NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

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

April 5, 2022

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

RE: Exempt Modification Application
50 Rockland Road, Norwalk, CT 06854
Latitude: 41.081666
Longitude: -73.430555
Site #: 807133_Crown_VZW

Dear Ms. Bachman:

Verizon Wireless is requesting to file an exempt modification for an existing tower located at 50 Rockland Road, Norwalk, CT 06854. Verizon Wireless currently maintains twelve (12) antennas at the 128-foot level of the existing 180-foot tower. The property and tower are owned by Crown Castle. Verizon now intends to replace six (6) antennas and add six (6) antennas. The new antennas would be installed at the 128-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable. Antenna mount modifications will be completed as per the attached GPD / Maser mount analysis dated June 4, 2021.

Verizon Planned Modifications:

Remove:
(3) Nokia B25 RRH
(12) 1-5/8" Coax

Remove and Replace:
(6) SBNHH-1D65C Antennas (REMOVE) – (6) JAHH-65C-R3B Antennas (REPLACE)
(3) Nokia B66A RRH (REMOVE) - (3) Samsung BR049 RFV01U D1A (REPLACE)
(3) Nokia B13 RRH (REMOVE) - (3) Samsung BR04C RFV01U D2A (REPLACE)
(1) OVP (REMOVE) - (1) RFS OVP DBC1-12C-24AB-0Z (REPLACE)
(1) Hybrid Line (REMOVE) – (1) Hybrid Line 1-5/8" (REPLACE)

Install New:
(3) MT6407-77A Antennas
(3) XXDWMM-12.5-65-8T Antennas

Existing to Remain:
(6) DECIBEL Antennas
(6) 1-5/8" Coax

The facility was approved by the Connecticut Siting Council, Docket No. 73 on April 1, 1987. Please see attached.

NORTHEAST SITE SOLUTIONS

Turnkey Wireless Development

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 Harry Rilling and Stephen Kleppin, Director of Planning & Zoning for the City of Norwalk. A copy is also being sent to the tower owner and property 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
E-mail: denise@northeastsitesolutions.com

NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Attachments

Cc: Mayor Harry Rilling
City of Norwalk
125 East Ave.
Norwalk, CT 06856

Stephen Kleppin, Director of Planning & Zoning
City of Norwalk
125 East Ave.
Norwalk, CT 06856

Crown Castle, Property Owner & Tower Owner

Exhibit A

Original Facility Approval

DOCKET NO. 73

AN APPLICATION OF METRO MOBILE CTS OF FAIRFIELD COUNTY, INC., FOR CERTIFICATES OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF THREE FACILITIES CONSISTING OF TELECOMMUNICATIONS TOWERS AND ASSOCIATED EQUIPMENT FOR THE PURPOSE OF PROVIDING DOMESTIC PUBLIC CELLULAR RADIO TELECOMMUNICATIONS SERVICE IN THE TOWN OF GREENWICH AND IN THE CITIES OF NORWALK AND STAMFORD, CONNECTICUT.	:	CONNECTICUT SITING COUNCIL
	:	April 1, 1987

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Connecticut Siting Council (Council) hereby directs that a Certificate of Environmental Compatibility and Public Need, as provided by Section 16-50k of the General Statutes of Connecticut (CGS), be issued to Metro Mobile CTS of Fairfield County, Inc., for the construction, operation, and maintenance of cellular mobile telecommunications equipment in the Town of Greenwich, and the Cities of Norwalk and Stamford, 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 Norwalk tower, including antennas, shall be no taller than necessary to provide the proposed service, and in no event shall exceed 193 feet.
2. A fence not lower than eight feet shall surround the Norwalk tower.
3. Unless necessary to comply with condition number four, below, no lights shall be installed on the Norwalk tower.
4. The facilities shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations.

5. The certificate holder shall prepare a development and management (D&M) plan for the Norwalk site in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M plan shall provide for evergreen screening around the perimeter of the fence at this site, and for other landscaping to improve the appearance of the facility.
6. The receive antennas at the Greenwich and Stamford sites shall be mounted below the high points of the facades of their respective buildings to minimize their visibility.
7. No construction activities shall take place outside the hours of 7:00 A.M. to 7:00 P.M., Monday through Saturday.
8. The certificate holder or its successor shall notify the Council if and when directional antennas or any equipment other than that listed in this application is added to these facilities.
9. The certificate holder or its successor shall permit public or private entities to share space on the Norwalk tower, for due consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
10. If these facilities do not provide or permanently cease to provide cellular service following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment in this application shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.

11. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the issuance of this Decision and Order, or within three years of the completion of any appeal taken in this Decision.

12. The certificate holder shall comply with any future radio frequency (RF) standards promulgated by state or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facilities granted in this Decision shall continue to be in compliance with such standards.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the Decision and Order be served on each person listed below. A notice of the issuance shall be published in the Stamford Advocate, the Greenwich Times, the Norwalk Hour, and the Bridgeport Post.

The parties to the proceeding are:

Mr. Armand Mascioli (Applicant)
General Manager
Metro Mobile CTS of Fairfield
County, Inc.
5 Eversley Avenue
Norwalk, Connecticut 06855

Howard L. Slater, Esquire (its attorney)
Byrne, Slater, Sandler,
Shulman & Rouse, P.C.
330 Main Street
P.O. Box 3216
Hartford, Connecticut 06103

Richard Rubin, Esquire (its attorney)
Fleischman and Walsh, P.C.
1725 N Street, N.W.
Washington, D.C. 20036

Southern New England
Telephone Company

(its attorney)

Mr. Peter J. Tyrrell
Senior Attorney
Southern New England
Telephone Company
227 Church Street
New Haven, Connecticut 06506

C E R T I F I C A T I O N

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 1st day of April, 1987.

Council Members	Vote Cast
Gloria Dibble Pond Chairperson	Yes
Commissioner John Downey Designee: Commissioner Peter G. Boucher	Yes
Acting Commissioner John Anderson Designee: Brian Emerick	Yes
Owen L. Clark	Yes
Fred J. Doocy	Yes
Mortimer A. Gelston	Yes
James G. Horsfall	Absent
William H. Smith	Absent
Colin C. Tait	Yes

STATE OF CONNECTICUT)
: ss. New Britain, April 1, 1987
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:

John C. Kelly
Executive Director
Connecticut Siting Council

I certify that a copy of the opinion and decision and order have been forwarded by mail to all parties of record on April 3, 1987.

ATTEST:

Robert K. Erling
Siting Analyst
Connecticut Siting Council

Exhibit B

Property Card

50 ROCKLAND RD

Location	50 ROCKLAND RD	**Mblu**	5/ 82/ 58/ 0/
Acct#	25665	**Owner**	CROWN ATLANTIC COMPANY LLC
Assessment	$3,369,900	**Appraisal**	$4,814,150
PID	25665	**Building Count**	1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2018	$4,161,500	$652,650	$4,814,150
Assessment			
Valuation Year	Improvements	Land	Total
2018	$2,913,040	$456,860	$3,369,900

Owner of Record

Owner	CROWN ATLANTIC COMPANY LLC	**Sale Price**	$1,600,000
Co-Owner		**Certificate**	
Address	PMB 353 4017 WASHINGTON RD McMURRAY, PA 15317-0000	**Book & Page**	3701/331
		Sale Date	04/16/1999

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
CROWN ATLANTIC COMPANY LLC	$1,600,000		3701/331	04/16/1999
CELLCO PARTNERSHIP,	$1,020,000		3489/348	04/03/1998
DEVIVO MARIO + WENCHE	$0		0/0	

Building Information

Building 1 : Section 1

Year Built:	1987
Living Area:	21,115
Replacement Cost:	$1,257,359

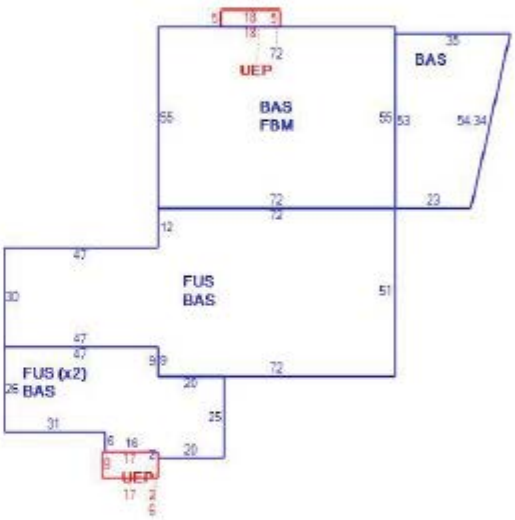
Building Percent Good: 66
Replacement Cost
Less Depreciation: $829,860

Building Attributes	
Field	**Description**
STYLE	Light Indust
MODEL	Industrial
Grade	C+
Stories:	3.00
Occupancy	1.00
Exterior Wall 1	Concrete
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Rolled Compos
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Concrete
Heating Fuel	Gas
Heating Type	Forced Air
AC Percent	60
Heat Percent	100
Bldg Use	Industrial
Total Rooms	0
Bedrooms	0
Full Baths	0
Half Baths	6
Extra Fixtures	0
FBM Area	
Heat/AC	Heat/AC Pkg
Frame	Masonry
Plumbing	Average
Foundation	Slab
Partitions	Average
Wall Height	13.00
% Sprinkler	40.00

Building Photo

(http://images.vgsi.com/photos/NorwalkCTPhotos//00\00\72/74.jpg)

Building Layout



(ParcelSketch.ashx?pid=25665&bid=25665)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	12,397	12,397
FUS	Finished Upper Story	8,718	8,718
FBM	Finished Basement	3,960	0
UEP	Utility Enclosed Porch	226	0
		25,301	21,115

Extra Features

Extra Features				Legend
Code	Description	Size	Value	Bldg #
ELV1	Commercial	3.00 STOP	$56,250	1

A/C	Air Conditioning	12669.00 S.F.	$38,010	1
SPR	Sprinklers	8446.00 S.F.	$31,670	1

Land

Land Use

Use Code	301
Description	Industrial
Zone	RI
Neighborhood	C530

Land Line Valuation

Size (Acres)	0.82
Frontage	
Depth	
Assessed Value	$456,860
Appraised Value	$652,650

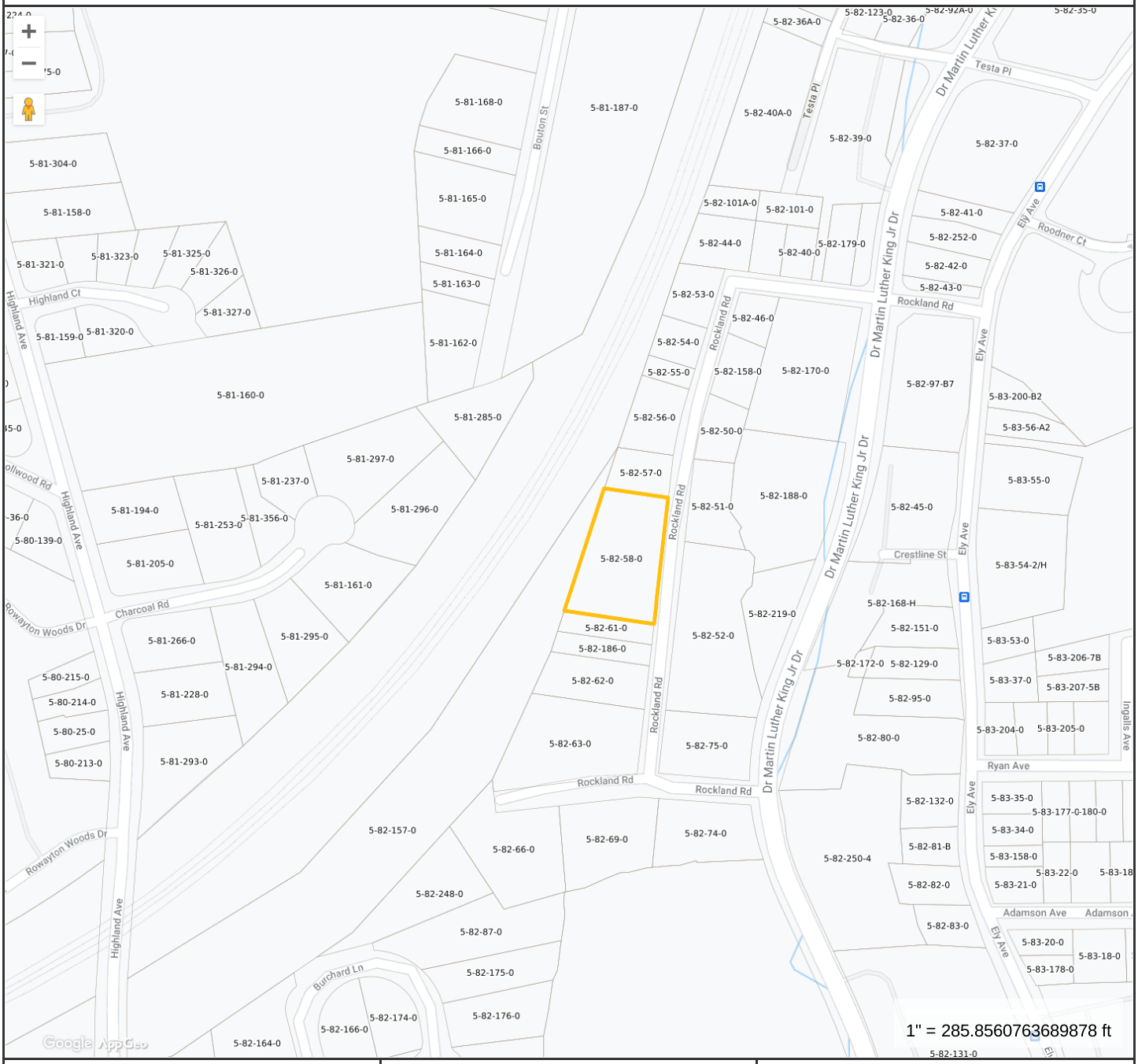
Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	Paving Asph.			16900.00 S.F.	$21,970	1
FN6	Fence 6'			450.00 L.F.	$4,090	1
SHD4	Cell Equip	FR	Frame	128.00 S.F.	$12,800	1
CEL1	Cell Tower		Steel	5.00 UNITS	$750,000	1
SHD4	Cell Equip	FR	Frame	128.00 S.F.	$12,800	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2018	$4,161,500	$652,650	$4,814,150
2017	$991,370	$447,530	$1,438,900
2016	$991,370	$447,530	$1,438,900

Assessment			
Valuation Year	Improvements	Land	Total
2018	$2,913,040	$456,860	$3,369,900
2017	$693,970	$313,270	$1,007,240
2016	$693,970	$313,270	$1,007,240



Norwalk Information

ID	103-5-82-58-0
Site Address	50 ROCKLAND RD
Owner	
Co-Owner	
Owner Address	

WESTCOG

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Exhibit C

Construction Drawings

verizon

VERIZON SITE NUMBER: 324556
VERIZON SITE NAME: NORWALK CT
SITE TYPE: SELF-SUPPORT TOWER
TOWER HEIGHT: 182'-0"

BUSINESS UNIT #: 807133
SITE ADDRESS: 50 ROCKLAND ROAD NORWALK OFC-MTSOSO NORWALK CT CT 06854
COUNTY: FAIRFIELD
JURISDICTION: CITY OF NORWALK

VERIZON 5G LSUB6 - CARRIER ADD / FUZE ID 16231923

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	BRG 134 943057
SITE ADDRESS:	50 ROCKLAND ROAD NORWALK OFC - MTSO SO NORWALK, CT 06854
COUNTY:	FAIRFIELD
MAP/PARCEL #:	5-82-58-0
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 4' 54.44" N
LONGITUDE:	73° 25' 49.52" W
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	----
CURRENT ZONING:	RESTRICTED INDUSTRIAL
ZONING JURISDICTION:	CONNECTICUT SITING COUNCIL
JURISDICTION:	CITY OF NORWALK
OCCUPANCY CLASSIFICATION:	----
TYPE OF CONSTRUCTION:	----
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	CROWN ATLANTIC COMPANY LLC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
TOWER OWNER:	CROWN CASTLE MU LLC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	VERIZON WIRELESS 180 WASHINGTON VALLEY ROAD BEDMINSTER, NJ 07921
ELECTRIC PROVIDER:	NORTHEAST UTILITIES (800) 286-2000
TELCO PROVIDER:	CROWN CASTLE FIBER (855) 913-4237

PROJECT TEAM

A&E FIRM:	TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C. 1279 ROUTE 300 NEWBURGH, NY 12550 PHONE: (845) 567-6656
CROWN CASTLE USA INC. DISTRICT CONTACTS:	1200 MACARTHUR BLVD, SUITE 200 MAHWAH, NJ 07430 ---- - PROJECT MANAGER ---- ---- - CONSTRUCTION MANAGER ----
VERIZON CONTACT:	---- ----

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.vzwsmart.com
SMART TOOL VENDOR PROJECT NUMBER	10070202
VzW LOCATION CODE (PSLC)	468538

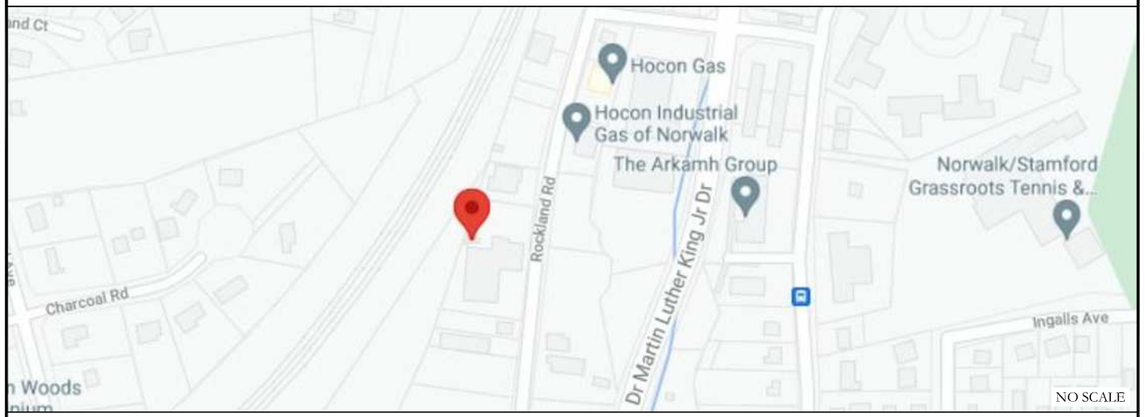
*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED	**Y**

VzW APPROVED SMART KIT VENDORS

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

LOCATION MAP



DRIVING DIRECTIONS FROM VERIZON LOCAL OFFICE (180 WASHINGTON VALLEY RD, BEDMINSTER, NJ 07921)

HEAD NORTHWEST. SLIGHT LEFT. TURN RIGHT ONTO US-202 N/US-206 N. TURN RIGHT ONTO SCHLEY MOUNTAIN RD. MERGE WITH I-287 N. USE THE RIGHT 2 LANES TO TAKE EXIT 41A-46 TOWARD 46.KEEP LEFT, FOLLOW SIGNS FOR I-80 E/NEW YORK CITY. KEEP LEFT TO CONTINUE ON EXIT 47 A, FOLLOW SIGNS FOR I-280 E/ORANGES/NEWARK. CONTINUE ONTO I-95 EXPRESS N. ENTERING NEW YORK.CONTINUE ONTO INTERSTATE 95 UPPER LEVEL N/US-1 UPPER LEVEL N. KEEP LEFT TO STAY ON I-95 N. KEEP LEFT TO STAY ON I-95 N.ENTERING CONNECTICUT. TURN LEFT ONTO WITCH LN. TURN LEFT ONTO OLD TROLLEY WAY. TURN LEFT ONTO ROCKLAND RD. TURN RIGHT TO STAY ON ROCKLAND RD. DESTINATION WILL BE ON THE LEFT.

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 CT SBC
MECHANICAL	2018 CT SBC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	----
DATED:	
MOUNT ANALYSIS:	MASER CONSULTING
DATED:	06/01/21
RFDS REVISION:	3
DATED:	10/19/21
ORDER ID:	552680
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:
- REMOVE (6) ANTENNAS
- REMOVE (9) RRHs
- REMOVE (1) HYBRID CABLE
- REMOVE (1) OVP
- REMOVE (12) COAX CABLES
- INSTALL (12) ANTENNAS
- INSTALL (6) RRHs
- INSTALL (1) HYBRID CABLE
- INSTALL (1) OVP
- INSTALL MOUNT MODIFICATIONS

GROUND SCOPE OF WORK:
- NONE

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
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering & Surveying Consultants P.C.
70 Pleasant Hill Road
P.O. Box 37
Mountainville, NY 10953
Phone: (845) 534-2859
(800) 520-4531
www.tectonicengineering.com
Project Contact Info
1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-6656
TECTONIC WO: 10545.NORWALK CT

VERIZON SITE NUMBER:
324556

BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

EXISTING 182'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/04/21	VM	PRELIMINARY	----
0	11/11/21	JT	FOR CONSTRUCTION	----

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 F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
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.

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, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

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–POTENTAL 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).

ABBREVIATIONS:

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

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

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VERIZON SITE NUMBER:
324556

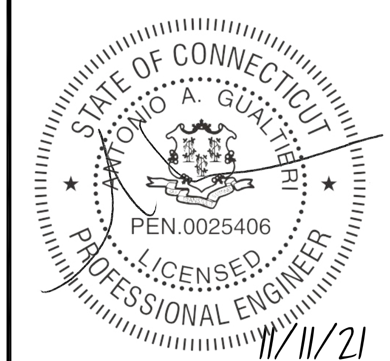
BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

EXISTING 182'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

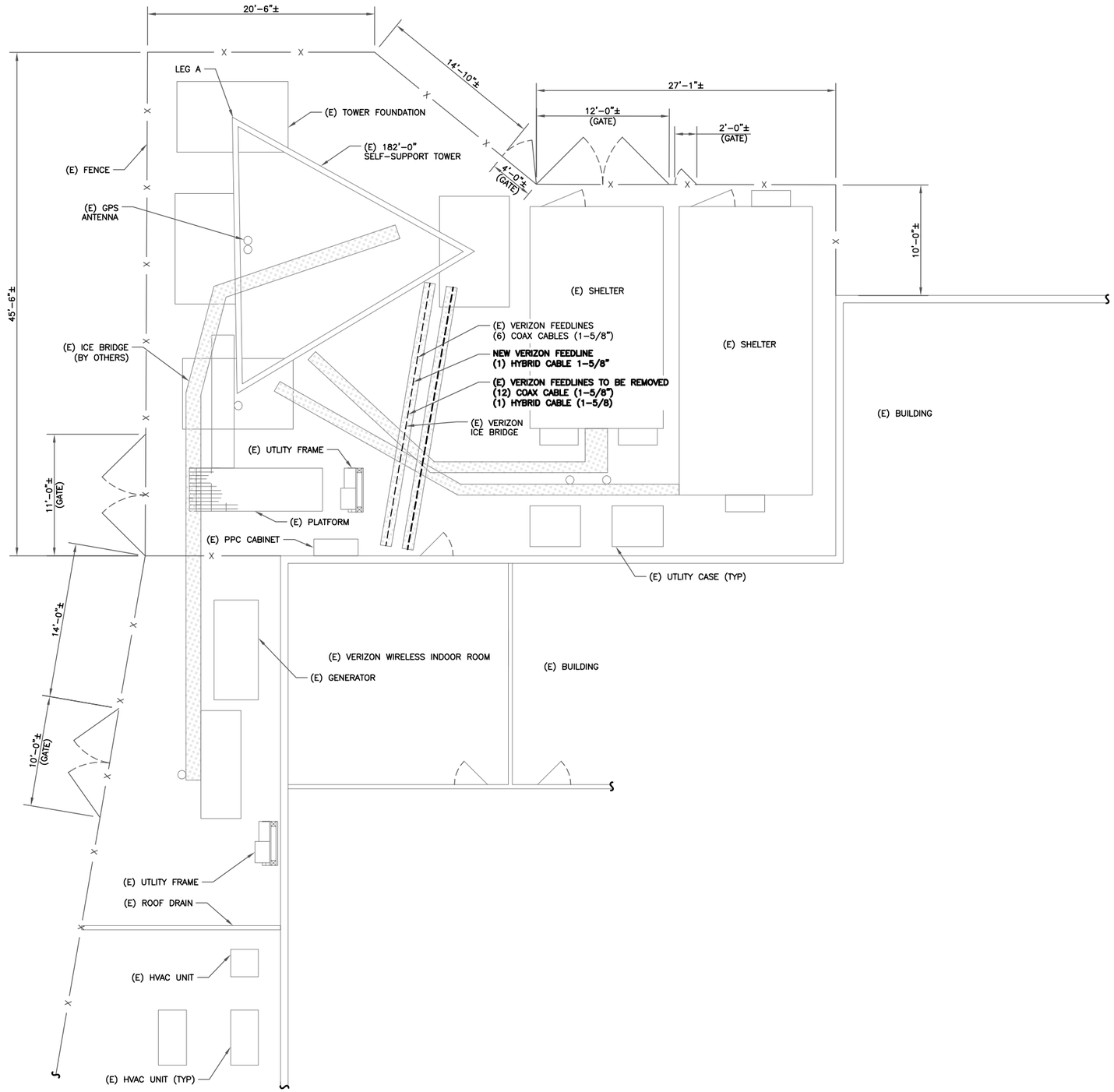
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/04/21	VM	PRELIMINARY	----
0	11/11/21	JT	FOR CONSTRUCTION	----



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

SHEET NUMBER: **T-2**

REVISION: **0**



1 SITE PLAN

SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)

N

verizon

180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE

1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

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Project contact info
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Newburgh, NY 12550
Phone: (845) 567-3608

TECTONIC WO: 10545.NORWALK CT

VERIZON SITE NUMBER:
324556

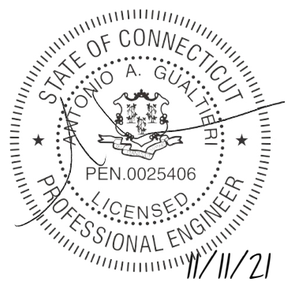
BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

EXISTING 182'-0"
SELF-SUPPORT TOWER

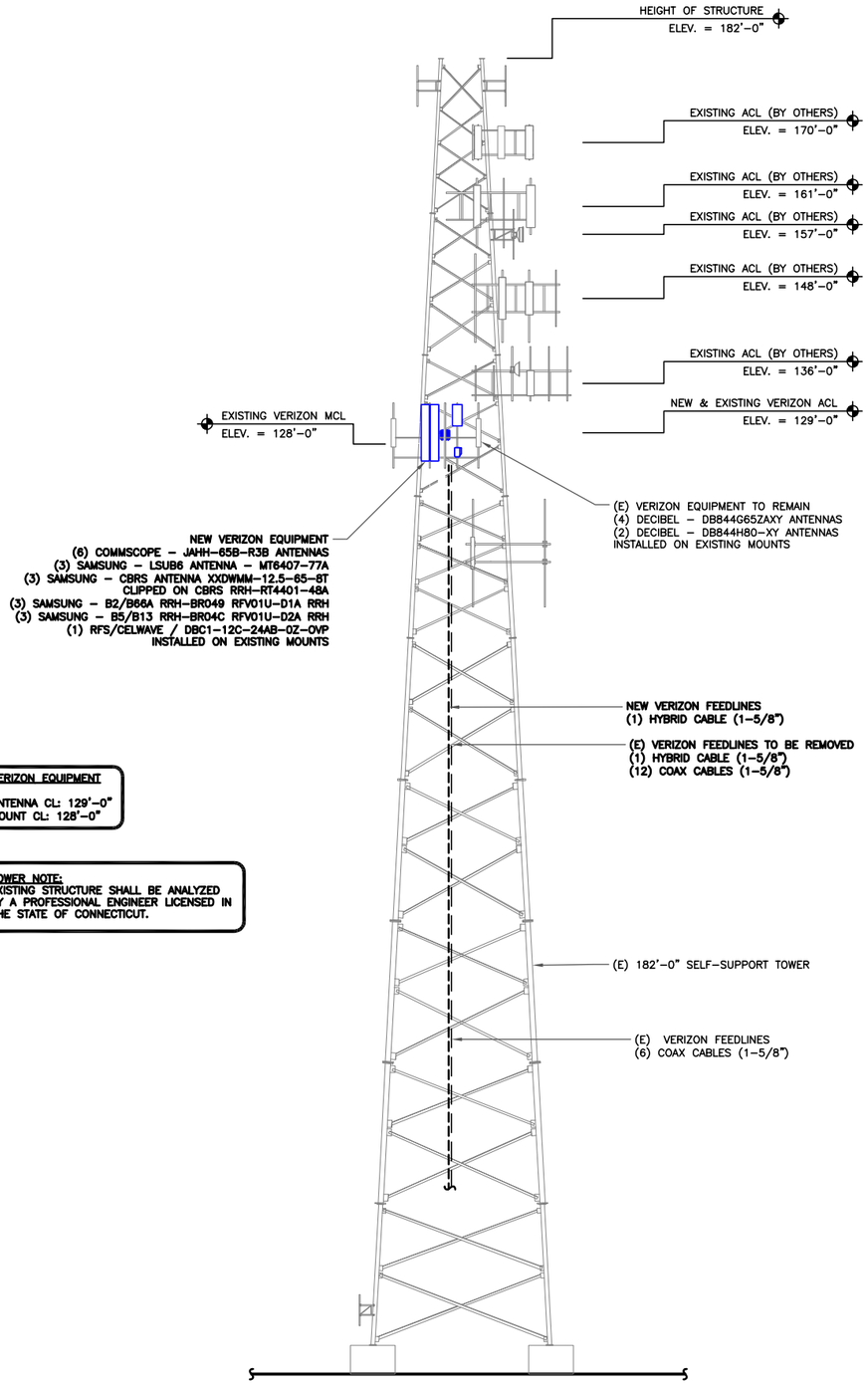
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/04/21	VM	PRELIMINARY	----
0	11/11/21	JT	FOR CONSTRUCTION	----



SHEET NUMBER: C-1

REVISION: 0

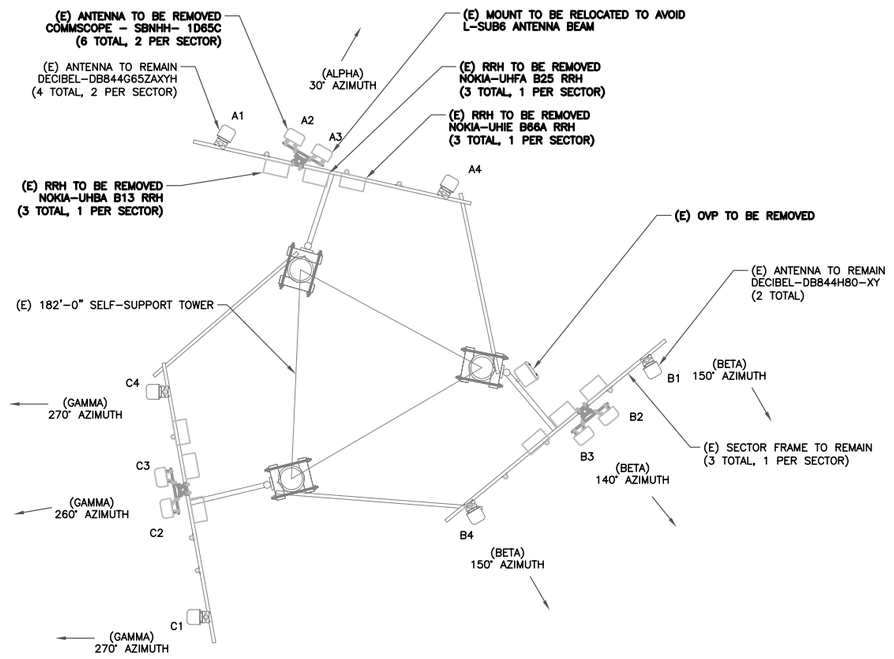


VERIZON EQUIPMENT

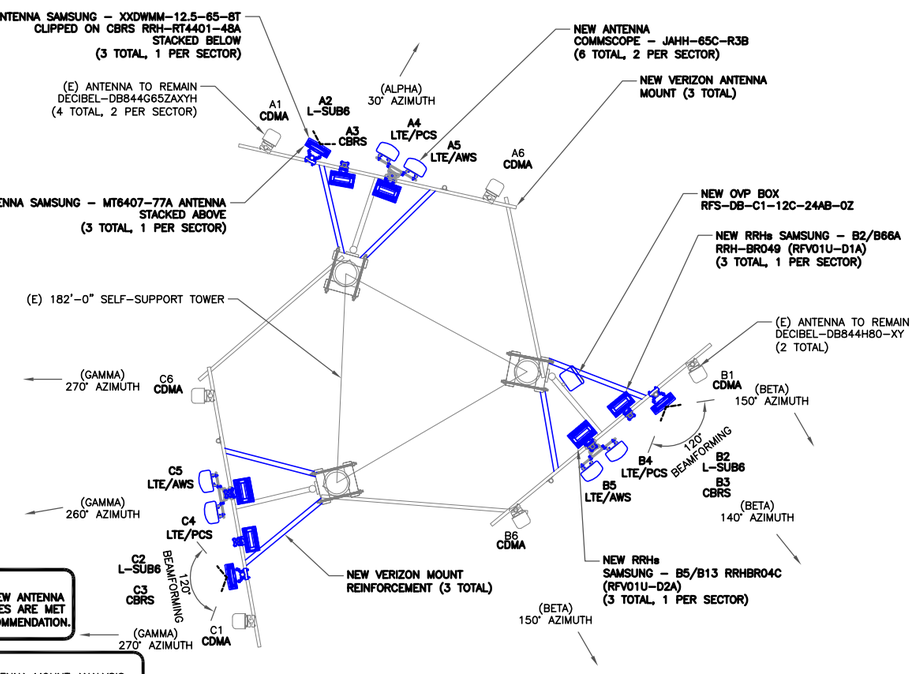
ANTENNA CL: 129'-0"
MOUNT CL: 128'-0"

TOWER NOTE:
EXISTING STRUCTURE SHALL BE ANALYZED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT.

1 TOWER ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



NOTE:
CONTRACTOR TO INSTALL NEW ANTENNA AND MAKE SURE CLEARANCES ARE MET PER MANUFACTURER'S RECOMMENDATION.

MA NOTE:
1. PER THE POST-MOD ANTENNA MOUNT ANALYSIS REPORT PREPARED BY MASER CONSULTING DATED 06/04/2021, EXIST ANTENNA MOUNT NEEDS TO BE REINFORCED. PLEASE REFER TO MOUNT MODIFICATION REPORT RECOMMENDATION SECTION & MOUNT MODIFICATION DRAWINGS BY MASER CONSULTING DATED 06/02/21.

3 NEW ANTENNA PLAN
SCALE: NOT TO SCALE

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TECTONIC WO: 10545.NORWALK CT

VERIZON SITE NUMBER:
324556

BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

EXISTING 182'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/04/21	VM	PRELIMINARY	----
0	11/11/21	JT	FOR CONSTRUCTION	----

SHEET NUMBER: C-2
REVISION: 0

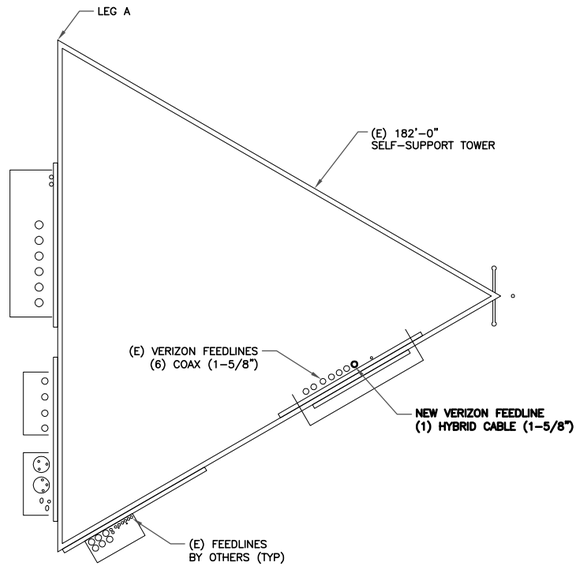
ANTENNA/RRH SCHEDULE

SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZIMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
A1	EXISTING	DECIBEL	DB844G65ZAXYH	129'-0"	30°	5°	0°		
A2 A3	NEW NEW	SAMSUNG SAMSUNG	MT6407-77A XXDWMM-12.5-65-8T	129'-0"	30°	0°	3°	SAMSUNG	CBRS RRH-RT4401-48A
A4	NEW	COMMSCOPE	JAHH-65C-R3B	129'-0"	30°	0°	6°/6°	RFS/CELWAVE SAMSUNG SAMSUNG	(1) DBC1-12C-24AB-0Z (1) RFV01U-D1A (1) RFV01U-D2A
A5	NEW	COMMSCOPE	JAHH-65C-R3B	129'-0"	30°	0°	4°/4°		
A6	EXISTING	DECIBEL	DB844G65ZAXYH	129'-0"	30°	5°	0°		
B1	EXISTING	DECIBEL	DB844H80-XY	129'-0"	150°	5°	0°		
B2 B3	NEW NEW	SAMSUNG SAMSUNG	MT6407-77A XXDWMM-12.5-65-8T	129'-0"	140°	0°	3°	SAMSUNG	CBRS RRH-RT4401-48A
B4	NEW	COMMSCOPE	JAHH-65C-R3B	129'-0"	140°	0°	6°/11°	SAMSUNG SAMSUNG	(1) RFV01U-D1A (1) RFV01U-D2A
B5	NEW	COMMSCOPE	JAHH-65C-R3B	129'-0"	140°	0°	4°/4°		
B6	EXISTING	DECIBEL	DB844H80-XY	129'-0"	150°	5°	0°		
C1	EXISTING	DECIBEL	DB844G65ZAXYH	129'-0"	270°	3°	0°		
C2 C3	NEW NEW	SAMSUNG SAMSUNG	MT6407-77A XXDWMM-12.5-65-8T	129'-0"	260°	0°	3°	SAMSUNG	CBRS RRH-RT4401-48A
C4	NEW	COMMSCOPE	JAHH-65C-R3B	129'-0"	260°	0°	4°/6°	SAMSUNG SAMSUNG	(1) RFV01U-D1A (1) RFV01U-D2A
C5	NEW	COMMSCOPE	JAHH-65C-R3B	129'-0"	260°	0°	4°/4°		
C6	EXISTING	DECIBEL	DB844G65ZAXYH	129'-0"	270°	3°	0°		

1 VERIZON TOWER EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

CABLE SCHEDULE

STATUS	CABLE TYPE	SIZE	LENGTH	QTY
EXISTING	COAX	1-5/8"	129'-0"±	6
NEW	HYBRID	1-5/8"	129'-0"±	1
TOTAL CABLE QTY:				7



2 BASE LEVEL DETAIL
SCALE: NOT TO SCALE

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Phone: (845) 567-4656
TECTONIC WO: 10545.NORWALK CT

VERIZON SITE NUMBER:
324556

BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

EXISTING 182'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

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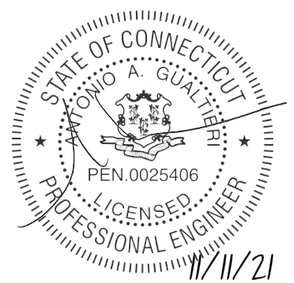
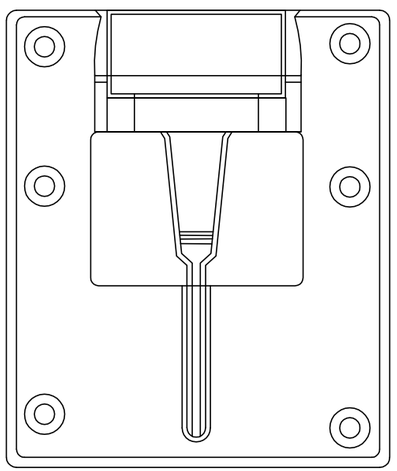


SHEET NUMBER: C-3

REVISION: 0

1 NOT USED
SCALE: NOT TO SCALE

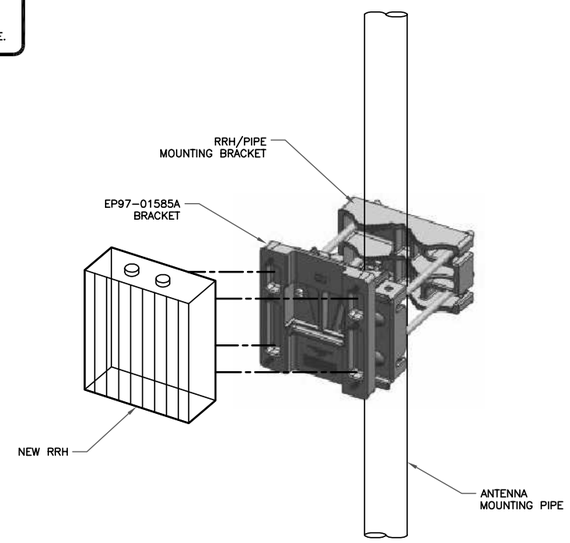
2 NOT USED
SCALE: NOT TO SCALE



3 SAMSUNG – EP97-01585A BRACKET 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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VERIZON SITE NUMBER:
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BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

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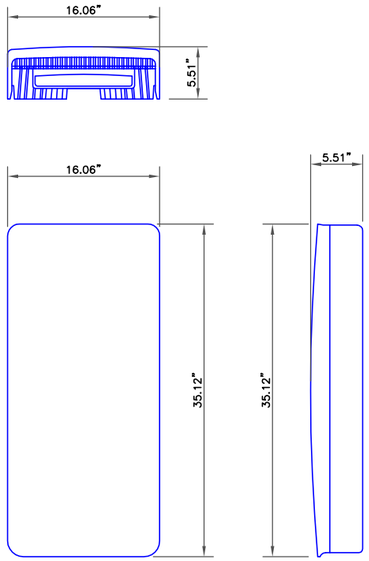
STATE OF CONNECTICUT
ANTONIO A. GUALTIERI
PEN.0025406
LICENSED
PROFESSIONAL ENGINEER
11/11/21

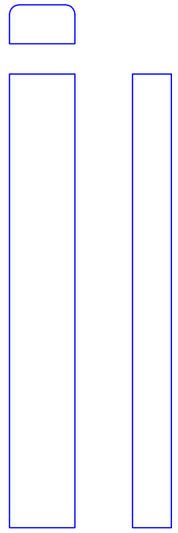
SHEET NUMBER: C-4

REVISION: 0



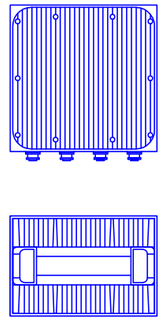
VZW – SUB6 ANTENNA–VZS01
WEIGHT : 87.10 LBS
SIZE (HxWxD): 35.12 x 16.06 x 5.51 IN.

1 VZW – SUB6 ANTENNA–VZS01
SCALE: NOT TO SCALE



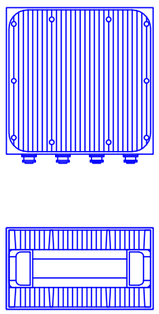
COMMSCOPE – JAHH–65C–R3B
WEIGHT : 93.90 LBS
SIZE (HxWxD): 95.984 x 13.78 x 8.189 IN.

2 COMMSCOPE – JAHH–65C–R3B
SCALE: NOT TO SCALE



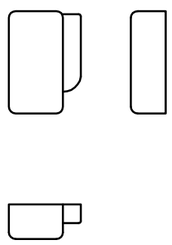
SAMSUNG – B2/B66A RRH–BR049 (RFV01U–D1A)
WEIGHT(W/O EQUIPMENT): 84.4 LBS
SIZE (HxWxD): 15x15x10 IN.

3 SAMSUNG – B2/B66A RRH–BR049 (RFV01U–D1A)
SCALE: NOT TO SCALE



SAMSUNG – B5/B13 RRH–BR04C (RFV01U–D2A)
WEIGHT (W/O EQUIPMENT): 31.9 LBS
SIZE (HxWxD): 15x15x8.1 IN.

4 SAMSUNG – B5/B13 RRH–BR04C (RFV01U–D2A)
SCALE: NOT TO SCALE



SAMSUNG – XXDWMM–12.5–65–8T CBRS WITH RT–4401–48A RRH
WEIGHT : 23.14 LBS
SIZE (HXWXD): 16.2 X 11.4 X 5.5 IN.

5 SAMSUNG XXDWMM–12.5–65–8T CBRS WITH RT–4401–48A RRH
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

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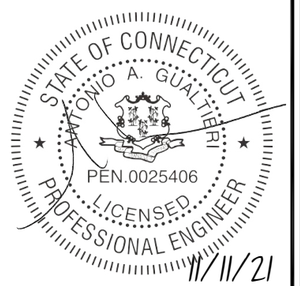


SHEET NUMBER: C-5

REVISION: 0

- 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)

DC signal capable Port

AISG Cable

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

Hybriflex cables

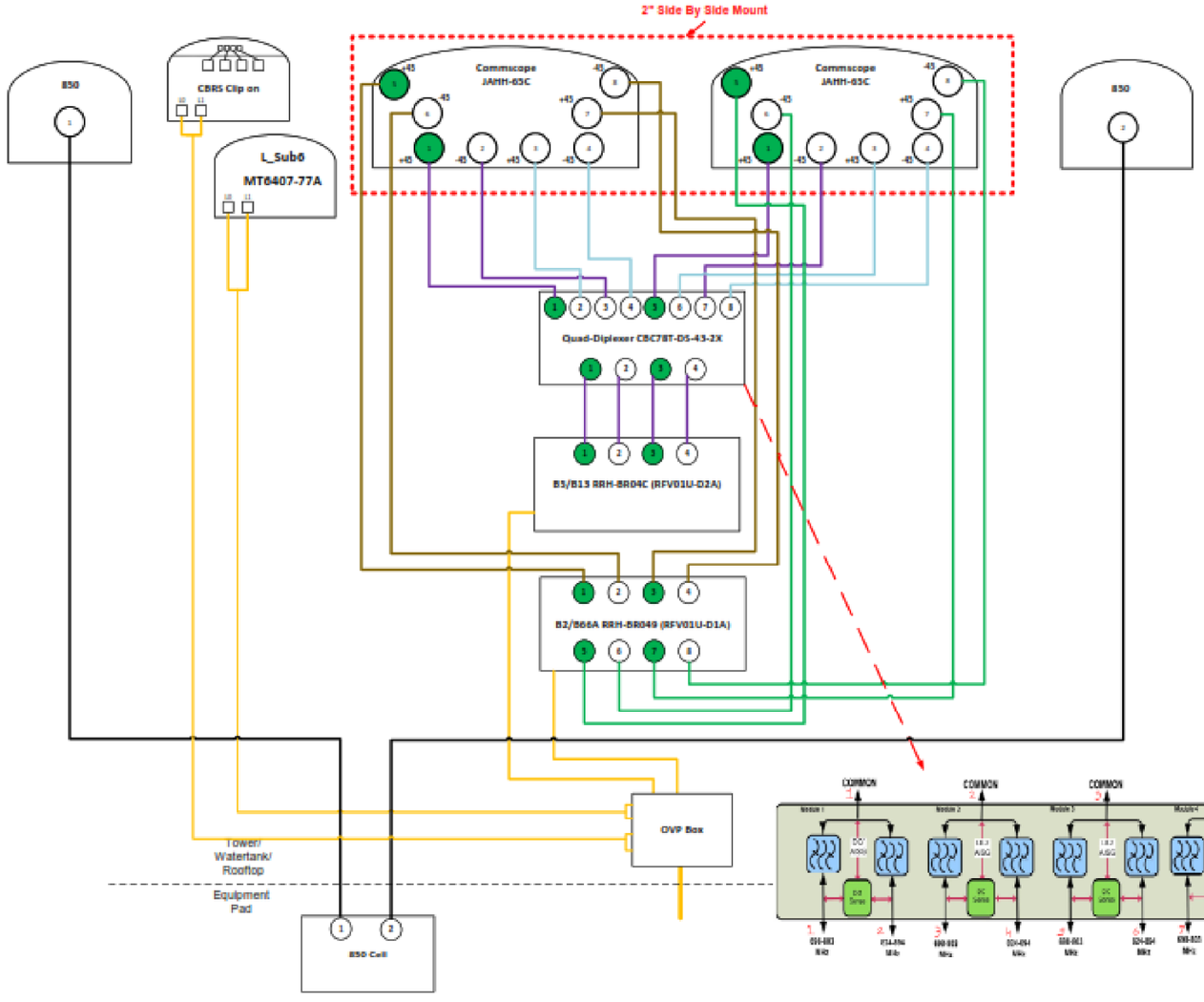
Comments:

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)



1 PLUMBING DIAGRAM
SCALE: NOT TO SCALE

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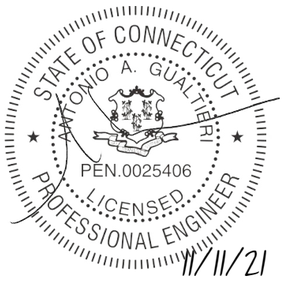
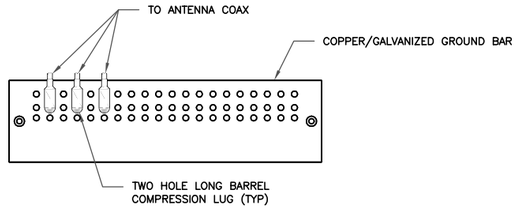


SHEET NUMBER: C-6

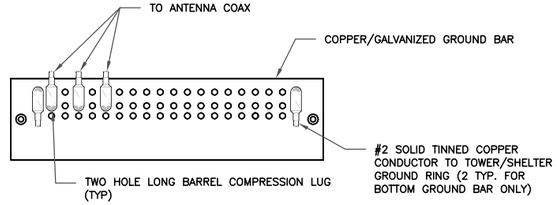
REVISION: 0



NOTES:

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

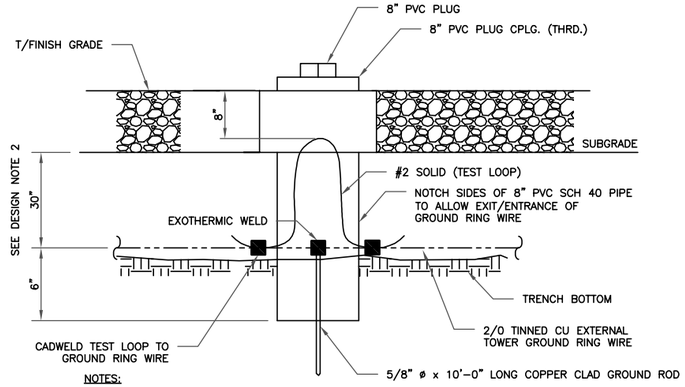
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

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

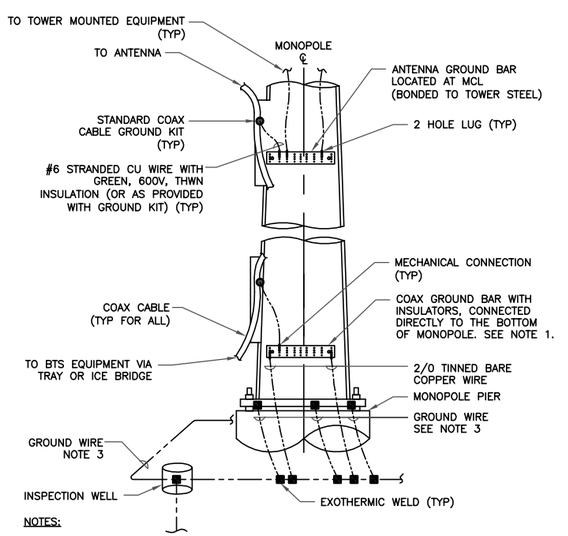
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

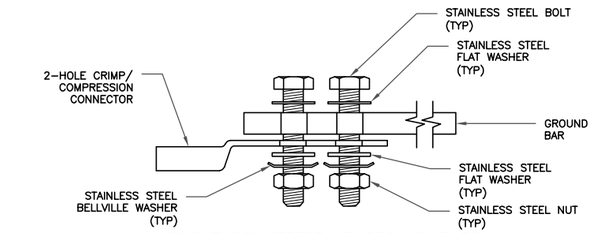
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



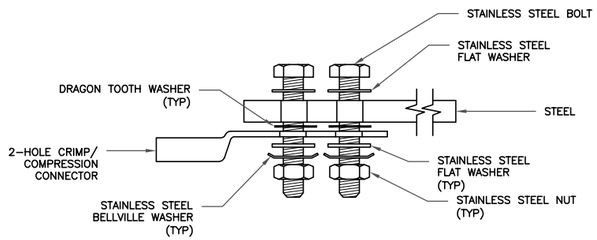
NOTES:

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.

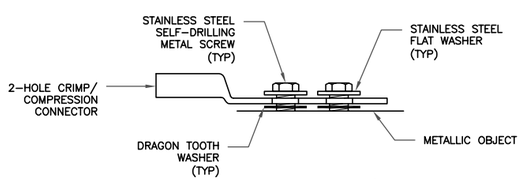
4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

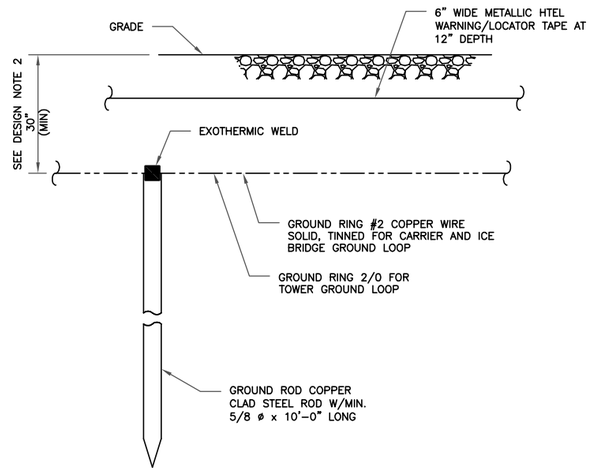


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

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Tectonic Engineering & Surveying Consultants P.C.
70 Pleasant Hill Road
Phone: (845) 534-5959
P.O. Box 37
(800) 520-4531
Mountainville, NY 10953
www.tectonicengineering.com
Project Contact Info
1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-4656
TECTONIC WO: 10545.NORWALK CT

VERIZON SITE NUMBER:
324556

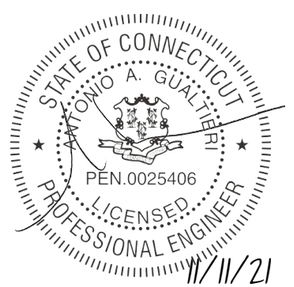
BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

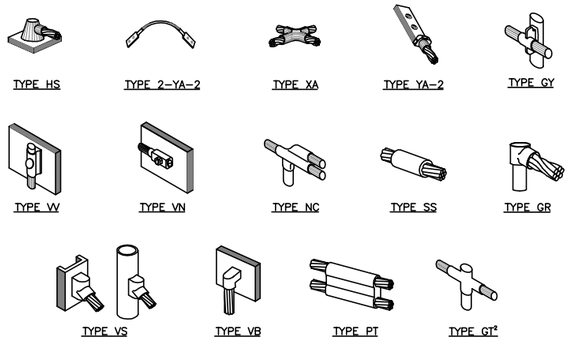
EXISTING 182'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/04/21	VM	PRELIMINARY	----
0	11/11/21	JT	FOR CONSTRUCTION	----



SHEET NUMBER: G-1
REVISION: 0

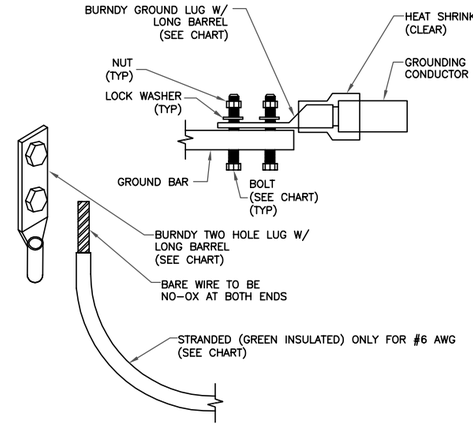


NOTE:

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

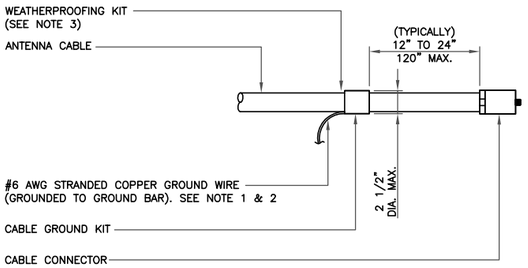
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



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.

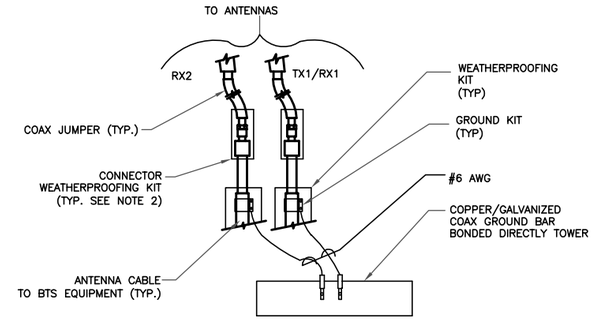
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



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.

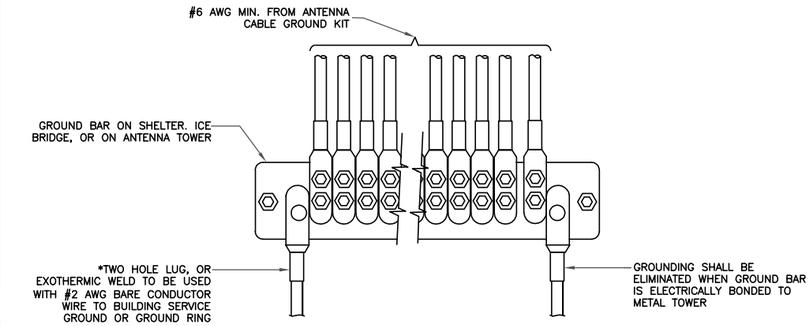
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



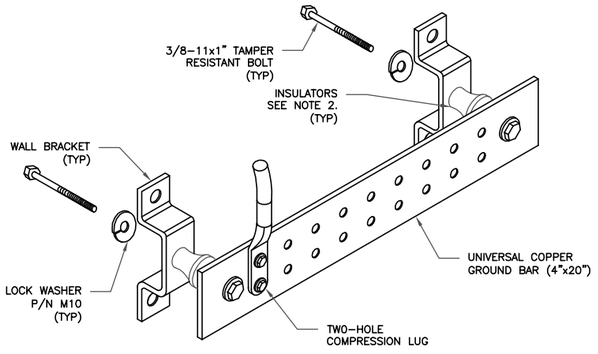
NOTES:

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



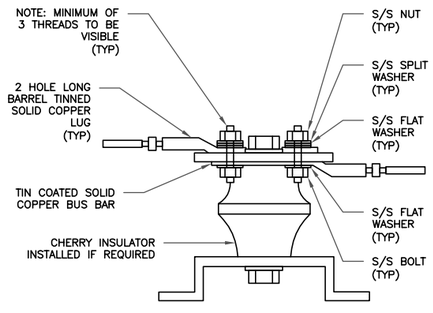
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



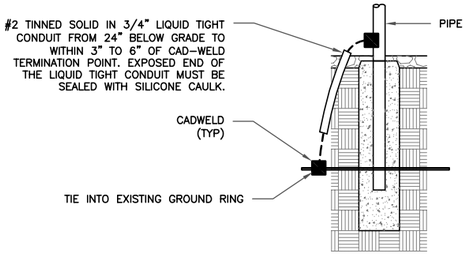
NOTES:

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 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

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Project Contact Info
1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-9656
TECTONIC WO: 10545.NORWALK CT

VERIZON SITE NUMBER:
324556

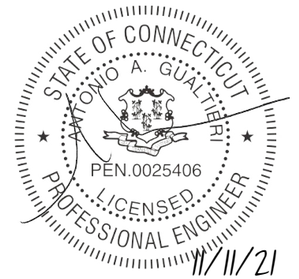
BU #: **807133**
BRG 134 943057

50 ROCKLAND ROAD
NORWALK OFC-MTSOSO
NORWALK, CT 06854

EXISTING 182'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/04/21	VM	PRELIMINARY	----
0	11/11/21	JT	FOR CONSTRUCTION	----



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

Exhibit D

Structural Analysis Report

Date: **February 16, 2022**

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Site Number:	468538
	Site Name:	Norwalk CT
Crown Castle Designation:	**BU Number:**	807133
	Site Name:	BRG 134 943057
	JDE Job Number:	644618
	Work Order Number:	2080639
	Order Number:	552680 Rev. 2
Engineering Firm Designation:	**B+T Group Project Number:**	82164.014.01
Site Data:	**50 Rockland Road Norwalk OFC - MTSO, SO Norwalk, Fairfield County, CT** **Latitude *41° 4' 54.44"*, Longitude *-73° 25' 49.52"*** **180 Foot - Self Support Tower**	

B+T Group 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 – 79.6%**

This analysis utilizes an ultimate 3-second gust wind speed of 118 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: Erika Ruiz

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564 Expires: 02/10/2023

Chad E. Tuttle, P.E.

tnxTower Report - version 8.1.1.0

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 180 ft. Self-Support tower designed by Rohn.

This tower has been modified per reinforcement drawings prepared by Vertical Structures, Inc. in November of 2004. The reinforcement consist of installation of additional diagonal to existing diagonal member from 0' to 20' and 60' to 70' and installation of end bolts for diagonal from 20' to 40'

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	118 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1 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)
126.0	133.0	3	Samsung Telecom.	CBRS	7 1	1-5/8 1/2
	130.0	1	Gps	GPS_A		
	129.0	6	Commscope	JAHH-65C-R3B		
		4	Decibel	DB844G65ZAXY		
		2	Decibel	DB844H80-XY		
		1	Rfs Celwave	DB-C1-12C-24AB-0Z		
		3	Samsung Telecom.	RFV01U-D1A		
		3	Samsung Telecom.	RFV01U-D2A		
	128.0	3	Samsung Telecom.	MT6407-77A		
	126.0	1	--	Sector Mount [SM 411-3]		

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)
181.0	181.0	3	Fujitsu	TA08025-B604	1	1-3/4
		3	Fujitsu	TA08025-B605		
		3	Jma Wireless	MX08FRO665-21		
		1	Raycap	RDIDC-9181-PF-48		
		1	Commscope	MTC3975083 (3)		
170.0	170.0	3	Ericsson	AIR 32 B2A/B66AA	6	1-3/8
		3	Ericsson	AIR 3246 B66_T-MOBILE		
		3	Ericsson	AIR6449 B41		
		3	Ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	Ericsson	RRUS 4415 B25_CCIV2		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	Rfs Celwave	APXVAARR24_43-U-NA20		
		1	--	Sector Mount [SM 702-3]		
161.0	163.0	3	Ericsson	AIR 6419 B77G	6 4 4 3	1-5/8 1-1/8 13/16 3/8
	161.0	1	Cci Antennas	DMP65R-BU4D		
		2	Cci Antennas	DMP65R-BU6D		
		3	Ericsson	RRUS 32 B2		
		3	Ericsson	RRUS 32 B30		
		3	Ericsson	RRUS 4426 B66		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14		
		1	Quintel Technology	QD4616-7		
		2	Quintel Technology	QD6616-7		
		3	Raycap	DC6-48-60-18-8F		
		1	Raycap	DC6-48-60-18-8F		
		1	--	Sector Mount [SM 502-3]		
	159.0	3	Ericsson	AIR 6449 B77D		
157.0	157.0	2	Andrew	VHLP2-18	2	7983A
		2	--	Side Arm Mount [SO 203-1]		
148.0	148.0	3	Alcatel Lucent	800 EXTERNAL NOTCH FILTER	4	1-1/4
		3	Alcatel Lucent	800MHZ 2X50W RRH		
		6	Alcatel Lucent	PCS 1900MHz 4x45W-65MHz		
		9	Rfs Celwave	ACU-A20-N		
		3	Rfs Celwave	APXVSPP18-C-A20		
		3	Rfs Celwave	APXVTM14-ALU-I20		
		1	--	Sector Mount [SM 502-3]		
136.0	138.0	1	Andrew	VHLP2-23	6 1	5/16 1/2
	136.0	3	Argus Tech.	LLPX310R		
		3	Samsung Telecom.	RRH-2WB		
		1	--	Sector Mount [SM 504-3]		
112.0	112.0	3	Kathrein	800 10504	6	1-5/8
		1	--	Sector Mount [SM 104-3]		
5.0	6.0	1	Decibel	ASPP2933	2	1/4
	5.0	1	Gps	GPS_A		
		1	--	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Manufacturer Drawing	392878	CCI Sites
Tower Modification Drawing	1257479	CCI Sites
Post-Modification Inspection	4065020	CCI Sites
Foundation Drawings	821566	CCI Sites
Geotech Report	2311843	CCI Sites
Crown CAD Package	Date: 10/28/2021	CCI Sites

3.1) Analysis Method

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

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.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	180 - 160	Leg	ROHN 3 EH	2	-17.244	116.138	14.8	Pass
T2	160 - 153.333	Leg	ROHN 4 EH	35	-24.773	167.901	14.8	Pass
T3	153.333 - 146.667	Leg	ROHN 4 EH	44	-36.529	167.900	21.8	Pass
T4	146.667 - 140	Leg	ROHN 4 EH	56	-47.874	167.901	28.5	Pass
T5	140 - 120	Leg	ROHN 5 EH	68	-88.097	251.347	35.0	Pass
T6	120 - 100	Leg	ROHN 6 EHS	89	-130.680	288.515	45.3	Pass
T7	100 - 80	Leg	ROHN 6 EH	110	-167.705	318.903	52.6	Pass
T8	80 - 70	Leg	ROHN 8 EHS	125	-186.986	405.715	46.1	Pass
T9	70 - 60	Leg	ROHN 8 EHS	134	-206.599	405.715	50.9	Pass
T10	60 - 40	Leg	ROHN 8 EHS	143	-245.237	405.717	60.4	Pass
T11	40 - 20	Leg	ROHN 8 EH	158	-283.381	530.833	53.4	Pass
T12	20 - 0	Leg	ROHN 8 EH	173	-321.281	530.833	60.5	Pass
T1	180 - 160	Diagonal	L2x2x3/16	13	-2.959	10.104	29.3	Pass
T2	160 - 153.333	Diagonal	L2 1/2x2 1/2x1/4	39	-5.150	19.793	26.0	Pass
T3	153.333 - 146.667	Diagonal	L2 1/2x2 1/2x1/4	51	-5.408	17.900	30.2	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T4	146.667 - 140	Diagonal	L2 1/2x2 1/2x1/4	63	-6.220	16.240	38.3	Pass
T5	140 - 120	Diagonal	L2 1/2x2 1/2x1/4	70	-7.906	12.489	63.3	Pass
T6	120 - 100	Diagonal	L3x3x1/4	92	-9.227	17.566	52.5	Pass
T7	100 - 80	Diagonal	L3 1/2x3 1/2x1/4	113	-10.251	18.890	54.3	Pass
T8	80 - 70	Diagonal	L3 1/2x3 1/2x1/4	128	-10.804	17.632	61.3	Pass
T9	70 - 60	Diagonal	2L3 1/2x3 1/2x1/4x3/8	137	-11.617	27.539	42.2	Pass
T10	60 - 40	Diagonal	L4x4x1/4	146	-12.118	20.589	58.9	Pass
T11	40 - 20	Diagonal	L4x4x5/16	161	-12.782	21.559	59.3	Pass
T12	20 - 0	Diagonal	2L4x4x5/16x3/8	176	-13.891	31.656	43.9	Pass
T1	180 - 160	Top Girt	L2x2x1/8	4	-0.464	4.230	11.0	Pass
T3	153.333 - 146.667	Top Girt	L2 1/2x2 1/2x1/8	46	-0.634	4.069	15.6	Pass
T4	146.667 - 140	Top Girt	L2 1/2x2 1/2x1/8	58	-0.830	3.498	23.7	Pass
T1	180 - 160	Mid Girt	L2x2x1/8	9	-0.466	3.097	15.0	Pass
							Summary	
						Leg (T12)	60.5	Pass
						Diagonal (T5)	63.3	Pass
						Top Girt (T4)	23.7	Pass
						Mid Girt (T1)	15.0	Pass
						Bolt Checks	79.6	Pass
						Rating =	79.6	Pass

Table 5 - Tower Component Stresses vs. Capacity

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	Base	47.7	Pass
1	Base Foundation	Base	77.4	Pass

Structure Rating (max from all components) =	79.6%

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

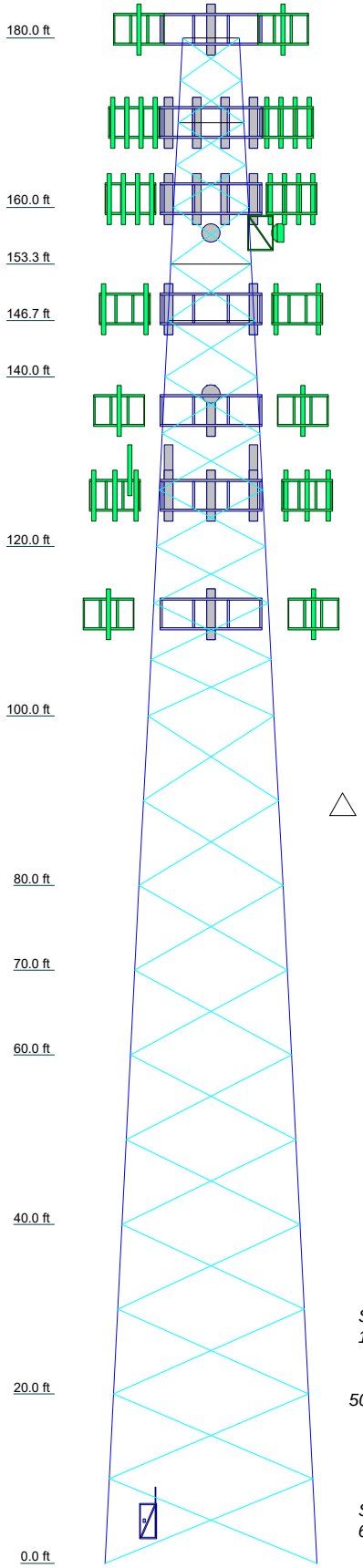
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
Legs		ROHN 3 EH	ROHN 4 EH			ROHN 5 EH	ROHN 6 EHS	ROHN 6 EH	ROHN 8 EHS			ROHN 8 EH	
Leg Grade		A572-50											
Diagonals		L2x2x3/16				L2 1/2x2 1/2x1/4	L3x3x1/4	L3 1/2x3 1/2x1/4		A	L4x4x1/4	L4x4x5/16	2L4x4x5/16x3/8
Diagonal Grade		A36						A572-50		A36		A572-50	A36
Top Girts		L2x2x1/8	N.A.	L2 1/2x2 1/2x1/8									
Mid Girts		L2x2x1/8											
Face Width (ft)	6.6875		8.76042	9.45052	10.1432	10.8333	12.9167	14.8542	16.9896	17.9948	19	21	23
# Panels @ (ft)	4 @ 5					9 @ 6.66667					10 @ 10		
Weight (K)	1.3	0.6	0.7	0.7	2.4	2.9	3.2	1.8	2.6	3.9	5.2	8.1	33.3



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	2L3 1/2x3 1/2x1/4x3/8		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

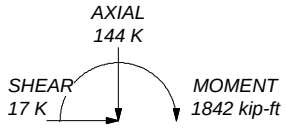
TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0'
8. TIA-222-H Annex S
9. TOWER RATING: 79.6%

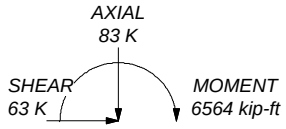
ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 331 K
SHEAR: 39 K

UPLIFT: -273 K
SHEAR: 33 K



TORQUE 16 kip-ft
50 mph WIND - 1.000 in ICE



TORQUE 49 kip-ft
REACTIONS - 118 mph WIND

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: *82164.014.01--BRG 134 943057,CT(BU#807133)*			
Project:			
Client: Crown Castle	Drawn by: Sudhanva	App'd:	
Code: TIA-222-H	Date: 02/16/22	Scale: NTS	
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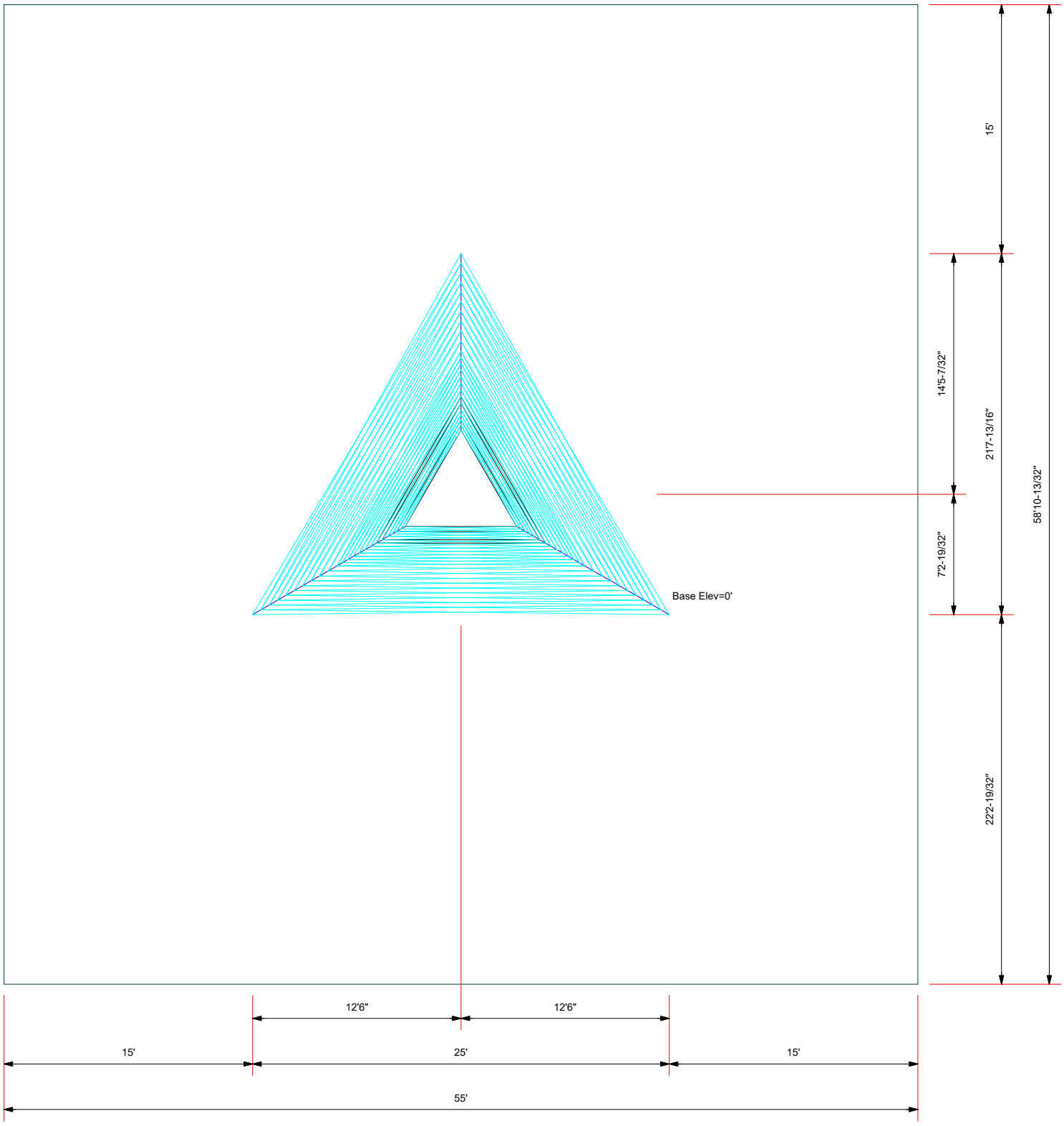
Plot Plan

Total Area - 0.07 Acres

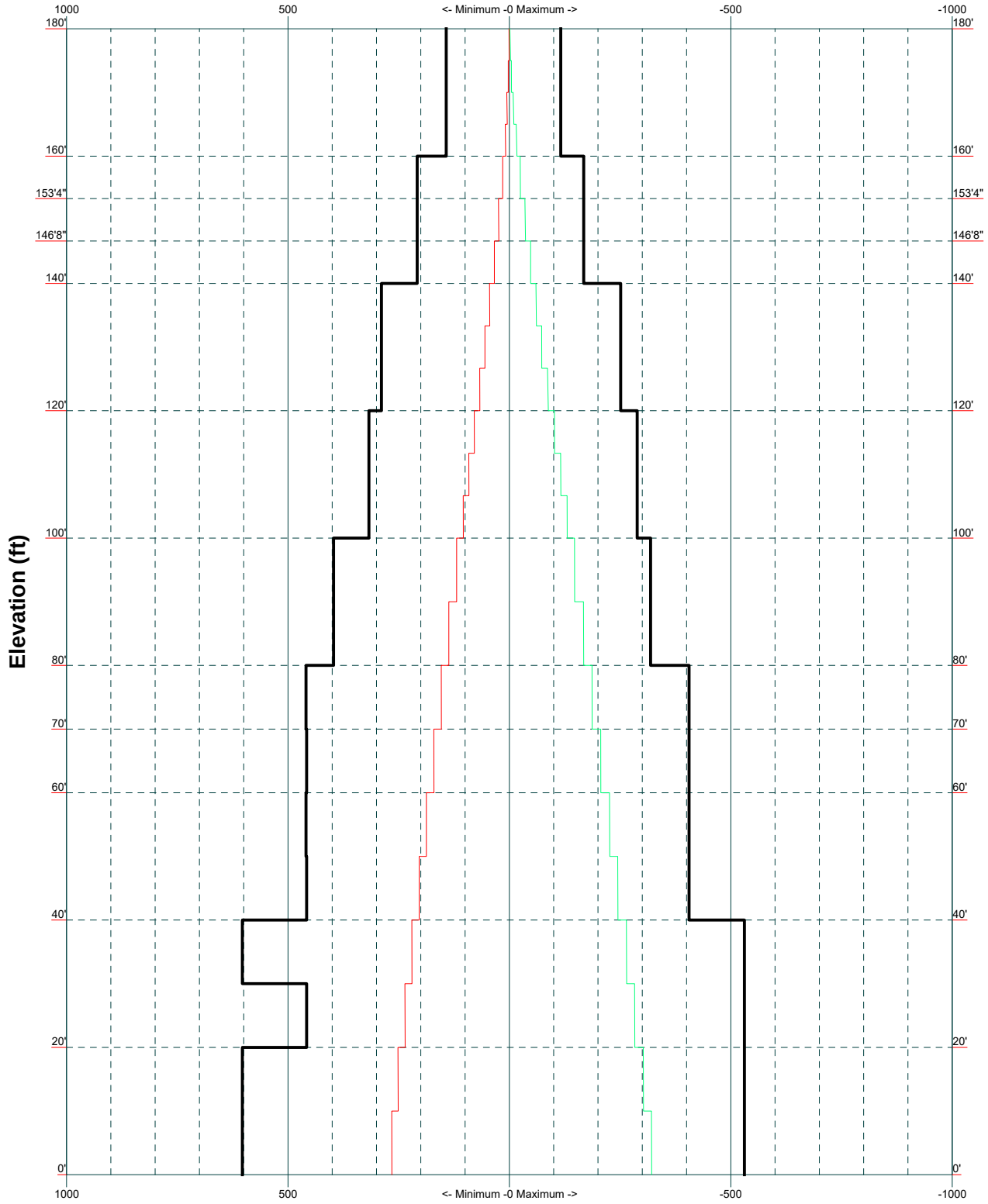


B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: 82164.014.01--BRG 134 943057,CT(BU#807133)		
Project:		
Client: Crown Castle	Drawn by: Sudhanva	App'd:
Code: TIA-222-H	Date: 02/16/22	Scale: NTS
Path: C:\Users\indevor\Desktop\February-16\82164_807133_BRG 134-----Sudhanva-----G\Tnx_014_01\82164_014_01_BRG_134_943057_CT.eri		Dwg No. E-2

TIA-222-H - 118 mph/50 mph 1.000 in Ice Exposure C

Leg Capacity ——— **Leg Compression (K)**



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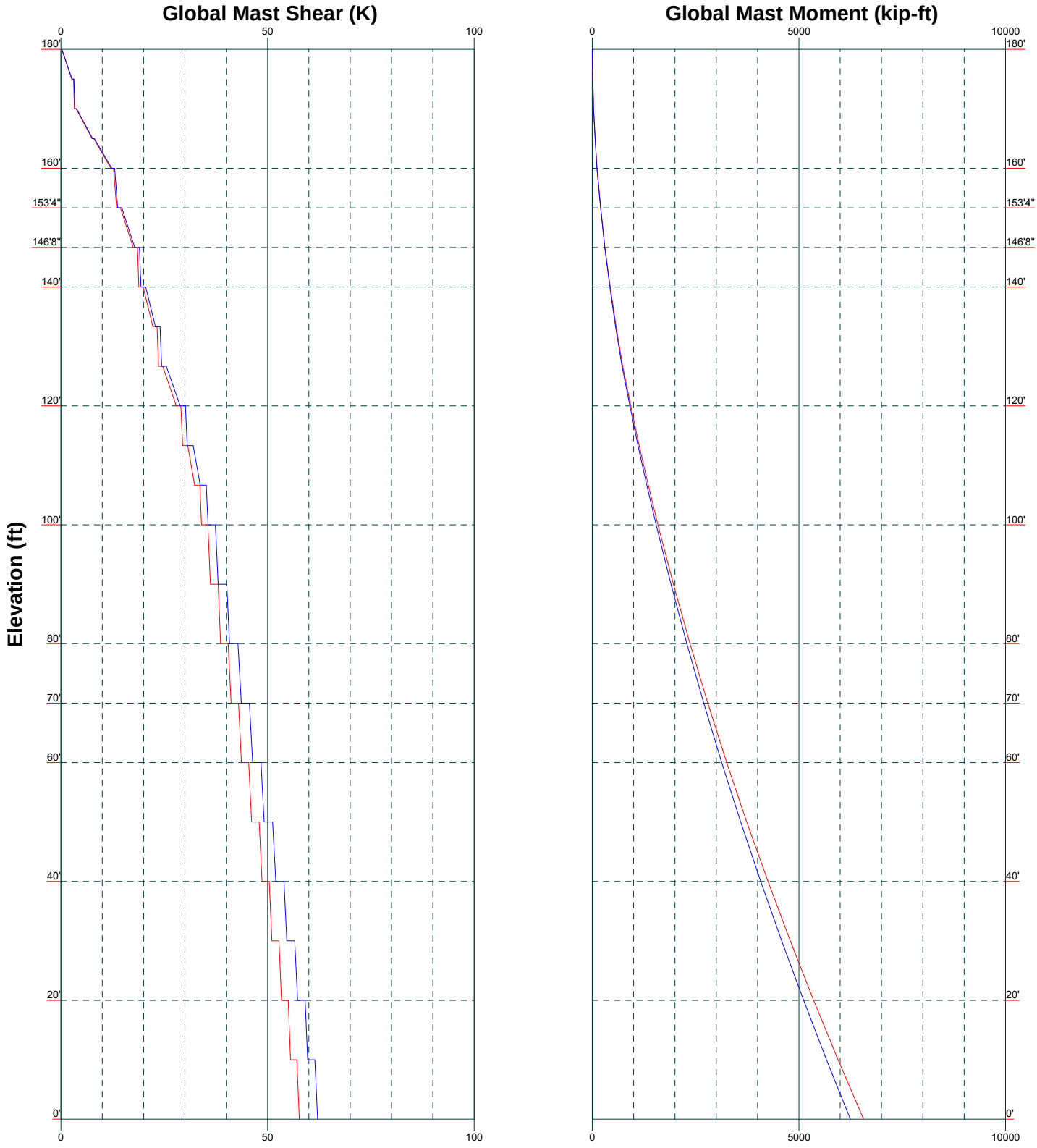
Job: 82164.014.01--BRG 134 943057,CT(BU#807133)			
Project:			
Client: Crown Castle	Drawn by: Sudhanva	App'd:	
Code: TIA-222-H	Date: 02/16/22	Scale: NTS	
Path: C:\Users\indevor\Desktop\February-16\82164_807133_BRG 134-----Sudhnva-----G\Tnx_014_01\82164_014_01_BRG_134_943057_CT.eri		Dwg No. E-3	

TIA-222-H - 118 mph/50 mph 1.000 in Ice Exposure C

Maximum Values

Vx Vz Mx Mz



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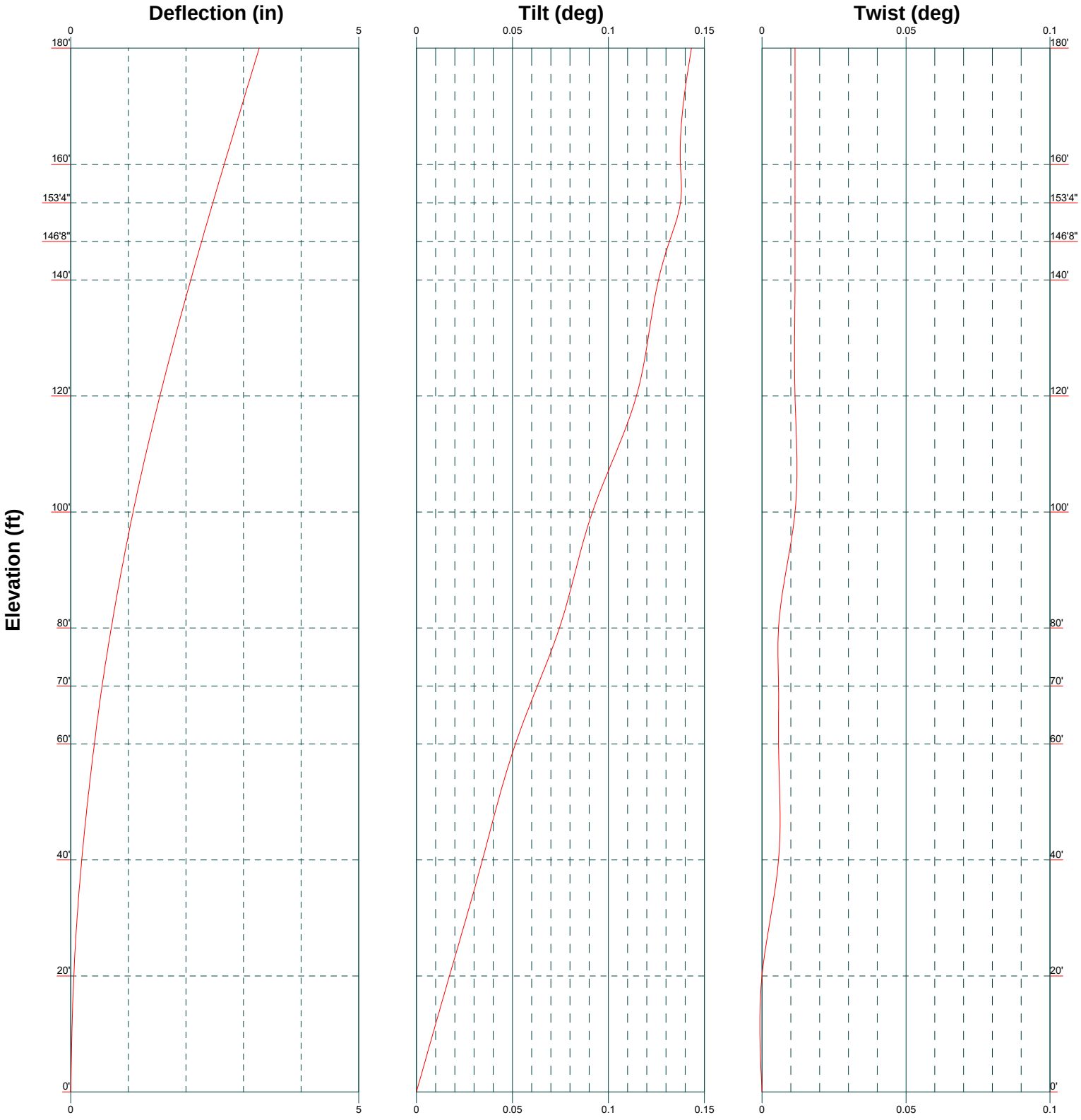
Job: *82164.014.01--BRG 134 943057,CT(BU#807133)*			
Project:			
Client: Crown Castle	Drawn by: Sudhanva	App'd:	
Code: TIA-222-H	Date: 02/16/22	Scale: NTS	
Path: C:\Users\indevor\Desktop\February-16\82164_807133_BRG 134-----Sudhnva-----G\Tnx_014_01\82164_014_01_BRG_134_943057_CT.eri		Dwg No. E-4	

TIA-222-H - Service - 60 mph

Maximum Values



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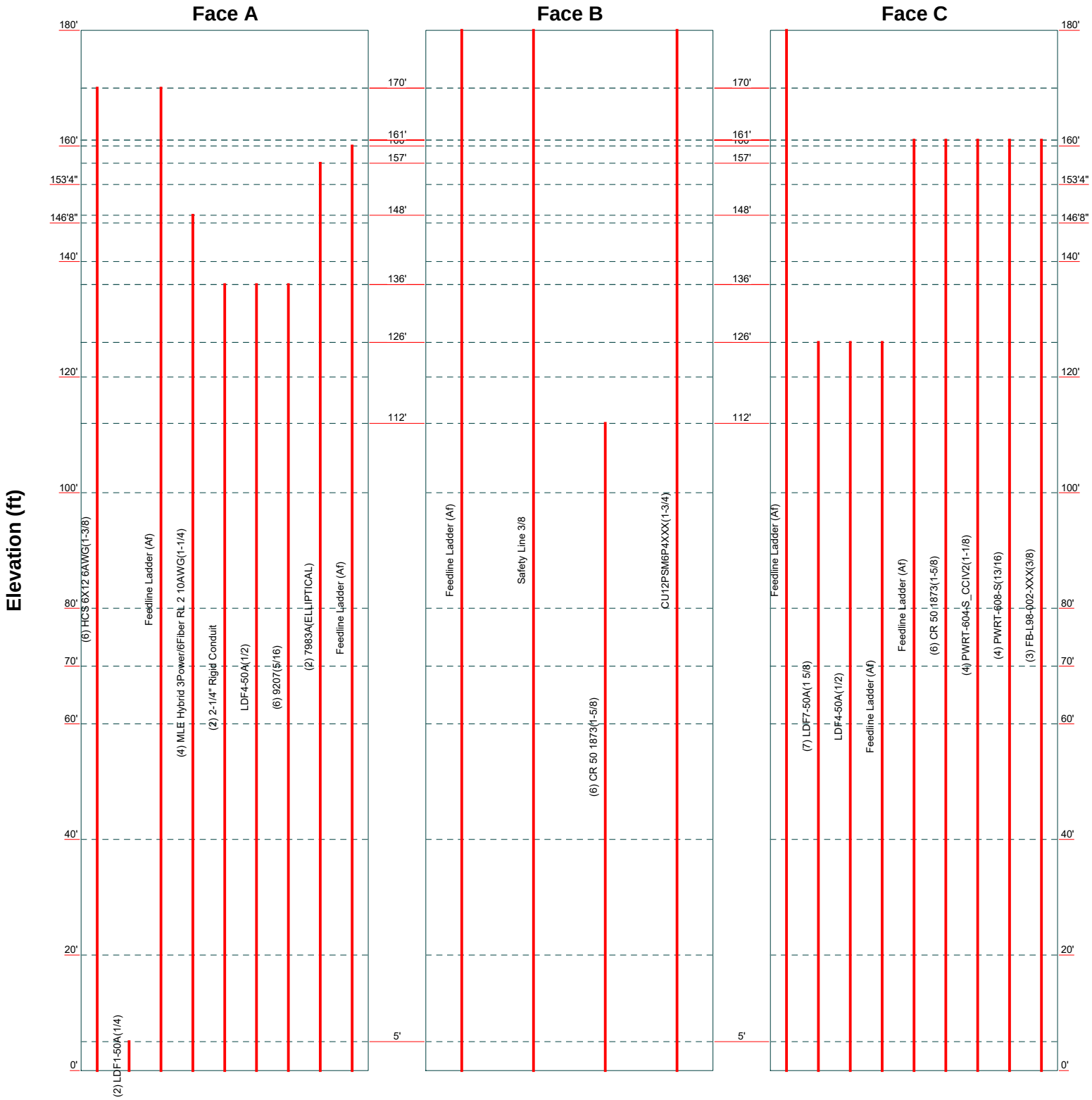
Job: *82164.014.01--BRG 134 943057,CT(BU#807133)*			
Project:			
Client: Crown Castle	Drawn by: Sudhanva	App'd:	
Code: TIA-222-H	Date: 02/16/22	Scale: NTS	
Path: C:\Users\ndevor\Desktop\February-16\82164_807133_BRG 134-----Sudhnva-----G\Tnx_014_01\82164_014_01_BRG_134_943057_CT.eri		Dwg No. E-5	

Feed Line Distribution Chart
0' - 180'

Round | Flat | App In Face | App Out Face | Truss Leg



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Job: ***82164.014.01--BRG 134 943057,CT(BU#807133)***		
Project:		
Client: Crown Castle	Drawn by: Sudhanva	App'd:
Code: TIA-222-H	Date: 02/16/22	Scale: NTS
Path: C:\Users\indevor\Desktop\February-16\82164_807133_BRG 134-----Sudhnva-----G\Tnx_014_01\82164_014_01_BRG_134_943057_CT.eri		Dwg No. E-7

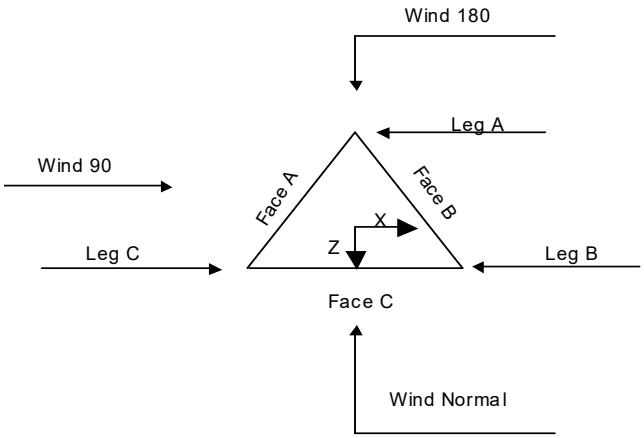
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 180' above the ground line.
The base of the tower is set at an elevation of 0' above the ground line.
The face width of the tower is 6'8-1/4" at the top and 25' at the base.
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: 61'.
Basic wind speed of 118 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0'.
Nominal ice thickness of 1.000 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
TIA-222-H Annex S.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Maximum demand-capacity ratio is: 1.05.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	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



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	180'-160'			6'8-1/4"	1	20'
T2	160'-153'4"			8'9-1/8"	1	6'8"
T3	153'4"-146'8"			9'5-13/32"	1	6'8"
T4	146'8"-140'			10'1-23/32"	1	6'8"
T5	140'-120'			10'10"	1	20'
T6	120'-100'			12'11"	1	20'
T7	100'-80'			14'10-1/4"	1	20'
T8	80'-70'			16'11-7/8"	1	10'
T9	70'-60'			17'11-15/16"	1	10'
T10	60'-40'			19'	1	20'
T11	40'-20'			21'	1	20'
T12	20'-0'			23'	1	20'

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	180'-160'	5'	X Brace	No	No	0.000	0.000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T2	160'-153'4"	6'8"	X Brace	No	No	0.000	0.000
T3	153'4"-146'8"	6'8"	X Brace	No	No	0.000	0.000
T4	146'8"-140'	6'8"	X Brace	No	No	0.000	0.000
T5	140'-120'	6'8"	X Brace	No	No	0.000	0.000
T6	120'-100'	6'8"	X Brace	No	No	0.000	0.000
T7	100'-80'	10'	X Brace	No	No	0.000	0.000
T8	80'-70'	10'	X Brace	No	No	0.000	0.000
T9	70'-60'	10'	X Brace	No	No	0.000	0.000
T10	60'-40'	10'	X Brace	No	No	0.000	0.000
T11	40'-20'	10'	X Brace	No	No	0.000	0.000
T12	20'-0'	10'	X Brace	No	No	0.000	0.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 180'-160'	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T2 160'-153'4"	Pipe	ROHN 4 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T3 153'4"-146'8"	Pipe	ROHN 4 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T4 146'8"-140'	Pipe	ROHN 4 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T5 140'-120'	Pipe	ROHN 5 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T6 120'-100'	Pipe	ROHN 6 EHS	A572-50 (50 ksi)	Single Angle	L3x3x1/4	A572-50 (50 ksi)
T7 100'-80'	Pipe	ROHN 6 EH	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T8 80'-70'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T9 70'-60'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Double Equal Angle	2L3 1/2x3 1/2x1/4x3/8	A36 (36 ksi)
T10 60'-40'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Single Angle	L4x4x1/4	A572-50 (50 ksi)
T11 40'-20'	Pipe	ROHN 8 EH	A572-50 (50 ksi)	Single Angle	L4x4x5/16	A572-50 (50 ksi)
T12 20'-0'	Pipe	ROHN 8 EH	A572-50 (50 ksi)	Double Equal Angle	2L4x4x5/16x3/8	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 180'-160'	Equal Angle	L2x2x1/8	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T3 153'4"-146'8"	Equal Angle	L2 1/2x2 1/2x1/8	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T4 146'8"-140'	Single Angle	L2 1/2x2 1/2x1/8	A36	Single Angle		A36

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
			(36 ksi)			(36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 180'-160'	1	Equal Angle	L2x2x1/8	A36 (36 ksi)	Single Angle		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

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
T1 180'-160'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T2 160'-153'4"	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T3 153'4"-146'8"	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T4 146'8"-140'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T5 140'-120'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T6 120'-100'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T7 100'-80'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T8 80'-70'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T9 70'-60'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	120.000	Mid-Pt	Mid-Pt
T10 60'-40'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T11 40'-20'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T12 20'-0'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	152.750	Mid-Pt	Mid-Pt

Tower Section Geometry *(cont'd)*

K Factors[1]

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Legs	X Brace Diags X	X Brace Diags Y	K Brace Diags X	K Brace Diags Y	Single Diags X	Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T1 180'-160'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T2 160'-153'4"	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T3 153'4"-146'8"	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T4 146'8"-140'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T5 140'-120'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T6 120'-100'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T7 100'-80'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T8 80'-70'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T9 70'-60'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T10 60'-40'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T11 40'-20'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T12 20'-0'	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	Leg U	Diagonal Net Width Deduct in	Diagonal U	Top Girt Net Width Deduct in	Top Girt U	Bottom Girt Net Width Deduct in	Bottom Girt U	Mid Girt Net Width Deduct in	Mid Girt U	Long Horizontal Net Width Deduct in	Long Horizontal U	Short Horizontal Net Width Deduct in	Short Horizontal U
T1 180'-160'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 160'-153'4"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 153'4"-146'8"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 146'8"-140'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 140'-120'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 120'-100'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 100'-80'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 80'-70'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 70'-60'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 60'-40'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T11 40'-20'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T12 20'-0'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 180'-160'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 160'-153'4"	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 153'4"-146'8"	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 146'8"-140'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 140'-120'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 120'-100'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 100'-80'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 80'-70'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 70'-60'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 60'-40'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T11 40'-20'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T12 20'-0'	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 180'-160'	Flange	0.875 A325N	4	0.625 A325N	1	0.625 A325N	1	0.000 A325X	0	0.625 A325N	1	0.625 A325X	0	0.625 A325N	0
T2 160'-153'4"	Flange	0.000 A325N	0	0.625 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T3 153'4"-146'8"	Flange	0.000 A325N	0	0.625 A325N	1	0.625 A325N	1	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T4 146'8"-140'	Flange	1.000 A325N	4	0.625 A325N	1	0.625 A325N	1	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T5 140'-120'	Flange	1.000 A325N	6	0.625 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T6 120'-100'	Flange	1.000 A325N	6	0.625 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T7 100'-80'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T8 80'-70'	Flange	0.000 A325N	0	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T9 70'-60'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T10 60'-40'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T11 40'-20'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T12 20'-0'	Flange	1.000 A449	0	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
***													
Feedline Ladder (Af)	B	No	No	Af (CaAa)	180' - 0'	0.000	0.38	1	1	3.000	3.000		0.008
***													
HCS 6X12 6AWG(1-3/8)	A	No	No	Ar (CaAa)	170' - 0'	0.000	0.08	6	6	0.850 0.750	1.380		0.002
LDF1-50A(1/4)	A	No	No	Ar (CaAa)	5' - 0'	0.000	0.15	2	2	0.345	0.345		0.000
Feedline Ladder (Af)	A	No	No	Af (CaAa)	170' - 0'	0.000	0.05	1	1	3.000	3.000		0.008
***													
MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	A	No	No	Ar (CaAa)	148' - 0'	0.000	-0.35	4	4	1.250	1.250		0.000
***													
2-1/4" Rigid Conduit	A	No	No	Ar (CaAa)	136' - 0'	0.000	-0.38	2	2	0.850 0.750	2.250		0.003
LDF4-50A(1/2)	A	No	No	Ar (CaAa)	136' - 0'	0.000	-0.395	1	1	0.630	0.630		0.000
9207(5/16)	A	No	No	Ar (CaAa)	136' - 0'	0.000	-0.38	6	6	0.200	0.330		0.001
7983A(ELLIPTICAL)	A	No	No	Ar (CaAa)	157' - 0'	0.000	-0.405	2	1	0.500	0.573		0.000
Feedline Ladder (Af)	A	No	No	Af (CaAa)	160' - 0'	0.000	-0.36	1	1	3.000	3.000		0.008
***													
Feedline Ladder (Af)	C	No	No	Af (CaAa)	180' - 0'	0.000	-0.4	1	1	3.000	3.000		0.008
***													
LDF7-50A(1 5/8)	C	No	No	Ar (CaAa)	126' - 0'	-3.000	-0.4	7	7	1.980	1.980		0.001
LDF4-50A(1/2)	C	No	No	Ar (CaAa)	126' - 0'	-1.000	-0.455	1	1	0.500	0.630		0.000
Feedline Ladder (Af)	C	No	No	Af (CaAa)	126' - 0'	-1.000	-0.4	1	1	3.000	3.000		0.008
***													
Feedline Ladder (Af)	C	No	No	Af (CaAa)	161' - 0'	0.000	0.38	1	1	3.000	3.000		0.008
***													
CR 50 1873(1-5/8)	C	No	No	Ar (CaAa)	161' - 0'	0.000	0.34	6	3	0.850 0.750	1.980		0.001
***													
Safety Line 3/8	B	No	No	Ar (CaAa)	180' - 0'	0.000	0.5	1	1	0.375	0.375		0.000
***													
CR 50 1873(1-5/8)	B	No	No	Ar (CaAa)	112' - 0'	0.000	0.4	6	6	0.850 0.750	1.980		0.001
*													
CU12PSM6P4XXX(1-3/4)	B	No	No	Ar (CaAa)	180' - 0'	0.000	0.48	1	1	1.750	1.750		0.003
*													
PWRT-604-S_CCIV2(1-1/8)	C	No	No	Ar (CaAa)	161' - 0'	0.000	0.29	4	2	0.850 0.750	1.159		0.001
PWRT-608-S(13/16)	C	No	No	Ar (CaAa)	161' - 0'	0.000	0.31	4	4	0.820	0.820		0.001
FB-L98-002-XXX(3/8)	C	No	No	Ar (CaAa)	161' - 0'	2.000	0.31	3	3	0.394	0.394		0.000

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
T1	180'-160'	A	0.000	0.000	13.280	0.000	0.186
		B	0.000	0.000	14.250	0.000	0.227
		C	0.000	0.000	12.598	0.000	0.189
T2	160'-153'4"	A	0.000	0.000	12.607	0.000	0.181
		B	0.000	0.000	4.750	0.000	0.076
		C	0.000	0.000	20.651	0.000	0.196
T3	153'4"-146'8"	A	0.000	0.000	13.617	0.000	0.184
		B	0.000	0.000	4.750	0.000	0.076
		C	0.000	0.000	20.651	0.000	0.196
T4	146'8"-140'	A	0.000	0.000	16.284	0.000	0.193
		B	0.000	0.000	4.750	0.000	0.076
		C	0.000	0.000	20.651	0.000	0.196
T5	140'-120'	A	0.000	0.000	60.228	0.000	0.736
		B	0.000	0.000	14.250	0.000	0.227
		C	0.000	0.000	73.648	0.000	0.675
T6	120'-100'	A	0.000	0.000	63.072	0.000	0.775
		B	0.000	0.000	28.506	0.000	0.287
		C	0.000	0.000	100.934	0.000	0.875
T7	100'-80'	A	0.000	0.000	63.072	0.000	0.775
		B	0.000	0.000	38.010	0.000	0.326
		C	0.000	0.000	100.934	0.000	0.875
T8	80'-70'	A	0.000	0.000	31.536	0.000	0.388
		B	0.000	0.000	19.005	0.000	0.163
		C	0.000	0.000	50.467	0.000	0.437
T9	70'-60'	A	0.000	0.000	31.536	0.000	0.388
		B	0.000	0.000	19.005	0.000	0.163
		C	0.000	0.000	50.467	0.000	0.437
T10	60'-40'	A	0.000	0.000	63.072	0.000	0.775
		B	0.000	0.000	38.010	0.000	0.326
		C	0.000	0.000	100.934	0.000	0.875
T11	40'-20'	A	0.000	0.000	63.072	0.000	0.775
		B	0.000	0.000	38.010	0.000	0.326
		C	0.000	0.000	100.934	0.000	0.875
T12	20'-0'	A	0.000	0.000	63.417	0.000	0.776
		B	0.000	0.000	38.010	0.000	0.326
		C	0.000	0.000	100.934	0.000	0.875

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
T1	180'-160'	A	1.001	0.000	0.000	25.654	0.000	0.394
		B		0.000	0.000	26.267	0.000	0.451
		C		0.000	0.000	18.690	0.000	0.353
T2	160'-153'4"	A	0.993	0.000	0.000	23.770	0.000	0.373
		B		0.000	0.000	8.723	0.000	0.149
		C		0.000	0.000	35.801	0.000	0.506
T3	153'4"-146'8"	A	0.989	0.000	0.000	27.274	0.000	0.400
		B		0.000	0.000	8.706	0.000	0.149
		C		0.000	0.000	35.750	0.000	0.504
T4	146'8"-140'	A	0.984	0.000	0.000	34.702	0.000	0.466

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	8.688	0.000	0.149
		C		0.000	0.000	35.697	0.000	0.503
T5	140'-120'	A	0.975	0.000	0.000	135.679	0.000	1.754
		B		0.000	0.000	25.949	0.000	0.443
		C		0.000	0.000	128.977	0.000	1.782
T6	120'-100'	A	0.959	0.000	0.000	142.917	0.000	1.826
		B		0.000	0.000	53.450	0.000	0.725
		C		0.000	0.000	179.679	0.000	2.408
T7	100'-80'	A	0.940	0.000	0.000	142.067	0.000	1.803
		B		0.000	0.000	71.572	0.000	0.904
		C		0.000	0.000	178.322	0.000	2.375
T8	80'-70'	A	0.923	0.000	0.000	70.655	0.000	0.892
		B		0.000	0.000	35.634	0.000	0.447
		C		0.000	0.000	88.556	0.000	1.172
T9	70'-60'	A	0.910	0.000	0.000	70.363	0.000	0.884
		B		0.000	0.000	35.516	0.000	0.443
		C		0.000	0.000	88.089	0.000	1.161
T10	60'-40'	A	0.886	0.000	0.000	139.677	0.000	1.741
		B		0.000	0.000	70.611	0.000	0.872
		C		0.000	0.000	174.501	0.000	2.282
T11	40'-20'	A	0.842	0.000	0.000	137.715	0.000	1.691
		B		0.000	0.000	69.820	0.000	0.846
		C		0.000	0.000	171.359	0.000	2.207
T12	20'-0'	A	0.754	0.000	0.000	135.797	0.000	1.602
		B		0.000	0.000	68.253	0.000	0.795
		C		0.000	0.000	165.128	0.000	2.063

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	180'-160'	4.084	2.014	5.948	2.836
T2	160'-153'4"	-7.979	6.529	-8.480	7.923
T3	153'4"-146'8"	-8.038	6.395	-9.056	8.008
T4	146'8"-140'	-9.583	7.139	-10.739	8.939
T5	140'-120'	-9.528	9.727	-9.633	11.667
T6	120'-100'	-1.351	12.783	-0.343	15.064
T7	100'-80'	-0.006	15.459	0.881	17.967
T8	80'-70'	-0.002	16.103	0.887	18.723
T9	70'-60'	0.000	16.748	0.894	19.471
T10	60'-40'	0.004	16.913	0.862	20.023
T11	40'-20'	0.008	17.969	0.797	21.206
T12	20'-0'	-0.033	18.845	0.445	21.768

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	2	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	4	HCS 6X12 6AWG(1-3/8)	160.00 - 170.00	0.6000	0.6000
T1	9	Feedline Ladder (Af)	160.00 - 170.00	0.6000	0.6000
T1	20	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000
T1	33	Feedline Ladder (Af)	160.00 - 161.00	0.6000	0.6000
T1	35	CR 50 1873(1-5/8)	160.00 - 161.00	0.6000	0.6000
T1	40	Safety Line 3/8	160.00 - 180.00	0.6000	0.6000
T1	44	CU12PSM6P4XXX(1-3/4)	160.00 - 180.00	0.6000	0.6000
T1	46	PWRT-604-S_CCIV2(1-1/8)	160.00 - 161.00	0.6000	0.6000
T1	47	PWRT-608-S(13/16)	160.00 - 161.00	0.6000	0.6000
T1	48	FB-L98-002-XXX(3/8)	160.00 - 161.00	0.6000	0.6000
T2	2	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	4	HCS 6X12 6AWG(1-3/8)	153.33 - 160.00	0.6000	0.6000
T2	9	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	17	7983A(ELLIPTICAL)	153.33 - 157.00	0.6000	0.6000
T2	18	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	20	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	33	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	35	CR 50 1873(1-5/8)	153.33 - 160.00	0.6000	0.6000
T2	40	Safety Line 3/8	153.33 - 160.00	0.6000	0.6000
T2	44	CU12PSM6P4XXX(1-3/4)	153.33 - 160.00	0.6000	0.6000
T2	46	PWRT-604-S_CCIV2(1-1/8)	153.33 - 160.00	0.6000	0.6000
T2	47	PWRT-608-S(13/16)	153.33 - 160.00	0.6000	0.6000
T2	48	FB-L98-002-XXX(3/8)	153.33 - 160.00	0.6000	0.6000
T3	2	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	4	HCS 6X12 6AWG(1-3/8)	146.67 - 153.33	0.6000	0.6000
T3	9	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	146.67 - 148.00	0.6000	0.6000
T3	17	7983A(ELLIPTICAL)	146.67 - 153.33	0.6000	0.6000
T3	18	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	20	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	33	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T3	35	CR 50 1873(1-5/8)	146.67 - 153.33	0.6000	0.6000
T3	40	Safety Line 3/8	146.67 - 153.33	0.6000	0.6000
T3	44	CU12PSM6P4XXX(1-3/4)	146.67 - 153.33	0.6000	0.6000
T3	46	PWRT-604-S_CCIV2(1-1/8)	146.67 - 153.33	0.6000	0.6000
T3	47	PWRT-608-S(13/16)	146.67 - 153.33	0.6000	0.6000
T3	48	FB-L98-002-XXX(3/8)	146.67 - 153.33	0.6000	0.6000
T4	2	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	4	HCS 6X12 6AWG(1-3/8)	140.00 - 146.67	0.6000	0.6000
T4	9	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	140.00 - 146.67	0.6000	0.6000
T4	17	7983A(ELLIPTICAL)	140.00 - 146.67	0.6000	0.6000
T4	18	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	20	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	33	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	35	CR 50 1873(1-5/8)	140.00 - 146.67	0.6000	0.6000
T4	40	Safety Line 3/8	140.00 - 146.67	0.6000	0.6000
T4	44	CU12PSM6P4XXX(1-3/4)	140.00 - 146.67	0.6000	0.6000
T4	46	PWRT-604-S_CCIV2(1-1/8)	140.00 - 146.67	0.6000	0.6000
T4	47	PWRT-608-S(13/16)	140.00 - 146.67	0.6000	0.6000
T4	48	FB-L98-002-XXX(3/8)	140.00 - 146.67	0.6000	0.6000
T5	2	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	4	HCS 6X12 6AWG(1-3/8)	120.00 - 140.00	0.6000	0.6000
T5	9	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	120.00 - 140.00	0.6000	0.6000
T5	14	2-1/4" Rigid Conduit	120.00 - 136.00	0.6000	0.6000
T5	15	LDF4-50A(1/2)	120.00 - 136.00	0.0000	0.0000
T5	16	9207(5/16)	120.00 - 136.00	0.0000	0.0000
T5	17	7983A(ELLIPTICAL)	120.00 - 140.00	0.6000	0.6000
T5	18	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	20	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	22	LDF7-50A(1 5/8)	120.00 - 126.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	24	LDF4-50A(1/2)	120.00 - 126.00	0.6000	0.6000
T5	25	Feedline Ladder (Af)	120.00 - 126.00	0.6000	0.6000
T5	33	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	35	CR 50 1873(1-5/8)	120.00 - 140.00	0.6000	0.6000
T5	40	Safety Line 3/8	120.00 - 140.00	0.6000	0.6000
T5	44	CU12PSM6P4XXX(1-3/4)	120.00 - 140.00	0.6000	0.6000
T5	46	PWRT-604-S_CCIV2(1-1/8)	120.00 - 140.00	0.6000	0.6000
T5	47	PWRT-608-S(13/16)	120.00 - 140.00	0.6000	0.6000
T5	48	FB-L98-002-XXX(3/8)	120.00 - 140.00	0.6000	0.6000
T6	2	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	4	HCS 6X12 6AWG(1-3/8)	100.00 - 120.00	0.6000	0.6000
T6	9	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	100.00 - 120.00	0.6000	0.6000
T6	14	2-1/4" Rigid Conduit	100.00 - 120.00	0.6000	0.6000
T6	15	LDF4-50A(1/2)	100.00 - 120.00	0.0000	0.0000
T6	16	9207(5/16)	100.00 - 120.00	0.0000	0.0000
T6	17	7983A(ELLIPTICAL)	100.00 - 120.00	0.6000	0.6000
T6	18	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	20	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	22	LDF7-50A(1 5/8)	100.00 - 120.00	0.6000	0.6000
T6	24	LDF4-50A(1/2)	100.00 - 120.00	0.6000	0.6000
T6	25	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	33	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	35	CR 50 1873(1-5/8)	100.00 - 120.00	0.6000	0.6000
T6	40	Safety Line 3/8	100.00 - 120.00	0.6000	0.6000
T6	42	CR 50 1873(1-5/8)	100.00 - 112.00	0.6000	0.6000
T6	44	CU12PSM6P4XXX(1-3/4)	100.00 - 120.00	0.6000	0.6000
T6	46	PWRT-604-S_CCIV2(1-1/8)	100.00 - 120.00	0.6000	0.6000
T6	47	PWRT-608-S(13/16)	100.00 - 120.00	0.6000	0.6000
T6	48	FB-L98-002-XXX(3/8)	100.00 - 120.00	0.6000	0.6000
T7	2	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	4	HCS 6X12 6AWG(1-3/8)	80.00 - 100.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T7	9	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	80.00 - 100.00	0.6000	0.6000
T7	14	2-1/4" Rigid Conduit	80.00 - 100.00	0.6000	0.6000
T7	15	LDF4-50A(1/2)	80.00 - 100.00	0.0000	0.0000
T7	16	9207(5/16)	80.00 - 100.00	0.0000	0.0000
T7	17	7983A(ELLIPTICAL)	80.00 - 100.00	0.6000	0.6000
T7	18	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	20	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	22	LDF7-50A(1 5/8)	80.00 - 100.00	0.6000	0.6000
T7	24	LDF4-50A(1/2)	80.00 - 100.00	0.6000	0.6000
T7	25	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	33	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	35	CR 50 1873(1-5/8)	80.00 - 100.00	0.6000	0.6000
T7	40	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T7	42	CR 50 1873(1-5/8)	80.00 - 100.00	0.6000	0.6000
T7	44	CU12PSM6P4XXX(1-3/4)	80.00 - 100.00	0.6000	0.6000
T7	46	PWRT-604-S_CCIV2(1-1/8)	80.00 - 100.00	0.6000	0.6000
T7	47	PWRT-608-S(13/16)	80.00 - 100.00	0.6000	0.6000
T7	48	FB-L98-002-XXX(3/8)	80.00 - 100.00	0.6000	0.6000
T8	2	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	4	HCS 6X12 6AWG(1-3/8)	70.00 - 80.00	0.6000	0.6000
T8	9	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	70.00 - 80.00	0.6000	0.6000
T8	14	2-1/4" Rigid Conduit	70.00 - 80.00	0.6000	0.6000
T8	15	LDF4-50A(1/2)	70.00 - 80.00	0.0000	0.0000
T8	16	9207(5/16)	70.00 - 80.00	0.0000	0.0000
T8	17	7983A(ELLIPTICAL)	70.00 - 80.00	0.6000	0.6000
T8	18	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	20	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	22	LDF7-50A(1 5/8)	70.00 - 80.00	0.6000	0.6000
T8	24	LDF4-50A(1/2)	70.00 - 80.00	0.6000	0.6000
T8	25	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	33	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	35	CR 50 1873(1-5/8)	70.00 - 80.00	0.6000	0.6000
T8	40	Safety Line 3/8	70.00 - 80.00	0.6000	0.6000
T8	42	CR 50 1873(1-5/8)	70.00 - 80.00	0.6000	0.6000
T8	44	CU12PSM6P4XXX(1-3/4)	70.00 - 80.00	0.6000	0.6000
T8	46	PWRT-604-S_CCIV2(1-1/8)	70.00 - 80.00	0.6000	0.6000
T8	47	PWRT-608-S(13/16)	70.00 - 80.00	0.6000	0.6000
T8	48	FB-L98-002-XXX(3/8)	70.00 - 80.00	0.6000	0.6000
T9	2	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	4	HCS 6X12 6AWG(1-3/8)	60.00 - 70.00	0.6000	0.6000
T9	9	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	60.00 - 70.00	0.6000	0.6000
T9	14	2-1/4" Rigid Conduit	60.00 - 70.00	0.6000	0.6000
T9	15	LDF4-50A(1/2)	60.00 - 70.00	0.0000	0.0000
T9	16	9207(5/16)	60.00 - 70.00	0.0000	0.0000
T9	17	7983A(ELLIPTICAL)	60.00 - 70.00	0.6000	0.6000
T9	18	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	20	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	22	LDF7-50A(1 5/8)	60.00 - 70.00	0.6000	0.6000
T9	24	LDF4-50A(1/2)	60.00 - 70.00	0.6000	0.6000
T9	25	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	33	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	35	CR 50 1873(1-5/8)	60.00 - 70.00	0.6000	0.6000
T9	40	Safety Line 3/8	60.00 - 70.00	0.6000	0.6000
T9	42	CR 50 1873(1-5/8)	60.00 - 70.00	0.6000	0.6000
T9	44	CU12PSM6P4XXX(1-3/4)	60.00 - 70.00	0.6000	0.6000
T9	46	PWRT-604-S_CCIV2(1-1/8)	60.00 - 70.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T9	47	PWRT-608-S(13/16)	60.00 - 70.00	0.6000	0.6000
T9	48	FB-L98-002-XXX(3/8)	60.00 - 70.00	0.6000	0.6000
T10	2	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	4	HCS 6X12 6AWG(1-3/8)	40.00 - 60.00	0.6000	0.6000
T10	9	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	40.00 - 60.00	0.6000	0.6000
T10	14	2-1/4" Rigid Conduit	40.00 - 60.00	0.6000	0.6000
T10	15	LDF4-50A(1/2)	40.00 - 60.00	0.0000	0.0000
T10	16	9207(5/16)	40.00 - 60.00	0.0000	0.0000
T10	17	7983A(ELLIPTICAL)	40.00 - 60.00	0.6000	0.6000
T10	18	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	20	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	22	LDF7-50A(1 5/8)	40.00 - 60.00	0.6000	0.6000
T10	24	LDF4-50A(1/2)	40.00 - 60.00	0.6000	0.6000
T10	25	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	33	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	35	CR 50 1873(1-5/8)	40.00 - 60.00	0.6000	0.6000
T10	40	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T10	42	CR 50 1873(1-5/8)	40.00 - 60.00	0.6000	0.6000
T10	44	CU12PSM6P4XXX(1-3/4)	40.00 - 60.00	0.6000	0.6000
T10	46	PWRT-604-S_CCIV2(1-1/8)	40.00 - 60.00	0.6000	0.6000
T10	47	PWRT-608-S(13/16)	40.00 - 60.00	0.6000	0.6000
T10	48	FB-L98-002-XXX(3/8)	40.00 - 60.00	0.6000	0.6000
T11	2	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	4	HCS 6X12 6AWG(1-3/8)	20.00 - 40.00	0.6000	0.6000
T11	9	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	20.00 - 40.00	0.6000	0.6000
T11	14	2-1/4" Rigid Conduit	20.00 - 40.00	0.6000	0.6000
T11	15	LDF4-50A(1/2)	20.00 - 40.00	0.0000	0.0000
T11	16	9207(5/16)	20.00 - 40.00	0.0000	0.0000
T11	17	7983A(ELLIPTICAL)	20.00 - 40.00	0.6000	0.6000
T11	18	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	20	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	22	LDF7-50A(1 5/8)	20.00 - 40.00	0.6000	0.6000
T11	24	LDF4-50A(1/2)	20.00 - 40.00	0.6000	0.6000
T11	25	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	33	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	35	CR 50 1873(1-5/8)	20.00 - 40.00	0.6000	0.6000
T11	40	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T11	42	CR 50 1873(1-5/8)	20.00 - 40.00	0.6000	0.6000
T11	44	CU12PSM6P4XXX(1-3/4)	20.00 - 40.00	0.6000	0.6000
T11	46	PWRT-604-S_CCIV2(1-1/8)	20.00 - 40.00	0.6000	0.6000
T11	47	PWRT-608-S(13/16)	20.00 - 40.00	0.6000	0.6000
T11	48	FB-L98-002-XXX(3/8)	20.00 - 40.00	0.6000	0.6000
T12	2	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	4	HCS 6X12 6AWG(1-3/8)	0.00 - 20.00	0.6000	0.6000
T12	8	LDF1-50A(1/4)	0.00 - 5.00	0.6000	0.6000
T12	9	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	12	MLE Hybrid 3Power/6Fiber RL 2 10AWG(1-1/4)	0.00 - 20.00	0.6000	0.6000
T12	14	2-1/4" Rigid Conduit	0.00 - 20.00	0.6000	0.6000
T12	15	LDF4-50A(1/2)	0.00 - 20.00	0.0000	0.0000
T12	16	9207(5/16)	0.00 - 20.00	0.0000	0.0000
T12	17	7983A(ELLIPTICAL)	0.00 - 20.00	0.6000	0.6000
T12	18	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	20	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	22	LDF7-50A(1 5/8)	0.00 - 20.00	0.6000	0.6000
T12	24	LDF4-50A(1/2)	0.00 - 20.00	0.6000	0.6000
T12	25	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	33	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T12	35	CR 50 1873(1-5/8)	0.00 - 20.00	0.6000	0.6000
T12	40	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T12	42	CR 50 1873(1-5/8)	0.00 - 20.00	0.6000	0.6000
T12	44	CU12PSM6P4XXX(1-3/4)	0.00 - 20.00	0.6000	0.6000
T12	46	PWRT-604-S_CCIV2(1-1/8)	0.00 - 20.00	0.6000	0.6000
T12	47	PWRT-608-S(13/16)	0.00 - 20.00	0.6000	0.6000
T12	48	FB-L98-002-XXX(3/8)	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
*									
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	8.010 8.520 9.040	4.230 4.690 5.160	0.108 0.194 0.292
TA08025-B604	A	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B604	B	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B604	C	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	0.981 1.112 1.250	0.064 0.081 0.100
TA08025-B605	A	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
TA08025-B605	B	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
TA08025-B605	C	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.964 2.138 2.320	1.129 1.267 1.411	0.075 0.093 0.114
RDIDC-9181-PF-48	A	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	2.012 2.189 2.373	1.168 1.311 1.461	0.022 0.040 0.060
(2) 8' x 2" Mount Pipe	A	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
(2) 8' x 2" Mount Pipe	B	From Leg	4.000 0' 0'	0.000	181'	No Ice 1/2" Ice 1" Ice	1.900 2.728 3.401	1.900 2.728 3.401	0.029 0.044 0.063
(2) 8' x 2" Mount Pipe	C	From Leg	4.000	0.000	181'	No Ice	1.900	1.900	0.029

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
			0'			1/2" Ice	2.728	2.728	0.044
			0'			1" Ice	3.401	3.401	0.063
Commscope MTC3975083 (3)	C	None		0.000	181'	No Ice	23.850	23.850	1.260
						1/2" Ice	34.120	34.120	1.803
						1" Ice	44.390	44.390	2.345
*									
AIR 32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.000	0.000	170'	No Ice	3.760	3.150	0.194
			0'			1/2" Ice	4.120	3.490	0.252
			0'			1" Ice	4.480	3.840	0.320
AIR 32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.000	0.000	170'	No Ice	3.760	3.150	0.194
			0'			1/2" Ice	4.120	3.490	0.252
			0'			1" Ice	4.480	3.840	0.320
AIR 32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.000	0.000	170'	No Ice	3.760	3.150	0.194
			0'			1/2" Ice	4.120	3.490	0.252
			0'			1" Ice	4.480	3.840	0.320
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.000	0.000	170'	No Ice	14.690	6.870	0.186
			0'			1/2" Ice	15.460	7.550	0.315
			0'			1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.000	0.000	170'	No Ice	14.690	6.870	0.186
			0'			1/2" Ice	15.460	7.550	0.315
			0'			1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.000	0.000	170'	No Ice	14.690	6.870	0.186
			0'			1/2" Ice	15.460	7.550	0.315
			0'			1" Ice	16.230	8.250	0.458
AIR 3246 B66_T-MOBILE w/ Mount Pipe	A	From Leg	4.000	0.000	170'	No Ice	7.310	5.460	0.248
			0'			1/2" Ice	7.890	6.010	0.313
			0'			1" Ice	8.490	6.570	0.389
AIR 3246 B66_T-MOBILE w/ Mount Pipe	B	From Leg	4.000	0.000	170'	No Ice	7.310	5.460	0.248
			0'			1/2" Ice	7.890	6.010	0.313
			0'			1" Ice	8.490	6.570	0.389
AIR 3246 B66_T-MOBILE w/ Mount Pipe	C	From Leg	4.000	0.000	170'	No Ice	7.310	5.460	0.248
			0'			1/2" Ice	7.890	6.010	0.313
			0'			1" Ice	8.490	6.570	0.389
AIR6449 B41 w/ Mount Pipe	A	From Leg	4.000	0.000	170'	No Ice	5.180	2.720	0.118
			0'			1/2" Ice	5.590	3.050	0.164
			0'			1" Ice	6.010	3.390	0.216
AIR6449 B41 w/ Mount Pipe	B	From Leg	4.000	0.000	170'	No Ice	5.180	2.720	0.118
			0'			1/2" Ice	5.590	3.050	0.164
			0'			1" Ice	6.010	3.390	0.216
AIR6449 B41 w/ Mount Pipe	C	From Leg	4.000	0.000	170'	No Ice	5.180	2.720	0.118
			0'			1/2" Ice	5.590	3.050	0.164
			0'			1" Ice	6.010	3.390	0.216
RRUS 4415 B25_CCIV2	A	From Leg	4.000	0.000	170'	No Ice	1.843	0.820	0.046
			0'			1/2" Ice	2.012	0.943	0.060
			0'			1" Ice	2.190	1.075	0.077
RRUS 4415 B25_CCIV2	B	From Leg	4.000	0.000	170'	No Ice	1.843	0.820	0.046
			0'			1/2" Ice	2.012	0.943	0.060
			0'			1" Ice	2.190	1.075	0.077
RRUS 4415 B25_CCIV2	C	From Leg	4.000	0.000	170'	No Ice	1.843	0.820	0.046
			0'			1/2" Ice	2.012	0.943	0.060
			0'			1" Ice	2.190	1.075	0.077
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.000	0.000	170'	No Ice	1.970	1.587	0.073
			0'			1/2" Ice	2.147	1.749	0.093
			0'			1" Ice	2.331	1.918	0.116
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.000	0.000	170'	No Ice	1.970	1.587	0.073
			0'			1/2" Ice	2.147	1.749	0.093
			0'			1" Ice	2.331	1.918	0.116

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
RADIO 4449 B71	C	From Leg	4.000	0.000	170'	No Ice	1.970	1.587	0.073
B85A_T-MOBILE			0'			1/2" Ice	2.147	1.749	0.093
			0'			1" Ice	2.331	1.918	0.116
Sector Mount [SM 702-3]	C	None		0.000	170'	No Ice	38.890	38.890	1.551
						1/2" Ice	50.400	50.400	2.279
						1" Ice	61.770	61.770	3.217
*									
AIR 6419 B77G w/ Mount Pipe	A	From Leg	4.000	0.000	161'	No Ice	4.320	2.490	0.078
			0'			1/2" Ice	4.740	2.840	0.110
			2'			1" Ice	5.170	3.210	0.147
AIR 6419 B77G w/ Mount Pipe	B	From Leg	4.000	0.000	161'	No Ice	4.320	2.490	0.078
			0'			1/2" Ice	4.740	2.840	0.110
			2'			1" Ice	5.170	3.210	0.147
AIR 6419 B77G w/ Mount Pipe	C	From Leg	4.000	0.000	161'	No Ice	4.320	2.490	0.078
			0'			1/2" Ice	4.740	2.840	0.110
			2'			1" Ice	5.170	3.210	0.147
AIR 6449 B77D w/ Mount Pipe	A	From Leg	4.000	0.000	161'	No Ice	3.580	2.310	0.095
			0'			1/2" Ice	3.920	2.600	0.130
			-2'			1" Ice	4.270	2.910	0.173
AIR 6449 B77D w/ Mount Pipe	B	From Leg	4.000	0.000	161'	No Ice	3.580	2.310	0.095
			0'			1/2" Ice	3.920	2.600	0.130
			-2'			1" Ice	4.270	2.910	0.173
AIR 6449 B77D w/ Mount Pipe	C	From Leg	4.000	0.000	161'	No Ice	3.580	2.310	0.095
			0'			1/2" Ice	3.920	2.600	0.130
			-2'			1" Ice	4.270	2.910	0.173
DMP65R-BU6D w/ Mount Pipe	A	From Leg	4.000	0.000	161'	No Ice	11.960	5.970	0.115
			0'			1/2" Ice	12.700	6.630	0.201
			0'			1" Ice	13.460	7.300	0.298
DMP65R-BU6D w/ Mount Pipe	B	From Leg	4.000	0.000	161'	No Ice	11.960	5.970	0.115
			0'			1/2" Ice	12.700	6.630	0.201
			0'			1" Ice	13.460	7.300	0.298
DMP65R-BU4D w/ Mount Pipe	C	From Leg	4.000	0.000	161'	No Ice	7.530	3.790	0.095
			0'			1/2" Ice	8.040	4.230	0.156
			0'			1" Ice	8.570	4.680	0.225
QD6616-7 w/ Mount Pipe	A	From Leg	4.000	0.000	161'	No Ice	12.560	6.930	0.156
			0'			1/2" Ice	13.300	7.600	0.252
			0'			1" Ice	14.060	8.280	0.360
QD6616-7 w/ Mount Pipe	B	From Leg	4.000	0.000	161'	No Ice	12.560	6.930	0.156
			0'			1/2" Ice	13.300	7.600	0.252
			0'			1" Ice	14.060	8.280	0.360
QD4616-7 w/ Mount Pipe	C	From Leg	4.000	0.000	161'	No Ice	8.880	4.920	0.128
			0'			1/2" Ice	9.450	5.420	0.200
			0'			1" Ice	10.040	5.930	0.281
RRUS 32 B2	A	From Leg	4.000	0.000	161'	No Ice	2.731	1.668	0.053
			0'			1/2" Ice	2.953	1.855	0.074
			0'			1" Ice	3.182	2.049	0.098
RRUS 32 B2	B	From Leg	4.000	0.000	161'	No Ice	2.731	1.668	0.053
			0'			1/2" Ice	2.953	1.855	0.074
			0'			1" Ice	3.182	2.049	0.098
RRUS 32 B2	C	From Leg	4.000	0.000	161'	No Ice	2.731	1.668	0.053
			0'			1/2" Ice	2.953	1.855	0.074
			0'			1" Ice	3.182	2.049	0.098
RRUS 4426 B66	A	From Leg	4.000	0.000	161'	No Ice	1.644	0.725	0.048
			0'			1/2" Ice	1.804	0.842	0.061
			0'			1" Ice	1.972	0.969	0.076
RRUS 4426 B66	B	From Leg	4.000	0.000	161'	No Ice	1.644	0.725	0.048
			0'			1/2" Ice	1.804	0.842	0.061

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1" Ice	1.972	0.969	0.076
RRUS 4426 B66	C	From Leg	4.000	0.000	161'	No Ice	1.644	0.725	0.048
			0'			1/2" Ice	1.804	0.842	0.061
			0'			1" Ice	1.972	0.969	0.076
RRUS 32 B30	A	From Leg	4.000	0.000	161'	No Ice	2.692	1.573	0.060
			0'			1/2" Ice	2.912	1.756	0.080
			0'			1" Ice	3.138	1.945	0.104
RRUS 32 B30	B	From Leg	4.000	0.000	161'	No Ice	2.692	1.573	0.060
			0'			1/2" Ice	2.912	1.756	0.080
			0'			1" Ice	3.138	1.945	0.104
RRUS 32 B30	C	From Leg	4.000	0.000	161'	No Ice	2.692	1.573	0.060
			0'			1/2" Ice	2.912	1.756	0.080
			0'			1" Ice	3.138	1.945	0.104
DC6-48-60-18-8F	A	From Leg	4.000	0.000	161'	No Ice	1.212	1.212	0.033
			0'			1/2" Ice	1.892	1.892	0.055
			0'			1" Ice	2.105	2.105	0.080
DC6-48-60-18-8F	B	From Leg	4.000	0.000	161'	No Ice	1.212	1.212	0.033
			0'			1/2" Ice	1.892	1.892	0.055
			0'			1" Ice	2.105	2.105	0.080
DC6-48-60-18-8F	C	From Leg	4.000	0.000	161'	No Ice	1.212	1.212	0.033
			0'			1/2" Ice	1.892	1.892	0.055
			0'			1" Ice	2.105	2.105	0.080
RRUS 4449 B5/B12	A	From Leg	4.000	0.000	161'	No Ice	1.968	1.408	0.071
			0'			1/2" Ice	2.144	1.564	0.090
			0'			1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	B	From Leg	4.000	0.000	161'	No Ice	1.968	1.408	0.071
			0'			1/2" Ice	2.144	1.564	0.090
			0'			1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	C	From Leg	4.000	0.000	161'	No Ice	1.968	1.408	0.071
			0'			1/2" Ice	2.144	1.564	0.090
			0'			1" Ice	2.328	1.727	0.111
RRUS 4478 B14	A	From Leg	4.000	0.000	161'	No Ice	1.843	1.059	0.060
			0'			1/2" Ice	2.012	1.197	0.076
			0'			1" Ice	2.190	1.342	0.094
RRUS 4478 B14	B	From Leg	4.000	0.000	161'	No Ice	1.843	1.059	0.060
			0'			1/2" Ice	2.012	1.197	0.076
			0'			1" Ice	2.190	1.342	0.094
RRUS 4478 B14	C	From Leg	4.000	0.000	161'	No Ice	1.843	1.059	0.060
			0'			1/2" Ice	2.012	1.197	0.076
			0'			1" Ice	2.190	1.342	0.094
DC6-48-60-18-8F	A	From Leg	4.000	0.000	161'	No Ice	1.212	1.212	0.033
			0'			1/2" Ice	1.892	1.892	0.055
			0'			1" Ice	2.105	2.105	0.080
(2) 6' x 2" Mount Pipe	A	From Leg	4.000	0.000	161'	No Ice	1.425	1.425	0.022
			0'			1/2" Ice	1.925	1.925	0.033
			0'			1" Ice	2.294	2.294	0.048
(2) 6' x 2" Mount Pipe	B	From Leg	4.000	0.000	161'	No Ice	1.425	1.425	0.022
			0'			1/2" Ice	1.925	1.925	0.033
			0'			1" Ice	2.294	2.294	0.048
(2) 6' x 2" Mount Pipe	C	From Leg	4.000	0.000	161'	No Ice	1.425	1.425	0.022
			0'			1/2" Ice	1.925	1.925	0.033
			0'			1" Ice	2.294	2.294	0.048
Sector Mount [SM 502-3]	C	None		0.000	161'	No Ice	29.820	29.820	1.673
						1/2" Ice	42.210	42.210	2.266
						1" Ice	54.430	54.430	3.052
*									
Side Arm Mount [SO 203-1]	A	From Leg	1.500	0.000	157'	No Ice	1.780	3.790	0.125

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1/2" Ice	2.240	4.470	0.153
			0'			1" Ice	2.750	5.210	0.189
Side Arm Mount [SO 203-1]	B	From Leg	1.500	0.000	157'	No Ice	1.780	3.790	0.125
			0'			1/2" Ice	2.240	4.470	0.153
			0'			1" Ice	2.750	5.210	0.189
*									
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.000	0.000	148'	No Ice	4.090	2.860	0.077
			0'			1/2" Ice	4.480	3.230	0.127
			0'			1" Ice	4.880	3.610	0.185
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.000	0.000	148'	No Ice	4.090	2.860	0.077
			0'			1/2" Ice	4.480	3.230	0.127
			0'			1" Ice	4.880	3.610	0.185
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.000	0.000	148'	No Ice	4.090	2.860	0.077
			0'			1/2" Ice	4.480	3.230	0.127
			0'			1" Ice	4.880	3.610	0.185
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.000	0.000	148'	No Ice	4.600	4.010	0.095
			0'			1/2" Ice	5.050	4.450	0.160
			0'			1" Ice	5.500	4.890	0.235
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.000	0.000	148'	No Ice	4.600	4.010	0.095
			0'			1/2" Ice	5.050	4.450	0.160
			0'			1" Ice	5.500	4.890	0.235
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.000	0.000	148'	No Ice	4.600	4.010	0.095
			0'			1/2" Ice	5.050	4.450	0.160
			0'			1" Ice	5.500	4.890	0.235
800 EXTERNAL NOTCH FILTER	A	From Leg	4.000	0.000	148'	No Ice	0.660	0.289	0.011
			0'			1/2" Ice	0.763	0.364	0.017
			0'			1" Ice	0.873	0.446	0.024
800 EXTERNAL NOTCH FILTER	B	From Leg	4.000	0.000	148'	No Ice	0.660	0.289	0.011
			0'			1/2" Ice	0.763	0.364	0.017
			0'			1" Ice	0.873	0.446	0.024
800 EXTERNAL NOTCH FILTER	C	From Leg	4.000	0.000	148'	No Ice	0.660	0.289	0.011
			0'			1/2" Ice	0.763	0.364	0.017
			0'			1" Ice	0.873	0.446	0.024
(3) ACU-A20-N	A	From Leg	4.000	0.000	148'	No Ice	0.067	0.117	0.001
			0'			1/2" Ice	0.104	0.162	0.002
			0'			1" Ice	0.148	0.215	0.004
(3) ACU-A20-N	B	From Leg	4.000	0.000	148'	No Ice	0.067	0.117	0.001
			0'			1/2" Ice	0.104	0.162	0.002
			0'			1" Ice	0.148	0.215	0.004
(3) ACU-A20-N	C	From Leg	4.000	0.000	148'	No Ice	0.067	0.117	0.001
			0'			1/2" Ice	0.104	0.162	0.002
			0'			1" Ice	0.148	0.215	0.004
(2) PCS 1900MHz 4x45W-65MHz	A	From Leg	4.000	0.000	148'	No Ice	2.322	2.238	0.060
			0'			1/2" Ice	2.527	2.441	0.083
			0'			1" Ice	2.739	2.651	0.110
(2) PCS 1900MHz 4x45W-65MHz	B	From Leg	4.000	0.000	148'	No Ice	2.322	2.238	0.060
			0'			1/2" Ice	2.527	2.441	0.083
			0'			1" Ice	2.739	2.651	0.110
(2) PCS 1900MHz 4x45W-65MHz	C	From Leg	4.000	0.000	148'	No Ice	2.322	2.238	0.060
			0'			1/2" Ice	2.527	2.441	0.083
			0'			1" Ice	2.739	2.651	0.110
800MHZ 2X50W RRH	A	From Leg	4.000	0.000	148'	No Ice	2.134	1.773	0.053
			0'			1/2" Ice	2.320	1.946	0.074
			0'			1" Ice	2.512	2.127	0.098
800MHZ 2X50W RRH	B	From Leg	4.000	0.000	148'	No Ice	2.134	1.773	0.053
			0'			1/2" Ice	2.320	1.946	0.074
			0'			1" Ice	2.512	2.127	0.098

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
800MHZ 2X50W RRH	C	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice	2.134 2.320 2.512	1.773 1.946 2.127	0.053 0.074 0.098
(2) 6' x 2" Mount Pipe	A	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048
(2) 6' x 2" Mount Pipe	B	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048
(2) 6' x 2" Mount Pipe	C	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048
(2) 6' x 3.5" Mount Pipe	A	From Leg	2.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice	1.872 2.293 2.667	1.872 2.293 2.667	0.030 0.046 0.065
(2) 6' x 3.5" Mount Pipe	B	From Leg	2.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice	1.872 2.293 2.667	1.872 2.293 2.667	0.030 0.046 0.065
(2) 6' x 3.5" Mount Pipe	C	From Leg	2.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice	1.872 2.293 2.667	1.872 2.293 2.667	0.030 0.046 0.065
Sector Mount [SM 502-3]	C	None		0.000	148'	No Ice 1/2" Ice 1" Ice	29.820 42.210 54.430	29.820 42.210 54.430	1.673 2.266 3.052
*									
LLPX310R w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	3.880 4.290 4.720	2.360 2.730 3.120	0.057 0.091 0.133
LLPX310R w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	3.880 4.290 4.720	2.360 2.730 3.120	0.057 0.091 0.133
LLPX310R w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	3.880 4.290 4.720	2.360 2.730 3.120	0.057 0.091 0.133
RRH-2WB	A	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	2.305 2.496 2.695	0.783 0.917 1.058	0.044 0.059 0.077
RRH-2WB	B	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	2.305 2.496 2.695	0.783 0.917 1.058	0.044 0.059 0.077
RRH-2WB	C	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	2.305 2.496 2.695	0.783 0.917 1.058	0.044 0.059 0.077
J - Box	C	From Leg	0.500 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	0.667 0.770 0.881	0.500 0.593 0.693	0.020 0.027 0.036
(3) 6' x 2" Mount Pipe	A	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048
(3) 6' x 2" Mount Pipe	B	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048
(3) 6' x 2" Mount Pipe	C	From Leg	4.000 0' 0'	0.000	136'	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048
6' x 3" Mount Pipe	A	From Leg	4.000 0'	0.000	136'	No Ice 1/2" Ice	1.767 2.129	1.767 2.129	0.030 0.044

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1" Ice	2.501	2.501	0.061
6' x 3" Mount Pipe	C	From Leg	4.000	0.000	136'	No Ice	1.767	1.767	0.030
			0'			1/2" Ice	2.129	2.129	0.044
			0'			1" Ice	2.501	2.501	0.061
Sector Mount [SM 504-3]	C	None		0.000	136'	No Ice	31.050	31.050	1.708
						1/2" Ice	43.830	43.830	2.326
						1" Ice	56.440	56.440	3.143
*									
(2) DB844G65ZAXY w/ Mount Pipe	A	From Leg	4.000	0.000	126'	No Ice	4.230	4.510	0.034
			0'			1/2" Ice	4.710	5.000	0.076
			3'			1" Ice	5.210	5.500	0.126
(2) DB844G65ZAXY w/ Mount Pipe	C	From Leg	4.000	0.000	126'	No Ice	4.230	4.510	0.034
			0'			1/2" Ice	4.710	5.000	0.076
			3'			1" Ice	5.210	5.500	0.126
DB844H80-XY w/ Mount Pipe	B	From Leg	4.000	0.000	126'	No Ice	2.240	3.340	0.039
			0'			1/2" Ice	2.610	3.730	0.075
			3'			1" Ice	2.990	4.130	0.117
DB844H80-XY w/ Mount Pipe	B	From Leg	4.000	0.000	126'	No Ice	2.240	3.340	0.039
			0'			1/2" Ice	2.610	3.730	0.075
			3'			1" Ice	2.990	4.130	0.117
GPS_A	B	From Leg	4.000	0.000	126'	No Ice	0.255	0.255	0.001
			0'			1/2" Ice	0.320	0.320	0.005
			4'			1" Ice	0.393	0.393	0.010
(2) JAHH-65C-R3B w/ Mount Pipe	A	From Leg	4.000	0.000	126'	No Ice	6.600	5.110	0.118
			0'			1/2" Ice	7.140	5.630	0.210
			3'			1" Ice	7.690	6.170	0.316
(2) JAHH-65C-R3B w/ Mount Pipe	B	From Leg	4.000	0.000	126'	No Ice	6.600	5.110	0.118
			0'			1/2" Ice	7.140	5.630	0.210
			3'			1" Ice	7.690	6.170	0.316
(2) JAHH-65C-R3B w/ Mount Pipe	C	From Leg	4.000	0.000	126'	No Ice	6.600	5.110	0.118
			0'			1/2" Ice	7.140	5.630	0.210
			3'			1" Ice	7.690	6.170	0.316
MT6407-77A w/ Mount Pipe	A	From Leg	4.000	0.000	126'	No Ice	4.907	2.682	0.096
			0'			1/2" Ice	5.256	3.145	0.136
			2'			1" Ice	5.615	3.624	0.180
MT6407-77A w/ Mount Pipe	B	From Leg	4.000	0.000	126'	No Ice	4.907	2.682	0.096
			0'			1/2" Ice	5.256	3.145	0.136
			2'			1" Ice	5.615	3.624	0.180
MT6407-77A w/ Mount Pipe	C	From Leg	4.000	0.000	126'	No Ice	4.907	2.682	0.096
			0'			1/2" Ice	5.256	3.145	0.136
			2'			1" Ice	5.615	3.624	0.180
CBRS w/ Mount Pipe	A	From Leg	4.000	0.000	126'	No Ice	1.450	0.990	0.032
			0'			1/2" Ice	1.670	1.180	0.048
			7'			1" Ice	1.900	1.390	0.068
CBRS w/ Mount Pipe	B	From Leg	4.000	0.000	126'	No Ice	1.450	0.990	0.032
			0'			1/2" Ice	1.670	1.180	0.048
			7'			1" Ice	1.900	1.390	0.068
CBRS w/ Mount Pipe	C	From Leg	4.000	0.000	126'	No Ice	1.450	0.990	0.032
			0'			1/2" Ice	1.670	1.180	0.048
			7'			1" Ice	1.900	1.390	0.068
(3) RFV01U-D1A	A	From Leg	4.000	0.000	126'	No Ice	1.875	1.250	0.084
			0'			1/2" Ice	2.045	1.393	0.103
			3'			1" Ice	2.223	1.543	0.124
(2) RFV01U-D2A	B	From Leg	4.000	0.000	126'	No Ice	1.875	1.013	0.070
			0'			1/2" Ice	2.045	1.145	0.087
			3'			1" Ice	2.223	1.284	0.106
RFV01U-D2A	C	From Leg	4.000	0.000	126'	No Ice	1.875	1.013	0.070

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
			0'			1/2" Ice	2.045	1.145	0.087
			3'			1" Ice	2.223	1.284	0.106
DB-C1-12C-24AB-0Z	C	From Leg	4.000	0.000	126'	No Ice	4.056	3.098	0.032
			0'			1/2" Ice	4.316	3.335	0.068
			3'			1" Ice	4.582	3.580	0.109
Sector Mount [SM 411-3]	C	None		0.000	126'	No Ice	20.530	20.530	1.069
						1/2" Ice	28.620	28.620	1.457
						1" Ice	36.630	36.630	1.972
*									
800 10504 w/ Mount Pipe	A	From Leg	4.000	0.000	112'	No Ice	2.690	2.260	0.038
			0'			1/2" Ice	3.120	2.680	0.067
			0'			1" Ice	3.560	3.120	0.105
800 10504 w/ Mount Pipe	B	From Leg	4.000	0.000	112'	No Ice	2.690	2.260	0.038
			0'			1/2" Ice	3.120	2.680	0.067
			0'			1" Ice	3.560	3.120	0.105
800 10504 w/ Mount Pipe	C	From Leg	4.000	0.000	112'	No Ice	2.690	2.260	0.038
			0'			1/2" Ice	3.120	2.680	0.067
			0'			1" Ice	3.560	3.120	0.105
6' x 2" Mount Pipe	A	From Leg	4.000	0.000	112'	No Ice	1.425	1.425	0.022
			0'			1/2" Ice	1.925	1.925	0.033
			0'			1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	B	From Leg	4.000	0.000	112'	No Ice	1.425	1.425	0.022
			0'			1/2" Ice	1.925	1.925	0.033
			0'			1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	C	From Leg	4.000	0.000	112'	No Ice	1.425	1.425	0.022
			0'			1/2" Ice	1.925	1.925	0.033
			0'			1" Ice	2.294	2.294	0.048
Sector Mount [SM 104-3]	C	None		0.000	112'	No Ice	30.210	30.210	0.953
						1/2" Ice	38.120	38.120	1.432
						1" Ice	46.010	46.010	2.031
*									
GPS_A	A	From Face	2.000	0.000	5'	No Ice	0.255	0.255	0.001
			0'			1/2" Ice	0.320	0.320	0.005
			0'			1" Ice	0.393	0.393	0.010
ASPP2933	A	From Face	0.500	0.000	5'	No Ice	0.196	0.196	0.004
			0'			1/2" Ice	0.320	0.320	0.006
			1'			1" Ice	0.453	0.453	0.009
3' x 2" Pipe Mount	A	From Face	2.000	0.000	5'	No Ice	0.583	0.583	0.011
			0'			1/2" Ice	0.770	0.770	0.017
			0'			1" Ice	0.967	0.967	0.024
Side Arm Mount [SO 701-1]	A	From Face	1.500	0.000	5'	No Ice	0.850	1.670	0.065
			0'			1/2" Ice	1.140	2.340	0.079
			0'			1" Ice	1.430	3.010	0.093
**									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
VHLP2-18	A	Paraboloid w/Shroud (HP)	From Leg	3.000 0' 0'	-10.000		157'	2.175	No Ice 1/2" Ice 1" Ice	3.720 4.010 4.300	0.031 0.050 0.070
VHLP2-18	B	Paraboloid w/Shroud (HP)	From Leg	3.000 0' 0'	-40.000		157'	2.175	No Ice 1/2" Ice 1" Ice	3.720 4.010 4.300	0.031 0.050 0.070
*											
VHLP2-23	A	Paraboloid w/Shroud (HP)	From Leg	4.000 0' 2'	50.000		136'	2.175	No Ice 1/2" Ice 1" Ice	3.720 4.000 4.310	0.030 0.030 0.040
*											

Load Combinations

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

Comb. No.	Description
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	180 - 160	Leg	Max Tension	15	9.391	-0.197	0.012
			Max. Compression	10	-17.244	0.677	0.044
			Max. Mx	14	6.929	-0.764	0.058
			Max. My	17	-3.845	-0.033	0.619
			Max. Vy	22	-1.298	0.033	0.003
			Max. Vx	8	-1.182	-0.051	0.593
		Diagonal	Max Tension	24	3.042	0.000	0.000
			Max. Compression	25	-2.959	0.000	0.000
			Max. Mx	32	0.411	0.022	0.003
			Max. My	34	0.762	0.020	0.003
			Max. Vy	27	0.021	0.021	-0.003
			Max. Vx	34	-0.001	0.000	0.000
		Top Girt	Max Tension	3	0.409	0.000	0.000
			Max. Compression	14	-0.464	0.000	0.000
			Max. Mx	26	-0.065	-0.038	0.000
			Max. My	26	-0.064	0.000	0.001
			Max. Vy	26	-0.023	0.000	0.000
			Max. Vx	26	0.001	0.000	0.000
		Mid Girt	Max Tension	18	0.473	0.000	0.000
			Max. Compression	23	-0.466	0.000	0.000
			Max. Mx	26	0.010	-0.050	0.000
			Max. My	26	0.009	0.000	0.002
			Max. Vy	26	0.026	0.000	0.000
			Max. Vx	26	-0.001	0.000	0.000
T2	160 - 153.333	Leg	Max Tension	7	15.172	-0.737	-0.008
			Max. Compression	10	-24.773	0.200	-0.021
			Max. Mx	14	13.895	-0.764	0.058
			Max. My	17	-3.872	-0.033	0.619
			Max. Vy	22	-0.216	-0.764	-0.037
			Max. Vx	16	0.214	-0.045	0.619
		Diagonal	Max Tension	13	4.907	0.000	0.000
			Max. Compression	12	-5.150	0.000	0.000
			Max. Mx	30	1.019	0.037	0.005
			Max. My	38	-1.466	0.034	-0.006
			Max. Vy	29	0.031	0.036	0.004
			Max. Vx	38	0.002	0.000	0.000
T3	153.333 - 146.667	Leg	Max Tension	15	24.635	-0.225	0.002
			Max. Compression	10	-36.529	0.533	-0.044
			Max. Mx	6	21.928	0.623	-0.013
			Max. My	20	-6.784	-0.011	0.648
			Max. Vy	6	0.895	-0.557	-0.013
			Max. Vx	13	0.840	-0.017	-0.454

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Diagonal	Max Tension	13	5.041	0.000	0.000
			Max. Compression	12	-5.408	0.000	0.000
			Max. Mx	31	0.751	0.042	-0.006
			Max. My	28	0.822	0.040	-0.006
			Max. Vy	29	0.033	0.040	-0.006
			Max. Vx	28	0.002	0.000	0.000
		Top Girt	Max Tension	14	0.959	0.000	0.000
			Max. Compression	11	-0.545	0.000	0.000
			Max. Mx	26	0.445	-0.090	0.000
			Max. My	26	0.433	0.000	0.003
			Max. Vy	26	0.038	0.000	0.000
			Max. Vx	26	0.001	0.000	0.000
T4	146.667 - 140	Leg	Max Tension	15	33.861	-0.548	-0.035
			Max. Compression	10	-47.874	0.137	-0.029
			Max. Mx	6	31.800	-0.557	-0.013
			Max. My	12	-7.151	-0.023	-0.454
			Max. Vy	2	0.119	0.535	0.037
			Max. Vx	13	-0.111	-0.017	-0.454
		Diagonal	Max Tension	13	6.048	0.000	0.000
			Max. Compression	12	-6.220	0.000	0.000
			Max. Mx	31	1.189	0.046	-0.006
			Max. My	35	-1.720	0.036	0.007
			Max. Vy	33	0.035	0.043	0.006
			Max. Vx	35	-0.002	0.000	0.000
		Top Girt	Max Tension	6	0.445	0.000	0.000
			Max. Compression	11	-0.117	0.000	0.000
			Max. Mx	26	0.352	-0.103	0.000
			Max. My	26	0.348	0.000	0.003
			Max. Vy	26	-0.041	0.000	0.000
			Max. Vx	26	-0.001	0.000	0.000
T5	140 - 120	Leg	Max Tension	15	66.984	-0.366	-0.025
			Max. Compression	10	-88.096	0.543	-0.042
			Max. Mx	6	41.188	0.752	0.016
			Max. My	24	-11.336	-0.006	0.761
			Max. Vy	14	-0.949	-0.376	-0.025
			Max. Vx	12	-0.941	-0.042	-0.323
		Diagonal	Max Tension	20	7.894	0.000	0.000
			Max. Compression	20	-7.906	0.000	0.000
			Max. Mx	35	1.848	0.062	-0.008
			Max. My	37	-1.810	0.056	0.009
			Max. Vy	33	0.042	0.062	-0.008
			Max. Vx	37	-0.002	0.000	0.000
T6	120 - 100	Leg	Max Tension	15	104.179	-0.485	-0.003
			Max. Compression	10	-130.680	0.846	-0.090
			Max. Mx	3	-126.862	0.856	0.014
			Max. My	24	-11.713	-0.006	0.761
			Max. Vy	6	-0.449	-0.625	-0.043
			Max. Vx	16	0.425	-0.026	0.475
		Diagonal	Max Tension	8	9.254	0.000	0.000
			Max. Compression	8	-9.227	0.000	0.000
			Max. Mx	35	2.108	0.095	0.011
			Max. My	37	-2.097	0.082	0.012
			Max. Vy	33	0.057	0.093	-0.011
			Max. Vx	37	-0.003	0.000	0.000
T7	100 - 80	Leg	Max Tension	15	136.816	-0.550	0.000
			Max. Compression	10	-167.705	0.620	-0.060
			Max. Mx	3	-143.226	0.856	0.014
			Max. My	16	-14.437	-0.029	0.867
			Max. Vy	6	-0.139	-0.824	-0.089
			Max. Vx	18	0.185	-0.314	0.806
		Diagonal	Max Tension	8	10.322	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	8	-10.251	0.000	0.000
			Max. Mx	35	2.286	0.151	0.021
			Max. My	37	2.394	0.143	0.021
			Max. Vy	33	0.075	0.150	0.020
			Max. Vx	37	-0.004	0.000	0.000
T8	80 - 70	Leg	Max Tension	15	153.831	-0.659	0.003
			Max. Compression	10	-186.986	2.233	-0.200
			Max. Mx	2	-186.132	2.253	0.034
			Max. My	12	-17.495	0.056	-2.038
			Max. Vy	2	-0.288	2.253	0.034
			Max. Vx	16	-0.311	0.056	1.986
		Diagonal	Max Tension	8	10.679	0.000	0.000
			Max. Compression	8	-10.804	0.000	0.000
			Max. Mx	33	2.045	0.169	-0.021
			Max. My	37	1.948	0.168	0.022
			Max. Vy	33	0.079	0.169	-0.021
			Max. Vx	37	-0.004	0.000	0.000
T9	70 - 60	Leg	Max Tension	15	170.684	-2.036	-0.039
			Max. Compression	10	-206.599	0.331	0.042
			Max. Mx	2	-205.509	2.253	0.034
			Max. My	12	-18.293	0.056	-2.038
			Max. Vy	2	0.316	2.253	0.034
			Max. Vx	4	-0.315	0.056	-1.973
		Diagonal	Max Tension	8	11.439	0.000	0.000
			Max. Compression	8	-11.617	0.000	0.000
			Max. Mx	33	2.424	-0.301	-0.035
			Max. My	31	-2.761	-0.265	0.043
			Max. Vy	33	-0.140	-0.301	-0.035
			Max. Vx	31	-0.008	0.000	0.000
T10	60 - 40	Leg	Max Tension	15	203.799	-1.285	-0.008
			Max. Compression	10	-245.237	1.667	-0.115
			Max. Mx	37	20.708	-2.486	0.055
			Max. My	12	-20.446	-0.032	-1.419
			Max. Vy	29	0.376	-2.473	-0.050
			Max. Vx	17	-0.251	-0.025	1.401
		Diagonal	Max Tension	8	11.820	0.000	0.000
			Max. Compression	8	-12.118	0.000	0.000
			Max. Mx	35	2.147	0.232	0.028
			Max. My	31	-2.983	0.193	-0.031
			Max. Vy	33	0.100	0.225	0.029
			Max. Vx	31	0.005	0.000	0.000
T11	40 - 20	Leg	Max Tension	15	235.772	-0.894	0.002
			Max. Compression	10	-283.381	2.729	-0.215
			Max. Mx	37	24.018	-5.861	0.066
			Max. My	12	-23.866	-0.209	-1.513
			Max. Vy	29	0.975	-5.840	-0.064
			Max. Vx	16	0.200	-0.210	1.497
		Diagonal	Max Tension	8	12.460	0.000	0.000
			Max. Compression	8	-12.782	0.000	0.000
			Max. Mx	33	1.292	0.324	0.034
			Max. My	31	3.936	0.248	-0.039
			Max. Vy	33	0.120	0.324	0.034
			Max. Vx	31	0.006	0.000	0.000
T12	20 - 0	Leg	Max Tension	15	265.599	-1.127	-0.014
			Max. Compression	10	-321.281	0.000	0.000
			Max. Mx	37	30.778	-5.861	0.066
			Max. My	12	-26.491	-0.291	-2.889
			Max. Vy	29	-1.149	-5.840	-0.064
			Max. Vx	12	-0.425	-0.291	-2.889
		Diagonal	Max Tension	8	13.518	0.000	0.000
			Max. Compression	10	-13.891	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	33	-1.291	-0.749	0.062
			Max. My	12	11.846	-0.509	0.092
			Max. Vy	33	-0.231	-0.749	0.062
			Max. Vx	32	-0.012	0.000	0.000

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	329.763	34.383	-18.544
	Max. H_x	18	329.763	34.383	-18.544
	Max. H_z	7	-265.462	-28.894	15.434
	Min. Vert	7	-265.462	-28.894	15.434
	Min. H_x	7	-265.462	-28.894	15.434
	Min. H_z	18	329.763	34.383	-18.544
Leg B	Max. Vert	10	330.695	-34.513	-18.579
	Max. H_x	23	-268.598	29.085	15.521
	Max. H_z	25	-235.866	24.556	15.751
	Min. Vert	23	-268.598	29.085	15.521
	Min. H_x	10	330.695	-34.513	-18.579
	Min. H_z	10	330.695	-34.513	-18.579
Leg A	Max. Vert	2	330.221	-0.167	39.512
	Max. H_x	21	18.820	3.479	1.775
	Max. H_z	2	330.221	-0.167	39.512
	Min. Vert	15	-272.939	0.155	-33.394
	Min. H_x	8	25.757	-3.494	2.447
	Min. H_z	15	-272.939	0.155	-33.394

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	68.914	0.000	0.000	37.114	10.131	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	82.697	0.088	-62.978	-6552.687	1.272	-6.553
0.9 Dead+1.0 Wind 0 deg - No Ice	62.023	0.088	-62.978	-6563.821	-1.767	-6.553
1.2 Dead+1.0 Wind 30 deg - No Ice	82.697	29.634	-51.328	-5377.832	-3117.286	42.478
0.9 Dead+1.0 Wind 30 deg - No Ice	62.023	29.634	-51.328	-5388.966	-3120.325	42.478
1.2 Dead+1.0 Wind 60 deg - No Ice	82.697	50.743	-29.373	-3072.968	-5369.769	47.878
0.9 Dead+1.0 Wind 60 deg - No Ice	62.023	50.743	-29.373	-3084.102	-5372.809	47.878
1.2 Dead+1.0 Wind 90 deg - No Ice	82.697	58.386	-0.053	39.162	-6211.019	41.325
0.9 Dead+1.0 Wind 90 deg - No Ice	62.023	58.386	-0.053	28.027	-6214.058	41.325
1.2 Dead+1.0 Wind 120 deg - No Ice	82.697	53.934	31.156	3323.313	-5659.527	48.771

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
0.9 Dead+1.0 Wind 120 deg - No Ice	62.023	53.934	31.156	3312.179	-5662.566	48.771
1.2 Dead+1.0 Wind 150 deg - No Ice	82.697	30.303	52.593	5616.906	-3197.460	42.772
0.9 Dead+1.0 Wind 150 deg - No Ice	62.023	30.303	52.593	5605.771	-3200.499	42.772
1.2 Dead+1.0 Wind 180 deg - No Ice	82.697	-0.096	59.660	6368.057	23.852	6.826
0.9 Dead+1.0 Wind 180 deg - No Ice	62.023	-0.096	59.660	6356.923	20.813	6.826
1.2 Dead+1.0 Wind 210 deg - No Ice	82.697	-29.688	51.385	5475.442	3149.588	-42.339
0.9 Dead+1.0 Wind 210 deg - No Ice	62.023	-29.688	51.385	5464.307	3146.548	-42.339
1.2 Dead+1.0 Wind 240 deg - No Ice	82.697	-53.705	31.101	3309.158	5644.379	-47.920
0.9 Dead+1.0 Wind 240 deg - No Ice	62.023	-53.705	31.101	3298.023	5641.340	-47.920
1.2 Dead+1.0 Wind 270 deg - No Ice	82.697	-58.448	0.063	51.290	6244.598	-41.247
0.9 Dead+1.0 Wind 270 deg - No Ice	62.023	-58.448	0.063	40.156	6241.558	-41.247
1.2 Dead+1.0 Wind 300 deg - No Ice	82.697	-51.054	-29.432	-3087.529	5445.828	-48.852
0.9 Dead+1.0 Wind 300 deg - No Ice	62.023	-51.054	-29.432	-3098.663	5442.788	-48.852
1.2 Dead+1.0 Wind 330 deg - No Ice	82.697	-30.304	-52.557	-5522.001	3221.991	-43.024
0.9 Dead+1.0 Wind 330 deg - No Ice	62.023	-30.304	-52.557	-5533.135	3218.951	-43.024
1.2 Dead+1.0 Ice+1.0 Temp	144.496	0.000	0.000	110.554	26.545	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	144.496	0.020	-16.819	-1649.959	24.092	-1.241
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	144.496	8.115	-14.053	-1364.973	-825.430	13.497
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	144.496	13.603	-7.870	-723.248	-1414.124	15.259
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	144.496	15.904	-0.013	109.243	-1661.828	13.914
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	144.496	14.525	8.388	993.147	-1501.188	16.402
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	144.496	8.355	14.494	1633.929	-851.495	13.373
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	144.496	-0.022	16.271	1826.804	29.167	1.297
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	144.496	-8.127	14.065	1587.850	880.176	-13.468
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	144.496	-14.097	8.158	968.615	1508.296	-15.268
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	144.496	-15.917	0.015	112.151	1716.839	-13.898
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	144.496	-14.049	-8.100	-747.864	1515.743	-16.418
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	144.496	-8.355	-14.486	-1411.612	904.630	-13.426
Dead+Wind 0 deg - Service	68.914	0.024	-17.645	-1793.762	7.169	-1.784
Dead+Wind 30 deg - Service	68.914	8.318	-14.407	-1469.276	-859.267	11.557
Dead+Wind 60 deg - Service	68.914	14.248	-8.247	-829.035	-1485.252	13.024
Dead+Wind 90 deg - Service	68.914	16.396	-0.014	35.651	-1718.946	11.239
Dead+Wind 120 deg - Service	68.914	15.116	8.732	947.154	-1564.111	13.267
Dead+Wind 150 deg - Service	68.914	8.500	14.751	1584.327	-881.087	11.637

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 180 deg - Service	68.914	-0.026	16.742	1793.501	13.314	1.858
Dead+Wind 210 deg - Service	68.914	-8.332	14.423	1545.827	881.703	-11.519
Dead+Wind 240 deg - Service	68.914	-15.054	8.717	943.301	1573.633	-13.035
Dead+Wind 270 deg - Service	68.914	-16.412	0.017	38.952	1741.730	-11.218
Dead+Wind 300 deg - Service	68.914	-14.332	-8.263	-832.998	1519.597	-13.289
Dead+Wind 330 deg - Service	68.914	-8.500	-14.742	-1508.512	901.408	-11.706

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.000	-68.914	0.000	0.000	68.914	0.000	0.000%
2	0.088	-82.697	-62.978	-0.088	82.697	62.978	0.000%
3	0.088	-62.023	-62.978	-0.088	62.023	62.978	0.000%
4	29.634	-82.697	-51.328	-29.634	82.697	51.328	0.000%
5	29.634	-62.023	-51.328	-29.634	62.023	51.328	0.000%
6	50.743	-82.697	-29.373	-50.743	82.697	29.373	0.000%
7	50.743	-62.023	-29.373	-50.743	62.023	29.373	0.000%
8	58.386	-82.697	-0.053	-58.386	82.697	0.053	0.000%
9	58.386	-62.023	-0.053	-58.386	62.023	0.053	0.000%
10	53.934	-82.697	31.156	-53.934	82.697	-31.156	0.000%
11	53.934	-62.023	31.156	-53.934	62.023	-31.156	0.000%
12	30.303	-82.697	52.593	-30.303	82.697	-52.593	0.000%
13	30.303	-62.023	52.593	-30.303	62.023	-52.593	0.000%
14	-0.096	-82.697	59.660	0.096	82.697	-59.660	0.000%
15	-0.096	-62.023	59.660	0.096	62.023	-59.660	0.000%
16	-29.688	-82.697	51.385	29.688	82.697	-51.385	0.000%
17	-29.688	-62.023	51.385	29.688	62.023	-51.385	0.000%
18	-53.705	-82.697	31.101	53.705	82.697	-31.101	0.000%
19	-53.705	-62.023	31.101	53.705	62.023	-31.101	0.000%
20	-58.448	-82.697	0.063	58.448	82.697	-0.063	0.000%
21	-58.448	-62.023	0.063	58.448	62.023	-0.063	0.000%
22	-51.054	-82.697	-29.432	51.054	82.697	29.432	0.000%
23	-51.054	-62.023	-29.432	51.054	62.023	29.432	0.000%
24	-30.304	-82.697	-52.557	30.304	82.697	52.557	0.000%
25	-30.304	-62.023	-52.557	30.304	62.023	52.557	0.000%
26	0.000	-144.496	0.000	0.000	144.496	0.000	0.000%
27	0.020	-144.496	-16.819	-0.020	144.496	16.819	0.000%
28	8.115	-144.496	-14.053	-8.115	144.496	14.053	0.000%
29	13.603	-144.496	-7.870	-13.603	144.496	7.870	0.000%
30	15.904	-144.496	-0.013	-15.904	144.496	0.013	0.000%
31	14.525	-144.496	8.388	-14.525	144.496	-8.388	0.000%
32	8.355	-144.496	14.494	-8.355	144.496	-14.494	0.000%
33	-0.022	-144.496	16.271	0.022	144.496	-16.271	0.000%
34	-8.127	-144.496	14.065	8.127	144.496	-14.065	0.000%
35	-14.097	-144.496	8.158	14.097	144.496	-8.158	0.000%
36	-15.917	-144.496	0.015	15.917	144.496	-0.015	0.000%
37	-14.049	-144.496	-8.100	14.049	144.496	8.100	0.000%
38	-8.355	-144.496	-14.486	8.355	144.496	14.486	0.000%
39	0.024	-68.914	-17.645	-0.024	68.914	17.645	0.000%
40	8.318	-68.914	-14.407	-8.318	68.914	14.407	0.000%
41	14.248	-68.914	-8.247	-14.248	68.914	8.247	0.000%
42	16.396	-68.914	-0.014	-16.396	68.914	0.014	0.000%
43	15.116	-68.914	8.732	-15.116	68.914	-8.732	0.000%
44	8.500	-68.914	14.751	-8.500	68.914	-14.751	0.000%
45	-0.026	-68.914	16.742	0.026	68.914	-16.742	0.000%
46	-8.332	-68.914	14.423	8.332	68.914	-14.423	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
47	-15.054	-68.914	8.717	15.054	68.914	-8.717	0.000%
48	-16.412	-68.914	0.017	16.412	68.914	-0.017	0.000%
49	-14.332	-68.914	-8.263	14.332	68.914	8.263	0.000%
50	-8.500	-68.914	-14.742	8.500	68.914	14.742	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 160	3.272	43	0.143	0.012
T2	160 - 153.333	2.666	47	0.139	0.012
T3	153.333 - 146.667	2.467	47	0.136	0.012
T4	146.667 - 140	2.273	47	0.132	0.013
T5	140 - 120	2.083	47	0.127	0.013
T6	120 - 100	1.548	47	0.112	0.011
T7	100 - 80	1.082	47	0.092	0.009
T8	80 - 70	0.704	47	0.073	0.007
T9	70 - 60	0.544	47	0.064	0.006
T10	60 - 40	0.410	47	0.054	0.005
T11	40 - 20	0.191	43	0.034	0.003
T12	20 - 0	0.053	43	0.018	0.001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
181'	MX08FRO665-21 w/ Mount Pipe	43	3.272	0.143	0.012	Inf
170'	AIR 32 B2A/B66AA w/ Mount Pipe	47	2.968	0.142	0.012	664959
161'	AIR 6419 B77G w/ Mount Pipe	47	2.696	0.139	0.012	296339
157'	VHLP2-18	47	2.576	0.138	0.012	139756
148'	APXVTM14-ALU-I20 w/ Mount Pipe	47	2.312	0.133	0.013	138705
138'	VHLP2-23	47	2.027	0.126	0.012	88885
136'	LLPX310R w/ Mount Pipe	47	1.971	0.124	0.012	85980
126'	(2) DB844G65ZAXY w/ Mount Pipe	47	1.702	0.117	0.012	77723
112'	800 10504 w/ Mount Pipe	47	1.351	0.105	0.011	60295
5'	GPS_A	39	0.009	0.005	0.000	178717

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 160	11.830	10	0.518	0.043
T2	160 - 153.333	9.630	10	0.504	0.044

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T3	153.333 - 146.667	8.907	10	0.494	0.046
T4	146.667 - 140	8.204	10	0.479	0.046
T5	140 - 120	7.514	10	0.461	0.046
T6	120 - 100	5.576	10	0.405	0.041
T7	100 - 80	3.894	3	0.333	0.034
T8	80 - 70	2.532	3	0.263	0.027
T9	70 - 60	1.956	3	0.231	0.022
T10	60 - 40	1.476	3	0.195	0.020
T11	40 - 20	0.689	3	0.122	0.011
T12	20 - 0	0.191	3	0.063	0.004

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
181'	MX08FRO665-21 w/ Mount Pipe	10	11.830	0.518	0.043	388185
170'	AIR 32 B2A/B66AA w/ Mount Pipe	10	10.727	0.513	0.043	194091
161'	AIR 6419 B77G w/ Mount Pipe	10	9.739	0.505	0.044	85190
157'	VHLP2-18	10	9.303	0.500	0.045	38974
148'	APXVTM14-ALU-I20 w/ Mount Pipe	10	8.343	0.483	0.046	38505
138'	VHLP2-23	10	7.311	0.455	0.046	24324
136'	LLPX310R w/ Mount Pipe	10	7.109	0.450	0.045	23509
126'	(2) DB844G65ZAXY w/ Mount Pipe	10	6.134	0.423	0.043	21186
112'	800 10504 w/ Mount Pipe	10	4.867	0.378	0.039	16524
5'	GPS_A	3	0.033	0.016	0.001	49716

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	180	Leg	A325N	0.875	4	2.348	41.556	0.056 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	3.042	8.135	0.374 ✔	1.05	Member Block Shear
		Top Girt	A325N	0.625	1	0.409	5.423	0.075 ✔	1.05	Member Block Shear
		Mid Girt	A325N	0.625	1	0.473	5.423	0.087 ✔	1.05	Member Block Shear
T2	160	Diagonal	A325N	0.625	1	4.907	11.310	0.434 ✔	1.05	Member Bearing
T3	153.333	Diagonal	A325N	0.625	1	5.041	11.310	0.446 ✔	1.05	Member Bearing
		Top Girt	A325N	0.625	1	0.959	5.655	0.170 ✔	1.05	Member Bearing
T4	146.667	Leg	A325N	1.000	4	8.465	54.517	0.155 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	6.048	11.310	0.535 ✔	1.05	Member Bearing
		Top Girt	A325N	0.625	1	0.830	5.655	0.147 ✔	1.05	Member Bearing

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T5	140	Leg	A325N	1.000	6	11.164	54.517	0.205 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	7.894	11.310	0.698 ✔	1.05	Member Bearing
T6	120	Leg	A325N	1.000	6	17.363	54.517	0.318 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	9.254	12.675	0.730 ✔	1.05	Member Bearing
T7	100	Leg	A325N	1.000	8	17.102	54.517	0.314 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	10.322	14.137	0.730 ✔	1.05	Member Bearing
T8	80	Diagonal	A325N	0.750	1	10.679	14.137	0.755 ✔	1.05	Member Bearing
T9	70	Leg	A325N	1.000	8	21.336	54.517	0.391 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	11.439	20.227	0.566 ✔	1.05	Gusset Bearing
T10	60	Leg	A325N	1.000	8	25.475	54.517	0.467 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	11.820	14.137	0.836 ✔	1.05	Member Bearing
T11	40	Leg	A325N	1.000	8	29.471	54.517	0.541 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	12.460	17.672	0.705 ✔	1.05	Member Bearing
T12	20	Diagonal	A325N	0.750	1	13.518	20.227	0.668 ✔	1.05	Gusset Bearing

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $P_u / \phi P_n$
T1	180 - 160	ROHN 3 EH	20'7/16"	5'3/32"	52.9 K=1.00	3.016	-17.244	110.608	0.156 [1] ✔
T2	160 - 153.333	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3 K=1.00	4.407	-24.773	159.906	0.155 [1] ✔
T3	153.333 - 146.667	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3 K=1.00	4.407	-36.529	159.905	0.228 [1] ✔
T4	146.667 - 140	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3 K=1.00	4.407	-47.874	159.906	0.299 [1] ✔
T5	140 - 120	ROHN 5 EH	20'7/16"	6'8-5/32"	43.6 K=1.00	6.112	-88.097	239.378	0.368 [1] ✔
T6	120 - 100	ROHN 6 EHS	20'3/8"	6'8-1/8"	36.0 K=1.00	6.713	-130.680	274.776	0.476 [1] ✔
T7	100 - 80	ROHN 6 EH	20'15/32"	10'7/32"	54.8 K=1.00	8.405	-167.705	303.717	0.552 [1] ✔
T8	80 - 70	ROHN 8 EHS	10'7/32"	10'7/32"	41.2 K=1.00	9.719	-186.986	386.395	0.484 [1] ✔
T9	70 - 60	ROHN 8 EHS	10'7/32"	10'7/32"	41.2 K=1.00	9.719	-206.599	386.395	0.535 [1] ✔
T10	60 - 40	ROHN 8 EHS	20'13/32"	10'7/32"	41.2 K=1.00	9.719	-245.237	386.397	0.635 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T11	40 - 20	ROHN 8 EH	20'13/32"	10'7/32"	41.8 K=1.00	12.763	-283.381	505.555	0.561 [1] ✔
T12	20 - 0	ROHN 8 EH	20'13/32"	10'7/32"	41.8 K=1.00	12.763	-321.281	505.555	0.636 [1] ✔

[1] P_u / ϕP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x3/16	9'10-3/8"	4'9-15/32"	145.8 K=1.00	0.715	-2.959	9.623	0.307 [1] ✔
T2	160 - 153.333	L2 1/2x2 1/2x1/4	11'3-7/16"	5'6"	134.4 K=1.00	1.190	-5.150	18.851	0.273 [1] ✔
T3	153.333 - 146.667	L2 1/2x2 1/2x1/4	11'10-7/32"	5'9-13/32"	141.4 K=1.00	1.190	-5.408	17.047	0.317 [1] ✔
T4	146.667 - 140	L2 1/2x2 1/2x1/4	12'5-5/32"	6'7/8"	148.4 K=1.00	1.190	-6.220	15.466	0.402 [1] ✔
T5	140 - 120	L2 1/2x2 1/2x1/4	14'2-3/4"	6'11-3/32"	169.2 K=1.00	1.190	-7.906	11.895	0.665 [1] ✔
T6	120 - 100	L3x3x1/4	15'11-7/8"	7'8-29/32"	157.0 K=1.00	1.440	-9.227	16.730	0.552 [1] ✔
T7	100 - 80	L3 1/2x3 1/2x1/4	19'3-3/32"	9'5-25/32"	164.0 K=1.00	1.690	-10.251	17.990	0.570 [1] ✔
T8	80 - 70	L3 1/2x3 1/2x1/4	20'1-13/16"	9'9-25/32"	169.7 K=1.00	1.690	-10.804	16.792	0.643 [1] ✔
T9	70 - 60	2L3 1/2x3 1/2x1/4x3/8 2L 'a' > 58.773 in - 137	21'11/32"	10'3-3/32"	189.4 K=1.00	3.380	-11.617	26.228	0.443 [1] ✔
T10	60 - 40	L4x4x1/4	22'9-23/32"	11'1-25/32"	168.3 K=1.00	1.940	-12.118	19.609	0.618 [1] ✔
T11	40 - 20	L4x4x5/16	24'7-1/2"	12'11/16"	182.9 K=1.00	2.400	-12.782	20.532	0.623 [1] ✔
T12	20 - 0	2L4x4x5/16x3/8 2L 'a' > 74.511 in - 176	26'5-9/16"	12'11-3/4"	211.6 K=1.00	4.800	-13.891	30.149	0.461 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8	6'8-1/4"	6'1-3/4"	185.5	0.484	-0.464	4.028	0.115 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T3	153.333 - 146.667	L2 1/2x2 1/2x1/8 KL/R > 200 (C) - 46	9'5-13/32"	8'9-29/32"	212.2 K=1.00	0.609	-0.634	3.875	0.163 [1] ✔
T4	146.667 - 140	L2 1/2x2 1/2x1/8 KL/R > 200 (C) - 58	10'1-23/32"	9'6-7/32"	228.8 K=1.00	0.609	-0.830	3.331	0.249 [1] ✔

[1] $P_u / \phi P_n$ controls

Mid Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8 KL/R > 200 (C) - 9	7'8-11/16"	7'2-3/16"	216.8 K=1.00	0.484	-0.466	2.950	0.158 [1] ✔

[1] $P_u / \phi P_n$ controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	ROHN 3 EH	20'7/16"	5'3/32"	52.9	3.016	9.391	135.717	0.069 [1] ✔
T2	160 - 153.333	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3	4.407	15.172	198.335	0.076 [1] ✔
T3	153.333 - 146.667	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3	4.407	24.635	198.335	0.124 [1] ✔
T4	146.667 - 140	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3	4.407	33.861	198.335	0.171 [1] ✔
T5	140 - 120	ROHN 5 EH	20'7/16"	6'8-5/32"	43.6	6.112	66.984	275.039	0.244 [1] ✔
T6	120 - 100	ROHN 6 EHS	20'3/8"	6'8-1/8"	36.0	6.713	104.179	302.097	0.345 [1] ✔
T7	100 - 80	ROHN 6 EH	20'15/32"	10'7/32"	54.8	8.405	136.816	378.222	0.362 [1] ✔
T8	80 - 70	ROHN 8 EHS	10'7/32"	10'7/32"	41.2	9.719	153.831	437.369	0.352 [1] ✔
T9	70 - 60	ROHN 8 EHS	10'7/32"	10'7/32"	41.2	9.719	170.684	437.369	0.390 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T10	60 - 40	ROHN 8 EHS	20'13/32"	10'7/32"	41.2	9.719	203.799	437.369	0.466 [1] ✔
T11	40 - 20	ROHN 8 EH	20'13/32"	10'7/32"	41.8	12.763	235.772	574.322	0.411 [1] ✔
T12	20 - 0	ROHN 8 EH	20'13/32"	10'7/32"	41.8	12.763	265.599	574.322	0.462 [1] ✔

[1] P_u / ϕP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x3/16	9'10-3/8"	4'9-15/32"	95.6	0.431	3.042	18.739	0.162 [1] ✔
T2	160 - 153.333	L2 1/2x2 1/2x1/4	11'3-7/16"	5'6"	87.8	0.752	4.907	32.707	0.150 [1] ✔
T3	153.333 - 146.667	L2 1/2x2 1/2x1/4	11'10-7/32"	5'9-13/32"	92.2	0.752	5.041	32.707	0.154 [1] ✔
T4	146.667 - 140	L2 1/2x2 1/2x1/4	12'5-5/32"	6'7/8"	96.7	0.752	6.048	32.707	0.185 [1] ✔
T5	140 - 120	L2 1/2x2 1/2x1/4	14'2-3/4"	6'11-3/32"	110.0	0.752	7.894	32.707	0.241 [1] ✔
T6	120 - 100	L3x3x1/4	15'11-7/8"	7'8-29/32"	101.5	0.939	9.254	45.794	0.202 [1] ✔
T7	100 - 80	L3 1/2x3 1/2x1/4	19'3-3/32"	9'5-25/32"	105.9	1.103	10.322	53.793	0.192 [1] ✔
T8	80 - 70	L3 1/2x3 1/2x1/4	20'1-13/16"	9'9-25/32"	109.6	1.103	10.679	53.793	0.199 [1] ✔
T9	70 - 60	2L3 1/2x3 1/2x1/4x3/8 2L 'a' > 58.773 in - 136	21'11/32"	10'3-3/32"	114.4	2.207	11.439	95.999	0.119 [1] ✔
T10	60 - 40	L4x4x1/4	22'9-23/32"	11'1-25/32"	108.3	1.291	11.820	62.933	0.188 [1] ✔
T11	40 - 20	L4x4x5/16	23'8-9/16"	11'7-1/4"	113.6	1.595	12.460	77.752	0.160 [1] ✔
T12	20 - 0	2L4x4x5/16x3/8 2L 'a' > 74.511 in - 175	26'5-9/16"	12'11-3/4"	126.9	3.190	13.518	138.758	0.097 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8	6'8-1/4"	6'1-3/4"	122.6	0.293	0.409	12.744	0.032 [1] ✔
T3	153.333 - 146.667	L2 1/2x2 1/2x1/8	9'5-13/32"	8'9-29/32"	138.3	0.387	0.959	16.822	0.057 [1] ✔
T4	146.667 - 140	L2 1/2x2 1/2x1/8	10'1-23/32"	9'6-7/32"	148.9	0.387	0.830	16.822	0.049 [1] ✔

[1] P_u / ϕP_n controls

Mid Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8	7'8-11/16"	7'2-3/16"	142.4	0.293	0.473	12.744	0.037 [1] ✔

[1] P_u / ϕP_n controls

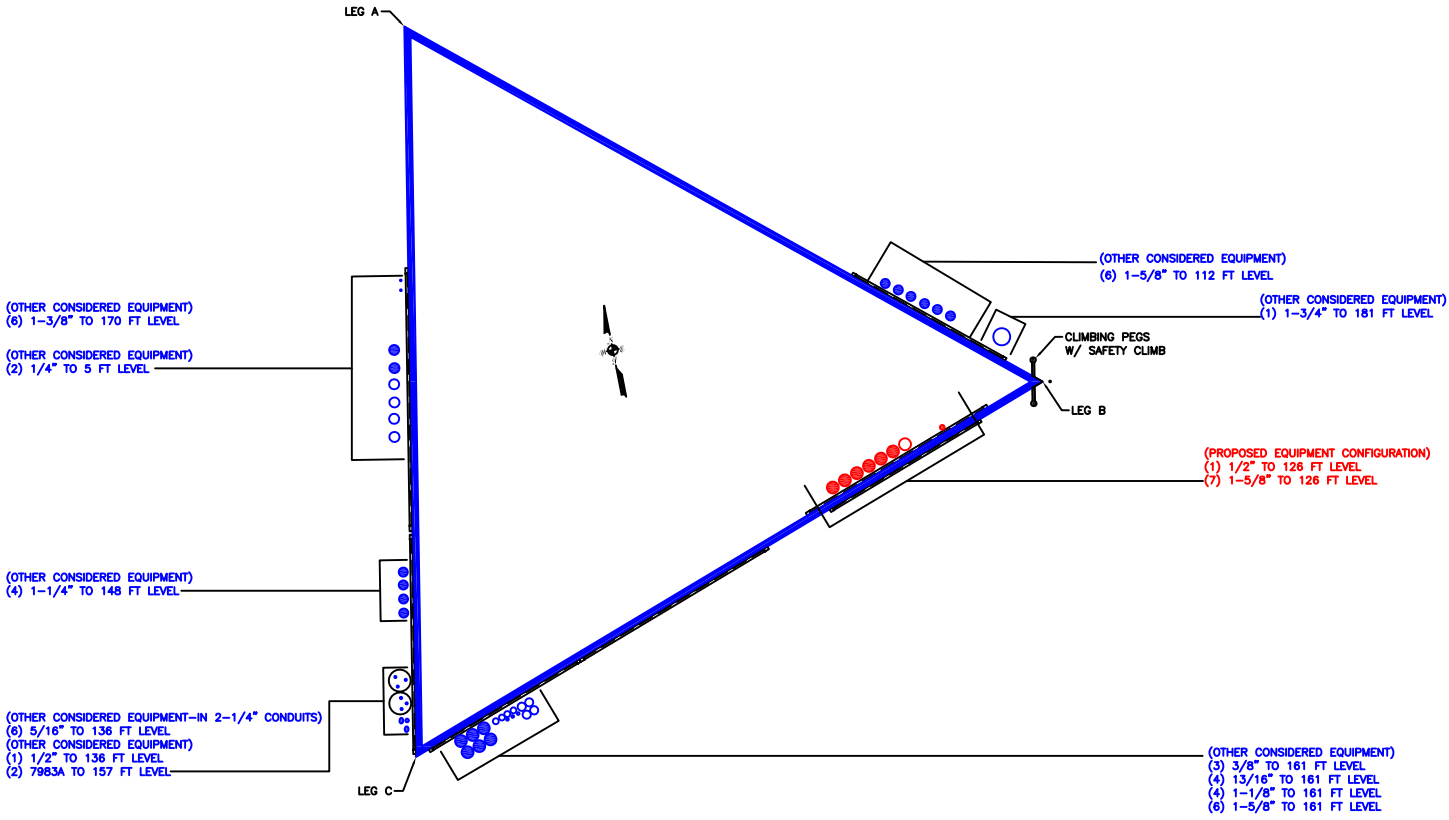
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	180 - 160	Leg	ROHN 3 EH	2	-17.244	116.138	14.8	Pass
T2	160 - 153.333	Leg	ROHN 4 EH	35	-24.773	167.901	14.8	Pass
T3	153.333 - 146.667	Leg	ROHN 4 EH	44	-36.529	167.900	21.8	Pass
T4	146.667 - 140	Leg	ROHN 4 EH	56	-47.874	167.901	28.5	Pass
T5	140 - 120	Leg	ROHN 5 EH	68	-88.097	251.347	35.0	Pass
T6	120 - 100	Leg	ROHN 6 EHS	89	-130.680	288.515	45.3	Pass
T7	100 - 80	Leg	ROHN 6 EH	110	-167.705	318.903	52.6	Pass
T8	80 - 70	Leg	ROHN 8 EHS	125	-186.986	405.715	46.1	Pass
T9	70 - 60	Leg	ROHN 8 EHS	134	-206.599	405.715	50.9	Pass
T10	60 - 40	Leg	ROHN 8 EHS	143	-245.237	405.717	60.4	Pass
T11	40 - 20	Leg	ROHN 8 EH	158	-283.381	530.833	53.4	Pass
T12	20 - 0	Leg	ROHN 8 EH	173	-321.281	530.833	60.5	Pass
T1	180 - 160	Diagonal	L2x2x3/16	13	-2.959	10.104	29.3	Pass
T2	160 - 153.333	Diagonal	L2 1/2x2 1/2x1/4	39	-5.150	19.793	26.0	Pass
T3	153.333 - 146.667	Diagonal	L2 1/2x2 1/2x1/4	51	-5.408	17.900	30.2	Pass
T4	146.667 - 140	Diagonal	L2 1/2x2 1/2x1/4	63	-6.220	16.240	38.3	Pass
T5	140 - 120	Diagonal	L2 1/2x2 1/2x1/4	70	-7.906	12.489	63.3	Pass
T6	120 - 100	Diagonal	L3x3x1/4	92	-9.227	17.566	52.5	Pass
T7	100 - 80	Diagonal	L3 1/2x3 1/2x1/4	113	-10.251	18.890	54.3	Pass
T8	80 - 70	Diagonal	L3 1/2x3 1/2x1/4	128	-10.804	17.632	61.3	Pass
T9	70 - 60	Diagonal	2L3 1/2x3 1/2x1/4x3/8	137	-11.617	27.539	42.2	Pass
T10	60 - 40	Diagonal	L4x4x1/4	146	-12.118	20.589	58.9	Pass
T11	40 - 20	Diagonal	L4x4x5/16	161	-12.782	21.559	59.3	Pass
T12	20 - 0	Diagonal	2L4x4x5/16x3/8	176	-13.891	31.656	43.9	Pass
T1	180 - 160	Top Girt	L2x2x1/8	4	-0.464	4.230	11.0	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T3	153.333 - 146.667	Top Girt	L2 1/2x2 1/2x1/8	46	-0.634	4.069	15.6	Pass
T4	146.667 - 140	Top Girt	L2 1/2x2 1/2x1/8	58	-0.830	3.498	23.7	Pass
T1	180 - 160	Mid Girt	L2x2x1/8	9	-0.466	3.097	15.0	Pass
						Summary		
						Leg (T12)	60.5	Pass
						Diagonal (T5)	63.3	Pass
						Top Girt (T4)	23.7	Pass
						Mid Girt (T1)	15.0	Pass
						Bolt Checks	79.6	Pass
						RATING =	**79.6**	**Pass**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT:807133

APPENDIX C

ADDITIONAL CALCULATIONS

Self Support Anchor Rod Capacity

Site Info	
BU #	807133
Site Name	BRG 134 943057, CT
Order #	552680 Rev# 2

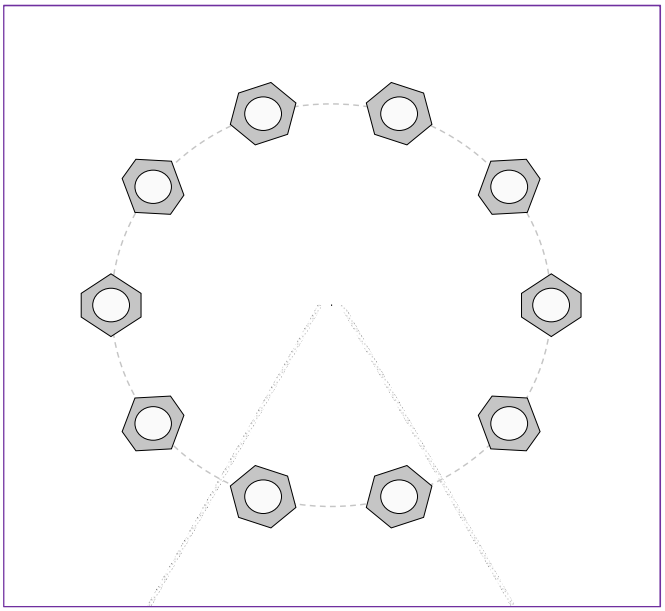
Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	Yes
l_{ar} (in)	0

Applied Loads		
	Comp.	Uplift
Axial Force (kips)	330.70	272.94
Shear Force (kips)	39.20	33.39

**TIA-222-H Section 15.5 Applied*

Considered Eccentricity	
Leg Mod Eccentricity (in)	0.000
Anchor Rod N.A Shift (in)	0.000
Total Eccentricity (in)	0.000

**Anchor Rod Eccentricity Applied*



Connection Properties

Anchor Rod Data

(10) 1" ø bolts (A449 N; Fy=92 ksi, Fu=120 ksi)

l_{ar} (in): 0

Analysis Results

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

Pu_t = 27.29	ϕPn_t = 54.54	**Stress Rating**
Vu = 3.34	ϕVn = 35.34	**47.7%**
Mu = n/a	ϕMn = n/a	**Pass**

Foundation Analysis-Rock Anchors

BU#: 807133
Site Name: BRG 134 943057,CT
Project Number: 82164.014.01

Tnx Reactions

Uplift	273	k
Comp.	331	k

U.Shear	33	k
C. Shear	39	k

Applied Loads

dpier	9	ft
bpier	6.25	ft
Lpier	9	ft
n	4	

Wt.conc =γ x Lpier x dpier x bpier= 75.9375 k

Ru =Uplift-0.9 x Wt.conc = 204.6563 k

Rc =Comp.+1.2 x Wt.conc = 422.125 k

Compression Analysis:

qult	30	ksf
φ	0.75	

Ultimate Bearing Capacity
Strength Reduction Factor

Mu	351	K-ft	
e	0.8315073	ft	
B/6	1.0416667	ft	
S	58.59375	ft3	Since e<B/6
qc	13.494844	Ksf	

Comp.= qc / φqu = 0.599771 **59.98 %**

Bearing stress rating **RevH 57.12 %**

Lateral Analysis:

μ	0.3	
φ	0.75	
Rv	39	k

Rc= 422.125

Rs= Rc x μ = 126.6375 k

φ x Rs = 94.978125 k -----Lateral Resistance

Lateral= $\frac{Rv}{\varphi Rs}$ = 0.410621 **41.06 %**

Lateral Stress Rating **RevH 39.11 %**

Uplift Analysis:

a.Steel Anchor Nominal Tensile Strength:

Fu	90	Ksi	A615 Gr. 60 Rebar
Anet	1.56	in^2	#11 Rebar

Ru= 204.65625

Rn_steel= Fu x Anet= 140.4 k

b. Steel-to-Grout Nominal Bonding Strength:

L	8	ft	Embedded Length in concrete
d rebar	1.41	in	
θ	0	degrees	Batter Angle
fc	4000	psi	Grout Compressive Strength (Assumed)

As =Pi()x d rebar x (L/cos(θ)) = 425.246 in^2 Rebar Surface Area

Fs_g= 6 x √(fc) x√(psi) = 379.4733 psi --Steel-to-Grout Bond Strength

Rn_steel_to_grout= As x fs_g = 161.3695 k --Nominal Steel-to-Grout Bond Strength per Anchor

c. Grout-Rock Nominal Bonding Strength:

L_Sand	9	ft	Length of Embedment Into Sand below 10' below grade
dhole	2.25	in	
θ	0	degrees	
Fr_g	110	psi	Grout-Rock Bond Strength

Ab =Pi()x dhole x (L_Sand/cos(θ)) = 763.407 in^2 Grout Surface Area

Rn_rock_grout= Fr_g x Ab= 83.975 kip--Nominal Grout-Rock Bond Strength per Anchor

d. Nominal Weight of Rock Prism:

Leff	9.5	ft	--Effective Embedment Length = 5'-10' rock below grade + 9'/2 Sand
danchors	2	ft	--Spacing between anchors
φrock	40	degrees	
γ rock	140	pcf	
hsoil	5	ft	--Soil Layer Height
φsoil	40	degrees	
γ soil	135	pcf	--Unit Weight of Soil

d1= danchors= 2 ft

d2= 2 x Leff x tan(φrock)+danchors = 17.943 ft--Dia @ Top of Rock Layer

d3= d2+2 x hsoil x tan(φsoil) = 26.33 ft--Dia @ Top of Soil Layer

$$V_{rock} := \frac{\pi \cdot L_{eff}}{3} \cdot \left[\left(\frac{d_2}{2} \right)^2 + \left(\frac{d_2}{2} \right) \left(\frac{d_1}{2} \right) + \left(\frac{d_1}{2} \right)^2 \right]$$ = 899.9132 ft^3

$$V_{soil} := \frac{\pi \cdot h_{soil}}{3} \cdot \left[\left(\frac{d_3}{2} \right)^2 + \left(\frac{d_3}{2} \right) \left(\frac{d_2}{2} \right) + \left(\frac{d_2}{2} \right)^2 \right]$$ = 1947.692 ft^3

Wrock=γ rock x Vrock = 125.9879 k

Wsoil=γ soil x Vsoil = 262.9385 k

Overlapped concrete block on soil cone 42.1875 K

Rn_rock=Wrock+Wsoil= 346.7388 k

Rn_rock per pile 86.6847 K

$R_n := \min(R_{n\_steel}, R_{n\_steel\_to\_grout}, R_{n\_rock\_grout}, R_{n\_rock}) =$ 83.975 k

Dowel Capacity

Bit diameter for Dowel as per CCI_821566 0.875 in

Based on Bit diameter, the rebar size is assumed to be #6

(1) #6 Shear capacity 14.256 K

There are total of (15) dowel per face, meaning 7.5 dowels per anchor

Dowel capacity per anchor 106.920 K

φRn= 62.981079 k

n*φRn= 251.92431

Ru= 204.656

Uplift = Ru/(n*φRn)= 0.812372 **81.24 %**

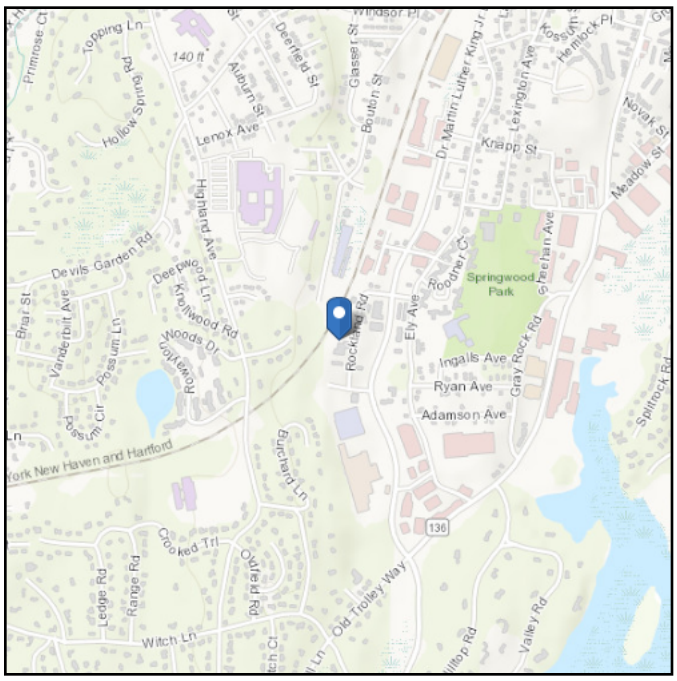
RevH **77.37 %**

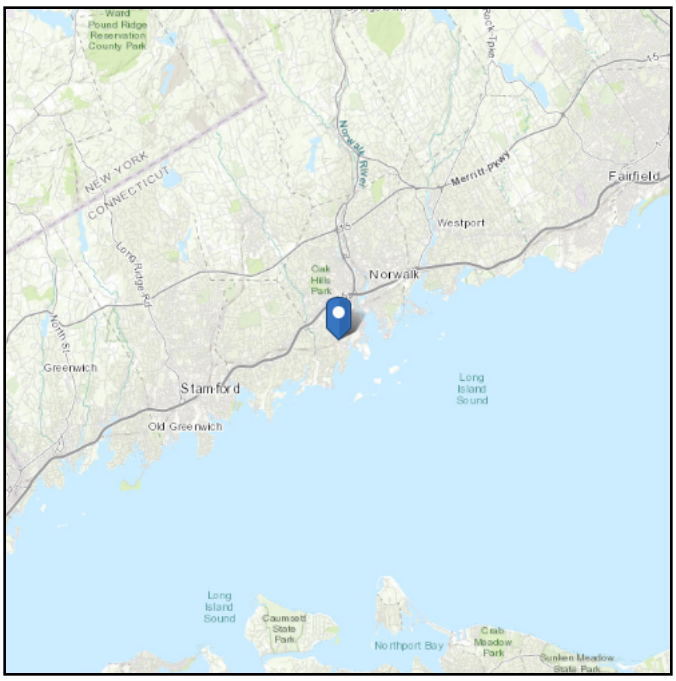
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 60.78 ft (NAVD 88)
Latitude: 41.081789
Longitude: -73.430422





Wind

Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	98 Vmph

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

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

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

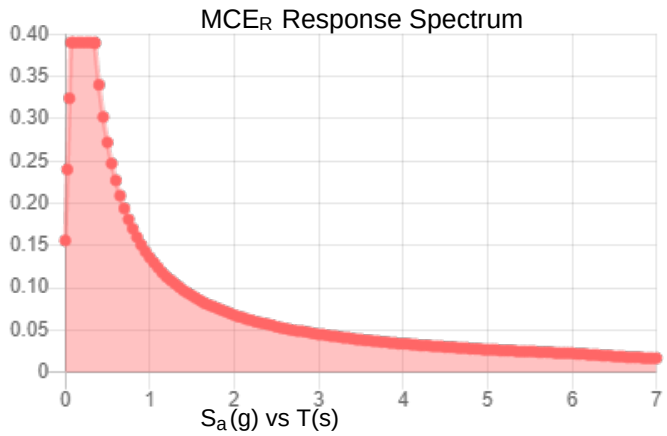
Seismic

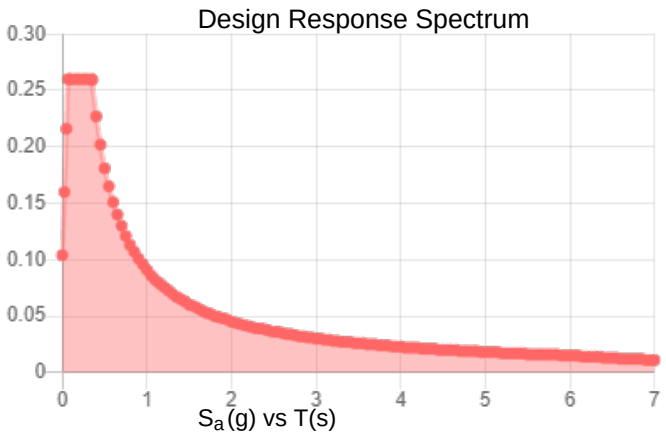
Site Soil Class: D - Default (see Section 11.4.3)

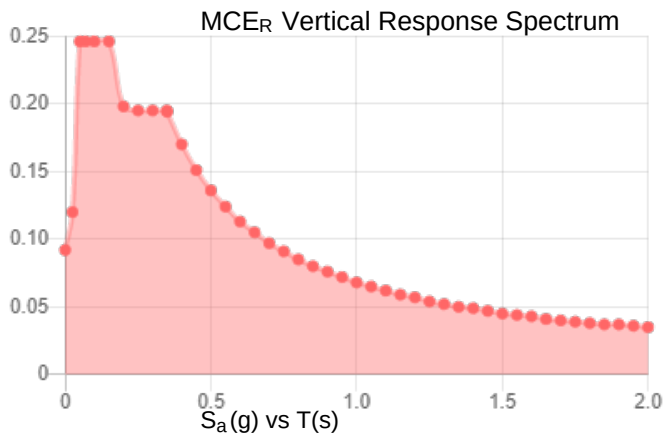
Results:

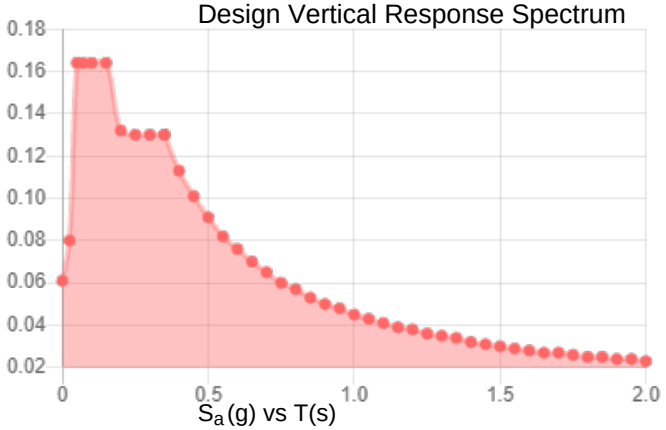
S_S :	0.244	S_{D1} :	0.091
S_1 :	0.057	T_L :	6
F_a :	1.6	PGA :	0.144
F_v :	2.4	PGA_M :	0.218
S_{MS} :	0.39	F_{PGA} :	1.511
S_{M1} :	0.136	I_e :	1
S_{DS} :	0.26	C_v :	0.788

Seismic Design Category B









Data Accessed: **Wed Feb 16 2022**

Date Source:

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Wed Feb 16 2022

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

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

Exhibit E

Mount Analysis

Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
(856) 797-0412
peter.albano@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10070202
Maser Consulting Connecticut Project #: 21777077A

June 4, 2021

Site Information	*Site ID:*	*468538-VZW / NORWALK CT*
	Site Name:	*NORWALK CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*50 Rockland Rd* *Norwalk, Connecticut 06854* *Fairfield County*
	Latitude:	*41.081778°*
	Longitude:	*-73.430417°*
Structure Information	*Tower Type:*	*180-Ft Self Support*
	Mount Type:	*15.00-Ft T Frame*

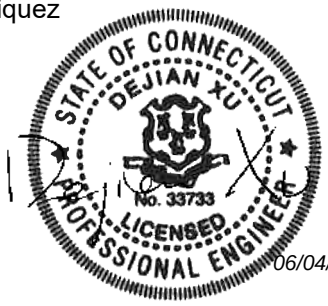
FUZE ID # 16231923

Analysis Results

T-Frame: **60.8% 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: Abigail Enriquez



06/04/2021

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

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: 324556, dated May 5, 2021*
Mount Mapping Report	*Hudson Design Group LLC Site ID: 468538, dated March 8, 2021*
Previous Mount Analysis Report	*Maser Consulting Connecticut, Project # 21777077A, dated May 10, 2021*
Mount Modification Drawings	*Maser Consulting Connecticut, Project # 21777077A, dated June 4, 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:	I
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.998
Seismic Parameters:	S_S:	0.244
	S_1:	0.057
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
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
128.00	129.00	6	Commscope	JAHH-65C-R3B	Added
		3	Samsung	MT6407-77A	
		1	RFS	DB-C1-12C-24AB-0Z	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		3	Samsung	XXDWMM-12.5-65	
		4	Decibel	DB844G65ZAXY	Retained
		2	Decibel	DB844H80-XY	

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 Maser Consulting Connecticut 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 Maser Consulting Connecticut 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 Maser Consulting Connecticut, 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. Maser Consulting Connecticut 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

8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

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

Analysis Results:

Component	Utilization %	Pass/Fail
MOD Face Horizontal	*55.2%*	*Pass*
MOD V-Bracing	*27.8%*	*Pass*
MOD Angle Connection	*24.9%*	*Pass*
Antenna Pipe	*51.1%*	*Pass*
Dual Mount Pipe	*28.2%*	*Pass*
Face Vertical	*37.7%*	*Pass*
Mast Pipe	*10.3%*	*Pass*
Tie-Back	*13.6%*	*Pass*
Standoff Vertical	*23.6%*	*Pass*
Face Horizontal	*60.8%*	*Pass*
Standoff Horizontal	*16.4%*	*Pass*
Connection Check	*18.1 %*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**60.8%**

Recommendation:

The existing mounts will be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

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:

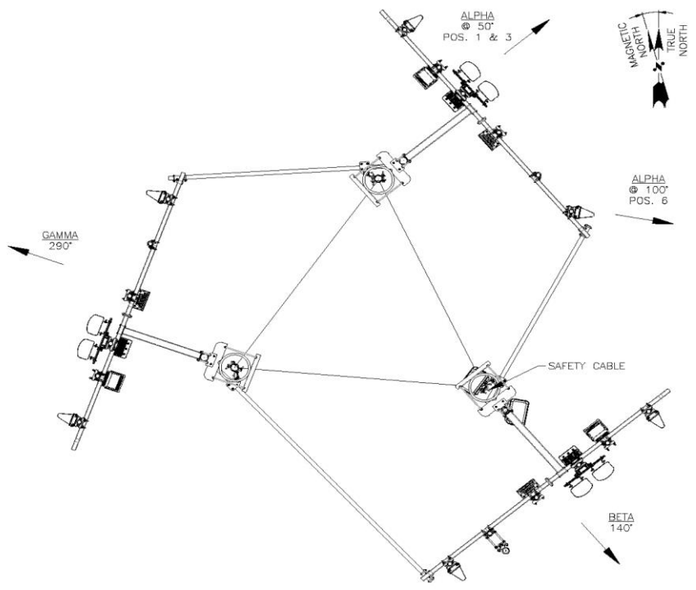
1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter

V3.0 Updated on 8-31-2020

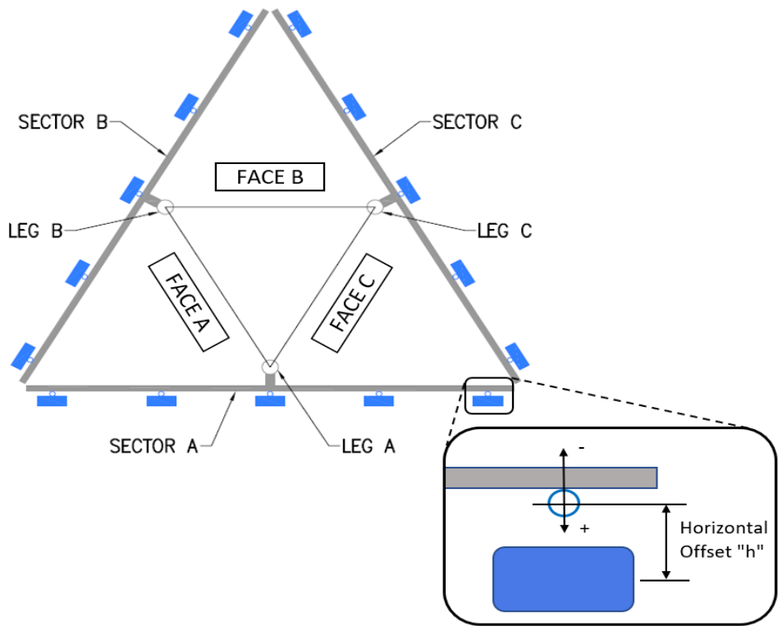
Antenna Mount Mapping Form (PATENT PENDING)

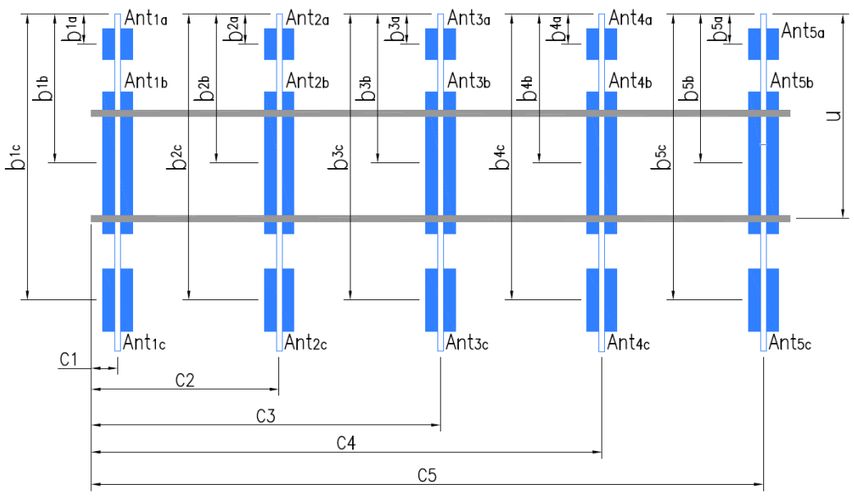
FCC #
None

Tower Owner:	Crown Castle	**Mapping Date:**	3/8/2021
Site Name:	Norwalk CT	**Tower Type:**	Self Support Tower
Site Number or ID:	468538	**Tower Height (Ft.):**	180' (est.)
Mapping Contractor:	HUDSON DESIGN GROUP LLC,	**Mount Elevation (Ft.):**	131.75



ANTENNA PLAN
SCALE: N.T.S
1
SK-1





Antenna Layout (Looking Out From Tower)

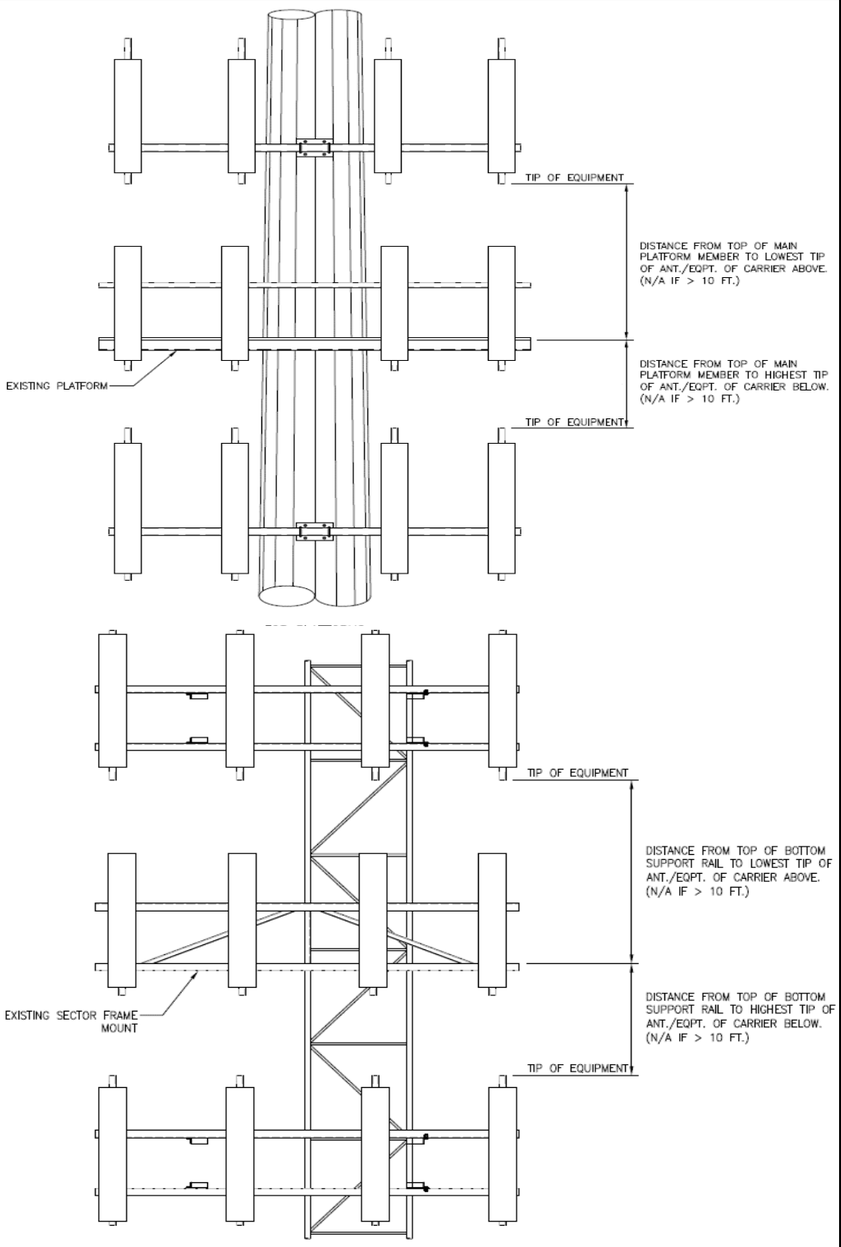
Mount Pipe Configuration and Geometries [Unit = Inches]

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	PIPE 2" STD X 84" LONG	75.00	17.00	C1	PIPE 2" STD X 84" LONG	75.00	17.00
A2	PIPE 2" STD X 84" LONG	75.00	47.00	C2	PIPE 2" STD X 84" LONG	75.00	47.00
A3	PIPE 2" STD X 84" LONG	62.00	68.00	C3	PIPE 2" STD X 84" LONG	62.00	68.00
A4	PIPE 2" STD X 84" LONG	75.00	99.00	C4	PIPE 2" STD X 84" LONG	75.00	99.00
A5	PIPE 2" STD X 84" LONG	75.00	133.00	C5	PIPE 2" STD X 84" LONG	75.00	133.00
A6	PIPE 2" STD X 84" LONG	75.00	162.00	C6	PIPE 2" STD X 84" LONG	75.00	162.00
B1	PIPE 2" STD X 84" LONG	75.00	17.00	D1			
B2	PIPE 2" STD X 84" LONG	75.00	47.00	D2			
B3	PIPE 2" STD X 84" LONG	62.00	68.00	D3			
B4	PIPE 2" STD X 84" LONG	75.00	99.00	D4			
B5	PIPE 2" STD X 84" LONG	75.00	133.00	D5			
B6	PIPE 2" STD X 84" LONG	75.00	162.00	D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							18.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :							6.5
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :							12
Please enter additional infomation or comments below.							
Tower Face Width at Mount Elev. (ft.):		11.66	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):				5 1/2

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}	PANEL ANTENNA	6.50	8.00	48.00	1-5/8" (18	131.75	57.00	12.50	50.00	93
Ant_{1c}										
Ant_{2a}	B66a RRH 4x45	12.00	7.50	25.00		135	18.00	-6.00		84
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B13 RRH4x30	12.00	7.50	20.50		135.083	4.00	-6.00		86
Ant_{3b}	(2) SBNHH-1D65C	12.00	7.50	97.00		132.667	33.00	10.00	50.00	88
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	B25 RRH4x30	12.00	7.00	21.00		135	18.00	-6.50		123
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	PANEL ANTENNA	6.50	8.00	48.00		131.75	57.00	12.50	100.00	160
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	50.00	Deg	Leg A:	5.00	Deg
Sector B:	140.00	Deg	Leg B:	125.00	Deg
Sector C:	290.00	Deg	Leg C:	245.00	Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	B LEG	Deg	125 Degree
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}										
Ant_{1b}	PANEL ANTENNA	6.50	8.00	48.00		131.75	57.00	12.50	140.00	93
Ant_{1c}										
Ant_{2a}	B66a RRH 4x45	12.00	7.50	25.00		135	18.00	-6.00		84
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B13 RRH4x30	12.00	7.50	20.50		135.083	4.00	-6.00		86
Ant_{3b}	(2) SBNHH-1D65C	12.00	7.50	97.00		132.667	33.00	10.00	140.00	88
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	B25 RRH4x30	12.00	7.00	21.00		135	18.00	-6.50		123
Ant_{4c}										
Ant_{5a}	GPS					136.5				117
Ant_{5b}	PANEL ANTENNA	6.50	8.00	48.00		131.75	57.00	12.50	140.00	160
Ant_{5c}										
Ant on Standoff	RRFDC-3315-PF-48	15.00	10.00	28.00	1.25"H (1)	134.5	24.00	6.00		34
Ant on Standoff										
Ant on Tower	RRFDC-3315-PF-48	15.00	10.00	28.00	1.25"H (1)	134.5	24.00	6.00		30
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	PANEL ANTENNA	6.50	8.00	48.00		131.75	57.00	12.50	290.00	93
Ant_{1c}										
Ant_{2a}	B66a RRH 4x45	12.00	7.50	25.00		135	18.00	-6.00		84
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B13 RRH4x30	12.00	7.50	20.50		135.083	4.00	-6.00		86
Ant_{3b}	(2) SBNHH-1D65C	12.00	7.50	97.00		132.667	33.00	10.00	290.00	88
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	B25 RRH4x30	12.00	7.00	21.00		135	18.00	-6.50		123
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	PANEL ANTENNA	6.50	8.00	48.00		131.75	57.00	12.50	290.00	160
Ant_{5c}										
Ant on Standoff										
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	(18) 1-5/8" COAX (6) ARE DEAD , (2) 1-1/4" HYBRID & (1) 1/2" GPS COX	160
2		
3		
4		
5		
6		
7		
8		

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.

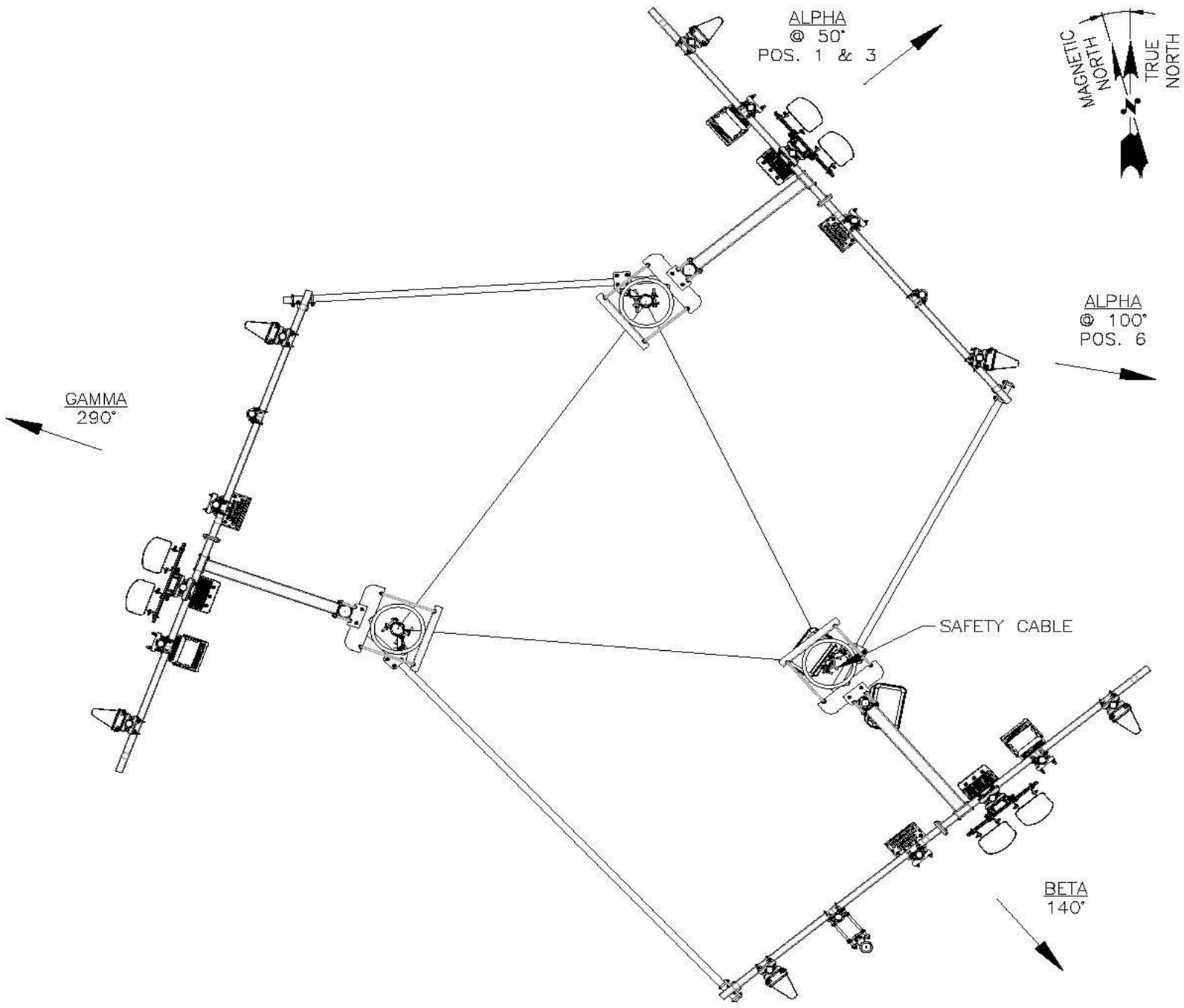
V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
None

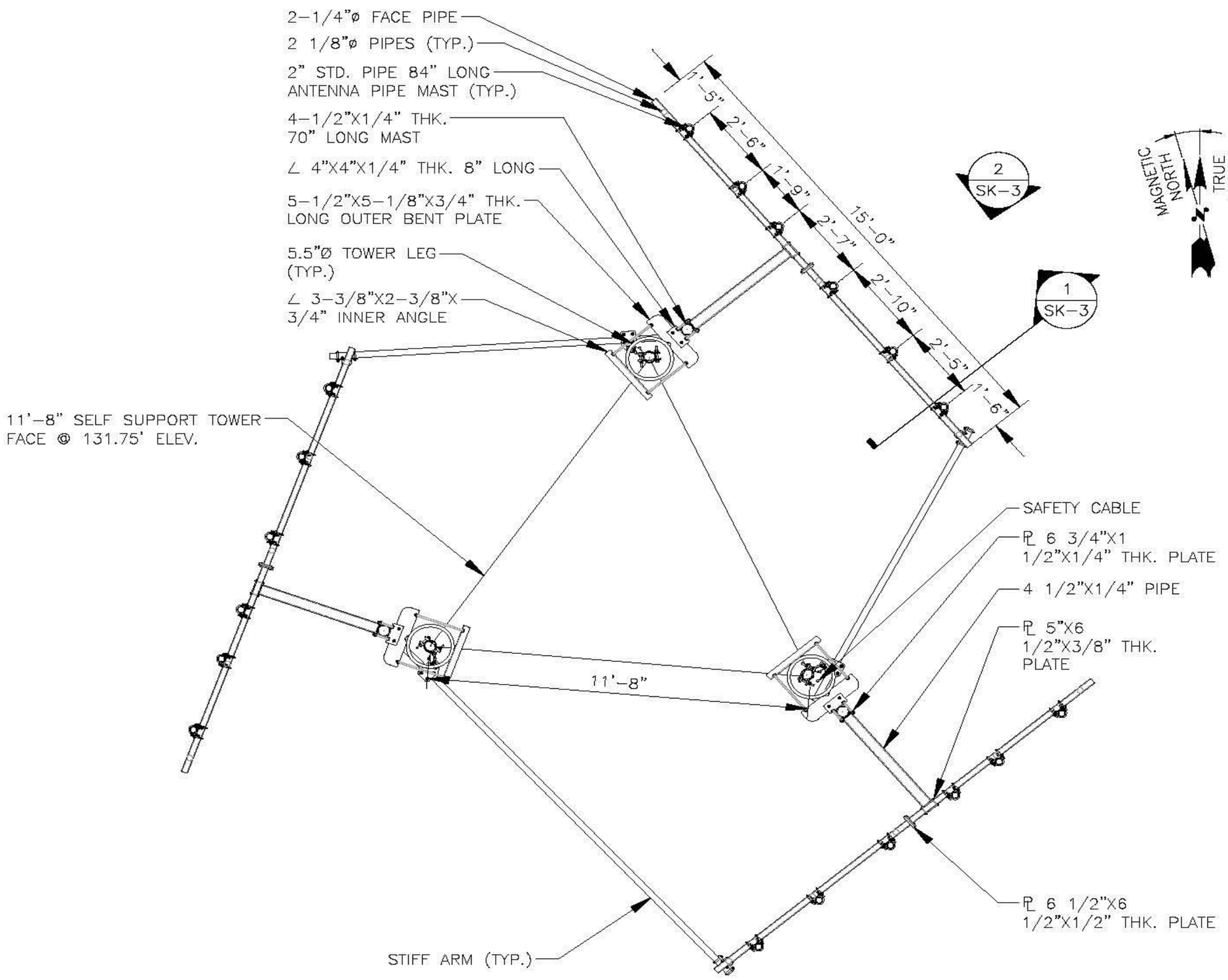
Tower Owner:	Crown Castle	**Mapping Date:**	3/8/2021
Site Name:	Norwalk CT	**Tower Type:**	Self Support Tower
Site Number or ID:	468538	**Tower Height (Ft.):**	180' (est.)
Mapping Contractor:	HUDSON DESIGN GROUP LLC,	**Mount Elevation (Ft.):**	131.75

Please Insert Sketches of the Antenna Mount



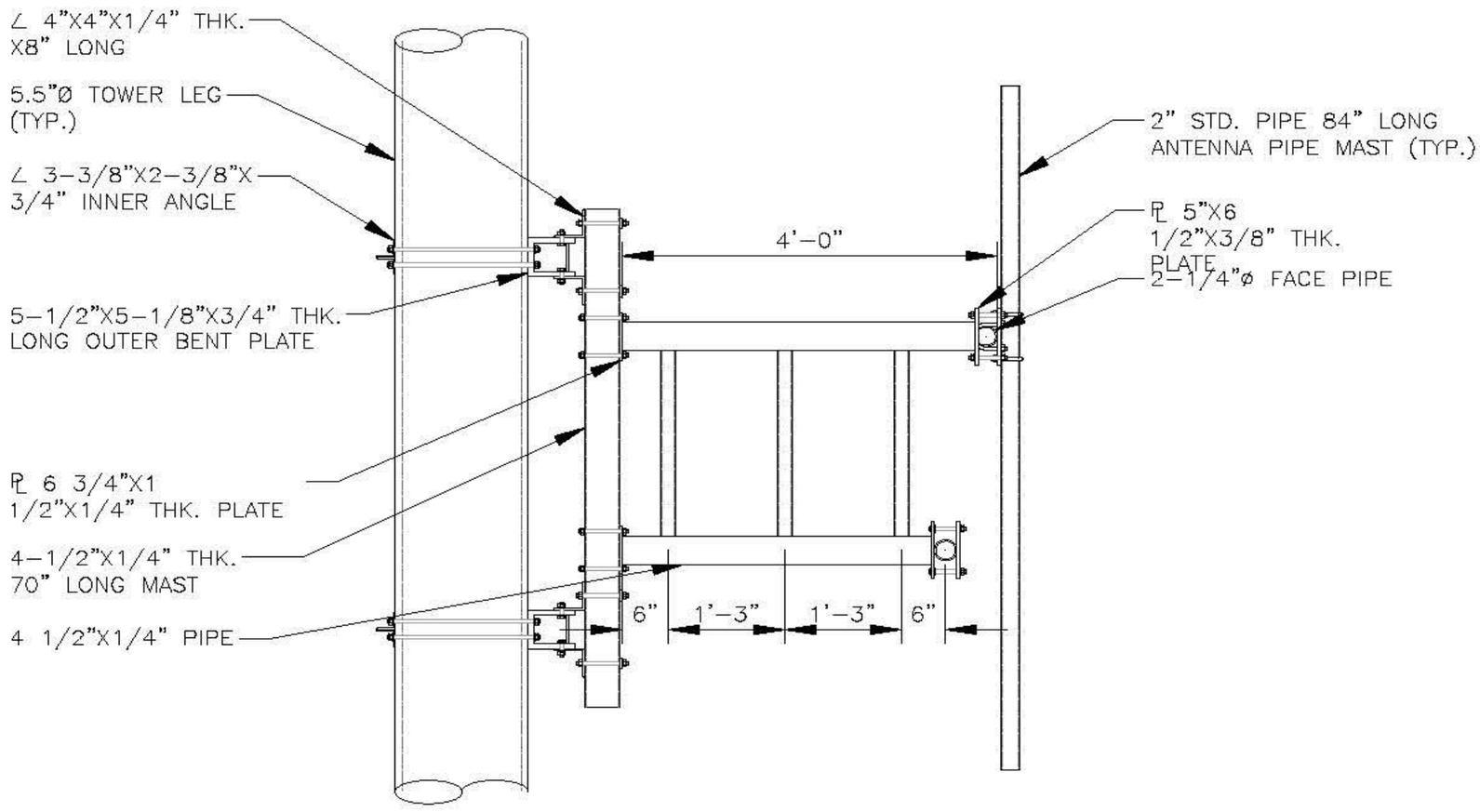
ANTENNA PLAN (1 / SK–1)
SCALE: N.T.S

Please Insert Sketches of the Antenna Mount, cont'd

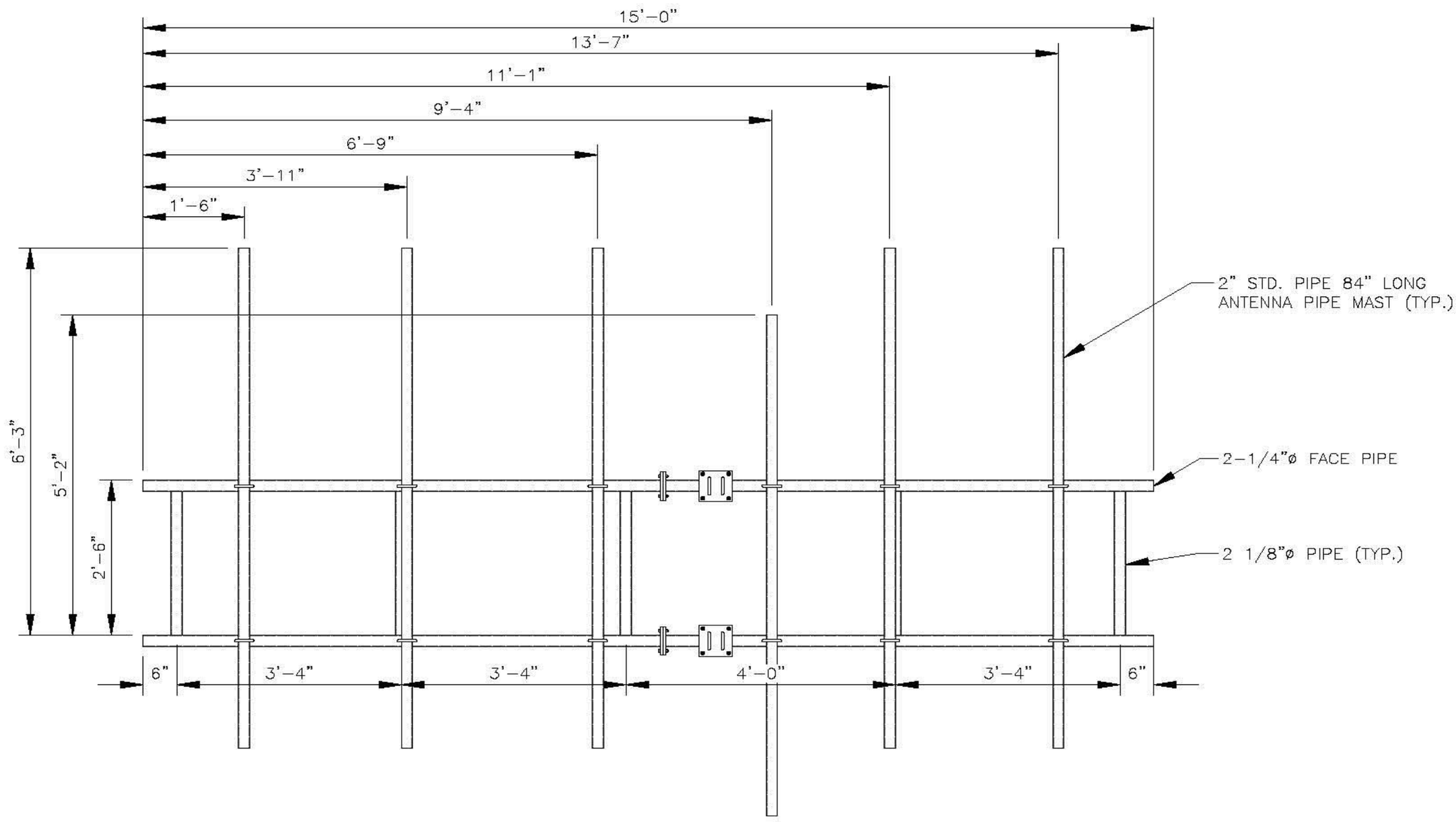


MOUNT PLAN (1 / SK–2)
SCALE: N.T.S

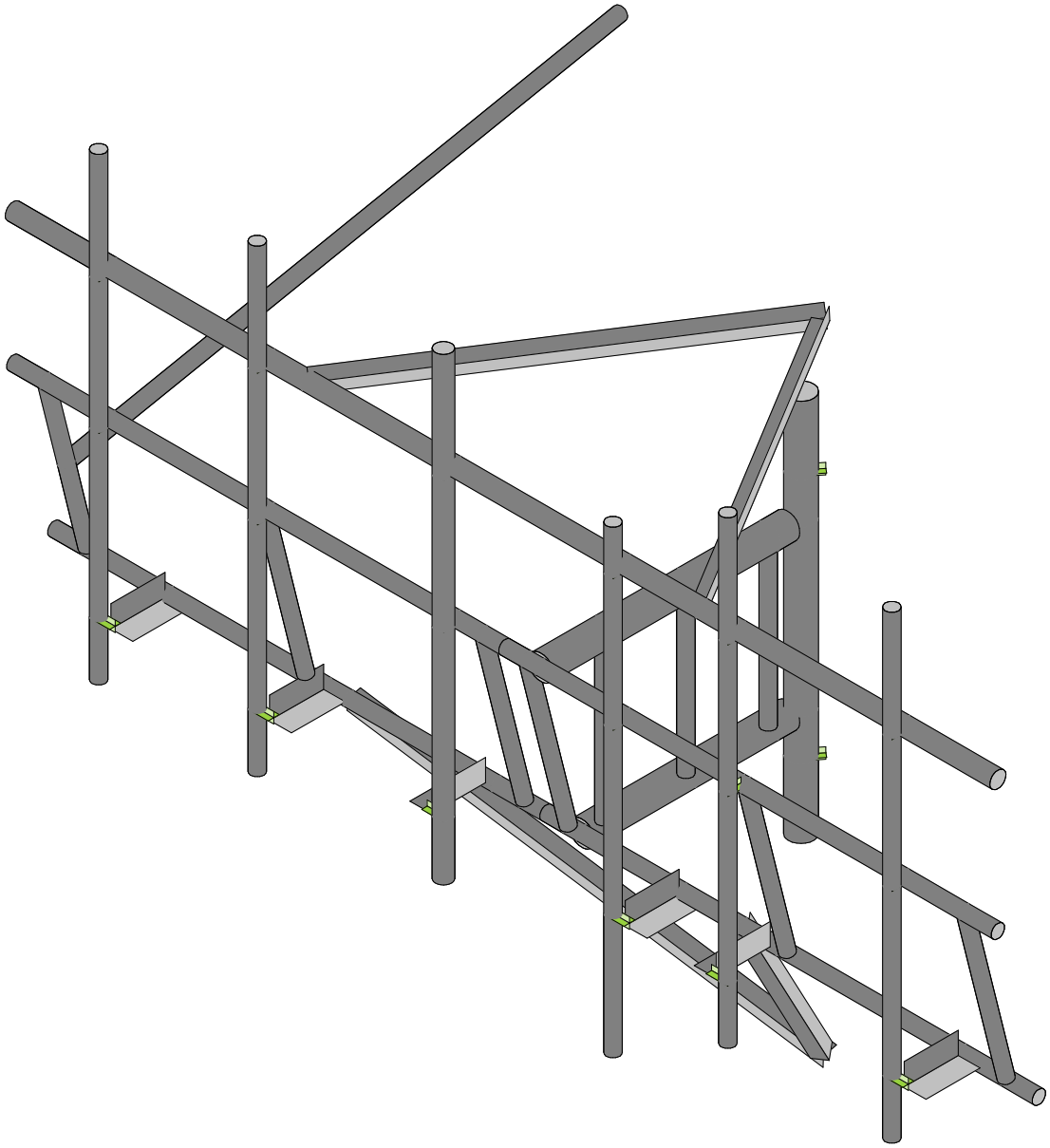
Please Insert Sketches of the Antenna Mount, cont'd



SIDE ELEVATION VIEW (1 / SK-3)
SCALE: N.T.S



MOUNT FACE ELEVATION VIEW (2 / SK-3)
SCALE: N.T.S



Maser Consulting		SK - 1
AE		June 2, 2021 at 7:23 AM
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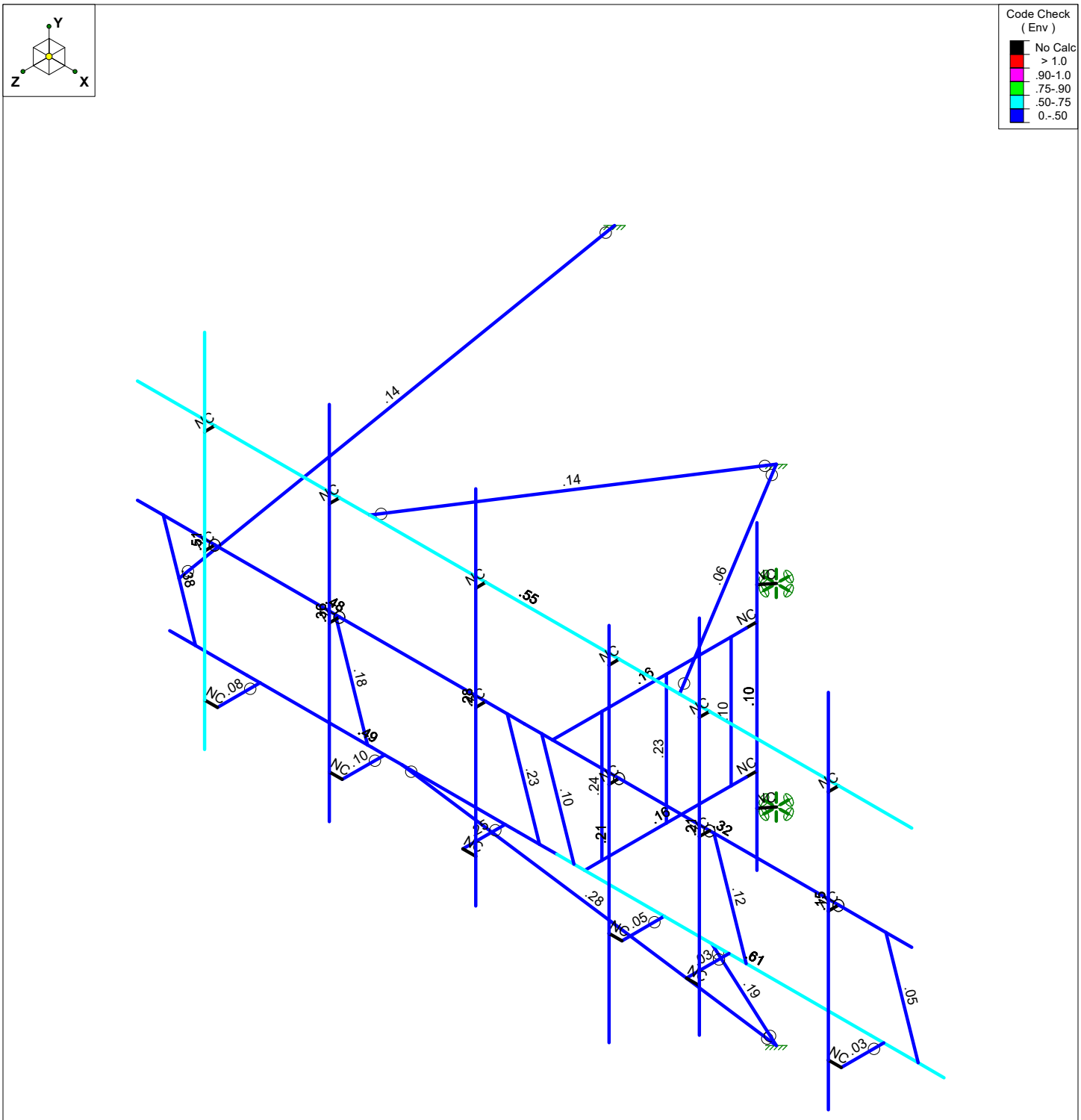

Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Maser Consulting		SK - 2
AE		June 2, 2021 at 7:23 AM
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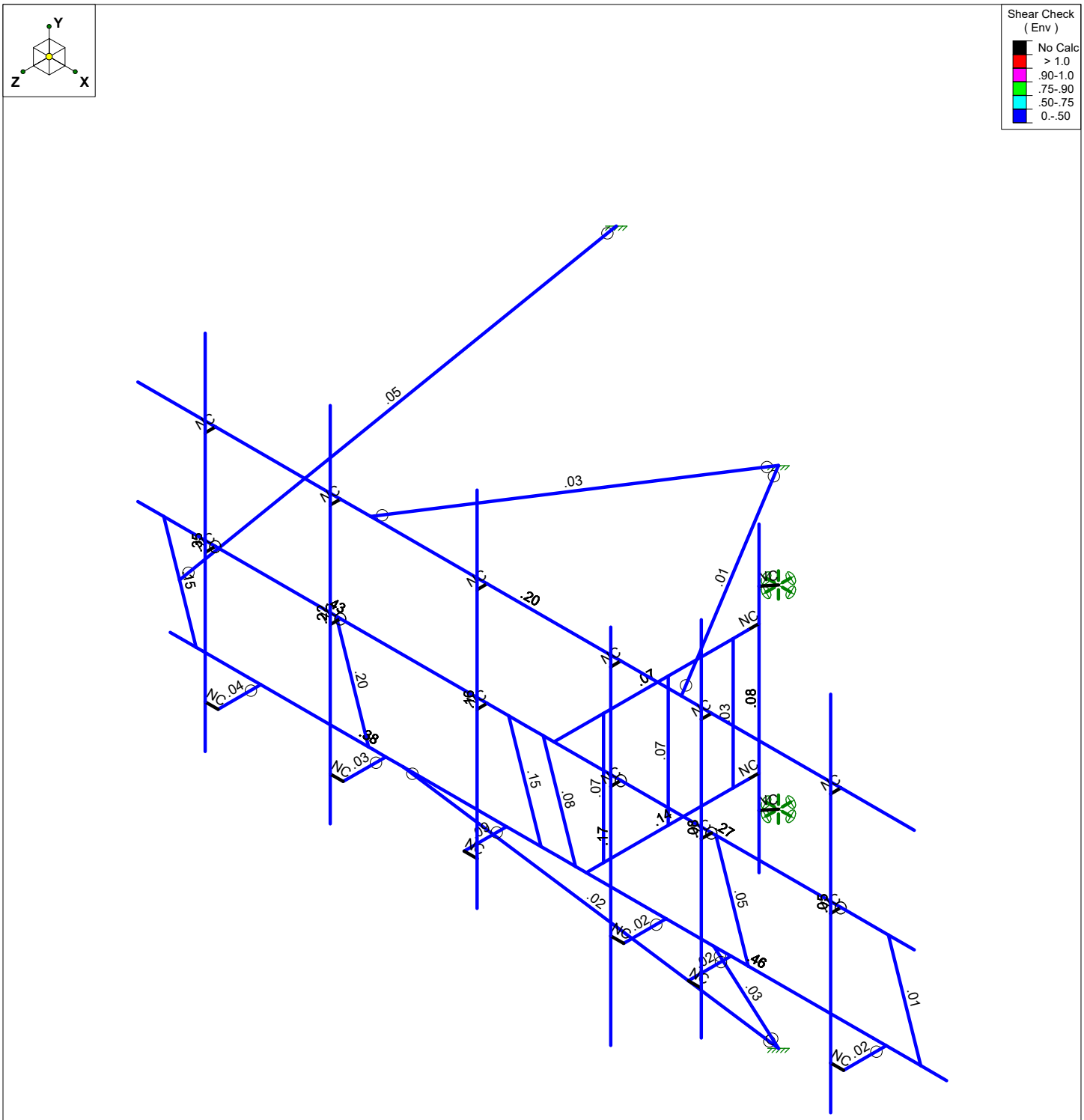


Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Maser Consulting		SK - 3
AE		June 2, 2021 at 7:23 AM
21777077A		FINAL_468538-VZW_MT_LOT_A_...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Antenna D	None					42			
2	Antenna Di	None								
3	Antenna Wo (0 Deg)	None					42			
4	Antenna Wo (30 Deg)	None					42			
5	Antenna Wo (60 Deg)	None					42			
6	Antenna Wo (90 Deg)	None					42			
7	Antenna Wo (120 Deg)	None					42			
8	Antenna Wo (150 Deg)	None					42			
9	Antenna Wo (180 Deg)	None					42			
10	Antenna Wo (210 Deg)	None					42			
11	Antenna Wo (240 Deg)	None					42			
12	Antenna Wo (270 Deg)	None					42			
13	Antenna Wo (300 Deg)	None					42			
14	Antenna Wo (330 Deg)	None					42			
15	Antenna Wi (0 Deg)	None								
16	Antenna Wi (30 Deg)	None								
17	Antenna Wi (60 Deg)	None								
18	Antenna Wi (90 Deg)	None								
19	Antenna Wi (120 Deg)	None								
20	Antenna Wi (150 Deg)	None								
21	Antenna Wi (180 Deg)	None								
22	Antenna Wi (210 Deg)	None								
23	Antenna Wi (240 Deg)	None								
24	Antenna Wi (270 Deg)	None								
25	Antenna Wi (300 Deg)	None								
26	Antenna Wi (330 Deg)	None								
27	Antenna Wm (0 Deg)	None					42			
28	Antenna Wm (30 Deg)	None					42			
29	Antenna Wm (60 Deg)	None					42			
30	Antenna Wm (90 Deg)	None					42			
31	Antenna Wm (120 Deg)	None					42			
32	Antenna Wm (150 Deg)	None					42			
33	Antenna Wm (180 Deg)	None					42			
34	Antenna Wm (210 Deg)	None					42			
35	Antenna Wm (240 Deg)	None					42			
36	Antenna Wm (270 Deg)	None					42			
37	Antenna Wm (300 Deg)	None					42			
38	Antenna Wm (330 Deg)	None					42			
39	Structure D	None		-1						
40	Structure Di	None								
41	Structure Wo (0 Deg)	None						70		
42	Structure Wo (30 Deg)	None						70		
43	Structure Wo (60 Deg)	None						70		
44	Structure Wo (90 Deg)	None						70		
45	Structure Wo (120 D...	None						70		
46	Structure Wo (150 D...	None						70		
47	Structure Wo (180 D...	None						70		
48	Structure Wo (210 D...	None						70		
49	Structure Wo (240 D...	None						70		
50	Structure Wo (270 D...	None						70		
51	Structure Wo (300 D...	None						70		
52	Structure Wo (330 D...	None						70		
53	Structure Wi (0 Deg)	None						70		
54	Structure Wi (30 Deg)	None						70		
55	Structure Wi (60 Deg)	None						70		
56	Structure Wi (90 Deg)	None						70		

Basic Load Cases (Continued)

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

Load Combinations

	Description	Solve	P...	S...	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 De...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1										
15	1.2D + 1.0Di + 1.0Wi (60 De...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1										
16	1.2D + 1.0Di + 1.0Wi (90 De...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1										
17	1.2D + 1.0Di + 1.0Wi (120 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1										
18	1.2D + 1.0Di + 1.0Wi (150 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1										
19	1.2D + 1.0Di + 1.0Wi (180 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1										
20	1.2D + 1.0Di + 1.0Wi (210 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1										
21	1.2D + 1.0Di + 1.0Wi (240 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1										
22	1.2D + 1.0Di + 1.0Wi (270 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1										
23	1.2D + 1.0Di + 1.0Wi (300 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1										
24	1.2D + 1.0Di + 1.0Wi (330 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1										
25	1.2D + 1.5Lm1 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1												
26	1.2D + 1.5Lm1 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1												
27	1.2D + 1.5Lm1 + 1.0Wm (60...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1												
28	1.2D + 1.5Lm1 + 1.0Wm (90...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1												

Load Combinations (Continued)

	Description	Solve	P...	S...	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 (12...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0Wm (33...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0Wm (60...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0Wm (90...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0Wm (12...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0Wm (33...	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 D...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.8...										
55	1.2D + 1.0Ev + 1.0Eh (60 D...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5										
56	1.2D + 1.0Ev + 1.0Eh (90 D...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ											
57	1.2D + 1.0Ev + 1.0Eh (120 ...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5										
58	1.2D + 1.0Ev + 1.0Eh (150 ...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866										
59	1.2D + 1.0Ev + 1.0Eh (180 ...		Y		1	1.2	39	1.2	SX		SY	1	SZ	1										
60	1.2D + 1.0Ev + 1.0Eh (210 ...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866										
61	1.2D + 1.0Ev + 1.0Eh (240 ...		Y		1	1.2	39	1.2	SX	-.8...	SY	1	SZ	.5										
62	1.2D + 1.0Ev + 1.0Eh (270 ...		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ											
63	1.2D + 1.0Ev + 1.0Eh (300 ...		Y		1	1.2	39	1.2	SX	-.8...	SY	1	SZ	-.5										
64	1.2D + 1.0Ev + 1.0Eh (330 ...		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 Diap...
1	N103	2.708333	0	3.5	0	
2	N104	-5.333333	0	3.5	0	
3	N105	9.666667	0	3.5	0	
4	N106	2.708333	2.5	4.125	0	
5	N107	-5.333333	2.5	4.125	0	
6	N108	9.666667	2.5	4.125	0	
7	N109	2.708333	0	.375	0	
8	N110	2.708333	2.5	.375	0	
9	N111	2.708333	0	0.666667	0	
10	N112	2.708333	2.5	0.666667	0	
11	N113	2.708333	0	1.916667	0	
12	N114	2.708333	2.5	1.916667	0	
13	N115	5.833333	0	3.5	0	
14	N116	5.833333	2.5	4.125	0	
15	N117	2.5	0	3.5	0	
16	N118	2.5	2.5	4.125	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
17	N119	-4.833333	0	3.5	0	
18	N120	-4.833333	2.5	4.125	0	
19	N121	-1.5	0	3.5	0	
20	N122	-1.5	2.5	4.125	0	
21	N123	1.833333	0	3.5	0	
22	N124	1.833333	2.5	4.125	0	
23	N129	2.166667	2.5	4.125	0	
24	N130	2.166667	0	3.5	0	
25	N139	2.708333	0	3.166667	0	
26	N140	2.708333	2.5	3.166667	0	
27	N143	2.708333	4.166667	0.166667	0	
28	N144	2.708333	-1.666667	0.166667	0	
29	N145	2.708333	3.125	0.166667	0	
30	N146	2.708333	-0.625	0.166667	0	
31	N51	2.875	3.125	-0.041667	0	
32	N52	2.875	-0.625	-0.041667	0	
33	N170A	2.708333	0	0.166667	0	
34	N171	2.708333	2.5	0.166667	0	
35	N41	9.166667	0	3.5	0	
36	N42	9.166667	2.5	4.125	0	
37	N48A	-3.833333	2.5	4.125	0	
38	N49A	-3.833333	2.5	4.322917	0	
39	N50A	-3.833333	6.166667	4.322917	0	
40	N51B	-3.833333	-0.833333	4.322917	0	
41	N214A	-6.557071	1.265417	-6.340475	0	
42	N49	-1.416667	2.5	4.125	0	
43	N50	-1.416667	2.5	4.322917	0	
44	N51A	-1.416667	6.166667	4.322917	0	
45	N52A	-1.416667	-0.833333	4.322917	0	
46	N53	1.416667	2.5	4.125	0	
47	N54	1.416667	2.5	4.322917	0	
48	N55	1.416667	6.166667	4.322917	0	
49	N56	1.416667	-0.833333	4.322917	0	
50	N57	4.	2.5	4.125	0	
51	N58	4.	2.5	4.322917	0	
52	N59	4.	5.166667	4.322917	0	
53	N60	4.	-1.833333	4.322917	0	
54	N61	5.75	2.5	4.125	0	
55	N62	5.75	2.5	4.322917	0	
56	N63	5.75	6.166667	4.322917	0	
57	N64	5.75	-0.833333	4.322917	0	
58	N65	8.25	2.5	4.125	0	
59	N66	8.25	2.5	4.322917	0	
60	N67	8.25	6.166667	4.322917	0	
61	N68	8.25	-0.833333	4.322917	0	
62	N63A	-4.833333	1.287322	3.82183	0	
63	N63B	-3.833333	0	4.322917	0	
64	N64A	-1.416667	0	4.322917	0	
65	N65A	1.416667	0	4.322917	0	
66	N66A	4.	0	4.322917	0	
67	N67A	5.75	0	4.322917	0	
68	N68A	8.25	0	4.322917	0	
69	N69	-3.833333	0	3.5	0	
70	N70	-1.416667	0	3.5	0	
71	N71	1.416667	0	3.5	0	
72	N72	4.	0	3.5	0	
73	N73	5.75	0	3.5	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
74	N74	8.25	0	3.5	0	
75	N75	-3.583333	0	3.5	0	
76	N76	-1.166667	0	3.5	0	
77	N77	4.25	0	3.5	0	
78	N78	8.5	0	3.5	0	
79	N79	1.166667	0	3.5	0	
80	N80	5.5	0	3.5	0	
81	N81	-3.583333	0	4.322917	0	
82	N82	-1.166667	0	4.322917	0	
83	N83	4.25	0	4.322917	0	
84	N84	8.5	0	4.322917	0	
85	N85	1.166667	0	4.322917	0	
86	N86	5.5	0	4.322917	0	
87	N87	2.875	5.125	-0.041667	0	
88	N88	2.875	-4.625	-0.041667	0	
89	N89	5.166667	4.5	4.125	0	
90	N90	5.166667	0	3.5	0	
91	N91	-0.833333	4.5	4.125	0	
92	N92	-0.833333	0	3.5	0	
93	N93	-5.333333	4.5	4.125	0	
94	N94	9.666667	4.5	4.125	0	
95	N95	-3.833333	4.5	4.125	0	
96	N96	-3.833333	4.5	4.322917	0	
97	N97	-1.416667	4.5	4.125	0	
98	N98	-1.416667	4.5	4.322917	0	
99	N99	1.416667	4.5	4.125	0	
100	N100	1.416667	4.5	4.322917	0	
101	N101	4.	4.5	4.125	0	
102	N102	4.	4.5	4.322917	0	
103	N103A	5.75	4.5	4.125	0	
104	N104A	5.75	4.5	4.322917	0	
105	N105A	8.25	4.5	4.125	0	
106	N106A	8.25	4.5	4.322917	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Dual Mount Pipe	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Dual Antenna Pipe	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
4	Face Horizontal	PIPE_2.0X	Beam	Pipe	A53 Gr. B	Typical	1.4	.827	.827	1.65
5	Face Vertical	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
6	Standoff Horizontal	PIPE_4.0	Beam	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
7	Standoff Vertical	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
8	Tie-Back	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
9	Threaded Rod	SR_0.5	Beam	BAR	A36 Gr.36	Typical	.196	.003	.003	.006
10	Mast Pipe	PIPE_4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
11	MOD Angle Connec...	L4X4X4	Column	Pipe	A36 Gr.36	Typical	1.93	3	3	.044
12	MOD V-Bracing	L2.5x2.5x4	Column	Pipe	A36 Gr.36	Typical	1.19	.692	.692	.026
13	MOD Face Horizontal	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M51	N129	N108			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
2	M52	N130	N105			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
3	M53	N106	N110			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
4	M54	N103	N109			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
5	M55	N116	N115			Face Vertical	Column	Pipe	A53 Gr. B	Typical
6	M56	N118	N117			Face Vertical	Column	Pipe	A53 Gr. B	Typical
7	M57	N120	N119			Face Vertical	Column	Pipe	A53 Gr. B	Typical
8	M58	N122	N121			Face Vertical	Column	Pipe	A53 Gr. B	Typical
9	M59	N124	N123			Face Vertical	Column	Pipe	A53 Gr. B	Typical
10	M62	N107	N129			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
11	M63	N104	N130			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
12	M68	N112	N111			Standoff Vertical	Column	Pipe	A53 Gr. B	Typical
13	O1	N114	N113			Standoff Vertical	Column	Pipe	A53 Gr. B	Typical
14	M70	N140	N139			Standoff Vertical	Column	Pipe	A53 Gr. B	Typical
15	TB_A	N63A	N214A			Tie-Back	Beam	Pipe	A53 Gr. B	Typical
16	M72	N143	N144			Mast Pipe	Column	Pipe	A53 Gr. B	Typical
17	M25	N145	N51			RIGID	None	None	RIGID	Typical
18	M26	N146	N52			RIGID	None	None	RIGID	Typical
19	M85	N110	N171			RIGID	None	None	RIGID	Typical
20	M86	N109	N170A			RIGID	None	None	RIGID	Typical
21	M23	N42	N41			Face Vertical	Column	Pipe	A53 Gr. B	Typical
22	M26A	N49A	N48A			RIGID	None	None	RIGID	Typical
23	MP5A	N50A	N51B			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
24	M28	N50	N49			RIGID	None	None	RIGID	Typical
25	M29	N51A	N52A			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
26	M30	N54	N53			RIGID	None	None	RIGID	Typical
27	MP4A	N55	N56			Dual Mount Pipe	Column	Pipe	A53 Gr. B	Typical
28	M32	N58	N57			RIGID	None	None	RIGID	Typical
29	MP3A	N59	N60			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
30	M34	N62	N61			RIGID	None	None	RIGID	Typical
31	MP2A	N63	N64			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
32	M36	N66	N65			RIGID	None	None	RIGID	Typical
33	MP1A	N67	N68			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
34	M34A	N75	N81		270	MOD Angle C...	Column	Pipe	A36 Gr.36	Typical
35	M35	N76	N82		270	MOD Angle C...	Column	Pipe	A36 Gr.36	Typical
36	M36A	N79	N85			MOD Angle C...	Column	Pipe	A36 Gr.36	Typical
37	M37	N77	N83		270	MOD Angle C...	Column	Pipe	A36 Gr.36	Typical
38	M38	N80	N86			MOD Angle C...	Column	Pipe	A36 Gr.36	Typical
39	M39	N78	N84		270	MOD Angle C...	Column	Pipe	A36 Gr.36	Typical
40	M40	N81	N63B			RIGID	None	None	RIGID	Typical
41	M41	N82	N64A			RIGID	None	None	RIGID	Typical
42	M42	N85	N65A			RIGID	None	None	RIGID	Typical
43	M43	N83	N66A			RIGID	None	None	RIGID	Typical
44	M44	N86	N67A			RIGID	None	None	RIGID	Typical
45	M45	N84	N68A			RIGID	None	None	RIGID	Typical
46	M46	N88	N92		270	MOD V-Bracing	Column	Pipe	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
47	M47	N88	N90			MOD V-Bracing	Column	Pipe	A36 Gr.36	Typical
48	M48	N87	N91		270	MOD V-Bracing	Column	Pipe	A36 Gr.36	Typical
49	M49	N87	N89			MOD V-Bracing	Column	Pipe	A36 Gr.36	Typical
50	M50	N96	N95			RIGID	None	None	RIGID	Typical
51	M51A	N98	N97			RIGID	None	None	RIGID	Typical
52	M52A	N100	N99			RIGID	None	None	RIGID	Typical
53	M53A	N102	N101			RIGID	None	None	RIGID	Typical
54	M54A	N104A	N103A			RIGID	None	None	RIGID	Typical
55	M55A	N106A	N105A			RIGID	None	None	RIGID	Typical
56	M56A	N93	N94			MOD Face Ho...	Column	Pipe	A53 Gr. B	Typical
57	M57A	N93	N94			MOD Face Ho...	Column	Pipe	A53 Gr. B	Typical
58	M58A	N105A	N106A			RIGID	None	None	RIGID	Typical
59	M59A	N103A	N104A			RIGID	None	None	RIGID	Typical
60	M60	N101	N102			RIGID	None	None	RIGID	Typical
61	M61	N99	N100			RIGID	None	None	RIGID	Typical
62	M62A	N97	N98			RIGID	None	None	RIGID	Typical
63	M63A	N95	N96			RIGID	None	None	RIGID	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M51	Face Horizo...	7.5	3.33	3.33	Lbyy						Lateral
2	M52	Face Horizo...	7.5	3.33	3.33	Lbyy						Lateral
3	M53	Standoff Ho...	3.75			Lbyy						Lateral
4	M54	Standoff Ho...	3.125			Lbyy						Lateral
5	M55	Face Vertical	2.577						.65	.65		Lateral
6	M56	Face Vertical	2.577						.65	.65		Lateral
7	M57	Face Vertical	2.577						.65	.65		Lateral
8	M58	Face Vertical	2.577						.65	.65		Lateral
9	M59	Face Vertical	2.577						.65	.65		Lateral
10	M62	Face Horizo...	7.5	3.33	3.33	Lbyy						Lateral
11	M63	Face Horizo...	7.5	3.33	3.33	Lbyy						Lateral
12	M68	Standoff Ve...	2.5						.65	.65		Lateral
13	O1	Standoff Ve...	2.5						.65	.65		Lateral
14	M70	Standoff Ve...	2.5						.65	.65		Lateral
15	TB_A	Tie-Back	10.307			Lbyy						Lateral
16	M72	Mast Pipe	5.833									Lateral
17	M23	Face Vertical	2.577						.65	.65		Lateral
18	MP5A	Antenna Pipe	7									Lateral
19	M29	Antenna Pipe	7									Lateral
20	MP4A	Dual Mount ...	7									Lateral
21	MP3A	Antenna Pipe	7									Lateral
22	MP2A	Antenna Pipe	7									Lateral
23	MP1A	Antenna Pipe	7									Lateral
24	M34A	MOD Angle ...	.823									Lateral
25	M35	MOD Angle ...	.823									Lateral
26	M36A	MOD Angle ...	.823									Lateral
27	M37	MOD Angle ...	.823									Lateral
28	M38	MOD Angle ...	.823									Lateral
29	M39	MOD Angle ...	.823									Lateral
30	M46	MOD V-Bra...	6.905									Lateral
31	M47	MOD V-Bra...	6.26									Lateral
32	M48	MOD V-Bra...	5.613									Lateral
33	M49	MOD V-Bra...	4.796									Lateral
34	M56A	MOD Face ...	15									Lateral
35	M57A	MOD Face ...	15									Lateral

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-40.1	2
2	MP4A	My	-.02	2
3	MP4A	Mz	.024	2
4	MP4A	Y	-40.1	6
5	MP4A	My	-.02	6
6	MP4A	Mz	.024	6
7	MP4A	Y	-40.1	2
8	MP4A	My	-.02	2
9	MP4A	Mz	-.024	2
10	MP4A	Y	-40.1	6
11	MP4A	My	-.02	6
12	MP4A	Mz	-.024	6
13	MP2A	Y	-43.55	.5
14	MP2A	My	-.022	.5
15	MP2A	Mz	0	.5
16	MP2A	Y	-43.55	2.5
17	MP2A	My	-.022	2.5
18	MP2A	Mz	0	2.5
19	O1	Y	-32	.5
20	O1	My	0	.5
21	O1	Mz	0	.5
22	MP3A	Y	-84.4	2.5
23	MP3A	My	-.07	2.5
24	MP3A	Mz	0	2.5
25	MP4A	Y	-70.3	2.5
26	MP4A	My	-.059	2.5
27	MP4A	Mz	0	2.5
28	MP1A	Y	-6	2
29	MP1A	My	-.003	2
30	MP1A	Mz	0	2
31	MP1A	Y	-6	6
32	MP1A	My	-.003	6
33	MP1A	Mz	0	6
34	MP5A	Y	-6	2
35	MP5A	My	-.003	2
36	MP5A	Mz	0	2
37	MP5A	Y	-6	6
38	MP5A	My	-.003	6
39	MP5A	Mz	0	6
40	MP2A	Y	-4.4	5.75
41	MP2A	My	-.002	5.75
42	MP2A	Mz	0	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-259.661	2
3	MP4A	Mx	-.157	2
4	MP4A	X	0	6
5	MP4A	Z	-259.661	6
6	MP4A	Mx	-.157	6
7	MP4A	X	0	2
8	MP4A	Z	-259.661	2
9	MP4A	Mx	.157	2
10	MP4A	X	0	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP4A	Z	-259.661	6
12	MP4A	Mx	.157	6
13	MP2A	X	0	.5
14	MP2A	Z	-95.27	.5
15	MP2A	Mx	0	.5
16	MP2A	X	0	2.5
17	MP2A	Z	-95.27	2.5
18	MP2A	Mx	0	2.5
19	O1	X	0	.5
20	O1	Z	-154.839	.5
21	O1	Mx	0	.5
22	MP3A	X	0	2.5
23	MP3A	Z	-75.811	2.5
24	MP3A	Mx	0	2.5
25	MP4A	X	0	2.5
26	MP4A	Z	-75.811	2.5
27	MP4A	Mx	0	2.5
28	MP1A	X	0	2
29	MP1A	Z	-87.77	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	-87.77	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	-87.77	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	-87.77	6
39	MP5A	Mx	0	6
40	MP2A	X	0	5.75
41	MP2A	Z	-36.081	5.75
42	MP2A	Mx	0	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	118.854	2
2	MP4A	Z	-205.861	2
3	MP4A	Mx	-.184	2
4	MP4A	X	118.854	6
5	MP4A	Z	-205.861	6
6	MP4A	Mx	-.184	6
7	MP4A	X	118.854	2
8	MP4A	Z	-205.861	2
9	MP4A	Mx	.065	2
10	MP4A	X	118.854	6
11	MP4A	Z	-205.861	6
12	MP4A	Mx	.065	6
13	MP2A	X	40.388	.5
14	MP2A	Z	-69.955	.5
15	MP2A	Mx	-.02	.5
16	MP2A	X	40.388	2.5
17	MP2A	Z	-69.955	2.5
18	MP2A	Mx	-.02	2.5
19	O1	X	67.664	.5
20	O1	Z	-117.198	.5
21	O1	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP3A	X	34.763	2.5
23	MP3A	Z	-60.212	2.5
24	MP3A	Mx	-.029	2.5
25	MP4A	X	33.56	2.5
26	MP4A	Z	-58.127	2.5
27	MP4A	Mx	-.028	2.5
28	MP1A	X	42.073	2
29	MP1A	Z	-72.872	2
30	MP1A	Mx	-.021	2
31	MP1A	X	42.073	6
32	MP1A	Z	-72.872	6
33	MP1A	Mx	-.021	6
34	MP5A	X	42.073	2
35	MP5A	Z	-72.872	2
36	MP5A	Mx	-.021	2
37	MP5A	X	42.073	6
38	MP5A	Z	-72.872	6
39	MP5A	Mx	-.021	6
40	MP2A	X	14.415	5.75
41	MP2A	Z	-24.967	5.75
42	MP2A	Mx	-.007	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	167.837	2
2	MP4A	Z	-96.901	2
3	MP4A	Mx	-.142	2
4	MP4A	X	167.837	6
5	MP4A	Z	-96.901	6
6	MP4A	Mx	-.142	6
7	MP4A	X	167.837	2
8	MP4A	Z	-96.901	2
9	MP4A	Mx	-.025	2
10	MP4A	X	167.837	6
11	MP4A	Z	-96.901	6
12	MP4A	Mx	-.025	6
13	MP2A	X	44.852	.5
14	MP2A	Z	-25.895	.5
15	MP2A	Mx	-.022	.5
16	MP2A	X	44.852	2.5
17	MP2A	Z	-25.895	2.5
18	MP2A	Mx	-.022	2.5
19	O1	X	108.75	.5
20	O1	Z	-62.787	.5
21	O1	Mx	0	.5
22	MP3A	X	49.328	2.5
23	MP3A	Z	-28.48	2.5
24	MP3A	Mx	-.041	2.5
25	MP4A	X	43.074	2.5
26	MP4A	Z	-24.869	2.5
27	MP4A	Mx	-.036	2.5
28	MP1A	X	66.595	2
29	MP1A	Z	-38.449	2
30	MP1A	Mx	-.033	2
31	MP1A	X	66.595	6
32	MP1A	Z	-38.449	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP1A	Mx	-.033	6
34	MP5A	X	66.595	2
35	MP5A	Z	-38.449	2
36	MP5A	Mx	-.033	2
37	MP5A	X	66.595	6
38	MP5A	Z	-38.449	6
39	MP5A	Mx	-.033	6
40	MP2A	X	12.408	5.75
41	MP2A	Z	-7.164	5.75
42	MP2A	Mx	-.006	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	171.848	2
2	MP4A	Z	0	2
3	MP4A	Mx	-.086	2
4	MP4A	X	171.848	6
5	MP4A	Z	0	6
6	MP4A	Mx	-.086	6
7	MP4A	X	171.848	2
8	MP4A	Z	0	2
9	MP4A	Mx	-.086	2
10	MP4A	X	171.848	6
11	MP4A	Z	0	6
12	MP4A	Mx	-.086	6
13	MP2A	X	37.298	.5
14	MP2A	Z	0	.5
15	MP2A	Mx	-.019	.5
16	MP2A	X	37.298	2.5
17	MP2A	Z	0	2.5
18	MP2A	Mx	-.019	2.5
19	O1	X	135.329	.5
20	O1	Z	0	.5
21	O1	Mx	0	.5
22	MP3A	X	50.676	2.5
23	MP3A	Z	0	2.5
24	MP3A	Mx	-.042	2.5
25	MP4A	X	41.047	2.5
26	MP4A	Z	0	2.5
27	MP4A	Mx	-.034	2.5
28	MP1A	X	73.273	2
29	MP1A	Z	0	2
30	MP1A	Mx	-.037	2
31	MP1A	X	73.273	6
32	MP1A	Z	0	6
33	MP1A	Mx	-.037	6
34	MP5A	X	73.273	2
35	MP5A	Z	0	2
36	MP5A	Mx	-.037	2
37	MP5A	X	73.273	6
38	MP5A	Z	0	6
39	MP5A	Mx	-.037	6
40	MP2A	X	7.076	5.75
41	MP2A	Z	0	5.75
42	MP2A	Mx	-.004	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	167.837	2
2	MP4A	Z	96.901	2
3	MP4A	Mx	-.025	2
4	MP4A	X	167.837	6
5	MP4A	Z	96.901	6
6	MP4A	Mx	-.025	6
7	MP4A	X	167.837	2
8	MP4A	Z	96.901	2
9	MP4A	Mx	-.142	2
10	MP4A	X	167.837	6
11	MP4A	Z	96.901	6
12	MP4A	Mx	-.142	6
13	MP2A	X	44.852	.5
14	MP2A	Z	25.895	.5
15	MP2A	Mx	-.022	.5
16	MP2A	X	44.852	2.5
17	MP2A	Z	25.895	2.5
18	MP2A	Mx	-.022	2.5
19	O1	X	134.095	.5
20	O1	Z	77.42	.5
21	O1	Mx	0	.5
22	MP3A	X	49.328	2.5
23	MP3A	Z	28.48	2.5
24	MP3A	Mx	-.041	2.5
25	MP4A	X	43.074	2.5
26	MP4A	Z	24.869	2.5
27	MP4A	Mx	-.036	2.5
28	MP1A	X	66.595	2
29	MP1A	Z	38.449	2
30	MP1A	Mx	-.033	2
31	MP1A	X	66.595	6
32	MP1A	Z	38.449	6
33	MP1A	Mx	-.033	6
34	MP5A	X	66.595	2
35	MP5A	Z	38.449	2
36	MP5A	Mx	-.033	2
37	MP5A	X	66.595	6
38	MP5A	Z	38.449	6
39	MP5A	Mx	-.033	6
40	MP2A	X	12.408	5.75
41	MP2A	Z	7.164	5.75
42	MP2A	Mx	-.006	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	118.854	2
2	MP4A	Z	205.861	2
3	MP4A	Mx	.065	2
4	MP4A	X	118.854	6
5	MP4A	Z	205.861	6
6	MP4A	Mx	.065	6
7	MP4A	X	118.854	2
8	MP4A	Z	205.861	2
9	MP4A	Mx	-.184	2
10	MP4A	X	118.854	6
11	MP4A	Z	205.861	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP4A	Mx	-.184	6
13	MP2A	X	40.388	.5
14	MP2A	Z	69.955	.5
15	MP2A	Mx	-.02	.5
16	MP2A	X	40.388	2.5
17	MP2A	Z	69.955	2.5
18	MP2A	Mx	-.02	2.5
19	O1	X	82.297	.5
20	O1	Z	142.543	.5
21	O1	Mx	0	.5
22	MP3A	X	34.763	2.5
23	MP3A	Z	60.212	2.5
24	MP3A	Mx	-.029	2.5
25	MP4A	X	33.56	2.5
26	MP4A	Z	58.127	2.5
27	MP4A	Mx	-.028	2.5
28	MP1A	X	42.073	2
29	MP1A	Z	72.872	2
30	MP1A	Mx	-.021	2
31	MP1A	X	42.073	6
32	MP1A	Z	72.872	6
33	MP1A	Mx	-.021	6
34	MP5A	X	42.073	2
35	MP5A	Z	72.872	2
36	MP5A	Mx	-.021	2
37	MP5A	X	42.073	6
38	MP5A	Z	72.872	6
39	MP5A	Mx	-.021	6
40	MP2A	X	14.415	5.75
41	MP2A	Z	24.967	5.75
42	MP2A	Mx	-.007	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	259.661	2
3	MP4A	Mx	.157	2
4	MP4A	X	0	6
5	MP4A	Z	259.661	6
6	MP4A	Mx	.157	6
7	MP4A	X	0	2
8	MP4A	Z	259.661	2
9	MP4A	Mx	-.157	2
10	MP4A	X	0	6
11	MP4A	Z	259.661	6
12	MP4A	Mx	-.157	6
13	MP2A	X	0	.5
14	MP2A	Z	95.27	.5
15	MP2A	Mx	0	.5
16	MP2A	X	0	2.5
17	MP2A	Z	95.27	2.5
18	MP2A	Mx	0	2.5
19	O1	X	0	.5
20	O1	Z	154.839	.5
21	O1	Mx	0	.5
22	MP3A	X	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP3A	Z	75.811	2.5
24	MP3A	Mx	0	2.5
25	MP4A	X	0	2.5
26	MP4A	Z	75.811	2.5
27	MP4A	Mx	0	2.5
28	MP1A	X	0	2
29	MP1A	Z	87.77	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	87.77	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	87.77	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	87.77	6
39	MP5A	Mx	0	6
40	MP2A	X	0	5.75
41	MP2A	Z	36.081	5.75
42	MP2A	Mx	0	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-118.854	2
2	MP4A	Z	205.861	2
3	MP4A	Mx	.184	2
4	MP4A	X	-118.854	6
5	MP4A	Z	205.861	6
6	MP4A	Mx	.184	6
7	MP4A	X	-118.854	2
8	MP4A	Z	205.861	2
9	MP4A	Mx	-.065	2
10	MP4A	X	-118.854	6
11	MP4A	Z	205.861	6
12	MP4A	Mx	-.065	6
13	MP2A	X	-40.388	.5
14	MP2A	Z	69.955	.5
15	MP2A	Mx	.02	.5
16	MP2A	X	-40.388	2.5
17	MP2A	Z	69.955	2.5
18	MP2A	Mx	.02	2.5
19	O1	X	-67.664	.5
20	O1	Z	117.198	.5
21	O1	Mx	0	.5
22	MP3A	X	-34.763	2.5
23	MP3A	Z	60.212	2.5
24	MP3A	Mx	.029	2.5
25	MP4A	X	-33.56	2.5
26	MP4A	Z	58.127	2.5
27	MP4A	Mx	.028	2.5
28	MP1A	X	-42.073	2
29	MP1A	Z	72.872	2
30	MP1A	Mx	.021	2
31	MP1A	X	-42.073	6
32	MP1A	Z	72.872	6
33	MP1A	Mx	.021	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	-42.073	2
35	MP5A	Z	72.872	2
36	MP5A	Mx	.021	2
37	MP5A	X	-42.073	6
38	MP5A	Z	72.872	6
39	MP5A	Mx	.021	6
40	MP2A	X	-14.415	5.75
41	MP2A	Z	24.967	5.75
42	MP2A	Mx	.007	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-167.837	2
2	MP4A	Z	96.901	2
3	MP4A	Mx	.142	2
4	MP4A	X	-167.837	6
5	MP4A	Z	96.901	6
6	MP4A	Mx	.142	6
7	MP4A	X	-167.837	2
8	MP4A	Z	96.901	2
9	MP4A	Mx	.025	2
10	MP4A	X	-167.837	6
11	MP4A	Z	96.901	6
12	MP4A	Mx	.025	6
13	MP2A	X	-44.852	.5
14	MP2A	Z	25.895	.5
15	MP2A	Mx	.022	.5
16	MP2A	X	-44.852	2.5
17	MP2A	Z	25.895	2.5
18	MP2A	Mx	.022	2.5
19	O1	X	-108.75	.5
20	O1	Z	62.787	.5
21	O1	Mx	0	.5
22	MP3A	X	-49.328	2.5
23	MP3A	Z	28.48	2.5
24	MP3A	Mx	.041	2.5
25	MP4A	X	-43.074	2.5
26	MP4A	Z	24.869	2.5
27	MP4A	Mx	.036	2.5
28	MP1A	X	-66.595	2
29	MP1A	Z	38.449	2
30	MP1A	Mx	.033	2
31	MP1A	X	-66.595	6
32	MP1A	Z	38.449	6
33	MP1A	Mx	.033	6
34	MP5A	X	-66.595	2
35	MP5A	Z	38.449	2
36	MP5A	Mx	.033	2
37	MP5A	X	-66.595	6
38	MP5A	Z	38.449	6
39	MP5A	Mx	.033	6
40	MP2A	X	-12.408	5.75
41	MP2A	Z	7.164	5.75
42	MP2A	Mx	.006	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-171.848	2
2	MP4A	Z	0	2
3	MP4A	Mx	.086	2
4	MP4A	X	-171.848	6
5	MP4A	Z	0	6
6	MP4A	Mx	.086	6
7	MP4A	X	-171.848	2
8	MP4A	Z	0	2
9	MP4A	Mx	.086	2
10	MP4A	X	-171.848	6
11	MP4A	Z	0	6
12	MP4A	Mx	.086	6
13	MP2A	X	-37.298	.5
14	MP2A	Z	0	.5
15	MP2A	Mx	.019	.5
16	MP2A	X	-37.298	2.5
17	MP2A	Z	0	2.5
18	MP2A	Mx	.019	2.5
19	O1	X	-135.329	.5
20	O1	Z	0	.5
21	O1	Mx	0	.5
22	MP3A	X	-50.676	2.5
23	MP3A	Z	0	2.5
24	MP3A	Mx	.042	2.5
25	MP4A	X	-41.047	2.5
26	MP4A	Z	0	2.5
27	MP4A	Mx	.034	2.5
28	MP1A	X	-73.273	2
29	MP1A	Z	0	2
30	MP1A	Mx	.037	2
31	MP1A	X	-73.273	6
32	MP1A	Z	0	6
33	MP1A	Mx	.037	6
34	MP5A	X	-73.273	2
35	MP5A	Z	0	2
36	MP5A	Mx	.037	2
37	MP5A	X	-73.273	6
38	MP5A	Z	0	6
39	MP5A	Mx	.037	6
40	MP2A	X	-7.076	5.75
41	MP2A	Z	0	5.75
42	MP2A	Mx	.004	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-167.837	2
2	MP4A	Z	-96.901	2
3	MP4A	Mx	.025	2
4	MP4A	X	-167.837	6
5	MP4A	Z	-96.901	6
6	MP4A	Mx	.025	6
7	MP4A	X	-167.837	2
8	MP4A	Z	-96.901	2
9	MP4A	Mx	.142	2
10	MP4A	X	-167.837	6
11	MP4A	Z	-96.901	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP4A	Mx	.142	6
13	MP2A	X	-44.852	.5
14	MP2A	Z	-25.895	.5
15	MP2A	Mx	.022	.5
16	MP2A	X	-44.852	2.5
17	MP2A	Z	-25.895	2.5
18	MP2A	Mx	.022	2.5
19	O1	X	-134.095	.5
20	O1	Z	-77.42	.5
21	O1	Mx	0	.5
22	MP3A	X	-49.328	2.5
23	MP3A	Z	-28.48	2.5
24	MP3A	Mx	.041	2.5
25	MP4A	X	-43.074	2.5
26	MP4A	Z	-24.869	2.5
27	MP4A	Mx	.036	2.5
28	MP1A	X	-66.595	2
29	MP1A	Z	-38.449	2
30	MP1A	Mx	.033	2
31	MP1A	X	-66.595	6
32	MP1A	Z	-38.449	6
33	MP1A	Mx	.033	6
34	MP5A	X	-66.595	2
35	MP5A	Z	-38.449	2
36	MP5A	Mx	.033	2
37	MP5A	X	-66.595	6
38	MP5A	Z	-38.449	6
39	MP5A	Mx	.033	6
40	MP2A	X	-12.408	5.75
41	MP2A	Z	-7.164	5.75
42	MP2A	Mx	.006	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-118.854	2
2	MP4A	Z	-205.861	2
3	MP4A	Mx	-.065	2
4	MP4A	X	-118.854	6
5	MP4A	Z	-205.861	6
6	MP4A	Mx	-.065	6
7	MP4A	X	-118.854	2
8	MP4A	Z	-205.861	2
9	MP4A	Mx	.184	2
10	MP4A	X	-118.854	6
11	MP4A	Z	-205.861	6
12	MP4A	Mx	.184	6
13	MP2A	X	-40.388	.5
14	MP2A	Z	-69.955	.5
15	MP2A	Mx	.02	.5
16	MP2A	X	-40.388	2.5
17	MP2A	Z	-69.955	2.5
18	MP2A	Mx	.02	2.5
19	O1	X	-82.297	.5
20	O1	Z	-142.543	.5
21	O1	Mx	0	.5
22	MP3A	X	-34.763	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP3A	Z	-60.212	2.5
24	MP3A	Mx	.029	2.5
25	MP4A	X	-33.56	2.5
26	MP4A	Z	-58.127	2.5
27	MP4A	Mx	.028	2.5
28	MP1A	X	-42.073	2
29	MP1A	Z	-72.872	2
30	MP1A	Mx	.021	2
31	MP1A	X	-42.073	6
32	MP1A	Z	-72.872	6
33	MP1A	Mx	.021	6
34	MP5A	X	-42.073	2
35	MP5A	Z	-72.872	2
36	MP5A	Mx	.021	2
37	MP5A	X	-42.073	6
38	MP5A	Z	-72.872	6
39	MP5A	Mx	.021	6
40	MP2A	X	-14.415	5.75
41	MP2A	Z	-24.967	5.75
42	MP2A	Mx	.007	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-16.784	2
3	MP4A	Mx	-.01	2
4	MP4A	X	0	6
5	MP4A	Z	-16.784	6
6	MP4A	Mx	-.01	6
7	MP4A	X	0	2
8	MP4A	Z	-16.784	2
9	MP4A	Mx	.01	2
10	MP4A	X	0	6
11	MP4A	Z	-16.784	6
12	MP4A	Mx	.01	6
13	MP2A	X	0	.5
14	MP2A	Z	-6.158	.5
15	MP2A	Mx	0	.5
16	MP2A	X	0	2.5
17	MP2A	Z	-6.158	2.5
18	MP2A	Mx	0	2.5
19	O1	X	0	.5
20	O1	Z	-10.008	.5
21	O1	Mx	0	.5
22	MP3A	X	0	2.5
23	MP3A	Z	-4.9	2.5
24	MP3A	Mx	0	2.5
25	MP4A	X	0	2.5
26	MP4A	Z	-4.9	2.5
27	MP4A	Mx	0	2.5
28	MP1A	X	0	2
29	MP1A	Z	-5.673	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	-5.673	6
33	MP1A	Mx	0	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	0	2
35	MP5A	Z	-5.673	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	-5.673	6
39	MP5A	Mx	0	6
40	MP2A	X	0	5.75
41	MP2A	Z	-2.332	5.75
42	MP2A	Mx	0	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	7.682	2
2	MP4A	Z	-13.306	2
3	MP4A	Mx	-.012	2
4	MP4A	X	7.682	6
5	MP4A	Z	-13.306	6
6	MP4A	Mx	-.012	6
7	MP4A	X	7.682	2
8	MP4A	Z	-13.306	2
9	MP4A	Mx	.004	2
10	MP4A	X	7.682	6
11	MP4A	Z	-13.306	6
12	MP4A	Mx	.004	6
13	MP2A	X	2.611	.5
14	MP2A	Z	-4.522	.5
15	MP2A	Mx	-.001	.5
16	MP2A	X	2.611	2.5
17	MP2A	Z	-4.522	2.5
18	MP2A	Mx	-.001	2.5
19	O1	X	4.374	.5
20	O1	Z	-7.575	.5
21	O1	Mx	0	.5
22	MP3A	X	2.247	2.5
23	MP3A	Z	-3.892	2.5
24	MP3A	Mx	-.002	2.5
25	MP4A	X	2.169	2.5
26	MP4A	Z	-3.757	2.5
27	MP4A	Mx	-.002	2.5
28	MP1A	X	2.719	2
29	MP1A	Z	-4.71	2
30	MP1A	Mx	-.001	2
31	MP1A	X	2.719	6
32	MP1A	Z	-4.71	6
33	MP1A	Mx	-.001	6
34	MP5A	X	2.719	2
35	MP5A	Z	-4.71	2
36	MP5A	Mx	-.001	2
37	MP5A	X	2.719	6
38	MP5A	Z	-4.71	6
39	MP5A	Mx	-.001	6
40	MP2A	X	.932	5.75
41	MP2A	Z	-1.614	5.75
42	MP2A	Mx	-.000466	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	10.848	2
2	MP4A	Z	-6.263	2
3	MP4A	Mx	-.009	2
4	MP4A	X	10.848	6
5	MP4A	Z	-6.263	6
6	MP4A	Mx	-.009	6
7	MP4A	X	10.848	2
8	MP4A	Z	-6.263	2
9	MP4A	Mx	-.002	2
10	MP4A	X	10.848	6
11	MP4A	Z	-6.263	6
12	MP4A	Mx	-.002	6
13	MP2A	X	2.899	.5
14	MP2A	Z	-1.674	.5
15	MP2A	Mx	-.001	.5
16	MP2A	X	2.899	2.5
17	MP2A	Z	-1.674	2.5
18	MP2A	Mx	-.001	2.5
19	O1	X	7.029	.5
20	O1	Z	-4.058	.5
21	O1	Mx	0	.5
22	MP3A	X	3.188	2.5
23	MP3A	Z	-1.841	2.5
24	MP3A	Mx	-.003	2.5
25	MP4A	X	2.784	2.5
26	MP4A	Z	-1.607	2.5
27	MP4A	Mx	-.002	2.5
28	MP1A	X	4.304	2
29	MP1A	Z	-2.485	2
30	MP1A	Mx	-.002	2
31	MP1A	X	4.304	6
32	MP1A	Z	-2.485	6
33	MP1A	Mx	-.002	6
34	MP5A	X	4.304	2
35	MP5A	Z	-2.485	2
36	MP5A	Mx	-.002	2
37	MP5A	X	4.304	6
38	MP5A	Z	-2.485	6
39	MP5A	Mx	-.002	6
40	MP2A	X	.802	5.75
41	MP2A	Z	-.463	5.75
42	MP2A	Mx	-.000401	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	11.108	2
2	MP4A	Z	0	2
3	MP4A	Mx	-.006	2
4	MP4A	X	11.108	6
5	MP4A	Z	0	6
6	MP4A	Mx	-.006	6
7	MP4A	X	11.108	2
8	MP4A	Z	0	2
9	MP4A	Mx	-.006	2
10	MP4A	X	11.108	6
11	MP4A	Z	0	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP4A	Mx	-.006	6
13	MP2A	X	2.411	.5
14	MP2A	Z	0	.5
15	MP2A	Mx	-.001	.5
16	MP2A	X	2.411	2.5
17	MP2A	Z	0	2.5
18	MP2A	Mx	-.001	2.5
19	O1	X	8.747	.5
20	O1	Z	0	.5
21	O1	Mx	0	.5
22	MP3A	X	3.275	2.5
23	MP3A	Z	0	2.5
24	MP3A	Mx	-.003	2.5
25	MP4A	X	2.653	2.5
26	MP4A	Z	0	2.5
27	MP4A	Mx	-.002	2.5
28	MP1A	X	4.736	2
29	MP1A	Z	0	2
30	MP1A	Mx	-.002	2
31	MP1A	X	4.736	6
32	MP1A	Z	0	6
33	MP1A	Mx	-.002	6
34	MP5A	X	4.736	2
35	MP5A	Z	0	2
36	MP5A	Mx	-.002	2
37	MP5A	X	4.736	6
38	MP5A	Z	0	6
39	MP5A	Mx	-.002	6
40	MP2A	X	.457	5.75
41	MP2A	Z	0	5.75
42	MP2A	Mx	-.000228	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	10.848	2
2	MP4A	Z	6.263	2
3	MP4A	Mx	-.002	2
4	MP4A	X	10.848	6
5	MP4A	Z	6.263	6
6	MP4A	Mx	-.002	6
7	MP4A	X	10.848	2
8	MP4A	Z	6.263	2
9	MP4A	Mx	-.009	2
10	MP4A	X	10.848	6
11	MP4A	Z	6.263	6
12	MP4A	Mx	-.009	6
13	MP2A	X	2.899	.5
14	MP2A	Z	1.674	.5
15	MP2A	Mx	-.001	.5
16	MP2A	X	2.899	2.5
17	MP2A	Z	1.674	2.5
18	MP2A	Mx	-.001	2.5
19	O1	X	8.667	.5
20	O1	Z	5.004	.5
21	O1	Mx	0	.5
22	MP3A	X	3.188	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP3A	Z	1.841	2.5
24	MP3A	Mx	-.003	2.5
25	MP4A	X	2.784	2.5
26	MP4A	Z	1.607	2.5
27	MP4A	Mx	-.002	2.5
28	MP1A	X	4.304	2
29	MP1A	Z	2.485	2
30	MP1A	Mx	-.002	2
31	MP1A	X	4.304	6
32	MP1A	Z	2.485	6
33	MP1A	Mx	-.002	6
34	MP5A	X	4.304	2
35	MP5A	Z	2.485	2
36	MP5A	Mx	-.002	2
37	MP5A	X	4.304	6
38	MP5A	Z	2.485	6
39	MP5A	Mx	-.002	6
40	MP2A	X	.802	5.75
41	MP2A	Z	.463	5.75
42	MP2A	Mx	-.000401	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	7.682	2
2	MP4A	Z	13.306	2
3	MP4A	Mx	.004	2
4	MP4A	X	7.682	6
5	MP4A	Z	13.306	6
6	MP4A	Mx	.004	6
7	MP4A	X	7.682	2
8	MP4A	Z	13.306	2
9	MP4A	Mx	-.012	2
10	MP4A	X	7.682	6
11	MP4A	Z	13.306	6
12	MP4A	Mx	-.012	6
13	MP2A	X	2.611	.5
14	MP2A	Z	4.522	.5
15	MP2A	Mx	-.001	.5
16	MP2A	X	2.611	2.5
17	MP2A	Z	4.522	2.5
18	MP2A	Mx	-.001	2.5
19	O1	X	5.319	.5
20	O1	Z	9.213	.5
21	O1	Mx	0	.5
22	MP3A	X	2.247	2.5
23	MP3A	Z	3.892	2.5
24	MP3A	Mx	-.002	2.5
25	MP4A	X	2.169	2.5
26	MP4A	Z	3.757	2.5
27	MP4A	Mx	-.002	2.5
28	MP1A	X	2.719	2
29	MP1A	Z	4.71	2
30	MP1A	Mx	-.001	2
31	MP1A	X	2.719	6
32	MP1A	Z	4.71	6
33	MP1A	Mx	-.001	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	2.719	2
35	MP5A	Z	4.71	2
36	MP5A	Mx	-.001	2
37	MP5A	X	2.719	6
38	MP5A	Z	4.71	6
39	MP5A	Mx	-.001	6
40	MP2A	X	.932	5.75
41	MP2A	Z	1.614	5.75
42	MP2A	Mx	-.000466	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	16.784	2
3	MP4A	Mx	.01	2
4	MP4A	X	0	6
5	MP4A	Z	16.784	6
6	MP4A	Mx	.01	6
7	MP4A	X	0	2
8	MP4A	Z	16.784	2
9	MP4A	Mx	-.01	2
10	MP4A	X	0	6
11	MP4A	Z	16.784	6
12	MP4A	Mx	-.01	6
13	MP2A	X	0	.5
14	MP2A	Z	6.158	.5
15	MP2A	Mx	0	.5
16	MP2A	X	0	2.5
17	MP2A	Z	6.158	2.5
18	MP2A	Mx	0	2.5
19	O1	X	0	.5
20	O1	Z	10.008	.5
21	O1	Mx	0	.5
22	MP3A	X	0	2.5
23	MP3A	Z	4.9	2.5
24	MP3A	Mx	0	2.5
25	MP4A	X	0	2.5
26	MP4A	Z	4.9	2.5
27	MP4A	Mx	0	2.5
28	MP1A	X	0	2
29	MP1A	Z	5.673	2
30	MP1A	Mx	0	2
31	MP1A	X	0	6
32	MP1A	Z	5.673	6
33	MP1A	Mx	0	6
34	MP5A	X	0	2
35	MP5A	Z	5.673	2
36	MP5A	Mx	0	2
37	MP5A	X	0	6
38	MP5A	Z	5.673	6
39	MP5A	Mx	0	6
40	MP2A	X	0	5.75
41	MP2A	Z	2.332	5.75
42	MP2A	Mx	0	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.682	2
2	MP4A	Z	13.306	2
3	MP4A	Mx	.012	2
4	MP4A	X	-7.682	6
5	MP4A	Z	13.306	6
6	MP4A	Mx	.012	6
7	MP4A	X	-7.682	2
8	MP4A	Z	13.306	2
9	MP4A	Mx	-.004	2
10	MP4A	X	-7.682	6
11	MP4A	Z	13.306	6
12	MP4A	Mx	-.004	6
13	MP2A	X	-2.611	.5
14	MP2A	Z	4.522	.5
15	MP2A	Mx	.001	.5
16	MP2A	X	-2.611	2.5
17	MP2A	Z	4.522	2.5
18	MP2A	Mx	.001	2.5
19	O1	X	-4.374	.5
20	O1	Z	7.575	.5
21	O1	Mx	0	.5
22	MP3A	X	-2.247	2.5
23	MP3A	Z	3.892	2.5
24	MP3A	Mx	.002	2.5
25	MP4A	X	-2.169	2.5
26	MP4A	Z	3.757	2.5
27	MP4A	Mx	.002	2.5
28	MP1A	X	-2.719	2
29	MP1A	Z	4.71	2
30	MP1A	Mx	.001	2
31	MP1A	X	-2.719	6
32	MP1A	Z	4.71	6
33	MP1A	Mx	.001	6
34	MP5A	X	-2.719	2
35	MP5A	Z	4.71	2
36	MP5A	Mx	.001	2
37	MP5A	X	-2.719	6
38	MP5A	Z	4.71	6
39	MP5A	Mx	.001	6
40	MP2A	X	-.932	5.75
41	MP2A	Z	1.614	5.75
42	MP2A	Mx	.000466	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-10.848	2
2	MP4A	Z	6.263	2
3	MP4A	Mx	.009	2
4	MP4A	X	-10.848	6
5	MP4A	Z	6.263	6
6	MP4A	Mx	.009	6
7	MP4A	X	-10.848	2
8	MP4A	Z	6.263	2
9	MP4A	Mx	.002	2
10	MP4A	X	-10.848	6
11	MP4A	Z	6.263	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP4A	Mx	.002	6
13	MP2A	X	-2.899	.5
14	MP2A	Z	1.674	.5
15	MP2A	Mx	.001	.5
16	MP2A	X	-2.899	2.5
17	MP2A	Z	1.674	2.5
18	MP2A	Mx	.001	2.5
19	O1	X	-7.029	.5
20	O1	Z	4.058	.5
21	O1	Mx	0	.5
22	MP3A	X	-3.188	2.5
23	MP3A	Z	1.841	2.5
24	MP3A	Mx	.003	2.5
25	MP4A	X	-2.784	2.5
26	MP4A	Z	1.607	2.5
27	MP4A	Mx	.002	2.5
28	MP1A	X	-4.304	2
29	MP1A	Z	2.485	2
30	MP1A	Mx	.002	2
31	MP1A	X	-4.304	6
32	MP1A	Z	2.485	6
33	MP1A	Mx	.002	6
34	MP5A	X	-4.304	2
35	MP5A	Z	2.485	2
36	MP5A	Mx	.002	2
37	MP5A	X	-4.304	6
38	MP5A	Z	2.485	6
39	MP5A	Mx	.002	6
40	MP2A	X	-.802	5.75
41	MP2A	Z	.463	5.75
42	MP2A	Mx	.000401	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-11.108	2
2	MP4A	Z	0	2
3	MP4A	Mx	.006	2
4	MP4A	X	-11.108	6
5	MP4A	Z	0	6
6	MP4A	Mx	.006	6
7	MP4A	X	-11.108	2
8	MP4A	Z	0	2
9	MP4A	Mx	.006	2
10	MP4A	X	-11.108	6
11	MP4A	Z	0	6
12	MP4A	Mx	.006	6
13	MP2A	X	-2.411	.5
14	MP2A	Z	0	.5
15	MP2A	Mx	.001	.5
16	MP2A	X	-2.411	2.5
17	MP2A	Z	0	2.5
18	MP2A	Mx	.001	2.5
19	O1	X	-8.747	.5
20	O1	Z	0	.5
21	O1	Mx	0	.5
22	MP3A	X	-3.275	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP3A	Z	0	2.5
24	MP3A	Mx	.003	2.5
25	MP4A	X	-2.653	2.5
26	MP4A	Z	0	2.5
27	MP4A	Mx	.002	2.5
28	MP1A	X	-4.736	2
29	MP1A	Z	0	2
30	MP1A	Mx	.002	2
31	MP1A	X	-4.736	6
32	MP1A	Z	0	6
33	MP1A	Mx	.002	6
34	MP5A	X	-4.736	2
35	MP5A	Z	0	2
36	MP5A	Mx	.002	2
37	MP5A	X	-4.736	6
38	MP5A	Z	0	6
39	MP5A	Mx	.002	6
40	MP2A	X	-.457	5.75
41	MP2A	Z	0	5.75
42	MP2A	Mx	.000228	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-10.848	2
2	MP4A	Z	-6.263	2
3	MP4A	Mx	.002	2
4	MP4A	X	-10.848	6
5	MP4A	Z	-6.263	6
6	MP4A	Mx	.002	6
7	MP4A	X	-10.848	2
8	MP4A	Z	-6.263	2
9	MP4A	Mx	.009	2
10	MP4A	X	-10.848	6
11	MP4A	Z	-6.263	6
12	MP4A	Mx	.009	6
13	MP2A	X	-2.899	.5
14	MP2A	Z	-1.674	.5
15	MP2A	Mx	.001	.5
16	MP2A	X	-2.899	2.5
17	MP2A	Z	-1.674	2.5
18	MP2A	Mx	.001	2.5
19	O1	X	-8.667	.5
20	O1	Z	-5.004	.5
21	O1	Mx	0	.5
22	MP3A	X	-3.188	2.5
23	MP3A	Z	-1.841	2.5
24	MP3A	Mx	.003	2.5
25	MP4A	X	-2.784	2.5
26	MP4A	Z	-1.607	2.5
27	MP4A	Mx	.002	2.5
28	MP1A	X	-4.304	2
29	MP1A	Z	-2.485	2
30	MP1A	Mx	.002	2
31	MP1A	X	-4.304	6
32	MP1A	Z	-2.485	6
33	MP1A	Mx	.002	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	-4.304	2
35	MP5A	Z	-2.485	2
36	MP5A	Mx	.002	2
37	MP5A	X	-4.304	6
38	MP5A	Z	-2.485	6
39	MP5A	Mx	.002	6
40	MP2A	X	-.802	5.75
41	MP2A	Z	-.463	5.75
42	MP2A	Mx	.000401	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.682	2
2	MP4A	Z	-13.306	2
3	MP4A	Mx	-.004	2
4	MP4A	X	-7.682	6
5	MP4A	Z	-13.306	6
6	MP4A	Mx	-.004	6
7	MP4A	X	-7.682	2
8	MP4A	Z	-13.306	2
9	MP4A	Mx	.012	2
10	MP4A	X	-7.682	6
11	MP4A	Z	-13.306	6
12	MP4A	Mx	.012	6
13	MP2A	X	-2.611	.5
14	MP2A	Z	-4.522	.5
15	MP2A	Mx	.001	.5
16	MP2A	X	-2.611	2.5
17	MP2A	Z	-4.522	2.5
18	MP2A	Mx	.001	2.5
19	O1	X	-5.319	.5
20	O1	Z	-9.213	.5
21	O1	Mx	0	.5
22	MP3A	X	-2.247	2.5
23	MP3A	Z	-3.892	2.5
24	MP3A	Mx	.002	2.5
25	MP4A	X	-2.169	2.5
26	MP4A	Z	-3.757	2.5
27	MP4A	Mx	.002	2.5
28	MP1A	X	-2.719	2
29	MP1A	Z	-4.71	2
30	MP1A	Mx	.001	2
31	MP1A	X	-2.719	6
32	MP1A	Z	-4.71	6
33	MP1A	Mx	.001	6
34	MP5A	X	-2.719	2
35	MP5A	Z	-4.71	2
36	MP5A	Mx	.001	2
37	MP5A	X	-2.719	6
38	MP5A	Z	-4.71	6
39	MP5A	Mx	.001	6
40	MP2A	X	-.932	5.75
41	MP2A	Z	-1.614	5.75
42	MP2A	Mx	.000466	5.75

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M52	Y	-500	%44.444

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M63	Y	-500	%86.667

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M52	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M63	Y	-250	0

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	-9.628	-9.628	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	-9.628	-9.628	0	%100
5	M53	X	0	0	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	0	0	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	0	0	0	%100
10	M55	Z	-7.052	-7.052	0	%100
11	M56	X	0	0	0	%100
12	M56	Z	-7.052	-7.052	0	%100
13	M57	X	0	0	0	%100
14	M57	Z	-7.052	-7.052	0	%100
15	M58	X	0	0	0	%100
16	M58	Z	-7.052	-7.052	0	%100
17	M59	X	0	0	0	%100
18	M59	Z	-7.052	-7.052	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	-9.628	-9.628	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	-9.628	-9.628	0	%100
23	M68	X	0	0	0	%100
24	M68	Z	-7.423	-7.423	0	%100
25	O1	X	0	0	0	%100
26	O1	Z	-7.423	-7.423	0	%100
27	M70	X	0	0	0	%100
28	M70	Z	-7.423	-7.423	0	%100
29	TB_A	X	0	0	0	%100
30	TB_A	Z	-.269	-.269	0	%100
31	M72	X	0	0	0	%100
32	M72	Z	-12.335	-12.335	0	%100
33	M23	X	0	0	0	%100
34	M23	Z	-7.052	-7.052	0	%100
35	MP5A	X	0	0	0	%100
36	MP5A	Z	-9.628	-9.628	0	%100
37	M29	X	0	0	0	%100
38	M29	Z	-9.628	-9.628	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-11.655	-11.655	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	-11.655	-11.655	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	-9.628	-9.628	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	-9.628	-9.628	0	%100
47	M34A	X	0	0	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	0	0	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	0	0	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	0	0	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	0	0	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	0	0	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	0	0	0	%100
60	M46	Z	-12.449	-12.449	0	%100
61	M47	X	0	0	0	%100
62	M47	Z	-11.485	-11.485	0	%100
63	M48	X	0	0	0	%100
64	M48	Z	-7.583	-7.583	0	%100
65	M49	X	0	0	0	%100
66	M49	Z	-4.007	-4.007	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	-11.655	-11.655	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	-11.655	-11.655	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	3.611	3.611	0	%100
2	M51	Z	-6.254	-6.254	0	%100
3	M52	X	3.611	3.611	0	%100
4	M52	Z	-6.254	-6.254	0	%100
5	M53	X	1.424	1.424	0	%100
6	M53	Z	-2.466	-2.466	0	%100
7	M54	X	1.388	1.388	0	%100
8	M54	Z	-2.405	-2.405	0	%100
9	M55	X	3.581	3.581	0	%100
10	M55	Z	-6.202	-6.202	0	%100
11	M56	X	3.581	3.581	0	%100
12	M56	Z	-6.202	-6.202	0	%100
13	M57	X	3.581	3.581	0	%100
14	M57	Z	-6.202	-6.202	0	%100
15	M58	X	3.581	3.581	0	%100
16	M58	Z	-6.202	-6.202	0	%100
17	M59	X	3.581	3.581	0	%100
18	M59	Z	-6.202	-6.202	0	%100
19	M62	X	3.611	3.611	0	%100
20	M62	Z	-6.254	-6.254	0	%100
21	M63	X	3.611	3.611	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
22	M63	Z	-6.254	-6.254	0	%100
23	M68	X	3.712	3.712	0	%100
24	M68	Z	-6.429	-6.429	0	%100
25	O1	X	3.712	3.712	0	%100
26	O1	Z	-6.429	-6.429	0	%100
27	M70	X	3.712	3.712	0	%100
28	M70	Z	-6.429	-6.429	0	%100
29	TB_A	X	1.958	1.958	0	%100
30	TB_A	Z	-3.392	-3.392	0	%100
31	M72	X	6.167	6.167	0	%100
32	M72	Z	-10.682	-10.682	0	%100
33	M23	X	3.581	3.581	0	%100
34	M23	Z	-6.202	-6.202	0	%100
35	MP5A	X	4.814	4.814	0	%100
36	MP5A	Z	-8.338	-8.338	0	%100
37	M29	X	4.814	4.814	0	%100
38	M29	Z	-8.338	-8.338	0	%100
39	MP4A	X	5.828	5.828	0	%100
40	MP4A	Z	-10.094	-10.094	0	%100
41	MP3A	X	5.828	5.828	0	%100
42	MP3A	Z	-10.094	-10.094	0	%100
43	MP2A	X	4.814	4.814	0	%100
44	MP2A	Z	-8.338	-8.338	0	%100
45	MP1A	X	4.814	4.814	0	%100
46	MP1A	Z	-8.338	-8.338	0	%100
47	M34A	X	2.027	2.027	0	%100
48	M34A	Z	-3.511	-3.511	0	%100
49	M35	X	2.027	2.027	0	%100
50	M35	Z	-3.511	-3.511	0	%100
51	M36A	X	2.027	2.027	0	%100
52	M36A	Z	-3.511	-3.511	0	%100
53	M37	X	2.027	2.027	0	%100
54	M37	Z	-3.511	-3.511	0	%100
55	M38	X	2.027	2.027	0	%100
56	M38	Z	-3.511	-3.511	0	%100
57	M39	X	2.027	2.027	0	%100
58	M39	Z	-3.511	-3.511	0	%100
59	M46	X	4.156	4.156	0	%100
60	M46	Z	-7.199	-7.199	0	%100
61	M47	X	7.65	7.65	0	%100
62	M47	Z	-13.251	-13.251	0	%100
63	M48	X	.446	.446	0	%100
64	M48	Z	-.772	-.772	0	%100
65	M49	X	6.014	6.014	0	%100
66	M49	Z	-10.417	-10.417	0	%100
67	M56A	X	4.371	4.371	0	%100
68	M56A	Z	-7.57	-7.57	0	%100
69	M57A	X	4.371	4.371	0	%100
70	M57A	Z	-7.57	-7.57	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	2.085	2.085	0	%100
2	M51	Z	-1.204	-1.204	0	%100
3	M52	X	2.085	2.085	0	%100
4	M52	Z	-1.204	-1.204	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	M53	X	7.398	7.398	0	%100
6	M53	Z	-4.271	-4.271	0	%100
7	M54	X	7.214	7.214	0	%100
8	M54	Z	-4.165	-4.165	0	%100
9	M55	X	6.393	6.393	0	%100
10	M55	Z	-3.691	-3.691	0	%100
11	M56	X	6.393	6.393	0	%100
12	M56	Z	-3.691	-3.691	0	%100
13	M57	X	6.393	6.393	0	%100
14	M57	Z	-3.691	-3.691	0	%100
15	M58	X	6.393	6.393	0	%100
16	M58	Z	-3.691	-3.691	0	%100
17	M59	X	6.393	6.393	0	%100
18	M59	Z	-3.691	-3.691	0	%100
19	M62	X	2.085	2.085	0	%100
20	M62	Z	-1.204	-1.204	0	%100
21	M63	X	2.085	2.085	0	%100
22	M63	Z	-1.204	-1.204	0	%100
23	M68	X	6.429	6.429	0	%100
24	M68	Z	-3.712	-3.712	0	%100
25	O1	X	6.429	6.429	0	%100
26	O1	Z	-3.712	-3.712	0	%100
27	M70	X	6.429	6.429	0	%100
28	M70	Z	-3.712	-3.712	0	%100
29	TB_A	X	7.328	7.328	0	%100
30	TB_A	Z	-4.231	-4.231	0	%100
31	M72	X	10.682	10.682	0	%100
32	M72	Z	-6.167	-6.167	0	%100
33	M23	X	6.393	6.393	0	%100
34	M23	Z	-3.691	-3.691	0	%100
35	MP5A	X	8.338	8.338	0	%100
36	MP5A	Z	-4.814	-4.814	0	%100
37	M29	X	8.338	8.338	0	%100
38	M29	Z	-4.814	-4.814	0	%100
39	MP4A	X	10.094	10.094	0	%100
40	MP4A	Z	-5.828	-5.828	0	%100
41	MP3A	X	10.094	10.094	0	%100
42	MP3A	Z	-5.828	-5.828	0	%100
43	MP2A	X	8.338	8.338	0	%100
44	MP2A	Z	-4.814	-4.814	0	%100
45	MP1A	X	8.338	8.338	0	%100
46	MP1A	Z	-4.814	-4.814	0	%100
47	M34A	X	10.533	10.533	0	%100
48	M34A	Z	-6.081	-6.081	0	%100
49	M35	X	10.533	10.533	0	%100
50	M35	Z	-6.081	-6.081	0	%100
51	M36A	X	10.533	10.533	0	%100
52	M36A	Z	-6.081	-6.081	0	%100
53	M37	X	10.533	10.533	0	%100
54	M37	Z	-6.081	-6.081	0	%100
55	M38	X	10.533	10.533	0	%100
56	M38	Z	-6.081	-6.081	0	%100
57	M39	X	10.533	10.533	0	%100
58	M39	Z	-6.081	-6.081	0	%100
59	M46	X	7.013	7.013	0	%100
60	M46	Z	-4.049	-4.049	0	%100
61	M47	X	14.612	14.612	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	M47	Z	-8.436	-8.436	0	%100
63	M48	X	1.61	1.61	0	%100
64	M48	Z	-.93	-.93	0	%100
65	M49	X	14.14	14.14	0	%100
66	M49	Z	-8.164	-8.164	0	%100
67	M56A	X	2.523	2.523	0	%100
68	M56A	Z	-1.457	-1.457	0	%100
69	M57A	X	2.523	2.523	0	%100
70	M57A	Z	-1.457	-1.457	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	0	0	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	0	0	0	%100
5	M53	X	11.39	11.39	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	11.107	11.107	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	7.492	7.492	0	%100
10	M55	Z	0	0	0	%100
11	M56	X	7.492	7.492	0	%100
12	M56	Z	0	0	0	%100
13	M57	X	7.492	7.492	0	%100
14	M57	Z	0	0	0	%100
15	M58	X	7.492	7.492	0	%100
16	M58	Z	0	0	0	%100
17	M59	X	7.492	7.492	0	%100
18	M59	Z	0	0	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	0	0	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	0	0	0	%100
23	M68	X	7.423	7.423	0	%100
24	M68	Z	0	0	0	%100
25	O1	X	7.423	7.423	0	%100
26	O1	Z	0	0	0	%100
27	M70	X	7.423	7.423	0	%100
28	M70	Z	0	0	0	%100
29	TB_A	X	9.359	9.359	0	%100
30	TB_A	Z	0	0	0	%100
31	M72	X	12.335	12.335	0	%100
32	M72	Z	0	0	0	%100
33	M23	X	7.492	7.492	0	%100
34	M23	Z	0	0	0	%100
35	MP5A	X	9.628	9.628	0	%100
36	MP5A	Z	0	0	0	%100
37	M29	X	9.628	9.628	0	%100
38	M29	Z	0	0	0	%100
39	MP4A	X	11.655	11.655	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	11.655	11.655	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	9.628	9.628	0	%100
44	MP2A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
45	MP1A	X	9.628	9.628	0	%100
46	MP1A	Z	0	0	0	%100
47	M34A	X	16.216	16.216	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	16.216	16.216	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	16.216	16.216	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	16.216	16.216	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	16.216	16.216	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	16.216	16.216	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	12.021	12.021	0	%100
60	M46	Z	0	0	0	%100
61	M47	X	14.628	14.628	0	%100
62	M47	Z	0	0	0	%100
63	M48	X	9.518	9.518	0	%100
64	M48	Z	0	0	0	%100
65	M49	X	12.606	12.606	0	%100
66	M49	Z	0	0	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	0	0	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	2.085	2.085	0	%100
2	M51	Z	1.204	1.204	0	%100
3	M52	X	2.085	2.085	0	%100
4	M52	Z	1.204	1.204	0	%100
5	M53	X	7.398	7.398	0	%100
6	M53	Z	4.271	4.271	0	%100
7	M54	X	7.214	7.214	0	%100
8	M54	Z	4.165	4.165	0	%100
9	M55	X	6.393	6.393	0	%100
10	M55	Z	3.691	3.691	0	%100
11	M56	X	6.393	6.393	0	%100
12	M56	Z	3.691	3.691	0	%100
13	M57	X	6.393	6.393	0	%100
14	M57	Z	3.691	3.691	0	%100
15	M58	X	6.393	6.393	0	%100
16	M58	Z	3.691	3.691	0	%100
17	M59	X	6.393	6.393	0	%100
18	M59	Z	3.691	3.691	0	%100
19	M62	X	2.085	2.085	0	%100
20	M62	Z	1.204	1.204	0	%100
21	M63	X	2.085	2.085	0	%100
22	M63	Z	1.204	1.204	0	%100
23	M68	X	6.429	6.429	0	%100
24	M68	Z	3.712	3.712	0	%100
25	O1	X	6.429	6.429	0	%100
26	O1	Z	3.712	3.712	0	%100
27	M70	X	6.429	6.429	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
28	M70	Z	3.712	3.712	0	%100
29	TB_A	X	4.947	4.947	0	%100
30	TB_A	Z	2.856	2.856	0	%100
31	M72	X	10.682	10.682	0	%100
32	M72	Z	6.167	6.167	0	%100
33	M23	X	6.393	6.393	0	%100
34	M23	Z	3.691	3.691	0	%100
35	MP5A	X	8.338	8.338	0	%100
36	MP5A	Z	4.814	4.814	0	%100
37	M29	X	8.338	8.338	0	%100
38	M29	Z	4.814	4.814	0	%100
39	MP4A	X	10.094	10.094	0	%100
40	MP4A	Z	5.828	5.828	0	%100
41	MP3A	X	10.094	10.094	0	%100
42	MP3A	Z	5.828	5.828	0	%100
43	MP2A	X	8.338	8.338	0	%100
44	MP2A	Z	4.814	4.814	0	%100
45	MP1A	X	8.338	8.338	0	%100
46	MP1A	Z	4.814	4.814	0	%100
47	M34A	X	10.533	10.533	0	%100
48	M34A	Z	6.081	6.081	0	%100
49	M35	X	10.533	10.533	0	%100
50	M35	Z	6.081	6.081	0	%100
51	M36A	X	10.533	10.533	0	%100
52	M36A	Z	6.081	6.081	0	%100
53	M37	X	10.533	10.533	0	%100
54	M37	Z	6.081	6.081	0	%100
55	M38	X	10.533	10.533	0	%100
56	M38	Z	6.081	6.081	0	%100
57	M39	X	10.533	10.533	0	%100
58	M39	Z	6.081	6.081	0	%100
59	M46	X	13.992	13.992	0	%100
60	M46	Z	8.078	8.078	0	%100
61	M47	X	9.364	9.364	0	%100
62	M47	Z	5.406	5.406	0	%100
63	M48	X	14.038	14.038	0	%100
64	M48	Z	8.105	8.105	0	%100
65	M49	X	3.97	3.97	0	%100
66	M49	Z	2.292	2.292	0	%100
67	M56A	X	2.523	2.523	0	%100
68	M56A	Z	1.457	1.457	0	%100
69	M57A	X	2.523	2.523	0	%100
70	M57A	Z	1.457	1.457	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	3.611	3.611	0	%100
2	M51	Z	6.254	6.254	0	%100
3	M52	X	3.611	3.611	0	%100
4	M52	Z	6.254	6.254	0	%100
5	M53	X	1.424	1.424	0	%100
6	M53	Z	2.466	2.466	0	%100
7	M54	X	1.388	1.388	0	%100
8	M54	Z	2.405	2.405	0	%100
9	M55	X	3.581	3.581	0	%100
10	M55	Z	6.202	6.202	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	M56	X	3.581	3.581	0	%100
12	M56	Z	6.202	6.202	0	%100
13	M57	X	3.581	3.581	0	%100
14	M57	Z	6.202	6.202	0	%100
15	M58	X	3.581	3.581	0	%100
16	M58	Z	6.202	6.202	0	%100
17	M59	X	3.581	3.581	0	%100
18	M59	Z	6.202	6.202	0	%100
19	M62	X	3.611	3.611	0	%100
20	M62	Z	6.254	6.254	0	%100
21	M63	X	3.611	3.611	0	%100
22	M63	Z	6.254	6.254	0	%100
23	M68	X	3.712	3.712	0	%100
24	M68	Z	6.429	6.429	0	%100
25	O1	X	3.712	3.712	0	%100
26	O1	Z	6.429	6.429	0	%100
27	M70	X	3.712	3.712	0	%100
28	M70	Z	6.429	6.429	0	%100
29	TB_A	X	.583	.583	0	%100
30	TB_A	Z	1.011	1.011	0	%100
31	M72	X	6.167	6.167	0	%100
32	M72	Z	10.682	10.682	0	%100
33	M23	X	3.581	3.581	0	%100
34	M23	Z	6.202	6.202	0	%100
35	MP5A	X	4.814	4.814	0	%100
36	MP5A	Z	8.338	8.338	0	%100
37	M29	X	4.814	4.814	0	%100
38	M29	Z	8.338	8.338	0	%100
39	MP4A	X	5.828	5.828	0	%100
40	MP4A	Z	10.094	10.094	0	%100
41	MP3A	X	5.828	5.828	0	%100
42	MP3A	Z	10.094	10.094	0	%100
43	MP2A	X	4.814	4.814	0	%100
44	MP2A	Z	8.338	8.338	0	%100
45	MP1A	X	4.814	4.814	0	%100
46	MP1A	Z	8.338	8.338	0	%100
47	M34A	X	2.027	2.027	0	%100
48	M34A	Z	3.511	3.511	0	%100
49	M35	X	2.027	2.027	0	%100
50	M35	Z	3.511	3.511	0	%100
51	M36A	X	2.027	2.027	0	%100
52	M36A	Z	3.511	3.511	0	%100
53	M37	X	2.027	2.027	0	%100
54	M37	Z	3.511	3.511	0	%100
55	M38	X	2.027	2.027	0	%100
56	M38	Z	3.511	3.511	0	%100
57	M39	X	2.027	2.027	0	%100
58	M39	Z	3.511	3.511	0	%100
59	M46	X	8.185	8.185	0	%100
60	M46	Z	14.177	14.177	0	%100
61	M47	X	4.62	4.62	0	%100
62	M47	Z	8.003	8.003	0	%100
63	M48	X	7.621	7.621	0	%100
64	M48	Z	13.2	13.2	0	%100
65	M49	X	.142	.142	0	%100
66	M49	Z	.246	.246	0	%100
67	M56A	X	4.371	4.371	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
68	M56A	Z	7.57	7.57	0	%100
69	M57A	X	4.371	4.371	0	%100
70	M57A	Z	7.57	7.57	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	9.628	9.628	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	9.628	9.628	0	%100
5	M53	X	0	0	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	0	0	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	0	0	0	%100
10	M55	Z	7.052	7.052	0	%100
11	M56	X	0	0	0	%100
12	M56	Z	7.052	7.052	0	%100
13	M57	X	0	0	0	%100
14	M57	Z	7.052	7.052	0	%100
15	M58	X	0	0	0	%100
16	M58	Z	7.052	7.052	0	%100
17	M59	X	0	0	0	%100
18	M59	Z	7.052	7.052	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	9.628	9.628	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	9.628	9.628	0	%100
23	M68	X	0	0	0	%100
24	M68	Z	7.423	7.423	0	%100
25	O1	X	0	0	0	%100
26	O1	Z	7.423	7.423	0	%100
27	M70	X	0	0	0	%100
28	M70	Z	7.423	7.423	0	%100
29	TB_A	X	0	0	0	%100
30	TB_A	Z	.269	.269	0	%100
31	M72	X	0	0	0	%100
32	M72	Z	12.335	12.335	0	%100
33	M23	X	0	0	0	%100
34	M23	Z	7.052	7.052	0	%100
35	MP5A	X	0	0	0	%100
36	MP5A	Z	9.628	9.628	0	%100
37	M29	X	0	0	0	%100
38	M29	Z	9.628	9.628	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	11.655	11.655	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	11.655	11.655	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	9.628	9.628	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	9.628	9.628	0	%100
47	M34A	X	0	0	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	0	0	0	%100
50	M35	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
51	M36A	X	0	0	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	0	0	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	0	0	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	0	0	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	0	0	0	%100
60	M46	Z	12.449	12.449	0	%100
61	M47	X	0	0	0	%100
62	M47	Z	11.485	11.485	0	%100
63	M48	X	0	0	0	%100
64	M48	Z	7.583	7.583	0	%100
65	M49	X	0	0	0	%100
66	M49	Z	4.007	4.007	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	11.655	11.655	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	11.655	11.655	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-3.611	-3.611	0	%100
2	M51	Z	6.254	6.254	0	%100
3	M52	X	-3.611	-3.611	0	%100
4	M52	Z	6.254	6.254	0	%100
5	M53	X	-1.424	-1.424	0	%100
6	M53	Z	2.466	2.466	0	%100
7	M54	X	-1.388	-1.388	0	%100
8	M54	Z	2.405	2.405	0	%100
9	M55	X	-3.581	-3.581	0	%100
10	M55	Z	6.202	6.202	0	%100
11	M56	X	-3.581	-3.581	0	%100
12	M56	Z	6.202	6.202	0	%100
13	M57	X	-3.581	-3.581	0	%100
14	M57	Z	6.202	6.202	0	%100
15	M58	X	-3.581	-3.581	0	%100
16	M58	Z	6.202	6.202	0	%100
17	M59	X	-3.581	-3.581	0	%100
18	M59	Z	6.202	6.202	0	%100
19	M62	X	-3.611	-3.611	0	%100
20	M62	Z	6.254	6.254	0	%100
21	M63	X	-3.611	-3.611	0	%100
22	M63	Z	6.254	6.254	0	%100
23	M68	X	-3.712	-3.712	0	%100
24	M68	Z	6.429	6.429	0	%100
25	O1	X	-3.712	-3.712	0	%100
26	O1	Z	6.429	6.429	0	%100
27	M70	X	-3.712	-3.712	0	%100
28	M70	Z	6.429	6.429	0	%100
29	TB_A	X	-1.958	-1.958	0	%100
30	TB_A	Z	3.392	3.392	0	%100
31	M72	X	-6.167	-6.167	0	%100
32	M72	Z	10.682	10.682	0	%100
33	M23	X	-3.581	-3.581	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
34	M23	Z	6.202	6.202	0	%100
35	MP5A	X	-4.814	-4.814	0	%100
36	MP5A	Z	8.338	8.338	0	%100
37	M29	X	-4.814	-4.814	0	%100
38	M29	Z	8.338	8.338	0	%100
39	MP4A	X	-5.828	-5.828	0	%100
40	MP4A	Z	10.094	10.094	0	%100
41	MP3A	X	-5.828	-5.828	0	%100
42	MP3A	Z	10.094	10.094	0	%100
43	MP2A	X	-4.814	-4.814	0	%100
44	MP2A	Z	8.338	8.338	0	%100
45	MP1A	X	-4.814	-4.814	0	%100
46	MP1A	Z	8.338	8.338	0	%100
47	M34A	X	-2.027	-2.027	0	%100
48	M34A	Z	3.511	3.511	0	%100
49	M35	X	-2.027	-2.027	0	%100
50	M35	Z	3.511	3.511	0	%100
51	M36A	X	-2.027	-2.027	0	%100
52	M36A	Z	3.511	3.511	0	%100
53	M37	X	-2.027	-2.027	0	%100
54	M37	Z	3.511	3.511	0	%100
55	M38	X	-2.027	-2.027	0	%100
56	M38	Z	3.511	3.511	0	%100
57	M39	X	-2.027	-2.027	0	%100
58	M39	Z	3.511	3.511	0	%100
59	M46	X	-4.156	-4.156	0	%100
60	M46	Z	7.199	7.199	0	%100
61	M47	X	-7.65	-7.65	0	%100
62	M47	Z	13.251	13.251	0	%100
63	M48	X	-.446	-.446	0	%100
64	M48	Z	.772	.772	0	%100
65	M49	X	-6.014	-6.014	0	%100
66	M49	Z	10.417	10.417	0	%100
67	M56A	X	-4.371	-4.371	0	%100
68	M56A	Z	7.57	7.57	0	%100
69	M57A	X	-4.371	-4.371	0	%100
70	M57A	Z	7.57	7.57	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-2.085	-2.085	0	%100
2	M51	Z	1.204	1.204	0	%100
3	M52	X	-2.085	-2.085	0	%100
4	M52	Z	1.204	1.204	0	%100
5	M53	X	-7.398	-7.398	0	%100
6	M53	Z	4.271	4.271	0	%100
7	M54	X	-7.214	-7.214	0	%100
8	M54	Z	4.165	4.165	0	%100
9	M55	X	-6.393	-6.393	0	%100
10	M55	Z	3.691	3.691	0	%100
11	M56	X	-6.393	-6.393	0	%100
12	M56	Z	3.691	3.691	0	%100
13	M57	X	-6.393	-6.393	0	%100
14	M57	Z	3.691	3.691	0	%100
15	M58	X	-6.393	-6.393	0	%100
16	M58	Z	3.691	3.691	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
17	M59	X	-6.393	-6.393	0	%100
18	M59	Z	3.691	3.691	0	%100
19	M62	X	-2.085	-2.085	0	%100
20	M62	Z	1.204	1.204	0	%100
21	M63	X	-2.085	-2.085	0	%100
22	M63	Z	1.204	1.204	0	%100
23	M68	X	-6.429	-6.429	0	%100
24	M68	Z	3.712	3.712	0	%100
25	O1	X	-6.429	-6.429	0	%100
26	O1	Z	3.712	3.712	0	%100
27	M70	X	-6.429	-6.429	0	%100
28	M70	Z	3.712	3.712	0	%100
29	TB_A	X	-7.328	-7.328	0	%100
30	TB_A	Z	4.231	4.231	0	%100
31	M72	X	-10.682	-10.682	0	%100
32	M72	Z	6.167	6.167	0	%100
33	M23	X	-6.393	-6.393	0	%100
34	M23	Z	3.691	3.691	0	%100
35	MP5A	X	-8.338	-8.338	0	%100
36	MP5A	Z	4.814	4.814	0	%100
37	M29	X	-8.338	-8.338	0	%100
38	M29	Z	4.814	4.814	0	%100
39	MP4A	X	-10.094	-10.094	0	%100
40	MP4A	Z	5.828	5.828	0	%100
41	MP3A	X	-10.094	-10.094	0	%100
42	MP3A	Z	5.828	5.828	0	%100
43	MP2A	X	-8.338	-8.338	0	%100
44	MP2A	Z	4.814	4.814	0	%100
45	MP1A	X	-8.338	-8.338	0	%100
46	MP1A	Z	4.814	4.814	0	%100
47	M34A	X	-10.533	-10.533	0	%100
48	M34A	Z	6.081	6.081	0	%100
49	M35	X	-10.533	-10.533	0	%100
50	M35	Z	6.081	6.081	0	%100
51	M36A	X	-10.533	-10.533	0	%100
52	M36A	Z	6.081	6.081	0	%100
53	M37	X	-10.533	-10.533	0	%100
54	M37	Z	6.081	6.081	0	%100
55	M38	X	-10.533	-10.533	0	%100
56	M38	Z	6.081	6.081	0	%100
57	M39	X	-10.533	-10.533	0	%100
58	M39	Z	6.081	6.081	0	%100
59	M46	X	-7.013	-7.013	0	%100
60	M46	Z	4.049	4.049	0	%100
61	M47	X	-14.612	-14.612	0	%100
62	M47	Z	8.436	8.436	0	%100
63	M48	X	-1.61	-1.61	0	%100
64	M48	Z	.93	.93	0	%100
65	M49	X	-14.14	-14.14	0	%100
66	M49	Z	8.164	8.164	0	%100
67	M56A	X	-2.523	-2.523	0	%100
68	M56A	Z	1.457	1.457	0	%100
69	M57A	X	-2.523	-2.523	0	%100
70	M57A	Z	1.457	1.457	0	%100

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

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

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	0	0	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	0	0	0	%100
5	M53	X	-11.39	-11.39	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	-11.107	-11.107	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	-7.492	-7.492	0	%100
10	M55	Z	0	0	0	%100
11	M56	X	-7.492	-7.492	0	%100
12	M56	Z	0	0	0	%100
13	M57	X	-7.492	-7.492	0	%100
14	M57	Z	0	0	0	%100
15	M58	X	-7.492	-7.492	0	%100
16	M58	Z	0	0	0	%100
17	M59	X	-7.492	-7.492	0	%100
18	M59	Z	0	0	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	0	0	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	0	0	0	%100
23	M68	X	-7.423	-7.423	0	%100
24	M68	Z	0	0	0	%100
25	O1	X	-7.423	-7.423	0	%100
26	O1	Z	0	0	0	%100
27	M70	X	-7.423	-7.423	0	%100
28	M70	Z	0	0	0	%100
29	TB_A	X	-9.359	-9.359	0	%100
30	TB_A	Z	0	0	0	%100
31	M72	X	-12.335	-12.335	0	%100
32	M72	Z	0	0	0	%100
33	M23	X	-7.492	-7.492	0	%100
34	M23	Z	0	0	0	%100
35	MP5A	X	-9.628	-9.628	0	%100
36	MP5A	Z	0	0	0	%100
37	M29	X	-9.628	-9.628	0	%100
38	M29	Z	0	0	0	%100
39	MP4A	X	-11.655	-11.655	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	-11.655	-11.655	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	-9.628	-9.628	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	-9.628	-9.628	0	%100
46	MP1A	Z	0	0	0	%100
47	M34A	X	-16.216	-16.216	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	-16.216	-16.216	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	-16.216	-16.216	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	-16.216	-16.216	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	-16.216	-16.216	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	-16.216	-16.216	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
58	M39	Z	0	0	0	%100
59	M46	X	-12.021	-12.021	0	%100
60	M46	Z	0	0	0	%100
61	M47	X	-14.628	-14.628	0	%100
62	M47	Z	0	0	0	%100
63	M48	X	-9.518	-9.518	0	%100
64	M48	Z	0	0	0	%100
65	M49	X	-12.606	-12.606	0	%100
66	M49	Z	0	0	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	0	0	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-2.085	-2.085	0	%100
2	M51	Z	-1.204	-1.204	0	%100
3	M52	X	-2.085	-2.085	0	%100
4	M52	Z	-1.204	-1.204	0	%100
5	M53	X	-7.398	-7.398	0	%100
6	M53	Z	-4.271	-4.271	0	%100
7	M54	X	-7.214	-7.214	0	%100
8	M54	Z	-4.165	-4.165	0	%100
9	M55	X	-6.393	-6.393	0	%100
10	M55	Z	-3.691	-3.691	0	%100
11	M56	X	-6.393	-6.393	0	%100
12	M56	Z	-3.691	-3.691	0	%100
13	M57	X	-6.393	-6.393	0	%100
14	M57	Z	-3.691	-3.691	0	%100
15	M58	X	-6.393	-6.393	0	%100
16	M58	Z	-3.691	-3.691	0	%100
17	M59	X	-6.393	-6.393	0	%100
18	M59	Z	-3.691	-3.691	0	%100
19	M62	X	-2.085	-2.085	0	%100
20	M62	Z	-1.204	-1.204	0	%100
21	M63	X	-2.085	-2.085	0	%100
22	M63	Z	-1.204	-1.204	0	%100
23	M68	X	-6.429	-6.429	0	%100
24	M68	Z	-3.712	-3.712	0	%100
25	O1	X	-6.429	-6.429	0	%100
26	O1	Z	-3.712	-3.712	0	%100
27	M70	X	-6.429	-6.429	0	%100
28	M70	Z	-3.712	-3.712	0	%100
29	TB_A	X	-4.947	-4.947	0	%100
30	TB_A	Z	-2.856	-2.856	0	%100
31	M72	X	-10.682	-10.682	0	%100
32	M72	Z	-6.167	-6.167	0	%100
33	M23	X	-6.393	-6.393	0	%100
34	M23	Z	-3.691	-3.691	0	%100
35	MP5A	X	-8.338	-8.338	0	%100
36	MP5A	Z	-4.814	-4.814	0	%100
37	M29	X	-8.338	-8.338	0	%100
38	M29	Z	-4.814	-4.814	0	%100
39	MP4A	X	-10.094	-10.094	0	%100
40	MP4A	Z	-5.828	-5.828	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
41	MP3A	X	-10.094	-10.094	0	%100
42	MP3A	Z	-5.828	-5.828	0	%100
43	MP2A	X	-8.338	-8.338	0	%100
44	MP2A	Z	-4.814	-4.814	0	%100
45	MP1A	X	-8.338	-8.338	0	%100
46	MP1A	Z	-4.814	-4.814	0	%100
47	M34A	X	-10.533	-10.533	0	%100
48	M34A	Z	-6.081	-6.081	0	%100
49	M35	X	-10.533	-10.533	0	%100
50	M35	Z	-6.081	-6.081	0	%100
51	M36A	X	-10.533	-10.533	0	%100
52	M36A	Z	-6.081	-6.081	0	%100
53	M37	X	-10.533	-10.533	0	%100
54	M37	Z	-6.081	-6.081	0	%100
55	M38	X	-10.533	-10.533	0	%100
56	M38	Z	-6.081	-6.081	0	%100
57	M39	X	-10.533	-10.533	0	%100
58	M39	Z	-6.081	-6.081	0	%100
59	M46	X	-13.992	-13.992	0	%100
60	M46	Z	-8.078	-8.078	0	%100
61	M47	X	-9.364	-9.364	0	%100
62	M47	Z	-5.406	-5.406	0	%100
63	M48	X	-14.038	-14.038	0	%100
64	M48	Z	-8.105	-8.105	0	%100
65	M49	X	-3.97	-3.97	0	%100
66	M49	Z	-2.292	-2.292	0	%100
67	M56A	X	-2.523	-2.523	0	%100
68	M56A	Z	-1.457	-1.457	0	%100
69	M57A	X	-2.523	-2.523	0	%100
70	M57A	Z	-1.457	-1.457	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-3.611	-3.611	0	%100
2	M51	Z	-6.254	-6.254	0	%100
3	M52	X	-3.611	-3.611	0	%100
4	M52	Z	-6.254	-6.254	0	%100
5	M53	X	-1.424	-1.424	0	%100
6	M53	Z	-2.466	-2.466	0	%100
7	M54	X	-1.388	-1.388	0	%100
8	M54	Z	-2.405	-2.405	0	%100
9	M55	X	-3.581	-3.581	0	%100
10	M55	Z	-6.202	-6.202	0	%100
11	M56	X	-3.581	-3.581	0	%100
12	M56	Z	-6.202	-6.202	0	%100
13	M57	X	-3.581	-3.581	0	%100
14	M57	Z	-6.202	-6.202	0	%100
15	M58	X	-3.581	-3.581	0	%100
16	M58	Z	-6.202	-6.202	0	%100
17	M59	X	-3.581	-3.581	0	%100
18	M59	Z	-6.202	-6.202	0	%100
19	M62	X	-3.611	-3.611	0	%100
20	M62	Z	-6.254	-6.254	0	%100
21	M63	X	-3.611	-3.611	0	%100
22	M63	Z	-6.254	-6.254	0	%100
23	M68	X	-3.712	-3.712	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
24	M68	Z	-6.429	-6.429	0	%100
25	O1	X	-3.712	-3.712	0	%100
26	O1	Z	-6.429	-6.429	0	%100
27	M70	X	-3.712	-3.712	0	%100
28	M70	Z	-6.429	-6.429	0	%100
29	TB_A	X	-.583	-.583	0	%100
30	TB_A	Z	-1.011	-1.011	0	%100
31	M72	X	-6.167	-6.167	0	%100
32	M72	Z	-10.682	-10.682	0	%100
33	M23	X	-3.581	-3.581	0	%100
34	M23	Z	-6.202	-6.202	0	%100
35	MP5A	X	-4.814	-4.814	0	%100
36	MP5A	Z	-8.338	-8.338	0	%100
37	M29	X	-4.814	-4.814	0	%100
38	M29	Z	-8.338	-8.338	0	%100
39	MP4A	X	-5.828	-5.828	0	%100
40	MP4A	Z	-10.094	-10.094	0	%100
41	MP3A	X	-5.828	-5.828	0	%100
42	MP3A	Z	-10.094	-10.094	0	%100
43	MP2A	X	-4.814	-4.814	0	%100
44	MP2A	Z	-8.338	-8.338	0	%100
45	MP1A	X	-4.814	-4.814	0	%100
46	MP1A	Z	-8.338	-8.338	0	%100
47	M34A	X	-2.027	-2.027	0	%100
48	M34A	Z	-3.511	-3.511	0	%100
49	M35	X	-2.027	-2.027	0	%100
50	M35	Z	-3.511	-3.511	0	%100
51	M36A	X	-2.027	-2.027	0	%100
52	M36A	Z	-3.511	-3.511	0	%100
53	M37	X	-2.027	-2.027	0	%100
54	M37	Z	-3.511	-3.511	0	%100
55	M38	X	-2.027	-2.027	0	%100
56	M38	Z	-3.511	-3.511	0	%100
57	M39	X	-2.027	-2.027	0	%100
58	M39	Z	-3.511	-3.511	0	%100
59	M46	X	-8.185	-8.185	0	%100
60	M46	Z	-14.177	-14.177	0	%100
61	M47	X	-4.62	-4.62	0	%100
62	M47	Z	-8.003	-8.003	0	%100
63	M48	X	-7.621	-7.621	0	%100
64	M48	Z	-13.2	-13.2	0	%100
65	M49	X	-.142	-.142	0	%100
66	M49	Z	-.246	-.246	0	%100
67	M56A	X	-4.371	-4.371	0	%100
68	M56A	Z	-7.57	-7.57	0	%100
69	M57A	X	-4.371	-4.371	0	%100
70	M57A	Z	-7.57	-7.57	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	-3.396	-3.396	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	-3.396	-3.396	0	%100
5	M53	X	0	0	0	%100
6	M53	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	M54	X	0	0	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	0	0	0	%100
10	M55	Z	-2.501	-2.501	0	%100
11	M56	X	0	0	0	%100
12	M56	Z	-2.501	-2.501	0	%100
13	M57	X	0	0	0	%100
14	M57	Z	-2.501	-2.501	0	%100
15	M58	X	0	0	0	%100
16	M58	Z	-2.501	-2.501	0	%100
17	M59	X	0	0	0	%100
18	M59	Z	-2.501	-2.501	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	-3.396	-3.396	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	-3.396	-3.396	0	%100
23	M68	X	0	0	0	%100
24	M68	Z	-2.632	-2.632	0	%100
25	O1	X	0	0	0	%100
26	O1	Z	-2.632	-2.632	0	%100
27	M70	X	0	0	0	%100
28	M70	Z	-2.632	-2.632	0	%100
29	TB_A	X	0	0	0	%100
30	TB_A	Z	-.095	-.095	0	%100
31	M72	X	0	0	0	%100
32	M72	Z	-4.37	-4.37	0	%100
33	M23	X	0	0	0	%100
34	M23	Z	-2.501	-2.501	0	%100
35	MP5A	X	0	0	0	%100
36	MP5A	Z	-3.396	-3.396	0	%100
37	M29	X	0	0	0	%100
38	M29	Z	-3.396	-3.396	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-3.76	-3.76	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	-3.76	-3.76	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	-3.396	-3.396	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	-3.396	-3.396	0	%100
47	M34A	X	0	0	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	0	0	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	0	0	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	0	0	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	0	0	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	0	0	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	0	0	0	%100
60	M46	Z	-3.464	-3.464	0	%100
61	M47	X	0	0	0	%100
62	M47	Z	-3.196	-3.196	0	%100
63	M48	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
64	M48	Z	-2.11	-2.11	0	%100
65	M49	X	0	0	0	%100
66	M49	Z	-1.128	-1.128	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	-3.76	-3.76	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	-3.76	-3.76	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	1.273	1.273	0	%100
2	M51	Z	-2.206	-2.206	0	%100
3	M52	X	1.273	1.273	0	%100
4	M52	Z	-2.206	-2.206	0	%100
5	M53	X	.483	.483	0	%100
6	M53	Z	-.837	-.837	0	%100
7	M54	X	.458	.458	0	%100
8	M54	Z	-.794	-.794	0	%100
9	M55	X	1.27	1.27	0	%100
10	M55	Z	-2.2	-2.2	0	%100
11	M56	X	1.27	1.27	0	%100
12	M56	Z	-2.2	-2.2	0	%100
13	M57	X	1.27	1.27	0	%100
14	M57	Z	-2.2	-2.2	0	%100
15	M58	X	1.27	1.27	0	%100
16	M58	Z	-2.2	-2.2	0	%100
17	M59	X	1.27	1.27	0	%100
18	M59	Z	-2.2	-2.2	0	%100
19	M62	X	1.273	1.273	0	%100
20	M62	Z	-2.206	-2.206	0	%100
21	M63	X	1.273	1.273	0	%100
22	M63	Z	-2.206	-2.206	0	%100
23	M68	X	1.316	1.316	0	%100
24	M68	Z	-2.28	-2.28	0	%100
25	O1	X	1.316	1.316	0	%100
26	O1	Z	-2.28	-2.28	0	%100
27	M70	X	1.316	1.316	0	%100
28	M70	Z	-2.28	-2.28	0	%100
29	TB_A	X	.691	.691	0	%100
30	TB_A	Z	-1.196	-1.196	0	%100
31	M72	X	2.185	2.185	0	%100
32	M72	Z	-3.784	-3.784	0	%100
33	M23	X	1.27	1.27	0	%100
34	M23	Z	-2.2	-2.2	0	%100
35	MP5A	X	1.698	1.698	0	%100
36	MP5A	Z	-2.941	-2.941	0	%100
37	M29	X	1.698	1.698	0	%100
38	M29	Z	-2.941	-2.941	0	%100
39	MP4A	X	1.88	1.88	0	%100
40	MP4A	Z	-3.256	-3.256	0	%100
41	MP3A	X	1.88	1.88	0	%100
42	MP3A	Z	-3.256	-3.256	0	%100
43	MP2A	X	1.698	1.698	0	%100
44	MP2A	Z	-2.941	-2.941	0	%100
45	MP1A	X	1.698	1.698	0	%100
46	MP1A	Z	-2.941	-2.941	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M34A	X	.492	.492	0	%100
48	M34A	Z	-.853	-.853	0	%100
49	M35	X	.492	.492	0	%100
50	M35	Z	-.853	-.853	0	%100
51	M36A	X	.492	.492	0	%100
52	M36A	Z	-.853	-.853	0	%100
53	M37	X	.492	.492	0	%100
54	M37	Z	-.853	-.853	0	%100
55	M38	X	.492	.492	0	%100
56	M38	Z	-.853	-.853	0	%100
57	M39	X	.492	.492	0	%100
58	M39	Z	-.853	-.853	0	%100
59	M46	X	1.156	1.156	0	%100
60	M46	Z	-2.003	-2.003	0	%100
61	M47	X	2.129	2.129	0	%100
62	M47	Z	-3.687	-3.687	0	%100
63	M48	X	.124	.124	0	%100
64	M48	Z	-.215	-.215	0	%100
65	M49	X	1.694	1.694	0	%100
66	M49	Z	-2.933	-2.933	0	%100
67	M56A	X	1.41	1.41	0	%100
68	M56A	Z	-2.442	-2.442	0	%100
69	M57A	X	1.41	1.41	0	%100
70	M57A	Z	-2.442	-2.442	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	.735	.735	0	%100
2	M51	Z	-.424	-.424	0	%100
3	M52	X	.735	.735	0	%100
4	M52	Z	-.424	-.424	0	%100
5	M53	X	2.512	2.512	0	%100
6	M53	Z	-1.45	-1.45	0	%100
7	M54	X	2.381	2.381	0	%100
8	M54	Z	-1.374	-1.374	0	%100
9	M55	X	2.267	2.267	0	%100
10	M55	Z	-1.309	-1.309	0	%100
11	M56	X	2.267	2.267	0	%100
12	M56	Z	-1.309	-1.309	0	%100
13	M57	X	2.267	2.267	0	%100
14	M57	Z	-1.309	-1.309	0	%100
15	M58	X	2.267	2.267	0	%100
16	M58	Z	-1.309	-1.309	0	%100
17	M59	X	2.267	2.267	0	%100
18	M59	Z	-1.309	-1.309	0	%100
19	M62	X	.735	.735	0	%100
20	M62	Z	-.424	-.424	0	%100
21	M63	X	.735	.735	0	%100
22	M63	Z	-.424	-.424	0	%100
23	M68	X	2.28	2.28	0	%100
24	M68	Z	-1.316	-1.316	0	%100
25	O1	X	2.28	2.28	0	%100
26	O1	Z	-1.316	-1.316	0	%100
27	M70	X	2.28	2.28	0	%100
28	M70	Z	-1.316	-1.316	0	%100
29	TB_A	X	2.584	2.584	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	TB_A	Z	-1.492	-1.492	0	%100
31	M72	X	3.784	3.784	0	%100
32	M72	Z	-2.185	-2.185	0	%100
33	M23	X	2.267	2.267	0	%100
34	M23	Z	-1.309	-1.309	0	%100
35	MP5A	X	2.941	2.941	0	%100
36	MP5A	Z	-1.698	-1.698	0	%100
37	M29	X	2.941	2.941	0	%100
38	M29	Z	-1.698	-1.698	0	%100
39	MP4A	X	3.256	3.256	0	%100
40	MP4A	Z	-1.88	-1.88	0	%100
41	MP3A	X	3.256	3.256	0	%100
42	MP3A	Z	-1.88	-1.88	0	%100
43	MP2A	X	2.941	2.941	0	%100
44	MP2A	Z	-1.698	-1.698	0	%100
45	MP1A	X	2.941	2.941	0	%100
46	MP1A	Z	-1.698	-1.698	0	%100
47	M34A	X	2.559	2.559	0	%100
48	M34A	Z	-1.477	-1.477	0	%100
49	M35	X	2.559	2.559	0	%100
50	M35	Z	-1.477	-1.477	0	%100
51	M36A	X	2.559	2.559	0	%100
52	M36A	Z	-1.477	-1.477	0	%100
53	M37	X	2.559	2.559	0	%100
54	M37	Z	-1.477	-1.477	0	%100
55	M38	X	2.559	2.559	0	%100
56	M38	Z	-1.477	-1.477	0	%100
57	M39	X	2.559	2.559	0	%100
58	M39	Z	-1.477	-1.477	0	%100
59	M46	X	1.951	1.951	0	%100
60	M46	Z	-1.127	-1.127	0	%100
61	M47	X	4.066	4.066	0	%100
62	M47	Z	-2.347	-2.347	0	%100
63	M48	X	.448	.448	0	%100
64	M48	Z	-.259	-.259	0	%100
65	M49	X	3.982	3.982	0	%100
66	M49	Z	-2.299	-2.299	0	%100
67	M56A	X	.814	.814	0	%100
68	M56A	Z	-.47	-.47	0	%100
69	M57A	X	.814	.814	0	%100
70	M57A	Z	-.47	-.47	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	0	0	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	0	0	0	%100
5	M53	X	3.868	3.868	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	3.665	3.665	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	2.657	2.657	0	%100
10	M55	Z	0	0	0	%100
11	M56	X	2.657	2.657	0	%100
12	M56	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M57	X	2.657	2.657	0	%100
14	M57	Z	0	0	0	%100
15	M58	X	2.657	2.657	0	%100
16	M58	Z	0	0	0	%100
17	M59	X	2.657	2.657	0	%100
18	M59	Z	0	0	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	0	0	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	0	0	0	%100
23	M68	X	2.632	2.632	0	%100
24	M68	Z	0	0	0	%100
25	O1	X	2.632	2.632	0	%100
26	O1	Z	0	0	0	%100
27	M70	X	2.632	2.632	0	%100
28	M70	Z	0	0	0	%100
29	TB_A	X	3.301	3.301	0	%100
30	TB_A	Z	0	0	0	%100
31	M72	X	4.37	4.37	0	%100
32	M72	Z	0	0	0	%100
33	M23	X	2.657	2.657	0	%100
34	M23	Z	0	0	0	%100
35	MP5A	X	3.396	3.396	0	%100
36	MP5A	Z	0	0	0	%100
37	M29	X	3.396	3.396	0	%100
38	M29	Z	0	0	0	%100
39	MP4A	X	3.76	3.76	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	3.76	3.76	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	3.396	3.396	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	3.396	3.396	0	%100
46	MP1A	Z	0	0	0	%100
47	M34A	X	3.94	3.94	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	3.94	3.94	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	3.94	3.94	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	3.94	3.94	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	3.94	3.94	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	3.94	3.94	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	3.345	3.345	0	%100
60	M46	Z	0	0	0	%100
61	M47	X	4.07	4.07	0	%100
62	M47	Z	0	0	0	%100
63	M48	X	2.648	2.648	0	%100
64	M48	Z	0	0	0	%100
65	M49	X	3.55	3.55	0	%100
66	M49	Z	0	0	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	0	0	0	%100
69	M57A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
70	M57A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	.735	.735	0	%100
2	M51	Z	.424	.424	0	%100
3	M52	X	.735	.735	0	%100
4	M52	Z	.424	.424	0	%100
5	M53	X	2.512	2.512	0	%100
6	M53	Z	1.45	1.45	0	%100
7	M54	X	2.381	2.381	0	%100
8	M54	Z	1.374	1.374	0	%100
9	M55	X	2.267	2.267	0	%100
10	M55	Z	1.309	1.309	0	%100
11	M56	X	2.267	2.267	0	%100
12	M56	Z	1.309	1.309	0	%100
13	M57	X	2.267	2.267	0	%100
14	M57	Z	1.309	1.309	0	%100
15	M58	X	2.267	2.267	0	%100
16	M58	Z	1.309	1.309	0	%100
17	M59	X	2.267	2.267	0	%100
18	M59	Z	1.309	1.309	0	%100
19	M62	X	.735	.735	0	%100
20	M62	Z	.424	.424	0	%100
21	M63	X	.735	.735	0	%100
22	M63	Z	.424	.424	0	%100
23	M68	X	2.28	2.28	0	%100
24	M68	Z	1.316	1.316	0	%100
25	O1	X	2.28	2.28	0	%100
26	O1	Z	1.316	1.316	0	%100
27	M70	X	2.28	2.28	0	%100
28	M70	Z	1.316	1.316	0	%100
29	TB_A	X	1.745	1.745	0	%100
30	TB_A	Z	1.007	1.007	0	%100
31	M72	X	3.784	3.784	0	%100
32	M72	Z	2.185	2.185	0	%100
33	M23	X	2.267	2.267	0	%100
34	M23	Z	1.309	1.309	0	%100
35	MP5A	X	2.941	2.941	0	%100
36	MP5A	Z	1.698	1.698	0	%100
37	M29	X	2.941	2.941	0	%100
38	M29	Z	1.698	1.698	0	%100
39	MP4A	X	3.256	3.256	0	%100
40	MP4A	Z	1.88	1.88	0	%100
41	MP3A	X	3.256	3.256	0	%100
42	MP3A	Z	1.88	1.88	0	%100
43	MP2A	X	2.941	2.941	0	%100
44	MP2A	Z	1.698	1.698	0	%100
45	MP1A	X	2.941	2.941	0	%100
46	MP1A	Z	1.698	1.698	0	%100
47	M34A	X	2.559	2.559	0	%100
48	M34A	Z	1.477	1.477	0	%100
49	M35	X	2.559	2.559	0	%100
50	M35	Z	1.477	1.477	0	%100
51	M36A	X	2.559	2.559	0	%100
52	M36A	Z	1.477	1.477	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M37	X	2.559	2.559	0	%100
54	M37	Z	1.477	1.477	0	%100
55	M38	X	2.559	2.559	0	%100
56	M38	Z	1.477	1.477	0	%100
57	M39	X	2.559	2.559	0	%100
58	M39	Z	1.477	1.477	0	%100
59	M46	X	3.893	3.893	0	%100
60	M46	Z	2.248	2.248	0	%100
61	M47	X	2.605	2.605	0	%100
62	M47	Z	1.504	1.504	0	%100
63	M48	X	3.906	3.906	0	%100
64	M48	Z	2.255	2.255	0	%100
65	M49	X	1.118	1.118	0	%100
66	M49	Z	.645	.645	0	%100
67	M56A	X	.814	.814	0	%100
68	M56A	Z	.47	.47	0	%100
69	M57A	X	.814	.814	0	%100
70	M57A	Z	.47	.47	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	1.273	1.273	0	%100
2	M51	Z	2.206	2.206	0	%100
3	M52	X	1.273	1.273	0	%100
4	M52	Z	2.206	2.206	0	%100
5	M53	X	.483	.483	0	%100
6	M53	Z	.837	.837	0	%100
7	M54	X	.458	.458	0	%100
8	M54	Z	.794	.794	0	%100
9	M55	X	1.27	1.27	0	%100
10	M55	Z	2.2	2.2	0	%100
11	M56	X	1.27	1.27	0	%100
12	M56	Z	2.2	2.2	0	%100
13	M57	X	1.27	1.27	0	%100
14	M57	Z	2.2	2.2	0	%100
15	M58	X	1.27	1.27	0	%100
16	M58	Z	2.2	2.2	0	%100
17	M59	X	1.27	1.27	0	%100
18	M59	Z	2.2	2.2	0	%100
19	M62	X	1.273	1.273	0	%100
20	M62	Z	2.206	2.206	0	%100
21	M63	X	1.273	1.273	0	%100
22	M63	Z	2.206	2.206	0	%100
23	M68	X	1.316	1.316	0	%100
24	M68	Z	2.28	2.28	0	%100
25	O1	X	1.316	1.316	0	%100
26	O1	Z	2.28	2.28	0	%100
27	M70	X	1.316	1.316	0	%100
28	M70	Z	2.28	2.28	0	%100
29	TB_A	X	.206	.206	0	%100
30	TB_A	Z	.356	.356	0	%100
31	M72	X	2.185	2.185	0	%100
32	M72	Z	3.784	3.784	0	%100
33	M23	X	1.27	1.27	0	%100
34	M23	Z	2.2	2.2	0	%100
35	MP5A	X	1.698	1.698	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
36	MP5A	Z	2.941	2.941	0	%100
37	M29	X	1.698	1.698	0	%100
38	M29	Z	2.941	2.941	0	%100
39	MP4A	X	1.88	1.88	0	%100
40	MP4A	Z	3.256	3.256	0	%100
41	MP3A	X	1.88	1.88	0	%100
42	MP3A	Z	3.256	3.256	0	%100
43	MP2A	X	1.698	1.698	0	%100
44	MP2A	Z	2.941	2.941	0	%100
45	MP1A	X	1.698	1.698	0	%100
46	MP1A	Z	2.941	2.941	0	%100
47	M34A	X	.492	.492	0	%100
48	M34A	Z	.853	.853	0	%100
49	M35	X	.492	.492	0	%100
50	M35	Z	.853	.853	0	%100
51	M36A	X	.492	.492	0	%100
52	M36A	Z	.853	.853	0	%100
53	M37	X	.492	.492	0	%100
54	M37	Z	.853	.853	0	%100
55	M38	X	.492	.492	0	%100
56	M38	Z	.853	.853	0	%100
57	M39	X	.492	.492	0	%100
58	M39	Z	.853	.853	0	%100
59	M46	X	2.277	2.277	0	%100
60	M46	Z	3.945	3.945	0	%100
61	M47	X	1.286	1.286	0	%100
62	M47	Z	2.227	2.227	0	%100
63	M48	X	2.12	2.12	0	%100
64	M48	Z	3.673	3.673	0	%100
65	M49	X	.04	.04	0	%100
66	M49	Z	.069	.069	0	%100
67	M56A	X	1.41	1.41	0	%100
68	M56A	Z	2.442	2.442	0	%100
69	M57A	X	1.41	1.41	0	%100
70	M57A	Z	2.442	2.442	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	3.396	3.396	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	3.396	3.396	0	%100
5	M53	X	0	0	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	0	0	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	0	0	0	%100
10	M55	Z	2.501	2.501	0	%100
11	M56	X	0	0	0	%100
12	M56	Z	2.501	2.501	0	%100
13	M57	X	0	0	0	%100
14	M57	Z	2.501	2.501	0	%100
15	M58	X	0	0	0	%100
16	M58	Z	2.501	2.501	0	%100
17	M59	X	0	0	0	%100
18	M59	Z	2.501	2.501	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	M62	X	0	0	0	%100
20	M62	Z	3.396	3.396	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	3.396	3.396	0	%100
23	M68	X	0	0	0	%100
24	M68	Z	2.632	2.632	0	%100
25	O1	X	0	0	0	%100
26	O1	Z	2.632	2.632	0	%100
27	M70	X	0	0	0	%100
28	M70	Z	2.632	2.632	0	%100
29	TB_A	X	0	0	0	%100
30	TB_A	Z	.095	.095	0	%100
31	M72	X	0	0	0	%100
32	M72	Z	4.37	4.37	0	%100
33	M23	X	0	0	0	%100
34	M23	Z	2.501	2.501	0	%100
35	MP5A	X	0	0	0	%100
36	MP5A	Z	3.396	3.396	0	%100
37	M29	X	0	0	0	%100
38	M29	Z	3.396	3.396	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	3.76	3.76	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	3.76	3.76	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	3.396	3.396	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	3.396	3.396	0	%100
47	M34A	X	0	0	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	0	0	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	0	0	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	0	0	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	0	0	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	0	0	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	0	0	0	%100
60	M46	Z	3.464	3.464	0	%100
61	M47	X	0	0	0	%100
62	M47	Z	3.196	3.196	0	%100
63	M48	X	0	0	0	%100
64	M48	Z	2.11	2.11	0	%100
65	M49	X	0	0	0	%100
66	M49	Z	1.128	1.128	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	3.76	3.76	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	3.76	3.76	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-1.273	-1.273	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
2	M51	Z	2.206	2.206	0	%100
3	M52	X	-1.273	-1.273	0	%100
4	M52	Z	2.206	2.206	0	%100
5	M53	X	-.483	-.483	0	%100
6	M53	Z	.837	.837	0	%100
7	M54	X	-.458	-.458	0	%100
8	M54	Z	.794	.794	0	%100
9	M55	X	-1.27	-1.27	0	%100
10	M55	Z	2.2	2.2	0	%100
11	M56	X	-1.27	-1.27	0	%100
12	M56	Z	2.2	2.2	0	%100
13	M57	X	-1.27	-1.27	0	%100
14	M57	Z	2.2	2.2	0	%100
15	M58	X	-1.27	-1.27	0	%100
16	M58	Z	2.2	2.2	0	%100
17	M59	X	-1.27	-1.27	0	%100
18	M59	Z	2.2	2.2	0	%100
19	M62	X	-1.273	-1.273	0	%100
20	M62	Z	2.206	2.206	0	%100
21	M63	X	-1.273	-1.273	0	%100
22	M63	Z	2.206	2.206	0	%100
23	M68	X	-1.316	-1.316	0	%100
24	M68	Z	2.28	2.28	0	%100
25	O1	X	-1.316	-1.316	0	%100
26	O1	Z	2.28	2.28	0	%100
27	M70	X	-1.316	-1.316	0	%100
28	M70	Z	2.28	2.28	0	%100
29	TB_A	X	-.691	-.691	0	%100
30	TB_A	Z	1.196	1.196	0	%100
31	M72	X	-2.185	-2.185	0	%100
32	M72	Z	3.784	3.784	0	%100
33	M23	X	-1.27	-1.27	0	%100
34	M23	Z	2.2	2.2	0	%100
35	MP5A	X	-1.698	-1.698	0	%100
36	MP5A	Z	2.941	2.941	0	%100
37	M29	X	-1.698	-1.698	0	%100
38	M29	Z	2.941	2.941	0	%100
39	MP4A	X	-1.88	-1.88	0	%100
40	MP4A	Z	3.256	3.256	0	%100
41	MP3A	X	-1.88	-1.88	0	%100
42	MP3A	Z	3.256	3.256	0	%100
43	MP2A	X	-1.698	-1.698	0	%100
44	MP2A	Z	2.941	2.941	0	%100
45	MP1A	X	-1.698	-1.698	0	%100
46	MP1A	Z	2.941	2.941	0	%100
47	M34A	X	-.492	-.492	0	%100
48	M34A	Z	.853	.853	0	%100
49	M35	X	-.492	-.492	0	%100
50	M35	Z	.853	.853	0	%100
51	M36A	X	-.492	-.492	0	%100
52	M36A	Z	.853	.853	0	%100
53	M37	X	-.492	-.492	0	%100
54	M37	Z	.853	.853	0	%100
55	M38	X	-.492	-.492	0	%100
56	M38	Z	.853	.853	0	%100
57	M39	X	-.492	-.492	0	%100
58	M39	Z	.853	.853	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
59	M46	X	-1.156	-1.156	0	%100
60	M46	Z	2.003	2.003	0	%100
61	M47	X	-2.129	-2.129	0	%100
62	M47	Z	3.687	3.687	0	%100
63	M48	X	-.124	-.124	0	%100
64	M48	Z	.215	.215	0	%100
65	M49	X	-1.694	-1.694	0	%100
66	M49	Z	2.933	2.933	0	%100
67	M56A	X	-1.41	-1.41	0	%100
68	M56A	Z	2.442	2.442	0	%100
69	M57A	X	-1.41	-1.41	0	%100
70	M57A	Z	2.442	2.442	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-.735	-.735	0	%100
2	M51	Z	.424	.424	0	%100
3	M52	X	-.735	-.735	0	%100
4	M52	Z	.424	.424	0	%100
5	M53	X	-2.512	-2.512	0	%100
6	M53	Z	1.45	1.45	0	%100
7	M54	X	-2.381	-2.381	0	%100
8	M54	Z	1.374	1.374	0	%100
9	M55	X	-2.267	-2.267	0	%100
10	M55	Z	1.309	1.309	0	%100
11	M56	X	-2.267	-2.267	0	%100
12	M56	Z	1.309	1.309	0	%100
13	M57	X	-2.267	-2.267	0	%100
14	M57	Z	1.309	1.309	0	%100
15	M58	X	-2.267	-2.267	0	%100
16	M58	Z	1.309	1.309	0	%100
17	M59	X	-2.267	-2.267	0	%100
18	M59	Z	1.309	1.309	0	%100
19	M62	X	-.735	-.735	0	%100
20	M62	Z	.424	.424	0	%100
21	M63	X	-.735	-.735	0	%100
22	M63	Z	.424	.424	0	%100
23	M68	X	-2.28	-2.28	0	%100
24	M68	Z	1.316	1.316	0	%100
25	O1	X	-2.28	-2.28	0	%100
26	O1	Z	1.316	1.316	0	%100
27	M70	X	-2.28	-2.28	0	%100
28	M70	Z	1.316	1.316	0	%100
29	TB_A	X	-2.584	-2.584	0	%100
30	TB_A	Z	1.492	1.492	0	%100
31	M72	X	-3.784	-3.784	0	%100
32	M72	Z	2.185	2.185	0	%100
33	M23	X	-2.267	-2.267	0	%100
34	M23	Z	1.309	1.309	0	%100
35	MP5A	X	-2.941	-2.941	0	%100
36	MP5A	Z	1.698	1.698	0	%100
37	M29	X	-2.941	-2.941	0	%100
38	M29	Z	1.698	1.698	0	%100
39	MP4A	X	-3.256	-3.256	0	%100
40	MP4A	Z	1.88	1.88	0	%100
41	MP3A	X	-3.256	-3.256	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
42	MP3A	Z	1.88	1.88	0	%100
43	MP2A	X	-2.941	-2.941	0	%100
44	MP2A	Z	1.698	1.698	0	%100
45	MP1A	X	-2.941	-2.941	0	%100
46	MP1A	Z	1.698	1.698	0	%100
47	M34A	X	-2.559	-2.559	0	%100
48	M34A	Z	1.477	1.477	0	%100
49	M35	X	-2.559	-2.559	0	%100
50	M35	Z	1.477	1.477	0	%100
51	M36A	X	-2.559	-2.559	0	%100
52	M36A	Z	1.477	1.477	0	%100
53	M37	X	-2.559	-2.559	0	%100
54	M37	Z	1.477	1.477	0	%100
55	M38	X	-2.559	-2.559	0	%100
56	M38	Z	1.477	1.477	0	%100
57	M39	X	-2.559	-2.559	0	%100
58	M39	Z	1.477	1.477	0	%100
59	M46	X	-1.951	-1.951	0	%100
60	M46	Z	1.127	1.127	0	%100
61	M47	X	-4.066	-4.066	0	%100
62	M47	Z	2.347	2.347	0	%100
63	M48	X	-.448	-.448	0	%100
64	M48	Z	.259	.259	0	%100
65	M49	X	-3.982	-3.982	0	%100
66	M49	Z	2.299	2.299	0	%100
67	M56A	X	-.814	-.814	0	%100
68	M56A	Z	.47	.47	0	%100
69	M57A	X	-.814	-.814	0	%100
70	M57A	Z	.47	.47	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	0	0	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	0	0	0	%100
5	M53	X	-3.868	-3.868	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	-3.665	-3.665	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	-2.657	-2.657	0	%100
10	M55	Z	0	0	0	%100
11	M56	X	-2.657	-2.657	0	%100
12	M56	Z	0	0	0	%100
13	M57	X	-2.657	-2.657	0	%100
14	M57	Z	0	0	0	%100
15	M58	X	-2.657	-2.657	0	%100
16	M58	Z	0	0	0	%100
17	M59	X	-2.657	-2.657	0	%100
18	M59	Z	0	0	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	0	0	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	0	0	0	%100
23	M68	X	-2.632	-2.632	0	%100
24	M68	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
25	O1	X	-2.632	-2.632	0	%100
26	O1	Z	0	0	0	%100
27	M70	X	-2.632	-2.632	0	%100
28	M70	Z	0	0	0	%100
29	TB_A	X	-3.301	-3.301	0	%100
30	TB_A	Z	0	0	0	%100
31	M72	X	-4.37	-4.37	0	%100
32	M72	Z	0	0	0	%100
33	M23	X	-2.657	-2.657	0	%100
34	M23	Z	0	0	0	%100
35	MP5A	X	-3.396	-3.396	0	%100
36	MP5A	Z	0	0	0	%100
37	M29	X	-3.396	-3.396	0	%100
38	M29	Z	0	0	0	%100
39	MP4A	X	-3.76	-3.76	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	-3.76	-3.76	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	-3.396	-3.396	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	-3.396	-3.396	0	%100
46	MP1A	Z	0	0	0	%100
47	M34A	X	-3.94	-3.94	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	-3.94	-3.94	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	-3.94	-3.94	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	-3.94	-3.94	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	-3.94	-3.94	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	-3.94	-3.94	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	-3.345	-3.345	0	%100
60	M46	Z	0	0	0	%100
61	M47	X	-4.07	-4.07	0	%100
62	M47	Z	0	0	0	%100
63	M48	X	-2.648	-2.648	0	%100
64	M48	Z	0	0	0	%100
65	M49	X	-3.55	-3.55	0	%100
66	M49	Z	0	0	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	0	0	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-.735	-.735	0	%100
2	M51	Z	-.424	-.424	0	%100
3	M52	X	-.735	-.735	0	%100
4	M52	Z	-.424	-.424	0	%100
5	M53	X	-2.512	-2.512	0	%100
6	M53	Z	-1.45	-1.45	0	%100
7	M54	X	-2.381	-2.381	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
8	M54	Z	-1.374	-1.374	0	%100
9	M55	X	-2.267	-2.267	0	%100
10	M55	Z	-1.309	-1.309	0	%100
11	M56	X	-2.267	-2.267	0	%100
12	M56	Z	-1.309	-1.309	0	%100
13	M57	X	-2.267	-2.267	0	%100
14	M57	Z	-1.309	-1.309	0	%100
15	M58	X	-2.267	-2.267	0	%100
16	M58	Z	-1.309	-1.309	0	%100
17	M59	X	-2.267	-2.267	0	%100
18	M59	Z	-1.309	-1.309	0	%100
19	M62	X	-.735	-.735	0	%100
20	M62	Z	-.424	-.424	0	%100
21	M63	X	-.735	-.735	0	%100
22	M63	Z	-.424	-.424	0	%100
23	M68	X	-2.28	-2.28	0	%100
24	M68	Z	-1.316	-1.316	0	%100
25	O1	X	-2.28	-2.28	0	%100
26	O1	Z	-1.316	-1.316	0	%100
27	M70	X	-2.28	-2.28	0	%100
28	M70	Z	-1.316	-1.316	0	%100
29	TB_A	X	-1.745	-1.745	0	%100
30	TB_A	Z	-1.007	-1.007	0	%100
31	M72	X	-3.784	-3.784	0	%100
32	M72	Z	-2.185	-2.185	0	%100
33	M23	X	-2.267	-2.267	0	%100
34	M23	Z	-1.309	-1.309	0	%100
35	MP5A	X	-2.941	-2.941	0	%100
36	MP5A	Z	-1.698	-1.698	0	%100
37	M29	X	-2.941	-2.941	0	%100
38	M29	Z	-1.698	-1.698	0	%100
39	MP4A	X	-3.256	-3.256	0	%100
40	MP4A	Z	-1.88	-1.88	0	%100
41	MP3A	X	-3.256	-3.256	0	%100
42	MP3A	Z	-1.88	-1.88	0	%100
43	MP2A	X	-2.941	-2.941	0	%100
44	MP2A	Z	-1.698	-1.698	0	%100
45	MP1A	X	-2.941	-2.941	0	%100
46	MP1A	Z	-1.698	-1.698	0	%100
47	M34A	X	-2.559	-2.559	0	%100
48	M34A	Z	-1.477	-1.477	0	%100
49	M35	X	-2.559	-2.559	0	%100
50	M35	Z	-1.477	-1.477	0	%100
51	M36A	X	-2.559	-2.559	0	%100
52	M36A	Z	-1.477	-1.477	0	%100
53	M37	X	-2.559	-2.559	0	%100
54	M37	Z	-1.477	-1.477	0	%100
55	M38	X	-2.559	-2.559	0	%100
56	M38	Z	-1.477	-1.477	0	%100
57	M39	X	-2.559	-2.559	0	%100
58	M39	Z	-1.477	-1.477	0	%100
59	M46	X	-3.893	-3.893	0	%100
60	M46	Z	-2.248	-2.248	0	%100
61	M47	X	-2.605	-2.605	0	%100
62	M47	Z	-1.504	-1.504	0	%100
63	M48	X	-3.906	-3.906	0	%100
64	M48	Z	-2.255	-2.255	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
65	M49	X	-1.118	-1.118	0	%100
66	M49	Z	-.645	-.645	0	%100
67	M56A	X	-.814	-.814	0	%100
68	M56A	Z	-.47	-.47	0	%100
69	M57A	X	-.814	-.814	0	%100
70	M57A	Z	-.47	-.47	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-1.273	-1.273	0	%100
2	M51	Z	-2.206	-2.206	0	%100
3	M52	X	-1.273	-1.273	0	%100
4	M52	Z	-2.206	-2.206	0	%100
5	M53	X	-.483	-.483	0	%100
6	M53	Z	-.837	-.837	0	%100
7	M54	X	-.458	-.458	0	%100
8	M54	Z	-.794	-.794	0	%100
9	M55	X	-1.27	-1.27	0	%100
10	M55	Z	-2.2	-2.2	0	%100
11	M56	X	-1.27	-1.27	0	%100
12	M56	Z	-2.2	-2.2	0	%100
13	M57	X	-1.27	-1.27	0	%100
14	M57	Z	-2.2	-2.2	0	%100
15	M58	X	-1.27	-1.27	0	%100
16	M58	Z	-2.2	-2.2	0	%100
17	M59	X	-1.27	-1.27	0	%100
18	M59	Z	-2.2	-2.2	0	%100
19	M62	X	-1.273	-1.273	0	%100
20	M62	Z	-2.206	-2.206	0	%100
21	M63	X	-1.273	-1.273	0	%100
22	M63	Z	-2.206	-2.206	0	%100
23	M68	X	-1.316	-1.316	0	%100
24	M68	Z	-2.28	-2.28	0	%100
25	O1	X	-1.316	-1.316	0	%100
26	O1	Z	-2.28	-2.28	0	%100
27	M70	X	-1.316	-1.316	0	%100
28	M70	Z	-2.28	-2.28	0	%100
29	TB_A	X	-.206	-.206	0	%100
30	TB_A	Z	-.356	-.356	0	%100
31	M72	X	-2.185	-2.185	0	%100
32	M72	Z	-3.784	-3.784	0	%100
33	M23	X	-1.27	-1.27	0	%100
34	M23	Z	-2.2	-2.2	0	%100
35	MP5A	X	-1.698	-1.698	0	%100
36	MP5A	Z	-2.941	-2.941	0	%100
37	M29	X	-1.698	-1.698	0	%100
38	M29	Z	-2.941	-2.941	0	%100
39	MP4A	X	-1.88	-1.88	0	%100
40	MP4A	Z	-3.256	-3.256	0	%100
41	MP3A	X	-1.88	-1.88	0	%100
42	MP3A	Z	-3.256	-3.256	0	%100
43	MP2A	X	-1.698	-1.698	0	%100
44	MP2A	Z	-2.941	-2.941	0	%100
45	MP1A	X	-1.698	-1.698	0	%100
46	MP1A	Z	-2.941	-2.941	0	%100
47	M34A	X	-.492	-.492	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
48	M34A	Z	-.853	-.853	0	%100
49	M35	X	-.492	-.492	0	%100
50	M35	Z	-.853	-.853	0	%100
51	M36A	X	-.492	-.492	0	%100
52	M36A	Z	-.853	-.853	0	%100
53	M37	X	-.492	-.492	0	%100
54	M37	Z	-.853	-.853	0	%100
55	M38	X	-.492	-.492	0	%100
56	M38	Z	-.853	-.853	0	%100
57	M39	X	-.492	-.492	0	%100
58	M39	Z	-.853	-.853	0	%100
59	M46	X	-2.277	-2.277	0	%100
60	M46	Z	-3.945	-3.945	0	%100
61	M47	X	-1.286	-1.286	0	%100
62	M47	Z	-2.227	-2.227	0	%100
63	M48	X	-2.12	-2.12	0	%100
64	M48	Z	-3.673	-3.673	0	%100
65	M49	X	-.04	-.04	0	%100
66	M49	Z	-.069	-.069	0	%100
67	M56A	X	-1.41	-1.41	0	%100
68	M56A	Z	-2.442	-2.442	0	%100
69	M57A	X	-1.41	-1.41	0	%100
70	M57A	Z	-2.442	-2.442	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	-.622	-.622	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	-.622	-.622	0	%100
5	M53	X	0	0	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	0	0	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	0	0	0	%100
10	M55	Z	-.456	-.456	0	%100
11	M56	X	0	0	0	%100
12	M56	Z	-.456	-.456	0	%100
13	M57	X	0	0	0	%100
14	M57	Z	-.456	-.456	0	%100
15	M58	X	0	0	0	%100
16	M58	Z	-.456	-.456	0	%100
17	M59	X	0	0	0	%100
18	M59	Z	-.456	-.456	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	-.622	-.622	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	-.622	-.622	0	%100
23	M68	X	0	0	0	%100
24	M68	Z	-.48	-.48	0	%100
25	O1	X	0	0	0	%100
26	O1	Z	-.48	-.48	0	%100
27	M70	X	0	0	0	%100
28	M70	Z	-.48	-.48	0	%100
29	TB_A	X	0	0	0	%100
30	TB_A	Z	-.017	-.017	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
31	M72	X	0	0	0	%100
32	M72	Z	-.797	-.797	0	%100
33	M23	X	0	0	0	%100
34	M23	Z	-.456	-.456	0	%100
35	MP5A	X	0	0	0	%100
36	MP5A	Z	-.622	-.622	0	%100
37	M29	X	0	0	0	%100
38	M29	Z	-.622	-.622	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-.753	-.753	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	-.753	-.753	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	-.622	-.622	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	-.622	-.622	0	%100
47	M34A	X	0	0	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	0	0	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	0	0	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	0	0	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	0	0	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	0	0	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	0	0	0	%100
60	M46	Z	-.805	-.805	0	%100
61	M47	X	0	0	0	%100
62	M47	Z	-.742	-.742	0	%100
63	M48	X	0	0	0	%100
64	M48	Z	-.49	-.49	0	%100
65	M49	X	0	0	0	%100
66	M49	Z	-.259	-.259	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	-.753	-.753	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	-.753	-.753	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	.233	.233	0	%100
2	M51	Z	-.404	-.404	0	%100
3	M52	X	.233	.233	0	%100
4	M52	Z	-.404	-.404	0	%100
5	M53	X	.092	.092	0	%100
6	M53	Z	-.159	-.159	0	%100
7	M54	X	.09	.09	0	%100
8	M54	Z	-.155	-.155	0	%100
9	M55	X	.231	.231	0	%100
10	M55	Z	-.401	-.401	0	%100
11	M56	X	.231	.231	0	%100
12	M56	Z	-.401	-.401	0	%100
13	M57	X	.231	.231	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M57	Z	-.401	-.401	0	%100
15	M58	X	.231	.231	0	%100
16	M58	Z	-.401	-.401	0	%100
17	M59	X	.231	.231	0	%100
18	M59	Z	-.401	-.401	0	%100
19	M62	X	.233	.233	0	%100
20	M62	Z	-.404	-.404	0	%100
21	M63	X	.233	.233	0	%100
22	M63	Z	-.404	-.404	0	%100
23	M68	X	.24	.24	0	%100
24	M68	Z	-.416	-.416	0	%100
25	O1	X	.24	.24	0	%100
26	O1	Z	-.416	-.416	0	%100
27	M70	X	.24	.24	0	%100
28	M70	Z	-.416	-.416	0	%100
29	TB_A	X	.127	.127	0	%100
30	TB_A	Z	-.219	-.219	0	%100
31	M72	X	.399	.399	0	%100
32	M72	Z	-.69	-.69	0	%100
33	M23	X	.231	.231	0	%100
34	M23	Z	-.401	-.401	0	%100
35	MP5A	X	.311	.311	0	%100
36	MP5A	Z	-.539	-.539	0	%100
37	M29	X	.311	.311	0	%100
38	M29	Z	-.539	-.539	0	%100
39	MP4A	X	.377	.377	0	%100
40	MP4A	Z	-.652	-.652	0	%100
41	MP3A	X	.377	.377	0	%100
42	MP3A	Z	-.652	-.652	0	%100
43	MP2A	X	.311	.311	0	%100
44	MP2A	Z	-.539	-.539	0	%100
45	MP1A	X	.311	.311	0	%100
46	MP1A	Z	-.539	-.539	0	%100
47	M34A	X	.131	.131	0	%100
48	M34A	Z	-.227	-.227	0	%100
49	M35	X	.131	.131	0	%100
50	M35	Z	-.227	-.227	0	%100
51	M36A	X	.131	.131	0	%100
52	M36A	Z	-.227	-.227	0	%100
53	M37	X	.131	.131	0	%100
54	M37	Z	-.227	-.227	0	%100
55	M38	X	.131	.131	0	%100
56	M38	Z	-.227	-.227	0	%100
57	M39	X	.131	.131	0	%100
58	M39	Z	-.227	-.227	0	%100
59	M46	X	.269	.269	0	%100
60	M46	Z	-.465	-.465	0	%100
61	M47	X	.494	.494	0	%100
62	M47	Z	-.856	-.856	0	%100
63	M48	X	.029	.029	0	%100
64	M48	Z	-.05	-.05	0	%100
65	M49	X	.389	.389	0	%100
66	M49	Z	-.673	-.673	0	%100
67	M56A	X	.283	.283	0	%100
68	M56A	Z	-.489	-.489	0	%100
69	M57A	X	.283	.283	0	%100
70	M57A	Z	-.489	-.489	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	.135	.135	0	%100
2	M51	Z	-.078	-.078	0	%100
3	M52	X	.135	.135	0	%100
4	M52	Z	-.078	-.078	0	%100
5	M53	X	.478	.478	0	%100
6	M53	Z	-.276	-.276	0	%100
7	M54	X	.466	.466	0	%100
8	M54	Z	-.269	-.269	0	%100
9	M55	X	.413	.413	0	%100
10	M55	Z	-.239	-.239	0	%100
11	M56	X	.413	.413	0	%100
12	M56	Z	-.239	-.239	0	%100
13	M57	X	.413	.413	0	%100
14	M57	Z	-.239	-.239	0	%100
15	M58	X	.413	.413	0	%100
16	M58	Z	-.239	-.239	0	%100
17	M59	X	.413	.413	0	%100
18	M59	Z	-.239	-.239	0	%100
19	M62	X	.135	.135	0	%100
20	M62	Z	-.078	-.078	0	%100
21	M63	X	.135	.135	0	%100
22	M63	Z	-.078	-.078	0	%100
23	M68	X	.416	.416	0	%100
24	M68	Z	-.24	-.24	0	%100
25	O1	X	.416	.416	0	%100
26	O1	Z	-.24	-.24	0	%100
27	M70	X	.416	.416	0	%100
28	M70	Z	-.24	-.24	0	%100
29	TB_A	X	.474	.474	0	%100
30	TB_A	Z	-.273	-.273	0	%100
31	M72	X	.69	.69	0	%100
32	M72	Z	-.399	-.399	0	%100
33	M23	X	.413	.413	0	%100
34	M23	Z	-.239	-.239	0	%100
35	MP5A	X	.539	.539	0	%100
36	MP5A	Z	-.311	-.311	0	%100
37	M29	X	.539	.539	0	%100
38	M29	Z	-.311	-.311	0	%100
39	MP4A	X	.652	.652	0	%100
40	MP4A	Z	-.377	-.377	0	%100
41	MP3A	X	.652	.652	0	%100
42	MP3A	Z	-.377	-.377	0	%100
43	MP2A	X	.539	.539	0	%100
44	MP2A	Z	-.311	-.311	0	%100
45	MP1A	X	.539	.539	0	%100
46	MP1A	Z	-.311	-.311	0	%100
47	M34A	X	.681	.681	0	%100
48	M34A	Z	-.393	-.393	0	%100
49	M35	X	.681	.681	0	%100
50	M35	Z	-.393	-.393	0	%100
51	M36A	X	.681	.681	0	%100
52	M36A	Z	-.393	-.393	0	%100
53	M37	X	.681	.681	0	%100
54	M37	Z	-.393	-.393	0	%100
55	M38	X	.681	.681	0	%100
56	M38	Z	-.393	-.393	0	%100
57	M39	X	.681	.681	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
58	M39	Z	-.393	-.393	0	%100
59	M46	X	.453	.453	0	%100
60	M46	Z	-.262	-.262	0	%100
61	M47	X	.944	.944	0	%100
62	M47	Z	-.545	-.545	0	%100
63	M48	X	.104	.104	0	%100
64	M48	Z	-.06	-.06	0	%100
65	M49	X	.914	.914	0	%100
66	M49	Z	-.528	-.528	0	%100
67	M56A	X	.163	.163	0	%100
68	M56A	Z	-.094	-.094	0	%100
69	M57A	X	.163	.163	0	%100
70	M57A	Z	-.094	-.094	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	0	0	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	0	0	0	%100
5	M53	X	.736	.736	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	.718	.718	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	.484	.484	0	%100
10	M55	Z	0	0	0	%100
11	M56	X	.484	.484	0	%100
12	M56	Z	0	0	0	%100
13	M57	X	.484	.484	0	%100
14	M57	Z	0	0	0	%100
15	M58	X	.484	.484	0	%100
16	M58	Z	0	0	0	%100
17	M59	X	.484	.484	0	%100
18	M59	Z	0	0	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	0	0	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	0	0	0	%100
23	M68	X	.48	.48	0	%100
24	M68	Z	0	0	0	%100
25	O1	X	.48	.48	0	%100
26	O1	Z	0	0	0	%100
27	M70	X	.48	.48	0	%100
28	M70	Z	0	0	0	%100
29	TB_A	X	.605	.605	0	%100
30	TB_A	Z	0	0	0	%100
31	M72	X	.797	.797	0	%100
32	M72	Z	0	0	0	%100
33	M23	X	.484	.484	0	%100
34	M23	Z	0	0	0	%100
35	MP5A	X	.622	.622	0	%100
36	MP5A	Z	0	0	0	%100
37	M29	X	.622	.622	0	%100
38	M29	Z	0	0	0	%100
39	MP4A	X	.753	.753	0	%100
40	MP4A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
41	MP3A	X	.753	.753	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	.622	.622	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	.622	.622	0	%100
46	MP1A	Z	0	0	0	%100
47	M34A	X	1.048	1.048	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	1.048	1.048	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	1.048	1.048	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	1.048	1.048	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	1.048	1.048	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	1.048	1.048	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	.777	.777	0	%100
60	M46	Z	0	0	0	%100
61	M47	X	.946	.946	0	%100
62	M47	Z	0	0	0	%100
63	M48	X	.615	.615	0	%100
64	M48	Z	0	0	0	%100
65	M49	X	.815	.815	0	%100
66	M49	Z	0	0	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	0	0	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	.135	.135	0	%100
2	M51	Z	.078	.078	0	%100
3	M52	X	.135	.135	0	%100
4	M52	Z	.078	.078	0	%100
5	M53	X	.478	.478	0	%100
6	M53	Z	.276	.276	0	%100
7	M54	X	.466	.466	0	%100
8	M54	Z	.269	.269	0	%100
9	M55	X	.413	.413	0	%100
10	M55	Z	.239	.239	0	%100
11	M56	X	.413	.413	0	%100
12	M56	Z	.239	.239	0	%100
13	M57	X	.413	.413	0	%100
14	M57	Z	.239	.239	0	%100
15	M58	X	.413	.413	0	%100
16	M58	Z	.239	.239	0	%100
17	M59	X	.413	.413	0	%100
18	M59	Z	.239	.239	0	%100
19	M62	X	.135	.135	0	%100
20	M62	Z	.078	.078	0	%100
21	M63	X	.135	.135	0	%100
22	M63	Z	.078	.078	0	%100
23	M68	X	.416	.416	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
24	M68	Z	.24	.24	0	%100
25	O1	X	.416	.416	0	%100
26	O1	Z	.24	.24	0	%100
27	M70	X	.416	.416	0	%100
28	M70	Z	.24	.24	0	%100
29	TB_A	X	.32	.32	0	%100
30	TB_A	Z	.185	.185	0	%100
31	M72	X	.69	.69	0	%100
32	M72	Z	.399	.399	0	%100
33	M23	X	.413	.413	0	%100
34	M23	Z	.239	.239	0	%100
35	MP5A	X	.539	.539	0	%100
36	MP5A	Z	.311	.311	0	%100
37	M29	X	.539	.539	0	%100
38	M29	Z	.311	.311	0	%100
39	MP4A	X	.652	.652	0	%100
40	MP4A	Z	.377	.377	0	%100
41	MP3A	X	.652	.652	0	%100
42	MP3A	Z	.377	.377	0	%100
43	MP2A	X	.539	.539	0	%100
44	MP2A	Z	.311	.311	0	%100
45	MP1A	X	.539	.539	0	%100
46	MP1A	Z	.311	.311	0	%100
47	M34A	X	.681	.681	0	%100
48	M34A	Z	.393	.393	0	%100
49	M35	X	.681	.681	0	%100
50	M35	Z	.393	.393	0	%100
51	M36A	X	.681	.681	0	%100
52	M36A	Z	.393	.393	0	%100
53	M37	X	.681	.681	0	%100
54	M37	Z	.393	.393	0	%100
55	M38	X	.681	.681	0	%100
56	M38	Z	.393	.393	0	%100
57	M39	X	.681	.681	0	%100
58	M39	Z	.393	.393	0	%100
59	M46	X	.904	.904	0	%100
60	M46	Z	.522	.522	0	%100
61	M47	X	.605	.605	0	%100
62	M47	Z	.349	.349	0	%100
63	M48	X	.907	.907	0	%100
64	M48	Z	.524	.524	0	%100
65	M49	X	.257	.257	0	%100
66	M49	Z	.148	.148	0	%100
67	M56A	X	.163	.163	0	%100
68	M56A	Z	.094	.094	0	%100
69	M57A	X	.163	.163	0	%100
70	M57A	Z	.094	.094	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	.233	.233	0	%100
2	M51	Z	.404	.404	0	%100
3	M52	X	.233	.233	0	%100
4	M52	Z	.404	.404	0	%100
5	M53	X	.092	.092	0	%100
6	M53	Z	.159	.159	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	M54	X	.09	.09	0	%100
8	M54	Z	.155	.155	0	%100
9	M55	X	.231	.231	0	%100
10	M55	Z	.401	.401	0	%100
11	M56	X	.231	.231	0	%100
12	M56	Z	.401	.401	0	%100
13	M57	X	.231	.231	0	%100
14	M57	Z	.401	.401	0	%100
15	M58	X	.231	.231	0	%100
16	M58	Z	.401	.401	0	%100
17	M59	X	.231	.231	0	%100
18	M59	Z	.401	.401	0	%100
19	M62	X	.233	.233	0	%100
20	M62	Z	.404	.404	0	%100
21	M63	X	.233	.233	0	%100
22	M63	Z	.404	.404	0	%100
23	M68	X	.24	.24	0	%100
24	M68	Z	.416	.416	0	%100
25	O1	X	.24	.24	0	%100
26	O1	Z	.416	.416	0	%100
27	M70	X	.24	.24	0	%100
28	M70	Z	.416	.416	0	%100
29	TB_A	X	.038	.038	0	%100
30	TB_A	Z	.065	.065	0	%100
31	M72	X	.399	.399	0	%100
32	M72	Z	.69	.69	0	%100
33	M23	X	.231	.231	0	%100
34	M23	Z	.401	.401	0	%100
35	MP5A	X	.311	.311	0	%100
36	MP5A	Z	.539	.539	0	%100
37	M29	X	.311	.311	0	%100
38	M29	Z	.539	.539	0	%100
39	MP4A	X	.377	.377	0	%100
40	MP4A	Z	.652	.652	0	%100
41	MP3A	X	.377	.377	0	%100
42	MP3A	Z	.652	.652	0	%100
43	MP2A	X	.311	.311	0	%100
44	MP2A	Z	.539	.539	0	%100
45	MP1A	X	.311	.311	0	%100
46	MP1A	Z	.539	.539	0	%100
47	M34A	X	.131	.131	0	%100
48	M34A	Z	.227	.227	0	%100
49	M35	X	.131	.131	0	%100
50	M35	Z	.227	.227	0	%100
51	M36A	X	.131	.131	0	%100
52	M36A	Z	.227	.227	0	%100
53	M37	X	.131	.131	0	%100
54	M37	Z	.227	.227	0	%100
55	M38	X	.131	.131	0	%100
56	M38	Z	.227	.227	0	%100
57	M39	X	.131	.131	0	%100
58	M39	Z	.227	.227	0	%100
59	M46	X	.529	.529	0	%100
60	M46	Z	.916	.916	0	%100
61	M47	X	.299	.299	0	%100
62	M47	Z	.517	.517	0	%100
63	M48	X	.493	.493	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
64	M48	Z	.853	.853	0	%100
65	M49	X	.009	.009	0	%100
66	M49	Z	.016	.016	0	%100
67	M56A	X	.283	.283	0	%100
68	M56A	Z	.489	.489	0	%100
69	M57A	X	.283	.283	0	%100
70	M57A	Z	.489	.489	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	.622	.622	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	.622	.622	0	%100
5	M53	X	0	0	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	0	0	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	0	0	0	%100
10	M55	Z	.456	.456	0	%100
11	M56	X	0	0	0	%100
12	M56	Z	.456	.456	0	%100
13	M57	X	0	0	0	%100
14	M57	Z	.456	.456	0	%100
15	M58	X	0	0	0	%100
16	M58	Z	.456	.456	0	%100
17	M59	X	0	0	0	%100
18	M59	Z	.456	.456	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	.622	.622	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	.622	.622	0	%100
23	M68	X	0	0	0	%100
24	M68	Z	.48	.48	0	%100
25	O1	X	0	0	0	%100
26	O1	Z	.48	.48	0	%100
27	M70	X	0	0	0	%100
28	M70	Z	.48	.48	0	%100
29	TB_A	X	0	0	0	%100
30	TB_A	Z	.017	.017	0	%100
31	M72	X	0	0	0	%100
32	M72	Z	.797	.797	0	%100
33	M23	X	0	0	0	%100
34	M23	Z	.456	.456	0	%100
35	MP5A	X	0	0	0	%100
36	MP5A	Z	.622	.622	0	%100
37	M29	X	0	0	0	%100
38	M29	Z	.622	.622	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	.753	.753	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	.753	.753	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	.622	.622	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	.622	.622	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M34A	X	0	0	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	0	0	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	0	0	0	%100
52	M36A	Z	0	0	0	%100
53	M37	X	0	0	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	0	0	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	0	0	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	0	0	0	%100
60	M46	Z	.805	.805	0	%100
61	M47	X	0	0	0	%100
62	M47	Z	.742	.742	0	%100
63	M48	X	0	0	0	%100
64	M48	Z	.49	.49	0	%100
65	M49	X	0	0	0	%100
66	M49	Z	.259	.259	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	.753	.753	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	.753	.753	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-.233	-.233	0	%100
2	M51	Z	.404	.404	0	%100
3	M52	X	-.233	-.233	0	%100
4	M52	Z	.404	.404	0	%100
5	M53	X	-.092	-.092	0	%100
6	M53	Z	.159	.159	0	%100
7	M54	X	-.09	-.09	0	%100
8	M54	Z	.155	.155	0	%100
9	M55	X	-.231	-.231	0	%100
10	M55	Z	.401	.401	0	%100
11	M56	X	-.231	-.231	0	%100
12	M56	Z	.401	.401	0	%100
13	M57	X	-.231	-.231	0	%100
14	M57	Z	.401	.401	0	%100
15	M58	X	-.231	-.231	0	%100
16	M58	Z	.401	.401	0	%100
17	M59	X	-.231	-.231	0	%100
18	M59	Z	.401	.401	0	%100
19	M62	X	-.233	-.233	0	%100
20	M62	Z	.404	.404	0	%100
21	M63	X	-.233	-.233	0	%100
22	M63	Z	.404	.404	0	%100
23	M68	X	-.24	-.24	0	%100
24	M68	Z	.416	.416	0	%100
25	O1	X	-.24	-.24	0	%100
26	O1	Z	.416	.416	0	%100
27	M70	X	-.24	-.24	0	%100
28	M70	Z	.416	.416	0	%100
29	TB_A	X	-.127	-.127	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	TB_A	Z	.219	.219	0	%100
31	M72	X	-.399	-.399	0	%100
32	M72	Z	.69	.69	0	%100
33	M23	X	-.231	-.231	0	%100
34	M23	Z	.401	.401	0	%100
35	MP5A	X	-.311	-.311	0	%100
36	MP5A	Z	.539	.539	0	%100
37	M29	X	-.311	-.311	0	%100
38	M29	Z	.539	.539	0	%100
39	MP4A	X	-.377	-.377	0	%100
40	MP4A	Z	.652	.652	0	%100
41	MP3A	X	-.377	-.377	0	%100
42	MP3A	Z	.652	.652	0	%100
43	MP2A	X	-.311	-.311	0	%100
44	MP2A	Z	.539	.539	0	%100
45	MP1A	X	-.311	-.311	0	%100
46	MP1A	Z	.539	.539	0	%100
47	M34A	X	-.131	-.131	0	%100
48	M34A	Z	.227	.227	0	%100
49	M35	X	-.131	-.131	0	%100
50	M35	Z	.227	.227	0	%100
51	M36A	X	-.131	-.131	0	%100
52	M36A	Z	.227	.227	0	%100
53	M37	X	-.131	-.131	0	%100
54	M37	Z	.227	.227	0	%100
55	M38	X	-.131	-.131	0	%100
56	M38	Z	.227	.227	0	%100
57	M39	X	-.131	-.131	0	%100
58	M39	Z	.227	.227	0	%100
59	M46	X	-.269	-.269	0	%100
60	M46	Z	.465	.465	0	%100
61	M47	X	-.494	-.494	0	%100
62	M47	Z	.856	.856	0	%100
63	M48	X	-.029	-.029	0	%100
64	M48	Z	.05	.05	0	%100
65	M49	X	-.389	-.389	0	%100
66	M49	Z	.673	.673	0	%100
67	M56A	X	-.283	-.283	0	%100
68	M56A	Z	.489	.489	0	%100
69	M57A	X	-.283	-.283	0	%100
70	M57A	Z	.489	.489	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-.135	-.135	0	%100
2	M51	Z	.078	.078	0	%100
3	M52	X	-.135	-.135	0	%100
4	M52	Z	.078	.078	0	%100
5	M53	X	-.478	-.478	0	%100
6	M53	Z	.276	.276	0	%100
7	M54	X	-.466	-.466	0	%100
8	M54	Z	.269	.269	0	%100
9	M55	X	-.413	-.413	0	%100
10	M55	Z	.239	.239	0	%100
11	M56	X	-.413	-.413	0	%100
12	M56	Z	.239	.239	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M57	X	-.413	-.413	0	%100
14	M57	Z	.239	.239	0	%100
15	M58	X	-.413	-.413	0	%100
16	M58	Z	.239	.239	0	%100
17	M59	X	-.413	-.413	0	%100
18	M59	Z	.239	.239	0	%100
19	M62	X	-.135	-.135	0	%100
20	M62	Z	.078	.078	0	%100
21	M63	X	-.135	-.135	0	%100
22	M63	Z	.078	.078	0	%100
23	M68	X	-.416	-.416	0	%100
24	M68	Z	.24	.24	0	%100
25	O1	X	-.416	-.416	0	%100
26	O1	Z	.24	.24	0	%100
27	M70	X	-.416	-.416	0	%100
28	M70	Z	.24	.24	0	%100
29	TB_A	X	-.474	-.474	0	%100
30	TB_A	Z	.273	.273	0	%100
31	M72	X	-.69	-.69	0	%100
32	M72	Z	.399	.399	0	%100
33	M23	X	-.413	-.413	0	%100
34	M23	Z	.239	.239	0	%100
35	MP5A	X	-.539	-.539	0	%100
36	MP5A	Z	.311	.311	0	%100
37	M29	X	-.539	-.539	0	%100
38	M29	Z	.311	.311	0	%100
39	MP4A	X	-.652	-.652	0	%100
40	MP4A	Z	.377	.377	0	%100
41	MP3A	X	-.652	-.652	0	%100
42	MP3A	Z	.377	.377	0	%100
43	MP2A	X	-.539	-.539	0	%100
44	MP2A	Z	.311	.311	0	%100
45	MP1A	X	-.539	-.539	0	%100
46	MP1A	Z	.311	.311	0	%100
47	M34A	X	-.681	-.681	0	%100
48	M34A	Z	.393	.393	0	%100
49	M35	X	-.681	-.681	0	%100
50	M35	Z	.393	.393	0	%100
51	M36A	X	-.681	-.681	0	%100
52	M36A	Z	.393	.393	0	%100
53	M37	X	-.681	-.681	0	%100
54	M37	Z	.393	.393	0	%100
55	M38	X	-.681	-.681	0	%100
56	M38	Z	.393	.393	0	%100
57	M39	X	-.681	-.681	0	%100
58	M39	Z	.393	.393	0	%100
59	M46	X	-.453	-.453	0	%100
60	M46	Z	.262	.262	0	%100
61	M47	X	-.944	-.944	0	%100
62	M47	Z	.545	.545	0	%100
63	M48	X	-.104	-.104	0	%100
64	M48	Z	.06	.06	0	%100
65	M49	X	-.914	-.914	0	%100
66	M49	Z	.528	.528	0	%100
67	M56A	X	-.163	-.163	0	%100
68	M56A	Z	.094	.094	0	%100
69	M57A	X	-.163	-.163	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
70	M57A	Z	.094	.094	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	0	0	0	%100
2	M51	Z	0	0	0	%100
3	M52	X	0	0	0	%100
4	M52	Z	0	0	0	%100
5	M53	X	-.736	-.736	0	%100
6	M53	Z	0	0	0	%100
7	M54	X	-.718	-.718	0	%100
8	M54	Z	0	0	0	%100
9	M55	X	-.484	-.484	0	%100
10	M55	Z	0	0	0	%100
11	M56	X	-.484	-.484	0	%100
12	M56	Z	0	0	0	%100
13	M57	X	-.484	-.484	0	%100
14	M57	Z	0	0	0	%100
15	M58	X	-.484	-.484	0	%100
16	M58	Z	0	0	0	%100
17	M59	X	-.484	-.484	0	%100
18	M59	Z	0	0	0	%100
19	M62	X	0	0	0	%100
20	M62	Z	0	0	0	%100
21	M63	X	0	0	0	%100
22	M63	Z	0	0	0	%100
23	M68	X	-.48	-.48	0	%100
24	M68	Z	0	0	0	%100
25	O1	X	-.48	-.48	0	%100
26	O1	Z	0	0	0	%100
27	M70	X	-.48	-.48	0	%100
28	M70	Z	0	0	0	%100
29	TB_A	X	-.605	-.605	0	%100
30	TB_A	Z	0	0	0	%100
31	M72	X	-.797	-.797	0	%100
32	M72	Z	0	0	0	%100
33	M23	X	-.484	-.484	0	%100
34	M23	Z	0	0	0	%100
35	MP5A	X	-.622	-.622	0	%100
36	MP5A	Z	0	0	0	%100
37	M29	X	-.622	-.622	0	%100
38	M29	Z	0	0	0	%100
39	MP4A	X	-.753	-.753	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	-.753	-.753	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	-.622	-.622	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	-.622	-.622	0	%100
46	MP1A	Z	0	0	0	%100
47	M34A	X	-1.048	-1.048	0	%100
48	M34A	Z	0	0	0	%100
49	M35	X	-1.048	-1.048	0	%100
50	M35	Z	0	0	0	%100
51	M36A	X	-1.048	-1.048	0	%100
52	M36A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M37	X	-1.048	-1.048	0	%100
54	M37	Z	0	0	0	%100
55	M38	X	-1.048	-1.048	0	%100
56	M38	Z	0	0	0	%100
57	M39	X	-1.048	-1.048	0	%100
58	M39	Z	0	0	0	%100
59	M46	X	-.777	-.777	0	%100
60	M46	Z	0	0	0	%100
61	M47	X	-.946	-.946	0	%100
62	M47	Z	0	0	0	%100
63	M48	X	-.615	-.615	0	%100
64	M48	Z	0	0	0	%100
65	M49	X	-.815	-.815	0	%100
66	M49	Z	0	0	0	%100
67	M56A	X	0	0	0	%100
68	M56A	Z	0	0	0	%100
69	M57A	X	0	0	0	%100
70	M57A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-.135	-.135	0	%100
2	M51	Z	-.078	-.078	0	%100
3	M52	X	-.135	-.135	0	%100
4	M52	Z	-.078	-.078	0	%100
5	M53	X	-.478	-.478	0	%100
6	M53	Z	-.276	-.276	0	%100
7	M54	X	-.466	-.466	0	%100
8	M54	Z	-.269	-.269	0	%100
9	M55	X	-.413	-.413	0	%100
10	M55	Z	-.239	-.239	0	%100
11	M56	X	-.413	-.413	0	%100
12	M56	Z	-.239	-.239	0	%100
13	M57	X	-.413	-.413	0	%100
14	M57	Z	-.239	-.239	0	%100
15	M58	X	-.413	-.413	0	%100
16	M58	Z	-.239	-.239	0	%100
17	M59	X	-.413	-.413	0	%100
18	M59	Z	-.239	-.239	0	%100
19	M62	X	-.135	-.135	0	%100
20	M62	Z	-.078	-.078	0	%100
21	M63	X	-.135	-.135	0	%100
22	M63	Z	-.078	-.078	0	%100
23	M68	X	-.416	-.416	0	%100
24	M68	Z	-.24	-.24	0	%100
25	O1	X	-.416	-.416	0	%100
26	O1	Z	-.24	-.24	0	%100
27	M70	X	-.416	-.416	0	%100
28	M70	Z	-.24	-.24	0	%100
29	TB_A	X	-.32	-.32	0	%100
30	TB_A	Z	-.185	-.185	0	%100
31	M72	X	-.69	-.69	0	%100
32	M72	Z	-.399	-.399	0	%100
33	M23	X	-.413	-.413	0	%100
34	M23	Z	-.239	-.239	0	%100
35	MP5A	X	-.539	-.539	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
36	MP5A	Z	-.311	-.311	0	%100
37	M29	X	-.539	-.539	0	%100
38	M29	Z	-.311	-.311	0	%100
39	MP4A	X	-.652	-.652	0	%100
40	MP4A	Z	-.377	-.377	0	%100
41	MP3A	X	-.652	-.652	0	%100
42	MP3A	Z	-.377	-.377	0	%100
43	MP2A	X	-.539	-.539	0	%100
44	MP2A	Z	-.311	-.311	0	%100
45	MP1A	X	-.539	-.539	0	%100
46	MP1A	Z	-.311	-.311	0	%100
47	M34A	X	-.681	-.681	0	%100
48	M34A	Z	-.393	-.393	0	%100
49	M35	X	-.681	-.681	0	%100
50	M35	Z	-.393	-.393	0	%100
51	M36A	X	-.681	-.681	0	%100
52	M36A	Z	-.393	-.393	0	%100
53	M37	X	-.681	-.681	0	%100
54	M37	Z	-.393	-.393	0	%100
55	M38	X	-.681	-.681	0	%100
56	M38	Z	-.393	-.393	0	%100
57	M39	X	-.681	-.681	0	%100
58	M39	Z	-.393	-.393	0	%100
59	M46	X	-.904	-.904	0	%100
60	M46	Z	-.522	-.522	0	%100
61	M47	X	-.605	-.605	0	%100
62	M47	Z	-.349	-.349	0	%100
63	M48	X	-.907	-.907	0	%100
64	M48	Z	-.524	-.524	0	%100
65	M49	X	-.257	-.257	0	%100
66	M49	Z	-.148	-.148	0	%100
67	M56A	X	-.163	-.163	0	%100
68	M56A	Z	-.094	-.094	0	%100
69	M57A	X	-.163	-.163	0	%100
70	M57A	Z	-.094	-.094	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M51	X	-.233	-.233	0	%100
2	M51	Z	-.404	-.404	0	%100
3	M52	X	-.233	-.233	0	%100
4	M52	Z	-.404	-.404	0	%100
5	M53	X	-.092	-.092	0	%100
6	M53	Z	-.159	-.159	0	%100
7	M54	X	-.09	-.09	0	%100
8	M54	Z	-.155	-.155	0	%100
9	M55	X	-.231	-.231	0	%100
10	M55	Z	-.401	-.401	0	%100
11	M56	X	-.231	-.231	0	%100
12	M56	Z	-.401	-.401	0	%100
13	M57	X	-.231	-.231	0	%100
14	M57	Z	-.401	-.401	0	%100
15	M58	X	-.231	-.231	0	%100
16	M58	Z	-.401	-.401	0	%100
17	M59	X	-.231	-.231	0	%100
18	M59	Z	-.401	-.401	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	M62	X	-.233	-.233	0	%100
20	M62	Z	-.404	-.404	0	%100
21	M63	X	-.233	-.233	0	%100
22	M63	Z	-.404	-.404	0	%100
23	M68	X	-.24	-.24	0	%100
24	M68	Z	-.416	-.416	0	%100
25	O1	X	-.24	-.24	0	%100
26	O1	Z	-.416	-.416	0	%100
27	M70	X	-.24	-.24	0	%100
28	M70	Z	-.416	-.416	0	%100
29	TB_A	X	-.038	-.038	0	%100
30	TB_A	Z	-.065	-.065	0	%100
31	M72	X	-.399	-.399	0	%100
32	M72	Z	-.69	-.69	0	%100
33	M23	X	-.231	-.231	0	%100
34	M23	Z	-.401	-.401	0	%100
35	MP5A	X	-.311	-.311	0	%100
36	MP5A	Z	-.539	-.539	0	%100
37	M29	X	-.311	-.311	0	%100
38	M29	Z	-.539	-.539	0	%100
39	MP4A	X	-.377	-.377	0	%100
40	MP4A	Z	-.652	-.652	0	%100
41	MP3A	X	-.377	-.377	0	%100
42	MP3A	Z	-.652	-.652	0	%100
43	MP2A	X	-.311	-.311	0	%100
44	MP2A	Z	-.539	-.539	0	%100
45	MP1A	X	-.311	-.311	0	%100
46	MP1A	Z	-.539	-.539	0	%100
47	M34A	X	-.131	-.131	0	%100
48	M34A	Z	-.227	-.227	0	%100
49	M35	X	-.131	-.131	0	%100
50	M35	Z	-.227	-.227	0	%100
51	M36A	X	-.131	-.131	0	%100
52	M36A	Z	-.227	-.227	0	%100
53	M37	X	-.131	-.131	0	%100
54	M37	Z	-.227	-.227	0	%100
55	M38	X	-.131	-.131	0	%100
56	M38	Z	-.227	-.227	0	%100
57	M39	X	-.131	-.131	0	%100
58	M39	Z	-.227	-.227	0	%100
59	M46	X	-.529	-.529	0	%100
60	M46	Z	-.916	-.916	0	%100
61	M47	X	-.299	-.299	0	%100
62	M47	Z	-.517	-.517	0	%100
63	M48	X	-.493	-.493	0	%100
64	M48	Z	-.853	-.853	0	%100
65	M49	X	-.009	-.009	0	%100
66	M49	Z	-.016	-.016	0	%100
67	M56A	X	-.283	-.283	0	%100
68	M56A	Z	-.489	-.489	0	%100
69	M57A	X	-.283	-.283	0	%100
70	M57A	Z	-.489	-.489	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	N51	max	350.592	10	1119.944	9	314.106	2	.359	5	0	51	.032	3
2		min	-291.415	4	-294.15	3	-1583.469	8	-.52	11	0	1	-.105	9
3	N52	max	59.666	5	1138.814	9	1626.166	11	.143	2	0	51	.28	3
4		min	-211.866	11	-383.07	3	-718.522	5	-.426	8	0	1	-.384	9
5	N87	max	1339.904	10	301.798	8	1403.916	2	.003	9	0	11	.005	4
6		min	-1218.673	4	-176.654	2	-1815.816	8	-.002	3	0	4	-.005	11
7	N88	max	765.412	10	2252.774	3	1737.895	3	.004	9	.002	32	.001	32
8		min	-783.74	4	-1073.804	9	-888.976	9	-.003	3	0	2	0	2
9	N214A	max	233.074	10	25.043	51	1236.073	11	.011	4	0	4	.065	4
10		min	-250.953	4	13.748	5	-1229.724	5	-.011	11	0	11	-.065	11
11	Totals:	max	2508.189	10	2212.656	39	3278.314	1						
12		min	-2508.147	4	1462.647	9	-3278.32	7						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Lo...	Dir	LC	phi*Pn...	phi*...	phi*...	phi*...	...	Eqn
1	M51	PIPE_2.0X	.320	.391	9	.273	.391		9	38401....	44100	2.531	2.531	...	H3-6
2	M52	PIPE_2.0X	.608	.469	9	.464	.469		9	38401....	44100	2.531	2.531	...	H3-6
3	M53	PIPE_4.0	.162	3.75	9	.073	2....		10	89138....	93240	10.631	10.631	...	H1-...
4	M54	PIPE_4.0	.164	3.125	9	.137	.326		9	90372....	93240	10.631	10.631	...	H1-...
5	M55	PIPE_2.0	.119	2.577	27	.055	0		30	31067....	32130	1.872	1.872	...	H1-...
6	M56	PIPE_2.0	.104	2.577	10	.080	0		9	31067....	32130	1.872	1.872	...	H1-...
7	M57	PIPE_2.0	.377	1.262	11	.152	1....		11	31067....	32130	1.872	1.872	...	H1-...
8	M58	PIPE_2.0	.179	2.577	50	.201	2....		10	31067....	32130	1.872	1.872	...	H1-...
9	M59	PIPE_2.0	.235	0	10	.153	0		9	31067....	32130	1.872	1.872	...	H1-...
10	M62	PIPE_2.0X	.475	3.906	10	.431	7....		10	38401....	44100	2.531	2.531	1	H1-...
11	M63	PIPE_2.0X	.492	6.484	10	.382	6....		9	38401....	44100	2.531	2.531	...	H1-...
12	M68	PIPE_2.0	.099	0	9	.030	0		9	31128....	32130	1.872	1.872	...	H1-...
13	O1	PIPE_2.0	.230	0	9	.071	0		9	31128....	32130	1.872	1.872	...	H1-...
14	M70	PIPE_2.0	.236	2.5	9	.072	0		9	31128....	32130	1.872	1.872	...	H1-...
15	TB_A	PIPE_2.0	.136	10.307	11	.045	10...		10	9258.48	32130	1.872	1.872	...	H1-...
16	M72	PIPE_4.0	.103	4.193	9	.083	4.74		11	83623....	93240	10.631	10.631	...	H1-...
17	M23	PIPE_2.0	.053	2.577	3	.014	0		2	31067....	32130	1.872	1.872	...	H1-...
18	MP5A	PIPE_2.0	.511	1.677	10	.348	2....		11	17855....	32130	1.872	1.872	...	H3-6
19	M29	PIPE_2.0	.356	1.677	9	.221	1....		10	17855....	32130	1.872	1.872	...	H1-...
20	MP4A	PIPE_2.5	.282	3.646	10	.159	2....		10	33961....	50715	3.596	3.596	...	H1-...
21	MP3A	PIPE_2.0	.212	.729	9	.166	2....		5	17855....	32130	1.872	1.872	...	H1-...
22	MP2A	PIPE_2.0	.210	1.677	9	.083	3....		5	17855....	32130	1.872	1.872	...	H1-...
23	MP1A	PIPE_2.0	.146	1.677	9	.046	1....		8	17855....	32130	1.872	1.872	...	H1-...
24	M34A	L4X4X4	.075	.823	11	.040	0	y	3	50328....	62532	3.138	6.715	...	H2-1
25	M35	L4X4X4	.097	0	10	.026	0	y	3	50328....	62532	3.138	6.897	...	H2-1
26	M36A	L4X4X4	.249	0	9	.086	.823	y	10	50328....	62532	3.138	6.715	...	H2-1
27	M37	L4X4X4	.049	.823	29	.020	0	z	31	50328....	62532	3.138	6.715	...	H2-1
28	M38	L4X4X4	.033	.823	2	.020	0	y	27	50328....	62532	3.138	6.715	...	H2-1
29	M39	L4X4X4	.032	0	6	.020	.823	z	3	50328....	62532	3.138	6.715	...	H2-1
30	M46	L2.5x2.5x4	.278	3.381	5	.023	6....	y	11	9095.5...	38556	1.114	2.074	...	H2-1
31	M47	L2.5x2.5x4	.189	3.13	3	.031	0	z	9	11068....	38556	1.114	2.131	...	H2-1
32	M48	L2.5x2.5x4	.136	2.806	5	.029	5....	y	11	13767....	38556	1.114	2.19	...	H2-1
33	M49	L2.5x2.5x4	.062	2.348	1	.010	4....	z	4	18201....	38556	1.114	2.27	...	H2-1
34	M57A	PIPE_2.5	.552	4.531	9	.203	4....		10	10110....	50715	3.596	3.596	...	H1-...

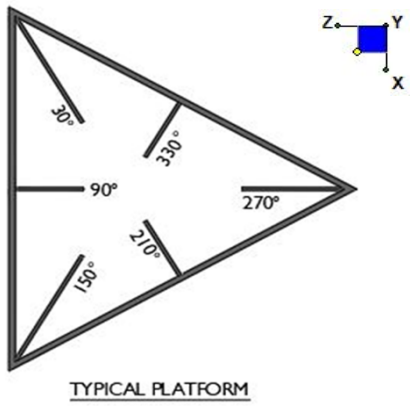
Client:	Verizon Wireless	Date:	6/2/2021
Site Name:	Norwalk CT		
Project No.	21777077A		
Title:	Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

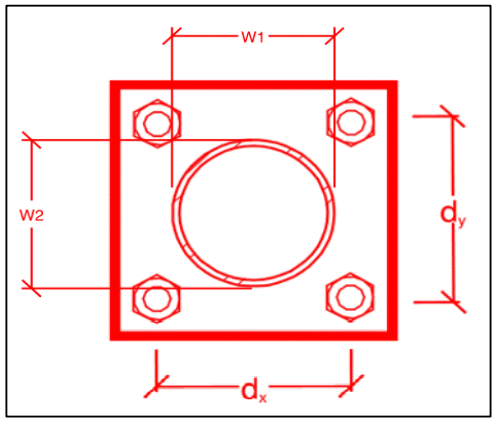
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N51	60
N52	60



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	6
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	3.5
Bolt Type:	A307
Bolt Diameter (in):	0.5
Required Tensile Strength (kips):	4.6
Required Shear Strength (kips):	1.6
Tensile Strength / bolt (kips):	6.4
Shear Strength / bolt (kips):	3.8
Tensile Capacity Overall:	**18.1%***
Shear Capacity Overall:	**10.7%**



**Note: Tension reduction not required if tension or shear capacity < 30%*

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Purpose – to provide TES 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 modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact TES 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 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 modifications. Each entire sector must be in one photo to show in the inter-connection of members.
        - 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
    - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
    - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
    - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
    - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
    - 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.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by TES.
    - If the drawings are as specified on the drawings
        - The contractor should provide the packing list or the materials utilized to perform the mount modification
    - If an equivalent is utilized
        - It is required that the TES certification of such is included in the contractor submission package. There may be an additional charge for this certification if the equivalent submission doesn't meet specifications as prescribed in the drawings.
- The contractor must certify that the materials meet these specifications by one of these methods.

☐ The Material utilized was as specified on the TES Mount Modification Drawings and included in the Material certification folder is a packing list or invoice for these materials

☐ The material utilized was an "equivalent" and included as part of the contractor submission is the TES certification, invoices, or specifications validating accepted status

Certifying Individual: Company _____

Name _____

Signature _____

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 Mod Drawings:

Issue:

Contractor shall install proposed OVP on existing middle vertical standoff pipe, 6” from top of pipe.

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

Sector: **A**

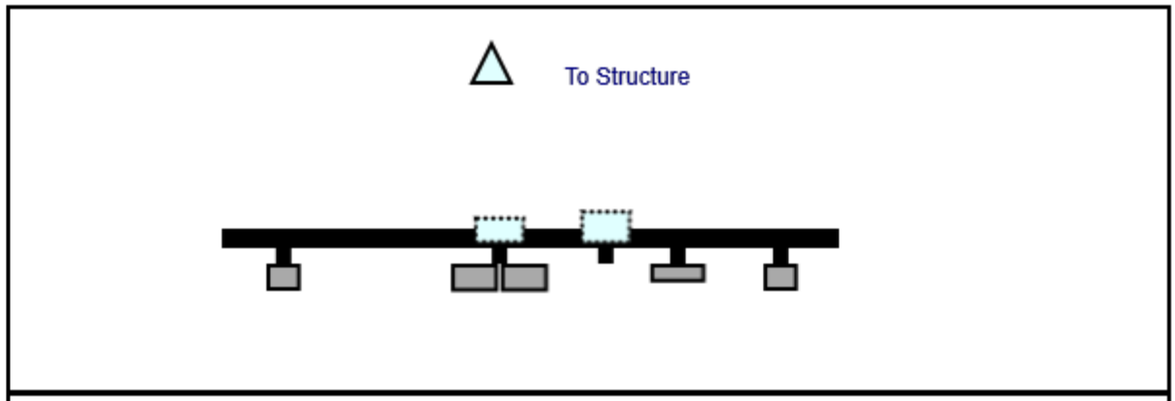
Structure Type: Self Support

Mount Elev: 128.00

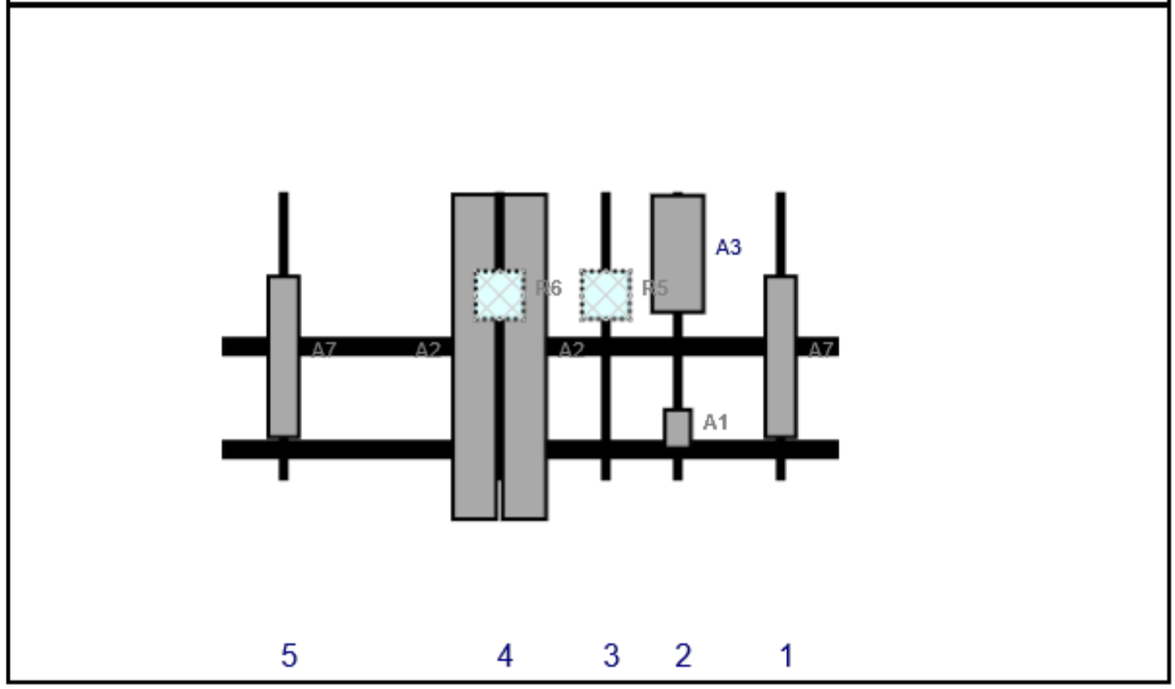
6/2/2021

MASER CONSULTING — CONNECTICUT —

Plan View



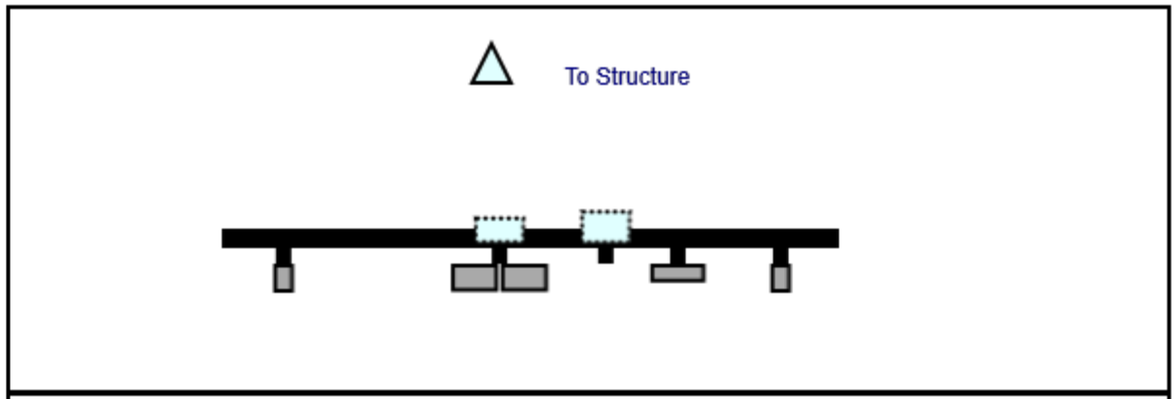
Front View
Looking at Structure



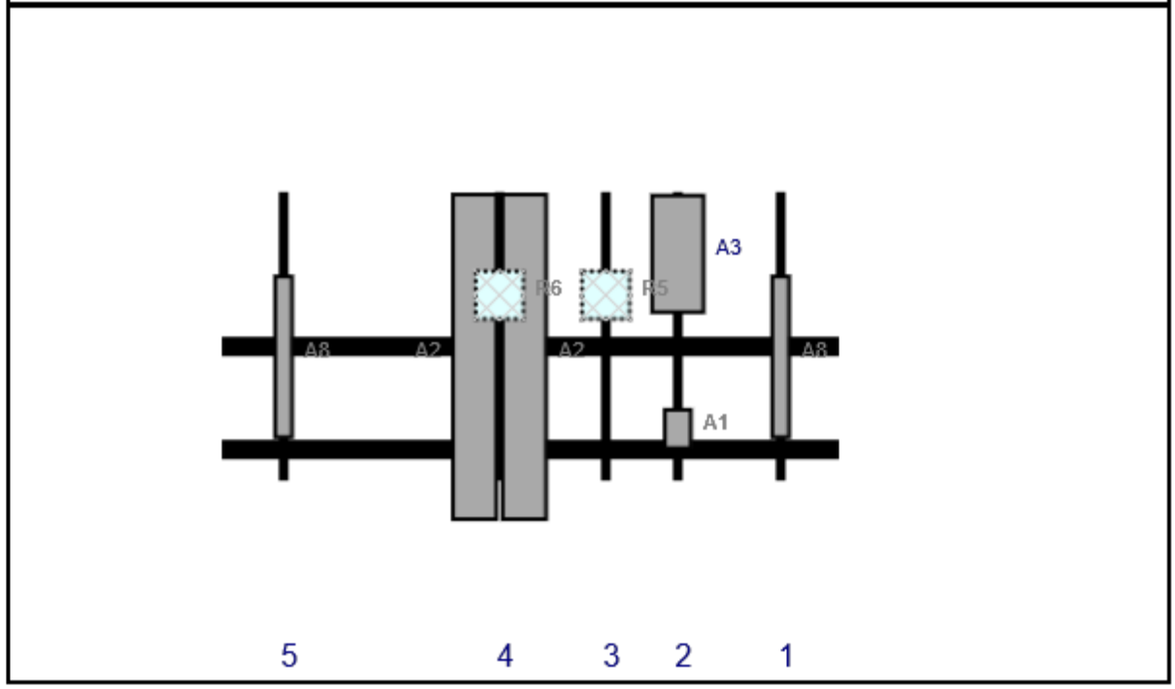
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A7	DB844G65ZAXY	48	10	163	1	a	Front	48	0	Retained	03/08/2021
A1	XXDWMM-12.5-65	12.3	8.7	133	2	a	Front	69	0	Added	
A3	MT6407-77A	35.1	16.1	133	2	a	Front	18	0	Added	
R5	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	112	3	a	Behind	30	0	Added	
A2	JAHH-65C-R3B	95.7	13.8	81	4	a	Front	48	7.25	Added	
A2	JAHH-65C-R3B	95.7	13.8	81	4	b	Front	48	-7.25	Added	
R6	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	81	4	a	Behind	30	0	Added	
A7	DB844G65ZAXY	48	10	18	5	a	Front	48	0	Retained	03/08/2021

MASER CONSULTING — CONNECTICUT —

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
A8	DB844H80-XY	48	6	163	1	a	Front	48	0	Retained	03/08/2021
A1	XXDWMM-12.5-65	12.3	8.7	133	2	a	Front	69	0	Added	
A3	MT6407-77A	35.1	16.1	133	2	a	Front	18	0	Added	
R5	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	112	3	a	Behind	30	0	Added	
A2	JAHH-65C-R3B	95.7	13.8	81	4	a	Front	48	7.25	Added	
A2	JAHH-65C-R3B	95.7	13.8	81	4	b	Front	48	-7.25	Added	
R6	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	81	4	a	Behind	30	0	Added	
A8	DB844H80-XY	48	6	18	5	a	Front	48	0	Retained	03/08/2021

Sector: **C**

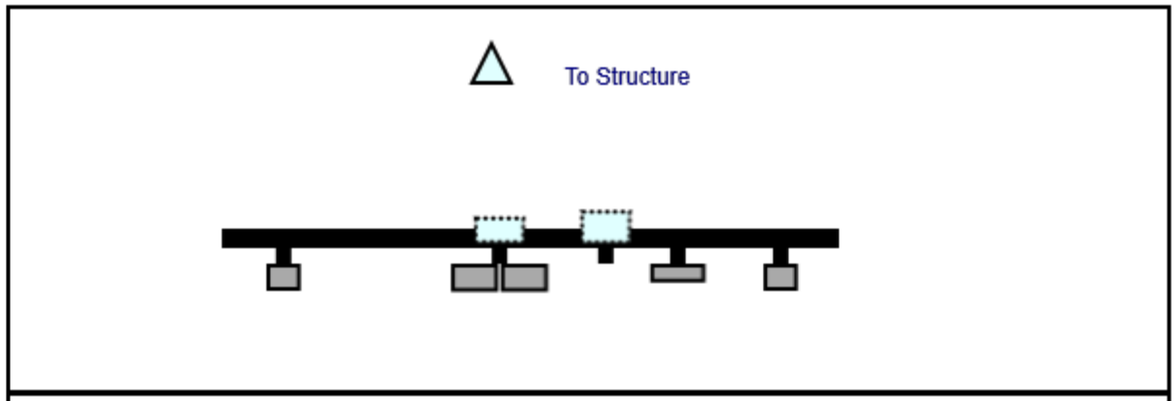
Structure Type: Self Support

Mount Elev: 128.00

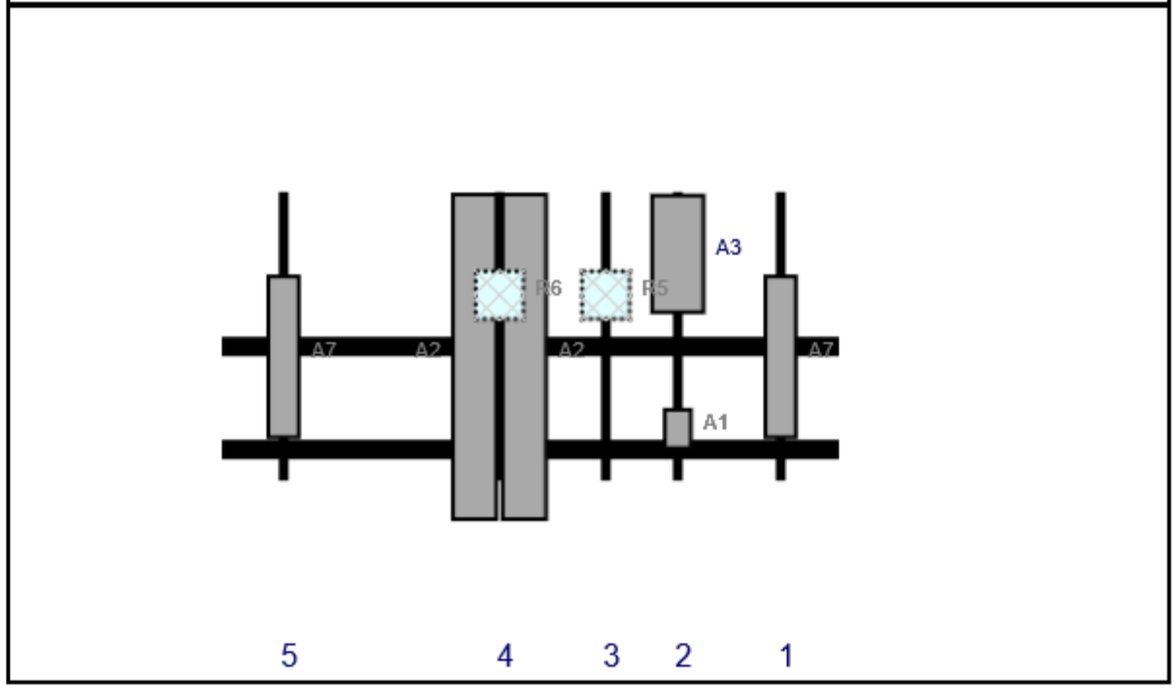
6/2/2021

MASER CONSULTING — CONNECTICUT —

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
A7	DB844G65ZAXY	48	10	163	1	a	Front	48	0	Retained	03/08/2021
A1	XXDWMM-12.5-65	12.3	8.7	133	2	a	Front	69	0	Added	
A3	MT6407-77A	35.1	16.1	133	2	a	Front	18	0	Added	
R5	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	112	3	a	Behind	30	0	Added	
A2	JAHH-65C-R3B	95.7	13.8	81	4	a	Front	48	7.25	Added	
A2	JAHH-65C-R3B	95.7	13.8	81	4	b	Front	48	-7.25	Added	
R6	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	81	4	a	Behind	30	0	Added	
A7	DB844G65ZAXY	48	10	18	5	a	Front	48	0	Retained	03/08/2021

Maser Consulting Connecticut

Subject	TIA-222-H Usage	
Site Information	*Site ID:*	*468538-VZW / NORWALK CT*
	Site Name:	*NORWALK CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*50 Rockland Rd* *Norwalk, Connecticut 06854* *Fairfield County*
	Latitude:	*41.081778°*
	Longitude:	*-73.430417°*
Structure Information	*Tower Type:*	*180-Ft Self Support*
	Mount Type:	*15.00-Ft T Frame*

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. The 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 tower site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Dejian Xu

Dejian Xu, PE
Technical Manager

Exhibit F

Power Density/RF Emissions Report

Site Name: ***NORWALK CT***
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW 700	751	4	814	3256	129	0.0070	0.5007	1.41%
VZW CDMA	877.26	2	450	900	129	0.0019	0.5848	0.33%
VZW Cellular	874	4	891	3565	129	0.0077	0.5827	1.32%
VZW PCS	1980	4	1706	6823	129	0.0147	1.0000	1.47%
VZW AWS	2120	4	1733	6934	129	0.0150	1.0000	1.50%
VZW CBRS	3625	4	431	1725	132.5	0.0035	1.0000	0.35%
VZW CBAND	3730.005	4	6531	26125	127.5	0.0578	1.0000	5.78%
Total Percentage of Maximum Permissible Exposure								12.17%

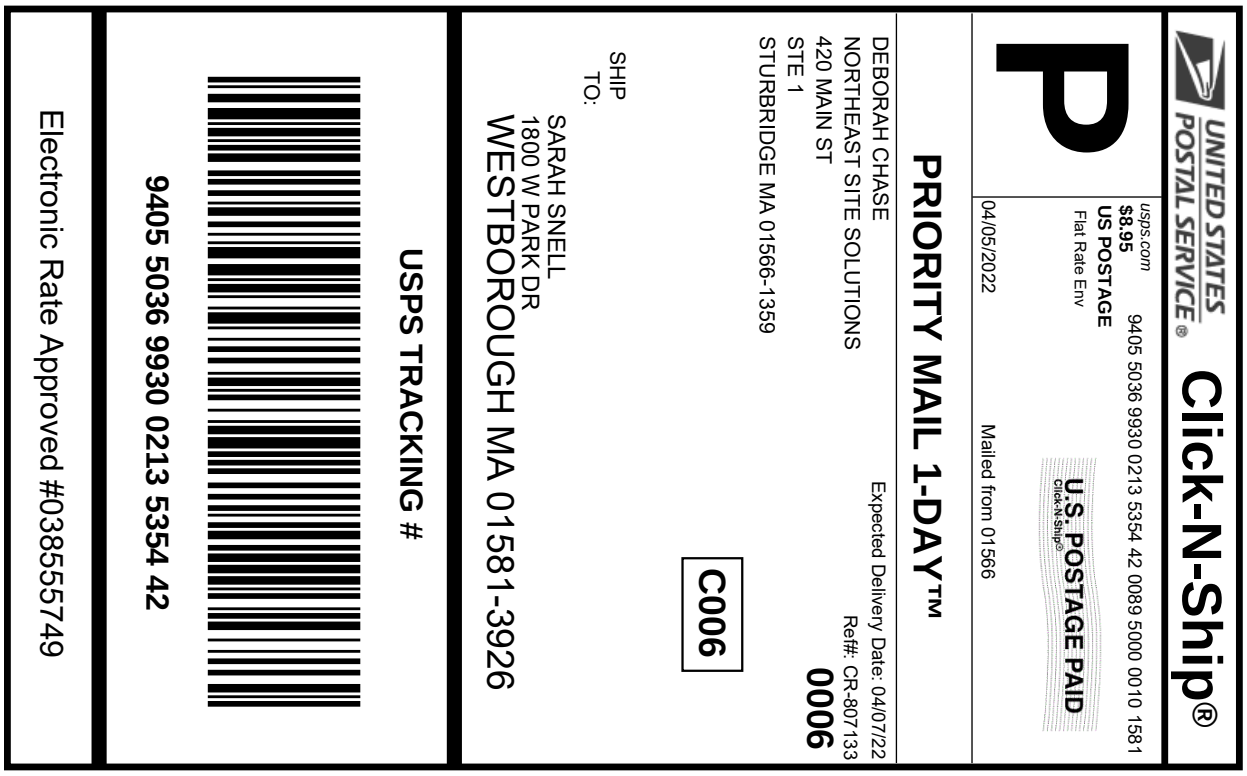
*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992
**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

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

Absolute worst case maximum values used.

Exhibit G

Recipient Mailings



Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
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.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0213 5354 42

Trans. #:	560544183
Print Date:	04/05/2022
Ship Date:	04/05/2022
Expected Delivery Date:	04/07/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

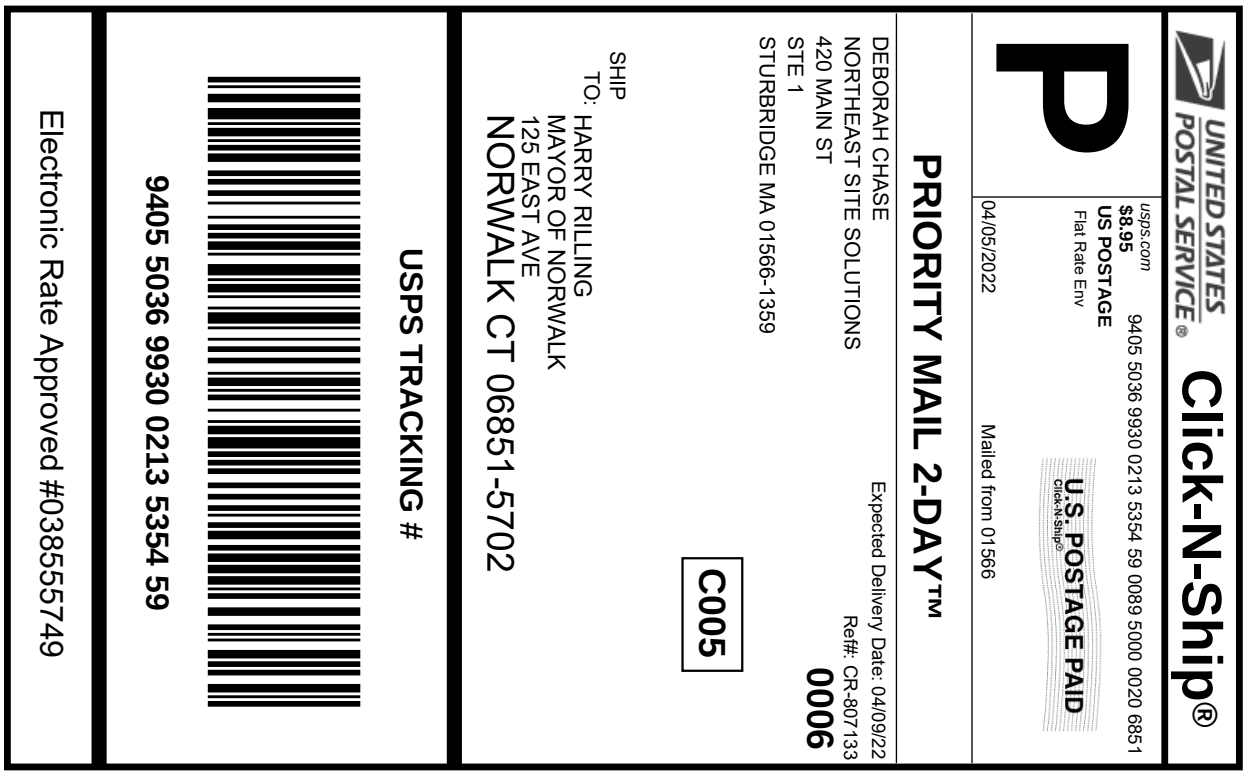
From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: CR-807133

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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5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0213 5354 59

Trans. #:	560544183
Print Date:	04/05/2022
Ship Date:	04/05/2022
Expected Delivery Date:	04/09/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

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

Ref#: CR-807133

To: HARRY RILLING
MAYOR OF NORWALK
125 EAST AVE
NORWALK CT 06851-5702

* 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!
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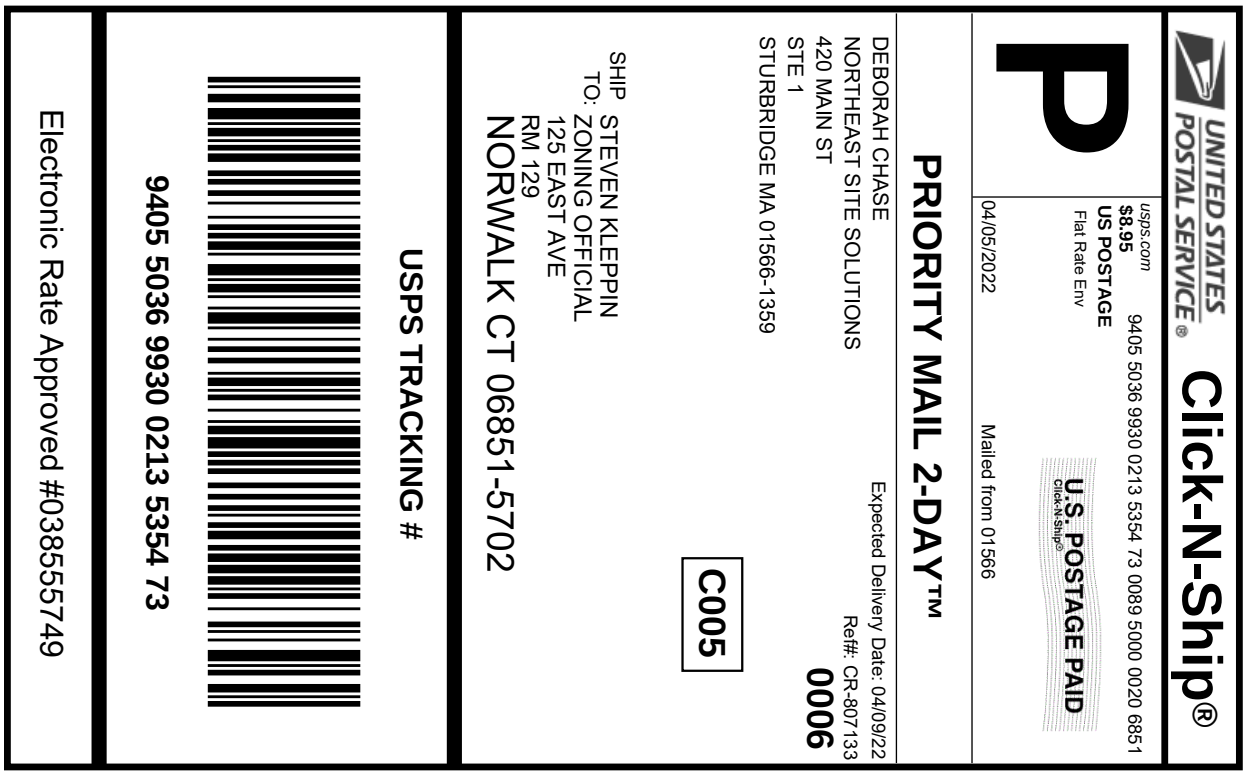

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Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0213 5354 73

Trans. #:	560544183
Print Date:	04/05/2022
Ship Date:	04/05/2022
Expected Delivery Date:	04/09/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

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

Ref#: CR-807133

To: STEVEN KLEPPIN
ZONING OFFICIAL
125 EAST AVE
RM 129
NORWALK CT 06851-5702

* 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.

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Check the status of your shipment on the USPS Tracking® page at usps.com

807133 Crown V2w

UNITED STATES POSTAL SERVICE.

FARMINGTON
210 MAIN ST
FARMINGTON, CT 06032-9998
(800)275-8777

04/06/2022 03:15 PM

Product	Qty	Unit Price	Price
Prepaid Mail Westborough, MA 01581 Weight: 0 lb 2.00 oz Acceptance Date: Wed 04/06/2022 Tracking #: 9405 5036 9930 0213 5354 42	1		$0.00
Prepaid Mail Norwalk, CT 06851 Weight: 0 lb 11.10 oz Acceptance Date: Wed 04/06/2022 Tracking #: 9405 5036 9930 0213 5354 59	1		$0.00
Prepaid Mail Norwalk, CT 06851 Weight: 0 lb 11.10 oz Acceptance Date: Wed 04/06/2022 Tracking #: 9405 5036 9930 0213 5354 73	1		$0.00
Grand Total:			$0.00