



Crown Castle
300 Barr Harbor Drive
Suite 300
Conshohocken, PA 19428

July 1, 2024

Via Fedex # 777160756412

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

RE: **Notice of Exempt Modification for Verizon Wireless: 5000387036**
Crown Site ID# 806375
190 Burnham Street, South Windsor, CT 06108
Latitude: 41° 48' 0.49"/ Longitude: -72° 36' 57.15"

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains fifteen (15) antennas at the 108-foot mount on the existing 110-foot monopole tower located at 190 Burnham Street, South Windsor, CT 06074. The property is owned by AD Distribution LLC and the tower is owned by Crown Castle. Cellco Partnership d/b/a Verizon Wireless now intends to add nine (9) new antennas with 9 remaining antennas and ancillary antenna equipment at the 108-ft mount level. This Eligible Facilities Request for antenna modification/proposal of an existing telecommunications facility includes hardware that is both 4G (LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modification:

Tower:

Install New:

- INSTALL (3) COMMSCOPE - NHH-65B-R2B ANTENNA
- INSTALL (3) COMMSCOPE - NHHSS-65B-R2BT4 ANTENNA
- INSTALL (3) SAMSUNG - MT6413-77A RRU/ANTENNA
- INSTALL (3) SAMSUNG - RT4423-48A RADIO
- INSTALL (3) SAMSUNG - RF4461D-13A RADIO
- INSTALL (3) SAMSUNG - B2/B66A RRH ORAN (RF4439D-25A) RADIO
- INSTALL (1) RAYCAP - 12-CIRCUIT OVP
- INSTALL (1) COMMSCOPE - 6X12 HYBRID CABLE

Remove:

- REMOVE (2) ANDREW - LNX-6514DS-A1M ANTENNA
- REMOVE (6) KATHREIN - 742213 ANTENNA
- REMOVE (1) CSS ANTENNA - X7C-FRO-660-V ANTENNA
- REMOVE (3) NOKIA - UHBB B13 RRH 2X40 RADIO
- REMOVE (3) NOKIA - UHID B4 RRH 2X40 RADIO
- REMOVE (1) RFS - 6-CIRCUIT OVP

Ground:

Install New:

- INSTALL (6) COMMSCOPE - PS-BYPASS-1-VZ UPCONVERTER
- INSTALL (1) COMMSCOPE - PS-R-1600-VZ UPCONVERTER
- INSTALL (1) COMMSCOPE - PULSAR-EDGE-CNTRL UPCONVERTER
- INSTALL (2) RAYCAP - 2260-ALM-RS485 OVP BOX
- INSTALL (1) COMMSCOPE - RS485-CARD UPCONVERTER
- INSTALL (6) COMMSCOPE - PS-1600-73-VZ UPCONVERTER

The facility was originally approved by the Connecticut Siting Council in its November 14, 1990 Decision and Order in Docket No. 137.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Michael Maniscalco, Town Manager, Town of South Windsor, Pamela Oliva, ZEO, Town of South Windsor and AD Distribution LLC, the Property Owner. Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
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, Cellco Partnership d/b/a Verizon Wireless respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Jenifer Bachi.

Sincerely,

Jenifer Bachi
Permitting Specialist
300 Barr Harbor Drive, Ste. 300
Conshohocken, PA 19428

(610) 635-3221
Jenifer.bachi@crowncastle.com

Attachments are as follows:

Exhibit A – Original Facility Approval
Exhibit B – Property Card
Exhibit C – Property Map
Exhibit D – Construction Drawings
Exhibit E – Structural Analysis Report
Exhibit F – Mount Analysis Report
Exhibit G – Power Density / RF Emissions Report
Exhibit H – Recipient Mailing Records
Check #2967712 for \$625 Application Fee

cc: Via Fedex # 777160619850
Michael Maniscalco, Town Manager
Town of South Windsor
1540 Sullivan Ave
S Windsor, CT 06074
860-644-2511 X2200

Via Fedex # 777160691878
Pamela Oliva, ZEO
Town of South Windsor
1540 Sullivan Ave
S Windsor, CT 06074
860-644-2511 X2251

Via Fedex # 777160731084
AD Distribution LLC
190 Burnham Street
South Windsor, CT 06074
860-283-4421

Crown Castle, Tower Owner

EXHIBIT A

Original Facility Approval

DOCKET NO. 137 - An application of Metro Mobile Connecticut
CTS of Hartford, Inc., for a Certificate of
Environmental Compatibility and Public Need Siting
for the construction, maintenance, and Council
operation of cellular facilities in the Towns
of East Hartford, South Windsor, and Windsor,
Connecticut. November 14, 1990

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council finds that the effects associated with the construction, operation, and maintenance of two cellular telecommunications towers and associated equipment at the proposed Windsor and alternate South Windsor sites including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife need not be in conflict either alone or cumulatively with other effects, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need (Certificate), as provided by section 16-50k of the Connecticut General Statutes (CGS), be issued to Metro Mobile CTS of Hartford, Inc., for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed Windsor site and alternate South Windsor site.

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

1. The facilities shall be constructed in accordance with the State of Connecticut Basic Building Code.
2. The self-supporting monopole towers shall be no taller than necessary to provide the proposed communication service and in no event shall the towers exceed a total height of 123 feet above ground level (AGL) at the alternate South Windsor site and 113 feet AGL at the proposed Windsor site, with antennas and appurtenances.
3. The Certificate holder shall prepare a Development and Management (D&M) Plan, for approval by the Council, for these sites in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M plan shall include detailed plans of the towers, tower foundations, soil boring reports, equipment buildings, access roads, security fences, erosion and sedimentation control plans consistent with the Connecticut Guidelines of Soil Erosion and Sedimentation Control, and landscaping plans.

At the alternate South Windsor site the applicant shall relocate the tower on the eastern half the leased parcel to reduce the amount of properties within the fall zone.

All pine trees bordering the alternate South Windsor site shall be flagged and protected from removal during site construction.

At the proposed Windsor site the applicant shall plant additional shrubs and trees along the border of the leased parcel facing the playing fields.

4. The Certificate Holder shall comply with any existing and future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facilities granted in this Decision and Order shall be brought into compliance with such standards.
5. The Certificate Holder shall provide the Council a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power densities above the levels originally calculated and provided in the application.
6. The Certificate Holder shall permit public or private entities to share space on the proposed towers for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
7. If the facilities do not initially provide, or permanently cease to provide cellular service following completion of construction, this Decision and Order shall be void, and the tower(s) and all associated equipment shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.
8. 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 effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

Pursuant to Section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Hartford Courant and Journal Inquirer.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with section 16-50j-17 of the Regulations of State Agencies.

The parties to this proceeding are:

(PARTIES)

Metro Mobile CTS of
Hartford, Inc.
20 Alexander Drive
P.O. Box 5029
Wallingford, CT. 06492
Attn: Gary Schulman

Town of East Hartford

(INTEVENORS)

Town of South Windsor

SNET Cellular, Inc.

(ITS REPRESENTATIVES)

Robinson & Cole
One Commercial Plaza
Hartford, CT. 06103-3597
Attn: Earl W. Phillips

Mr. G. Barry Goodberg
Asst. Corp. Counsel
Town of East Hartford
740 Main Street
East Hartford, CT. 06108

(ITS REPRESENTATIVES)

Jean E. Zurbrigen
Town Manager
Town of South Windsor
1540 Sullivan Avenue
South Windsor, CT. 06074

Peter J. Tyrrell, Esq.
SNET Cellular, Inc.
227 Church Street
New Haven, CT 06506

4854E

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in Docket No. 137 or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut the 14th day of November, 1990.




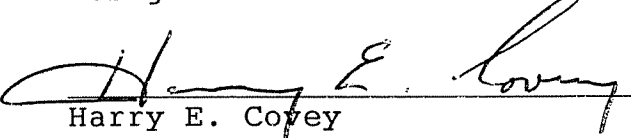
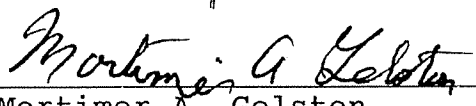
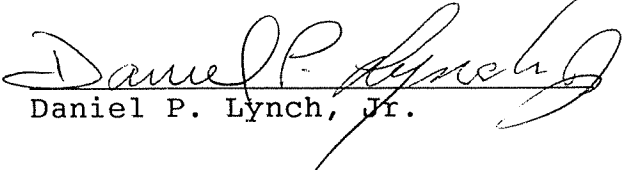
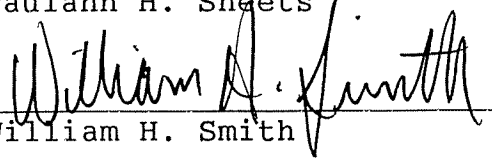
<u>Council Members</u>	<u>Vote Cast</u>
 Gloria Dibble Pond Chairperson	Yes
 Commissioner Peter Boucher Designee: Mark Marcus	Yes
 Commissioner Leslie Carothers Designee: Brian Emerick	Yes
 Harry E. Covey	No
 Mortimer A. Gelston	Yes
 Daniel P. Lynch, Jr.	Abstain
_____ Paulann H. Sheets	Absent
 William H. Smith	Yes
_____ Colin C. Tait	Absent

EXHIBIT B

Property Card

190 BURNHAM STREET

Location 190 BURNHAM STREET

Mblu 5/ 31/ / /

Acct# 15600190

Owner AD DISTRIBUTION LLC

Assessment \$479,600

Appraisal \$685,200

PID 3344

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2022	\$408,800	\$276,400	\$685,200

Assessment			
Valuation Year	Improvements	Land	Total
2022	\$286,100	\$193,500	\$479,600

Owner of Record

Owner AD DISTRIBUTION LLC

Sale Price \$810,000

Co-Owner

Certificate

Address 190 BURNHAM STREET

Book & Page 3013/125

SOUTH WINDSOR, CT 06074

Sale Date 08/04/2023

Instrument 00

Ownership History

Ownership History						
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date	
AD DISTRIBUTION LLC	\$810,000		3013/125	00	08/04/2023	
190 BURNHAM LLC	\$350,000		2374/0191	21	10/01/2013	
BURNHAM STREET LLC	\$0		2159/0239	03	12/27/2010	
GLASSMAN ABRAHAM & BEVERLY TRUST	\$0		1294/0148	25	02/13/2002	

Building Information

Building 1 : Section 1

Year Built: 1973
Living Area: 9,538
Replacement Cost: \$562,305

Building Percent Good: 72

Replacement Cost

Less Depreciation: \$404,900

Building Attributes

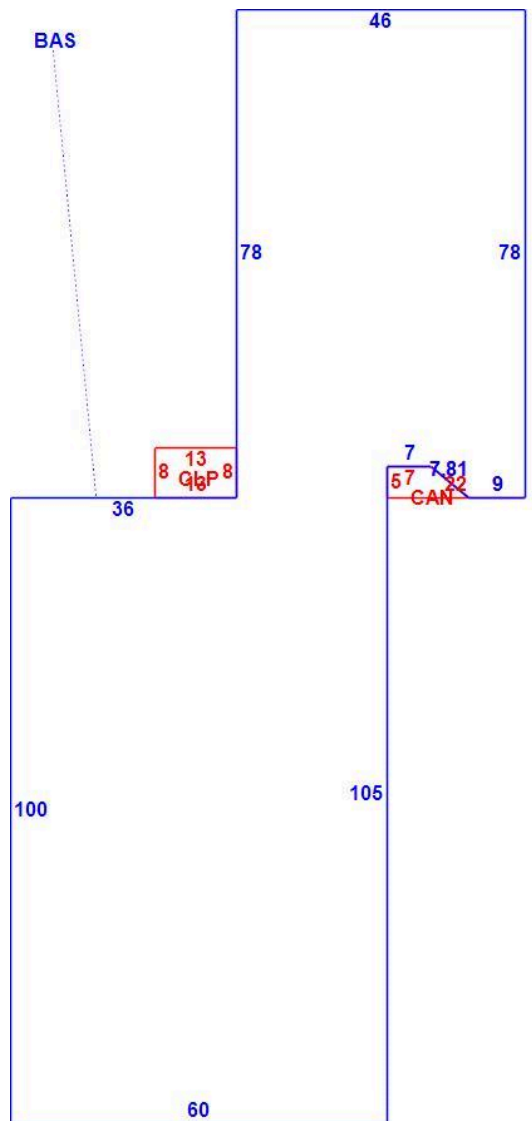
Field	Description
Style:	Job Shop
Model	Ind/Comm
Grade	C
Stories:	1.00
Occupancy	2.00
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	Brick Veneer
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minimum
Interior Wall 2	Panel
Interior Floor 1	Concrete
Interior Floor 2	Carpet
Heating Fuel	Gas
Heating Type	Forced Hot Air
% Central Air	100
Foundation	Poured Conc
Bldg Use	Industrial
Total Rooms	0
Total Bedrms	0
Total Fixtures	12
% Wet Sprinkler	
% Dry Sprinkler	
1st Floor Use	
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
% Finished	14
Class	C
Wall Height	12.00

Building Photo



(https://images.vgsi.com/photos/SouthWindsorCTPhotos/A0021\DSCF6013

Building Layout



(ParcelSketch.ashx?pid=3344&bid=3344)

Code	Description	Gross Area	Living Area
BAS	First Floor	9,538	9,538
CAN	Canopy	50	0
CLP	Loading Platform	104	0
		9,692	9,538

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 301
Description Industrial
Zone CD
Neighborhood C400
Alt Land Appr Category No

Land Line Valuation

Size (Acres) 1.04
Frontage 0
Depth 0
Assessed Value \$193,500
Appraised Value \$276,400

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	Paving	AS	Asphalt	7500.00 S.F.	\$3,900	1

Valuation History

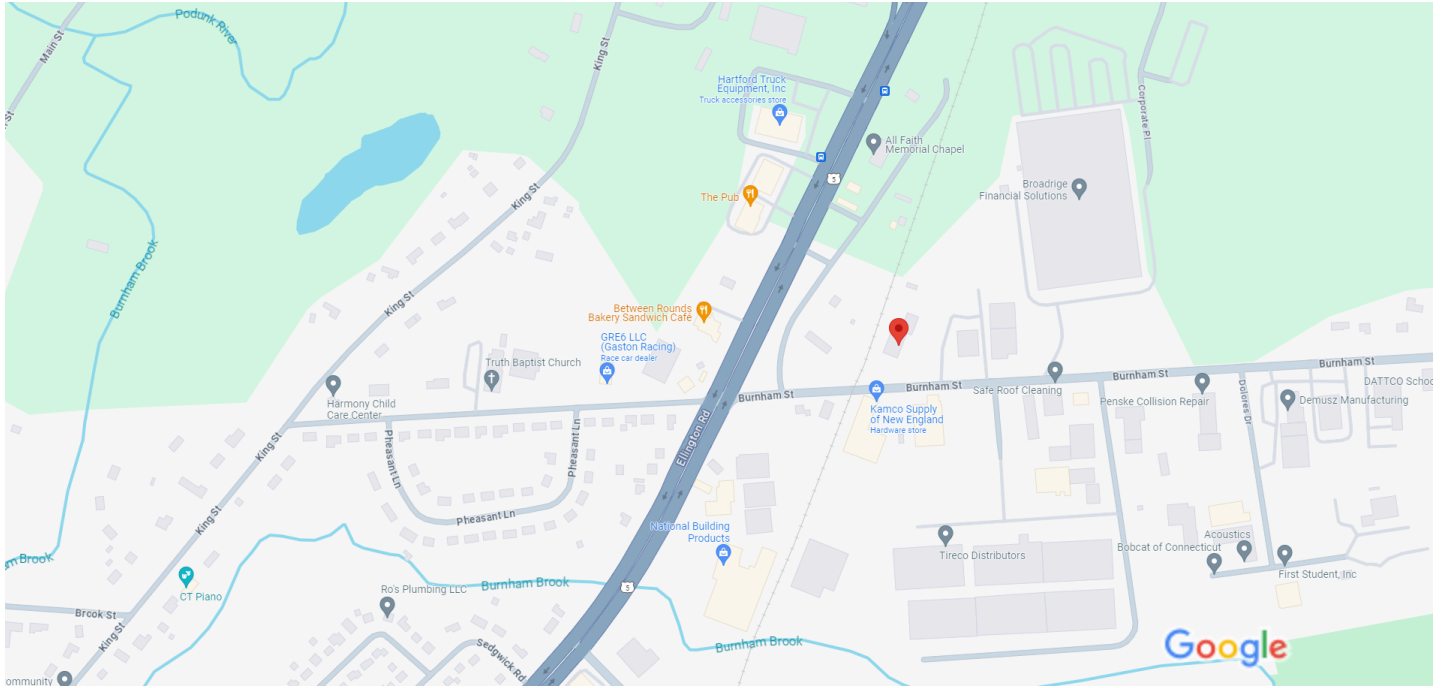
Appraisal			
Valuation Year	Improvements	Land	Total
2023	\$408,800	\$276,400	\$685,200
2022	\$408,800	\$276,400	\$685,200
2022	\$408,800	\$276,400	\$685,200

Assessment			
Valuation Year	Improvements	Land	Total
2023	\$286,100	\$193,500	\$479,600
2022	\$286,100	\$193,500	\$479,600
2022	\$286,100	\$193,500	\$479,600

EXHIBIT C

Property Map

Google Maps 190 Burnham St



Map data ©2024 Google 200 ft



190 Burnham St Building



Directions



Save



Nearby



Send to
phone



Share



190 Burnham St, East Hartford, CT 06108

Photos

EXHIBIT D

Construction Drawings



VERIZON SITE NUMBER: 5000387036
VERIZON SITE NAME: BURNHAM ST CT
VERIZON PROJECT: 16231955
SITE TYPE: MONOPOLE
TOWER HEIGHT: 110'-0"

BUSINESS UNIT #: 806375
SITE ADDRESS: 190 BURNHAM ST
 SOUTH WINDSOR, CT 06108
COUNTY: HARTFORD
JURISDICTION: CT - TOWN OF SOUTH WINDSOR



VERIZON SITE NUMBER:
5000387036
BU #: 806375
CROWN CASTLE SITE NAME
HRT 095 943237
 190 BURNHAM ST
 SOUTH WINDSOR, CT 06108
 EXISTING 110'-0"
 MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	03/12/24	MAA	FINAL	GMA
1	05/16/24	MAA	REVISION	GMA

SITE INFORMATION

CROWN CASTLE USA INC.
 SITE NAME: HRT 095 943237
 BU NUMBER: 806375
 TOWER OWNER: CROWN CASTLE
 2000 CORPORATE DRIVE
 CANONSBURG, PA 15317
 CARRIER/APPLICANT: VERIZON WIRELESS
 20 ALEXANDER DRIVE
 WALLINGFORD, CT 06492
 SITE ADDRESS: 190 BURNHAM ST
 SOUTH WINDSOR, CT 06108
 COUNTY: HARTFORD
 LATITUDE: 41° 48' 0.49" N / 41.8001361111°
 LONGITUDE: 72° 36' 57.15" W / -72.615875°
 LAT/LONG TYPE: NAD83
 GROUND ELEVATION: 54'+/- SE
 AREA OF CONSTRUCTION: EXISTING
 CURRENT ZONING: I-291 CORRIDOR DEVELOPMENT
 MAP/PARCEL #: SWIN-000005-000000-000031
 OCCUPANCY CLASSIFICATION: U
 TYPE OF CONSTRUCTION: IIB
 A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
 PROPERTY OWNER: GLOBAL SIGNAL ACQUISITIONS IV LLC
 PO BOX 277455
 ATLANTA, GA 30384
 JURISDICTION: CT - TOWN OF SOUTH WINDSOR
 1540 SULLIVAN AVENUE
 SOUTH WINDSOR, CT 06074
 ELECTRIC PROVIDER: CONNECTICUT LIGHT & POWER CO
 860-947-2000
 TELCO PROVIDER: ATT
 866-620-6900

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	TOWER ELEVATIONS
C-3	ANTENNA PLANS
C-4	FINAL EQUIPMENT SCHEDULE
C-5.1	EQUIPMENT DETAILS & SPECIFICATIONS
C-5.2	EQUIPMENT DETAILS & SPECIFICATIONS
C-5.3	EQUIPMENT DETAILS & SPECIFICATIONS
C-6	COLOR CODE MATRIX
G-1	GROUNDING DETAILS
ATTACHED	MOUNT REPLACEMENT (BY OTHERS)
ATTACHED	RFDS

APPROVALS

VERIZON SIGNATURE BLOCK

APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
CONSTRUCTION		
RADIO		
MICROWAVE		
TELCO		
EQUIPMENT		
PROJECT ADMINISTRATOR		
WO ADMINISTRATOR		

CROWN CASTLE USA INC. SINGNATURE BLOCK

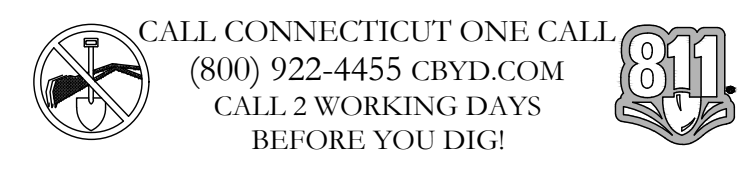
APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

LOCATION MAP

DIRECTIONS

NO SCALE

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22X34. 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.



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 (2) ANDREW - LNX-6514DS-A1M ANTENNA
- REMOVE (6) KATHREIN - 742213 ANTENNA
- REMOVE (1) CSS ANTENNA - X7C-FRO-660-V ANTENNA
- REMOVE (3) NOKIA - UHBB B13 RRH 2X40 RADIO
- REMOVE (3) NOKIA - UHID B4 RRH 2X40 RADIO
- REMOVE (1) RFS - 6-CIRCUIT OVP

- INSTALL (3) COMMSCOPE - NHH-65B-R2B ANTENNA
- INSTALL (3) COMMSCOPE - NHHSS-65B-R2BT4 ANTENNA
- INSTALL (3) SAMSUNG - MT6413-77A RRU/ANTENNA
- INSTALL (3) SAMSUNG - RT4423-48A RADIO
- INSTALL (3) SAMSUNG - RF4461D-13A RADIO
- INSTALL (3) SAMSUNG - B2/B66a RRH ORAN (RF4439D-25A) RADIO
- INSTALL (1) RAYCAP - 12-CIRCUIT OVP
- INSTALL (1) COMMSCOPE - 6X12 HYBRID CABLE

GROUND SCOPE OF WORK:

- INSTALL (6) COMMSCOPE - PS-BYPASS-1-VZ UPCONVERTER
- INSTALL (1) COMMSCOPE - PS-R-1600-VZ UPCONVERTER
- INSTALL (1) COMMSCOPE - PULSAR-EDGE-CNTRL UPCONVERTER
- INSTALL (2) RAYCAP - 2260-ALM-RS485 OVP BOX
- INSTALL (1) COMMSCOPE - RS485-CARD UPCONVERTER
- INSTALL (6) COMMSCOPE - PS-1600-73-VZ UPCONVERTER

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	2022 CONNECTICUT SBC/2021 IBC
MECHANICAL	2022 CONNECTICUT SBC/2021 IMC
ELECTRICAL	2022 CONNECTICUT SBC/020 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: B+T GROUP
 DATED: FEBRUARY 19, 2024

MOUNT ANALYSIS: COLLIERS ENGINEERING & DESIGN
 DATED: DECEMBER 13, 2023

RFDS REVISION:
 DATED: MARCH, 20, 2024
 ORDER ID: 662901
 REVISION: 0

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT MODIFICATIONS ARE INSTALLED PER TOWER MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 12/13/2023.

PROJECT TEAM

A&E FIRM: CROWN CASTLE
 2000 CORPORATE DRIVE
 CANONSBURG, PA 15317

CROWN CASTLE USA INC. DISTRICT CONTACTS:
 ALEXANDER MABBETT - PROJECT MANAGER
 ALEXANDER.MABBETT@CROWNCastle.COM
 HEATHER MILLER - AES
 HEATHER.MILLER@CROWNCastle.COM
 MARK BRAUER - CARRIER CONTACT
 MARK.BRAUER2@VERIZONWIRELESS.COM

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

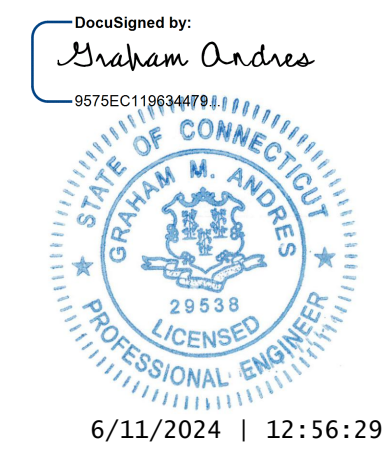
CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT	https://pmi.vzwsmart.com
SMART TOOL VENDOR	
PROJECT NUMBER	10215312
VzW LOCATION CODE (PSLC)	468317
*** 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



CROWN CASTLE USA INC.
 CERTIFICATE OF REGISTRATION
 #PEC.0001101

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-1
REVISION: 1

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.
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.
4. ALL CONSTRUCTION MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND LATEST REVISIONS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN.
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.
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.
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.
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.
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.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND.

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-OFF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS.
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.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES.
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.
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.
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/O COPPER.

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 LOCITIES.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
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.
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.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
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.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

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.
4. CONCRETE EXPOSED TO FREEZE--THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615, ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185.
6. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:
CONCRETE EXPOSED TO EARTH OR WEATHER:
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE.

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.
4.1. 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.
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.
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 THE 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--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--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).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC 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. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC ON STRAIGHTS AND SCHEDULE 80 PVC UNDER ALL TRAFFIC EASEMENTS AND ALL ELBOWS/90° ABOVE GRADE CONDUIT TO BE SCH 80 PVC OR IMC/RMC 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.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER.
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.
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.
30. ALL EMPTY/SPPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METEERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE

Table with columns: SYSTEM, CONDUCTOR, COLOR. Rows include 120/240V, 10, 120/208V, 30, 277/480V, 30, and DC VOLTAGE with color assignments for phases, neutrals, grounds, and polarity.

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

ABBREVIATIONS:

Table mapping abbreviations to full names: 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), RFD (RADIO FREQUENCY DATA SHEET), RRH (REMOTE RADIO HEAD), RRU (REMOTE RADIO UNIT), SIAD (SMART INTEGRATED DEVICE), TMA (TOWER MOUNTED AMPLIFIER), TYP (TYPICAL), UMS (UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM), W.P. (WORK POINT)

APWA UNIFORM COLOR CODE:

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



VERIZON SITE NUMBER:
5000387036
BU #: 806375

CROWN CASTLE SITE NAME
HRT 095 943237
190 BURNHAM ST
SOUTH WINDSOR, CT 06108
EXISTING 110'-0"
MONOPOLE

ISSUED FOR: Table with columns: REV, DATE, DRWN, DESCRIPTION, DES./QA. Shows two revision entries for MAA.

Professional Engineer stamp for Graham Andres, State of Connecticut, License No. 9575EC1199494878, dated 6/11/2024.

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION
#PEC.0001101

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SHEET NUMBER: T-2
REVISION: 1

VERIZON_WBV_SOVA_TRIST_ANTIENNA_AMENDMENT



VERIZON SITE NUMBER:
5000387036

BU #: **806375**

CROWN CASTLE SITE NAME
HRT 095 943237

190 BURNHAM ST
SOUTH WINDSOR, CT 06108

EXISTING 110'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	03/12/24	MAA	FINAL	GMA
1	05/16/24	MAA	REVISION	GMA

DocuSigned by:
Graham Andros



6/11/2024 | 12:56:29 PM CDT

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CERTIFICATE OF REGISTRATION
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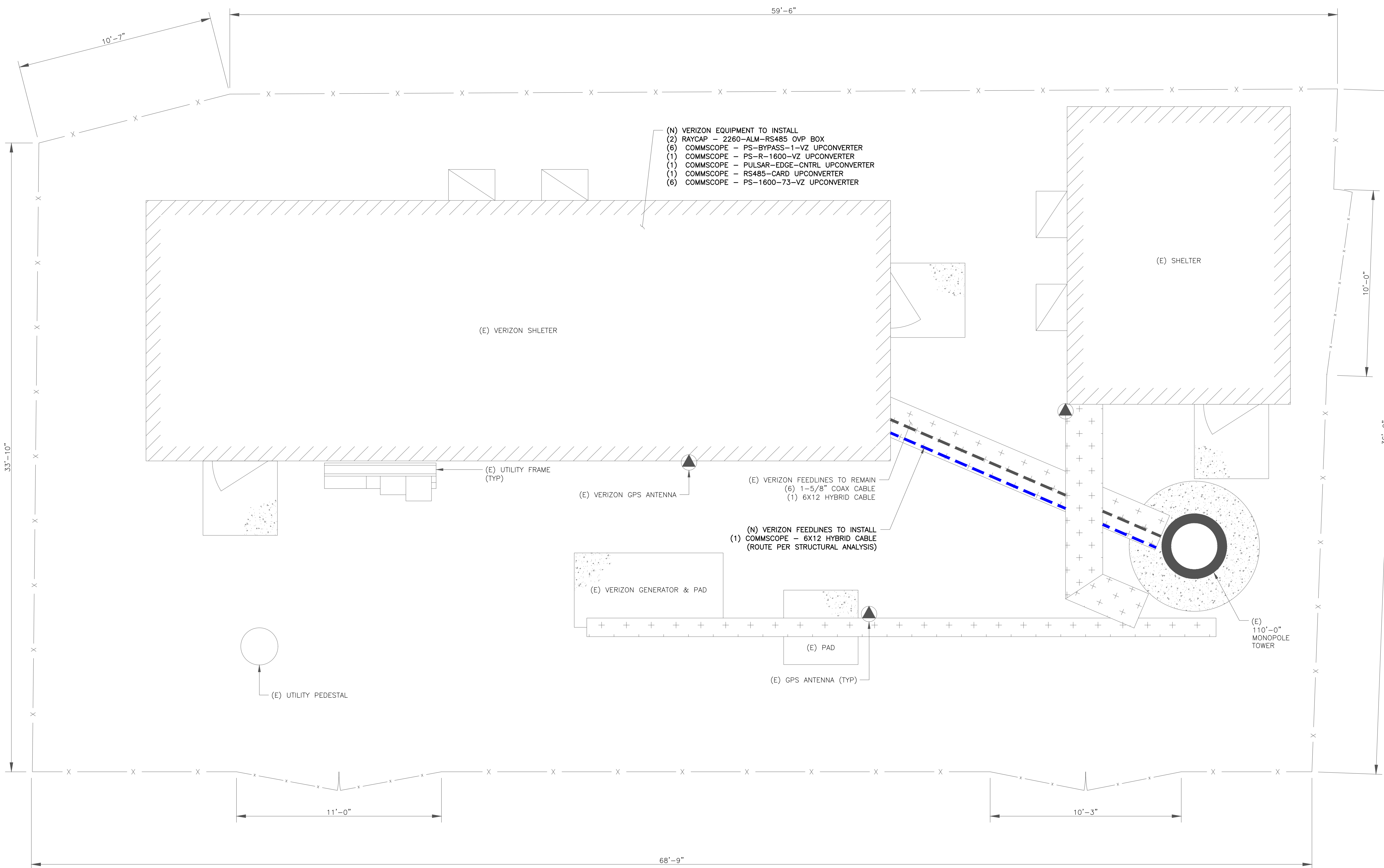
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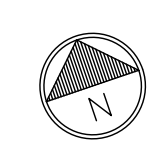
C-1

REVISION:

1



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



VERIZON_WBV_SOVA_TRIST_ANTENNA_AMENDMENT



VERIZON SITE NUMBER:
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MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	03/12/24	MAA	FINAL	GMA
1	05/16/24	MAA	REVISION	GMA

DocuSigned by:
Graham Andres
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6/11/2024 | 12:56:29 PM CDT

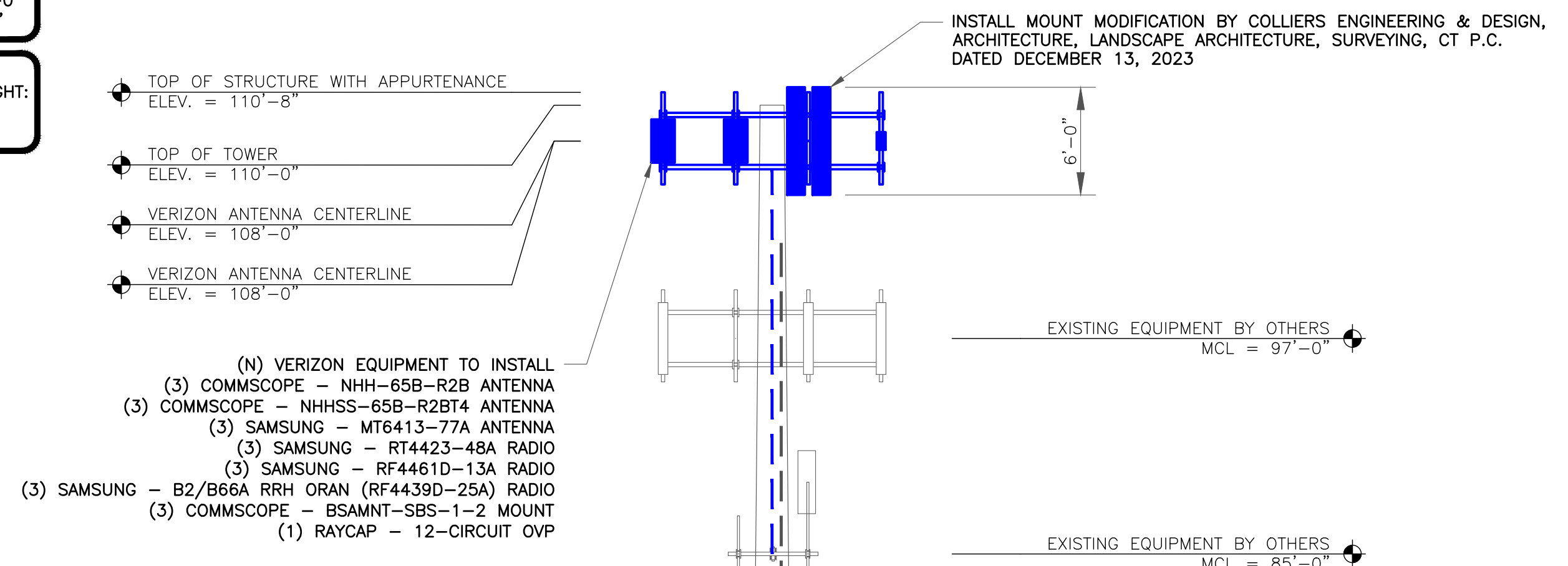
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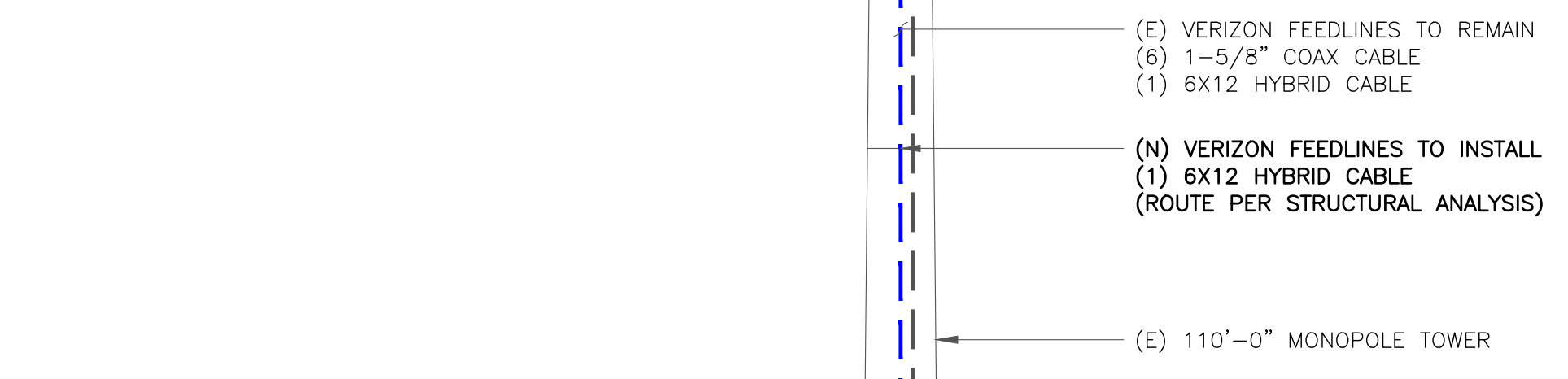
SHEET NUMBER: **C-2**

REVISION: **1**

VERIZON EQUIPMENT
ANTENNA CL: 108'-0"
MOUNT CL: 104'-0"
FAA APPROVED HEIGHT:
113'-0"

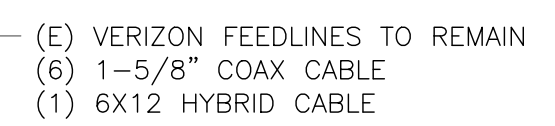
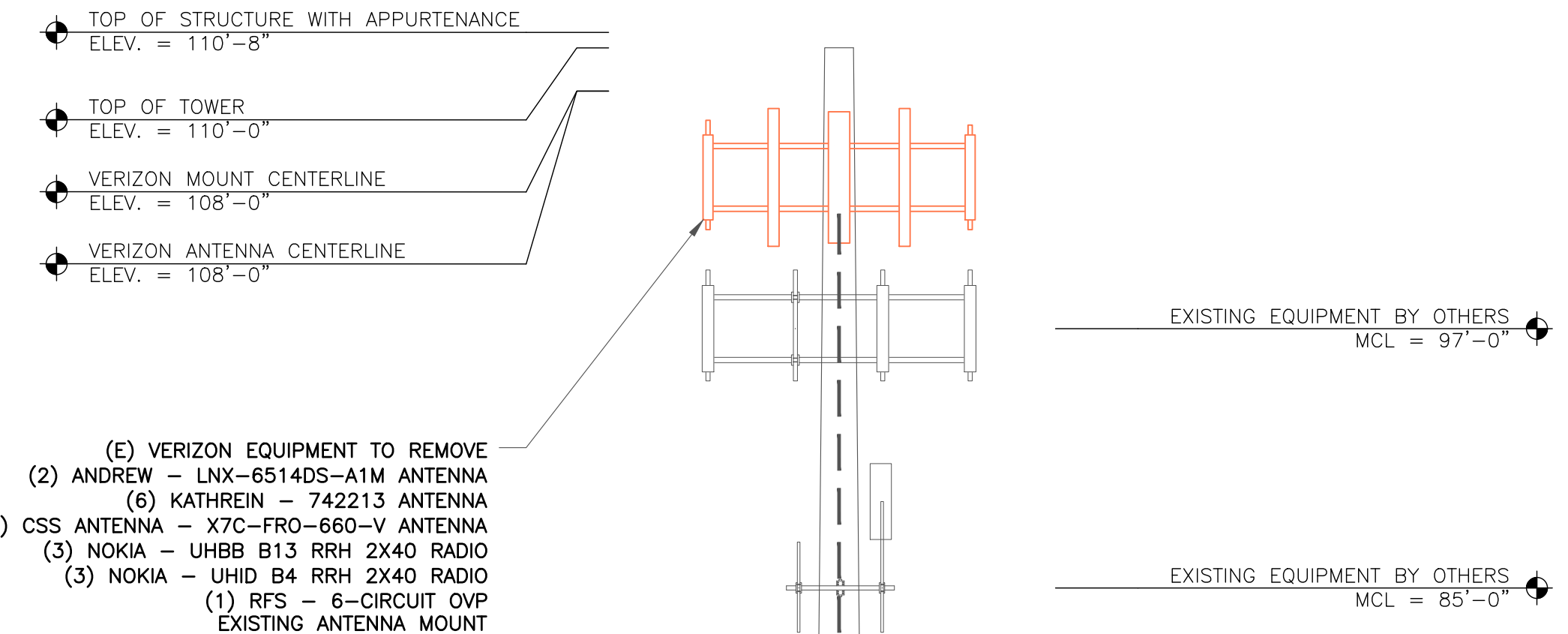


INSTALLER NOTE:
NO PROPOSED LOADING TO BE ADDED
UNTIL MOUNT MODIFICATIONS ARE
INSTALLED PER TOWER MODIFICATION
DESIGN BY COLLIERS ENGINEERING &
DESIGN DATED 12/13/2023.



BOTTOM OF TOWER
ELEV. = 0"

2 FINAL TOWER ELEVATION
SCALE: 1" = 80'-0" (FULL SIZE)
1" = 160'-0" (11x17)



BOTTOM OF TOWER
ELEV. = 0"

1 EXISTING TOWER ELEVATION
SCALE: 1" = 80'-0" (FULL SIZE)
1" = 160'-0" (11x17)



FINAL EQUIPMENT SCHEDULE

POSITION	ANTENNA			RADIO		DIPLEXER		TMA		SURGE PROTECTION		CABLES				
	TECH	STATUS/MANUFACTURER MODEL	AZ.	RAD CENTER	QTY.	STATUS/MODEL	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS/MODEL	QTY.	STATUS/MODEL	SIZE	LENGTH	
A1				108'-0"	1	(N) SAMSUNG - RT4423-48				1	(N) RAYCAP - RVZDC-6627-PF-48	1	(N) 6X12 HYBRID CABLE	1-5/8"	±300'	
A2	700, 850, 1900, AWS LTE	(N) COMMSCOPE - NHH-65B-R2B	0°		1	(N) SAMSUNG - RF4461D-13										
	AWS, CBRS LTE	(N) COMMSCOPE - NHHSS-65B-R2BT4	0°													
A3					1	(N) SAMSUNG - RF4439D-25										
A4	5G L-SUB6	(N) SAMSUNG - MT6413-77A	0°													
B1				108'-0"	1	(N) SAMSUNG - RT4423-48						1	(E) 6X12 HYBRID CABLE	1-5/8"	±300'	
B2	700, 850, 1900, AWS LTE	(N) COMMSCOPE - NHH-65B-R2B	120°		1	(N) SAMSUNG - RF4461D-13										
	AWS, CBRS LTE	(N) COMMSCOPE - NHHSS-65B-R2BT4	120°													
B3					1	(N) SAMSUNG - RF4439D-25										
B4	5G L-SUB6	(N) SAMSUNG - MT6413-77A	120°													
C1				108'-0"	1	(N) SAMSUNG - RT4423-48										
C2	700, 850, 1900, AWS LTE	(N) COMMSCOPE - NHH-65B-R2B	240°		1	(N) SAMSUNG - RF4461D-13										
	AWS, CBRS LTE	(N) COMMSCOPE - NHHSS-65B-R2BT4	240°													
C3					1	(N) SAMSUNG - RF4439D-25										
C4	5G L-SUB6	(N) SAMSUNG - MT6413-77A	240°													

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ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	03/12/24	MAA	FINAL	GMA
1	05/16/24	MAA	REVISION	GMA

DocuSigned by:
Graham Andres



6/11/2024 | 12:56:29 PM CDT

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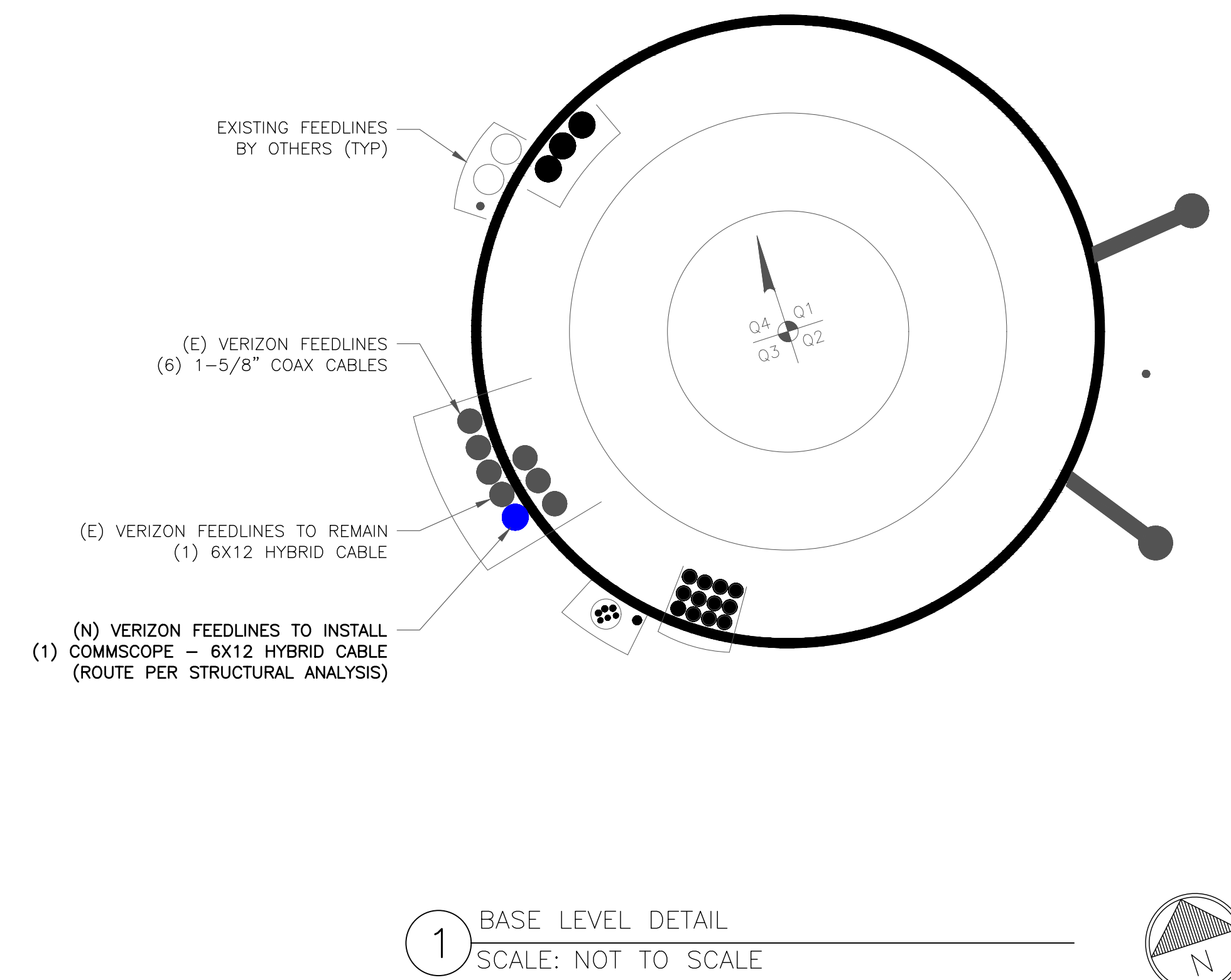
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REVISION:

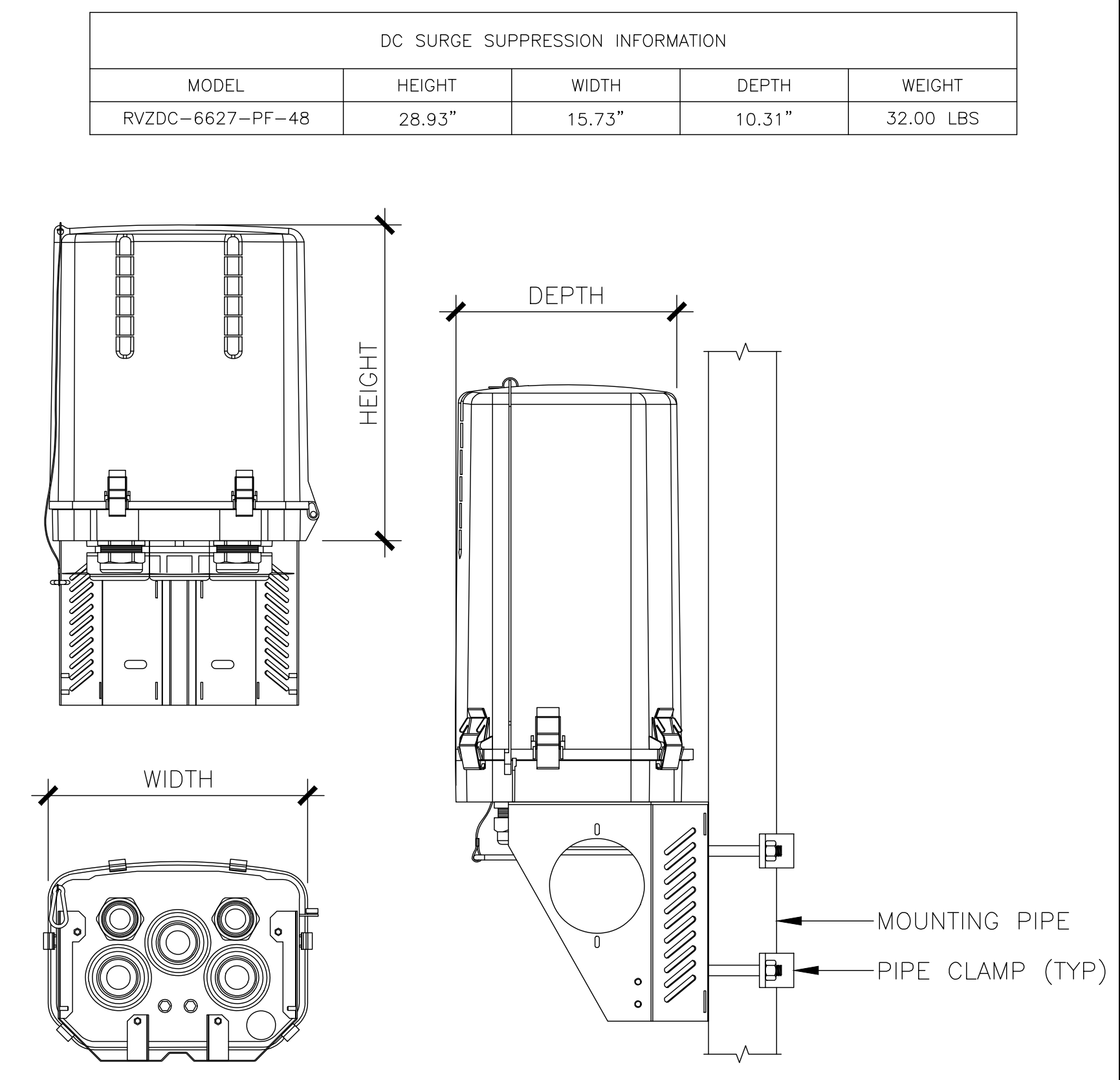
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UNUSED FEEDLINES		
QTY.	SIZE	STATUS/MODEL
6	1-5/8"	(E) COAX

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

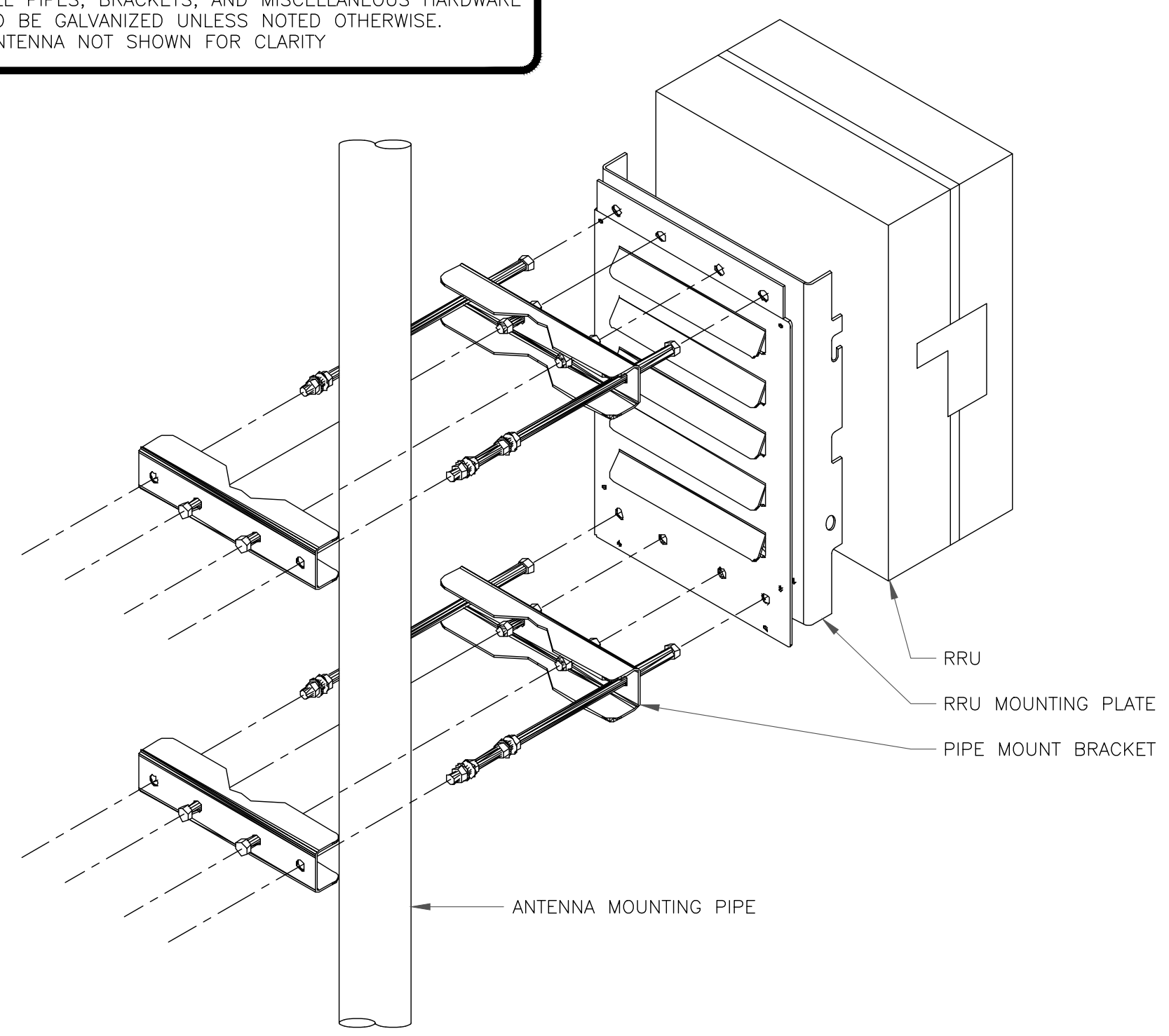


1 BASE LEVEL DETAIL
SCALE: NOT TO SCALE



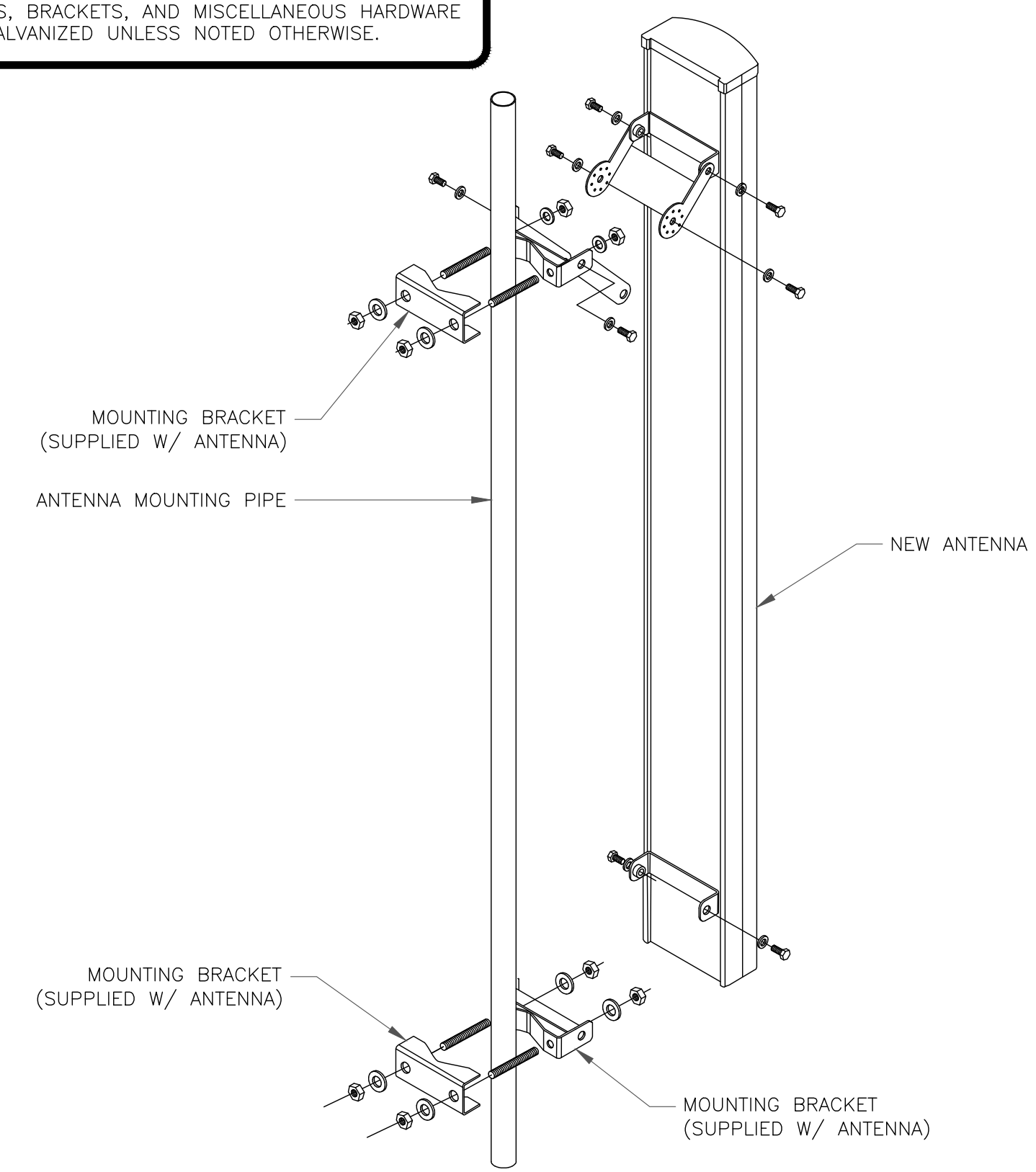
2 COVP DETAIL
SCALE: NOT TO SCALE

- INSTALLER NOTES:**
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
 2. DO NOT OPEN RRU PACKAGES IN THE RAIN.
 3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.
 4. ANTENNA NOT SHOWN FOR CLARITY

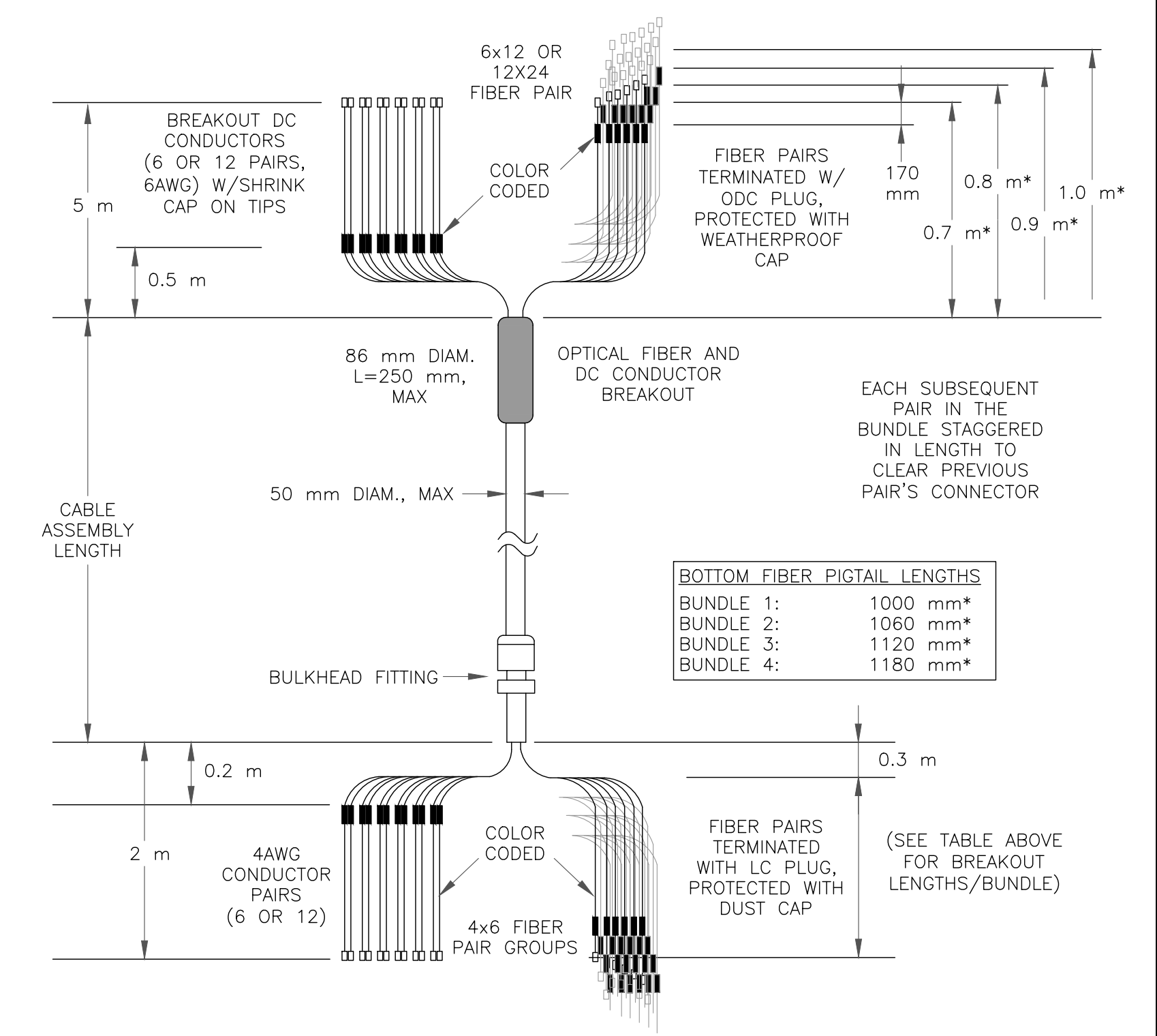


3 RRU MOUNTING DETAIL
SCALE: NOT TO SCALE

- INSTALLER NOTE:**
1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



4 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE



5 HYBRID CABLE DETAIL
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000387036

BU #: **806375**

CROWN CASTLE SITE NAME
HRT 095 943237

190 BURNHAM ST
SOUTH WINDSOR, CT 06108

EXISTING 110'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	03/12/24	MAA	FINAL	GMA
1	05/16/24	MAA	REVISION	GMA

DocuSigned by:
Graham Andros
9575EC119E34E7F8

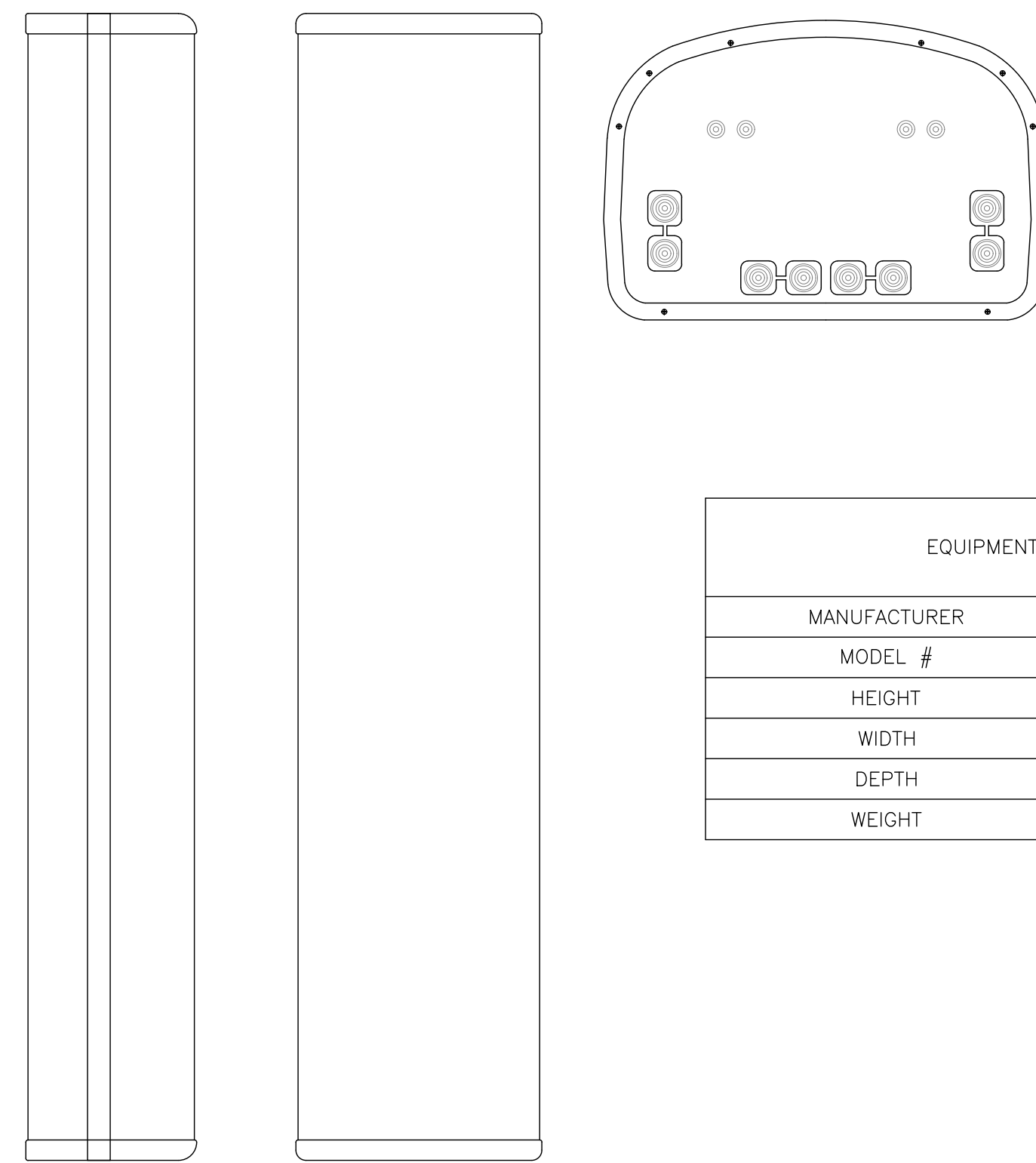
6/11/2024 | 12:56:29 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION
#PEC.0001101

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.

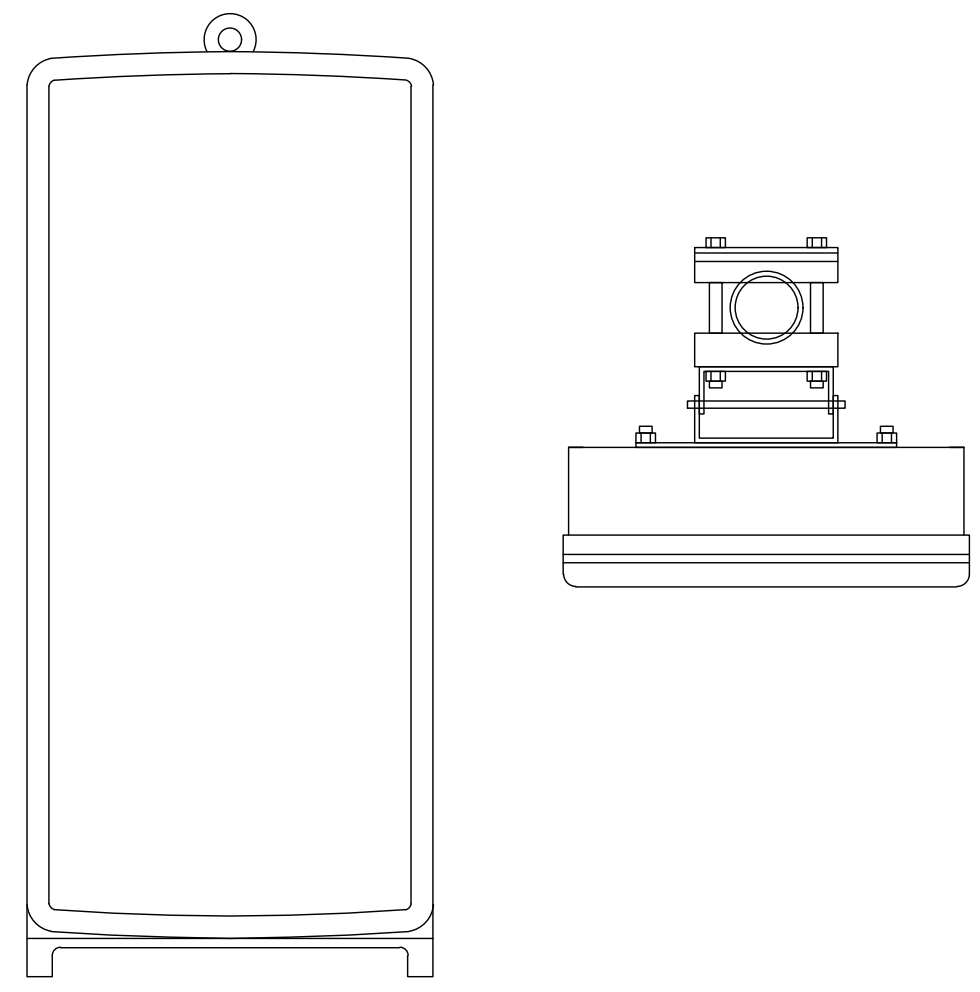
SHEET NUMBER:
C-5.1

REVISION:
1



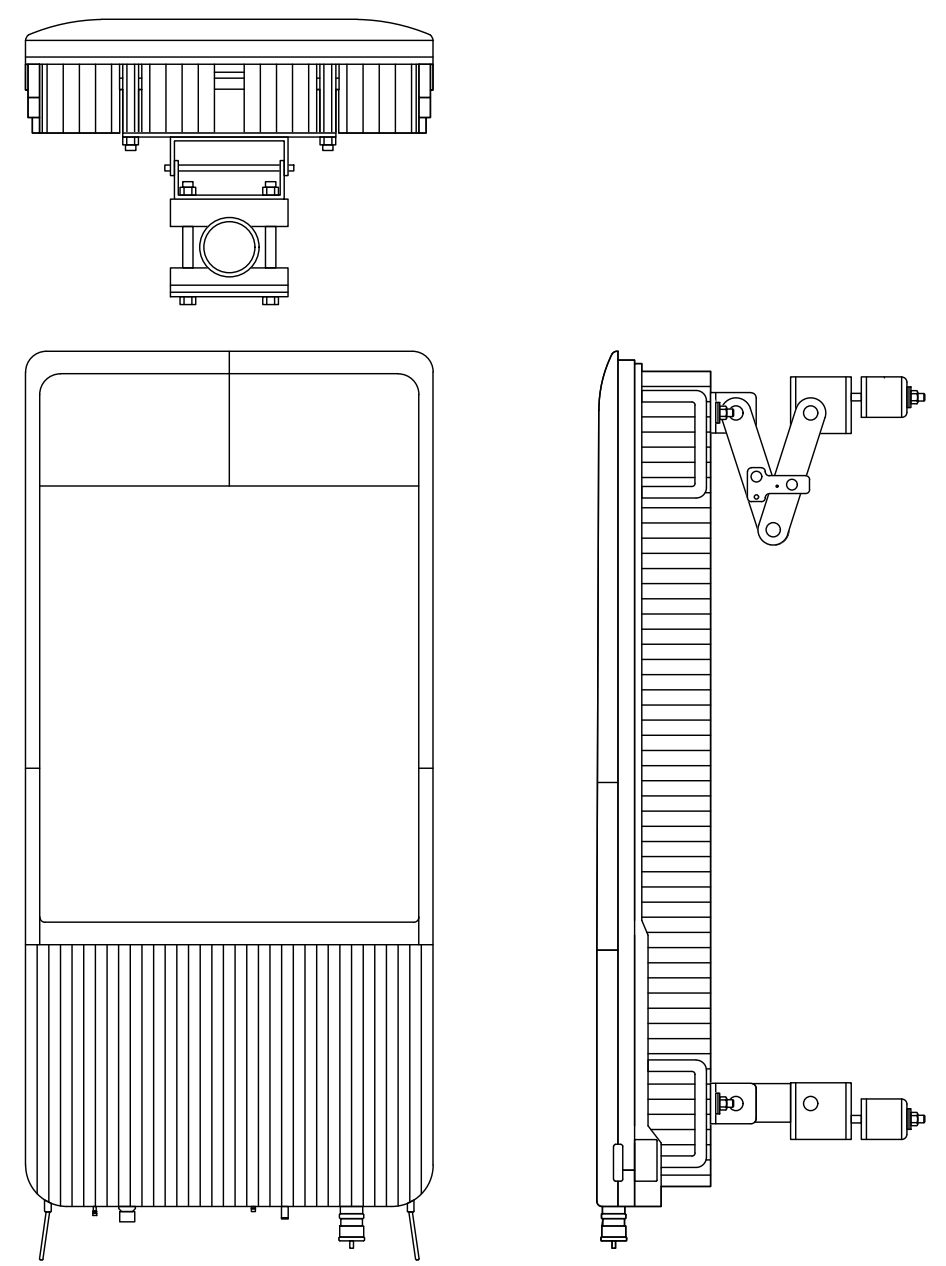
EQUIPMENT SPECIFICATIONS	
MANUFACTURER	COMMSCOPE
MODEL #	NHH-65B-R2B
HEIGHT	72.00"
WIDTH	11.90"
DEPTH	7.10"
WEIGHT	43.70 LBS

1 EQUIPMENT SPECIFICATION
SCALE: NOT TO SCALE



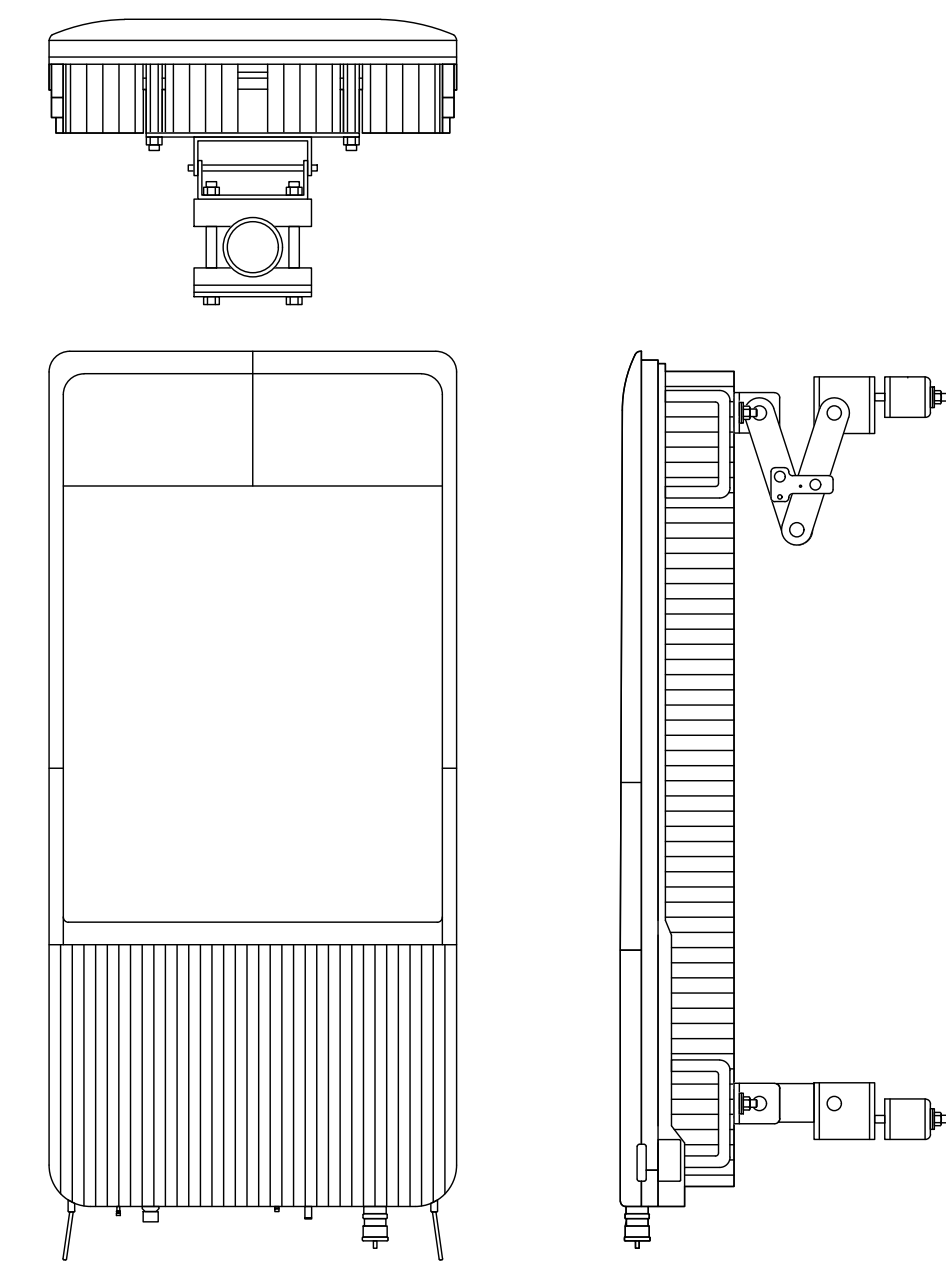
EQUIPMENT SPECIFICATIONS	
MANUFACTURER	SAMSUNG
MODEL #	MT6413-77A
HEIGHT	28.90"
WIDTH	15.75"
DEPTH	5.51"
WEIGHT	57.3 LBS

2 EQUIPMENT SPECIFICATION
SCALE: NOT TO SCALE



EQUIPMENT SPECIFICATIONS	
MANUFACTURER	SAMSUNG
MODEL #	RF4461D-13A
HEIGHT	14.96"
WIDTH	14.96"
DEPTH	10.23"
WEIGHT	79.1 LBS

3 EQUIPMENT SPECIFICATION
SCALE: NOT TO SCALE



EQUIPMENT SPECIFICATIONS	
MANUFACTURER	SAMSUNG
MODEL #	RF4439D-25A
HEIGHT	18.66"
WIDTH	14.96"
DEPTH	10.04"
WEIGHT	74.7 LBS

4 EQUIPMENT SPECIFICATION
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000387036

BU #: **806375**

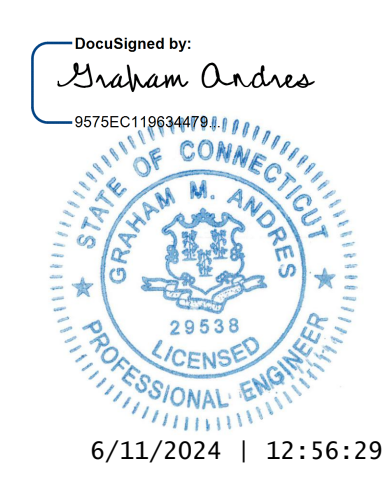
CROWN CASTLE SITE NAME
HRT 095 943237

190 BURNHAM ST
SOUTH WINDSOR, CT 06108

EXISTING 110'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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1	05/16/24	MAA	REVISION	GMA

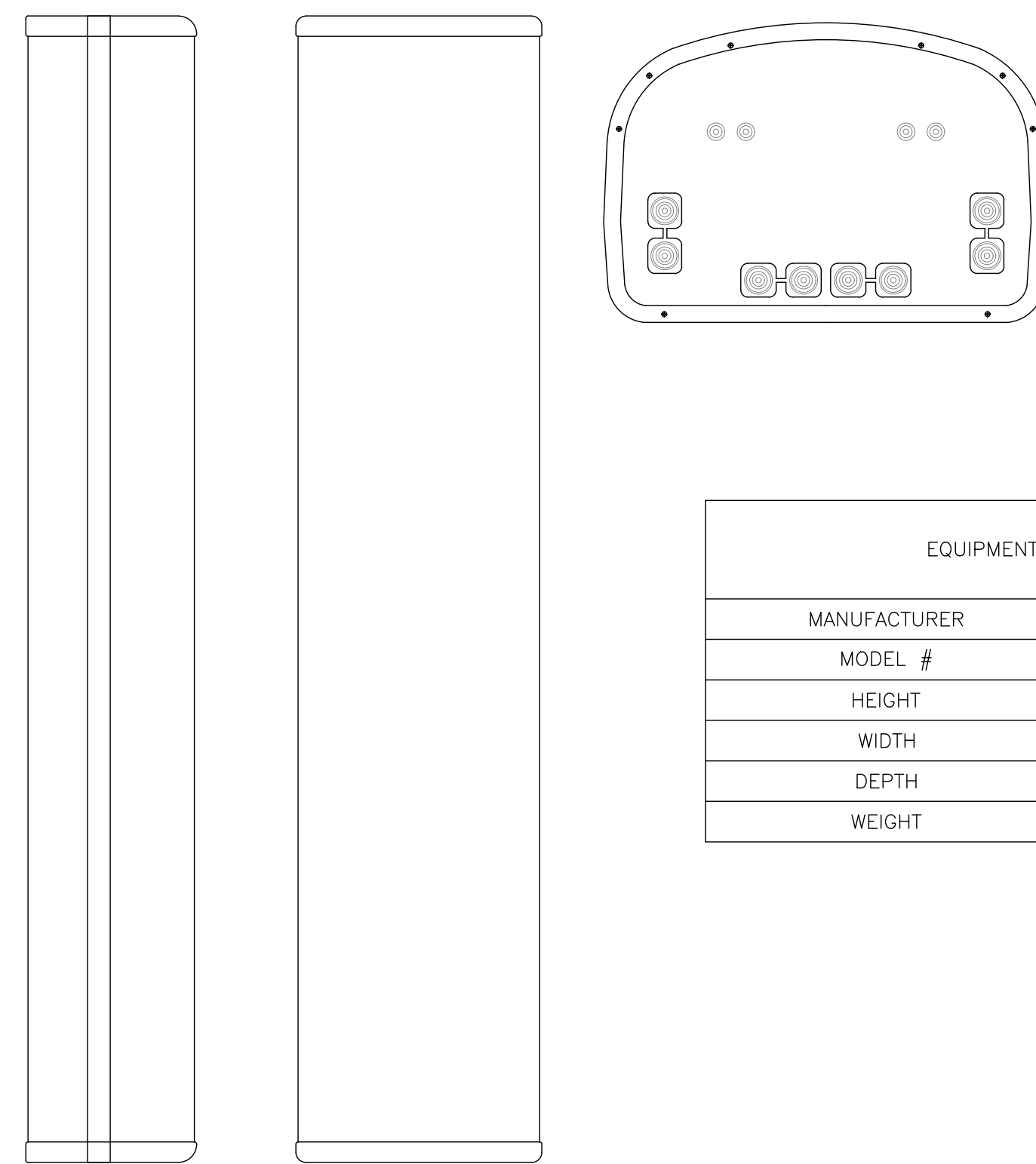


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#PEC.0001101

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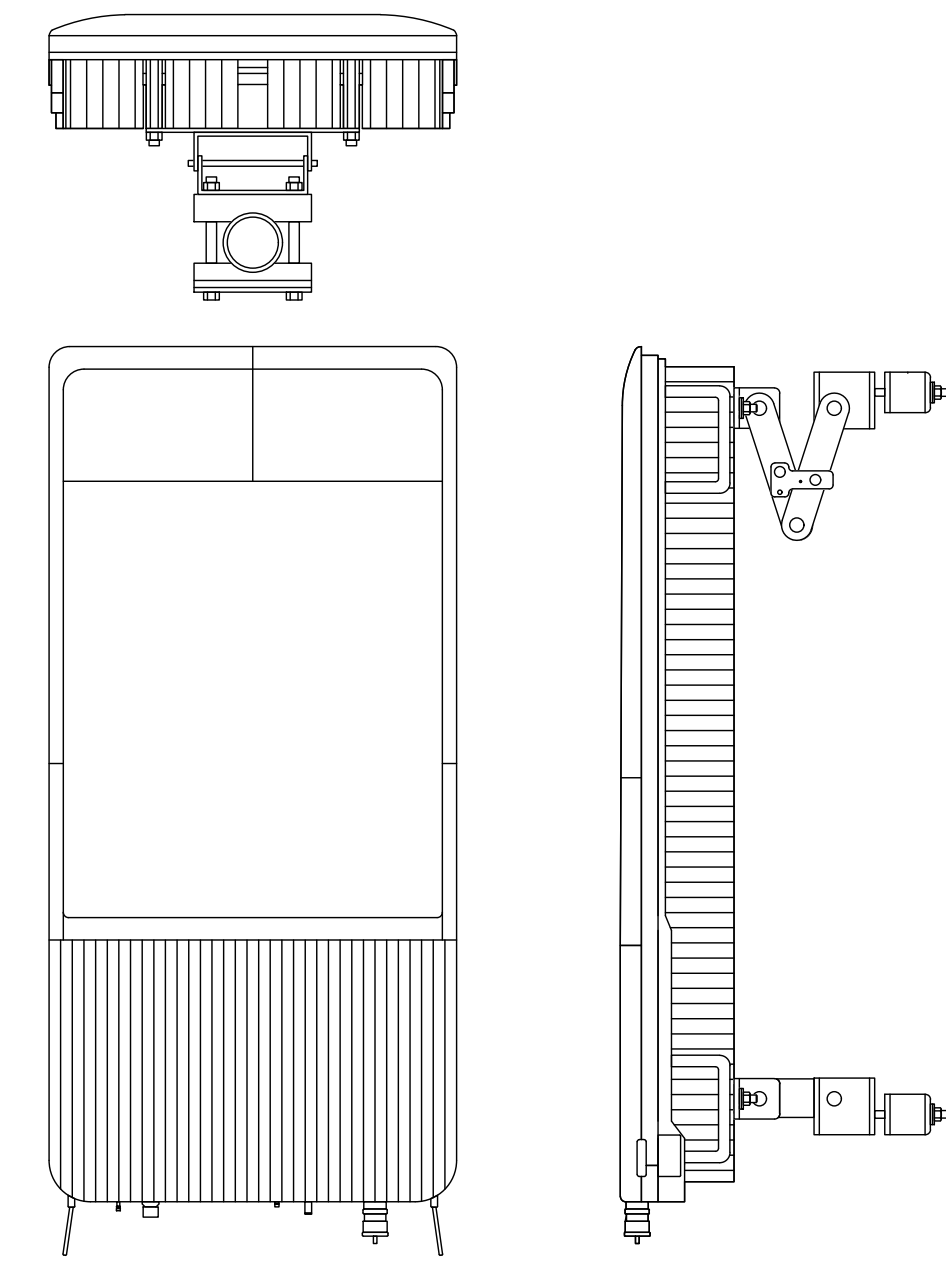
SHEET NUMBER: **C-5.2** REVISION: **1**

VERIZON_WBV_SOVA_TRIST_ANTENNA_AMENDMENT



EQUIPMENT SPECIFICATIONS	
MANUFACTURER	COMMSCOPE
MODEL #	NHHSS-65B-R2BT4
HEIGHT	71.97"
WIDTH	11.85"
DEPTH	7.13"
WEIGHT	64.63 LBS

1 EQUIPMENT SPECIFICATION
SCALE: NOT TO SCALE



EQUIPMENT SPECIFICATIONS	
MANUFACTURER	SAMSUNG
MODEL #	RT4423-48A/B
HEIGHT	11.80"
WIDTH	8.70"
DEPTH	3.60"
WEIGHT	15.40 LBS

2 EQUIPMENT SPECIFICATION
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000387036

BU #: **806375**

CROWN CASTLE SITE NAME
HRT 095 943237

190 BURNHAM ST
SOUTH WINDSOR, CT 06108

EXISTING 110'-0"
MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	03/12/24	MAA	FINAL	GMA
1	05/16/24	MAA	REVISION	GMA

DocuSigned by:
Graham Andres



6/11/2024 | 12:56:29 PM CDT

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#PEC.0001101

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SHEET NUMBER: C-5.3	REVISION: 1
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VERIZON SITE NUMBER:
5000387036

BU #: 806375

CROWN CASTLE SITE NAME
HRT 095 943237

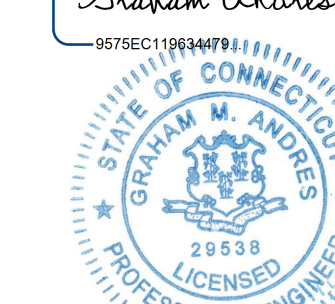
190 BURNHAM ST
SOUTH WINDSOR, CT 06108

EXISTING 110'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	03/12/24	MAA	FINAL	GMA
1	05/16/24	MAA	REVISION	GMA

DocuSigned by:
Graham Andres



6/11/2024 | 12:56:29 PM CDT

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SHEET NUMBER:

C-6

REVISION:

1

Azimuth (1) Alpha					
Cell (850 CDMA)	Red				
PCS2 (1900 LTE)	Pink	Red	Pink		
700 LTE	Lt. Green	Red	Lt. Green		
850 LTE	Purple	Red	Purple		
2100 LTE	Orange	Red	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Red	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Red	Lt. Green	Purple
5G 28GHz	Brown	Red	Brown		
5G 39GHz	Blue	Red	Blue		
LAA	Gray	Red	Gray		
CBRS	White	Red	White		
L-Sub6 (C-Band)	Red	Red	Red		

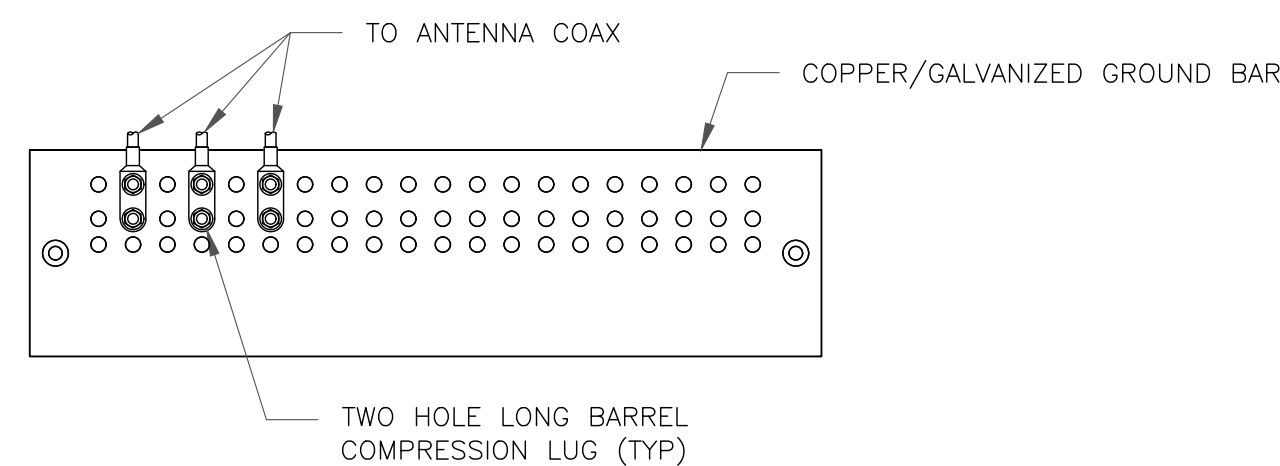
Azimuth (2) Beta					
Cell (850 CDMA)	Blue				
PCS2 (1900 LTE)	Pink	Blue	Pink		
700 LTE	Lt. Green	Blue	Lt. Green		
850 LTE	Purple	Blue	Purple		
2100 LTE	Orange	Blue	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Blue	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Blue	Lt. Green	Purple
5G 28GHz	Brown	Blue	Brown		
5G 39GHz	Blue	Blue	Blue		
LAA	Gray	Blue	Gray		
CBRS	White	Blue	White		
L-Sub6 (C-Band)	Red	Blue	Red		

Azimuth (3) Gamma					
Cell (850 CDMA)	Yellow				
PCS2 (1900 LTE)	Pink	Yellow	Pink		
700 LTE	Lt. Green	Yellow	Lt. Green		
850 LTE	Purple	Yellow	Purple		
2100 LTE	Orange	Yellow	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Yellow	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Yellow	Lt. Green	Purple
5G 28GHz	Brown	Yellow	Brown		
5G 39GHz	Blue	Yellow	Blue		
LAA	Gray	Yellow	Gray		
CBRS	White	Yellow	White		
L-Sub6 (C-Band)	Red	Yellow	Red		

Azimuth (4) Delta					
Cell (850 CDMA)	Orange				
PCS2 (1900 LTE)	Pink	Orange	Pink		
700 LTE	Lt. Green	Orange	Lt. Green		
850 LTE	Purple	Orange	Purple		
2100 LTE	Orange	Orange	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Orange	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Orange	Lt. Green	Purple
5G 28GHz	Brown	Orange	Brown		
5G 39GHz	Blue	Orange	Blue		
LAA	Gray	Orange	Gray		
CBRS	White	Orange	White		
L-Sub6 (C-Band)	Red	Orange	Red		

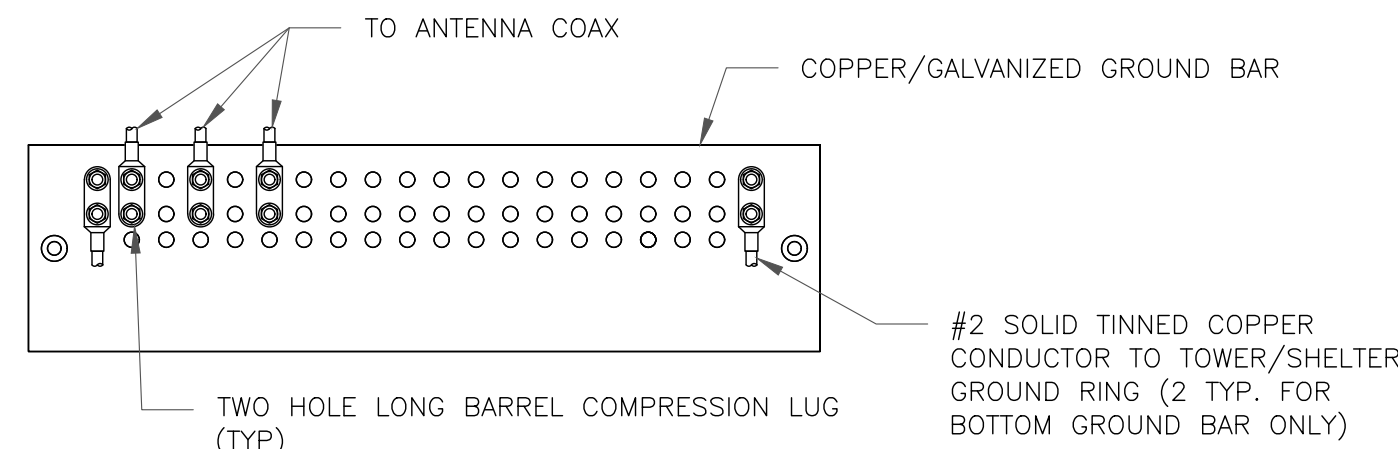
Azimuth (5) Epsilon					
Cell (850 CDMA)	White				
PCS2 (1900 LTE)	Pink	White	Pink		
700 LTE	Lt. Green	White	Lt. Green		
850 LTE	Purple	White	Purple		
2100 LTE	Orange	White	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	White	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	White	Lt. Green	Purple
5G 28GHz	Brown	White	Brown		
5G 39GHz	Blue	White	Blue		
LAA	Gray	White	Gray		
CBRS	White	White	White		
L-Sub6 (C-Band)	Red	White	Red		

Azimuth (6) Zeta					
Cell (850 CDMA)	Gray				
PCS2 (1900 LTE)	Pink	Gray	Pink		
700 LTE	Lt. Green	Gray	Lt. Green		
850 LTE	Purple	Gray	Purple		
2100 LTE	Orange	Gray	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Gray	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Gray	Lt. Green	Purple
5G 28GHz	Brown	Gray	Brown		
5G 39GHz	Blue	Gray	Blue		
LAA	Gray	Gray	Gray		
CBRS	White	Gray	White		
L-Sub6 (C-Band)	Red	Gray	Red		



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

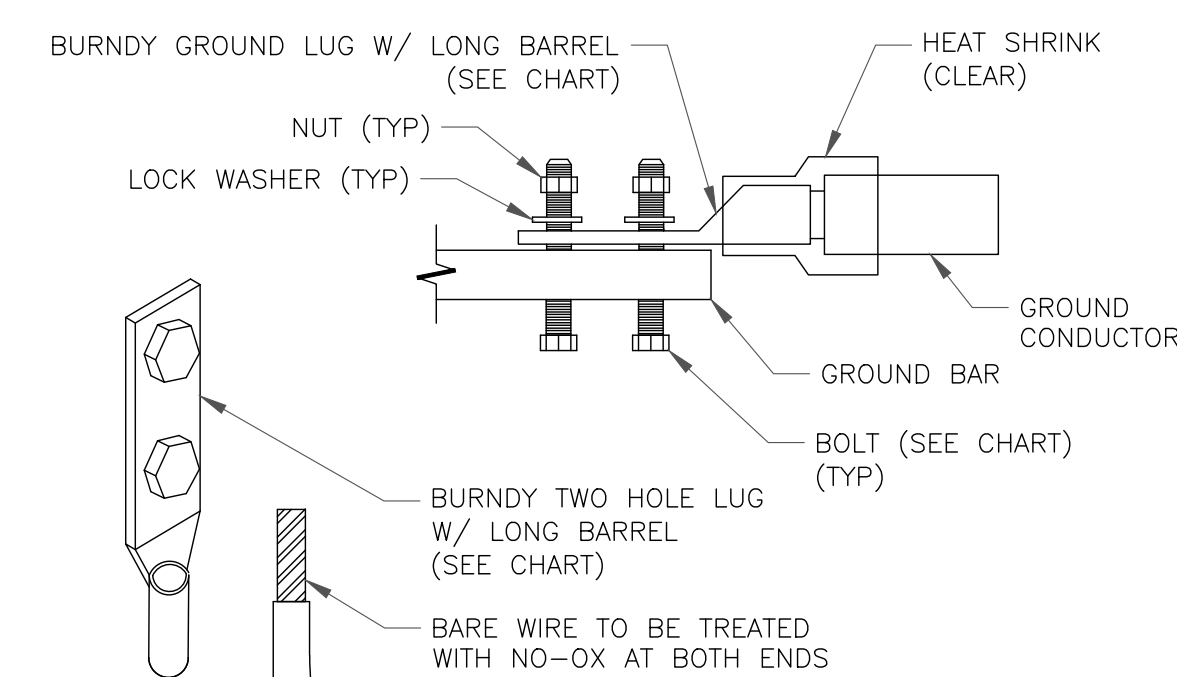
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



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

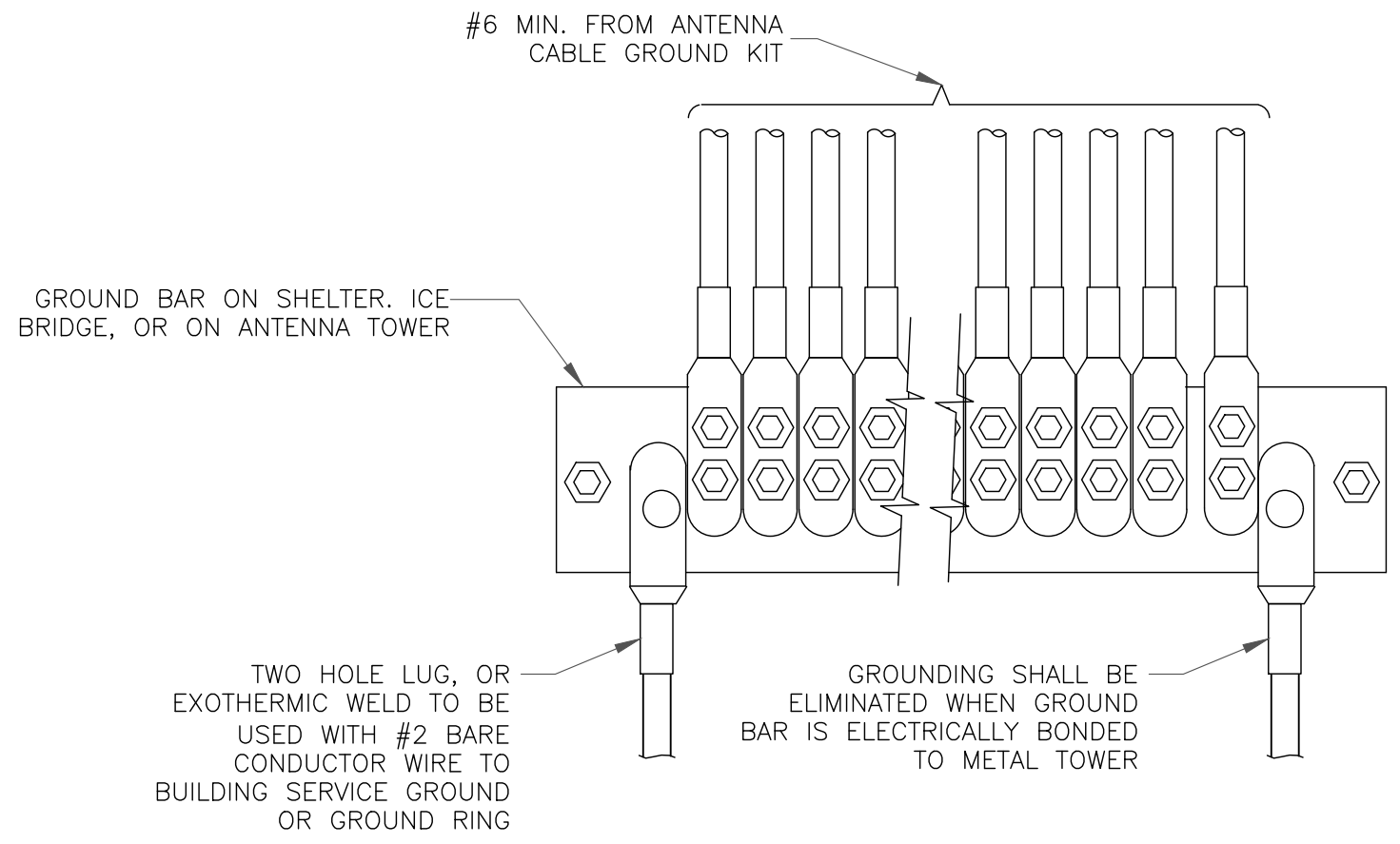
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

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

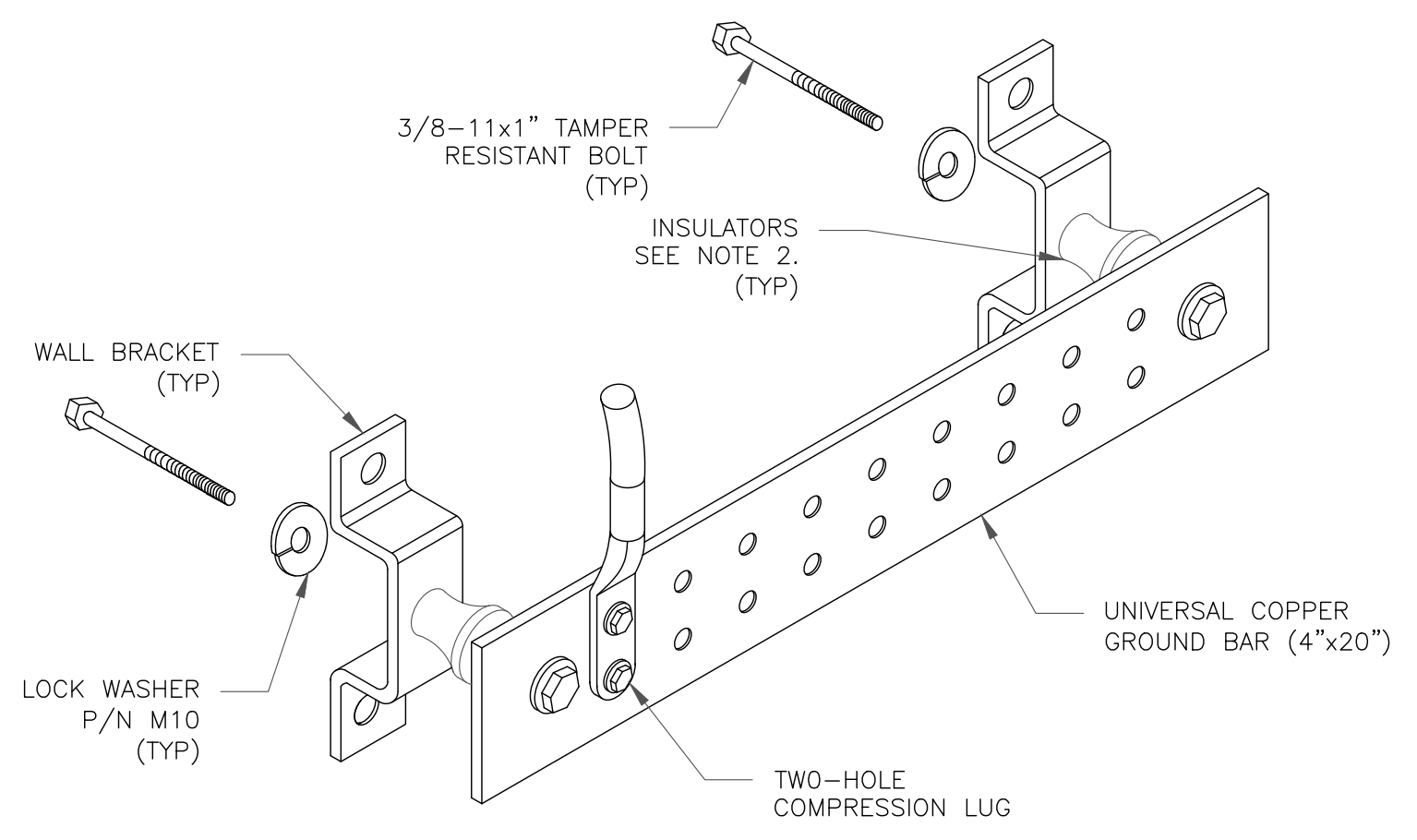


- NOTE:**
- ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE

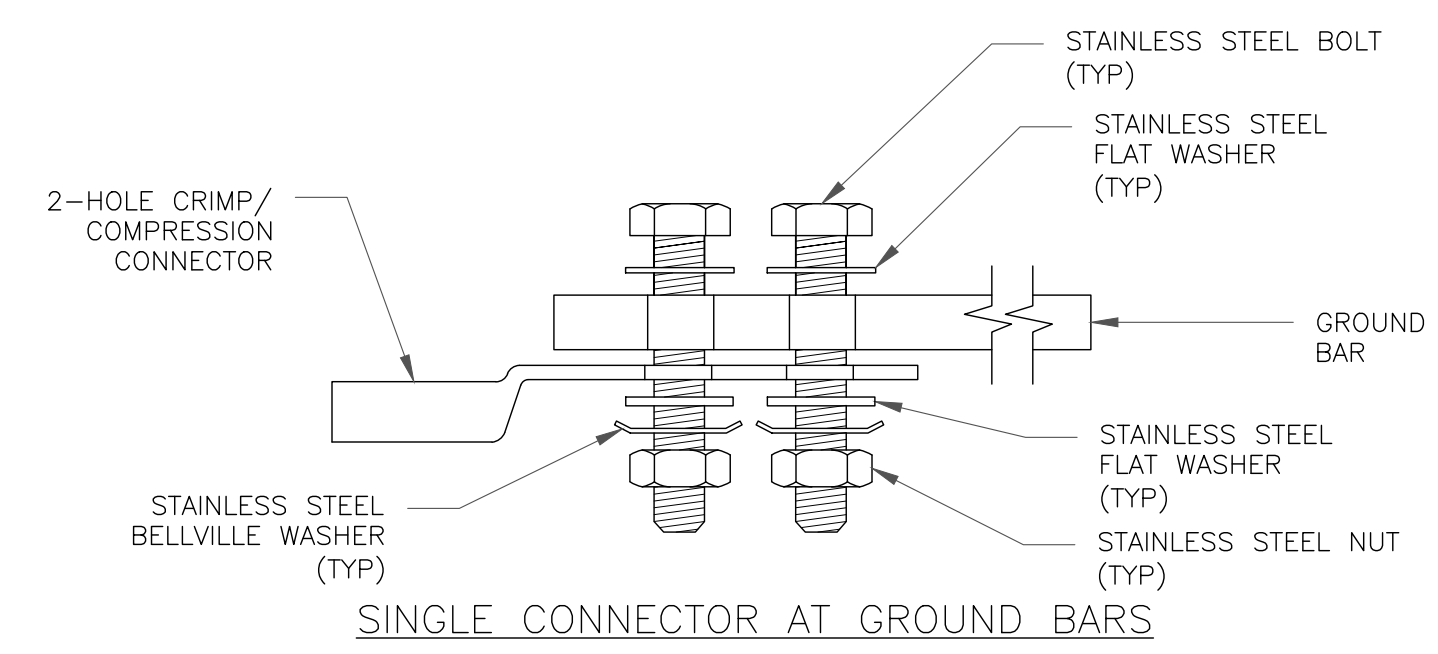


4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

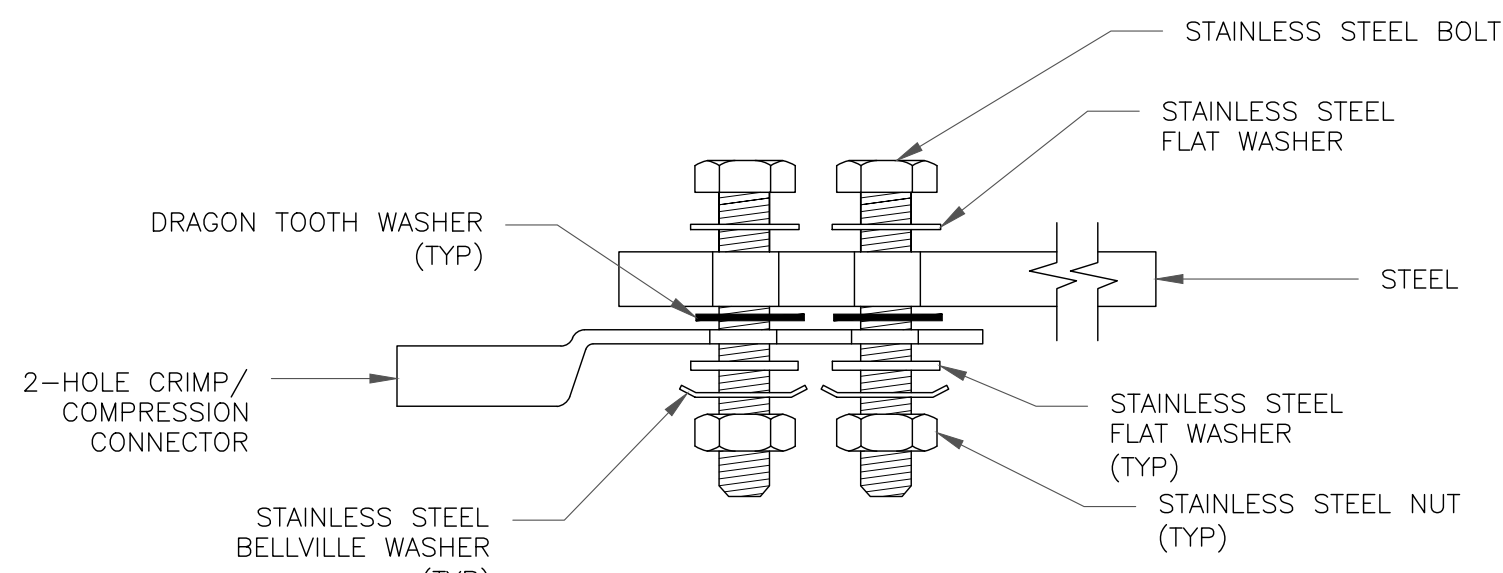


- NOTES:**
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
 2.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

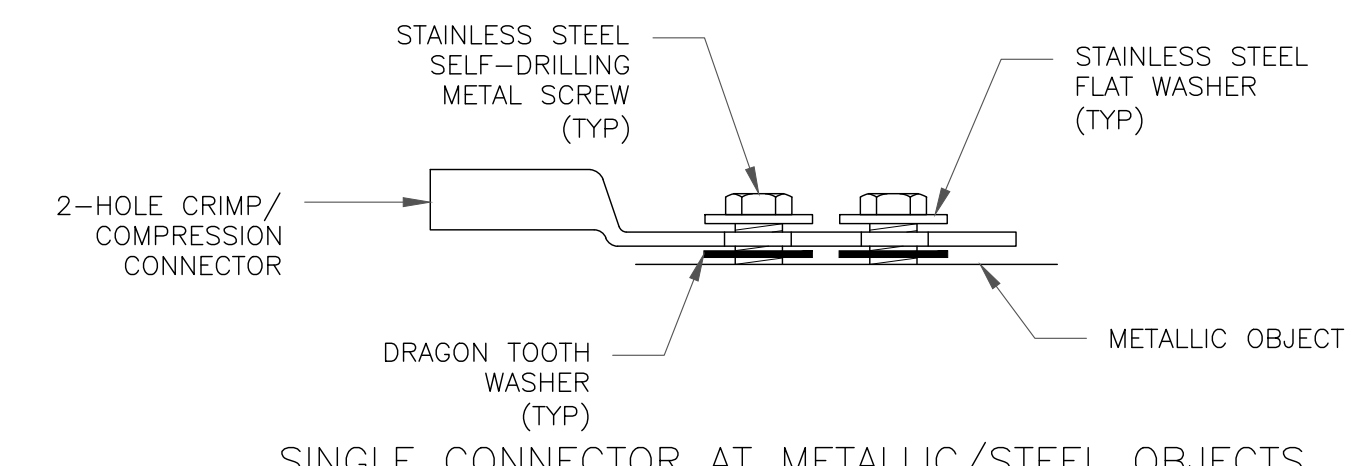
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

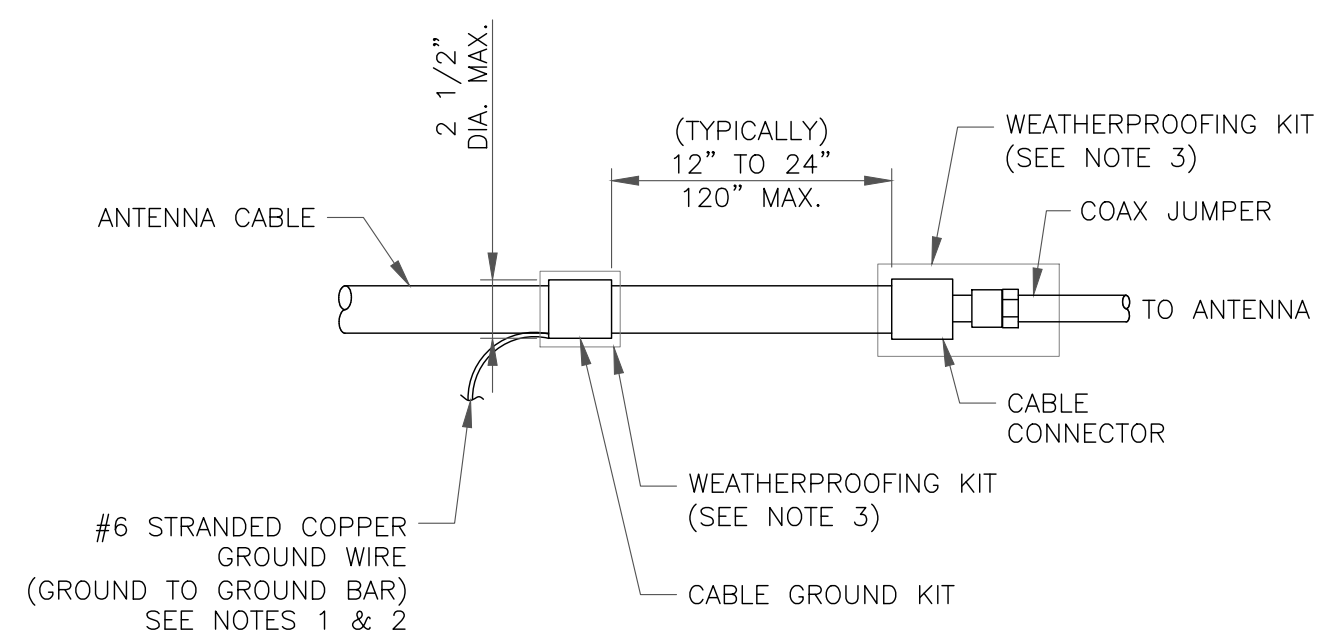


SINGLE CONNECTOR AT STEEL OBJECTS



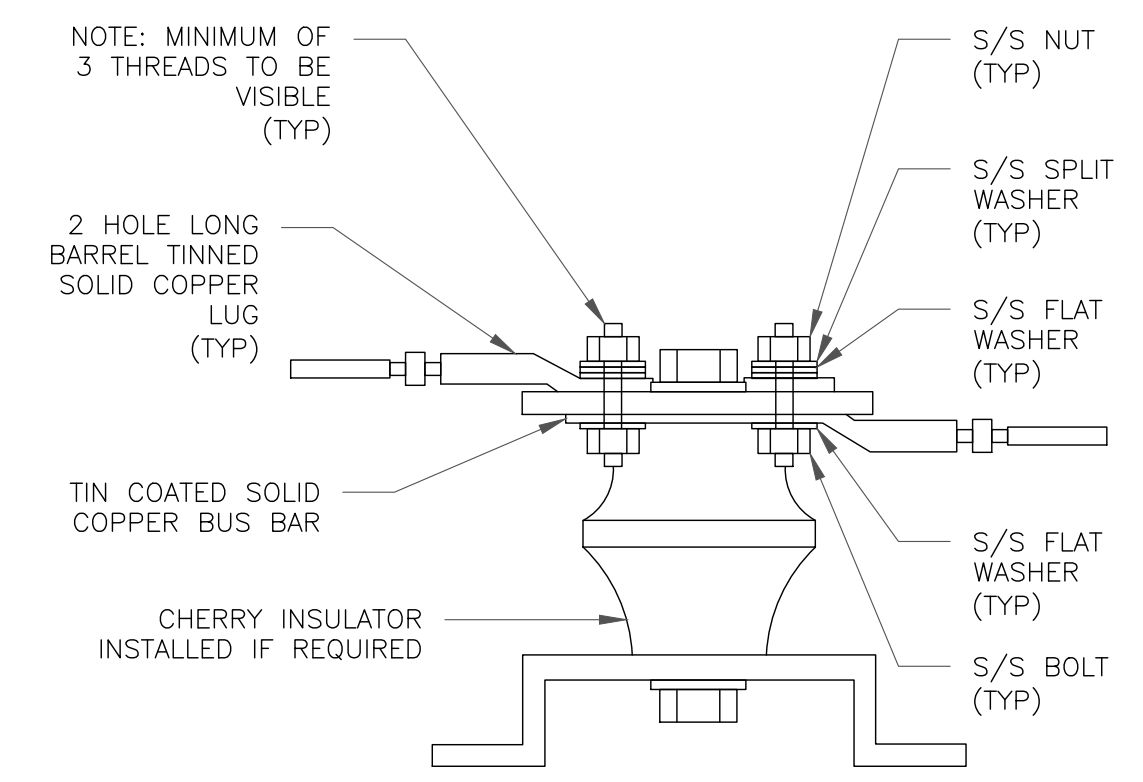
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
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.

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000387036

BU #: **806375**

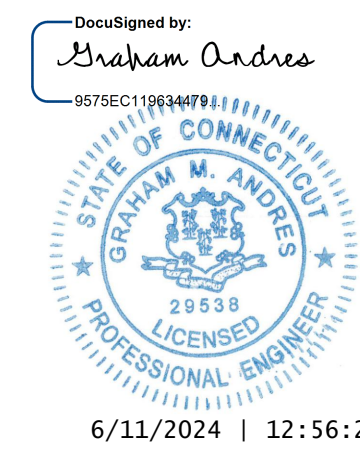
CROWN CASTLE SITE NAME
HRT 095 943237

190 BURNHAM ST
SOUTH WINDSOR, CT 06108

EXISTING 110'-0"
MONOPOLE

ISSUED FOR:

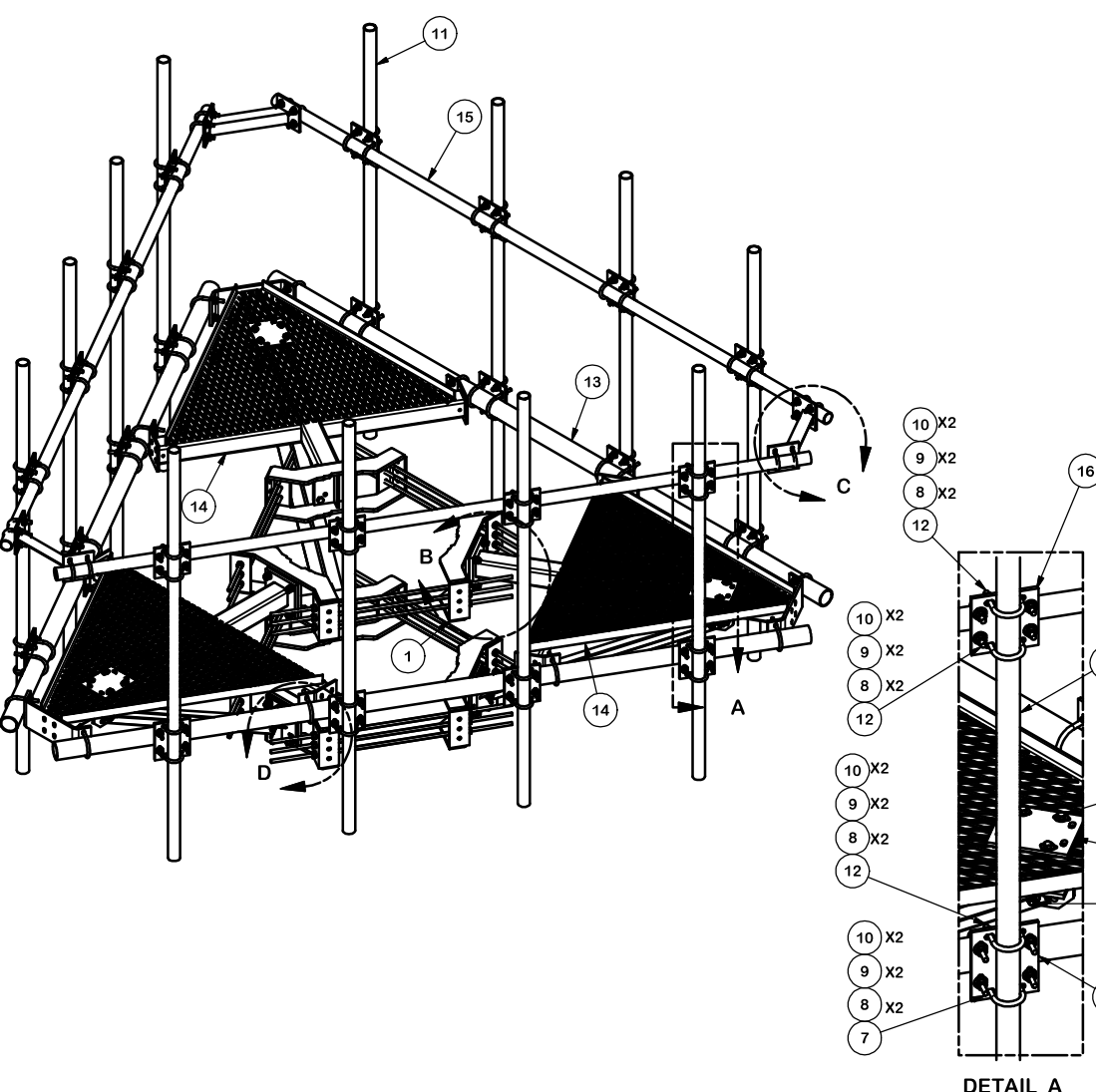
REV	DATE	DRWN	DESCRIPTION	DES./QA
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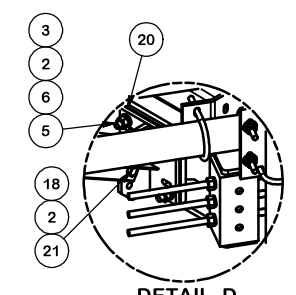
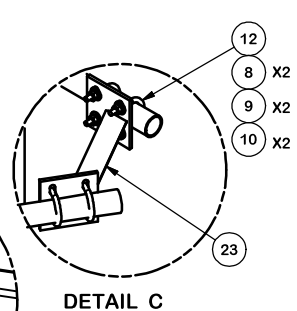
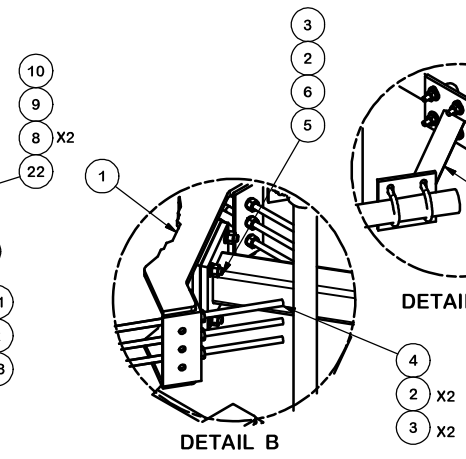
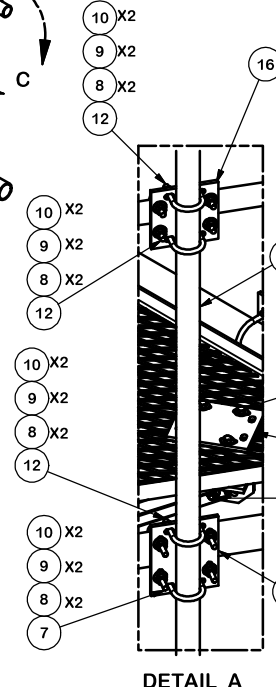
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SHEET NUMBER: **G-1** REVISION: **1**



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	6	X-LWRM	RING MOUNT WELDMENT		68.81	412.85
2	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
3	60	A58NUT	5/8" HDG A325 HEX NUT		0.13	7.79
4	18	G58R-24	5/8" x 24" THREADED ROD (HDG.)		2.09	37.63
4	18	G58R-48	5/8" x 48" THREADED ROD (HDG.)		4.18	75.27
5	24	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	8.54
6	24	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.82
7	36	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.83	29.82
8	264	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	9.00
9	252	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	3.50
10	252	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	18.05
11	12	P296	2-3/8" X 96" SCH. 40 GALVANIZED PIPE	96 in	30.76	369.08
12	84	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	50.17
13	3	P3150	3-1/2" X 150" (3" SCH 40) GALVANIZED PIPE	150 in	94.80	284.40
14	3	X-SV196	LOW PROFILE PLATFORM CORNER		212.10	636.31
15	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
16	12	SCX2	CROSSOVER PLATE	7 in	4.80	57.56
17	15	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	90.32
18	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.78
19	6	X-253993	PLATFORM REINFORCEMENT KIT ANGLE	52 25/32 in	14.33	85.99
20	6	X-TBW	T-BRACKET WELDMENT		13.60	81.60
21	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
22	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	5 1/2 in	0.41	4.91
23	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
					TOTAL WT. #	2445.81



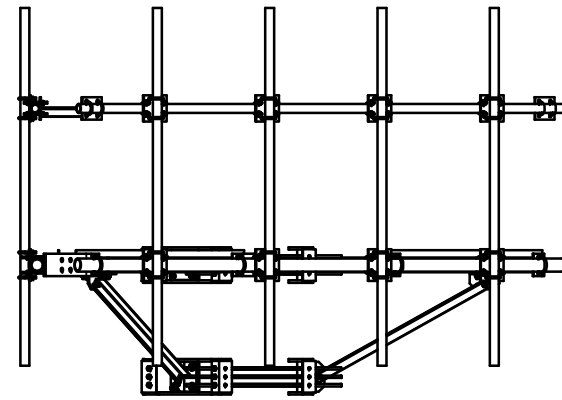
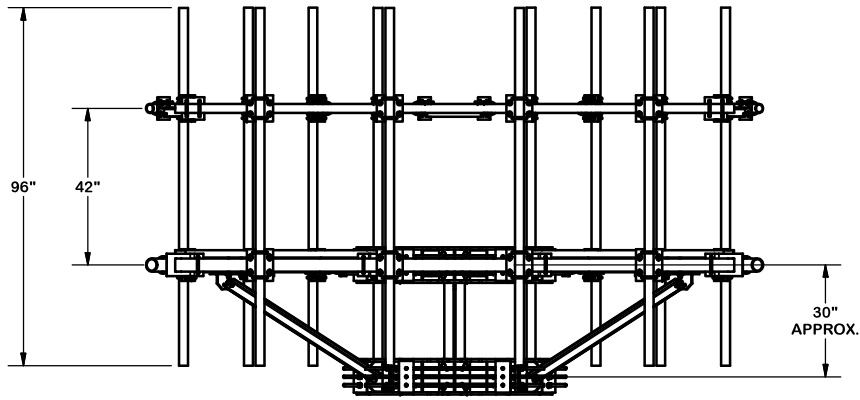
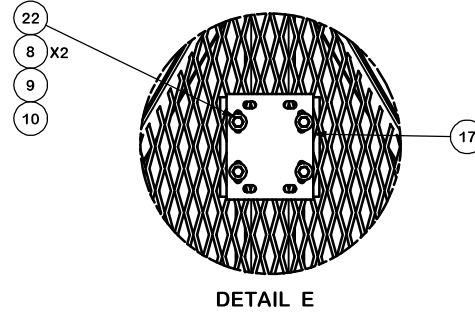
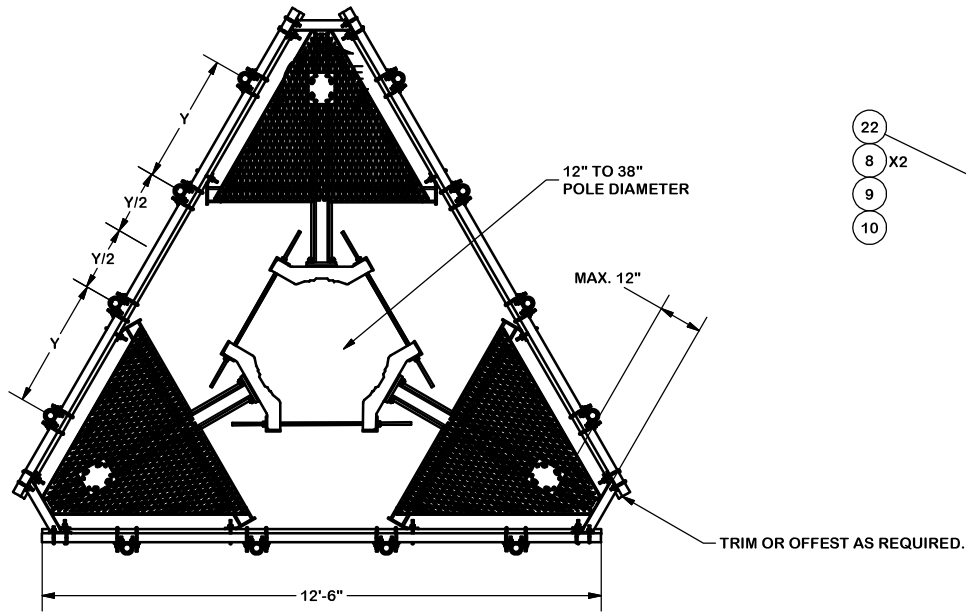
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018
REVISION HISTORY				

TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING ($\pm 0.030"$)
ALL OTHER ASSEMBLY ($\pm 0.080"$)

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

DESCRIPTION 12' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUNTING PIPES, AND HANDRAIL	
CPD NO. 4488	DRAWN BY CEK 7/14/2014
CLASS 81	SUB 02
DRAWING USAGE CUSTOMER	ENG. APPROVAL BMC 7/14/2014

 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
	Engineering Support Team: 1-888-753-7446
PART NO. RMQP-496-HK	PAGE 1 OF 3
DWG. NO. RMQP-496-HK	



TOLERANCE NOTES

**TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.030 ")
 DRILLED AND GAS CUT HOLES (± 0.030 ") - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010 ") - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.030 ")
 ALL OTHER ASSEMBLY (± 0.080 ")**

**PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT
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 VALMONT INDUSTRIES IS STRICTLY PROHIBITED.**

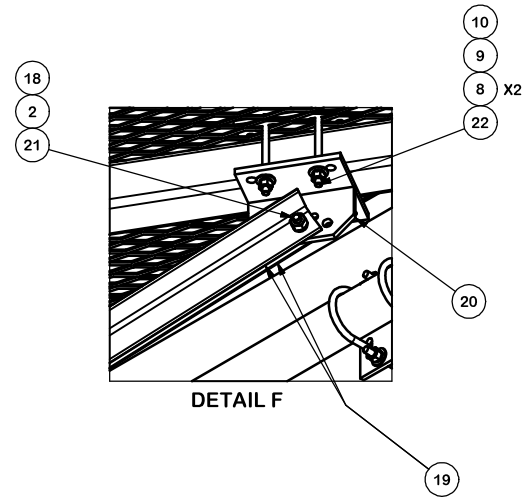
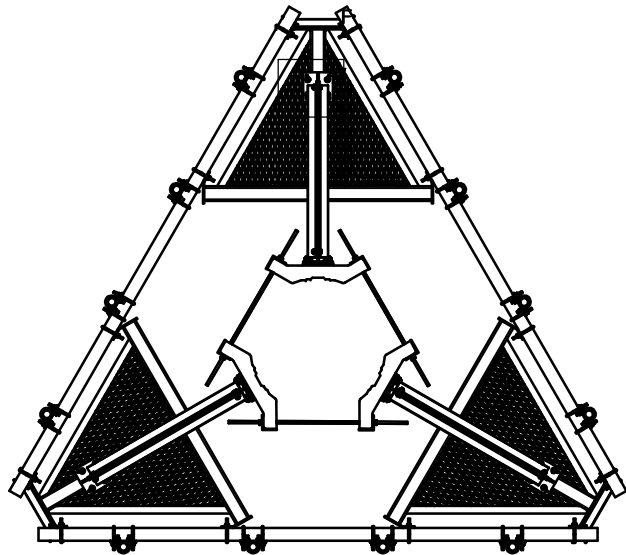
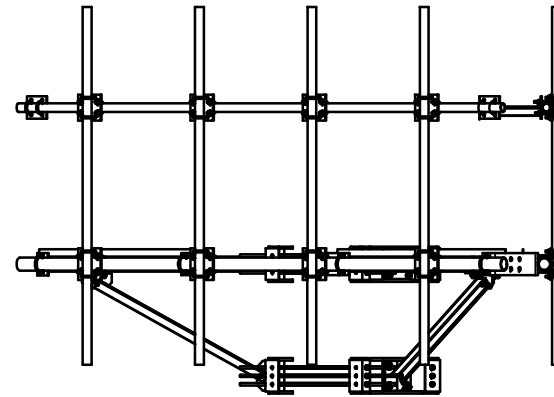
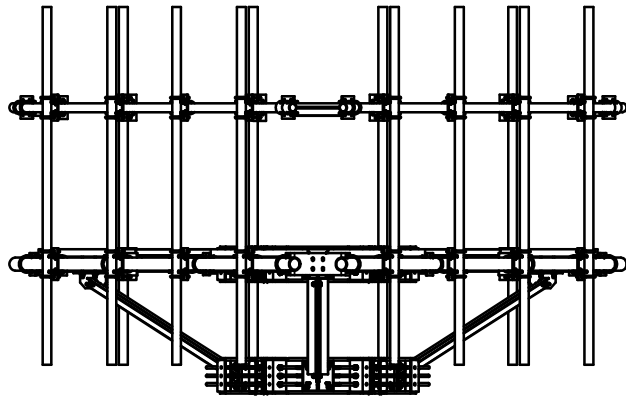
DESCRIPTION
 12' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUNTING
 PIPES, AND HANDRAIL

SITE PRO 1
 Engineering Support Team:
 1-888-753-7446
 Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

CPD NO.	4488	DRAWN BY	CEK	7/14/2014	ENG. APPROVAL
CLASS	81	SUB	02	DRAWING USAGE	CUSTOMER

PART NO.	RMQP-496-HK
DWG. NO.	RMQP-496-HK



DETAIL F

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.080"$)

PROPRIETARY NOTE:
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DESCRIPTION

12' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUTING
 PIPES, AND HANDRAIL



A valmont COMPANY

Engineering
 Support Team:
 1-888-753-7446

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
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 Salem, OR
 Dallas, TX

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

REVISION HISTORY

CPD NO. 4488	DRAWN BY CEK 7/14/2014	ENG. APPROVAL
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER
CHECKED BY BMC 7/14/2014		

PART NO. RMQP-496-HK	PAGE 3 OF 3
DWG. NO. RMQP-496-HK	

EXHIBIT E

Structural Analysis Report

Date: **February 19, 2024**



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: 5000387036
Site Name: Burnham ST CT

Crown Castle Designation: **BU Number:** 806375
Site Name: HRT 095 943237
JDE Job Number: 2107957
Work Order Number: 2283868
Order Number: 662901 Rev. 0

Engineering Firm Designation: **B+T Group Project Number:** 150051.002.01.0001

Site Data: **190 Burnham St, South Windsor, Hartford County, CT**
Latitude 41° 48' 0.49", Longitude -72° 36' 57.15"
110 Foot - Monopole 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:

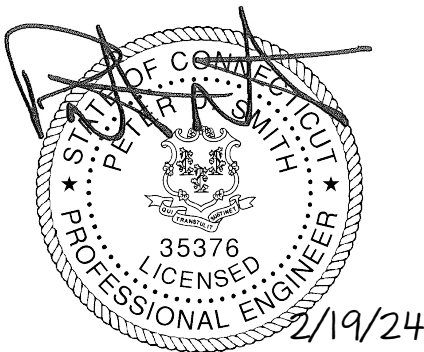
LC5: Proposed Equipment Configuration

Sufficient Capacity - 47.6%

This analysis utilizes an ultimate 3-second gust wind speed of 117 mph as required by the 2022 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Jennifer Tillson, E.I.

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 02/01/2024



Chad E. Tuttle, P.E.

tnxTower Report - version 8.2.2.0

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6) APPENDIX B

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7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 110 ft Monopole tower designed by Valmont.

2) ANALYSIS CRITERIA

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

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
104.0	108.0	3	Commscope	NHH-65B-R2B	8	1-5/8
		3	Commscope	NHHSS-65B-R2BT4		
		1	Raycap	RVZDC-6627-PF-48		
		3	Samsung Telecom.	MT6413-77A		
		3	Samsung Telecom.	RF4439D-25A		
		3	Samsung Telecom.	RF4461D-13A		
	3	Samsung Telecom.	RT4423-48A/B			
104.0	1	Site Pro 1	RMQP-496-HK Platform Mount			

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)
97.0	97.0	9	Decibel	DB844H90E-XY	12	7/8
		2	Gps	GPS		
		1	--	Platform Mount [LP 715-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Manufacturer Drawing	262106	CCI Sites
Foundation Drawing	262107	CCI Sites
Geotech Report	262109	CCI Sites
Crown CAD Package	Date: 02/13/2024	CCI Sites

3.1) Analysis Method

tnxTower (version 8.2.2.0), 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
L1	110 - 70	Pole	TP25.53x15.53x0.25	1	-9.223	1200.581	35.6	Pass
L2	70 - 34.083	Pole	TP34.02x24.03x0.313	2	-14.444	2007.358	42.5	Pass
L3	34.083 - 0	Pole	TP41.9x32.164x0.344	3	-22.667	2825.403	47.6	Pass
							Summary	
						Pole (L3)	47.6	Pass
						Rating =	47.6	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	Base	37.3	Pass
1,2	Base Plate	Base	25.1	Pass
1,2,3	Base Foundation	Base	46.7	Pass

Structure Rating (max from all components) =	47.6%
---	--------------

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.
- 3) Foundation capacity determined by comparing analysis reactions to original design reactions.

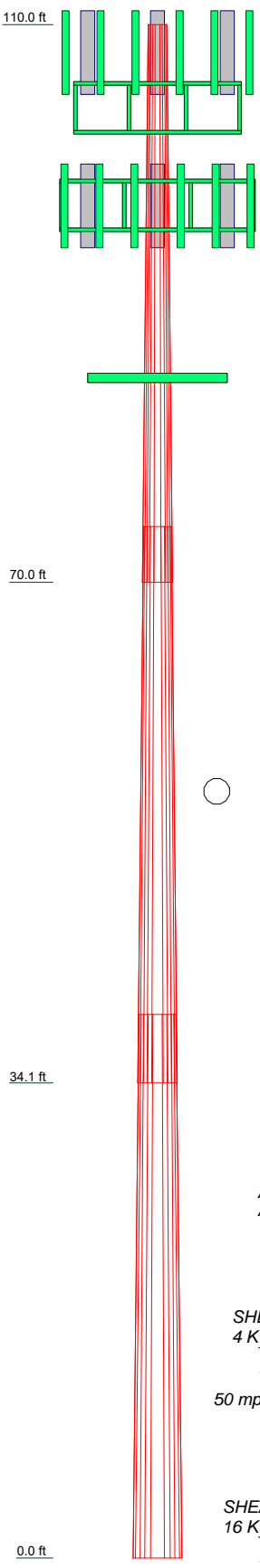
4.1) Recommendations

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	1	2	3	11.5
Length (ft)	40.000	39.917	39.000	11.5
Number of Sides	12	12	12	
Thickness (in)	0.250	0.312	0.344	
Socket Length (ft)	4.000	4.917		
Top Dia (in)	15.530	24.030	32.164	
Bot Dia (in)	25.530	34.020	41.900	
Grade		A572-65		
Weight (K)	2.2	3.9	5.4	

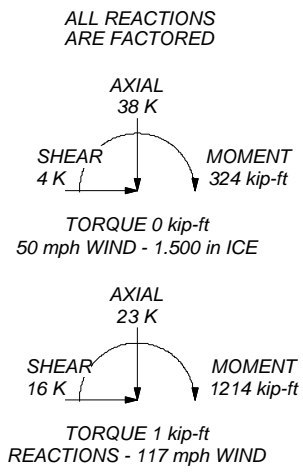


MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 117 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 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 0.000 ft
8. TIA-222-H Annex S
9. TOWER RATING: 47.6%



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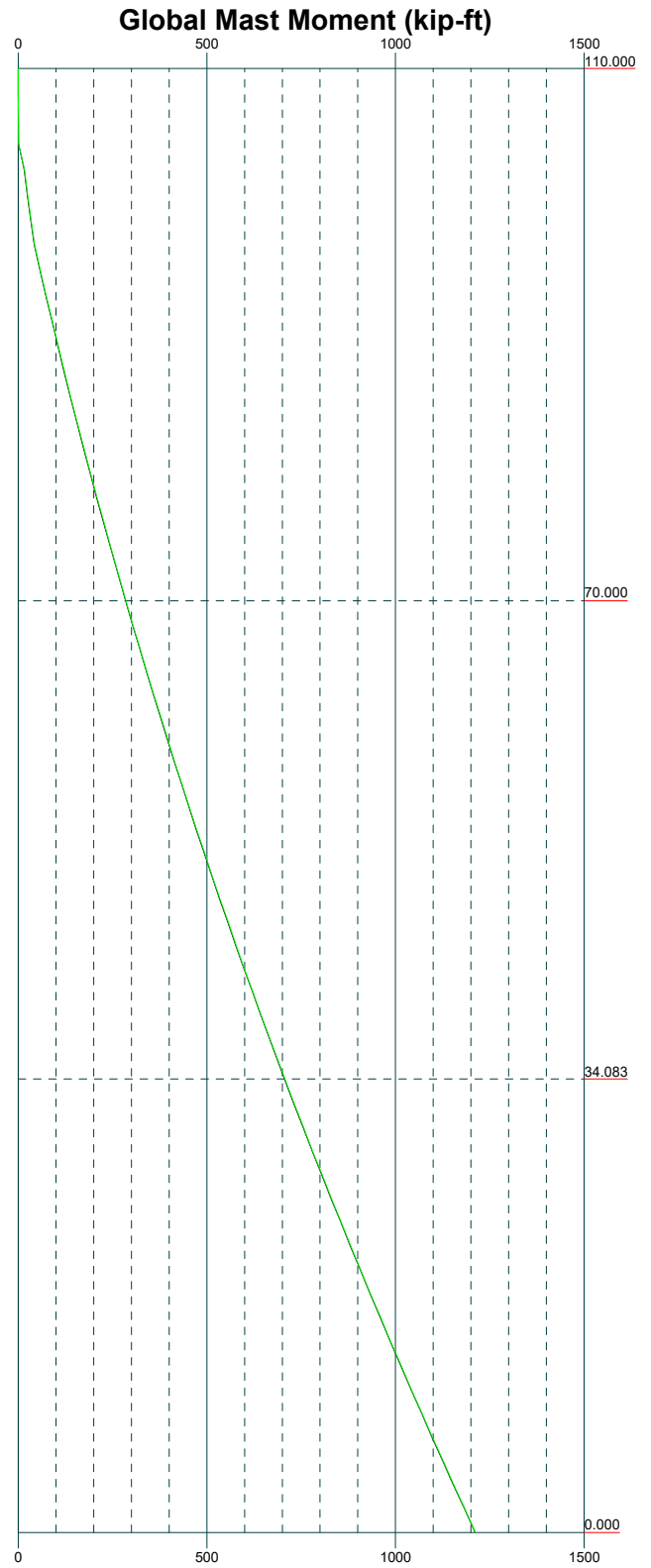
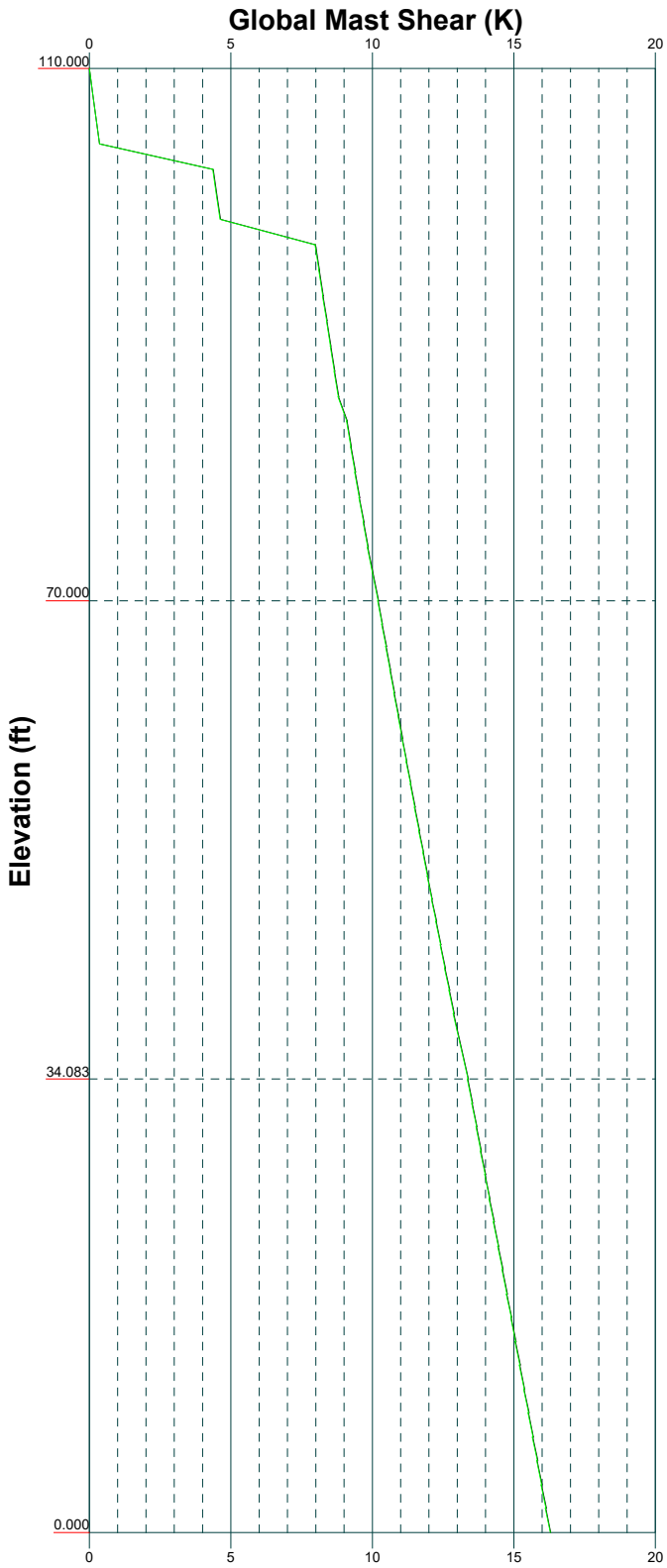
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Project:		
Client: Crown Castle	Drawn by: Pavan Upadhyia	App'd:
Code: TIA-222-H	Date: 02/15/24	Scale: NTS
Path:		Dwg No. E-1

Vx

Vz

Mx

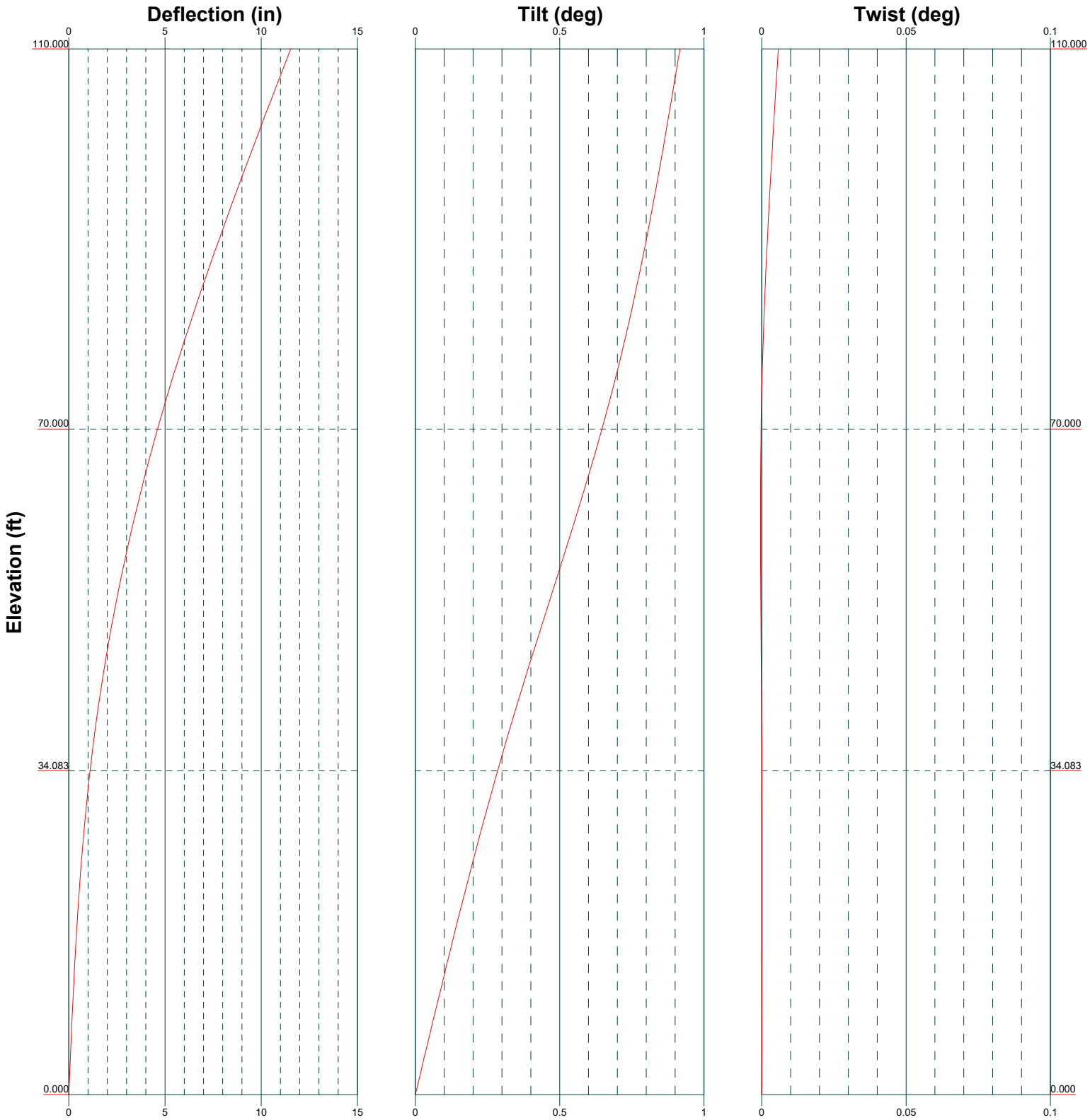
Mz



Elevation (ft)

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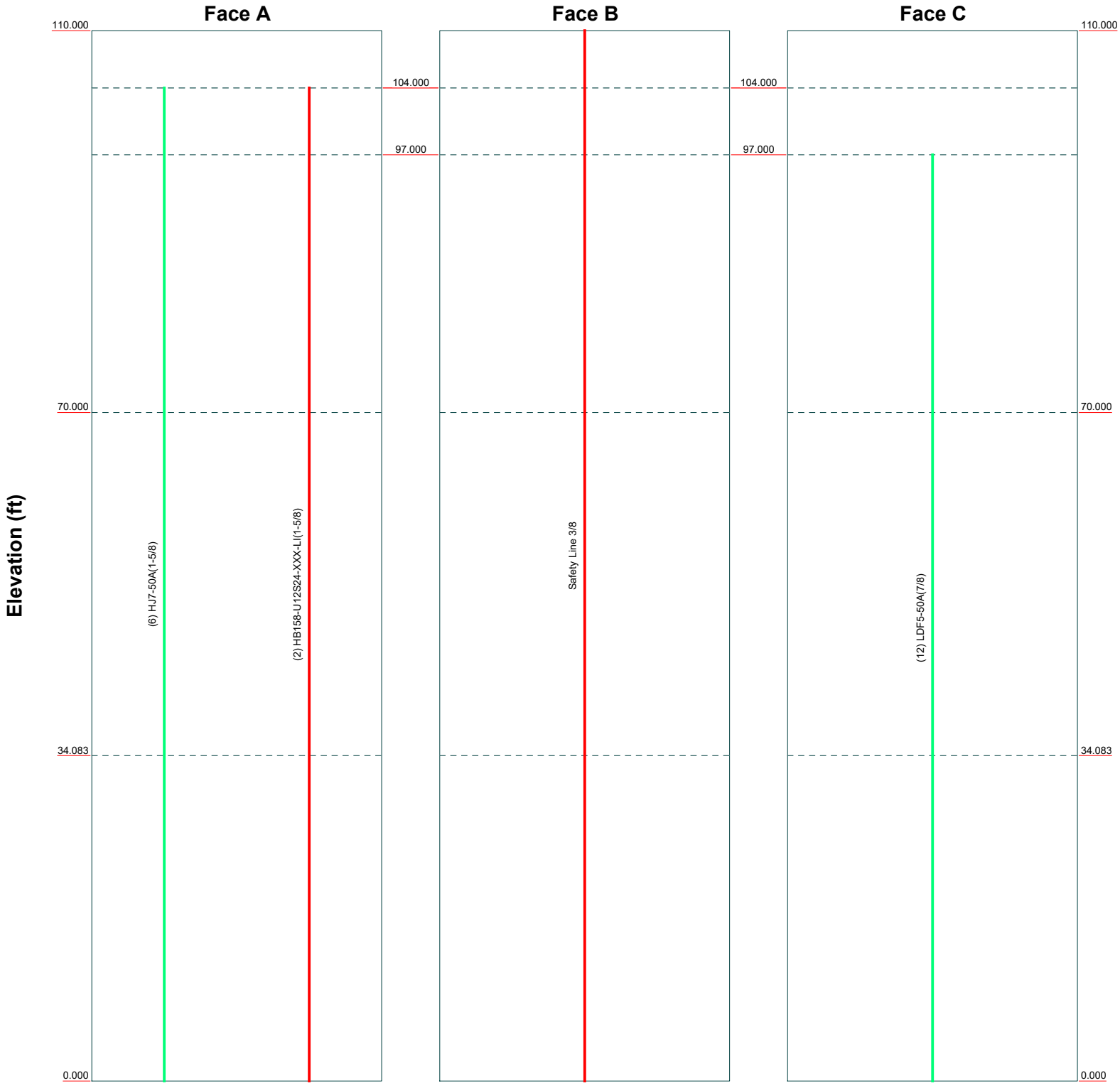
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Project:		
Client: Crown Castle	Drawn by: Pavan Upadhya	App'd:
Code: TIA-222-H	Date: 02/15/24	Scale: NTS
Path:	Dwg No. E-4	



Feed Line Distribution Chart

0' - 110'

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



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	Tulsa, OK 74119		Client: Crown Castle	Drawn by: Pavan Upadhya	App'd:
	Phone: (918) 587-4630		Code: TIA-222-H	Date: 02/15/24	Scale: NTS
	FAX: (918) 295-0265		Path:	Dwg No. E-7	

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	Project	Date 11:07:53 02/15/24
	Client Crown Castle	Designed by Pavan Upadhyia

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- Tower is located in Hartford County, Connecticut.
- Tower base elevation above sea level: 54.000 ft.
- Basic wind speed of 117 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.000 ft.
- Nominal ice thickness of 1.500 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.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification √ Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric Distribute Leg Loads As Uniform | <ul style="list-style-type: none"> Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurtenances √ Alternative Appurt. EPA Calculation Autocalc Torque Arm Areas Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs Use ASCE 10 X-Brace Ly Rules | <ul style="list-style-type: none"> Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <li style="text-align: center;">Poles √ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known |
|---|---|---|

Tapered Pole Section Geometry

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	Project	Date 11:07:53 02/15/24
	Client Crown Castle	Designed by Pavan Upadhy

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	110.000-70.000	40.000	4.000	12	15.530	25.530	0.250	1.000	A572-65 (65 ksi)
L2	70.000-34.083	39.917	4.917	12	24.030	34.020	0.312	1.250	A572-65 (65 ksi)
L3	34.083-0.000	39.000		12	32.164	41.900	0.344	1.375	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L1	15.990	12.300	366.566	5.470	8.045	45.567	742.762	6.054	3.492	13.968
	26.342	20.350	1660.019	9.050	13.225	125.526	3363.648	10.016	6.172	24.688
L2	25.804	23.866	1713.557	8.491	12.448	137.662	3472.131	11.746	5.603	17.928
	35.110	33.918	4918.939	12.067	17.622	279.131	9967.105	16.693	8.280	26.496
L3	34.449	35.222	4552.110	11.392	16.661	273.217	9223.809	17.335	7.699	22.397
	43.257	45.998	10138.964	14.877	21.704	467.143	20544.290	22.639	10.308	29.987

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 110.000-70.000	0			1	1	1			
L2 70.000-34.083				1	1	1			
L3 34.083-0.000				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
HB158-U12S24-XXX-L1 (1-5/8) * * *	A	No	Surface Ar (CaAa)	104.000 - 0.000	2	2	-0.300 -0.200	1.976		0.003
Safety Line 3/8 *	B	No	Surface Ar (CaAa)	110.000 - 0.000	1	1	0.440 0.450	0.375		0.000

Feed Line/Linear Appurtenances - Entered As Area

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	Project	Date 11:07:53 02/15/24
	Client Crown Castle	Designed by Pavan Upadhya

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight klf
HJ7-50A(1-5/8)	A	No	No	Inside Pole	104.000 - 0.000	6	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
							2" Ice	0.000	0.001
*									
LDF5-50A(7/8)	C	No	No	Inside Pole	97.000 - 0.000	12	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
							2" Ice	0.000	0.000
*									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	110.000-70.000	A	0.000	0.000	13.437	0.000	0.430
		B	0.000	0.000	1.500	0.000	0.009
		C	0.000	0.000	0.000	0.000	0.107
L2	70.000-34.083	A	0.000	0.000	14.194	0.000	0.454
		B	0.000	0.000	1.347	0.000	0.008
		C	0.000	0.000	0.000	0.000	0.142
L3	34.083-0.000	A	0.000	0.000	13.470	0.000	0.431
		B	0.000	0.000	1.278	0.000	0.007
		C	0.000	0.000	0.000	0.000	0.135

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 _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	110.000-70.000	A	1.407	0.000	0.000	28.758	0.000	0.712
		B		0.000	0.000	12.759	0.000	0.131
		C		0.000	0.000	0.000	0.000	0.107
L2	70.000-34.083	A	1.333	0.000	0.000	30.380	0.000	0.752
		B		0.000	0.000	11.456	0.000	0.118
		C		0.000	0.000	0.000	0.000	0.142
L3	34.083-0.000	A	1.192	0.000	0.000	28.194	0.000	0.695
		B		0.000	0.000	10.364	0.000	0.102
		C		0.000	0.000	0.000	0.000	0.135

Feed Line Center of Pressure

Section	Elevation ft	CP _X in	CP _Z in	CP _X Ice in	CP _Z Ice in
L1	110.000-70.000	-1.731	0.076	-1.344	0.336

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	Project	Date 11:07:53 02/15/24
	Client Crown Castle	Designed by Pavan Upadhyia

Section	Elevation	CP _x	CP _z	CP _x	CP _z
	ft	in	in	Ice in	Ice in
L2	70.000-34.083	-2.008	0.078	-1.762	0.373
L3	34.083-0.000	-2.045	0.081	-1.899	0.393

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	3	HB158-U12S24-XXX-LI(1-5/8)	70.00 - 104.00	1.0000	1.0000
L1	15	Safety Line 3/8	70.00 - 110.00	1.0000	1.0000
L2	3	HB158-U12S24-XXX-LI(1-5/8)	34.08 - 70.00	1.0000	1.0000
L2	15	Safety Line 3/8	34.08 - 70.00	1.0000	1.0000
L3	3	HB158-U12S24-XXX-LI(1-5/8)	0.00 - 34.08	1.0000	1.0000
L3	15	Safety Line 3/8	0.00 - 34.08	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			ft ft ft	°	ft	ft ²	ft ²	K	
NHHSS-65B-R2BT4 w/ Mount Pipe	A	From Leg	4.000	0.000	104.000	No Ice	3.880	3.120	0.090
			0.000			1/2" Ice	4.250	3.490	0.153
			4.000			1" Ice	4.630	3.860	0.226
						2" Ice	5.420	4.630	0.406
NHHSS-65B-R2BT4 w/ Mount Pipe	B	From Leg	4.000	0.000	104.000	No Ice	3.880	3.120	0.090
			0.000			1/2" Ice	4.250	3.490	0.153
			4.000			1" Ice	4.630	3.860	0.226
						2" Ice	5.420	4.630	0.406
NHHSS-65B-R2BT4 w/ Mount Pipe	C	From Leg	4.000	0.000	104.000	No Ice	3.880	3.120	0.090
			0.000			1/2" Ice	4.250	3.490	0.153
			4.000			1" Ice	4.630	3.860	0.226
						2" Ice	5.420	4.630	0.406
NHH-65B-R2B w/ Mount Pipe	A	From Leg	4.000	0.000	104.000	No Ice	4.095	3.295	0.069
			0.000			1/2" Ice	4.483	3.672	0.132
			4.000			1" Ice	4.880	4.058	0.205
						2" Ice	5.701	4.857	0.385
NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.000	0.000	104.000	No Ice	4.095	3.295	0.069
			0.000			1/2" Ice	4.483	3.672	0.132
			4.000			1" Ice	4.880	4.058	0.205

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz Lateral ft	Vert ft						°
NHH-65B-R2B w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	104.000	2" Ice	5.701	4.857	0.385
			0.000				No Ice	4.095	3.295	0.069
			4.000				1/2" Ice	4.483	3.672	0.132
							1" Ice	4.880	4.058	0.205
MT6413-77A w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	104.000	2" Ice	5.701	4.857	0.385
			0.000				No Ice	3.996	2.155	0.070
			4.000				1/2" Ice	4.310	2.555	0.103
							1" Ice	4.634	2.971	0.141
MT6413-77A w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	104.000	2" Ice	5.312	3.851	0.234
			0.000				No Ice	3.996	2.155	0.070
			4.000				1/2" Ice	4.310	2.555	0.103
							1" Ice	4.634	2.971	0.141
MT6413-77A w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	104.000	2" Ice	5.312	3.851	0.234
			0.000				No Ice	3.996	2.155	0.070
			4.000				1/2" Ice	4.310	2.555	0.103
							1" Ice	4.634	2.971	0.141
(3) RF4439D-25A	A	From Leg	4.000	0.000	0.000	104.000	2" Ice	5.312	3.851	0.234
			0.000				No Ice	1.865	1.252	0.075
			4.000				1/2" Ice	2.035	1.394	0.093
							1" Ice	2.212	1.544	0.114
(3) RF4461D-13A	B	From Leg	4.000	0.000	0.000	104.000	2" Ice	2.589	1.866	0.165
			0.000				No Ice	1.865	1.275	0.079
			4.000				1/2" Ice	2.035	1.419	0.098
							1" Ice	2.212	1.570	0.119
(3) RT4423-48A/B	C	From Leg	4.000	0.000	0.000	104.000	2" Ice	2.589	1.894	0.171
			0.000				No Ice	0.855	0.364	0.015
			4.000				1/2" Ice	0.973	0.450	0.022
							1" Ice	1.098	0.543	0.030
RVZDC-6627-PF-48	B	From Leg	4.000	0.000	0.000	104.000	2" Ice	1.370	0.755	0.053
			0.000				No Ice	3.792	2.514	0.032
			4.000				1/2" Ice	4.044	2.727	0.063
							1" Ice	4.303	2.947	0.099
5' x 2" Pipe Mount	A	From Leg	4.000	0.000	0.000	104.000	2" Ice	4.844	3.417	0.181
			0.000				No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
							1" Ice	1.807	1.807	0.040
5' x 2" Pipe Mount	B	From Leg	4.000	0.000	0.000	104.000	2" Ice	2.458	2.458	0.076
			0.000				No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
							1" Ice	1.807	1.807	0.040
5' x 2" Pipe Mount	C	From Leg	4.000	0.000	0.000	104.000	2" Ice	2.458	2.458	0.076
			0.000				No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
							1" Ice	1.807	1.807	0.040
5' x 2" Pipe Mount	B	From Leg	2.000	0.000	0.000	104.000	2" Ice	2.458	2.458	0.076
			0.000				No Ice	1.188	1.188	0.018
			2.000				1/2" Ice	1.496	1.496	0.027
							1" Ice	1.807	1.807	0.040
8' x 2" Mount Pipe	A	From Leg	4.000	0.000	0.000	104.000	2" Ice	2.458	2.458	0.076
			0.000				No Ice	1.900	1.900	0.029
			2.000				1/2" Ice	2.728	2.728	0.044
							1" Ice	3.401	3.401	0.063
8' x 2" Mount Pipe	B	From Leg	4.000	0.000	0.000	104.000	2" Ice	4.396	4.396	0.119
			0.000				No Ice	1.900	1.900	0.029
			2.000				1/2" Ice	2.728	2.728	0.044
							1" Ice	3.401	3.401	0.063
						2" Ice	4.396	4.396	0.119	

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Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight
				ft	°	°	ft	ft	ft ²	K
*										

Load Combinations

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

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Comb. No.	Description
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	110 - 70	Pole	Max Tension	8	0.000	0.000	0.000
			Max. Compression	26	-20.079	-1.915	0.661
			Max. Mx	8	-9.224	-245.435	-0.373
			Max. My	2	-9.226	-0.099	244.409
			Max. Vy	8	9.856	-245.435	-0.373
			Max. Vx	2	-9.840	-0.099	244.409
			Max. Torque	14			0.875
L2	70 - 34.083	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-27.487	-1.461	1.107
			Max. Mx	8	-14.445	-642.425	-1.076
			Max. My	2	-14.446	1.046	641.307
			Max. Vy	8	12.894	-642.425	-1.076
			Max. Vx	2	-12.878	1.046	641.307
			Max. Torque	14			0.874
L3	34.083 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-38.340	-0.779	1.685
			Max. Mx	8	-22.667	-1212.293	-1.789
			Max. My	2	-22.667	2.413	1211.231
			Max. Vy	8	16.304	-1212.293	-1.789
			Max. Vx	2	-16.289	2.413	1211.231
			Max. Torque	14			0.872

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	30	38.340	-4.153	-0.005
	Max. H _x	20	22.676	16.292	0.024
	Max. H _z	2	22.676	0.024	16.277
	Max. M _x	2	1211.231	0.024	16.277
	Max. M _z	8	1212.293	-16.292	-0.024
	Max. Torsion	14	0.872	-0.024	-16.277
	Min. Vert	17	17.007	8.125	-14.084
	Min. H _x	8	22.676	-16.292	-0.024
	Min. H _z	14	22.676	-0.024	-16.277
	Min. M _x	14	-1209.361	-0.024	-16.277
	Min. M _z	20	-1211.661	16.292	0.024
	Min. Torsion	2	-0.871	0.024	16.277

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Tower Mast Reaction Summary

Load Combination	Vertical	Shear _x	Shear _z	Overtuning Moment, M _x	Overtuning Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead Only	18.897	0.000	0.000	-0.756	-0.241	-0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	22.676	-0.024	-16.277	-1211.231	2.413	0.871
0.9 Dead+1.0 Wind 0 deg - No Ice	17.007	-0.024	-16.277	-1201.502	2.475	0.868
1.2 Dead+1.0 Wind 30 deg - No Ice	22.676	8.125	-14.084	-1047.725	-603.944	0.778
0.9 Dead+1.0 Wind 30 deg - No Ice	17.007	8.125	-14.084	-1039.278	-599.126	0.776
1.2 Dead+1.0 Wind 60 deg - No Ice	22.676	14.097	-8.118	-603.726	-1048.559	0.477
0.9 Dead+1.0 Wind 60 deg - No Ice	17.007	14.097	-8.118	-598.762	-1040.253	0.476
1.2 Dead+1.0 Wind 90 deg - No Ice	22.676	16.292	0.024	1.789	-1212.293	0.047
0.9 Dead+1.0 Wind 90 deg - No Ice	17.007	16.292	0.024	2.006	-1202.701	0.048
1.2 Dead+1.0 Wind 120 deg - No Ice	22.676	14.122	8.160	606.572	-1051.282	-0.395
0.9 Dead+1.0 Wind 120 deg - No Ice	17.007	14.122	8.160	602.048	-1042.949	-0.393
1.2 Dead+1.0 Wind 150 deg - No Ice	22.676	8.167	14.109	1048.574	-608.665	-0.732
0.9 Dead+1.0 Wind 150 deg - No Ice	17.007	8.167	14.109	1040.586	-603.803	-0.729
1.2 Dead+1.0 Wind 180 deg - No Ice	22.676	0.024	16.277	1209.361	-3.041	-0.872
0.9 Dead+1.0 Wind 180 deg - No Ice	17.007	0.024	16.277	1200.116	-2.927	-0.869
1.2 Dead+1.0 Wind 210 deg - No Ice	22.676	-8.125	14.084	1045.852	603.318	-0.778
0.9 Dead+1.0 Wind 210 deg - No Ice	17.007	-8.125	14.084	1037.889	598.675	-0.776
1.2 Dead+1.0 Wind 240 deg - No Ice	22.676	-14.097	8.118	601.851	1047.931	-0.476
0.9 Dead+1.0 Wind 240 deg - No Ice	17.007	-14.097	8.118	597.371	1039.800	-0.475
1.2 Dead+1.0 Wind 270 deg - No Ice	22.676	-16.292	-0.024	-3.664	1211.661	-0.046
0.9 Dead+1.0 Wind 270 deg - No Ice	17.007	-16.292	-0.024	-3.396	1202.247	-0.047
1.2 Dead+1.0 Wind 300 deg - No Ice	22.676	-14.122	-8.160	-608.444	1050.650	0.395
0.9 Dead+1.0 Wind 300 deg - No Ice	17.007	-14.122	-8.160	-603.435	1042.494	0.393
1.2 Dead+1.0 Wind 330 deg - No Ice	22.676	-8.167	-14.109	-1050.444	608.035	0.731
0.9 Dead+1.0 Wind 330 deg - No Ice	17.007	-8.167	-14.109	-1041.972	603.349	0.728
1.2 Dead+1.0 Ice+1.0 Temp	38.340	0.000	-0.000	-1.685	-0.779	-0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	38.340	-0.005	-4.149	-324.328	-0.284	0.208
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	38.340	2.072	-3.591	-280.839	-161.837	0.189
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	38.340	3.594	-2.071	-162.565	-280.247	0.120
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	38.340	4.153	0.005	-1.196	-323.786	0.019

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Load Combination	Vertical	Shear _x	Shear _z	Overturning Moment, M _x	Overturning Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	38.340	3.599	2.079	160.028	-280.787	-0.087
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	38.340	2.080	3.596	277.907	-162.772	-0.170
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	38.340	0.005	4.149	320.857	-1.363	-0.208
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	38.340	-2.072	3.591	277.367	160.191	-0.189
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	38.340	-3.594	2.071	159.093	278.601	-0.120
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	38.340	-4.153	-0.005	-2.276	322.139	-0.019
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	38.340	-3.599	-2.079	-163.499	279.140	0.088
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	38.340	-2.080	-3.596	-281.378	161.125	0.170
Dead+Wind 0 deg - Service	18.897	-0.006	-4.032	-299.144	0.413	0.216
Dead+Wind 30 deg - Service	18.897	2.012	-3.488	-258.834	-149.069	0.193
Dead+Wind 60 deg - Service	18.897	3.492	-2.011	-149.378	-258.677	0.118
Dead+Wind 90 deg - Service	18.897	4.035	0.006	-0.104	-299.042	0.012
Dead+Wind 120 deg - Service	18.897	3.498	2.021	148.990	-259.348	-0.098
Dead+Wind 150 deg - Service	18.897	2.023	3.495	257.954	-150.232	-0.181
Dead+Wind 180 deg - Service	18.897	0.006	4.032	297.592	-0.931	-0.216
Dead+Wind 210 deg - Service	18.897	-2.012	3.488	257.283	148.551	-0.193
Dead+Wind 240 deg - Service	18.897	-3.492	2.011	147.827	258.158	-0.118
Dead+Wind 270 deg - Service	18.897	-4.035	-0.006	-1.447	298.523	-0.012
Dead+Wind 300 deg - Service	18.897	-3.498	-2.021	-150.541	258.830	0.098
Dead+Wind 330 deg - Service	18.897	-2.023	-3.495	-259.506	149.714	0.181

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.000	-18.897	0.000	0.000	18.897	0.000	0.000%
2	-0.024	-22.676	-16.277	0.024	22.676	16.277	0.000%
3	-0.024	-17.007	-16.277	0.024	17.007	16.277	0.000%
4	8.125	-22.676	-14.084	-8.125	22.676	14.084	0.000%
5	8.125	-17.007	-14.084	-8.125	17.007	14.084	0.000%
6	14.097	-22.676	-8.118	-14.097	22.676	8.118	0.000%
7	14.097	-17.007	-8.118	-14.097	17.007	8.118	0.000%
8	16.292	-22.676	0.024	-16.292	22.676	-0.024	0.000%
9	16.292	-17.007	0.024	-16.292	17.007	-0.024	0.000%
10	14.122	-22.676	8.160	-14.122	22.676	-8.160	0.000%
11	14.122	-17.007	8.160	-14.122	17.007	-8.160	0.000%
12	8.167	-22.676	14.109	-8.167	22.676	-14.109	0.000%
13	8.167	-17.007	14.109	-8.167	17.007	-14.109	0.000%
14	0.024	-22.676	16.277	-0.024	22.676	-16.277	0.000%
15	0.024	-17.007	16.277	-0.024	17.007	-16.277	0.000%
16	-8.125	-22.676	14.084	8.125	22.676	-14.084	0.000%
17	-8.125	-17.007	14.084	8.125	17.007	-14.084	0.000%
18	-14.097	-22.676	8.118	14.097	22.676	-8.118	0.000%
19	-14.097	-17.007	8.118	14.097	17.007	-8.118	0.000%
20	-16.292	-22.676	-0.024	16.292	22.676	0.024	0.000%
21	-16.292	-17.007	-0.024	16.292	17.007	0.024	0.000%
22	-14.122	-22.676	-8.160	14.122	22.676	8.160	0.000%
23	-14.122	-17.007	-8.160	14.122	17.007	8.160	0.000%
24	-8.167	-22.676	-14.109	8.167	22.676	14.109	0.000%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
25	-8.167	-17.007	-14.109	8.167	17.007	14.109	0.000%
26	0.000	-38.340	0.000	-0.000	38.340	0.000	0.000%
27	-0.005	-38.340	-4.149	0.005	38.340	4.149	0.000%
28	2.072	-38.340	-3.591	-2.072	38.340	3.591	0.000%
29	3.594	-38.340	-2.071	-3.594	38.340	2.071	0.000%
30	4.153	-38.340	0.005	-4.153	38.340	-0.005	0.000%
31	3.599	-38.340	2.079	-3.599	38.340	-2.079	0.000%
32	2.080	-38.340	3.596	-2.080	38.340	-3.596	0.000%
33	0.005	-38.340	4.149	-0.005	38.340	-4.149	0.000%
34	-2.072	-38.340	3.591	2.072	38.340	-3.591	0.000%
35	-3.594	-38.340	2.071	3.594	38.340	-2.071	0.000%
36	-4.153	-38.340	-0.005	4.153	38.340	0.005	0.000%
37	-3.599	-38.340	-2.079	3.599	38.340	2.079	0.000%
38	-2.080	-38.340	-3.596	2.080	38.340	3.596	0.000%
39	-0.006	-18.897	-4.032	0.006	18.897	4.032	0.000%
40	2.012	-18.897	-3.488	-2.012	18.897	3.488	0.000%
41	3.492	-18.897	-2.011	-3.492	18.897	2.011	0.000%
42	4.035	-18.897	0.006	-4.035	18.897	-0.006	0.000%
43	3.498	-18.897	2.021	-3.498	18.897	-2.021	0.000%
44	2.023	-18.897	3.495	-2.023	18.897	-3.495	0.000%
45	0.006	-18.897	4.032	-0.006	18.897	-4.032	0.000%
46	-2.012	-18.897	3.488	2.012	18.897	-3.488	0.000%
47	-3.492	-18.897	2.011	3.492	18.897	-2.011	0.000%
48	-4.035	-18.897	-0.006	4.035	18.897	0.006	0.000%
49	-3.498	-18.897	-2.021	3.498	18.897	2.021	0.000%
50	-2.023	-18.897	-3.495	2.023	18.897	3.495	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00039088
3	Yes	4	0.00000001	0.00024821
4	Yes	5	0.00000001	0.00014716
5	Yes	5	0.00000001	0.00006807
6	Yes	5	0.00000001	0.00013489
7	Yes	5	0.00000001	0.00006203
8	Yes	4	0.00000001	0.00009168
9	Yes	4	0.00000001	0.00003796
10	Yes	5	0.00000001	0.00013688
11	Yes	5	0.00000001	0.00006300
12	Yes	5	0.00000001	0.00014785
13	Yes	5	0.00000001	0.00006838
14	Yes	4	0.00000001	0.00043107
15	Yes	4	0.00000001	0.00027439
16	Yes	5	0.00000001	0.00013078
17	Yes	5	0.00000001	0.00006031
18	Yes	5	0.00000001	0.00014242
19	Yes	5	0.00000001	0.00006599
20	Yes	4	0.00000001	0.00008524
21	Yes	4	0.00000001	0.00002993
22	Yes	5	0.00000001	0.00014419
23	Yes	5	0.00000001	0.00006660
24	Yes	5	0.00000001	0.00013380
25	Yes	5	0.00000001	0.00006156

tnxTower B+T Group 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 150051.002.01.0001 - HRT 093 943228, CT (BU# 806372)	Page 12 of 14
	Project	Date 11:07:53 02/15/24
	Client Crown Castle	Designed by Pavan Upadhyia

26	Yes	4	0.00000001	0.00001619
27	Yes	5	0.00000001	0.00011042
28	Yes	5	0.00000001	0.00012407
29	Yes	5	0.00000001	0.00012354
30	Yes	5	0.00000001	0.00011099
31	Yes	5	0.00000001	0.00012277
32	Yes	5	0.00000001	0.00012292
33	Yes	5	0.00000001	0.00010887
34	Yes	5	0.00000001	0.00011929
35	Yes	5	0.00000001	0.00011976
36	Yes	5	0.00000001	0.00010820
37	Yes	5	0.00000001	0.00012163
38	Yes	5	0.00000001	0.00012149
39	Yes	4	0.00000001	0.00002924
40	Yes	4	0.00000001	0.00007861
41	Yes	4	0.00000001	0.00006006
42	Yes	4	0.00000001	0.00001145
43	Yes	4	0.00000001	0.00006046
44	Yes	4	0.00000001	0.00007731
45	Yes	4	0.00000001	0.00002963
46	Yes	4	0.00000001	0.00005598
47	Yes	4	0.00000001	0.00007016
48	Yes	4	0.00000001	0.00001126
49	Yes	4	0.00000001	0.00007073
50	Yes	4	0.00000001	0.00005793

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	110 - 70	11.526	42	0.918	0.004
L2	74 - 34.083	5.187	42	0.681	0.001
L3	39 - 0	1.408	50	0.334	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
104.000	NHHSS-65B-R2BT4 w/ Mount Pipe	42	10.390	0.884	0.004	31442
97.000	(3) DB844H90E-XY w/ Mount Pipe	42	9.082	0.844	0.003	14511
85.000	Side Arm Mount [SO 102-3]	42	6.946	0.766	0.002	7545

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	110 - 70	46.650	10	3.698	0.017
L2	74 - 34.083	21.045	10	2.763	0.005

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	Project	Date 11:07:53 02/15/24
	Client Crown Castle	Designed by Pavan Upadhya

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L3	39 - 0	5.708	22	1.353	0.002

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
104.000	NHHSS-65B-R2BT4 w/ Mount Pipe	10	42.062	3.567	0.014	7906
97.000	(3) DB844H90E-XY w/ Mount Pipe	10	36.783	3.408	0.012	3648
85.000	Side Arm Mount [SO 102-3]	10	28.158	3.104	0.008	1895

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L1	110 - 70 (1)	TP25.53x15.53x0.25	40.000	0.000	0.0	19.545	-9.223	1143.410	0.008
L2	70 - 34.083 (2)	TP34.02x24.03x0.313	39.917	0.000	0.0	32.680	-14.444	1911.770	0.008
L3	34.083 - 0 (3)	TP41.9x32.164x0.344	39.000	0.000	0.0	45.998	-22.667	2690.860	0.008

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{ux} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	M _{uy} kip-ft	φM _{uy} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L1	110 - 70 (1)	TP25.53x15.53x0.25	245.675	672.733	0.365	0.000	672.733	0.000
L2	70 - 34.083 (2)	TP34.02x24.03x0.313	643.239	1466.900	0.439	0.000	1466.900	0.000
L3	34.083 - 0 (3)	TP41.9x32.164x0.344	1214.108	2471.708	0.491	0.000	2471.708	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V _u K	φV _n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T _u kip-ft	φT _n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	110 - 70 (1)	TP25.53x15.53x0.25	9.874	343.022	0.029	0.396	732.606	0.001
L2	70 - 34.083 (2)	TP34.02x24.03x0.313	12.911	573.532	0.023	0.395	1638.450	0.000
L3	34.083 - 0 (3)	TP41.9x32.164x0.344	16.322	807.257	0.020	0.395	2950.858	0.000

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	Project	Date 11:07:53 02/15/24
	Client Crown Castle	Designed by Pavan Upadhya

Pole Interaction Design Data

Section No.	Elevation ft	Ratio P_u	Ratio M_{ux}	Ratio M_{uy}	Ratio V_u	Ratio T_u	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		ϕP_n	ϕM_{ux}	ϕM_{uy}	ϕV_n	ϕT_n			
L1	110 - 70 (1)	0.008	0.365	0.000	0.029	0.001	0.374	1.050	✓
L2	70 - 34.083 (2)	0.008	0.439	0.000	0.023	0.000	0.447	1.050	✓
L3	34.083 - 0 (3)	0.008	0.491	0.000	0.020	0.000	0.500	1.050	✓

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	110 - 70	Pole	TP25.53x15.53x0.25	1	-9.223	1200.581	35.6	Pass
L2	70 - 34.083	Pole	TP34.02x24.03x0.313	2	-14.444	2007.358	42.5	Pass
L3	34.083 - 0	Pole	TP41.9x32.164x0.344	3	-22.667	2825.403	47.6	Pass
Summary								
Pole (L3)							47.6	Pass
RATING =							47.6	Pass

APPENDIX B
BASE LEVEL DRAWING

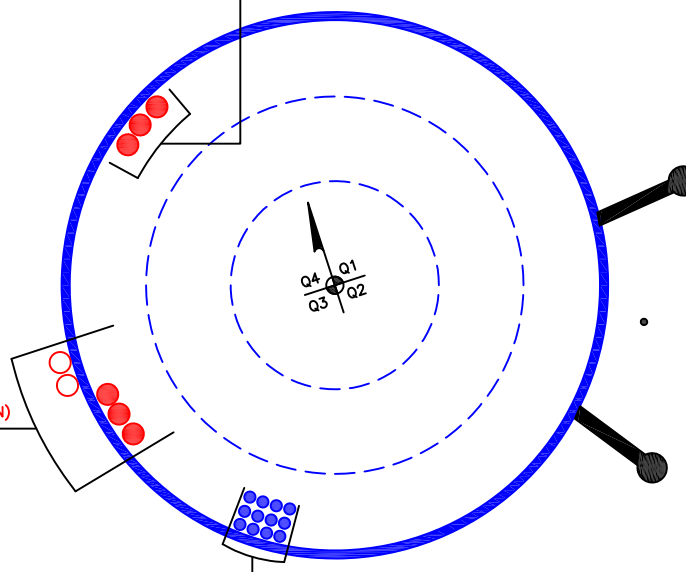
(PROPOSED EQUIPMENT CONFIGURATION)
(3) 1-5/8" TO 104 FT LEVEL

(PROPOSED EQUIPMENT CONFIGURATION)
(5) 1-5/8" TO 104 FT LEVEL

CLIMBING PEGS
W/SAFETY CLIMB

(OTHER CONSIDERED EQUIPMENT)
(12) 7/8" TO 97 FT LEVEL

BUSINESS UNIT: 806375



APPENDIX C
ADDITIONAL CALCULATIONS

Monopole Base Plate Connection

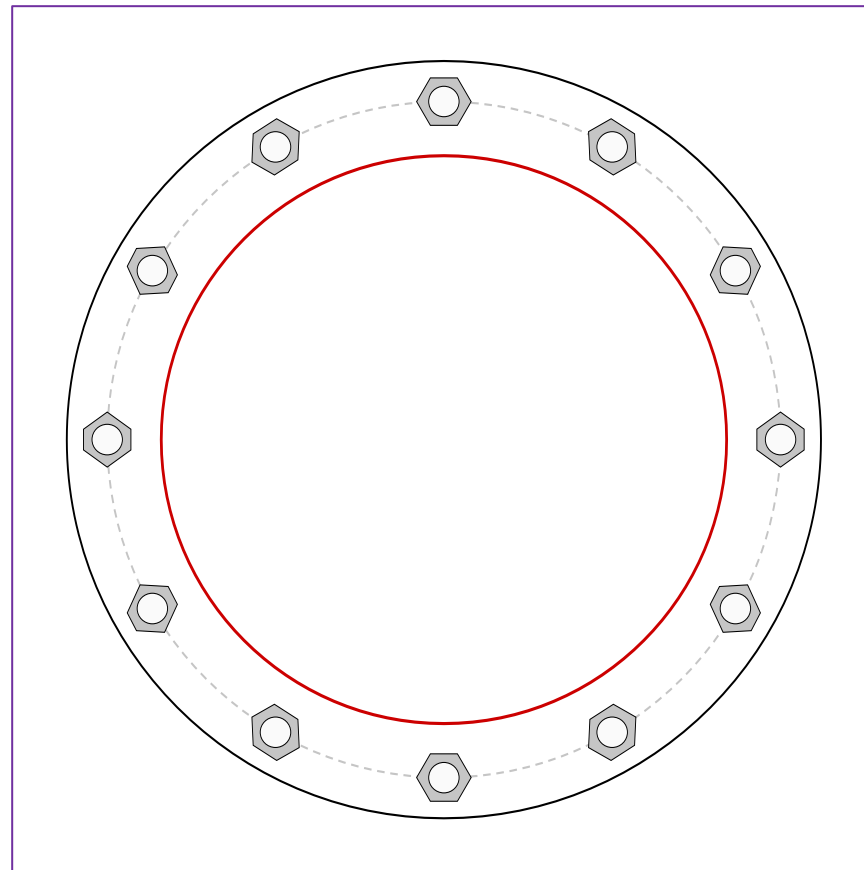


Site Info	
BU #	806372
Site Name	HRT 093 943228, CT
Order #	662901, Rev# 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	2.5

Applied Loads	
Moment (kip-ft)	1214.11
Axial Force (kips)	22.67
Shear Force (kips)	16.32

*TIA-222-H Section 15.5 Applied



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

Anchor Rod Data
(12) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 49.88" BC
Base Plate Data
55.88" OD x 2.5" Plate (S-128; $F_y=60$ ksi, $F_u=80$ ksi)
Stiffener Data
N/A
Pole Data
41.9" x 0.34375" 12-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)

Anchor Rod Summary		
<i>(units of kips, kip-in)</i>		
$P_{u,t} = 95.39$	$\phi P_{n,t} = 243.75$	Stress Rating
$V_u = 1.36$	$\phi V_n = 149.1$	37.3%
$M_u = 2.21$	$\phi M_n = 128.14$	Pass
Base Plate Summary		
Max Stress (ksi):	14.24	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	25.1%	Pass

PROJECT	150051.002.01.0001 - HRT 095 94323
SUBJECT	Foundation Reaction Comparison
DATE	02/15/24



v1.3.2

TIA Rev. H - Monopole

Base Reaction Type	Unfactored Original Design Reactions		Factored Reactions		Rating % with TIA-222-H Seciton 15.5 applied	
	Value	Unit	Value	Unit	Rating %	Result
MP Overturning Moment	1947.417	kip-ft	1214	kip-ft	44.0%	Pass
MP Base Shear	24.176	kips	16	kips	46.7%	Pass

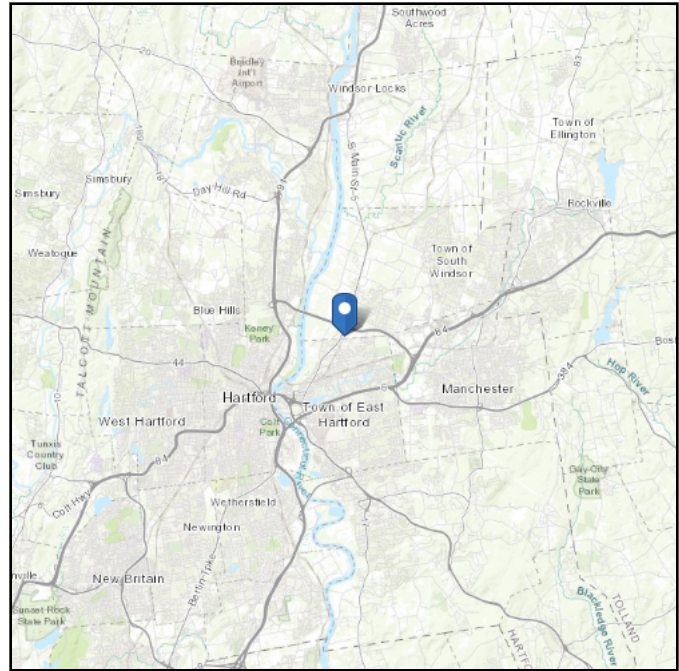
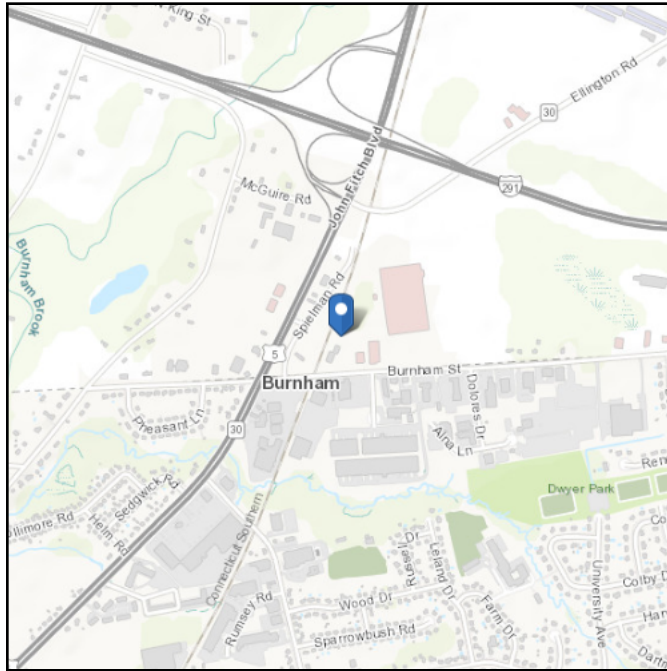
*****Design Reactions as per CCI Doc:262106 (P-2/12)**

ASCE 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)

Latitude: 41.800136
Longitude: -72.615875
Elevation: 53.58987138679184 ft (NAVD 88)



Wind

Results:

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

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

Date Accessed: Wed Feb 14 2024

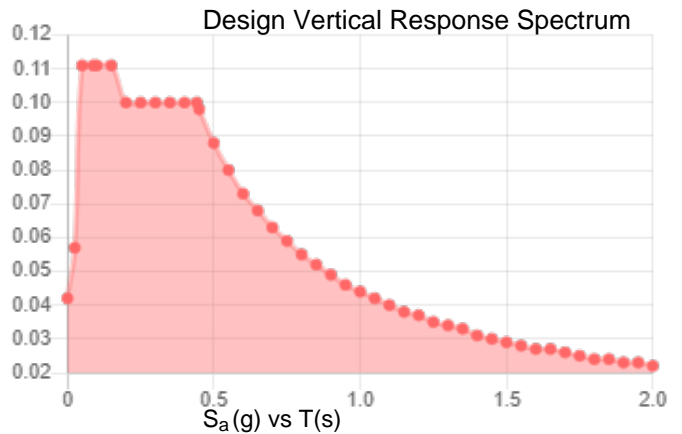
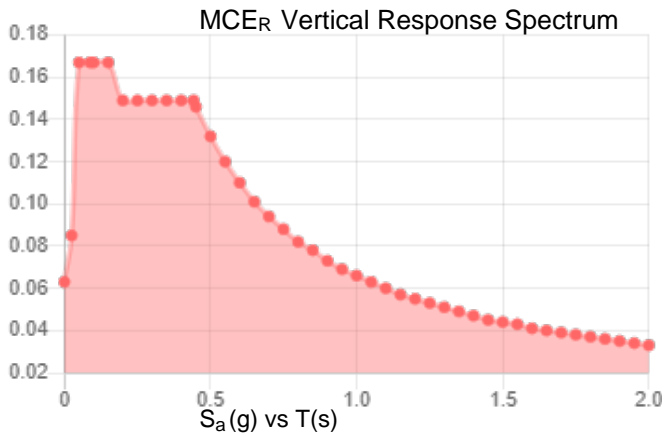
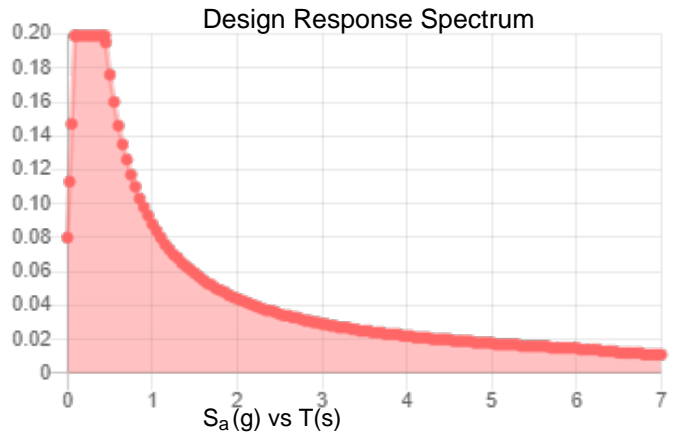
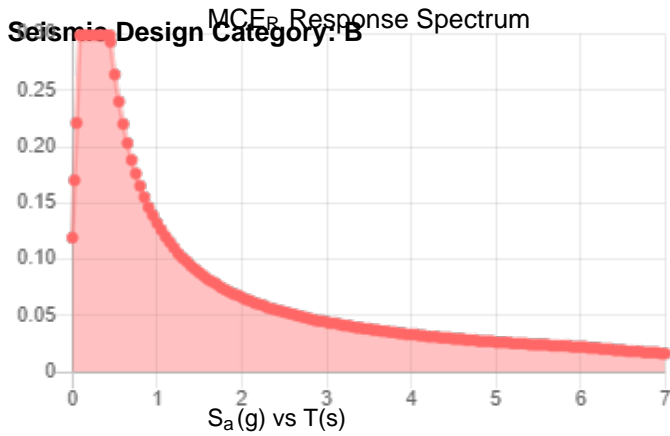
Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance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

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

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

Results:

S_s :	0.187	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.1
F_v :	2.4	PGA _M :	0.16
S_{MS} :	0.299	F_{PGA} :	1.6
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.199	C_v :	0.7



Data Accessed: Wed Feb 14 2024

Date Source:

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

Ice

Results:

Ice Thickness: 1.50 in.
Concurrent Temperature: 5 F
Gust Speed 50 mph

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

Date Accessed: Wed Feb 14 2024

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

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

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

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

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

EXHIBIT F

Mount Analysis Report

Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT P.C.
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@collierseng.com

New/Replacement Antenna Mount Analysis Report and PMI Requirements

Mount Analysis-R

SMART Tool Project #: 10215312
Colliers Engineering & Design Project #: 21777001 (Rev 1)

December 13, 2023

Site Information

Site ID: 5000387036-VZW / Burham St CT
Site Name: Burham St
Carrier Name: Verizon Wireless
Address: 190 Burnham St
South Windsor, Connecticut 06074
Hartford County
Latitude: 41.800099°
Longitude: -72.615643°

Structure Information

Tower Type: 106-Ft Monopole
Mount Type: 12.50-Ft Platform

FUZE ID # 16231955

Analysis Results

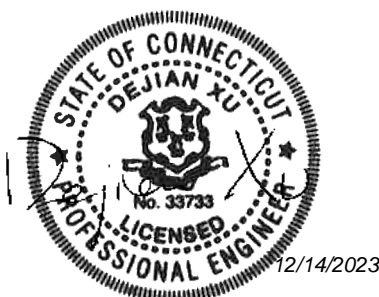
Platform: **55.0% Pass w/ Mount Replacement***
(1) Site Pro 1 RMQP-496-Hk

***Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

***Contractor PMI Requirements:

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzsmart.com>
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Grant Walters



Executive Summary:

The objective of this report is to determine the capacity of the proposed antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. The proposed mount was assumed to be installed properly to the existing tower per the manufacturer’s instructions. Colliers Engineering & Design cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

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
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS Site ID: 323512, dated September 18, 2023</i>
<i>Mount Mapping Report</i>	<i>Structural Components Site ID: 16231955, dated February 18, 2021</i>
<i>Previous Mount Analysis</i>	<i>Colliers Engineering & Design Project #: 21777001 (Rev 1) Dated November 22, 2023</i>
<i>Mount Specification</i>	<i>Site Pro 1 part #: RMQP-496-HK</i>

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code, Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.50 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.998
Seismic Parameters:	S_s : 0.183 g S_1 : 0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
104.00	108.00	3	Samsung	MT6413-77A	Added
		3	Commscope	NHH-65B-R2B	
		3	Commscope	NHHSS-65B-R2BT4	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4461d-13A	
		3	Samsung	RT4423-48A	
		1	Raycap	RVZDC-6627-PF-48	

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.

Model Number	Ports	AKA
DB-B1-6C-24AB-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 Colliers Engineering & Design 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 Colliers Engineering & Design 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.
3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, 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. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	17.2 %	Pass
Standoff Horizontal	15.7 %	Pass
Platform Crossmember	12.3 %	Pass
Mount Pipe	55.0 %	Pass
Corner Plate	22.6 %	Pass
Grating Support	11.5 %	Pass
Cross Arm Plate	27.1 %	Pass
Support Rail	37.3 %	Pass
Support Rail Corner	54.7 %	Pass
Kicker	9.4 %	Pass
Mount Connection	15.1 %	Pass
Structure Rating – (Controlling Utilization of all Components)		55.0%

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector B Standoff	104	N2	850	5056	0.741	1.099	742	3602	0.779	0.327
Sector A Standoff	104	N3	761	4827	0.756	0.982	555	3519	0.659	0.295
Sector C Standoff	104	N4	767	4877	0.763	0.986	558	3535	0.660	0.293
Sector B Reinforcement	101	N187	2520	2897	0.000	0.000	2758	3155	0.000	0.000
Sector A Reinforcement	101	N189	2474	2843	0.000	0.000	2725	3117	0.000	0.000
Sector C Reinforcement	101	N191	2494	2865	0.000	0.000	2735	3129	0.000	0.000

Notes:

- Axial loads act along the axis of the tower leg
- Lateral reactions act perpendicular to the tower leg
- Moment loads introduce bending moment to the tower leg
- Torsion loads introduce twisting moment to the tower leg
- Batch solutions by individual load cases are included at the end of this document

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	27.9	27.9	45.0	45.0
0.5	36.7	36.7	61.0	61.0
1	44.5	44.5	76.0	76.0

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The proposed antenna mounts is **SUFFICIENT** for the final loading configuration (attachment 2) upon completion of the mount replacement (attachment 3) and requirements below.

Refer to document at the end of this form for special instructions. Contact EOR if special instructions are not available.

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. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Manufacturer Drawings
4. Existing Mount Photos
5. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **New Mount Passing MA**

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>

For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000387036

SMART Project #: 10215312

Fuze Project ID: 16231955

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

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

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built mount drawings” showing contractor’s name, contact information, preparer’s signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped.
- Photos should be high resolution.
- 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. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

Photo Requirements:

- Photos taken at ground level
 - Photo of Gate Signs showing the tower owner, site name, and number.
 - Overall tower structure after installation.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- Photos taken at Mount Elevation
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation of mounts. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.
- Photos of each installed mount; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the installed mount elevation.

Antenna & Equipment Placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.
 - The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

- The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

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

Issue:

Refer to document at the end of this form for special instructions. Contact EOR if special instructions are not available.

Response:

Special Instruction Confirmation:

- The contractor has read and acknowledges the above special instructions.

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

- Yes No

Contractor certifies no new damage created during the current installation:

- Yes No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

Safety Climb in Good Condition

Safety Climb Damaged

Comments:

--

New Mount Certification:

- The contractor certifies that the New Mount installed is as specified in the Passing Mount Analysis.
- The contractor notes that the New Mount installed is not as specified and engineering approval was received for the New Mount installed.

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	



MDG #: **5000387036**

Site Name: **Burham St**

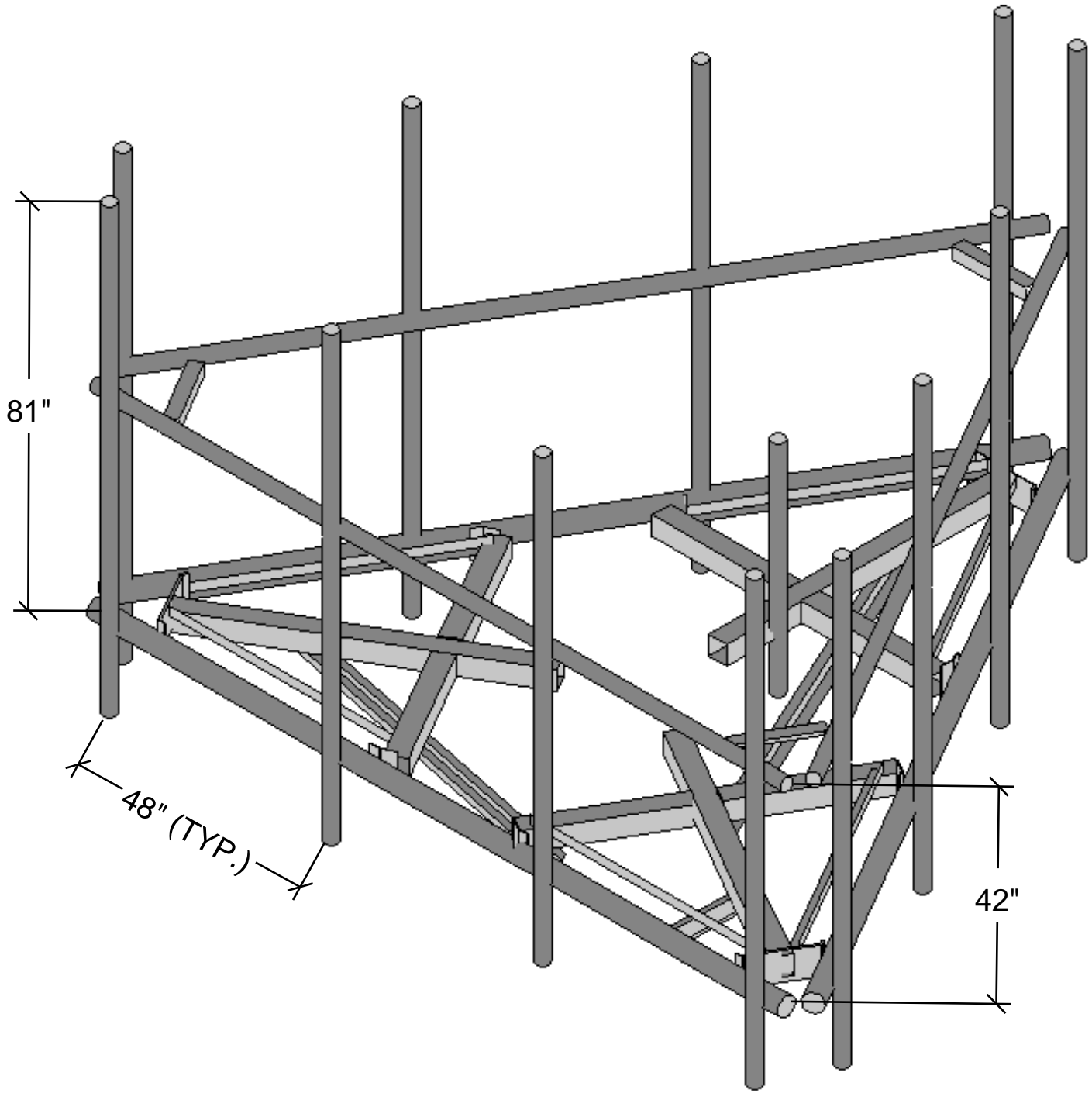
Fuze ID #: **16231955**

Colliers Engineering & Design Project #: **21777001**

PMI INSTRUCTIONS:

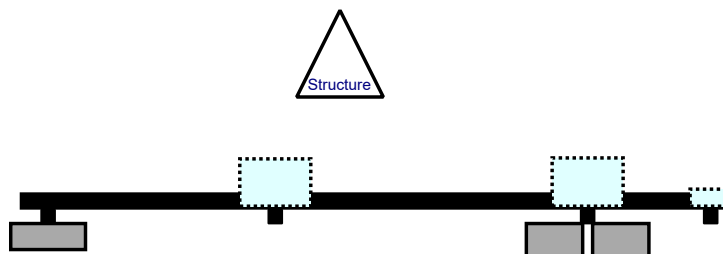
1. Contractor shall remove existing mount and associated hardware. Contractor shall restore any degradation in galvanization on tower due to removed mount and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote).
2. Contractor shall install the proposed Site Pro 1 RMQP-496-HK mount in accordance with manufacturer specifications and the Mount Replacement Sketch. Contact EOR if these documents are not available.
3. Contractor shall install (4) 96" long P2 STD mount pipes per mount. Refer to placement diagrams and the Mount Replacement Sketch. Contact EOR if these documents are not available.
4. Contractor shall install proposed support rail 42" above face horizontal. Refer to Mount Replacement Sketch.
5. Contractor shall install mount pipes with vertical offsets as shown in the Mount Replacement Sketch.
6. Contractor shall install OVPs on new 48" long P2 STD pipe connected to the standoff arm between Beta/Gamma sector
7. Contractor shall inspect climbing facilities and safety climb and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote).
8. Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

MOUNT REPLACEMENT SKETCH

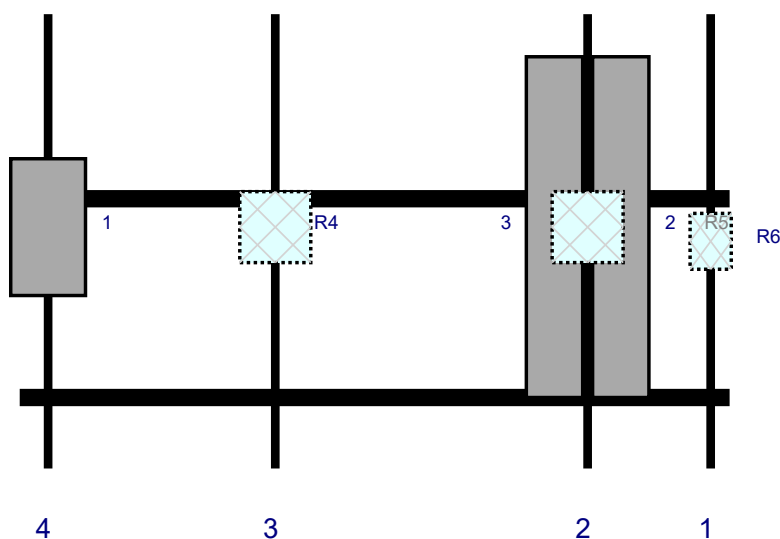


MOUNT ISOMETRIC VIEW
N.T.S

Plan View

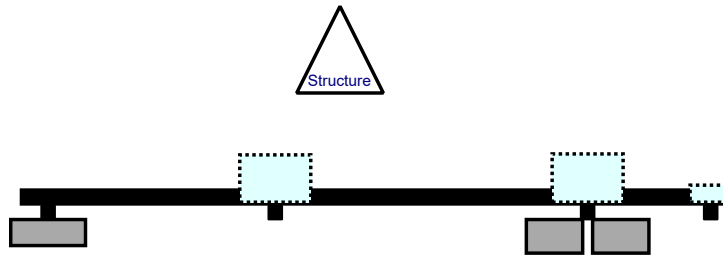


Front View - Looking at Structure

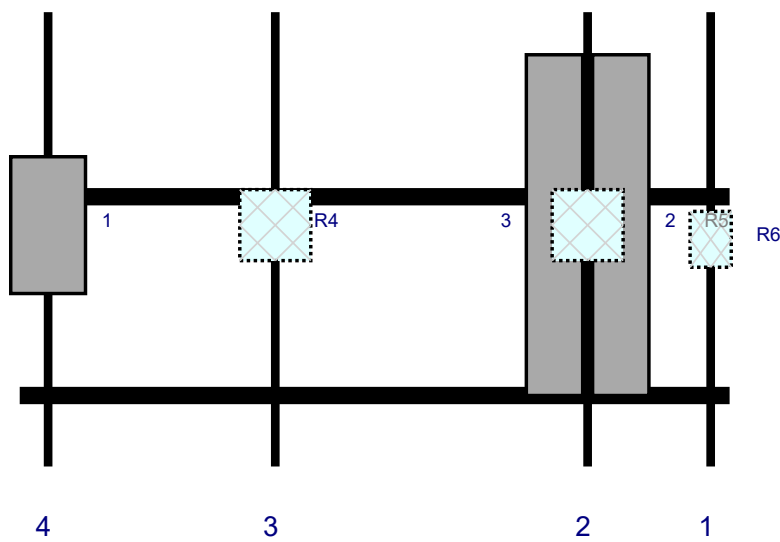


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	nt Pos	C. nt Frm T.	nt H Off	Status	Validation
R6	RT4423-48 (DC)	11.8	8.7	146	1	a	Behind	48		dded	
2	NHH-65B-R2B	72	11.9	12	2	a	Front	45	7	dded	
3	NHHSS-65B-R2BT4	72	11.9	12	2	a	Front	45	-7	dded	
R5	RF4461d-13	15	15	12	2	a	Behind	45		dded	
R4	RF4439d-25	15	15	54	3	a	Behind	45		dded	
1	MT6413-77	28.9	15.8	6	4	a	Front	45		dded	
OVP	RVZDC-6627-PF-48	28.9	15.7			Member				dded	

Plan View

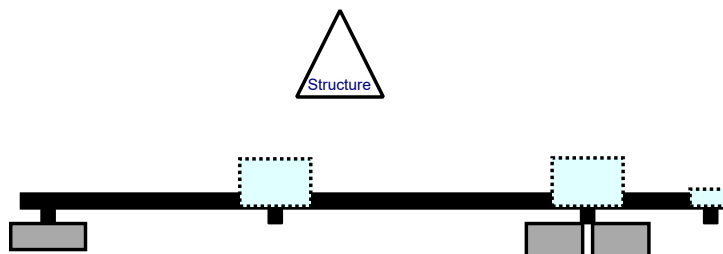


Front View - Looking at Structure

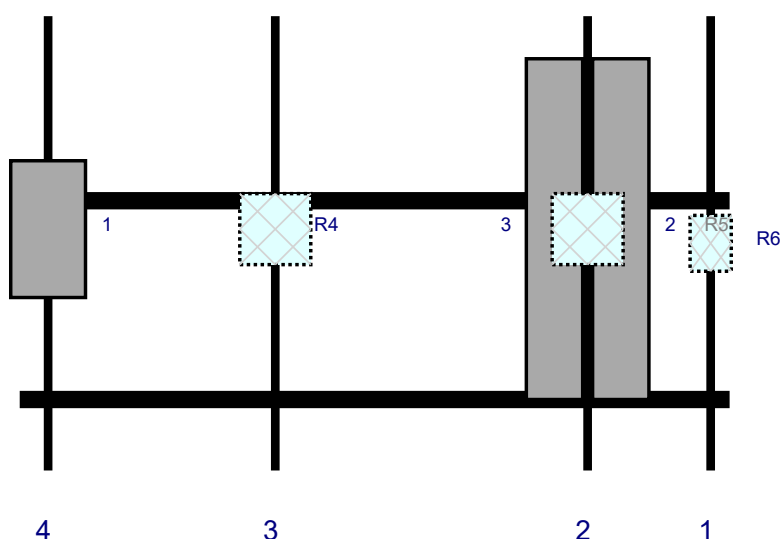


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	nt Pos	C. nt Frm T.	nt H Off	Status	Validation
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2	NHH-65B-R2B	72	11.9	12	2	a	Front	45	7	dded	
3	NHHSS-65B-R2BT4	72	11.9	12	2	a	Front	45	-7	dded	
R5	RF4461d-13	15	15	12	2	a	Behind	45		dded	
R4	RF4439d-25	15	15	54	3	a	Behind	45		dded	
1	MT6413-77	28.9	15.8	6	4	a	Front	45		dded	

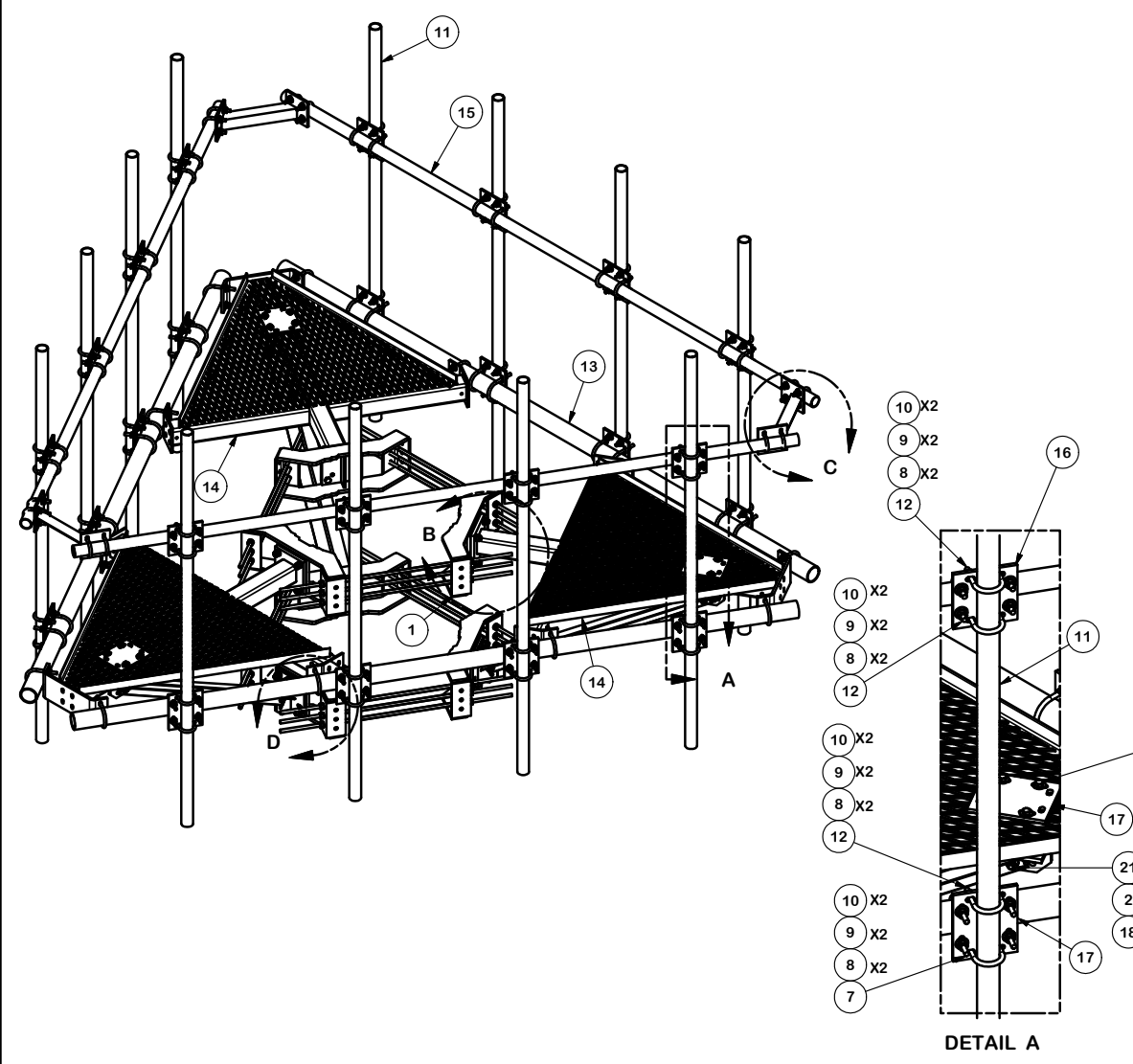
Plan View



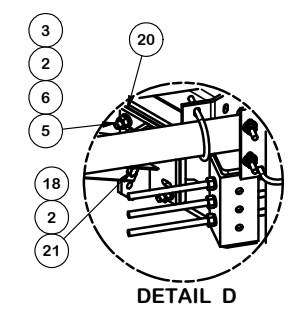
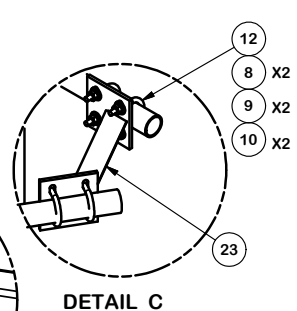
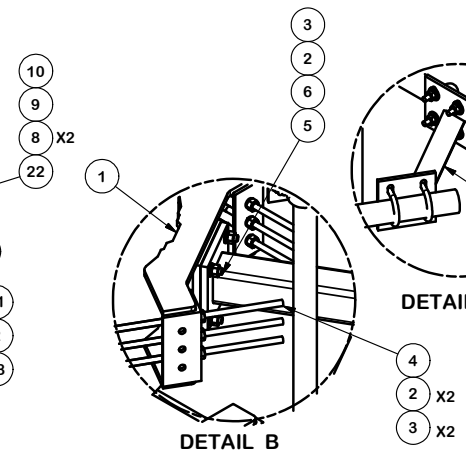
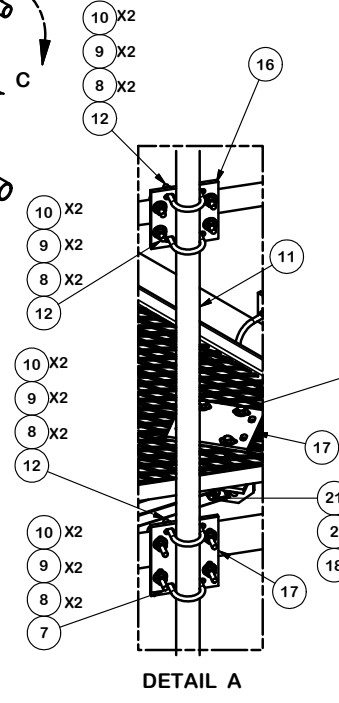
Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	nt Pos	C. nt Frm T.	nt H Off	Status	Validation
R6	RT4423-48 (DC)	11.8	8.7	146	1	a	Behind	48		dded	
2	NHH-65B-R2B	72	11.9	12	2	a	Front	45	7	dded	
3	NHHSS-65B-R2BT4	72	11.9	12	2	a	Front	45	-7	dded	
R5	RF4461d-13	15	15	12	2	a	Behind	45		dded	
R4	RF4439d-25	15	15	54	3	a	Behind	45		dded	
1	MT6413-77	28.9	15.8	6	4	a	Front	45		dded	



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	6	X-LWRM	RING MOUNT WELDMNT		68.81	412.85
2	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
3	60	A58NUT	5/8" HDG A325 HEX NUT		0.13	7.79
4	18	G58R-24	5/8" x 24" THREADED ROD (HDG.)		2.09	37.63
4	18	G58R-48	5/8" x 48" THREADED ROD (HDG.)		4.18	75.27
5	24	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	8.54
6	24	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.82
7	36	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.83	29.82
8	264	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	9.00
9	252	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	3.50
10	252	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	18.05
11	12	P296	2-3/8" X 96" SCH. 40 GALVANIZED PIPE	96 in	30.76	369.08
12	84	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	50.17
13	3	P3150	3-1/2" X 150" (3" SCH 40) GALVANIZED PIPE	150 in	94.80	284.40
14	3	X-SV196	LOW PROFILE PLATFORM CORNER		212.10	636.31
15	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
16	12	SCX2	CROSSOVER PLATE	7 in	4.80	57.56
17	15	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	90.32
18	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.78
19	6	X-253993	PLATFORM REINFORCEMENT KIT ANGLE	52 25/32 in	14.33	85.99
20	6	X-TBW	T-BRACKET WELDMNT		13.60	81.60
21	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
22	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	5 1/2 in	0.41	4.91
23	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
					TOTAL WT. #	2445.81



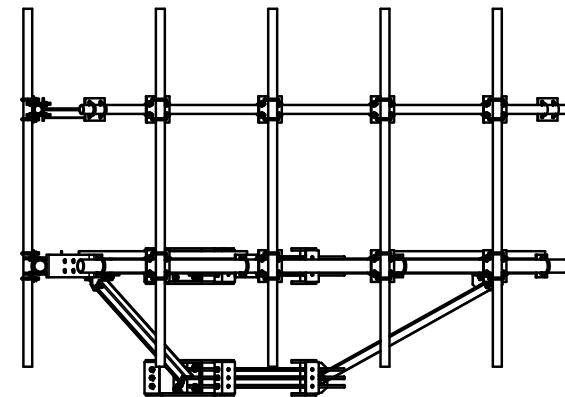
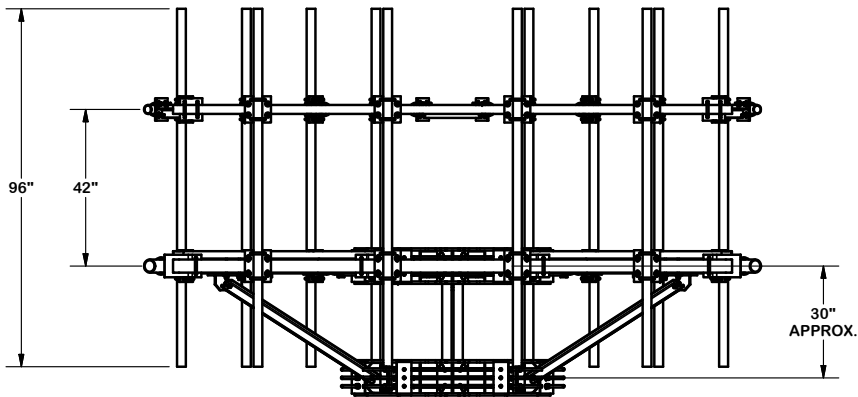
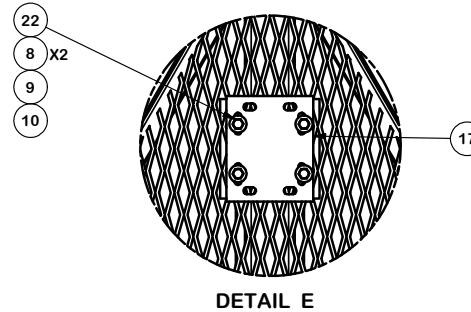
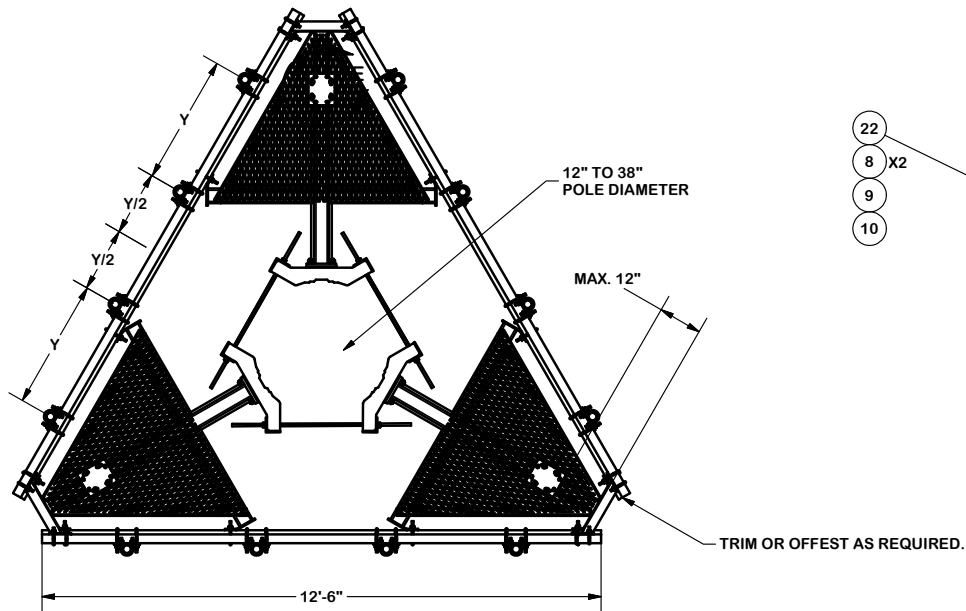
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018
REVISION HISTORY				

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

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

DESCRIPTION 12' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUNTING PIPES, AND HANDRAIL	
CPD NO. 4488	DRAWN BY CEK 7/14/2014
CLASS 81	SUB 02
DRAWING USAGE CUSTOMER	ENG. APPROVAL BMC 7/14/2014

 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
	Engineering Support Team: 1-888-753-7446
PART NO. RMQP-496-HK	DWG. NO. RMQP-496-HK



TOLERANCE NOTES

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 LASER CUT EDGES AND HOLES ($\pm 0.010''$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030''$)
 ALL OTHER ASSEMBLY ($\pm 0.060''$)

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DESCRIPTION
 12' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUNTING
 PIPES, AND HANDRAIL



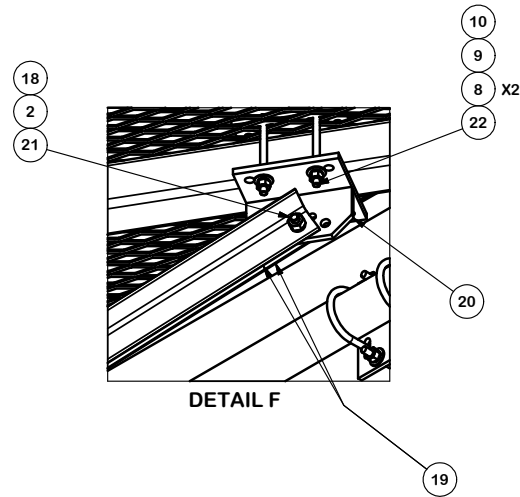
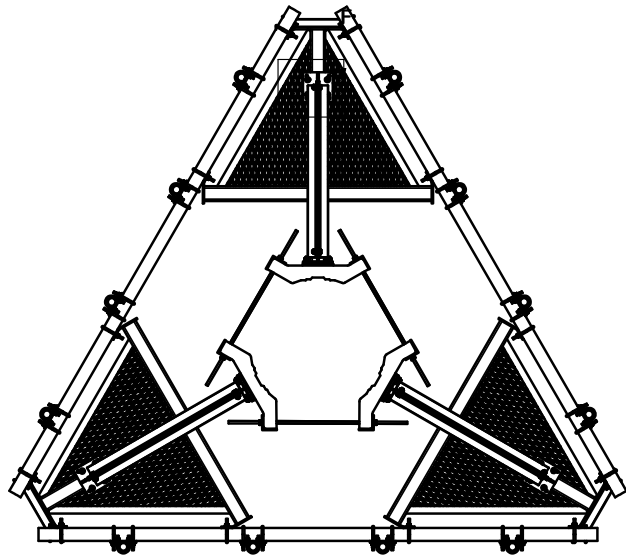
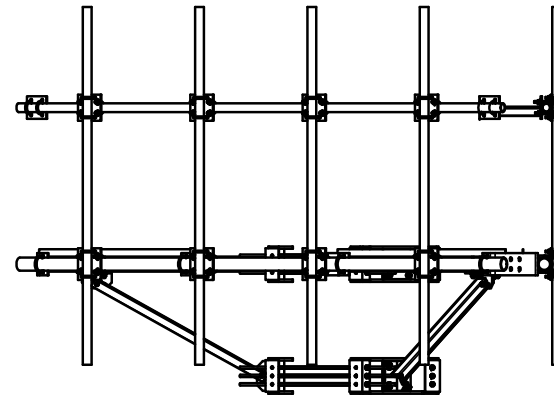
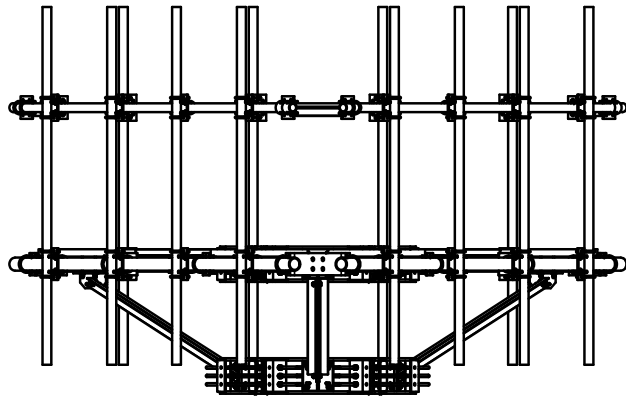
Engineering Support Team:
 1-888-753-7446

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

CPD NO. 4488	DRAWN BY CEK 7/14/2014	ENG. APPROVAL
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER
CHECKED BY BMC 7/14/2014		

PART NO. RMQP-496-HK	PAGE 2 OF 3
DWG. NO. RMQP-496-HK	



DETAIL F

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
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 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
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PROPRIETARY NOTE:
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DESCRIPTION

12' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUTING
 PIPES, AND HANDRAIL



A valmont COMPANY

Engineering
 Support Team:
 1-888-753-7446

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

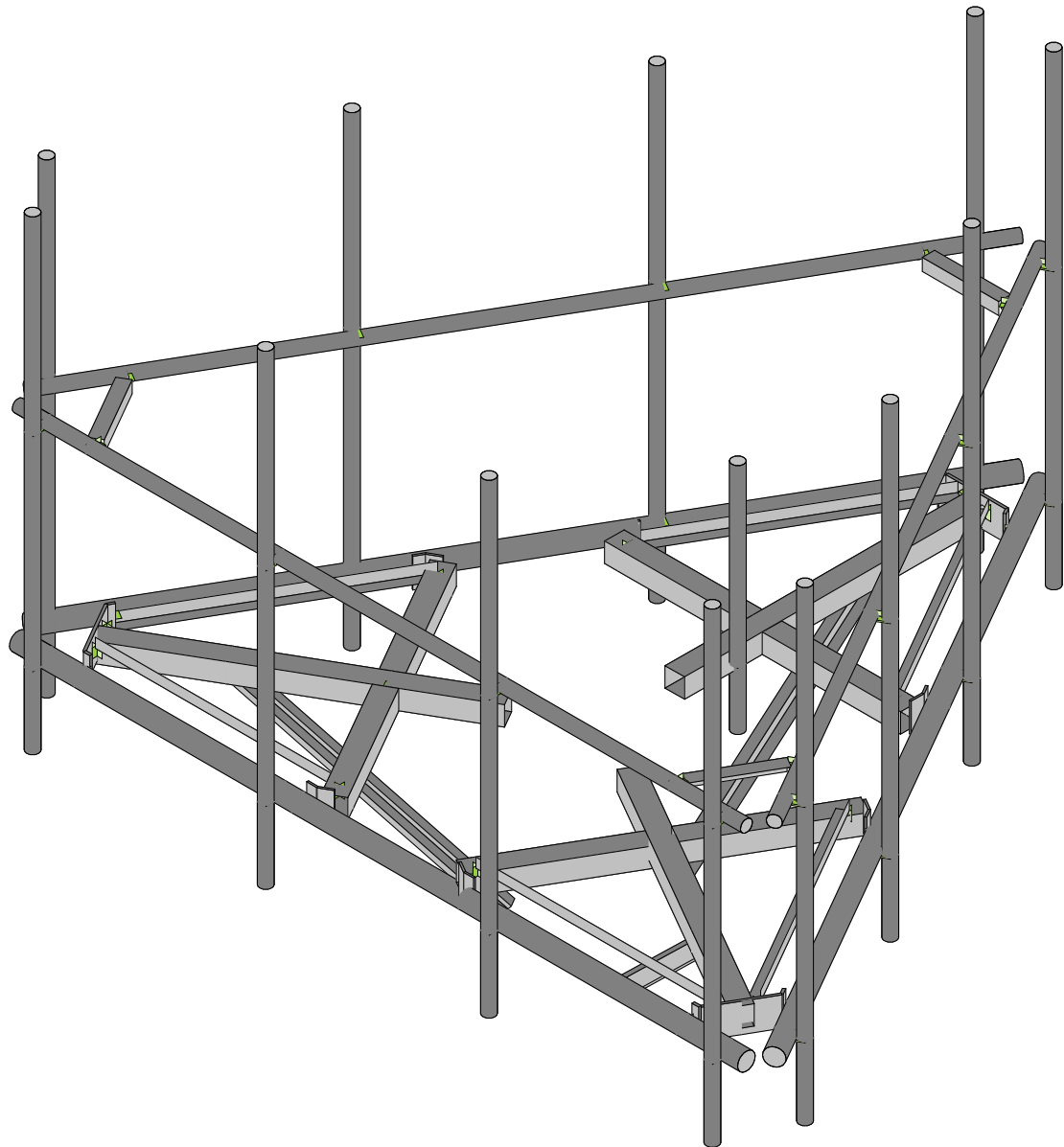
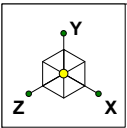
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

REVISION HISTORY

CPD NO.	DRAWN BY	ENG. APPROVAL
4488	CEK 7/14/2014	
CLASS	SUB	DRAWING USAGE
81	02	CUSTOMER

PART NO.	DWG. NO.
RMQP-496-HK	RMQP-496-HK

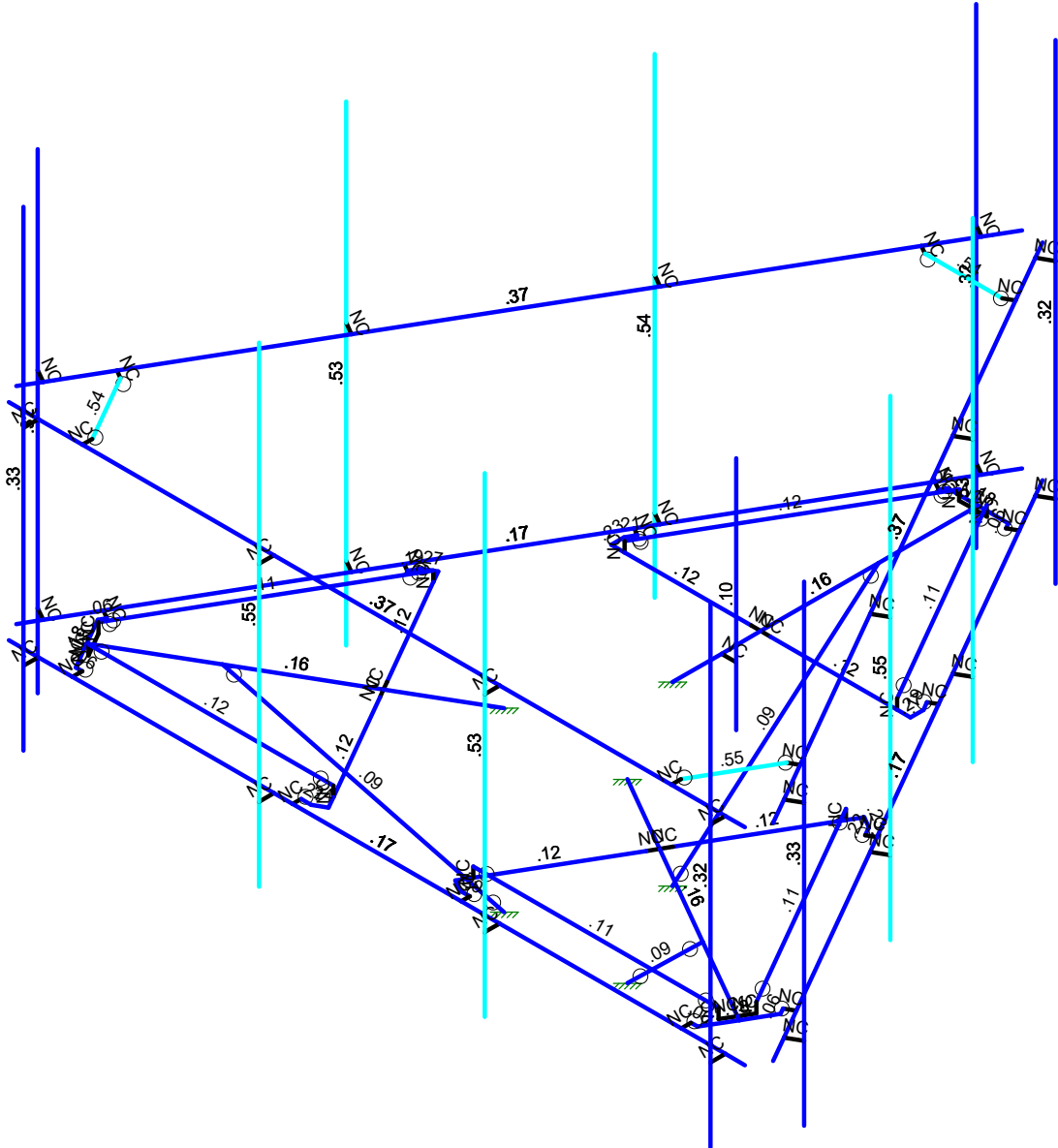
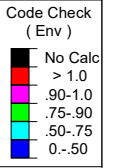
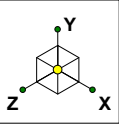




SK - 1

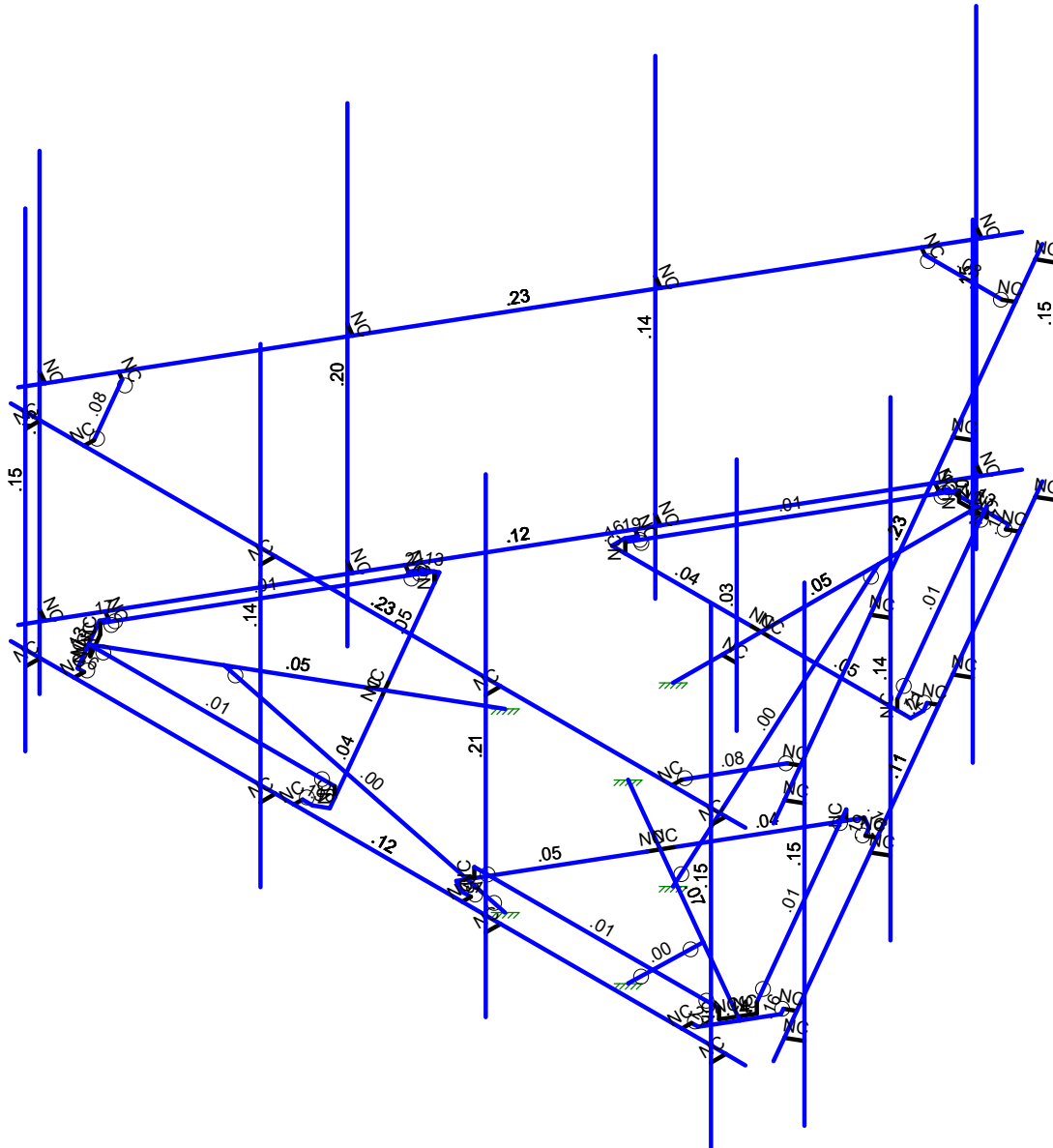
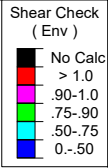
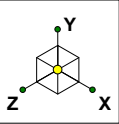
Dec 13, 2023 at 9:33 AM

5000387036-VZW_MT_LO_H.r3d



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

		SK - 2
		Dec 13, 2023 at 9:33 AM
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Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

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		5000387036-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	DistributedArea(Me... Surface(...	
1	Antenna D	None					84		
2	Antenna Di	None					84		
3	Antenna Wo (0 Deg)	None					84		
4	Antenna Wo (30 Deg)	None					84		
5	Antenna Wo (60 Deg)	None					84		
6	Antenna Wo (90 Deg)	None					84		
7	Antenna Wo (120 Deg)	None					84		
8	Antenna Wo (150 Deg)	None					84		
9	Antenna Wo (180 Deg)	None					84		
10	Antenna Wo (210 Deg)	None					84		
11	Antenna Wo (240 Deg)	None					84		
12	Antenna Wo (270 Deg)	None					84		
13	Antenna Wo (300 Deg)	None					84		
14	Antenna Wo (330 Deg)	None					84		
15	Antenna Wi (0 Deg)	None					84		
16	Antenna Wi (30 Deg)	None					84		
17	Antenna Wi (60 Deg)	None					84		
18	Antenna Wi (90 Deg)	None					84		
19	Antenna Wi (120 Deg)	None					84		
20	Antenna Wi (150 Deg)	None					84		
21	Antenna Wi (180 Deg)	None					84		
22	Antenna Wi (210 Deg)	None					84		
23	Antenna Wi (240 Deg)	None					84		
24	Antenna Wi (270 Deg)	None					84		
25	Antenna Wi (300 Deg)	None					84		
26	Antenna Wi (330 Deg)	None					84		
27	Antenna Wm (0 Deg)	None					84		
28	Antenna Wm (30 Deg)	None					84		
29	Antenna Wm (60 Deg)	None					84		
30	Antenna Wm (90 Deg)	None					84		
31	Antenna Wm (120 Deg)	None					84		
32	Antenna Wm (150 Deg)	None					84		
33	Antenna Wm (180 Deg)	None					84		
34	Antenna Wm (210 Deg)	None					84		
35	Antenna Wm (240 Deg)	None					84		
36	Antenna Wm (270 Deg)	None					84		
37	Antenna Wm (300 Deg)	None					84		
38	Antenna Wm (330 Deg)	None					84		
39	Structure D	None		-1					3
40	Structure Di	None						61	3
41	Structure Wo (0 Deg)	None						122	
42	Structure Wo (30 Deg)	None						122	
43	Structure Wo (60 Deg)	None						122	
44	Structure Wo (90 Deg)	None						122	
45	Structure Wo (120 Deg)	None						122	
46	Structure Wo (150 Deg)	None						122	
47	Structure Wo (180 Deg)	None						122	
48	Structure Wo (210 Deg)	None						122	
49	Structure Wo (240 Deg)	None						122	
50	Structure Wo (270 Deg)	None						122	
51	Structure Wo (300 Deg)	None						122	
52	Structure Wo (330 Deg)	None						122	
53	Structure Wi (0 Deg)	None						122	
54	Structure Wi (30 Deg)	None						122	
55	Structure Wi (60 Deg)	None						122	
56	Structure Wi (90 Deg)	None						122	



Company :
 Designer :
 Job Number :
 Model Name :

Dec 13, 2023
 9:33 AM
 Checked By: _____

Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	DistributedArea(Me... Surface(...
57 Structure Wi (120 Deg)	None						122
58 Structure Wi (150 Deg)	None						122
59 Structure Wi (180 Deg)	None						122
60 Structure Wi (210 Deg)	None						122
61 Structure Wi (240 Deg)	None						122
62 Structure Wi (270 Deg)	None						122
63 Structure Wi (300 Deg)	None						122
64 Structure Wi (330 Deg)	None						122
65 Structure Wm (0 Deg)	None						122
66 Structure Wm (30 Deg)	None						122
67 Structure Wm (60 Deg)	None						122
68 Structure Wm (90 Deg)	None						122
69 Structure Wm (120 Deg)	None						122
70 Structure Wm (150 Deg)	None						122
71 Structure Wm (180 Deg)	None						122
72 Structure Wm (210 Deg)	None						122
73 Structure Wm (240 Deg)	None						122
74 Structure Wm (270 Deg)	None						122
75 Structure Wm (300 Deg)	None						122
76 Structure Wm (330 Deg)	None						122
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	
81 Antenna Ev	None					84	
82 Antenna Eh (0 Deg)	None					56	
83 Antenna Eh (90 Deg)	None					56	
84 Structure Ev	ELY		-04				3
85 Structure Eh (0 Deg)	ELZ			-1			3
86 Structure Eh (90 Deg)	ELX	.1					3
87 BLC 39 Transient Area Loads	None						30
88 BLC 40 Transient Area Loads	None						30
89 BLC 84 Transient Area Loads	None						30
90 BLC 85 Transient Area Loads	None						30
91 BLC 86 Transient Area Loads	None						30

Load Combinations

Description	Solve	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	BLCFa...	BLC 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 D...	Yes	Y		1	1.2	39	1.2	4	1	42	1								
3 1.2D+1.0Wo (60 D...	Yes	Y		1	1.2	39	1.2	5	1	43	1								
4 1.2D+1.0Wo (90 D...	Yes	Y		1	1.2	39	1.2	6	1	44	1								
5 1.2D+1.0Wo (120 ...	Yes	Y		1	1.2	39	1.2	7	1	45	1								
6 1.2D+1.0Wo (150 ...	Yes	Y		1	1.2	39	1.2	8	1	46	1								
7 1.2D+1.0Wo (180 ...	Yes	Y		1	1.2	39	1.2	9	1	47	1								
8 1.2D+1.0Wo (210 ...	Yes	Y		1	1.2	39	1.2	10	1	48	1								
9 1.2D+1.0Wo (240 ...	Yes	Y		1	1.2	39	1.2	11	1	49	1								
10 1.2D+1.0Wo (270 ...	Yes	Y		1	1.2	39	1.2	12	1	50	1								
11 1.2D+1.0Wo (300 ...	Yes	Y		1	1.2	39	1.2	13	1	51	1								
12 1.2D+1.0Wo (330 ...	Yes	Y		1	1.2	39	1.2	14	1	52	1								
13 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1				
14 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1				
15 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1				
16 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1				
17 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1				

Load Combinations (Continued)

Description	Solve	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	BLCFa...	BLCFa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	
18 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1					
19 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1					
20 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1					
21 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1					
22 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1					
23 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1					
24 1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1					
25 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1							
26 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1							
27 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1							
28 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1							
29 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1							
30 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1							
31 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1							
32 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1							
33 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1							
34 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1							
35 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1							
36 1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1							
37 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1							
38 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1							
39 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1							
40 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1							
41 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1							
42 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1							
43 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1							
44 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1							
45 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1							
46 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1							
47 1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1							
48 1.2D + 1.5Lm2 + 1...	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 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83	E...	1	E...			
53 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	E...	.866	E...	.5	
54 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	E...	.5	E...	.866	
55 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	E...		E...	1	
56 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	E...	-.5	E...	.866	
57 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8...	83	.5	E...	-.8...	E...	.5	
58 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83	E...	-1	E...			
59 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8...	83	-.5	E...	-.8...	E...	-.5	
60 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.8...	E...	-.5	E...	-.8...	
61 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	E...		E...	-1	
62 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.8...	E...	.5	E...	-.8...	
63 1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	E...	.866	E...	-.5	
64 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83	E...	1	E...			
65 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	E...	.866	E...	.5	
66 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	E...	.5	E...	.866	
67 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	E...		E...	1	
68 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	E...	-.5	E...	.866	
69 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8...	83	.5	E...	-.8...	E...	.5	
70 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83	E...	-1	E...			
71 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8...	83	-.5	E...	-.8...	E...	-.5	
72 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.8...	E...	-.5	E...	-.8...	
73 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	E...		E...	-1	
74 0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.8...	E...	.5	E...	-.8...	

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
25	M83	N36	N43			RIGID	None	None	RIGID	Typical
26	M84	N7	N33			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
27	M85	N33	N37			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
28	M88	N37	N40			RIGID	None	None	RIGID	Typical
29	M91	N41	N38			Corner Plate	Beam	BAR	A36 Gr.36	Typical
30	M92	N38	N44			RIGID	None	None	RIGID	Typical
31	M50	N49	N45			RIGID	None	None	RIGID	Typical
32	M51	N45	N47			RIGID	None	None	RIGID	Typical
33	M51A	N46	N47			RIGID	None	None	RIGID	Typical
34	M52A	N3	N54			Standoff Horizontal	Beam	SquareTube	A500 Gr.B...	Typical
35	M53	N57	N59			Platform Crossme...	Beam	SquareTube	A500 Gr.B...	Typical
36	M54	N58	N50			Platform Crossme...	Beam	SquareTube	A500 Gr.B...	Typical
37	M55	N68	N69			Corner Plate	Beam	BAR	A36 Gr.36	Typical
38	M56	N52	N56			RIGID	None	None	RIGID	Typical
39	M57	N51	N55			RIGID	None	None	RIGID	Typical
40	M58A	N73	N51			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
41	M59A	N52	N75			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
42	M60	N75	N76			RIGID	None	None	RIGID	Typical
43	M61	N58	N53			RIGID	None	None	RIGID	Typical
44	M62	N53	N59			RIGID	None	None	RIGID	Typical
45	M63	N57	N61			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
46	M64	N61	N62			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
47	M65	N62	N66			RIGID	None	None	RIGID	Typical
48	M66	N69	N63			Corner Plate	Beam	BAR	A36 Gr.36	Typical
49	M67	N63	N70			RIGID	None	None	RIGID	Typical
50	M68	N50	N60			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
51	M69	N60	N64			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
52	M70	N64	N67			RIGID	None	None	RIGID	Typical
53	M71	N68	N65			Corner Plate	Beam	BAR	A36 Gr.36	Typical
54	M72	N65	N71			RIGID	None	None	RIGID	Typical
55	M73	N76	N72			RIGID	None	None	RIGID	Typical
56	M74	N72	N74			RIGID	None	None	RIGID	Typical
57	M75	N73	N74			RIGID	None	None	RIGID	Typical
58	M76A	N4	N81			Standoff Horizontal	Beam	SquareTube	A500 Gr.B...	Typical
59	M77A	N84	N86			Platform Crossme...	Beam	SquareTube	A500 Gr.B...	Typical
60	M78	N85	N77			Platform Crossme...	Beam	SquareTube	A500 Gr.B...	Typical
61	M79A	N95	N96			Corner Plate	Beam	BAR	A36 Gr.36	Typical
62	M80A	N79	N83			RIGID	None	None	RIGID	Typical
63	M81	N78	N82			RIGID	None	None	RIGID	Typical
64	M82	N100	N78			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
65	M83A	N79	N102			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
66	M84A	N102	N103			RIGID	None	None	RIGID	Typical
67	M85A	N85	N80			RIGID	None	None	RIGID	Typical
68	M86	N80	N86			RIGID	None	None	RIGID	Typical
69	M87	N84	N88			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
70	M88A	N88	N89			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
71	M89	N89	N93			RIGID	None	None	RIGID	Typical
72	M90	N96	N90			Corner Plate	Beam	BAR	A36 Gr.36	Typical
73	M91A	N90	N97			RIGID	None	None	RIGID	Typical
74	M92A	N77	N87			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
75	M93	N87	N91			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
76	M94	N91	N94			RIGID	None	None	RIGID	Typical
77	M95	N95	N92			Corner Plate	Beam	BAR	A36 Gr.36	Typical
78	M96	N92	N98			RIGID	None	None	RIGID	Typical
79	M97	N103	N99			RIGID	None	None	RIGID	Typical
80	M98	N99	N101			RIGID	None	None	RIGID	Typical
81	M99	N100	N101			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
82	M82A	N104	N105			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
83	M91B	N106	N107			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
84	M84B	N108	N109			RIGID	None	None	RIGID	Typical
85	M85B	N110	N111			RIGID	None	None	RIGID	Typical
86	M86A	N112	N113			RIGID	None	None	RIGID	Typical
87	M87A	N114	N115			RIGID	None	None	RIGID	Typical
88	MP3C	N117	N116			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
89	MP4C	N119	N118			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
90	MP2C	N121	N120			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
91	MP1C	N123	N122			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
92	M92B	N124	N125			RIGID	None	None	RIGID	Typical
93	M93A	N126	N127			RIGID	None	None	RIGID	Typical
94	M94A	N128	N129			RIGID	None	None	RIGID	Typical
95	M95A	N130	N131			RIGID	None	None	RIGID	Typical
96	MP3B	N133	N132			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
97	MP4B	N135	N134			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
98	MP2B	N137	N136			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
99	MP1B	N139	N138			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
100	M100	N140	N141			Support Rail	Beam	Pipe	A53 Gr.B	Typical
101	M101	N142	N143			RIGID	None	None	RIGID	Typical
102	M102	N144	N145			RIGID	None	None	RIGID	Typical
103	M103	N146	N147			RIGID	None	None	RIGID	Typical
104	M104	N148	N149			RIGID	None	None	RIGID	Typical
105	M105	N150	N151			RIGID	None	None	RIGID	Typical
106	M106	N152	N153			RIGID	None	None	RIGID	Typical
107	M107	N154	N155			Support Rail	Beam	Pipe	A53 Gr.B	Typical
108	M108	N156	N157			RIGID	None	None	RIGID	Typical
109	M109	N158	N159			RIGID	None	None	RIGID	Typical
110	M110	N160	N161			RIGID	None	None	RIGID	Typical
111	M111	N162	N163			RIGID	None	None	RIGID	Typical
112	M112	N164	N165			RIGID	None	None	RIGID	Typical
113	M113	N166	N167			RIGID	None	None	RIGID	Typical
114	M114	N168	N169			Support Rail	Beam	Pipe	A53 Gr.B	Typical
115	M115	N170	N171			RIGID	None	None	RIGID	Typical
116	M116	N172	N173			RIGID	None	None	RIGID	Typical
117	M117	N174	N175			RIGID	None	None	RIGID	Typical
118	M118	N176	N177			RIGID	None	None	RIGID	Typical
119	M119	N178	N179			RIGID	None	None	RIGID	Typical
120	M120	N180	N181			RIGID	None	None	RIGID	Typical
121	M121	N151	N181		180	Support Rail Corner	Beam	Single Angle	A36 Gr.36	Typical
122	M122	N179	N167		180	Support Rail Corner	Beam	Single Angle	A36 Gr.36	Typical
123	M123	N165	N153		180	Support Rail Corner	Beam	Single Angle	A36 Gr.36	Typical
124	M124	N182	N183			RIGID	None	None	RIGID	Typical
125	OVP	N184	N185			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
126	M126	N186	N187			Kicker	Beam	Double Angle ...	A36 Gr.36	Typical
127	M127	N188	N189			Kicker	Beam	Double Angle ...	A36 Gr.36	Typical
128	M128	N190	N191			Kicker	Beam	Double Angle ...	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...A...	Inactive	Seismic ...
1	M1						Yes	Default		None
2	M4						Yes			None
3	M10						Yes	Default		None
4	M19						Yes	** NA **		None
5	M20						Yes	** NA **		None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...A...	Inactive	Seismic ...
6	M21						Yes	** NA **		None
7	M22						Yes	** NA **		None
8	MP3A						Yes	** NA **		None
9	MP4A						Yes	** NA **		None
10	MP2A						Yes	** NA **		None
11	MP1A						Yes	** NA **		None
12	M43						Yes	Default		None
13	M46						Yes	Default		None
14	M35A						Yes	** NA **		None
15	M36A						Yes	** NA **		None
16	M51B	OOOOOX	OOOOOX				Yes	Default		None
17	M52B	OOOOOX	OOOOOX				Yes	Default		None
18	M52						Yes	** NA **		None
19	M58						Yes	** NA **		None
20	M59						Yes	** NA **		None
21	M76						Yes	** NA **		None
22	M77						Yes	** NA **		None
23	M79		BenPIN				Yes	** NA **		None
24	M80						Yes	** NA **		None
25	M83		BenPIN				Yes	** NA **		None
26	M84						Yes	** NA **		None
27	M85						Yes	** NA **		None
28	M88		BenPIN				Yes	** NA **		None
29	M91						Yes	** NA **		None
30	M92		BenPIN				Yes	** NA **		None
31	M50						Yes	** NA **		None
32	M51						Yes	** NA **		None
33	M51A						Yes	** NA **		None
34	M52A						Yes	** NA **		None
35	M53						Yes	Default		None
36	M54						Yes	Default		None
37	M55						Yes	Default		None
38	M56						Yes	** NA **		None
39	M57						Yes	** NA **		None
40	M58A	OOOOOX	OOOOOX				Yes	Default		None
41	M59A	OOOOOX	OOOOOX				Yes	Default		None
42	M60						Yes	** NA **		None
43	M61						Yes	** NA **		None
44	M62						Yes	** NA **		None
45	M63						Yes	** NA **		None
46	M64						Yes	** NA **		None
47	M65		BenPIN				Yes	** NA **		None
48	M66						Yes	** NA **		None
49	M67		BenPIN				Yes	** NA **		None
50	M68						Yes	** NA **		None
51	M69						Yes	** NA **		None
52	M70		BenPIN				Yes	** NA **		None
53	M71						Yes	** NA **		None
54	M72		BenPIN				Yes	** NA **		None
55	M73						Yes	** NA **		None
56	M74						Yes	** NA **		None
57	M75						Yes	** NA **		None
58	M76A						Yes	** NA **		None
59	M77A						Yes	Default		None
60	M78						Yes	Default		None
61	M79A						Yes	Default		None
62	M80A						Yes	** NA **		None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...A...	Inactive	Seismic ...
63	M81						Yes	** NA **		None
64	M82	OOOOOX	OOOOOX				Yes	Default		None
65	M83A	OOOOOX	OOOOOX				Yes	Default		None
66	M84A						Yes	** NA **		None
67	M85A						Yes	** NA **		None
68	M86						Yes	** NA **		None
69	M87						Yes	** NA **		None
70	M88A						Yes	** NA **		None
71	M89		BenPIN				Yes	** NA **		None
72	M90						Yes	** NA **		None
73	M91A		BenPIN				Yes	** NA **		None
74	M92A						Yes	** NA **		None
75	M93						Yes	** NA **		None
76	M94		BenPIN				Yes	** NA **		None
77	M95						Yes	** NA **		None
78	M96		BenPIN				Yes	** NA **		None
79	M97						Yes	** NA **		None
80	M98						Yes	** NA **		None
81	M99						Yes	** NA **		None
82	M82A						Yes	Default		None
83	M91B						Yes	Default		None
84	M84B						Yes	** NA **		None
85	M85B						Yes	** NA **		None
86	M86A						Yes	** NA **		None
87	M87A						Yes	** NA **		None
88	MP3C						Yes	** NA **		None
89	MP4C						Yes	** NA **		None
90	MP2C						Yes	** NA **		None
91	MP1C						Yes	** NA **		None
92	M92B						Yes	** NA **		None
93	M93A						Yes	** NA **		None
94	M94A						Yes	** NA **		None
95	M95A						Yes	** NA **		None
96	MP3B						Yes	** NA **		None
97	MP4B						Yes	** NA **		None
98	MP2B						Yes	** NA **		None
99	MP1B						Yes	** NA **		None
100	M100						Yes	Default		None
101	M101						Yes	** NA **		None
102	M102						Yes	** NA **		None
103	M103						Yes	** NA **		None
104	M104						Yes	** NA **		None
105	M105	OOOOOX					Yes	** NA **		None
106	M106	OOOOOX					Yes	** NA **		None
107	M107						Yes	Default		None
108	M108						Yes	** NA **		None
109	M109						Yes	** NA **		None
110	M110						Yes	** NA **		None
111	M111						Yes	** NA **		None
112	M112	OOOOOX					Yes	** NA **		None
113	M113	OOOOOX					Yes	** NA **		None
114	M114						Yes	Default		None
115	M115						Yes	** NA **		None
116	M116						Yes	** NA **		None
117	M117						Yes	** NA **		None
118	M118						Yes	** NA **		None
119	M119	OOOOOX					Yes	** NA **		None



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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...A...	Inactive	Seismic ...
120	M120	OOOOOX					Yes	** NA **		None
121	M121						Yes			None
122	M122						Yes			None
123	M123						Yes			None
124	M124						Yes	** NA **		None
125	OVP						Yes	** NA **		None
126	M126	BenPIN	BenPIN				Yes			None
127	M127	BenPIN	BenPIN				Yes			None
128	M128	BenPIN	BenPIN				Yes			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	Y	-28.65	2.75
2	MP4A	My	-.014	2.75
3	MP4A	Mz	0	2.75
4	MP4A	Y	-28.65	4.75
5	MP4A	My	-.014	4.75
6	MP4A	Mz	0	4.75
7	MP4B	Y	-28.65	2.75
8	MP4B	My	.007	2.75
9	MP4B	Mz	-.012	2.75
10	MP4B	Y	-28.65	4.75
11	MP4B	My	.007	4.75
12	MP4B	Mz	-.012	4.75
13	MP4C	Y	-28.65	2.75
14	MP4C	My	.007	2.75
15	MP4C	Mz	.012	2.75
16	MP4C	Y	-28.65	4.75
17	MP4C	My	.007	4.75
18	MP4C	Mz	.012	4.75
19	MP2A	Y	-21.85	1.25
20	MP2A	My	-.011	1.25
21	MP2A	Mz	.013	1.25
22	MP2A	Y	-21.85	6.25
23	MP2A	My	-.011	6.25
24	MP2A	Mz	.013	6.25
25	MP2B	Y	-21.85	1.25
26	MP2B	My	-.006	1.25
27	MP2B	Mz	-.016	1.25
28	MP2B	Y	-21.85	6.25
29	MP2B	My	-.006	6.25
30	MP2B	Mz	-.016	6.25
31	MP2C	Y	-21.85	1.25
32	MP2C	My	.017	1.25
33	MP2C	Mz	.003	1.25
34	MP2C	Y	-21.85	6.25
35	MP2C	My	.017	6.25
36	MP2C	Mz	.003	6.25
37	MP2A	Y	-32.3	1.25
38	MP2A	My	-.016	1.25
39	MP2A	Mz	-.019	1.25
40	MP2A	Y	-32.3	6.25
41	MP2A	My	-.016	6.25
42	MP2A	Mz	-.019	6.25
43	MP2B	Y	-32.3	1.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
44	MP2B	My	.025	1.25
45	MP2B	Mz	-.00026	1.25
46	MP2B	Y	-32.3	6.25
47	MP2B	My	.025	6.25
48	MP2B	Mz	-.00026	6.25
49	MP2C	Y	-32.3	1.25
50	MP2C	My	-.012	1.25
51	MP2C	Mz	.022	1.25
52	MP2C	Y	-32.3	6.25
53	MP2C	My	-.012	6.25
54	MP2C	Mz	.022	6.25
55	MP3A	Y	-74.7	3.75
56	MP3A	My	.025	3.75
57	MP3A	Mz	0	3.75
58	MP3B	Y	-74.7	3.75
59	MP3B	My	-.012	3.75
60	MP3B	Mz	.022	3.75
61	MP3C	Y	-74.7	3.75
62	MP3C	My	-.012	3.75
63	MP3C	Mz	-.022	3.75
64	MP2A	Y	-79.1	3.75
65	MP2A	My	.026	3.75
66	MP2A	Mz	0	3.75
67	MP2B	Y	-79.1	3.75
68	MP2B	My	-.013	3.75
69	MP2B	Mz	.023	3.75
70	MP2C	Y	-79.1	3.75
71	MP2C	My	-.013	3.75
72	MP2C	Mz	-.023	3.75
73	MP1A	Y	-21	4
74	MP1A	My	.007	4
75	MP1A	Mz	0	4
76	MP1B	Y	-21	4
77	MP1B	My	-.004	4
78	MP1B	Mz	.006	4
79	MP1C	Y	-21	4
80	MP1C	My	-.004	4
81	MP1C	Mz	-.006	4
82	OVP	Y	-32	2
83	OVP	My	.011	2
84	OVP	Mz	0	2

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-45.858	2.75
2	MP4A	My	-.023	2.75
3	MP4A	Mz	0	2.75
4	MP4A	Y	-45.858	4.75
5	MP4A	My	-.023	4.75
6	MP4A	Mz	0	4.75
7	MP4B	Y	-45.858	2.75
8	MP4B	My	.011	2.75
9	MP4B	Mz	-.02	2.75
10	MP4B	Y	-45.858	4.75
11	MP4B	My	.011	4.75
12	MP4B	Mz	-.02	4.75



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Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP4C	Y	-45.858	2.75
14	MP4C	My	.011	2.75
15	MP4C	Mz	.02	2.75
16	MP4C	Y	-45.858	4.75
17	MP4C	My	.011	4.75
18	MP4C	Mz	.02	4.75
19	MP2A	Y	-92.631	1.25
20	MP2A	My	-.046	1.25
21	MP2A	Mz	.054	1.25
22	MP2A	Y	-92.631	6.25
23	MP2A	My	-.046	6.25
24	MP2A	Mz	.054	6.25
25	MP2B	Y	-92.631	1.25
26	MP2B	My	-.024	1.25
27	MP2B	Mz	-.067	1.25
28	MP2B	Y	-92.631	6.25
29	MP2B	My	-.024	6.25
30	MP2B	Mz	-.067	6.25
31	MP2C	Y	-92.631	1.25
32	MP2C	My	.07	1.25
33	MP2C	Mz	.013	1.25
34	MP2C	Y	-92.631	6.25
35	MP2C	My	.07	6.25
36	MP2C	Mz	.013	6.25
37	MP2A	Y	-92.631	1.25
38	MP2A	My	-.046	1.25
39	MP2A	Mz	-.054	1.25
40	MP2A	Y	-92.631	6.25
41	MP2A	My	-.046	6.25
42	MP2A	Mz	-.054	6.25
43	MP2B	Y	-92.631	1.25
44	MP2B	My	.071	1.25
45	MP2B	Mz	-.000747	1.25
46	MP2B	Y	-92.631	6.25
47	MP2B	My	.071	6.25
48	MP2B	Mz	-.000747	6.25
49	MP2C	Y	-92.631	1.25
50	MP2C	My	-.035	1.25
51	MP2C	Mz	.062	1.25
52	MP2C	Y	-92.631	6.25
53	MP2C	My	-.035	6.25
54	MP2C	Mz	.062	6.25
55	MP3A	Y	-69.424	3.75
56	MP3A	My	.023	3.75
57	MP3A	Mz	0	3.75
58	MP3B	Y	-69.424	3.75
59	MP3B	My	-.012	3.75
60	MP3B	Mz	.02	3.75
61	MP3C	Y	-69.424	3.75
62	MP3C	My	-.012	3.75
63	MP3C	Mz	-.02	3.75
64	MP2A	Y	-70.136	3.75
65	MP2A	My	.023	3.75
66	MP2A	Mz	0	3.75
67	MP2B	Y	-70.136	3.75
68	MP2B	My	-.012	3.75
69	MP2B	Mz	.02	3.75



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Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
70	MP2C	Y	-70.136	3.75
71	MP2C	My	-.012	3.75
72	MP2C	Mz	-.02	3.75
73	MP1A	Y	-26.834	4
74	MP1A	My	.009	4
75	MP1A	Mz	0	4
76	MP1B	Y	-26.834	4
77	MP1B	My	-.004	4
78	MP1B	Mz	.008	4
79	MP1C	Y	-26.834	4
80	MP1C	My	-.004	4
81	MP1C	Mz	-.008	4
82	OVP	Y	-116.041	2
83	OVP	My	.039	2
84	OVP	Mz	0	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
1	MP4A	X	0	2.75
2	MP4A	Z	-76.058	2.75
3	MP4A	Mx	0	2.75
4	MP4A	X	0	4.75
5	MP4A	Z	-76.058	4.75
6	MP4A	Mx	0	4.75
7	MP4B	X	0	2.75
8	MP4B	Z	-40.985	2.75
9	MP4B	Mx	.018	2.75
10	MP4B	X	0	4.75
11	MP4B	Z	-40.985	4.75
12	MP4B	Mx	.018	4.75
13	MP4C	X	0	2.75
14	MP4C	Z	-40.985	2.75
15	MP4C	Mx	-.018	2.75
16	MP4C	X	0	4.75
17	MP4C	Z	-40.985	4.75
18	MP4C	Mx	-.018	4.75
19	MP2A	X	0	1.25
20	MP2A	Z	-108.97	1.25
21	MP2A	Mx	-.064	1.25
22	MP2A	X	0	6.25
23	MP2A	Z	-108.97	6.25
24	MP2A	Mx	-.064	6.25
25	MP2B	X	0	1.25
26	MP2B	Z	-62.312	1.25
27	MP2B	Mx	.045	1.25
28	MP2B	X	0	6.25
29	MP2B	Z	-62.312	6.25
30	MP2B	Mx	.045	6.25
31	MP2C	X	0	1.25
32	MP2C	Z	-62.312	1.25
33	MP2C	Mx	-.009	1.25
34	MP2C	X	0	6.25
35	MP2C	Z	-62.312	6.25
36	MP2C	Mx	-.009	6.25
37	MP2A	X	0	1.25
38	MP2A	Z	-161.549	1.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
39	MP2A	Mx	.094	1.25
40	MP2A	X	0	6.25
41	MP2A	Z	-161.549	6.25
42	MP2A	Mx	.094	6.25
43	MP2B	X	0	1.25
44	MP2B	Z	-129.654	1.25
45	MP2B	Mx	.001	1.25
46	MP2B	X	0	6.25
47	MP2B	Z	-129.654	6.25
48	MP2B	Mx	.001	6.25
49	MP2C	X	0	1.25
50	MP2C	Z	-113.555	1.25
51	MP2C	Mx	-.076	1.25
52	MP2C	X	0	6.25
53	MP2C	Z	-113.555	6.25
54	MP2C	Mx	-.076	6.25
55	MP3A	X	0	3.75
56	MP3A	Z	-62.211	3.75
57	MP3A	Mx	0	3.75
58	MP3B	X	0	3.75
59	MP3B	Z	-46.859	3.75
60	MP3B	Mx	-.014	3.75
61	MP3C	X	0	3.75
62	MP3C	Z	-46.859	3.75
63	MP3C	Mx	.014	3.75
64	MP2A	X	0	3.75
65	MP2A	Z	-75.055	3.75
66	MP2A	Mx	0	3.75
67	MP2B	X	0	3.75
68	MP2B	Z	-57.144	3.75
69	MP2B	Mx	-.016	3.75
70	MP2C	X	0	3.75
71	MP2C	Z	-57.144	3.75
72	MP2C	Mx	.016	3.75
73	MP1A	X	0	4
74	MP1A	Z	-34.517	4
75	MP1A	Mx	0	4
76	MP1B	X	0	4
77	MP1B	Z	-19.592	4
78	MP1B	Mx	-.006	4
79	MP1C	X	0	4
80	MP1C	Z	-19.592	4
81	MP1C	Mx	.006	4
82	OVP	X	0	2
83	OVP	Z	-127.232	2
84	OVP	Mx	0	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	32.184	2.75
2	MP4A	Z	-55.744	2.75
3	MP4A	Mx	-.016	2.75
4	MP4A	X	32.184	4.75
5	MP4A	Z	-55.744	4.75
6	MP4A	Mx	-.016	4.75
7	MP4B	X	14.647	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
8	MP4B	Z	-25.369	2.75
9	MP4B	Mx	.015	2.75
10	MP4B	X	14.647	4.75
11	MP4B	Z	-25.369	4.75
12	MP4B	Mx	.015	4.75
13	MP4C	X	32.184	2.75
14	MP4C	Z	-55.744	2.75
15	MP4C	Mx	-.016	2.75
16	MP4C	X	32.184	4.75
17	MP4C	Z	-55.744	4.75
18	MP4C	Mx	-.016	4.75
19	MP2A	X	46.709	1.25
20	MP2A	Z	-80.902	1.25
21	MP2A	Mx	-.071	1.25
22	MP2A	X	46.709	6.25
23	MP2A	Z	-80.902	6.25
24	MP2A	Mx	-.071	6.25
25	MP2B	X	23.379	1.25
26	MP2B	Z	-40.494	1.25
27	MP2B	Mx	.023	1.25
28	MP2B	X	23.379	6.25
29	MP2B	Z	-40.494	6.25
30	MP2B	Mx	.023	6.25
31	MP2C	X	46.709	1.25
32	MP2C	Z	-80.902	1.25
33	MP2C	Mx	.024	1.25
34	MP2C	X	46.709	6.25
35	MP2C	Z	-80.902	6.25
36	MP2C	Mx	.024	6.25
37	MP2A	X	73.98	1.25
38	MP2A	Z	-128.138	1.25
39	MP2A	Mx	.038	1.25
40	MP2A	X	73.98	6.25
41	MP2A	Z	-128.138	6.25
42	MP2A	Mx	.038	6.25
43	MP2B	X	54.418	1.25
44	MP2B	Z	-94.255	1.25
45	MP2B	Mx	.043	1.25
46	MP2B	X	54.418	6.25
47	MP2B	Z	-94.255	6.25
48	MP2B	Mx	.043	6.25
49	MP2C	X	69.546	1.25
50	MP2C	Z	-120.457	1.25
51	MP2C	Mx	-.107	1.25
52	MP2C	X	69.546	6.25
53	MP2C	Z	-120.457	6.25
54	MP2C	Mx	-.107	6.25
55	MP3A	X	28.547	3.75
56	MP3A	Z	-49.445	3.75
57	MP3A	Mx	.01	3.75
58	MP3B	X	20.871	3.75
59	MP3B	Z	-36.149	3.75
60	MP3B	Mx	-.014	3.75
61	MP3C	X	28.547	3.75
62	MP3C	Z	-49.445	3.75
63	MP3C	Mx	.01	3.75
64	MP2A	X	34.542	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
65	MP2A	Z	-59.829	3.75
66	MP2A	Mx	.012	3.75
67	MP2B	X	25.587	3.75
68	MP2B	Z	-44.318	3.75
69	MP2B	Mx	-.017	3.75
70	MP2C	X	34.542	3.75
71	MP2C	Z	-59.829	3.75
72	MP2C	Mx	.012	3.75
73	MP1A	X	14.771	4
74	MP1A	Z	-25.584	4
75	MP1A	Mx	.005	4
76	MP1B	X	7.309	4
77	MP1B	Z	-12.659	4
78	MP1B	Mx	-.005	4
79	MP1C	X	14.771	4
80	MP1C	Z	-25.584	4
81	MP1C	Mx	.005	4
82	OVP	X	59.803	2
83	OVP	Z	-103.582	2
84	OVP	Mx	.02	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
1	MP4A	X	35.494	2.75
2	MP4A	Z	-20.492	2.75
3	MP4A	Mx	-.018	2.75
4	MP4A	X	35.494	4.75
5	MP4A	Z	-20.492	4.75
6	MP4A	Mx	-.018	4.75
7	MP4B	X	35.494	2.75
8	MP4B	Z	-20.492	2.75
9	MP4B	Mx	.018	2.75
10	MP4B	X	35.494	4.75
11	MP4B	Z	-20.492	4.75
12	MP4B	Mx	.018	4.75
13	MP4C	X	65.868	2.75
14	MP4C	Z	-38.029	2.75
15	MP4C	Mx	0	2.75
16	MP4C	X	65.868	4.75
17	MP4C	Z	-38.029	4.75
18	MP4C	Mx	0	4.75
19	MP2A	X	53.963	1.25
20	MP2A	Z	-31.156	1.25
21	MP2A	Mx	-.045	1.25
22	MP2A	X	53.963	6.25
23	MP2A	Z	-31.156	6.25
24	MP2A	Mx	-.045	6.25
25	MP2B	X	53.963	1.25
26	MP2B	Z	-31.156	1.25
27	MP2B	Mx	.009	1.25
28	MP2B	X	53.963	6.25
29	MP2B	Z	-31.156	6.25
30	MP2B	Mx	.009	6.25
31	MP2C	X	94.371	1.25
32	MP2C	Z	-54.485	1.25
33	MP2C	Mx	.064	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
34	MP2C	X	94.371	6.25
35	MP2C	Z	-54.485	6.25
36	MP2C	Mx	.064	6.25
37	MP2A	X	104.603	1.25
38	MP2A	Z	-60.393	1.25
39	MP2A	Mx	-.017	1.25
40	MP2A	X	104.603	6.25
41	MP2A	Z	-60.393	6.25
42	MP2A	Mx	-.017	6.25
43	MP2B	X	98.342	1.25
44	MP2B	Z	-56.778	1.25
45	MP2B	Mx	.076	1.25
46	MP2B	X	98.342	6.25
47	MP2B	Z	-56.778	6.25
48	MP2B	Mx	.076	6.25
49	MP2C	X	138.486	1.25
50	MP2C	Z	-79.955	1.25
51	MP2C	Mx	-.106	1.25
52	MP2C	X	138.486	6.25
53	MP2C	Z	-79.955	6.25
54	MP2C	Mx	-.106	6.25
55	MP3A	X	40.581	3.75
56	MP3A	Z	-23.43	3.75
57	MP3A	Mx	.014	3.75
58	MP3B	X	40.581	3.75
59	MP3B	Z	-23.43	3.75
60	MP3B	Mx	-.014	3.75
61	MP3C	X	53.877	3.75
62	MP3C	Z	-31.106	3.75
63	MP3C	Mx	0	3.75
64	MP2A	X	49.488	3.75
65	MP2A	Z	-28.572	3.75
66	MP2A	Mx	.016	3.75
67	MP2B	X	49.488	3.75
68	MP2B	Z	-28.572	3.75
69	MP2B	Mx	-.016	3.75
70	MP2C	X	64.999	3.75
71	MP2C	Z	-37.527	3.75
72	MP2C	Mx	0	3.75
73	MP1A	X	16.968	4
74	MP1A	Z	-9.796	4
75	MP1A	Mx	.006	4
76	MP1B	X	16.968	4
77	MP1B	Z	-9.796	4
78	MP1B	Mx	-.006	4
79	MP1C	X	29.893	4
80	MP1C	Z	-17.259	4
81	MP1C	Mx	0	4
82	OVP	X	90.374	2
83	OVP	Z	-52.177	2
84	OVP	Mx	.03	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	29.294	2.75
2	MP4A	Z	0	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
3	MP4A	Mx	-.015	2.75
4	MP4A	X	29.294	4.75
5	MP4A	Z	0	4.75
6	MP4A	Mx	-.015	4.75
7	MP4B	X	64.367	2.75
8	MP4B	Z	0	2.75
9	MP4B	Mx	.016	2.75
10	MP4B	X	64.367	4.75
11	MP4B	Z	0	4.75
12	MP4B	Mx	.016	4.75
13	MP4C	X	64.367	2.75
14	MP4C	Z	0	2.75
15	MP4C	Mx	.016	2.75
16	MP4C	X	64.367	4.75
17	MP4C	Z	0	4.75
18	MP4C	Mx	.016	4.75
19	MP2A	X	46.759	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.023	1.25
22	MP2A	X	46.759	6.25
23	MP2A	Z	0	6.25
24	MP2A	Mx	-.023	6.25
25	MP2B	X	93.417	1.25
26	MP2B	Z	0	1.25
27	MP2B	Mx	-.024	1.25
28	MP2B	X	93.417	6.25
29	MP2B	Z	0	6.25
30	MP2B	Mx	-.024	6.25
31	MP2C	X	93.417	1.25
32	MP2C	Z	0	1.25
33	MP2C	Mx	.071	1.25
34	MP2C	X	93.417	6.25
35	MP2C	Z	0	6.25
36	MP2C	Mx	.071	6.25
37	MP2A	X	107.197	1.25
38	MP2A	Z	0	1.25
39	MP2A	Mx	-.054	1.25
40	MP2A	X	107.197	6.25
41	MP2A	Z	0	6.25
42	MP2A	Mx	-.054	6.25
43	MP2B	X	139.092	1.25
44	MP2B	Z	0	1.25
45	MP2B	Mx	.107	1.25
46	MP2B	X	139.092	6.25
47	MP2B	Z	0	6.25
48	MP2B	Mx	.107	6.25
49	MP2C	X	155.191	1.25
50	MP2C	Z	0	1.25
51	MP2C	Mx	-.059	1.25
52	MP2C	X	155.191	6.25
53	MP2C	Z	0	6.25
54	MP2C	Mx	-.059	6.25
55	MP3A	X	41.742	3.75
56	MP3A	Z	0	3.75
57	MP3A	Mx	.014	3.75
58	MP3B	X	57.094	3.75
59	MP3B	Z	0	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
60	MP3B	Mx	-.01	3.75
61	MP3C	X	57.094	3.75
62	MP3C	Z	0	3.75
63	MP3C	Mx	-.01	3.75
64	MP2A	X	51.174	3.75
65	MP2A	Z	0	3.75
66	MP2A	Mx	.017	3.75
67	MP2B	X	69.085	3.75
68	MP2B	Z	0	3.75
69	MP2B	Mx	-.012	3.75
70	MP2C	X	69.085	3.75
71	MP2C	Z	0	3.75
72	MP2C	Mx	-.012	3.75
73	MP1A	X	14.618	4
74	MP1A	Z	0	4
75	MP1A	Mx	.005	4
76	MP1B	X	29.542	4
77	MP1B	Z	0	4
78	MP1B	Mx	-.005	4
79	MP1C	X	29.542	4
80	MP1C	Z	0	4
81	MP1C	Mx	-.005	4
82	OVP	X	96.729	2
83	OVP	Z	0	2
84	OVP	Mx	.032	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	35.494	2.75
2	MP4A	Z	20.492	2.75
3	MP4A	Mx	-.018	2.75
4	MP4A	X	35.494	4.75
5	MP4A	Z	20.492	4.75
6	MP4A	Mx	-.018	4.75
7	MP4B	X	65.868	2.75
8	MP4B	Z	38.029	2.75
9	MP4B	Mx	0	2.75
10	MP4B	X	65.868	4.75
11	MP4B	Z	38.029	4.75
12	MP4B	Mx	0	4.75
13	MP4C	X	35.494	2.75
14	MP4C	Z	20.492	2.75
15	MP4C	Mx	.018	2.75
16	MP4C	X	35.494	4.75
17	MP4C	Z	20.492	4.75
18	MP4C	Mx	.018	4.75
19	MP2A	X	53.963	1.25
20	MP2A	Z	31.156	1.25
21	MP2A	Mx	-.009	1.25
22	MP2A	X	53.963	6.25
23	MP2A	Z	31.156	6.25
24	MP2A	Mx	-.009	6.25
25	MP2B	X	94.371	1.25
26	MP2B	Z	54.485	1.25
27	MP2B	Mx	-.064	1.25
28	MP2B	X	94.371	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP2B	Z	54.485	6.25
30	MP2B	Mx	-.064	6.25
31	MP2C	X	53.963	1.25
32	MP2C	Z	31.156	1.25
33	MP2C	Mx	.045	1.25
34	MP2C	X	53.963	6.25
35	MP2C	Z	31.156	6.25
36	MP2C	Mx	.045	6.25
37	MP2A	X	104.603	1.25
38	MP2A	Z	60.393	1.25
39	MP2A	Mx	-.088	1.25
40	MP2A	X	104.603	6.25
41	MP2A	Z	60.393	6.25
42	MP2A	Mx	-.088	6.25
43	MP2B	X	138.486	1.25
44	MP2B	Z	79.955	1.25
45	MP2B	Mx	.106	1.25
46	MP2B	X	138.486	6.25
47	MP2B	Z	79.955	6.25
48	MP2B	Mx	.106	6.25
49	MP2C	X	112.284	1.25
50	MP2C	Z	64.827	1.25
51	MP2C	Mx	.001	1.25
52	MP2C	X	112.284	6.25
53	MP2C	Z	64.827	6.25
54	MP2C	Mx	.001	6.25
55	MP3A	X	40.581	3.75
56	MP3A	Z	23.43	3.75
57	MP3A	Mx	.014	3.75
58	MP3B	X	53.877	3.75
59	MP3B	Z	31.106	3.75
60	MP3B	Mx	0	3.75
61	MP3C	X	40.581	3.75
62	MP3C	Z	23.43	3.75
63	MP3C	Mx	-.014	3.75
64	MP2A	X	49.488	3.75
65	MP2A	Z	28.572	3.75
66	MP2A	Mx	.016	3.75
67	MP2B	X	64.999	3.75
68	MP2B	Z	37.527	3.75
69	MP2B	Mx	0	3.75
70	MP2C	X	49.488	3.75
71	MP2C	Z	28.572	3.75
72	MP2C	Mx	-.016	3.75
73	MP1A	X	16.968	4
74	MP1A	Z	9.796	4
75	MP1A	Mx	.006	4
76	MP1B	X	29.893	4
77	MP1B	Z	17.259	4
78	MP1B	Mx	0	4
79	MP1C	X	16.968	4
80	MP1C	Z	9.796	4
81	MP1C	Mx	-.006	4
82	OVP	X	90.374	2
83	OVP	Z	52.177	2
84	OVP	Mx	.03	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	32.184	2.75
2	MP4A	Z	55.744	2.75
3	MP4A	Mx	-.016	2.75
4	MP4A	X	32.184	4.75
5	MP4A	Z	55.744	4.75
6	MP4A	Mx	-.016	4.75
7	MP4B	X	32.184	2.75
8	MP4B	Z	55.744	2.75
9	MP4B	Mx	-.016	2.75
10	MP4B	X	32.184	4.75
11	MP4B	Z	55.744	4.75
12	MP4B	Mx	-.016	4.75
13	MP4C	X	14.647	2.75
14	MP4C	Z	25.369	2.75
15	MP4C	Mx	.015	2.75
16	MP4C	X	14.647	4.75
17	MP4C	Z	25.369	4.75
18	MP4C	Mx	.015	4.75
19	MP2A	X	46.709	1.25
20	MP2A	Z	80.902	1.25
21	MP2A	Mx	.024	1.25
22	MP2A	X	46.709	6.25
23	MP2A	Z	80.902	6.25
24	MP2A	Mx	.024	6.25
25	MP2B	X	46.709	1.25
26	MP2B	Z	80.902	1.25
27	MP2B	Mx	-.071	1.25
28	MP2B	X	46.709	6.25
29	MP2B	Z	80.902	6.25
30	MP2B	Mx	-.071	6.25
31	MP2C	X	23.379	1.25
32	MP2C	Z	40.494	1.25
33	MP2C	Mx	.023	1.25
34	MP2C	X	23.379	6.25
35	MP2C	Z	40.494	6.25
36	MP2C	Mx	.023	6.25
37	MP2A	X	73.98	1.25
38	MP2A	Z	128.138	1.25
39	MP2A	Mx	-.112	1.25
40	MP2A	X	73.98	6.25
41	MP2A	Z	128.138	6.25
42	MP2A	Mx	-.112	6.25
43	MP2B	X	77.595	1.25
44	MP2B	Z	134.399	1.25
45	MP2B	Mx	.059	1.25
46	MP2B	X	77.595	6.25
47	MP2B	Z	134.399	6.25
48	MP2B	Mx	.059	6.25
49	MP2C	X	54.418	1.25
50	MP2C	Z	94.255	1.25
51	MP2C	Mx	.043	1.25
52	MP2C	X	54.418	6.25
53	MP2C	Z	94.255	6.25
54	MP2C	Mx	.043	6.25
55	MP3A	X	28.547	3.75
56	MP3A	Z	49.445	3.75
57	MP3A	Mx	.01	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
58	MP3B	X	28.547	3.75
59	MP3B	Z	49.445	3.75
60	MP3B	Mx	.01	3.75
61	MP3C	X	20.871	3.75
62	MP3C	Z	36.149	3.75
63	MP3C	Mx	-.014	3.75
64	MP2A	X	34.542	3.75
65	MP2A	Z	59.829	3.75
66	MP2A	Mx	.012	3.75
67	MP2B	X	34.542	3.75
68	MP2B	Z	59.829	3.75
69	MP2B	Mx	.012	3.75
70	MP2C	X	25.587	3.75
71	MP2C	Z	44.318	3.75
72	MP2C	Mx	-.017	3.75
73	MP1A	X	14.771	4
74	MP1A	Z	25.584	4
75	MP1A	Mx	.005	4
76	MP1B	X	14.771	4
77	MP1B	Z	25.584	4
78	MP1B	Mx	.005	4
79	MP1C	X	7.309	4
80	MP1C	Z	12.659	4
81	MP1C	Mx	-.005	4
82	OVP	X	59.803	2
83	OVP	Z	103.582	2
84	OVP	Mx	.02	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	2.75
2	MP4A	Z	76.058	2.75
3	MP4A	Mx	0	2.75
4	MP4A	X	0	4.75
5	MP4A	Z	76.058	4.75
6	MP4A	Mx	0	4.75
7	MP4B	X	0	2.75
8	MP4B	Z	40.985	2.75
9	MP4B	Mx	-.018	2.75
10	MP4B	X	0	4.75
11	MP4B	Z	40.985	4.75
12	MP4B	Mx	-.018	4.75
13	MP4C	X	0	2.75
14	MP4C	Z	40.985	2.75
15	MP4C	Mx	.018	2.75
16	MP4C	X	0	4.75
17	MP4C	Z	40.985	4.75
18	MP4C	Mx	.018	4.75
19	MP2A	X	0	1.25
20	MP2A	Z	108.97	1.25
21	MP2A	Mx	.064	1.25
22	MP2A	X	0	6.25
23	MP2A	Z	108.97	6.25
24	MP2A	Mx	.064	6.25
25	MP2B	X	0	1.25
26	MP2B	Z	62.312	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
27	MP2B	Mx	-.045	1.25
28	MP2B	X	0	6.25
29	MP2B	Z	62.312	6.25
30	MP2B	Mx	-.045	6.25
31	MP2C	X	0	1.25
32	MP2C	Z	62.312	1.25
33	MP2C	Mx	.009	1.25
34	MP2C	X	0	6.25
35	MP2C	Z	62.312	6.25
36	MP2C	Mx	.009	6.25
37	MP2A	X	0	1.25
38	MP2A	Z	161.549	1.25
39	MP2A	Mx	-.094	1.25
40	MP2A	X	0	6.25
41	MP2A	Z	161.549	6.25
42	MP2A	Mx	-.094	6.25
43	MP2B	X	0	1.25
44	MP2B	Z	129.654	1.25
45	MP2B	Mx	-.001	1.25
46	MP2B	X	0	6.25
47	MP2B	Z	129.654	6.25
48	MP2B	Mx	-.001	6.25
49	MP2C	X	0	1.25
50	MP2C	Z	113.555	1.25
51	MP2C	Mx	.076	1.25
52	MP2C	X	0	6.25
53	MP2C	Z	113.555	6.25
54	MP2C	Mx	.076	6.25
55	MP3A	X	0	3.75
56	MP3A	Z	62.211	3.75
57	MP3A	Mx	0	3.75
58	MP3B	X	0	3.75
59	MP3B	Z	46.859	3.75
60	MP3B	Mx	.014	3.75
61	MP3C	X	0	3.75
62	MP3C	Z	46.859	3.75
63	MP3C	Mx	-.014	3.75
64	MP2A	X	0	3.75
65	MP2A	Z	75.055	3.75
66	MP2A	Mx	0	3.75
67	MP2B	X	0	3.75
68	MP2B	Z	57.144	3.75
69	MP2B	Mx	.016	3.75
70	MP2C	X	0	3.75
71	MP2C	Z	57.144	3.75
72	MP2C	Mx	-.016	3.75
73	MP1A	X	0	4
74	MP1A	Z	34.517	4
75	MP1A	Mx	0	4
76	MP1B	X	0	4
77	MP1B	Z	19.592	4
78	MP1B	Mx	.006	4
79	MP1C	X	0	4
80	MP1C	Z	19.592	4
81	MP1C	Mx	-.006	4
82	OVP	X	0	2
83	OVP	Z	127.232	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
84	OVP	Mx	0	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-32.184	2.75
2	MP4A	Z	55.744	2.75
3	MP4A	Mx	.016	2.75
4	MP4A	X	-32.184	4.75
5	MP4A	Z	55.744	4.75
6	MP4A	Mx	.016	4.75
7	MP4B	X	-14.647	2.75
8	MP4B	Z	25.369	2.75
9	MP4B	Mx	-.015	2.75
10	MP4B	X	-14.647	4.75
11	MP4B	Z	25.369	4.75
12	MP4B	Mx	-.015	4.75
13	MP4C	X	-32.184	2.75
14	MP4C	Z	55.744	2.75
15	MP4C	Mx	.016	2.75
16	MP4C	X	-32.184	4.75
17	MP4C	Z	55.744	4.75
18	MP4C	Mx	.016	4.75
19	MP2A	X	-46.709	1.25
20	MP2A	Z	80.902	1.25
21	MP2A	Mx	.071	1.25
22	MP2A	X	-46.709	6.25
23	MP2A	Z	80.902	6.25
24	MP2A	Mx	.071	6.25
25	MP2B	X	-23.379	1.25
26	MP2B	Z	40.494	1.25
27	MP2B	Mx	-.023	1.25
28	MP2B	X	-23.379	6.25
29	MP2B	Z	40.494	6.25
30	MP2B	Mx	-.023	6.25
31	MP2C	X	-46.709	1.25
32	MP2C	Z	80.902	1.25
33	MP2C	Mx	-.024	1.25
34	MP2C	X	-46.709	6.25
35	MP2C	Z	80.902	6.25
36	MP2C	Mx	-.024	6.25
37	MP2A	X	-73.98	1.25
38	MP2A	Z	128.138	1.25
39	MP2A	Mx	-.038	1.25
40	MP2A	X	-73.98	6.25
41	MP2A	Z	128.138	6.25
42	MP2A	Mx	-.038	6.25
43	MP2B	X	-54.418	1.25
44	MP2B	Z	94.255	1.25
45	MP2B	Mx	-.043	1.25
46	MP2B	X	-54.418	6.25
47	MP2B	Z	94.255	6.25
48	MP2B	Mx	-.043	6.25
49	MP2C	X	-69.546	1.25
50	MP2C	Z	120.457	1.25
51	MP2C	Mx	.107	1.25
52	MP2C	X	-69.546	6.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
53	MP2C	Z	120.457	6.25
54	MP2C	Mx	.107	6.25
55	MP3A	X	-28.547	3.75
56	MP3A	Z	49.445	3.75
57	MP3A	Mx	-.01	3.75
58	MP3B	X	-20.871	3.75
59	MP3B	Z	36.149	3.75
60	MP3B	Mx	.014	3.75
61	MP3C	X	-28.547	3.75
62	MP3C	Z	49.445	3.75
63	MP3C	Mx	-.01	3.75
64	MP2A	X	-34.542	3.75
65	MP2A	Z	59.829	3.75
66	MP2A	Mx	-.012	3.75
67	MP2B	X	-25.587	3.75
68	MP2B	Z	44.318	3.75
69	MP2B	Mx	.017	3.75
70	MP2C	X	-34.542	3.75
71	MP2C	Z	59.829	3.75
72	MP2C	Mx	-.012	3.75
73	MP1A	X	-14.771	4
74	MP1A	Z	25.584	4
75	MP1A	Mx	-.005	4
76	MP1B	X	-7.309	4
77	MP1B	Z	12.659	4
78	MP1B	Mx	.005	4
79	MP1C	X	-14.771	4
80	MP1C	Z	25.584	4
81	MP1C	Mx	-.005	4
82	OVP	X	-59.803	2
83	OVP	Z	103.582	2
84	OVP	Mx	-.02	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP4A	X	-35.494	2.75
2	MP4A	Z	20.492	2.75
3	MP4A	Mx	.018	2.75
4	MP4A	X	-35.494	4.75
5	MP4A	Z	20.492	4.75
6	MP4A	Mx	.018	4.75
7	MP4B	X	-35.494	2.75
8	MP4B	Z	20.492	2.75
9	MP4B	Mx	-.018	2.75
10	MP4B	X	-35.494	4.75
11	MP4B	Z	20.492	4.75
12	MP4B	Mx	-.018	4.75
13	MP4C	X	-65.868	2.75
14	MP4C	Z	38.029	2.75
15	MP4C	Mx	0	2.75
16	MP4C	X	-65.868	4.75
17	MP4C	Z	38.029	4.75
18	MP4C	Mx	0	4.75
19	MP2A	X	-53.963	1.25
20	MP2A	Z	31.156	1.25
21	MP2A	Mx	.045	1.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	-53.963	6.25
23	MP2A	Z	31.156	6.25
24	MP2A	Mx	.045	6.25
25	MP2B	X	-53.963	1.25
26	MP2B	Z	31.156	1.25
27	MP2B	Mx	-.009	1.25
28	MP2B	X	-53.963	6.25
29	MP2B	Z	31.156	6.25
30	MP2B	Mx	-.009	6.25
31	MP2C	X	-94.371	1.25
32	MP2C	Z	54.485	1.25
33	MP2C	Mx	-.064	1.25
34	MP2C	X	-94.371	6.25
35	MP2C	Z	54.485	6.25
36	MP2C	Mx	-.064	6.25
37	MP2A	X	-104.603	1.25
38	MP2A	Z	60.393	1.25
39	MP2A	Mx	.017	1.25
40	MP2A	X	-104.603	6.25
41	MP2A	Z	60.393	6.25
42	MP2A	Mx	.017	6.25
43	MP2B	X	-98.342	1.25
44	MP2B	Z	56.778	1.25
45	MP2B	Mx	-.076	1.25
46	MP2B	X	-98.342	6.25
47	MP2B	Z	56.778	6.25
48	MP2B	Mx	-.076	6.25
49	MP2C	X	-138.486	1.25
50	MP2C	Z	79.955	1.25
51	MP2C	Mx	.106	1.25
52	MP2C	X	-138.486	6.25
53	MP2C	Z	79.955	6.25
54	MP2C	Mx	.106	6.25
55	MP3A	X	-40.581	3.75
56	MP3A	Z	23.43	3.75
57	MP3A	Mx	-.014	3.75
58	MP3B	X	-40.581	3.75
59	MP3B	Z	23.43	3.75
60	MP3B	Mx	.014	3.75
61	MP3C	X	-53.877	3.75
62	MP3C	Z	31.106	3.75
63	MP3C	Mx	0	3.75
64	MP2A	X	-49.488	3.75
65	MP2A	Z	28.572	3.75
66	MP2A	Mx	-.016	3.75
67	MP2B	X	-49.488	3.75
68	MP2B	Z	28.572	3.75
69	MP2B	Mx	.016	3.75
70	MP2C	X	-64.999	3.75
71	MP2C	Z	37.527	3.75
72	MP2C	Mx	0	3.75
73	MP1A	X	-16.968	4
74	MP1A	Z	9.796	4
75	MP1A	Mx	-.006	4
76	MP1B	X	-16.968	4
77	MP1B	Z	9.796	4
78	MP1B	Mx	.006	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
79	MP1C	X	-29.893	4
80	MP1C	Z	17.259	4
81	MP1C	Mx	0	4
82	OVP	X	-90.374	2
83	OVP	Z	52.177	2
84	OVP	Mx	-.03	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
1	MP4A	X	-29.294	2.75
2	MP4A	Z	0	2.75
3	MP4A	Mx	.015	2.75
4	MP4A	X	-29.294	4.75
5	MP4A	Z	0	4.75
6	MP4A	Mx	.015	4.75
7	MP4B	X	-64.367	2.75
8	MP4B	Z	0	2.75
9	MP4B	Mx	-.016	2.75
10	MP4B	X	-64.367	4.75
11	MP4B	Z	0	4.75
12	MP4B	Mx	-.016	4.75
13	MP4C	X	-64.367	2.75
14	MP4C	Z	0	2.75
15	MP4C	Mx	-.016	2.75
16	MP4C	X	-64.367	4.75
17	MP4C	Z	0	4.75
18	MP4C	Mx	-.016	4.75
19	MP2A	X	-46.759	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.023	1.25
22	MP2A	X	-46.759	6.25
23	MP2A	Z	0	6.25
24	MP2A	Mx	.023	6.25
25	MP2B	X	-93.417	1.25
26	MP2B	Z	0	1.25
27	MP2B	Mx	.024	1.25
28	MP2B	X	-93.417	6.25
29	MP2B	Z	0	6.25
30	MP2B	Mx	.024	6.25
31	MP2C	X	-93.417	1.25
32	MP2C	Z	0	1.25
33	MP2C	Mx	-.071	1.25
34	MP2C	X	-93.417	6.25
35	MP2C	Z	0	6.25
36	MP2C	Mx	-.071	6.25
37	MP2A	X	-107.197	1.25
38	MP2A	Z	0	1.25
39	MP2A	Mx	.054	1.25
40	MP2A	X	-107.197	6.25
41	MP2A	Z	0	6.25
42	MP2A	Mx	.054	6.25
43	MP2B	X	-139.092	1.25
44	MP2B	Z	0	1.25
45	MP2B	Mx	-.107	1.25
46	MP2B	X	-139.092	6.25
47	MP2B	Z	0	6.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP2B	Mx	- .107	6.25
49	MP2C	X	-155.191	1.25
50	MP2C	Z	0	1.25
51	MP2C	Mx	.059	1.25
52	MP2C	X	-155.191	6.25
53	MP2C	Z	0	6.25
54	MP2C	Mx	.059	6.25
55	MP3A	X	-41.742	3.75
56	MP3A	Z	0	3.75
57	MP3A	Mx	-.014	3.75
58	MP3B	X	-57.094	3.75
59	MP3B	Z	0	3.75
60	MP3B	Mx	.01	3.75
61	MP3C	X	-57.094	3.75
62	MP3C	Z	0	3.75
63	MP3C	Mx	.01	3.75
64	MP2A	X	-51.174	3.75
65	MP2A	Z	0	3.75
66	MP2A	Mx	-.017	3.75
67	MP2B	X	-69.085	3.75
68	MP2B	Z	0	3.75
69	MP2B	Mx	.012	3.75
70	MP2C	X	-69.085	3.75
71	MP2C	Z	0	3.75
72	MP2C	Mx	.012	3.75
73	MP1A	X	-14.618	4
74	MP1A	Z	0	4
75	MP1A	Mx	-.005	4
76	MP1B	X	-29.542	4
77	MP1B	Z	0	4
78	MP1B	Mx	.005	4
79	MP1C	X	-29.542	4
80	MP1C	Z	0	4
81	MP1C	Mx	.005	4
82	OVP	X	-96.729	2
83	OVP	Z	0	2
84	OVP	Mx	-.032	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-35.494	2.75
2	MP4A	Z	-20.492	2.75
3	MP4A	Mx	.018	2.75
4	MP4A	X	-35.494	4.75
5	MP4A	Z	-20.492	4.75
6	MP4A	Mx	.018	4.75
7	MP4B	X	-65.868	2.75
8	MP4B	Z	-38.029	2.75
9	MP4B	Mx	0	2.75
10	MP4B	X	-65.868	4.75
11	MP4B	Z	-38.029	4.75
12	MP4B	Mx	0	4.75
13	MP4C	X	-35.494	2.75
14	MP4C	Z	-20.492	2.75
15	MP4C	Mx	-.018	2.75
16	MP4C	X	-35.494	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP4C	Z	-20.492	4.75
18	MP4C	Mx	-.018	4.75
19	MP2A	X	-53.963	1.25
20	MP2A	Z	-31.156	1.25
21	MP2A	Mx	.009	1.25
22	MP2A	X	-53.963	6.25
23	MP2A	Z	-31.156	6.25
24	MP2A	Mx	.009	6.25
25	MP2B	X	-94.371	1.25
26	MP2B	Z	-54.485	1.25
27	MP2B	Mx	.064	1.25
28	MP2B	X	-94.371	6.25
29	MP2B	Z	-54.485	6.25
30	MP2B	Mx	.064	6.25
31	MP2C	X	-53.963	1.25
32	MP2C	Z	-31.156	1.25
33	MP2C	Mx	-.045	1.25
34	MP2C	X	-53.963	6.25
35	MP2C	Z	-31.156	6.25
36	MP2C	Mx	-.045	6.25
37	MP2A	X	-104.603	1.25
38	MP2A	Z	-60.393	1.25
39	MP2A	Mx	.088	1.25
40	MP2A	X	-104.603	6.25
41	MP2A	Z	-60.393	6.25
42	MP2A	Mx	.088	6.25
43	MP2B	X	-138.486	1.25
44	MP2B	Z	-79.955	1.25
45	MP2B	Mx	-.106	1.25
46	MP2B	X	-138.486	6.25
47	MP2B	Z	-79.955	6.25
48	MP2B	Mx	-.106	6.25
49	MP2C	X	-112.284	1.25
50	MP2C	Z	-64.827	1.25
51	MP2C	Mx	-.001	1.25
52	MP2C	X	-112.284	6.25
53	MP2C	Z	-64.827	6.25
54	MP2C	Mx	-.001	6.25
55	MP3A	X	-40.581	3.75
56	MP3A	Z	-23.43	3.75
57	MP3A	Mx	-.014	3.75
58	MP3B	X	-53.877	3.75
59	MP3B	Z	-31.106	3.75
60	MP3B	Mx	0	3.75
61	MP3C	X	-40.581	3.75
62	MP3C	Z	-23.43	3.75
63	MP3C	Mx	.014	3.75
64	MP2A	X	-49.488	3.75
65	MP2A	Z	-28.572	3.75
66	MP2A	Mx	-.016	3.75
67	MP2B	X	-64.999	3.75
68	MP2B	Z	-37.527	3.75
69	MP2B	Mx	0	3.75
70	MP2C	X	-49.488	3.75
71	MP2C	Z	-28.572	3.75
72	MP2C	Mx	.016	3.75
73	MP1A	X	-16.968	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
74	MP1A	Z	-9.796	4
75	MP1A	Mx	-0.06	4
76	MP1B	X	-29.893	4
77	MP1B	Z	-17.259	4
78	MP1B	Mx	0	4
79	MP1C	X	-16.968	4
80	MP1C	Z	-9.796	4
81	MP1C	Mx	.006	4
82	OVP	X	-90.374	2
83	OVP	Z	-52.177	2
84	OVP	Mx	-.03	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-32.184	2.75
2	MP4A	Z	-55.744	2.75
3	MP4A	Mx	.016	2.75
4	MP4A	X	-32.184	4.75
5	MP4A	Z	-55.744	4.75
6	MP4A	Mx	.016	4.75
7	MP4B	X	-32.184	2.75
8	MP4B	Z	-55.744	2.75
9	MP4B	Mx	.016	2.75
10	MP4B	X	-32.184	4.75
11	MP4B	Z	-55.744	4.75
12	MP4B	Mx	.016	4.75
13	MP4C	X	-14.647	2.75
14	MP4C	Z	-25.369	2.75
15	MP4C	Mx	-.015	2.75
16	MP4C	X	-14.647	4.75
17	MP4C	Z	-25.369	4.75
18	MP4C	Mx	-.015	4.75
19	MP2A	X	-46.709	1.25
20	MP2A	Z	-80.902	1.25
21	MP2A	Mx	-.024	1.25
22	MP2A	X	-46.709	6.25
23	MP2A	Z	-80.902	6.25
24	MP2A	Mx	-.024	6.25
25	MP2B	X	-46.709	1.25
26	MP2B	Z	-80.902	1.25
27	MP2B	Mx	.071	1.25
28	MP2B	X	-46.709	6.25
29	MP2B	Z	-80.902	6.25
30	MP2B	Mx	.071	6.25
31	MP2C	X	-23.379	1.25
32	MP2C	Z	-40.494	1.25
33	MP2C	Mx	-.023	1.25
34	MP2C	X	-23.379	6.25
35	MP2C	Z	-40.494	6.25
36	MP2C	Mx	-.023	6.25
37	MP2A	X	-73.98	1.25
38	MP2A	Z	-128.138	1.25
39	MP2A	Mx	.112	1.25
40	MP2A	X	-73.98	6.25
41	MP2A	Z	-128.138	6.25
42	MP2A	Mx	.112	6.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
43	MP2B	X	-77.595	1.25
44	MP2B	Z	-134.399	1.25
45	MP2B	Mx	-.059	1.25
46	MP2B	X	-77.595	6.25
47	MP2B	Z	-134.399	6.25
48	MP2B	Mx	-.059	6.25
49	MP2C	X	-54.418	1.25
50	MP2C	Z	-94.255	1.25
51	MP2C	Mx	-.043	1.25
52	MP2C	X	-54.418	6.25
53	MP2C	Z	-94.255	6.25
54	MP2C	Mx	-.043	6.25
55	MP3A	X	-28.547	3.75
56	MP3A	Z	-49.445	3.75
57	MP3A	Mx	-.01	3.75
58	MP3B	X	-28.547	3.75
59	MP3B	Z	-49.445	3.75
60	MP3B	Mx	-.01	3.75
61	MP3C	X	-20.871	3.75
62	MP3C	Z	-36.149	3.75
63	MP3C	Mx	.014	3.75
64	MP2A	X	-34.542	3.75
65	MP2A	Z	-59.829	3.75
66	MP2A	Mx	-.012	3.75
67	MP2B	X	-34.542	3.75
68	MP2B	Z	-59.829	3.75
69	MP2B	Mx	-.012	3.75
70	MP2C	X	-25.587	3.75
71	MP2C	Z	-44.318	3.75
72	MP2C	Mx	.017	3.75
73	MP1A	X	-14.771	4
74	MP1A	Z	-25.584	4
75	MP1A	Mx	-.005	4
76	MP1B	X	-14.771	4
77	MP1B	Z	-25.584	4
78	MP1B	Mx	-.005	4
79	MP1C	X	-7.309	4
80	MP1C	Z	-12.659	4
81	MP1C	Mx	.005	4
82	OVP	X	-59.803	2
83	OVP	Z	-103.582	2
84	OVP	Mx	-.02	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2.75
2	MP4A	Z	-15.997	2.75
3	MP4A	Mx	0	2.75
4	MP4A	X	0	4.75
5	MP4A	Z	-15.997	4.75
6	MP4A	Mx	0	4.75
7	MP4B	X	0	2.75
8	MP4B	Z	-9.279	2.75
9	MP4B	Mx	.004	2.75
10	MP4B	X	0	4.75
11	MP4B	Z	-9.279	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
12	MP4B	Mx	.004	4.75
13	MP4C	X	0	2.75
14	MP4C	Z	-9.279	2.75
15	MP4C	Mx	-.004	2.75
16	MP4C	X	0	4.75
17	MP4C	Z	-9.279	4.75
18	MP4C	Mx	-.004	4.75
19	MP2A	X	0	1.25
20	MP2A	Z	-32.48	1.25
21	MP2A	Mx	-.019	1.25
22	MP2A	X	0	6.25
23	MP2A	Z	-32.48	6.25
24	MP2A	Mx	-.019	6.25
25	MP2B	X	0	1.25
26	MP2B	Z	-25.22	1.25
27	MP2B	Mx	.018	1.25
28	MP2B	X	0	6.25
29	MP2B	Z	-25.22	6.25
30	MP2B	Mx	.018	6.25
31	MP2C	X	0	1.25
32	MP2C	Z	-25.22	1.25
33	MP2C	Mx	-.004	1.25
34	MP2C	X	0	6.25
35	MP2C	Z	-25.22	6.25
36	MP2C	Mx	-.004	6.25
37	MP2A	X	0	1.25
38	MP2A	Z	-32.48	1.25
39	MP2A	Mx	.019	1.25
40	MP2A	X	0	6.25
41	MP2A	Z	-32.48	6.25
42	MP2A	Mx	.019	6.25
43	MP2B	X	0	1.25
44	MP2B	Z	-26.799	1.25
45	MP2B	Mx	.000216	1.25
46	MP2B	X	0	6.25
47	MP2B	Z	-26.799	6.25
48	MP2B	Mx	.000216	6.25
49	MP2C	X	0	1.25
50	MP2C	Z	-23.932	1.25
51	MP2C	Mx	-.016	1.25
52	MP2C	X	0	6.25
53	MP2C	Z	-23.932	6.25
54	MP2C	Mx	-.016	6.25
55	MP3A	X	0	3.75
56	MP3A	Z	-16.868	3.75
57	MP3A	Mx	0	3.75
58	MP3B	X	0	3.75
59	MP3B	Z	-13.174	3.75
60	MP3B	Mx	-.004	3.75
61	MP3C	X	0	3.75
62	MP3C	Z	-13.174	3.75
63	MP3C	Mx	.004	3.75
64	MP2A	X	0	3.75
65	MP2A	Z	-16.868	3.75
66	MP2A	Mx	0	3.75
67	MP2B	X	0	3.75
68	MP2B	Z	-13.322	3.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
69	MP2B	Mx	-.004	3.75
70	MP2C	X	0	3.75
71	MP2C	Z	-13.322	3.75
72	MP2C	Mx	.004	3.75
73	MP1A	X	0	4
74	MP1A	Z	-8.681	4
75	MP1A	Mx	0	4
76	MP1B	X	0	4
77	MP1B	Z	-5.624	4
78	MP1B	Mx	-.002	4
79	MP1C	X	0	4
80	MP1C	Z	-5.624	4
81	MP1C	Mx	.002	4
82	OVP	X	0	2
83	OVP	Z	-31.814	2
84	OVP	Mx	0	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	6.879	2.75
2	MP4A	Z	-11.914	2.75
3	MP4A	Mx	-.003	2.75
4	MP4A	X	6.879	4.75
5	MP4A	Z	-11.914	4.75
6	MP4A	Mx	-.003	4.75
7	MP4B	X	3.52	2.75
8	MP4B	Z	-6.097	2.75
9	MP4B	Mx	.004	2.75
10	MP4B	X	3.52	4.75
11	MP4B	Z	-6.097	4.75
12	MP4B	Mx	.004	4.75
13	MP4C	X	6.879	2.75
14	MP4C	Z	-11.914	2.75
15	MP4C	Mx	-.003	2.75
16	MP4C	X	6.879	4.75
17	MP4C	Z	-11.914	4.75
18	MP4C	Mx	-.003	4.75
19	MP2A	X	15.03	1.25
20	MP2A	Z	-26.032	1.25
21	MP2A	Mx	-.023	1.25
22	MP2A	X	15.03	6.25
23	MP2A	Z	-26.032	6.25
24	MP2A	Mx	-.023	6.25
25	MP2B	X	11.4	1.25
26	MP2B	Z	-19.745	1.25
27	MP2B	Mx	.011	1.25
28	MP2B	X	11.4	6.25
29	MP2B	Z	-19.745	6.25
30	MP2B	Mx	.011	6.25
31	MP2C	X	15.03	1.25
32	MP2C	Z	-26.032	1.25
33	MP2C	Mx	.008	1.25
34	MP2C	X	15.03	6.25
35	MP2C	Z	-26.032	6.25
36	MP2C	Mx	.008	6.25
37	MP2A	X	15.03	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
7	MP4B	X	8.036	2.75
8	MP4B	Z	-4.639	2.75
9	MP4B	Mx	.004	2.75
10	MP4B	X	8.036	4.75
11	MP4B	Z	-4.639	4.75
12	MP4B	Mx	.004	4.75
13	MP4C	X	13.853	2.75
14	MP4C	Z	-7.998	2.75
15	MP4C	Mx	0	2.75
16	MP4C	X	13.853	4.75
17	MP4C	Z	-7.998	4.75
18	MP4C	Mx	0	4.75
19	MP2A	X	21.841	1.25
20	MP2A	Z	-12.61	1.25
21	MP2A	Mx	-.018	1.25
22	MP2A	X	21.841	6.25
23	MP2A	Z	-12.61	6.25
24	MP2A	Mx	-.018	6.25
25	MP2B	X	21.841	1.25
26	MP2B	Z	-12.61	1.25
27	MP2B	Mx	.004	1.25
28	MP2B	X	21.841	6.25
29	MP2B	Z	-12.61	6.25
30	MP2B	Mx	.004	6.25
31	MP2C	X	28.128	1.25
32	MP2C	Z	-16.24	1.25
33	MP2C	Mx	.019	1.25
34	MP2C	X	28.128	6.25
35	MP2C	Z	-16.24	6.25
36	MP2C	Mx	.019	6.25
37	MP2A	X	21.841	1.25
38	MP2A	Z	-12.61	1.25
39	MP2A	Mx	-.004	1.25
40	MP2A	X	21.841	6.25
41	MP2A	Z	-12.61	6.25
42	MP2A	Mx	-.004	6.25
43	MP2B	X	20.726	1.25
44	MP2B	Z	-11.966	1.25
45	MP2B	Mx	.016	1.25
46	MP2B	X	20.726	6.25
47	MP2B	Z	-11.966	6.25
48	MP2B	Mx	.016	6.25
49	MP2C	X	27.875	1.25
50	MP2C	Z	-16.094	1.25
51	MP2C	Mx	-.021	1.25
52	MP2C	X	27.875	6.25
53	MP2C	Z	-16.094	6.25
54	MP2C	Mx	-.021	6.25
55	MP3A	X	11.409	3.75
56	MP3A	Z	-6.587	3.75
57	MP3A	Mx	.004	3.75
58	MP3B	X	11.409	3.75
59	MP3B	Z	-6.587	3.75
60	MP3B	Mx	-.004	3.75
61	MP3C	X	14.608	3.75
62	MP3C	Z	-8.434	3.75
63	MP3C	Mx	0	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
64	MP2A	X	11.537	3.75
65	MP2A	Z	-6.661	3.75
66	MP2A	Mx	.004	3.75
67	MP2B	X	11.537	3.75
68	MP2B	Z	-6.661	3.75
69	MP2B	Mx	-.004	3.75
70	MP2C	X	14.608	3.75
71	MP2C	Z	-8.434	3.75
72	MP2C	Mx	0	3.75
73	MP1A	X	4.871	4
74	MP1A	Z	-2.812	4
75	MP1A	Mx	.002	4
76	MP1B	X	4.871	4
77	MP1B	Z	-2.812	4
78	MP1B	Mx	-.002	4
79	MP1C	X	7.518	4
80	MP1C	Z	-4.341	4
81	MP1C	Mx	0	4
82	OVP	X	21.266	2
83	OVP	Z	-12.278	2
84	OVP	Mx	.007	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	7.04	2.75
2	MP4A	Z	0	2.75
3	MP4A	Mx	-.004	2.75
4	MP4A	X	7.04	4.75
5	MP4A	Z	0	4.75
6	MP4A	Mx	-.004	4.75
7	MP4B	X	13.757	2.75
8	MP4B	Z	0	2.75
9	MP4B	Mx	.003	2.75
10	MP4B	X	13.757	4.75
11	MP4B	Z	0	4.75
12	MP4B	Mx	.003	4.75
13	MP4C	X	13.757	2.75
14	MP4C	Z	0	2.75
15	MP4C	Mx	.003	2.75
16	MP4C	X	13.757	4.75
17	MP4C	Z	0	4.75
18	MP4C	Mx	.003	4.75
19	MP2A	X	22.8	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.011	1.25
22	MP2A	X	22.8	6.25
23	MP2A	Z	0	6.25
24	MP2A	Mx	-.011	6.25
25	MP2B	X	30.06	1.25
26	MP2B	Z	0	1.25
27	MP2B	Mx	-.008	1.25
28	MP2B	X	30.06	6.25
29	MP2B	Z	0	6.25
30	MP2B	Mx	-.008	6.25
31	MP2C	X	30.06	1.25
32	MP2C	Z	0	1.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP2C	Mx	.023	1.25
34	MP2C	X	30.06	6.25
35	MP2C	Z	0	6.25
36	MP2C	Mx	.023	6.25
37	MP2A	X	22.8	1.25
38	MP2A	Z	0	1.25
39	MP2A	Mx	-.011	1.25
40	MP2A	X	22.8	6.25
41	MP2A	Z	0	6.25
42	MP2A	Mx	-.011	6.25
43	MP2B	X	28.48	1.25
44	MP2B	Z	0	1.25
45	MP2B	Mx	.022	1.25
46	MP2B	X	28.48	6.25
47	MP2B	Z	0	6.25
48	MP2B	Mx	.022	6.25
49	MP2C	X	31.347	1.25
50	MP2C	Z	0	1.25
51	MP2C	Mx	-.012	1.25
52	MP2C	X	31.347	6.25
53	MP2C	Z	0	6.25
54	MP2C	Mx	-.012	6.25
55	MP3A	X	11.943	3.75
56	MP3A	Z	0	3.75
57	MP3A	Mx	.004	3.75
58	MP3B	X	15.637	3.75
59	MP3B	Z	0	3.75
60	MP3B	Mx	-.003	3.75
61	MP3C	X	15.637	3.75
62	MP3C	Z	0	3.75
63	MP3C	Mx	-.003	3.75
64	MP2A	X	12.14	3.75
65	MP2A	Z	0	3.75
66	MP2A	Mx	.004	3.75
67	MP2B	X	15.686	3.75
68	MP2B	Z	0	3.75
69	MP2B	Mx	-.003	3.75
70	MP2C	X	15.686	3.75
71	MP2C	Z	0	3.75
72	MP2C	Mx	-.003	3.75
73	MP1A	X	4.606	4
74	MP1A	Z	0	4
75	MP1A	Mx	.002	4
76	MP1B	X	7.662	4
77	MP1B	Z	0	4
78	MP1B	Mx	-.001	4
79	MP1C	X	7.662	4
80	MP1C	Z	0	4
81	MP1C	Mx	-.001	4
82	OVP	X	22.136	2
83	OVP	Z	0	2
84	OVP	Mx	.007	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.036	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
2	MP4A	Z	4.639	2.75
3	MP4A	Mx	-.004	2.75
4	MP4A	X	8.036	4.75
5	MP4A	Z	4.639	4.75
6	MP4A	Mx	-.004	4.75
7	MP4B	X	13.853	2.75
8	MP4B	Z	7.998	2.75
9	MP4B	Mx	0	2.75
10	MP4B	X	13.853	4.75
11	MP4B	Z	7.998	4.75
12	MP4B	Mx	0	4.75
13	MP4C	X	8.036	2.75
14	MP4C	Z	4.639	2.75
15	MP4C	Mx	.004	2.75
16	MP4C	X	8.036	4.75
17	MP4C	Z	4.639	4.75
18	MP4C	Mx	.004	4.75
19	MP2A	X	21.841	1.25
20	MP2A	Z	12.61	1.25
21	MP2A	Mx	-.004	1.25
22	MP2A	X	21.841	6.25
23	MP2A	Z	12.61	6.25
24	MP2A	Mx	-.004	6.25
25	MP2B	X	28.128	1.25
26	MP2B	Z	16.24	1.25
27	MP2B	Mx	-.019	1.25
28	MP2B	X	28.128	6.25
29	MP2B	Z	16.24	6.25
30	MP2B	Mx	-.019	6.25
31	MP2C	X	21.841	1.25
32	MP2C	Z	12.61	1.25
33	MP2C	Mx	.018	1.25
34	MP2C	X	21.841	6.25
35	MP2C	Z	12.61	6.25
36	MP2C	Mx	.018	6.25
37	MP2A	X	21.841	1.25
38	MP2A	Z	12.61	1.25
39	MP2A	Mx	-.018	1.25
40	MP2A	X	21.841	6.25
41	MP2A	Z	12.61	6.25
42	MP2A	Mx	-.018	6.25
43	MP2B	X	27.875	1.25
44	MP2B	Z	16.094	1.25
45	MP2B	Mx	.021	1.25
46	MP2B	X	27.875	6.25
47	MP2B	Z	16.094	6.25
48	MP2B	Mx	.021	6.25
49	MP2C	X	23.209	1.25
50	MP2C	Z	13.4	1.25
51	MP2C	Mx	.000216	1.25
52	MP2C	X	23.209	6.25
53	MP2C	Z	13.4	6.25
54	MP2C	Mx	.000216	6.25
55	MP3A	X	11.409	3.75
56	MP3A	Z	6.587	3.75
57	MP3A	Mx	.004	3.75
58	MP3B	X	14.608	3.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
59	MP3B	Z	8.434	3.75
60	MP3B	Mx	0	3.75
61	MP3C	X	11.409	3.75
62	MP3C	Z	6.587	3.75
63	MP3C	Mx	-.004	3.75
64	MP2A	X	11.537	3.75
65	MP2A	Z	6.661	3.75
66	MP2A	Mx	.004	3.75
67	MP2B	X	14.608	3.75
68	MP2B	Z	8.434	3.75
69	MP2B	Mx	0	3.75
70	MP2C	X	11.537	3.75
71	MP2C	Z	6.661	3.75
72	MP2C	Mx	-.004	3.75
73	MP1A	X	4.871	4
74	MP1A	Z	2.812	4
75	MP1A	Mx	.002	4
76	MP1B	X	7.518	4
77	MP1B	Z	4.341	4
78	MP1B	Mx	0	4
79	MP1C	X	4.871	4
80	MP1C	Z	2.812	4
81	MP1C	Mx	-.002	4
82	OVP	X	21.266	2
83	OVP	Z	12.278	2
84	OVP	Mx	.007	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	6.879	2.75
2	MP4A	Z	11.914	2.75
3	MP4A	Mx	-.003	2.75
4	MP4A	X	6.879	4.75
5	MP4A	Z	11.914	4.75
6	MP4A	Mx	-.003	4.75
7	MP4B	X	6.879	2.75
8	MP4B	Z	11.914	2.75
9	MP4B	Mx	-.003	2.75
10	MP4B	X	6.879	4.75
11	MP4B	Z	11.914	4.75
12	MP4B	Mx	-.003	4.75
13	MP4C	X	3.52	2.75
14	MP4C	Z	6.097	2.75
15	MP4C	Mx	.004	2.75
16	MP4C	X	3.52	4.75
17	MP4C	Z	6.097	4.75
18	MP4C	Mx	.004	4.75
19	MP2A	X	15.03	1.25
20	MP2A	Z	26.032	1.25
21	MP2A	Mx	.008	1.25
22	MP2A	X	15.03	6.25
23	MP2A	Z	26.032	6.25
24	MP2A	Mx	.008	6.25
25	MP2B	X	15.03	1.25
26	MP2B	Z	26.032	1.25
27	MP2B	Mx	-.023	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP2B	X	15.03	6.25
29	MP2B	Z	26.032	6.25
30	MP2B	Mx	-.023	6.25
31	MP2C	X	11.4	1.25
32	MP2C	Z	19.745	1.25
33	MP2C	Mx	.011	1.25
34	MP2C	X	11.4	6.25
35	MP2C	Z	19.745	6.25
36	MP2C	Mx	.011	6.25
37	MP2A	X	15.03	1.25
38	MP2A	Z	26.032	1.25
39	MP2A	Mx	-.023	1.25
40	MP2A	X	15.03	6.25
41	MP2A	Z	26.032	6.25
42	MP2A	Mx	-.023	6.25
43	MP2B	X	15.674	1.25
44	MP2B	Z	27.148	1.25
45	MP2B	Mx	.012	1.25
46	MP2B	X	15.674	6.25
47	MP2B	Z	27.148	6.25
48	MP2B	Mx	.012	6.25
49	MP2C	X	11.546	1.25
50	MP2C	Z	19.998	1.25
51	MP2C	Mx	.009	1.25
52	MP2C	X	11.546	6.25
53	MP2C	Z	19.998	6.25
54	MP2C	Mx	.009	6.25
55	MP3A	X	7.818	3.75
56	MP3A	Z	13.542	3.75
57	MP3A	Mx	.003	3.75
58	MP3B	X	7.818	3.75
59	MP3B	Z	13.542	3.75
60	MP3B	Mx	.003	3.75
61	MP3C	X	5.972	3.75
62	MP3C	Z	10.343	3.75
63	MP3C	Mx	-.004	3.75
64	MP2A	X	7.843	3.75
65	MP2A	Z	13.585	3.75
66	MP2A	Mx	.003	3.75
67	MP2B	X	7.843	3.75
68	MP2B	Z	13.585	3.75
69	MP2B	Mx	.003	3.75
70	MP2C	X	6.07	3.75
71	MP2C	Z	10.514	3.75
72	MP2C	Mx	-.004	3.75
73	MP1A	X	3.831	4
74	MP1A	Z	6.636	4
75	MP1A	Mx	.001	4
76	MP1B	X	3.831	4
77	MP1B	Z	6.636	4
78	MP1B	Mx	.001	4
79	MP1C	X	2.303	4
80	MP1C	Z	3.988	4
81	MP1C	Mx	-.002	4
82	OVP	X	14.697	2
83	OVP	Z	25.456	2
84	OVP	Mx	.005	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	2.75
2	MP4A	Z	15.997	2.75
3	MP4A	Mx	0	2.75
4	MP4A	X	0	4.75
5	MP4A	Z	15.997	4.75
6	MP4A	Mx	0	4.75
7	MP4B	X	0	2.75
8	MP4B	Z	9.279	2.75
9	MP4B	Mx	-.004	2.75
10	MP4B	X	0	4.75
11	MP4B	Z	9.279	4.75
12	MP4B	Mx	-.004	4.75
13	MP4C	X	0	2.75
14	MP4C	Z	9.279	2.75
15	MP4C	Mx	.004	2.75
16	MP4C	X	0	4.75
17	MP4C	Z	9.279	4.75
18	MP4C	Mx	.004	4.75
19	MP2A	X	0	1.25
20	MP2A	Z	32.48	1.25
21	MP2A	Mx	.019	1.25
22	MP2A	X	0	6.25
23	MP2A	Z	32.48	6.25
24	MP2A	Mx	.019	6.25
25	MP2B	X	0	1.25
26	MP2B	Z	25.22	1.25
27	MP2B	Mx	-.018	1.25
28	MP2B	X	0	6.25
29	MP2B	Z	25.22	6.25
30	MP2B	Mx	-.018	6.25
31	MP2C	X	0	1.25
32	MP2C	Z	25.22	1.25
33	MP2C	Mx	.004	1.25
34	MP2C	X	0	6.25
35	MP2C	Z	25.22	6.25
36	MP2C	Mx	.004	6.25
37	MP2A	X	0	1.25
38	MP2A	Z	32.48	1.25
39	MP2A	Mx	-.019	1.25
40	MP2A	X	0	6.25
41	MP2A	Z	32.48	6.25
42	MP2A	Mx	-.019	6.25
43	MP2B	X	0	1.25
44	MP2B	Z	26.799	1.25
45	MP2B	Mx	-.000216	1.25
46	MP2B	X	0	6.25
47	MP2B	Z	26.799	6.25
48	MP2B	Mx	-.000216	6.25
49	MP2C	X	0	1.25
50	MP2C	Z	23.932	1.25
51	MP2C	Mx	.016	1.25
52	MP2C	X	0	6.25
53	MP2C	Z	23.932	6.25
54	MP2C	Mx	.016	6.25
55	MP3A	X	0	3.75
56	MP3A	Z	16.868	3.75
57	MP3A	Mx	0	3.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP3B	X	0	3.75
59	MP3B	Z	13.174	3.75
60	MP3B	Mx	.004	3.75
61	MP3C	X	0	3.75
62	MP3C	Z	13.174	3.75
63	MP3C	Mx	-.004	3.75
64	MP2A	X	0	3.75
65	MP2A	Z	16.868	3.75
66	MP2A	Mx	0	3.75
67	MP2B	X	0	3.75
68	MP2B	Z	13.322	3.75
69	MP2B	Mx	.004	3.75
70	MP2C	X	0	3.75
71	MP2C	Z	13.322	3.75
72	MP2C	Mx	-.004	3.75
73	MP1A	X	0	4
74	MP1A	Z	8.681	4
75	MP1A	Mx	0	4
76	MP1B	X	0	4
77	MP1B	Z	5.624	4
78	MP1B	Mx	.002	4
79	MP1C	X	0	4
80	MP1C	Z	5.624	4
81	MP1C	Mx	-.002	4
82	OVP	X	0	2
83	OVP	Z	31.814	2
84	OVP	Mx	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.879	2.75
2	MP4A	Z	11.914	2.75
3	MP4A	Mx	.003	2.75
4	MP4A	X	-6.879	4.75
5	MP4A	Z	11.914	4.75
6	MP4A	Mx	.003	4.75
7	MP4B	X	-3.52	2.75
8	MP4B	Z	6.097	2.75
9	MP4B	Mx	-.004	2.75
10	MP4B	X	-3.52	4.75
11	MP4B	Z	6.097	4.75
12	MP4B	Mx	-.004	4.75
13	MP4C	X	-6.879	2.75
14	MP4C	Z	11.914	2.75
15	MP4C	Mx	.003	2.75
16	MP4C	X	-6.879	4.75
17	MP4C	Z	11.914	4.75
18	MP4C	Mx	.003	4.75
19	MP2A	X	-15.03	1.25
20	MP2A	Z	26.032	1.25
21	MP2A	Mx	.023	1.25
22	MP2A	X	-15.03	6.25
23	MP2A	Z	26.032	6.25
24	MP2A	Mx	.023	6.25
25	MP2B	X	-11.4	1.25
26	MP2B	Z	19.745	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
27	MP2B	Mx	-.011	1.25
28	MP2B	X	-11.4	6.25
29	MP2B	Z	19.745	6.25
30	MP2B	Mx	-.011	6.25
31	MP2C	X	-15.03	1.25
32	MP2C	Z	26.032	1.25
33	MP2C	Mx	-.008	1.25
34	MP2C	X	-15.03	6.25
35	MP2C	Z	26.032	6.25
36	MP2C	Mx	-.008	6.25
37	MP2A	X	-15.03	1.25
38	MP2A	Z	26.032	1.25
39	MP2A	Mx	-.008	1.25
40	MP2A	X	-15.03	6.25
41	MP2A	Z	26.032	6.25
42	MP2A	Mx	-.008	6.25
43	MP2B	X	-11.546	1.25
44	MP2B	Z	19.998	1.25
45	MP2B	Mx	-.009	1.25
46	MP2B	X	-11.546	6.25
47	MP2B	Z	19.998	6.25
48	MP2B	Mx	-.009	6.25
49	MP2C	X	-14.24	1.25
50	MP2C	Z	24.665	1.25
51	MP2C	Mx	.022	1.25
52	MP2C	X	-14.24	6.25
53	MP2C	Z	24.665	6.25
54	MP2C	Mx	.022	6.25
55	MP3A	X	-7.818	3.75
56	MP3A	Z	13.542	3.75
57	MP3A	Mx	-.003	3.75
58	MP3B	X	-5.972	3.75
59	MP3B	Z	10.343	3.75
60	MP3B	Mx	.004	3.75
61	MP3C	X	-7.818	3.75
62	MP3C	Z	13.542	3.75
63	MP3C	Mx	-.003	3.75
64	MP2A	X	-7.843	3.75
65	MP2A	Z	13.585	3.75
66	MP2A	Mx	-.003	3.75
67	MP2B	X	-6.07	3.75
68	MP2B	Z	10.514	3.75
69	MP2B	Mx	.004	3.75
70	MP2C	X	-7.843	3.75
71	MP2C	Z	13.585	3.75
72	MP2C	Mx	-.003	3.75
73	MP1A	X	-3.831	4
74	MP1A	Z	6.636	4
75	MP1A	Mx	-.001	4
76	MP1B	X	-2.303	4
77	MP1B	Z	3.988	4
78	MP1B	Mx	.002	4
79	MP1C	X	-3.831	4
80	MP1C	Z	6.636	4
81	MP1C	Mx	-.001	4
82	OVP	X	-14.697	2
83	OVP	Z	25.456	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
84	OVP	Mx	-.005	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-8.036	2.75
2	MP4A	Z	4.639	2.75
3	MP4A	Mx	.004	2.75
4	MP4A	X	-8.036	4.75
5	MP4A	Z	4.639	4.75
6	MP4A	Mx	.004	4.75
7	MP4B	X	-8.036	2.75
8	MP4B	Z	4.639	2.75
9	MP4B	Mx	-.004	2.75
10	MP4B	X	-8.036	4.75
11	MP4B	Z	4.639	4.75
12	MP4B	Mx	-.004	4.75
13	MP4C	X	-13.853	2.75
14	MP4C	Z	7.998	2.75
15	MP4C	Mx	0	2.75
16	MP4C	X	-13.853	4.75
17	MP4C	Z	7.998	4.75
18	MP4C	Mx	0	4.75
19	MP2A	X	-21.841	1.25
20	MP2A	Z	12.61	1.25
21	MP2A	Mx	.018	1.25
22	MP2A	X	-21.841	6.25
23	MP2A	Z	12.61	6.25
24	MP2A	Mx	.018	6.25
25	MP2B	X	-21.841	1.25
26	MP2B	Z	12.61	1.25
27	MP2B	Mx	-.004	1.25
28	MP2B	X	-21.841	6.25
29	MP2B	Z	12.61	6.25
30	MP2B	Mx	-.004	6.25
31	MP2C	X	-28.128	1.25
32	MP2C	Z	16.24	1.25
33	MP2C	Mx	-.019	1.25
34	MP2C	X	-28.128	6.25
35	MP2C	Z	16.24	6.25
36	MP2C	Mx	-.019	6.25
37	MP2A	X	-21.841	1.25
38	MP2A	Z	12.61	1.25
39	MP2A	Mx	.004	1.25
40	MP2A	X	-21.841	6.25
41	MP2A	Z	12.61	6.25
42	MP2A	Mx	.004	6.25
43	MP2B	X	-20.726	1.25
44	MP2B	Z	11.966	1.25
45	MP2B	Mx	-.016	1.25
46	MP2B	X	-20.726	6.25
47	MP2B	Z	11.966	6.25
48	MP2B	Mx	-.016	6.25
49	MP2C	X	-27.875	1.25
50	MP2C	Z	16.094	1.25
51	MP2C	Mx	.021	1.25
52	MP2C	X	-27.875	6.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
53	MP2C	Z	16.094	6.25
54	MP2C	Mx	.021	6.25
55	MP3A	X	-11.409	3.75
56	MP3A	Z	6.587	3.75
57	MP3A	Mx	-.004	3.75
58	MP3B	X	-11.409	3.75
59	MP3B	Z	6.587	3.75
60	MP3B	Mx	.004	3.75
61	MP3C	X	-14.608	3.75
62	MP3C	Z	8.434	3.75
63	MP3C	Mx	0	3.75
64	MP2A	X	-11.537	3.75
65	MP2A	Z	6.661	3.75
66	MP2A	Mx	-.004	3.75
67	MP2B	X	-11.537	3.75
68	MP2B	Z	6.661	3.75
69	MP2B	Mx	.004	3.75
70	MP2C	X	-14.608	3.75
71	MP2C	Z	8.434	3.75
72	MP2C	Mx	0	3.75
73	MP1A	X	-4.871	4
74	MP1A	Z	2.812	4
75	MP1A	Mx	-.002	4
76	MP1B	X	-4.871	4
77	MP1B	Z	2.812	4
78	MP1B	Mx	.002	4
79	MP1C	X	-7.518	4
80	MP1C	Z	4.341	4
81	MP1C	Mx	0	4
82	OVP	X	-21.266	2
83	OVP	Z	12.278	2
84	OVP	Mx	-.007	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.04	2.75
2	MP4A	Z	0	2.75
3	MP4A	Mx	.004	2.75
4	MP4A	X	-7.04	4.75
5	MP4A	Z	0	4.75
6	MP4A	Mx	.004	4.75
7	MP4B	X	-13.757	2.75
8	MP4B	Z	0	2.75
9	MP4B	Mx	-.003	2.75
10	MP4B	X	-13.757	4.75
11	MP4B	Z	0	4.75
12	MP4B	Mx	-.003	4.75
13	MP4C	X	-13.757	2.75
14	MP4C	Z	0	2.75
15	MP4C	Mx	-.003	2.75
16	MP4C	X	-13.757	4.75
17	MP4C	Z	0	4.75
18	MP4C	Mx	-.003	4.75
19	MP2A	X	-22.8	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.011	1.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	-22.8	6.25
23	MP2A	Z	0	6.25
24	MP2A	Mx	.011	6.25
25	MP2B	X	-30.06	1.25
26	MP2B	Z	0	1.25
27	MP2B	Mx	.008	1.25
28	MP2B	X	-30.06	6.25
29	MP2B	Z	0	6.25
30	MP2B	Mx	.008	6.25
31	MP2C	X	-30.06	1.25
32	MP2C	Z	0	1.25
33	MP2C	Mx	-.023	1.25
34	MP2C	X	-30.06	6.25
35	MP2C	Z	0	6.25
36	MP2C	Mx	-.023	6.25
37	MP2A	X	-22.8	1.25
38	MP2A	Z	0	1.25
39	MP2A	Mx	.011	1.25
40	MP2A	X	-22.8	6.25
41	MP2A	Z	0	6.25
42	MP2A	Mx	.011	6.25
43	MP2B	X	-28.48	1.25
44	MP2B	Z	0	1.25
45	MP2B	Mx	-.022	1.25
46	MP2B	X	-28.48	6.25
47	MP2B	Z	0	6.25
48	MP2B	Mx	-.022	6.25
49	MP2C	X	-31.347	1.25
50	MP2C	Z	0	1.25
51	MP2C	Mx	.012	1.25
52	MP2C	X	-31.347	6.25
53	MP2C	Z	0	6.25
54	MP2C	Mx	.012	6.25
55	MP3A	X	-11.943	3.75
56	MP3A	Z	0	3.75
57	MP3A	Mx	-.004	3.75
58	MP3B	X	-15.637	3.75
59	MP3B	Z	0	3.75
60	MP3B	Mx	.003	3.75
61	MP3C	X	-15.637	3.75
62	MP3C	Z	0	3.75
63	MP3C	Mx	.003	3.75
64	MP2A	X	-12.14	3.75
65	MP2A	Z	0	3.75
66	MP2A	Mx	-.004	3.75
67	MP2B	X	-15.686	3.75
68	MP2B	Z	0	3.75
69	MP2B	Mx	.003	3.75
70	MP2C	X	-15.686	3.75
71	MP2C	Z	0	3.75
72	MP2C	Mx	.003	3.75
73	MP1A	X	-4.606	4
74	MP1A	Z	0	4
75	MP1A	Mx	-.002	4
76	MP1B	X	-7.662	4
77	MP1B	Z	0	4
78	MP1B	Mx	.001	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
79	MP1C	X	-7.662	4
80	MP1C	Z	0	4
81	MP1C	Mx	.001	4
82	OVP	X	-22.136	2
83	OVP	Z	0	2
84	OVP	Mx	-.007	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-8.036	2.75
2	MP4A	Z	-4.639	2.75
3	MP4A	Mx	.004	2.75
4	MP4A	X	-8.036	4.75
5	MP4A	Z	-4.639	4.75
6	MP4A	Mx	.004	4.75
7	MP4B	X	-13.853	2.75
8	MP4B	Z	-7.998	2.75
9	MP4B	Mx	0	2.75
10	MP4B	X	-13.853	4.75
11	MP4B	Z	-7.998	4.75
12	MP4B	Mx	0	4.75
13	MP4C	X	-8.036	2.75
14	MP4C	Z	-4.639	2.75
15	MP4C	Mx	-.004	2.75
16	MP4C	X	-8.036	4.75
17	MP4C	Z	-4.639	4.75
18	MP4C	Mx	-.004	4.75
19	MP2A	X	-21.841	1.25
20	MP2A	Z	-12.61	1.25
21	MP2A	Mx	.004	1.25
22	MP2A	X	-21.841	6.25
23	MP2A	Z	-12.61	6.25
24	MP2A	Mx	.004	6.25
25	MP2B	X	-28.128	1.25
26	MP2B	Z	-16.24	1.25
27	MP2B	Mx	.019	1.25
28	MP2B	X	-28.128	6.25
29	MP2B	Z	-16.24	6.25
30	MP2B	Mx	.019	6.25
31	MP2C	X	-21.841	1.25
32	MP2C	Z	-12.61	1.25
33	MP2C	Mx	-.018	1.25
34	MP2C	X	-21.841	6.25
35	MP2C	Z	-12.61	6.25
36	MP2C	Mx	-.018	6.25
37	MP2A	X	-21.841	1.25
38	MP2A	Z	-12.61	1.25
39	MP2A	Mx	.018	1.25
40	MP2A	X	-21.841	6.25
41	MP2A	Z	-12.61	6.25
42	MP2A	Mx	.018	6.25
43	MP2B	X	-27.875	1.25
44	MP2B	Z	-16.094	1.25
45	MP2B	Mx	-.021	1.25
46	MP2B	X	-27.875	6.25
47	MP2B	Z	-16.094	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP4C	Z	-6.097	4.75
18	MP4C	Mx	-.004	4.75
19	MP2A	X	-15.03	1.25
20	MP2A	Z	-26.032	1.25
21	MP2A	Mx	-.008	1.25
22	MP2A	X	-15.03	6.25
23	MP2A	Z	-26.032	6.25
24	MP2A	Mx	-.008	6.25
25	MP2B	X	-15.03	1.25
26	MP2B	Z	-26.032	1.25
27	MP2B	Mx	.023	1.25
28	MP2B	X	-15.03	6.25
29	MP2B	Z	-26.032	6.25
30	MP2B	Mx	.023	6.25
31	MP2C	X	-11.4	1.25
32	MP2C	Z	-19.745	1.25
33	MP2C	Mx	-.011	1.25
34	MP2C	X	-11.4	6.25
35	MP2C	Z	-19.745	6.25
36	MP2C	Mx	-.011	6.25
37	MP2A	X	-15.03	1.25
38	MP2A	Z	-26.032	1.25
39	MP2A	Mx	.023	1.25
40	MP2A	X	-15.03	6.25
41	MP2A	Z	-26.032	6.25
42	MP2A	Mx	.023	6.25
43	MP2B	X	-15.674	1.25
44	MP2B	Z	-27.148	1.25
45	MP2B	Mx	-.012	1.25
46	MP2B	X	-15.674	6.25
47	MP2B	Z	-27.148	6.25
48	MP2B	Mx	-.012	6.25
49	MP2C	X	-11.546	1.25
50	MP2C	Z	-19.998	1.25
51	MP2C	Mx	-.009	1.25
52	MP2C	X	-11.546	6.25
53	MP2C	Z	-19.998	6.25
54	MP2C	Mx	-.009	6.25
55	MP3A	X	-7.818	3.75
56	MP3A	Z	-13.542	3.75
57	MP3A	Mx	-.003	3.75
58	MP3B	X	-7.818	3.75
59	MP3B	Z	-13.542	3.75
60	MP3B	Mx	-.003	3.75
61	MP3C	X	-5.972	3.75
62	MP3C	Z	-10.343	3.75
63	MP3C	Mx	.004	3.75
64	MP2A	X	-7.843	3.75
65	MP2A	Z	-13.585	3.75
66	MP2A	Mx	-.003	3.75
67	MP2B	X	-7.843	3.75
68	MP2B	Z	-13.585	3.75
69	MP2B	Mx	-.003	3.75
70	MP2C	X	-6.07	3.75
71	MP2C	Z	-10.514	3.75
72	MP2C	Mx	.004	3.75
73	MP1A	X	-3.831	4

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
74	MP1A	Z	-6.636	4
75	MP1A	Mx	-.001	4
76	MP1B	X	-3.831	4
77	MP1B	Z	-6.636	4
78	MP1B	Mx	-.001	4
79	MP1C	X	-2.303	4
80	MP1C	Z	-3.988	4
81	MP1C	Mx	.002	4
82	OVP	X	-14.697	2
83	OVP	Z	-25.456	2
84	OVP	Mx	-.005	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	2.75
2	MP4A	Z	-4.754	2.75
3	MP4A	Mx	0	2.75
4	MP4A	X	0	4.75
5	MP4A	Z	-4.754	4.75
6	MP4A	Mx	0	4.75
7	MP4B	X	0	2.75
8	MP4B	Z	-2.562	2.75
9	MP4B	Mx	.001	2.75
10	MP4B	X	0	4.75
11	MP4B	Z	-2.562	4.75
12	MP4B	Mx	.001	4.75
13	MP4C	X	0	2.75
14	MP4C	Z	-2.562	2.75
15	MP4C	Mx	-.001	2.75
16	MP4C	X	0	4.75
17	MP4C	Z	-2.562	4.75
18	MP4C	Mx	-.001	4.75
19	MP2A	X	0	1.25
20	MP2A	Z	-6.811	1.25
21	MP2A	Mx	-.004	1.25
22	MP2A	X	0	6.25
23	MP2A	Z	-6.811	6.25
24	MP2A	Mx	-.004	6.25
25	MP2B	X	0	1.25
26	MP2B	Z	-3.894	1.25
27	MP2B	Mx	.003	1.25
28	MP2B	X	0	6.25
29	MP2B	Z	-3.894	6.25
30	MP2B	Mx	.003	6.25
31	MP2C	X	0	1.25
32	MP2C	Z	-3.894	1.25
33	MP2C	Mx	-.00055	1.25
34	MP2C	X	0	6.25
35	MP2C	Z	-3.894	6.25
36	MP2C	Mx	-.00055	6.25
37	MP2A	X	0	1.25
38	MP2A	Z	-10.097	1.25
39	MP2A	Mx	.006	1.25
40	MP2A	X	0	6.25
41	MP2A	Z	-10.097	6.25
42	MP2A	Mx	.006	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
43	MP2B	X	0	1.25
44	MP2B	Z	-8.103	1.25
45	MP2B	Mx	6.5e-5	1.25
46	MP2B	X	0	6.25
47	MP2B	Z	-8.103	6.25
48	MP2B	Mx	6.5e-5	6.25
49	MP2C	X	0	1.25
50	MP2C	Z	-7.097	1.25
51	MP2C	Mx	-.005	1.25
52	MP2C	X	0	6.25
53	MP2C	Z	-7.097	6.25
54	MP2C	Mx	-.005	6.25
55	MP3A	X	0	3.75
56	MP3A	Z	-3.888	3.75
57	MP3A	Mx	0	3.75
58	MP3B	X	0	3.75
59	MP3B	Z	-2.929	3.75
60	MP3B	Mx	-.000846	3.75
61	MP3C	X	0	3.75
62	MP3C	Z	-2.929	3.75
63	MP3C	Mx	.000846	3.75
64	MP2A	X	0	3.75
65	MP2A	Z	-4.691	3.75
66	MP2A	Mx	0	3.75
67	MP2B	X	0	3.75
68	MP2B	Z	-3.572	3.75
69	MP2B	Mx	-.001	3.75
70	MP2C	X	0	3.75
71	MP2C	Z	-3.572	3.75
72	MP2C	Mx	.001	3.75
73	MP1A	X	0	4
74	MP1A	Z	-2.157	4
75	MP1A	Mx	0	4
76	MP1B	X	0	4
77	MP1B	Z	-1.225	4
78	MP1B	Mx	-.000354	4
79	MP1C	X	0	4
80	MP1C	Z	-1.225	4
81	MP1C	Mx	.000354	4
82	OVP	X	0	2
83	OVP	Z	-7.952	2
84	OVP	Mx	0	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	2.011	2.75
2	MP4A	Z	-3.484	2.75
3	MP4A	Mx	-.001	2.75
4	MP4A	X	2.011	4.75
5	MP4A	Z	-3.484	4.75
6	MP4A	Mx	-.001	4.75
7	MP4B	X	.915	2.75
8	MP4B	Z	-1.586	2.75
9	MP4B	Mx	.000916	2.75
10	MP4B	X	.915	4.75
11	MP4B	Z	-1.586	4.75



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP4B	Mx	.000916	4.75
13	MP4C	X	2.011	2.75
14	MP4C	Z	-3.484	2.75
15	MP4C	Mx	-.001	2.75
16	MP4C	X	2.011	4.75
17	MP4C	Z	-3.484	4.75
18	MP4C	Mx	-.001	4.75
19	MP2A	X	2.919	1.25
20	MP2A	Z	-5.056	1.25
21	MP2A	Mx	-.004	1.25
22	MP2A	X	2.919	6.25
23	MP2A	Z	-5.056	6.25
24	MP2A	Mx	-.004	6.25
25	MP2B	X	1.461	1.25
26	MP2B	Z	-2.531	1.25
27	MP2B	Mx	.001	1.25
28	MP2B	X	1.461	6.25
29	MP2B	Z	-2.531	6.25
30	MP2B	Mx	.001	6.25
31	MP2C	X	2.919	1.25
32	MP2C	Z	-5.056	1.25
33	MP2C	Mx	.001	1.25
34	MP2C	X	2.919	6.25
35	MP2C	Z	-5.056	6.25
36	MP2C	Mx	.001	6.25
37	MP2A	X	4.624	1.25
38	MP2A	Z	-8.009	1.25
39	MP2A	Mx	.002	1.25
40	MP2A	X	4.624	6.25
41	MP2A	Z	-8.009	6.25
42	MP2A	Mx	.002	6.25
43	MP2B	X	3.401	1.25
44	MP2B	Z	-5.891	1.25
45	MP2B	Mx	.003	1.25
46	MP2B	X	3.401	6.25
47	MP2B	Z	-5.891	6.25
48	MP2B	Mx	.003	6.25
49	MP2C	X	4.347	1.25
50	MP2C	Z	-7.529	1.25
51	MP2C	Mx	-.007	1.25
52	MP2C	X	4.347	6.25
53	MP2C	Z	-7.529	6.25
54	MP2C	Mx	-.007	6.25
55	MP3A	X	1.784	3.75
56	MP3A	Z	-3.09	3.75
57	MP3A	Mx	.000595	3.75
58	MP3B	X	1.304	3.75
59	MP3B	Z	-2.259	3.75
60	MP3B	Mx	-.000869	3.75
61	MP3C	X	1.784	3.75
62	MP3C	Z	-3.09	3.75
63	MP3C	Mx	.000595	3.75
64	MP2A	X	2.159	3.75
65	MP2A	Z	-3.739	3.75
66	MP2A	Mx	.00072	3.75
67	MP2B	X	1.599	3.75
68	MP2B	Z	-2.77	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
69	MP2B	Mx	-.001	3.75
70	MP2C	X	2.159	3.75
71	MP2C	Z	-3.739	3.75
72	MP2C	Mx	.00072	3.75
73	MP1A	X	.923	4
74	MP1A	Z	-1.599	4
75	MP1A	Mx	.000308	4
76	MP1B	X	.457	4
77	MP1B	Z	-.791	4
78	MP1B	Mx	-.000305	4
79	MP1C	X	.923	4
80	MP1C	Z	-1.599	4
81	MP1C	Mx	.000308	4
82	OVP	X	3.738	2
83	OVP	Z	-6.474	2
84	OVP	Mx	.001	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	2.218	2.75
2	MP4A	Z	-1.281	2.75
3	MP4A	Mx	-.001	2.75
4	MP4A	X	2.218	4.75
5	MP4A	Z	-1.281	4.75
6	MP4A	Mx	-.001	4.75
7	MP4B	X	2.218	2.75
8	MP4B	Z	-1.281	2.75
9	MP4B	Mx	.001	2.75
10	MP4B	X	2.218	4.75
11	MP4B	Z	-1.281	4.75
12	MP4B	Mx	.001	4.75
13	MP4C	X	4.117	2.75
14	MP4C	Z	-2.377	2.75
15	MP4C	Mx	0	2.75
16	MP4C	X	4.117	4.75
17	MP4C	Z	-2.377	4.75
18	MP4C	Mx	0	4.75
19	MP2A	X	3.373	1.25
20	MP2A	Z	-1.947	1.25
21	MP2A	Mx	-.003	1.25
22	MP2A	X	3.373	6.25
23	MP2A	Z	-1.947	6.25
24	MP2A	Mx	-.003	6.25
25	MP2B	X	3.373	1.25
26	MP2B	Z	-1.947	1.25
27	MP2B	Mx	.00055	1.25
28	MP2B	X	3.373	6.25
29	MP2B	Z	-1.947	6.25
30	MP2B	Mx	.00055	6.25
31	MP2C	X	5.898	1.25
32	MP2C	Z	-3.405	1.25
33	MP2C	Mx	.004	1.25
34	MP2C	X	5.898	6.25
35	MP2C	Z	-3.405	6.25
36	MP2C	Mx	.004	6.25
37	MP2A	X	6.538	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
38	MP2A	Z	-3.775	1.25
39	MP2A	Mx	-.001	1.25
40	MP2A	X	6.538	6.25
41	MP2A	Z	-3.775	6.25
42	MP2A	Mx	-.001	6.25
43	MP2B	X	6.146	1.25
44	MP2B	Z	-3.549	1.25
45	MP2B	Mx	.005	1.25
46	MP2B	X	6.146	6.25
47	MP2B	Z	-3.549	6.25
48	MP2B	Mx	.005	6.25
49	MP2C	X	8.655	1.25
50	MP2C	Z	-4.997	1.25
51	MP2C	Mx	-.007	1.25
52	MP2C	X	8.655	6.25
53	MP2C	Z	-4.997	6.25
54	MP2C	Mx	-.007	6.25
55	MP3A	X	2.536	3.75
56	MP3A	Z	-1.464	3.75
57	MP3A	Mx	.000845	3.75
58	MP3B	X	2.536	3.75
59	MP3B	Z	-1.464	3.75
60	MP3B	Mx	-.000845	3.75
61	MP3C	X	3.367	3.75
62	MP3C	Z	-1.944	3.75
63	MP3C	Mx	0	3.75
64	MP2A	X	3.093	3.75
65	MP2A	Z	-1.786	3.75
66	MP2A	Mx	.001	3.75
67	MP2B	X	3.093	3.75
68	MP2B	Z	-1.786	3.75
69	MP2B	Mx	-.001	3.75
70	MP2C	X	4.062	3.75
71	MP2C	Z	-2.345	3.75
72	MP2C	Mx	0	3.75
73	MP1A	X	1.06	4
74	MP1A	Z	-.612	4
75	MP1A	Mx	.000353	4
76	MP1B	X	1.06	4
77	MP1B	Z	-.612	4
78	MP1B	Mx	-.000353	4
79	MP1C	X	1.868	4
80	MP1C	Z	-1.079	4
81	MP1C	Mx	0	4
82	OVP	X	5.648	2
83	OVP	Z	-3.261	2
84	OVP	Mx	.002	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	1.831	2.75
2	MP4A	Z	0	2.75
3	MP4A	Mx	-.000916	2.75
4	MP4A	X	1.831	4.75
5	MP4A	Z	0	4.75
6	MP4A	Mx	-.000916	4.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
7	MP4B	X	4.023	2.75
8	MP4B	Z	0	2.75
9	MP4B	Mx	.001	2.75
10	MP4B	X	4.023	4.75
11	MP4B	Z	0	4.75
12	MP4B	Mx	.001	4.75
13	MP4C	X	4.023	2.75
14	MP4C	Z	0	2.75
15	MP4C	Mx	.001	2.75
16	MP4C	X	4.023	4.75
17	MP4C	Z	0	4.75
18	MP4C	Mx	.001	4.75
19	MP2A	X	2.922	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.001	1.25
22	MP2A	X	2.922	6.25
23	MP2A	Z	0	6.25
24	MP2A	Mx	-.001	6.25
25	MP2B	X	5.839	1.25
26	MP2B	Z	0	1.25
27	MP2B	Mx	-.001	1.25
28	MP2B	X	5.839	6.25
29	MP2B	Z	0	6.25
30	MP2B	Mx	-.001	6.25
31	MP2C	X	5.839	1.25
32	MP2C	Z	0	1.25
33	MP2C	Mx	.004	1.25
34	MP2C	X	5.839	6.25
35	MP2C	Z	0	6.25
36	MP2C	Mx	.004	6.25
37	MP2A	X	6.7	1.25
38	MP2A	Z	0	1.25
39	MP2A	Mx	-.003	1.25
40	MP2A	X	6.7	6.25
41	MP2A	Z	0	6.25
42	MP2A	Mx	-.003	6.25
43	MP2B	X	8.693	1.25
44	MP2B	Z	0	1.25
45	MP2B	Mx	.007	1.25
46	MP2B	X	8.693	6.25
47	MP2B	Z	0	6.25
48	MP2B	Mx	.007	6.25
49	MP2C	X	9.699	1.25
50	MP2C	Z	0	1.25
51	MP2C	Mx	-.004	1.25
52	MP2C	X	9.699	6.25
53	MP2C	Z	0	6.25
54	MP2C	Mx	-.004	6.25
55	MP3A	X	2.609	3.75
56	MP3A	Z	0	3.75
57	MP3A	Mx	.00087	3.75
58	MP3B	X	3.568	3.75
59	MP3B	Z	0	3.75
60	MP3B	Mx	-.000595	3.75
61	MP3C	X	3.568	3.75
62	MP3C	Z	0	3.75
63	MP3C	Mx	-.000595	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
64	MP2A	X	3.198	3.75
65	MP2A	Z	0	3.75
66	MP2A	Mx	.001	3.75
67	MP2B	X	4.318	3.75
68	MP2B	Z	0	3.75
69	MP2B	Mx	-.00072	3.75
70	MP2C	X	4.318	3.75
71	MP2C	Z	0	3.75
72	MP2C	Mx	-.00072	3.75
73	MP1A	X	.914	4
74	MP1A	Z	0	4
75	MP1A	Mx	.000305	4
76	MP1B	X	1.846	4
77	MP1B	Z	0	4
78	MP1B	Mx	-.000308	4
79	MP1C	X	1.846	4
80	MP1C	Z	0	4
81	MP1C	Mx	-.000308	4
82	OVP	X	6.046	2
83	OVP	Z	0	2
84	OVP	Mx	.002	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	2.218	2.75
2	MP4A	Z	1.281	2.75
3	MP4A	Mx	-.001	2.75
4	MP4A	X	2.218	4.75
5	MP4A	Z	1.281	4.75
6	MP4A	Mx	-.001	4.75
7	MP4B	X	4.117	2.75
8	MP4B	Z	2.377	2.75
9	MP4B	Mx	0	2.75
10	MP4B	X	4.117	4.75
11	MP4B	Z	2.377	4.75
12	MP4B	Mx	0	4.75
13	MP4C	X	2.218	2.75
14	MP4C	Z	1.281	2.75
15	MP4C	Mx	.001	2.75
16	MP4C	X	2.218	4.75
17	MP4C	Z	1.281	4.75
18	MP4C	Mx	.001	4.75
19	MP2A	X	3.373	1.25
20	MP2A	Z	1.947	1.25
21	MP2A	Mx	-.000551	1.25
22	MP2A	X	3.373	6.25
23	MP2A	Z	1.947	6.25
24	MP2A	Mx	-.000551	6.25
25	MP2B	X	5.898	1.25
26	MP2B	Z	3.405	1.25
27	MP2B	Mx	-.004	1.25
28	MP2B	X	5.898	6.25
29	MP2B	Z	3.405	6.25
30	MP2B	Mx	-.004	6.25
31	MP2C	X	3.373	1.25
32	MP2C	Z	1.947	1.25



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP2C	Mx	.003	1.25
34	MP2C	X	3.373	6.25
35	MP2C	Z	1.947	6.25
36	MP2C	Mx	.003	6.25
37	MP2A	X	6.538	1.25
38	MP2A	Z	3.775	1.25
39	MP2A	Mx	-.005	1.25
40	MP2A	X	6.538	6.25
41	MP2A	Z	3.775	6.25
42	MP2A	Mx	-.005	6.25
43	MP2B	X	8.655	1.25
44	MP2B	Z	4.997	1.25
45	MP2B	Mx	.007	1.25
46	MP2B	X	8.655	6.25
47	MP2B	Z	4.997	6.25
48	MP2B	Mx	.007	6.25
49	MP2C	X	7.018	1.25
50	MP2C	Z	4.052	1.25
51	MP2C	Mx	6.5e-5	1.25
52	MP2C	X	7.018	6.25
53	MP2C	Z	4.052	6.25
54	MP2C	Mx	6.5e-5	6.25
55	MP3A	X	2.536	3.75
56	MP3A	Z	1.464	3.75
57	MP3A	Mx	.000845	3.75
58	MP3B	X	3.367	3.75
59	MP3B	Z	1.944	3.75
60	MP3B	Mx	0	3.75
61	MP3C	X	2.536	3.75
62	MP3C	Z	1.464	3.75
63	MP3C	Mx	-.000845	3.75
64	MP2A	X	3.093	3.75
65	MP2A	Z	1.786	3.75
66	MP2A	Mx	.001	3.75
67	MP2B	X	4.062	3.75
68	MP2B	Z	2.345	3.75
69	MP2B	Mx	0	3.75
70	MP2C	X	3.093	3.75
71	MP2C	Z	1.786	3.75
72	MP2C	Mx	-.001	3.75
73	MP1A	X	1.06	4
74	MP1A	Z	.612	4
75	MP1A	Mx	.000353	4
76	MP1B	X	1.868	4
77	MP1B	Z	1.079	4
78	MP1B	Mx	0	4
79	MP1C	X	1.06	4
80	MP1C	Z	.612	4
81	MP1C	Mx	-.000353	4
82	OVP	X	5.648	2
83	OVP	Z	3.261	2
84	OVP	Mx	.002	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.011	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
2	MP4A	Z	3.484	2.75
3	MP4A	Mx	-.001	2.75
4	MP4A	X	2.011	4.75
5	MP4A	Z	3.484	4.75
6	MP4A	Mx	-.001	4.75
7	MP4B	X	2.011	2.75
8	MP4B	Z	3.484	2.75
9	MP4B	Mx	-.001	2.75
10	MP4B	X	2.011	4.75
11	MP4B	Z	3.484	4.75
12	MP4B	Mx	-.001	4.75
13	MP4C	X	.915	2.75
14	MP4C	Z	1.586	2.75
15	MP4C	Mx	.000916	2.75
16	MP4C	X	.915	4.75
17	MP4C	Z	1.586	4.75
18	MP4C	Mx	.000916	4.75
19	MP2A	X	2.919	1.25
20	MP2A	Z	5.056	1.25
21	MP2A	Mx	.001	1.25
22	MP2A	X	2.919	6.25
23	MP2A	Z	5.056	6.25
24	MP2A	Mx	.001	6.25
25	MP2B	X	2.919	1.25
26	MP2B	Z	5.056	1.25
27	MP2B	Mx	-.004	1.25
28	MP2B	X	2.919	6.25
29	MP2B	Z	5.056	6.25
30	MP2B	Mx	-.004	6.25
31	MP2C	X	1.461	1.25
32	MP2C	Z	2.531	1.25
33	MP2C	Mx	.001	1.25
34	MP2C	X	1.461	6.25
35	MP2C	Z	2.531	6.25
36	MP2C	Mx	.001	6.25
37	MP2A	X	4.624	1.25
38	MP2A	Z	8.009	1.25
39	MP2A	Mx	-.007	1.25
40	MP2A	X	4.624	6.25
41	MP2A	Z	8.009	6.25
42	MP2A	Mx	-.007	6.25
43	MP2B	X	4.85	1.25
44	MP2B	Z	8.4	1.25
45	MP2B	Mx	.004	1.25
46	MP2B	X	4.85	6.25
47	MP2B	Z	8.4	6.25
48	MP2B	Mx	.004	6.25
49	MP2C	X	3.401	1.25
50	MP2C	Z	5.891	1.25
51	MP2C	Mx	.003	1.25
52	MP2C	X	3.401	6.25
53	MP2C	Z	5.891	6.25
54	MP2C	Mx	.003	6.25
55	MP3A	X	1.784	3.75
56	MP3A	Z	3.09	3.75
57	MP3A	Mx	.000595	3.75
58	MP3B	X	1.784	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
59	MP3B	Z	3.09	3.75
60	MP3B	Mx	.000595	3.75
61	MP3C	X	1.304	3.75
62	MP3C	Z	2.259	3.75
63	MP3C	Mx	-.000869	3.75
64	MP2A	X	2.159	3.75
65	MP2A	Z	3.739	3.75
66	MP2A	Mx	.00072	3.75
67	MP2B	X	2.159	3.75
68	MP2B	Z	3.739	3.75
69	MP2B	Mx	.00072	3.75
70	MP2C	X	1.599	3.75
71	MP2C	Z	2.77	3.75
72	MP2C	Mx	-.001	3.75
73	MP1A	X	.923	4
74	MP1A	Z	1.599	4
75	MP1A	Mx	.000308	4
76	MP1B	X	.923	4
77	MP1B	Z	1.599	4
78	MP1B	Mx	.000308	4
79	MP1C	X	.457	4
80	MP1C	Z	.791	4
81	MP1C	Mx	-.000305	4
82	OVP	X	3.738	2
83	OVP	Z	6.474	2
84	OVP	Mx	.001	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	2.75
2	MP4A	Z	4.754	2.75
3	MP4A	Mx	0	2.75
4	MP4A	X	0	4.75
5	MP4A	Z	4.754	4.75
6	MP4A	Mx	0	4.75
7	MP4B	X	0	2.75
8	MP4B	Z	2.562	2.75
9	MP4B	Mx	-.001	2.75
10	MP4B	X	0	4.75
11	MP4B	Z	2.562	4.75
12	MP4B	Mx	-.001	4.75
13	MP4C	X	0	2.75
14	MP4C	Z	2.562	2.75
15	MP4C	Mx	.001	2.75
16	MP4C	X	0	4.75
17	MP4C	Z	2.562	4.75
18	MP4C	Mx	.001	4.75
19	MP2A	X	0	1.25
20	MP2A	Z	6.811	1.25
21	MP2A	Mx	.004	1.25
22	MP2A	X	0	6.25
23	MP2A	Z	6.811	6.25
24	MP2A	Mx	.004	6.25
25	MP2B	X	0	1.25
26	MP2B	Z	3.894	1.25
27	MP2B	Mx	-.003	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
28	MP2B	X	0	6.25
29	MP2B	Z	3.894	6.25
30	MP2B	Mx	-.003	6.25
31	MP2C	X	0	1.25
32	MP2C	Z	3.894	1.25
33	MP2C	Mx	.00055	1.25
34	MP2C	X	0	6.25
35	MP2C	Z	3.894	6.25
36	MP2C	Mx	.00055	6.25
37	MP2A	X	0	1.25
38	MP2A	Z	10.097	1.25
39	MP2A	Mx	-.006	1.25
40	MP2A	X	0	6.25
41	MP2A	Z	10.097	6.25
42	MP2A	Mx	-.006	6.25
43	MP2B	X	0	1.25
44	MP2B	Z	8.103	1.25
45	MP2B	Mx	-6.5e-5	1.25
46	MP2B	X	0	6.25
47	MP2B	Z	8.103	6.25
48	MP2B	Mx	-6.5e-5	6.25
49	MP2C	X	0	1.25
50	MP2C	Z	7.097	1.25
51	MP2C	Mx	.005	1.25
52	MP2C	X	0	6.25
53	MP2C	Z	7.097	6.25
54	MP2C	Mx	.005	6.25
55	MP3A	X	0	3.75
56	MP3A	Z	3.888	3.75
57	MP3A	Mx	0	3.75
58	MP3B	X	0	3.75
59	MP3B	Z	2.929	3.75
60	MP3B	Mx	.000846	3.75
61	MP3C	X	0	3.75
62	MP3C	Z	2.929	3.75
63	MP3C	Mx	-.000846	3.75
64	MP2A	X	0	3.75
65	MP2A	Z	4.691	3.75
66	MP2A	Mx	0	3.75
67	MP2B	X	0	3.75
68	MP2B	Z	3.572	3.75
69	MP2B	Mx	.001	3.75
70	MP2C	X	0	3.75
71	MP2C	Z	3.572	3.75
72	MP2C	Mx	-.001	3.75
73	MP1A	X	0	4
74	MP1A	Z	2.157	4
75	MP1A	Mx	0	4
76	MP1B	X	0	4
77	MP1B	Z	1.225	4
78	MP1B	Mx	.000354	4
79	MP1C	X	0	4
80	MP1C	Z	1.225	4
81	MP1C	Mx	-.000354	4
82	OVP	X	0	2
83	OVP	Z	7.952	2
84	OVP	Mx	0	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-2.011	2.75
2	MP4A	Z	3.484	2.75
3	MP4A	Mx	.001	2.75
4	MP4A	X	-2.011	4.75
5	MP4A	Z	3.484	4.75
6	MP4A	Mx	.001	4.75
7	MP4B	X	-.915	2.75
8	MP4B	Z	1.586	2.75
9	MP4B	Mx	-.000916	2.75
10	MP4B	X	-.915	4.75
11	MP4B	Z	1.586	4.75
12	MP4B	Mx	-.000916	4.75
13	MP4C	X	-2.011	2.75
14	MP4C	Z	3.484	2.75
15	MP4C	Mx	.001	2.75
16	MP4C	X	-2.011	4.75
17	MP4C	Z	3.484	4.75
18	MP4C	Mx	.001	4.75
19	MP2A	X	-2.919	1.25
20	MP2A	Z	5.056	1.25
21	MP2A	Mx	.004	1.25
22	MP2A	X	-2.919	6.25
23	MP2A	Z	5.056	6.25
24	MP2A	Mx	.004	6.25
25	MP2B	X	-1.461	1.25
26	MP2B	Z	2.531	1.25
27	MP2B	Mx	-.001	1.25
28	MP2B	X	-1.461	6.25
29	MP2B	Z	2.531	6.25
30	MP2B	Mx	-.001	6.25
31	MP2C	X	-2.919	1.25
32	MP2C	Z	5.056	1.25
33	MP2C	Mx	-.001	1.25
34	MP2C	X	-2.919	6.25
35	MP2C	Z	5.056	6.25
36	MP2C	Mx	-.001	6.25
37	MP2A	X	-4.624	1.25
38	MP2A	Z	8.009	1.25
39	MP2A	Mx	-.002	1.25
40	MP2A	X	-4.624	6.25
41	MP2A	Z	8.009	6.25
42	MP2A	Mx	-.002	6.25
43	MP2B	X	-3.401	1.25
44	MP2B	Z	5.891	1.25
45	MP2B	Mx	-.003	1.25
46	MP2B	X	-3.401	6.25
47	MP2B	Z	5.891	6.25
48	MP2B	Mx	-.003	6.25
49	MP2C	X	-4.347	1.25
50	MP2C	Z	7.529	1.25
51	MP2C	Mx	.007	1.25
52	MP2C	X	-4.347	6.25
53	MP2C	Z	7.529	6.25
54	MP2C	Mx	.007	6.25
55	MP3A	X	-1.784	3.75
56	MP3A	Z	3.09	3.75
57	MP3A	Mx	-.000595	3.75



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP3B	X	-1.304	3.75
59	MP3B	Z	2.259	3.75
60	MP3B	Mx	.000869	3.75
61	MP3C	X	-1.784	3.75
62	MP3C	Z	3.09	3.75
63	MP3C	Mx	-.000595	3.75
64	MP2A	X	-2.159	3.75
65	MP2A	Z	3.739	3.75
66	MP2A	Mx	-.00072	3.75
67	MP2B	X	-1.599	3.75
68	MP2B	Z	2.77	3.75
69	MP2B	Mx	.001	3.75
70	MP2C	X	-2.159	3.75
71	MP2C	Z	3.739	3.75
72	MP2C	Mx	-.00072	3.75
73	MP1A	X	-.923	4
74	MP1A	Z	1.599	4
75	MP1A	Mx	-.000308	4
76	MP1B	X	-.457	4
77	MP1B	Z	.791	4
78	MP1B	Mx	.000305	4
79	MP1C	X	-.923	4
80	MP1C	Z	1.599	4
81	MP1C	Mx	-.000308	4
82	OVP	X	-3.738	2
83	OVP	Z	6.474	2
84	OVP	Mx	-.001	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.218	2.75
2	MP4A	Z	1.281	2.75
3	MP4A	Mx	.001	2.75
4	MP4A	X	-2.218	4.75
5	MP4A	Z	1.281	4.75
6	MP4A	Mx	.001	4.75
7	MP4B	X	-2.218	2.75
8	MP4B	Z	1.281	2.75
9	MP4B	Mx	-.001	2.75
10	MP4B	X	-2.218	4.75
11	MP4B	Z	1.281	4.75
12	MP4B	Mx	-.001	4.75
13	MP4C	X	-4.117	2.75
14	MP4C	Z	2.377	2.75
15	MP4C	Mx	0	2.75
16	MP4C	X	-4.117	4.75
17	MP4C	Z	2.377	4.75
18	MP4C	Mx	0	4.75
19	MP2A	X	-3.373	1.25
20	MP2A	Z	1.947	1.25
21	MP2A	Mx	.003	1.25
22	MP2A	X	-3.373	6.25
23	MP2A	Z	1.947	6.25
24	MP2A	Mx	.003	6.25
25	MP2B	X	-3.373	1.25
26	MP2B	Z	1.947	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
27	MP2B	Mx	-.00055	1.25
28	MP2B	X	-3.373	6.25
29	MP2B	Z	1.947	6.25
30	MP2B	Mx	-.00055	6.25
31	MP2C	X	-5.898	1.25
32	MP2C	Z	3.405	1.25
33	MP2C	Mx	-.004	1.25
34	MP2C	X	-5.898	6.25
35	MP2C	Z	3.405	6.25
36	MP2C	Mx	-.004	6.25
37	MP2A	X	-6.538	1.25
38	MP2A	Z	3.775	1.25
39	MP2A	Mx	.001	1.25
40	MP2A	X	-6.538	6.25
41	MP2A	Z	3.775	6.25
42	MP2A	Mx	.001	6.25
43	MP2B	X	-6.146	1.25
44	MP2B	Z	3.549	1.25
45	MP2B	Mx	-.005	1.25
46	MP2B	X	-6.146	6.25
47	MP2B	Z	3.549	6.25
48	MP2B	Mx	-.005	6.25
49	MP2C	X	-8.655	1.25
50	MP2C	Z	4.997	1.25
51	MP2C	Mx	.007	1.25
52	MP2C	X	-8.655	6.25
53	MP2C	Z	4.997	6.25
54	MP2C	Mx	.007	6.25
55	MP3A	X	-2.536	3.75
56	MP3A	Z	1.464	3.75
57	MP3A	Mx	-.000845	3.75
58	MP3B	X	-2.536	3.75
59	MP3B	Z	1.464	3.75
60	MP3B	Mx	.000845	3.75
61	MP3C	X	-3.367	3.75
62	MP3C	Z	1.944	3.75
63	MP3C	Mx	0	3.75
64	MP2A	X	-3.093	3.75
65	MP2A	Z	1.786	3.75
66	MP2A	Mx	-.001	3.75
67	MP2B	X	-3.093	3.75
68	MP2B	Z	1.786	3.75
69	MP2B	Mx	.001	3.75
70	MP2C	X	-4.062	3.75
71	MP2C	Z	2.345	3.75
72	MP2C	Mx	0	3.75
73	MP1A	X	-1.06	4
74	MP1A	Z	.612	4
75	MP1A	Mx	-.000353	4
76	MP1B	X	-1.06	4
77	MP1B	Z	.612	4
78	MP1B	Mx	.000353	4
79	MP1C	X	-1.868	4
80	MP1C	Z	1.079	4
81	MP1C	Mx	0	4
82	OVP	X	-5.648	2
83	OVP	Z	3.261	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
84	OVP	Mx	-0.002	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-1.831	2.75
2	MP4A	Z	0	2.75
3	MP4A	Mx	.000916	2.75
4	MP4A	X	-1.831	4.75
5	MP4A	Z	0	4.75
6	MP4A	Mx	.000916	4.75
7	MP4B	X	-4.023	2.75
8	MP4B	Z	0	2.75
9	MP4B	Mx	-.001	2.75
10	MP4B	X	-4.023	4.75
11	MP4B	Z	0	4.75
12	MP4B	Mx	-.001	4.75
13	MP4C	X	-4.023	2.75
14	MP4C	Z	0	2.75
15	MP4C	Mx	-.001	2.75
16	MP4C	X	-4.023	4.75
17	MP4C	Z	0	4.75
18	MP4C	Mx	-.001	4.75
19	MP2A	X	-2.922	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.001	1.25
22	MP2A	X	-2.922	6.25
23	MP2A	Z	0	6.25
24	MP2A	Mx	.001	6.25
25	MP2B	X	-5.839	1.25
26	MP2B	Z	0	1.25
27	MP2B	Mx	.001	1.25
28	MP2B	X	-5.839	6.25
29	MP2B	Z	0	6.25
30	MP2B	Mx	.001	6.25
31	MP2C	X	-5.839	1.25
32	MP2C	Z	0	1.25
33	MP2C	Mx	-.004	1.25
34	MP2C	X	-5.839	6.25
35	MP2C	Z	0	6.25
36	MP2C	Mx	-.004	6.25
37	MP2A	X	-6.7	1.25
38	MP2A	Z	0	1.25
39	MP2A	Mx	.003	1.25
40	MP2A	X	-6.7	6.25
41	MP2A	Z	0	6.25
42	MP2A	Mx	.003	6.25
43	MP2B	X	-8.693	1.25
44	MP2B	Z	0	1.25
45	MP2B	Mx	-.007	1.25
46	MP2B	X	-8.693	6.25
47	MP2B	Z	0	6.25
48	MP2B	Mx	-.007	6.25
49	MP2C	X	-9.699	1.25
50	MP2C	Z	0	1.25
51	MP2C	Mx	.004	1.25
52	MP2C	X	-9.699	6.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
53	MP2C	Z	0	6.25
54	MP2C	Mx	.004	6.25
55	MP3A	X	-2.609	3.75
56	MP3A	Z	0	3.75
57	MP3A	Mx	-.00087	3.75
58	MP3B	X	-3.568	3.75
59	MP3B	Z	0	3.75
60	MP3B	Mx	.000595	3.75
61	MP3C	X	-3.568	3.75
62	MP3C	Z	0	3.75
63	MP3C	Mx	.000595	3.75
64	MP2A	X	-3.198	3.75
65	MP2A	Z	0	3.75
66	MP2A	Mx	-.001	3.75
67	MP2B	X	-4.318	3.75
68	MP2B	Z	0	3.75
69	MP2B	Mx	.00072	3.75
70	MP2C	X	-4.318	3.75
71	MP2C	Z	0	3.75
72	MP2C	Mx	.00072	3.75
73	MP1A	X	-.914	4
74	MP1A	Z	0	4
75	MP1A	Mx	-.000305	4
76	MP1B	X	-1.846	4
77	MP1B	Z	0	4
78	MP1B	Mx	.000308	4
79	MP1C	X	-1.846	4
80	MP1C	Z	0	4
81	MP1C	Mx	.000308	4
82	OVP	X	-6.046	2
83	OVP	Z	0	2
84	OVP	Mx	-.002	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP4A	X	-2.218	2.75
2	MP4A	Z	-1.281	2.75
3	MP4A	Mx	.001	2.75
4	MP4A	X	-2.218	4.75
5	MP4A	Z	-1.281	4.75
6	MP4A	Mx	.001	4.75
7	MP4B	X	-4.117	2.75
8	MP4B	Z	-2.377	2.75
9	MP4B	Mx	0	2.75
10	MP4B	X	-4.117	4.75
11	MP4B	Z	-2.377	4.75
12	MP4B	Mx	0	4.75
13	MP4C	X	-2.218	2.75
14	MP4C	Z	-1.281	2.75
15	MP4C	Mx	-.001	2.75
16	MP4C	X	-2.218	4.75
17	MP4C	Z	-1.281	4.75
18	MP4C	Mx	-.001	4.75
19	MP2A	X	-3.373	1.25
20	MP2A	Z	-1.947	1.25
21	MP2A	Mx	.000551	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
22	MP2A	X	-3.373	6.25
23	MP2A	Z	-1.947	6.25
24	MP2A	Mx	.000551	6.25
25	MP2B	X	-5.898	1.25
26	MP2B	Z	-3.405	1.25
27	MP2B	Mx	.004	1.25
28	MP2B	X	-5.898	6.25
29	MP2B	Z	-3.405	6.25
30	MP2B	Mx	.004	6.25
31	MP2C	X	-3.373	1.25
32	MP2C	Z	-1.947	1.25
33	MP2C	Mx	-.003	1.25
34	MP2C	X	-3.373	6.25
35	MP2C	Z	-1.947	6.25
36	MP2C	Mx	-.003	6.25
37	MP2A	X	-6.538	1.25
38	MP2A	Z	-3.775	1.25
39	MP2A	Mx	.005	1.25
40	MP2A	X	-6.538	6.25
41	MP2A	Z	-3.775	6.25
42	MP2A	Mx	.005	6.25
43	MP2B	X	-8.655	1.25
44	MP2B	Z	-4.997	1.25
45	MP2B	Mx	-.007	1.25
46	MP2B	X	-8.655	6.25
47	MP2B	Z	-4.997	6.25
48	MP2B	Mx	-.007	6.25
49	MP2C	X	-7.018	1.25
50	MP2C	Z	-4.052	1.25
51	MP2C	Mx	-6.5e-5	1.25
52	MP2C	X	-7.018	6.25
53	MP2C	Z	-4.052	6.25
54	MP2C	Mx	-6.5e-5	6.25
55	MP3A	X	-2.536	3.75
56	MP3A	Z	-1.464	3.75
57	MP3A	Mx	-.000845	3.75
58	MP3B	X	-3.367	3.75
59	MP3B	Z	-1.944	3.75
60	MP3B	Mx	0	3.75
61	MP3C	X	-2.536	3.75
62	MP3C	Z	-1.464	3.75
63	MP3C	Mx	.000845	3.75
64	MP2A	X	-3.093	3.75
65	MP2A	Z	-1.786	3.75
66	MP2A	Mx	-.001	3.75
67	MP2B	X	-4.062	3.75
68	MP2B	Z	-2.345	3.75
69	MP2B	Mx	0	3.75
70	MP2C	X	-3.093	3.75
71	MP2C	Z	-1.786	3.75
72	MP2C	Mx	.001	3.75
73	MP1A	X	-1.06	4
74	MP1A	Z	-.612	4
75	MP1A	Mx	-.000353	4
76	MP1B	X	-1.868	4
77	MP1B	Z	-1.079	4
78	MP1B	Mx	0	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
79	MP1C	X	-1.06	4
80	MP1C	Z	-612	4
81	MP1C	Mx	.000353	4
82	OVP	X	-5.648	2
83	OVP	Z	-3.261	2
84	OVP	Mx	-.002	2

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-2.011	2.75
2	MP4A	Z	-3.484	2.75
3	MP4A	Mx	.001	2.75
4	MP4A	X	-2.011	4.75
5	MP4A	Z	-3.484	4.75
6	MP4A	Mx	.001	4.75
7	MP4B	X	-2.011	2.75
8	MP4B	Z	-3.484	2.75
9	MP4B	Mx	.001	2.75
10	MP4B	X	-2.011	4.75
11	MP4B	Z	-3.484	4.75
12	MP4B	Mx	.001	4.75
13	MP4C	X	-.915	2.75
14	MP4C	Z	-1.586	2.75
15	MP4C	Mx	-.000916	2.75
16	MP4C	X	-.915	4.75
17	MP4C	Z	-1.586	4.75
18	MP4C	Mx	-.000916	4.75
19	MP2A	X	-2.919	1.25
20	MP2A	Z	-5.056	1.25
21	MP2A	Mx	-.001	1.25
22	MP2A	X	-2.919	6.25
23	MP2A	Z	-5.056	6.25
24	MP2A	Mx	-.001	6.25
25	MP2B	X	-2.919	1.25
26	MP2B	Z	-5.056	1.25
27	MP2B	Mx	.004	1.25
28	MP2B	X	-2.919	6.25
29	MP2B	Z	-5.056	6.25
30	MP2B	Mx	.004	6.25
31	MP2C	X	-1.461	1.25
32	MP2C	Z	-2.531	1.25
33	MP2C	Mx	-.001	1.25
34	MP2C	X	-1.461	6.25
35	MP2C	Z	-2.531	6.25
36	MP2C	Mx	-.001	6.25
37	MP2A	X	-4.624	1.25
38	MP2A	Z	-8.009	1.25
39	MP2A	Mx	.007	1.25
40	MP2A	X	-4.624	6.25
41	MP2A	Z	-8.009	6.25
42	MP2A	Mx	.007	6.25
43	MP2B	X	-4.85	1.25
44	MP2B	Z	-8.4	1.25
45	MP2B	Mx	-.004	1.25
46	MP2B	X	-4.85	6.25
47	MP2B	Z	-8.4	6.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP2B	Mx	-.004	6.25
49	MP2C	X	-3.401	1.25
50	MP2C	Z	-5.891	1.25
51	MP2C	Mx	-.003	1.25
52	MP2C	X	-3.401	6.25
53	MP2C	Z	-5.891	6.25
54	MP2C	Mx	-.003	6.25
55	MP3A	X	-1.784	3.75
56	MP3A	Z	-3.09	3.75
57	MP3A	Mx	-.000595	3.75
58	MP3B	X	-1.784	3.75
59	MP3B	Z	-3.09	3.75
60	MP3B	Mx	-.000595	3.75
61	MP3C	X	-1.304	3.75
62	MP3C	Z	-2.259	3.75
63	MP3C	Mx	.000869	3.75
64	MP2A	X	-2.159	3.75
65	MP2A	Z	-3.739	3.75
66	MP2A	Mx	-.00072	3.75
67	MP2B	X	-2.159	3.75
68	MP2B	Z	-3.739	3.75
69	MP2B	Mx	-.00072	3.75
70	MP2C	X	-1.599	3.75
71	MP2C	Z	-2.77	3.75
72	MP2C	Mx	.001	3.75
73	MP1A	X	-.923	4
74	MP1A	Z	-1.599	4
75	MP1A	Mx	-.000308	4
76	MP1B	X	-.923	4
77	MP1B	Z	-1.599	4
78	MP1B	Mx	-.000308	4
79	MP1C	X	-.457	4
80	MP1C	Z	-.791	4
81	MP1C	Mx	.000305	4
82	OVP	X	-3.738	2
83	OVP	Z	-6.474	2
84	OVP	Mx	-.001	2

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%4

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%67

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	%50



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Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Y	-1.143	2.75
2	MP4A	My	-.000571	2.75
3	MP4A	Mz	0	2.75
4	MP4A	Y	-1.143	4.75
5	MP4A	My	-.000571	4.75
6	MP4A	Mz	0	4.75
7	MP4B	Y	-1.143	2.75
8	MP4B	My	.000286	2.75
9	MP4B	Mz	-.000495	2.75
10	MP4B	Y	-1.143	4.75
11	MP4B	My	.000286	4.75
12	MP4B	Mz	-.000495	4.75
13	MP4C	Y	-1.143	2.75
14	MP4C	My	.000286	2.75
15	MP4C	Mz	.000495	2.75
16	MP4C	Y	-1.143	4.75
17	MP4C	My	.000286	4.75
18	MP4C	Mz	.000495	4.75
19	MP2A	Y	-.872	1.25
20	MP2A	My	-.000436	1.25
21	MP2A	Mz	.000508	1.25
22	MP2A	Y	-.872	6.25
23	MP2A	My	-.000436	6.25
24	MP2A	Mz	.000508	6.25
25	MP2B	Y	-.872	1.25
26	MP2B	My	-.000222	1.25
27	MP2B	Mz	-.000632	1.25
28	MP2B	Y	-.872	6.25
29	MP2B	My	-.000222	6.25
30	MP2B	Mz	-.000632	6.25
31	MP2C	Y	-.872	1.25
32	MP2C	My	.000658	1.25
33	MP2C	Mz	.000123	1.25
34	MP2C	Y	-.872	6.25
35	MP2C	My	.000658	6.25
36	MP2C	Mz	.000123	6.25
37	MP2A	Y	-1.289	1.25
38	MP2A	My	-.000644	1.25
39	MP2A	Mz	-.000752	1.25
40	MP2A	Y	-1.289	6.25
41	MP2A	My	-.000644	6.25
42	MP2A	Mz	-.000752	6.25
43	MP2B	Y	-1.289	1.25
44	MP2B	My	.00099	1.25
45	MP2B	Mz	-1e-5	1.25
46	MP2B	Y	-1.289	6.25
47	MP2B	My	.00099	6.25
48	MP2B	Mz	-1e-5	6.25
49	MP2C	Y	-1.289	1.25
50	MP2C	My	-.000486	1.25
51	MP2C	Mz	.000863	1.25
52	MP2C	Y	-1.289	6.25
53	MP2C	My	-.000486	6.25
54	MP2C	Mz	.000863	6.25
55	MP3A	Y	-2.98	3.75
56	MP3A	My	.000993	3.75
57	MP3A	Mz	0	3.75



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Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
58	MP3B	Y	-2.98	3.75
59	MP3B	My	-.000497	3.75
60	MP3B	Mz	.00086	3.75
61	MP3C	Y	-2.98	3.75
62	MP3C	My	-.000497	3.75
63	MP3C	Mz	-.00086	3.75
64	MP2A	Y	-3.156	3.75
65	MP2A	My	.001	3.75
66	MP2A	Mz	0	3.75
67	MP2B	Y	-3.156	3.75
68	MP2B	My	-.000526	3.75
69	MP2B	Mz	.000911	3.75
70	MP2C	Y	-3.156	3.75
71	MP2C	My	-.000526	3.75
72	MP2C	Mz	-.000911	3.75
73	MP1A	Y	-.838	4
74	MP1A	My	.000279	4
75	MP1A	Mz	0	4
76	MP1B	Y	-.838	4
77	MP1B	My	-.00014	4
78	MP1B	Mz	.000242	4
79	MP1C	Y	-.838	4
80	MP1C	My	-.00014	4
81	MP1C	Mz	-.000242	4
82	OVP	Y	-1.277	2
83	OVP	My	.000426	2
84	OVP	Mz	0	2

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	Z	-2.857	2.75
2	MP4A	Mx	0	2.75
3	MP4A	Z	-2.857	4.75
4	MP4A	Mx	0	4.75
5	MP4B	Z	-2.857	2.75
6	MP4B	Mx	.001	2.75
7	MP4B	Z	-2.857	4.75
8	MP4B	Mx	.001	4.75
9	MP4C	Z	-2.857	2.75
10	MP4C	Mx	-.001	2.75
11	MP4C	Z	-2.857	4.75
12	MP4C	Mx	-.001	4.75
13	MP2A	Z	-2.179	1.25
14	MP2A	Mx	-.001	1.25
15	MP2A	Z	-2.179	6.25
16	MP2A	Mx	-.001	6.25
17	MP2B	Z	-2.179	1.25
18	MP2B	Mx	.002	1.25
19	MP2B	Z	-2.179	6.25
20	MP2B	Mx	.002	6.25
21	MP2C	Z	-2.179	1.25
22	MP2C	Mx	-.000308	1.25
23	MP2C	Z	-2.179	6.25
24	MP2C	Mx	-.000308	6.25
25	MP2A	Z	-3.221	1.25
26	MP2A	Mx	.002	1.25

Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
27	MP2A	Z	-3.221	6.25
28	MP2A	Mx	.002	6.25
29	MP2B	Z	-3.221	1.25
30	MP2B	Mx	2.6e-5	1.25
31	MP2B	Z	-3.221	6.25
32	MP2B	Mx	2.6e-5	6.25
33	MP2C	Z	-3.221	1.25
34	MP2C	Mx	-.002	1.25
35	MP2C	Z	-3.221	6.25
36	MP2C	Mx	-.002	6.25
37	MP3A	Z	-7.45	3.75
38	MP3A	Mx	0	3.75
39	MP3B	Z	-7.45	3.75
40	MP3B	Mx	-.002	3.75
41	MP3C	Z	-7.45	3.75
42	MP3C	Mx	.002	3.75
43	MP2A	Z	-7.889	3.75
44	MP2A	Mx	0	3.75
45	MP2B	Z	-7.889	3.75
46	MP2B	Mx	-.002	3.75
47	MP2C	Z	-7.889	3.75
48	MP2C	Mx	.002	3.75
49	MP1A	Z	-2.094	4
50	MP1A	Mx	0	4
51	MP1B	Z	-2.094	4
52	MP1B	Mx	-.000605	4
53	MP1C	Z	-2.094	4
54	MP1C	Mx	.000605	4
55	OVP	Z	-3.191	2
56	OVP	Mx	0	2

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	2.857	2.75
2	MP4A	Mx	-.001	2.75
3	MP4A	X	2.857	4.75
4	MP4A	Mx	-.001	4.75
5	MP4B	X	2.857	2.75
6	MP4B	Mx	.000714	2.75
7	MP4B	X	2.857	4.75
8	MP4B	Mx	.000714	4.75
9	MP4C	X	2.857	2.75
10	MP4C	Mx	.000714	2.75
11	MP4C	X	2.857	4.75
12	MP4C	Mx	.000714	4.75
13	MP2A	X	2.179	1.25
14	MP2A	Mx	-.001	1.25
15	MP2A	X	2.179	6.25
16	MP2A	Mx	-.001	6.25
17	MP2B	X	2.179	1.25
18	MP2B	Mx	-.000556	1.25
19	MP2B	X	2.179	6.25
20	MP2B	Mx	-.000556	6.25
21	MP2C	X	2.179	1.25
22	MP2C	Mx	.002	1.25
23	MP2C	X	2.179	6.25



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Member Point Loads (BLC 83 : Antenna Eh (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
24	MP2C	Mx	.002	6.25
25	MP2A	X	3.221	1.25
26	MP2A	Mx	-.002	1.25
27	MP2A	X	3.221	6.25
28	MP2A	Mx	-.002	6.25
29	MP2B	X	3.221	1.25
30	MP2B	Mx	.002	1.25
31	MP2B	X	3.221	6.25
32	MP2B	Mx	.002	6.25
33	MP2C	X	3.221	1.25
34	MP2C	Mx	-.001	1.25
35	MP2C	X	3.221	6.25
36	MP2C	Mx	-.001	6.25
37	MP3A	X	7.45	3.75
38	MP3A	Mx	.002	3.75
39	MP3B	X	7.45	3.75
40	MP3B	Mx	-.001	3.75
41	MP3C	X	7.45	3.75
42	MP3C	Mx	-.001	3.75
43	MP2A	X	7.889	3.75
44	MP2A	Mx	.003	3.75
45	MP2B	X	7.889	3.75
46	MP2B	Mx	-.001	3.75
47	MP2C	X	7.889	3.75
48	MP2C	Mx	-.001	3.75
49	MP1A	X	2.094	4
50	MP1A	Mx	.000698	4
51	MP1B	X	2.094	4
52	MP1B	Mx	-.000349	4
53	MP1C	X	2.094	4
54	MP1C	Mx	-.000349	4
55	OVP	X	3.191	2
56	OVP	Mx	.001	2

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N79	N78	N100	N102	Y	Two Way	-.005
2	N8	N9	N48	N46	Y	Two Way	-.005
3	N51	N52	N75	N73	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N79	N78	N100	N102	Y	Two Way	-.013
2	N8	N9	N48	N46	Y	Two Way	-.013
3	N51	N52	N75	N73	Y	Two Way	-.013

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N79	N78	N100	N102	Y	Two Way	-.000207
2	N8	N9	N48	N46	Y	Two Way	-.000207
3	N51	N52	N75	N73	Y	Two Way	-.000207

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
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Member Area Loads (BLC 85 : Structure Eh (0 Deg)) (Continued)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N79	N78	N100	N102	Z	Two Way	-0.00519
2	N8	N9	N48	N46	Z	Two Way	-0.00519
3	N51	N52	N75	N73	Z	Two Way	-0.00519

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N79	N78	N100	N102	X	Two Way	.000519
2	N8	N9	N48	N46	X	Two Way	.000519
3	N51	N52	N75	N73	X	Two Way	.000519

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

Member	Shape	Code Check	L...	LC	Shear C...	Loc.....	phi*P...	phi*P...	phi*M...	phi*M...	Eqn		
1	M1	PIPE_3.0	.172	4...	10	.116	4.1...	7	28250..	65205	5.749	5.749	... H1-1b
2	M4	HSS4X4...	.157	3...	1	.047	5.1...	y 11	12465..	139518	16.181	16.181	... H1-1b
3	M10	HSS4X4...	.121	2...	14	.045	2.3...	y 14	13626..	139518	16.181	16.181	... H1-1b
4	MP3A	PIPE_2.0	.545	6...	10	.139	6.75	8	14916..	32130	1.872	1.872	... H1-1b
5	MP4A	PIPE_2.0	.325	6...	4	.150	3.25	6	14916..	32130	1.872	1.872	... H1-1b
6	MP2A	PIPE_2.0	.531	6...	10	.208	6.75	6	14916..	32130	1.872	1.872	... H1-1b
7	MP1A	PIPE_2.0	.321	6...	5	.153	3.25	7	14916..	32130	1.872	1.872	... H1-1b
8	M43	HSS4X4...	.117	0	24	.036	0	y 13	13626..	139518	16.181	16.181	... H1-1b
9	M46	PL1/2x6	.176	.5...	1	.128	.516	y 4	66009..	97200	1.012	12.15	... H1-1b
10	M51B	L2x2x3	.112	0	2	.012	0	y 17	9823...	23392..	.558	1.093	... H2-1
11	M52B	L2x2x3	.115	4...	22	.012	4.1...	y 21	9823...	23392..	.558	1.077	... H2-1
12	M76	PL3/8x6	.270	0	4	.125	0	y 1	70677..	72900	.57	9.113	... H1-1b
13	M77	PL3/8x6	.194	.1...	7	.210	0	y 15	71601..	72900	.57	9.113	... H1-1b
14	M80	PL1/2x6	.061	.1...	7	.174	0	y 12	96757..	97200	1.012	12.15	... H1-1b
15	M84	PL3/8x6	.233	0	10	.159	0	y 7	70677..	72900	.57	9.113	... H1-1b
16	M85	PL3/8x6	.214	.1...	7	.190	0	y 13	71601..	72900	.57	9.113	... H1-1b
17	M91	PL1/2x6	.063	.1...	1	.158	0	y 2	96757..	97200	1.012	12.15	... H1-1b
18	M52A	HSS4X4...	.155	3...	9	.052	0	y 37	12465..	139518	16.181	16.181	... H1-1b
19	M53	HSS4X4...	.123	2...	22	.046	2.3...	y 22	13626..	139518	16.181	16.181	... H1-1b
20	M54	HSS4X4...	.117	0	20	.040	0	y 45	13626..	139518	16.181	16.181	... H1-1b
21	M55	PL1/2x6	.175	.5...	9	.130	.516	y 12	66009..	97200	1.012	12.15	... H1-1b
22	M58A	L2x2x3	.112	0	10	.012	0	y 13	9823...	23392..	.558	1.093	... H2-1
23	M59A	L2x2x3	.115	4...	18	.012	4.1...	y 17	9823...	23392..	.558	1.077	... H2-1
24	M63	PL3/8x6	.271	0	12	.125	0	y 8	70677..	72900	.57	9.113	... H1-1b
25	M64	PL3/8x6	.193	.1...	3	.214	0	y 23	71601..	72900	.57	9.113	... H1-1b
26	M66	PL1/2x6	.060	.1...	3	.173	0	y 8	96757..	97200	1.012	12.15	... H1-1b
27	M68	PL3/8x6	.236	0	6	.159	0	y 4	70677..	72900	.57	9.113	... H1-1b
28	M69	PL3/8x6	.212	.1...	3	.194	0	y 45	71601..	72900	.57	9.113	... H1-1b
29	M71	PL1/2x6	.063	.1...	9	.158	0	y 10	96757..	97200	1.012	12.15	... H1-1b
30	M76A	HSS4X4...	.157	3...	5	.065	3.5...	y 27	12465..	139518	16.181	16.181	... H1-1b
31	M77A	HSS4X4...	.123	2...	18	.046	2.3...	y 18	13626..	139518	16.181	16.181	... H1-1b
32	M78	HSS4X4...	.118	0	16	.036	0	y 17	13626..	139518	16.181	16.181	... H1-1b
33	M79A	PL1/2x6	.178	.5...	5	.143	.516	y 26	66009..	97200	1.012	12.15	... H1-1b
34	M82	L2x2x3	.113	0	6	.012	0	y 21	9823...	23392..	.558	1.091	... H2-1
35	M83A	L2x2x3	.114	4...	14	.012	4.1...	y 13	9823...	23392..	.558	1.077	... H2-1
36	M87	PL3/8x6	.265	0	8	.126	0	y 5	70677..	72900	.57	9.113	... H1-1b
37	M88A	PL3/8x6	.195	.1...	11	.214	0	y 19	71601..	72900	.57	9.113	... H1-1b
38	M90	PL1/2x6	.061	.1...	11	.226	0	y 28	96757..	97200	1.012	12.15	... H1-1b
39	M92A	PL3/8x6	.232	0	2	.161	0	y 12	70677..	72900	.57	9.113	... H1-1b
40	M93	PL3/8x6	.216	.1...	11	.192	0	y 17	71601..	72900	.57	9.113	... H1-1b
41	M95	PL1/2x6	.064	.1...	5	.159	0	y 6	96757..	97200	1.012	12.15	... H1-1b
42	M82A	PIPE_3.0	.172	4...	6	.115	4.1...	3	28250..	65205	5.749	5.749	... H1-1b
43	M91B	PIPE_3.0	.170	4...	2	.116	4.1...	11	28250..	65205	5.749	5.749	... H1-1b

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

Member	Shape	Code Check	L...	LC	Shear C...	Loc.....	phi*P...	phi*P...	phi*M...	phi*M...	Egn			
44	MP3C	PIPE_2.0	.550	6...	6	.141	6.75	4	14916..	32130	1.872	1.872	...	H1-1b
45	MP4C	PIPE_2.0	.327	6...	12	.147	3.25	2	14916..	32130	1.872	1.872	...	H1-1b
46	MP2C	PIPE_2.0	.535	6...	6	.202	6.75	2	14916..	32130	1.872	1.872	...	H1-1b
47	MP1C	PIPE_2.0	.319	6...	1	.152	3.25	3	14916..	32130	1.872	1.872	...	H1-1b
48	MP3B	PIPE_2.0	.543	6...	2	.141	6.75	12	14916..	32130	1.872	1.872	...	H1-1b
49	MP4B	PIPE_2.0	.324	6...	8	.148	3.25	10	14916..	32130	1.872	1.872	...	H1-1b
50	MP2B	PIPE_2.0	.529	6...	2	.203	6.75	10	14916..	32130	1.872	1.872	...	H1-1b
51	MP1B	PIPE_2.0	.318	6...	9	.153	3.25	11	14916..	32130	1.872	1.872	...	H1-1b
52	M100	PIPE_2.0	.372	4...	7	.230	1.1...	7	6295....	32130	1.872	1.872	...	H1-1b
53	M107	PIPE_2.0	.372	4...	4	.228	1.1...	3	6295....	32130	1.872	1.872	...	H1-1b
54	M114	PIPE_2.0	.373	4...	12	.229	1.1...	11	6295....	32130	1.872	1.872	...	H1-1b
55	M121	L2.5x2.5...	.543	0	11	.077	0	z 6	36452..	38556	1.114	2.537	...	H2-1
56	M122	L2.5x2.5...	.542	0	3	.076	.314	z 10	36452..	38556	1.114	2.537	...	H2-1
57	M123	L2.5x2.5...	.547	0	7	.076	.068	z 2	36452..	38556	1.114	2.537	...	H2-1
58	OVP	PIPE_2.0	.097	3	1	.032	3	4	26521..	32130	1.872	1.872	1	H1-1b
59	M126	LL2.5x2...	.094	4...	13	.004	0	z 10	44475..	58320	3.3	2.543	1	H1-1..
60	M127	LL2.5x2...	.093	4...	21	.004	4.61	z 6	44475..	58320	3.3	2.543	1	H1-1..
61	M128	LL2.5x2...	.093	4...	17	.004	4.61	z 2	44475..	58320	3.3	2.543	1	H1-1..

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	N2	max	787.97	10	849.722	7	5055.643	1	.748	19	1.099	4	.242	22
2		min	-789.115	4	-451.525	1	-3293.261	7	-.298	1	-1.093	10	-.071	4
3	N3	max	4210.146	9	760.721	3	1487.717	3	.248	8	.982	12	.335	9
4		min	-2692.9	3	-457.904	9	-2361.826	9	-.723	38	-.976	6	-.695	3
5	N4	max	2670.588	11	767.198	11	1617.49	11	.238	6	.986	8	.606	10
6		min	-4190.508	5	-463.484	5	-2494.778	5	-.49	12	-.983	2	-.329	4
7	N187	max	36.121	10	2757.733	13	961.855	7	0	75	0	4	0	10
8		min	-36.173	4	-829.131	7	-3155.443	13	0	1	0	10	0	4
9	N189	max	798.45	3	2724.68	21	1558.425	21	0	6	0	12	0	12
10		min	-2699.277	21	-794.916	3	-460.943	3	0	12	0	6	0	6
11	N191	max	2709.83	17	2735.124	17	1564.532	17	0	8	0	8	0	8
12		min	-813.519	11	-809.863	11	-469.708	11	0	2	0	2	0	2
13	Totals:	max	4136.334	10	7931.31	15	4173.285	1						
14		min	-4136.331	4	2170.677	72	-4173.286	7						

Joint Reactions (By Combination)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
1	1	N2	-63.3	-451.525	5055.643	-.298	.003	-.003
2	1	N3	-879.406	507.159	927.239	-.355	.375	-.396
3	1	N4	877.364	416.61	1018.121	-.422	-.349	.249
4	1	N187	-.083	2520.257	-2896.517	0	0	0
5	1	N189	31.658	-14.391	15.519	0	0	0
6	1	N191	33.759	50.354	53.28	0	0	0
7	1	Totals:	-.008	3028.463	4173.285			
8	1	COG (ft):	X: .004	Y: 1.755	Z: -.037			
9	2	N2	-169.234	-341.579	4570.722	-.211	-.313	-.036
10	2	N3	-2271.187	701.604	1289.484	-.357	-.358	-.6
11	2	N4	-1077.26	95.532	135.273	-.278	-.983	-.016
12	2	N187	-15.096	2275.951	-2612.14	0	0	0
13	2	N189	598.393	-589.355	-329.609	0	0	0
14	2	N191	860.397	886.313	538.486	0	0	0
15	2	Totals:	-2073.987	3028.466	3592.216			
16	2	COG (ft):	X: .004	Y: 1.755	Z: -.037			

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
17	3	N2	-559.562	-80.295	3106.429	-.001	.438	-.068
18	3	N3	-2692.9	760.721	1487.717	-.297	-.005	-.695
19	3	N4	-2758.833	-198.066	-1178.474	-.089	-.36	-.223
20	3	N187	-29.137	1646.959	-1885.227	0	0	0
21	3	N189	798.45	-794.916	-460.943	0	0	0
22	3	N191	1665.752	1694.063	995.23	0	0	0
23	3	Totals:	-3576.23	3028.466	2064.732			
24	3	COG (ft):	X: .004	Y: 1.755	Z: -.037			
25	4	N2	-789.115	255.762	905.582	.276	1.099	-.071
26	4	N3	-2349.435	660.46	1250.543	-.175	.375	-.656
27	4	N4	-3785.375	-398.189	-2214.48	.092	.385	-.329
28	4	N187	-36.173	804.278	-918.647	0	0	0
29	4	N189	566.993	-571.849	-343.154	0	0	0
30	4	N191	2256.775	2278.003	1320.207	0	0	0
31	4	Totals:	-4136.331	3028.466	.05			
32	4	COG (ft):	X: .004	Y: 1.755	Z: -.037			
33	5	N2	-480.78	570.095	-1311.049	.531	.485	-.019
34	5	N3	-1329.047	410.67	261.162	-.001	-.332	-.485
35	5	N4	-4190.508	-463.484	-2494.778	.21	.032	-.327
36	5	N187	-29.272	-25.662	32.805	0	0	0
37	5	N189	-55.937	43.342	-1.495	0	0	0
38	5	N191	2481.433	2493.502	1432.593	0	0	0
39	5	Totals:	-3604.112	3028.463	-2080.762			
40	5	COG (ft):	X: .004	Y: 1.755	Z: -.037			
41	6	N2	-54.979	785.255	-2799.775	.693	-.285	.054
42	6	N3	409.851	86.812	-996.956	.161	-.976	-.227
43	6	N4	-3795.21	-364.414	-2304.433	.238	-.354	-.204
44	6	N187	-13.74	-623.415	722.755	0	0	0
45	6	N189	-892.018	881.831	473.257	0	0	0
46	6	N191	2256.022	2262.389	1285.069	0	0	0
47	6	Totals:	-2090.073	3028.459	-3620.083			
48	6	COG (ft):	X: .004	Y: 1.755	Z: -.037			
49	7	N2	61.671	849.722	-3293.261	.734	.002	.105
50	7	N3	2399.455	-206.689	-1802.504	.247	-.367	.038
51	7	N4	-2399.737	-115.477	-1895.293	.171	.35	.026
52	7	N187	-.031	-829.131	961.855	0	0	0
53	7	N189	-1696.119	1695.403	945.76	0	0	0
54	7	N191	1634.771	1634.626	910.157	0	0	0
55	7	Totals:	.01	3028.454	-4173.286			
56	7	COG (ft):	X: .004	Y: 1.755	Z: -.037			
57	8	N2	171.588	738.846	-2808.911	.645	.315	.137
58	8	N3	3790.505	-399.505	-2160.617	.248	.366	.241
59	8	N4	-446.995	204.879	-1014.291	.026	.986	.29
60	8	N187	13.691	-584.389	677.233	0	0	0
61	8	N189	-2263.178	2269.58	1289.449	0	0	0
62	8	N191	808.377	799.041	424.92	0	0	0
63	8	Totals:	2073.989	3028.452	-3592.217			
64	8	COG (ft):	X: .004	Y: 1.755	Z: -.037			
65	9	N2	559.065	475.96	-1342.055	.434	-.434	.169
66	9	N3	4210.146	-457.904	-2361.826	.186	.01	.335
67	9	N4	1236.495	499.393	299.655	-.164	.364	.498
68	9	N187	29.262	45.443	-50.147	0	0	0
69	9	N189	-2461.996	2474.358	1421.554	0	0	0
70	9	N191	3.26	-8.799	-31.914	0	0	0
71	9	Totals:	3576.233	3028.452	-2064.732			
72	9	COG (ft):	X: .004	Y: 1.755	Z: -.037			
73	10	N2	787.97	139.17	861.471	.155	-1.093	.173

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
74	10	N3	3864.236	-358.54	-2127.822	.064	-.373	.298
75	10	N4	2266.994	701.156	1334.041	-.346	-.38	.606
76	10	N187	36.121	888.499	-1016.92	0	0	0
77	10	N189	-2230.102	2251.71	1305.027	0	0	0
78	10	N191	-588.885	-593.543	-355.848	0	0	0
79	10	Totals:	4136.334	3028.452	-.051			
80	10	COG (ft):	X: .004	Y: 1.755	Z: -.037			
81	11	N2	478.908	-174.255	3076.528	-.098	-.478	.122
82	11	N3	2847.543	-110.371	-1137.262	-.108	.337	.129
83	11	N4	2670.588	767.198	1617.49	-.464	-.029	.606
84	11	N187	28.956	1718.38	-1968.581	0	0	0
85	11	N189	-1608.362	1637.365	962.293	0	0	0
86	11	N191	-813.519	-809.863	-469.708	0	0	0
87	11	Totals:	3604.114	3028.455	2080.761			
88	11	COG (ft):	X: .004	Y: 1.755	Z: -.037			
89	12	N2	49.773	-387.774	4562.581	-.258	.293	.048
90	12	N3	1111.32	212.734	120.134	-.269	.982	-.128
91	12	N4	2273.677	667.189	1430.944	-.49	.354	.482
92	12	N187	14.888	2315.343	-2658.121	0	0	0
93	12	N189	-772.396	799.258	487.748	0	0	0
94	12	N191	-587.187	-578.291	-323.204	0	0	0
95	12	Totals:	2090.076	3028.459	3620.082			
96	12	COG (ft):	X: .004	Y: 1.755	Z: -.037			
97	13	N2	-11.242	336.819	3601.501	.42	.01	.185
98	13	N3	1447.684	474.27	-715.995	-.176	.131	-.545
99	13	N4	-1462.714	449.256	-683.872	-.461	-.106	.351
100	13	N187	.005	2757.733	-3155.443	0	0	0
101	13	N189	-1915.105	1943.599	1115.292	0	0	0
102	13	N191	1941.371	1969.632	1130.566	0	0	0
103	13	Totals:	-.001	7931.309	1292.05			
104	13	COG (ft):	X: .006	Y: 1.81	Z: -.052			
105	14	N2	-46.145	371.268	3447.134	.448	-.063	.172
106	14	N3	1011.757	536.784	-590.125	-.178	-.073	-.61
107	14	N4	-2070.376	349.673	-964.508	-.415	-.28	.269
108	14	N187	-4.011	2681.68	-3066.488	0	0	0
109	14	N189	-1734.395	1761.285	1005.814	0	0	0
110	14	N191	2199.926	2230.62	1282.29	0	0	0
111	14	Totals:	-643.244	7931.31	1114.118			
112	14	COG (ft):	X: .006	Y: 1.81	Z: -.052			
113	15	N2	-154.041	451.941	2985.651	.514	.146	.161
114	15	N3	874.698	555.095	-532.3	-.158	.009	-.64
115	15	N4	-2604.808	256.35	-1365.454	-.356	-.112	.202
116	15	N187	-8.334	2485.427	-2838.928	0	0	0
117	15	N189	-1671.33	1697.102	964.892	0	0	0
118	15	N191	2454.377	2485.396	1426.671	0	0	0
119	15	Totals:	-1109.437	7931.31	640.533			
120	15	COG (ft):	X: .006	Y: 1.81	Z: -.052			
121	16	N2	-218.687	555.907	2299.252	.601	.327	.16
122	16	N3	987.326	523.055	-613.541	-.119	.1	-.627
123	16	N4	-2934.688	192.393	-1682.127	-.3	.096	.167
124	16	N187	-10.466	2222.069	-2536.359	0	0	0
125	16	N189	-1745.767	1768.664	1003.339	0	0	0
126	16	N191	2641.051	2669.222	1529.45	0	0	0
127	16	Totals:	-1281.231	7931.31	.015			
128	16	COG (ft):	X: .006	Y: 1.81	Z: -.052			
129	17	N2	-136.021	654.376	1609.612	.683	.161	.176
130	17	N3	1318.104	445.944	-916.014	-.066	-.097	-.574

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
131	17	N4	-3056.822	172.697	-1774.822	-.263	.015	.168
132	17	N187	-8.302	1962.043	-2237.704	0	0	0
133	17	N189	-1941.192	1961.124	1111.016	0	0	0
134	17	N191	2709.83	2735.124	1564.532	0	0	0
135	17	Totals:	-1114.402	7931.309	-643.379			
136	17	COG (ft):	X: .006	Y: 1.81	Z: -.052			
137	18	N2	-15.294	722.306	1142.988	.735	-.052	.199
138	18	N3	1864.04	345.707	-1303.117	-.016	-.273	-.494
139	18	N4	-2926.489	204.37	-1716.177	-.254	-.077	.208
140	18	N187	-3.857	1774.465	-2020.319	0	0	0
141	18	N189	-2202.246	2222.489	1259.289	0	0	0
142	18	N191	2637.739	2661.971	1518.26	0	0	0
143	18	Totals:	-646.108	7931.307	-1119.077			
144	18	COG (ft):	X: .006	Y: 1.81	Z: -.052			
145	19	N2	24.675	742.392	986.616	.748	.012	.217
146	19	N3	2480.367	252.564	-1566.871	.012	-.108	-.41
147	19	N4	-2493.655	281.146	-1576.792	-.274	.119	.279
148	19	N187	.042	1709.761	-1944.635	0	0	0
149	19	N189	-2455.624	2478.373	1408.114	0	0	0
150	19	N191	2444.201	2467.07	1401.518	0	0	0
151	19	Totals:	.005	7931.306	-1292.048			
152	19	COG (ft):	X: .006	Y: 1.81	Z: -.052			
153	20	N2	59.929	707.847	1140.971	.72	.085	.23
154	20	N3	2916.179	190.222	-1692.358	.015	.096	-.346
155	20	N4	-1886.176	380.652	-1296.343	-.32	.293	.361
156	20	N187	3.959	1785.873	-2033.632	0	0	0
157	20	N189	-2636.327	2660.58	1517.453	0	0	0
158	20	N191	2185.684	2206.131	1249.793	0	0	0
159	20	Totals:	643.248	7931.305	-1114.117			
160	20	COG (ft):	X: .006	Y: 1.81	Z: -.052			
161	21	N2	167.592	627.004	1602.732	.654	-.124	.241
162	21	N3	3053.027	171.989	-1750.424	-.005	.013	-.316
163	21	N4	-1351.549	474.071	-895.38	-.379	.125	.428
164	21	N187	8.411	1982.237	-2261.272	0	0	0
165	21	N189	-2699.277	2724.68	1558.425	0	0	0
166	21	N191	1931.237	1951.324	1105.386	0	0	0
167	21	Totals:	1109.442	7931.305	-640.532			
168	21	COG (ft):	X: .006	Y: 1.81	Z: -.052			
169	22	N2	232.169	522.961	2289.391	.567	-.304	.242
170	22	N3	2940.213	203.935	-1669.483	-.045	-.078	-.328
171	22	N4	-1021.278	538.2	-578.812	-.435	-.083	.463
172	22	N187	10.522	2245.643	-2563.873	0	0	0
173	22	N189	-2624.827	2653.176	1520.088	0	0	0
174	22	N191	1744.437	1767.391	1002.674	0	0	0
175	22	Totals:	1281.235	7931.305	-.014			
176	22	COG (ft):	X: .006	Y: 1.81	Z: -.052			
177	23	N2	149.425	424.586	2978.864	.486	-.139	.226
178	23	N3	2609.794	280.873	-1366.947	-.098	.119	-.381
179	23	N4	-899.246	557.975	-485.823	-.472	-.001	.462
180	23	N187	8.328	2505.64	-2862.522	0	0	0
181	23	N189	-2429.537	2460.827	1412.341	0	0	0
182	23	N191	1675.642	1701.405	967.467	0	0	0
183	23	Totals:	1114.406	7931.306	643.38			
184	23	COG (ft):	X: .006	Y: 1.81	Z: -.052			
185	24	N2	28.417	356.829	3445.2	.433	.075	.203
186	24	N3	2064.122	381.031	-979.91	-.147	.295	-.461
187	24	N4	-1029.753	526.206	-544.152	-.481	.09	.422

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
188	24	N187	4.004	2693.112	-3079.832	0	0	0
189	24	N189	-2168.503	2199.512	1264.1	0	0	0
190	24	N191	1747.825	1774.618	1013.673	0	0	0
191	24	Totals:	646.112	7931.308	1119.078			
192	24	COG (ft):	X: .006	Y: 1.81	Z: -.052			
193	25	N2	-14.334	127.659	1042.455	.154	.029	-.026
194	25	N3	531.216	227.602	-295.907	-.101	0	-.232
195	25	N4	-1832.121	-208.997	-1021.321	-.207	-.018	-.257
196	25	N187	.02	908.064	-1038.188	0	0	0
197	25	N189	-701.718	711.411	407.257	0	0	0
198	25	N191	2016.945	2012.711	1166.538	0	0	0
199	25	Totals:	.008	3778.451	260.834			
200	25	COG (ft):	X: 1.145	Y: 1.406	Z: .727			
201	26	N2	-21.076	134.557	1012.145	.16	.009	-.028
202	26	N3	444.249	239.708	-273.37	-.101	-.046	-.245
203	26	N4	-1954.216	-229.005	-1076.387	-.198	-.058	-.274
204	26	N187	-.879	892.785	-1020.411	0	0	0
205	26	N189	-666.291	675.5	385.727	0	0	0
206	26	N191	2068.601	2064.906	1196.811	0	0	0
207	26	Totals:	-129.612	3778.451	224.515			
208	26	COG (ft):	X: 1.145	Y: 1.406	Z: .727			
209	27	N2	-45.384	150.939	920.514	.173	.056	-.03
210	27	N3	417.947	243.377	-260.883	-.098	-.024	-.251
211	27	N4	-2059.332	-247.344	-1158.502	-.187	-.019	-.287
212	27	N187	-1.804	853.445	-974.962	0	0	0
213	27	N189	-653.823	662.675	377.498	0	0	0
214	27	N191	2118.894	2115.359	1225.382	0	0	0
215	27	Totals:	-223.502	3778.451	129.047			
216	27	COG (ft):	X: 1.145	Y: 1.406	Z: .727			
217	28	N2	-59.713	171.971	782.845	.19	.097	-.031
218	28	N3	439.49	237.13	-275.608	-.09	0	-.248
219	28	N4	-2123.594	-259.882	-1223.222	-.175	.027	-.293
220	28	N187	-2.242	800.758	-914.536	0	0	0
221	28	N189	-668.3	676.604	384.824	0	0	0
222	28	N191	2155.847	2151.869	1245.701	0	0	0
223	28	Totals:	-258.513	3778.451	.004			
224	28	COG (ft):	X: 1.145	Y: 1.406	Z: .727			
225	29	N2	-40.43	191.601	644.314	.206	.059	-.027
226	29	N3	503.176	221.558	-337.473	-.079	-.044	-.238
227	29	N4	-2148.908	-263.987	-1240.796	-.168	.005	-.293
228	29	N187	-1.802	748.874	-855.048	0	0	0
229	29	N189	-707.201	715.032	406.209	0	0	0
230	29	N191	2169.92	2165.372	1252.748	0	0	0
231	29	Totals:	-225.246	3778.451	-130.046			
232	29	COG (ft):	X: 1.145	Y: 1.406	Z: .727			
233	30	N2	-13.732	205.015	551.31	.216	.011	-.023
234	30	N3	611.796	201.329	-416.082	-.069	-.085	-.222
235	30	N4	-2124.19	-257.782	-1228.973	-.166	-.019	-.285
236	30	N187	-.874	711.521	-811.919	0	0	0
237	30	N189	-759.457	767.431	435.875	0	0	0
238	30	N191	2155.84	2150.937	1243.537	0	0	0
239	30	Totals:	-130.617	3778.45	-226.253			
240	30	COG (ft):	X: 1.145	Y: 1.406	Z: .727			
241	31	N2	-6.546	209.035	520.458	.219	.029	-.02
242	31	N3	736.189	182.949	-466.487	-.064	-.047	-.205
243	31	N4	-2036.962	-242.202	-1203.335	-.17	.025	-.271
244	31	N187	.018	698.673	-796.98	0	0	0



Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
245	31	N189	-809.713	818.285	465.403	0	0
246	31	N191	2117.022	2111.711	1220.109	0	0
247	31	Totals:	.009	3778.45	-260.832		
248	31	COG (ft):	X: 1.145	Y: 1.406	Z: .727		
249	32	N2	.212	202.133	550.766	.214	.048
250	32	N3	823.152	170.849	-489.007	-.063	0
251	32	N4	-1914.874	-222.197	-1148.275	-.179	.065
252	32	N187	.913	713.955	-814.759	0	0
253	32	N189	-845.141	854.193	486.928	0	0
254	32	N191	2065.367	2059.517	1189.836	0	0
255	32	Totals:	129.628	3778.45	-224.512		
256	32	COG (ft):	X: 1.145	Y: 1.406	Z: .727		
257	33	N2	24.509	185.746	642.407	.2	.001
258	33	N3	849.446	167.183	-501.507	-.067	-.023
259	33	N4	-1809.751	-203.854	-1066.16	-.191	.026
260	33	N187	1.844	753.297	-860.209	0	0
261	33	N189	-857.604	867.014	495.16	0	0
262	33	N191	2015.075	2009.064	1161.265	0	0
263	33	Totals:	223.518	3778.45	-129.044		
264	33	COG (ft):	X: 1.145	Y: 1.406	Z: .727		
265	34	N2	38.835	164.71	780.086	.183	-.04
266	34	N3	827.894	173.426	-486.794	-.075	-.047
267	34	N4	-1745.473	-191.31	-1001.446	-.202	-.02
268	34	N187	2.28	805.986	-920.636	0	0
269	34	N189	-843.126	853.087	487.838	0	0
270	34	N191	1978.117	1972.551	1140.95	0	0
271	34	Totals:	258.529	3778.45	-.002		
272	34	COG (ft):	X: 1.145	Y: 1.406	Z: .727		
273	35	N2	19.549	145.083	918.611	.167	-.002
274	35	N3	764.222	188.992	-424.924	-.086	-.003
275	35	N4	-1720.165	-187.202	-983.86	-.21	.002
276	35	N187	1.84	857.87	-980.125	0	0
277	35	N189	-804.229	814.663	466.449	0	0
278	35	N191	1964.045	1959.044	1133.897	0	0
279	35	Totals:	225.262	3778.45	130.049		
280	35	COG (ft):	X: 1.145	Y: 1.406	Z: .727		
281	36	N2	-7.162	131.676	1011.605	.157	.047
282	36	N3	655.612	209.219	-346.318	-.096	.038
283	36	N4	-1744.889	-193.411	-995.668	-.212	.026
284	36	N187	.917	895.22	-1023.252	0	0
285	36	N189	-751.973	762.265	436.783	0	0
286	36	N191	1978.128	1973.482	1143.105	0	0
287	36	Totals:	130.633	3778.45	226.256		
288	36	COG (ft):	X: 1.145	Y: 1.406	Z: .727		
289	37	N2	-2.053	55.926	1085.763	.085	-.002
290	37	N3	1141.038	348.091	-632.435	-.722	.023
291	37	N4	-700.778	339.332	-373.586	-.456	-.018
292	37	N187	-.004	911.538	-1042.243	0	0
293	37	N189	-1274.912	1278.577	738.15	0	0
294	37	N191	836.708	844.988	485.184	0	0
295	37	Totals:	0	3778.452	260.832		
296	37	COG (ft):	X: -.418	Y: 1.406	Z: .727		
297	38	N2	-8.793	62.828	1055.479	.091	-.022
298	38	N3	1054.069	360.197	-609.939	-.723	-.023
299	38	N4	-822.888	319.288	-428.707	-.447	-.058
300	38	N187	-.903	896.255	-1024.461	0	0
301	38	N189	-1239.467	1242.664	716.634	0	0

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
302	38	N191	888.362	897.22	515.507	0	0	0
303	38	Totals:	-129.62	3778.452	224.513			
304	38	COG (ft):	X: -.418	Y: 1.406	Z: .727			
305	39	N2	-33.107	79.209	963.902	.104	.025	.118
306	39	N3	1027.778	363.878	-597.459	-.719	0	-.094
307	39	N4	-928.034	300.925	-510.814	-.436	-.019	.126
308	39	N187	-1.827	856.919	-979.017	0	0	0
309	39	N189	-1226.995	1229.83	708.384	0	0	0
310	39	N191	938.674	947.691	544.049	0	0	0
311	39	Totals:	-223.511	3778.452	129.045			
312	39	COG (ft):	X: -.418	Y: 1.406	Z: .727			
313	40	N2	-47.443	100.235	826.291	.121	.066	.118
314	40	N3	1049.325	357.656	-612.184	-.711	.023	-.092
315	40	N4	-992.302	288.387	-575.512	-.424	.027	.12
316	40	N187	-2.263	804.24	-918.6	0	0	0
317	40	N189	-1241.466	1243.742	715.687	0	0	0
318	40	N191	975.627	984.192	564.32	0	0	0
319	40	Totals:	-258.521	3778.452	.002			
320	40	COG (ft):	X: -.418	Y: 1.406	Z: .727			
321	41	N2	-28.161	119.853	687.818	.137	.028	.121
322	41	N3	1112.983	342.126	-674.072	-.7	-.021	-.081
323	41	N4	-1017.567	284.294	-593.113	-.417	.006	.12
324	41	N187	-1.822	752.373	-859.131	0	0	0
325	41	N189	-1280.336	1282.142	737.076	0	0	0
326	41	N191	989.648	997.665	571.375	0	0	0
327	41	Totals:	-225.254	3778.452	-130.048			
328	41	COG (ft):	X: -.418	Y: 1.406	Z: .727			
329	42	N2	-1.463	133.253	594.864	.147	-.02	.126
330	42	N3	1221.568	321.941	-752.695	-.69	-.061	-.065
331	42	N4	-992.792	290.516	-581.315	-.415	-.019	.127
332	42	N187	-.893	715.041	-816.027	0	0	0
333	42	N189	-1332.561	1334.511	766.746	0	0	0
334	42	N191	975.515	983.189	562.173	0	0	0
335	42	Totals:	-130.626	3778.451	-226.255			
336	42	COG (ft):	X: -.418	Y: 1.406	Z: .727			
337	43	N2	5.719	137.262	564.031	.15	-.002	.129
338	43	N3	1345.952	303.584	-803.07	-.685	-.023	-.048
339	43	N4	-905.539	306.125	-555.635	-.419	.025	.142
340	43	N187	0	702.208	-801.106	0	0	0
341	43	N189	-1382.819	1385.35	796.254	0	0	0
342	43	N191	936.688	943.921	538.692	0	0	0
343	43	Totals:	0	3778.451	-260.834			
344	43	COG (ft):	X: -.418	Y: 1.406	Z: .727			
345	44	N2	12.474	130.357	594.312	.144	.017	.131
346	44	N3	1432.918	291.484	-825.55	-.685	.022	-.036
347	44	N4	-783.436	326.167	-500.521	-.428	.065	.158
348	44	N187	.894	717.493	-818.889	0	0	0
349	44	N189	-1418.265	1421.26	817.765	0	0	0
350	44	N191	885.034	891.691	508.369	0	0	0
351	44	Totals:	129.62	3778.451	-224.514			
352	44	COG (ft):	X: -.418	Y: 1.406	Z: .727			
353	45	N2	36.777	113.969	685.899	.131	-.03	.133
354	45	N3	1459.201	287.806	-838.042	-.689	0	-.03
355	45	N4	-678.283	344.533	-418.413	-.44	.026	.171
356	45	N187	1.824	756.833	-864.335	0	0	0
357	45	N189	-1430.732	1434.091	826.017	0	0	0
358	45	N191	834.723	841.219	479.827	0	0	0

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
359	45	Totals:	223.51	3778.451	-129.046			
360	45	COG (ft):	X: -.418	Y: 1.406	Z: .727			
361	46	N2	51.111	92.94	823.521	.114	-.071	.133
362	46	N3	1437.644	294.024	-823.33	-.696	-.024	-.032
363	46	N4	-613.999	357.078	-353.721	-.452	-.02	.178
364	46	N187	2.259	809.513	-924.752	0	0	0
365	46	N189	-1416.26	1420.181	818.719	0	0	0
366	46	N191	797.766	804.715	459.559	0	0	0
367	46	Totals:	258.52	3778.451	-.004			
368	46	COG (ft):	X: -.418	Y: 1.406	Z: .727			
369	47	N2	31.826	73.326	961.988	.098	-.032	.13
370	47	N3	1374	309.548	-761.437	-.707	.021	-.043
371	47	N4	-588.74	361.174	-336.108	-.459	.002	.178
372	47	N187	1.818	861.38	-984.222	0	0	0
373	47	N189	-1377.394	1381.784	797.326	0	0	0
374	47	N191	783.745	791.239	452.499	0	0	0
375	47	Totals:	225.254	3778.451	130.047			
376	47	COG (ft):	X: -.418	Y: 1.406	Z: .727			
377	48	N2	5.115	59.933	1054.931	.088	.016	.125
378	48	N3	1265.427	329.73	-682.816	-.717	.061	-.059
379	48	N4	-613.522	354.948	-347.891	-.461	.026	.17
380	48	N187	.894	898.709	-1027.324	0	0	0
381	48	N189	-1325.169	1329.416	767.656	0	0	0
382	48	N191	797.881	805.717	461.697	0	0	0
383	48	Totals:	130.625	3778.451	226.254			
384	48	COG (ft):	X: -.418	Y: 1.406	Z: .727			
385	49	N2	-5.552	186.987	827.029	.205	.017	.014
386	49	N3	678.091	175.852	-400.537	-.057	-.012	-.202
387	49	N4	-1388.65	-69.246	-798.13	-.123	.002	-.08
388	49	N187	.012	824.31	-942.019	0	0	0
389	49	N189	-779.616	788.495	450.121	0	0	0
390	49	N191	1495.72	1497.056	863.537	0	0	0
391	49	Totals:	.006	3403.454	0			
392	49	COG (ft):	X: .693	Y: 1.561	Z: .387			
393	50	N2	.202	138.249	852.775	.158	.001	.051
394	50	N3	853.127	280.006	-492.959	-.346	0	-.163
395	50	N4	-855.972	279.289	-493.223	-.416	0	.121
396	50	N187	0	825.753	-943.703	0	0	0
397	50	N189	-931.485	938.771	537.791	0	0	0
398	50	N191	934.13	941.388	539.318	0	0	0
399	50	Totals:	0	3403.456	0			
400	50	COG (ft):	X: .004	Y: 1.561	Z: .387			
401	51	N2	.208	230.837	1025.837	.252	.001	.06
402	51	N3	882.634	175.207	-509.754	-.063	.001	-.208
403	51	N4	-885.35	175.702	-509.578	-.147	0	.16
404	51	N187	0	987.535	-1129.194	0	0	0
405	51	N189	-971.023	980.719	560.619	0	0	0
406	51	N191	973.531	983.201	562.068	0	0	0
407	51	Totals:	.001	3533.202	0			
408	51	COG (ft):	X: .004	Y: 1.755	Z: -.037			
409	52	N2	-1.239	173.142	1138.473	.196	0	.051
410	52	N3	697.594	171.859	-372.982	-.07	.03	-.194
411	52	N4	-700.743	169.285	-371.372	-.144	-.03	.148
412	52	N187	0	955.376	-1092.9	0	0	0
413	52	N189	-818.533	827.56	473.975	0	0	0
414	52	N191	822.922	831.904	476.509	0	0	0
415	52	Totals:	0	3129.126	251.702			



Company :
 Designer :
 Job Number :
 Model Name :

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Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
416	52	COG (ft):	X: .004	Y: 1.755	Z: -.037			
417	53	N2	-18.693	178.203	1107.682	.201	.019	.048
418	53	N3	620.517	182.24	-342.087	-.071	.018	-.205
419	53	N4	-799.672	153.962	-424.598	-.137	-.034	.136
420	53	N187	-.697	943.934	-1079.737	0	0	0
421	53	N189	-790.102	798.733	456.97	0	0	0
422	53	N191	862.794	872.053	499.744	0	0	0
423	53	Totals:	-125.852	3129.126	217.975			
424	53	COG (ft):	X: .004	Y: 1.755	Z: -.037			
425	54	N2	-31.089	190.291	1023.538	.211	.033	.047
426	54	N3	586.627	185.366	-340.496	-.069	0	-.21
427	54	N4	-894.416	139.083	-484.972	-.128	-.029	.125
428	54	N187	-1.207	913.919	-1045.225	0	0	0
429	54	N189	-780.39	788.616	450.557	0	0	0
430	54	N191	902.498	911.851	522.451	0	0	0
431	54	Totals:	-217.977	3129.126	125.852			
432	54	COG (ft):	X: .004	Y: 1.755	Z: -.037			
433	55	N2	-35.108	206.17	908.568	.225	.038	.047
434	55	N3	605	180.399	-368.636	-.062	-.016	-.208
435	55	N4	-959.608	128.631	-536.328	-.12	-.017	.118
436	55	N187	-1.393	873.366	-998.605	0	0	0
437	55	N189	-791.999	799.919	456.453	0	0	0
438	55	N191	931.403	940.641	538.55	0	0	0
439	55	Totals:	-251.705	3129.126	.001			
440	55	COG (ft):	X: .004	Y: 1.755	Z: -.037			
441	56	N2	-29.669	221.586	793.583	.238	.034	.048
442	56	N3	670.728	168.669	-418.972	-.054	-.028	-.199
443	56	N4	-977.763	125.407	-564.897	-.114	0	.118
444	56	N187	-1.207	833.142	-952.37	0	0	0
445	56	N189	-821.822	829.619	473.082	0	0	0
446	56	N191	941.757	950.703	543.723	0	0	0
447	56	Totals:	-217.976	3129.126	-125.85			
448	56	COG (ft):	X: .004	Y: 1.755	Z: -.037			
449	57	N2	-16.232	232.406	709.399	.248	.02	.051
450	57	N3	766.177	153.323	-478.004	-.047	-.032	-.187
451	57	N4	-944.032	130.272	-563.03	-.113	.017	.125
452	57	N187	-.696	804.027	-918.911	0	0	0
453	57	N189	-861.86	869.749	495.984	0	0	0
454	57	N191	930.792	939.347	536.588	0	0	0
455	57	Totals:	-125.851	3129.126	-217.974			
456	57	COG (ft):	X: .004	Y: 1.755	Z: -.037			
457	58	N2	1.605	235.732	678.561	.25	.002	.055
458	58	N3	865.789	138.473	-529.927	-.042	-.028	-.174
459	58	N4	-867.446	141.925	-531.228	-.116	.029	.136
460	58	N187	.002	793.82	-907.189	0	0	0
461	58	N189	-901.393	909.562	519.025	0	0	0
462	58	N191	901.444	909.614	519.055	0	0	0
463	58	Totals:	.002	3129.125	-251.703			
464	58	COG (ft):	X: .004	Y: 1.755	Z: -.037			
465	59	N2	19.062	230.668	709.354	.246	-.017	.058
466	59	N3	942.861	128.097	-560.819	-.04	-.015	-.164
467	59	N4	-768.52	157.245	-478.005	-.123	.033	.148
468	59	N187	.699	805.263	-920.353	0	0	0
469	59	N189	-929.821	938.386	536.028	0	0	0
470	59	N191	861.574	869.466	495.82	0	0	0
471	59	Totals:	125.855	3129.125	-217.976			
472	59	COG (ft):	X: .004	Y: 1.755	Z: -.037			

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
473	60	N2	31.458	218.575	793.505	.235	-.031	.059
474	60	N3	976.746	124.974	-562.409	-.043	.001	-.159
475	60	N4	-673.772	172.126	-417.632	-.132	.029	.159
476	60	N187	1.209	835.282	-954.868	0	0	0
477	60	N189	-939.531	948.501	542.439	0	0	0
478	60	N191	821.869	829.667	473.111	0	0	0
479	60	Totals:	217.979	3129.125	-125.853			
480	60	COG (ft):	X: .004	Y: 1.755	Z: -.037			
481	61	N2	35.476	202.694	908.479	.221	-.036	.059
482	61	N3	958.374	129.938	-534.272	-.049	.018	-.161
483	61	N4	-608.574	182.584	-366.273	-.14	.016	.165
484	61	N187	1.394	875.838	-1001.49	0	0	0
485	61	N189	-927.924	937.199	536.542	0	0	0
486	61	N191	792.962	800.873	457.011	0	0	0
487	61	Totals:	251.707	3129.125	-.002			
488	61	COG (ft):	X: .004	Y: 1.755	Z: -.037			
489	62	N2	30.035	187.28	1023.462	.208	-.031	.057
490	62	N3	892.652	141.663	-483.94	-.057	.03	-.169
491	62	N4	-590.416	185.81	-337.701	-.146	0	.166
492	62	N187	1.207	916.06	-1047.724	0	0	0
493	62	N189	-898.104	907.503	519.915	0	0	0
494	62	N191	782.605	790.809	451.838	0	0	0
495	62	Totals:	217.978	3129.125	125.85			
496	62	COG (ft):	X: .004	Y: 1.755	Z: -.037			
497	63	N2	16.597	176.465	1107.638	.199	-.018	.054
498	63	N3	797.207	157.006	-424.908	-.065	.034	-.181
499	63	N4	-624.15	180.942	-339.567	-.148	-.018	.159
500	63	N187	.696	945.171	-1081.18	0	0	0
501	63	N189	-858.067	867.375	497.015	0	0	0
502	63	N191	793.571	802.166	458.974	0	0	0
503	63	Totals:	125.854	3129.126	217.973			
504	63	COG (ft):	X: .004	Y: 1.755	Z: -.037			
505	64	N2	-1.303	110.564	859.958	.128	0	.035
506	64	N3	458.277	124.299	-234.723	-.053	.03	-.138
507	64	N4	-460.678	121.598	-233.147	-.104	-.03	.105
508	64	N187	0	687.351	-786.401	0	0	0
509	64	N189	-555.19	561.6	321.938	0	0	0
510	64	N191	558.894	565.266	324.077	0	0	0
511	64	Totals:	0	2170.678	251.702			
512	64	COG (ft):	X: .004	Y: 1.755	Z: -.037			
513	65	N2	-18.78	115.616	829.203	.133	.019	.032
514	65	N3	381.259	134.664	-203.886	-.054	.017	-.148
515	65	N4	-559.508	106.299	-286.312	-.097	-.034	.092
516	65	N187	-.699	675.93	-773.262	0	0	0
517	65	N189	-526.815	532.825	304.964	0	0	0
518	65	N191	598.69	605.343	347.269	0	0	0
519	65	Totals:	-125.853	2170.678	217.975			
520	65	COG (ft):	X: .004	Y: 1.755	Z: -.037			
521	66	N2	-31.192	127.685	745.147	.143	.033	.03
522	66	N3	347.379	137.786	-202.331	-.051	0	-.153
523	66	N4	-654.149	91.443	-346.639	-.089	-.029	.081
524	66	N187	-1.21	645.969	-738.816	0	0	0
525	66	N189	-517.123	522.726	298.56	0	0	0
526	66	N191	638.319	645.069	369.931	0	0	0
527	66	Totals:	-217.977	2170.678	125.852			
528	66	COG (ft):	X: .004	Y: 1.755	Z: -.037			
529	67	N2	-35.214	143.54	630.293	.157	.038	.03

Joint Reactions (By Combination) (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
530	67	N3	365.709	132.827	-230.474	-.045	-.016	-.151
531	67	N4	-719.261	81.007	-397.973	-.08	-.017	.075
532	67	N187	-1.398	605.488	-692.285	0	0	0
533	67	N189	-528.712	534.009	304.443	0	0	0
534	67	N191	667.169	673.806	385.997	0	0	0
535	67	Totals:	-251.705	2170.678	.001			
536	67	COG (ft):	X: .004	Y: 1.755	Z: -.037			
537	68	N2	-29.764	158.933	515.421	.17	.033	.032
538	68	N3	431.353	121.116	-280.779	-.037	-.028	-.143
539	68	N4	-737.381	77.787	-426.551	-.074	0	.075
540	68	N187	-1.211	565.336	-646.137	0	0	0
541	68	N189	-558.479	563.655	321.038	0	0	0
542	68	N191	677.505	683.85	391.157	0	0	0
543	68	Totals:	-217.976	2170.678	-125.85			
544	68	COG (ft):	X: .004	Y: 1.755	Z: -.037			
545	69	N2	-16.306	169.738	431.318	.179	.02	.035
546	69	N3	526.701	105.795	-339.756	-.03	-.033	-.131
547	69	N4	-703.669	82.644	-424.722	-.073	.017	.081
548	69	N187	-.699	536.274	-612.742	0	0	0
549	69	N189	-598.441	603.712	343.895	0	0	0
550	69	N191	666.563	672.514	384.033	0	0	0
551	69	Totals:	-125.852	2170.677	-217.974			
552	69	COG (ft):	X: .004	Y: 1.755	Z: -.037			
553	70	N2	1.557	173.06	400.506	.182	.001	.038
554	70	N3	626.22	90.967	-391.613	-.025	-.028	-.118
555	70	N4	-627.151	94.277	-392.977	-.076	.029	.092
556	70	N187	0	526.085	-601.042	0	0	0
557	70	N189	-637.897	643.453	366.892	0	0	0
558	70	N191	637.272	642.835	366.531	0	0	0
559	70	Totals:	.001	2170.677	-251.703			
560	70	COG (ft):	X: .004	Y: 1.755	Z: -.037			
561	71	N2	19.036	168.004	431.264	.177	-.017	.041
562	71	N3	703.232	80.607	-422.446	-.023	-.016	-.107
563	71	N4	-528.324	109.573	-339.815	-.083	.034	.105
564	71	N187	.701	537.508	-614.181	0	0	0
565	71	N189	-666.27	672.225	383.864	0	0	0
566	71	N191	597.479	602.76	343.339	0	0	0
567	71	Totals:	125.854	2170.677	-217.976			
568	71	COG (ft):	X: .004	Y: 1.755	Z: -.037			
569	72	N2	31.448	155.93	515.327	.167	-.031	.043
570	72	N3	737.108	77.488	-424.001	-.026	0	-.102
571	72	N4	-433.68	124.432	-279.489	-.092	.029	.116
572	72	N187	1.212	567.473	-648.631	0	0	0
573	72	N189	-675.96	682.321	390.266	0	0	0
574	72	N191	557.849	563.033	320.675	0	0	0
575	72	Totals:	217.978	2170.677	-125.853			
576	72	COG (ft):	X: .004	Y: 1.755	Z: -.037			
577	73	N2	35.468	140.073	630.185	.153	-.037	.043
578	73	N3	718.779	82.444	-395.861	-.032	.018	-.104
579	73	N4	-368.561	134.874	-228.152	-.101	.016	.122
580	73	N187	1.398	607.956	-695.164	0	0	0
581	73	N189	-664.373	671.04	384.384	0	0	0
582	73	N191	528.996	534.291	304.608	0	0	0
583	73	Totals:	251.707	2170.677	-.002			
584	73	COG (ft):	X: .004	Y: 1.755	Z: -.037			
585	74	N2	30.017	124.682	745.054	.14	-.032	.041
586	74	N3	653.14	94.15	-345.56	-.04	.03	-.113



Company :
 Designer :
 Job Number :
 Model Name :

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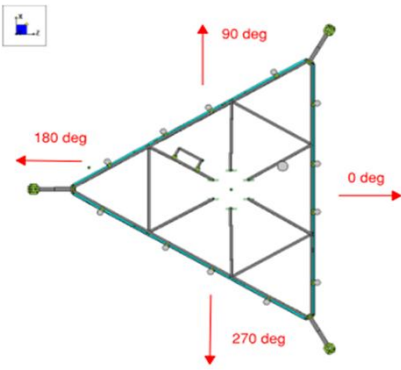
Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
587	74	N4	-350.439	138.096	-199.571	-.106	0	.122
588	74	N187	1.21	648.106	-741.311	0	0	0
589	74	N189	-634.609	641.397	367.79	0	0	0
590	74	N191	518.658	524.245	299.448	0	0	0
591	74	Totals:	217.978	2170.677	125.85			
592	74	COG (ft):	X: .004	Y: 1.755	Z: -.037			
593	75	N2	16.559	113.883	829.15	.131	-.018	.038
594	75	N3	557.797	109.469	-286.584	-.048	.034	-.125
595	75	N4	-384.154	133.236	-201.399	-.108	-.018	.116
596	75	N187	.698	677.165	-774.703	0	0	0
597	75	N189	-594.648	601.343	344.935	0	0	0
598	75	N191	529.601	535.583	306.574	0	0	0
599	75	Totals:	125.853	2170.677	217.974			
600	75	COG (ft):	X: .004	Y: 1.755	Z: -.037			

I. Mount-to-Tower Connection Check

Custom Orientation Required Yes

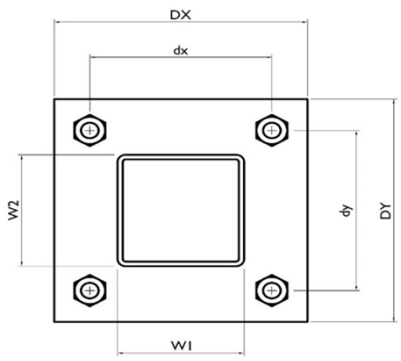
Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N2	180
N3	60
N4	300



Tower Connection Bolt Checks Yes

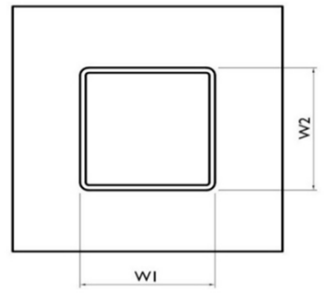
Bolt Orientation Parallel

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):	6
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	0.0
Required Shear Strength / bolt (kips):	1.3
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	10.2%



Tower Connection Baseplate Checks Yes

Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D _x (in):	8
Plate Height, D _y (in):	8
W1(in):	4
W2 (in):	4
Member Thickness (in):	0.25
Stiffener location a ₁ (in):	
Stiffener location b ₁ (in):	
Stiffener location a ₂ (in):	
Stiffener location b ₂ (in):	
F _y (ksi, plate):	36
Plate Thickness (in):	0.625
Length of Yield Line, L _y (in):	5.85
Bolt Eccentricity, e (in):	1.65
M _u (kip-in):	2.79
Phi*M _n (kip-in):	18.51
Plate Bending Utilization:	15.1%



Tower Connection Weld Checks

Weld Shape:
Weld Stiffener Configuration:
Stiffener Notch Length, n (in):
Weld Size (1/16 in):
W1 (in):
W2 (in):
Weld Total Length (in):
 Z_x (in³/in):
 Z_y (in³/in):
 J_p (in⁴/in):
 c_x (in)
 c_y (in)
Required combined strength (kip/in):
Weld Capacity (kip/in):
Weld Utilization:

Yes
Rectangle
None
4
4
4
16.00
21.33
21.33
85.33
2.25
2.25
0.66
5.57
11.9%

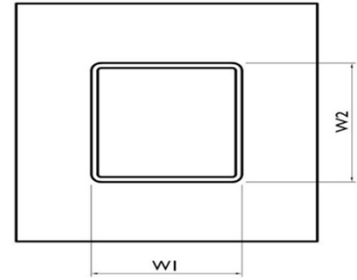


EXHIBIT G

Power Density / RF Emissions Report



FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Prepared for:



Crown Site ID: 806375_HRT 095 943237

Verizon Wireless Site Name: Burnham St CT

Verizon Wireless FUZE ID: 16231955

Site Address:

190 Burnham Street
South Windsor, CT 06108

June 26, 2024

Fox Hill Telecom Project Number: 240173

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	8.94 %



June 26, 2024

Crown Castle
1800 W. Park Drive
Westborough, MA 01581

Emissions Analysis for:

Crown Castle Site: **806375 – HRT 095 943237**

Verizon Wireless Site: Burnham St CT

Fox Hill Telecom, Inc (“Fox Hill”) was directed to analyze the proposed upgrades for Verizon Wireless to the Crown Castle facility located at **190 Burnham Street, South Windsor, CT**, for the purpose of determining whether the emissions from the Proposed Verizon Wireless Antenna Installation, in addition to all existing radio systems located on this property, are within specified federal limits.

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

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

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



General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 MHz band & the 850 MHz cellular band are approximately $497 \mu\text{W}/\text{cm}^2$ and $586 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS) and 3700 MHz (C band) frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report the percentage of MPE rather than power density.

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

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed upgrades to the Crown Castle facility for Verizon Wireless located at **190 Burnham Street, South Windsor, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65 for far field modeling calculations.

In OET-65, plane wave power densities in the far field of an antenna are calculated by considering antenna gain and reflective waves that would contribute to exposure.

Since the radiation pattern of an antenna has developed in the **far field** region the power gain in specific directions needs to be considered in exposure predictions to yield an Effective Radiated Power (ERP) in each specific direction from the antenna. Also, since the vertical radiation pattern of the antenna is considered, the exposure calculations would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels. To determine a worst-case scenario at each point along the calculation radials, each point was calculated using the antenna gain value at each angle of incident and compared against the result using an isotropic radiator at the antenna height with the greater of the two used to yield the more pessimistic far field value for each point along the calculation radial.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential 1.6 times increase in power density in calculating far field power density values.

With these factors considered, the worst case **far field prediction model** utilized in this analysis is determined by the following equation:

Equation 9 per FCC OET65 for Far Field Modeling

$$S = \frac{33.4 \text{ ERP}}{R^2}$$

S = Power Density (in $\mu\text{w}/\text{cm}^2$)

ERP = Effective Radiated Power from antenna (watts)

R = Distance from the antenna (meters)

Predicted far field power density values for all carriers identified in this report were calculated 6 feet above the ground level and are displayed as a percentage of the applicable FCC standards. All emissions values for other carriers were calculated using the same Far Field model outlined above, using industry standard radio configurations and frequency band selection based upon available licenses in this geographic area for emissions contribution estimates.



For each Verizon Wireless sector, the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	700 MHz	4	40
LTE / 5G	850 MHz	4	40
LTE	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	4	40
5G	3500 MHz (CBRS)	4	5
5G	3700 MHz (C Band)	2	160

Table 1: Channel Data Table



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The following **Verizon Wireless** antennas listed in *Table 2 – Antenna Data* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS) and 3700 MHz (C Band) frequency bands. This is based on feedback from Verizon Wireless regarding anticipated antenna selection. Maximum gain values for all antennas are listed in *Table 3 – Verizon Wireless Inventory and Power Data* below.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Commscope NHH-65B-R2B	108
A	2	Commscope NHHSS-65B-R2BT4	108
A	3	Samsung MT6407-77A	108
B	1	Commscope NHH-65B-R2B	108
B	2	Commscope NHHSS-65B-R2BT4	108
B	3	Samsung MT6407-77A	108
C	1	Commscope NHH-65B-R2B	108
C	2	Commscope NHHSS-65B-R2BT4	108
C	3	Samsung MT6407-77A	108

Table 2: Antenna Data

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



RESULTS

Per the calculations completed for the proposed Verizon Wireless configurations *Table 3* shows resulting emissions power levels and percentages of the FCC’s allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Commscope NHH-65B-R2B	700 MHz / 850 MHz / 1900 MHz (PCS)	12.75 / 12.85 / 15.75	12	480	12,111.28	2.71
Antenna A2	Commscope NHHSS-65B-R2BT4	2100 MHz (AWS) / 3500 MHz (CBRS)	15.85 / 15.55	8	180	6,871.31	0.62
Antenna A3	Samsung MT6407-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	4.66
Sector A Composite MPE%							7.99
Antenna B1	Commscope NHH-65B-R2B	700 MHz / 850 MHz / 1900 MHz (PCS)	12.75 / 12.85 / 15.75	12	480	12,111.28	2.71
Antenna B2	Commscope NHHSS-65B-R2BT4	2100 MHz (AWS) / 3500 MHz (CBRS)	15.85 / 15.55	8	180	6,871.31	0.62
Antenna B3	Samsung MT6407-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	4.66
Sector B Composite MPE%							7.99
Antenna C1	Commscope NHH-65B-R2B	700 MHz / 850 MHz / 1900 MHz (PCS)	12.75 / 12.85 / 15.75	12	480	12,111.28	2.71
Antenna C2	Commscope NHHSS-65B-R2BT4	2100 MHz (AWS) / 3500 MHz (CBRS)	15.85 / 15.55	8	180	6,871.31	0.62
Antenna C3	Samsung MT6407-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	4.66
Sector C Composite MPE%							7.99

Table 3: Verizon Wireless Inventory and Power Data table



Table 4: All Carrier MPE Contributions shows all additional identified carriers on site and their emissions contribution estimates, along with the newly calculated maximum Verizon Wireless far field emissions contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas the highest recorded sector value be used for composite site emissions values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three Verizon Wireless sectors have the same configuration yielding the same results for all three sectors. *Table 5* below shows a summary for each Verizon Wireless Sector as well as the composite estimated emissions value for the site.

Site Composite MPE%	
Carrier	MPE%
Verizon Wireless – Max Per Sector Value	7.99 %
Nextel	0.65 %
Clearwire	0.30 %
Site Total MPE %:	8.94 %

Table 4: All Carrier MPE Contributions

Verizon Wireless Sector A Total:	7.99 %
Verizon Wireless Sector B Total:	7.99 %
Verizon Wireless Sector C Total:	7.99 %
Site Total:	8.94 %

Table 5: Site MPE Summary



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Table 6 below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated Verizon sector(s). For this site, all three Verizon Wireless sectors have the same configuration yielding the same results for all three sectors.

Verizon Wireless _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Verizon Wireless 700 MHz LTE	4	753.46	108	5.86	700 MHz	497	1.18%
Verizon Wireless 850 MHz LTE / 5G	4	771.01	108	5.74	850 MHz	586	0.98%
Verizon Wireless 1900 MHz (PCS) LTE	4	1,503.35	108	5.50	1900 MHz (PCS)	1000	0.55%
Verizon Wireless 2100 MHz (AWS) LTE	4	1,538.37	108	5.50	2100 MHz (AWS)	1000	0.55%
Verizon Wireless 3500 MHz (CBRS) LTE / 5G	4	179.46	108	0.70	3500 MHz (CBRS)	1000	0.07%
Verizon Wireless 3700 MHz (C Band) 5G	2	33,046.08	108	46.60	3700 MHz (C Band)	1000	4.66%
						Total:	7.99 %

Table 6: Verizon Wireless Maximum Sector MPE Power Values



Summary

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

The anticipated maximum composite contributions from the Verizon Wireless facility as well as the site composite emissions estimates value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Verizon Wireless Sector	Power Density Value (%)
Sector A:	7.99 %
Sector B:	7.99 %
Sector C:	7.99 %
Verizon Wireless Maximum Total (per sector):	7.99 %
Site Total:	8.94 %
Site Compliance Status:	COMPLIANT

The estimated composite emissions value for this site, assuming all carriers present, is **8.94 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon the far field calculations performed for all carriers identified in this report.

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

Scott Heffernan
Principal RF Engineer
Fox Hill Telecom, Inc
Worcester, MA 01609
(978)660-3998

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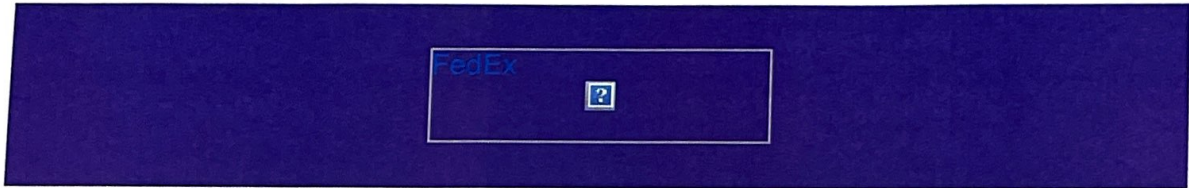
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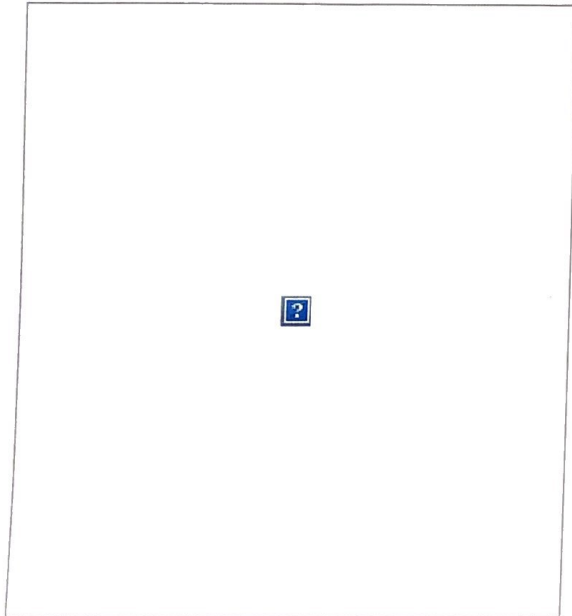
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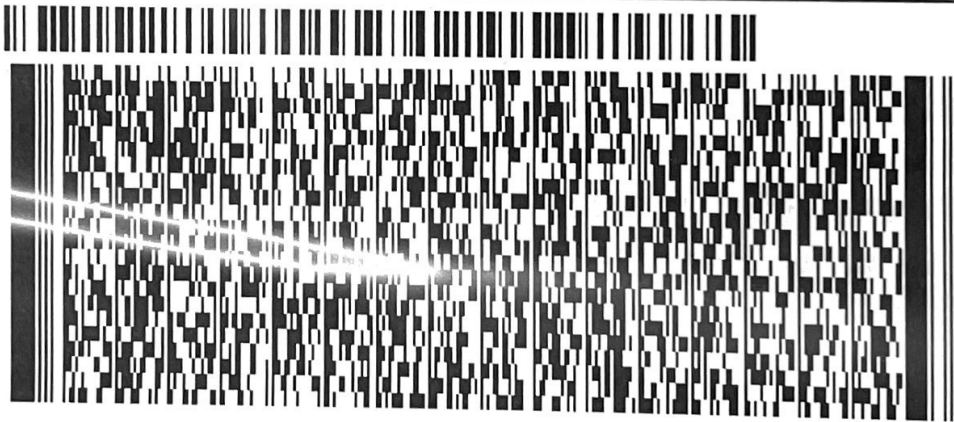
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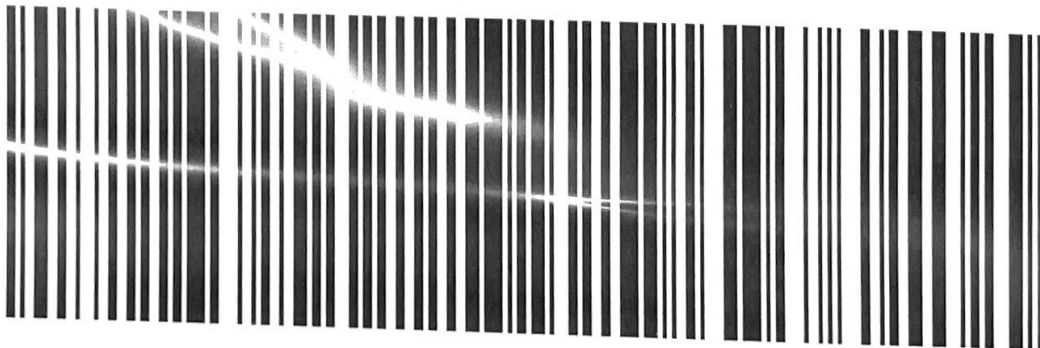
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