf. 2 Connection	68.1%	Pass
11 - 10.75	Pole + Reinf.	TP35.544x35.502x1.2313	Reinf. 3 Tension Rupture	64.9%	Pass
10.75 - 6	Pole + Reinf.	TP36.347x35.544x1.2563	Reinf. 3 Tension Rupture	66.4%	Pass
6 - 5.75	Pole + Reinf.	TP36.389x36.347x1.5313	Reinf. 3 Tension Rupture	57.4%	Pass
5.75 - 3.25	Pole + Reinf.	TP36.811x36.389x1.5063	Reinf. 3 Tension Rupture	58.1%	Pass
3.25 - 3	Pole + Reinf.	TP36.853x36.811x1.1563	Reinf. 20 Compression	73.2%	Pass
3 - 0	Pole + Reinf.	TP37.36x36.853x1.1313	Reinf. 20 Compression	74.1%	Pass
				Summary	
			Pole	72.9%	Pass
			Reinforcement	74.1%	Pass
			Overall	74.1%	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	R14	R15	R16	R17	R18	R19	R20	R21
150 - 145	336	n/a	336	10.91	n/a	10.91	21.7%																					
145 - 140	386	n/a	386	11.43	n/a	11.43	34.5%																					
140 - 135	440	n/a	440	11.94	n/a	11.94	52.3%																					
135 - 130	500	n/a	500	12.46	n/a	12.46	68.5%																					
130 - 128.5	519	n/a	519	12.61	n/a	12.61	72.9%																					
128.5 - 128.25	522	959	1481	12.64	20.00	32.64	25.2%												36.7%									
128.25 - 123.25	588	1031	1619	13.15	20.00	33.15	30.7%												44.7%									
123.25 - 118.25	660	1106	1766	13.66	20.00	33.66	36.9%												53.7%									
118.25 - 113.25	738	1184	1922	14.18	20.00	34.18	44.1%												64.0%									
113.25 - 109	808	1252	2060	14.62	20.00	34.62	50.3%												72.5%									
109 - 108.75	924	1580	2504	16.71	25.00	41.71	41.6%							55.3%			55.3%	55.3%										
108.75 - 104.17	1020	1678	2697	17.27	25.00	42.27	47.0%							62.3%			62.3%	62.3%										
104.17 - 103.92	1155	2583	3738	17.30	46.00	63.30	43.3%							55.9%			45.2%	34.7%						36.0%				
103.92 - 103.17	1173	2608	3781	17.39	46.00	63.39	44.1%							56.9%			46.0%	35.4%						36.7%				
103.17 - 102.92	1093	3108	4201	17.42	56.50	73.92	37.4%							46.4%			31.1%	35.0%						37.2%		31.5%		
102.92 - 102.42	1105	3127	4232	17.48	56.50	73.98	37.8%							47.0%			31.5%	35.4%						37.7%		31.9%		
102.42 - 102.17	1073	2543	3617	17.51	50.25	67.76	41.7%							51.7%			32.4%							46.7%		32.9%		
102.17 - 100.92	1101	2583	3684	17.66	50.25	67.91	42.9%							53.2%			33.4%							48.0%		33.9%		
100.92 - 100.67	1122	2888	4010	17.69	50.25	67.94	41.1%							52.1%	37.8%									42.4%		37.9%		
100.67 - 99.58	1147	2927	4074	17.82	50.25	68.07	42.1%							53.3%	38.7%									43.5%		38.8%		
99.58 - 99.33	1128	4186	5314	17.85	60.75	78.60	30.1%							36.2%	34.3%									38.3%	33.7%	37.2%		
99.33 - 95.25	1225	4398	5622	18.35	60.75	79.10	33.4%							40.1%	38.0%									42.4%	37.3%	41.1%		
95.25 - 95	1230	3354	4583	18.38	42.00	60.38	39.5%																	52.4%	52.4%	52.4%		
95 - 90	1356	3555	4911	18.99	42.00	60.99	44.1%																	58.1%	58.1%	58.1%		
90 - 85	1490	3763	5253	19.59	42.00	61.59	48.8%																	63.5%	63.5%	63.5%		
85 - 80.5	1618	3955	5573	20.14	42.00	62.14	52.9%																	68.2%	68.2%	68.2%		
80.5 - 80.25	1625	5748	7373	20.17	62.00	82.17	40.3%						56.6%											51.9%	51.9%	51.9%		
80.25 - 75.25	1776	6069	7845	20.78	62.00	82.78	43.9%						60.9%											55.9%	55.9%	55.9%		
75.25 - 73.58	1829	6178	8007	20.98	62.00	82.98	45.1%						62.4%											57.2%	57.2%	57.2%		
73.58 - 73.33	1837	6195	8032	21.01	62.00	83.01	45.3%						62.6%										57.4%					
73.33 - 72	1880	6282	8162	21.17	62.00	83.17	46.2%						63.7%										58.4%					
72 - 67	2416	6419	8836	26.71	62.00	88.71	45.8%						65.5%										60.1%					
67 - 66.75	2427	6437	8865	26.75	62.00	88.75	45.9%						65.7%										60.2%					
66.75 - 66.5	2439	6966	9405	26.79	67.00	93.79	43.5%					57.2%											57.1%					
66.5 - 61.5	2668	7360	10028	27.61	67.00	94.61	46.0%					60.3%											60.3%					
61.5 - 56.5	2910	7766	10676	28.42	67.00	95.42	48.4%					63.4%											63.3%					
56.5 - 51.5	3168	8182	11350	29.23	67.00	96.23	50.7%					66.4%											66.2%					
51.5 - 48.25	3343	8458	11801	29.76	67.00	96.76	52.4%					68.2%											68.0%					
48.25 - 48	3356	12004	15360	29.80	86.63	116.44	40.6%		59.9%			52.7%											52.6%					
48 - 44.25	3567	12443	16010	30.41	86.63	117.05	42.2%		61.7%			54.5%											54.3%					
44.25 - 44	3581	13457	17038	30.46	94.13	124.59	39.9%		58.3%		47.8%												51.3%					
44 - 43.08	3634	13574	17209	30.61	94.13	124.74	40.3%		58.7%		48.2%												51.7%					
43.08 - 42.83	3649	13607	17255	30.65	94.13	124.78	40.4%		58.8%		48.3%									51.8%	51.8%	51.8%						
42.83 - 37.83	3947	14258	18205	31.46	94.13	125.59	42.5%		61.0%		50.3%									53.9%	53.9%	53.9%						
37.83 - 34	4187	14767	18953	32.08	94.13	126.22	44.0%		62.7%		51.9%									55.5%	55.5%	55.5%						
34 - 29	5508	14949	20457	41.88	94.13	136.01	42.6%		62.3%		51.6%									55.2%	55.2%	55.2%						
29 - 24	5955	15661	21616	42.98	94.13	137.12	44.0%		64.0%		53.2%									57.0%	57.0%	57.0%						
24 - 23.75	5978	15697	21675	43.04	94.13	137.17	44.0%		64.1%		53.3%									57.1%	57.1%	57.1%						
23.75 - 23.5	6001	15733	21734	43.09	94.13	137.23	44.1%		64.2%	53.4%										57.1%	57.1%	57.1%						
23.5 - 18.5	6474	16464	22937	44.19	94.13	138.33	45.5%		65.8%	55.0%										58.8%	58.8%	58.8%						
18.5 - 13.5	6971	17211	24182	45.30	94.13	139.43	46.8%		67.4%	56.5%										60.4%	60.4%	60.4%						
13.5 - 11	7228	17591	24819	45.85	94.13	139.98	47.4%		68.1%	57.2%										61.2%	61.2%	61.2%						
11 - 10.75	7255	13339	20593	45.90	90.01	135.91	58.8%	51.5%		64.9%										56.5%		56.5%						51.3%
10.75 - 6	7763	14489	22251	46.95	90.01	136.96	58.8%	52.4%		66.4%										57.8%		57.8%						52.5%
6 - 5.75	7790	19023	26813	47.01	85.88	132.89	47.5%	41.1%		57.4%																	56.7%	56.7%
5.75 - 3.25	8068	19409	27477	47.56	85.88	133.44	48.2%	41.6%		58.1%																	57.4%	57.4%
3.25 - 3	8096	13491	21587	47.61	53.38	101.00	63.6%	53.1%																			73.2%	73.2%
3 - 0	8438	13803	22241	48.28	53.38	101.66	64.5%	53.7%																			74.1%	74.1%

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

PAUL J. FORD & COMPANY
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Date: 10/9/2019
37519-1756.003.7805
Bridgeport North
841288
150' Monopole
CCI
GJA

TIA-222-H

General Parameters and Loading:

Flange Elevation:	109.00	ft
TIA Reference Standard:	TIA-222-H	
AISC Manual:		
Method:	LRFD	
ASD Stress Increase, ASIF:	N/A	
Moment, Muf:	478.7	k-ft
Axial, Puf:	15.9	kips
Shear, Vf:	18.4	kips

Pole Parameters:

	Upper Pole	Lower Pole	
Pole Diameter, Dp:	21.00	21.00	in
Pole Thickness, tp:	0.2188	0.2500	in
Pole Fy:	50	50	ksi
Pole Fu:	65	65	ksi
Flange Diameter, Df:	28.50	28.50	in

Bridge Stiffener Parameters:

	Stiffener Type 1	Stiffener Type 2	
Qty. Stiffeners:	4	0	
Upper Weld Length, L1:	30.00	0.00	in
Lower Weld Length, L2:	30.00	0.00	in
Weld Size, w:	0.3750	0.0000	in
Electrode:	E70	E70	
Effective Stiffener Width, Ws:	4.00	0.00	in
Stiffener Thickness, ts:	1.25	0.00	in
Notch, n:	2.25	0.00	in
Stiffener Fy:	65	0	ksi
Stiffener Fu:	80	0	ksi
Unbraced Length, L:	15.00	0.00	in
K:	0.80	0.00	
Stiffener Spacing:	Symmetric	Symmetric	
Start Angle, for Symmetric:	0	0	degrees
Stiffener Circle:	37.00	28.50	in = Df + 2 n + Ws
Upper Eccentricity, e1:	8.00	3.75	in = (Df - Dp) / 2 + n + Ws / 2
Lower Eccentricity, e2:	8.00	3.75	in = (Df - Dp) / 2 + n + Ws / 2

Flange Bolt Parameters:

Number of Bolt Circles: (1) Bolt Circle

	Bolt Circle 1	Bolt Circle 2	
Qty. Bolts:	0	0	
Bolt Diameter:	1.00	0.00	in
Bolt Circle:	26.00	0.00	in
Bolt Spacing:	Symmetric	Symmetric	
Start Angle, for Symmetric:	0	0	degrees
Bolt Area, Ag:	0.0000	0.0000	in
Max. Tension:	0.00	0.00	kips
Max. Net Tension:	0.00	0.00	kips
Max. Net Compression:	0.00	0.00	kips
Moment to Bolt Circle:	0.00	0.00	k-ft
Axial to Bolt Circle:	0.00	0.00	kips
Shear to Bolt Circle:	0.00	0.00	kips
Equivalent Bolt Circle:	0.00	0.00	in

Weld Analysis per AISC Tables 8-4 & 8-3:

Upper Pole	Stiffener Type 1	Stiffener Type 2	
D:	6	0	Num. of Sixteenths in Weld
a:	0.2667	0.0000	= e1 / L1
k:	0	0	
C:	3.2367	3.7100	Tabulated Cofficient
C1:	1.0000	1.0000	Coefficient for Electrode
Φ:	0.7500	0.7500	
Stiffener Axial, Pu:	159.4	0.0	kips
Axial Capacity, ΦPn:	437.0	0.0	kips = Φ C C1 D L
Ratio:	36.5%	0.0%	
Lower Pole			
D:	6	0	Num. of Sixteenths in Weld
a:	0.2667	0.0000	= e2 / L2
k:	0	0	
C:	3.2367	3.7100	Tabulated Cofficient
C1:	1.0000	1.0000	Coefficient for Electrode
Φ:	0.7500	0.7500	
Stiffener Axial, Pu:	159.4	0.0	kips
Axial Capacity, ΦPn:	437.0	0.0	kips = Φ C C1 D L
Ratio:	36.5%	0.0%	

Pole Analysis per AISC Table J2.5 & Sect. J4.2:

Upper Pole	Stiffener Type 1	Stiffener Type 2	
Stiffener Axial, Pu:	159.4	0.0	kips
Effective Throat, te:	0.2651	0.0000	in = 0.707 w
Shear Stress, fuv:	2.7	0.0	kips/in= Pu / (2 L1)
Section Modulus, S:	300.0	0.0	in^2 = $L1^2$ / 3
Bending Stress, fub:	4.3	0.0	kips/in = Pu e1 / S
Combined Stress, fu:	5.0	0.0	kips/in = $(fuv^2 + fub^2)^{1/2}$
Φ:	0.7500	0.0000	
Stress Capacity, ΦFn	6.4	0.0	kips/in = Φ 0.6 Fu tp
Ratio:	78.4%	0.0%	
Lower Pole			
Stiffener Axial, Pu:	159.4	0.0	kips
Effective Throat, te:	0.2651	0.0000	in = 0.707 w
Shear Stress, fuv:	2.7	0.0	ksi = Pu / (2 L2)
Section Modulus, S:	300.0	0.0	in^2 = $L2^2$ / 3
Bending Stress, fub:	4.3	0.0	ksi = Pu e2 / S
Combined Stress, fu:	5.0	0.0	kips/in = $(fuv^2 + fub^2)^{1/2}$
Φ:	0.7500	0.0000	
Stress Capacity, ΦFn	7.3	0.0	kips/in = Φ 0.6 Fu tp
Ratio:	68.6%	0.0%	

Stiffener 1 Analysis per AISC Sect. D2, E3 & E7

	Stiffener Type 1	
Gross Area, Ag:	5.0000	in^2
Effective Net Area, Aen:	5.0000	in^2 = Ag U, where U = 1.000
Stiffener Axial, Pu:	159.4	kips
Stiffener Stress, fu:	31.9	ksi = Pu / Ag
b:	10.0000	in = (Df - Dp) / 2 + n + Ws, Upper Pole
b / ts:	8.0000	in
Q, Where Qa = 1.0:	1.0000	
r:	0.3608	in^3
K L / r:	33.2554	
Φ:	0.9000	
Axial Capacity, ΦFcr:	52.66	ksi = Φ $[0.658^{Fy / Fe}]$ Fy
Φ:	0.9000	
Ten. Yielding Cap., ΦFnt:	58.50	ksi = Φ Fy
Φ:	0.7500	
Ten. Rupture Cap., ΦFnr:	60.00	ksi = Φ Fu (Aen / Ag)
Ratio:	60.6%	

Stiffener 2 Analysis per AISC Sect. D2, E3 & E7

	Stiffener Type 2	
Gross Area, Ag:	0.0000	in^2
Effective Net Area, Aen:	0.0000	in^2 = Ag U, where U = 1.000
Stiffener Axial, Pu:	0.0	kips
Stiffener Stress, fu:	0.0	ksi = Pu / Ag
b:	0.0000	in = (Df - Dp) / 2 + n + Ws, Upper Pole
b / ts:	0.0000	in
Q, Where Qa = 1.0:	0.0000	
r:	0.0000	in^3
K L / r:	0.0000	
Φ:	0.0000	
Axial Capacity, ΦFcr:	0.00	ksi = Φ Fy
Φ:	0.0000	
Ten. Yielding Cap., ΦFnt:	0.00	ksi = Φ Fy
Φ:	0.0000	
Ten. Rupture Cap., ΦFnr:		ksi = Φ Fu (Aen / Ag)
Ratio:	0.0%	

Analysis Summary:

Bridge Stiffener Type 1	Bridge Stiffener Type 2
Weld Analysis Ratio: 36.5% PASS	Weld Analysis Ratio: 0.0% PASS
Pole Analysis Ratio: 78.4% PASS	Pole Analysis Ratio: 0.0% PASS
Stiffener Analysis Ratio: 60.6% PASS	Stiffener Analysis Ratio: 0.0% PASS

*Structural rating per TIA-222-H Section 15.5

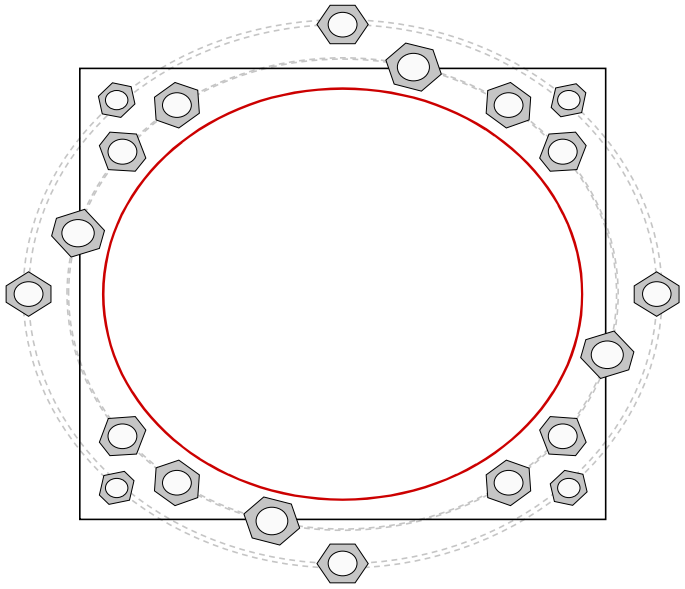
Monopole Base Plate Connection

Site Info	
BU #	841288
Site Name	Bridgeport North
Order #	

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	2.75

Applied Loads	
Moment (kip-ft)	3619.93
Axial Force (kips)	71.38
Shear Force (kips)	35.91

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

GROUP 1: (8) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 43" BC
Anchor Spacing: 6 in
GROUP 2: (4) 2-1/2" ø bolts (Williams N; Fy=120 ksi, Fu=125 ksi) on 42.74" BC
GROUP 3: (4) 2-1/4" ø bolts (A193 Gr. B7 N; Fy=105 ksi, Fu=125 ksi) on 49" BC
GROUP 4: (4) 1-3/4" ø bolts (A193 Gr. B7 N; Fy=105 ksi, Fu=125 ksi) on 49.86" BC

Base Plate Data

41" OD x 2.75" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Stiffener Data

N/A

Pole Data

37.36" x 0.4063" 12-sided pole (A572-50; Fy=50 ksi, Fu=65 ksi)

Anchor Rod Summary *(units of kips, kip-in)*

GROUP 1:		
Pu_c = 199.2	ϕPn_c = 243.75	**Stress Rating**
Vu = 4.49	ϕVn = 73.13	**86.3%**
Mu = 8.02	ϕMn = 94.7	**Pass**
GROUP 2:		
Pu_c = 232.91	ϕPn_c = 480	**Stress Rating**
Vu = 0	ϕVn = 144	**46.2%**
Mu = n/a	ϕMn = n/a	**Pass**
GROUP 3:		
Pu_c = 216.96	ϕPn_c = 341.25	**Stress Rating**
Vu = 0	ϕVn = 102.38	**60.6%**
Mu = n/a	ϕMn = n/a	**Pass**
GROUP 4:		
Pu_c = 129.06	ϕPn_c = 199.5	**Stress Rating**
Vu = 0	ϕVn = 59.85	**61.6%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	26.43	(Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	**55.9%**	**Pass**

PAUL J. FORD & COMPANY

Date:	10/11/2019	**Page:**	1 of 2
Job Number:	37519-1756.003.7805		
Engineer:	KAT/GJA		
Site Number:	841288		
Site Name:	Bridgeport North		
Version:	2.6	**Effective:**	3/11/2019

Flexible Foundation Analysis

Applied Reactions for RISA-3D

TNX Moment =	3619.93	k-ft
TNX Axial =	71.38	kips
TNX Shear =	35.91	kips
Total Unfactored Axial =	59.5	kips
TIA Standard =	H	

Passive Pressure on Pad/Mat

Horiz Subgr Modulus =	25	kcf
Plate Width =	0.5	ft
Depth to Ignore =	3.333	ft
Pad Thickness =	6.8	ft
k (side) =	2.81	k/in
k (corner) =	1.41	k/in

Pad/Mat & Pier Input

Pier Number Sides =	4	
Pier Width/Diameter =	5	ft
Pier Height =	0	ft
Ht Above Grade =	0.8	ft (Pier or Pad)
Pad Thickness =	6.8333	ft
Pad Width =	20	ft
Pad Length =	18	ft
Concrete Density =	150	pcf
Concrete f'c =	3	ksi
β1 =	0.85	
Rebar Fy =	60	ksi

Location =	Width	Length	
Top Bar Quantity =	11	11	
Top Bar Size #	10	10	
Top Clear Cover =	3	3	in
Bottom Bar Quantity =	11	11	
Bottom Bar Size #	10	10	
Bottom Clear Cover =	3	3	in
As, min =	35.42	31.88	in^2
Use Comp Side Rebar?	No	No	
Mu (Comp Top) =	2580	2523	k-ft
Mu (Comp Bot) =	2580	2523	k-ft

Pad/Mat Analysis

Location	Comp Side	c, in	d, in	εt, in/in	Mu, k-ft	Φ	ΦMn, k-ft	Ratio
Width	Top	1.61	77.09	-0.141	2580.0	0.90	4803.5	51.2%
Width	Bot	1.61	77.09	-0.141	2580.0	0.90	4803.5	51.2%
Length	Top	1.79	77.09	-0.126	2523.0	0.90	4798.7	50.1%
Length	Bot	1.79	77.09	-0.126	2523.0	0.90	4798.7	50.1%

Soil Weight

Soil Unit Weight=		pcf
Apply Soil Weight =		
Volume =		ft^3
Weight =		kips
Weight per Sq Ft =		ksf

Soil Modulus by Layer

Layer	Start, ft	End, ft	Vert, pci	Horiz, pci
1	0.0			
2				
3				
4				
5				
6				
7				
8				
9				

Rock Anchor Capacity

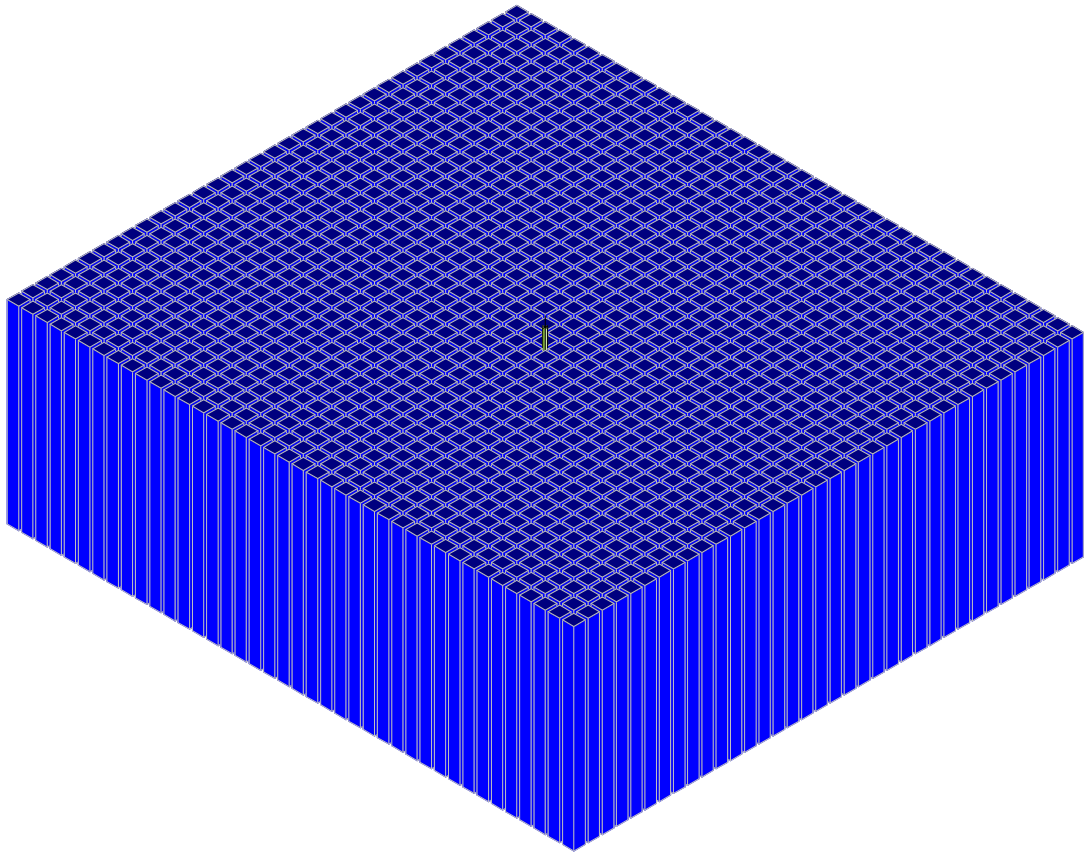
Anchor Type =	Rock Anchor	
Pile Type =	1.75" WILLIAMS R71	
Ag =	2.66	in^2
Ag Override =		in^2
E =	29000	ksi
Lu =	21.83333	ft
k = An (E) / Lu =	294.8	k/in
Pu =	390.0	ksi
Capacity = 0.8 (Pu) =	312.0	kips
Capacity Override =		kips
Max Tension from RISA =	18.8	kips
Ratio =	5.7%	**OK**

Bearing Check

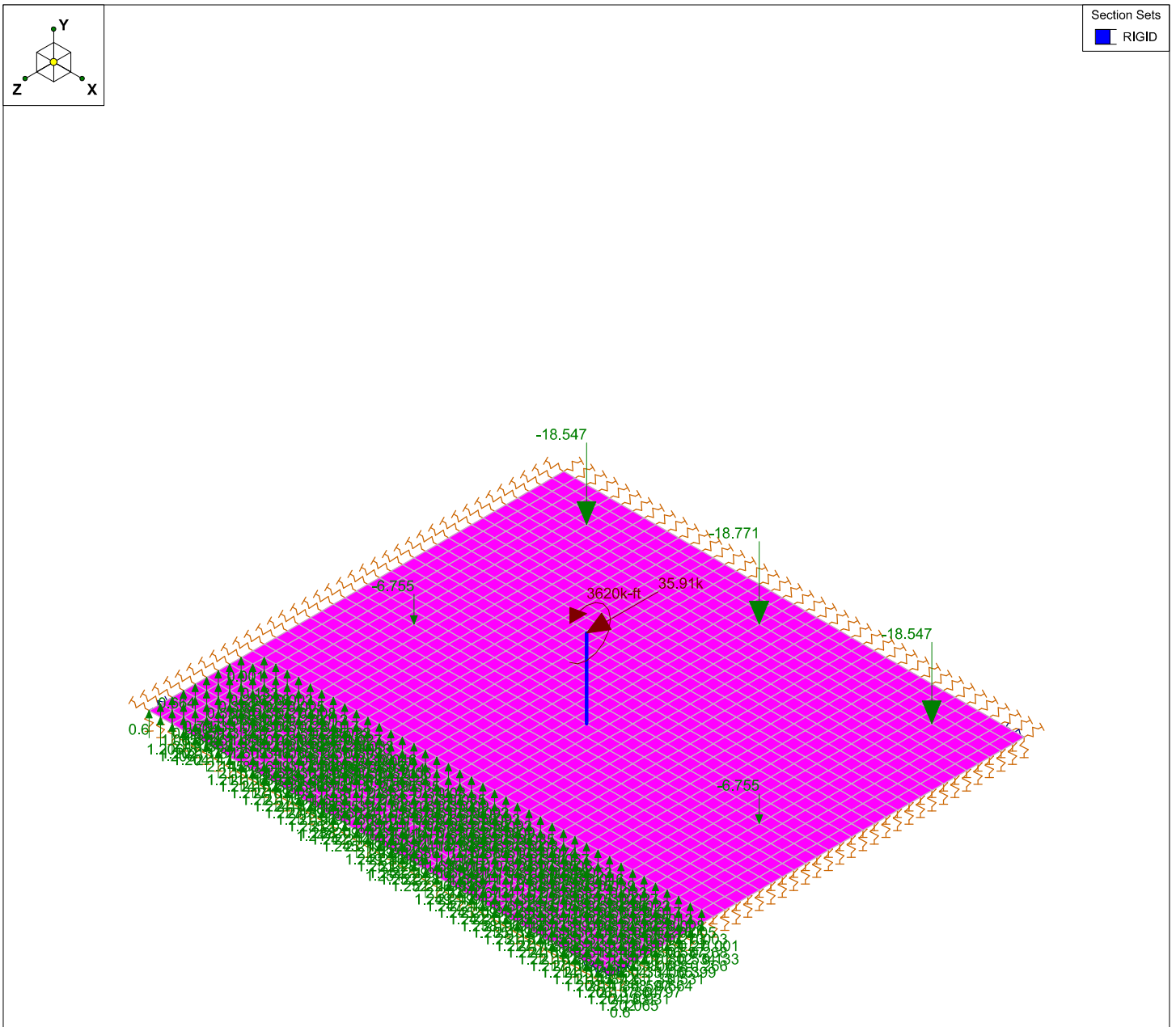
Max Bearing Load =	2.8383	kip
Plate Width =	0.5	ft
Plate Length =	0.5	ft
Design Brg Capacity =	22.5	ksf = Φqn
Bearing Pressure =	11.4	ksf
Ratio =	64.1%	**OK**

Subgrade Modulus Conversion

Subgrade Modulus =	3000	pci
ks =	5184.0	kcf



Paul J. Ford and Company	BU 841288 / Bridgeport North	SK - 1
KAT		Oct 11, 2019 at 8:47 AM
37519-1756.003.7805		37519-1756.003.7805 Composite ...



Loads: BLC 2, Wind 0
Y-direction Reaction Units are k and k-ft

Paul J. Ford and Company	BU 841288 / Bridgeport North	SK - 2
KAT		Oct 11, 2019 at 8:48 AM
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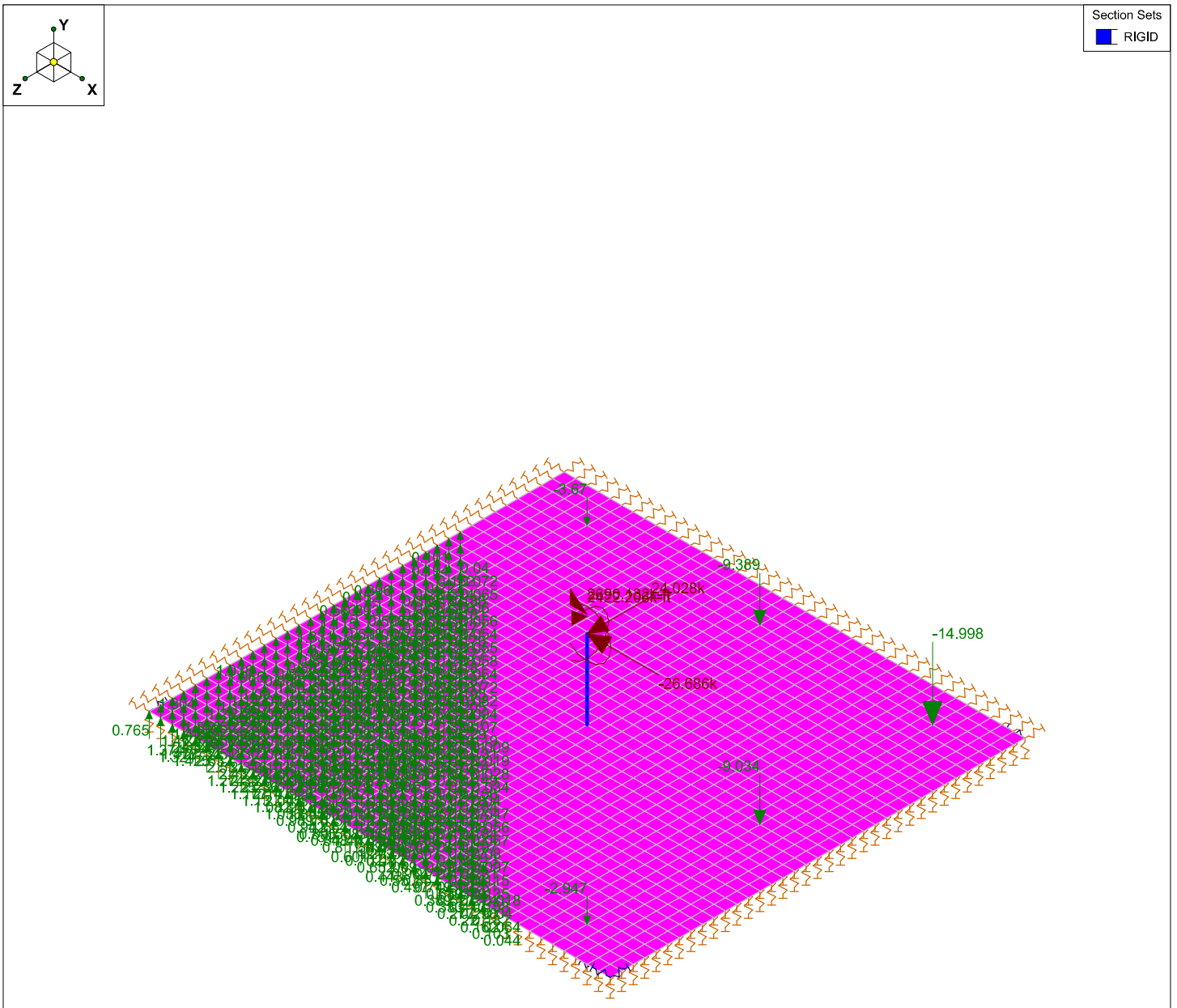

Loads: BLC 3, WIND 48
Y-direction Reaction Units are k and k-ft

Paul J. Ford and Company	BU 841288 / Bridgeport North	SK - 3
KAT		Oct 11, 2019 at 8:48 AM
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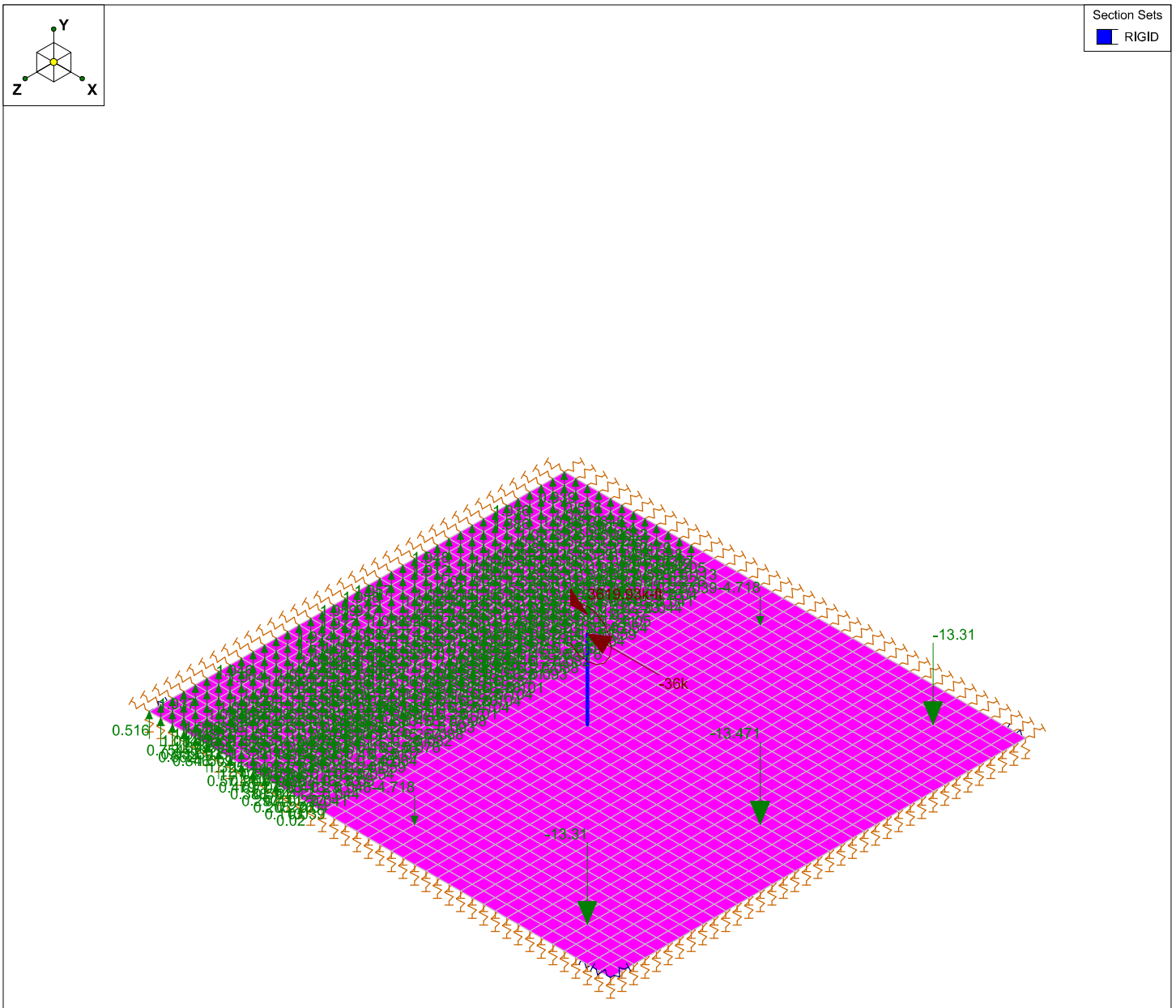


Loads: BLC 4, Wind 90
Y-direction Reaction Units are k and k-ft

Paul J. Ford and Company	BU 841288 / Bridgeport North	SK - 4
KAT		Oct 11, 2019 at 8:49 AM
37519-1756.003.7805		37519-1756.003.7805 Composite ...

(Global) Model Settings

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

Hot Rolled Steel Code	None
RISAConnection Code	None
Cold Formed Steel Code	None
Wood Code	None
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut..	Area(M...	Surface...
1	Dead	None		-1		1				
2	Wind 0	None				2				
3	WIND 48	None				4				
4	Wind 90	None				2				

Load Combinations

	Description	Solve	PDelta	SRSS	B...F...		B...F...		B...F...		B...F...		B...F...		B...F...		B...F...		B...F...		B...F...		B...F...		B...F...	
1	1.2 Dead + 1.0 Wind 0	Yes	Y		1	1.2	2	1																		
2	0.9 Dead + 1.0 Wind 0	Yes	Y		1	.9	2	1																		
3	1.2 Dead + 1.0 Wind 48	Yes	Y		1	1.2	3	1																		
4	0.9 Dead + 1.0 Wind 48	Yes	Y		1	.9	3	1																		
5	1.2 Dead + 1.0 Wind 90	Yes	Y		1	1.2	4	1																		
6	0.9 Dead + 1.0 Wind 90	Yes	Y		1	.9	4	1																		

Joint Loads and Enforced Displacements (BLC 1 : Dead)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	CENTER	L	Y	-59.48

Joint Loads and Enforced Displacements (BLC 2 : Wind 0)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	CENTER	L	Mx	3620
2	CENTER	L	Z	35.91

Joint Loads and Enforced Displacements (BLC 3 : WIND 48)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	CENTER	L	Mz	2690.132

Joint Loads and Enforced Displacements (BLC 3 : WIND 48) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
2	CENTER	L	Mx	2422.206
3	CENTER	L	X	-26.686
4	CENTER	L	Z	24.028

Joint Loads and Enforced Displacements (BLC 4 : Wind 90)

	Joint Label	L,D,M	Direction	Magnitude[(k,k-ft), (in,rad), (k*s^2/ft, k*s^2*ft)]
1	CENTER	L	Mz	3619.93
2	CENTER	L	X	-36

Concrete Properties

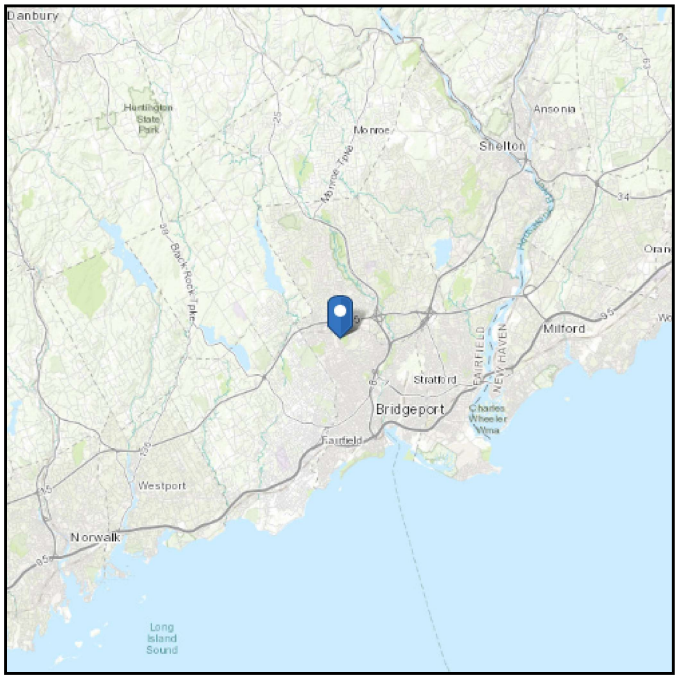
	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	f'c[ksi]	Lambda	Flex Steel[...	Shear Stee...
1	Conc3000NW	3156	1372	.15	.6	.145	3	1	60	60
2	Conc3500NW	3409	1482	.15	.6	.145	3.5	1	60	60
3	Conc4000NW	3644	1584	.15	.6	.145	4	1	60	60
4	Conc3000LW	2085	907	.15	.6	.11	3	.75	60	60
5	Conc3500LW	2252	979	.15	.6	.11	3.5	.75	60	60
6	Conc4000LW	2408	1047	.15	.6	.11	4	.75	60	60

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 240.76 ft (NAVD 88)
Latitude: 41.223344
Longitude: -73.216772



Wind

Results:

Wind Speed:	122 Vmph
10-year MRI	76 Vmph
25-year MRI	86 Vmph
50-year MRI	92 Vmph
100-year MRI	99 Vmph
Data Source:	ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014
Date Accessed:	Thu Apr 25 2019

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

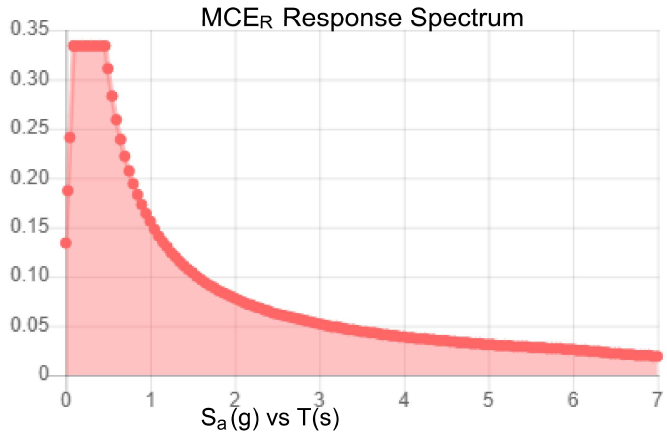
Seismic

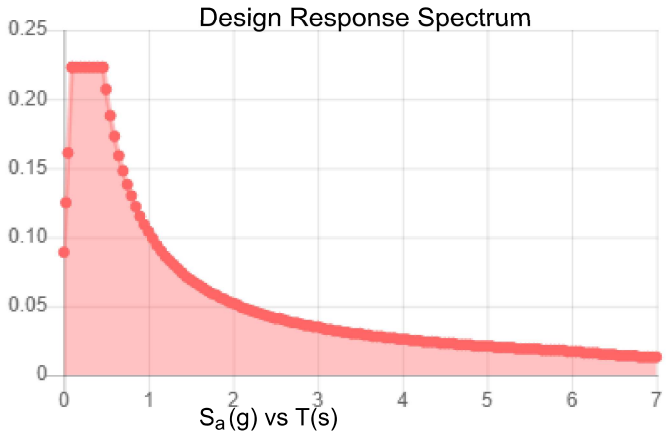
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.209	S_{DS} :	0.223
S_1 :	0.065	S_{D1} :	0.104
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.113
S_{MS} :	0.334	PGA_M :	0.178
S_{M1} :	0.156	F_{PGA} :	1.573
		I_e :	1

Seismic Design Category B





Data Accessed: Thu Apr 25 2019

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Thu Apr 25 2019

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Exhibit E

Mount Analysis

Date: **October 7, 2019**

Darcy Tarr
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 405-6589

Engineered Tower Solutions, PLLC
8120 Sheridan Blvd, Suite A-311
Westminster, CO 80003
(919) 782-2710
Bach.Tran@ets-pllc.com

Subject: **Mount Analysis Report**

Carrier Designation:
Verizon Wireless Equipment Change-Out
Carrier Site Number: NG39684
Carrier Site Name: TRUMBULL SW CT

Crown Castle Designation:
Crown Castle BU Number: 841288
Crown Castle Site Name: BRIDGEPORT NORTH
Crown Castle JDE Job Number: 590341
Crown Castle Order Number: 504972 Rev. 0

Engineering Firm Designation:
ETS, PLLC Report Designation: 196388.14

Site Data:
205 Kaechele Place, Bridgeport, Fairfield County, CT 06606
Latitude: 41° 13' 24.04" Longitude: -73° 13' 0.38"

Structure Information:
Tower Height & Type: 150.0 ft Monopole
Mount Elevation: 99.0 ft
Mount Type: 13.0 ft T-Arm Mount

Dear Darcy Tarr,

Engineered Tower Solutions, PLLC is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of Verizon Wireless's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

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

T-Arm Mount (Multiple) **Sufficient**

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Bach S. Tran, EI

Respectfully Submitted by:

Frederic G. Bost, PE, CWI, GC
Owner/President
(919) 782-2710
Geoff.Bost@ets-pllc.com

TABLE OF CONTENTS

1) INTRODUCTION

This mount is an existing 13.0 ft T-Arm Mount. This mount is installed at the 99.0 ft elevation on (3) sectors of the 150.0 ft Monopole. ETS, PLLC did not visit this site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis.

2) ANALYSIS CRITERIA

Building Code:	2015 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor at Base:	1.00
Topographic Factor at Mount:	1.00
Ice Thickness:	1.50 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.209
Seismic S_1:	0.064
Service Wind Speed:	N/A
Man Live Load at Mid/End-Point:	N/A
Man Live Load At Mount Pipes:	N/A

Table 1 – Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
99.0	100.0	3	Antel	BXA-70063/4CF	(3) 13.0 ft T-Arm Mount
		6	Commscope	JAHH-65A-R3B	
		3	Samsung Telecommunications	CBRS	
		3	Commscope	CBC78T- DS-43-2X	
		1	RFS/Celwave	DB-C1-12C-24AB-0Z	
		3	Samsung Telecommunications	20W CBRS	
		3	Samsung Telecommunications	RFV01U-D1A	
		3	Samsung Telecommunications	RFV01U-D2A	
		3	-	Antenna Dual Mount Bracket	

3) ANALYSIS PROCEDURE

Table 2 – Documents Provided

Document	Remarks	Reference	Source
Carrier Application	Verizon Wireless	09/26/2019	CCI Sites
Structural Level Drawings (Proposed)	Verizon Wireless	09/27/2019	CCI Sites
4-Structural Analysis Report	Paul J. Ford and Company	8535331	CCI Sites

3.1) Analysis Method

RISA-3D (version 17.0.2), 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.

A tool internally developed, using Microsoft Excel, by ETS, PLLC was used to calculate wind loading on all appurtenances, dishes, and mount members for various load cases. Selected output from the analysis is included in Appendix B.

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

3.2) Assumptions

1) ETS, PLLC did not visit this site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis.
2) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specification.
3) The configuration of antennas, mounts and other appurtenances are as specified in Table 1 and the referenced drawings.
4) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5) This Structural Analysis is not a condition assessment of the mount and is an evaluation of the theoretical structural capacity.
6) This analysis is based from the information supplied, and therefore, this report's results are as accurate as the supplied data.
7) Engineered Tower Solutions, PLLC makes no warranties, expressed and/or implied, in connection with this report, and disclaims any liability associated with material, fabrication, or erection of the mount. Engineered Tower Solutions, PLLC will not be held responsible from any consequential or incidental damages sustained by any person, firm, or organization as a result of the contents of this report. The maximum liability of Engineered Tower Solutions, PLLC pursuant to this report will be limited to the total fee received for compilation of this report.
8) It is the tower owner's responsibility to verify that the mount modeled and analyzed is the correct structure modeled.
9) The use of this report shall be limited to the purpose for which it was commissioned and may not be used for any other purposes without the written consent of Engineered Tower Solutions, PLLC.
10) Steel grades have been assumed as follows:

a)	Channel, Solid Round, Angle, Plate	ASTM A36 (Gr 36)
b)	HSS (Rectangular)	ASTM A500 (Gr B-46)
c)	HSS (Round)	ASTM A500 (Gr B-42)
d)	Pipe	ASTM A53 (Gr 35)
e)	Connection Bolts	ASTM A325
f)	U-Bolts	SAE 429 Gr.2

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

4) ANALYSIS RESULTS

Table 3(a) – Mount Component Stresses vs. Capacity (T-Arm Mount, Alpha Sector)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass/Fail
1	Face Mount – Horizontal (3.0 SCH40)	FM	99.0	78.6	PASS
1	Mount Pipe – Vertical (2.0 SCH40)	MP2		34.1	PASS
1	Sidearm – Horizontal (HSS4X4X1/4)	SA		79.2	PASS

Table 3(b) – Mount Component Stresses vs. Capacity (T-Arm Mount, Beta Sector)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass/Fail
1	Face Mount – Horizontal (3.0 SCH40)	FM	99.0	72.1	PASS
1	Mount Pipe – Vertical (2.0 SCH40)	MP2		34.1	PASS
1	Sidearm – Horizontal (HSS4X4X1/4)	SA		70.1	PASS

Table 3(c) – Mount Component Stresses vs. Capacity (T-Arm Mount, Gamma Sector)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass/Fail
1	Face Mount – Horizontal (3.0 SCH40)	FM	99.0	74.4	PASS
1	Mount Pipe – Vertical (2.0 SCH40)	MP2		34.1	PASS
1	Sidearm – Horizontal (HSS4X4X1/4)	SA		68.1	PASS

Notes:
1) See additional documentation in "Appendix C – Software Analysis Output" for calculations supporting the % capacity consumed.

Tower Mount Rating (max from all components) =	79.2%

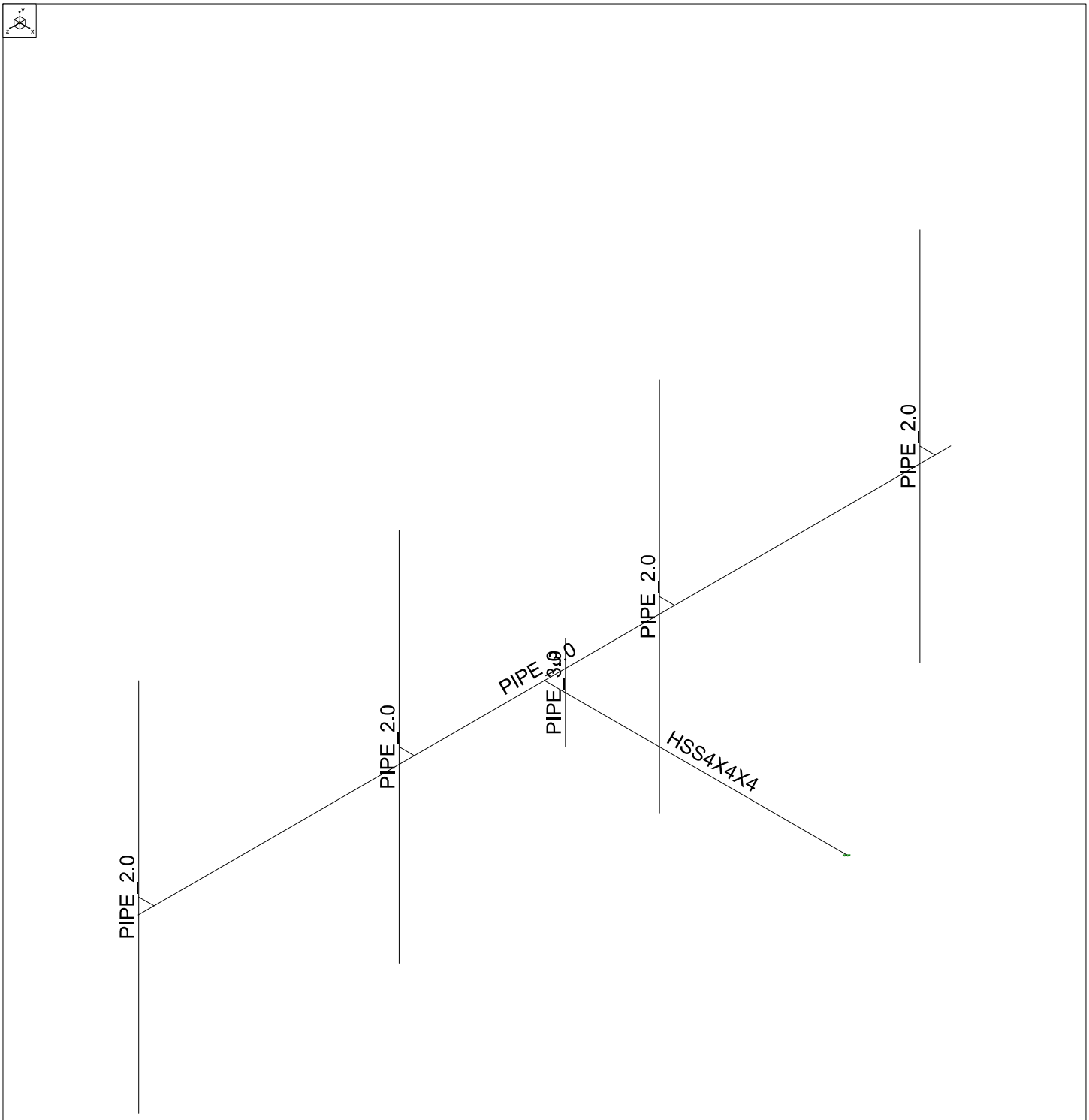
Verizon Mount Classification	M350R(250)-4[12]

4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



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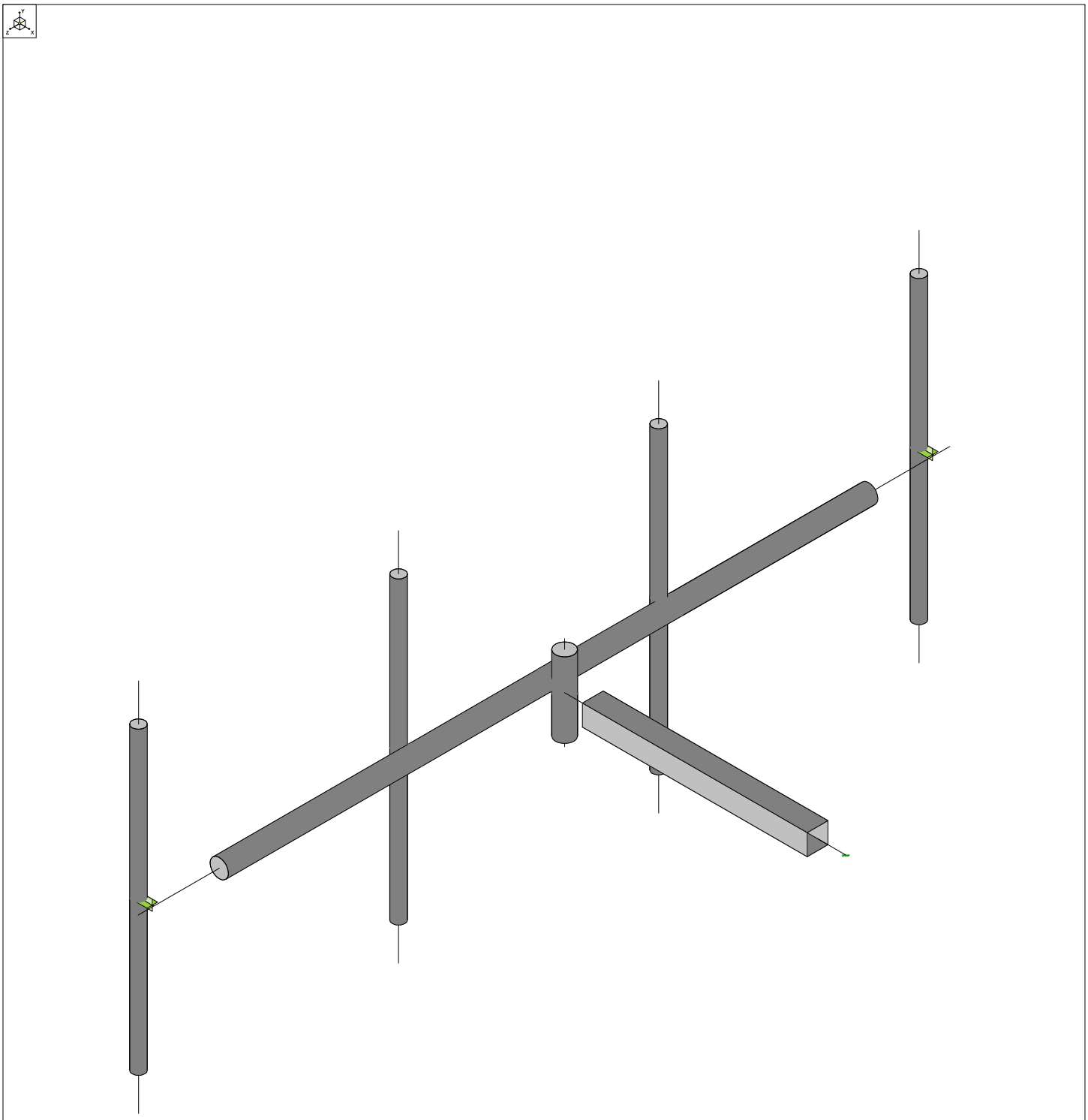

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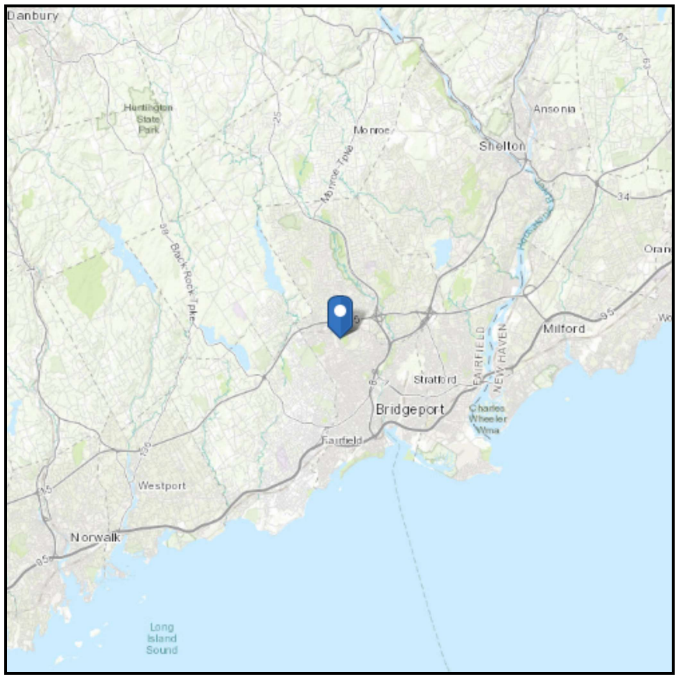
APPENDIX B

SOFTWARE INPUT CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-10	**Elevation:**	240.76 ft (NAVD 88)
Risk Category:	II	**Latitude:**	41.223344
Soil Class:	D - Stiff Soil	**Longitude:**	-73.216772



Wind

Results:

Wind Speed:	- Vmph	Local Code : 125 Vmph
10-year MRI	76 Vmph	
25-year MRI	86 Vmph	
50-year MRI	92 Vmph	
100-year MRI	99 Vmph	

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014

Date Accessed: Mon Oct 07 2019

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

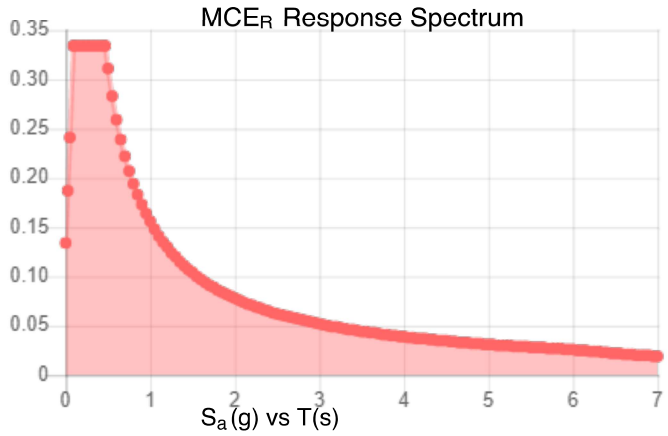
Seismic

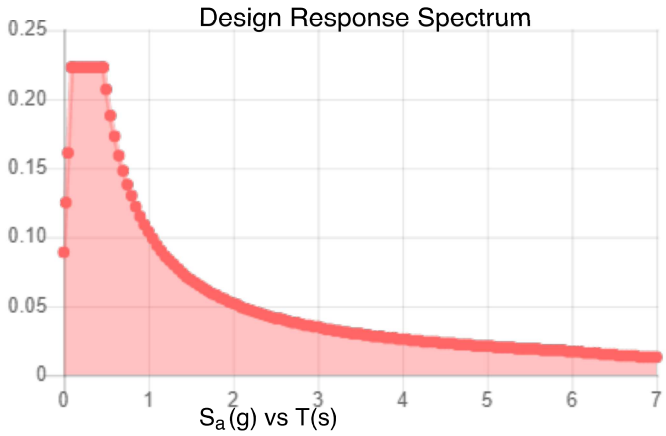
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.209	S_{DS} :	0.223
S_1 :	0.064	S_{D1} :	0.104
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.113
S_{MS} :	0.334	PGA_M :	0.178
S_{M1} :	0.156	F_{PGA} :	1.573
		I_e :	1

Seismic Design Category B





Data Accessed: Mon Oct 07 2019

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Mon Oct 07 2019

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

ENGINEERED TOWER SOLUTIONS, PLLC

Site Inputs	
Mount Support (Tower, or Building Support)?	Tower
Risk Category (TIA Table 2-1)	II
Exposure Category	B
Basic Wind Speed without Ice, V	125 mph
Basic Wind Speed with Ice, V	50 mph
Design of Ice, δ_{ice}	56 pcf
Design Ice Thickness, t	1.50 in
Basic Wind Speed (Maintenance)	30 mph
Maintenance Load, L_m	250 lb
Maintenance Load, L_v	250 lb
Height of Structure, h	150.0 ft
Mount Centerline, h_m	99.0 ft
Topographic Factor, K_{zt}	1.00
Rooftop Wind Speed-Up Factor, K_s	1.00
Mean Elevation of base of structure above sea level, z_s	241 ft
Ground Elevation Factor, K_e	0.99
Wind Direction Probability Factor, K_d	0.95
Gust Response Factor, G_h	1.00
Shielding Factor for Appurtenances, K_a	0.90
Interpolation	Linear

Seismic Design Input/Output	
0.209	Spectral response acceleration parameter at short periods, S_s
0.064	Spectral response acceleration parameter at a period of 1 second, S_1
D	Soil Site Class
1.600	Short-period site coefficient, F_a
2.400	Long-period site coefficient, F_v
0.223	Design spectral response acceleration parameter at short periods, S_{DS}
0.102	Design spectral response acceleration parameter at a period of 1 second, S_{D1}
2.00	Response modification coefficient, R
1.00	Earthquake amplification factor, A_s
1.00	Importance Factor
0.1115	Seismic Response Coefficient, C_s
Eh = 0.111 W	Total Seismic Shear Force, $E_h = \rho Q_E$ ($Q_E = \rho C_s W A_s$ & $\rho = 1.0$)
Ev = 0.045 D	Vertical Seismic Load Effect, $E_v = 0.2 S_{DS} D A_s$

Select Input File And Run | Hide Cells | Unhide Cells | Copy LC | Copy BLC

Output File Name: 841288 - BRIDGEPORT NORTH_Loaded_Alp Include MW: No

Mounting Pipe Properties and Forces

Mount Pipe	Mount Location	Vertical Offset (ft)	Length (in)	Diameter (in)	Weight (lbs)	Shape	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z
P 2 SCH 40 x 72	MP1	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP2	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP3	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP4	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf

Wind Force - No Ice (Front) / Wind Force - No Ice (Side)

Mount Pipe	Antenna Offset (ft)	Antenna Length (in)	Top Protrusion (in)	Base Protrusion (in)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
P 2 SCH 40 x 72 (MP1)	1.00 ft	16.16 in	15.92 in	39.92 in	1.00	0.921	0.921	34.19 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72 (MP2)	1.00 ft	55.10 in	-3.55 in	20.45 in	1.00	0.337	0.337	12.52 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72 (MP3)	0.00 ft	0.00 in	36.00 in	36.00 in	1.00	1.188	1.188	44.08 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72 (MP4)	1.00 ft	47.40 in	0.30 in	24.30 in	1.00	0.406	0.406	15.06 lb	30.3	1.20	1.188	1.425	52.90 lb

Force Coefficients - Ice / Wind Force - Ice (Front) / Wind Force - Ice (Side)

Mount Pipe	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Flow Pattern	Velocity Pressure (psf), q_z	Ice Weight (lbs)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
P 2 SCH 40 x 72 (MP1)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	2.352	2.352	13.97 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72 (MP2)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	0.946	0.946	5.62 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72 (MP3)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	2.995	2.995	17.79 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72 (MP4)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	1.111	1.111	6.60 lb	13.2	0.94	2.995	2.806	16.67 lb

Appurtenance Properties and Forces

Antenna Information

Appurtenance	Appurtenance Type	Mount Location	Quantity	Vertical Offset (ft)	Allow Shielding	Length (in)	Rotate Width/Depth	Width (in)	Depth (in)	Weight (lbs)	Shape
SAMSUNG / CBRS	Antenna	MP1	1	1.00 ft	No	16.16 in	No	11.39 in	5.45 in	23.14 lb	Flat
SAMSUNG / RFV01U-D1A	TME	MP1	1	1.00 ft	No	15.00 in	No	15.00 in	10.00 in	84.40 lb	Flat
COMMSCOPE / CBC78TDS-43-2X	TME	MP1	1	1.00 ft	No	6.40 in	No	6.90 in	9.60 in	20.70 lb	Flat
COMMSCOPE / JAHH-65A-R3B	Antenna	MP2	2	1.00 ft	No	55.10 in	No	13.80 in	8.20 in	52.90 lb	Flat
SAMSUNG / RFV01U-D1A	TME	MP3	2	1.00 ft	No	15.00 in	No	15.00 in	10.00 in	84.40 lb	Flat
ANTEL / BXA-70063/4CF	Antenna	MP4	1	1.00 ft	No	47.40 in	No	11.20 in	5.20 in	9.90 lb	Flat
SAMSUNG / RFV01U-D2A	TME	MP4	1	1.00 ft	No	15.00 in	No	15.00 in	8.10 in	70.30 lb	Flat

Force Coefficients - No Ice

Appurtenance	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z	Antenna Width (in)	Side Protrusion (in)	% Shielded
SAMSUNG / CBRS	0.9882	117.4	Subcritical	37.23 psf	11.39 in	0.00 in	0.0%
SAMSUNG / RFV01U-D1A	0.9882	154.7	Subcritical	37.23 psf	11.39 in	3.61 in	0.0%
COMMSCOPE / CBC78TDS-43-2X	0.9882	71.1	Subcritical	37.23 psf	11.39 in	0.00 in	0.0%
COMMSCOPE / JAHH-65A-R3B	0.9882	142.3	Subcritical	37.23 psf	13.80 in	0.00 in	0.0%
SAMSUNG / RFV01U-D1A	0.9882	154.7	Subcritical	37.23 psf	0.00 in	15.00 in	0.0%
ANTEL / BXA-70063/4CF	0.9882	115.5	Subcritical	37.23 psf	11.20 in	0.00 in	0.0%
SAMSUNG / RFV01U-D2A	0.9882	154.7	Subcritical	37.23 psf	11.20 in	3.80 in	0.0%

Wind Force - No Ice (Front) / Wind Force - No Ice (Side)

Appurtenance	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
SAMSUNG / CBRS	1.4	1.20	1.278	1.534	57.10 lb	3.0	1.22	0.612	0.747	27.79 lb
SAMSUNG / RFV01U-D1A	1.0	1.20	1.563	1.875	69.80 lb	1.5	1.20	1.042	1.250	46.53 lb
COMMSCOPE / CBC78TDS-43-2X	0.9	1.20	0.307	0.368	13.70 lb	0.7	1.20	0.427	0.512	19.06 lb
COMMSCOPE / JAHH-65A-R3B	4.0	1.27	5.280	6.600	491.40 lb	6.7	1.39	3.138	3.960	294.84 lb
SAMSUNG / RFV01U-D1A	1.0	1.20	1.563	1.875	139.60 lb	1.5	1.20	1.042	1.250	93.07 lb
ANTEL / BXA-70063/4CF	4.2	1.28	3.687	4.708	175.26 lb	9.1	1.47	1.712	2.517	93.70 lb
SAMSUNG / RFV01U-D2A	1.0	1.20	1.563	1.875	69.80 lb	1.9	1.20	0.844	1.013	37.69 lb

Force Coefficients - Ice

Appurtenance	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Flow Pattern	Velocity Pressure (psf), q_z	Side Protrusion Ice (in)	Ice Weight (lbs)
SAMSUNG / CBRS	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	39.44 lb
SAMSUNG / RFV01U-D1A	1.12	1.676 in	Subcritical	5.956 psf	0.26 in	50.43 lb
COMMSCOPE / CBC78TDS-43-2X	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	14.74 lb
COMMSCOPE / JAHH-65A-R3B	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	350.98 lb
SAMSUNG / RFV01U-D1A	1.12	1.676 in	Subcritical	5.956 psf	11.65 in	50.43 lb
ANTEL / BXA-70063/4CF	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	113.42 lb
SAMSUNG / RFV01U-D2A	1.12	1.676 in	Subcritical	5.956 psf	0.45 in	47.92 lb

Wind Force - Ice (Front)

Appurtenance	Aspect Ratio	Apprt. C_A	Ice C_A	Apprt. A_A (ft²)	Ice A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
SAMSUNG / CBRS	1.3	1.20	0.70	1.28	0.454	1.852	11.03 lb
SAMSUNG / RFV01U-D1A	1.0	1.20	0.70	1.56	0.433	2.178	12.97 lb
COMMSCOPE / CBC78TDS-43-2X	1.0	1.20	0.70	0.31	0.227	0.527	3.14 lb
COMMSCOPE / JAHH-65A-R3B	3.4	1.24	0.72	5.28	1.361	8.702	103.66 lb
SAMSUNG / RFV01U-D1A	1.0	1.20	0.70	1.56	0.698	2.364	28.16 lb
ANTEL / BXA-70063/4CF	3.5	1.24	0.72	3.69	1.181	5.439	32.39 lb
SAMSUNG / RFV01U-D2A	1.0	1.20	0.70	1.56	0.438	2.181	12.99 lb

Wind Force - Ice (Side)

Appurtenance	Aspect Ratio	Apprt. C_A	Ice C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
SAMSUNG / CBRS	2.2	1.2	0.70	0.581	1.141	6.79 lb
SAMSUNG / RFV01U-D1A	1.4	1.2	0.70	0.660	1.712	10.20 lb
COMMSCOPE / CBC78TDS-43-2X	0.8	1.2	0.70	0.450	0.827	4.93 lb
COMMSCOPE / JAHH-65A-R3B	5.1	1.3	0.76	1.551	5.896	70.24 lb
SAMSUNG / RFV01U-D1A	1.4	1.2	0.70	0.660	1.712	20.39 lb
ANTEL / BXA-70063/4CF	5.9	1.4	0.78	1.302	3.326	19.81 lb
SAMSUNG / RFV01U-D2A	1.6	1.2	0.70	0.616	1.443	8.60 lb

Mount Pipe Point Loads

Mount Location	No Ice - TME & Mount: Dead Load	No Ice - TME & Mount: Normal $K_a EPA_N$	No Ice - TME & Mount: Transverse $K_a EPA_T$	Ice - TME & Mount: Ice Load	Ice - TME & Mount: Normal $K_a EPA_{N,Ice}$	Ice - TME & Mount: Transverse $K_a EPA_{T,Ice}$	No Ice - Antenna: Normal $K_a EPA_N$	No Ice - Antenna: Transverse $K_a EPA_T$	Ice - Antenna: Normal $K_a EPA_{N,Ice}$	Ice - Antenna: Transverse $K_a EPA_{T,Ice}$
MP1	128.2 lb	105.9 lb	106.6 lb	154.3 lb	27.1 lb	28.6 lb	38.2 lb/ft	18.6 lb/ft	7.4 lb/ft	4.5 lb/ft
MP2	105.8 lb	11.3 lb	47.6 lb	751.7 lb	5.1 lb	15.0 lb	96.3 lb/ft	57.8 lb/ft	20.3 lb/ft	13.8 lb/ft
MP3	168.8 lb	165.3 lb	131.4 lb	150.5 lb	41.4 lb	33.4 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP4	80.2 lb	76.4 lb	81.5 lb	211.0 lb	17.6 lb	22.7 lb	39.9 lb/ft	21.3 lb/ft	7.4 lb/ft	4.5 lb/ft

Member Distributed Loads

Mount Information / Force Coefficients - No Ice

Mount Members	Vertical Offset (ft)	Width/Diameter (in)	Depth/Diameter (in)	Length (in)	Shape	Velocity Pressure Coefficient, K_z	C_A	Velocity Pressure (psf), q_z	K_a * Force / Length, No Ice	Flow Pattern
HSS4X4X1/4	0.0 ft	4.000 in	4.000 in	54.0 in	HSS	0.99	1.026	37.12 psf	11.4 lb/ft	Subcritical
3.0 SCH 40	0.0 ft	3.500 in	3.500 in	156.0 in	Round	0.99	1.200	37.12 psf	11.7 lb/ft	Subcritical
3.0 SCH 40 Vertical	0.0 ft	3.500 in	3.500 in	18.0 in	Round	0.99	0.739	37.12 psf	7.4 lb/ft	Subcritical

Force Coefficients - Ice

Mount Members	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Ice C_A	Velocity Pressure (psf), q_z	Ice Weight (plf)	K_a * Force / Length, Ice
HSS4X4X1/4	1.116	1.674 in	0.82	5.939	15.0 lb/ft	3.0 lb/ft
3.0 SCH 40	1.116	1.674 in	1.16	5.939	10.6 lb/ft	3.6 lb/ft
3.0 SCH 40 Vertical	1.116	1.674 in	0.71	5.939	10.6 lb/ft	2.2 lb/ft

ENGINEERED TOWER
SOLUTIONS, PLLC

Site Inputs	
Mount Support (Tower, or Building Support)?	Tower
Risk Category (TIA Table 2-1)	II
Exposure Category	B
Basic Wind Speed without Ice, V	125 mph
Basic Wind Speed with Ice, V	50 mph
Design of Ice, δ_{ice}	56 pcf
Design Ice Thickness, t	1.50 in
Basic Wind Speed (Maintenance)	30 mph
Maintenance Load, L_m	250 lb
Maintenance Load, L_v	250 lb
Height of Structure, h	150.0 ft
Mount Centerline, h_m	99.0 ft
Topographic Factor, K_{zt}	1.00
Rooftop Wind Speed-Up Factor, K_s	1.00
Mean Elevation of base of structure above sea level, z_s	241 ft
Ground Elevation Factor, K_e	0.99
Wind Direction Probability Factor, K_d	0.95
Gust Response Factor, G_h	1.00
Shielding Factor for Appurtenances, K_a	0.90
Interpolation	Linear

Seismic Design Input/Output	
0.209	Spectral response acceleration parameter at short periods, S_S
0.064	Spectral response acceleration parameter at a period of 1 second, S_1
D	Soil Site Class
1.600	Short-period site coefficient, F_a
2.400	Long-period site coefficient, F_v
0.223	Design spectral response acceleration parameter at short periods, S_{DS}
0.102	Design spectral response acceleration parameter at a period of 1 second, S_{D1}
2.00	Response modification coefficient, R
1.00	Earthquake amplification factor, A_s
1.00	Importance Factor
0.1115	Seismic Response Coefficient, C_s
Eh = 0.111 W	Total Seismic Shear Force, $E_h = \rho Q_E$ ($Q_E = \rho C_s W A_s$ & $\rho = 1.0$)
Ev = 0.045 D	Vertical Seismic Load Effect, $E_v = 0.2 S_{DS} D A_s$

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Mounting Pipe Properties and Forces

Mount Pipe	Mount Location	Vertical Offset (ft)	Length (in)	Diameter (in)	Weight (lbs)	Shape	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z
Mount Pipe Information							Force Coefficients - No Ice			
P 2 SCH 40 x 72	MP1	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP2	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP3	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP4	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf

Mount Pipe	Antenna Offset (ft)	Antenna Length (in)	Top Protrusion (in)	Base Protrusion (in)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Wind Force - No Ice (Front)								Wind Force - No Ice (Side)				
P 2 SCH 40 x 72	1.00 ft	16.16 in	15.92 in	39.92 in	1.00	0.921	0.921	34.19 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72	1.00 ft	55.10 in	-3.55 in	20.45 in	1.00	0.337	0.337	12.52 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72	0.00 ft	0.00 in	36.00 in	36.00 in	1.00	1.188	1.188	44.08 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72	1.00 ft	47.40 in	0.30 in	24.30 in	1.00	0.406	0.406	15.06 lb	30.3	1.20	1.188	1.425	52.90 lb

Mount Pipe	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Flow Pattern	Velocity Pressure (psf), q_z	Ice Weight (lbs)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Force Coefficients - Ice					Wind Force - Ice (Front)				Wind Force - Ice (Side)				
P 2 SCH 40 x 72	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	2.352	2.352	13.97 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	0.946	0.946	5.62 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	2.995	2.995	17.79 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	1.111	1.111	6.60 lb	13.2	0.94	2.995	2.806	16.67 lb

Appurtenance Properties and Forces

Appurtenance	Appurtenance Type	Mount Location	Quantity	Vertical Offset (ft)	Allow Shielding	Length (in)	Rotate Width/Depth	Width (in)	Depth (in)	Weight (lbs)	Shape
Antenna Information											
SAMSUNG / CBRS	Antenna	MP1	1	1.00 ft	No	16.16 in	No	11.39 in	5.45 in	23.14 lb	Flat
SAMSUNG / RFV01U-D2A	TME	MP1	1	1.00 ft	No	15.00 in	No	15.00 in	8.10 in	70.30 lb	Flat
COMMSCOPE / JAHH-65A-R3B	Antenna	MP2	2	1.00 ft	No	55.10 in	No	13.80 in	8.20 in	52.90 lb	Flat
SAMSUNG / RFV01U-D2A	TME	MP3	1	1.00 ft	No	15.00 in	No	15.00 in	8.10 in	70.30 lb	Flat
SAMSUNG /20W CBRS	TME	MP3	1	1.00 ft	No	12.10 in	No	8.50 in	4.10 in	18.64 lb	Flat
ANTEL / BXA-70063/4CF	Antenna	MP4	1	1.00 ft	No	47.40 in	No	11.20 in	5.20 in	9.90 lb	Flat
SAMSUNG /20W CBRS	TME	MP4	1	1.00 ft	No	12.10 in	No	8.50 in	4.10 in	18.64 lb	Flat

Appurtenance	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z	Antenna Width (in)	Side Protrusion (in)	% Shielded	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Force Coefficients - No Ice							Wind Force - No Ice (Front)				
SAMSUNG / CBRS	0.9882	117.4	Subcritical	37.23 psf	11.39 in	0.00 in	0.0%	1.4	1.20	1.278	1.534	57.10 lb
SAMSUNG / RFV01U-D2A	0.9882	154.7	Subcritical	37.23 psf	11.39 in	3.61 in	0.0%	1.0	1.20	1.563	1.875	69.80 lb
COMMSCOPE / JAHH-65A-R3B	0.9882	142.3	Subcritical	37.23 psf	13.80 in	0.00 in	0.0%	4.0	1.27	5.280	6.600	491.40 lb
SAMSUNG / RFV01U-D2A	0.9882	154.7	Subcritical	37.23 psf	0.00 in	15.00 in	0.0%	1.0	1.20	1.563	1.875	69.80 lb
SAMSUNG /20W CBRS	0.9882	87.6	Subcritical	37.23 psf	0.00 in	8.50 in	0.0%	1.4	1.20	0.714	0.857	31.91 lb
ANTEL / BXA-70063/4CF	0.9882	115.5	Subcritical	37.23 psf	11.20 in	0.00 in	0.0%	4.2	1.28	3.687	4.708	175.26 lb
SAMSUNG /20W CBRS	0.9882	87.6	Subcritical	37.23 psf	11.20 in	0.00 in	0.0%	1.4	1.20	0.714	0.857	31.91 lb

Appurtenance	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Flow Pattern	Velocity Pressure (psf), q_z	Side Protrusion Ice (in)	Ice Weight (lbs)
	Wind Force - No Ice (Side)					Force Coefficients - Ice					
SAMSUNG / CBRS	3.0	1.22	0.612	0.747	27.79 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	39.44 lb
SAMSUNG / RFV01U-D2A	1.9	1.20	0.844	1.013	37.69 lb	1.12	1.676 in	Subcritical	5.956 psf	0.26 in	47.92 lb
COMMSCOPE / JAHH-65A-R3B	6.7	1.39	3.138	3.960	294.84 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	350.98 lb
SAMSUNG / RFV01U-D2A	1.9	1.20	0.844	1.013	37.69 lb	1.12	1.676 in	Subcritical	5.956 psf	11.65 in	47.92 lb
SAMSUNG /20W CBRS	3.0	1.22	0.345	0.420	15.65 lb	1.12	1.676 in	Subcritical	5.956 psf	5.15 in	22.94 lb
ANTEL / BXA-70063/4CF	9.1	1.47	1.712	2.517	93.70 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	113.42 lb
SAMSUNG /20W CBRS	3.0	1.22	0.345	0.420	15.65 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	22.94 lb

Appurtenance	Aspect Ratio	Apprt. C_A	Ice C_A	Apprt. A_A (ft²)	Ice A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	Apprt. C_A	Ice C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Wind Force - Ice (Front)							Wind Force - Ice (Side)					
SAMSUNG / CBRS	1.3	1.20	0.70	1.28	0.454	1.852	11.03 lb	2.2	1.2	0.70	0.581	1.141	6.79 lb
SAMSUNG / RFV01U-D2A	1.0	1.20	0.70	1.56	0.433	2.178	12.97 lb	1.6	1.2	0.70	0.616	1.443	8.60 lb
COMMSCOPE / JAHH-65A-R3B	3.4	1.24	0.72	5.28	1.361	8.702	103.66 lb	5.1	1.3	0.76	1.551	5.896	70.24 lb
SAMSUNG / RFV01U-D2A	1.0	1.20	0.70	1.56	0.698	2.364	14.08 lb	1.6	1.2	0.70	0.616	1.443	8.60 lb
SAMSUNG /20W CBRS	1.3	1.20	0.70	0.71	0.479	1.193	7.10 lb	2.1	1.2	0.70	0.435	0.732	4.36 lb
ANTEL / BXA-70063/4CF	3.5	1.24	0.72	3.69	1.181	5.439	32.39 lb	5.9	1.4	0.78	1.302	3.326	19.81 lb
SAMSUNG /20W CBRS	1.3	1.20	0.70	0.71	0.360	1.109	6.60 lb	2.1	1.2	0.70	0.435	0.732	4.36 lb

Mount Pipe Point Loads	No Ice - TME & Mount			Ice - TME & Mount			No Ice - Antenna		Ice - Antenna	
Mount Location	Dead Load	Normal $K_a EPA_N$	Transverse $K_a EPA_T$	Ice Load	Normal $K_a EPA_{N,Ice}$	Transverse $K_a EPA_{T,Ice}$	Normal $K_a EPA_N$	Transverse $K_a EPA_T$	Normal $K_a EPA_{N,Ice}$	Transverse $K_a EPA_{T,Ice}$
MP1	93.4 lb	93.6 lb	81.5 lb	137.0 lb	24.3 lb	22.7 lb	38.2 lb/ft	18.6 lb/ft	7.4 lb/ft	4.5 lb/ft
MP2	105.8 lb	11.3 lb	47.6 lb	751.7 lb	5.1 lb	15.0 lb	96.3 lb/ft	57.8 lb/ft	20.3 lb/ft	13.8 lb/ft
MP3	88.9 lb	131.2 lb	95.6 lb	120.6 lb	35.1 lb	26.7 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP4	28.5 lb	42.3 lb	61.7 lb	186.1 lb	11.9 lb	18.9 lb	39.9 lb/ft	21.3 lb/ft	7.4 lb/ft	4.5 lb/ft

Member Distributed Loads	Mount Information					Force Coefficients - No Ice					Force Coefficients - Ice					
Mount Members	Vertical Offset (ft)	Width/Diameter (in)	Depth/Diameter (in)	Length (in)	Shape	Velocity Pressure Coefficient, K_z	C_A	Velocity Pressure (psf), q_z	K_a * Force/Length, No Ice	Flow Pattern	Height Escalation Factor, K_{iz}	Design Ice Thickness (in), t_{iz}	Ice C_A	Velocity Pressure (psf), q_z	Ice Weight (plf)	K_a * Force/Length, Ice
HSS4X4X1/4	0.0 ft	4.000 in	4.000 in	54.0 in	HSS	0.99	1.026	37.12 psf	11.4 lb/ft	Subcritical	1.116	1.674 in	0.82	5.939	15.0 lb/ft	3.0 lb/ft
3.0 SCH 40	0.0 ft	3.500 in	3.500 in	156.0 in	Round	0.99	1.200	37.12 psf	11.7 lb/ft	Subcritical	1.116	1.674 in	1.16	5.939	10.6 lb/ft	3.6 lb/ft
3.0 SCH 40 Vertical	0.0 ft	3.500 in	3.500 in	18.0 in	Round	0.99	0.739	37.12 psf	7.4 lb/ft	Subcritical	1.116	1.674 in	0.71	5.939	10.6 lb/ft	2.2 lb/ft

ENGINEERED TOWER
SOLUTIONS, PLLC

Site Inputs

Mount Support (Tower, or Building Support)?	Tower
Risk Category (TIA Table 2-1)	II
Exposure Category	B
Basic Wind Speed without Ice, V	125 mph
Basic Wind Speed with Ice, V	50 mph
Design of Ice, δ_{ice}	56 pcf
Design Ice Thickness, t	1.50 in
Basic Wind Speed (Maintenance)	30 mph
Maintenance Load, L_m	250 lb
Maintenance Load, L_v	250 lb
Height of Structure, h	150.0 ft
Mount Centerline, h_m	99.0 ft
Topographic Factor, K_{zt}	1.00
Rooftop Wind Speed-Up Factor, K_s	1.00
Mean Elevation of base of structure above sea level, z_s	241 ft
Ground Elevation Factor, K_e	0.99
Wind Direction Probability Factor, K_d	0.95
Gust Response Factor, G_h	1.00
Shielding Factor for Appurtenances, K_a	0.90
Interpolation	Linear

Seismic Design Input/Output

0.209	Spectral response acceleration parameter at short periods, S_s
0.064	Spectral response acceleration parameter at a period of 1 second, S_1
D	Soil Site Class
1.600	Short-period site coefficient, F_a
2.400	Long-period site coefficient, F_v
0.223	Design spectral response acceleration parameter at short periods, S_{DS}
0.102	Design spectral response acceleration parameter at a period of 1 second, S_{D1}
2.00	Response modification coefficient, R
1.00	Earthquake amplification factor, A_s
1.00	Importance Factor
0.1115	Seismic Response Coefficient, C_s
Eh = 0.111 W	Total Seismic Shear Force, $E_h = \rho Q_E$ ($Q_E = \rho C_s W A_s$ & $\rho = 1.0$)
Ev = 0.045 D	Vertical Seismic Load Effect, $E_v = 0.2 S_{DS} D A_s$

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Mounting Pipe Properties and Forces

Mount Pipe	Mount Location	Vertical Offset (ft)	Length (in)	Diameter (in)	Weight (lbs)	Shape	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z
	Mount Pipe Information						Force Coefficients - No Ice			
P 2 SCH 40 x 72	MP1	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP2	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP3	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf
P 2 SCH 40 x 72	MP4	0.00 ft	72.00 in	2.38 in	21.94 lb	Round	0.9854	24.5	Subcritical	37.12 psf

Mount Pipe	Antenna Offset (ft)	Antenna Length (in)	Top Protrusion (in)	Base Protrusion (in)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Wind Force - No Ice (Front)								Wind Force - No Ice (Side)				
P 2 SCH 40 x 72 (MP1)	1.00 ft	16.16 in	15.92 in	39.92 in	1.00	0.921	0.921	34.19 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72 (MP2)	1.00 ft	55.10 in	-3.55 in	20.45 in	1.00	0.337	0.337	12.52 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72 (MP3)	0.00 ft	0.00 in	36.00 in	36.00 in	1.00	1.188	1.188	44.08 lb	30.3	1.20	1.188	1.425	52.90 lb
P 2 SCH 40 x 72 (MP4)	1.00 ft	47.40 in	0.30 in	24.30 in	1.00	0.406	0.406	15.06 lb	30.3	1.20	1.188	1.425	52.90 lb

Mount Pipe	Height Escalation Factor, K_z	Design Ice Thickness (in), t_z	Flow Pattern	Velocity Pressure (psf), q_z	Ice Weight (lbs)	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Force Coefficients - Ice					Wind Force - Ice (Front)				Wind Force - Ice (Side)				
P 2 SCH 40 x 72 (MP1)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	2.352	2.352	13.97 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72 (MP2)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	0.946	0.946	5.62 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72 (MP3)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	2.995	2.995	17.79 lb	13.2	0.94	2.995	2.806	16.67 lb
P 2 SCH 40 x 72 (MP4)	1.12	1.674 in	Subcritical	5.94 psf	49.69 lb	1.00	1.111	1.111	6.60 lb	13.2	0.94	2.995	2.806	16.67 lb

Appurtenance Properties and Forces

Appurtenance	Appurtenance Type	Mount Location	Quantity	Vertical Offset (ft)	Allow Shielding	Length (in)	Rotate Width/Depth	Width (in)	Depth (in)	Weight (lbs)	Shape
Antenna Information											
SAMSUNG / CBRS	Antenna	MP1	1	1.00 ft	No	16.16 in	No	11.39 in	5.43 in	23.14 lb	Flat
RFS/CELWAVE / DBC1-12C-24AB-0Z	TME	MP1	1	1.00 ft	No	29.50 in	No	16.30 in	12.60 in	32.00 lb	Flat
COMMSCOPE / JAHH-65A-R3B	Antenna	MP2	2	1.00 ft	No	55.10 in	No	13.80 in	8.20 in	52.90 lb	Flat
SAMSUNG /20W CBRS	TME	MP3	1	1.00 ft	No	12.10 in	No	8.50 in	4.10 in	18.64 lb	Flat
COMMSCOPE / CBC78TDS-43-2X	TME	MP3	1	1.00 ft	No	6.40 in	No	6.90 in	9.60 in	20.70 lb	Flat
ANTEL / BXA-70063/4CF	Antenna	MP4	1	1.00 ft	No	47.40 in	No	11.20 in	5.20 in	9.90 lb	Flat
COMMSCOPE / CBC78TDS-43-2X	TME	MP4	1	1.00 ft	No	6.40 in	No	6.90 in	9.60 in	20.70 lb	Flat

Appurtenance	Velocity Pressure Coefficient, K_z	C	Flow Pattern	Velocity Pressure (psf), q_z	Antenna Width (in)	Side Protrusion (in)	% Shielded	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Force Coefficients - No Ice							Wind Force - No Ice (Front)				
SAMSUNG / CBRS	0.9882	117.4	Subcritical	37.23 psf	11.39 in	0.00 in	0.0%	1.4	1.20	1.278	1.534	57.10 lb
RFS/CELWAVE / DBC1-12C-24AB-0Z	0.9882	170.1	Subcritical	37.23 psf	11.39 in	5.11 in	0.0%	1.8	1.20	3.380	4.036	151.00 lb
COMMSCOPE / JAHH-65A-R3B	0.9882	142.3	Subcritical	37.23 psf	13.80 in	0.00 in	0.0%	4.0	1.27	5.280	6.600	491.40 lb
SAMSUNG /20W CBRS	0.9882	87.6	Subcritical	37.23 psf	0.00 in	8.50 in	0.0%	1.4	1.20	0.714	0.857	31.91 lb
COMMSCOPE / CBC78TDS-43-2X	0.9882	71.1	Subcritical	37.23 psf	0.00 in	6.90 in	0.0%	0.9	1.20	0.307	0.368	13.70 lb
ANTEL / BXA-70063/4CF	0.9882	115.5	Subcritical	37.23 psf	11.20 in	0.00 in	0.0%	4.2	1.28	3.687	4.708	175.26 lb
COMMSCOPE / CBC78TDS-43-2X	0.9882	71.1	Subcritical	37.23 psf	11.20 in	0.00 in	0.0%	0.9	1.20	0.307	0.368	13.70 lb

Appurtenance	Aspect Ratio	C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Height Escalation Factor, K_z	Design Ice Thickness (in), t_z	Flow Pattern	Velocity Pressure (psf), q_z	Side Protrusion Ice (in)	Ice Weight (lbs)
	Wind Force - No Ice (Side)					Force Coefficients - Ice					
SAMSUNG / CBRS	3.0	1.22	0.612	0.747	27.79 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	39.44 lb
RFS/CELWAVE / DBC1-12C-24AB-0Z	2.3	1.20	2.581	3.098	115.31 lb	1.12	1.676 in	Subcritical	5.956 psf	1.76 in	112.93 lb
COMMSCOPE / JAHH-65A-R3B	6.7	1.39	3.138	3.960	294.84 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	350.98 lb
SAMSUNG /20W CBRS	3.0	1.22	0.345	0.420	15.65 lb	1.12	1.676 in	Subcritical	5.956 psf	5.15 in	22.94 lb
COMMSCOPE / CBC78TDS-43-2X	0.7	1.20	0.427	0.512	19.06 lb	1.12	1.676 in	Subcritical	5.956 psf	3.55 in	14.74 lb
ANTEL / BXA-70063/4CF	9.1	1.47	1.712	2.517	93.70 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	113.42 lb
COMMSCOPE / CBC78TDS-43-2X	0.7	1.20	0.427	0.512	19.06 lb	1.12	1.676 in	Subcritical	5.956 psf	0.00 in	14.74 lb

Appurtenance	Aspect Ratio	Apprt. C_A	Ice C_A	Apprt. A_A (ft²)	Ice A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A	Aspect Ratio	Apprt. C_A	Ice C_A	A_A (ft²)	C_AA_A (ft²)	Design Wind Force (lbf), F_A
	Wind Force - Ice (Front)							Wind Force - Ice (Side)					
SAMSUNG / CBRS	1.3	1.20	0.70	1.28	0.454	1.852	11.03 lb	2.2	1.2	0.70	0.581	1.141	6.79 lb
RFS/CELWAVE / DBC1-12C-24AB-0Z	1.7	1.20	0.70	3.38	0.806	4.620	27.52 lb	2.1	1.2	0.70	1.058	3.838	22.86 lb
COMMSCOPE / JAHH-65A-R3B	3.4	1.24	0.72	5.28	1.361	8.702	103.66 lb	5.1	1.3	0.76	1.551	5.896	70.24 lb
SAMSUNG /20W CBRS	1.3	1.20	0.70	0.71	0.479	1.193	7.10 lb	2.1	1.2	0.70	0.455	0.732	4.36 lb
COMMSCOPE / CBC78TDS-43-2X	1.0	1.20	0.70	0.31	0.310	0.585	3.48 lb	0.8	1.2	0.70	0.430	0.827	4.93 lb
ANTEL / BXA-70063/4CF	3.5	1.24	0.72	3.69	1.181	5.439	32.39 lb	5.9	1.4	0.78	1.302	3.326	19.81 lb
COMMSCOPE / CBC78TDS-43-2X	1.0	1.20	0.70	0.31	0.227	0.527	3.14 lb	0.8	1.2	0.70	0.430	0.827	4.93 lb

Mount Pipe Point Loads

Mount Location	Dead Load	No Ice - TME & Mount Normal K_aEPA_N	No Ice - TME & Mount Transverse K_aEPA_T	Ice Load	Ice - TME & Mount Normal $K_aEPA_{N,Ice}$	Ice - TME & Mount Transverse $K_aEPA_{T,Ice}$	No Ice - Antenna Normal K_aEPA_N	No Ice - Antenna Transverse K_aEPA_T	Ice - Antenna Normal $K_aEPA_{N,Ice}$	Ice - Antenna Transverse $K_aEPA_{T,Ice}$
MP1	55.1 lb	166.7 lb	151.4 lb	202.1 lb	37.3 lb	35.6 lb	38.2 lb/ft	18.6 lb/ft	7.4 lb/ft	4.5 lb/ft
MP2	105.8 lb	11.3 lb	47.6 lb	751.7 lb	5.1 lb	15.0 lb	96.3 lb/ft	57.8 lb/ft	20.3 lb/ft	13.8 lb/ft
MP3	39.3 lb	80.7 lb	78.8 lb	87.4 lb	25.5 lb	23.4 lb	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft	0.0 lb/ft
MP4	30.6 lb	25.9 lb	64.8 lb	177.9 lb	8.8 lb	19.4 lb	39.9 lb/ft	21.3 lb/ft	7.4 lb/ft	4.5 lb/ft

Member Distributed Loads

Mount Members	Vertical Offset (ft)	Width/Diameter (in)	Depth/Diameter (in)	Length (in)	Shape	Velocity Pressure Coefficient, K_z	C_A	Velocity Pressure (psf), q_z	K_a * Force/Length, No Ice	Flow Pattern	Height Escalation Factor, K_z	Design Ice Thickness (in), t_z	Ice C_A	Velocity Pressure (psf), q_z	Ice Weight (plf)	K_a * Force/Length, Ice
	Mount Information					Force Coefficients - No Ice					Force Coefficients - Ice					
HSS4X4X1/4	0.0 ft	4.000 in	4.000 in	54.0 in	HSS	0.99	1.026	37.12 psf	11.4 lb/ft	Subcritical	1.116	1.674 in	0.82	5.939	15.0 lb/ft	3.0 lb/ft
3.0 SCH 40	0.0 ft	3.500 in	3.500 in	156.0 in	Round	0.99	1.200	37.12 psf	11.7 lb/ft	Subcritical	1.116	1.674 in	1.16	5.939	10.6 lb/ft	3.6 lb/ft
3.0 SCH 40 Vertical	0.0 ft	3.500 in	3.500 in	18.0 in	Round	0.99	0.739	37.12 psf	7.4 lb/ft	Subcritical	1.116	1.674 in	0.71	5.939	10.6 lb/ft	2.2 lb/ft

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	SA	N1	N2			HSS4X4X4	Beam	Tube	A500 Gr.B...	Typical
2	SAVERT	N4	N3			PIPE_3.0	Column	Pipe	A53 Gr.B	Typical
3	FM	N6	N7			PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical
4	M4	N2	N5			RIGID	None	None	RIGID	Typical
5	M5	N8	N12			RIGID	None	None	RIGID	Typical
6	M8	N11	N15			RIGID	None	None	RIGID	Typical
7	MP1	N19	N16			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
8	MP4	N21	N18			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
9	M11	N20	N21A			RIGID	None	None	RIGID	Typical
10	MP3	N23	N22			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
11	M13	N24	N25			RIGID	None	None	RIGID	Typical
12	MP2	N27	N26			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		5	15.8	0
3	Total General		5	15.8	0
4					
5	Hot Rolled Steel				
6	A500 Gr.B Rect	HSS4X4X4	1	54	0
7	A53 Gr.B	PIPE_2.0	4	288	0
8	A53 Gr.B	PIPE_3.0	2	174	.1
9	Total HR Steel		7	516	.2

Member Point Loads (BLC 1 : Dead Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-128.2	%67
2	MP2	Y	-105.8	%67
3	MP3	Y	-168.8	%67
4	MP4	Y	-80.2	%67

Member Point Loads (BLC 2 : Wind Load (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	105.9	%67
2	MP2	X	11.3	%67
3	MP3	X	165.3	%67
4	MP4	X	76.4	%67
5	MP1	Z	0	%67
6	MP2	Z	0	%67
7	MP3	Z	0	%67
8	MP4	Z	0	%67

Member Point Loads (BLC 3 : Wind Load (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	91.9	%67
2	MP2	X	17.6	%67
3	MP3	X	135.8	%67
4	MP4	X	67.3	%67
5	MP1	Z	53	%67
6	MP2	Z	10.2	%67
7	MP3	Z	78.4	%67

Member Point Loads (BLC 3 : Wind Load (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
8	MP4	Z	38.8	%67

Member Point Loads (BLC 4 : Wind Load (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	53.2	%67
2	MP2	X	19.3	%67
3	MP3	X	69.9	%67
4	MP4	X	40.1	%67
5	MP1	Z	92.2	%67
6	MP2	Z	33.4	%67
7	MP3	Z	121.1	%67
8	MP4	Z	69.5	%67

Member Point Loads (BLC 5 : Wind Load (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%67
2	MP2	X	0	%67
3	MP3	X	0	%67
4	MP4	X	0	%67
5	MP1	Z	106.6	%67
6	MP2	Z	47.6	%67
7	MP3	Z	131.4	%67
8	MP4	Z	81.5	%67

Member Point Loads (BLC 6 : Wind Load (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-53.2	%67
2	MP2	X	-19.3	%67
3	MP3	X	-69.9	%67
4	MP4	X	-40.1	%67
5	MP1	Z	92.2	%67
6	MP2	Z	33.4	%67
7	MP3	Z	121.1	%67
8	MP4	Z	69.5	%67

Member Point Loads (BLC 7 : Wind Load (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-91.9	%67
2	MP2	X	-17.6	%67
3	MP3	X	-135.8	%67
4	MP4	X	-67.3	%67
5	MP1	Z	53	%67
6	MP2	Z	10.2	%67
7	MP3	Z	78.4	%67
8	MP4	Z	38.8	%67

Member Point Loads (BLC 8 : Wind Load (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-105.9	%67
2	MP2	X	-11.3	%67
3	MP3	X	-165.3	%67
4	MP4	X	-76.4	%67
5	MP1	Z	0	%67
6	MP2	Z	0	%67

Member Point Loads (BLC 8 : Wind Load (180 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP3	Z	0	%67
8	MP4	Z	0	%67

Member Point Loads (BLC 9 : Wind Load (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-91.9	%67
2	MP2	X	-17.6	%67
3	MP3	X	-135.8	%67
4	MP4	X	-67.3	%67
5	MP1	Z	-53	%67
6	MP2	Z	-10.2	%67
7	MP3	Z	-78.4	%67
8	MP4	Z	-38.8	%67

Member Point Loads (BLC 10 : Wind Load (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-53.2	%67
2	MP2	X	-19.3	%67
3	MP3	X	-69.9	%67
4	MP4	X	-40.1	%67
5	MP1	Z	-92.2	%67
6	MP2	Z	-33.4	%67
7	MP3	Z	-121.1	%67
8	MP4	Z	-69.5	%67

Member Point Loads (BLC 11 : Wind Load (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%67
2	MP2	X	0	%67
3	MP3	X	0	%67
4	MP4	X	0	%67
5	MP1	Z	-106.6	%67
6	MP2	Z	-47.6	%67
7	MP3	Z	-131.4	%67
8	MP4	Z	-81.5	%67

Member Point Loads (BLC 12 : Wind Load (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	53.2	%67
2	MP2	X	19.3	%67
3	MP3	X	69.9	%67
4	MP4	X	40.1	%67
5	MP1	Z	-92.2	%67
6	MP2	Z	-33.4	%67
7	MP3	Z	-121.1	%67
8	MP4	Z	-69.5	%67

Member Point Loads (BLC 13 : Wind Load (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	91.9	%67
2	MP2	X	17.6	%67
3	MP3	X	135.8	%67
4	MP4	X	67.3	%67
5	MP1	Z	-53	%67

Member Point Loads (BLC 13 : Wind Load (330 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
6	MP2	Z	-10.2	%67
7	MP3	Z	-78.4	%67
8	MP4	Z	-38.8	%67

Member Point Loads (BLC 14 : Ice Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-154.3	%67
2	MP2	Y	-751.7	%67
3	MP3	Y	-150.5	%67
4	MP4	Y	-211	%67

Member Point Loads (BLC 15 : Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	27.1	%67
2	MP2	X	5.1	%67
3	MP3	X	41.4	%67
4	MP4	X	17.6	%67
5	MP1	Z	0	%67
6	MP2	Z	0	%67
7	MP3	Z	0	%67
8	MP4	Z	0	%67

Member Point Loads (BLC 16 : Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	23.8	%67
2	MP2	X	6.5	%67
3	MP3	X	34.1	%67
4	MP4	X	16.4	%67
5	MP1	Z	13.7	%67
6	MP2	Z	3.8	%67
7	MP3	Z	19.7	%67
8	MP4	Z	9.5	%67

Member Point Loads (BLC 17 : Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	14.1	%67
2	MP2	X	6.3	%67
3	MP3	X	17.7	%67
4	MP4	X	10.7	%67
5	MP1	Z	24.4	%67
6	MP2	Z	10.8	%67
7	MP3	Z	30.6	%67
8	MP4	Z	18.6	%67

Member Point Loads (BLC 18 : Wind on Ice (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%67
2	MP2	X	0	%67
3	MP3	X	0	%67
4	MP4	X	0	%67
5	MP1	Z	28.6	%67
6	MP2	Z	15	%67
7	MP3	Z	33.4	%67
8	MP4	Z	22.7	%67

Member Point Loads (BLC 19 : Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-14.1	%67
2	MP2	X	-6.3	%67
3	MP3	X	-17.7	%67
4	MP4	X	-10.7	%67
5	MP1	Z	24.4	%67
6	MP2	Z	10.8	%67
7	MP3	Z	30.6	%67
8	MP4	Z	18.6	%67

Member Point Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-23.8	%67
2	MP2	X	-6.5	%67
3	MP3	X	-34.1	%67
4	MP4	X	-16.4	%67
5	MP1	Z	13.7	%67
6	MP2	Z	3.8	%67
7	MP3	Z	19.7	%67
8	MP4	Z	9.5	%67

Member Point Loads (BLC 21 : Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-27.1	%67
2	MP2	X	-5.1	%67
3	MP3	X	-41.4	%67
4	MP4	X	-17.6	%67
5	MP1	Z	0	%67
6	MP2	Z	0	%67
7	MP3	Z	0	%67
8	MP4	Z	0	%67

Member Point Loads (BLC 22 : Wind on Ice (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-23.8	%67
2	MP2	X	-6.5	%67
3	MP3	X	-34.1	%67
4	MP4	X	-16.4	%67
5	MP1	Z	-13.7	%67
6	MP2	Z	-3.8	%67
7	MP3	Z	-19.7	%67
8	MP4	Z	-9.5	%67

Member Point Loads (BLC 23 : Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-14.1	%67
2	MP2	X	-6.3	%67
3	MP3	X	-17.7	%67
4	MP4	X	-10.7	%67
5	MP1	Z	-24.4	%67
6	MP2	Z	-10.8	%67
7	MP3	Z	-30.6	%67
8	MP4	Z	-18.6	%67

Member Point Loads (BLC 24 : Wind on Ice (270 deg))

Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

Member Point Loads (BLC 24 : Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%67
2	MP2	X	0	%67
3	MP3	X	0	%67
4	MP4	X	0	%67
5	MP1	Z	-28.6	%67
6	MP2	Z	-15	%67
7	MP3	Z	-33.4	%67
8	MP4	Z	-22.7	%67

Member Point Loads (BLC 25 : Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	14.1	%67
2	MP2	X	6.3	%67
3	MP3	X	17.7	%67
4	MP4	X	10.7	%67
5	MP1	Z	-24.4	%67
6	MP2	Z	-10.8	%67
7	MP3	Z	-30.6	%67
8	MP4	Z	-18.6	%67

Member Point Loads (BLC 26 : Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	23.8	%67
2	MP2	X	6.5	%67
3	MP3	X	34.1	%67
4	MP4	X	16.4	%67
5	MP1	Z	-13.7	%67
6	MP2	Z	-3.8	%67
7	MP3	Z	-19.7	%67
8	MP4	Z	-9.5	%67

Member Point Loads (BLC 27 : Horizontal Seismic, Eh (0))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	128.2	%67
2	MP2	X	105.8	%67
3	MP3	X	168.8	%67
4	MP4	X	80.2	%67
5	MP1	Z	0	%67
6	MP2	Z	0	%67
7	MP3	Z	0	%67
8	MP4	Z	0	%67

Member Point Loads (BLC 28 : Horizontal Seismic, Eh (30))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	111.1	%67
2	MP2	X	91.6	%67
3	MP3	X	146.2	%67
4	MP4	X	69.5	%67
5	MP1	Z	64.1	%67
6	MP2	Z	52.9	%67
7	MP3	Z	84.4	%67
8	MP4	Z	40.1	%67

Member Point Loads (BLC 29 : Horizontal Seismic, Eh (60))

Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

Member Point Loads (BLC 29 : Horizontal Seismic, Eh (60)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	64.1	%67
2	MP2	X	52.9	%67
3	MP3	X	84.4	%67
4	MP4	X	40.1	%67
5	MP1	Z	111.1	%67
6	MP2	Z	91.6	%67
7	MP3	Z	146.2	%67
8	MP4	Z	69.5	%67

Member Point Loads (BLC 30 : Horizontal Seismic, Eh (90))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%67
2	MP2	X	0	%67
3	MP3	X	0	%67
4	MP4	X	0	%67
5	MP1	Z	128.2	%67
6	MP2	Z	105.8	%67
7	MP3	Z	168.8	%67
8	MP4	Z	80.2	%67

Member Point Loads (BLC 31 : Horizontal Seismic, Eh (120))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-64.1	%67
2	MP2	X	-52.9	%67
3	MP3	X	-84.4	%67
4	MP4	X	-40.1	%67
5	MP1	Z	111.1	%67
6	MP2	Z	91.6	%67
7	MP3	Z	146.2	%67
8	MP4	Z	69.5	%67

Member Point Loads (BLC 32 : Horizontal Seismic, Eh (150))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-111.1	%67
2	MP2	X	-91.6	%67
3	MP3	X	-146.2	%67
4	MP4	X	-69.5	%67
5	MP1	Z	64.1	%67
6	MP2	Z	52.9	%67
7	MP3	Z	84.4	%67
8	MP4	Z	40.1	%67

Member Point Loads (BLC 33 : Horizontal Seismic, Eh (180))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-128.2	%67
2	MP2	X	-105.8	%67
3	MP3	X	-168.8	%67
4	MP4	X	-80.2	%67
5	MP1	Z	0	%67
6	MP2	Z	0	%67
7	MP3	Z	0	%67
8	MP4	Z	0	%67

Member Point Loads (BLC 34 : Horizontal Seismic, Eh (210))

Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

Member Point Loads (BLC 34 : Horizontal Seismic, Eh (210)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-111.1	%67
2	MP2	X	-91.6	%67
3	MP3	X	-146.2	%67
4	MP4	X	-69.5	%67
5	MP1	Z	-64.1	%67
6	MP2	Z	-52.9	%67
7	MP3	Z	-84.4	%67
8	MP4	Z	-40.1	%67

Member Point Loads (BLC 35 : Horizontal Seismic, Eh (240))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-64.1	%67
2	MP2	X	-52.9	%67
3	MP3	X	-84.4	%67
4	MP4	X	-40.1	%67
5	MP1	Z	-111.1	%67
6	MP2	Z	-91.6	%67
7	MP3	Z	-146.2	%67
8	MP4	Z	-69.5	%67

Member Point Loads (BLC 36 : Horizontal Seismic, Eh (270))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%67
2	MP2	X	0	%67
3	MP3	X	0	%67
4	MP4	X	0	%67
5	MP1	Z	-128.2	%67
6	MP2	Z	-105.8	%67
7	MP3	Z	-168.8	%67
8	MP4	Z	-80.2	%67

Member Point Loads (BLC 37 : Horizontal Seismic, Eh (300))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	64.1	%67
2	MP2	X	52.9	%67
3	MP3	X	84.4	%67
4	MP4	X	40.1	%67
5	MP1	Z	-111.1	%67
6	MP2	Z	-91.6	%67
7	MP3	Z	-146.2	%67
8	MP4	Z	-69.5	%67

Member Point Loads (BLC 38 : Horizontal Seismic, Eh (330))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	111.1	%67
2	MP2	X	91.6	%67
3	MP3	X	146.2	%67
4	MP4	X	69.5	%67
5	MP1	Z	-64.1	%67
6	MP2	Z	-52.9	%67
7	MP3	Z	-84.4	%67
8	MP4	Z	-40.1	%67

Member Point Loads (BLC 39 : Maintenance Load, Lm (MP1))

Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

Member Point Loads (BLC 39 : Maintenance Load, Lm (MP1)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-250	%50

Member Point Loads (BLC 40 : Maintenance Load, Lm (MP2))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-250	%50

Member Point Loads (BLC 41 : Maintenance Load, Lm (MP3))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	Y	-250	%50

Member Point Loads (BLC 42 : Maintenance Load, Lm (MP4))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP4	Y	-250	%50

Member Point Loads (BLC 175 : Antenna Wind Load (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	25.7	%63.778
2	MP1	X	25.7	%69.556
3	MP2	X	218.3	%36.736
4	MP2	X	224	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	78.9	%42.083
8	MP4	X	78.9	%91.25
9	MP1	Z	0	0
10	MP1	Z	0	0
11	MP2	Z	0	0
12	MP2	Z	0	0
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	0	0
16	MP4	Z	0	0

Member Point Loads (BLC 176 : Antenna Wind Load (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	19.4	%63.778
2	MP1	X	19.4	%69.556
3	MP2	X	170.1	%36.736
4	MP2	X	174.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	60.4	%42.083
8	MP4	X	60.4	%91.25
9	MP1	Z	11.2	%63.778
10	MP1	Z	11.2	%69.556
11	MP2	Z	98.2	%36.736
12	MP2	Z	100.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	34.8	%42.083
16	MP4	Z	34.8	%91.25

Member Point Loads (BLC 177 : Antenna Wind Load (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]

Member Point Loads (BLC 177 : Antenna Wind Load (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	7.9	%63.778
2	MP1	X	7.9	%69.556
3	MP2	X	76.4	%36.736
4	MP2	X	78.4	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	25.7	%42.083
8	MP4	X	25.7	%91.25
9	MP1	Z	13.7	%63.778
10	MP1	Z	13.7	%69.556
11	MP2	Z	132.3	%36.736
12	MP2	Z	135.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	44.5	%42.083
16	MP4	Z	44.5	%91.25

Member Point Loads (BLC 178 : Antenna Wind Load (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP1	Z	12.5	%63.778
10	MP1	Z	12.5	%69.556
11	MP2	Z	131	%36.736
12	MP2	Z	134.4	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	42.2	%42.083
16	MP4	Z	42.2	%91.25

Member Point Loads (BLC 179 : Antenna Wind Load (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-7.9	%63.778
2	MP1	X	-7.9	%69.556
3	MP2	X	-76.4	%36.736
4	MP2	X	-78.4	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-25.7	%42.083
8	MP4	X	-25.7	%91.25
9	MP1	Z	13.7	%63.778
10	MP1	Z	13.7	%69.556
11	MP2	Z	132.3	%36.736
12	MP2	Z	135.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	44.5	%42.083
16	MP4	Z	44.5	%91.25

Member Point Loads (BLC 180 : Antenna Wind Load (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-19.4	%63.778
2	MP1	X	-19.4	%69.556
3	MP2	X	-170.1	%36.736
4	MP2	X	-174.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-60.4	%42.083
8	MP4	X	-60.4	%91.25
9	MP1	Z	11.2	%63.778
10	MP1	Z	11.2	%69.556
11	MP2	Z	98.2	%36.736
12	MP2	Z	100.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	34.8	%42.083
16	MP4	Z	34.8	%91.25

Member Point Loads (BLC 181 : Antenna Wind Load (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-25.7	%63.778
2	MP1	X	-25.7	%69.556
3	MP2	X	-218.3	%36.736
4	MP2	X	-224	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-78.9	%42.083
8	MP4	X	-78.9	%91.25
9	MP1	Z	0	0
10	MP1	Z	0	0
11	MP2	Z	0	0
12	MP2	Z	0	0
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	0	0
16	MP4	Z	0	0

Member Point Loads (BLC 182 : Antenna Wind Load (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-19.4	%63.778
2	MP1	X	-19.4	%69.556
3	MP2	X	-170.1	%36.736
4	MP2	X	-174.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-60.4	%42.083
8	MP4	X	-60.4	%91.25
9	MP1	Z	-11.2	%63.778
10	MP1	Z	-11.2	%69.556
11	MP2	Z	-98.2	%36.736
12	MP2	Z	-100.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-34.8	%42.083
16	MP4	Z	-34.8	%91.25

Member Point Loads (BLC 183 : Antenna Wind Load (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-7.9	%63.778
2	MP1	X	-7.9	%69.556
3	MP2	X	-76.4	%36.736
4	MP2	X	-78.4	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-25.7	%42.083
8	MP4	X	-25.7	%91.25
9	MP1	Z	-13.7	%63.778
10	MP1	Z	-13.7	%69.556
11	MP2	Z	-132.3	%36.736
12	MP2	Z	-135.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-44.5	%42.083
16	MP4	Z	-44.5	%91.25

Member Point Loads (BLC 184 : Antenna Wind Load (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP1	Z	-12.5	%63.778
10	MP1	Z	-12.5	%69.556
11	MP2	Z	-131	%36.736
12	MP2	Z	-134.4	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-42.2	%42.083
16	MP4	Z	-42.2	%91.25

Member Point Loads (BLC 185 : Antenna Wind Load (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	7.9	%63.778
2	MP1	X	7.9	%69.556
3	MP2	X	76.4	%36.736
4	MP2	X	78.4	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	25.7	%42.083
8	MP4	X	25.7	%91.25
9	MP1	Z	-13.7	%63.778
10	MP1	Z	-13.7	%69.556
11	MP2	Z	-132.3	%36.736
12	MP2	Z	-135.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-44.5	%42.083
16	MP4	Z	-44.5	%91.25

Member Point Loads (BLC 186 : Antenna Wind Load (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	19.4	%63.778
2	MP1	X	19.4	%69.556
3	MP2	X	170.1	%36.736
4	MP2	X	174.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	60.4	%42.083
8	MP4	X	60.4	%91.25
9	MP1	Z	-11.2	%63.778
10	MP1	Z	-11.2	%69.556
11	MP2	Z	-98.2	%36.736
12	MP2	Z	-100.8	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-34.8	%42.083
16	MP4	Z	-34.8	%91.25

Member Point Loads (BLC 187 : Antenna Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	5	%63.778
2	MP1	X	5	%69.556
3	MP2	X	46	%36.736
4	MP2	X	47.3	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	14.6	%42.083
8	MP4	X	14.6	%91.25
9	MP1	Z	0	0
10	MP1	Z	0	0
11	MP2	Z	0	0
12	MP2	Z	0	0
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	0	0
16	MP4	Z	0	0

Member Point Loads (BLC 188 : Antenna Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	3.9	%63.778
2	MP1	X	3.9	%69.556
3	MP2	X	36.7	%36.736
4	MP2	X	37.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	11.4	%42.083
8	MP4	X	11.4	%91.25
9	MP1	Z	2.2	%63.778
10	MP1	Z	2.2	%69.556
11	MP2	Z	21.2	%36.736
12	MP2	Z	21.7	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	6.6	%42.083
16	MP4	Z	6.6	%91.25

Member Point Loads (BLC 189 : Antenna Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	1.8	%63.778
2	MP1	X	1.8	%69.556
3	MP2	X	17.5	%36.736
4	MP2	X	17.9	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	5.2	%42.083
8	MP4	X	5.2	%91.25
9	MP1	Z	3.1	%63.778
10	MP1	Z	3.1	%69.556
11	MP2	Z	30.2	%36.736
12	MP2	Z	31	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	8.9	%42.083
16	MP4	Z	8.9	%91.25

Member Point Loads (BLC 190 : Antenna Wind on Ice (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP1	Z	3.1	%63.778
10	MP1	Z	3.1	%69.556
11	MP2	Z	31.2	%36.736
12	MP2	Z	32	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	8.9	%42.083
16	MP4	Z	8.9	%91.25

Member Point Loads (BLC 191 : Antenna Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-1.8	%63.778
2	MP1	X	-1.8	%69.556
3	MP2	X	-17.5	%36.736
4	MP2	X	-17.9	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-5.2	%42.083
8	MP4	X	-5.2	%91.25
9	MP1	Z	3.1	%63.778
10	MP1	Z	3.1	%69.556
11	MP2	Z	30.2	%36.736
12	MP2	Z	31	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	8.9	%42.083
16	MP4	Z	8.9	%91.25

Member Point Loads (BLC 192 : Antenna Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-3.9	%63.778
2	MP1	X	-3.9	%69.556
3	MP2	X	-36.7	%36.736
4	MP2	X	-37.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-11.4	%42.083
8	MP4	X	-11.4	%91.25
9	MP1	Z	2.2	%63.778
10	MP1	Z	2.2	%69.556
11	MP2	Z	21.2	%36.736
12	MP2	Z	21.7	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	6.6	%42.083
16	MP4	Z	6.6	%91.25

Member Point Loads (BLC 193 : Antenna Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-5	%63.778
2	MP1	X	-5	%69.556
3	MP2	X	-46	%36.736
4	MP2	X	-47.3	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-14.6	%42.083
8	MP4	X	-14.6	%91.25
9	MP1	Z	0	0
10	MP1	Z	0	0
11	MP2	Z	0	0
12	MP2	Z	0	0
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	0	0
16	MP4	Z	0	0

Member Point Loads (BLC 194 : Antenna Wind on Ice (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-3.9	%63.778
2	MP1	X	-3.9	%69.556
3	MP2	X	-36.7	%36.736
4	MP2	X	-37.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-11.4	%42.083
8	MP4	X	-11.4	%91.25
9	MP1	Z	-2.2	%63.778
10	MP1	Z	-2.2	%69.556
11	MP2	Z	-21.2	%36.736
12	MP2	Z	-21.7	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-6.6	%42.083
16	MP4	Z	-6.6	%91.25

Member Point Loads (BLC 195 : Antenna Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-1.8	%63.778
2	MP1	X	-1.8	%69.556
3	MP2	X	-17.5	%36.736
4	MP2	X	-17.9	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-5.2	%42.083
8	MP4	X	-5.2	%91.25
9	MP1	Z	-3.1	%63.778
10	MP1	Z	-3.1	%69.556
11	MP2	Z	-30.2	%36.736
12	MP2	Z	-31	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-8.9	%42.083
16	MP4	Z	-8.9	%91.25

Member Point Loads (BLC 196 : Antenna Wind on Ice (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP1	Z	-3.1	%63.778
10	MP1	Z	-3.1	%69.556
11	MP2	Z	-31.2	%36.736
12	MP2	Z	-32	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-8.9	%42.083
16	MP4	Z	-8.9	%91.25

Member Point Loads (BLC 197 : Antenna Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	1.8	%63.778
2	MP1	X	1.8	%69.556
3	MP2	X	17.5	%36.736
4	MP2	X	17.9	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	5.2	%42.083
8	MP4	X	5.2	%91.25
9	MP1	Z	-3.1	%63.778
10	MP1	Z	-3.1	%69.556
11	MP2	Z	-30.2	%36.736
12	MP2	Z	-31	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-8.9	%42.083
16	MP4	Z	-8.9	%91.25

Member Point Loads (BLC 198 : Antenna Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	3.9	%63.778
2	MP1	X	3.9	%69.556
3	MP2	X	36.7	%36.736
4	MP2	X	37.6	%95.833
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	11.4	%42.083
8	MP4	X	11.4	%91.25
9	MP1	Z	-2.2	%63.778
10	MP1	Z	-2.2	%69.556
11	MP2	Z	-21.2	%36.736
12	MP2	Z	-21.7	%95.833
13	MP3	Z	0	0
14	MP3	Z	0	0
15	MP4	Z	-6.6	%42.083
16	MP4	Z	-6.6	%91.25

Member Distributed Loads (BLC 2 : Wind Load (0 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	11.7	11.7	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	11.7	11.7	0	0
4	FM	Z	0	0	0	0
5	SA	Z	0	0	0	0
6	SAVERT	Z	0	0	0	0

Member Distributed Loads (BLC 3 : Wind Load (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	10.1	10.1	0	0
2	SA	X	9.9	9.9	0	0
3	SAVERT	X	10.1	10.1	0	0
4	FM	Z	5.8	5.8	0	0
5	SA	Z	5.7	5.7	0	0
6	SAVERT	Z	5.8	5.8	0	0

Member Distributed Loads (BLC 4 : Wind Load (60 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	5.8	5.8	0	0
2	SA	X	5.7	5.7	0	0
3	SAVERT	X	5.8	5.8	0	0
4	FM	Z	10.1	10.1	0	0
5	SA	Z	9.9	9.9	0	0
6	SAVERT	Z	10.1	10.1	0	0

Member Distributed Loads (BLC 5 : Wind Load (90 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	0	0	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	0	0	0	0
4	FM	Z	0	0	0	0
5	SA	Z	11.4	11.4	0	0
6	SAVERT	Z	11.7	11.7	0	0

Member Distributed Loads (BLC 6 : Wind Load (120 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-5.8	-5.8	0	0
2	SA	X	-5.7	-5.7	0	0
3	SAVERT	X	-5.8	-5.8	0	0
4	FM	Z	10.1	10.1	0	0
5	SA	Z	9.9	9.9	0	0
6	SAVERT	Z	10.1	10.1	0	0

Member Distributed Loads (BLC 7 : Wind Load (150 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-10.1	-10.1	0	0
2	SA	X	-9.9	-9.9	0	0
3	SAVERT	X	-10.1	-10.1	0	0
4	FM	Z	5.8	5.8	0	0
5	SA	Z	5.7	5.7	0	0
6	SAVERT	Z	5.8	5.8	0	0

Member Distributed Loads (BLC 8 : Wind Load (180 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-11.7	-11.7	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	-11.7	-11.7	0	0
4	FM	Z	0	0	0	0
5	SA	Z	0	0	0	0
6	SAVERT	Z	0	0	0	0

Member Distributed Loads (BLC 9 : Wind Load (210 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-10.1	-10.1	0	0
2	SA	X	-9.9	-9.9	0	0
3	SAVERT	X	-10.1	-10.1	0	0
4	FM	Z	-5.8	-5.8	0	0
5	SA	Z	-5.7	-5.7	0	0
6	SAVERT	Z	-5.8	-5.8	0	0

Member Distributed Loads (BLC 10 : Wind Load (240 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-5.8	-5.8	0	0
2	SA	X	-5.7	-5.7	0	0
3	SAVERT	X	-5.8	-5.8	0	0
4	FM	Z	-10.1	-10.1	0	0
5	SA	Z	-9.9	-9.9	0	0
6	SAVERT	Z	-10.1	-10.1	0	0

Member Distributed Loads (BLC 11 : Wind Load (270 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	0	0	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	0	0	0	0
4	FM	Z	0	0	0	0
5	SA	Z	-11.4	-11.4	0	0
6	SAVERT	Z	-11.7	-11.7	0	0

Member Distributed Loads (BLC 12 : Wind Load (300 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]

Member Distributed Loads (BLC 12 : Wind Load (300 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	5.8	5.8	0	0
2	SA	X	5.7	5.7	0	0
3	SAVERT	X	5.8	5.8	0	0
4	FM	Z	-10.1	-10.1	0	0
5	SA	Z	-9.9	-9.9	0	0
6	SAVERT	Z	-10.1	-10.1	0	0

Member Distributed Loads (BLC 13 : Wind Load (330 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	10.1	10.1	0	0
2	SA	X	9.9	9.9	0	0
3	SAVERT	X	10.1	10.1	0	0
4	FM	Z	-5.8	-5.8	0	0
5	SA	Z	-5.7	-5.7	0	0
6	SAVERT	Z	-5.8	-5.8	0	0

Member Distributed Loads (BLC 14 : Ice Load)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	Y	-10.6	-10.6	0	0
2	SA	Y	-15	-15	0	0
3	SAVERT	Y	-10.6	-10.6	0	0

Member Distributed Loads (BLC 15 : Wind on Ice (0 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	3.6	3.6	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	3.6	3.6	0	0
4	FM	Z	0	0	0	0
5	SA	Z	0	0	0	0
6	SAVERT	Z	0	0	0	0

Member Distributed Loads (BLC 16 : Wind on Ice (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	3.1	3.1	0	0
2	SA	X	2.6	2.6	0	0
3	SAVERT	X	3.1	3.1	0	0
4	FM	Z	1.8	1.8	0	0
5	SA	Z	1.5	1.5	0	0
6	SAVERT	Z	1.8	1.8	0	0

Member Distributed Loads (BLC 17 : Wind on Ice (60 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	1.8	1.8	0	0
2	SA	X	1.5	1.5	0	0
3	SAVERT	X	1.8	1.8	0	0
4	FM	Z	3.1	3.1	0	0
5	SA	Z	2.6	2.6	0	0
6	SAVERT	Z	3.1	3.1	0	0

Member Distributed Loads (BLC 18 : Wind on Ice (90 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	0	0	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	0	0	0	0

Member Distributed Loads (BLC 18 : Wind on Ice (90 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
4	FM	Z	0	0	0	0
5	SA	Z	3	3	0	0
6	SAVERT	Z	3.6	3.6	0	0

Member Distributed Loads (BLC 19 : Wind on Ice (120 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-1.8	-1.8	0	0
2	SA	X	-1.5	-1.5	0	0
3	SAVERT	X	-1.8	-1.8	0	0
4	FM	Z	3.1	3.1	0	0
5	SA	Z	2.6	2.6	0	0
6	SAVERT	Z	3.1	3.1	0	0

Member Distributed Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-3.1	-3.1	0	0
2	SA	X	-2.6	-2.6	0	0
3	SAVERT	X	-3.1	-3.1	0	0
4	FM	Z	1.8	1.8	0	0
5	SA	Z	1.5	1.5	0	0
6	SAVERT	Z	1.8	1.8	0	0

Member Distributed Loads (BLC 21 : Wind on Ice (180 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-3.6	-3.6	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	-3.6	-3.6	0	0
4	FM	Z	0	0	0	0
5	SA	Z	0	0	0	0
6	SAVERT	Z	0	0	0	0

Member Distributed Loads (BLC 22 : Wind on Ice (210 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-3.1	-3.1	0	0
2	SA	X	-2.6	-2.6	0	0
3	SAVERT	X	-3.1	-3.1	0	0
4	FM	Z	-1.8	-1.8	0	0
5	SA	Z	-1.5	-1.5	0	0
6	SAVERT	Z	-1.8	-1.8	0	0

Member Distributed Loads (BLC 23 : Wind on Ice (240 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	-1.8	-1.8	0	0
2	SA	X	-1.5	-1.5	0	0
3	SAVERT	X	-1.8	-1.8	0	0
4	FM	Z	-3.1	-3.1	0	0
5	SA	Z	-2.6	-2.6	0	0
6	SAVERT	Z	-3.1	-3.1	0	0

Member Distributed Loads (BLC 24 : Wind on Ice (270 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	0	0	0	0
2	SA	X	0	0	0	0
3	SAVERT	X	0	0	0	0

Member Distributed Loads (BLC 24 : Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
4	FM	Z	0	0	0	0
5	SA	Z	-3	-3	0	0
6	SAVERT	Z	-3.6	-3.6	0	0

Member Distributed Loads (BLC 25 : Wind on Ice (300 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	1.8	1.8	0	0
2	SA	X	1.5	1.5	0	0
3	SAVERT	X	1.8	1.8	0	0
4	FM	Z	-3.1	-3.1	0	0
5	SA	Z	-2.6	-2.6	0	0
6	SAVERT	Z	-3.1	-3.1	0	0

Member Distributed Loads (BLC 26 : Wind on Ice (330 deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	FM	X	3.1	3.1	0	0
2	SA	X	2.6	2.6	0	0
3	SAVERT	X	3.1	3.1	0	0
4	FM	Z	-1.8	-1.8	0	0
5	SA	Z	-1.5	-1.5	0	0
6	SAVERT	Z	-1.8	-1.8	0	0

Load Combinations

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
1	1.4D	Yes	Y		1	1.4																		
2	1.2D + 1.0W (0 deg)	Yes	Y		1	1.2	2	1	175	1														
3	1.2D + 1.0W (30 deg)	Yes	Y		1	1.2	3	1	176	1														
4	1.2D + 1.0W (60 deg)	Yes	Y		1	1.2	4	1	177	1														
5	1.2D + 1.0W (90 deg)	Yes	Y		1	1.2	5	1	178	1														
6	1.2D + 1.0W (120 deg)	Yes	Y		1	1.2	6	1	179	1														
7	1.2D + 1.0W (150 deg)	Yes	Y		1	1.2	7	1	180	1														
8	1.2D + 1.0W (180 deg)	Yes	Y		1	1.2	8	1	181	1														
9	1.2D + 1.0W (210 deg)	Yes	Y		1	1.2	9	1	182	1														
10	1.2D + 1.0W (240 deg)	Yes	Y		1	1.2	10	1	183	1														
11	1.2D + 1.0W (270 deg)	Yes	Y		1	1.2	11	1	184	1														
12	1.2D + 1.0W (300 deg)	Yes	Y		1	1.2	12	1	185	1														
13	1.2D + 1.0W (330 deg)	Yes	Y		1	1.2	13	1	186	1														
14	1.2D + Di + Wi (0 deg)	Yes	Y		1	1.2	14	1	15	1	187	1												
15	1.2D + Di + Wi (30 deg)	Yes	Y		1	1.2	14	1	16	1	188	1												
16	1.2D + Di + Wi (60 deg)	Yes	Y		1	1.2	14	1	17	1	189	1												
17	1.2D + Di + Wi (90 deg)	Yes	Y		1	1.2	14	1	18	1	190	1												
18	1.2D + Di + Wi (120 de...	Yes	Y		1	1.2	14	1	19	1	191	1												
19	1.2D + Di + Wi (150 de...	Yes	Y		1	1.2	14	1	20	1	192	1												
20	1.2D + Di + Wi (180 de...	Yes	Y		1	1.2	14	1	21	1	193	1												
21	1.2D + Di + Wi (210 de...	Yes	Y		1	1.2	14	1	22	1	194	1												
22	1.2D + Di + Wi (240 de...	Yes	Y		1	1.2	14	1	23	1	195	1												
23	1.2D + Di + Wi (270 de...	Yes	Y		1	1.2	14	1	24	1	196	1												
24	1.2D + Di + Wi (300 de...	Yes	Y		1	1.2	14	1	25	1	197	1												
25	1.2D + Di + Wi (330 de...	Yes	Y		1	1.2	14	1	26	1	198	1												
26	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.045	27	.111														
27	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.045	28	.111														
28	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.045	29	.111														
29	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.045	30	.111														
30	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.045	31	.111														

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
31	1.2D + 1.0 Ev + 1.0Eh ..	Yes	Y		1	1.2	1	.045	32	.111														
32	1.2D + 1.0 Ev + 1.0Eh ..	Yes	Y		1	1.2	1	.045	33	.111														
33	1.2D + 1.0 Ev + 1.0Eh ..	Yes	Y		1	1.2	1	.045	34	.111														
34	1.2D + 1.0 Ev + 1.0Eh ..	Yes	Y		1	1.2	1	.045	35	.111														
35	1.2D + 1.0 Ev + 1.0Eh ..	Yes	Y		1	1.2	1	.045	36	.111														
36	1.2D + 1.0 Ev + 1.0Eh ..	Yes	Y		1	1.2	1	.045	37	.111														
37	1.2D + 1.0 Ev + 1.0Eh ..	Yes	Y		1	1.2	1	.045	38	.111														
38	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	2	.058	175	.058												
39	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	3	.058	176	.058												
40	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	4	.058	177	.058												
41	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	5	.058	178	.058												
42	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	6	.058	179	.058												
43	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	7	.058	180	.058												
44	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	8	.058	181	.058												
45	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	9	.058	182	.058												
46	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	10	.058	183	.058												
47	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	11	.058	184	.058												
48	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	12	.058	185	.058												
49	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	13	.058	186	.058												
50	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	2	.058	175	.058												
51	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	3	.058	176	.058												
52	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	4	.058	177	.058												
53	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	5	.058	178	.058												
54	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	6	.058	179	.058												
55	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	7	.058	180	.058												
56	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	8	.058	181	.058												
57	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	9	.058	182	.058												
58	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	10	.058	183	.058												
59	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	11	.058	184	.058												
60	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	12	.058	185	.058												
61	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	13	.058	186	.058												
62	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	2	.058	175	.058												
63	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	3	.058	176	.058												
64	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	4	.058	177	.058												
65	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	5	.058	178	.058												
66	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	6	.058	179	.058												
67	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	7	.058	180	.058												
68	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	8	.058	181	.058												
69	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	9	.058	182	.058												
70	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	10	.058	183	.058												
71	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	11	.058	184	.058												
72	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	12	.058	185	.058												
73	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	13	.058	186	.058												
74	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	2	.058	175	.058												
75	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	3	.058	176	.058												
76	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	4	.058	177	.058												
77	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	5	.058	178	.058												
78	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	6	.058	179	.058												
79	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	7	.058	180	.058												
80	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	8	.058	181	.058												
81	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	9	.058	182	.058												
82	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	10	.058	183	.058												
83	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	11	.058	184	.058												
84	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	12	.058	185	.058												
85	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	13	.058	186	.058												
86	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	2	.058	175	.058												
87	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	3	.058	176	.058												

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
88	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	4	.058	177	.058												
89	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	5	.058	178	.058												
90	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	6	.058	179	.058												
91	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	7	.058	180	.058												
92	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	8	.058	181	.058												
93	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	9	.058	182	.058												
94	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	10	.058	183	.058												
95	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	11	.058	184	.058												
96	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	12	.058	185	.058												
97	1.2D + 1.5Lm5 + 1.0W...		Y		1	1.2	43	1.5	13	.058	186	.058												
98	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	2	.058	175	.058												
99	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	3	.058	176	.058												
100	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	4	.058	177	.058												
101	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	5	.058	178	.058												
102	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	6	.058	179	.058												
103	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	7	.058	180	.058												
104	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	8	.058	181	.058												
105	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	9	.058	182	.058												
106	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	10	.058	183	.058												
107	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	11	.058	184	.058												
108	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	12	.058	185	.058												
109	1.2D + 1.5Lm6 + 1.0W...		Y		1	1.2	44	1.5	13	.058	186	.058												
110	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	2	.058	175	.058												
111	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	3	.058	176	.058												
112	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	4	.058	177	.058												
113	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	5	.058	178	.058												
114	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	6	.058	179	.058												
115	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	7	.058	180	.058												
116	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	8	.058	181	.058												
117	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	9	.058	182	.058												
118	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	10	.058	183	.058												
119	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	11	.058	184	.058												
120	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	12	.058	185	.058												
121	1.2D + 1.5Lm7 + 1.0W...		Y		1	1.2	45	1.5	13	.058	186	.058												
122	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	2	.058	175	.058												
123	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	3	.058	176	.058												
124	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	4	.058	177	.058												
125	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	5	.058	178	.058												
126	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	6	.058	179	.058												
127	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	7	.058	180	.058												
128	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	8	.058	181	.058												
129	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	9	.058	182	.058												
130	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	10	.058	183	.058												
131	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	11	.058	184	.058												
132	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	12	.058	185	.058												
133	1.2D + 1.5Lm8 + 1.0W...		Y		1	1.2	46	1.5	13	.058	186	.058												
134	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	2	.058	175	.058												
135	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	3	.058	176	.058												
136	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	4	.058	177	.058												
137	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	5	.058	178	.058												
138	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	6	.058	179	.058												
139	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	7	.058	180	.058												
140	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	8	.058	181	.058												
141	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	9	.058	182	.058												
142	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	10	.058	183	.058												
143	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	11	.058	184	.058												
144	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	12	.058	185	.058												

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
145	1.2D + 1.5Lm9 + 1.0W...		Y		1	1.2	47	1.5	13	.058	186	.058												
146	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	2	.058	175	.058												
147	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	3	.058	176	.058												
148	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	4	.058	177	.058												
149	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	5	.058	178	.058												
150	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	6	.058	179	.058												
151	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	7	.058	180	.058												
152	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	8	.058	181	.058												
153	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	9	.058	182	.058												
154	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	10	.058	183	.058												
155	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	11	.058	184	.058												
156	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	12	.058	185	.058												
157	1.2D + 1.5Lm10 + 1.0...		Y		1	1.2	48	1.5	13	.058	186	.058												
158	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	2	.058	175	.058												
159	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	3	.058	176	.058												
160	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	4	.058	177	.058												
161	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	5	.058	178	.058												
162	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	6	.058	179	.058												
163	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	7	.058	180	.058												
164	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	8	.058	181	.058												
165	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	9	.058	182	.058												
166	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	10	.058	183	.058												
167	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	11	.058	184	.058												
168	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	12	.058	185	.058												
169	1.2D + 1.5Lm11 + 1.0...		Y		1	1.2	49	1.5	13	.058	186	.058												
170	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	2	.058	175	.058												
171	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	3	.058	176	.058												
172	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	4	.058	177	.058												
173	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	5	.058	178	.058												
174	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	6	.058	179	.058												
175	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	7	.058	180	.058												
176	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	8	.058	181	.058												
177	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	9	.058	182	.058												
178	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	10	.058	183	.058												
179	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	11	.058	184	.058												
180	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	12	.058	185	.058												
181	1.2D + 1.5Lm12 + 1.0...		Y		1	1.2	50	1.5	13	.058	186	.058												
182	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	2	.058	175	.058												
183	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	3	.058	176	.058												
184	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	4	.058	177	.058												
185	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	5	.058	178	.058												
186	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	6	.058	179	.058												
187	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	7	.058	180	.058												
188	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	8	.058	181	.058												
189	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	9	.058	182	.058												
190	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	10	.058	183	.058												
191	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	11	.058	184	.058												
192	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	12	.058	185	.058												
193	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	13	.058	186	.058												
194	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	2	.058	175	.058												
195	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	3	.058	176	.058												
196	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	4	.058	177	.058												
197	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	5	.058	178	.058												
198	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	6	.058	179	.058												
199	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	7	.058	180	.058												
200	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	8	.058	181	.058												
201	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	9	.058	182	.058												

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
202	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	10	.058	183	.058												
203	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	11	.058	184	.058												
204	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	12	.058	185	.058												
205	1.2D + 1.5Lm14 + 1.0...		Y		1	1.2	52	1.5	13	.058	186	.058												
206	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	2	.058	175	.058												
207	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	3	.058	176	.058												
208	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	4	.058	177	.058												
209	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	5	.058	178	.058												
210	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	6	.058	179	.058												
211	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	7	.058	180	.058												
212	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	8	.058	181	.058												
213	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	9	.058	182	.058												
214	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	10	.058	183	.058												
215	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	11	.058	184	.058												
216	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	12	.058	185	.058												
217	1.2D + 1.5Lm15 + 1.0...		Y		1	1.2	53	1.5	13	.058	186	.058												
218	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	2	.058	175	.058												
219	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	3	.058	176	.058												
220	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	4	.058	177	.058												
221	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	5	.058	178	.058												
222	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	6	.058	179	.058												
223	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	7	.058	180	.058												
224	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	8	.058	181	.058												
225	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	9	.058	182	.058												
226	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	10	.058	183	.058												
227	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	11	.058	184	.058												
228	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	12	.058	185	.058												
229	1.2D + 1.5Lm16 + 1.0...		Y		1	1.2	54	1.5	13	.058	186	.058												
230	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	2	.058	175	.058												
231	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	3	.058	176	.058												
232	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	4	.058	177	.058												
233	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	5	.058	178	.058												
234	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	6	.058	179	.058												
235	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	7	.058	180	.058												
236	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	8	.058	181	.058												
237	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	9	.058	182	.058												
238	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	10	.058	183	.058												
239	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	11	.058	184	.058												
240	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	12	.058	185	.058												
241	1.2D + 1.5Lm17 + 1.0...		Y		1	1.2	55	1.5	13	.058	186	.058												
242	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	2	.058	175	.058												
243	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	3	.058	176	.058												
244	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	4	.058	177	.058												
245	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	5	.058	178	.058												
246	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	6	.058	179	.058												
247	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	7	.058	180	.058												
248	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	8	.058	181	.058												
249	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	9	.058	182	.058												
250	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	10	.058	183	.058												
251	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	11	.058	184	.058												
252	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	12	.058	185	.058												
253	1.2D + 1.5Lm18 + 1.0...		Y		1	1.2	56	1.5	13	.058	186	.058												
254	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	2	.058	175	.058												
255	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	3	.058	176	.058												
256	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	4	.058	177	.058												
257	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	5	.058	178	.058												
258	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	6	.058	179	.058												

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
259	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	7	.058	180	.058												
260	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	8	.058	181	.058												
261	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	9	.058	182	.058												
262	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	10	.058	183	.058												
263	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	11	.058	184	.058												
264	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	12	.058	185	.058												
265	1.2D + 1.5Lm19 + 1.0...		Y		1	1.2	57	1.5	13	.058	186	.058												
266	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	2	.058	175	.058												
267	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	3	.058	176	.058												
268	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	4	.058	177	.058												
269	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	5	.058	178	.058												
270	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	6	.058	179	.058												
271	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	7	.058	180	.058												
272	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	8	.058	181	.058												
273	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	9	.058	182	.058												
274	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	10	.058	183	.058												
275	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	11	.058	184	.058												
276	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	12	.058	185	.058												
277	1.2D + 1.5Lm20 + 1.0...		Y		1	1.2	58	1.5	13	.058	186	.058												
278	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	2	.058	175	.058												
279	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	3	.058	176	.058												
280	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	4	.058	177	.058												
281	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	5	.058	178	.058												
282	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	6	.058	179	.058												
283	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	7	.058	180	.058												
284	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	8	.058	181	.058												
285	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	9	.058	182	.058												
286	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	10	.058	183	.058												
287	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	11	.058	184	.058												
288	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	12	.058	185	.058												
289	1.2D + 1.5Lm21 + 1.0...		Y		1	1.2	59	1.5	13	.058	186	.058												
290	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	2	.058	175	.058												
291	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	3	.058	176	.058												
292	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	4	.058	177	.058												
293	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	5	.058	178	.058												
294	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	6	.058	179	.058												
295	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	7	.058	180	.058												
296	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	8	.058	181	.058												
297	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	9	.058	182	.058												
298	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	10	.058	183	.058												
299	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	11	.058	184	.058												
300	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	12	.058	185	.058												
301	1.2D + 1.5Lm22 + 1.0...		Y		1	1.2	60	1.5	13	.058	186	.058												
302	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	2	.058	175	.058												
303	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	3	.058	176	.058												
304	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	4	.058	177	.058												
305	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	5	.058	178	.058												
306	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	6	.058	179	.058												
307	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	7	.058	180	.058												
308	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	8	.058	181	.058												
309	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	9	.058	182	.058												
310	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	10	.058	183	.058												
311	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	11	.058	184	.058												
312	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	12	.058	185	.058												
313	1.2D + 1.5Lm23 + 1.0...		Y		1	1.2	61	1.5	13	.058	186	.058												
314	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	2	.058	175	.058												
315	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	3	.058	176	.058												

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
316	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	4	.058	177	.058												
317	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	5	.058	178	.058												
318	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	6	.058	179	.058												
319	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	7	.058	180	.058												
320	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	8	.058	181	.058												
321	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	9	.058	182	.058												
322	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	10	.058	183	.058												
323	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	11	.058	184	.058												
324	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	12	.058	185	.058												
325	1.2D + 1.5Lm24 + 1.0...		Y		1	1.2	62	1.5	13	.058	186	.058												
326	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	2	.058	175	.058												
327	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	3	.058	176	.058												
328	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	4	.058	177	.058												
329	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	5	.058	178	.058												
330	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	6	.058	179	.058												
331	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	7	.058	180	.058												
332	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	8	.058	181	.058												
333	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	9	.058	182	.058												
334	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	10	.058	183	.058												
335	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	11	.058	184	.058												
336	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	12	.058	185	.058												
337	1.2D + 1.5Lm25 + 1.0...		Y		1	1.2	63	1.5	13	.058	186	.058												
338	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	2	.058	175	.058												
339	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	3	.058	176	.058												
340	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	4	.058	177	.058												
341	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	5	.058	178	.058												
342	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	6	.058	179	.058												
343	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	7	.058	180	.058												
344	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	8	.058	181	.058												
345	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	9	.058	182	.058												
346	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	10	.058	183	.058												
347	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	11	.058	184	.058												
348	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	12	.058	185	.058												
349	1.2D + 1.5Lm26 + 1.0...		Y		1	1.2	64	1.5	13	.058	186	.058												
350	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	2	.058	175	.058												
351	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	3	.058	176	.058												
352	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	4	.058	177	.058												
353	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	5	.058	178	.058												
354	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	6	.058	179	.058												
355	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	7	.058	180	.058												
356	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	8	.058	181	.058												
357	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	9	.058	182	.058												
358	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	10	.058	183	.058												
359	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	11	.058	184	.058												
360	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	12	.058	185	.058												
361	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	13	.058	186	.058												
362	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	2	.058	175	.058												
363	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	3	.058	176	.058												
364	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	4	.058	177	.058												
365	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	5	.058	178	.058												
366	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	6	.058	179	.058												
367	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	7	.058	180	.058												
368	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	8	.058	181	.058												
369	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	9	.058	182	.058												
370	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	10	.058	183	.058												
371	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	11	.058	184	.058												
372	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	12	.058	185	.058												

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
373	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	13	.058	186	.058												
374	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	2	.058	175	.058												
375	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	3	.058	176	.058												
376	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	4	.058	177	.058												
377	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	5	.058	178	.058												
378	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	6	.058	179	.058												
379	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	7	.058	180	.058												
380	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	8	.058	181	.058												
381	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	9	.058	182	.058												
382	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	10	.058	183	.058												
383	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	11	.058	184	.058												
384	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	12	.058	185	.058												
385	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	13	.058	186	.058												
386	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	2	.058	175	.058												
387	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	3	.058	176	.058												
388	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	4	.058	177	.058												
389	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	5	.058	178	.058												
390	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	6	.058	179	.058												
391	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	7	.058	180	.058												
392	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	8	.058	181	.058												
393	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	9	.058	182	.058												
394	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	10	.058	183	.058												
395	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	11	.058	184	.058												
396	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	12	.058	185	.058												
397	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	13	.058	186	.058												
398	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	2	.058	175	.058												
399	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	3	.058	176	.058												
400	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	4	.058	177	.058												
401	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	5	.058	178	.058												
402	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	6	.058	179	.058												
403	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	7	.058	180	.058												
404	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	8	.058	181	.058												
405	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	9	.058	182	.058												
406	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	10	.058	183	.058												
407	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	11	.058	184	.058												
408	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	12	.058	185	.058												
409	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	13	.058	186	.058												
410	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	2	.058	175	.058												
411	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	3	.058	176	.058												
412	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	4	.058	177	.058												
413	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	5	.058	178	.058												
414	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	6	.058	179	.058												
415	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	7	.058	180	.058												
416	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	8	.058	181	.058												
417	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	9	.058	182	.058												
418	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	10	.058	183	.058												
419	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	11	.058	184	.058												
420	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	12	.058	185	.058												
421	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	13	.058	186	.058												
422	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	2	.058	175	.058												
423	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	3	.058	176	.058												
424	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	4	.058	177	.058												
425	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	5	.058	178	.058												
426	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	6	.058	179	.058												
427	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	7	.058	180	.058												
428	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	8	.058	181	.058												
429	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	9	.058	182	.058												

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
430	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	10	.058	183	.058												
431	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	11	.058	184	.058												
432	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	12	.058	185	.058												
433	1.2D + 1.5Lm33 + 1.0...		Y		1	1.2	71	1.5	13	.058	186	.058												
434	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	2	.058	175	.058												
435	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	3	.058	176	.058												
436	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	4	.058	177	.058												
437	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	5	.058	178	.058												
438	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	6	.058	179	.058												
439	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	7	.058	180	.058												
440	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	8	.058	181	.058												
441	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	9	.058	182	.058												
442	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	10	.058	183	.058												
443	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	11	.058	184	.058												
444	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	12	.058	185	.058												
445	1.2D + 1.5Lm34 + 1.0...		Y		1	1.2	72	1.5	13	.058	186	.058												
446	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	2	.058	175	.058												
447	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	3	.058	176	.058												
448	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	4	.058	177	.058												
449	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	5	.058	178	.058												
450	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	6	.058	179	.058												
451	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	7	.058	180	.058												
452	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	8	.058	181	.058												
453	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	9	.058	182	.058												
454	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	10	.058	183	.058												
455	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	11	.058	184	.058												
456	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	12	.058	185	.058												
457	1.2D + 1.5Lm35 + 1.0...		Y		1	1.2	73	1.5	13	.058	186	.058												
458	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	2	.058	175	.058												
459	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	3	.058	176	.058												
460	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	4	.058	177	.058												
461	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	5	.058	178	.058												
462	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	6	.058	179	.058												
463	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	7	.058	180	.058												
464	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	8	.058	181	.058												
465	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	9	.058	182	.058												
466	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	10	.058	183	.058												
467	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	11	.058	184	.058												
468	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	12	.058	185	.058												
469	1.2D + 1.5Lm36 + 1.0...		Y		1	1.2	74	1.5	13	.058	186	.058												
470	1.2D + 1.5Lv (Position ...		Y		1	1.2	75	1.5																
471	1.2D + 1.5Lv (Position ...		Y		1	1.2	76	1.5																
472	1.2D + 1.5Lv (Position ...		Y		1	1.2	77	1.5																
473	1.2D + 1.5Lv (Position ...		Y		1	1.2	78	1.5																
474	1.2D + 1.5Lv (Position ...		Y		1	1.2	79	1.5																
475	1.2D + 1.5Lv (Position ...		Y		1	1.2	80	1.5																
476	1.2D + 1.5Lv (Position ...		Y		1	1.2	81	1.5																
477	1.2D + 1.5Lv (Position ...		Y		1	1.2	82	1.5																
478	1.2D + 1.5Lv (Position ...		Y		1	1.2	83	1.5																
479	1.2D + 1.5Lv (Position ...		Y		1	1.2	84	1.5																
480	1.2D + 1.5Lv (Position ...		Y		1	1.2	85	1.5																
481	1.2D + 1.5Lv (Position ...		Y		1	1.2	86	1.5																
482	1.2D + 1.5Lv (Position ...		Y		1	1.2	87	1.5																
483	1.2D + 1.5Lv (Position ...		Y		1	1.2	88	1.5																
484	1.2D + 1.5Lv (Position ...		Y		1	1.2	89	1.5																
485	1.2D + 1.5Lv (Position ...		Y		1	1.2	90	1.5																
486	1.2D + 1.5Lv (Position ...		Y		1	1.2	91	1.5																

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
487	1.2D + 1.5Lv (Position ...		Y		1	1.2	92	1.5																
488	1.2D + 1.5Lv (Position ...		Y		1	1.2	93	1.5																
489	1.2D + 1.5Lv (Position ...		Y		1	1.2	94	1.5																
490	1.2D + 1.5Lv (Position ...		Y		1	1.2	95	1.5																
491	1.2D + 1.5Lv (Position ...		Y		1	1.2	96	1.5																
492	1.2D + 1.5Lv (Position ...		Y		1	1.2	97	1.5																
493	1.2D + 1.5Lv (Position ...		Y		1	1.2	98	1.5																
494	1.2D + 1.5Lv (Position ...		Y		1	1.2	99	1.5																
495	1.2D + 1.5Lv (Position ...		Y		1	1.2	100	1.5																
496	1.2D + 1.5Lv (Position ...		Y		1	1.2	101	1.5																
497	1.2D + 1.5Lv (Position ...		Y		1	1.2	102	1.5																
498	1.2D + 1.5Lv (Position ...		Y		1	1.2	103	1.5																
499	1.2D + 1.5Lv (Position ...		Y		1	1.2	104	1.5																
500	1.2D + 1.5Lv (Position ...		Y		1	1.2	105	1.5																
501	1.2D + 1.5Lv (Position ...		Y		1	1.2	106	1.5																
502	1.2D + 1.5Lv (Position ...		Y		1	1.2	107	1.5																
503	1.2D + 1.5Lv (Position ...		Y		1	1.2	108	1.5																
504	1.2D + 1.5Lv (Position ...		Y		1	1.2	109	1.5																
505	1.2D + 1.5Lv (Position ...		Y		1	1.2	110	1.5																
506	1.2D + 1.5Lv (Position ...		Y		1	1.2	111	1.5																
507	1.2D + 1.5Lv (Position ...		Y		1	1.2	112	1.5																
508	1.2D + 1.5Lv (Position ...		Y		1	1.2	113	1.5																
509	1.2D + 1.5Lv (Position ...		Y		1	1.2	114	1.5																
510	1.2D + 1.5Lv (Position ...		Y		1	1.2	115	1.5																
511	1.2D + 1.5Lv (Position ...		Y		1	1.2	116	1.5																
512	1.2D + 1.5Lv (Position ...		Y		1	1.2	117	1.5																
513	1.2D + 1.5Lv (Position ...		Y		1	1.2	118	1.5																
514	1.2D + 1.5Lv (Position ...		Y		1	1.2	119	1.5																
515	1.2D + 1.5Lv (Position ...		Y		1	1.2	120	1.5																
516	1.2D + 1.5Lv (Position ...		Y		1	1.2	121	1.5																
517	1.2D + 1.5Lv (Position ...		Y		1	1.2	122	1.5																
518	1.2D + 1.5Lv (Position ...		Y		1	1.2	123	1.5																
519	1.2D + 1.5Lv (Position ...		Y		1	1.2	124	1.5																
520	1.2D + 1.5Lv (Position ...		Y		1	1.2	125	1.5																
521	1.2D + 1.5Lv (Position ...		Y		1	1.2	126	1.5																
522	1.2D + 1.5Lv (Position ...		Y		1	1.2	127	1.5																
523	1.2D + 1.5Lv (Position ...		Y		1	1.2	128	1.5																
524	1.2D + 1.5Lv (Position ...		Y		1	1.2	129	1.5																
525	1.2D + 1.5Lv (Position ...		Y		1	1.2	130	1.5																
526	1.2D + 1.5Lv (Position ...		Y		1	1.2	131	1.5																
527	1.2D + 1.5Lv (Position ...		Y		1	1.2	132	1.5																
528	1.2D + 1.5Lv (Position ...		Y		1	1.2	133	1.5																
529	1.2D + 1.5Lv (Position ...		Y		1	1.2	134	1.5																
530	1.2D + 1.5Lv (Position ...		Y		1	1.2	135	1.5																
531	1.2D + 1.5Lv (Position ...		Y		1	1.2	136	1.5																
532	1.2D + 1.5Lv (Position ...		Y		1	1.2	137	1.5																
533	1.2D + 1.5Lv (Position ...		Y		1	1.2	138	1.5																
534	1.2D + 1.5Lv (Position ...		Y		1	1.2	139	1.5																
535	1.2D + 1.5Lv (Position ...		Y		1	1.2	140	1.5																
536	1.2D + 1.5Lv (Position ...		Y		1	1.2	141	1.5																
537	1.2D + 1.5Lv (Position ...		Y		1	1.2	142	1.5																
538	1.2D + 1.5Lv (Position ...		Y		1	1.2	143	1.5																
539	1.2D + 1.5Lv (Position ...		Y		1	1.2	144	1.5																
540	1.2D + 1.5Lv (Position ...		Y		1	1.2	145	1.5																
541	1.2D + 1.5Lv (Position ...		Y		1	1.2	146	1.5																
542	1.2D + 1.5Lv (Position ...		Y		1	1.2	147	1.5																
543	1.2D + 1.5Lv (Position ...		Y		1	1.2	148	1.5																

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac...
544	1.2D + 1.5Lv (Position ...		Y		1	1.2	149	1.5																		
545	1.2D + 1.5Lv (Position ...		Y		1	1.2	150	1.5																		
546	1.2D + 1.5Lv (Position ...		Y		1	1.2	151	1.5																		
547	1.2D + 1.5Lv (Position ...		Y		1	1.2	152	1.5																		
548	1.2D + 1.5Lv (Position ...		Y		1	1.2	153	1.5																		
549	1.2D + 1.5Lv (Position ...		Y		1	1.2	154	1.5																		
550	1.2D + 1.5Lv (Position ...		Y		1	1.2	155	1.5																		
551	1.2D + 1.5Lv (Position ...		Y		1	1.2	156	1.5																		
552	1.2D + 1.5Lv (Position ...		Y		1	1.2	157	1.5																		
553	1.2D + 1.5Lv (Position ...		Y		1	1.2	158	1.5																		
554	1.2D + 1.5Lv (Position ...		Y		1	1.2	159	1.5																		
555	1.2D + 1.5Lv (Position ...		Y		1	1.2	160	1.5																		
556	1.2D + 1.5Lv (Position ...		Y		1	1.2	161	1.5																		
557	1.2D + 1.5Lv (Position ...		Y		1	1.2	162	1.5																		
558	1.2D + 1.5Lv (Position ...		Y		1	1.2	163	1.5																		
559	1.2D + 1.5Lv (Position ...		Y		1	1.2	164	1.5																		
560	1.2D + 1.5Lv (Position ...		Y		1	1.2	165	1.5																		
561	1.2D + 1.5Lv (Position ...		Y		1	1.2	166	1.5																		
562	1.2D + 1.5Lv (Position ...		Y		1	1.2	167	1.5																		
563	1.2D + 1.5Lv (Position ...		Y		1	1.2	168	1.5																		
564	1.2D + 1.5Lv (Position ...		Y		1	1.2	169	1.5																		
565	1.2D + 1.5Lv (Position ...		Y		1	1.2	170	1.5																		
566	1.2D + 1.5Lv (Position ...		Y		1	1.2	171	1.5																		
567	1.2D + 1.5Lv (Position ...		Y		1	1.2	172	1.5																		
568	1.2D + 1.5Lv (Position ...		Y		1	1.2	173	1.5																		
569	1.2D + 1.5Lv (Position ...		Y		1	1.2	174	1.5																		

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N1	max	1180.11	8	2357.298	14	891.721	10	2196.171	83	4432.868	10	-3191.47	2
2		min	-1180.11	2	868.662	8	-891.721	4	-2604.482	41	-4443.95	4	-11792.56	20
3	Totals:	max	1180.11	8	2357.298	14	891.721	10						
4		min	-1180.11	2	868.662	8	-891.721	4						

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

	Member	Shape	Code ...	Loc[in]	LC	Shear ..	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [...	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	SA	HSS4X4X4	.792	0	22	.223	0	y	41	128181.266	139518	16180.5	16180.5	1....	H1-1b
2	FM	PIPE_3.0	.786	78	17	.177	78		8	26386.722	65205	5748.75	5748.75	1....	H1-1b
3	MP2	PIPE_2.0	.341	36	8	.025	36		8	20866.733	32130	1871.625	1871.625	1....	H1-1b
4	MP4	PIPE_2.0	.150	36	8	.016	36		8	20866.733	32130	1871.625	1871.625	1.7	H1-1b
5	MP3	PIPE_2.0	.098	36	8	.017	36		8	20866.733	32130	1871.625	1871.625	1....	H1-1b
6	MP1	PIPE_2.0	.092	36	8	.016	36		8	20866.733	32130	1871.625	1871.625	1....	H1-1b
7	SAVERT	PIPE_3.0	.001	9	8	.000	9		8	64424.35	65205	5748.75	5748.75	1....	H1-1b

Exhibit F

Power Density/RF Emissions Report

Site Name: TRUMBULL SW CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	4	1178	4713.64	100	0.1695	1.0	16.95%
VZW Cellular CDMA	869	3	498	1494	100	0.0537	0.579333333	9.27%
VZW Cellular LTE	880	4	275	1098.36	100	0.0395	0.586666667	6.73%
VZW AWS	2145	4	1241	4963.16	100	0.1785	1.0	17.85%
VZW 700	746	4	525	2100.16	100	0.0755	0.497333333	15.19%
VZW CBRS	3550	4	31	122.24	100	0.0044	2.366666667	0.19%
Total Percentage of Maximum Permissible Exposure								66.18%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:
1. closest accessible point is distance from antenna to base of pole;
2. continuous transmission from all available channels at full power for indefinite time period; and,
3. all RF energy is assumed to be directed solely to the base of the pole.