NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

September 9, 2021

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Exempt Modification Application
205 Kaechele Drive, Bridgeport CT 06606
Latitude: 41. 223344
Longitude: -73.216772
T-Mobile Site#: 841288_ Crown_VZW

Dear Ms. Bachman:

Verizon Wireless is requesting to file an exempt modification for an existing tower located at 205 Kaechele Drive, Bridgeport CT. Verizon Wireless currently maintains twelve (12) antenna at the 100-foot level of the existing 150-foot tower. The property is owned by Southern New England Telephone, and the tower is owned by Crown Castle. Verizon Wireless now intends to add three (3) new antenna. The new antennas would be installed at the 100-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and **5G** capable.

Verizon Planned Modifications:
Remove: NONE

Remove and Replace: NONE

Install New:
(3) VZW-Sub6-VZS01 Antenna

Existing to Remain:
(6) Andrew JAHH 65B R3B Antenna
(3) CBRS Antenna
(3) BXA-70063/4CF Antenna
(3) Samsung B2/B66A -BRO49 – RFV01U-D1A RRH
(3) Samsung B5/B13 -BRO4C – RFV01U-D2A RRH
(1) Raycap
(6) 1-5/8" Coax
(1) Hybrid Lines

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This facility was approved by the CT Siting Council. Per the attached Docket No. 45 – Dated September 14, 1984. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to Mayor Joseph Ganim, Elected Official and Dennis Buckley, Zoning Enforcement Officer for the City of Bridgeport, as well as the property owner and the tower owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, Verizon Wireless respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com

NORTHEAST
SITE SOLUTIONS
Turnkey Wireless Development

Attachments cc:

Mayor Joseph Ganim
City of Bridgeport
999 Broad Street, Bridgeport CT 06604

Dennis Buckley - ZEO
City of Bridgeport
999 Broad Street, Bridgeport CT 06604

Southern New England Telephone
c/o Frontier Communications

Crown Castle – Tower Owner

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

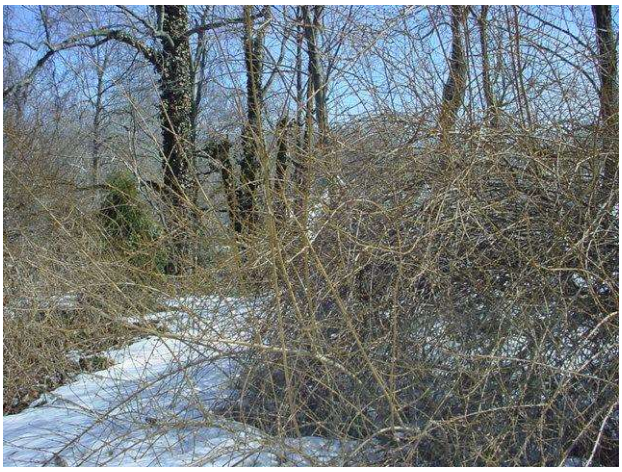
Building 1 : Section 1

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

VERIZON SITE NUMBER: 675071
VERIZON SITE NAME: TRUMBULL SW CT
SITE TYPE: MONOPOLE
TOWER HEIGHT: 150'-0"

BUSINESS UNIT #: 841288
SITE ADDRESS: 205 KAECHELE PLACE BRIDGEPORT, CT 06606
COUNTY: FAIRFIELD
JURISDICTION: FAIRFIELD COUNTY

VERIZON FUZE PROJECT #: 16231907

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	BRIDGEPORT NORTH
SITE ADDRESS:	205 KAECHELE PLACE BRIDGEPORT, CT 06606
COUNTY:	FAIRFIELD
MAP/PARCEL #:	81-2602-9
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 13' 24.04" N (41.223344°)
LONGITUDE:	-73° 13' 0.38" W (-73.216772°)
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	202.0'
CURRENT ZONING:	RA
JURISDICTION:	FAIRFIELD COUNTY
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	TBD -- --
TOWER OWNER:	CCATT LLC 1500 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	VERIZON WIRELESS 180 WASHINGTON VALLEY ROAD BEDMINSTER, NJ 07921
ELECTRIC PROVIDER:	TBD
TELCO PROVIDER:	TBD

PROJECT TEAM

A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317 CROWNAE.APPROVAL@CROWNCASTLE.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065
	TBD - PROJECT MANAGER
	TBD - CONSTRUCTION MANAGER
VERIZON CONTACT:	ANDREW LEONE ALEONE@STRUCTURECONSULTING.NET

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	TOWER ELEVATION & ANTENNA PLANS
C-3	EQUIPMENT SCHEDULES
C-4	EQUIPMENT DETAILS
C-5	EQUIPMENT DETAILS
C-6	PLUMBING DIAGRAM
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS

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.

APPROVALS

SIGNATURE	DATE

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT	https://pmi.vxwsmart.com
SMART TOOL VENDOR PROJECT NUMBER	6039-Z0001-C
VzW LOCATION CODE (PSLC)	468202

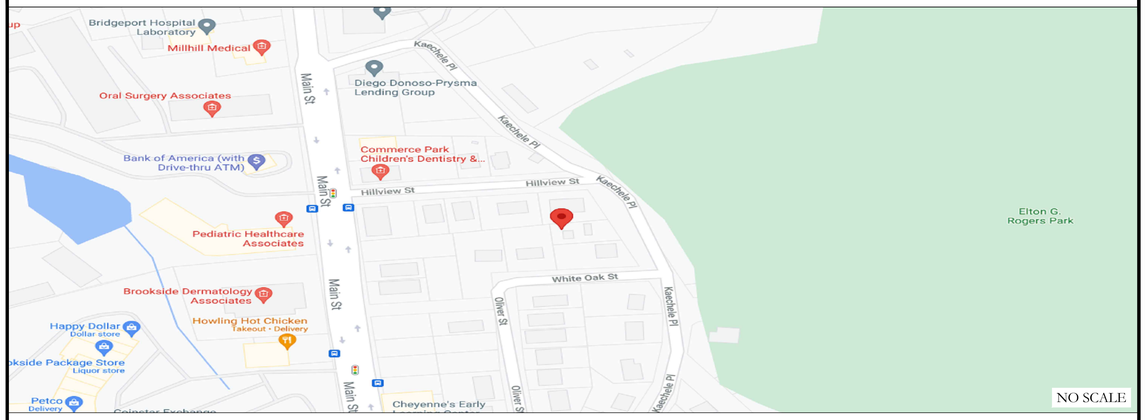
*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED	N

VzW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VzW SMART KIT APPROVED VENDORS

LOCATION MAP



NO SCALE

DRIVING DIRECTIONS FROM VERIZON LOCAL OFFICE (5065 MAIN ST, TRUMBULL, CT 06611) DEPART AND HEAD EAST ON ROAD, TURN RIGHT, TURN LEFT, TURN RIGHT TOWARD MAIN ST, TURN RIGHT ONTO MAIN ST, TURN LEFT ONTO KAECHELE PL, ARRIVE AT 205 KAECHELE PLACE, BRIDGEPORT, CT 06606.

APPLICABLE CODES/REFERENCE DOCUMENTS

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

CODE TYPE	CODE
BUILDING	2018 IBC
MECHANICAL	2015 IMC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	BY OTHERS
DATED:	
MOUNT ANALYSIS:	GPD ENGINEERING AND ARCHITECTURE PROFESSIONAL CORPORATION.
DATED:	06-21-2021
RFDS REVISION:	TBD
DATED:	01/13/2021
ORDER ID:	568278
REVISION:	0

CALL CONNECTICUT ONE CALL (800) 922-4455 CBYD.COM CALL 2 WORKING DAYS BEFORE YOU DIG!

PROJECT DESCRIPTION

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

TOWER SCOPE OF WORK:
- INSTALL (3) ANTENNAS

GROUND SCOPE OF WORK:
- N/A

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

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1500 CORPORATE DRIVE
CANONSBURG, PA 15317

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
BELLEVUE, WA 98004

VERIZON SITE NUMBER:
675071

BU #: **841288**
BRIDGEPORT NORTH

205 KAECHELE PLACE
BRIDGEPORT, CT 06606

EXISTING 150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/16/2021	RCD	FINAL CDs	--

STATE OF CONNECTICUT
SHUHEI SAKAMOTO
34916
LICENSED PROFESSIONAL ENGINEER
7/19/2021

SHEET NUMBER: T-1
REVISION: 0

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

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

GENERAL NOTES:

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

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

GREENFIELD GROUNDING NOTES:

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

ELECTRICAL INSTALLATION NOTES:

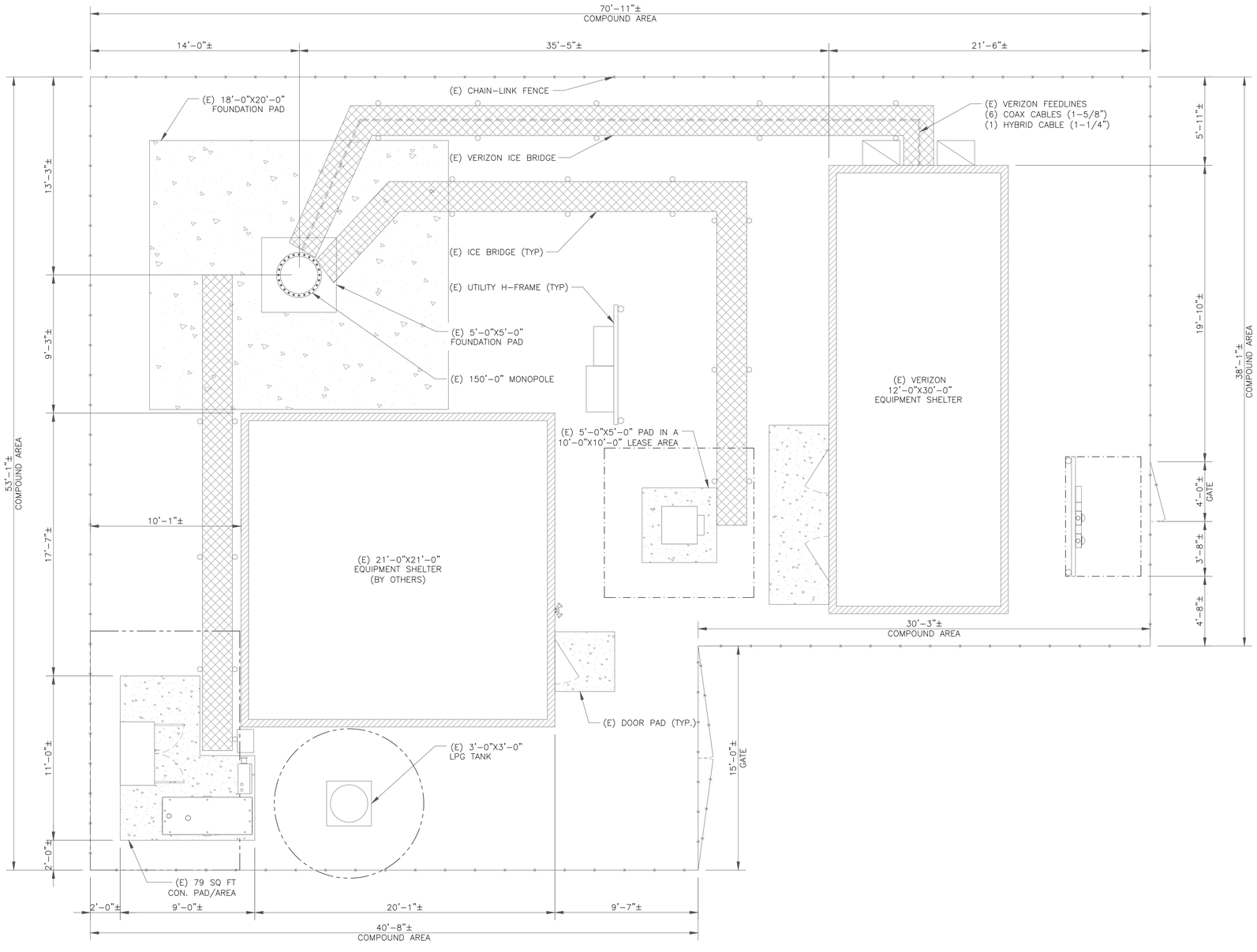
1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.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

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

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

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, P



1 SITE PLAN
SCALE: 4' 3' 2' 1' 0 4'
1/4"=1'-0" (FULL SIZE)
1/8"=1'-0" (11x17)

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1500 CORPORATE DRIVE
CANONSBURG, PA 15317

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
BELLEVUE, WA 98004

VERIZON SITE NUMBER:
675071

BU #: **841288**
BRIDGEPORT NORTH

205 KAECHELE PLACE
BRIDGEPORT, CT 06606

EXISTING 150'-0" MONOPOLE

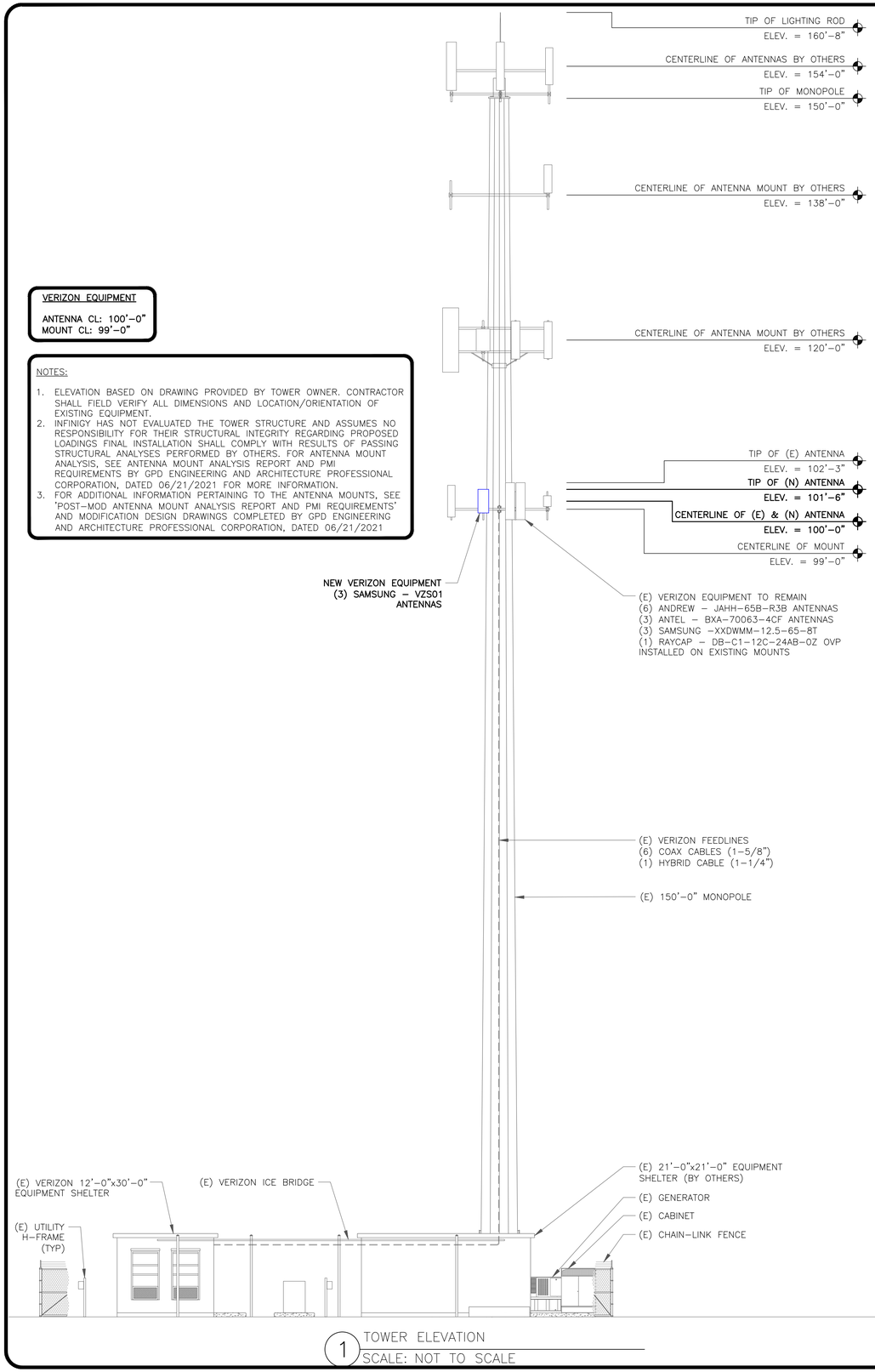
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/16/2021	RCD	FINAL CDs	--

STATE OF CONNECTICUT
SHUHEI SAKANOUE
34916
LICENSED PROFESSIONAL ENGINEER

7/19/2021

SHEET NUMBER: C-1
REVISION: 0



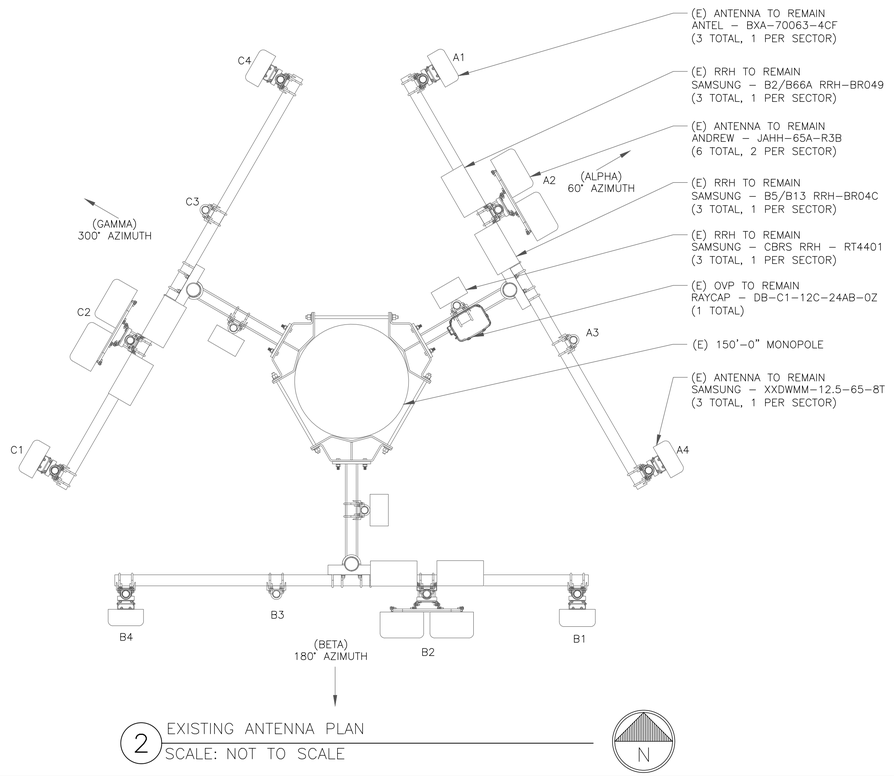
VERIZON EQUIPMENT

ANTENNA CL: 100'-0"
MOUNT CL: 99'-0"

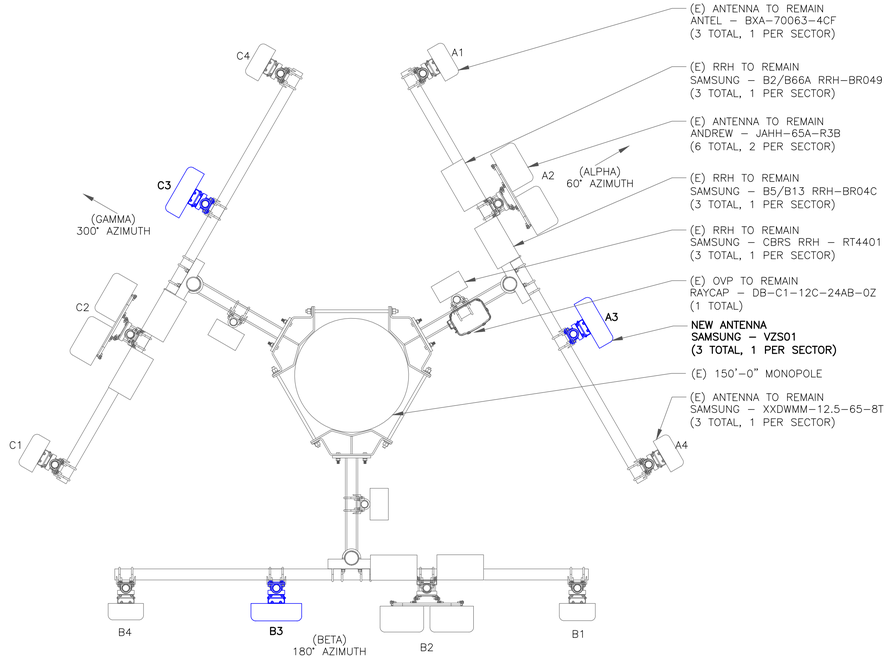
NOTES:

1. ELEVATION BASED ON DRAWING PROVIDED BY TOWER OWNER. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATION/ORIENTATION OF EXISTING EQUIPMENT.
2. INFINIGY HAS NOT EVALUATED THE TOWER STRUCTURE AND ASSUMES NO RESPONSIBILITY FOR THEIR STRUCTURAL INTEGRITY REGARDING PROPOSED LOADINGS FINAL INSTALLATION SHALL COMPLY WITH RESULTS OF PASSING STRUCTURAL ANALYSES PERFORMED BY OTHERS. FOR ANTENNA MOUNT ANALYSIS, SEE ANTENNA MOUNT ANALYSIS REPORT AND PMI REQUIREMENTS BY GPD ENGINEERING AND ARCHITECTURE PROFESSIONAL CORPORATION, DATED 06/21/2021 FOR MORE INFORMATION.
3. FOR ADDITIONAL INFORMATION PERTAINING TO THE ANTENNA MOUNTS, SEE 'POST-MOD ANTENNA MOUNT ANALYSIS REPORT AND PMI REQUIREMENTS' AND MODIFICATION DESIGN DRAWINGS COMPLETED BY GPD ENGINEERING AND ARCHITECTURE PROFESSIONAL CORPORATION, DATED 06/21/2021

1 TOWER ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



3 NEW ANTENNA PLAN
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1500 CORPORATE DRIVE
CANONSBURG, PA 15317

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
BELLEVUE, WA 98004

VERIZON SITE NUMBER:
675071

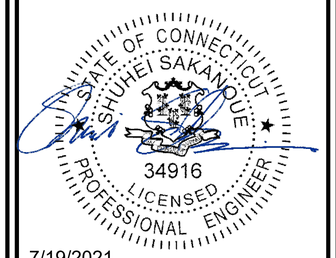
BU #: **841288**
BRIDGEPORT NORTH

205 KAECHELE PLACE
BRIDGEPORT, CT 06606

EXISTING 150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/16/2021	RCD	FINAL CDs	--



7/19/2021

SHEET NUMBER: C-2

REVISION: 0

ANTENNA/RRH SCHEDULE

SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZIMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
A1	EXISTING	ANTEL	BXA-70063-4CF	100'-0"	60°	0°	4°	-	-
A2	EXISTING	ANDREW	JAHH-65A-R3B JAHH-65A-R3B	100'-0"	60°	0°	2°/4°	SAMSUNG	(1) B2/B66A RRH-BR049 (1) B5/B13 RRH-BR04C
A3	**NEW**	**SAMSUNG**	**VZS01**	**100'-0"**	**60°**	**0°**	**6°**	-	-
A4	NEW	SAMSUNG	XXDWMM-12.5-65-8T	100'-0"	60°	-	8°	SAMSUNG	(1) CBRS RRH - RT4401

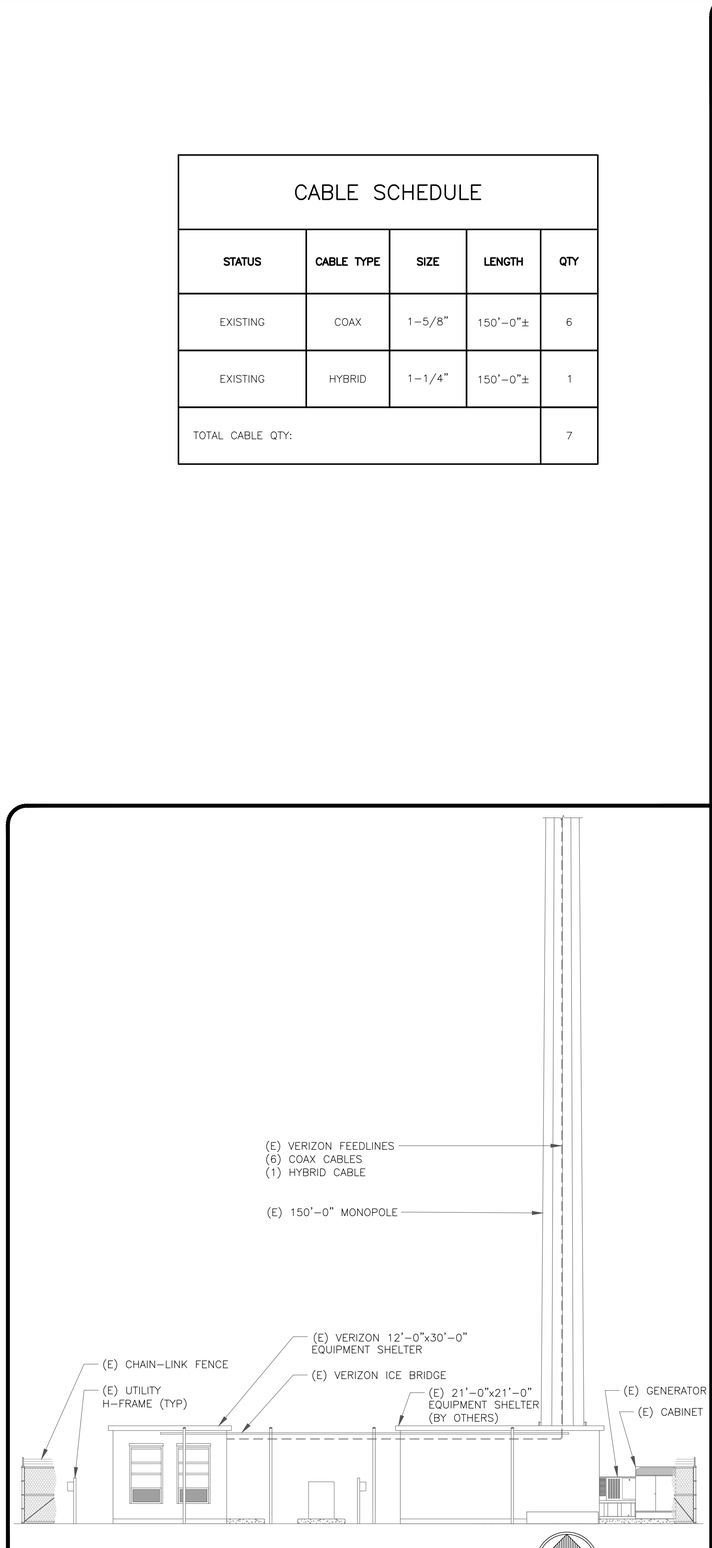
SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZIMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
A1	EXISTING	ANTEL	BXA-70063-4CF	100'-0"	180°	0°	4°	-	-
A2	EXISTING	ANDREW	JAHH-65A-R3B JAHH-65A-R3B	100'-0"	180°	0°	2°/4°	SAMSUNG	(1) B2/B66A RRH-BR049 (1) B5/B13 RRH-BR04C
A3	**NEW**	**SAMSUNG**	**VZS01**	**100'-0"**	**180°**	**0°**	**6°**	-	-
A4	NEW	SAMSUNG	XXDWMM-12.5-65-8T	100'-0"	180°	-	8°	SAMSUNG	(1) CBRS RRH - RT4401

SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZIMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
A1	EXISTING	ANTEL	BXA-70063-4CF	100'-0"	300°	0°	4°	-	-
A2	EXISTING	ANDREW	JAHH-65A-R3B JAHH-65A-R3B	100'-0"	300°	0°	2°/4°	SAMSUNG	(1) B2/B66A RRH-BR049 (1) B5/B13 RRH-BR04C
A3	**NEW**	**SAMSUNG**	**VZS01**	**100'-0"**	**300°**	**0°**	**6°**	-	-
A4	NEW	SAMSUNG	XXDWMM-12.5-65-8T	100'-0"	300°	-	8°	SAMSUNG	(1) CBRS RRH - RT4401

1 VERIZON TOWER EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

CABLE SCHEDULE

STATUS	CABLE TYPE	SIZE	LENGTH	QTY
EXISTING	COAX	1-5/8"	150'-0"±	6
EXISTING	HYBRID	1-1/4"	150'-0"±	1
TOTAL CABLE QTY:				7



2 BASE LEVEL DETAIL
SCALE: NOT TO SCALE

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VERIZON SITE NUMBER:
675071

BU #: **841288**
BRIDGEPORT NORTH

205 KAECHELE PLACE
BRIDGEPORT, CT 06606

EXISTING 150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/16/2021	RCD	FINAL CDs	--

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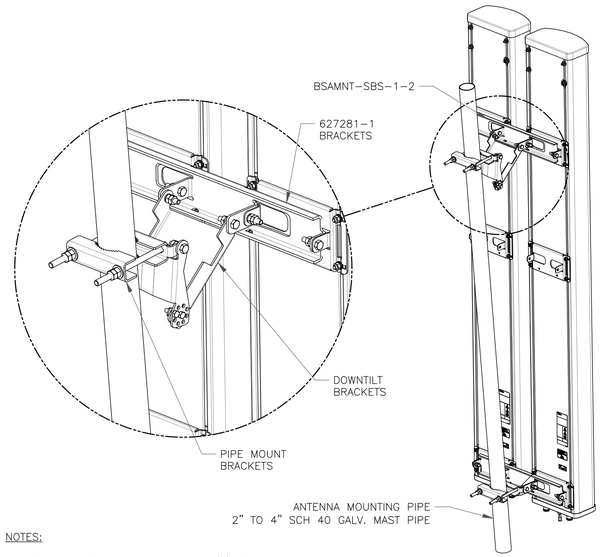
7/19/2021

SHEET NUMBER: C-3
REVISION: 0

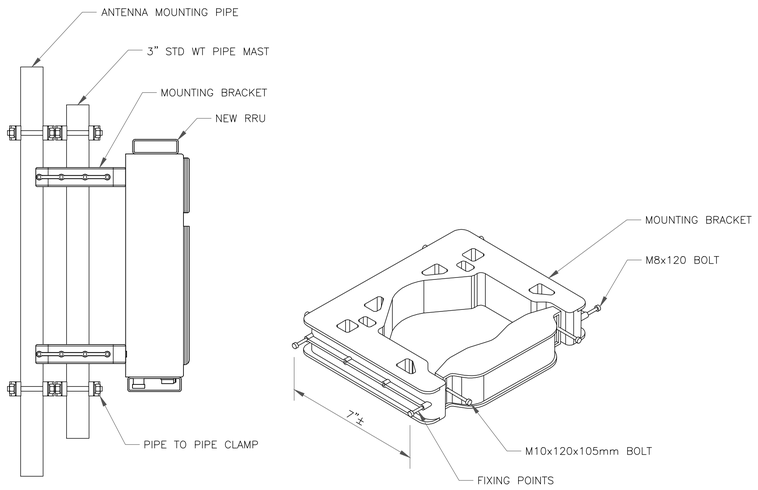


NOTES:

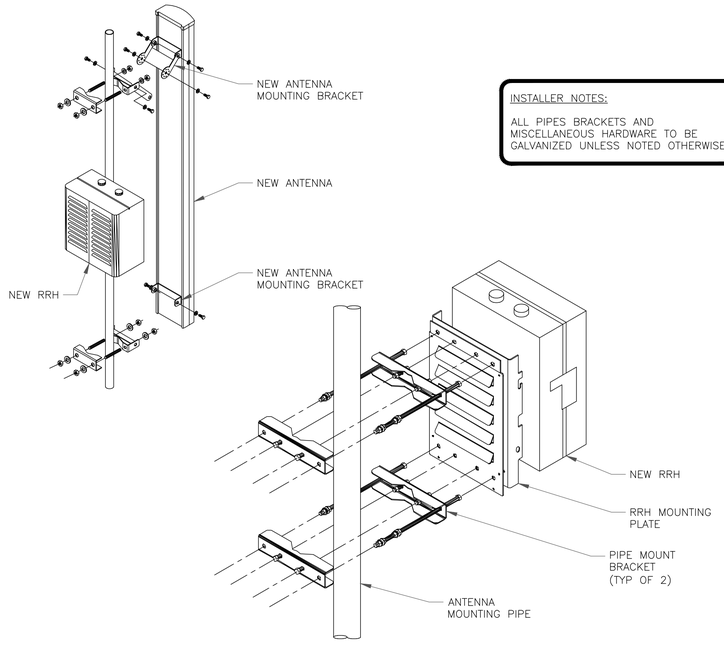
- BSAMNT–SBS–1–2 KIT CONTAINS (2) 627281 MOUNTING BRACKETS.
- TORQUE THE M10 BOLT ASSEMBLY TO 37 N.m. PER MANUFACTURE'S RECOMMENDATIONS.

1 COMMSCOPE – BSAMNT–SBS–1–2
SCALE: NOT TO SCALE

2 NOT USED
SCALE: NOT TO SCALE



3 NOKIA – FPKA BRACKET MOUNTING DETAIL
SCALE: NOT TO SCALE



INSTALLER NOTES:

ALL PIPES BRACKETS AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

4 ANTENNA & RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

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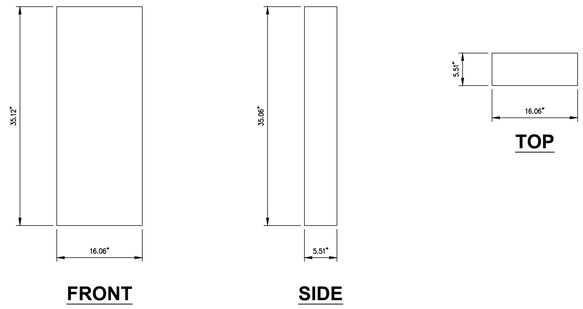
REVISION: 0

SAMSUNG PANEL ANTENNA (SUB6 ANTENNA – VZS01)

DIMENSIONS, HxWxD: 35.12"x16.06"x5.51"

WEIGHT, W/O BRACKETS: 87.10 lbs



1 SAMSUNG SUB6 ANTENNA – VZS01 ANTENNA DETAIL
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

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- Port 1 & 2 are for low band (698-787 MHz).
- Port 3 & 4 are for low band (824-894 MHz).
- Port 3,4,5, & 6 are for high band (1695-2360 MHz).
- Antenna Smart Bias Tee (SBT) is through port 1 for low band and port 5 for high band.
- AISG cable is only needed when drawn in the diagrams below, if it is not drawn then SBT is enough to control all RET motors.
- Not all SBT ports are needed to control RET, only green port connection to green port will control RET.

RET DC signal pass for RET (Port that will control RET)

Comments:

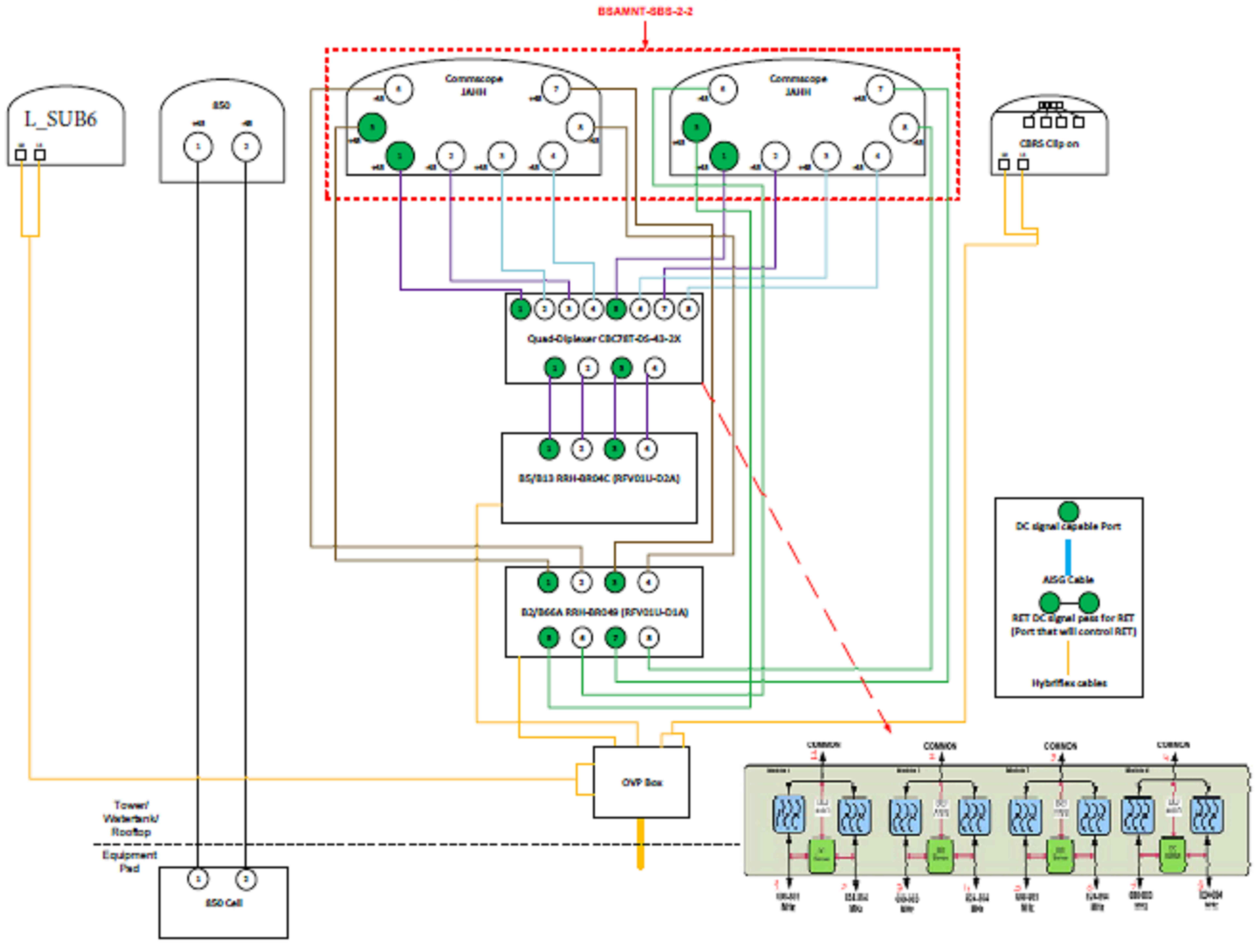
Diagram shows configuration as viewed from standing behind the antennas.

Antennas will be installed in that order from left to right.

Cap and weatherproof unused antenna ports.

All plumbing diagram colors are irrelevant except for AISG & Hybriflex cable. (For the coax colors follow Coax Colors guide above)

BSAMNT-SBS-2-2



1 PLUMBING DIAGRAM
SCALE: NOT TO SCALE

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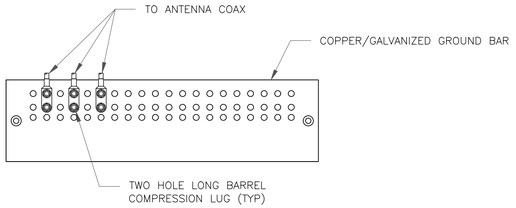


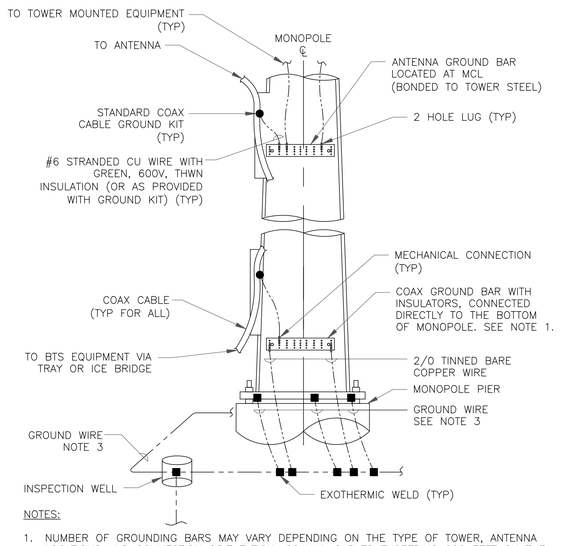
NOTES:

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

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

2 NOT USED
SCALE: NOT TO SCALE

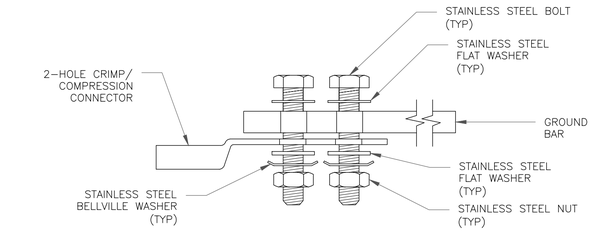
3 NOT USED
SCALE: NOT TO SCALE



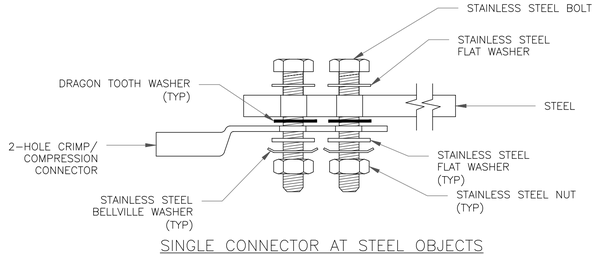
NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

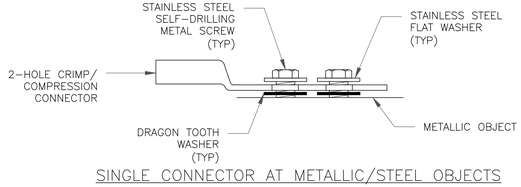
4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

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ISSUED FOR:

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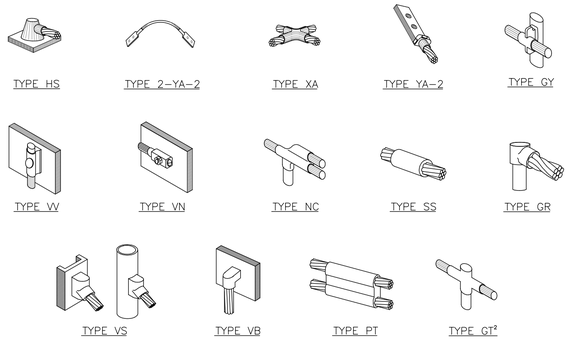
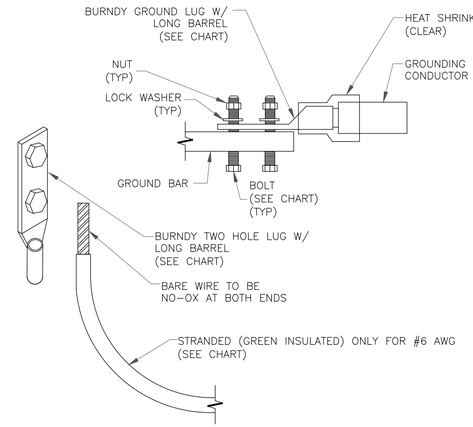


NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE

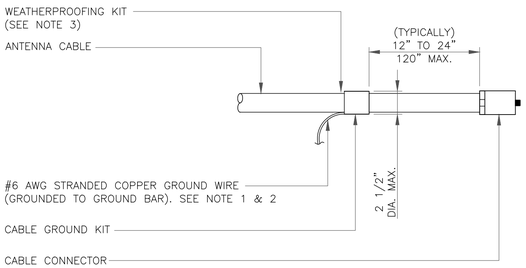
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" – 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" – 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" – 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" – 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" – 16 NC S 2 BOLT



NOTES:

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

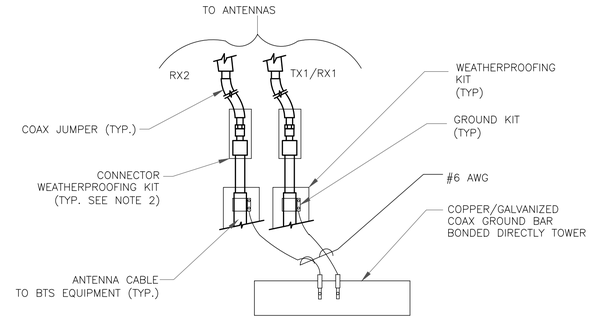
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



NOTES:

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

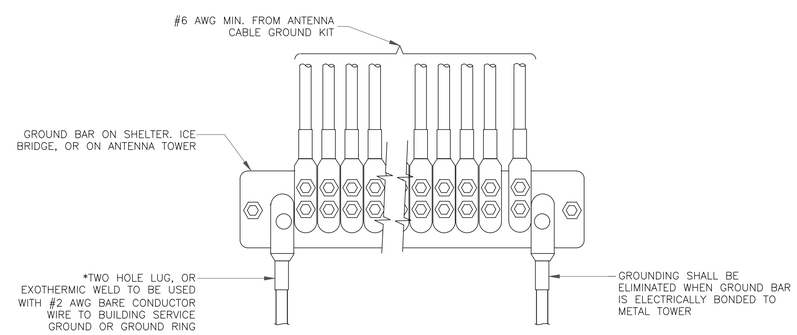
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



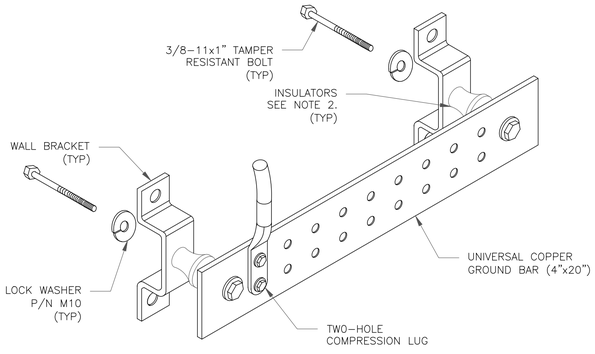
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



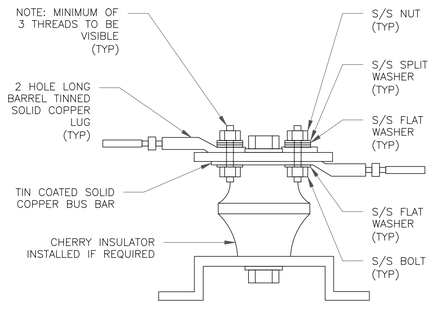
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



NOTES:

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

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

8 NOT USED
SCALE: NOT TO SCALE

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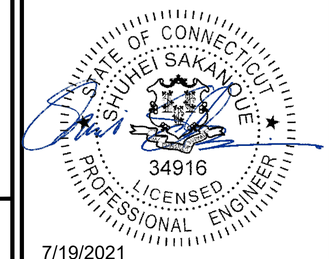


SHEET NUMBER: G-2
REVISION: 0

Exhibit D

Structural Analysis Report

Date: **May 14, 2021**

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Site Number:	468202
	Site Name:	Trumbull SW CT
Crown Castle Designation:	**BU Number:**	841288
	Site Name:	Bridgeport North
	JDE Job Number:	667189
	Work Order Number:	1962249
	Order Number:	568278 Rev. 0
Engineering Firm Designation:	**TEP Project Number:**	25567.543743
Site Data:	**205 Kaechele Place, Bridgeport, Fairfield County, CT 06606**	
	Latitude *41° 13' 24.04"*, Longitude *-73° 13' .38"*	
	150 Foot - Monopole Tower	

Tower Engineering Professionals 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 - 86.8%**

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.

Structural analysis prepared by: Gautam Sopal, E.I. / CLT

Respectfully submitted by:

Aaron T. Rucker, P.E.

Electronic Copy

05/14/2021

TABLE OF CONTENTS

1) INTRODUCTION

This is a 150-ft monopole tower mapped by GPD in April of 2008. The tower has been modified multiple times in the past 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:	1.0
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	Samsung Telecom.	CBRS w/ Mount Pipe	6 1	1-5/8 1-1/4
		6	Commscope	JAHH-65A-R3B w/ Mount Pipe		
		3	VZW	Sub6 Antenna - VZS01 w/ Mount Pipe		
		3	Antel	BXA-70063/4CF w/ Mount Pipe		
		3	Samsung Telecom.	RFV01U-D1A		
		3	Samsung Telecom.	RFV01U-D2A		
		1	RFS Celwave	DB-C1-12C-24AB-0Z		
	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)
152.0	154.0	3	Quintel Technology	QS66512-2	6 4 2	1-5/8 3/4 3/8
		3	CCI Antennas	HPA-65R-BUU-H6		
		3	CCI Antennas	DMP65R-BU6D		
		2	Raycap	DC6-48-60-18-8F		
		6	CCI Antennas	TPX-070821		
		3	Ericsson	RRUS 32 B2		
		3	Ericsson	RRUS 32 B30		
		3	Ericsson	RRUS 32 B66A		
		3	Ericsson	RRUS 4449 B5/B12		
	152.0	1	Site Pro 1	HRK12 Rail Support		
		1	Site Pro 1	RMQP-496 Mount		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
138.0	143.0	1	Andrew	VHLP2-23	1 3 2	1-5/8 1-1/4 1/2
		1	Andrew	VHLP2-18		
		2	Dragonwave	Horizon Compact		
		1	Clearwire	CW Junction Box		
	140.0	3	Commscope	NNVV-65B-R4 w/ Mount Pipe		
		3	Nokia	AAHC w/ Mount Pipe		
		6	Alcatel Lucent	RRH2X50-800		
		3	Alcatel Lucent	PCS 1900MHZ 4X45W-65MHZ		
	138.0	1	Tower Mounts	Platform Mount [LP 715-1]		
120.0	120.0	3	Ericsson	AIR -32 B2A/B66AA	9 1	1-5/8 1-1/2
		3	Ericsson	AIR 21 B2A/B4P		
		3	RFS Celwave	APXVAARR24_43-U-NA20		
		3	Ericsson	AIR6449 B41		
		3	Ericsson	KRY 112 144/1		
		3	Ericsson	Radio 4449 B71 B85A_T-Mobile		
		3	Ericsson	RRUS 4415 B25_CCIV2		
		1	Tower Mounts	Platform Mount [LP 301-1_KCKR]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	5110784	CCISites
Tower Foundation Mapping	5110783	CCISites
Tower Mapping	4710143	CCISites
Tower Reinforcement Drawings	4945043	CCISites
Tower Reinforcement Drawings	5237204	CCISites
Tower Reinforcement Drawings	5303781	CCISites
Post-Modification Inspection	5401472	CCISites
Post-Modification Inspection	5739992	CCISites
Tower Reinforcement Drawings	6650617	CCISites
Post-Modification Inspection	6894091	CCISites
Tower Reinforcement Drawings	6801057	CCISites
Post-Modification Inspection	7594134	CCISites
Tower Maintenance Drawings	9308609	CCISites

3.1) Analysis Method

tnxTower (version 8.0.9.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 Standard.

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

RISA-3D, a commercially available analysis software package, was used to model and analyze the foundation. Selected output from the analysis is included in Appendix C.

3.2) Assumptions

1) The tower and structures were maintained in accordance with the TIA-222 Standard.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2, and the referenced drawings.
3) The foundation steel reinforcement was assumed to be the minimum required per ACI 318.
4) The following material grades were assumed:
   a) Anchor bolts: ASTM A615-75
   b) Pole shaft: ASTM A572-50
   c) Base plate: ASTM A572-50
   d) #20 Dywidag Reinforcement: fy= 80 ksi, fu = 100 ksi
   e) Concrete compressive strength: f'c = 3 ksi
   f) Foundation flexural reinforcement: fy = 60 ksi
5) The existing rock anchors designed by GPD Group in April of 2013 (CCI Doc# 4945043) were assumed to be sufficiently embedded to develop their full tensile capacity.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)[1,2]

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP15.732x15x0.2188	Pole	22.3%	Pass
145 - 140	Pole	TP16.463x15.732x0.2188	Pole	33.5%	Pass
140 - 135	Pole	TP17.195x16.463x0.2188	Pole	50.7%	Pass
135 - 130	Pole	TP17.927x17.195x0.2188	Pole	66.8%	Pass
130 - 128.5	Pole	TP18.146x17.927x0.2188	Pole	71.2%	Pass
128.5 - 128.25	Pole + Reinf.	TP18.183x18.146x0.6688	Reinf. 10 Bolt-Shaft Bearing	43.1%	Pass
128.25 - 123.25	Pole + Reinf.	TP18.915x18.183x0.6438	Reinf. 10 Tension Rupture	43.7%	Pass
123.25 - 118.25	Pole + Reinf.	TP19.646x18.915x0.6188	Reinf. 10 Tension Rupture	52.8%	Pass
118.25 - 113.25	Pole + Reinf.	TP20.378x19.646x0.6063	Reinf. 10 Tension Rupture	63.3%	Pass
113.25 - 109	Pole + Reinf.	TP21x20.378x0.5938	Reinf. 10 Bolt-Shaft Bearing	86.8%	Pass
109 - 108.75	Pole + Reinf.	TP21.038x21x0.725	Reinf. 6 Tension Rupture	54.8%	Pass
108.75 - 104.17	Pole + Reinf.	TP21.729x21.038x0.7	Reinf. 6 Tension Rupture	61.6%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
104.17 - 103.92	Pole + Reinf.	TP21.767x21.729x0.975	Reinf. 6 Tension Rupture	55.0%	Pass
103.92 - 103.17	Pole + Reinf.	TP21.88x21.767x0.975	Reinf. 6 Tension Rupture	56.0%	Pass
103.17 - 102.92	Pole + Reinf.	TP21.918x21.88x1.125	Reinf. 6 Tension Rupture	45.5%	Pass
102.92 - 102.42	Pole + Reinf.	TP21.994x21.918x1.125	Reinf. 6 Tension Rupture	46.0%	Pass
102.42 - 102.17	Pole + Reinf.	TP22.031x21.994x0.95	Reinf. 6 Tension Rupture	50.5%	Pass
102.17 - 100.92	Pole + Reinf.	TP22.22x22.031x0.95	Reinf. 6 Tension Rupture	51.9%	Pass
100.92 - 100.67	Pole + Reinf.	TP22.258x22.22x1.025	Reinf. 6 Tension Rupture	51.0%	Pass
100.67 - 99.58	Pole + Reinf.	TP22.422x22.258x1	Reinf. 6 Tension Rupture	52.2%	Pass
99.58 - 99.33	Pole + Reinf.	TP22.46x22.422x1.4	Reinf. 14 Tension Rupture	37.9%	Pass
99.33 - 95.42	Pole + Reinf.	TP23.051x22.46x1.35	Reinf. 14 Tension Rupture	41.8%	Pass
95.42 - 95.17	Pole + Reinf.	TP23.088x23.051x1.05	Reinf. 15 Tension Rupture	51.6%	Pass
95.17 - 90.17	Pole + Reinf.	TP23.843x23.088x1	Reinf. 15 Tension Rupture	57.2%	Pass
90.17 - 85.17	Pole + Reinf.	TP24.598x23.843x0.975	Reinf. 15 Tension Rupture	62.5%	Pass
85.17 - 80.5	Pole + Reinf.	TP25.304x24.598x0.95	Reinf. 15 Tension Rupture	67.3%	Pass
80.5 - 80.25	Pole + Reinf.	TP25.341x25.304x1.3	Reinf. 5 Bolt-Shaft Bearing	58.3%	Pass
80.25 - 75.25	Pole + Reinf.	TP26.096x25.341x1.25	Reinf. 5 Tension Rupture	59.2%	Pass
75.25 - 73.58	Pole + Reinf.	TP26.348x26.096x1.25	Reinf. 5 Tension Rupture	60.6%	Pass
73.58 - 73.33	Pole + Reinf.	TP26.386x26.348x1.225	Reinf. 5 Tension Rupture	60.8%	Pass
73.33 - 72	Pole + Reinf.	TP27.04x26.386x1.225	Reinf. 5 Tension Rupture	61.9%	Pass
72 - 67	Pole + Reinf.	TP26.897x26.087x1.2875	Reinf. 5 Tension Rupture	63.6%	Pass
67 - 66.75	Pole + Reinf.	TP26.937x26.897x1.2875	Reinf. 5 Tension Rupture	63.8%	Pass
66.75 - 66.5	Pole + Reinf.	TP26.978x26.937x1.3625	Reinf. 13 Tension Rupture	56.4%	Pass
66.5 - 61.5	Pole + Reinf.	TP27.788x26.978x1.3125	Reinf. 13 Tension Rupture	59.4%	Pass
61.5 - 56.5	Pole + Reinf.	TP28.598x27.788x1.2875	Reinf. 13 Tension Rupture	62.3%	Pass
56.5 - 51.5	Pole + Reinf.	TP29.408x28.598x1.2375	Reinf. 13 Tension Rupture	65.1%	Pass
51.5 - 48.25	Pole + Reinf.	TP29.934x29.408x1.2125	Reinf. 13 Tension Rupture	66.9%	Pass
48.25 - 48	Pole + Reinf.	TP29.974x29.934x1.6125	Reinf. 1 Compression	53.6%	Pass
48 - 44.25	Pole + Reinf.	TP30.582x29.974x1.5625	Reinf. 1 Compression	55.2%	Pass
44.25 - 44	Pole + Reinf.	TP30.622x30.582x1.6625	Reinf. 1 Compression	52.1%	Pass
44 - 39	Pole + Reinf.	TP31.432x30.622x1.6125	Reinf. 1 Compression	54.0%	Pass
39 - 38.5	Pole + Reinf.	TP31.513x31.432x1.6125	Reinf. 1 Compression	54.2%	Pass
38.5 - 38.25	Pole + Reinf.	TP31.554x31.513x1.6125	Reinf. 1 Compression	54.3%	Pass
38.25 - 34	Pole + Reinf.	TP32.89x31.554x1.5625	Reinf. 1 Compression	55.9%	Pass
34 - 29	Pole + Reinf.	TP32.462x31.617x1.6813	Reinf. 1 Compression	55.5%	Pass
29 - 24	Pole + Reinf.	TP33.306x32.462x1.6313	Reinf. 1 Compression	57.0%	Pass
24 - 23.75	Pole + Reinf.	TP33.348x33.306x1.6313	Reinf. 1 Compression	57.0%	Pass
23.75 - 23.5	Pole + Reinf.	TP33.391x33.348x1.6063	Reinf. 1 Compression	57.1%	Pass
23.5 - 18.5	Pole + Reinf.	TP34.235x33.391x1.5813	Reinf. 1 Compression	58.6%	Pass
18.5 - 13.5	Pole + Reinf.	TP35.08x34.235x1.5313	Reinf. 12 Tension Rupture	60.0%	Pass
13.5 - 8.5	Pole + Reinf.	TP35.924x35.08x1.5063	Reinf. 12 Tension Rupture	61.4%	Pass
8.5 - 3.5	Pole + Reinf.	TP36.769x35.924x1.4563	Reinf. 12 Tension Rupture	62.8%	Pass
3.5 - 0	Pole + Reinf.	TP37.36x36.769x1.4313	Reinf. 12 Tension Rupture	63.8%	Pass
				Summary	

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
			Pole	71.2%	Pass
			Reinforcement	86.8%	Pass
			Overall	**86.8%**	**Pass**

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Flange Connection	109.0	53.4	Pass
1,2	Anchor Rods	-	71.5	Pass
1,2	Base Plate	-	51.4	Pass
1,2	Base Foundation Soil Interaction	-	33.4	Pass
1,2	Base Foundation Structural	-	29.1	Pass

Structure Rating (max from all components) =	**86.8%**

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

4.1) Recommendations

1) 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		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Length (ft)		5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.250	5.250	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	3.500
Number of Sides		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Thickness (in)		0.2188	0.2188	0.2188	0.2188	0.2188	0.2188	0.6406	0.6188	0.6062	0.5938	0.5812	0.5688	0.5562	0.5438	0.5312	0.5188	0.5062	0.4938	0.4812	0.4688	0.4562	0.4438	0.4312	0.4188	0.4062	0.3938	0.3812	0.3688	0.3562	0.3438	0.3312	0.3188	0.3062	0.2938	0.2812	0.2688	0.2562	0.2438	0.2312	0.2188	0.2062	0.1938	0.1812	0.1688	0.1562	0.1438	0.1312	0.1188	0.1062	0.0938	0.0812	0.0688	0.0562	0.4313
Socket Length (ft)																																																													
Top Dia (in)		15.0000	15.7317	16.4634	17.1951	17.9268	18.1829	18.9146	19.6463	20.3780	21.0000	21.7317	22.4634	23.1951	23.9268	24.5983	25.3035	26.0352	26.7669	27.4986	28.2303	28.9620	29.6937	30.4254	31.1571	31.8888	32.6205	33.3522	34.0839	34.8156	35.5473	36.2790	37.0107	37.7424	38.4741	39.2058

Tower Input Data

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

Tower is located in Fairfield County, Connecticut.
Tower base elevation above sea level: 241.000 ft.
Basic wind speed of 125 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.000 ft.
Nominal ice thickness of 1.5000 in.
Ice thickness is considered to increase with height.
Ice density of 56.00 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
Tower Rating: 86.8%.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.05.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Maximum demand-capacity ratio is: 1.
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	150.000-145.000	5.000	0.00	12	15.0000	15.7317	0.2188	0.8750	A572-50 (50 ksi)
L2	145.000-140.000	5.000	0.00	12	15.7317	16.4634	0.2188	0.8750	A572-50 (50 ksi)
L3	140.000-135.000	5.000	0.00	12	16.4634	17.1951	0.2188	0.8750	A572-50 (50 ksi)
L4	135.000-130.000	5.000	0.00	12	17.1951	17.9268	0.2188	0.8750	A572-50 (50 ksi)
L5	130.000-128.500	1.500	0.00	12	17.9268	18.1463	0.2188	0.8750	A572-50 (50 ksi)
L6	128.500-128.250	0.250	0.00	12	18.1463	18.1829	0.6687	2.6750	A572-50 (50 ksi)
L7	128.250-123.250	5.000	0.00	12	18.1829	18.9146	0.6438	2.5750	A572-50 (50 ksi)
L8	123.250-118.250	5.000	0.00	12	18.9146	19.6463	0.6188	2.4750	A572-50 (50 ksi)
L9	118.250-113.250	5.000	0.00	12	19.6463	20.3780	0.6062	2.4250	A572-50 (50 ksi)
L10	113.250-109.000	4.250	0.00	12	20.3780	21.0000	0.5938	2.3750	A572-50 (50 ksi)
L11	109.000-108.750	0.250	0.00	12	21.0000	21.0377	0.7250	2.9000	A572-50 (50 ksi)
L12	108.750-104.170	4.580	0.00	12	21.0377	21.7293	0.7000	2.8000	A572-50 (50 ksi)
L13	104.170-103.920	0.250	0.00	12	21.7293	21.7671	0.9750	3.9000	A572-50 (50 ksi)
L14	103.920-103.170	0.750	0.00	12	21.7671	21.8803	0.9750	3.9000	A572-50 (50 ksi)
L15	103.170-102.920	0.250	0.00	12	21.8803	21.9181	1.1250	4.5000	A572-50 (50 ksi)
L16	102.920-102.420	0.500	0.00	12	21.9181	21.9936	1.1250	4.5000	A572-50 (50 ksi)
L17	102.420-102.170	0.250	0.00	12	21.9936	22.0313	0.9500	3.8000	A572-50 (50 ksi)
L18	102.170-100.920	1.250	0.00	12	22.0313	22.2201	0.9500	3.8000	A572-50 (50 ksi)
L19	100.920-100.670	0.250	0.00	12	22.2201	22.2578	1.0250	4.1000	A572-50 (50 ksi)
L20	100.670-99.580	1.090	0.00	12	22.2578	22.4224	1.0000	4.0000	A572-50 (50 ksi)
L21	99.580-99.330	0.250	0.00	12	22.4224	22.4602	1.4000	5.6000	A572-50 (50 ksi)
L22	99.330-95.420	3.910	0.00	12	22.4602	23.0506	1.3500	5.4000	A572-50 (50 ksi)
L23	95.420-95.170	0.250	0.00	12	23.0506	23.0883	1.0500	4.2000	A572-50 (50 ksi)
L24	95.170-90.170	5.000	0.00	12	23.0883	23.8433	1.0000	4.0000	A572-50 (50 ksi)
L25	90.170-85.170	5.000	0.00	12	23.8433	24.5983	0.9750	3.9000	A572-50 (50 ksi)
L26	85.170-80.500	4.670	0.00	12	24.5983	25.3035	0.9500	3.8000	A572-50 (50 ksi)
L27	80.500-80.250	0.250	0.00	12	25.3035	25.3412	1.3000	5.2000	A572-50 (50 ksi)
L28	80.250-75.250	5.000	0.00	12	25.3412	26.0963	1.2500	5.0000	A572-50 (50 ksi)
L29	75.250-73.580	1.670	0.00	12	26.0963	26.3484	1.2500	5.0000	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
L30	73.580-73.330	0.250	0.00	12	26.3484	26.3862	1.2250	4.9000	A572-50 (50 ksi)
L31	73.330-69.000	4.330	3.00	12	26.3862	27.0400	1.2250	4.9000	A572-50 (50 ksi)
L32	69.000-67.000	5.000	0.00	12	26.0870	26.8969	1.2875	5.1500	A572-50 (50 ksi)
L33	67.000-66.750	0.250	0.00	12	26.8969	26.9374	1.2875	5.1500	A572-50 (50 ksi)
L34	66.750-66.500	0.250	0.00	12	26.9374	26.9779	1.3625	5.4500	A572-50 (50 ksi)
L35	66.500-61.500	5.000	0.00	12	26.9779	27.7877	1.3125	5.2500	A572-50 (50 ksi)
L36	61.500-56.500	5.000	0.00	12	27.7877	28.5976	1.2875	5.1500	A572-50 (50 ksi)
L37	56.500-51.500	5.000	0.00	12	28.5976	29.4075	1.2375	4.9500	A572-50 (50 ksi)
L38	51.500-48.250	3.250	0.00	12	29.4075	29.9339	1.2125	4.8500	A572-50 (50 ksi)
L39	48.250-48.000	0.250	0.00	12	29.9339	29.9744	1.6125	6.4500	A572-50 (50 ksi)
L40	48.000-44.250	3.750	0.00	12	29.9744	30.5818	1.5625	6.2500	A572-50 (50 ksi)
L41	44.250-44.000	0.250	0.00	12	30.5818	30.6223	1.6625	6.6500	A572-50 (50 ksi)
L42	44.000-39.000	5.000	0.00	12	30.6223	31.4322	1.6125	6.4500	A572-50 (50 ksi)
L43	39.000-38.500	0.500	0.00	12	31.4322	31.5132	1.6125	6.4500	A572-50 (50 ksi)
L44	38.500-38.250	0.250	0.00	12	31.5132	31.5537	1.6125	6.4500	A572-50 (50 ksi)
L45	38.250-30.000	8.250	4.00	12	31.5537	32.8900	1.5625	6.2500	A572-50 (50 ksi)
L46	30.000-29.000	5.000	0.00	12	31.6171	32.4616	1.6813	6.7252	A572-50 (50 ksi)
L47	29.000-24.000	5.000	0.00	12	32.4616	33.3062	1.6313	6.5252	A572-50 (50 ksi)
L48	24.000-23.750	0.250	0.00	12	33.3062	33.3484	1.6313	6.5252	A572-50 (50 ksi)
L49	23.750-23.500	0.250	0.00	12	33.3484	33.3906	1.6063	6.4252	A572-50 (50 ksi)
L50	23.500-18.500	5.000	0.00	12	33.3906	34.2352	1.5813	6.3252	A572-50 (50 ksi)
L51	18.500-13.500	5.000	0.00	12	34.2352	35.0797	1.5313	6.1252	A572-50 (50 ksi)
L52	13.500-8.500	5.000	0.00	12	35.0797	35.9243	1.5063	6.0252	A572-50 (50 ksi)
L53	8.500-3.500	5.000	0.00	12	35.9243	36.7688	1.4563	5.8252	A572-50 (50 ksi)
L54	3.500-0.000	3.500		12	36.7688	37.3600	1.4313	5.7252	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

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
	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
	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	22.1910	65.2767	3601.9713	7.4436	11.2753	319.4555	7298.5704	32.1272	3.2206	3.303
	22.3082	65.6323	3661.1500	7.4841	11.3340	323.0233	7418.4824	32.3022	3.2509	3.334
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	22.2944	75.3229	4156.7204	7.4439	11.3536	366.1159	8422.6426	37.0717	2.8590	2.541
	22.3726	75.5964	4202.1644	7.4710	11.3927	368.8479	8514.7244	37.2063	2.8793	2.559
L17	22.4343	64.3723	3638.5161	7.5336	11.3927	319.3733	7372.6201	31.6821	3.3483	3.525
	22.4734	64.4878	3658.1326	7.5471	11.4122	320.5450	7412.3685	31.7389	3.3584	3.535
L18	22.4734	64.4878	3658.1326	7.5471	11.4122	320.5450	7412.3685	31.7389	3.3584	3.535
	22.6688	65.0652	3757.2734	7.6147	11.5100	326.4355	7613.2545	32.0231	3.4090	3.588
L19	22.6423	69.9544	4011.1681	7.5878	11.5100	348.4941	8127.7141	34.4294	3.2080	3.13
	22.6814	70.0790	4032.6389	7.6014	11.5296	349.7653	8171.2197	34.4907	3.2181	3.14
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	22.7195	94.7691	5345.8649	7.5260	11.6148	460.2627	10832.1717	46.6425	2.2572	1.612
	22.7586	94.9392	5374.7154	7.5395	11.6344	461.9688	10890.6306	46.7262	2.2673	1.62
L22	22.7763	91.7659	5219.7630	7.5574	11.6344	448.6503	10576.6549	45.1644	2.4013	1.779
	23.3875	94.3324	5670.0856	7.7688	11.9402	474.8736	11489.1307	46.4275	2.5596	1.896
L23	23.4933	74.3840	4595.5078	7.8762	11.9402	384.8769	9311.7448	36.6095	3.3636	3.203
	23.5324	74.5116	4619.2043	7.8897	11.9598	386.2290	9359.7601	36.6723	3.3737	3.213
L24	23.5500	71.1244	4429.2528	7.9076	11.9598	370.3465	8974.8670	35.0053	3.5077	3.508
	24.3317	73.5555	4899.1424	8.1779	12.3508	396.6646	9926.9907	36.2018	3.7100	3.71
L25	24.3405	71.7951	4792.3639	8.1869	12.3508	388.0191	9710.6286	35.3354	3.7770	3.874
	25.1221	74.1654	5282.8683	8.4572	12.7419	414.6049	10704.5235	36.5020	3.9794	4.081
L26	25.1309	72.3402	5163.7696	8.4661	12.7419	405.2579	10463.1972	35.6037	4.0464	4.259
	25.8610	74.4974	5639.6166	8.7186	13.1072	430.2682	11427.3923	36.6653	4.2353	4.458
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	26.5759	100.0062	7880.1482	8.8950	13.5179	582.9436	15967.3167	49.2200	3.6438	2.915
	26.8369	101.0211	8122.5236	8.9852	13.6485	595.1229	16458.4350	49.7195	3.7114	2.969
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	26.8848	99.2482	8019.9268	9.0077	13.6680	586.7651	16250.5461	48.8470	3.7885	3.093
	27.5617	101.8273	8661.5237	9.2418	14.0067	618.3834	17550.5953	50.1163	3.9637	3.236
L32	27.0561	102.8125	8070.8232	8.8782	13.5131	597.2607	16353.6759	50.6012	3.5408	2.75

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
	27.3915	106.1701	8887.6369	9.1682	13.9326	637.9030	18008.7619	52.2537	3.7579	2.919
L33	27.3915	106.1701	8887.6369	9.1682	13.9326	637.9030	18008.7619	52.2537	3.7579	2.919
	27.4334	106.3380	8929.8635	9.1827	13.9536	639.9703	18094.3244	52.3363	3.7687	2.927
L34	27.4070	112.2034	9367.3963	9.1558	13.9536	671.3266	18980.8844	55.2231	3.5677	2.619
	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	28.3138	109.8634	9847.7944	9.4871	14.3941	684.1571	19954.3013	54.0714	3.9966	3.104
	29.1523	113.2210	10778.5517	9.7770	14.8136	727.6132	21840.2680	55.7239	4.2137	3.273
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	30.4211	147.0520	15055.2270	10.1391	15.5058	970.9430	30505.9716	72.3745	3.7008	2.295
	30.4630	147.2622	15119.8973	10.1536	15.5268	973.7964	30637.0112	72.4780	3.7116	2.302
L40	30.4806	142.9475	14728.6862	10.1715	15.5268	948.6005	29844.3114	70.3544	3.8456	2.461
	31.1095	146.0035	15693.6656	10.3889	15.8414	990.6746	31799.6214	71.8585	4.0084	2.565
L41	31.0742	154.8125	16526.0310	10.3531	15.8414	1043.2183	33486.2192	76.1940	3.7404	2.25
	31.1161	155.0292	16595.5494	10.3676	15.8624	1046.2214	33627.0824	76.3007	3.7513	2.256
L42	31.1337	150.6263	16179.9521	10.3855	15.8624	1020.0212	32784.9695	74.1337	3.8853	2.409
	31.9722	154.8314	17573.2451	10.6755	16.2819	1079.3126	35608.1589	76.2033	4.1023	2.544
L43	31.9722	154.8314	17573.2451	10.6755	16.2819	1079.3126	35608.1589	76.2033	4.1023	2.544
	32.0560	155.2519	17716.8170	10.7045	16.3238	1085.3340	35899.0745	76.4103	4.1240	2.558
L44	32.0560	155.2519	17716.8170	10.7045	16.3238	1085.3340	35899.0745	76.4103	4.1240	2.558
	32.0980	155.4622	17788.8953	10.7189	16.3448	1088.3510	36045.1246	76.5138	4.1349	2.564
L45	32.1156	150.8932	17323.8017	10.7368	16.3448	1059.8959	35102.7189	74.2650	4.2689	2.732
	33.4990	157.6165	19744.1783	11.2152	17.0370	1158.8986	40007.0581	77.5740	4.6270	2.961
L46	32.8388	162.0660	18537.8525	10.7170	16.3777	1131.8991	37562.7151	79.7639	3.9675	2.36
	33.0137	166.6382	20151.4951	11.0194	16.8151	1198.4145	40832.3924	82.0142	4.1938	2.494
L47	33.0313	161.9452	19647.6494	11.0373	16.8151	1168.4507	39811.4645	79.7045	4.3278	2.653
	33.9056	166.3814	21306.9260	11.3396	17.2526	1234.9977	43173.6088	81.8879	4.5542	2.792
L48	33.9056	166.3814	21306.9260	11.3396	17.2526	1234.9977	43173.6088	81.8879	4.5542	2.792
	33.9494	166.6032	21392.2549	11.3547	17.2745	1238.3735	43346.5082	81.9970	4.5655	2.799
L49	33.9582	164.1793	21114.2637	11.3637	17.2745	1222.2809	42783.2225	80.8040	4.6325	2.884
	34.0019	164.3977	21198.6417	11.3788	17.2964	1225.6135	42954.1952	80.9115	4.6438	2.891
L50	34.0107	161.9663	20917.9936	11.3877	17.2964	1209.3877	42385.5262	79.7149	4.7108	2.979
	34.8850	166.2666	22628.7534	11.6901	17.7338	1276.0221	45851.9894	81.8314	4.9371	3.122
L51	34.9027	161.2559	22014.0580	11.7080	17.7338	1241.3598	44606.4497	79.3652	5.0711	3.312
	35.7770	165.4201	23763.9521	12.0103	18.1713	1307.7739	48152.2097	81.4148	5.2975	3.459
L52	35.7858	162.8407	23428.2796	12.0193	18.1713	1289.3013	47472.0461	80.1453	5.3645	3.561
	36.6602	166.9370	25241.1539	12.3216	18.6088	1356.4114	51145.4210	82.1613	5.5908	3.712
L53	36.6778	161.6302	24509.8098	12.3395	18.6088	1317.1104	49663.5196	79.5495	5.7248	3.931
	37.5522	165.5905	26355.9556	12.6419	19.0462	1383.7873	53404.3116	81.4986	5.9512	4.086
L54	37.5610	162.8631	25958.5636	12.6508	19.0462	1362.9227	52599.0877	80.1562	6.0182	4.205
	38.1730	165.5877	27283.3066	12.8625	19.3525	1409.8093	55283.3761	81.4972	6.1766	4.315

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 150.000-145.000				1	1	1			
L2 145.000-140.000				1	1	1			
L3 140.000-135.000				1	1	1			
L4				1	1	1			

Tower Elevation ft	Gusset Area (per face) ft²	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
135.000-130.000									
L5				1	1	1			
130.000-128.500									
L6				1	1	0.866566			
128.500-128.250									
L7				1	1	0.876544			
128.250-123.250									
L8				1	1	0.889288			
123.250-118.250									
L9				1	1	0.886814			
118.250-113.250									
L10				1	1	0.88856			
113.250-109.000									
L11				1	1	0.880849			
109.000-108.750									
L12				1	1	0.892966			
108.750-104.170									
L13				1	1	0.971053			
104.170-103.920									
L14				1	1	0.967182			
103.920-103.170									
L15				1	1	0.899658			
103.170-102.920									
L16				1	1	0.897207			
102.920-102.420									
L17				1	1	0.955174			
102.420-102.170									
L18				1	1	0.949033			
102.170-100.920									
L19				1	1	0.970881			
100.920-100.670									
L20				1	1	0.988267			
100.670-99.580									
L21				1	1	0.829123			
99.580-99.330									
L22				1	1	0.839495			
99.330-95.420									
L23				1	1	0.811217			
95.420-95.170									
L24				1	1	0.830024			
95.170-90.170									
L25				1	1	0.831393			

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
90.170-85.170									
L26				1	1	0.835309			
85.170-80.500									
L27				1	1	0.817668			
80.500-80.250									
L28				1	1	0.8289			
80.250-75.250									
L29				1	1	0.822581			
75.250-73.580									
L30				1	1	0.837582			
73.580-73.330									
L31				1	1	0.832565			
73.330-69.000									
L32				1	1	0.836765			
69.000-67.000									
L33				1	1	0.835827			
67.000-66.750									
L34				1	1	0.8358			
66.750-66.500									
L35				1	1	0.846744			
66.500-61.500									
L36				1	1	0.843995			
61.500-56.500									
L37				1	1	0.858553			
56.500-51.500									
L38				1	1	0.864155			
51.500-48.250									
L39				1	1	0.791829			
48.250-48.000									
L40				1	1	0.802841			
48.000-44.250									
L41				1	1	0.804811			
44.250-44.000									
L42				1	1	0.811102			
44.000-39.000									
L43				1	1	0.80943			
39.000-38.500									
L44				1	1	0.808598			
38.500-38.250									
L45				1	1	0.818876			
38.250-30.000									
L46				1	1	0.817385			
30.000-29.000									
L47				1	1	0.825287			
29.000-24.000									
L48				1	1	0.82452			
24.000-23.750									
L49				1	1	0.835917			
23.750-23.500									
L50				1	1	0.833167			
23.500-18.500									
L51				1	1	0.844109			
18.500-13.500									
L52				1	1	0.843058			
13.500-8.500									
L53				1	1	0.856586			
8.500-3.500									
L54				1	1	0.861271			
3.500-0.000									

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
**										
Safety Line 3/8	A	No	Surface Ar (CaAa)	150.000 - 0.000	1	1	-0.250 -0.250	0.3750		0.22
HB114-21U3M12-XXX F(1-1/4)	B	No	Surface Ar (CaAa)	138.000 - 0.000	3	3	0.250 0.250	1.5400		1.22
HB158-21U6S12-60M-01(1-5/8)	B	No	Surface Ar (CaAa)	138.000 - 0.000	1	1	0.250 0.250	1.9900		1.90
***										
AL7-50(1-5/8)	B	No	Surface Ar (CaAa)	120.000 - 0.000	10	5	0.500 0.500	1.9600		0.52
HB114-U6S12-XXX-LI(1-1/4)	B	No	Surface Ar (CaAa)	99.000 - 0.000	1	1	0.000 0.000	1.5400		1.70
LDF7-50A(1-5/8)	B	No	Surface Ar (CaAa)	99.000 - 0.000	3	2	0.000 0.000	1.9800		0.82
***										
#20 Bar	A	No	Surface Ar (CaAa)	51.000 - 0.000	1	1	0.000 0.000	2.5000		0.00
#20 Bar	B	No	Surface Ar (CaAa)	51.000 - 0.000	1	1	-0.250 -0.250	2.5000		0.00
#20 Bar	B	No	Surface Ar (CaAa)	51.000 - 0.000	1	1	0.500 0.500	2.5000		0.00
#20 Bar	C	No	Surface Ar (CaAa)	51.000 - 0.000	1	1	0.250 0.250	2.5000		0.00
***										
(Area) CCI-65FP-065125 (H)	A	No	Surface Af (CaAa)	47.000 - 0.000	1	1	0.250 0.250	6.5000	15.5000	0.00
(Area) CCI-65FP-065125 (H)	B	No	Surface Af (CaAa)	47.000 - 0.000	1	1	0.000 0.000	6.5000	15.5000	0.00
(Area) CCI-65FP-065125 (H)	C	No	Surface Af (CaAa)	47.000 - 0.000	1	1	-0.250 -0.250	6.5000	15.5000	0.00
(Area) CCI-65FP-065125 (H)	C	No	Surface Af (CaAa)	47.000 - 0.000	1	1	0.500 0.500	6.5000	15.5000	0.00
***										
PL 1.25x5	A	No	Surface Af (CaAa)	69.000 - 47.000	1	1	0.250 0.250	5.0000	12.5000	0.00
PL 1.25x5	B	No	Surface Af (CaAa)	69.000 - 47.000	1	1	0.000 0.000	5.0000	12.5000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	69.000 - 47.000	1	1	-0.250 -0.250	5.0000	12.5000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	69.000 - 47.000	1	1	0.500 0.500	5.0000	12.5000	0.00
***										
PL 1.25x4	A	No	Surface Af (CaAa)	82.000 - 66.500	1	1	0.000 0.000	4.0000	10.5000	0.00
PL 1.25x4	B	No	Surface Af (CaAa)	82.000 - 66.500	1	1	-0.250 -0.250	4.0000	10.5000	0.00
PL 1.25x4	B	No	Surface Af (CaAa)	82.000 - 66.500	1	1	0.500 0.500	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	82.000 - 66.500	1	1	0.250 0.250	4.0000	10.5000	0.00
***										
PL 1.25x5	C	No	Surface Af (CaAa)	109.000 - 93.170	1	1	-0.250 -0.250	5.0000	12.5000	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
PL 1.25x5	C	No	Surface Af (CaAa)	109.000 - 93.170	1	1	0.500 0.500	5.0000	12.5000	0.00
PL 1.25x5	B	No	Surface Af (CaAa)	103.170 - 93.170	1	1	-0.250 -0.250	5.0000	12.5000	0.00
PL 1.25x5	B	No	Surface Af (CaAa)	109.000 - 100.170	1	1	0.000 0.000	5.0000	12.5000	0.00
PL 1.25x5	A	No	Surface Af (CaAa)	109.000 - 100.170	1	1	0.250 0.250	5.0000	12.5000	0.00
***										
PL 1.25x4	A	No	Surface Af (CaAa)	130.000 - 109.000	1	1	0.250 0.250	4.0000	10.5000	0.00
PL 1.25x4	B	No	Surface Af (CaAa)	130.000 - 109.000	1	1	0.000 0.000	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	130.000 - 109.000	1	1	-0.250 -0.250	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	130.000 - 109.000	1	1	0.500 0.500	4.0000	10.5000	0.00
***										
PL 2x6	A	No	Surface Af (CaAa)	108.670 - 0.000	1	1	-0.250 -0.250	6.0000	16.0000	0.00
PL 2x6	C	No	Surface Af (CaAa)	106.000 - 0.000	1	1	0.000 0.000	6.0000	16.0000	0.00
PL 2x6	B	No	Surface Af (CaAa)	108.670 - 0.000	1	1	0.250 0.250	6.0000	16.0000	0.00
PL 2x6	A	No	Surface Af (CaAa)	107.750 - 0.000	1	1	0.500 0.500	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 ft^2/ft	Weight plf
**									
FXL-1873(1-5/8)	C	No	No	Inside Pole	150.000 - 0.000	6	No Ice	0.000	0.67
							1/2" Ice	0.000	0.67
							1" Ice	0.000	0.67
							2" Ice	0.000	0.67
FB-L98B-034-XXX XXX(3/8)	C	No	No	Inside Pole	150.000 - 0.000	2	No Ice	0.000	0.05
							1/2" Ice	0.000	0.05
							1" Ice	0.000	0.05
							2" Ice	0.000	0.05
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	150.000 - 0.000	4	No Ice	0.000	0.58
							1/2" Ice	0.000	0.58
							1" Ice	0.000	0.58
							2" Ice	0.000	0.58
2" Flexible Conduit	C	No	No	Inside Pole	150.000 - 0.000	2	No Ice	0.000	0.34
							1/2" Ice	0.000	0.34
							1" Ice	0.000	0.34
							2" Ice	0.000	0.34
***									
EC4-50(1/2)	B	No	No	Inside Pole	138.000 - 0.000	2	No Ice	0.000	0.16
							1/2" Ice	0.000	0.16
							1" Ice	0.000	0.16
							2" Ice	0.000	0.16
***									
LDF7-50A(1-5/8)	B	No	No	Inside Pole	99.000 - 0.000	3	No Ice	0.000	0.82

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
							1/2" Ice	0.000	0.82
							1" Ice	0.000	0.82
							2" Ice	0.000	0.82

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.000-145.000	A	0.000	0.000	0.188	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L2	145.000-140.000	A	0.000	0.000	0.188	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L3	140.000-135.000	A	0.000	0.000	0.188	0.000	0.00
		B	0.000	0.000	1.983	0.000	0.02
		C	0.000	0.000	0.000	0.000	0.04
L4	135.000-130.000	A	0.000	0.000	0.188	0.000	0.00
		B	0.000	0.000	3.305	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.04
L5	130.000-128.500	A	0.000	0.000	1.056	0.000	0.00
		B	0.000	0.000	1.992	0.000	0.01
		C	0.000	0.000	2.000	0.000	0.01
L6	128.500-128.250	A	0.000	0.000	0.176	0.000	0.00
		B	0.000	0.000	0.332	0.000	0.00
		C	0.000	0.000	0.333	0.000	0.00
L7	128.250-123.250	A	0.000	0.000	3.521	0.000	0.00
		B	0.000	0.000	6.638	0.000	0.03
		C	0.000	0.000	6.667	0.000	0.04
L8	123.250-118.250	A	0.000	0.000	3.521	0.000	0.00
		B	0.000	0.000	8.353	0.000	0.04
		C	0.000	0.000	6.667	0.000	0.04
L9	118.250-113.250	A	0.000	0.000	3.521	0.000	0.00
		B	0.000	0.000	11.538	0.000	0.06
		C	0.000	0.000	6.667	0.000	0.04
L10	113.250-109.000	A	0.000	0.000	2.993	0.000	0.00
		B	0.000	0.000	9.808	0.000	0.05
		C	0.000	0.000	5.667	0.000	0.03
L11	109.000-108.750	A	0.000	0.000	0.202	0.000	0.00
		B	0.000	0.000	0.603	0.000	0.00
		C	0.000	0.000	0.417	0.000	0.00
L12	108.750-104.170	A	0.000	0.000	11.786	0.000	0.00
		B	0.000	0.000	15.550	0.000	0.05
		C	0.000	0.000	9.463	0.000	0.03
L13	104.170-103.920	A	0.000	0.000	0.702	0.000	0.00
		B	0.000	0.000	0.853	0.000	0.00
		C	0.000	0.000	0.667	0.000	0.00
L14	103.920-103.170	A	0.000	0.000	2.107	0.000	0.00
		B	0.000	0.000	2.559	0.000	0.01
		C	0.000	0.000	2.000	0.000	0.01
L15	103.170-102.920	A	0.000	0.000	0.702	0.000	0.00
		B	0.000	0.000	1.056	0.000	0.00
		C	0.000	0.000	0.667	0.000	0.00

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L16	102.920-102.420	A	0.000	0.000	1.405	0.000	0.00
		B	0.000	0.000	2.111	0.000	0.01
		C	0.000	0.000	1.333	0.000	0.00
L17	102.420-102.170	A	0.000	0.000	0.702	0.000	0.00
		B	0.000	0.000	1.056	0.000	0.00
		C	0.000	0.000	0.667	0.000	0.00
L18	102.170-100.920	A	0.000	0.000	3.511	0.000	0.00
		B	0.000	0.000	5.278	0.000	0.01
		C	0.000	0.000	3.333	0.000	0.01
L19	100.920-100.670	A	0.000	0.000	0.702	0.000	0.00
		B	0.000	0.000	1.056	0.000	0.00
		C	0.000	0.000	0.667	0.000	0.00
L20	100.670-99.580	A	0.000	0.000	2.607	0.000	0.00
		B	0.000	0.000	4.147	0.000	0.01
		C	0.000	0.000	2.907	0.000	0.01
L21	99.580-99.330	A	0.000	0.000	0.509	0.000	0.00
		B	0.000	0.000	0.863	0.000	0.00
		C	0.000	0.000	0.667	0.000	0.00
L22	99.330-95.420	A	0.000	0.000	7.967	0.000	0.00
		B	0.000	0.000	15.460	0.000	0.07
		C	0.000	0.000	10.427	0.000	0.03
L23	95.420-95.170	A	0.000	0.000	0.509	0.000	0.00
		B	0.000	0.000	1.000	0.000	0.00
		C	0.000	0.000	0.667	0.000	0.00
L24	95.170-90.170	A	0.000	0.000	10.188	0.000	0.00
		B	0.000	0.000	17.574	0.000	0.09
		C	0.000	0.000	8.333	0.000	0.04
L25	90.170-85.170	A	0.000	0.000	10.188	0.000	0.00
		B	0.000	0.000	15.955	0.000	0.09
		C	0.000	0.000	5.000	0.000	0.04
L26	85.170-80.500	A	0.000	0.000	10.515	0.000	0.00
		B	0.000	0.000	16.902	0.000	0.08
		C	0.000	0.000	5.670	0.000	0.03
L27	80.500-80.250	A	0.000	0.000	0.676	0.000	0.00
		B	0.000	0.000	1.131	0.000	0.00
		C	0.000	0.000	0.417	0.000	0.00
L28	80.250-75.250	A	0.000	0.000	13.521	0.000	0.00
		B	0.000	0.000	22.622	0.000	0.09
		C	0.000	0.000	8.333	0.000	0.04
L29	75.250-73.580	A	0.000	0.000	4.516	0.000	0.00
		B	0.000	0.000	7.556	0.000	0.03
		C	0.000	0.000	2.783	0.000	0.01
L30	73.580-73.330	A	0.000	0.000	0.676	0.000	0.00
		B	0.000	0.000	1.131	0.000	0.00
		C	0.000	0.000	0.417	0.000	0.00
L31	73.330-69.000	A	0.000	0.000	11.709	0.000	0.00
		B	0.000	0.000	19.590	0.000	0.08
		C	0.000	0.000	7.217	0.000	0.03
L32	69.000-67.000	A	0.000	0.000	7.075	0.000	0.00
		B	0.000	0.000	10.715	0.000	0.04
		C	0.000	0.000	6.667	0.000	0.01
L33	67.000-66.750	A	0.000	0.000	0.884	0.000	0.00
		B	0.000	0.000	1.339	0.000	0.00
		C	0.000	0.000	0.833	0.000	0.00
L34	66.750-66.500	A	0.000	0.000	0.884	0.000	0.00
		B	0.000	0.000	1.339	0.000	0.00
		C	0.000	0.000	0.833	0.000	0.00
L35	66.500-61.500	A	0.000	0.000	14.354	0.000	0.00
		B	0.000	0.000	20.122	0.000	0.09
		C	0.000	0.000	13.333	0.000	0.04
L36	61.500-56.500	A	0.000	0.000	14.354	0.000	0.00

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	20.122	0.000	0.09
		C	0.000	0.000	13.333	0.000	0.04
L37	56.500-51.500	A	0.000	0.000	14.354	0.000	0.00
		B	0.000	0.000	20.122	0.000	0.09
		C	0.000	0.000	13.333	0.000	0.04
L38	51.500-48.250	A	0.000	0.000	10.018	0.000	0.00
		B	0.000	0.000	14.454	0.000	0.06
		C	0.000	0.000	9.354	0.000	0.02
L39	48.250-48.000	A	0.000	0.000	0.780	0.000	0.00
		B	0.000	0.000	1.131	0.000	0.00
		C	0.000	0.000	0.729	0.000	0.00
L40	48.000-44.250	A	0.000	0.000	12.391	0.000	0.00
		B	0.000	0.000	17.654	0.000	0.07
		C	0.000	0.000	12.313	0.000	0.03
L41	44.250-44.000	A	0.000	0.000	0.843	0.000	0.00
		B	0.000	0.000	1.194	0.000	0.00
		C	0.000	0.000	0.854	0.000	0.00
L42	44.000-39.000	A	0.000	0.000	16.854	0.000	0.00
		B	0.000	0.000	23.872	0.000	0.09
		C	0.000	0.000	17.083	0.000	0.04
L43	39.000-38.500	A	0.000	0.000	1.685	0.000	0.00
		B	0.000	0.000	2.387	0.000	0.01
		C	0.000	0.000	1.708	0.000	0.00
L44	38.500-38.250	A	0.000	0.000	0.843	0.000	0.00
		B	0.000	0.000	1.194	0.000	0.00
		C	0.000	0.000	0.854	0.000	0.00
L45	38.250-30.000	A	0.000	0.000	27.809	0.000	0.00
		B	0.000	0.000	39.388	0.000	0.15
		C	0.000	0.000	28.188	0.000	0.06
L46	30.000-29.000	A	0.000	0.000	3.371	0.000	0.00
		B	0.000	0.000	4.774	0.000	0.02
		C	0.000	0.000	3.417	0.000	0.01
L47	29.000-24.000	A	0.000	0.000	16.854	0.000	0.00
		B	0.000	0.000	23.872	0.000	0.09
		C	0.000	0.000	17.083	0.000	0.04
L48	24.000-23.750	A	0.000	0.000	0.843	0.000	0.00
		B	0.000	0.000	1.194	0.000	0.00
		C	0.000	0.000	0.854	0.000	0.00
L49	23.750-23.500	A	0.000	0.000	0.843	0.000	0.00
		B	0.000	0.000	1.194	0.000	0.00
		C	0.000	0.000	0.854	0.000	0.00
L50	23.500-18.500	A	0.000	0.000	16.854	0.000	0.00
		B	0.000	0.000	23.872	0.000	0.09
		C	0.000	0.000	17.083	0.000	0.04
L51	18.500-13.500	A	0.000	0.000	16.854	0.000	0.00
		B	0.000	0.000	23.872	0.000	0.09
		C	0.000	0.000	17.083	0.000	0.04
L52	13.500-8.500	A	0.000	0.000	16.854	0.000	0.00
		B	0.000	0.000	23.872	0.000	0.09
		C	0.000	0.000	17.083	0.000	0.04
L53	8.500-3.500	A	0.000	0.000	16.854	0.000	0.00
		B	0.000	0.000	23.872	0.000	0.09
		C	0.000	0.000	17.083	0.000	0.04
L54	3.500-0.000	A	0.000	0.000	11.798	0.000	0.00
		B	0.000	0.000	16.710	0.000	0.06
		C	0.000	0.000	11.958	0.000	0.02

Feed Line/Linear Appurtenances Section Areas - With Ice

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
L1	150.000-145.000	A	1.481	0.000	0.000	1.668	0.000	0.02
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04
L2	145.000-140.000	A	1.476	0.000	0.000	1.663	0.000	0.02
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04
L3	140.000-135.000	A	1.471	0.000	0.000	1.658	0.000	0.02
		B		0.000	0.000	4.315	0.000	0.06
		C		0.000	0.000	0.000	0.000	0.04
L4	135.000-130.000	A	1.465	0.000	0.000	1.653	0.000	0.02
		B		0.000	0.000	7.179	0.000	0.11
		C		0.000	0.000	0.000	0.000	0.04
L5	130.000-128.500	A	1.462	0.000	0.000	1.933	0.000	0.02
		B		0.000	0.000	3.590	0.000	0.05
		C		0.000	0.000	2.877	0.000	0.04
L6	128.500-128.250	A	1.461	0.000	0.000	0.322	0.000	0.00
		B		0.000	0.000	0.598	0.000	0.01
		C		0.000	0.000	0.479	0.000	0.01
L7	128.250-123.250	A	1.457	0.000	0.000	6.436	0.000	0.06
		B		0.000	0.000	11.953	0.000	0.15
		C		0.000	0.000	9.582	0.000	0.13
L8	123.250-118.250	A	1.452	0.000	0.000	6.424	0.000	0.06
		B		0.000	0.000	14.712	0.000	0.20
		C		0.000	0.000	9.570	0.000	0.13
L9	118.250-113.250	A	1.445	0.000	0.000	6.412	0.000	0.06
		B		0.000	0.000	19.845	0.000	0.28
		C		0.000	0.000	9.558	0.000	0.13
L10	113.250-109.000	A	1.440	0.000	0.000	5.440	0.000	0.05
		B		0.000	0.000	16.846	0.000	0.23
		C		0.000	0.000	8.114	0.000	0.11
L11	109.000-108.750	A	1.437	0.000	0.000	0.312	0.000	0.00
		B		0.000	0.000	0.983	0.000	0.01
		C		0.000	0.000	0.558	0.000	0.01
L12	108.750-104.170	A	1.433	0.000	0.000	16.114	0.000	0.16
		B		0.000	0.000	23.785	0.000	0.31
		C		0.000	0.000	12.567	0.000	0.15
L13	104.170-103.920	A	1.430	0.000	0.000	0.955	0.000	0.01
		B		0.000	0.000	1.303	0.000	0.02
		C		0.000	0.000	0.879	0.000	0.01
L14	103.920-103.170	A	1.429	0.000	0.000	2.864	0.000	0.03
		B		0.000	0.000	3.909	0.000	0.05
		C		0.000	0.000	2.636	0.000	0.03
L15	103.170-102.920	A	1.429	0.000	0.000	0.955	0.000	0.01
		B		0.000	0.000	1.543	0.000	0.02
		C		0.000	0.000	0.879	0.000	0.01
L16	102.920-102.420	A	1.428	0.000	0.000	1.909	0.000	0.02
		B		0.000	0.000	3.086	0.000	0.04
		C		0.000	0.000	1.757	0.000	0.02
L17	102.420-102.170	A	1.428	0.000	0.000	0.954	0.000	0.01
		B		0.000	0.000	1.543	0.000	0.02
		C		0.000	0.000	0.878	0.000	0.01
L18	102.170-100.920	A	1.427	0.000	0.000	4.771	0.000	0.05
		B		0.000	0.000	7.712	0.000	0.10
		C		0.000	0.000	4.391	0.000	0.05
L19	100.920-100.670	A	1.426	0.000	0.000	0.954	0.000	0.01
		B		0.000	0.000	1.542	0.000	0.02
		C		0.000	0.000	0.878	0.000	0.01
L20	100.670-99.580	A	1.425	0.000	0.000	3.614	0.000	0.03
		B		0.000	0.000	6.177	0.000	0.08
		C		0.000	0.000	3.828	0.000	0.04

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
L21	99.580-99.330	A	1.424	0.000	0.000	0.723	0.000	0.01
		B		0.000	0.000	1.311	0.000	0.02
		C		0.000	0.000	0.878	0.000	0.01
L22	99.330-95.420	A	1.421	0.000	0.000	11.300	0.000	0.11
		B		0.000	0.000	25.100	0.000	0.34
		C		0.000	0.000	13.723	0.000	0.15
L23	95.420-95.170	A	1.418	0.000	0.000	0.722	0.000	0.01
		B		0.000	0.000	1.631	0.000	0.02
		C		0.000	0.000	0.877	0.000	0.01
L24	95.170-90.170	A	1.414	0.000	0.000	14.428	0.000	0.13
		B		0.000	0.000	29.713	0.000	0.42
		C		0.000	0.000	10.860	0.000	0.13
L25	90.170-85.170	A	1.406	0.000	0.000	14.405	0.000	0.13
		B		0.000	0.000	27.742	0.000	0.39
		C		0.000	0.000	6.406	0.000	0.09
L26	85.170-80.500	A	1.398	0.000	0.000	14.851	0.000	0.14
		B		0.000	0.000	28.700	0.000	0.39
		C		0.000	0.000	7.395	0.000	0.10
L27	80.500-80.250	A	1.394	0.000	0.000	0.955	0.000	0.01
		B		0.000	0.000	1.856	0.000	0.02
		C		0.000	0.000	0.556	0.000	0.01
L28	80.250-75.250	A	1.389	0.000	0.000	19.077	0.000	0.17
		B		0.000	0.000	37.073	0.000	0.47
		C		0.000	0.000	11.111	0.000	0.14
L29	75.250-73.580	A	1.383	0.000	0.000	6.364	0.000	0.06
		B		0.000	0.000	12.365	0.000	0.16
		C		0.000	0.000	3.707	0.000	0.05
L30	73.580-73.330	A	1.381	0.000	0.000	0.952	0.000	0.01
		B		0.000	0.000	1.850	0.000	0.02
		C		0.000	0.000	0.555	0.000	0.01
L31	73.330-69.000	A	1.377	0.000	0.000	16.478	0.000	0.15
		B		0.000	0.000	32.013	0.000	0.41
		C		0.000	0.000	9.601	0.000	0.12
L32	69.000-67.000	A	1.371	0.000	0.000	9.829	0.000	0.09
		B		0.000	0.000	17.004	0.000	0.21
		C		0.000	0.000	8.870	0.000	0.09
L33	67.000-66.750	A	1.368	0.000	0.000	1.226	0.000	0.01
		B		0.000	0.000	2.121	0.000	0.03
		C		0.000	0.000	1.107	0.000	0.01
L34	66.750-66.500	A	1.368	0.000	0.000	1.226	0.000	0.01
		B		0.000	0.000	2.121	0.000	0.03
		C		0.000	0.000	1.107	0.000	0.01
L35	66.500-61.500	A	1.362	0.000	0.000	19.803	0.000	0.17
		B		0.000	0.000	32.977	0.000	0.43
		C		0.000	0.000	17.420	0.000	0.19
L36	61.500-56.500	A	1.351	0.000	0.000	19.759	0.000	0.17
		B		0.000	0.000	32.891	0.000	0.43
		C		0.000	0.000	17.387	0.000	0.18
L37	56.500-51.500	A	1.339	0.000	0.000	19.712	0.000	0.17
		B		0.000	0.000	32.799	0.000	0.42
		C		0.000	0.000	17.351	0.000	0.18
L38	51.500-48.250	A	1.329	0.000	0.000	14.203	0.000	0.13
		B		0.000	0.000	24.103	0.000	0.31
		C		0.000	0.000	12.676	0.000	0.13
L39	48.250-48.000	A	1.324	0.000	0.000	1.111	0.000	0.01
		B		0.000	0.000	1.891	0.000	0.02
		C		0.000	0.000	0.994	0.000	0.01
L40	48.000-44.250	A	1.318	0.000	0.000	17.335	0.000	0.15
		B		0.000	0.000	29.018	0.000	0.36
		C		0.000	0.000	16.268	0.000	0.17
L41	44.250-44.000	A	1.313	0.000	0.000	1.171	0.000	0.01

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
		B		0.000	0.000	1.948	0.000	0.02
		C		0.000	0.000	1.117	0.000	0.01
L42	44.000-39.000	A	1.305	0.000	0.000	23.377	0.000	0.20
		B		0.000	0.000	38.888	0.000	0.48
		C		0.000	0.000	22.301	0.000	0.22
L43	39.000-38.500	A	1.296	0.000	0.000	2.333	0.000	0.02
		B		0.000	0.000	3.880	0.000	0.05
		C		0.000	0.000	2.227	0.000	0.02
L44	38.500-38.250	A	1.294	0.000	0.000	1.166	0.000	0.01
		B		0.000	0.000	1.939	0.000	0.02
		C		0.000	0.000	1.113	0.000	0.01
L45	38.250-30.000	A	1.279	0.000	0.000	38.363	0.000	0.33
		B		0.000	0.000	63.758	0.000	0.78
		C		0.000	0.000	36.630	0.000	0.36
L46	30.000-29.000	A	1.261	0.000	0.000	4.650	0.000	0.04
		B		0.000	0.000	7.728	0.000	0.09
		C		0.000	0.000	4.440	0.000	0.04
L47	29.000-24.000	A	1.247	0.000	0.000	23.091	0.000	0.19
		B		0.000	0.000	38.330	0.000	0.46
		C		0.000	0.000	22.072	0.000	0.21
L48	24.000-23.750	A	1.234	0.000	0.000	1.151	0.000	0.01
		B		0.000	0.000	1.910	0.000	0.02
		C		0.000	0.000	1.101	0.000	0.01
L49	23.750-23.500	A	1.233	0.000	0.000	1.151	0.000	0.01
		B		0.000	0.000	1.910	0.000	0.02
		C		0.000	0.000	1.101	0.000	0.01
L50	23.500-18.500	A	1.219	0.000	0.000	22.947	0.000	0.19
		B		0.000	0.000	38.050	0.000	0.45
		C		0.000	0.000	21.958	0.000	0.21
L51	18.500-13.500	A	1.186	0.000	0.000	22.784	0.000	0.18
		B		0.000	0.000	37.732	0.000	0.44
		C		0.000	0.000	21.827	0.000	0.20
L52	13.500-8.500	A	1.142	0.000	0.000	22.565	0.000	0.17
		B		0.000	0.000	37.306	0.000	0.42
		C		0.000	0.000	21.652	0.000	0.19
L53	8.500-3.500	A	1.075	0.000	0.000	22.229	0.000	0.16
		B		0.000	0.000	36.650	0.000	0.40
		C		0.000	0.000	21.383	0.000	0.18
L54	3.500-0.000	A	0.950	0.000	0.000	15.124	0.000	0.10
		B		0.000	0.000	24.804	0.000	0.25
		C		0.000	0.000	14.619	0.000	0.11

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	150.000-145.000	-0.2287	0.0000	-1.1868	0.0000
L2	145.000-140.000	-0.2287	0.0000	-1.1982	0.0000
L3	140.000-135.000	1.6986	0.0000	1.4618	0.0000
L4	135.000-130.000	2.4001	0.0000	2.4521	0.0000
L5	130.000-128.500	1.6020	-1.5719	1.7183	-1.4217
L6	128.500-128.250	1.6135	-1.5839	1.7300	-1.4323
L7	128.250-123.250	1.6327	-1.6049	1.7551	-1.4555
L8	123.250-118.250	2.1806	-1.1913	2.2661	-1.0187
L9	118.250-113.250	3.0307	-0.5080	3.0103	-0.3351
L10	113.250-109.000	3.0874	-0.5245	3.0801	-0.3488

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L11	109.000-108.750	2.8919	-0.6753	2.9472	-0.2481
L12	108.750-104.170	2.8421	0.1173	2.8972	0.3301
L13	104.170-103.920	2.8321	0.5263	2.8949	0.6781
L14	103.920-103.170	2.8396	0.5275	2.9031	0.6798
L15	103.170-102.920	2.7227	-0.3620	2.8048	-0.0633
L16	102.920-102.420	2.7282	-0.3629	2.8107	-0.0637
L17	102.420-102.170	2.7380	-0.3644	2.8203	-0.0641
L18	102.170-100.920	2.7489	-0.3662	2.8322	-0.0649
L19	100.920-100.670	2.7579	-0.3678	2.8424	-0.0656
L20	100.670-99.580	2.6337	0.3045	2.7478	0.5081
L21	99.580-99.330	2.5020	0.9560	2.6491	1.0512
L22	99.330-95.420	2.9249	0.6279	3.1762	0.5150
L23	95.420-95.170	2.9980	0.6062	3.2585	0.4768
L24	95.170-90.170	3.7375	1.2026	3.9102	0.8903
L25	90.170-85.170	4.4306	1.7429	4.5115	1.2527
L26	85.170-80.500	3.7351	1.7235	3.9136	1.2742
L27	80.500-80.250	2.4959	1.6454	2.7802	1.2687
L28	80.250-75.250	2.5250	1.6666	2.8150	1.2871
L29	75.250-73.580	2.5602	1.6923	2.8577	1.3098
L30	73.580-73.330	2.5710	1.7001	2.8704	1.3166
L31	73.330-69.000	2.5950	1.7176	2.8996	1.3321
L32	69.000-67.000	2.2793	0.3186	2.5627	0.1748
L33	67.000-66.750	2.2916	0.3203	2.5767	0.1766
L34	66.750-66.500	2.2914	0.3202	2.5775	0.1766
L35	66.500-61.500	3.8255	0.1254	4.0634	-0.0338
L36	61.500-56.500	3.9113	0.1273	4.1607	-0.0342
L37	56.500-51.500	3.9971	0.1291	4.2579	-0.0343
L38	51.500-48.250	3.8108	0.1224	3.9709	-0.0314
L39	48.250-48.000	3.7829	0.1212	3.9323	-0.0308
L40	48.000-44.250	3.6783	-0.1472	3.8710	-0.2037
L41	44.250-44.000	3.6593	-0.2394	3.8689	-0.2651
L42	44.000-39.000	3.6998	-0.2427	3.9140	-0.2683
L43	39.000-38.500	3.7406	-0.2460	3.9600	-0.2714
L44	38.500-38.250	3.7462	-0.2465	3.9662	-0.2718
L45	38.250-30.000	3.8102	-0.2517	4.0379	-0.2766
L46	30.000-29.000	3.8211	-0.2527	4.0521	-0.2778
L47	29.000-24.000	3.8682	-0.2565	4.1035	-0.2797
L48	24.000-23.750	3.9080	-0.2598	4.1484	-0.2824
L49	23.750-23.500	3.9125	-0.2602	4.1532	-0.2827
L50	23.500-18.500	3.9528	-0.2635	4.1983	-0.2852
L51	18.500-13.500	4.0291	-0.2697	4.2836	-0.2896
L52	13.500-8.500	4.1040	-0.2759	4.3671	-0.2928
L53	8.500-3.500	4.1761	-0.2818	4.4469	-0.2937
L54	3.500-0.000	4.2338	-0.2866	4.5079	-0.2877

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	2	Safety Line 3/8	145.00 - 150.00	1.0000	1.0000
L2	2	Safety Line 3/8	140.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			145.00		
L3	2	Safety Line 3/8	135.00 - 140.00	1.0000	1.0000
L3	11	HB114-21U3M12-XXXF(1-1/4)	135.00 - 138.00	1.0000	1.0000
L3	12	HB158-21U6S12-60M-01(1-5/8)	135.00 - 138.00	1.0000	1.0000
L4	2	Safety Line 3/8	130.00 - 135.00	1.0000	1.0000
L4	11	HB114-21U3M12-XXXF(1-1/4)	130.00 - 135.00	1.0000	1.0000
L4	12	HB158-21U6S12-60M-01(1-5/8)	130.00 - 135.00	1.0000	1.0000
L5	2	Safety Line 3/8	128.50 - 130.00	1.0000	1.0000
L5	11	HB114-21U3M12-XXXF(1-1/4)	128.50 - 130.00	1.0000	1.0000
L5	12	HB158-21U6S12-60M-01(1-5/8)	128.50 - 130.00	1.0000	1.0000
L5	50	PL 1.25x4	128.50 - 130.00	1.0000	1.0000
L5	51	PL 1.25x4	128.50 - 130.00	1.0000	1.0000
L5	52	PL 1.25x4	128.50 - 130.00	1.0000	1.0000
L5	53	PL 1.25x4	128.50 - 130.00	1.0000	1.0000
L6	2	Safety Line 3/8	128.25 - 128.50	1.0000	1.0000
L6	11	HB114-21U3M12-XXXF(1-1/4)	128.25 - 128.50	1.0000	1.0000
L6	12	HB158-21U6S12-60M-01(1-5/8)	128.25 - 128.50	1.0000	1.0000
L6	50	PL 1.25x4	128.25 - 128.50	1.0000	1.0000
L6	51	PL 1.25x4	128.25 - 128.50	1.0000	1.0000
L6	52	PL 1.25x4	128.25 - 128.50	1.0000	1.0000
L6	53	PL 1.25x4	128.25 - 128.50	1.0000	1.0000
L7	2	Safety Line 3/8	123.25 - 128.25	1.0000	1.0000
L7	11	HB114-21U3M12-XXXF(1-1/4)	123.25 - 128.25	1.0000	1.0000
L7	12	HB158-21U6S12-60M-01(1-5/8)	123.25 - 128.25	1.0000	1.0000
L7	50	PL 1.25x4	123.25 - 128.25	1.0000	1.0000
L7	51	PL 1.25x4	123.25 - 128.25	1.0000	1.0000
L7	52	PL 1.25x4	123.25 - 128.25	1.0000	1.0000
L7	53	PL 1.25x4	123.25 - 128.25	1.0000	1.0000
L8	2	Safety Line 3/8	118.25 - 123.25	1.0000	1.0000
L8	11	HB114-21U3M12-XXXF(1-1/4)	118.25 - 123.25	1.0000	1.0000
L8	12	HB158-21U6S12-60M-01(1-5/8)	118.25 - 123.25	1.0000	1.0000
L8	14	AL7-50(1-5/8)	118.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			120.00		
L8	50	PL 1.25x4	118.25 - 123.25	1.0000	1.0000
L8	51	PL 1.25x4	118.25 - 123.25	1.0000	1.0000
L8	52	PL 1.25x4	118.25 - 123.25	1.0000	1.0000
L8	53	PL 1.25x4	118.25 - 123.25	1.0000	1.0000
L9	2	Safety Line 3/8	113.25 - 118.25	1.0000	1.0000
L9	11	HB114-21U3M12-XXXF(1-1/4)	113.25 - 118.25	1.0000	1.0000
L9	12	HB158-21U6S12-60M-01(1-5/8)	113.25 - 118.25	1.0000	1.0000
L9	14	AL7-50(1-5/8)	113.25 - 118.25	1.0000	1.0000
L9	50	PL 1.25x4	113.25 - 118.25	1.0000	1.0000
L9	51	PL 1.25x4	113.25 - 118.25	1.0000	1.0000
L9	52	PL 1.25x4	113.25 - 118.25	1.0000	1.0000
L9	53	PL 1.25x4	113.25 - 118.25	1.0000	1.0000
L10	2	Safety Line 3/8	109.00 - 113.25	1.0000	1.0000
L10	11	HB114-21U3M12-XXXF(1-1/4)	109.00 - 113.25	1.0000	1.0000
L10	12	HB158-21U6S12-60M-01(1-5/8)	109.00 - 113.25	1.0000	1.0000
L10	14	AL7-50(1-5/8)	109.00 - 113.25	1.0000	1.0000
L10	50	PL 1.25x4	109.00 - 113.25	1.0000	1.0000
L10	51	PL 1.25x4	109.00 - 113.25	1.0000	1.0000
L10	52	PL 1.25x4	109.00 - 113.25	1.0000	1.0000
L10	53	PL 1.25x4	109.00 - 113.25	1.0000	1.0000
L11	2	Safety Line 3/8	108.75 - 109.00	1.0000	1.0000
L11	11	HB114-21U3M12-XXXF(1-1/4)	108.75 - 109.00	1.0000	1.0000
L11	12	HB158-21U6S12-60M-01(1-5/8)	108.75 - 109.00	1.0000	1.0000
L11	14	AL7-50(1-5/8)	108.75 - 109.00	1.0000	1.0000
L11	43	PL 1.25x5	108.75 - 109.00	1.0000	1.0000
L11	44	PL 1.25x5	108.75 - 109.00	1.0000	1.0000
L11	47	PL 1.25x5	108.75 - 109.00	1.0000	1.0000
L11	48	PL 1.25x5	108.75 - 109.00	1.0000	1.0000
L12	2	Safety Line 3/8	104.17 - 108.75	1.0000	1.0000
L12	11	HB114-21U3M12-XXXF(1-1/4)	104.17 - 108.75	1.0000	1.0000
L12	12	HB158-21U6S12-60M-01(1-	104.17 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		5/8)	108.75		
L12	14	AL7-50(1-5/8)	104.17 - 108.75	1.0000	1.0000
L12	43	PL 1.25x5	104.17 - 108.75	1.0000	1.0000
L12	44	PL 1.25x5	104.17 - 108.75	1.0000	1.0000
L12	47	PL 1.25x5	104.17 - 108.75	1.0000	1.0000
L12	48	PL 1.25x5	104.17 - 108.75	1.0000	1.0000
L12	55	PL 2x6	104.17 - 108.67	1.0000	1.0000
L12	56	PL 2x6	104.17 - 106.00	1.0000	1.0000
L12	57	PL 2x6	104.17 - 108.67	1.0000	1.0000
L12	58	PL 2x6	104.17 - 107.75	1.0000	1.0000
L13	2	Safety Line 3/8	103.92 - 104.17	1.0000	1.0000
L13	11	HB114-21U3M12-XXXF(1-1/4)	103.92 - 104.17	1.0000	1.0000
L13	12	HB158-21U6S12-60M-01(1-5/8)	103.92 - 104.17	1.0000	1.0000
L13	14	AL7-50(1-5/8)	103.92 - 104.17	1.0000	1.0000
L13	43	PL 1.25x5	103.92 - 104.17	1.0000	1.0000
L13	44	PL 1.25x5	103.92 - 104.17	1.0000	1.0000
L13	47	PL 1.25x5	103.92 - 104.17	1.0000	1.0000
L13	48	PL 1.25x5	103.92 - 104.17	1.0000	1.0000
L13	55	PL 2x6	103.92 - 104.17	1.0000	1.0000
L13	56	PL 2x6	103.92 - 104.17	1.0000	1.0000
L13	57	PL 2x6	103.92 - 104.17	1.0000	1.0000
L13	58	PL 2x6	103.92 - 104.17	1.0000	1.0000
L14	2	Safety Line 3/8	103.17 - 103.92	1.0000	1.0000
L14	11	HB114-21U3M12-XXXF(1-1/4)	103.17 - 103.92	1.0000	1.0000
L14	12	HB158-21U6S12-60M-01(1-5/8)	103.17 - 103.92	1.0000	1.0000
L14	14	AL7-50(1-5/8)	103.17 - 103.92	1.0000	1.0000
L14	43	PL 1.25x5	103.17 - 103.92	1.0000	1.0000
L14	44	PL 1.25x5	103.17 - 103.92	1.0000	1.0000
L14	47	PL 1.25x5	103.17 - 103.92	1.0000	1.0000
L14	48	PL 1.25x5	103.17 - 103.92	1.0000	1.0000
L14	55	PL 2x6	103.17 - 103.92	1.0000	1.0000
L14	56	PL 2x6	103.17 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			103.92		
L14	57	PL 2x6	103.17 - 103.92	1.0000	1.0000
L14	58	PL 2x6	103.17 - 103.92	1.0000	1.0000
L15	2	Safety Line 3/8	102.92 - 103.17	1.0000	1.0000
L15	11	HB114-21U3M12-XXXF(1-1/4)	102.92 - 103.17	1.0000	1.0000
L15	12	HB158-21U6S12-60M-01(1-5/8)	102.92 - 103.17	1.0000	1.0000
L15	14	AL7-50(1-5/8)	102.92 - 103.17	1.0000	1.0000
L15	43	PL 1.25x5	102.92 - 103.17	1.0000	1.0000
L15	44	PL 1.25x5	102.92 - 103.17	1.0000	1.0000
L15	45	PL 1.25x5	102.92 - 103.17	1.0000	1.0000
L15	47	PL 1.25x5	102.92 - 103.17	1.0000	1.0000
L15	48	PL 1.25x5	102.92 - 103.17	1.0000	1.0000
L15	55	PL 2x6	102.92 - 103.17	1.0000	1.0000
L15	56	PL 2x6	102.92 - 103.17	1.0000	1.0000
L15	57	PL 2x6	102.92 - 103.17	1.0000	1.0000
L15	58	PL 2x6	102.92 - 103.17	1.0000	1.0000
L16	2	Safety Line 3/8	102.42 - 102.92	1.0000	1.0000
L16	11	HB114-21U3M12-XXXF(1-1/4)	102.42 - 102.92	1.0000	1.0000
L16	12	HB158-21U6S12-60M-01(1-5/8)	102.42 - 102.92	1.0000	1.0000
L16	14	AL7-50(1-5/8)	102.42 - 102.92	1.0000	1.0000
L16	43	PL 1.25x5	102.42 - 102.92	1.0000	1.0000
L16	44	PL 1.25x5	102.42 - 102.92	1.0000	1.0000
L16	45	PL 1.25x5	102.42 - 102.92	1.0000	1.0000
L16	47	PL 1.25x5	102.42 - 102.92	1.0000	1.0000
L16	48	PL 1.25x5	102.42 - 102.92	1.0000	1.0000
L16	55	PL 2x6	102.42 - 102.92	1.0000	1.0000
L16	56	PL 2x6	102.42 - 102.92	1.0000	1.0000
L16	57	PL 2x6	102.42 - 102.92	1.0000	1.0000
L16	58	PL 2x6	102.42 - 102.92	1.0000	1.0000
L17	2	Safety Line 3/8	102.17 - 102.42	1.0000	1.0000
L17	11	HB114-21U3M12-XXXF(1-1/4)	102.17 - 102.42	1.0000	1.0000
L17	12	HB158-21U6S12-60M-01(1-	102.17 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		5/8)	102.42		
L17	14	AL7-50(1-5/8)	102.17 - 102.42	1.0000	1.0000
L17	43	PL 1.25x5	102.17 - 102.42	1.0000	1.0000
L17	44	PL 1.25x5	102.17 - 102.42	1.0000	1.0000
L17	45	PL 1.25x5	102.17 - 102.42	1.0000	1.0000
L17	47	PL 1.25x5	102.17 - 102.42	1.0000	1.0000
L17	48	PL 1.25x5	102.17 - 102.42	1.0000	1.0000
L17	55	PL 2x6	102.17 - 102.42	1.0000	1.0000
L17	56	PL 2x6	102.17 - 102.42	1.0000	1.0000
L17	57	PL 2x6	102.17 - 102.42	1.0000	1.0000
L17	58	PL 2x6	102.17 - 102.42	1.0000	1.0000
L18	2	Safety Line 3/8	100.92 - 102.17	1.0000	1.0000
L18	11	HB114-21U3M12-XXXF(1-1/4)	100.92 - 102.17	1.0000	1.0000
L18	12	HB158-21U6S12-60M-01(1-5/8)	100.92 - 102.17	1.0000	1.0000
L18	14	AL7-50(1-5/8)	100.92 - 102.17	1.0000	1.0000
L18	43	PL 1.25x5	100.92 - 102.17	1.0000	1.0000
L18	44	PL 1.25x5	100.92 - 102.17	1.0000	1.0000
L18	45	PL 1.25x5	100.92 - 102.17	1.0000	1.0000
L18	47	PL 1.25x5	100.92 - 102.17	1.0000	1.0000
L18	48	PL 1.25x5	100.92 - 102.17	1.0000	1.0000
L18	55	PL 2x6	100.92 - 102.17	1.0000	1.0000
L18	56	PL 2x6	100.92 - 102.17	1.0000	1.0000
L18	57	PL 2x6	100.92 - 102.17	1.0000	1.0000
L18	58	PL 2x6	100.92 - 102.17	1.0000	1.0000
L19	2	Safety Line 3/8	100.67 - 100.92	1.0000	1.0000
L19	11	HB114-21U3M12-XXXF(1-1/4)	100.67 - 100.92	1.0000	1.0000
L19	12	HB158-21U6S12-60M-01(1-5/8)	100.67 - 100.92	1.0000	1.0000
L19	14	AL7-50(1-5/8)	100.67 - 100.92	1.0000	1.0000
L19	43	PL 1.25x5	100.67 - 100.92	1.0000	1.0000
L19	44	PL 1.25x5	100.67 - 100.92	1.0000	1.0000
L19	45	PL 1.25x5	100.67 - 100.92	1.0000	1.0000
L19	47	PL 1.25x5	100.67 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			100.92		
L19	48	PL 1.25x5	100.67 - 100.92	1.0000	1.0000
L19	55	PL 2x6	100.67 - 100.92	1.0000	1.0000
L19	56	PL 2x6	100.67 - 100.92	1.0000	1.0000
L19	57	PL 2x6	100.67 - 100.92	1.0000	1.0000
L19	58	PL 2x6	100.67 - 100.92	1.0000	1.0000
L20	2	Safety Line 3/8	99.58 - 100.67	1.0000	1.0000
L20	11	HB114-21U3M12-XXXF(1-1/4)	99.58 - 100.67	1.0000	1.0000
L20	12	HB158-21U6S12-60M-01(1-5/8)	99.58 - 100.67	1.0000	1.0000
L20	14	AL7-50(1-5/8)	99.58 - 100.67	1.0000	1.0000
L20	43	PL 1.25x5	99.58 - 100.67	1.0000	1.0000
L20	44	PL 1.25x5	99.58 - 100.67	1.0000	1.0000
L20	45	PL 1.25x5	99.58 - 100.67	1.0000	1.0000
L20	47	PL 1.25x5	100.17 - 100.67	1.0000	1.0000
L20	48	PL 1.25x5	100.17 - 100.67	1.0000	1.0000
L20	55	PL 2x6	99.58 - 100.67	1.0000	1.0000
L20	56	PL 2x6	99.58 - 100.67	1.0000	1.0000
L20	57	PL 2x6	99.58 - 100.67	1.0000	1.0000
L20	58	PL 2x6	99.58 - 100.67	1.0000	1.0000
L21	2	Safety Line 3/8	99.33 - 99.58	1.0000	1.0000
L21	11	HB114-21U3M12-XXXF(1-1/4)	99.33 - 99.58	1.0000	1.0000
L21	12	HB158-21U6S12-60M-01(1-5/8)	99.33 - 99.58	1.0000	1.0000
L21	14	AL7-50(1-5/8)	99.33 - 99.58	1.0000	1.0000
L21	43	PL 1.25x5	99.33 - 99.58	1.0000	1.0000
L21	44	PL 1.25x5	99.33 - 99.58	1.0000	1.0000
L21	45	PL 1.25x5	99.33 - 99.58	1.0000	1.0000
L21	55	PL 2x6	99.33 - 99.58	1.0000	1.0000
L21	56	PL 2x6	99.33 - 99.58	1.0000	1.0000
L21	57	PL 2x6	99.33 - 99.58	1.0000	1.0000
L21	58	PL 2x6	99.33 - 99.58	1.0000	1.0000
L22	2	Safety Line 3/8	95.42 - 99.33	1.0000	1.0000
L22	11	HB114-21U3M12-XXXF(1-1/4)	95.42 - 99.33	1.0000	1.0000
L22	12	HB158-21U6S12-60M-01(1-5/8)	95.42 - 99.33	1.0000	1.0000
L22	14	AL7-50(1-5/8)	95.42 - 99.33	1.0000	1.0000
L22	20	HB114-U6S12-XXX-LI(1-1/4)	95.42 - 99.00	1.0000	1.0000
L22	21	LDF7-50A(1-5/8)	95.42 - 99.00	1.0000	1.0000
L22	43	PL 1.25x5	95.42 - 99.33	1.0000	1.0000
L22	44	PL 1.25x5	95.42 - 99.33	1.0000	1.0000
L22	45	PL 1.25x5	95.42 - 99.33	1.0000	1.0000
L22	55	PL 2x6	95.42 - 99.33	1.0000	1.0000
L22	56	PL 2x6	95.42 - 99.33	1.0000	1.0000
L22	57	PL 2x6	95.42 - 99.33	1.0000	1.0000
L22	58	PL 2x6	95.42 - 99.33	1.0000	1.0000
L23	2	Safety Line 3/8	95.17 - 95.42	1.0000	1.0000
L23	11	HB114-21U3M12-XXXF(1-1/4)	95.17 - 95.42	1.0000	1.0000
L23	12	HB158-21U6S12-60M-01(1-5/8)	95.17 - 95.42	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L23	14	AL7-50(1-5/8)	95.17 - 95.42	1.0000	1.0000
L23	20	HB114-U6S12-XXX-LI(1-1/4)	95.17 - 95.42	1.0000	1.0000
L23	21	LDF7-50A(1-5/8)	95.17 - 95.42	1.0000	1.0000
L23	43	PL 1.25x5	95.17 - 95.42	1.0000	1.0000
L23	44	PL 1.25x5	95.17 - 95.42	1.0000	1.0000
L23	45	PL 1.25x5	95.17 - 95.42	1.0000	1.0000
L23	55	PL 2x6	95.17 - 95.42	1.0000	1.0000
L23	56	PL 2x6	95.17 - 95.42	1.0000	1.0000
L23	57	PL 2x6	95.17 - 95.42	1.0000	1.0000
L23	58	PL 2x6	95.17 - 95.42	1.0000	1.0000
L24	2	Safety Line 3/8	90.17 - 95.17	1.0000	1.0000
L24	11	HB114-21U3M12-XXXF(1-1/4)	90.17 - 95.17	1.0000	1.0000
L24	12	HB158-21U6S12-60M-01(1-5/8)	90.17 - 95.17	1.0000	1.0000
L24	14	AL7-50(1-5/8)	90.17 - 95.17	1.0000	1.0000
L24	20	HB114-U6S12-XXX-LI(1-1/4)	90.17 - 95.17	1.0000	1.0000
L24	21	LDF7-50A(1-5/8)	90.17 - 95.17	1.0000	1.0000
L24	43	PL 1.25x5	93.17 - 95.17	1.0000	1.0000
L24	44	PL 1.25x5	93.17 - 95.17	1.0000	1.0000
L24	45	PL 1.25x5	93.17 - 95.17	1.0000	1.0000
L24	55	PL 2x6	90.17 - 95.17	1.0000	1.0000
L24	56	PL 2x6	90.17 - 95.17	1.0000	1.0000
L24	57	PL 2x6	90.17 - 95.17	1.0000	1.0000
L24	58	PL 2x6	90.17 - 95.17	1.0000	1.0000
L25	2	Safety Line 3/8	85.17 - 90.17	1.0000	1.0000
L25	11	HB114-21U3M12-XXXF(1-1/4)	85.17 - 90.17	1.0000	1.0000
L25	12	HB158-21U6S12-60M-01(1-5/8)	85.17 - 90.17	1.0000	1.0000
L25	14	AL7-50(1-5/8)	85.17 - 90.17	1.0000	1.0000
L25	20	HB114-U6S12-XXX-LI(1-1/4)	85.17 - 90.17	1.0000	1.0000
L25	21	LDF7-50A(1-5/8)	85.17 - 90.17	1.0000	1.0000
L25	55	PL 2x6	85.17 - 90.17	1.0000	1.0000
L25	56	PL 2x6	85.17 - 90.17	1.0000	1.0000
L25	57	PL 2x6	85.17 - 90.17	1.0000	1.0000
L25	58	PL 2x6	85.17 - 90.17	1.0000	1.0000
L26	2	Safety Line 3/8	80.50 - 85.17	1.0000	1.0000
L26	11	HB114-21U3M12-XXXF(1-1/4)	80.50 - 85.17	1.0000	1.0000
L26	12	HB158-21U6S12-60M-01(1-5/8)	80.50 - 85.17	1.0000	1.0000
L26	14	AL7-50(1-5/8)	80.50 - 85.17	1.0000	1.0000
L26	20	HB114-U6S12-XXX-LI(1-1/4)	80.50 - 85.17	1.0000	1.0000
L26	21	LDF7-50A(1-5/8)	80.50 - 85.17	1.0000	1.0000
L26	38	PL 1.25x4	80.50 - 82.00	1.0000	1.0000
L26	39	PL 1.25x4	80.50 - 82.00	1.0000	1.0000
L26	40	PL 1.25x4	80.50 - 82.00	1.0000	1.0000
L26	41	PL 1.25x4	80.50 - 82.00	1.0000	1.0000
L26	55	PL 2x6	80.50 - 85.17	1.0000	1.0000
L26	56	PL 2x6	80.50 - 85.17	1.0000	1.0000
L26	57	PL 2x6	80.50 - 85.17	1.0000	1.0000
L26	58	PL 2x6	80.50 - 85.17	1.0000	1.0000
L27	2	Safety Line 3/8	80.25 - 80.50	1.0000	1.0000
L27	11	HB114-21U3M12-XXXF(1-1/4)	80.25 - 80.50	1.0000	1.0000
L27	12	HB158-21U6S12-60M-01(1-5/8)	80.25 - 80.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L27	14	AL7-50(1-5/8)	80.25 - 80.50	1.0000	1.0000
L27	20	HB114-U6S12-XXX-LI(1-1/4)	80.25 - 80.50	1.0000	1.0000
L27	21	LDF7-50A(1-5/8)	80.25 - 80.50	1.0000	1.0000
L27	38	PL 1.25x4	80.25 - 80.50	1.0000	1.0000
L27	39	PL 1.25x4	80.25 - 80.50	1.0000	1.0000
L27	40	PL 1.25x4	80.25 - 80.50	1.0000	1.0000
L27	41	PL 1.25x4	80.25 - 80.50	1.0000	1.0000
L27	55	PL 2x6	80.25 - 80.50	1.0000	1.0000
L27	56	PL 2x6	80.25 - 80.50	1.0000	1.0000
L27	57	PL 2x6	80.25 - 80.50	1.0000	1.0000
L27	58	PL 2x6	80.25 - 80.50	1.0000	1.0000
L28	2	Safety Line 3/8	75.25 - 80.25	1.0000	1.0000
L28	11	HB114-21U3M12-XXXF(1-1/4)	75.25 - 80.25	1.0000	1.0000
L28	12	HB158-21U6S12-60M-01(1-5/8)	75.25 - 80.25	1.0000	1.0000
L28	14	AL7-50(1-5/8)	75.25 - 80.25	1.0000	1.0000
L28	20	HB114-U6S12-XXX-LI(1-1/4)	75.25 - 80.25	1.0000	1.0000
L28	21	LDF7-50A(1-5/8)	75.25 - 80.25	1.0000	1.0000
L28	38	PL 1.25x4	75.25 - 80.25	1.0000	1.0000
L28	39	PL 1.25x4	75.25 - 80.25	1.0000	1.0000
L28	40	PL 1.25x4	75.25 - 80.25	1.0000	1.0000
L28	41	PL 1.25x4	75.25 - 80.25	1.0000	1.0000
L28	55	PL 2x6	75.25 - 80.25	1.0000	1.0000
L28	56	PL 2x6	75.25 - 80.25	1.0000	1.0000
L28	57	PL 2x6	75.25 - 80.25	1.0000	1.0000
L28	58	PL 2x6	75.25 - 80.25	1.0000	1.0000
L29	2	Safety Line 3/8	73.58 - 75.25	1.0000	1.0000
L29	11	HB114-21U3M12-XXXF(1-1/4)	73.58 - 75.25	1.0000	1.0000
L29	12	HB158-21U6S12-60M-01(1-5/8)	73.58 - 75.25	1.0000	1.0000
L29	14	AL7-50(1-5/8)	73.58 - 75.25	1.0000	1.0000
L29	20	HB114-U6S12-XXX-LI(1-1/4)	73.58 - 75.25	1.0000	1.0000
L29	21	LDF7-50A(1-5/8)	73.58 - 75.25	1.0000	1.0000
L29	38	PL 1.25x4	73.58 - 75.25	1.0000	1.0000
L29	39	PL 1.25x4	73.58 - 75.25	1.0000	1.0000
L29	40	PL 1.25x4	73.58 - 75.25	1.0000	1.0000
L29	41	PL 1.25x4	73.58 - 75.25	1.0000	1.0000
L29	55	PL 2x6	73.58 - 75.25	1.0000	1.0000
L29	56	PL 2x6	73.58 - 75.25	1.0000	1.0000
L29	57	PL 2x6	73.58 - 75.25	1.0000	1.0000
L29	58	PL 2x6	73.58 - 75.25	1.0000	1.0000
L30	2	Safety Line 3/8	73.33 - 73.58	1.0000	1.0000
L30	11	HB114-21U3M12-XXXF(1-1/4)	73.33 - 73.58	1.0000	1.0000
L30	12	HB158-21U6S12-60M-01(1-5/8)	73.33 - 73.58	1.0000	1.0000
L30	14	AL7-50(1-5/8)	73.33 - 73.58	1.0000	1.0000
L30	20	HB114-U6S12-XXX-LI(1-1/4)	73.33 - 73.58	1.0000	1.0000
L30	21	LDF7-50A(1-5/8)	73.33 - 73.58	1.0000	1.0000
L30	38	PL 1.25x4	73.33 - 73.58	1.0000	1.0000
L30	39	PL 1.25x4	73.33 - 73.58	1.0000	1.0000
L30	40	PL 1.25x4	73.33 - 73.58	1.0000	1.0000
L30	41	PL 1.25x4	73.33 - 73.58	1.0000	1.0000
L30	55	PL 2x6	73.33 - 73.58	1.0000	1.0000
L30	56	PL 2x6	73.33 - 73.58	1.0000	1.0000
L30	57	PL 2x6	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	58	PL 2x6	73.33 - 73.58	1.0000	1.0000
L31	2	Safety Line 3/8	69.00 - 73.33	1.0000	1.0000
L31	11	HB114-21U3M12-XXXF(1-1/4)	69.00 - 73.33	1.0000	1.0000
L31	12	HB158-21U6S12-60M-01(1-5/8)	69.00 - 73.33	1.0000	1.0000
L31	14	AL7-50(1-5/8)	69.00 - 73.33	1.0000	1.0000
L31	20	HB114-U6S12-XXX-LI(1-1/4)	69.00 - 73.33	1.0000	1.0000
L31	21	LDF7-50A(1-5/8)	69.00 - 73.33	1.0000	1.0000
L31	38	PL 1.25x4	69.00 - 73.33	1.0000	1.0000
L31	39	PL 1.25x4	69.00 - 73.33	1.0000	1.0000
L31	40	PL 1.25x4	69.00 - 73.33	1.0000	1.0000
L31	41	PL 1.25x4	69.00 - 73.33	1.0000	1.0000
L31	55	PL 2x6	69.00 - 73.33	1.0000	1.0000
L31	56	PL 2x6	69.00 - 73.33	1.0000	1.0000
L31	57	PL 2x6	69.00 - 73.33	1.0000	1.0000
L31	58	PL 2x6	69.00 - 73.33	1.0000	1.0000
L32	2	Safety Line 3/8	67.00 - 69.00	1.0000	1.0000
L32	11	HB114-21U3M12-XXXF(1-1/4)	67.00 - 69.00	1.0000	1.0000
L32	12	HB158-21U6S12-60M-01(1-5/8)	67.00 - 69.00	1.0000	1.0000
L32	14	AL7-50(1-5/8)	67.00 - 69.00	1.0000	1.0000
L32	20	HB114-U6S12-XXX-LI(1-1/4)	67.00 - 69.00	1.0000	1.0000
L32	21	LDF7-50A(1-5/8)	67.00 - 69.00	1.0000	1.0000
L32	33	PL 1.25x5	67.00 - 69.00	1.0000	1.0000
L32	34	PL 1.25x5	67.00 - 69.00	1.0000	1.0000
L32	35	PL 1.25x5	67.00 - 69.00	1.0000	1.0000
L32	36	PL 1.25x5	67.00 - 69.00	1.0000	1.0000
L32	38	PL 1.25x4	67.00 - 69.00	1.0000	1.0000
L32	39	PL 1.25x4	67.00 - 69.00	1.0000	1.0000
L32	40	PL 1.25x4	67.00 - 69.00	1.0000	1.0000
L32	41	PL 1.25x4	67.00 - 69.00	1.0000	1.0000
L32	55	PL 2x6	67.00 - 69.00	1.0000	1.0000
L32	56	PL 2x6	67.00 - 69.00	1.0000	1.0000
L32	57	PL 2x6	67.00 - 69.00	1.0000	1.0000
L32	58	PL 2x6	67.00 - 69.00	1.0000	1.0000
L33	2	Safety Line 3/8	66.75 - 67.00	1.0000	1.0000
L33	11	HB114-21U3M12-XXXF(1-1/4)	66.75 - 67.00	1.0000	1.0000
L33	12	HB158-21U6S12-60M-01(1-5/8)	66.75 - 67.00	1.0000	1.0000
L33	14	AL7-50(1-5/8)	66.75 - 67.00	1.0000	1.0000
L33	20	HB114-U6S12-XXX-LI(1-1/4)	66.75 - 67.00	1.0000	1.0000
L33	21	LDF7-50A(1-5/8)	66.75 - 67.00	1.0000	1.0000
L33	33	PL 1.25x5	66.75 - 67.00	1.0000	1.0000
L33	34	PL 1.25x5	66.75 - 67.00	1.0000	1.0000
L33	35	PL 1.25x5	66.75 - 67.00	1.0000	1.0000
L33	36	PL 1.25x5	66.75 - 67.00	1.0000	1.0000
L33	38	PL 1.25x4	66.75 - 67.00	1.0000	1.0000
L33	39	PL 1.25x4	66.75 - 67.00	1.0000	1.0000
L33	40	PL 1.25x4	66.75 - 67.00	1.0000	1.0000
L33	41	PL 1.25x4	66.75 - 67.00	1.0000	1.0000
L33	55	PL 2x6	66.75 - 67.00	1.0000	1.0000
L33	56	PL 2x6	66.75 - 67.00	1.0000	1.0000
L33	57	PL 2x6	66.75 - 67.00	1.0000	1.0000
L33	58	PL 2x6	66.75 - 67.00	1.0000	1.0000
L34	2	Safety Line 3/8	66.50 - 66.75	1.0000	1.0000
L34	11	HB114-21U3M12-XXXF(1-1	66.50 - 66.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		/4)			
L34	12	HB158-21U6S12-60M-01(1-5/8)	66.50 - 66.75	1.0000	1.0000
L34	14	AL7-50(1-5/8)	66.50 - 66.75	1.0000	1.0000
L34	20	HB114-U6S12-XXX-LI(1-1/4)	66.50 - 66.75	1.0000	1.0000
L34	21	LDF7-50A(1-5/8)	66.50 - 66.75	1.0000	1.0000
L34	33	PL 1.25x5	66.50 - 66.75	1.0000	1.0000
L34	34	PL 1.25x5	66.50 - 66.75	1.0000	1.0000
L34	35	PL 1.25x5	66.50 - 66.75	1.0000	1.0000
L34	36	PL 1.25x5	66.50 - 66.75	1.0000	1.0000
L34	38	PL 1.25x4	66.50 - 66.75	1.0000	1.0000
L34	39	PL 1.25x4	66.50 - 66.75	1.0000	1.0000
L34	40	PL 1.25x4	66.50 - 66.75	1.0000	1.0000
L34	41	PL 1.25x4	66.50 - 66.75	1.0000	1.0000
L34	55	PL 2x6	66.50 - 66.75	1.0000	1.0000
L34	56	PL 2x6	66.50 - 66.75	1.0000	1.0000
L34	57	PL 2x6	66.50 - 66.75	1.0000	1.0000
L34	58	PL 2x6	66.50 - 66.75	1.0000	1.0000
L35	2	Safety Line 3/8	61.50 - 66.50	1.0000	1.0000
L35	11	HB114-21U3M12-XXXF(1-1/4)	61.50 - 66.50	1.0000	1.0000
L35	12	HB158-21U6S12-60M-01(1-5/8)	61.50 - 66.50	1.0000	1.0000
L35	14	AL7-50(1-5/8)	61.50 - 66.50	1.0000	1.0000
L35	20	HB114-U6S12-XXX-LI(1-1/4)	61.50 - 66.50	1.0000	1.0000
L35	21	LDF7-50A(1-5/8)	61.50 - 66.50	1.0000	1.0000
L35	33	PL 1.25x5	61.50 - 66.50	1.0000	1.0000
L35	34	PL 1.25x5	61.50 - 66.50	1.0000	1.0000
L35	35	PL 1.25x5	61.50 - 66.50	1.0000	1.0000
L35	36	PL 1.25x5	61.50 - 66.50	1.0000	1.0000
L35	55	PL 2x6	61.50 - 66.50	1.0000	1.0000
L35	56	PL 2x6	61.50 - 66.50	1.0000	1.0000
L35	57	PL 2x6	61.50 - 66.50	1.0000	1.0000
L35	58	PL 2x6	61.50 - 66.50	1.0000	1.0000
L36	2	Safety Line 3/8	56.50 - 61.50	1.0000	1.0000
L36	11	HB114-21U3M12-XXXF(1-1/4)	56.50 - 61.50	1.0000	1.0000
L36	12	HB158-21U6S12-60M-01(1-5/8)	56.50 - 61.50	1.0000	1.0000
L36	14	AL7-50(1-5/8)	56.50 - 61.50	1.0000	1.0000
L36	20	HB114-U6S12-XXX-LI(1-1/4)	56.50 - 61.50	1.0000	1.0000
L36	21	LDF7-50A(1-5/8)	56.50 - 61.50	1.0000	1.0000
L36	33	PL 1.25x5	56.50 - 61.50	1.0000	1.0000
L36	34	PL 1.25x5	56.50 - 61.50	1.0000	1.0000
L36	35	PL 1.25x5	56.50 - 61.50	1.0000	1.0000
L36	36	PL 1.25x5	56.50 - 61.50	1.0000	1.0000
L36	55	PL 2x6	56.50 - 61.50	1.0000	1.0000
L36	56	PL 2x6	56.50 - 61.50	1.0000	1.0000
L36	57	PL 2x6	56.50 - 61.50	1.0000	1.0000
L36	58	PL 2x6	56.50 - 61.50	1.0000	1.0000
L37	2	Safety Line 3/8	51.50 - 56.50	1.0000	1.0000
L37	11	HB114-21U3M12-XXXF(1-1/4)	51.50 - 56.50	1.0000	1.0000
L37	12	HB158-21U6S12-60M-01(1-5/8)	51.50 - 56.50	1.0000	1.0000
L37	14	AL7-50(1-5/8)	51.50 - 56.50	1.0000	1.0000
L37	20	HB114-U6S12-XXX-LI(1-1/4)	51.50 - 56.50	1.0000	1.0000
L37	21	LDF7-50A(1-5/8)	51.50 - 56.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L37	33	PL 1.25x5	51.50 - 56.50	1.0000	1.0000
L37	34	PL 1.25x5	51.50 - 56.50	1.0000	1.0000
L37	35	PL 1.25x5	51.50 - 56.50	1.0000	1.0000
L37	36	PL 1.25x5	51.50 - 56.50	1.0000	1.0000
L37	55	PL 2x6	51.50 - 56.50	1.0000	1.0000
L37	56	PL 2x6	51.50 - 56.50	1.0000	1.0000
L37	57	PL 2x6	51.50 - 56.50	1.0000	1.0000
L37	58	PL 2x6	51.50 - 56.50	1.0000	1.0000
L38	2	Safety Line 3/8	48.25 - 51.50	1.0000	1.0000
L38	11	HB114-21U3M12-XXXF(1-1/4)	48.25 - 51.50	1.0000	1.0000
L38	12	HB158-21U6S12-60M-01(1-5/8)	48.25 - 51.50	1.0000	1.0000
L38	14	AL7-50(1-5/8)	48.25 - 51.50	1.0000	1.0000
L38	20	HB114-U6S12-XXX-LI(1-1/4)	48.25 - 51.50	1.0000	1.0000
L38	21	LDF7-50A(1-5/8)	48.25 - 51.50	1.0000	1.0000
L38	23	#20 Bar	48.25 - 51.00	1.0000	1.0000
L38	24	#20 Bar	48.25 - 51.00	1.0000	1.0000
L38	25	#20 Bar	48.25 - 51.00	1.0000	1.0000
L38	26	#20 Bar	48.25 - 51.00	1.0000	1.0000
L38	33	PL 1.25x5	48.25 - 51.50	1.0000	1.0000
L38	34	PL 1.25x5	48.25 - 51.50	1.0000	1.0000
L38	35	PL 1.25x5	48.25 - 51.50	1.0000	1.0000
L38	36	PL 1.25x5	48.25 - 51.50	1.0000	1.0000
L38	55	PL 2x6	48.25 - 51.50	1.0000	1.0000
L38	56	PL 2x6	48.25 - 51.50	1.0000	1.0000
L38	57	PL 2x6	48.25 - 51.50	1.0000	1.0000
L38	58	PL 2x6	48.25 - 51.50	1.0000	1.0000
L39	2	Safety Line 3/8	48.00 - 48.25	1.0000	1.0000
L39	11	HB114-21U3M12-XXXF(1-1/4)	48.00 - 48.25	1.0000	1.0000
L39	12	HB158-21U6S12-60M-01(1-5/8)	48.00 - 48.25	1.0000	1.0000
L39	14	AL7-50(1-5/8)	48.00 - 48.25	1.0000	1.0000
L39	20	HB114-U6S12-XXX-LI(1-1/4)	48.00 - 48.25	1.0000	1.0000
L39	21	LDF7-50A(1-5/8)	48.00 - 48.25	1.0000	1.0000
L39	23	#20 Bar	48.00 - 48.25	1.0000	1.0000
L39	24	#20 Bar	48.00 - 48.25	1.0000	1.0000
L39	25	#20 Bar	48.00 - 48.25	1.0000	1.0000
L39	26	#20 Bar	48.00 - 48.25	1.0000	1.0000
L39	33	PL 1.25x5	48.00 - 48.25	1.0000	1.0000
L39	34	PL 1.25x5	48.00 - 48.25	1.0000	1.0000
L39	35	PL 1.25x5	48.00 - 48.25	1.0000	1.0000
L39	36	PL 1.25x5	48.00 - 48.25	1.0000	1.0000
L39	55	PL 2x6	48.00 - 48.25	1.0000	1.0000
L39	56	PL 2x6	48.00 - 48.25	1.0000	1.0000
L39	57	PL 2x6	48.00 - 48.25	1.0000	1.0000
L39	58	PL 2x6	48.00 - 48.25	1.0000	1.0000
L40	2	Safety Line 3/8	44.25 - 48.00	1.0000	1.0000
L40	11	HB114-21U3M12-XXXF(1-1/4)	44.25 - 48.00	1.0000	1.0000
L40	12	HB158-21U6S12-60M-01(1-5/8)	44.25 - 48.00	1.0000	1.0000
L40	14	AL7-50(1-5/8)	44.25 - 48.00	1.0000	1.0000
L40	20	HB114-U6S12-XXX-LI(1-1/4)	44.25 - 48.00	1.0000	1.0000
L40	21	LDF7-50A(1-5/8)	44.25 - 48.00	1.0000	1.0000
L40	23	#20 Bar	44.25 - 48.00	1.0000	1.0000
L40	24	#20 Bar	44.25 - 48.00	1.0000	1.0000
L40	25	#20 Bar	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	26	#20 Bar	44.25 - 48.00	1.0000	1.0000
L40	28	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	1.0000	1.0000
L40	29	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	1.0000	1.0000
L40	30	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	1.0000	1.0000
L40	31	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	1.0000	1.0000
L40	33	PL 1.25x5	47.00 - 48.00	1.0000	1.0000
L40	34	PL 1.25x5	47.00 - 48.00	1.0000	1.0000
L40	35	PL 1.25x5	47.00 - 48.00	1.0000	1.0000
L40	36	PL 1.25x5	47.00 - 48.00	1.0000	1.0000
L40	55	PL 2x6	44.25 - 48.00	1.0000	1.0000
L40	56	PL 2x6	44.25 - 48.00	1.0000	1.0000
L40	57	PL 2x6	44.25 - 48.00	1.0000	1.0000
L40	58	PL 2x6	44.25 - 48.00	1.0000	1.0000
L41	2	Safety Line 3/8	44.00 - 44.25	1.0000	1.0000
L41	11	HB114-21U3M12-XXXF(1-1/4)	44.00 - 44.25	1.0000	1.0000
L41	12	HB158-21U6S12-60M-01(1-5/8)	44.00 - 44.25	1.0000	1.0000
L41	14	AL7-50(1-5/8)	44.00 - 44.25	1.0000	1.0000
L41	20	HB114-U6S12-XXX-LI(1-1/4)	44.00 - 44.25	1.0000	1.0000
L41	21	LDF7-50A(1-5/8)	44.00 - 44.25	1.0000	1.0000
L41	23	#20 Bar	44.00 - 44.25	1.0000	1.0000
L41	24	#20 Bar	44.00 - 44.25	1.0000	1.0000
L41	25	#20 Bar	44.00 - 44.25	1.0000	1.0000
L41	26	#20 Bar	44.00 - 44.25	1.0000	1.0000
L41	28	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	1.0000	1.0000
L41	29	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	1.0000	1.0000
L41	30	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	1.0000	1.0000
L41	31	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	1.0000	1.0000
L41	55	PL 2x6	44.00 - 44.25	1.0000	1.0000
L41	56	PL 2x6	44.00 - 44.25	1.0000	1.0000
L41	57	PL 2x6	44.00 - 44.25	1.0000	1.0000
L41	58	PL 2x6	44.00 - 44.25	1.0000	1.0000
L42	2	Safety Line 3/8	39.00 - 44.00	1.0000	1.0000
L42	11	HB114-21U3M12-XXXF(1-1/4)	39.00 - 44.00	1.0000	1.0000
L42	12	HB158-21U6S12-60M-01(1-5/8)	39.00 - 44.00	1.0000	1.0000
L42	14	AL7-50(1-5/8)	39.00 - 44.00	1.0000	1.0000
L42	20	HB114-U6S12-XXX-LI(1-1/4)	39.00 - 44.00	1.0000	1.0000
L42	21	LDF7-50A(1-5/8)	39.00 - 44.00	1.0000	1.0000
L42	23	#20 Bar	39.00 - 44.00	1.0000	1.0000
L42	24	#20 Bar	39.00 - 44.00	1.0000	1.0000
L42	25	#20 Bar	39.00 - 44.00	1.0000	1.0000
L42	26	#20 Bar	39.00 - 44.00	1.0000	1.0000
L42	28	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	1.0000	1.0000
L42	29	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	1.0000	1.0000
L42	30	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	1.0000	1.0000
L42	31	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	1.0000	1.0000
L42	55	PL 2x6	39.00 - 44.00	1.0000	1.0000
L42	56	PL 2x6	39.00 - 44.00	1.0000	1.0000
L42	57	PL 2x6	39.00 - 44.00	1.0000	1.0000
L42	58	PL 2x6	39.00 - 44.00	1.0000	1.0000
L43	2	Safety Line 3/8	38.50 - 39.00	1.0000	1.0000
L43	11	HB114-21U3M12-XXXF(1-1/4)	38.50 - 39.00	1.0000	1.0000
L43	12	HB158-21U6S12-60M-01(1-5/8)	38.50 - 39.00	1.0000	1.0000
L43	14	AL7-50(1-5/8)	38.50 - 39.00	1.0000	1.0000
L43	20	HB114-U6S12-XXX-LI(1-1/	38.50 - 39.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		4)			
L43	21	LDF7-50A(1-5/8)	38.50 - 39.00	1.0000	1.0000
L43	23	#20 Bar	38.50 - 39.00	1.0000	1.0000
L43	24	#20 Bar	38.50 - 39.00	1.0000	1.0000
L43	25	#20 Bar	38.50 - 39.00	1.0000	1.0000
L43	26	#20 Bar	38.50 - 39.00	1.0000	1.0000
L43	28	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	1.0000	1.0000
L43	29	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	1.0000	1.0000
L43	30	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	1.0000	1.0000
L43	31	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	1.0000	1.0000
L43	55	PL 2x6	38.50 - 39.00	1.0000	1.0000
L43	56	PL 2x6	38.50 - 39.00	1.0000	1.0000
L43	57	PL 2x6	38.50 - 39.00	1.0000	1.0000
L43	58	PL 2x6	38.50 - 39.00	1.0000	1.0000
L44	2	Safety Line 3/8	38.25 - 38.50	1.0000	1.0000
L44	11	HB114-21U3M12-XXXF(1-1/4)	38.25 - 38.50	1.0000	1.0000
L44	12	HB158-21U6S12-60M-01(1-5/8)	38.25 - 38.50	1.0000	1.0000
L44	14	AL7-50(1-5/8)	38.25 - 38.50	1.0000	1.0000
L44	20	HB114-U6S12-XXX-LI(1-1/4)	38.25 - 38.50	1.0000	1.0000
L44	21	LDF7-50A(1-5/8)	38.25 - 38.50	1.0000	1.0000
L44	23	#20 Bar	38.25 - 38.50	1.0000	1.0000
L44	24	#20 Bar	38.25 - 38.50	1.0000	1.0000
L44	25	#20 Bar	38.25 - 38.50	1.0000	1.0000
L44	26	#20 Bar	38.25 - 38.50	1.0000	1.0000
L44	28	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	1.0000	1.0000
L44	29	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	1.0000	1.0000
L44	30	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	1.0000	1.0000
L44	31	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	1.0000	1.0000
L44	55	PL 2x6	38.25 - 38.50	1.0000	1.0000
L44	56	PL 2x6	38.25 - 38.50	1.0000	1.0000
L44	57	PL 2x6	38.25 - 38.50	1.0000	1.0000
L44	58	PL 2x6	38.25 - 38.50	1.0000	1.0000
L45	2	Safety Line 3/8	30.00 - 38.25	1.0000	1.0000
L45	11	HB114-21U3M12-XXXF(1-1/4)	30.00 - 38.25	1.0000	1.0000
L45	12	HB158-21U6S12-60M-01(1-5/8)	30.00 - 38.25	1.0000	1.0000
L45	14	AL7-50(1-5/8)	30.00 - 38.25	1.0000	1.0000
L45	20	HB114-U6S12-XXX-LI(1-1/4)	30.00 - 38.25	1.0000	1.0000
L45	21	LDF7-50A(1-5/8)	30.00 - 38.25	1.0000	1.0000
L45	23	#20 Bar	30.00 - 38.25	1.0000	1.0000
L45	24	#20 Bar	30.00 - 38.25	1.0000	1.0000
L45	25	#20 Bar	30.00 - 38.25	1.0000	1.0000
L45	26	#20 Bar	30.00 - 38.25	1.0000	1.0000
L45	28	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	1.0000	1.0000
L45	29	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	1.0000	1.0000
L45	30	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	1.0000	1.0000
L45	31	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	1.0000	1.0000
L45	55	PL 2x6	30.00 - 38.25	1.0000	1.0000
L45	56	PL 2x6	30.00 - 38.25	1.0000	1.0000
L45	57	PL 2x6	30.00 - 38.25	1.0000	1.0000
L45	58	PL 2x6	30.00 - 38.25	1.0000	1.0000
L46	2	Safety Line 3/8	29.00 - 30.00	1.0000	1.0000
L46	11	HB114-21U3M12-XXXF(1-1/4)	29.00 - 30.00	1.0000	1.0000
L46	12	HB158-21U6S12-60M-01(1-5/8)	29.00 - 30.00	1.0000	1.0000
L46	14	AL7-50(1-5/8)	29.00 - 30.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L46	20	HB114-U6S12-XXX-LI(1-1/4)	29.00 - 30.00	1.0000	1.0000
L46	21	LDF7-50A(1-5/8)	29.00 - 30.00	1.0000	1.0000
L46	23	#20 Bar	29.00 - 30.00	1.0000	1.0000
L46	24	#20 Bar	29.00 - 30.00	1.0000	1.0000
L46	25	#20 Bar	29.00 - 30.00	1.0000	1.0000
L46	26	#20 Bar	29.00 - 30.00	1.0000	1.0000
L46	28	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	1.0000	1.0000
L46	29	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	1.0000	1.0000
L46	30	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	1.0000	1.0000
L46	31	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	1.0000	1.0000
L46	55	PL 2x6	29.00 - 30.00	1.0000	1.0000
L46	56	PL 2x6	29.00 - 30.00	1.0000	1.0000
L46	57	PL 2x6	29.00 - 30.00	1.0000	1.0000
L46	58	PL 2x6	29.00 - 30.00	1.0000	1.0000
L47	2	Safety Line 3/8	24.00 - 29.00	1.0000	1.0000
L47	11	HB114-21U3M12-XXXF(1-1/4)	24.00 - 29.00	1.0000	1.0000
L47	12	HB158-21U6S12-60M-01(1-5/8)	24.00 - 29.00	1.0000	1.0000
L47	14	AL7-50(1-5/8)	24.00 - 29.00	1.0000	1.0000
L47	20	HB114-U6S12-XXX-LI(1-1/4)	24.00 - 29.00	1.0000	1.0000
L47	21	LDF7-50A(1-5/8)	24.00 - 29.00	1.0000	1.0000
L47	23	#20 Bar	24.00 - 29.00	1.0000	1.0000
L47	24	#20 Bar	24.00 - 29.00	1.0000	1.0000
L47	25	#20 Bar	24.00 - 29.00	1.0000	1.0000
L47	26	#20 Bar	24.00 - 29.00	1.0000	1.0000
L47	28	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	1.0000	1.0000
L47	29	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	1.0000	1.0000
L47	30	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	1.0000	1.0000
L47	31	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	1.0000	1.0000
L47	55	PL 2x6	24.00 - 29.00	1.0000	1.0000
L47	56	PL 2x6	24.00 - 29.00	1.0000	1.0000
L47	57	PL 2x6	24.00 - 29.00	1.0000	1.0000
L47	58	PL 2x6	24.00 - 29.00	1.0000	1.0000
L48	2	Safety Line 3/8	23.75 - 24.00	1.0000	1.0000
L48	11	HB114-21U3M12-XXXF(1-1/4)	23.75 - 24.00	1.0000	1.0000
L48	12	HB158-21U6S12-60M-01(1-5/8)	23.75 - 24.00	1.0000	1.0000
L48	14	AL7-50(1-5/8)	23.75 - 24.00	1.0000	1.0000
L48	20	HB114-U6S12-XXX-LI(1-1/4)	23.75 - 24.00	1.0000	1.0000
L48	21	LDF7-50A(1-5/8)	23.75 - 24.00	1.0000	1.0000
L48	23	#20 Bar	23.75 - 24.00	1.0000	1.0000
L48	24	#20 Bar	23.75 - 24.00	1.0000	1.0000
L48	25	#20 Bar	23.75 - 24.00	1.0000	1.0000
L48	26	#20 Bar	23.75 - 24.00	1.0000	1.0000
L48	28	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	1.0000	1.0000
L48	29	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	1.0000	1.0000
L48	30	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	1.0000	1.0000
L48	31	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	1.0000	1.0000
L48	55	PL 2x6	23.75 - 24.00	1.0000	1.0000
L48	56	PL 2x6	23.75 - 24.00	1.0000	1.0000
L48	57	PL 2x6	23.75 - 24.00	1.0000	1.0000
L48	58	PL 2x6	23.75 - 24.00	1.0000	1.0000
L49	2	Safety Line 3/8	23.50 - 23.75	1.0000	1.0000
L49	11	HB114-21U3M12-XXXF(1-1/4)	23.50 - 23.75	1.0000	1.0000
L49	12	HB158-21U6S12-60M-01(1-5/8)	23.50 - 23.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L49	14	AL7-50(1-5/8)	23.50 - 23.75	1.0000	1.0000
L49	20	HB114-U6S12-XXX-LI(1-1/4)	23.50 - 23.75	1.0000	1.0000
L49	21	LDF7-50A(1-5/8)	23.50 - 23.75	1.0000	1.0000
L49	23	#20 Bar	23.50 - 23.75	1.0000	1.0000
L49	24	#20 Bar	23.50 - 23.75	1.0000	1.0000
L49	25	#20 Bar	23.50 - 23.75	1.0000	1.0000
L49	26	#20 Bar	23.50 - 23.75	1.0000	1.0000
L49	28	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	1.0000	1.0000
L49	29	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	1.0000	1.0000
L49	30	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	1.0000	1.0000
L49	31	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	1.0000	1.0000
L49	55	PL 2x6	23.50 - 23.75	1.0000	1.0000
L49	56	PL 2x6	23.50 - 23.75	1.0000	1.0000
L49	57	PL 2x6	23.50 - 23.75	1.0000	1.0000
L49	58	PL 2x6	23.50 - 23.75	1.0000	1.0000
L50	2	Safety Line 3/8	18.50 - 23.50	1.0000	1.0000
L50	11	HB114-21U3M12-XXXF(1-1/4)	18.50 - 23.50	1.0000	1.0000
L50	12	HB158-21U6S12-60M-01(1-5/8)	18.50 - 23.50	1.0000	1.0000
L50	14	AL7-50(1-5/8)	18.50 - 23.50	1.0000	1.0000
L50	20	HB114-U6S12-XXX-LI(1-1/4)	18.50 - 23.50	1.0000	1.0000
L50	21	LDF7-50A(1-5/8)	18.50 - 23.50	1.0000	1.0000
L50	23	#20 Bar	18.50 - 23.50	1.0000	1.0000
L50	24	#20 Bar	18.50 - 23.50	1.0000	1.0000
L50	25	#20 Bar	18.50 - 23.50	1.0000	1.0000
L50	26	#20 Bar	18.50 - 23.50	1.0000	1.0000
L50	28	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	1.0000	1.0000
L50	29	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	1.0000	1.0000
L50	30	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	1.0000	1.0000
L50	31	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	1.0000	1.0000
L50	55	PL 2x6	18.50 - 23.50	1.0000	1.0000
L50	56	PL 2x6	18.50 - 23.50	1.0000	1.0000
L50	57	PL 2x6	18.50 - 23.50	1.0000	1.0000
L50	58	PL 2x6	18.50 - 23.50	1.0000	1.0000
L51	2	Safety Line 3/8	13.50 - 18.50	1.0000	1.0000
L51	11	HB114-21U3M12-XXXF(1-1/4)	13.50 - 18.50	1.0000	1.0000
L51	12	HB158-21U6S12-60M-01(1-5/8)	13.50 - 18.50	1.0000	1.0000
L51	14	AL7-50(1-5/8)	13.50 - 18.50	1.0000	1.0000
L51	20	HB114-U6S12-XXX-LI(1-1/4)	13.50 - 18.50	1.0000	1.0000
L51	21	LDF7-50A(1-5/8)	13.50 - 18.50	1.0000	1.0000
L51	23	#20 Bar	13.50 - 18.50	1.0000	1.0000
L51	24	#20 Bar	13.50 - 18.50	1.0000	1.0000
L51	25	#20 Bar	13.50 - 18.50	1.0000	1.0000
L51	26	#20 Bar	13.50 - 18.50	1.0000	1.0000
L51	28	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	1.0000	1.0000
L51	29	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	1.0000	1.0000
L51	30	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	1.0000	1.0000
L51	31	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	1.0000	1.0000
L51	55	PL 2x6	13.50 - 18.50	1.0000	1.0000
L51	56	PL 2x6	13.50 - 18.50	1.0000	1.0000
L51	57	PL 2x6	13.50 - 18.50	1.0000	1.0000
L51	58	PL 2x6	13.50 - 18.50	1.0000	1.0000
L52	2	Safety Line 3/8	8.50 - 13.50	1.0000	1.0000
L52	11	HB114-21U3M12-XXXF(1-1/4)	8.50 - 13.50	1.0000	1.0000
L52	12	HB158-21U6S12-60M-01(1-	8.50 - 13.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		5/8)			
L52	14	AL7-50(1-5/8)	8.50 - 13.50	1.0000	1.0000
L52	20	HB114-U6S12-XXX-LI(1-1/4)	8.50 - 13.50	1.0000	1.0000
L52	21	LDF7-50A(1-5/8)	8.50 - 13.50	1.0000	1.0000
L52	23	#20 Bar	8.50 - 13.50	1.0000	1.0000
L52	24	#20 Bar	8.50 - 13.50	1.0000	1.0000
L52	25	#20 Bar	8.50 - 13.50	1.0000	1.0000
L52	26	#20 Bar	8.50 - 13.50	1.0000	1.0000
L52	28	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	1.0000	1.0000
L52	29	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	1.0000	1.0000
L52	30	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	1.0000	1.0000
L52	31	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	1.0000	1.0000
L52	55	PL 2x6	8.50 - 13.50	1.0000	1.0000
L52	56	PL 2x6	8.50 - 13.50	1.0000	1.0000
L52	57	PL 2x6	8.50 - 13.50	1.0000	1.0000
L52	58	PL 2x6	8.50 - 13.50	1.0000	1.0000
L53	2	Safety Line 3/8	3.50 - 8.50	1.0000	1.0000
L53	11	HB114-21U3M12-XXXF(1-1/4)	3.50 - 8.50	1.0000	1.0000
L53	12	HB158-21U6S12-60M-01(1-5/8)	3.50 - 8.50	1.0000	1.0000
L53	14	AL7-50(1-5/8)	3.50 - 8.50	1.0000	1.0000
L53	20	HB114-U6S12-XXX-LI(1-1/4)	3.50 - 8.50	1.0000	1.0000
L53	21	LDF7-50A(1-5/8)	3.50 - 8.50	1.0000	1.0000
L53	23	#20 Bar	3.50 - 8.50	1.0000	1.0000
L53	24	#20 Bar	3.50 - 8.50	1.0000	1.0000
L53	25	#20 Bar	3.50 - 8.50	1.0000	1.0000
L53	26	#20 Bar	3.50 - 8.50	1.0000	1.0000
L53	28	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	1.0000	1.0000
L53	29	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	1.0000	1.0000
L53	30	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	1.0000	1.0000
L53	31	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	1.0000	1.0000
L53	55	PL 2x6	3.50 - 8.50	1.0000	1.0000
L53	56	PL 2x6	3.50 - 8.50	1.0000	1.0000
L53	57	PL 2x6	3.50 - 8.50	1.0000	1.0000
L53	58	PL 2x6	3.50 - 8.50	1.0000	1.0000
L54	2	Safety Line 3/8	0.00 - 3.50	1.0000	1.0000
L54	11	HB114-21U3M12-XXXF(1-1/4)	0.00 - 3.50	1.0000	1.0000
L54	12	HB158-21U6S12-60M-01(1-5/8)	0.00 - 3.50	1.0000	1.0000
L54	14	AL7-50(1-5/8)	0.00 - 3.50	1.0000	1.0000
L54	20	HB114-U6S12-XXX-LI(1-1/4)	0.00 - 3.50	1.0000	1.0000
L54	21	LDF7-50A(1-5/8)	0.00 - 3.50	1.0000	1.0000
L54	23	#20 Bar	0.00 - 3.50	1.0000	1.0000
L54	24	#20 Bar	0.00 - 3.50	1.0000	1.0000
L54	25	#20 Bar	0.00 - 3.50	1.0000	1.0000
L54	26	#20 Bar	0.00 - 3.50	1.0000	1.0000
L54	28	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	1.0000	1.0000
L54	29	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	1.0000	1.0000
L54	30	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	1.0000	1.0000
L54	31	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	1.0000	1.0000
L54	55	PL 2x6	0.00 - 3.50	1.0000	1.0000
L54	56	PL 2x6	0.00 - 3.50	1.0000	1.0000
L54	57	PL 2x6	0.00 - 3.50	1.0000	1.0000
L54	58	PL 2x6	0.00 - 3.50	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L5	50	PL 1.25x4	128.50 - 130.00	Auto	0.0000
L5	51	PL 1.25x4	128.50 - 130.00	Auto	0.0000
L5	52	PL 1.25x4	128.50 - 130.00	Auto	0.0000
L5	53	PL 1.25x4	128.50 - 130.00	Auto	0.0000
L6	50	PL 1.25x4	128.25 - 128.50	Auto	0.2310
L6	51	PL 1.25x4	128.25 - 128.50	Auto	0.2310
L6	52	PL 1.25x4	128.25 - 128.50	Auto	0.2310
L6	53	PL 1.25x4	128.25 - 128.50	Auto	0.2310
L7	50	PL 1.25x4	123.25 - 128.25	Auto	0.1885
L7	51	PL 1.25x4	123.25 - 128.25	Auto	0.1885
L7	52	PL 1.25x4	123.25 - 128.25	Auto	0.1885
L7	53	PL 1.25x4	123.25 - 128.25	Auto	0.1885
L8	50	PL 1.25x4	118.25 - 123.25	Auto	0.1228
L8	51	PL 1.25x4	118.25 - 123.25	Auto	0.1228
L8	52	PL 1.25x4	118.25 - 123.25	Auto	0.1228
L8	53	PL 1.25x4	118.25 - 123.25	Auto	0.1228
L9	50	PL 1.25x4	113.25 - 118.25	Auto	0.0654
L9	51	PL 1.25x4	113.25 - 118.25	Auto	0.0654
L9	52	PL 1.25x4	113.25 - 118.25	Auto	0.0654
L9	53	PL 1.25x4	113.25 - 118.25	Auto	0.0654
L10	50	PL 1.25x4	109.00 - 113.25	Auto	0.0127
L10	51	PL 1.25x4	109.00 - 113.25	Auto	0.0127
L10	52	PL 1.25x4	109.00 - 113.25	Auto	0.0127
L10	53	PL 1.25x4	109.00 - 113.25	Auto	0.0127
L11	43	PL 1.25x5	108.75 - 109.00	Auto	0.2620
L11	44	PL 1.25x5	108.75 - 109.00	Auto	0.2620
L11	47	PL 1.25x5	108.75 -	Auto	0.2620

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
			109.00		
L11	48	PL 1.25x5	108.75 - 109.00	Auto	0.2620
L12	43	PL 1.25x5	104.17 - 108.75	Auto	0.2290
L12	44	PL 1.25x5	104.17 - 108.75	Auto	0.2290
L12	47	PL 1.25x5	104.17 - 108.75	Auto	0.2290
L12	48	PL 1.25x5	104.17 - 108.75	Auto	0.2290
L12	55	PL 2x6	104.17 - 108.67	Manual	1.0000
L12	56	PL 2x6	104.17 - 106.00	Manual	1.0000
L12	57	PL 2x6	104.17 - 108.67	Manual	1.0000
L12	58	PL 2x6	104.17 - 107.75	Manual	1.0000
L13	43	PL 1.25x5	103.92 - 104.17	Auto	0.3569
L13	44	PL 1.25x5	103.92 - 104.17	Auto	0.3569
L13	47	PL 1.25x5	103.92 - 104.17	Auto	0.3569
L13	48	PL 1.25x5	103.92 - 104.17	Auto	0.3569
L13	55	PL 2x6	103.92 - 104.17	Manual	1.0000
L13	56	PL 2x6	103.92 - 104.17	Manual	1.0000
L13	57	PL 2x6	103.92 - 104.17	Manual	1.0000
L13	58	PL 2x6	103.92 - 104.17	Manual	1.0000
L14	43	PL 1.25x5	103.17 - 103.92	Auto	0.3528
L14	44	PL 1.25x5	103.17 - 103.92	Auto	0.3528
L14	47	PL 1.25x5	103.17 - 103.92	Auto	0.3528
L14	48	PL 1.25x5	103.17 - 103.92	Auto	0.3528
L14	55	PL 2x6	103.17 - 103.92	Manual	1.0000
L14	56	PL 2x6	103.17 - 103.92	Manual	1.0000
L14	57	PL 2x6	103.17 - 103.92	Manual	1.0000
L14	58	PL 2x6	103.17 - 103.92	Manual	1.0000
L15	43	PL 1.25x5	102.92 - 103.17	Auto	0.4292
L15	44	PL 1.25x5	102.92 - 103.17	Auto	0.4292
L15	45	PL 1.25x5	102.92 - 103.17	Auto	0.4292
L15	47	PL 1.25x5	102.92 - 103.17	Auto	0.4292
L15	48	PL 1.25x5	102.92 - 103.17	Auto	0.4292

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L15	55	PL 2x6	102.92 - 103.17	Manual	1.0000
L15	56	PL 2x6	102.92 - 103.17	Manual	1.0000
L15	57	PL 2x6	102.92 - 103.17	Manual	1.0000
L15	58	PL 2x6	102.92 - 103.17	Manual	1.0000
L16	43	PL 1.25x5	102.42 - 102.92	Auto	0.4262
L16	44	PL 1.25x5	102.42 - 102.92	Auto	0.4262
L16	45	PL 1.25x5	102.42 - 102.92	Auto	0.4262
L16	47	PL 1.25x5	102.42 - 102.92	Auto	0.4262
L16	48	PL 1.25x5	102.42 - 102.92	Auto	0.4262
L16	55	PL 2x6	102.42 - 102.92	Manual	1.0000
L16	56	PL 2x6	102.42 - 102.92	Manual	1.0000
L16	57	PL 2x6	102.42 - 102.92	Manual	1.0000
L16	58	PL 2x6	102.42 - 102.92	Manual	1.0000
L17	43	PL 1.25x5	102.17 - 102.42	Auto	0.3293
L17	44	PL 1.25x5	102.17 - 102.42	Auto	0.3293
L17	45	PL 1.25x5	102.17 - 102.42	Auto	0.3293
L17	47	PL 1.25x5	102.17 - 102.42	Auto	0.3293
L17	48	PL 1.25x5	102.17 - 102.42	Auto	0.3293
L17	55	PL 2x6	102.17 - 102.42	Manual	1.0000
L17	56	PL 2x6	102.17 - 102.42	Manual	1.0000
L17	57	PL 2x6	102.17 - 102.42	Manual	1.0000
L17	58	PL 2x6	102.17 - 102.42	Manual	1.0000
L18	43	PL 1.25x5	100.92 - 102.17	Auto	0.3233
L18	44	PL 1.25x5	100.92 - 102.17	Auto	0.3233
L18	45	PL 1.25x5	100.92 - 102.17	Auto	0.3233
L18	47	PL 1.25x5	100.92 - 102.17	Auto	0.3233
L18	48	PL 1.25x5	100.92 - 102.17	Auto	0.3233
L18	55	PL 2x6	100.92 - 102.17	Manual	1.0000
L18	56	PL 2x6	100.92 - 102.17	Manual	1.0000
L18	57	PL 2x6	100.92 - 102.17	Manual	1.0000
L18	58	PL 2x6	100.92 -	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
			102.17		
L19	43	PL 1.25x5	100.67 - 100.92	Auto	0.3574
L19	44	PL 1.25x5	100.67 - 100.92	Auto	0.3574
L19	45	PL 1.25x5	100.67 - 100.92	Auto	0.3574
L19	47	PL 1.25x5	100.67 - 100.92	Auto	0.3574
L19	48	PL 1.25x5	100.67 - 100.92	Auto	0.3574
L19	55	PL 2x6	100.67 - 100.92	Manual	1.0000
L19	56	PL 2x6	100.67 - 100.92	Manual	1.0000
L19	57	PL 2x6	100.67 - 100.92	Manual	1.0000
L19	58	PL 2x6	100.67 - 100.92	Manual	1.0000
L20	43	PL 1.25x5	99.58 - 100.67	Auto	0.3386
L20	44	PL 1.25x5	99.58 - 100.67	Auto	0.3386
L20	45	PL 1.25x5	99.58 - 100.67	Auto	0.3386
L20	47	PL 1.25x5	100.17 - 100.67	Auto	0.3410
L20	48	PL 1.25x5	100.17 - 100.67	Auto	0.3410
L20	55	PL 2x6	99.58 - 100.67	Manual	1.0000
L20	56	PL 2x6	99.58 - 100.67	Manual	1.0000
L20	57	PL 2x6	99.58 - 100.67	Manual	1.0000
L20	58	PL 2x6	99.58 - 100.67	Manual	1.0000
L21	43	PL 1.25x5	99.33 - 99.58	Auto	0.5475
L21	44	PL 1.25x5	99.33 - 99.58	Auto	0.5475
L21	45	PL 1.25x5	99.33 - 99.58	Auto	0.5475
L21	55	PL 2x6	99.33 - 99.58	Manual	1.0000
L21	56	PL 2x6	99.33 - 99.58	Manual	1.0000
L21	57	PL 2x6	99.33 - 99.58	Manual	1.0000
L21	58	PL 2x6	99.33 - 99.58	Manual	1.0000
L22	43	PL 1.25x5	95.42 - 99.33	Auto	0.5039
L22	44	PL 1.25x5	95.42 - 99.33	Auto	0.5039
L22	45	PL 1.25x5	95.42 - 99.33	Auto	0.5039
L22	55	PL 2x6	95.42 - 99.33	Manual	1.0000
L22	56	PL 2x6	95.42 - 99.33	Manual	1.0000
L22	57	PL 2x6	95.42 - 99.33	Manual	1.0000
L22	58	PL 2x6	95.42 - 99.33	Manual	1.0000
L23	43	PL 1.25x5	95.17 - 95.42	Auto	0.3263
L23	44	PL 1.25x5	95.17 - 95.42	Auto	0.3263
L23	45	PL 1.25x5	95.17 - 95.42	Auto	0.3263
L23	55	PL 2x6	95.17 - 95.42	Manual	1.0000
L23	56	PL 2x6	95.17 - 95.42	Manual	1.0000
L23	57	PL 2x6	95.17 - 95.42	Manual	1.0000
L23	58	PL 2x6	95.17 - 95.42	Manual	1.0000
L24	43	PL 1.25x5	93.17 - 95.17	Auto	0.2904
L24	44	PL 1.25x5	93.17 - 95.17	Auto	0.2904
L24	45	PL 1.25x5	93.17 - 95.17	Auto	0.2904
L24	55	PL 2x6	90.17 - 95.17	Manual	1.0000
L24	56	PL 2x6	90.17 - 95.17	Manual	1.0000
L24	57	PL 2x6	90.17 - 95.17	Manual	1.0000
L24	58	PL 2x6	90.17 - 95.17	Manual	1.0000
L25	55	PL 2x6	85.17 - 90.17	Manual	1.0000
L25	56	PL 2x6	85.17 - 90.17	Manual	1.0000
L25	57	PL 2x6	85.17 - 90.17	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L25	58	PL 2x6	85.17 - 90.17	Manual	1.0000
L26	38	PL 1.25x4	80.50 - 82.00	Auto	0.0000
L26	39	PL 1.25x4	80.50 - 82.00	Auto	0.0000
L26	40	PL 1.25x4	80.50 - 82.00	Auto	0.0000
L26	41	PL 1.25x4	80.50 - 82.00	Auto	0.0000
L26	55	PL 2x6	80.50 - 85.17	Manual	1.0000
L26	56	PL 2x6	80.50 - 85.17	Manual	1.0000
L26	57	PL 2x6	80.50 - 85.17	Manual	1.0000
L26	58	PL 2x6	80.50 - 85.17	Manual	1.0000
L27	38	PL 1.25x4	80.25 - 80.50	Auto	0.1744
L27	39	PL 1.25x4	80.25 - 80.50	Auto	0.1744
L27	40	PL 1.25x4	80.25 - 80.50	Auto	0.1744
L27	41	PL 1.25x4	80.25 - 80.50	Auto	0.1744
L27	55	PL 2x6	80.25 - 80.50	Manual	1.0000
L27	56	PL 2x6	80.25 - 80.50	Manual	1.0000
L27	57	PL 2x6	80.25 - 80.50	Manual	1.0000
L27	58	PL 2x6	80.25 - 80.50	Manual	1.0000
L28	38	PL 1.25x4	75.25 - 80.25	Auto	0.1143
L28	39	PL 1.25x4	75.25 - 80.25	Auto	0.1143
L28	40	PL 1.25x4	75.25 - 80.25	Auto	0.1143
L28	41	PL 1.25x4	75.25 - 80.25	Auto	0.1143
L28	55	PL 2x6	75.25 - 80.25	Manual	1.0000
L28	56	PL 2x6	75.25 - 80.25	Manual	1.0000
L28	57	PL 2x6	75.25 - 80.25	Manual	1.0000
L28	58	PL 2x6	75.25 - 80.25	Manual	1.0000
L29	38	PL 1.25x4	73.58 - 75.25	Auto	0.0806
L29	39	PL 1.25x4	73.58 - 75.25	Auto	0.0806
L29	40	PL 1.25x4	73.58 - 75.25	Auto	0.0806
L29	41	PL 1.25x4	73.58 - 75.25	Auto	0.0806
L29	55	PL 2x6	73.58 - 75.25	Manual	1.0000
L29	56	PL 2x6	73.58 - 75.25	Manual	1.0000
L29	57	PL 2x6	73.58 - 75.25	Manual	1.0000
L29	58	PL 2x6	73.58 - 75.25	Manual	1.0000
L30	38	PL 1.25x4	73.33 - 73.58	Auto	0.0541
L30	39	PL 1.25x4	73.33 - 73.58	Auto	0.0541
L30	40	PL 1.25x4	73.33 - 73.58	Auto	0.0541
L30	41	PL 1.25x4	73.33 - 73.58	Auto	0.0541
L30	55	PL 2x6	73.33 - 73.58	Manual	1.0000
L30	56	PL 2x6	73.33 - 73.58	Manual	1.0000
L30	57	PL 2x6	73.33 - 73.58	Manual	1.0000
L30	58	PL 2x6	73.33 - 73.58	Manual	1.0000
L31	38	PL 1.25x4	69.00 - 73.33	Auto	0.0310
L31	39	PL 1.25x4	69.00 - 73.33	Auto	0.0310
L31	40	PL 1.25x4	69.00 - 73.33	Auto	0.0310
L31	41	PL 1.25x4	69.00 - 73.33	Auto	0.0310
L31	55	PL 2x6	69.00 - 73.33	Manual	1.0000
L31	56	PL 2x6	69.00 - 73.33	Manual	1.0000
L31	57	PL 2x6	69.00 - 73.33	Manual	1.0000
L31	58	PL 2x6	69.00 - 73.33	Manual	1.0000
L32	33	PL 1.25x5	67.00 - 69.00	Auto	0.2571
L32	34	PL 1.25x5	67.00 - 69.00	Auto	0.2571
L32	35	PL 1.25x5	67.00 - 69.00	Auto	0.2571
L32	36	PL 1.25x5	67.00 - 69.00	Auto	0.2571
L32	38	PL 1.25x4	67.00 - 69.00	Auto	0.0714
L32	39	PL 1.25x4	67.00 - 69.00	Auto	0.0714
L32	40	PL 1.25x4	67.00 - 69.00	Auto	0.0714
L32	41	PL 1.25x4	67.00 - 69.00	Auto	0.0714
L32	55	PL 2x6	67.00 - 69.00	Manual	1.0000
L32	56	PL 2x6	67.00 - 69.00	Manual	1.0000
L32	57	PL 2x6	67.00 - 69.00	Manual	1.0000
L32	58	PL 2x6	67.00 - 69.00	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L33	33	PL 1.25x5	66.75 - 67.00	Auto	0.2473
L33	34	PL 1.25x5	66.75 - 67.00	Auto	0.2473
L33	35	PL 1.25x5	66.75 - 67.00	Auto	0.2473
L33	36	PL 1.25x5	66.75 - 67.00	Auto	0.2473
L33	38	PL 1.25x4	66.75 - 67.00	Auto	0.0592
L33	39	PL 1.25x4	66.75 - 67.00	Auto	0.0592
L33	40	PL 1.25x4	66.75 - 67.00	Auto	0.0592
L33	41	PL 1.25x4	66.75 - 67.00	Auto	0.0592
L33	55	PL 2x6	66.75 - 67.00	Manual	1.0000
L33	56	PL 2x6	66.75 - 67.00	Manual	1.0000
L33	57	PL 2x6	66.75 - 67.00	Manual	1.0000
L33	58	PL 2x6	66.75 - 67.00	Manual	1.0000
L34	33	PL 1.25x5	66.50 - 66.75	Auto	0.2854
L34	34	PL 1.25x5	66.50 - 66.75	Auto	0.2854
L34	35	PL 1.25x5	66.50 - 66.75	Auto	0.2854
L34	36	PL 1.25x5	66.50 - 66.75	Auto	0.2854
L34	38	PL 1.25x4	66.50 - 66.75	Auto	0.1067
L34	39	PL 1.25x4	66.50 - 66.75	Auto	0.1067
L34	40	PL 1.25x4	66.50 - 66.75	Auto	0.1067
L34	41	PL 1.25x4	66.50 - 66.75	Auto	0.1067
L34	55	PL 2x6	66.50 - 66.75	Manual	1.0000
L34	56	PL 2x6	66.50 - 66.75	Manual	1.0000
L34	57	PL 2x6	66.50 - 66.75	Manual	1.0000
L34	58	PL 2x6	66.50 - 66.75	Manual	1.0000
L35	33	PL 1.25x5	61.50 - 66.50	Auto	0.2358
L35	34	PL 1.25x5	61.50 - 66.50	Auto	0.2358
L35	35	PL 1.25x5	61.50 - 66.50	Auto	0.2358
L35	36	PL 1.25x5	61.50 - 66.50	Auto	0.2358
L35	55	PL 2x6	61.50 - 66.50	Manual	1.0000
L35	56	PL 2x6	61.50 - 66.50	Manual	1.0000
L35	57	PL 2x6	61.50 - 66.50	Manual	1.0000
L35	58	PL 2x6	61.50 - 66.50	Manual	1.0000
L36	33	PL 1.25x5	56.50 - 61.50	Auto	0.1790
L36	34	PL 1.25x5	56.50 - 61.50	Auto	0.1790
L36	35	PL 1.25x5	56.50 - 61.50	Auto	0.1790
L36	36	PL 1.25x5	56.50 - 61.50	Auto	0.1790
L36	55	PL 2x6	56.50 - 61.50	Manual	1.0000
L36	56	PL 2x6	56.50 - 61.50	Manual	1.0000
L36	57	PL 2x6	56.50 - 61.50	Manual	1.0000
L36	58	PL 2x6	56.50 - 61.50	Manual	1.0000
L37	33	PL 1.25x5	51.50 - 56.50	Auto	0.1088
L37	34	PL 1.25x5	51.50 - 56.50	Auto	0.1088
L37	35	PL 1.25x5	51.50 - 56.50	Auto	0.1088
L37	36	PL 1.25x5	51.50 - 56.50	Auto	0.1088
L37	55	PL 2x6	51.50 - 56.50	Manual	1.0000
L37	56	PL 2x6	51.50 - 56.50	Manual	1.0000
L37	57	PL 2x6	51.50 - 56.50	Manual	1.0000
L37	58	PL 2x6	51.50 - 56.50	Manual	1.0000
L38	33	PL 1.25x5	48.25 - 51.50	Auto	0.0595
L38	34	PL 1.25x5	48.25 - 51.50	Auto	0.0595
L38	35	PL 1.25x5	48.25 - 51.50	Auto	0.0595
L38	36	PL 1.25x5	48.25 - 51.50	Auto	0.0595
L38	55	PL 2x6	48.25 - 51.50	Manual	1.0000
L38	56	PL 2x6	48.25 - 51.50	Manual	1.0000
L38	57	PL 2x6	48.25 - 51.50	Manual	1.0000
L38	58	PL 2x6	48.25 - 51.50	Manual	1.0000
L39	33	PL 1.25x5	48.00 - 48.25	Auto	0.2588
L39	34	PL 1.25x5	48.00 - 48.25	Auto	0.2588
L39	35	PL 1.25x5	48.00 - 48.25	Auto	0.2588
L39	36	PL 1.25x5	48.00 - 48.25	Auto	0.2588
L39	55	PL 2x6	48.00 - 48.25	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L39	56	PL 2x6	48.00 - 48.25	Manual	1.0000
L39	57	PL 2x6	48.00 - 48.25	Manual	1.0000
L39	58	PL 2x6	48.00 - 48.25	Manual	1.0000
L40	28	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	Auto	0.3925
L40	29	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	Auto	0.3925
L40	30	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	Auto	0.3925
L40	31	(Area) CCI-65FP-065125 (H)	44.25 - 47.00	Auto	0.3925
L40	33	PL 1.25x5	47.00 - 48.00	Auto	0.2265
L40	34	PL 1.25x5	47.00 - 48.00	Auto	0.2265
L40	35	PL 1.25x5	47.00 - 48.00	Auto	0.2265
L40	36	PL 1.25x5	47.00 - 48.00	Auto	0.2265
L40	55	PL 2x6	44.25 - 48.00	Manual	1.0000
L40	56	PL 2x6	44.25 - 48.00	Manual	1.0000
L40	57	PL 2x6	44.25 - 48.00	Manual	1.0000
L40	58	PL 2x6	44.25 - 48.00	Manual	1.0000
L41	28	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	Auto	0.4237
L41	29	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	Auto	0.4237
L41	30	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	Auto	0.4237
L41	31	(Area) CCI-65FP-065125 (H)	44.00 - 44.25	Auto	0.4237
L41	55	PL 2x6	44.00 - 44.25	Manual	1.0000
L41	56	PL 2x6	44.00 - 44.25	Manual	1.0000
L41	57	PL 2x6	44.00 - 44.25	Manual	1.0000
L41	58	PL 2x6	44.00 - 44.25	Manual	1.0000
L42	28	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	Auto	0.3856
L42	29	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	Auto	0.3856
L42	30	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	Auto	0.3856
L42	31	(Area) CCI-65FP-065125 (H)	39.00 - 44.00	Auto	0.3856
L42	55	PL 2x6	39.00 - 44.00	Manual	1.0000
L42	56	PL 2x6	39.00 - 44.00	Manual	1.0000
L42	57	PL 2x6	39.00 - 44.00	Manual	1.0000
L42	58	PL 2x6	39.00 - 44.00	Manual	1.0000
L43	28	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	Auto	0.3672
L43	29	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	Auto	0.3672
L43	30	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	Auto	0.3672
L43	31	(Area) CCI-65FP-065125 (H)	38.50 - 39.00	Auto	0.3672
L43	55	PL 2x6	38.50 - 39.00	Manual	1.0000
L43	56	PL 2x6	38.50 - 39.00	Manual	1.0000
L43	57	PL 2x6	38.50 - 39.00	Manual	1.0000
L43	58	PL 2x6	38.50 - 39.00	Manual	1.0000
L44	28	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	Auto	0.3647
L44	29	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	Auto	0.3647
L44	30	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	Auto	0.3647
L44	31	(Area) CCI-65FP-065125 (H)	38.25 - 38.50	Auto	0.3647
L44	55	PL 2x6	38.25 - 38.50	Manual	1.0000
L44	56	PL 2x6	38.25 - 38.50	Manual	1.0000
L44	57	PL 2x6	38.25 - 38.50	Manual	1.0000
L44	58	PL 2x6	38.25 - 38.50	Manual	1.0000
L45	28	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	Auto	0.3157
L45	29	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	Auto	0.3157
L45	30	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	Auto	0.3157
L45	31	(Area) CCI-65FP-065125 (H)	30.00 - 38.25	Auto	0.3157
L45	55	PL 2x6	30.00 - 38.25	Manual	1.0000
L45	56	PL 2x6	30.00 - 38.25	Manual	1.0000
L45	57	PL 2x6	30.00 - 38.25	Manual	1.0000
L45	58	PL 2x6	30.00 - 38.25	Manual	1.0000
L46	28	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	Auto	0.3583
L46	29	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	Auto	0.3583
L46	30	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	Auto	0.3583
L46	31	(Area) CCI-65FP-065125 (H)	29.00 - 30.00	Auto	0.3583
L46	55	PL 2x6	29.00 - 30.00	Manual	1.0000
L46	56	PL 2x6	29.00 - 30.00	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L46	57	PL 2x6	29.00 - 30.00	Manual	1.0000
L46	58	PL 2x6	29.00 - 30.00	Manual	1.0000
L47	28	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	Auto	0.3168
L47	29	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	Auto	0.3168
L47	30	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	Auto	0.3168
L47	31	(Area) CCI-65FP-065125 (H)	24.00 - 29.00	Auto	0.3168
L47	55	PL 2x6	24.00 - 29.00	Manual	1.0000
L47	56	PL 2x6	24.00 - 29.00	Manual	1.0000
L47	57	PL 2x6	24.00 - 29.00	Manual	1.0000
L47	58	PL 2x6	24.00 - 29.00	Manual	1.0000
L48	28	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	Auto	0.2985
L48	29	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	Auto	0.2985
L48	30	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	Auto	0.2985
L48	31	(Area) CCI-65FP-065125 (H)	23.75 - 24.00	Auto	0.2985
L48	55	PL 2x6	23.75 - 24.00	Manual	1.0000
L48	56	PL 2x6	23.75 - 24.00	Manual	1.0000
L48	57	PL 2x6	23.75 - 24.00	Manual	1.0000
L48	58	PL 2x6	23.75 - 24.00	Manual	1.0000
L49	28	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	Auto	0.2864
L49	29	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	Auto	0.2864
L49	30	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	Auto	0.2864
L49	31	(Area) CCI-65FP-065125 (H)	23.50 - 23.75	Auto	0.2864
L49	55	PL 2x6	23.50 - 23.75	Manual	1.0000
L49	56	PL 2x6	23.50 - 23.75	Manual	1.0000
L49	57	PL 2x6	23.50 - 23.75	Manual	1.0000
L49	58	PL 2x6	23.50 - 23.75	Manual	1.0000
L50	28	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	Auto	0.2578
L50	29	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	Auto	0.2578
L50	30	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	Auto	0.2578
L50	31	(Area) CCI-65FP-065125 (H)	18.50 - 23.50	Auto	0.2578
L50	55	PL 2x6	18.50 - 23.50	Manual	1.0000
L50	56	PL 2x6	18.50 - 23.50	Manual	1.0000
L50	57	PL 2x6	18.50 - 23.50	Manual	1.0000
L50	58	PL 2x6	18.50 - 23.50	Manual	1.0000
L51	28	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	Auto	0.2024
L51	29	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	Auto	0.2024
L51	30	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	Auto	0.2024
L51	31	(Area) CCI-65FP-065125 (H)	13.50 - 18.50	Auto	0.2024
L51	55	PL 2x6	13.50 - 18.50	Manual	1.0000
L51	56	PL 2x6	13.50 - 18.50	Manual	1.0000
L51	57	PL 2x6	13.50 - 18.50	Manual	1.0000
L51	58	PL 2x6	13.50 - 18.50	Manual	1.0000
L52	28	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	Auto	0.1573
L52	29	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	Auto	0.1573
L52	30	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	Auto	0.1573
L52	31	(Area) CCI-65FP-065125 (H)	8.50 - 13.50	Auto	0.1573
L52	55	PL 2x6	8.50 - 13.50	Manual	1.0000
L52	56	PL 2x6	8.50 - 13.50	Manual	1.0000
L52	57	PL 2x6	8.50 - 13.50	Manual	1.0000
L52	58	PL 2x6	8.50 - 13.50	Manual	1.0000
L53	28	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	Auto	0.1018
L53	29	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	Auto	0.1018
L53	30	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	Auto	0.1018
L53	31	(Area) CCI-65FP-065125 (H)	3.50 - 8.50	Auto	0.1018
L53	55	PL 2x6	3.50 - 8.50	Manual	1.0000
L53	56	PL 2x6	3.50 - 8.50	Manual	1.0000
L53	57	PL 2x6	3.50 - 8.50	Manual	1.0000
L53	58	PL 2x6	3.50 - 8.50	Manual	1.0000
L54	28	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	Auto	0.0619
L54	29	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	Auto	0.0619
L54	30	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	Auto	0.0619

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L54	31	(Area) CCI-65FP-065125 (H)	0.00 - 3.50	Auto	0.0619
L54	55	PL 2x6	0.00 - 3.50	Manual	1.0000
L54	56	PL 2x6	0.00 - 3.50	Manual	1.0000
L54	57	PL 2x6	0.00 - 3.50	Manual	1.0000
L54	58	PL 2x6	0.00 - 3.50	Manual	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
***									
QS66512-2	A	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.010 4.410 4.810 5.650	3.370 3.760 4.150 4.970	0.11 0.17 0.23 0.38
QS66512-2	B	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.010 4.410 4.810 5.650	3.370 3.760 4.150 4.970	0.11 0.17 0.23 0.38
QS66512-2	C	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.010 4.410 4.810 5.650	3.370 3.760 4.150 4.970	0.11 0.17 0.23 0.38
HPA-65R-BUU-H6	A	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	9.220 10.000 10.790 12.430	4.650 5.360 6.090 7.600	0.05 0.11 0.17 0.32
HPA-65R-BUU-H6	B	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	9.220 10.000 10.790 12.430	4.650 5.360 6.090 7.600	0.05 0.11 0.17 0.32
HPA-65R-BUU-H6	C	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	9.220 10.000 10.790 12.430	4.650 5.360 6.090 7.600	0.05 0.11 0.17 0.32
DMP65R-BU6D	A	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	11.930 12.680 13.450 15.030	4.480 5.120 5.780 7.160	0.09 0.16 0.24 0.43
DMP65R-BU6D	B	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	11.930 12.680 13.450 15.030	4.480 5.120 5.780 7.160	0.09 0.16 0.24 0.43
DMP65R-BU6D	C	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	11.930 12.680 13.450 15.030	4.480 5.120 5.780 7.160	0.09 0.16 0.24 0.43
DC6-48-60-18-8F	A	From Centroid-Leg	4.000 0.00	0.0000	152.000	No Ice 1/2" Ice	1.212 1.892	1.212 1.892	0.03 0.05

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		g	2.00			1" Ice	2.105	2.105	0.08
						2" Ice	2.570	2.570	0.14
DC6-48-60-18-8F	B	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.212 1.892 2.105 2.570	1.212 1.892 2.105 2.570	0.03 0.05 0.08 0.14
(2) TPX-070821	A	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.469 0.559 0.656 0.872	0.101 0.147 0.202 0.334	0.01 0.01 0.02 0.03
(2) TPX-070821	B	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.469 0.559 0.656 0.872	0.101 0.147 0.202 0.334	0.01 0.01 0.02 0.03
(2) TPX-070821	C	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.469 0.559 0.656 0.872	0.101 0.147 0.202 0.334	0.01 0.01 0.02 0.03
RRUS 32 B2	A	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.05 0.07 0.10 0.16
RRUS 32 B2	B	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.05 0.07 0.10 0.16
RRUS 32 B2	C	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.05 0.07 0.10 0.16
RRUS 32 B30	A	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.05 0.07 0.10 0.16
RRUS 32 B30	B	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.05 0.07 0.10 0.16
RRUS 32 B30	C	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.05 0.07 0.10 0.16
RRUS 32 B66a	A	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.852 3.078 3.311 3.800	1.780 1.971 2.169 2.587	0.06 0.08 0.10 0.16
RRUS 32 B66a	B	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.852 3.078 3.311 3.800	1.780 1.971 2.169 2.587	0.06 0.08 0.10 0.16
RRUS 32 B66a	C	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.852 3.078 3.311 3.800	1.780 1.971 2.169 2.587	0.06 0.08 0.10 0.16
RRUS 4449 B5/B12	A	From Centroid-Le g	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice	1.968 2.144 2.328	1.408 1.564 1.727	0.07 0.09 0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice	2.718	2.075	0.16
RRUS 4449 B5/B12	B	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.968 2.144 2.328 2.718	1.408 1.564 1.727 2.075	0.07 0.09 0.11 0.16
RRUS 4449 B5/B12	C	From Centroid-Leg	4.000 0.00 2.00	0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.968 2.144 2.328 2.718	1.408 1.564 1.727 2.075	0.07 0.09 0.11 0.16
Platform Mount [LP 301-1]	C	None		0.0000	152.000	No Ice 1/2" Ice 1" Ice 2" Ice	23.810 30.240 36.330 48.050	23.810 30.240 36.330 48.050	1.59 2.10 2.73 4.34
*** ***									
NNVV-65B-R4 w/ Mount Pipe	A	From Centroid-Leg	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	7.550 8.040 8.530 9.560	4.230 4.670 5.120 6.050	0.11 0.20 0.30 0.53
NNVV-65B-R4 w/ Mount Pipe	B	From Centroid-Leg	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	7.550 8.040 8.530 9.560	4.230 4.670 5.120 6.050	0.11 0.20 0.30 0.53
NNVV-65B-R4 w/ Mount Pipe	C	From Centroid-Leg	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	7.550 8.040 8.530 9.560	4.230 4.670 5.120 6.050	0.11 0.20 0.30 0.53
AAHC w/ Mount Pipe	A	From Centroid-Leg	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.409 4.727 5.055 5.743	2.691 3.079 3.486 4.359	0.12 0.16 0.20 0.31
AAHC w/ Mount Pipe	B	From Centroid-Leg	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.409 4.727 5.055 5.743	2.691 3.079 3.486 4.359	0.12 0.16 0.20 0.31
AAHC w/ Mount Pipe	C	From Centroid-Leg	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.409 4.727 5.055 5.743	2.691 3.079 3.486 4.359	0.12 0.16 0.20 0.31
HORIZON COMPACT	B	From Centroid-Leg	4.000 0.00 5.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.721 0.828 0.942 1.193	0.372 0.454 0.543 0.745	0.01 0.02 0.03 0.05
HORIZON COMPACT	C	From Centroid-Leg	4.000 0.00 5.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.721 0.828 0.942 1.193	0.372 0.454 0.543 0.745	0.01 0.02 0.03 0.05
CW JUNCTION BOX	C	From Centroid-Leg	4.000 0.00 5.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.200 1.337 1.481 1.793	0.600 0.704 0.815 1.059	0.00 0.01 0.02 0.05
(3) RRH2X50-800	A	From Centroid-Leg	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.134 2.320 2.512 2.920	1.773 1.946 2.127 2.510	0.05 0.07 0.10 0.16
(3) RRH2X50-800	C	From Centroid-Le	4.000 0.00	0.0000	138.000	No Ice 1/2" Ice	2.134 2.320	1.773 1.946	0.05 0.07

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		g	2.00			1" Ice	2.512	2.127	0.10
						2" Ice	2.920	2.510	0.16
(3) PCS 1900MHZ 4X45W-65MHZ	B	From Centroid-Le g	4.000 0.00 2.00	0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.322 2.527 2.739 3.185	2.238 2.441 2.651 3.093	0.06 0.08 0.11 0.17
Platform Mount [LP 715-1]	C	None		0.0000	138.000	No Ice 1/2" Ice 1" Ice 2" Ice	46.770 50.250 53.970 62.220	46.770 50.250 53.970 62.220	1.77 2.88 4.09 6.81
***									
AIR -32 B2A/B66AA	A	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.860 4.230 4.610 5.410	2.510 2.860 3.220 3.970	0.17 0.22 0.27 0.40
AIR -32 B2A/B66AA	B	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.860 4.230 4.610 5.410	2.510 2.860 3.220 3.970	0.17 0.22 0.27 0.40
AIR -32 B2A/B66AA	C	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.860 4.230 4.610 5.410	2.510 2.860 3.220 3.970	0.17 0.22 0.27 0.40
AIR 21 B2A/B4P	A	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.190 3.510 3.850 4.530	1.980 2.280 2.580 3.230	0.08 0.12 0.17 0.28
AIR 21 B2A/B4P	B	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.190 3.510 3.850 4.530	1.980 2.280 2.580 3.230	0.08 0.12 0.17 0.28
AIR 21 B2A/B4P	C	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	3.190 3.510 3.850 4.530	1.980 2.280 2.580 3.230	0.08 0.12 0.17 0.28
APXVAARR24_43-U-NA20	A	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	14.670 15.430 16.210 17.810	5.320 5.990 6.680 8.080	0.15 0.27 0.39 0.66
APXVAARR24_43-U-NA20	B	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	14.670 15.430 16.210 17.810	5.320 5.990 6.680 8.080	0.15 0.27 0.39 0.66
APXVAARR24_43-U-NA20	C	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	14.670 15.430 16.210 17.810	5.320 5.990 6.680 8.080	0.15 0.27 0.39 0.66
AIR6449 B41	A	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.682 5.984 6.294 6.935	2.491 2.718 2.952 3.442	0.10 0.14 0.19 0.29
AIR6449 B41	B	From Centroid-Fa ce	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	5.682 5.984 6.294 6.935	2.491 2.718 2.952 3.442	0.10 0.14 0.19 0.29
AIR6449 B41	C	From Centroid-Fa	4.000 0.00	0.0000	120.000	No Ice 1/2" Ice	5.682 5.984	2.491 2.718	0.10 0.14

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		ce	0.00			1" Ice	6.294	2.952	0.19
						2" Ice	6.935	3.442	0.29
KRY 112 144/1	A	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.350 0.426 0.509 0.698	0.175 0.234 0.301 0.456	0.01 0.01 0.02 0.03
KRY 112 144/1	B	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.350 0.426 0.509 0.698	0.175 0.234 0.301 0.456	0.01 0.01 0.02 0.03
KRY 112 144/1	C	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.350 0.426 0.509 0.698	0.175 0.234 0.301 0.456	0.01 0.01 0.02 0.03
RADIO 4449 B71 B85A_T-MOBILE	A	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	B	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	C	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.07 0.09 0.12 0.17
RRUS 4415 B25_CCIV2	A	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.05 0.06 0.08 0.12
RRUS 4415 B25_CCIV2	B	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.05 0.06 0.08 0.12
RRUS 4415 B25_CCIV2	C	From Centroid-Face	4.000 0.00 0.00	0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.05 0.06 0.08 0.12
Platform Mount [LP 301-1_KCKR]	C	None		0.0000	120.000	No Ice 1/2" Ice 1" Ice 2" Ice	35.030 44.460 53.720 72.290	35.030 44.460 53.720 72.290	1.86 2.52 3.33 5.42
***									
CBRS w/ Mount Pipe	A	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.450 1.670 1.900 2.420	0.990 1.180 1.390 1.850	0.03 0.05 0.07 0.12
CBRS w/ Mount Pipe	B	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.450 1.670 1.900 2.420	0.990 1.180 1.390 1.850	0.03 0.05 0.07 0.12
CBRS w/ Mount Pipe	C	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.450 1.670 1.900 2.420	0.990 1.180 1.390 1.850	0.03 0.05 0.07 0.12
(2) JAHH-65A-R3B w/ Mount Pipe	A	From Face	4.000 0.00	0.0000	99.000	No Ice 1/2" Ice	3.350 3.640	2.610 2.890	0.07 0.13

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			1.00			1" Ice	3.950	3.180	0.19
						2" Ice	4.590	3.790	0.35
(2) JAHH-65A-R3B w/ Mount Pipe	B	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	3.350 3.640 3.950	2.610 2.890 3.180	0.07 0.13 0.19
						2" Ice	4.590	3.790	0.35
(2) JAHH-65A-R3B w/ Mount Pipe	C	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	3.350 3.640 3.950	2.610 2.890 3.180	0.07 0.13 0.19
						2" Ice	4.590	3.790	0.35
BXA-70063/4CF w/ Mount Pipe	A	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	4.840 5.350 5.880	3.540 4.030 4.530	0.04 0.08 0.12
						2" Ice	6.990	5.590	0.24
BXA-70063/4CF w/ Mount Pipe	B	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	4.840 5.350 5.880	3.540 4.030 4.530	0.04 0.08 0.12
						2" Ice	6.990	5.590	0.24
BXA-70063/4CF w/ Mount Pipe	C	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	4.840 5.350 5.880	3.540 4.030 4.530	0.04 0.08 0.12
						2" Ice	6.990	5.590	0.24
Sub6 Antenna - VZS01 w/ Mount Pipe	A	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.10 0.14 0.19
						2" Ice	6.371	4.639	0.29
Sub6 Antenna - VZS01 w/ Mount Pipe	B	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.10 0.14 0.19
						2" Ice	6.371	4.639	0.29
Sub6 Antenna - VZS01 w/ Mount Pipe	C	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	4.915 5.264 5.623	2.687 3.151 3.631	0.10 0.14 0.19
						2" Ice	6.371	4.639	0.29
RFV01U-D1A	A	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.08 0.10 0.12
						2" Ice	2.601	1.865	0.18
RFV01U-D1A	B	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.08 0.10 0.12
						2" Ice	2.601	1.865	0.18
RFV01U-D1A	C	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.250 1.393 1.543	0.08 0.10 0.12
						2" Ice	2.601	1.865	0.18
RFV01U-D2A	A	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.07 0.09 0.11
						2" Ice	2.601	1.585	0.15
RFV01U-D2A	B	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.07 0.09 0.11
						2" Ice	2.601	1.585	0.15
RFV01U-D2A	C	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice	1.875 2.045 2.223	1.013 1.145 1.284	0.07 0.09 0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice	2.601	1.585	0.15
DB-C1-12C-24AB-0Z	A	From Face	4.000 0.00 1.00	0.0000	99.000	No Ice 1/2" Ice 1" Ice 2" Ice	4.056 4.316 4.582 5.138	3.098 3.335 3.580 4.092	0.03 0.07 0.11 0.20
T-Arm Mount [TA 602-3]	C	None		0.0000	99.000	No Ice 1/2" Ice 1" Ice 2" Ice	13.400 16.440 19.700 25.860	13.400 16.440 19.700 25.860	0.77 1.00 1.29 2.05
***									
Bridge Stiffener (76" x 10.5" x 1.25")	A	From Leg	0.500 0.00 0.00	0.0000	109.500	No Ice 1/2" Ice 1" Ice 2" Ice	1.319 2.041 2.775 3.929	7.802 8.288 8.766 9.742	0.28 0.31 0.35 0.45
Bridge Stiffener (76" x 10.5" x 1.25")	B	From Leg	0.500 0.00 0.00	0.0000	109.500	No Ice 1/2" Ice 1" Ice 2" Ice	1.319 2.041 2.775 3.929	7.802 8.288 8.766 9.742	0.28 0.31 0.35 0.45
Bridge Stiffener (76" x 10.5" x 1.25")	C	From Leg	0.500 0.00 0.00	0.0000	109.500	No Ice 1/2" Ice 1" Ice 2" Ice	1.319 2.041 2.775 3.929	7.802 8.288 8.766 9.742	0.28 0.31 0.35 0.45
***									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
VHLP2-23	B	Paraboloid w/Shroud (HP)	From Centroid -Leg	4.000 0.00 5.00	60.0000		138.000	2.175	No Ice 1/2" Ice 1" Ice 2" Ice	3.720 4.010 4.300 4.880	0.03 0.05 0.07 0.11
VHLP2-18	C	Paraboloid w/Shroud (HP)	From Centroid -Leg	4.000 0.00 5.00	60.0000		138.000	2.175	No Ice 1/2" Ice 1" Ice 2" Ice	3.720 4.010 4.300 4.880	0.03 0.05 0.07 0.11

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

Comb. No.	Description
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 Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	20.819	39	1.4627	0.0053
L2	145 - 140	19.301	39	1.4326	0.0053
L3	140 - 135	17.825	39	1.3829	0.0046
L4	135 - 130	16.412	39	1.3128	0.0035
L5	130 - 128.5	15.085	39	1.2171	0.0024
L6	128.5 - 128.25	14.708	39	1.1848	0.0021
L7	128.25 - 123.25	14.646	39	1.1828	0.0021

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L8	123.25 - 118.25	13.430	39	1.1381	0.0018
L9	118.25 - 113.25	12.265	39	1.0861	0.0014
L10	113.25 - 109	11.159	39	1.0258	0.0012
L11	109 - 108.75	10.271	39	0.9684	0.0010
L12	108.75 - 104.17	10.220	39	0.9655	0.0009
L13	104.17 - 103.92	9.321	39	0.9083	0.0008
L14	103.92 - 103.17	9.274	39	0.9059	0.0008
L15	103.17 - 102.92	9.132	39	0.8987	0.0008
L16	102.92 - 102.42	9.085	39	0.8966	0.0008
L17	102.42 - 102.17	8.991	39	0.8923	0.0008
L18	102.17 - 100.92	8.945	39	0.8898	0.0008
L19	100.92 - 100.67	8.713	39	0.8773	0.0008
L20	100.67 - 99.58	8.668	39	0.8750	0.0008
L21	99.58 - 99.33	8.469	39	0.8644	0.0008
L22	99.33 - 95.42	8.424	39	0.8626	0.0008
L23	95.42 - 95.17	7.730	39	0.8319	0.0007
L24	95.17 - 90.17	7.687	39	0.8294	0.0007
L25	90.17 - 85.17	6.845	39	0.7766	0.0007
L26	85.17 - 80.5	6.061	39	0.7207	0.0006
L27	80.5 - 80.25	5.383	39	0.6659	0.0006
L28	80.25 - 75.25	5.348	39	0.6637	0.0006
L29	75.25 - 73.58	4.678	39	0.6165	0.0005
L30	73.58 - 73.33	4.465	39	0.6008	0.0005
L31	73.33 - 69	4.434	39	0.5984	0.0005
L32	72 - 67	4.269	39	0.5855	0.0005
L33	67 - 66.75	3.671	39	0.5509	0.0005
L34	66.75 - 66.5	3.642	39	0.5485	0.0005
L35	66.5 - 61.5	3.613	39	0.5461	0.0005
L36	61.5 - 56.5	3.067	39	0.4976	0.0004
L37	56.5 - 51.5	2.571	39	0.4485	0.0004
L38	51.5 - 48.25	2.128	39	0.3981	0.0003
L39	48.25 - 48	1.868	39	0.3650	0.0003
L40	48 - 44.25	1.849	39	0.3630	0.0003
L41	44.25 - 44	1.576	39	0.3325	0.0003
L42	44 - 39	1.559	39	0.3306	0.0003
L43	39 - 38.5	1.233	39	0.2914	0.0002
L44	38.5 - 38.25	1.203	39	0.2876	0.0002
L45	38.25 - 30	1.188	39	0.2856	0.0002
L46	34 - 29	0.949	39	0.2520	0.0002
L47	29 - 24	0.695	39	0.2286	0.0002
L48	24 - 23.75	0.477	39	0.1895	0.0002
L49	23.75 - 23.5	0.467	39	0.1875	0.0002
L50	23.5 - 18.5	0.457	39	0.1856	0.0001
L51	18.5 - 13.5	0.283	39	0.1462	0.0001
L52	13.5 - 8.5	0.151	39	0.1067	0.0001
L53	8.5 - 3.5	0.060	39	0.0673	0.0001
L54	3.5 - 0	0.010	39	0.0277	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
152.000	QS66512-2	39	20.819	1.4627	0.0053	7083
143.000	VHLP2-23	39	18.704	1.4155	0.0051	5805
138.000	NNVV-65B-R4 w/ Mount Pipe	39	17.251	1.3568	0.0042	4181
120.000	AIR -32 B2A/B66AA	39	12.667	1.1048	0.0015	5367

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
109.500	Bridge Stiffener (76" x 10.5" x 1.25")	39	10.373	0.9745	0.0010	4402
99.000	CBRS w/ Mount Pipe	39	8.364	0.8602	0.0008	6656

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	96.503	2	6.7876	0.0242
L2	145 - 140	89.474	2	6.6496	0.0242
L3	140 - 135	82.639	2	6.4198	0.0211
L4	135 - 130	76.088	2	6.0944	0.0159
L5	130 - 128.5	69.940	2	5.6495	0.0110
L6	128.5 - 128.25	68.192	2	5.4992	0.0097
L7	128.25 - 123.25	67.904	2	5.4900	0.0096
L8	123.25 - 118.25	62.270	2	5.2826	0.0081
L9	118.25 - 113.25	56.869	2	5.0408	0.0067
L10	113.25 - 109	51.740	2	4.7610	0.0054
L11	109 - 108.75	47.624	2	4.4946	0.0044
L12	108.75 - 104.17	47.389	2	4.4810	0.0043
L13	104.17 - 103.92	43.221	2	4.2153	0.0038
L14	103.92 - 103.17	43.001	2	4.2042	0.0038
L15	103.17 - 102.92	42.344	2	4.1707	0.0037
L16	102.92 - 102.42	42.126	2	4.1608	0.0037
L17	102.42 - 102.17	41.691	2	4.1408	0.0037
L18	102.17 - 100.92	41.475	2	4.1292	0.0036
L19	100.92 - 100.67	40.403	2	4.0714	0.0035
L20	100.67 - 99.58	40.190	2	4.0603	0.0035
L21	99.58 - 99.33	39.269	2	4.0114	0.0034
L22	99.33 - 95.42	39.060	2	4.0027	0.0034
L23	95.42 - 95.17	35.842	2	3.8603	0.0033
L24	95.17 - 90.17	35.641	2	3.8488	0.0033
L25	90.17 - 85.17	31.740	2	3.6038	0.0031
L26	85.17 - 80.5	28.104	2	3.3442	0.0029
L27	80.5 - 80.25	24.959	2	3.0896	0.0026
L28	80.25 - 75.25	24.797	2	3.0792	0.0026
L29	75.25 - 73.58	21.688	2	2.8601	0.0024
L30	73.58 - 73.33	20.701	2	2.7874	0.0023
L31	73.33 - 69	20.555	2	2.7762	0.0023
L32	72 - 67	19.791	2	2.7162	0.0023
L33	67 - 66.75	17.017	2	2.5558	0.0021
L34	66.75 - 66.5	16.883	2	2.5443	0.0021
L35	66.5 - 61.5	16.750	2	2.5334	0.0021
L36	61.5 - 56.5	14.216	2	2.3079	0.0019
L37	56.5 - 51.5	11.919	2	2.0800	0.0017
L38	51.5 - 48.25	9.864	2	1.8460	0.0015
L39	48.25 - 48	8.660	2	1.6923	0.0014
L40	48 - 44.25	8.572	2	1.6831	0.0014
L41	44.25 - 44	7.306	2	1.5416	0.0013
L42	44 - 39	7.225	2	1.5327	0.0012
L43	39 - 38.5	5.716	2	1.3511	0.0011
L44	38.5 - 38.25	5.575	2	1.3332	0.0011
L45	38.25 - 30	5.505	2	1.3242	0.0011
L46	34 - 29	4.396	2	1.1681	0.0009
L47	29 - 24	3.222	2	1.0597	0.0008

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L48	24 - 23.75	2.208	2	0.8781	0.0007
L49	23.75 - 23.5	2.162	2	0.8691	0.0007
L50	23.5 - 18.5	2.117	2	0.8600	0.0007
L51	18.5 - 13.5	1.312	2	0.6777	0.0005
L52	13.5 - 8.5	0.699	2	0.4942	0.0004
L53	8.5 - 3.5	0.277	2	0.3120	0.0002
L54	3.5 - 0	0.047	2	0.1282	0.0001

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
152.000	QS66512-2	2	96.503	6.7876	0.0242	1583
143.000	VHLP2-23	2	86.711	6.5707	0.0233	1294
138.000	NNVV-65B-R4 w/ Mount Pipe	2	79.978	6.2986	0.0191	931
120.000	AIR -32 B2A/B66AA	2	58.730	5.1280	0.0071	1175
109.500	Bridge Stiffener (76" x 10.5" x 1.25")	2	48.096	4.5227	0.0045	959
99.000	CBRS w/ Mount Pipe	2	38.784	3.9918	0.0034	1447

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	150 - 149	TP15.7317x15x0.2188	5.000	0.000	0.0	10.5146	-3.23	473.16	0.007
	149 - 148					10.6177	-3.28	477.80	0.007
	148 - 147					10.7208	-3.33	482.44	0.007
	147 - 146					10.8239	-3.35	487.07	0.007
	146 - 145					10.9269	-3.40	491.71	0.007
L2	145 - 144	TP16.4634x15.7317x0.2188	5.000	0.000	0.0	11.0300	-3.45	496.35	0.007
	144 - 143					11.1331	-3.50	500.99	0.007
	143 - 142					11.2362	-3.59	505.63	0.007
	142 - 141					11.3393	-3.67	510.27	0.007
	141 - 140					11.4423	-3.72	514.90	0.007
L3	140 - 139	TP17.1951x16.4634x0.2188	5.000	0.000	0.0	11.5454	-3.78	519.54	0.007
	139 - 138					11.6485	-3.84	524.18	0.007
	138 - 137					11.7516	-7.06	528.82	0.013
	137 - 136					11.8547	-7.13	533.46	0.013
	136 - 135					11.9577	-7.15	538.10	0.013
L4	135 - 134	TP17.9268x17.1951x0.2188	5.000	0.000	0.0	12.0608	-7.21	542.74	0.013
	134 - 133					12.1639	-7.28	547.38	0.013
	133 - 132					12.2670	-7.35	552.01	0.013
	132 - 131					12.3700	-7.42	556.65	0.013
	131 - 130					12.4731	-7.50	561.29	0.013
L5	130 - 128.5 (5)	TP18.1463x17.9268x0.2188	1.500	0.000	0.0	12.6277	-7.61	568.25	0.013
L6	128.5 - 128.25	TP18.1829x18.1463x0.6688	0.250	0.000	0.0	37.7146	-7.66	1697.16	0.005

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	(6)								
L7	128.25 - 127.25	TP18.9146x18.1829x0.6438	5.000	0.000	0.0	36.6599	-7.80	1649.69	0.005
	127.25 - 126.25					36.9632	-7.95	1663.34	0.005
	126.25 - 125.25					37.2666	-8.09	1677.00	0.005
	125.25 - 124.25					37.5699	-8.24	1690.65	0.005
	124.25 - 123.25					37.8733	-8.39	1704.30	0.005
L8	123.25 - 122.25	TP19.6463x18.9146x0.6188	5.000	0.000	0.0	36.7438	-8.54	1653.47	0.005
	122.25 - 121.25					37.0354	-8.69	1666.59	0.005
	121.25 - 120.25					37.3270	-8.85	1679.71	0.005
	120.25 - 119.25					37.6185	-13.18	1692.83	0.008
	119.25 - 118.25					37.9101	-13.34	1705.95	0.008
L9	118.25 - 117.25	TP20.378x19.6463x0.6063	5.000	0.000	0.0	37.4543	-13.51	1685.44	0.008
	117.25 - 116.25					37.7400	-13.67	1698.30	0.008
	116.25 - 115.25					38.0257	-13.83	1711.16	0.008
	115.25 - 114.25					38.3113	-14.00	1724.01	0.008
	114.25 - 113.25					38.5970	-14.17	1736.87	0.008
L10	113.25 - 112.188	TP21x20.378x0.5938	4.250	0.000	0.0	38.1224	-14.35	1715.51	0.008
	112.188 - 111.125					38.4197	-14.53	1728.88	0.008
	111.125 - 110.063					38.7169	-14.71	1742.26	0.008
	110.063 - 109					39.0142	-15.85	1755.64	0.009
L11	109 - 108.75 (11)	TP21.0378x21x0.725	0.250	0.000	0.0	47.4201	-15.91	2133.91	0.007
L12	108.75 - 107.605	TP21.7293x21.0378x0.7	4.580	0.000	0.0	46.2310	-16.13	2080.39	0.008
	107.605 - 106.46					46.6207	-16.36	2097.93	0.008
	106.46 - 105.315					47.0104	-16.59	2115.47	0.008
	105.315 - 104.17					47.4001	-16.82	2133.01	0.008
L13	104.17 - 103.92 (13)	TP21.7671x21.7293x0.975	0.250	0.000	0.0	65.2767	-16.90	2937.45	0.006
L14	103.92 - 103.17 (14)	TP21.8803x21.7671x0.975	0.750	0.000	0.0	65.6323	-17.11	2953.45	0.006
L15	103.17 - 102.92 (15)	TP21.9181x21.8803x1.125	0.250	0.000	0.0	75.3229	-17.19	3389.53	0.005
L16	102.92 - 102.42 (16)	TP21.9936x21.9181x1.125	0.500	0.000	0.0	75.5964	-17.34	3401.84	0.005
L17	102.42 - 102.17 (17)	TP22.0313x21.9936x0.95	0.250	0.000	0.0	64.4878	-17.41	2901.95	0.006
L18	102.17 - 100.92 (18)	TP22.2201x22.0313x0.95	1.250	0.000	0.0	65.0652	-17.75	2927.93	0.006

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L19	100.92 - 100.67 (19)	TP22.2578x22.2201x1.025	0.250	0.000	0.0	70.0790	-17.83	3153.55	0.006
L20	100.67 - 99.58 (20)	TP22.4224x22.2578x1	1.090	0.000	0.0	68.9802	-18.16	3104.11	0.006
L21	99.58 - 99.33 (21)	TP22.4602x22.4224x1.4	0.250	0.000	0.0	94.9392	-18.25	4272.27	0.004
L22	99.33 - 98.0267	TP23.0506x22.4602x1.35	3.910	0.000	0.0	92.6214	-21.17	4167.96	0.005
	98.0267 - 96.7233					93.4769	-21.63	4206.46	0.005
	96.7233 - 95.42					94.3324	-22.09	4244.96	0.005
L23	95.42 - 95.17 (23)	TP23.0883x23.0506x1.05	0.250	0.000	0.0	74.5116	-22.17	3353.02	0.007
L24	95.17 - 94.17	TP23.8433x23.0883x1	5.000	0.000	0.0	71.6106	-22.44	3222.48	0.007
	94.17 - 93.17					72.0969	-22.72	3244.36	0.007
	93.17 - 92.17					72.5831	-23.01	3266.24	0.007
	92.17 - 91.17					73.0693	-23.29	3288.12	0.007
	91.17 - 90.17					73.5555	-23.58	3310.00	0.007
L25	90.17 - 89.17	TP24.5983x23.8433x0.975	5.000	0.000	0.0	72.2692	-23.87	3252.11	0.007
	89.17 - 88.17					72.7432	-24.16	3273.45	0.007
	88.17 - 87.17					73.2173	-24.45	3294.78	0.007
	87.17 - 86.17					73.6914	-24.74	3316.11	0.007
	86.17 - 85.17					74.1654	-25.03	3337.45	0.007
L26	85.17 - 84.0025	TP25.3035x24.5983x0.95	4.670	0.000	0.0	72.8795	-25.37	3279.58	0.008
	84.0025 - 82.835					73.4188	-25.71	3303.85	0.008
	82.835 - 81.6675					73.9581	-26.06	3328.11	0.008
	81.6675 - 80.5					74.4974	-26.41	3352.38	0.008
L27	80.5 - 80.25 (27)	TP25.3413x25.3035x1.3	0.250	0.000	0.0	100.6370	-26.51	4528.65	0.006
L28	80.25 - 79.25	TP26.0963x25.3413x1.25	5.000	0.000	0.0	97.5751	-26.87	4390.88	0.006
	79.25 - 78.25					98.1828	-27.25	4418.23	0.006
	78.25 - 77.25					98.7906	-27.62	4445.58	0.006
	77.25 - 76.25					99.3984	-28.00	4472.93	0.006
	76.25 - 75.25					100.0060	-28.37	4500.28	0.006
L29	75.25 - 73.58 (29)	TP26.3484x26.0963x1.25	1.670	0.000	0.0	101.0210	-29.00	4545.95	0.006
L30	73.58 - 73.33 (30)	TP26.3862x26.3484x1.225	0.250	0.000	0.0	99.2482	-29.11	4466.17	0.007
L31	73.33 - 72	TP27.04x26.3862x1.225	4.330	0.000	0.0	100.0400	-29.61	4501.82	0.007
	72 - 69					101.8270	-15.69	4582.23	0.003
L32	72 - 69	TP26.8969x26.087x1.2875	5.000	0.000	0.0	104.8270	-16.11	4717.22	0.003
	69 - 68					105.4990	-32.21	4747.44	0.007
	68 - 67					106.1700	-32.61	4777.65	0.007
L33	67 - 66.75 (33)	TP26.9374x26.8969x1.2875	0.250	0.000	0.0	106.3380	-32.72	4785.21	0.007
L34	66.75 - 66.5 (34)	TP26.9779x26.9374x1.3625	0.250	0.000	0.0	112.3810	-32.83	5057.15	0.006
L35	66.5 - 65.5	TP27.7878x26.9779x1.3125	5.000	0.000	0.0	109.1530	-33.24	4911.88	0.007
	65.5 - 64.5					109.837	-33.66	4942.68	0.007

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
						0			
	64.5 - 63.5					110.5220	-34.09	4973.49	0.007
	63.5 - 62.5					111.2060	-34.52	5004.29	0.007
	62.5 - 61.5					111.8910	-34.95	5035.10	0.007
L36	61.5 - 60.5	TP28.5976x27.7878x1.2875	5.000	0.000	0.0	110.5350	-35.37	4974.07	0.007
	60.5 - 59.5					111.2060	-35.80	5004.29	0.007
	59.5 - 58.5					111.8780	-36.23	5034.51	0.007
	58.5 - 57.5					112.5490	-36.67	5064.73	0.007
	57.5 - 56.5					113.2210	-37.10	5094.94	0.007
L37	56.5 - 55.5	TP29.4075x28.5976x1.2375	5.000	0.000	0.0	109.6690	-37.53	4935.09	0.008
	55.5 - 54.5					110.3140	-37.97	4964.14	0.008
	54.5 - 53.5					110.9600	-38.40	4993.18	0.008
	53.5 - 52.5					111.6050	-38.84	5022.23	0.008
	52.5 - 51.5					112.2500	-39.28	5051.27	0.008
L38	51.5 - 50.4167	TP29.9339x29.4075x1.2125	3.250	0.000	0.0	110.7650	-39.75	4984.45	0.008
	50.4167 - 49.3333					111.4510	-40.23	5015.28	0.008
	49.3333 - 48.25					112.1360	-40.71	5046.11	0.008
L39	48.25 - 48 (39)	TP29.9744x29.9339x1.6125	0.250	0.000	0.0	147.2620	-40.85	6626.80	0.006
L40	48 - 46.75	TP30.5818x29.9744x1.5625	3.750	0.000	0.0	143.9660	-41.49	6478.48	0.006
	46.75 - 45.5					144.9850	-42.14	6524.32	0.006
	45.5 - 44.25					146.0040	-42.79	6570.16	0.007
L41	44.25 - 44 (41)	TP30.6223x30.5818x1.6625	0.250	0.000	0.0	155.0290	-42.94	6976.32	0.006
L42	44 - 43	TP31.4322x30.6223x1.6125	5.000	0.000	0.0	151.4670	-43.48	6816.03	0.006
	43 - 42					152.3080	-44.02	6853.88	0.006
	42 - 41					153.1490	-44.57	6891.72	0.006
	41 - 40					153.9900	-45.13	6929.57	0.007
	40 - 39					154.8310	-45.69	6967.41	0.007
L43	39 - 38.5 (43)	TP31.5132x31.4322x1.6125	0.500	0.000	0.0	155.2520	-45.97	6986.34	0.007
L44	38.5 - 38.25 (44)	TP31.5537x31.5132x1.6125	0.250	0.000	0.0	155.4620	-46.11	6995.80	0.007
L45	38.25 - 37.1875	TP32.89x31.5537x1.5625	8.250	0.000	0.0	151.7590	-46.69	6829.16	0.007
	37.1875 -					152.625	-47.28	6868.12	0.007

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	36.125					0			
	36.125 - 35.0625					153.491 0	-47.87	6907.09	0.007
	35.0625 - 34					154.357 0	-48.47	6946.05	0.007
	34 - 30					157.616 0	-25.82	7092.74	0.004
L46	34 - 30	TP32.4616x31.6171x1.6813	5.000	0.000	0.0	165.724 0	-27.07	7457.57	0.004
	30 - 29					166.638 0	-53.49	7498.72	0.007
L47	29 - 28	TP33.3062x32.4616x1.6313	5.000	0.000	0.0	162.832 0	-54.09	7327.46	0.007
	28 - 27					163.720 0	-54.69	7367.39	0.007
	27 - 26					164.607 0	-55.29	7407.31	0.007
	26 - 25					165.494 0	-55.89	7447.24	0.008
	25 - 24					166.381 0	-56.50	7487.16	0.008
L48	24 - 23.75 (48)	TP33.3484x33.3062x1.6313	0.250	0.000	0.0	166.603 0	-56.66	7497.14	0.008
L49	23.75 - 23.5 (49)	TP33.3906x33.3484x1.6063	0.250	0.000	0.0	164.398 0	-56.81	7397.90	0.008
L50	23.5 - 22.5	TP34.2352x33.3906x1.5813	5.000	0.000	0.0	162.826 0	-57.40	7327.19	0.008
	22.5 - 21.5					163.686 0	-58.01	7365.89	0.008
	21.5 - 20.5					164.546 0	-58.62	7404.59	0.008
	20.5 - 19.5					165.407 0	-59.23	7443.29	0.008
	19.5 - 18.5					166.267 0	-59.84	7482.00	0.008
L51	18.5 - 17.5	TP35.0797x34.2352x1.5313	5.000	0.000	0.0	162.089 0	-60.45	7293.99	0.008
	17.5 - 16.5					162.922 0	-61.05	7331.47	0.008
	16.5 - 15.5					163.754 0	-61.67	7368.95	0.008
	15.5 - 14.5					164.587 0	-62.28	7406.43	0.008
	14.5 - 13.5					165.420 0	-62.90	7443.91	0.008
L52	13.5 - 12.5	TP35.9243x35.0797x1.5063	5.000	0.000	0.0	163.660 0	-63.51	7364.70	0.009
	12.5 - 11.5					164.479 0	-64.13	7401.57	0.009
	11.5 - 10.5					165.299 0	-64.75	7438.43	0.009
	10.5 - 9.5					166.118 0	-65.37	7475.30	0.009
	9.5 - 8.5					166.937 0	-65.99	7512.17	0.009
L53	8.5 - 7.5	TP36.7688x35.9243x1.4563	5.000	0.000	0.0	162.422 0	-66.61	7309.00	0.009
	7.5 - 6.5					163.214 0	-67.23	7344.64	0.009
	6.5 - 5.5					164.006	-67.85	7380.29	0.009

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	5.5 - 4.5					0 164.7980	-68.48	7415.93	0.009
	4.5 - 3.5					165.5900	-69.11	7451.57	0.009
L54	3.5 - 2.33333	TP37.36x36.7688x1.4313	3.500	0.000	0.0	163.7710	-69.84	7369.71	0.009
	2.33333 - 1.16667					164.6790	-70.57	7410.58	0.010
	1.16667 - 0					165.5880	-71.31	7451.45	0.010

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	150 - 149	TP15.7317x15x0.2188	22.58	180.10	0.125	0.00	180.10	0.000
	149 - 148		27.88	183.68	0.152	0.00	183.68	0.000
	148 - 147		33.24	187.29	0.177	0.00	187.29	0.000
	147 - 146		38.66	190.93	0.202	0.00	190.93	0.000
	146 - 145		44.16	194.61	0.227	0.00	194.61	0.000
L2	145 - 144	TP16.4634x15.7317x0.2188	49.71	198.33	0.251	0.00	198.33	0.000
	144 - 143		55.32	202.08	0.274	0.00	202.08	0.000
	143 - 142		61.29	205.86	0.298	0.00	205.86	0.000
	142 - 141		67.31	209.68	0.321	0.00	209.68	0.000
	141 - 140		73.43	213.54	0.344	0.00	213.54	0.000
L3	140 - 139	TP17.1951x16.4634x0.2188	79.60	217.43	0.366	0.00	217.43	0.000
	139 - 138		85.84	221.35	0.388	0.00	221.35	0.000
	138 - 137		99.77	225.31	0.443	0.00	225.31	0.000
	137 - 136		110.13	229.31	0.480	0.00	229.31	0.000
	136 - 135		120.55	233.34	0.517	0.00	233.34	0.000
L4	135 - 134	TP17.9268x17.1951x0.2188	131.07	237.41	0.552	0.00	237.41	0.000
	134 - 133		141.64	241.51	0.586	0.00	241.51	0.000
	133 - 132		152.39	245.65	0.620	0.00	245.65	0.000
	132 - 131		163.22	249.82	0.653	0.00	249.82	0.000
	131 - 130		174.15	254.02	0.686	0.00	254.02	0.000
L5	130 - 128.5 (5)	TP18.1463x17.9268x0.2188	190.71	260.40	0.732	0.00	260.40	0.000
L6	128.5 - 128.25 (6)	TP18.1829x18.1463x0.6688	193.49	740.77	0.261	0.00	740.77	0.000
L7	128.25 - 127.25	TP18.9146x18.1829x0.6438	204.68	728.35	0.281	0.00	728.35	0.000
	127.25 - 126.25		215.98	740.67	0.292	0.00	740.67	0.000
	126.25 - 125.25		227.38	753.09	0.302	0.00	753.09	0.000
	125.25 - 124.25		238.89	765.61	0.312	0.00	765.61	0.000
	124.25 - 123.25		250.50	778.24	0.322	0.00	778.24	0.000
L8	123.25 - 122.25	TP19.6463x18.9146x0.6188	262.23	763.35	0.344	0.00	763.35	0.000
	122.25 - 121.25		274.06	775.71	0.353	0.00	775.71	0.000
	121.25 - 120.25		286.01	788.17	0.363	0.00	788.17	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	120.25 - 119.25		301.14	800.73	0.376	0.00	800.73	0.000
	119.25 - 118.25		317.41	813.39	0.390	0.00	813.39	0.000
L9	118.25 - 117.25	TP20.378x19.6463x0.6063	333.79	811.04	0.412	0.00	811.04	0.000
	117.25 - 116.25		350.28	823.65	0.425	0.00	823.65	0.000
	116.25 - 115.25		366.89	836.36	0.439	0.00	836.36	0.000
	115.25 - 114.25		383.60	849.17	0.452	0.00	849.17	0.000
	114.25 - 113.25		400.42	862.07	0.464	0.00	862.07	0.000
L10	113.25 - 112.188	TP21x20.378x0.5938	418.42	859.44	0.487	0.00	859.44	0.000
	112.188 - 111.125		436.53	873.09	0.500	0.00	873.09	0.000
	111.125 - 110.063		454.77	886.85	0.513	0.00	886.85	0.000
	110.063 - 109		473.45	900.72	0.526	0.00	900.72	0.000
L11	109 - 108.75 (11)	TP21.0378x21x0.725	477.94	1082.83	0.441	0.00	1082.83	0.000
L12	108.75 - 107.605	TP21.7293x21.0378x0.7	498.63	1067.57	0.467	0.00	1067.57	0.000
	107.605 - 106.46		519.49	1085.94	0.478	0.00	1085.94	0.000
	106.46 - 105.315		540.52	1104.47	0.489	0.00	1104.47	0.000
	105.315 - 104.17		561.72	1123.16	0.500	0.00	1123.16	0.000
L13	104.17 - 103.92 (13)	TP21.7671x21.7293x0.975	566.37	1509.43	0.375	0.00	1509.43	0.000
L14	103.92 - 103.17 (14)	TP21.8803x21.7671x0.975	580.38	1526.28	0.380	0.00	1526.28	0.000
L15	103.17 - 102.92 (15)	TP21.9181x21.8803x1.125	585.07	1729.90	0.338	0.00	1729.90	0.000
L16	102.92 - 102.42 (16)	TP21.9936x21.9181x1.125	594.48	1742.81	0.341	0.00	1742.81	0.000
L17	102.42 - 102.17 (17)	TP22.0313x21.9936x0.95	599.20	1514.58	0.396	0.00	1514.58	0.000
L18	102.17 - 100.92 (18)	TP22.2201x22.0313x0.95	622.91	1542.41	0.404	0.00	1542.41	0.000
L19	100.92 - 100.67 (19)	TP22.2578x22.2201x1.025	627.69	1652.64	0.380	0.00	1652.64	0.000
L20	100.67 - 99.58 (20)	TP22.4224x22.2578x1	648.60	1643.76	0.395	0.00	1643.76	0.000
L21	99.58 - 99.33 (21)	TP22.4602x22.4224x1.4	653.42	2182.80	0.299	0.00	2182.80	0.000
L22	99.33 - 98.0267	TP23.0506x22.4602x1.35	683.03	2160.78	0.316	0.00	2160.78	0.000
	98.0267 - 96.7233		711.84	2202.08	0.323	0.00	2202.08	0.000
	96.7233 - 95.42		740.93	2243.78	0.330	0.00	2243.78	0.000
L23	95.42 - 95.17 (23)	TP23.0883x23.0506x1.05	746.54	1824.93	0.409	0.00	1824.93	0.000
L24	95.17 - 94.17	TP23.8433x23.0883x1	769.07	1774.42	0.433	0.00	1774.42	0.000
	94.17 - 93.17		791.74	1799.12	0.440	0.00	1799.12	0.000
	93.17 - 92.17		814.55	1823.98	0.447	0.00	1823.98	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	92.17 - 91.17		837.52	1849.03	0.453	0.00	1849.03	0.000
	91.17 - 90.17		860.62	1874.24	0.459	0.00	1874.24	0.000
L25	90.17 - 89.17	TP24.5983x23.8433x0.975	883.86	1858.18	0.476	0.00	1858.18	0.000
	89.17 - 88.17		907.24	1883.13	0.482	0.00	1883.13	0.000
	88.17 - 87.17		930.77	1908.26	0.488	0.00	1908.26	0.000
	87.17 - 86.17		954.42	1933.55	0.494	0.00	1933.55	0.000
	86.17 - 85.17		978.23	1959.01	0.499	0.00	1959.01	0.000
L26	85.17 - 84.0025	TP25.3035x24.5983x0.95	1006.19	1944.06	0.518	0.00	1944.06	0.000
	84.0025 - 82.835		1034.33	1973.49	0.524	0.00	1973.49	0.000
	82.835 - 81.6675		1062.67	2003.14	0.531	0.00	2003.14	0.000
	81.6675 - 80.5		1091.19	2033.02	0.537	0.00	2033.02	0.000
L27	80.5 - 80.25 (27)	TP25.3413x25.3035x1.3	1097.32	2672.39	0.411	0.00	2672.39	0.000
L28	80.25 - 79.25	TP26.0963x25.3413x1.25	1121.93	2618.99	0.428	0.00	2618.99	0.000
	79.25 - 78.25		1146.69	2652.53	0.432	0.00	2652.53	0.000
	78.25 - 77.25		1171.59	2686.28	0.436	0.00	2686.28	0.000
	77.25 - 76.25		1196.64	2720.23	0.440	0.00	2720.23	0.000
	76.25 - 75.25		1221.83	2754.41	0.444	0.00	2754.41	0.000
L29	75.25 - 73.58 (29)	TP26.3484x26.0963x1.25	1264.21	2811.96	0.450	0.00	2811.96	0.000
L30	73.58 - 73.33 (30)	TP26.3862x26.3484x1.225	1270.59	2772.47	0.458	0.00	2772.47	0.000
L31	73.33 - 72	TP27.04x26.3862x1.225	1304.68	2817.93	0.463	0.00	2817.93	0.000
	72 - 69		696.49	2921.86	0.238	0.00	2921.86	0.000
L32	72 - 69	TP26.8969x26.087x1.2875	686.08	2936.52	0.234	0.00	2936.52	0.000
	69 - 68		1408.86	2975.18	0.474	0.00	2975.18	0.000
	68 - 67		1435.28	3014.09	0.476	0.00	3014.09	0.000
L33	67 - 66.75 (33)	TP26.9374x26.8969x1.2875	1441.91	3023.86	0.477	0.00	3023.86	0.000
L34	66.75 - 66.5 (34)	TP26.9779x26.9374x1.3625	1448.54	3182.32	0.455	0.00	3182.32	0.000
L35	66.5 - 65.5	TP27.7878x26.9779x1.3125	1475.18	3123.53	0.472	0.00	3123.53	0.000
	65.5 - 64.5		1501.93	3163.78	0.475	0.00	3163.78	0.000
	64.5 - 63.5		1528.83	3204.29	0.477	0.00	3204.29	0.000
	63.5 - 62.5		1555.87	3245.07	0.479	0.00	3245.07	0.000
	62.5 - 61.5		1583.03	3286.09	0.482	0.00	3286.09	0.000
L36	61.5 - 60.5	TP28.5976x27.7878x1.2875	1610.34	3273.20	0.492	0.00	3273.20	0.000
	60.5 - 59.5		1637.78	3314.02	0.494	0.00	3314.02	0.000
	59.5 - 58.5		1665.33	3355.08	0.496	0.00	3355.08	0.000
	58.5 - 57.5		1693.03	3396.40	0.498	0.00	3396.40	0.000
	57.5 - 56.5		1720.85	3437.97	0.501	0.00	3437.97	0.000
L37	56.5 - 55.5	TP29.4075x28.5976x1.2375	1748.81	3362.96	0.520	0.00	3362.96	0.000
	55.5 - 54.5		1776.88	3403.52	0.522	0.00	3403.52	0.000
	54.5 - 53.5		1805.08	3444.32	0.524	0.00	3444.32	0.000
	53.5 - 52.5		1833.41	3485.36	0.526	0.00	3485.36	0.000
	52.5 - 51.5		1861.86	3526.65	0.528	0.00	3526.65	0.000
L38	51.5 - 50.4167	TP29.9339x29.4075x1.2125	1892.83	3508.76	0.539	0.00	3508.76	0.000
	50.4167 - 49.3333		1923.93	3553.20	0.541	0.00	3553.20	0.000
	49.3333 - 48.25		1955.17	3597.91	0.543	0.00	3597.91	0.000
L39	48.25 - 48 (39)	TP29.9744x29.9339x1.6125	1962.40	4601.19	0.426	0.00	4601.19	0.000
L40	48 - 46.75	TP30.5818x29.9744x1.5625	1998.68	4547.93	0.439	0.00	4547.93	0.000
	46.75 - 45.5		2035.15	4614.19	0.441	0.00	4614.19	0.000
	45.5 - 44.25		2071.82	4680.94	0.443	0.00	4680.94	0.000
L41	44.25 - 44 (41)	TP30.6223x30.5818x1.6625	2079.18	4943.40	0.421	0.00	4943.40	0.000
L42	44 - 43	TP31.4322x30.6223x1.6125	2108.69	4875.00	0.433	0.00	4875.00	0.000
	43 - 42		2138.33	4930.71	0.434	0.00	4930.71	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	42 - 41		2168.10	4986.74	0.435	0.00	4986.74	0.000
	41 - 40		2197.99	5043.08	0.436	0.00	5043.08	0.000
	40 - 39		2228.01	5099.75	0.437	0.00	5099.75	0.000
L43	39 - 38.5 (43)	TP31.5132x31.4322x1.6125	2243.06	5128.20	0.437	0.00	5128.20	0.000
L44	38.5 - 38.25 (44)	TP31.5537x31.5132x1.6125	2250.60	5142.46	0.438	0.00	5142.46	0.000
L45	38.25 - 37.1875	TP32.89x31.5537x1.5625	2282.72	5067.08	0.451	0.00	5067.08	0.000
	37.1875 - 36.125		2314.97	5126.50	0.452	0.00	5126.50	0.000
	36.125 - 35.0625		2347.36	5186.27	0.453	0.00	5186.27	0.000
	35.0625 - 34		2379.87	5246.38	0.454	0.00	5246.38	0.000
	34 - 30		1250.76	5475.79	0.228	0.00	5475.79	0.000
L46	34 - 30	TP32.4616x31.6171x1.6813	1252.89	5598.93	0.224	0.00	5598.93	0.000
	30 - 29		2534.93	5662.51	0.448	0.00	5662.51	0.000
L47	29 - 28	TP33.3062x32.4616x1.6313	2566.32	5583.12	0.460	0.00	5583.12	0.000
	28 - 27		2597.82	5645.66	0.460	0.00	5645.66	0.000
	27 - 26		2629.43	5708.54	0.461	0.00	5708.54	0.000
	26 - 25		2661.14	5771.78	0.461	0.00	5771.78	0.000
	25 - 24		2692.97	5835.37	0.461	0.00	5835.37	0.000
L48	24 - 23.75 (48)	TP33.3484x33.3062x1.6313	2700.93	5851.32	0.462	0.00	5851.32	0.000
L49	23.75 - 23.5 (49)	TP33.3906x33.3484x1.6063	2708.92	5791.02	0.468	0.00	5791.02	0.000
L50	23.5 - 22.5	TP34.2352x33.3906x1.5813	2740.89	5776.65	0.474	0.00	5776.65	0.000
	22.5 - 21.5		2772.97	5839.28	0.475	0.00	5839.28	0.000
	21.5 - 20.5		2805.17	5902.25	0.475	0.00	5902.25	0.000
	20.5 - 19.5		2837.46	5965.56	0.476	0.00	5965.56	0.000
	19.5 - 18.5		2869.86	6029.21	0.476	0.00	6029.21	0.000
L51	18.5 - 17.5	TP35.0797x34.2352x1.5313	2902.36	5927.53	0.490	0.00	5927.53	0.000
	17.5 - 16.5		2934.96	5989.97	0.490	0.00	5989.97	0.000
	16.5 - 15.5		2967.67	6052.72	0.490	0.00	6052.72	0.000
	15.5 - 14.5		3000.47	6115.82	0.491	0.00	6115.82	0.000
	14.5 - 13.5		3033.38	6179.23	0.491	0.00	6179.23	0.000
L52	13.5 - 12.5	TP35.9243x35.0797x1.5063	3066.40	6154.72	0.498	0.00	6154.72	0.000
	12.5 - 11.5		3099.52	6217.82	0.498	0.00	6217.82	0.000
	11.5 - 10.5		3132.72	6281.24	0.499	0.00	6281.24	0.000
	10.5 - 9.5		3166.04	6344.98	0.499	0.00	6344.98	0.000
	9.5 - 8.5		3199.46	6409.04	0.499	0.00	6409.04	0.000
L53	8.5 - 7.5	TP36.7688x35.9243x1.4563	3232.97	6285.73	0.514	0.00	6285.73	0.000
	7.5 - 6.5		3266.59	6348.43	0.515	0.00	6348.43	0.000
	6.5 - 5.5		3300.31	6411.44	0.515	0.00	6411.44	0.000
	5.5 - 4.5		3334.12	6474.76	0.515	0.00	6474.76	0.000
	4.5 - 3.5		3368.03	6538.39	0.515	0.00	6538.39	0.000
L54	3.5 - 2.33333	TP37.36x36.7688x1.4313	3407.72	6513.24	0.523	0.00	6513.24	0.000
	2.33333 - 1.16667		3447.53	6587.08	0.523	0.00	6587.08	0.000
	1.16667 - 0		3487.49	6661.35	0.524	0.00	6661.35	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	150 - 149	TP15.7317x15x0.2188	5.27	141.95	0.037	0.00	186.39	0.000
	149 - 148		5.33	143.34	0.037	0.00	190.06	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	148 - 147		5.39	144.73	0.037	0.00	193.77	0.000
	147 - 146		5.47	146.12	0.037	0.20	197.51	0.001
	146 - 145		5.53	147.51	0.037	0.20	201.29	0.001
L2	145 - 144	TP16.4634x15.7317x0.2188	5.58	148.91	0.038	0.20	205.11	0.001
	144 - 143		5.64	150.30	0.038	0.20	208.96	0.001
	143 - 142		6.00	151.69	0.040	0.11	212.85	0.001
	142 - 141		6.09	153.08	0.040	0.06	216.77	0.000
	141 - 140		6.15	154.47	0.040	0.06	220.73	0.000
L3	140 - 139	TP17.1951x16.4634x0.2188	6.21	155.86	0.040	0.06	224.72	0.000
	139 - 138		6.27	157.26	0.040	0.06	228.75	0.000
	138 - 137		10.33	158.65	0.065	0.07	232.82	0.000
	137 - 136		10.38	160.04	0.065	0.07	236.92	0.000
	136 - 135		10.48	161.43	0.065	0.21	241.06	0.001
L4	135 - 134	TP17.9268x17.1951x0.2188	10.58	162.82	0.065	0.22	245.24	0.001
	134 - 133		10.70	162.82	0.066	0.47	249.44	0.002
	133 - 132		10.79	164.21	0.066	0.49	253.69	0.002
	132 - 131		10.88	165.60	0.066	0.50	257.97	0.002
	131 - 130		10.98	167.00	0.066	0.52	262.29	0.002
L5	130 - 128.5 (5)	TP18.1463x17.9268x0.2188	11.12	170.47	0.065	0.53	268.83	0.002
L6	128.5 - 128.25 (6)	TP18.1829x18.1463x0.6688	11.13	509.15	0.022	0.53	784.39	0.001
L7	128.25 - 127.25	TP18.9146x18.1829x0.6438	11.24	494.91	0.023	0.53	769.91	0.001
	127.25 - 126.25		11.35	499.00	0.023	0.53	782.71	0.001
	126.25 - 125.25		11.46	503.10	0.023	0.54	795.61	0.001
	125.25 - 124.25		11.56	507.19	0.023	0.54	808.61	0.001
	124.25 - 123.25		11.67	511.29	0.023	0.55	821.72	0.001
L8	123.25 - 122.25	TP19.6463x18.9146x0.6188	11.78	496.04	0.024	0.55	804.70	0.001
	122.25 - 121.25		11.89	499.98	0.024	0.56	817.52	0.001
	121.25 - 120.25		12.00	503.91	0.024	0.57	830.44	0.001
	120.25 - 119.25		16.22	507.85	0.032	0.57	843.47	0.001
	119.25 - 118.25		16.33	511.79	0.032	0.58	856.59	0.001
L9	118.25 - 117.25	TP20.378x19.6463x0.6063	16.44	505.63	0.033	0.59	853.36	0.001
	117.25 - 116.25		16.55	509.49	0.032	0.60	866.42	0.001
	116.25 - 115.25		16.66	513.35	0.032	0.61	879.59	0.001
	115.25 - 114.25		16.77	517.20	0.032	0.62	892.86	0.001
	114.25 - 113.25		16.88	521.06	0.032	0.63	906.22	0.001
L10	113.25 - 112.188	TP21x20.378x0.5938	17.00	514.65	0.033	0.64	902.68	0.001
	112.188 - 111.125		17.11	518.66	0.033	0.65	916.82	0.001
	111.125 - 110.063		17.23	522.68	0.033	0.66	931.06	0.001
	110.063 - 109		17.97	526.69	0.034	0.67	945.41	0.001
L11	109 - 108.75 (11)	TP21.0378x21x0.725	17.99	640.17	0.028	0.67	1143.84	0.001

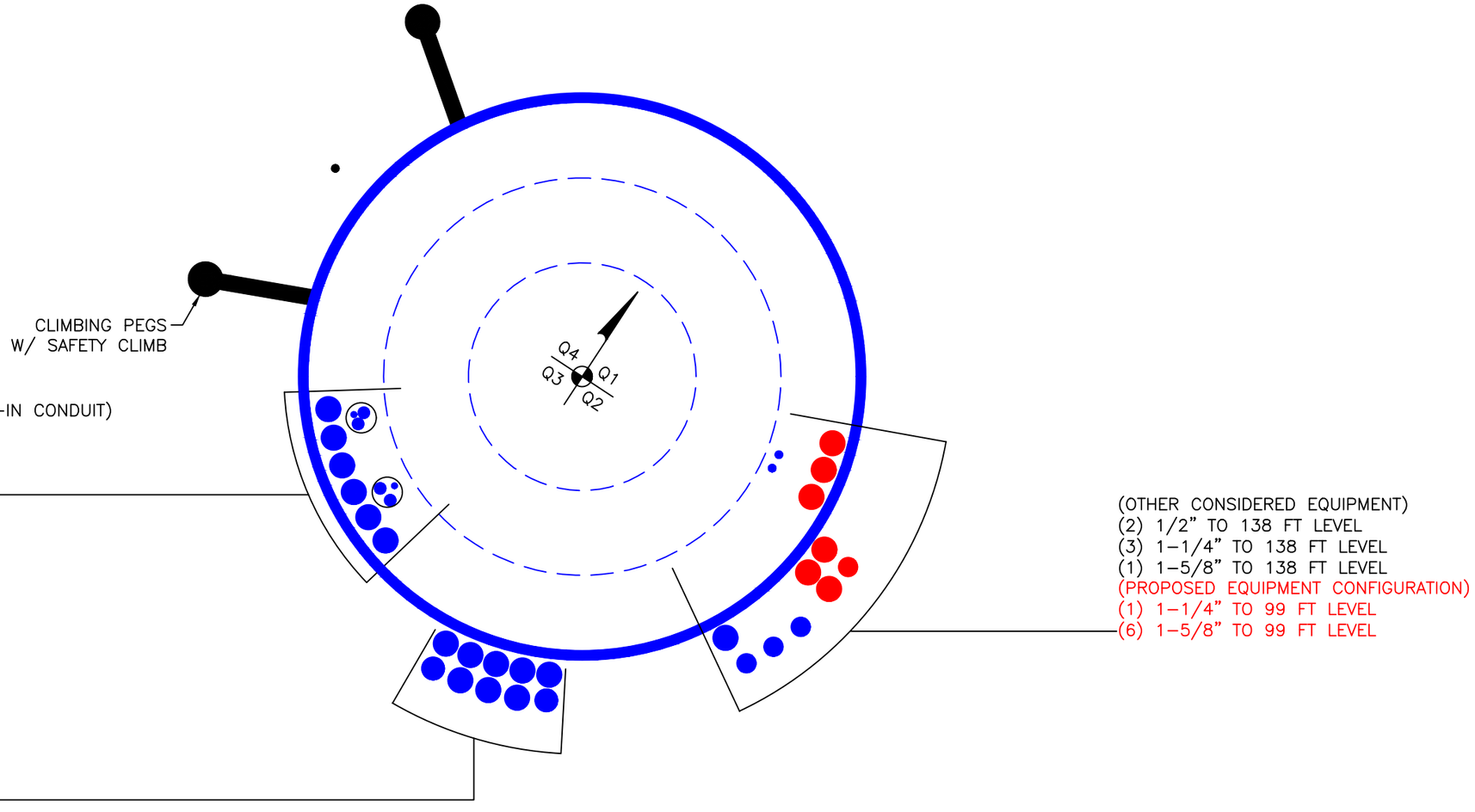
Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L12	108.75 - 107.605	TP21.7293x21.0378x0.7	18.14	624.12	0.029	0.69	1126.02	0.001
	107.605 - 106.46		18.29	629.38	0.029	0.71	1145.08	0.001
	106.46 - 105.315		18.44	634.64	0.029	0.72	1164.31	0.001
	105.315 - 104.17		18.59	639.90	0.029	0.74	1183.69	0.001
L13	104.17 - 103.92 (13)	TP21.7671x21.7293x0.975	18.62	881.24	0.021	0.74	1611.72	0.000
L14	103.92 - 103.17 (14)	TP21.8803x21.7671x0.975	18.74	886.04	0.021	0.75	1629.33	0.000
L15	103.17 - 102.92 (15)	TP21.9181x21.8803x1.125	18.77	1016.86	0.018	0.76	1859.86	0.000
L16	102.92 - 102.42 (16)	TP21.9936x21.9181x1.125	18.85	1020.55	0.018	0.76	1873.39	0.000
L17	102.42 - 102.17 (17)	TP22.0313x21.9936x0.95	18.88	870.59	0.022	0.76	1614.39	0.000
L18	102.17 - 100.92 (18)	TP22.2201x22.0313x0.95	19.07	878.38	0.022	0.78	1643.43	0.000
L19	100.92 - 100.67 (19)	TP22.2578x22.2201x1.025	19.10	946.07	0.020	0.78	1766.97	0.000
L20	100.67 - 99.58 (20)	TP22.4224x22.2578x1	19.26	931.23	0.021	0.80	1754.79	0.000
L21	99.58 - 99.33 (21)	TP22.4602x22.4224x1.4	19.30	1281.68	0.015	0.80	2374.33	0.000
L22	99.33 - 98.0267	TP23.0506x22.4602x1.35	22.01	1250.39	0.018	0.80	2343.51	0.000
	98.0267 - 96.7233		22.21	1261.94	0.018	0.43	2387.00	0.000
	96.7233 - 95.42		22.42	1273.49	0.018	0.46	2430.89	0.000
L23	95.42 - 95.17 (23)	TP23.0883x23.0506x1.05	22.45	1005.91	0.022	0.46	1950.01	0.000
L24	95.17 - 94.17	TP23.8433x23.0883x1	22.60	966.74	0.023	0.48	1891.18	0.000
	94.17 - 93.17		22.74	973.31	0.023	0.50	1916.95	0.000
	93.17 - 92.17		22.89	979.87	0.023	0.52	1942.89	0.000
	92.17 - 91.17		23.03	986.44	0.023	0.54	1969.01	0.000
	91.17 - 90.17		23.18	993.00	0.023	0.57	1995.30	0.000
L25	90.17 - 89.17	TP24.5983x23.8433x0.975	23.31	975.63	0.024	0.59	1975.51	0.000
	89.17 - 88.17		23.45	982.03	0.024	0.62	2001.52	0.000
	88.17 - 87.17		23.59	988.43	0.024	0.64	2027.68	0.000
	87.17 - 86.17		23.73	994.83	0.024	0.67	2054.03	0.000
	86.17 - 85.17		23.87	1001.23	0.024	0.70	2080.54	0.000
L26	85.17 - 84.0025	TP25.3035x24.5983x0.95	24.03	983.87	0.024	0.72	2061.89	0.000
	84.0025 - 82.835		24.19	991.15	0.024	0.75	2092.52	0.000
	82.835 - 81.6675		24.35	998.43	0.024	0.77	2123.37	0.000
	81.6675 - 80.5		24.51	1005.71	0.024	0.80	2154.45	0.000
L27	80.5 - 80.25 (27)	TP25.3413x25.3035x1.3	24.54	1358.60	0.018	0.80	2873.07	0.000
L28	80.25 - 79.25	TP26.0963x25.3413x1.25	24.69	1317.26	0.019	0.81	2808.96	0.000
	79.25 - 78.25		24.83	1325.47	0.019	0.83	2844.06	0.000
	78.25 - 77.25		24.97	1333.67	0.019	0.84	2879.38	0.000
	77.25 - 76.25		25.12	1341.88	0.019	0.85	2914.92	0.000
	76.25 - 75.25		25.26	1350.08	0.019	0.87	2950.68	0.000
L29	75.25 - 73.58 (29)	TP26.3484x26.0963x1.25	25.50	1363.79	0.019	0.89	3010.88	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L30	73.58 - 73.33 (30)	TP26.3862x26.3484x1.225	25.53	1339.85	0.019	0.89	2965.43	0.000
L31	73.33 - 72	TP27.04x26.3862x1.225	25.72	1350.55	0.019	0.91	3012.96	0.000
	72 - 69		13.31	1374.67	0.010	0.49	3121.55	0.000
L32	72 - 69	TP26.8969x26.087x1.2875	12.91	1415.17	0.009	0.46	3147.58	0.000
	69 - 68		26.36	1424.23	0.019	0.96	3188.04	0.000
	68 - 67		26.49	1433.30	0.018	0.97	3228.75	0.000
L33	67 - 66.75 (33)	TP26.9374x26.8969x1.2875	26.52	1435.56	0.018	0.97	3238.97	0.000
L34	66.75 - 66.5 (34)	TP26.9779x26.9374x1.3625	26.55	1517.14	0.018	0.98	3418.43	0.000
L35	66.5 - 65.5	TP27.7878x26.9779x1.3125	26.70	1473.56	0.018	1.00	3347.72	0.000
	65.5 - 64.5		26.83	1482.80	0.018	1.02	3389.83	0.000
	64.5 - 63.5		26.97	1492.05	0.018	1.03	3432.22	0.000
	63.5 - 62.5		27.10	1501.29	0.018	1.05	3474.87	0.000
	62.5 - 61.5		27.24	1510.53	0.018	1.07	3517.78	0.000
L36	61.5 - 60.5	TP28.5976x27.7878x1.2875	27.37	1492.22	0.018	1.09	3499.69	0.000
	60.5 - 59.5		27.50	1501.29	0.018	1.11	3542.34	0.000
	59.5 - 58.5		27.63	1510.35	0.018	1.13	3585.25	0.000
	58.5 - 57.5		27.76	1519.42	0.018	1.15	3628.42	0.000
	57.5 - 56.5		27.89	1528.48	0.018	1.17	3671.84	0.000
L37	56.5 - 55.5	TP29.4075x28.5976x1.2375	28.02	1480.53	0.019	1.19	3584.25	0.000
	55.5 - 54.5		28.14	1489.24	0.019	1.21	3626.56	0.000
	54.5 - 53.5		28.27	1497.95	0.019	1.23	3669.13	0.000
	53.5 - 52.5		28.39	1506.67	0.019	1.25	3711.93	0.000
	52.5 - 51.5		28.52	1515.38	0.019	1.27	3754.99	0.000
L38	51.5 - 50.4167	TP29.9339x29.4075x1.2125	28.65	1495.33	0.019	1.29	3731.68	0.000
	50.4167 - 49.3333		28.78	1504.58	0.019	1.30	3777.99	0.000
	49.3333 - 48.25		28.91	1513.83	0.019	1.32	3824.57	0.000
L39	48.25 - 48 (39)	TP29.9744x29.9339x1.6125	28.93	1988.04	0.015	1.33	4959.76	0.000
L40	48 - 46.75	TP30.5818x29.9744x1.5625	29.10	1943.54	0.015	1.35	4891.92	0.000
	46.75 - 45.5		29.26	1957.30	0.015	1.37	4961.38	0.000
	45.5 - 44.25		29.42	1971.05	0.015	1.39	5031.35	0.000
L41	44.25 - 44 (41)	TP30.6223x30.5818x1.6625	29.44	2092.89	0.014	1.39	5331.43	0.000
L42	44 - 43	TP31.4322x30.6223x1.6125	29.58	2044.81	0.014	1.41	5247.06	0.000
	43 - 42		29.70	2056.16	0.014	1.43	5305.49	0.000
	42 - 41		29.83	2067.52	0.014	1.44	5364.24	0.000
	41 - 40		29.95	2078.87	0.014	1.46	5423.32	0.000
	40 - 39		30.08	2090.22	0.014	1.47	5482.73	0.000
L43	39 - 38.5 (43)	TP31.5132x31.4322x1.6125	30.14	2095.90	0.014	1.48	5512.54	0.000
L44	38.5 - 38.25 (44)	TP31.5537x31.5132x1.6125	30.16	2098.74	0.014	1.49	5527.48	0.000
L45	38.25 - 37.1875	TP32.89x31.5537x1.5625	30.30	2048.75	0.015	1.50	5435.84	0.000
	37.1875 - 36.125		30.42	2060.44	0.015	1.52	5498.05	0.000
	36.125 - 35.0625		30.54	2072.13	0.015	1.54	5560.61	0.000
	35.0625 - 34		30.66	2083.82	0.015	1.55	5623.52	0.000
	34 - 30		15.74	2127.82	0.007	0.82	5863.56	0.000
L46	34 - 30	TP32.4616x31.6171x1.6813	15.51	2237.27	0.007	0.79	6024.23	0.000
	30 - 29		31.34	2249.62	0.014	1.63	6090.90	0.000
L47	29 - 28	TP33.3062x32.4616x1.6313	31.45	2198.24	0.014	1.65	5994.12	0.000
	28 - 27		31.56	2210.22	0.014	1.66	6059.62	0.000
	27 - 26		31.66	2222.19	0.014	1.68	6125.47	0.000
	26 - 25		31.77	2234.17	0.014	1.70	6191.69	0.000
	25 - 24		31.88	2246.15	0.014	1.71	6258.26	0.000
L48	24 - 23.75 (48)	TP33.3484x33.3062x1.6313	31.89	2249.14	0.014	1.72	6274.96	0.000
L49	23.75 - 23.5	TP33.3906x33.3484x1.6063	31.92	2219.37	0.014	1.72	6205.01	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	(49)							
L50	23.5 - 22.5	TP34.2352x33.3906x1.5813	32.04	2198.16	0.015	1.74	6183.20	0.000
	22.5 - 21.5		32.14	2209.77	0.015	1.75	6248.69	0.000
	21.5 - 20.5		32.25	2221.38	0.015	1.77	6314.52	0.000
	20.5 - 19.5		32.35	2232.99	0.014	1.78	6380.71	0.000
	19.5 - 18.5		32.46	2244.60	0.014	1.80	6447.23	0.000
L51	18.5 - 17.5	TP35.0797x34.2352x1.5313	32.56	2188.20	0.015	1.82	6327.37	0.000
	17.5 - 16.5		32.66	2199.44	0.015	1.83	6392.56	0.000
	16.5 - 15.5		32.76	2210.68	0.015	1.85	6458.08	0.000
	15.5 - 14.5		32.87	2221.93	0.015	1.86	6523.94	0.000
	14.5 - 13.5		32.97	2233.17	0.015	1.88	6590.13	0.000
L52	13.5 - 12.5	TP35.9243x35.0797x1.5063	33.07	2209.41	0.015	1.90	6557.70	0.000
	12.5 - 11.5		33.17	2220.47	0.015	1.91	6623.52	0.000
	11.5 - 10.5		33.27	2231.53	0.015	1.93	6689.66	0.000
	10.5 - 9.5		33.37	2242.59	0.015	1.95	6756.13	0.000
	9.5 - 8.5		33.47	2253.65	0.015	1.97	6822.94	0.000
L53	8.5 - 7.5	TP36.7688x35.9243x1.4563	33.57	2192.70	0.015	1.98	6680.64	0.000
	7.5 - 6.5		33.67	2203.39	0.015	2.00	6745.95	0.000
	6.5 - 5.5		33.77	2214.09	0.015	2.02	6811.59	0.000
	5.5 - 4.5		33.87	2224.78	0.015	2.03	6877.54	0.000
	4.5 - 3.5		33.97	2235.47	0.015	2.05	6943.81	0.000
L54	3.5 - 2.33333	TP37.36x36.7688x1.4313	34.09	2210.91	0.015	2.07	6910.71	0.000
	2.33333 - 1.16667		34.20	2223.17	0.015	2.09	6987.57	0.000
	1.16667 - 0		34.31	2235.43	0.015	2.11	7064.85	0.000

APPENDIX B

BASE LEVEL DRAWING



CLIMBING PEGS
W/ SAFETY CLIMB

(OTHER CONSIDERED EQUIPMENT–IN CONDUIT)
(2) 3/8" TO 152 FT LEVEL
(4) 3/4" TO 152 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(6) 1–5/8" TO 152 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(1) 1–1/2" TO 120 FT LEVEL
(9) 1–5/8" TO 120 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
(PROPOSED EQUIPMENT CONFIGURATION)
(1) 1–1/4" TO 99 FT LEVEL
(6) 1–5/8" TO 99 FT LEVEL

APPENDIX C

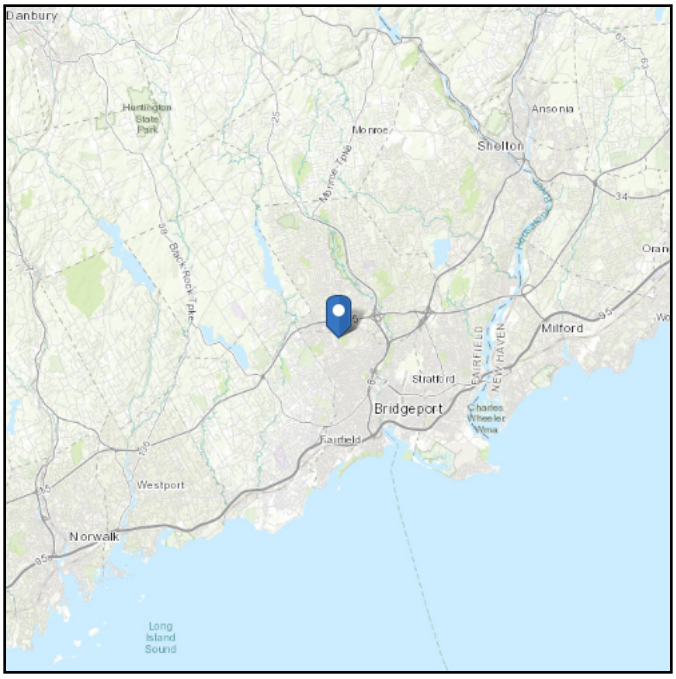
ADDITIONAL CALCULATIONS

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	125 Vmph per Local Jurisdiction
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, and Section 26.5.2, incorporating errata of March 12, 2014

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.

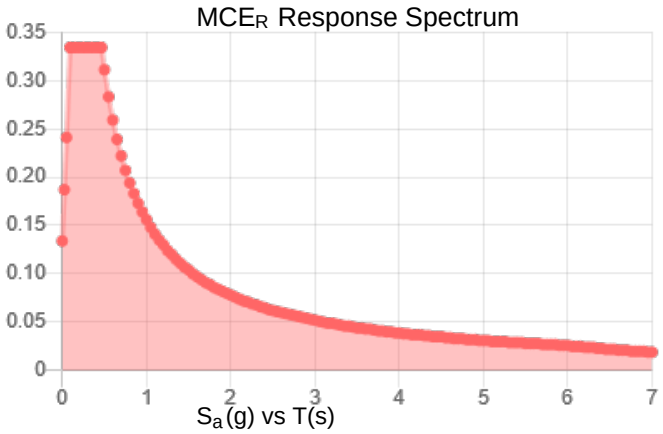
Seismic

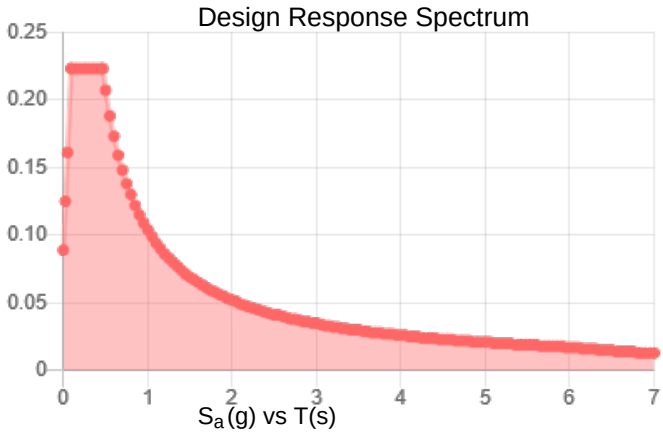
Site Soil Class: D - Stiff Soil

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: Mon Feb 22 2021

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 Feb 22 2021

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.

CCIpole

per TIA-222- H

Site BU: 841288

Work Order: 1962249

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	48.25	solid round	Dywidag #20	4			x			x			x			x
2	0	23.75	plate	PL 6.5x1.25	4		x			x			x			x	
3	23.75	44.25	plate	PL 6.5x1.25	4		x			x			x			x	
4	44.25	66.75	plate	PL 5x1.25	4		x			x			x			x	
5	66.75	80.5	plate	PL 4x1.25	4			x			x			x			x
6	95.42	109	plate	PL 5x1.25	2		x			x							
7	95.42	100.92	plate	PL 5x1.25	1									x			
8	100.92	109	plate	PL 5x1.25	1								x				
9	102.42	109	plate	PL 5x1.25	1											x	
10	109	128.5	plate	PL 4x1.25	4		x			x			x			x	
11	0	38.5	plate	(1) PL 6x1 w/ PL 4.5x1	1	x											
12	0	38.5	plate	(2) PL 6x1 w/ PL 4.5x1	3				x			x			x		
13	38.5	73.58	plate	(3) PL 6x1 w/ PL 4.5x1	4	x			x			x			x		
14	73.58	104.17	plate	(3) PL 6x1 w/ PL 4.5x1	2	x									x		
15	73.58	99.58	plate	(3) PL 6x1 w/ PL 4.5x1	1				x								
16	73.58	103.17	plate	(3) PL 6x1 w/ PL 4.5x1	1							x					
17																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in2)	Bolt Hole Size (in)	Reinforcement Material
1	0	0	4.90874	3	None	0	None	0.000	34.400	4.909	0.0000	Dywidag
2	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.000	6.563	1.1875	A572-65
3	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.000	6.563	1.1875	A572-65
4	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	27	PC 8.8 - M20 (100)	27.000	18.000	4.688	1.1875	A572-65
5	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	18.000	3.438	1.1875	A572-65
6	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	27	PC 8.8 - M20 (100)	27.000	18.000	4.688	1.1875	A572-65
7	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	27	PC 8.8 - M20 (100)	27.000	18.000	4.688	1.1875	A572-65
8	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	27	PC 8.8 - M20 (100)	27.000	18.000	4.688	1.1875	A572-65
9	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	27	PC 8.8 - M20 (100)	27.000	18.000	4.688	1.1875	A572-65
10	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	18.000	3.438	1.1875	A572-65
11	5.40899	1.94121	10.5	1.07	FORGBolt - M20 (A)	45	FORGBolt - M20 (A)	54.000	20.000	8.000	1.1875	A572-65
12	5.40899	1.94121	10.5	1.07	FORGBolt - M20 (A)	39	FORGBolt - M20 (A)	54.000	20.000	8.000	1.1875	A572-65
13	5.40899	1.94121	10.5	1.07	FORGBolt - M20 (A)	54	FORGBolt - M20 (A)	54.000	20.000	8.000	1.1875	A572-65
14	5.40899	1.94121	10.5	1.07	FORGBolt - M20 (A)	54	FORGBolt - M20 (A)	54.000	20.000	8.000	1.1875	A572-65
15	5.40899	1.94121	10.5	1.07	FORGBolt - M20 (A)	54	FORGBolt - M20 (A)	54.000	20.000	8.000	1.1875	A572-65
16	5.40899	1.94121	10.5	1.07	FORGBolt - M20 (A)	54	FORGBolt - M20 (A)	54.000	20.000	8.000	1.1875	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
Dywidag #20	Top	0	-	0	0	0	0	0	-	-	0	-	-	-
	Bottom	0	-	0	0	0	0	0	-	-	0	-	-	-
PL 6.5x1.25	Top	11	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	11	N	3	3	-	-	-	-	-	-	-	-	-
PL 5x1.25	Top	9	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	9	N	3	3	-	-	-	-	-	-	-	-	-
PL 4x1.25	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	6	N	3	3	-	-	-	-	-	-	-	-	-
(1) PL 6x1 w/ PL 4.5x1	Top	18	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	15	N	3	3	-	-	-	-	-	-	-	-	-
(2) PL 6x1 w/ PL 4.5x1	Top	18	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	13	N	3	3	-	-	-	-	-	-	-	-	-
(3) PL 6x1 w/ PL 4.5x1	Top	18	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	18	N	3	3	-	-	-	-	-	-	-	-	-

TNX Geometry Input

Increment (ft): 5 Export to TNX

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	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	0.975	A572-50	0.967
15	103.17 - 102.92	0.25		12	21.880	21.918	1.125	A572-50	0.900
16	102.92 - 102.42	0.5		12	21.918	21.994	1.125	A572-50	0.897
17	102.42 - 102.17	0.25		12	21.994	22.031	0.95	A572-50	0.955
18	102.17 - 100.92	1.25		12	22.031	22.220	0.95	A572-50	0.949
19	100.92 - 100.67	0.25		12	22.220	22.258	1.025	A572-50	0.971
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	1.4	A572-50	0.829
22	99.33 - 95.42	3.91		12	22.460	23.051	1.35	A572-50	0.839
23	95.42 - 95.17	0.25		12	23.051	23.088	1.05	A572-50	0.811
24	95.17 - 90.17	5		12	23.088	23.843	1	A572-50	0.830
25	90.17 - 85.17	5		12	23.843	24.598	0.975	A572-50	0.831
26	85.17 - 80.5	4.67		12	24.598	25.304	0.95	A572-50	0.835
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	1.25	A572-50	0.823
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	1.225	A572-50	0.833
32	72 - 67	5		12	26.087	26.897	1.2875	A572-50	0.837
33	67 - 66.75	0.25		12	26.897	26.937	1.2875	A572-50	0.836
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	1.2875	A572-50	0.844
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	1.6125	A572-50	0.792
40	48 - 44.25	3.75		12	29.974	30.582	1.5625	A572-50	0.803
41	44.25 - 44	0.25		12	30.582	30.622	1.6625	A572-50	0.805
42	44 - 39	5		12	30.622	31.432	1.6125	A572-50	0.811
43	39 - 38.5	0.5		12	31.432	31.513	1.6125	A572-50	0.809
44	38.5 - 38.25	0.25		12	31.513	31.554	1.6125	A572-50	0.809
45	38.25 - 34	8.25	4	12	31.554	32.890	1.5625	A572-50	0.819
46	34 - 29	5		12	31.617	32.462	1.6813	A572-50	0.817
47	29 - 24	5		12	32.462	33.306	1.6313	A572-50	0.825
48	24 - 23.75	0.25		12	33.306	33.348	1.6313	A572-50	0.825
49	23.75 - 23.5	0.25		12	33.348	33.391	1.6063	A572-50	0.836
50	23.5 - 18.5	5		12	33.391	34.235	1.5813	A572-50	0.833
51	18.5 - 13.5	5		12	34.235	35.080	1.5313	A572-50	0.844
52	13.5 - 8.5	5		12	35.080	35.924	1.5063	A572-50	0.843
53	8.5 - 3.5	5		12	35.924	36.769	1.4563	A572-50	0.857
54	3.5 - 0	3.5		12	36.769	37.360	1.4313	A572-50	0.861

TNX Section Forces

Increment (ft): 5

	Section Height (ft)	TNX Output		
		P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	150 - 145	3.40	44.16	5.53
2	145 - 140	3.72	73.43	6.15
3	140 - 135	7.15	120.55	10.48
4	135 - 130	7.50	174.15	10.98
5	130 - 128.5	7.61	190.71	11.12
6	128.5 - 128.25	7.66	193.49	11.13
7	128.25 - 123.25	8.39	250.50	11.67
8	123.25 - 118.25	13.34	317.41	16.33
9	118.25 - 113.25	14.17	400.42	16.88
10	113.25 - 109	15.85	473.45	17.97
11	109 - 108.75	15.91	477.94	17.99
12	108.75 - 104.17	16.82	561.72	18.59
13	104.17 - 103.92	16.90	566.37	18.62
14	103.92 - 103.17	17.11	580.38	18.74
15	103.17 - 102.92	17.19	585.07	18.77
16	102.92 - 102.42	17.34	594.48	18.85
17	102.42 - 102.17	17.41	599.20	18.88
18	102.17 - 100.92	17.75	622.92	19.07
19	100.92 - 100.67	17.83	627.69	19.10
20	100.67 - 99.58	18.16	648.60	19.26
21	99.58 - 99.33	18.25	653.42	19.30
22	99.33 - 95.42	22.09	740.93	22.42
23	95.42 - 95.17	22.17	746.54	22.45
24	95.17 - 90.17	23.58	860.62	23.18
25	90.17 - 85.17	25.03	978.23	23.87
26	85.17 - 80.5	26.41	1091.19	24.51
27	80.5 - 80.25	26.51	1097.32	24.54
28	80.25 - 75.25	28.37	1221.83	25.26
29	75.25 - 73.58	29.00	1264.21	25.50
30	73.58 - 73.33	29.11	1270.59	25.53
31	73.33 - 72	29.61	1304.67	25.72
32	72 - 67	32.61	1435.28	26.49
33	67 - 66.75	32.72	1441.91	26.52
34	66.75 - 66.5	32.83	1448.54	26.55
35	66.5 - 61.5	34.95	1583.04	27.24
36	61.5 - 56.5	37.10	1720.85	27.89
37	56.5 - 51.5	39.28	1861.86	28.52
38	51.5 - 48.25	40.71	1955.17	28.91
39	48.25 - 48	40.85	1962.40	28.93
40	48 - 44.25	42.79	2071.82	29.42
41	44.25 - 44	42.94	2079.18	29.44
42	44 - 39	45.69	2228.00	30.08
43	39 - 38.5	45.97	2243.06	30.14
44	38.5 - 38.25	46.11	2250.60	30.16
45	38.25 - 34	48.47	2379.87	30.66
46	34 - 29	53.49	2534.94	31.34
47	29 - 24	56.50	2692.96	31.88
48	24 - 23.75	56.66	2700.94	31.89
49	23.75 - 23.5	56.81	2708.91	31.92
50	23.5 - 18.5	59.84	2869.85	32.46
51	18.5 - 13.5	62.90	3033.39	32.97
52	13.5 - 8.5	65.99	3199.46	33.47
53	8.5 - 3.5	69.11	3368.03	33.97
54	3.5 - 0	71.31	3487.49	34.31

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP15.732x15x0.2188	Pole	22.3%	Pass
145 - 140	Pole	TP16.463x15.732x0.2188	Pole	33.5%	Pass
140 - 135	Pole	TP17.195x16.463x0.2188	Pole	50.7%	Pass
135 - 130	Pole	TP17.927x17.195x0.2188	Pole	66.8%	Pass
130 - 128.5	Pole	TP18.146x17.927x0.2188	Pole	71.2%	Pass
128.5 - 128.25	Pole + Reinf.	TP18.183x18.146x0.6688	Reinf. 10 Bolt-Shaft Bearing	43.1%	Pass
128.25 - 123.25	Pole + Reinf.	TP18.915x18.183x0.6438	Reinf. 10 Tension Rupture	43.7%	Pass
123.25 - 118.25	Pole + Reinf.	TP19.646x18.915x0.6188	Reinf. 10 Tension Rupture	52.8%	Pass
118.25 - 113.25	Pole + Reinf.	TP20.378x19.646x0.6063	Reinf. 10 Tension Rupture	63.3%	Pass
113.25 - 109	Pole + Reinf.	TP21x20.378x0.5938	Reinf. 10 Bolt-Shaft Bearing	86.8%	Pass
109 - 108.75	Pole + Reinf.	TP21.038x21x0.725	Reinf. 6 Tension Rupture	54.8%	Pass
108.75 - 104.17	Pole + Reinf.	TP21.729x21.038x0.7	Reinf. 6 Tension Rupture	61.6%	Pass
104.17 - 103.92	Pole + Reinf.	TP21.767x21.729x0.975	Reinf. 6 Tension Rupture	55.0%	Pass
103.92 - 103.17	Pole + Reinf.	TP21.88x21.767x0.975	Reinf. 6 Tension Rupture	56.0%	Pass
103.17 - 102.92	Pole + Reinf.	TP21.918x21.88x1.125	Reinf. 6 Tension Rupture	45.5%	Pass
102.92 - 102.42	Pole + Reinf.	TP21.994x21.918x1.125	Reinf. 6 Tension Rupture	46.0%	Pass
102.42 - 102.17	Pole + Reinf.	TP22.031x21.994x0.95	Reinf. 6 Tension Rupture	50.5%	Pass
102.17 - 100.92	Pole + Reinf.	TP22.22x22.031x0.95	Reinf. 6 Tension Rupture	51.9%	Pass
100.92 - 100.67	Pole + Reinf.	TP22.258x22.22x1.025	Reinf. 6 Tension Rupture	51.0%	Pass
100.67 - 99.58	Pole + Reinf.	TP22.422x22.258x1	Reinf. 6 Tension Rupture	52.2%	Pass
99.58 - 99.33	Pole + Reinf.	TP22.46x22.422x1.4	Reinf. 14 Tension Rupture	37.9%	Pass
99.33 - 95.42	Pole + Reinf.	TP23.051x22.46x1.35	Reinf. 14 Tension Rupture	41.8%	Pass
95.42 - 95.17	Pole + Reinf.	TP23.088x23.051x1.05	Reinf. 15 Tension Rupture	51.6%	Pass
95.17 - 90.17	Pole + Reinf.	TP23.843x23.088x1	Reinf. 15 Tension Rupture	57.2%	Pass
90.17 - 85.17	Pole + Reinf.	TP24.598x23.843x0.975	Reinf. 15 Tension Rupture	62.5%	Pass
85.17 - 80.5	Pole + Reinf.	TP25.304x24.598x0.95	Reinf. 15 Tension Rupture	67.3%	Pass
80.5 - 80.25	Pole + Reinf.	TP25.341x25.304x1.3	Reinf. 5 Bolt-Shaft Bearing	58.3%	Pass
80.25 - 75.25	Pole + Reinf.	TP26.096x25.341x1.25	Reinf. 5 Tension Rupture	59.2%	Pass
75.25 - 73.58	Pole + Reinf.	TP26.348x26.096x1.25	Reinf. 5 Tension Rupture	60.6%	Pass
73.58 - 73.33	Pole + Reinf.	TP26.386x26.348x1.225	Reinf. 5 Tension Rupture	60.8%	Pass
73.33 - 72	Pole + Reinf.	TP27.04x26.386x1.225	Reinf. 5 Tension Rupture	61.9%	Pass
72 - 67	Pole + Reinf.	TP26.897x26.087x1.2875	Reinf. 5 Tension Rupture	63.6%	Pass
67 - 66.75	Pole + Reinf.	TP26.937x26.897x1.2875	Reinf. 5 Tension Rupture	63.8%	Pass
66.75 - 66.5	Pole + Reinf.	TP26.978x26.937x1.3625	Reinf. 13 Tension Rupture	56.4%	Pass
66.5 - 61.5	Pole + Reinf.	TP27.788x26.978x1.3125	Reinf. 13 Tension Rupture	59.4%	Pass
61.5 - 56.5	Pole + Reinf.	TP28.598x27.788x1.2875	Reinf. 13 Tension Rupture	62.3%	Pass
56.5 - 51.5	Pole + Reinf.	TP29.408x28.598x1.2375	Reinf. 13 Tension Rupture	65.1%	Pass
51.5 - 48.25	Pole + Reinf.	TP29.934x29.408x1.2125	Reinf. 13 Tension Rupture	66.9%	Pass
48.25 - 48	Pole + Reinf.	TP29.974x29.934x1.6125	Reinf. 1 Compression	53.6%	Pass
48 - 44.25	Pole + Reinf.	TP30.582x29.974x1.5625	Reinf. 1 Compression	55.2%	Pass
44.25 - 44	Pole + Reinf.	TP30.622x30.582x1.6625	Reinf. 1 Compression	52.1%	Pass
44 - 39	Pole + Reinf.	TP31.432x30.622x1.6125	Reinf. 1 Compression	54.0%	Pass
39 - 38.5	Pole + Reinf.	TP31.513x31.432x1.6125	Reinf. 1 Compression	54.2%	Pass
38.5 - 38.25	Pole + Reinf.	TP31.554x31.513x1.6125	Reinf. 1 Compression	54.3%	Pass
38.25 - 34	Pole + Reinf.	TP32.89x31.554x1.5625	Reinf. 1 Compression	55.9%	Pass
34 - 29	Pole + Reinf.	TP32.462x31.617x1.6813	Reinf. 1 Compression	55.5%	Pass
29 - 24	Pole + Reinf.	TP33.306x32.462x1.6313	Reinf. 1 Compression	57.0%	Pass
24 - 23.75	Pole + Reinf.	TP33.348x33.306x1.6313	Reinf. 1 Compression	57.0%	Pass
23.75 - 23.5	Pole + Reinf.	TP33.391x33.348x1.6063	Reinf. 1 Compression	57.1%	Pass
23.5 - 18.5	Pole + Reinf.	TP34.235x33.391x1.5813	Reinf. 1 Compression	58.6%	Pass
18.5 - 13.5	Pole + Reinf.	TP35.08x34.235x1.5313	Reinf. 12 Tension Rupture	60.0%	Pass
13.5 - 8.5	Pole + Reinf.	TP35.924x35.08x1.5063	Reinf. 12 Tension Rupture	61.4%	Pass
8.5 - 3.5	Pole + Reinf.	TP36.769x35.924x1.4563	Reinf. 12 Tension Rupture	62.8%	Pass
3.5 - 0	Pole + Reinf.	TP37.36x36.769x1.4313	Reinf. 12 Tension Rupture	63.8%	Pass
				Summary	
			Pole	71.2%	Pass
			Reinforcement	86.8%	Pass
			Overall	86.8%	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
150 - 145	336	n/a	336	10.91	n/a	10.91	22.3%																
145 - 140	386	n/a	386	11.43	n/a	11.43	33.5%																
140 - 135	440	n/a	440	11.94	n/a	11.94	50.7%																
135 - 130	500	n/a	500	12.46	n/a	12.46	66.8%																
130 - 128.5	519	n/a	519	12.61	n/a	12.61	71.2%																
128.5 - 128.25	522	959	1481	12.64	20.00	32.64	24.4%										43.1%						
128.25 - 123.25	588	1031	1619	13.15	20.00	33.15	30.0%										43.7%						
123.25 - 118.25	660	1106	1766	13.66	20.00	33.66	36.4%										52.8%						
118.25 - 113.25	738	1184	1922	14.18	20.00	34.18	43.7%										63.3%						
113.25 - 109	808	1252	2060	14.62	20.00	34.62	49.9%										86.8%						
109 - 108.75	924	1580	2504	16.71	25.00	41.71	41.3%						54.8%		54.8%	54.8%							
108.75 - 104.17	1020	1678	2697	17.27	25.00	42.27	46.4%						61.6%		61.6%	61.6%							
104.17 - 103.92	1157	2598	3755	17.30	46.00	63.30	42.6%						55.0%		44.4%	34.1%					36.0%		
103.92 - 103.17	1175	2623	3798	17.39	46.00	63.39	43.4%						56.0%		45.2%	34.7%					36.7%		
103.17 - 102.92	1087	3113	4200	17.42	50.25	67.67	36.6%						45.5%			34.7%					40.3%		37.4%
102.92 - 102.42	1099	3132	4231	17.48	50.25	67.73	37.0%						46.0%			35.1%					40.8%		37.9%
102.42 - 102.17	1069	2600	3669	17.51	44.00	61.51	39.8%						50.5%								50.4%		38.0%
102.17 - 100.92	1097	2640	3737	17.66	44.00	61.66	40.9%						51.9%								51.8%		39.1%
100.92 - 100.67	1123	2913	4036	17.69	50.25	67.94	40.3%						51.0%	37.0%							42.3%		37.6%
100.67 - 99.58	1148	2952	4100	17.82	50.25	68.07	41.2%						52.2%	37.9%							43.3%		38.5%
99.58 - 99.33	1128	4237	5365	17.85	60.75	78.60	29.4%						35.3%	33.5%							37.9%	33.4%	36.9%
99.33 - 95.42	1220	4441	5661	18.33	60.75	79.08	32.4%						38.9%	37.0%							41.8%	36.9%	40.6%
95.42 - 95.17	1226	3399	4625	18.36	42.00	60.36	38.3%														51.6%	51.6%	51.6%
95.17 - 90.17	1351	3602	4954	18.97	42.00	60.97	42.7%														57.2%	57.2%	57.2%
90.17 - 85.17	1485	3811	5296	19.57	42.00	61.57	47.2%														62.5%	62.5%	62.5%
85.17 - 80.5	1618	4012	5630	20.14	42.00	62.14	51.4%														67.3%	67.3%	67.3%
80.5 - 80.25	1625	5805	7430	20.17	62.00	82.17	39.2%					58.3%									51.3%	51.3%	51.3%
80.25 - 75.25	1776	6128	7904	20.78	62.00	82.78	42.7%					59.2%									55.2%	55.2%	55.2%
75.25 - 73.58	1829	6237	8066	20.98	62.00	82.98	43.8%					60.6%									56.5%	56.5%	56.5%
73.58 - 73.33	1837	6254	8091	21.01	62.00	83.01	44.0%					60.8%								56.7%			
73.33 - 72	1880	6342	8222	21.17	62.00	83.17	44.9%					61.9%								57.7%			
72 - 67	2416	6480	8896	26.71	62.00	88.71	44.4%					63.6%								59.3%			
67 - 66.75	2427	6498	8925	26.75	62.00	88.75	44.6%					63.8%								59.4%			
66.75 - 66.5	2439	7027	9465	26.79	67.00	93.79	42.3%				55.5%									56.4%			
66.5 - 61.5	2668	7423	10090	27.61	67.00	94.61	44.6%				58.6%									59.4%			
61.5 - 56.5	2910	7830	10740	28.42	67.00	95.42	46.9%				61.5%									62.3%			
56.5 - 51.5	3168	8248	11415	29.23	67.00	96.23	49.1%				64.3%									65.1%			
51.5 - 48.25	3343	8525	11868	29.76	67.00	96.76	50.8%				66.0%									66.9%			
48.25 - 48	3356	11731	15088	29.80	86.63	116.44	40.2%	53.6%			52.2%									52.9%			
48 - 44.25	3567	12166	15733	30.41	86.63	117.05	41.8%	55.2%			53.9%									54.6%			
44.25 - 44	3581	13179	16760	30.46	94.13	124.59	39.4%	52.1%		47.3%										51.5%			
44 - 39	3876	13821	17697	31.27	94.13	125.40	41.4%	54.0%		49.2%										53.5%			
39 - 38.5	3906	13886	17792	31.35	94.13	125.49	41.6%	54.2%		49.4%										53.7%			
38.5 - 38.25	3922	13918	17840	31.39	94.13	125.53	41.7%	54.3%		49.5%								53.8%	53.8%				
38.25 - 34	4187	14478	18664	32.08	94.13	126.22	43.4%	55.9%		51.1%								55.5%	55.5%				
34 - 29	5508	14659	20166	41.88	94.13	136.01	41.9%	55.5%		50.7%								55.1%	55.1%				
29 - 24	5955	15365	21319	42.98	94.13	137.12	43.2%	57.0%		52.3%								56.8%	56.8%				
24 - 23.75	5978	15400	21378	43.04	94.13	137.17	43.3%	57.0%		52.3%								56.8%	56.8%				
23.75 - 23.5	6001	15436	21437	43.09	94.13	137.23	43.3%	57.1%	52.4%									56.9%	56.9%				
23.5 - 18.5	6474	16161	22634	44.19	94.13	138.33	44.6%	58.6%	53.9%									58.5%	58.5%				
18.5 - 13.5	6971	16902	23872	45.30	94.13	139.43	45.8%	59.9%	55.3%									60.0%	60.0%				
13.5 - 8.5	7492	17660	25152	46.40	94.13	140.54	47.0%	61.2%	56.7%									61.4%	61.4%				
8.5 - 3.5	8040	18435	26474	47.50	94.13	141.64	48.1%	62.5%	58.0%									62.8%	62.8%				
3.5 - 0	8438	18987	27425	48.28	94.13	142.41	48.9%	63.4%	58.9%									63.8%	63.8%				

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

TOWER ENGINEERING PROFESSIONALS

Bridgeport North (BU 841288)

TEP #: 25567.543743

Analysis: SPT 5/14/2021

Check: CLT 5/14/2021

Elevation: 109.00-ft

Loads	
Axial:	15.9 k
Moment:	473.4 k·ft
Shear:	18.0 k
Torsion:	0.7 k·ft

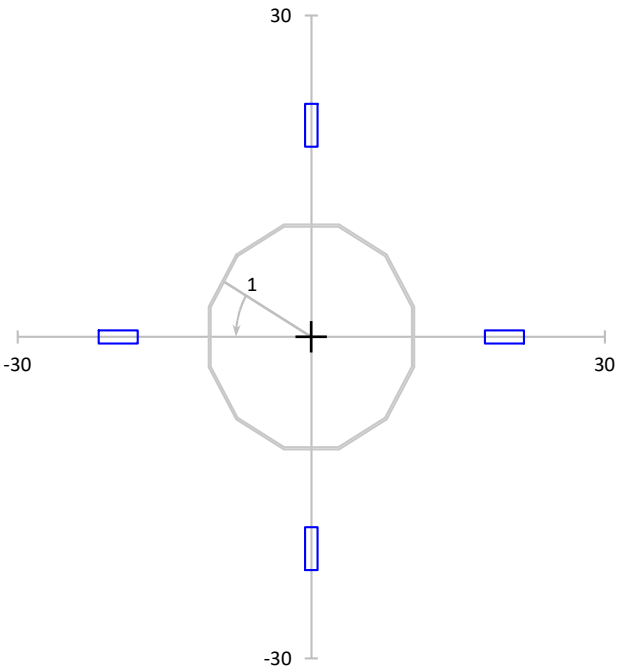
Pole Info	
OD:	21.00 in
t:	0.2188 in
Pole A_G:	0.00 in^2
Pole I_G:	0.0 in^4

Equivalent Loads to Pole	
Axial:	0.0 k
Moment:	0.0 k·ft
Shear:	0.0 k
Torsion:	0.0 k·ft

Controlling	
Angle:	**300.00°**
I_G:	3,915.3 in^4
A_G:	20.00 in^2

Shear Flow	
Controlling Mod:	1
q:	0.453 k/in
Bolt/Weld Cap:	1000.0 k/bolt
Max Spacing:	2206.58 in
Stitch:	15.00 in
Capacity:	**0.7%**

Minimum	
Angle:	**159.00°**
I_{MIN}:	3,915.3 in^4
t_{EFF}:	1.2335 in



Pole Segment: L1, F_Y = 50 ksi

POLE CAPACITY

Angle (°)	y_{CONT} (in)	I (in^4)	σ_A (ksi)	σ_B (ksi)	σ_V (ksi)	σ_T (ksi)	ϕF_A (ksi)	ϕF_B (ksi)	ϕF_V (ksi)	ϕF_T (ksi)	Capacity
345.00	10.88	3915.3	0.000	0.000	0.000	0.000	45.000	56.348	13.500	28.500	**0.0%**

MODIFICATION CAPACITIES

Mod Number	#	Angle (°)	$\bar{y}_{CONT}$ (in)	I (in^4)	σ_A (ksi)	σ_B (ksi)	σ_V (ksi)	ϕF_A (ksi)	ϕF_B (ksi)	ϕF_V (ksi)	Capacity
1	1	**30.00**	19.75	3915.3	0.793	28.659	0.898	52.663	52.663	29.250	**53.4%**
1	2	**120.00**	19.75	3915.3	0.793	28.659	0.898	52.663	52.663	29.250	**53.4%**
1	3	**210.00**	19.75	3915.3	0.793	28.659	0.898	52.663	52.663	29.250	**53.4%**
1	4	**300.00**	19.75	3915.3	0.793	28.659	0.898	52.663	52.663	29.250	**53.4%**

Tower Engineering Professionals, Inc.

326 Tryon Road|Raleigh, NC 27603-3530|Office: (919) 661-6351|Fax: (919) 661-6350|www.tepgroup.net

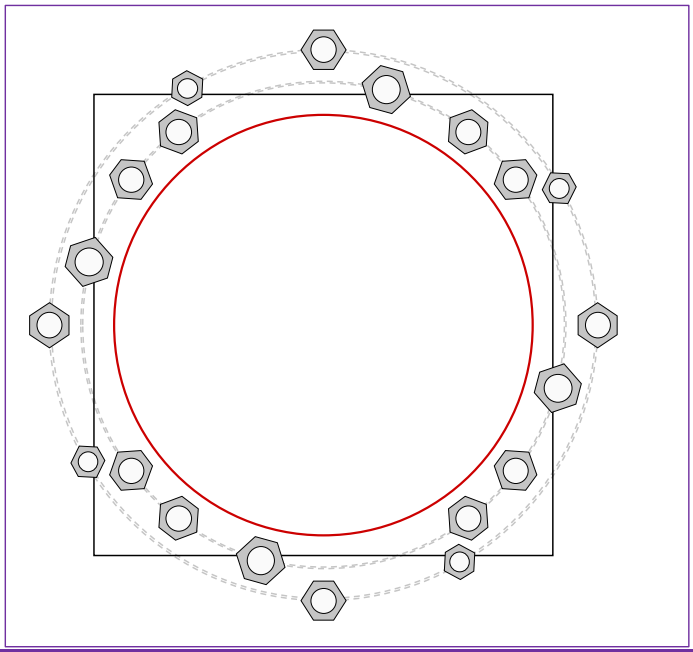
Monopole Base Plate Connection

Site Info	
BU #	841288
Site Name	Bridgeport North
Order #	568278 Rev. 0

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

Applied Loads	
Moment (kip-ft)	3487.00
Axial Force (kips)	71.00
Shear Force (kips)	34.00

**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) 2-1/4" ø bolts (A193 Gr. B7 N; Fy=105 ksi, Fu=125 ksi) on 49" BC
GROUP 3: (4) 1-3/4" ø bolts (A193 Gr. B7 N; Fy=105 ksi, Fu=125 ksi) on 48.63" BC
GROUP 4: (4) 2-1/2" ø bolts (Dywidag N; Fy=80 ksi, Fu=100 ksi) on 43.36" BC

Base Plate Data

41" W x 2.75" Plate (A572-50; Fy=50 ksi, Fu=65 ksi); Clip: 0 in

Stiffener Data

N/A

Pole Data

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

Analysis Results

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

GROUP 1:		
Pu_c = 182.89	ϕPn_c = 268.39	**Stress Rating**
Vu = 4.25	ϕVn = 120.77	**65.0%**
Mu = n/a	ϕMn = n/a	**Pass**
GROUP 2:		
Pu_t = 198.42	ϕPn_t = 304.69	**Stress Rating**
Vu = 0	ϕVn = 186.38	**62.0%**
Mu = n/a	ϕMn = n/a	**Pass**
GROUP 3:		
Pu_t = 115.12	ϕPn_t = 178.13	**Stress Rating**
Vu = 0	ϕVn = 112.75	**61.6%**
Mu = n/a	ϕMn = n/a	**Pass**
GROUP 4:		
Pu_c = 265.26	ϕPn_c = 353.52	**Stress Rating**
Vu = 0	ϕVn = 159.08	**71.5%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	24.27	(Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	**51.4%**	**Pass**

CCIplate

Elevation (ft)	0	*(Base)*

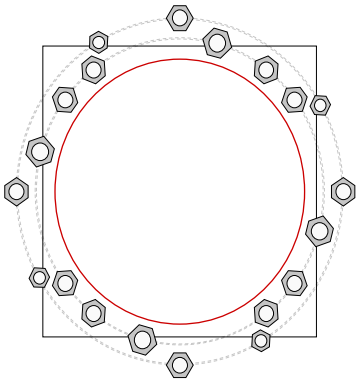
note: Bending interaction not considered when Grout Considered = "Yes"

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

Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η:	l_{ar} (in):	Thread Type	Area Override, in^2	Tension Only
1	1	36.979067	2.25	A615-75	43	0.5	2.25	N-Included		No
2	1	53.020933	2.25	A615-75	43	0.5	2.25	N-Included		No
3	1	126.97907	2.25	A615-75	43	0.5	2.25	N-Included		No
4	1	143.02093	2.25	A615-75	43	0.5	2.25	N-Included		No
5	1	216.97907	2.25	A615-75	43	0.5	2.25	N-Included		No
6	1	233.02093	2.25	A615-75	43	0.5	2.25	N-Included		No
7	1	306.97907	2.25	A615-75	43	0.5	2.25	N-Included		No
8	1	323.02093	2.25	A615-75	43	0.5	2.25	N-Included		No
9	2	90	2.25	A193 Gr. B7	49	0.5	0	N-Included		No
10	2	180	2.25	A193 Gr. B7	49	0.5	0	N-Included		No
11	2	270	2.25	A193 Gr. B7	49	0.5	0	N-Included		No
12	2	360	2.25	A193 Gr. B7	49	0.5	0	N-Included		No
13	3	30	1.75	A193 Gr. B7	48.63	0.5	0	N-Included		No
14	3	120	1.75	A193 Gr. B7	48.63	0.5	0	N-Included		No
15	3	210	1.75	A193 Gr. B7	48.63	0.5	0	N-Included		No
16	3	300	1.75	A193 Gr. B7	48.63	0.5	0	N-Included		No
17	4	75	2.5	Dywidag	43.36	0.5	0	N-Included	4.91	No
18	4	165	2.5	Dywidag	43.36	0.5	0	N-Included	4.91	No
19	4	255	2.5	Dywidag	43.36	0.5	0	N-Included	4.91	No
20	4	345	2.5	Dywidag	43.36	0.5	0	N-Included	4.91	No

Plot Graphic



Monopole on Mat Foundation with Rock Anchors - TIA-222-H

Site Data	
Site Name:	Bridgeport North
CCI Number:	BU 841288
TEP Job Number:	25567.543743

Factored Reactions from TNX		
Axial	71	k
Shear	34	k
Moment	3487	k-ft

Mat and Pier Properties		
Mat Width	18.0	ft
Mat Length	20.0	ft
Mat Thickness	6.8	ft
Pier Type	Square	
Pier Width/Diam.	0.0	ft
Pier Height	0.0	ft

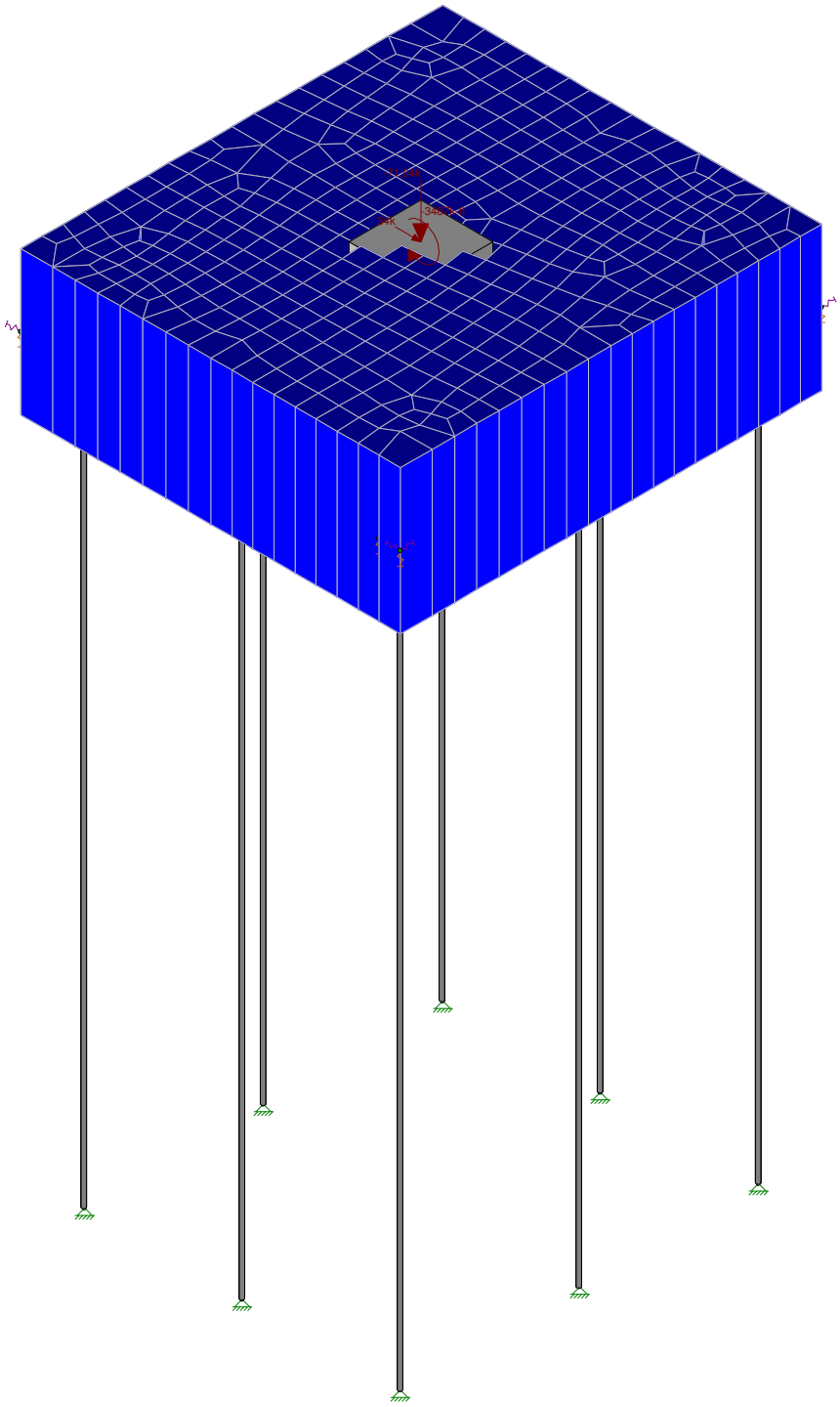
Mat Foundation Results		
Bearing Stress	7.5	ksf
Bearing Capacity, ϕq_{allow}	22.5	ksf
% Capacity	33.4%	**Pass**

Soil Properties		
q_{allow}	10.0	ksf
FS	3.0	
Subgrade Mod.	360	kcf

Mat and Pier Structural Results		
Bending Moment	1675.6	kft
Clearance	3	in
Rebar Fy	60	ksi
Rebar Diameter	1	in
Rebar Spacing	12	in
Concrete F'c	3	ksi
Flexural Capacity, ϕMn	5763.1	kft
% Capacity	29.1%	**Pass**

Rock Anchor Properties		
Type of Bar	WilliamsForm150	
Bar Size	1.75	in
Net Area	2.60	in^2
Ultimate Stress, Fu	150.0	ksi
Yield Stress, Fy	120.0	ksi
Bar Diameter	1.750	in

Rock Anchor Steel Results		
Max Tension Force	33.1	k
Anchor Capacity, ϕPn	280.8	k
% Capacity	11.8%	**Pass**



Loads: LC 1, 1.2D+Wind 0
Envelope Only Solution

Crown Castle	Bridgeport North (BU 841288)	SK - 1
SPT		May 14, 2021 at 3:20 PM
TEP No. 25567.543743		841288_Fdn.r3d

Exhibit E

Mount Analysis

GPD Engineering And Architecture Professional Corporation
520 South Main Street, Suite 2531
Akron, OH 44311
(317) 295-3174

Maser Consulting Contact:
Peter.albano@colliersengineering.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10058984
GPD Project #: 2021740.468202.01
Maser Project #: 21777776

June 21, 2021

Site Information	*Site ID:*	*468202-VZW / TRUMBULL SW CT*
	Site Name:	*TRUMBULL SW CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*38 Kaechele Place* *Bridgeport, Connecticut 06606* *Fairfield County*
	Latitude:	*41.223417°*
	Longitude:	*-73.216333°*
Structure Information	*Tower Type:*	*150-Ft Monopole*
	Mount Type:	*13.50-Ft T-Arm*

FUZE ID # 16231907

Analysis Results

T-Arm: **94.2% Pass**

******Contractor PMI Requirements*:**
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements also Noted on Mount Modification Drawings
Requirements may also be Noted on A & E drawings

Report Prepared By: Michael Hlava

Respectfully Submitted by:

Christopher J. Scheks, P.E.
Connecticut #: 0030026

6/21/2021

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 675071, dated January 13, 2021*
Mount Mapping Report	*Structural Components Site #: 16231907, dated April 19, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	118 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.992
Seismic Parameters:	S_S:	0.212
	S_1:	0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	250 lbs.*
	*Reduced as allowed per ANSI/TIA-222-H 16.9	
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
99.5	101.0	3	Samsung	B2/B66A RRH-BR049	Retained
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RRFDC-6627-PF-48	
	100.0	3	Samsung	VZS01	Added
		6	Commscope	JAHH-65A-R3B	Retained
		3	Antel	BXA-70063-4CF-4- 850MHZ	
		3	Samsung	XXDWMM-12.5-65-8TCBRS	
		3	Samsung	CBRS RRH - RT4401- 48A	
		3	Commscope	CBC78T-DS-43-2X	

Any proposed antennas not currently installed should be mounted such that the centerline of the antennas does not exceed 6 inches vertically from the center of the antenna mount(s).

The recent mount mapping reported existing OVP units. It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to GPD and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to GPD to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

   Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

   The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by GPD, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. GPD is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
    - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
    - HSS (Rectangular) — ASTM 500 (Gr. B-46)
    - Pipe — ASTM A53 (Gr. B-35)
    - Threaded Rod — F1554 (Gr. 36)
    - Bolts — ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by GPD.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Horizontal	85.5 %	Pass
Face Horizontal	94.2 %	Pass
Standoff Vertical	0.1 %	Pass
Mount Pipe	78.8 %	Pass
Standoff	18.2 %	Pass
Mount Connection	54.2 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**94.2%**

The mount has been found structurally adequate for all steel and external connection capacities. Serviceability in accordance with TIA-222-H Section 4.9.11.3 has not been considered.

Recommendation:

The existing mounts are **SUFFICIENT** for the final loading configuration and do not require modifications.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption Wind Speed Letter


04.19.2021 13:06


04 19 2021 11 51


04 19 2021 11 51

V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	Crown Castle	**Mapping Date:**	4/19/2021
Site Name:	Trumbull	**Tower Type:**	Monopole
Site Number or ID:	16231907	**Tower Height (Ft.):**	150
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	97

Please insert the sketches of the antenna mount from the "Sketches" tab with dimensions and members here.

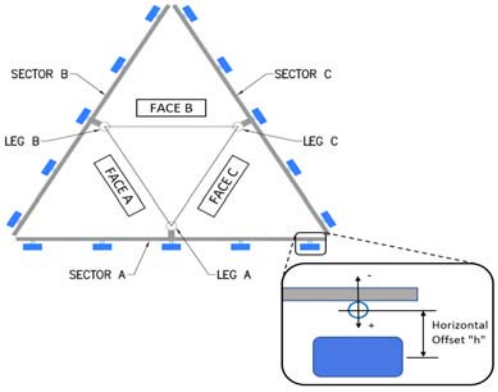
Mount Pipe Configuration and Geometries [Unit = Inches]

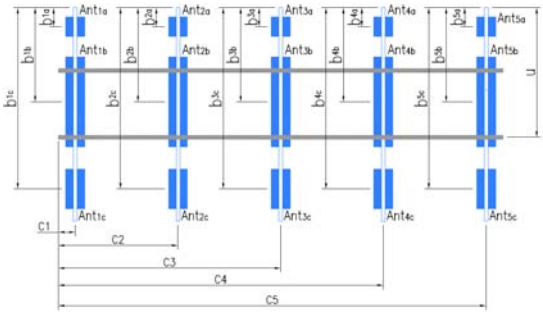
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2-3/8x .15x60"	30.50	5.50	C1	2-3/8x .15x60"	30.50	5.50
A2	2-3/8x .15x60"	30.50	59.00	C2	2-3/8x .15x60"	30.50	59.00
A3	2-3/8x .15x60"	30.50	108.50	C3	2-3/8x .15x60"	30.50	108.50
A4	2-3/8x .15x60"	30.50	156.50	C4	2-3/8x .15x60"	30.50	156.50
A5				C5			
A6				C6			
B1	2-3/8x .15x60"	30.50	5.50	D1			
B2	2-3/8x .15x60"	30.50	59.00	D2			
B3	2-3/8x .15x60"	30.50	108.50	D3			
B4	2-3/8x .15x60"	30.50	156.50	D4			
B5				D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	

Please enter additional infomation or comments below.

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	22.93
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.			0.61





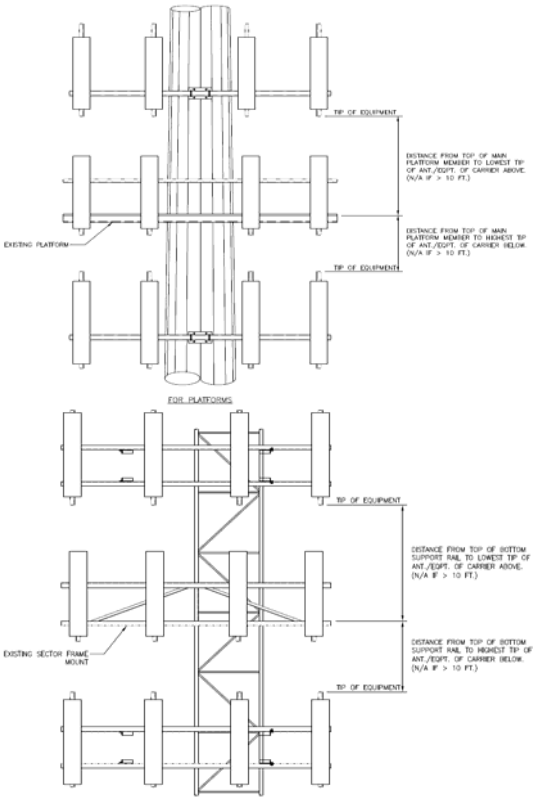
Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown". Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Mounting Locations [Units are inches and degrees] Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photos of antennas Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	rt4401-48a	8.60	4.20	13.90	Jumpers	98.3333	14.50	8.00	0.00	121
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	(2) jahh-65a-r3b	14.00	8.00	55.00	Jumpers	97.25	27.50	9.00	0.00	121
Ant_{2c}	(2) rfvoiu-d2a	15.00	8.00	15.00	Jumpers	98.5417	12.00	0.00		121
Ant_{3a}										
Ant_{3b}	empty					99.5417				122
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	bxa7006/4cfedin4	11.20	5.00	47.40	?) 1-5/8" T	97.5417	24.00	10.50	0.00	122
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	CBC78T-DS-43-2X	9.60	6.40	6.90	Jumpers					121
Ant on Standoff	RRFDC-6627-PF-48	16.50	12.60	29.50	1-5/8" Hybrid					121
Ant on Tower										
Ant on Tower										

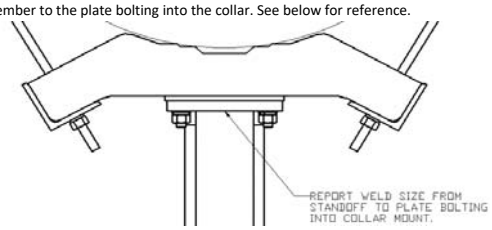
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	0.00	Deg	Leg A:		Deg
Sector B:	120.00	Deg	Leg B:		Deg
Sector C:	240.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	325.00	Deg	N/A
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was obstructed.
	Condition:		Missing climbing members.

Please insert a photo of the mount centerline measurement here.



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Sector B										
Ant_{1a}										
Ant_{1b}	rt4401-48a	8.60	4.20	13.90	Jumpers	98.3333	14.50	8.00	120.00	124
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	(2) jahh-65a-r3b	14.00	8.00	55.00	Jumpers	97.25	27.50	9.00	120.00	124
Ant_{2c}	(2) rfvoiu-d2a	15.00	8.00	15.00	Jumpers	98.5417	12.00	0.00		124
Ant_{3a}										
Ant_{3b}	GPS	2.50	2.50	5.00	(1) TX	99.9583	-5.00	5.00	120.00	125
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	bxa7006/4cfedin4	11.20	5.00	47.40	2) 1-5/8" T	97.5417	24.00	10.50	120.00	125
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	CBC78T-DS-43-2X	9.60	6.40	6.90	Jumpers					124
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	rt4401-48a	8.60	4.20	13.90	Jumpers	98.3333	14.50	8.00	240.00	127
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	(2) jahh-65a-r3b	14.00	8.00	55.00	Jumpers	97.25	27.50	9.00	240.00	127
Ant_{2c}	(2) rfvoiu-d2a	15.00	8.00	15.00	Jumpers	98.5417	12.00	0.00		127
Ant_{3a}										
Ant_{3b}	empty					99.5417				128
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	bxa7006/4cfedin4	11.20	5.00	47.40	2) 1-5/8" T	97.5417	24.00	10.50	240.00	128
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	CBC78T-DS-43-2X	9.60	6.40	6.90	Jumpers					127
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	One sided pegs all the way up the tower and roughly 10 feet of tower with no pegs. Extremely experienced climbers only!	20-27
2	Light Surface rust on mount to face pipe plate and crossover plates.	124
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System					
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.					Photo #
Description of Obstruction:					
Type of Light:		Photo #		Additional Comments:	
Lighting Technology:		Photo #			
Elevation (AGL) at base of light (Ft.):		Photo #			
Is a service loop available?		Photo #			
Is beacon installed on an extension?		Photo #			

Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

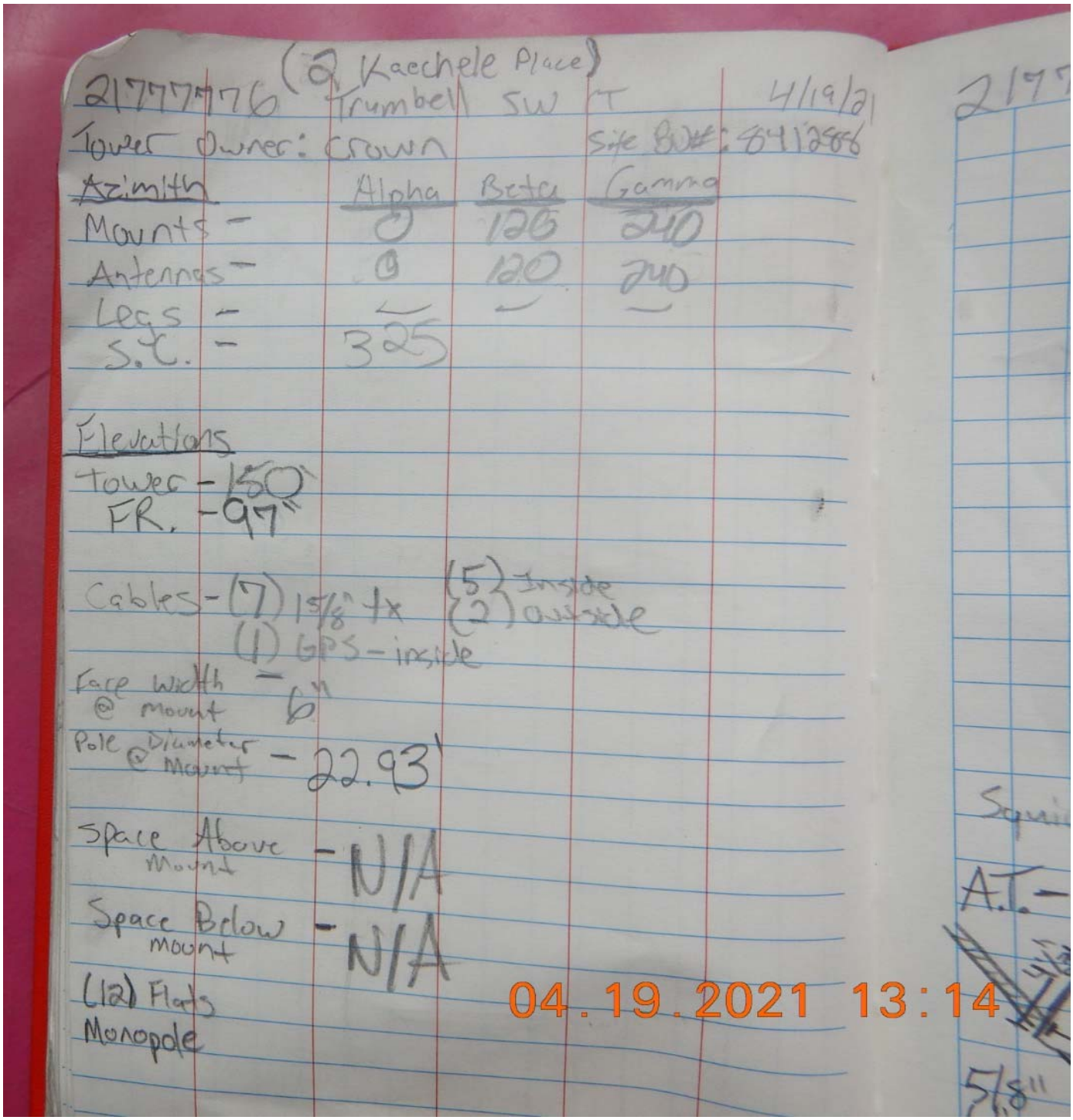
V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

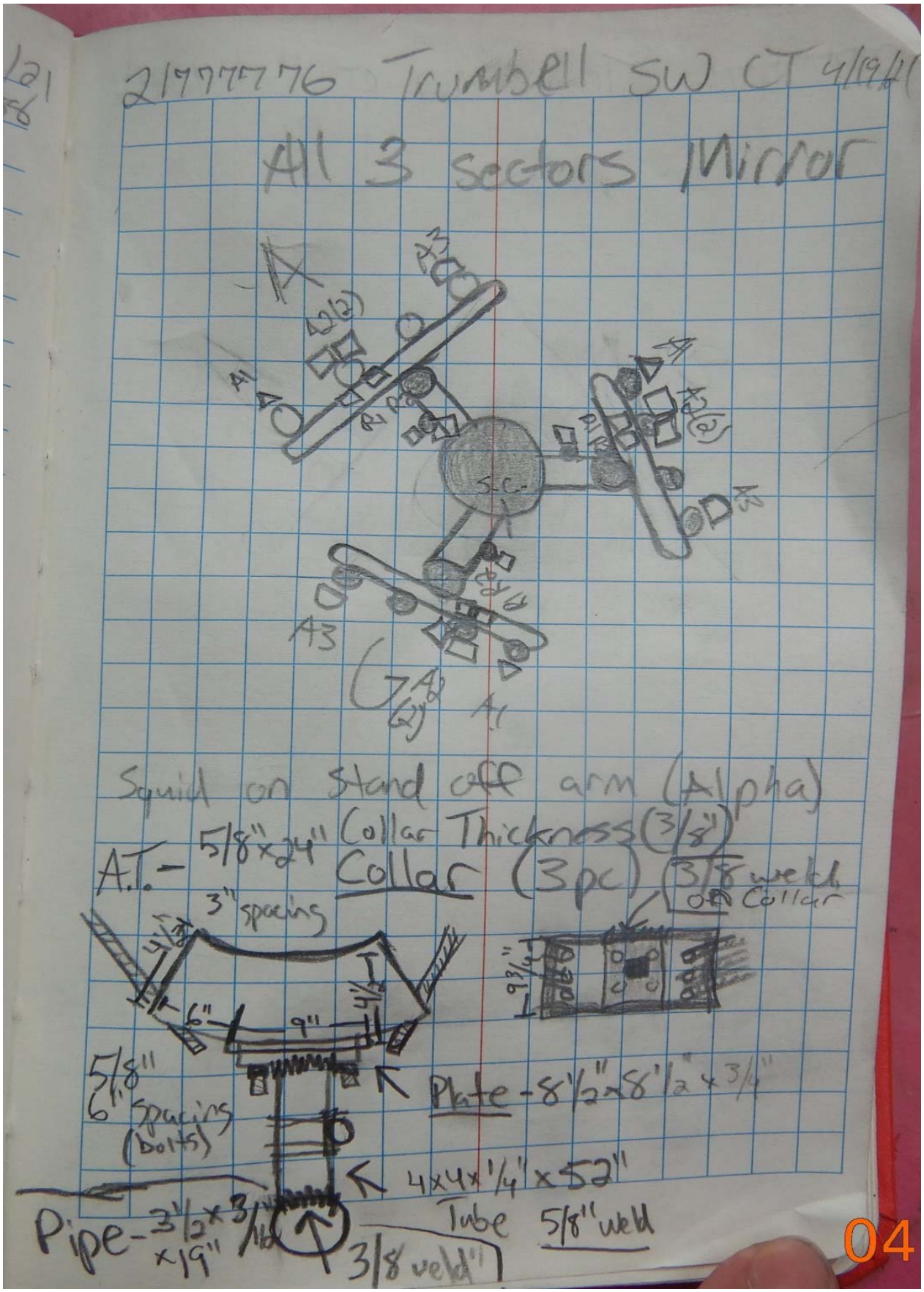
FCC #

Tower Owner:	Crown Castle	**Mapping Date:**	4/19/2021
Site Name:	Trumbull	**Tower Type:**	Monopole
Site Number or ID:	16231907	**Tower Height (Ft.):**	150
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	97

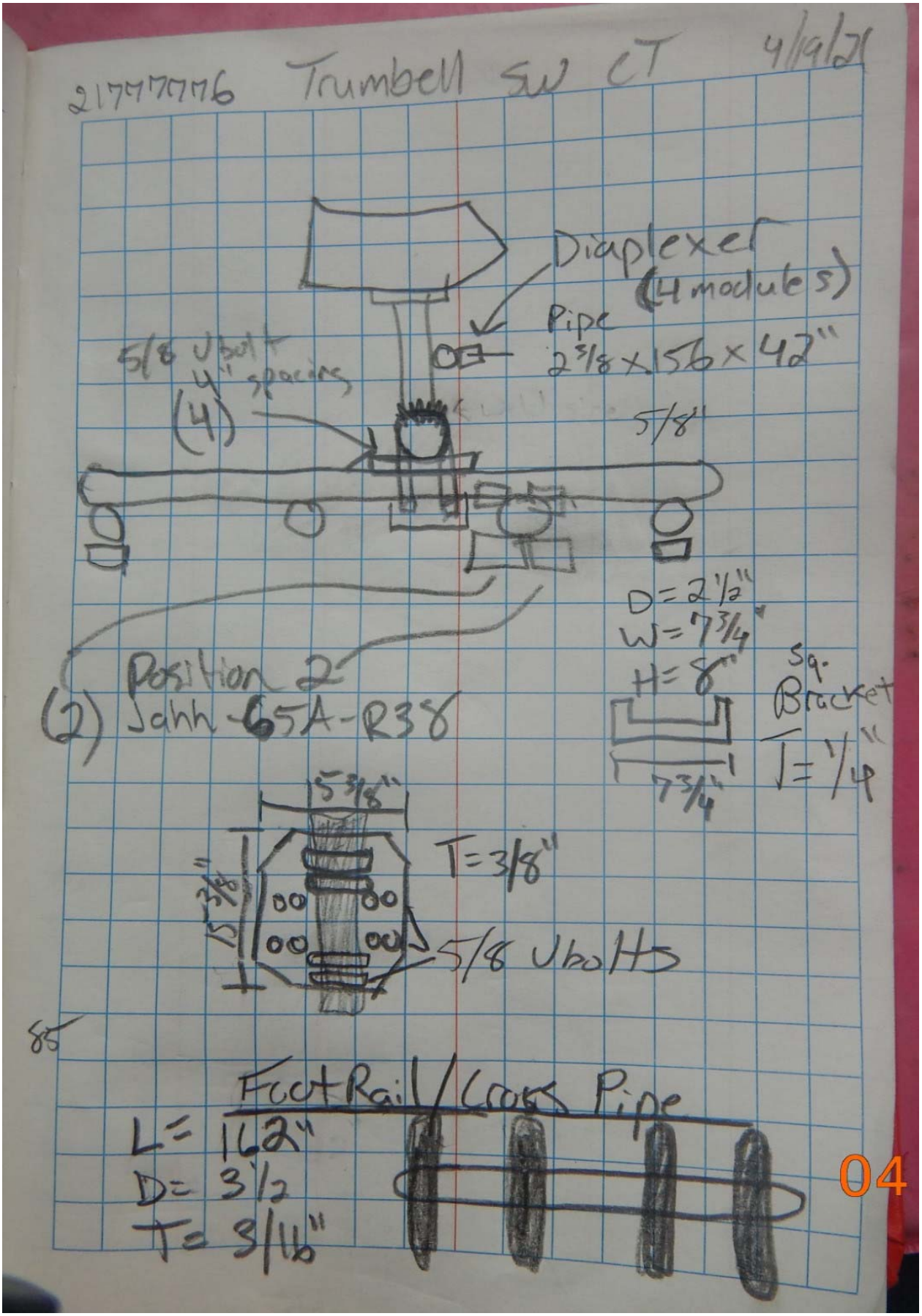
Please Insert Sketches of the Antenna Mount



Please Insert Sketches of the Antenna Mount, cont'd



Please Insert Sketches of the Antenna Mount, cont'd



V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	Crown Castle	**Mapping Date:**	4/19/2021
Site Name:	Trumbull	**Tower Type:**	Monopole
Site Number or ID:	16231907	**Tower Height (Ft.):**	150
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	97

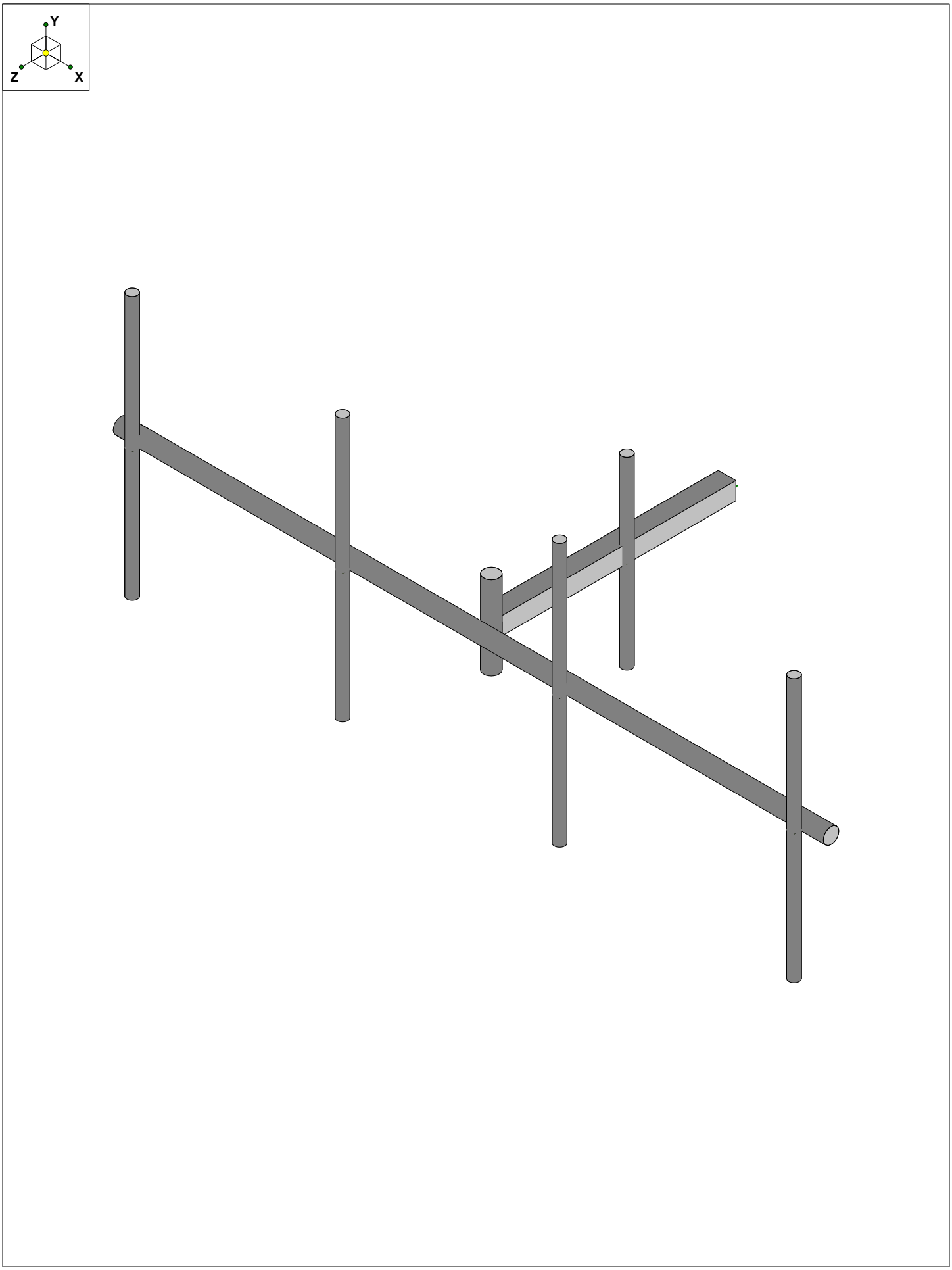
Please enter information about transmission lines.

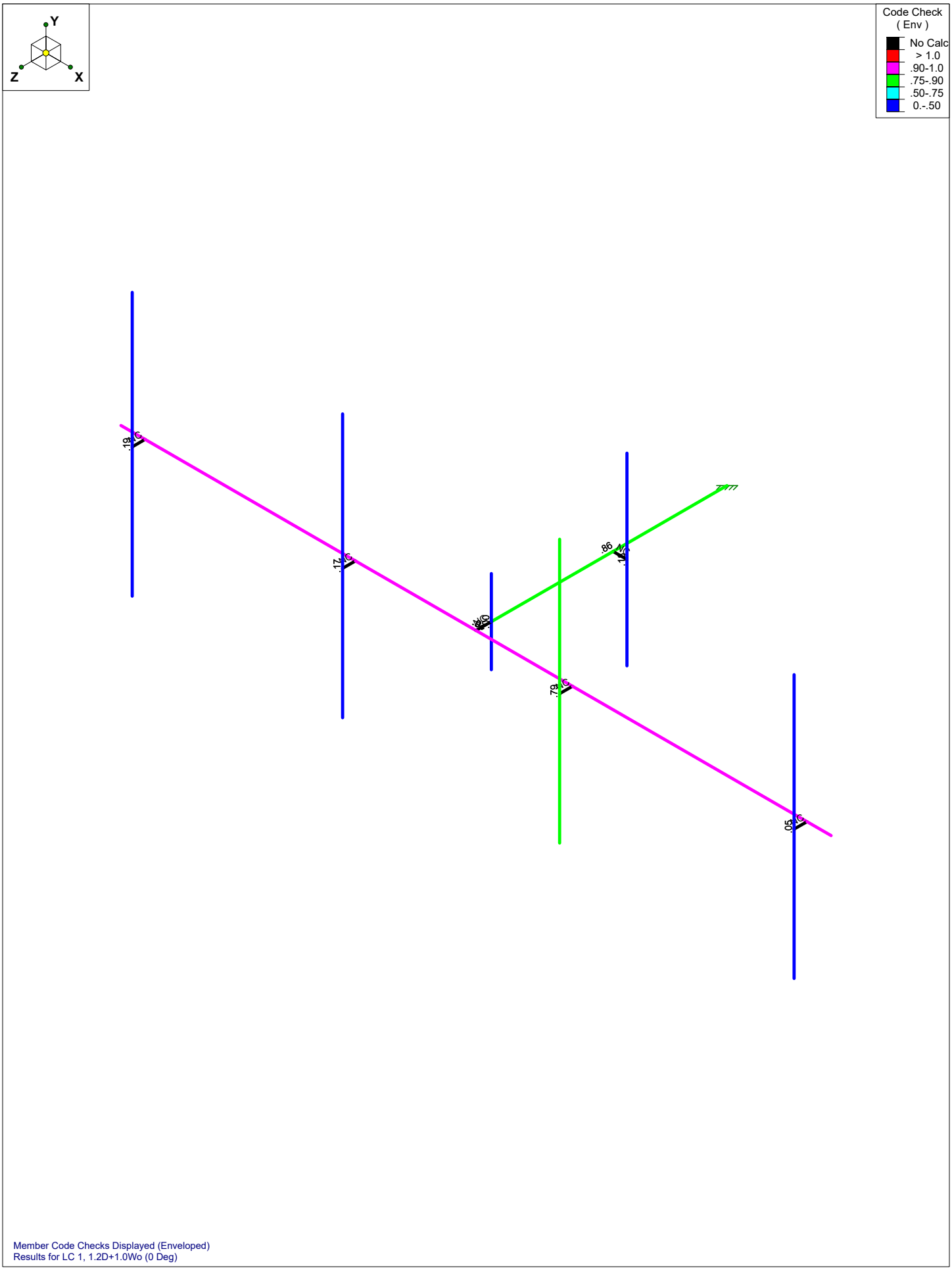
Transmission Line Type (Pick from List)	Quantity	Diameter/Size (in.) Please add a description if using type "Other".	Located on Tower Face	Photo #	Additional Comments
All Sectors					
Coax	6	1.625 TX	inside	5,6,7,12	
Hybrid	1	1.5 Hyb		5,6,7,12	

Please enter information about additional RF equipment.

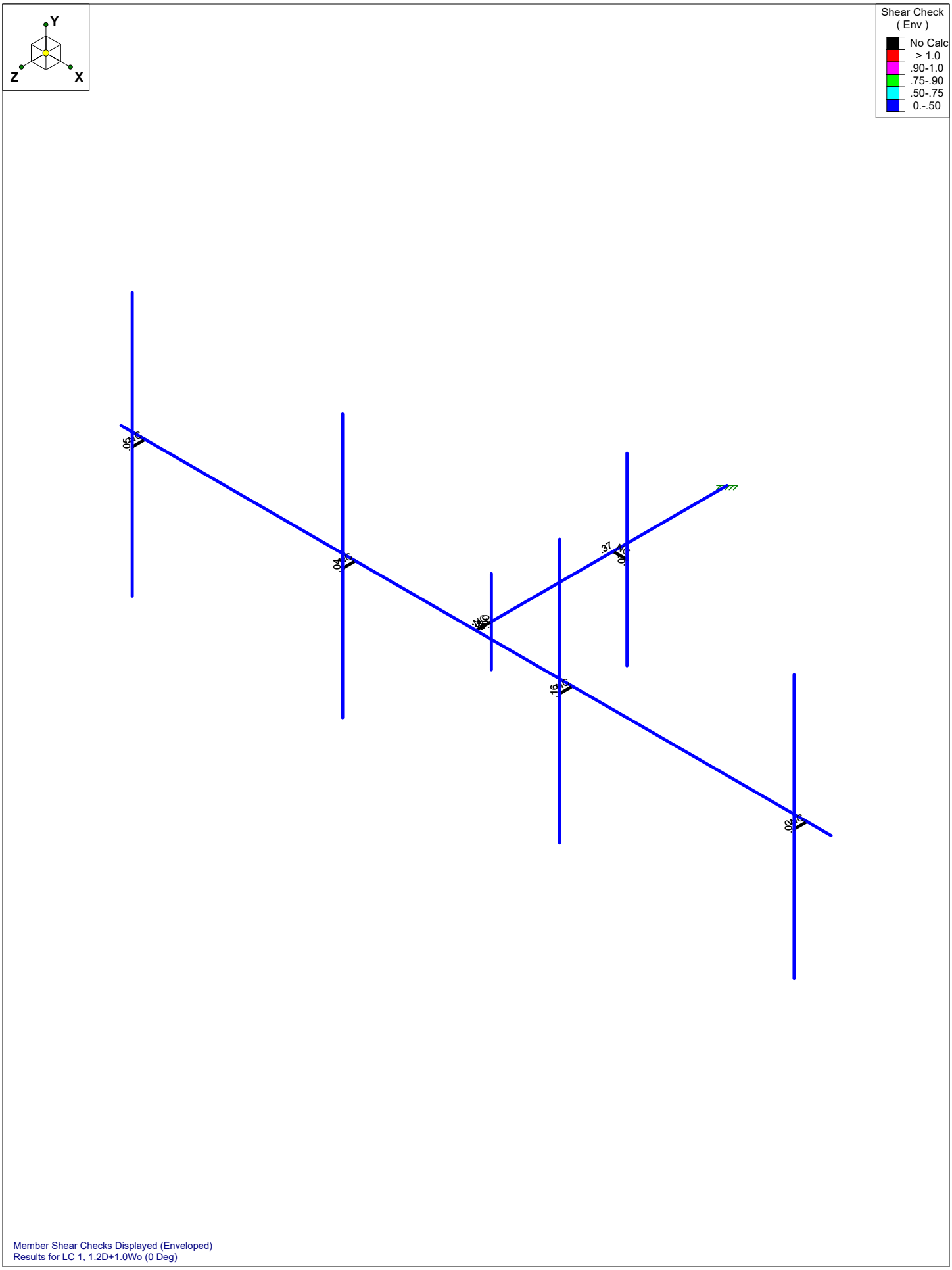
Equipment Type (Pick from List)	Quantity	Model Numbers if Known	Width (in.)	Depth (in.)	Height (in.)	Location	Photo #	Additional Comments
Sector A								
Sector B								
Sector C								

Equipment Type (Pick from List)	Quantity	Model Numbers if Known	Width (in.)	Depth (in.)	Height (in.)	Location	Photo #	Additional Comments
Sector D								
Ground Equipment								


Y
Z
X



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu..	Area(M...	Surface...
1	Antenna D	None					39			
2	Antenna Di	None					39			
3	Antenna Wo (0 Deg)	None					39			
4	Antenna Wo (30 Deg)	None					39			
5	Antenna Wo (60 Deg)	None					39			
6	Antenna Wo (90 Deg)	None					39			
7	Antenna Wo (120 Deg)	None					39			
8	Antenna Wo (150 Deg)	None					39			
9	Antenna Wo (180 Deg)	None					39			
10	Antenna Wo (210 Deg)	None					39			
11	Antenna Wo (240 Deg)	None					39			
12	Antenna Wo (270 Deg)	None					39			
13	Antenna Wo (300 Deg)	None					39			
14	Antenna Wo (330 Deg)	None					39			
15	Antenna Wi (0 Deg)	None					39			
16	Antenna Wi (30 Deg)	None					39			
17	Antenna Wi (60 Deg)	None					39			
18	Antenna Wi (90 Deg)	None					39			
19	Antenna Wi (120 Deg)	None					39			
20	Antenna Wi (150 Deg)	None					39			
21	Antenna Wi (180 Deg)	None					39			
22	Antenna Wi (210 Deg)	None					39			
23	Antenna Wi (240 Deg)	None					39			
24	Antenna Wi (270 Deg)	None					39			
25	Antenna Wi (300 Deg)	None					39			
26	Antenna Wi (330 Deg)	None					39			
27	Antenna Wm (0 Deg)	None					39			
28	Antenna Wm (30 Deg)	None					39			
29	Antenna Wm (60 Deg)	None					39			
30	Antenna Wm (90 Deg)	None					39			
31	Antenna Wm (120 Deg)	None					39			
32	Antenna Wm (150 Deg)	None					39			
33	Antenna Wm (180 Deg)	None					39			
34	Antenna Wm (210 Deg)	None					39			
35	Antenna Wm (240 Deg)	None					39			
36	Antenna Wm (270 Deg)	None					39			
37	Antenna Wm (300 Deg)	None					39			
38	Antenna Wm (330 Deg)	None					39			
39	Structure D	None		-1						
40	Structure Di	None						8		
41	Structure Wo (0 Deg)	None						16		
42	Structure Wo (30 Deg)	None						16		
43	Structure Wo (60 Deg)	None						16		
44	Structure Wo (90 Deg)	None						16		
45	Structure Wo (120 Deg)	None						16		
46	Structure Wo (150 Deg)	None						16		
47	Structure Wo (180 Deg)	None						16		
48	Structure Wo (210 Deg)	None						16		
49	Structure Wo (240 Deg)	None						16		
50	Structure Wo (270 Deg)	None						16		
51	Structure Wo (300 Deg)	None						16		
52	Structure Wo (330 Deg)	None						16		
53	Structure Wi (0 Deg)	None						16		
54	Structure Wi (30 Deg)	None						16		
55	Structure Wi (60 Deg)	None						16		
56	Structure Wi (90 Deg)	None						16		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
57	Structure Wi (120 Deg)	None						16		
58	Structure Wi (150 Deg)	None						16		
59	Structure Wi (180 Deg)	None						16		
60	Structure Wi (210 Deg)	None						16		
61	Structure Wi (240 Deg)	None						16		
62	Structure Wi (270 Deg)	None						16		
63	Structure Wi (300 Deg)	None						16		
64	Structure Wi (330 Deg)	None						16		
65	Structure Wm (0 Deg)	None						16		
66	Structure Wm (30 Deg)	None						16		
67	Structure Wm (60 Deg)	None						16		
68	Structure Wm (90 Deg)	None						16		
69	Structure Wm (120 Deg)	None						16		
70	Structure Wm (150 Deg)	None						16		
71	Structure Wm (180 Deg)	None						16		
72	Structure Wm (210 Deg)	None						16		
73	Structure Wm (240 Deg)	None						16		
74	Structure Wm (270 Deg)	None						16		
75	Structure Wm (300 Deg)	None						16		
76	Structure Wm (330 Deg)	None						16		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			

Load Combinations

	Description	Sol...	PDelta	SR...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1														
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1														
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1														
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1														
5	1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1														
6	1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1														
7	1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1														
8	1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1														
9	1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1														
10	1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1														
11	1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1														
12	1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1														
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1										
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1										
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1										
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1										
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1										
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1										
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1										
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1										
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1										
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1										
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1										
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1										
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1												
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1												
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1												
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1												

Load Combinations (Continued)

	Description	Sol...	PDelta	SR...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
29	1.2D + 1.5Lm1 + 1.0Wm (120 De..	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1												
30	1.2D + 1.5Lm1 + 1.0Wm (150 De..	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1												
31	1.2D + 1.5Lm1 + 1.0Wm (180 De..	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1												
32	1.2D + 1.5Lm1 + 1.0Wm (210 De..	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1												
33	1.2D + 1.5Lm1 + 1.0Wm (240 De..	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1												
34	1.2D + 1.5Lm1 + 1.0Wm (270 De..	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1												
35	1.2D + 1.5Lm1 + 1.0Wm (300 De..	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1												
36	1.2D + 1.5Lm1 + 1.0Wm (330 De..	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1												
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1												
38	1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1												
39	1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1												
40	1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1												
41	1.2D + 1.5Lm2 + 1.0Wm (120 De..	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1												
42	1.2D + 1.5Lm2 + 1.0Wm (150 De..	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1												
43	1.2D + 1.5Lm2 + 1.0Wm (180 De..	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1												
44	1.2D + 1.5Lm2 + 1.0Wm (210 De..	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1												
45	1.2D + 1.5Lm2 + 1.0Wm (240 De..	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1												
46	1.2D + 1.5Lm2 + 1.0Wm (270 De..	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1												
47	1.2D + 1.5Lm2 + 1.0Wm (300 De..	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1												
48	1.2D + 1.5Lm2 + 1.0Wm (330 De..	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1												
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5																
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5																
51	1.4D	Yes	Y		1	1.4	39	1.4																		
52	Seismic Mass		Y		1	1	39	1																		
53	1.2D + 1.0Ev + 1.0Eh (0 Deg)		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1												
54	1.2D + 1.0Ev + 1.0Eh (30 Deg)		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.8...												
55	1.2D + 1.0Ev + 1.0Eh (60 Deg)		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5												
56	1.2D + 1.0Ev + 1.0Eh (90 Deg)		Y		1	1.2	39	1.2	SX	1	SY	1	SZ													
57	1.2D + 1.0Ev + 1.0Eh (120 Deg)		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5												
58	1.2D + 1.0Ev + 1.0Eh (150 Deg)		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866												
59	1.2D + 1.0Ev + 1.0Eh (180 Deg)		Y		1	1.2	39	1.2	SX		SY	1	SZ	1												
60	1.2D + 1.0Ev + 1.0Eh (210 Deg)		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866												
61	1.2D + 1.0Ev + 1.0Eh (240 Deg)		Y		1	1.2	39	1.2	SX	-.8...	SY	1	SZ	.5												
62	1.2D + 1.0Ev + 1.0Eh (270 Deg)		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ													
63	1.2D + 1.0Ev + 1.0Eh (300 Deg)		Y		1	1.2	39	1.2	SX	-.8...	SY	1	SZ	-.5												
64	1.2D + 1.0Ev + 1.0Eh (330 Deg)		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.8...												

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Dia...
1	N1	-0.003223	0	1.41723	0	
2	N2	-0.003223	0	5.896397	0	
3	N3	6.746777	0	6.188064	0	
4	N4	-6.753223	0	6.188064	0	
5	N5	-0.003223	0	3.583897	0	
6	N6	0.262402	0	3.583897	0	
7	N7	-0.003223	0	6.188064	0	
8	N8	6.288443	0	6.188064	0	
9	N9	6.288443	0	6.432855	0	
10	N10	1.83011	0	6.188064	0	
11	N11	1.83011	0	6.432855	0	
12	N12	-2.29489	0	6.188064	0	
13	N13	-2.29489	0	6.432855	0	
14	N14	-6.29489	0	6.188064	0	
15	N15	-6.29489	0	6.432855	0	
16	N16	-0.003223	0.791667	5.896397	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Dia...
17	N17	-0.003223	-0.791667	5.896397	0	
18	N18	6.288443	2.541667	6.432855	0	
19	N19	1.83011	2.541667	6.432855	0	
20	N20	-2.29489	2.541667	6.432855	0	
21	N21	-6.29489	2.541667	6.432855	0	
22	N22	6.288443	-2.458333	6.432855	0	
23	N23	1.83011	-2.458333	6.432855	0	
24	N24	-2.29489	-2.458333	6.432855	0	
25	N25	-6.29489	-2.458333	6.432855	0	
26	N26	0.262402	1.75	3.583897	0	
27	N27	0.262402	-1.75	3.583897	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Horizontal	HSS4X4X4	None	None	A500 Gr.B RECT	Typical	3.37	7.8	7.8	12.8
2	Standoff Vertical	PIPE_3.0	None	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
3	Face Horizontal	PIPE_3.0	None	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
4	Mount Pipe	PIPE_2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
5	Standoff	PIPE_2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design ...	Material	Design Rules
1	M1	N1	N2			Standoff Horizontal	None	None	A500 Gr.B RECT	Typical
2	M2	N3	N4			Face Horizontal	None	None	A53 Gr.B	Typical
3	M3	N5	N6			RIGID	None	None	RIGID	Typical
4	M4	N2	N7			RIGID	None	None	RIGID	Typical
5	M5	N8	N9			RIGID	None	None	RIGID	Typical
6	M6	N10	N11			RIGID	None	None	RIGID	Typical
7	M7	N12	N13			RIGID	None	None	RIGID	Typical
8	M8	N16	N17			Standoff Vertical	None	None	A53 Gr.B	Typical
9	MP4A	N21	N25			Mount Pipe	None	None	A53 Gr.B	Typical
10	MP3A	N20	N24			Mount Pipe	None	None	A53 Gr.B	Typical
11	MP2A	N19	N23			Mount Pipe	None	None	A53 Gr.B	Typical
12	MP1A	N18	N22			Mount Pipe	None	None	A53 Gr.B	Typical
13	M13	N26	N27			Standoff	None	None	A53 Gr.B	Typical
14	M14	N14	N15			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[i...	T/C Only	Physi...	Defl Ratio Opti...	Analysis Offset[in]	Inactive	Seis...
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M7						Yes	** NA **			None
8	M8						Yes	** NA **			None
9	MP4A						Yes	** NA **			None
10	MP3A						Yes	** NA **			None
11	MP2A						Yes	** NA **			None
12	MP1A						Yes	** NA **			None
13	M13						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[i...	T/C Only	Physi...	Defl Ratio Opti...	Analysis Offset[in]	Inactive	Seis...
14	M14						Yes	** NA **			None

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B RECT	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A500 Gr.C RND	29000	11154	.3	.65	.527	46	1.4	62	1.3
7	A500 Gr.C RECT	29000	11154	.3	.65	.527	50	1.4	62	1.3
8	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
9	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
10	A913 Gr.65	29000	11154	.3	.65	.49	65	1.1	80	1.1

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	Y	-43.55	.83
2	MP3A	My	-.029	.83
3	MP3A	Mz	0	.83
4	MP3A	Y	-43.55	3.25
5	MP3A	My	-.029	3.25
6	MP3A	Mz	0	3.25
7	MP2A	Y	-26.45	.17
8	MP2A	My	-.02	.17
9	MP2A	Mz	-.018	.17
10	MP2A	Y	-26.45	3.92
11	MP2A	My	-.02	3.92
12	MP2A	Mz	-.018	3.92
13	MP2A	Y	-26.45	.17
14	MP2A	My	-.02	.17
15	MP2A	Mz	.018	.17
16	MP2A	Y	-26.45	3.92
17	MP2A	My	-.02	3.92
18	MP2A	Mz	.018	3.92
19	MP4A	Y	-4.95	.32
20	MP4A	My	-.004	.32
21	MP4A	Mz	0	.32
22	MP4A	Y	-4.95	3.77
23	MP4A	My	-.004	3.77
24	MP4A	Mz	0	3.77
25	MP1A	Y	-18.7	2.04
26	MP1A	My	-.012	2.04
27	MP1A	Mz	0	2.04
28	MP2A	Y	-84.4	.5
29	MP2A	My	0	.5
30	MP2A	Mz	-.07	.5
31	MP2A	Y	-70.3	.5
32	MP2A	My	0	.5
33	MP2A	Mz	.059	.5
34	M13	Y	-20.8	1.25
35	M13	My	.01	1.25
36	M13	Mz	0	1.25
37	M13	Y	-32	.5

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	My	-.016	.5
39	M13	Mz	0	.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	Y	-34.354	.83
2	MP3A	My	-.023	.83
3	MP3A	Mz	0	.83
4	MP3A	Y	-34.354	3.25
5	MP3A	My	-.023	3.25
6	MP3A	Mz	0	3.25
7	MP2A	Y	-52.981	.17
8	MP2A	My	-.04	.17
9	MP2A	Mz	-.035	.17
10	MP2A	Y	-52.981	3.92
11	MP2A	My	-.04	3.92
12	MP2A	Mz	-.035	3.92
13	MP2A	Y	-52.981	.17
14	MP2A	My	-.04	.17
15	MP2A	Mz	.035	.17
16	MP2A	Y	-52.981	3.92
17	MP2A	My	-.04	3.92
18	MP2A	Mz	.035	3.92
19	MP4A	Y	-34.403	.32
20	MP4A	My	-.03	.32
21	MP4A	Mz	0	.32
22	MP4A	Y	-34.403	3.77
23	MP4A	My	-.03	3.77
24	MP4A	Mz	0	3.77
25	MP1A	Y	-19.67	2.04
26	MP1A	My	-.013	2.04
27	MP1A	Mz	0	2.04
28	MP2A	Y	-43.339	.5
29	MP2A	My	0	.5
30	MP2A	Mz	-.036	.5
31	MP2A	Y	-38.965	.5
32	MP2A	My	0	.5
33	MP2A	Mz	.032	.5
34	M13	Y	-15.543	1.25
35	M13	My	.008	1.25
36	M13	Mz	0	1.25
37	M13	Y	-84.947	.5
38	M13	My	-.042	.5
39	M13	Mz	0	.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	0	.83
2	MP3A	Z	-89.926	.83
3	MP3A	Mx	0	.83
4	MP3A	X	0	3.25
5	MP3A	Z	-89.926	3.25
6	MP3A	Mx	0	3.25
7	MP2A	X	0	.17
8	MP2A	Z	-128.001	.17
9	MP2A	Mx	.085	.17

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	0	3.92
11	MP2A	Z	-128.001	3.92
12	MP2A	Mx	.085	3.92
13	MP2A	X	0	.17
14	MP2A	Z	-128.001	.17
15	MP2A	Mx	-.085	.17
16	MP2A	X	0	3.92
17	MP2A	Z	-128.001	3.92
18	MP2A	Mx	-.085	3.92
19	MP4A	X	0	.32
20	MP4A	Z	-90.309	.32
21	MP4A	Mx	0	.32
22	MP4A	X	0	3.77
23	MP4A	Z	-90.309	3.77
24	MP4A	Mx	0	3.77
25	MP1A	X	0	2.04
26	MP1A	Z	-38.266	2.04
27	MP1A	Mx	0	2.04
28	MP2A	X	0	.5
29	MP2A	Z	-71.708	.5
30	MP2A	Mx	.06	.5
31	MP2A	X	0	.5
32	MP2A	Z	-71.708	.5
33	MP2A	Mx	-.06	.5
34	M13	X	0	1.25
35	M13	Z	-19.592	1.25
36	M13	Mx	0	1.25
37	M13	X	0	.5
38	M13	Z	-155.687	.5
39	M13	Mx	0	.5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	38.123	.83
2	MP3A	Z	-66.031	.83
3	MP3A	Mx	-.025	.83
4	MP3A	X	38.123	3.25
5	MP3A	Z	-66.031	3.25
6	MP3A	Mx	-.025	3.25
7	MP2A	X	58.413	.17
8	MP2A	Z	-101.173	.17
9	MP2A	Mx	.024	.17
10	MP2A	X	58.413	3.92
11	MP2A	Z	-101.173	3.92
12	MP2A	Mx	.024	3.92
13	MP2A	X	58.413	.17
14	MP2A	Z	-101.173	.17
15	MP2A	Mx	-.111	.17
16	MP2A	X	58.413	3.92
17	MP2A	Z	-101.173	3.92
18	MP2A	Mx	-.111	3.92
19	MP4A	X	39.886	.32
20	MP4A	Z	-69.084	.32
21	MP4A	Mx	-.035	.32
22	MP4A	X	39.886	3.77
23	MP4A	Z	-69.084	3.77

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	-.035	3.77
25	MP1A	X	17.046	2.04
26	MP1A	Z	-29.525	2.04
27	MP1A	Mx	-.011	2.04
28	MP2A	X	32.882	.5
29	MP2A	Z	-56.954	.5
30	MP2A	Mx	.047	.5
31	MP2A	X	31.744	.5
32	MP2A	Z	-54.982	.5
33	MP2A	Mx	-.046	.5
34	M13	X	9.117	1.25
35	M13	Z	-15.791	1.25
36	M13	Mx	.005	1.25
37	M13	X	73.23	.5
38	M13	Z	-126.838	.5
39	M13	Mx	-.037	.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	42.336	.83
2	MP3A	Z	-24.443	.83
3	MP3A	Mx	-.028	.83
4	MP3A	X	42.336	3.25
5	MP3A	Z	-24.443	3.25
6	MP3A	Mx	-.028	3.25
7	MP2A	X	81.816	.17
8	MP2A	Z	-47.237	.17
9	MP2A	Mx	-.03	.17
10	MP2A	X	81.816	3.92
11	MP2A	Z	-47.237	3.92
12	MP2A	Mx	-.03	3.92
13	MP2A	X	81.816	.17
14	MP2A	Z	-47.237	.17
15	MP2A	Mx	-.093	.17
16	MP2A	X	81.816	3.92
17	MP2A	Z	-47.237	3.92
18	MP2A	Mx	-.093	3.92
19	MP4A	X	50.832	.32
20	MP4A	Z	-29.348	.32
21	MP4A	Mx	-.044	.32
22	MP4A	X	50.832	3.77
23	MP4A	Z	-29.348	3.77
24	MP4A	Mx	-.044	3.77
25	MP1A	X	22.297	2.04
26	MP1A	Z	-12.873	2.04
27	MP1A	Mx	-.015	2.04
28	MP2A	X	46.659	.5
29	MP2A	Z	-26.938	.5
30	MP2A	Mx	.022	.5
31	MP2A	X	40.743	.5
32	MP2A	Z	-23.523	.5
33	MP2A	Mx	-.02	.5
34	M13	X	13.438	1.25
35	M13	Z	-7.758	1.25
36	M13	Mx	.007	1.25
37	M13	X	110.856	.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	-64.003	.5
39	M13	Mx	-.055	.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	35.206	.83
2	MP3A	Z	0	.83
3	MP3A	Mx	-.023	.83
4	MP3A	X	35.206	3.25
5	MP3A	Z	0	3.25
6	MP3A	Mx	-.023	3.25
7	MP2A	X	83.298	.17
8	MP2A	Z	0	.17
9	MP2A	Mx	-.062	.17
10	MP2A	X	83.298	3.92
11	MP2A	Z	0	3.92
12	MP2A	Mx	-.062	3.92
13	MP2A	X	83.298	.17
14	MP2A	Z	0	.17
15	MP2A	Mx	-.062	.17
16	MP2A	X	83.298	3.92
17	MP2A	Z	0	3.92
18	MP2A	Mx	-.062	3.92
19	MP4A	X	48.159	.32
20	MP4A	Z	0	.32
21	MP4A	Mx	-.042	.32
22	MP4A	X	48.159	3.77
23	MP4A	Z	0	3.77
24	MP4A	Mx	-.042	3.77
25	MP1A	X	21.573	2.04
26	MP1A	Z	0	2.04
27	MP1A	Mx	-.014	2.04
28	MP2A	X	47.933	.5
29	MP2A	Z	0	.5
30	MP2A	Mx	0	.5
31	MP2A	X	38.826	.5
32	MP2A	Z	0	.5
33	MP2A	Mx	0	.5
34	M13	X	14.159	1.25
35	M13	Z	0	1.25
36	M13	Mx	.007	1.25
37	M13	X	118.779	.5
38	M13	Z	0	.5
39	M13	Mx	-.059	.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	42.336	.83
2	MP3A	Z	24.443	.83
3	MP3A	Mx	-.028	.83
4	MP3A	X	42.336	3.25
5	MP3A	Z	24.443	3.25
6	MP3A	Mx	-.028	3.25
7	MP2A	X	81.816	.17
8	MP2A	Z	47.237	.17
9	MP2A	Mx	-.093	.17

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	81.816	3.92
11	MP2A	Z	47.237	3.92
12	MP2A	Mx	-.093	3.92
13	MP2A	X	81.816	.17
14	MP2A	Z	47.237	.17
15	MP2A	Mx	-.03	.17
16	MP2A	X	81.816	3.92
17	MP2A	Z	47.237	3.92
18	MP2A	Mx	-.03	3.92
19	MP4A	X	50.832	.32
20	MP4A	Z	29.348	.32
21	MP4A	Mx	-.044	.32
22	MP4A	X	50.832	3.77
23	MP4A	Z	29.348	3.77
24	MP4A	Mx	-.044	3.77
25	MP1A	X	22.297	2.04
26	MP1A	Z	12.873	2.04
27	MP1A	Mx	-.015	2.04
28	MP2A	X	46.659	.5
29	MP2A	Z	26.938	.5
30	MP2A	Mx	-.022	.5
31	MP2A	X	40.743	.5
32	MP2A	Z	23.523	.5
33	MP2A	Mx	.02	.5
34	M13	X	13.438	1.25
35	M13	Z	7.758	1.25
36	M13	Mx	.007	1.25
37	M13	X	110.856	.5
38	M13	Z	64.003	.5
39	M13	Mx	-.055	.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	38.123	.83
2	MP3A	Z	66.031	.83
3	MP3A	Mx	-.025	.83
4	MP3A	X	38.123	3.25
5	MP3A	Z	66.031	3.25
6	MP3A	Mx	-.025	3.25
7	MP2A	X	58.413	.17
8	MP2A	Z	101.173	.17
9	MP2A	Mx	-.111	.17
10	MP2A	X	58.413	3.92
11	MP2A	Z	101.173	3.92
12	MP2A	Mx	-.111	3.92
13	MP2A	X	58.413	.17
14	MP2A	Z	101.173	.17
15	MP2A	Mx	.024	.17
16	MP2A	X	58.413	3.92
17	MP2A	Z	101.173	3.92
18	MP2A	Mx	.024	3.92
19	MP4A	X	39.886	.32
20	MP4A	Z	69.084	.32
21	MP4A	Mx	-.035	.32
22	MP4A	X	39.886	3.77
23	MP4A	Z	69.084	3.77

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	-.035	3.77
25	MP1A	X	17.046	2.04
26	MP1A	Z	29.525	2.04
27	MP1A	Mx	-.011	2.04
28	MP2A	X	32.882	.5
29	MP2A	Z	56.954	.5
30	MP2A	Mx	-.047	.5
31	MP2A	X	31.744	.5
32	MP2A	Z	54.982	.5
33	MP2A	Mx	.046	.5
34	M13	X	9.117	1.25
35	M13	Z	15.791	1.25
36	M13	Mx	.005	1.25
37	M13	X	73.23	.5
38	M13	Z	126.838	.5
39	M13	Mx	-.037	.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	0	.83
2	MP3A	Z	89.926	.83
3	MP3A	Mx	0	.83
4	MP3A	X	0	3.25
5	MP3A	Z	89.926	3.25
6	MP3A	Mx	0	3.25
7	MP2A	X	0	.17
8	MP2A	Z	128.001	.17
9	MP2A	Mx	-.085	.17
10	MP2A	X	0	3.92
11	MP2A	Z	128.001	3.92
12	MP2A	Mx	-.085	3.92
13	MP2A	X	0	.17
14	MP2A	Z	128.001	.17
15	MP2A	Mx	.085	.17
16	MP2A	X	0	3.92
17	MP2A	Z	128.001	3.92
18	MP2A	Mx	.085	3.92
19	MP4A	X	0	.32
20	MP4A	Z	90.309	.32
21	MP4A	Mx	0	.32
22	MP4A	X	0	3.77
23	MP4A	Z	90.309	3.77
24	MP4A	Mx	0	3.77
25	MP1A	X	0	2.04
26	MP1A	Z	38.266	2.04
27	MP1A	Mx	0	2.04
28	MP2A	X	0	.5
29	MP2A	Z	71.708	.5
30	MP2A	Mx	-.06	.5
31	MP2A	X	0	.5
32	MP2A	Z	71.708	.5
33	MP2A	Mx	.06	.5
34	M13	X	0	1.25
35	M13	Z	19.592	1.25
36	M13	Mx	0	1.25
37	M13	X	0	.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	155.687	.5
39	M13	Mx	0	.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-38.123	.83
2	MP3A	Z	66.031	.83
3	MP3A	Mx	.025	.83
4	MP3A	X	-38.123	3.25
5	MP3A	Z	66.031	3.25
6	MP3A	Mx	.025	3.25
7	MP2A	X	-58.413	.17
8	MP2A	Z	101.173	.17
9	MP2A	Mx	-.024	.17
10	MP2A	X	-58.413	3.92
11	MP2A	Z	101.173	3.92
12	MP2A	Mx	-.024	3.92
13	MP2A	X	-58.413	.17
14	MP2A	Z	101.173	.17
15	MP2A	Mx	.111	.17
16	MP2A	X	-58.413	3.92
17	MP2A	Z	101.173	3.92
18	MP2A	Mx	.111	3.92
19	MP4A	X	-39.886	.32
20	MP4A	Z	69.084	.32
21	MP4A	Mx	.035	.32
22	MP4A	X	-39.886	3.77
23	MP4A	Z	69.084	3.77
24	MP4A	Mx	.035	3.77
25	MP1A	X	-17.046	2.04
26	MP1A	Z	29.525	2.04
27	MP1A	Mx	.011	2.04
28	MP2A	X	-32.882	.5
29	MP2A	Z	56.954	.5
30	MP2A	Mx	-.047	.5
31	MP2A	X	-31.744	.5
32	MP2A	Z	54.982	.5
33	MP2A	Mx	.046	.5
34	M13	X	-9.117	1.25
35	M13	Z	15.791	1.25
36	M13	Mx	-.005	1.25
37	M13	X	-73.23	.5
38	M13	Z	126.838	.5
39	M13	Mx	.037	.5

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-42.336	.83
2	MP3A	Z	24.443	.83
3	MP3A	Mx	.028	.83
4	MP3A	X	-42.336	3.25
5	MP3A	Z	24.443	3.25
6	MP3A	Mx	.028	3.25
7	MP2A	X	-81.816	.17
8	MP2A	Z	47.237	.17
9	MP2A	Mx	.03	.17

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	-81.816	3.92
11	MP2A	Z	47.237	3.92
12	MP2A	Mx	.03	3.92
13	MP2A	X	-81.816	.17
14	MP2A	Z	47.237	.17
15	MP2A	Mx	.093	.17
16	MP2A	X	-81.816	3.92
17	MP2A	Z	47.237	3.92
18	MP2A	Mx	.093	3.92
19	MP4A	X	-50.832	.32
20	MP4A	Z	29.348	.32
21	MP4A	Mx	.044	.32
22	MP4A	X	-50.832	3.77
23	MP4A	Z	29.348	3.77
24	MP4A	Mx	.044	3.77
25	MP1A	X	-22.297	2.04
26	MP1A	Z	12.873	2.04
27	MP1A	Mx	.015	2.04
28	MP2A	X	-46.659	.5
29	MP2A	Z	26.938	.5
30	MP2A	Mx	-.022	.5
31	MP2A	X	-40.743	.5
32	MP2A	Z	23.523	.5
33	MP2A	Mx	.02	.5
34	M13	X	-13.438	1.25
35	M13	Z	7.758	1.25
36	M13	Mx	-.007	1.25
37	M13	X	-110.856	.5
38	M13	Z	64.003	.5
39	M13	Mx	.055	.5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-35.206	.83
2	MP3A	Z	0	.83
3	MP3A	Mx	.023	.83
4	MP3A	X	-35.206	3.25
5	MP3A	Z	0	3.25
6	MP3A	Mx	.023	3.25
7	MP2A	X	-83.298	.17
8	MP2A	Z	0	.17
9	MP2A	Mx	.062	.17
10	MP2A	X	-83.298	3.92
11	MP2A	Z	0	3.92
12	MP2A	Mx	.062	3.92
13	MP2A	X	-83.298	.17
14	MP2A	Z	0	.17
15	MP2A	Mx	.062	.17
16	MP2A	X	-83.298	3.92
17	MP2A	Z	0	3.92
18	MP2A	Mx	.062	3.92
19	MP4A	X	-48.159	.32
20	MP4A	Z	0	.32
21	MP4A	Mx	.042	.32
22	MP4A	X	-48.159	3.77
23	MP4A	Z	0	3.77

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	.042	3.77
25	MP1A	X	-21.573	2.04
26	MP1A	Z	0	2.04
27	MP1A	Mx	.014	2.04
28	MP2A	X	-47.933	.5
29	MP2A	Z	0	.5
30	MP2A	Mx	0	.5
31	MP2A	X	-38.826	.5
32	MP2A	Z	0	.5
33	MP2A	Mx	0	.5
34	M13	X	-14.159	1.25
35	M13	Z	0	1.25
36	M13	Mx	-.007	1.25
37	M13	X	-118.779	.5
38	M13	Z	0	.5
39	M13	Mx	.059	.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-42.336	.83
2	MP3A	Z	-24.443	.83
3	MP3A	Mx	.028	.83
4	MP3A	X	-42.336	3.25
5	MP3A	Z	-24.443	3.25
6	MP3A	Mx	.028	3.25
7	MP2A	X	-81.816	.17
8	MP2A	Z	-47.237	.17
9	MP2A	Mx	.093	.17
10	MP2A	X	-81.816	3.92
11	MP2A	Z	-47.237	3.92
12	MP2A	Mx	.093	3.92
13	MP2A	X	-81.816	.17
14	MP2A	Z	-47.237	.17
15	MP2A	Mx	.03	.17
16	MP2A	X	-81.816	3.92
17	MP2A	Z	-47.237	3.92
18	MP2A	Mx	.03	3.92
19	MP4A	X	-50.832	.32
20	MP4A	Z	-29.348	.32
21	MP4A	Mx	.044	.32
22	MP4A	X	-50.832	3.77
23	MP4A	Z	-29.348	3.77
24	MP4A	Mx	.044	3.77
25	MP1A	X	-22.297	2.04
26	MP1A	Z	-12.873	2.04
27	MP1A	Mx	.015	2.04
28	MP2A	X	-46.659	.5
29	MP2A	Z	-26.938	.5
30	MP2A	Mx	.022	.5
31	MP2A	X	-40.743	.5
32	MP2A	Z	-23.523	.5
33	MP2A	Mx	-.02	.5
34	M13	X	-13.438	1.25
35	M13	Z	-7.758	1.25
36	M13	Mx	-.007	1.25
37	M13	X	-110.856	.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	-64.003	.5
39	M13	Mx	.055	.5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-38.123	.83
2	MP3A	Z	-66.031	.83
3	MP3A	Mx	.025	.83
4	MP3A	X	-38.123	3.25
5	MP3A	Z	-66.031	3.25
6	MP3A	Mx	.025	3.25
7	MP2A	X	-58.413	.17
8	MP2A	Z	-101.173	.17
9	MP2A	Mx	.111	.17
10	MP2A	X	-58.413	3.92
11	MP2A	Z	-101.173	3.92
12	MP2A	Mx	.111	3.92
13	MP2A	X	-58.413	.17
14	MP2A	Z	-101.173	.17
15	MP2A	Mx	-.024	.17
16	MP2A	X	-58.413	3.92
17	MP2A	Z	-101.173	3.92
18	MP2A	Mx	-.024	3.92
19	MP4A	X	-39.886	.32
20	MP4A	Z	-69.084	.32
21	MP4A	Mx	.035	.32
22	MP4A	X	-39.886	3.77
23	MP4A	Z	-69.084	3.77
24	MP4A	Mx	.035	3.77
25	MP1A	X	-17.046	2.04
26	MP1A	Z	-29.525	2.04
27	MP1A	Mx	.011	2.04
28	MP2A	X	-32.882	.5
29	MP2A	Z	-56.954	.5
30	MP2A	Mx	.047	.5
31	MP2A	X	-31.744	.5
32	MP2A	Z	-54.982	.5
33	MP2A	Mx	-.046	.5
34	M13	X	-9.117	1.25
35	M13	Z	-15.791	1.25
36	M13	Mx	-.005	1.25
37	M13	X	-73.23	.5
38	M13	Z	-126.838	.5
39	M13	Mx	.037	.5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	0	.83
2	MP3A	Z	-18.171	.83
3	MP3A	Mx	0	.83
4	MP3A	X	0	3.25
5	MP3A	Z	-18.171	3.25
6	MP3A	Mx	0	3.25
7	MP2A	X	0	.17
8	MP2A	Z	-25.38	.17
9	MP2A	Mx	.017	.17

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	0	3.92
11	MP2A	Z	-25.38	3.92
12	MP2A	Mx	.017	3.92
13	MP2A	X	0	.17
14	MP2A	Z	-25.38	.17
15	MP2A	Mx	-.017	.17
16	MP2A	X	0	3.92
17	MP2A	Z	-25.38	3.92
18	MP2A	Mx	-.017	3.92
19	MP4A	X	0	.32
20	MP4A	Z	-18.226	.32
21	MP4A	Mx	0	.32
22	MP4A	X	0	3.77
23	MP4A	Z	-18.226	3.77
24	MP4A	Mx	0	3.77
25	MP1A	X	0	2.04
26	MP1A	Z	-7.861	2.04
27	MP1A	Mx	0	2.04
28	MP2A	X	0	.5
29	MP2A	Z	-15.323	.5
30	MP2A	Mx	.013	.5
31	MP2A	X	0	.5
32	MP2A	Z	-15.323	.5
33	MP2A	Mx	-.013	.5
34	M13	X	0	1.25
35	M13	Z	-4.879	1.25
36	M13	Mx	0	1.25
37	M13	X	0	.5
38	M13	Z	-31.538	.5
39	M13	Mx	0	.5

Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	7.779	.83
2	MP3A	Z	-13.474	.83
3	MP3A	Mx	-.005	.83
4	MP3A	X	7.779	3.25
5	MP3A	Z	-13.474	3.25
6	MP3A	Mx	-.005	3.25
7	MP2A	X	11.648	.17
8	MP2A	Z	-20.175	.17
9	MP2A	Mx	.005	.17
10	MP2A	X	11.648	3.92
11	MP2A	Z	-20.175	3.92
12	MP2A	Mx	.005	3.92
13	MP2A	X	11.648	.17
14	MP2A	Z	-20.175	.17
15	MP2A	Mx	-.022	.17
16	MP2A	X	11.648	3.92
17	MP2A	Z	-20.175	3.92
18	MP2A	Mx	-.022	3.92
19	MP4A	X	8.143	.32
20	MP4A	Z	-14.104	.32
21	MP4A	Mx	-.007	.32
22	MP4A	X	8.143	3.77
23	MP4A	Z	-14.104	3.77

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	-.007	3.77
25	MP1A	X	3.619	2.04
26	MP1A	Z	-6.268	2.04
27	MP1A	Mx	-.002	2.04
28	MP2A	X	7.077	.5
29	MP2A	Z	-12.257	.5
30	MP2A	Mx	.01	.5
31	MP2A	X	6.854	.5
32	MP2A	Z	-11.872	.5
33	MP2A	Mx	-.01	.5
34	M13	X	2.29	1.25
35	M13	Z	-3.967	1.25
36	M13	Mx	.001	1.25
37	M13	X	14.907	.5
38	M13	Z	-25.821	.5
39	M13	Mx	-.007	.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	8.948	.83
2	MP3A	Z	-5.166	.83
3	MP3A	Mx	-.006	.83
4	MP3A	X	8.948	3.25
5	MP3A	Z	-5.166	3.25
6	MP3A	Mx	-.006	3.25
7	MP2A	X	16.567	.17
8	MP2A	Z	-9.565	.17
9	MP2A	Mx	-.006	.17
10	MP2A	X	16.567	3.92
11	MP2A	Z	-9.565	3.92
12	MP2A	Mx	-.006	3.92
13	MP2A	X	16.567	.17
14	MP2A	Z	-9.565	.17
15	MP2A	Mx	-.019	.17
16	MP2A	X	16.567	3.92
17	MP2A	Z	-9.565	3.92
18	MP2A	Mx	-.019	3.92
19	MP4A	X	10.743	.32
20	MP4A	Z	-6.203	.32
21	MP4A	Mx	-.009	.32
22	MP4A	X	10.743	3.77
23	MP4A	Z	-6.203	3.77
24	MP4A	Mx	-.009	3.77
25	MP1A	X	5.189	2.04
26	MP1A	Z	-2.996	2.04
27	MP1A	Mx	-.003	2.04
28	MP2A	X	10.232	.5
29	MP2A	Z	-5.907	.5
30	MP2A	Mx	.005	.5
31	MP2A	X	9.077	.5
32	MP2A	Z	-5.241	.5
33	MP2A	Mx	-.004	.5
34	M13	X	3.451	1.25
35	M13	Z	-1.993	1.25
36	M13	Mx	.002	1.25
37	M13	X	22.836	.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	-13.184	.5
39	M13	Mx	-.011	.5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	7.719	.83
2	MP3A	Z	0	.83
3	MP3A	Mx	-.005	.83
4	MP3A	X	7.719	3.25
5	MP3A	Z	0	3.25
6	MP3A	Mx	-.005	3.25
7	MP2A	X	17.047	.17
8	MP2A	Z	0	.17
9	MP2A	Mx	-.013	.17
10	MP2A	X	17.047	3.92
11	MP2A	Z	0	3.92
12	MP2A	Mx	-.013	3.92
13	MP2A	X	17.047	.17
14	MP2A	Z	0	.17
15	MP2A	Mx	-.013	.17
16	MP2A	X	17.047	3.92
17	MP2A	Z	0	3.92
18	MP2A	Mx	-.013	3.92
19	MP4A	X	10.465	.32
20	MP4A	Z	0	.32
21	MP4A	Mx	-.009	.32
22	MP4A	X	10.465	3.77
23	MP4A	Z	0	3.77
24	MP4A	Mx	-.009	3.77
25	MP1A	X	5.368	2.04
26	MP1A	Z	0	2.04
27	MP1A	Mx	-.004	2.04
28	MP2A	X	10.645	.5
29	MP2A	Z	0	.5
30	MP2A	Mx	0	.5
31	MP2A	X	8.868	.5
32	MP2A	Z	0	.5
33	MP2A	Mx	0	.5
34	M13	X	3.688	1.25
35	M13	Z	0	1.25
36	M13	Mx	.002	1.25
37	M13	X	24.645	.5
38	M13	Z	0	.5
39	M13	Mx	-.012	.5

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	8.948	.83
2	MP3A	Z	5.166	.83
3	MP3A	Mx	-.006	.83
4	MP3A	X	8.948	3.25
5	MP3A	Z	5.166	3.25
6	MP3A	Mx	-.006	3.25
7	MP2A	X	16.567	.17
8	MP2A	Z	9.565	.17
9	MP2A	Mx	-.019	.17

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	16.567	3.92
11	MP2A	Z	9.565	3.92
12	MP2A	Mx	-.019	3.92
13	MP2A	X	16.567	.17
14	MP2A	Z	9.565	.17
15	MP2A	Mx	-.006	.17
16	MP2A	X	16.567	3.92
17	MP2A	Z	9.565	3.92
18	MP2A	Mx	-.006	3.92
19	MP4A	X	10.743	.32
20	MP4A	Z	6.203	.32
21	MP4A	Mx	-.009	.32
22	MP4A	X	10.743	3.77
23	MP4A	Z	6.203	3.77
24	MP4A	Mx	-.009	3.77
25	MP1A	X	5.189	2.04
26	MP1A	Z	2.996	2.04
27	MP1A	Mx	-.003	2.04
28	MP2A	X	10.232	.5
29	MP2A	Z	5.907	.5
30	MP2A	Mx	-.005	.5
31	MP2A	X	9.077	.5
32	MP2A	Z	5.241	.5
33	MP2A	Mx	.004	.5
34	M13	X	3.451	1.25
35	M13	Z	1.993	1.25
36	M13	Mx	.002	1.25
37	M13	X	22.836	.5
38	M13	Z	13.184	.5
39	M13	Mx	-.011	.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	7.779	.83
2	MP3A	Z	13.474	.83
3	MP3A	Mx	-.005	.83
4	MP3A	X	7.779	3.25
5	MP3A	Z	13.474	3.25
6	MP3A	Mx	-.005	3.25
7	MP2A	X	11.648	.17
8	MP2A	Z	20.175	.17
9	MP2A	Mx	-.022	.17
10	MP2A	X	11.648	3.92
11	MP2A	Z	20.175	3.92
12	MP2A	Mx	-.022	3.92
13	MP2A	X	11.648	.17
14	MP2A	Z	20.175	.17
15	MP2A	Mx	.005	.17
16	MP2A	X	11.648	3.92
17	MP2A	Z	20.175	3.92
18	MP2A	Mx	.005	3.92
19	MP4A	X	8.143	.32
20	MP4A	Z	14.104	.32
21	MP4A	Mx	-.007	.32
22	MP4A	X	8.143	3.77
23	MP4A	Z	14.104	3.77

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	-.007	3.77
25	MP1A	X	3.619	2.04
26	MP1A	Z	6.268	2.04
27	MP1A	Mx	-.002	2.04
28	MP2A	X	7.077	.5
29	MP2A	Z	12.257	.5
30	MP2A	Mx	-.01	.5
31	MP2A	X	6.854	.5
32	MP2A	Z	11.872	.5
33	MP2A	Mx	.01	.5
34	M13	X	2.29	1.25
35	M13	Z	3.967	1.25
36	M13	Mx	.001	1.25
37	M13	X	14.907	.5
38	M13	Z	25.821	.5
39	M13	Mx	-.007	.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	0	.83
2	MP3A	Z	18.171	.83
3	MP3A	Mx	0	.83
4	MP3A	X	0	3.25
5	MP3A	Z	18.171	3.25
6	MP3A	Mx	0	3.25
7	MP2A	X	0	.17
8	MP2A	Z	25.38	.17
9	MP2A	Mx	-.017	.17
10	MP2A	X	0	3.92
11	MP2A	Z	25.38	3.92
12	MP2A	Mx	-.017	3.92
13	MP2A	X	0	.17
14	MP2A	Z	25.38	.17
15	MP2A	Mx	.017	.17
16	MP2A	X	0	3.92
17	MP2A	Z	25.38	3.92
18	MP2A	Mx	.017	3.92
19	MP4A	X	0	.32
20	MP4A	Z	18.226	.32
21	MP4A	Mx	0	.32
22	MP4A	X	0	3.77
23	MP4A	Z	18.226	3.77
24	MP4A	Mx	0	3.77
25	MP1A	X	0	2.04
26	MP1A	Z	7.861	2.04
27	MP1A	Mx	0	2.04
28	MP2A	X	0	.5
29	MP2A	Z	15.323	.5
30	MP2A	Mx	-.013	.5
31	MP2A	X	0	.5
32	MP2A	Z	15.323	.5
33	MP2A	Mx	.013	.5
34	M13	X	0	1.25
35	M13	Z	4.879	1.25
36	M13	Mx	0	1.25
37	M13	X	0	.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	31.538	.5
39	M13	Mx	0	.5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-7.779	.83
2	MP3A	Z	13.474	.83
3	MP3A	Mx	.005	.83
4	MP3A	X	-7.779	3.25
5	MP3A	Z	13.474	3.25
6	MP3A	Mx	.005	3.25
7	MP2A	X	-11.648	.17
8	MP2A	Z	20.175	.17
9	MP2A	Mx	-.005	.17
10	MP2A	X	-11.648	3.92
11	MP2A	Z	20.175	3.92
12	MP2A	Mx	-.005	3.92
13	MP2A	X	-11.648	.17
14	MP2A	Z	20.175	.17
15	MP2A	Mx	.022	.17
16	MP2A	X	-11.648	3.92
17	MP2A	Z	20.175	3.92
18	MP2A	Mx	.022	3.92
19	MP4A	X	-8.143	.32
20	MP4A	Z	14.104	.32
21	MP4A	Mx	.007	.32
22	MP4A	X	-8.143	3.77
23	MP4A	Z	14.104	3.77
24	MP4A	Mx	.007	3.77
25	MP1A	X	-3.619	2.04
26	MP1A	Z	6.268	2.04
27	MP1A	Mx	.002	2.04
28	MP2A	X	-7.077	.5
29	MP2A	Z	12.257	.5
30	MP2A	Mx	-.01	.5
31	MP2A	X	-6.854	.5
32	MP2A	Z	11.872	.5
33	MP2A	Mx	.01	.5
34	M13	X	-2.29	1.25
35	M13	Z	3.967	1.25
36	M13	Mx	-.001	1.25
37	M13	X	-14.907	.5
38	M13	Z	25.821	.5
39	M13	Mx	.007	.5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-8.948	.83
2	MP3A	Z	5.166	.83
3	MP3A	Mx	.006	.83
4	MP3A	X	-8.948	3.25
5	MP3A	Z	5.166	3.25
6	MP3A	Mx	.006	3.25
7	MP2A	X	-16.567	.17
8	MP2A	Z	9.565	.17
9	MP2A	Mx	.006	.17

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	-16.567	3.92
11	MP2A	Z	9.565	3.92
12	MP2A	Mx	.006	3.92
13	MP2A	X	-16.567	.17
14	MP2A	Z	9.565	.17
15	MP2A	Mx	.019	.17
16	MP2A	X	-16.567	3.92
17	MP2A	Z	9.565	3.92
18	MP2A	Mx	.019	3.92
19	MP4A	X	-10.743	.32
20	MP4A	Z	6.203	.32
21	MP4A	Mx	.009	.32
22	MP4A	X	-10.743	3.77
23	MP4A	Z	6.203	3.77
24	MP4A	Mx	.009	3.77
25	MP1A	X	-5.189	2.04
26	MP1A	Z	2.996	2.04
27	MP1A	Mx	.003	2.04
28	MP2A	X	-10.232	.5
29	MP2A	Z	5.907	.5
30	MP2A	Mx	-.005	.5
31	MP2A	X	-9.077	.5
32	MP2A	Z	5.241	.5
33	MP2A	Mx	.004	.5
34	M13	X	-3.451	1.25
35	M13	Z	1.993	1.25
36	M13	Mx	-.002	1.25
37	M13	X	-22.836	.5
38	M13	Z	13.184	.5
39	M13	Mx	.011	.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-7.719	.83
2	MP3A	Z	0	.83
3	MP3A	Mx	.005	.83
4	MP3A	X	-7.719	3.25
5	MP3A	Z	0	3.25
6	MP3A	Mx	.005	3.25
7	MP2A	X	-17.047	.17
8	MP2A	Z	0	.17
9	MP2A	Mx	.013	.17
10	MP2A	X	-17.047	3.92
11	MP2A	Z	0	3.92
12	MP2A	Mx	.013	3.92
13	MP2A	X	-17.047	.17
14	MP2A	Z	0	.17
15	MP2A	Mx	.013	.17
16	MP2A	X	-17.047	3.92
17	MP2A	Z	0	3.92
18	MP2A	Mx	.013	3.92
19	MP4A	X	-10.465	.32
20	MP4A	Z	0	.32
21	MP4A	Mx	.009	.32
22	MP4A	X	-10.465	3.77
23	MP4A	Z	0	3.77

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	.009	3.77
25	MP1A	X	-5.368	2.04
26	MP1A	Z	0	2.04
27	MP1A	Mx	.004	2.04
28	MP2A	X	-10.645	.5
29	MP2A	Z	0	.5
30	MP2A	Mx	0	.5
31	MP2A	X	-8.868	.5
32	MP2A	Z	0	.5
33	MP2A	Mx	0	.5
34	M13	X	-3.688	1.25
35	M13	Z	0	1.25
36	M13	Mx	-.002	1.25
37	M13	X	-24.645	.5
38	M13	Z	0	.5
39	M13	Mx	.012	.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-8.948	.83
2	MP3A	Z	-5.166	.83
3	MP3A	Mx	.006	.83
4	MP3A	X	-8.948	3.25
5	MP3A	Z	-5.166	3.25
6	MP3A	Mx	.006	3.25
7	MP2A	X	-16.567	.17
8	MP2A	Z	-9.565	.17
9	MP2A	Mx	.019	.17
10	MP2A	X	-16.567	3.92
11	MP2A	Z	-9.565	3.92
12	MP2A	Mx	.019	3.92
13	MP2A	X	-16.567	.17
14	MP2A	Z	-9.565	.17
15	MP2A	Mx	.006	.17
16	MP2A	X	-16.567	3.92
17	MP2A	Z	-9.565	3.92
18	MP2A	Mx	.006	3.92
19	MP4A	X	-10.743	.32
20	MP4A	Z	-6.203	.32
21	MP4A	Mx	.009	.32
22	MP4A	X	-10.743	3.77
23	MP4A	Z	-6.203	3.77
24	MP4A	Mx	.009	3.77
25	MP1A	X	-5.189	2.04
26	MP1A	Z	-2.996	2.04
27	MP1A	Mx	.003	2.04
28	MP2A	X	-10.232	.5
29	MP2A	Z	-5.907	.5
30	MP2A	Mx	.005	.5
31	MP2A	X	-9.077	.5
32	MP2A	Z	-5.241	.5
33	MP2A	Mx	-.004	.5
34	M13	X	-3.451	1.25
35	M13	Z	-1.993	1.25
36	M13	Mx	-.002	1.25
37	M13	X	-22.836	.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	-13.184	.5
39	M13	Mx	.011	.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-7.779	.83
2	MP3A	Z	-13.474	.83
3	MP3A	Mx	.005	.83
4	MP3A	X	-7.779	3.25
5	MP3A	Z	-13.474	3.25
6	MP3A	Mx	.005	3.25
7	MP2A	X	-11.648	.17
8	MP2A	Z	-20.175	.17
9	MP2A	Mx	.022	.17
10	MP2A	X	-11.648	3.92
11	MP2A	Z	-20.175	3.92
12	MP2A	Mx	.022	3.92
13	MP2A	X	-11.648	.17
14	MP2A	Z	-20.175	.17
15	MP2A	Mx	-.005	.17
16	MP2A	X	-11.648	3.92
17	MP2A	Z	-20.175	3.92
18	MP2A	Mx	-.005	3.92
19	MP4A	X	-8.143	.32
20	MP4A	Z	-14.104	.32
21	MP4A	Mx	.007	.32
22	MP4A	X	-8.143	3.77
23	MP4A	Z	-14.104	3.77
24	MP4A	Mx	.007	3.77
25	MP1A	X	-3.619	2.04
26	MP1A	Z	-6.268	2.04
27	MP1A	Mx	.002	2.04
28	MP2A	X	-7.077	.5
29	MP2A	Z	-12.257	.5
30	MP2A	Mx	.01	.5
31	MP2A	X	-6.854	.5
32	MP2A	Z	-11.872	.5
33	MP2A	Mx	-.01	.5
34	M13	X	-2.29	1.25
35	M13	Z	-3.967	1.25
36	M13	Mx	-.001	1.25
37	M13	X	-14.907	.5
38	M13	Z	-25.821	.5
39	M13	Mx	.007	.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	0	.83
2	MP3A	Z	-5.813	.83
3	MP3A	Mx	0	.83
4	MP3A	X	0	3.25
5	MP3A	Z	-5.813	3.25
6	MP3A	Mx	0	3.25
7	MP2A	X	0	.17
8	MP2A	Z	-8.274	.17
9	MP2A	Mx	.006	.17

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	0	3.92
11	MP2A	Z	-8.274	3.92
12	MP2A	Mx	.006	3.92
13	MP2A	X	0	.17
14	MP2A	Z	-8.274	.17
15	MP2A	Mx	-.006	.17
16	MP2A	X	0	3.92
17	MP2A	Z	-8.274	3.92
18	MP2A	Mx	-.006	3.92
19	MP4A	X	0	.32
20	MP4A	Z	-5.837	.32
21	MP4A	Mx	0	.32
22	MP4A	X	0	3.77
23	MP4A	Z	-5.837	3.77
24	MP4A	Mx	0	3.77
25	MP1A	X	0	2.04
26	MP1A	Z	-2.473	2.04
27	MP1A	Mx	0	2.04
28	MP2A	X	0	.5
29	MP2A	Z	-4.635	.5
30	MP2A	Mx	.004	.5
31	MP2A	X	0	.5
32	MP2A	Z	-4.635	.5
33	MP2A	Mx	-.004	.5
34	M13	X	0	1.25
35	M13	Z	-1.266	1.25
36	M13	Mx	0	1.25
37	M13	X	0	.5
38	M13	Z	-10.063	.5
39	M13	Mx	0	.5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	2.464	.83
2	MP3A	Z	-4.268	.83
3	MP3A	Mx	-.002	.83
4	MP3A	X	2.464	3.25
5	MP3A	Z	-4.268	3.25
6	MP3A	Mx	-.002	3.25
7	MP2A	X	3.776	.17
8	MP2A	Z	-6.54	.17
9	MP2A	Mx	.002	.17
10	MP2A	X	3.776	3.92
11	MP2A	Z	-6.54	3.92
12	MP2A	Mx	.002	3.92
13	MP2A	X	3.776	.17
14	MP2A	Z	-6.54	.17
15	MP2A	Mx	-.007	.17
16	MP2A	X	3.776	3.92
17	MP2A	Z	-6.54	3.92
18	MP2A	Mx	-.007	3.92
19	MP4A	X	2.578	.32
20	MP4A	Z	-4.465	.32
21	MP4A	Mx	-.002	.32
22	MP4A	X	2.578	3.77
23	MP4A	Z	-4.465	3.77

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	-.002	3.77
25	MP1A	X	1.102	2.04
26	MP1A	Z	-1.908	2.04
27	MP1A	Mx	-.000735	2.04
28	MP2A	X	2.125	.5
29	MP2A	Z	-3.681	.5
30	MP2A	Mx	.003	.5
31	MP2A	X	2.052	.5
32	MP2A	Z	-3.554	.5
33	MP2A	Mx	-.003	.5
34	M13	X	.589	1.25
35	M13	Z	-1.021	1.25
36	M13	Mx	.000294	1.25
37	M13	X	4.733	.5
38	M13	Z	-8.198	.5
39	M13	Mx	-.002	.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	2.736	.83
2	MP3A	Z	-1.58	.83
3	MP3A	Mx	-.002	.83
4	MP3A	X	2.736	3.25
5	MP3A	Z	-1.58	3.25
6	MP3A	Mx	-.002	3.25
7	MP2A	X	5.288	.17
8	MP2A	Z	-3.053	.17
9	MP2A	Mx	-.002	.17
10	MP2A	X	5.288	3.92
11	MP2A	Z	-3.053	3.92
12	MP2A	Mx	-.002	3.92
13	MP2A	X	5.288	.17
14	MP2A	Z	-3.053	.17
15	MP2A	Mx	-.006	.17
16	MP2A	X	5.288	3.92
17	MP2A	Z	-3.053	3.92
18	MP2A	Mx	-.006	3.92
19	MP4A	X	3.286	.32
20	MP4A	Z	-1.897	.32
21	MP4A	Mx	-.003	.32
22	MP4A	X	3.286	3.77
23	MP4A	Z	-1.897	3.77
24	MP4A	Mx	-.003	3.77
25	MP1A	X	1.441	2.04
26	MP1A	Z	-.832	2.04
27	MP1A	Mx	-.000961	2.04
28	MP2A	X	3.016	.5
29	MP2A	Z	-1.741	.5
30	MP2A	Mx	.001	.5
31	MP2A	X	2.634	.5
32	MP2A	Z	-1.52	.5
33	MP2A	Mx	-.001	.5
34	M13	X	.869	1.25
35	M13	Z	-.501	1.25
36	M13	Mx	.000435	1.25
37	M13	X	7.165	.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	-4.137	.5
39	M13	Mx	-.004	.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	2.276	.83
2	MP3A	Z	0	.83
3	MP3A	Mx	-.002	.83
4	MP3A	X	2.276	3.25
5	MP3A	Z	0	3.25
6	MP3A	Mx	-.002	3.25
7	MP2A	X	5.384	.17
8	MP2A	Z	0	.17
9	MP2A	Mx	-.004	.17
10	MP2A	X	5.384	3.92
11	MP2A	Z	0	3.92
12	MP2A	Mx	-.004	3.92
13	MP2A	X	5.384	.17
14	MP2A	Z	0	.17
15	MP2A	Mx	-.004	.17
16	MP2A	X	5.384	3.92
17	MP2A	Z	0	3.92
18	MP2A	Mx	-.004	3.92
19	MP4A	X	3.113	.32
20	MP4A	Z	0	.32
21	MP4A	Mx	-.003	.32
22	MP4A	X	3.113	3.77
23	MP4A	Z	0	3.77
24	MP4A	Mx	-.003	3.77
25	MP1A	X	1.394	2.04
26	MP1A	Z	0	2.04
27	MP1A	Mx	-.000929	2.04
28	MP2A	X	3.098	.5
29	MP2A	Z	0	.5
30	MP2A	Mx	0	.5
31	MP2A	X	2.51	.5
32	MP2A	Z	0	.5
33	MP2A	Mx	0	.5
34	M13	X	.915	1.25
35	M13	Z	0	1.25
36	M13	Mx	.000458	1.25
37	M13	X	7.677	.5
38	M13	Z	0	.5
39	M13	Mx	-.004	.5

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	2.736	.83
2	MP3A	Z	1.58	.83
3	MP3A	Mx	-.002	.83
4	MP3A	X	2.736	3.25
5	MP3A	Z	1.58	3.25
6	MP3A	Mx	-.002	3.25
7	MP2A	X	5.288	.17
8	MP2A	Z	3.053	.17
9	MP2A	Mx	-.006	.17

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	5.288	3.92
11	MP2A	Z	3.053	3.92
12	MP2A	Mx	-.006	3.92
13	MP2A	X	5.288	.17
14	MP2A	Z	3.053	.17
15	MP2A	Mx	-.002	.17
16	MP2A	X	5.288	3.92
17	MP2A	Z	3.053	3.92
18	MP2A	Mx	-.002	3.92
19	MP4A	X	3.286	.32
20	MP4A	Z	1.897	.32
21	MP4A	Mx	-.003	.32
22	MP4A	X	3.286	3.77
23	MP4A	Z	1.897	3.77
24	MP4A	Mx	-.003	3.77
25	MP1A	X	1.441	2.04
26	MP1A	Z	.832	2.04
27	MP1A	Mx	-.000961	2.04
28	MP2A	X	3.016	.5
29	MP2A	Z	1.741	.5
30	MP2A	Mx	-.001	.5
31	MP2A	X	2.634	.5
32	MP2A	Z	1.52	.5
33	MP2A	Mx	.001	.5
34	M13	X	.869	1.25
35	M13	Z	.501	1.25
36	M13	Mx	.000435	1.25
37	M13	X	7.165	.5
38	M13	Z	4.137	.5
39	M13	Mx	-.004	.5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	2.464	.83
2	MP3A	Z	4.268	.83
3	MP3A	Mx	-.002	.83
4	MP3A	X	2.464	3.25
5	MP3A	Z	4.268	3.25
6	MP3A	Mx	-.002	3.25
7	MP2A	X	3.776	.17
8	MP2A	Z	6.54	.17
9	MP2A	Mx	-.007	.17
10	MP2A	X	3.776	3.92
11	MP2A	Z	6.54	3.92
12	MP2A	Mx	-.007	3.92
13	MP2A	X	3.776	.17
14	MP2A	Z	6.54	.17
15	MP2A	Mx	.002	.17
16	MP2A	X	3.776	3.92
17	MP2A	Z	6.54	3.92
18	MP2A	Mx	.002	3.92
19	MP4A	X	2.578	.32
20	MP4A	Z	4.465	.32
21	MP4A	Mx	-.002	.32
22	MP4A	X	2.578	3.77
23	MP4A	Z	4.465	3.77

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	-.002	3.77
25	MP1A	X	1.102	2.04
26	MP1A	Z	1.908	2.04
27	MP1A	Mx	-.000735	2.04
28	MP2A	X	2.125	.5
29	MP2A	Z	3.681	.5
30	MP2A	Mx	-.003	.5
31	MP2A	X	2.052	.5
32	MP2A	Z	3.554	.5
33	MP2A	Mx	.003	.5
34	M13	X	.589	1.25
35	M13	Z	1.021	1.25
36	M13	Mx	.000294	1.25
37	M13	X	4.733	.5
38	M13	Z	8.198	.5
39	M13	Mx	-.002	.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	0	.83
2	MP3A	Z	5.813	.83
3	MP3A	Mx	0	.83
4	MP3A	X	0	3.25
5	MP3A	Z	5.813	3.25
6	MP3A	Mx	0	3.25
7	MP2A	X	0	.17
8	MP2A	Z	8.274	.17
9	MP2A	Mx	-.006	.17
10	MP2A	X	0	3.92
11	MP2A	Z	8.274	3.92
12	MP2A	Mx	-.006	3.92
13	MP2A	X	0	.17
14	MP2A	Z	8.274	.17
15	MP2A	Mx	.006	.17
16	MP2A	X	0	3.92
17	MP2A	Z	8.274	3.92
18	MP2A	Mx	.006	3.92
19	MP4A	X	0	.32
20	MP4A	Z	5.837	.32
21	MP4A	Mx	0	.32
22	MP4A	X	0	3.77
23	MP4A	Z	5.837	3.77
24	MP4A	Mx	0	3.77
25	MP1A	X	0	2.04
26	MP1A	Z	2.473	2.04
27	MP1A	Mx	0	2.04
28	MP2A	X	0	.5
29	MP2A	Z	4.635	.5
30	MP2A	Mx	-.004	.5
31	MP2A	X	0	.5
32	MP2A	Z	4.635	.5
33	MP2A	Mx	.004	.5
34	M13	X	0	1.25
35	M13	Z	1.266	1.25
36	M13	Mx	0	1.25
37	M13	X	0	.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	10.063	.5
39	M13	Mx	0	.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-2.464	.83
2	MP3A	Z	4.268	.83
3	MP3A	Mx	.002	.83
4	MP3A	X	-2.464	3.25
5	MP3A	Z	4.268	3.25
6	MP3A	Mx	.002	3.25
7	MP2A	X	-3.776	.17
8	MP2A	Z	6.54	.17
9	MP2A	Mx	-.002	.17
10	MP2A	X	-3.776	3.92
11	MP2A	Z	6.54	3.92
12	MP2A	Mx	-.002	3.92
13	MP2A	X	-3.776	.17
14	MP2A	Z	6.54	.17
15	MP2A	Mx	.007	.17
16	MP2A	X	-3.776	3.92
17	MP2A	Z	6.54	3.92
18	MP2A	Mx	.007	3.92
19	MP4A	X	-2.578	.32
20	MP4A	Z	4.465	.32
21	MP4A	Mx	.002	.32
22	MP4A	X	-2.578	3.77
23	MP4A	Z	4.465	3.77
24	MP4A	Mx	.002	3.77
25	MP1A	X	-1.102	2.04
26	MP1A	Z	1.908	2.04
27	MP1A	Mx	.000735	2.04
28	MP2A	X	-2.125	.5
29	MP2A	Z	3.681	.5
30	MP2A	Mx	-.003	.5
31	MP2A	X	-2.052	.5
32	MP2A	Z	3.554	.5
33	MP2A	Mx	.003	.5
34	M13	X	-.589	1.25
35	M13	Z	1.021	1.25
36	M13	Mx	-.000294	1.25
37	M13	X	-4.733	.5
38	M13	Z	8.198	.5
39	M13	Mx	.002	.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-2.736	.83
2	MP3A	Z	1.58	.83
3	MP3A	Mx	.002	.83
4	MP3A	X	-2.736	3.25
5	MP3A	Z	1.58	3.25
6	MP3A	Mx	.002	3.25
7	MP2A	X	-5.288	.17
8	MP2A	Z	3.053	.17
9	MP2A	Mx	.002	.17

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	-5.288	3.92
11	MP2A	Z	3.053	3.92
12	MP2A	Mx	.002	3.92
13	MP2A	X	-5.288	.17
14	MP2A	Z	3.053	.17
15	MP2A	Mx	.006	.17
16	MP2A	X	-5.288	3.92
17	MP2A	Z	3.053	3.92
18	MP2A	Mx	.006	3.92
19	MP4A	X	-3.286	.32
20	MP4A	Z	1.897	.32
21	MP4A	Mx	.003	.32
22	MP4A	X	-3.286	3.77
23	MP4A	Z	1.897	3.77
24	MP4A	Mx	.003	3.77
25	MP1A	X	-1.441	2.04
26	MP1A	Z	.832	2.04
27	MP1A	Mx	.000961	2.04
28	MP2A	X	-3.016	.5
29	MP2A	Z	1.741	.5
30	MP2A	Mx	-.001	.5
31	MP2A	X	-2.634	.5
32	MP2A	Z	1.52	.5
33	MP2A	Mx	.001	.5
34	M13	X	-.869	1.25
35	M13	Z	.501	1.25
36	M13	Mx	-.000435	1.25
37	M13	X	-7.165	.5
38	M13	Z	4.137	.5
39	M13	Mx	.004	.5

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-2.276	.83
2	MP3A	Z	0	.83
3	MP3A	Mx	.002	.83
4	MP3A	X	-2.276	3.25
5	MP3A	Z	0	3.25
6	MP3A	Mx	.002	3.25
7	MP2A	X	-5.384	.17
8	MP2A	Z	0	.17
9	MP2A	Mx	.004	.17
10	MP2A	X	-5.384	3.92
11	MP2A	Z	0	3.92
12	MP2A	Mx	.004	3.92
13	MP2A	X	-5.384	.17
14	MP2A	Z	0	.17
15	MP2A	Mx	.004	.17
16	MP2A	X	-5.384	3.92
17	MP2A	Z	0	3.92
18	MP2A	Mx	.004	3.92
19	MP4A	X	-3.113	.32
20	MP4A	Z	0	.32
21	MP4A	Mx	.003	.32
22	MP4A	X	-3.113	3.77
23	MP4A	Z	0	3.77

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP4A	Mx	.003	3.77
25	MP1A	X	-1.394	2.04
26	MP1A	Z	0	2.04
27	MP1A	Mx	.000929	2.04
28	MP2A	X	-3.098	.5
29	MP2A	Z	0	.5
30	MP2A	Mx	0	.5
31	MP2A	X	-2.51	.5
32	MP2A	Z	0	.5
33	MP2A	Mx	0	.5
34	M13	X	-.915	1.25
35	M13	Z	0	1.25
36	M13	Mx	-.000458	1.25
37	M13	X	-7.677	.5
38	M13	Z	0	.5
39	M13	Mx	.004	.5

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-2.736	.83
2	MP3A	Z	-1.58	.83
3	MP3A	Mx	.002	.83
4	MP3A	X	-2.736	3.25
5	MP3A	Z	-1.58	3.25
6	MP3A	Mx	.002	3.25
7	MP2A	X	-5.288	.17
8	MP2A	Z	-3.053	.17
9	MP2A	Mx	.006	.17
10	MP2A	X	-5.288	3.92
11	MP2A	Z	-3.053	3.92
12	MP2A	Mx	.006	3.92
13	MP2A	X	-5.288	.17
14	MP2A	Z	-3.053	.17
15	MP2A	Mx	.002	.17
16	MP2A	X	-5.288	3.92
17	MP2A	Z	-3.053	3.92
18	MP2A	Mx	.002	3.92
19	MP4A	X	-3.286	.32
20	MP4A	Z	-1.897	.32
21	MP4A	Mx	.003	.32
22	MP4A	X	-3.286	3.77
23	MP4A	Z	-1.897	3.77
24	MP4A	Mx	.003	3.77
25	MP1A	X	-1.441	2.04
26	MP1A	Z	-.832	2.04
27	MP1A	Mx	.000961	2.04
28	MP2A	X	-3.016	.5
29	MP2A	Z	-1.741	.5
30	MP2A	Mx	.001	.5
31	MP2A	X	-2.634	.5
32	MP2A	Z	-1.52	.5
33	MP2A	Mx	-.001	.5
34	M13	X	-.869	1.25
35	M13	Z	-.501	1.25
36	M13	Mx	-.000435	1.25
37	M13	X	-7.165	.5

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	M13	Z	-4.137	.5
39	M13	Mx	.004	.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	X	-2.464	.83
2	MP3A	Z	-4.268	.83
3	MP3A	Mx	.002	.83
4	MP3A	X	-2.464	3.25
5	MP3A	Z	-4.268	3.25
6	MP3A	Mx	.002	3.25
7	MP2A	X	-3.776	.17
8	MP2A	Z	-6.54	.17
9	MP2A	Mx	.007	.17
10	MP2A	X	-3.776	3.92
11	MP2A	Z	-6.54	3.92
12	MP2A	Mx	.007	3.92
13	MP2A	X	-3.776	.17
14	MP2A	Z	-6.54	.17
15	MP2A	Mx	-.002	.17
16	MP2A	X	-3.776	3.92
17	MP2A	Z	-6.54	3.92
18	MP2A	Mx	-.002	3.92
19	MP4A	X	-2.578	.32
20	MP4A	Z	-4.465	.32
21	MP4A	Mx	.002	.32
22	MP4A	X	-2.578	3.77
23	MP4A	Z	-4.465	3.77
24	MP4A	Mx	.002	3.77
25	MP1A	X	-1.102	2.04
26	MP1A	Z	-1.908	2.04
27	MP1A	Mx	.000735	2.04
28	MP2A	X	-2.125	.5
29	MP2A	Z	-3.681	.5
30	MP2A	Mx	.003	.5
31	MP2A	X	-2.052	.5
32	MP2A	Z	-3.554	.5
33	MP2A	Mx	-.003	.5
34	M13	X	-.589	1.25
35	M13	Z	-1.021	1.25
36	M13	Mx	-.000294	1.25
37	M13	X	-4.733	.5
38	M13	Z	-8.198	.5
39	M13	Mx	.002	.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-250	%3

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-250	%97

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 79 : Lv1) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M2	Y	-250	%100

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	Y	-9.241	-9.241	0	%100
2	M2	Y	-6.298	-6.298	0	%100
3	M8	Y	-6.298	-6.298	0	%100
4	MP4A	Y	-4.764	-4.764	0	%100
5	MP3A	Y	-4.764	-4.764	0	%100
6	MP2A	Y	-4.764	-4.764	0	%100
7	MP1A	Y	-4.764	-4.764	0	%100
8	M13	Y	-4.764	-4.764	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-13.379	-13.379	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	-8.53	-8.53	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	-9.079	-9.079	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-9.079	-9.079	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	-9.079	-9.079	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	-9.079	-9.079	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	-7.849	-7.849	0	%100

Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	1.633	1.633	0	%100
2	M1	Z	-2.828	-2.828	0	%100
3	M2	X	5.017	5.017	0	%100
4	M2	Z	-8.69	-8.69	0	%100
5	M8	X	4.265	4.265	0	%100
6	M8	Z	-7.387	-7.387	0	%100
7	MP4A	X	4.539	4.539	0	%100
8	MP4A	Z	-7.862	-7.862	0	%100
9	MP3A	X	4.539	4.539	0	%100
10	MP3A	Z	-7.862	-7.862	0	%100
11	MP2A	X	4.539	4.539	0	%100
12	MP2A	Z	-7.862	-7.862	0	%100
13	MP1A	X	4.539	4.539	0	%100
14	MP1A	Z	-7.862	-7.862	0	%100
15	M13	X	3.924	3.924	0	%100
16	M13	Z	-6.797	-6.797	0	%100

Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	8.485	8.485	0	%100
2	M1	Z	-4.899	-4.899	0	%100
3	M2	X	2.897	2.897	0	%100
4	M2	Z	-1.672	-1.672	0	%100
5	M8	X	7.387	7.387	0	%100
6	M8	Z	-4.265	-4.265	0	%100
7	MP4A	X	7.862	7.862	0	%100
8	MP4A	Z	-4.539	-4.539	0	%100
9	MP3A	X	7.862	7.862	0	%100
10	MP3A	Z	-4.539	-4.539	0	%100
11	MP2A	X	7.862	7.862	0	%100
12	MP2A	Z	-4.539	-4.539	0	%100
13	MP1A	X	7.862	7.862	0	%100
14	MP1A	Z	-4.539	-4.539	0	%100
15	M13	X	6.797	6.797	0	%100
16	M13	Z	-3.924	-3.924	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	13.063	13.063	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M8	X	8.53	8.53	0	%100
6	M8	Z	0	0	0	%100
7	MP4A	X	9.079	9.079	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	9.079	9.079	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	9.079	9.079	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	9.079	9.079	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	7.849	7.849	0	%100
16	M13	Z	0	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	8.485	8.485	0	%100
2	M1	Z	4.899	4.899	0	%100
3	M2	X	2.897	2.897	0	%100
4	M2	Z	1.672	1.672	0	%100
5	M8	X	7.387	7.387	0	%100
6	M8	Z	4.265	4.265	0	%100
7	MP4A	X	7.862	7.862	0	%100
8	MP4A	Z	4.539	4.539	0	%100
9	MP3A	X	7.862	7.862	0	%100
10	MP3A	Z	4.539	4.539	0	%100
11	MP2A	X	7.862	7.862	0	%100
12	MP2A	Z	4.539	4.539	0	%100
13	MP1A	X	7.862	7.862	0	%100
14	MP1A	Z	4.539	4.539	0	%100
15	M13	X	6.797	6.797	0	%100
16	M13	Z	3.924	3.924	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	1.633	1.633	0	%100
2	M1	Z	2.828	2.828	0	%100
3	M2	X	5.017	5.017	0	%100
4	M2	Z	8.69	8.69	0	%100
5	M8	X	4.265	4.265	0	%100
6	M8	Z	7.387	7.387	0	%100
7	MP4A	X	4.539	4.539	0	%100
8	MP4A	Z	7.862	7.862	0	%100
9	MP3A	X	4.539	4.539	0	%100
10	MP3A	Z	7.862	7.862	0	%100
11	MP2A	X	4.539	4.539	0	%100
12	MP2A	Z	7.862	7.862	0	%100
13	MP1A	X	4.539	4.539	0	%100
14	MP1A	Z	7.862	7.862	0	%100
15	M13	X	3.924	3.924	0	%100
16	M13	Z	6.797	6.797	0	%100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	13.379	13.379	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	8.53	8.53	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	9.079	9.079	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	9.079	9.079	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	9.079	9.079	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	9.079	9.079	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	7.849	7.849	0	%100

Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-1.633	-1.633	0	%100
2	M1	Z	2.828	2.828	0	%100
3	M2	X	-5.017	-5.017	0	%100
4	M2	Z	8.69	8.69	0	%100
5	M8	X	-4.265	-4.265	0	%100
6	M8	Z	7.387	7.387	0	%100
7	MP4A	X	-4.539	-4.539	0	%100
8	MP4A	Z	7.862	7.862	0	%100
9	MP3A	X	-4.539	-4.539	0	%100
10	MP3A	Z	7.862	7.862	0	%100
11	MP2A	X	-4.539	-4.539	0	%100
12	MP2A	Z	7.862	7.862	0	%100
13	MP1A	X	-4.539	-4.539	0	%100
14	MP1A	Z	7.862	7.862	0	%100
15	M13	X	-3.924	-3.924	0	%100
16	M13	Z	6.797	6.797	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-8.485	-8.485	0	%100
2	M1	Z	4.899	4.899	0	%100
3	M2	X	-2.897	-2.897	0	%100
4	M2	Z	1.672	1.672	0	%100
5	M8	X	-7.387	-7.387	0	%100
6	M8	Z	4.265	4.265	0	%100
7	MP4A	X	-7.862	-7.862	0	%100
8	MP4A	Z	4.539	4.539	0	%100
9	MP3A	X	-7.862	-7.862	0	%100
10	MP3A	Z	4.539	4.539	0	%100
11	MP2A	X	-7.862	-7.862	0	%100
12	MP2A	Z	4.539	4.539	0	%100
13	MP1A	X	-7.862	-7.862	0	%100
14	MP1A	Z	4.539	4.539	0	%100
15	M13	X	-6.797	-6.797	0	%100
16	M13	Z	3.924	3.924	0	%100

Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-13.063	-13.063	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M8	X	-8.53	-8.53	0	%100
6	M8	Z	0	0	0	%100
7	MP4A	X	-9.079	-9.079	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	-9.079	-9.079	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	-9.079	-9.079	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	-9.079	-9.079	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	-7.849	-7.849	0	%100
16	M13	Z	0	0	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-8.485	-8.485	0	%100
2	M1	Z	-4.899	-4.899	0	%100
3	M2	X	-2.897	-2.897	0	%100
4	M2	Z	-1.672	-1.672	0	%100
5	M8	X	-7.387	-7.387	0	%100
6	M8	Z	-4.265	-4.265	0	%100
7	MP4A	X	-7.862	-7.862	0	%100
8	MP4A	Z	-4.539	-4.539	0	%100
9	MP3A	X	-7.862	-7.862	0	%100
10	MP3A	Z	-4.539	-4.539	0	%100
11	MP2A	X	-7.862	-7.862	0	%100
12	MP2A	Z	-4.539	-4.539	0	%100
13	MP1A	X	-7.862	-7.862	0	%100
14	MP1A	Z	-4.539	-4.539	0	%100
15	M13	X	-6.797	-6.797	0	%100
16	M13	Z	-3.924	-3.924	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-1.633	-1.633	0	%100
2	M1	Z	-2.828	-2.828	0	%100
3	M2	X	-5.017	-5.017	0	%100
4	M2	Z	-8.69	-8.69	0	%100
5	M8	X	-4.265	-4.265	0	%100
6	M8	Z	-7.387	-7.387	0	%100
7	MP4A	X	-4.539	-4.539	0	%100
8	MP4A	Z	-7.862	-7.862	0	%100
9	MP3A	X	-4.539	-4.539	0	%100
10	MP3A	Z	-7.862	-7.862	0	%100
11	MP2A	X	-4.539	-4.539	0	%100
12	MP2A	Z	-7.862	-7.862	0	%100
13	MP1A	X	-4.539	-4.539	0	%100
14	MP1A	Z	-7.862	-7.862	0	%100
15	M13	X	-3.924	-3.924	0	%100
16	M13	Z	-6.797	-6.797	0	%100

Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-3.947	-3.947	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	-2.604	-2.604	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	-3.173	-3.173	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-3.173	-3.173	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	-3.173	-3.173	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	-3.173	-3.173	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	-2.775	-2.775	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	.483	.483	0	%100
2	M1	Z	-.837	-.837	0	%100
3	M2	X	1.48	1.48	0	%100
4	M2	Z	-2.564	-2.564	0	%100
5	M8	X	1.302	1.302	0	%100
6	M8	Z	-2.255	-2.255	0	%100
7	MP4A	X	1.586	1.586	0	%100
8	MP4A	Z	-2.748	-2.748	0	%100
9	MP3A	X	1.586	1.586	0	%100
10	MP3A	Z	-2.748	-2.748	0	%100
11	MP2A	X	1.586	1.586	0	%100
12	MP2A	Z	-2.748	-2.748	0	%100
13	MP1A	X	1.586	1.586	0	%100
14	MP1A	Z	-2.748	-2.748	0	%100
15	M13	X	1.387	1.387	0	%100
16	M13	Z	-2.403	-2.403	0	%100

Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	2.51	2.51	0	%100
2	M1	Z	-1.449	-1.449	0	%100
3	M2	X	.855	.855	0	%100
4	M2	Z	-.493	-.493	0	%100
5	M8	X	2.255	2.255	0	%100
6	M8	Z	-1.302	-1.302	0	%100
7	MP4A	X	2.748	2.748	0	%100
8	MP4A	Z	-1.586	-1.586	0	%100
9	MP3A	X	2.748	2.748	0	%100
10	MP3A	Z	-1.586	-1.586	0	%100
11	MP2A	X	2.748	2.748	0	%100
12	MP2A	Z	-1.586	-1.586	0	%100
13	MP1A	X	2.748	2.748	0	%100
14	MP1A	Z	-1.586	-1.586	0	%100
15	M13	X	2.403	2.403	0	%100
16	M13	Z	-1.387	-1.387	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	3.864	3.864	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M8	X	2.604	2.604	0	%100
6	M8	Z	0	0	0	%100
7	MP4A	X	3.173	3.173	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	3.173	3.173	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	3.173	3.173	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	3.173	3.173	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	2.775	2.775	0	%100
16	M13	Z	0	0	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	2.51	2.51	0	%100
2	M1	Z	1.449	1.449	0	%100
3	M2	X	.855	.855	0	%100
4	M2	Z	.493	.493	0	%100
5	M8	X	2.255	2.255	0	%100
6	M8	Z	1.302	1.302	0	%100
7	MP4A	X	2.748	2.748	0	%100
8	MP4A	Z	1.586	1.586	0	%100
9	MP3A	X	2.748	2.748	0	%100
10	MP3A	Z	1.586	1.586	0	%100
11	MP2A	X	2.748	2.748	0	%100
12	MP2A	Z	1.586	1.586	0	%100
13	MP1A	X	2.748	2.748	0	%100
14	MP1A	Z	1.586	1.586	0	%100
15	M13	X	2.403	2.403	0	%100
16	M13	Z	1.387	1.387	0	%100

Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	.483	.483	0	%100
2	M1	Z	.837	.837	0	%100
3	M2	X	1.48	1.48	0	%100
4	M2	Z	2.564	2.564	0	%100
5	M8	X	1.302	1.302	0	%100
6	M8	Z	2.255	2.255	0	%100
7	MP4A	X	1.586	1.586	0	%100
8	MP4A	Z	2.748	2.748	0	%100
9	MP3A	X	1.586	1.586	0	%100
10	MP3A	Z	2.748	2.748	0	%100
11	MP2A	X	1.586	1.586	0	%100
12	MP2A	Z	2.748	2.748	0	%100
13	MP1A	X	1.586	1.586	0	%100
14	MP1A	Z	2.748	2.748	0	%100
15	M13	X	1.387	1.387	0	%100
16	M13	Z	2.403	2.403	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	3.947	3.947	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	2.604	2.604	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	3.173	3.173	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	3.173	3.173	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	3.173	3.173	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	3.173	3.173	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	2.775	2.775	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-.483	-.483	0	%100
2	M1	Z	.837	.837	0	%100
3	M2	X	-1.48	-1.48	0	%100
4	M2	Z	2.564	2.564	0	%100
5	M8	X	-1.302	-1.302	0	%100
6	M8	Z	2.255	2.255	0	%100
7	MP4A	X	-1.586	-1.586	0	%100
8	MP4A	Z	2.748	2.748	0	%100
9	MP3A	X	-1.586	-1.586	0	%100
10	MP3A	Z	2.748	2.748	0	%100
11	MP2A	X	-1.586	-1.586	0	%100
12	MP2A	Z	2.748	2.748	0	%100
13	MP1A	X	-1.586	-1.586	0	%100
14	MP1A	Z	2.748	2.748	0	%100
15	M13	X	-1.387	-1.387	0	%100
16	M13	Z	2.403	2.403	0	%100

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-2.51	-2.51	0	%100
2	M1	Z	1.449	1.449	0	%100
3	M2	X	-.855	-.855	0	%100
4	M2	Z	.493	.493	0	%100
5	M8	X	-2.255	-2.255	0	%100
6	M8	Z	1.302	1.302	0	%100
7	MP4A	X	-2.748	-2.748	0	%100
8	MP4A	Z	1.586	1.586	0	%100
9	MP3A	X	-2.748	-2.748	0	%100
10	MP3A	Z	1.586	1.586	0	%100
11	MP2A	X	-2.748	-2.748	0	%100
12	MP2A	Z	1.586	1.586	0	%100
13	MP1A	X	-2.748	-2.748	0	%100
14	MP1A	Z	1.586	1.586	0	%100
15	M13	X	-2.403	-2.403	0	%100
16	M13	Z	1.387	1.387	0	%100

Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-3.864	-3.864	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M8	X	-2.604	-2.604	0	%100
6	M8	Z	0	0	0	%100
7	MP4A	X	-3.173	-3.173	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	-3.173	-3.173	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	-3.173	-3.173	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	-3.173	-3.173	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	-2.775	-2.775	0	%100
16	M13	Z	0	0	0	%100

Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-2.51	-2.51	0	%100
2	M1	Z	-1.449	-1.449	0	%100
3	M2	X	-.855	-.855	0	%100
4	M2	Z	-.493	-.493	0	%100
5	M8	X	-2.255	-2.255	0	%100
6	M8	Z	-1.302	-1.302	0	%100
7	MP4A	X	-2.748	-2.748	0	%100
8	MP4A	Z	-1.586	-1.586	0	%100
9	MP3A	X	-2.748	-2.748	0	%100
10	MP3A	Z	-1.586	-1.586	0	%100
11	MP2A	X	-2.748	-2.748	0	%100
12	MP2A	Z	-1.586	-1.586	0	%100
13	MP1A	X	-2.748	-2.748	0	%100
14	MP1A	Z	-1.586	-1.586	0	%100
15	M13	X	-2.403	-2.403	0	%100
16	M13	Z	-1.387	-1.387	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-.483	-.483	0	%100
2	M1	Z	-.837	-.837	0	%100
3	M2	X	-1.48	-1.48	0	%100
4	M2	Z	-2.564	-2.564	0	%100
5	M8	X	-1.302	-1.302	0	%100
6	M8	Z	-2.255	-2.255	0	%100
7	MP4A	X	-1.586	-1.586	0	%100
8	MP4A	Z	-2.748	-2.748	0	%100
9	MP3A	X	-1.586	-1.586	0	%100
10	MP3A	Z	-2.748	-2.748	0	%100
11	MP2A	X	-1.586	-1.586	0	%100
12	MP2A	Z	-2.748	-2.748	0	%100
13	MP1A	X	-1.586	-1.586	0	%100
14	MP1A	Z	-2.748	-2.748	0	%100
15	M13	X	-1.387	-1.387	0	%100
16	M13	Z	-2.403	-2.403	0	%100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.868	-.868	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	-.553	-.553	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	-.589	-.589	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-.589	-.589	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	-.589	-.589	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	-.589	-.589	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	-.509	-.509	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	.106	.106	0	%100
2	M1	Z	-.183	-.183	0	%100
3	M2	X	.325	.325	0	%100
4	M2	Z	-.563	-.563	0	%100
5	M8	X	.277	.277	0	%100
6	M8	Z	-.479	-.479	0	%100
7	MP4A	X	.294	.294	0	%100
8	MP4A	Z	-.51	-.51	0	%100
9	MP3A	X	.294	.294	0	%100
10	MP3A	Z	-.51	-.51	0	%100
11	MP2A	X	.294	.294	0	%100
12	MP2A	Z	-.51	-.51	0	%100
13	MP1A	X	.294	.294	0	%100
14	MP1A	Z	-.51	-.51	0	%100
15	M13	X	.254	.254	0	%100
16	M13	Z	-.441	-.441	0	%100

Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	.55	.55	0	%100
2	M1	Z	-.318	-.318	0	%100
3	M2	X	.188	.188	0	%100
4	M2	Z	-.108	-.108	0	%100
5	M8	X	.479	.479	0	%100
6	M8	Z	-.277	-.277	0	%100
7	MP4A	X	.51	.51	0	%100
8	MP4A	Z	-.294	-.294	0	%100
9	MP3A	X	.51	.51	0	%100
10	MP3A	Z	-.294	-.294	0	%100
11	MP2A	X	.51	.51	0	%100
12	MP2A	Z	-.294	-.294	0	%100
13	MP1A	X	.51	.51	0	%100
14	MP1A	Z	-.294	-.294	0	%100
15	M13	X	.441	.441	0	%100
16	M13	Z	-.254	-.254	0	%100

Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	.847	.847	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M8	X	.553	.553	0	%100
6	M8	Z	0	0	0	%100
7	MP4A	X	.589	.589	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	.589	.589	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	.589	.589	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	.589	.589	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	.509	.509	0	%100
16	M13	Z	0	0	0	%100

Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	.55	.55	0	%100
2	M1	Z	.318	.318	0	%100
3	M2	X	.188	.188	0	%100
4	M2	Z	.108	.108	0	%100
5	M8	X	.479	.479	0	%100
6	M8	Z	.277	.277	0	%100
7	MP4A	X	.51	.51	0	%100
8	MP4A	Z	.294	.294	0	%100
9	MP3A	X	.51	.51	0	%100
10	MP3A	Z	.294	.294	0	%100
11	MP2A	X	.51	.51	0	%100
12	MP2A	Z	.294	.294	0	%100
13	MP1A	X	.51	.51	0	%100
14	MP1A	Z	.294	.294	0	%100
15	M13	X	.441	.441	0	%100
16	M13	Z	.254	.254	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	.106	.106	0	%100
2	M1	Z	.183	.183	0	%100
3	M2	X	.325	.325	0	%100
4	M2	Z	.563	.563	0	%100
5	M8	X	.277	.277	0	%100
6	M8	Z	.479	.479	0	%100
7	MP4A	X	.294	.294	0	%100
8	MP4A	Z	.51	.51	0	%100
9	MP3A	X	.294	.294	0	%100
10	MP3A	Z	.51	.51	0	%100
11	MP2A	X	.294	.294	0	%100
12	MP2A	Z	.51	.51	0	%100
13	MP1A	X	.294	.294	0	%100
14	MP1A	Z	.51	.51	0	%100
15	M13	X	.254	.254	0	%100
16	M13	Z	.441	.441	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.868	.868	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	.553	.553	0	%100
7	MP4A	X	0	0	0	%100
8	MP4A	Z	.589	.589	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	.589	.589	0	%100
11	MP2A	X	0	0	0	%100
12	MP2A	Z	.589	.589	0	%100
13	MP1A	X	0	0	0	%100
14	MP1A	Z	.589	.589	0	%100
15	M13	X	0	0	0	%100
16	M13	Z	.509	.509	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-.106	-.106	0	%100
2	M1	Z	.183	.183	0	%100
3	M2	X	-.325	-.325	0	%100
4	M2	Z	.563	.563	0	%100
5	M8	X	-.277	-.277	0	%100
6	M8	Z	.479	.479	0	%100
7	MP4A	X	-.294	-.294	0	%100
8	MP4A	Z	.51	.51	0	%100
9	MP3A	X	-.294	-.294	0	%100
10	MP3A	Z	.51	.51	0	%100
11	MP2A	X	-.294	-.294	0	%100
12	MP2A	Z	.51	.51	0	%100
13	MP1A	X	-.294	-.294	0	%100
14	MP1A	Z	.51	.51	0	%100
15	M13	X	-.254	-.254	0	%100
16	M13	Z	.441	.441	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-.55	-.55	0	%100
2	M1	Z	.318	.318	0	%100
3	M2	X	-.188	-.188	0	%100
4	M2	Z	.108	.108	0	%100
5	M8	X	-.479	-.479	0	%100
6	M8	Z	.277	.277	0	%100
7	MP4A	X	-.51	-.51	0	%100
8	MP4A	Z	.294	.294	0	%100
9	MP3A	X	-.51	-.51	0	%100
10	MP3A	Z	.294	.294	0	%100
11	MP2A	X	-.51	-.51	0	%100
12	MP2A	Z	.294	.294	0	%100
13	MP1A	X	-.51	-.51	0	%100
14	MP1A	Z	.294	.294	0	%100
15	M13	X	-.441	-.441	0	%100
16	M13	Z	.254	.254	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-.847	-.847	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M8	X	-.553	-.553	0	%100
6	M8	Z	0	0	0	%100
7	MP4A	X	-.589	-.589	0	%100
8	MP4A	Z	0	0	0	%100
9	MP3A	X	-.589	-.589	0	%100
10	MP3A	Z	0	0	0	%100
11	MP2A	X	-.589	-.589	0	%100
12	MP2A	Z	0	0	0	%100
13	MP1A	X	-.589	-.589	0	%100
14	MP1A	Z	0	0	0	%100
15	M13	X	-.509	-.509	0	%100
16	M13	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-.55	-.55	0	%100
2	M1	Z	-.318	-.318	0	%100
3	M2	X	-.188	-.188	0	%100
4	M2	Z	-.108	-.108	0	%100
5	M8	X	-.479	-.479	0	%100
6	M8	Z	-.277	-.277	0	%100
7	MP4A	X	-.51	-.51	0	%100
8	MP4A	Z	-.294	-.294	0	%100
9	MP3A	X	-.51	-.51	0	%100
10	MP3A	Z	-.294	-.294	0	%100
11	MP2A	X	-.51	-.51	0	%100
12	MP2A	Z	-.294	-.294	0	%100
13	MP1A	X	-.51	-.51	0	%100
14	MP1A	Z	-.294	-.294	0	%100
15	M13	X	-.441	-.441	0	%100
16	M13	Z	-.254	-.254	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[...	End Location[ft,%]
1	M1	X	-.106	-.106	0	%100
2	M1	Z	-.183	-.183	0	%100
3	M2	X	-.325	-.325	0	%100
4	M2	Z	-.563	-.563	0	%100
5	M8	X	-.277	-.277	0	%100
6	M8	Z	-.479	-.479	0	%100
7	MP4A	X	-.294	-.294	0	%100
8	MP4A	Z	-.51	-.51	0	%100
9	MP3A	X	-.294	-.294	0	%100
10	MP3A	Z	-.51	-.51	0	%100
11	MP2A	X	-.294	-.294	0	%100
12	MP2A	Z	-.51	-.51	0	%100
13	MP1A	X	-.294	-.294	0	%100
14	MP1A	Z	-.51	-.51	0	%100
15	M13	X	-.254	-.254	0	%100
16	M13	Z	-.441	-.441	0	%100

Member Area Loads

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

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	m...	1022.242	10	1606.687	24	1632.585	1	-2.878	1	5.044	9	2.94	49
2		min	-1022.242	4	806.449	6	-1632.585	7	-7.839	19	-5.081	3	-2.138	50
3	Totals:	m...	1022.242	10	1606.687	24	1632.585	1						
4		min	-1022.242	4	806.449	6	-1632.585	7						

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

	Member	Shape	Code Ch...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	Pnc/om [...	Pnt/om [l...	Mnyy/om ...	Mnzz/o...	Cb	Eqn
1	M2	PIPE_3.0	.942	6.75	49	.304	6.75		7	16322.839	43383.2...	3.825	3.825	1.5...	H1-1b
2	M1	HSS4X4X4	.855	0	9	.369	0	y	49	85350.404	92826.3...	10.765	10.765	1.5...	H1-1b
3	MP2A	PIPE_2.0	.788	2.5	7	.163	2.5		5	15840.679	21377.2...	1.245	1.245	1.4...	H1-1b
4	MP4A	PIPE_2.0	.186	2.5	7	.053	2.5		9	15840.679	21377.2...	1.245	1.245	1.32	H1-1b
5	M13	PIPE_2.0	.182	1.75	7	.074	1.24		4	18457.146	21377.2...	1.245	1.245	1.5...	H1-1b
6	MP3A	PIPE_2.0	.175	2.5	7	.038	2.5		8	15840.679	21377.2...	1.245	1.245	1.3...	H1-1b
7	MP1A	PIPE_2.0	.051	2.5	7	.021	2.5		5	15840.679	21377.2...	1.245	1.245	1.4...	H1-1b
8	M8	PIPE_3.0	.001	.792	7	.001	.792		7	42804.922	43383.2...	3.825	3.825	1	H1-1b

TIA-222-H CONNECTION CHECK
Mount to Tower Connection - Typ. All Sectors
2021740.468202.01

Bolt Information		
Bolt Diameter (d)	0.625	in
Net Tensile Area (An)	0.226	in^2
# of Bolts Total (n)	4	
Bolt Distance Up-Down	6	in
Bolt Distance Left-Right	6	in
Bolt Grade	A325N	
Bolt Tensile Strength (F_{ub})	120	ksi

Flange Information		
Height (h)	8.5	in
Width (w)	8.5	in
Thickness (t)	0.75	in
Steel Grade	A36	
Plate Yield Strength (Fy)	36	ksi
Support Arm Height	4	in
Support Arm Width	4	in

RISA 3D Reactions		
Moment (M)	7.84	k-ft
Axial (T)	0.38	kips
Shear (V)	1.61	kips

Bolt Capacity		
Nominal Tensile Strength (R_{nt})	27.120	kips
Nominal Shear Strength (R_{nv})	18.41	kips
Bolt Tensile Force (T_{ub})	11.03	kips
Bolt Shear Force (V_{ub})	0.402	kips
$T_{ub}/\phi R_{nt}$	0.54217	
$V_{ub}/\phi R_{nv}$	0.02909	
$(V_{ub}/\phi R_{nv})^2+(T_{ub}/\phi R_{nt})^2$	0.29480	
Bolt Capacity =	54.2%	OK

Plate Capacity		
Bolt Circle (D_{BC})	8.485	in
Effective Width (B_{eff})	6.32	in
Flexural Moment (M_u)	15.60	k-in
Flexural Strength (ϕM_n)	28.82	k-in
Plate Capacity=	54.1%	OK

Weld Capacity		
Fillet (leg) =	0.625	in
Throat (eff) =	0.44	in
Fexx =	70.00	ksi
ø =	0.75	
øRn =	13.92	kips/in
Weld Capacity=	40.1%	OK

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

Purpose – to provide GPD the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the passing MA
- Verification that loading is as communicated in the Passing Mount Analysis. NOTE If loading is different than what is conveyed contact GPD immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to ***https://pmi.vzwsmart.com*** as depicted on the drawings

Photo Requirements:

- *Base and "During Installation Photos"*
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - "During Installation Photos if provided - must be placed only in this folder
- *Photos taken at ground level*
  - Overall tower structure before and after installation of the equipment modifications
  - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed
- *Photos taken at Mount Elevation*
  - Photos showing each individual sector before and also after installation of equipment.
    - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis

- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the climbing facility and safety climb if present.

Antenna & equipment placement and Geometry Confirmation:

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.

☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual: Company _____

Name _____

Signature _____

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

-Minor surface corrosion on mount face horizontal and crossover hardware. Contractor shall evaluate condition and provide photos to EOR for final assessment. EOR will provide direction for remediation, if needed.

Response:

Schedule A – Photo & Document File Structure

- VzW Site Number / Name
  - Base & “During Installation” Photos
  - Pre-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
  - Post-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
    - Photos of climbing facility and safety climb – If Present
  - Certifications – Submission of this document including certifications
  - Specific Required Additional Photos

Structure: 468202-VZW - TRUMBULL SW CT

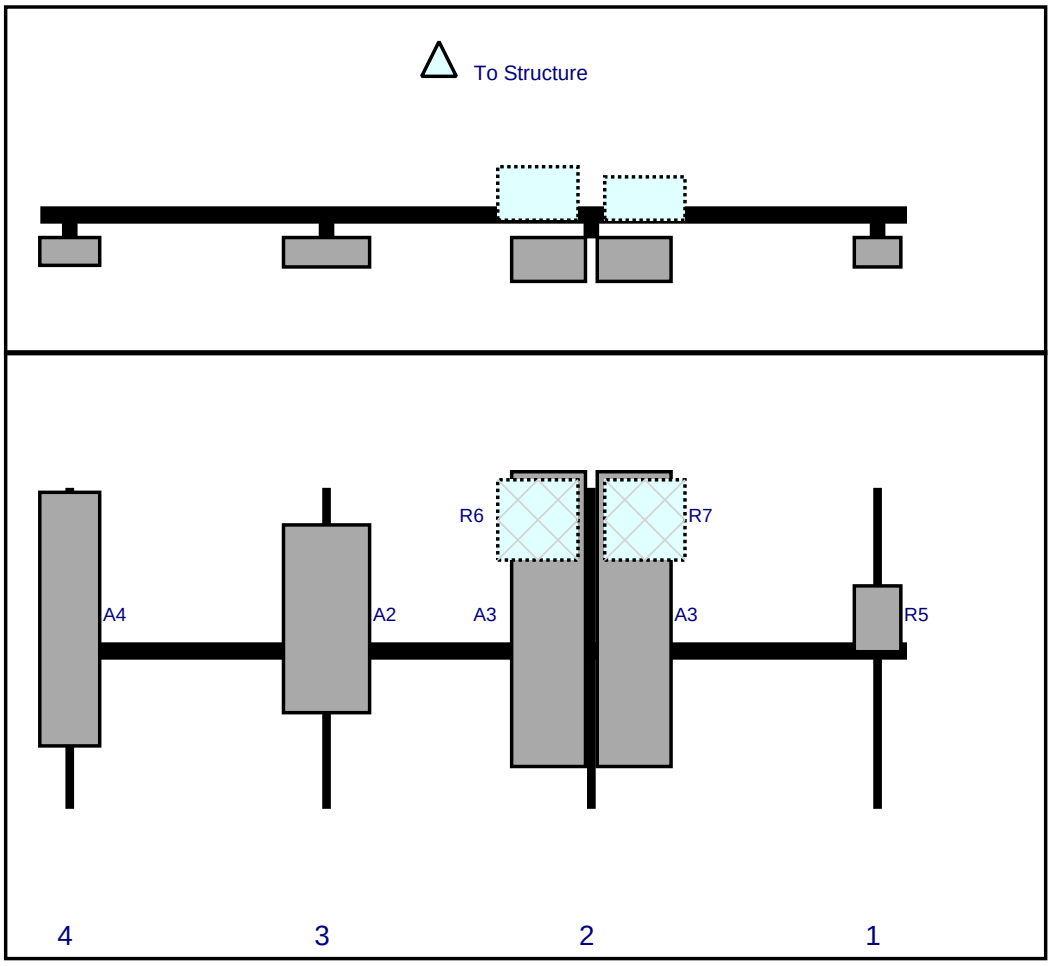
Sector: **A** 6/17/2021

Structure Type: Monopole 10058984

Mount Elev: 99.50 Page: 1

Plan View

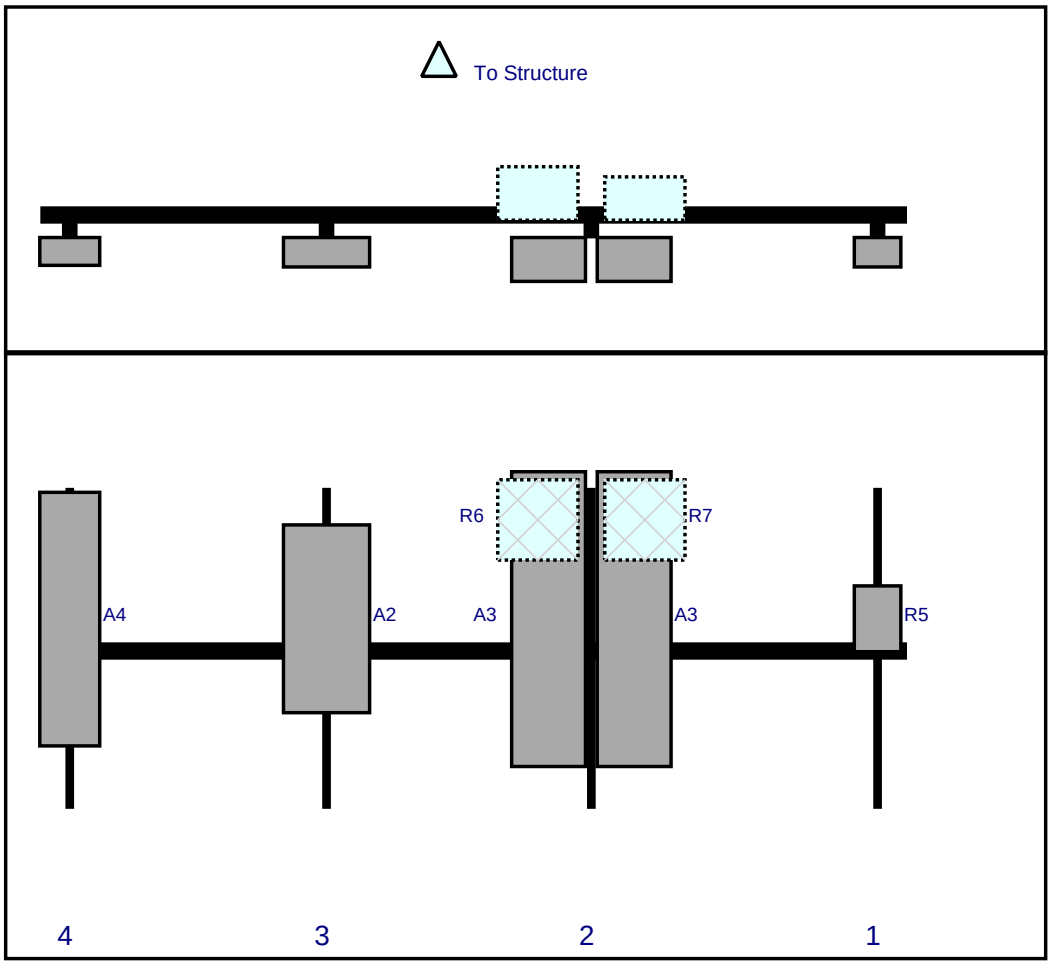
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R5	XXDWMM-12.5-65-8TCBRS	12.3	8.7	156.5	1	a	Front	24.48	0	Retained	04/19/2021
A3	JAHH-65A-R3B	55.1	13.8	103	2	a	Front	24.54	-8	Retained	04/19/2021
A3	JAHH-65A-R3B	55.1	13.8	103	2	b	Front	24.54	8	Retained	04/19/2021
R6	B2/B66A RRH-BR049	15	15	103	2	a	Behind	6	-10	Retained	04/19/2021
R7	B5/B13 RRH-BR04C	15	15	103	2	a	Behind	6	10	Retained	04/19/2021
A2	VZS01	35.1	16.1	53.5	3	a	Front	24.48	0	Added	
A4	BXA-70063-4CF-4-850MHZ	47.4	11.2	5.5	4	a	Front	24.54	0	Retained	04/19/2021

Plan View

Front View
Looking at Structure



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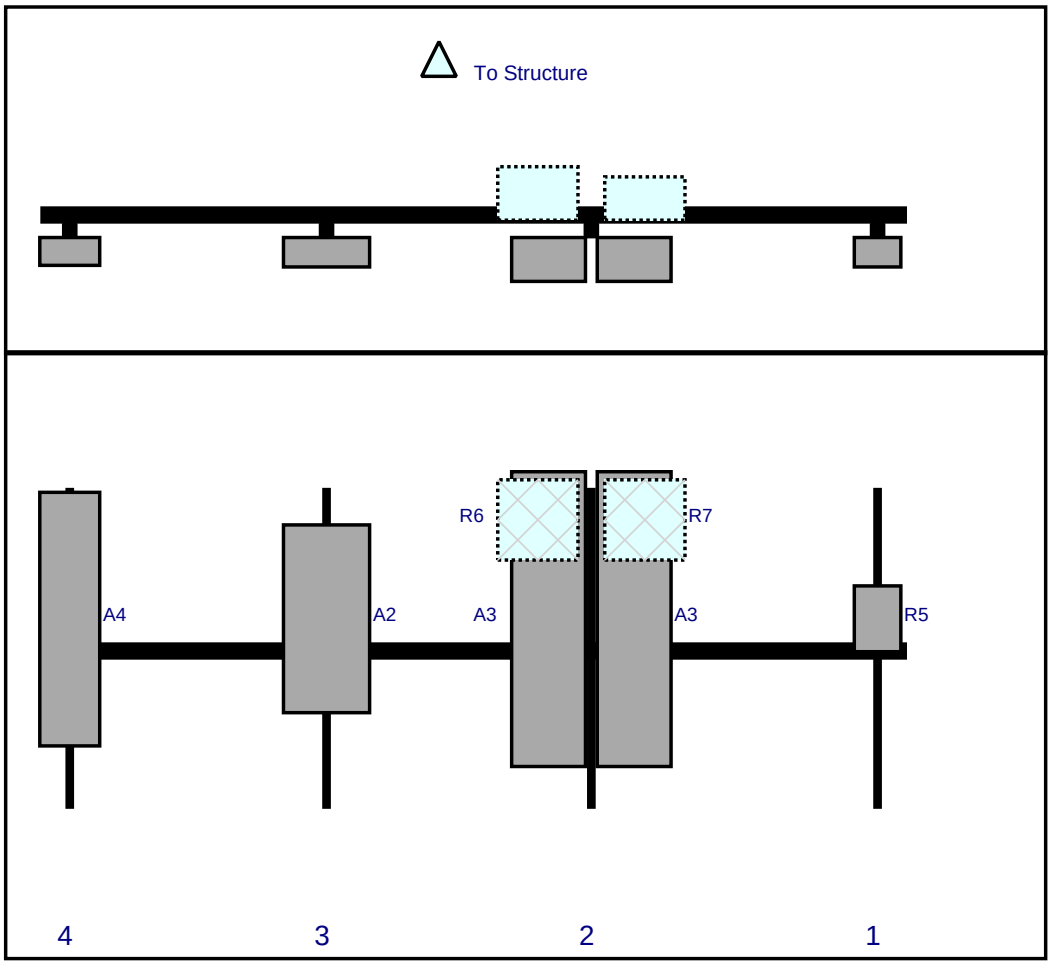
A3	JAHH-65A-R3B	55.1	13.8	103	2	b	Front	24.54	8	Retained	04/19/2021
R6	B2/B66A RRH-BR049	15	15	103	2	a	Behind	6	-10	Retained	04/19/2021
R7	B5/B13 RRH-BR04C	15	15	103	2	a	Behind	6	10	Retained	04/19/2021
A2	VZS01	35.1	16.1	53.5	3	a	Front	24.48	0	Added	
A4	BXA-70063-4CF-4-850MHZ	47.4	11.2	5.5	4	a	Front	24.54	0	Retained	04/19/2021

Plan View

Front View
Looking at Structure



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R6	B2/B66A RRH-BR049	15	15	103	2	a	Behind	6	-10	Retained	04/19/2021
R7	B5/B13 RRH-BR04C	15	15	103	2	a	Behind	6	10	Retained	04/19/2021
A2	VZS01	35.1	16.1	53.5	3	a	Front	24.48	0	Added	
A4	BXA-70063-4CF-4-850MHZ	47.4	11.2	5.5	4	a	Front	24.54	0	Retained	04/19/2021

GPD Engineering and Architecture
Professional Corporation

June 21, 2021
2021740.468202.01

Subject	TIA-222-H Usage
Site Information	Site ID: 468202-VZW / TRUMBULL SW CT Site Name: TRUMBULL SW CT Carrier Name: Verizon Wireless Address: 38 Kaechele Place Bridgeport, Connecticut 06606 Fairfield County Latitude: 41.223417° Longitude: -73.216333°
Structure Information	Tower Type: 150-Ft Monopole Mount Type: 13.50-Ft T-Arm

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H Standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

GPD Group

Christopher J. Scheks, P.E.
Connecticut #: 0030026

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
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)
VZW 700	751	4	525	2100	100	0.0076
VZW CDMA	877.26	2	377	753	100	0.0027
VZW Cellular	874	4	548	2192	100	0.0079
VZW PCS	1980	4	1178	4714	100	0.0170
VZW AWS	2120	4	1241	4963	100	0.0178
VZW CBRS	3625	4	11	43	100	0.0002
VZW CBAND	3730.08	4	6531	26125	100	0.0940

Total Percentage of Maximum Permissible Exposure

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI
**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Counci

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

Absolute worst case maximum values used.

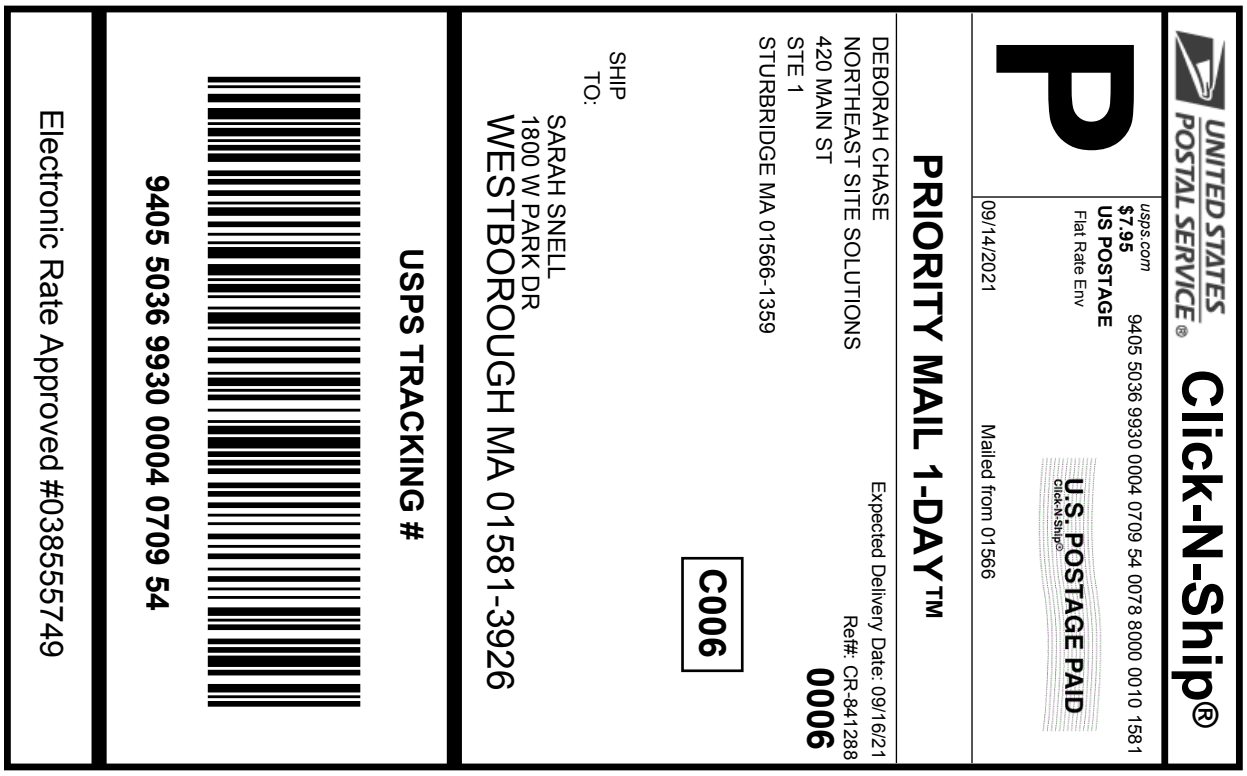
Maximum Permissible Exposure*	Fraction of MPE
(mW/cm^2)	(%)
0.5007	1.51%
0.5848	0.46%
0.5827	1.35%
1.0000	1.70%
1.0000	1.78%
1.0000	0.02%
1.0000	9.40%
	16.22%

/IEEE C95.1-1992

il's November 10, 2015 Memorandum for Exempt Modification filings

Exhibit E

Recipient Mailings



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Instructions

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2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

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USPS TRACKING # :
9405 5036 9930 0004 0709 54

Trans. #:	543606248
Print Date:	09/14/2021
Ship Date:	09/14/2021
Expected Delivery Date:	09/16/2021

Priority Mail® Postage:	**$7.95**
Total:	**$7.95**

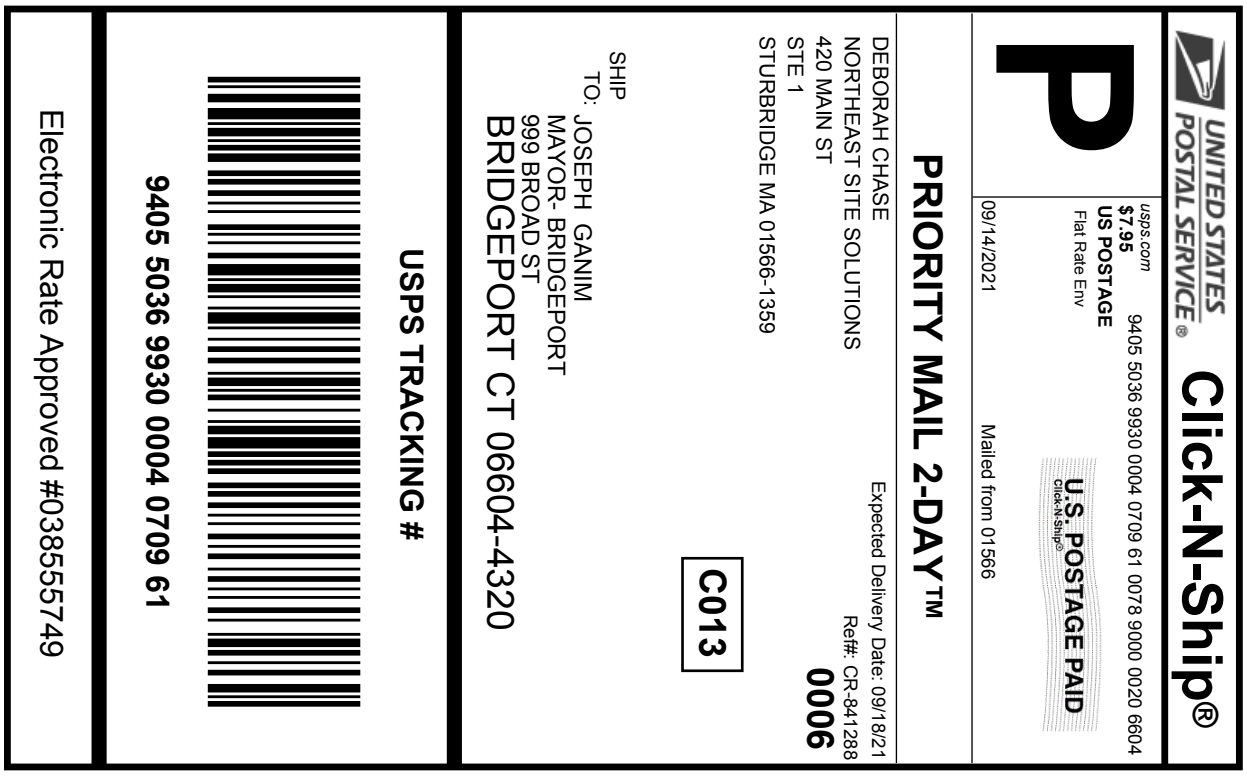
From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: CR-841288

To: SARAH SNELL
1800 W PARK DR
WESTBOROUGH MA 01581-3926

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



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Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0004 0709 61

Trans. #:	543606248
Print Date:	09/14/2021
Ship Date:	09/14/2021
Expected Delivery Date:	09/18/2021

Priority Mail® Postage:	**$7.95**
Total:	**$7.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: CR-841288

To: JOSEPH GANIM
MAYOR- BRIDGEPORT
999 BROAD ST
BRIDGEPORT CT 06604-4320

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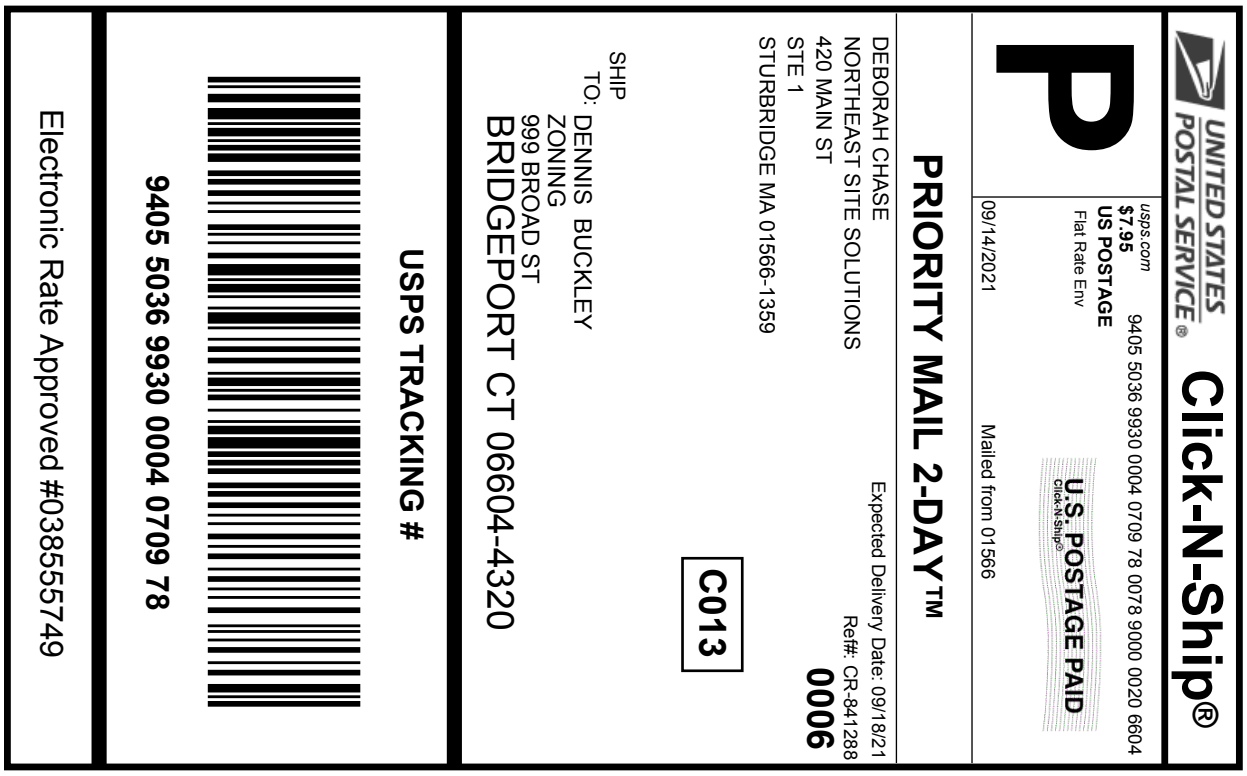

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Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0004 0709 78

Trans. #:	543606248
Print Date:	09/14/2021
Ship Date:	09/14/2021
Expected Delivery Date:	09/18/2021

Priority Mail® Postage:	**$7.95**
Total:	**$7.95**

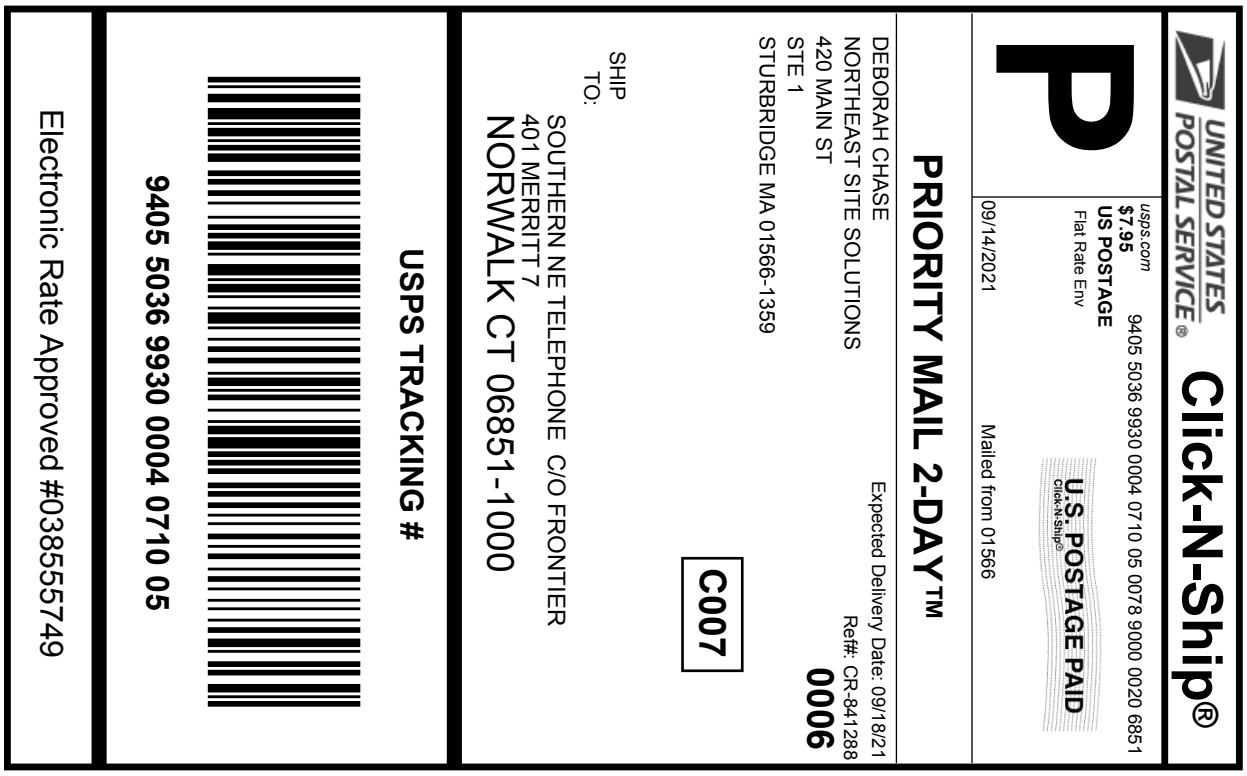
From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: CR-841288

To: DENNIS BUCKLEY
ZONING
999 BROAD ST
BRIDGEPORT CT 06604-4320

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



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Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0004 0710 05

Trans. #:	543606248
Print Date:	09/14/2021
Ship Date:	09/14/2021
Expected Delivery Date:	09/18/2021

Priority Mail® Postage:	**$7.95**
Total:	**$7.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: CR-841288

To: SOUTHERN NE TELEPHONE C/O FRONTIER COMMUNICATIONS
401 MERRITT 7
NORWALK CT 06851-1000

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com

CL-8491288

FISKDALE
458 MAIN ST
FISKDALE, MA 01518-9998
(800)275-8777

09/16/2021 11:40 AM

Product	Qty	Unit Price	Price
Prepaid Mail Norwalk, CT 06851 Weight: 2 lb 0.70 oz Acceptance Date: Thu 09/16/2021 Tracking #: 9405 5036 9930 0004 0710 05	1		$0.00
Prepaid Mail Bridgeport, CT 06604 Weight: 2 lb 0.60 oz Acceptance Date: Thu 09/16/2021 Tracking #: 9405 5036 9930 0004 0709 61	1		$0.00
Prepaid Mail Bridgeport, CT 06604 Weight: 2 lb 1.20 oz Acceptance Date: Thu 09/16/2021 Tracking #: 9405 5036 9930 0004 0709 78	1		$0.00
Prepaid Mail Westborough, MA 01581 Weight: 0 lb 2.50 oz Acceptance Date:	1		$0.00