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

June 3, 2024

Via Fedex # 776678984244

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

RE: **Notice of Exempt Modification for Verizon Wireless: 5000386182**
Crown Site ID# 806368
374 Three Mile Rd, Glastonbury, CT 06033
Latitude: 41° 41′ 36.93″/ Longitude: -72° 32′ 50.11″

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains fifteen (15) antennas at the 146-foot mount on the existing 144-foot monopole tower located at 374 Three Mile Rd, Glastonbury, CT 06033. The property is owned by John Flanagan and the tower is owned by Crown Castle. Cellco Partnership d/b/a Verizon Wireless now intends to remove three (3) antennas and replace with three (3) new antennas with 12 remaining antennas and ancillary antenna equipment. 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:
(3) SAMSUNG – SFG-ARM1AT01VZ ANTENNAS
(3) SAMSUNG – B2/B66A RRH ORAN (RF4439D-25A) RADIOS
(3) SAMSUNG – SFG-ARR57201VZ RADIOS
(1) RAYCAP – RCMDC-6627-PF-48 OVP
(1) 6X12 HYBRID CABLE

Remove:
(3) SWEDCOM – MIDDLE POSITION ANTENNAS
(3) NOKIA – UHBA B13 RRH 4X30 RADIOS
(3) NOKIA – UHIE B66A RRH 4X45 RADIOS
(1) RAYCAP – 6 OVP BOX

Ground:
Install New:
(3) RAYCAP – 2260-ALM-R5485 OVP BOX

(1) RAYCAP – RVZDC-4520-RM-48 OVP BOX
(6) ABBINC-001 – 109142881 POWER PLANT

The facility was originally approved by the Connecticut Siting Council, Docket No. 174 on October 21, 1996.

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 Jonathan Luiz, Town Manager, Town of Glastonbury, Seon Altius, Zoning Enforcement Officer, Town of Glastonbury and John Flanagan, 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 for $625 Application Fee

cc:

Via Fedex # 776679080630
Jonathan Luiz, Town Manager
Town of Glastonbury
2155 Main Street
2nd Floor of Town Hall
Glastonbury, CT 06033
860-652-7500

Via Fedex # 776679145550
Seon Altius, Zoning Enforcement Officer
Town of Glastonbury
2155 Main Street
3rd Floor of Town Hall
Glastonbury, CT 06033
860-652-7592

John R. Flanagan
366 Three Mile Rd.
Glastonbury, CT 06033

Crown Castle, Tower Owner

Check Application Fee $625

THIS CHECK PRINTED ON DOCUCHECK GHOST PAPER AND HAS A GRAPHIC WATERMARK ON REVERSE SIDE

CROWN CASTLE USA INC.
2000 CORPORATE DRIVE
CANONSBURG PA 15317
724-416-2000

JPMorgan Chase Bank, N.A.
DALLAS TX
32-61/1110

2967707

SIX HUNDRED TWENTY FIVE AND 00/100********** DATE 06/03/24 $*******625.00

Pay To The Order Of Connecticut Siting Council
Ten Franklin Square
New Britain CT 06051

2695915

Robert A Gelli VP and Controller
Authorized Signature

VOID AFTER 180 DAYS

⑈2967707⑈ ⑆111000614⑆ 1034104531⑈

Check No 2967707
Check Date 06/03/24

Stub 1 of 1

CKRQ 806368 664140 ZN APP	06/03/24	Invoice Summ	625.00	625.00
			625.00	625.00

EXHIBIT A

Original Facility Approval

DOCKET NO. 174 - An application of Cellco Partnership d/b/a Bell Atlantic NYNEX Mobile for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility and associated equipment located within an approximately 30-acre parcel at 366 Three Mile Road, in the East Glastonbury section of the Town of Glastonbury, Connecticut. The proposed alternate one site is located within the same approximately 30-acre parcel at 366 Three Mile Road. The proposed alternate two site is located within an approximately 50-acre parcel at 1952 New London Turnpike, in the East Glastonbury section of the Town of Glastonbury, Connecticut.

Connecticut Siting Council

October 21, 1996

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a cellular telecommunications tower and equipment building at the proposed prime site in Glastonbury, Connecticut, 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 are not disproportionate either alone or cumulatively with other effects when compared to need, 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, as provided by General Statutes § 16-50k, be issued to Bell Atlantic NYNEX Mobile (BANM) for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed prime site, located within a 30-acre parcel at Three Mile Road, Glastonbury, Connecticut. We find the effects on scenic resources and adjacent land uses of the first alternate site and second alternate site to be significant, and therefore deny certification of these sites.

The facility 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 tower shall be constructed as a monopole, no taller than necessary to provide the proposed communications service, sufficient to accommodate the antennas of Springwich Cellular Limited Partnership and the Town of Glastonbury, and not to exceed a height of 150 feet above ground level (AGL).

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include relocation of the tower within the leased parcel to prevent the fall zone of the tower from crossing the nearby Connecticut Light and Power Company transmission lines; plans for the tower foundation; specifications for the placement of all antennas to be attached to this tower; plans for the equipment building and security fence; plans for the access road and utility line installation from Three Mile Road; plans for site clearing and tree trimming; plans for water drainage and erosion and sedimentation controls consistent with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, and plans for the

construction of an architecturally treated gate at the entrance to the access road from Three Mile Road; and plans for the installation of a propane tank to fuel the emergency generator.

3. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

4. 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 density above the levels originally calculated and provided in the application.

5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

6. If the facility does not initially provide, or permanently ceases to provide cellular services following completion of construction, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapplication for any continued or new use shall be made to the Council before any such use is made.

7. 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.

8. The Certificate Holder shall notify the Council upon completion of construction and provide the final cost to construct the facility.

Pursuant to General Statutes § 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 The Glastonbury Citizen.

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 Connecticut State Agencies.

The parties and intervenors to this proceeding are:

APPLICANT
Bell Atlantic NYNEX Mobile

ITS REPRESENTATIVE
Kenneth C. Baldwin, Esq.
Brian C. S. Freeman, Esq.
Robinson & Cole
One Commercial Plaza
Hartford, CT 06103-3597

Mr. David S. Malko, P.E.
Sandy M. Ranciato, Manager - Real Estate/Zoning
Bell Atlantic NYNEX Mobile

	20 Alexander Drive Wallingford, CT 06492
PARTY Town of Glastonbury	**ITS REPRESENTATIVE** William S. Fish, Jr., Esq. Kevin S. Murphy, Esq. Tyler, Cooper & Alcorn CityPlace - 35th Floor Hartford, CT 06103-3488
INTERVENOR Springwich Cellular Limited Partnership	**ITS REPRESENTATIVE** Peter J. Tyrrell, Esq. Springwich Cellular Limited Partnership 500 Enterprise Drive Rocky Hill, CT 06067-3900

EXHIBIT B

Property Card

374 THREE MILE RD

Location	374 THREE MILE RD	**MBLU**	I8/ 7060/ S0035/ /
Acct#	70600374	**Owner**	FLANAGAN JOHN R
Assessment	$1,179,900	**Appraisal**	$1,685,500
PID	13664	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$173,300	$1,512,200	$1,685,500
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$121,300	$1,058,600	$1,179,900

Owner of Record

Owner	FLANAGAN JOHN R	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	366 THREE MILE RD GLASTONBURY, CT 06033-3837	**Book & Page**	3772/0193
		Sale Date	02/07/2022
		Instrument	78

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
FLANAGAN JOHN R	$0		3772/0193	78	02/07/2022
FLANAGAN JOSEPHINE I+JOHN R	$0		2725/0212	01	12/31/2009
FLANAGAN JOSEPHINE I TRUSTEE	$0		2725/0210	01	12/31/2009
FLANAGAN JOSEPHINE I TRUSTEE	$0		2725/0205	01	12/31/2009
FLANAGAN JOSEPHINE I TRUSTEE	$0		1884/0085	79	07/30/2003

Building Information

Building 1 : Section 1

Year Built:

Living Area: 0
Replacement Cost: $0
Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style:	Outbuildings
Model	
Grade:	
Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Floor/Cover 1	
Floor/Cover 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Num Xtra Fix	
Total Rooms:	
Bath Qlty:	
Kitchen Qlty:	
Extra Kitchens	
Cndtn	
Inspection	
Int Condition	
Style Sub Class	
Bsmt Garages	
Fireplaces	
Update Photo	
Functnl Code	
External Code	
Fndtn Cndtn	
Basement	

Building Photo

(https://images.vgsi.com/photos/GlastonburyCTPhotos//\02\00\02\54.jpg)

Building Layout


Building Layout (ParcelSketch.ashx?pid=13664&bid=13664)

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

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	350V
Description	Cell Tower 00 MDL
Zone	RR
Category	

Land Line Valuation

Size (Acres)	9.08
Assessed Value	$1,058,600
Appraised Value	$1,512,200

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
SHD4	Cell Shed			924.00 S.F.	$173,300	1

Valuation History

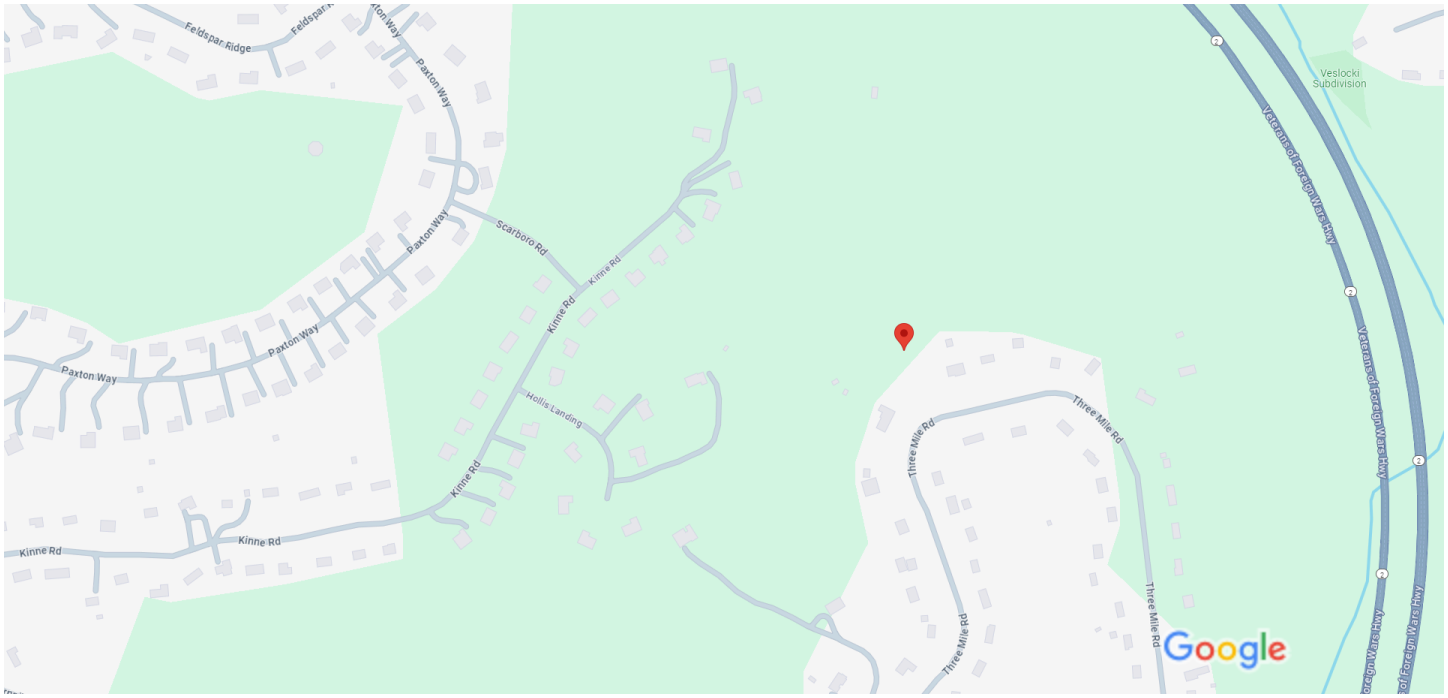
Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2023	$173,300	$1,512,200	$1,685,500

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2023	$121,300	$1,058,600	$1,179,900

EXHIBIT C

Property Map

374 Three Mile Rd



Map data ©2024 Google 200 ft

374 Three Mile Rd

Directions Save Nearby Send to phone Share

374 Three Mile Rd, Glastonbury, CT 06033

MFR3+76 Glastonbury, Connecticut

Photos

EXHIBIT D

Construction Drawings

verizon

VERIZON SITE NUMBER: 5000386182
VERIZON SITE NAME: E GLASTONBURY CT
VERIZON PROJECT: 16231967
SITE TYPE: MONOPOLE
TOWER HEIGHT: 144.0 FT

BUSINESS UNIT #: 806368
SITE ADDRESS: 374 THREE MILE RD
GLASTONBURY, CT 06033
COUNTY: HARTFORD
JURISDICTION: TOWN OF GLASTONBURY

SITE INFORMATION

CROWN CASTLE USA INC.	
SITE NAME:	HRT 049B 943215
BU NUMBER:	806368
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492
SITE ADDRESS:	374 THREE MILE RD GLASTONBURY, CT 06033
COUNTY:	HARTFORD
LATITUDE:	41° 41' 36.3" / 41.6934°
LONGITUDE:	-72° 32' 50.4" / -72.5473°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	476.0 FT AMSL
AREA OF CONSTRUCTION:	EXISTING
CURRENT ZONING:	N/A
MAP/PARCEL #:	GLAS-047600-000062N
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	JOHN R FLANAGAN 366 THREE MILE ROAD GLASTONBURY, CT 06033
JURISDICTION:	TOWN OF GLASTONBURY 2155 MAIN STREET GLASTONBURY , CT 06033
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO 860-947-2000
TELCO PROVIDER:	ATT 866-620-6900

PROJECT TEAM

A&E FIRM:	CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CROWN CASTLE USA INC. DISTRICT CONTACTS:	2000 CORPORATE DRIVE CANONSBURG, PA 15317
	ALEXANDER MABBETT - PROJECT MANAGER ALEXANDER.MABBETT@CROWNCASTLE.COM
	HEATHER MILLER - AES HEATHER MILLER@CROWNCASTLE.COM

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

TEMPLATENAME_DATEOFGENERATION

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-6	COLOR CODE MATRIX
G-1	GROUNDING DETAILS
ATTACHED	MOUNT MODIFICATION (BY OTHERS)
ATTACHED	RFDS

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.

CALL CONNECTICUT ONE CALL
(800) 922-4455 CBYD.COM
CALL 2 WORKING DAYS
BEFORE YOU DIG!
811

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT	https://pmi.vzwsmart.com
SMART TOOL VENDOR PROJECT NUMBER	10222808
VzW LOCATION CODE (PSLC)	468194

*** 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

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		
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

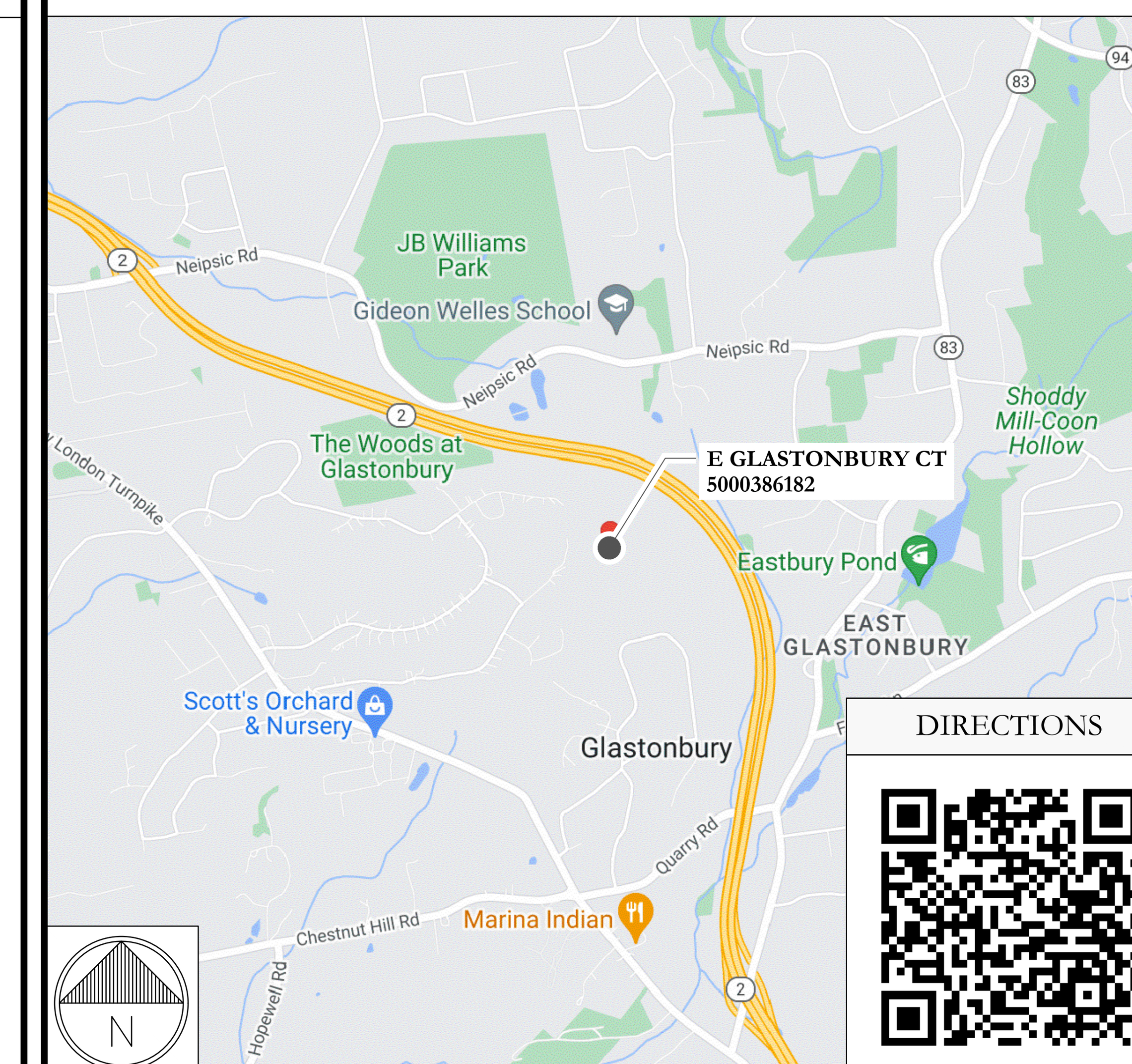
PROJECT DESCRIPTION

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

TOWER SCOPE OF WORK:
- REMOVE (3) SWEDCOM - MIDDLE POSITION ANTENNA
- REMOVE (3) NOKIA - UHBA B13 RRH 4X30 RADIO
- REMOVE (3) NOKIA - UHIE B66A RRH 4X45 RADIO
- REMOVE (1) 6 OVP
- INSTALL (3) SAMSUNG - SFG-ARM1AT01VZ ANTENNA
- INSTALL (3) SAMSUNG - B2/B66A RRH ORAN (RF4439D-25A) RADIO
- INSTALL (3) SAMSUNG - SFG-ARR57201VZ RADIO
- INSTALL (1) RAYCAP - RCMDC-6627-PF-48 OVP
- INSTALL (1) 6X12 HYBRID CABLE

GROUND SCOPE OF WORK:
- INSTALL (3) RAYCAP - 2260-ALM-RS485 OVP BOX
- INSTALL (1) RAYCAP - RVZDC-4520-RM-48 OVP BOX
- INSTALL (6) ABBINC-001 - 109142881 POWER PLANT

LOCATION MAP



DIRECTIONS

NO SCALE

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/2020 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	MORRISON HERSHFIELD
DATED:	MARCH 11, 2024
MOUNT ANALYSIS:	COLLIERS ENGINEERING & DESIGN
DATED:	FEBRUARY 14, 2024
RFDS REVISION:	N/A
DATED:	09/21/2023
ORDER ID:	664140
REVISION:	0

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL TOWER MODIFICATIONS ARE INSTALLED PER TOWER MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 02/14/2024.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

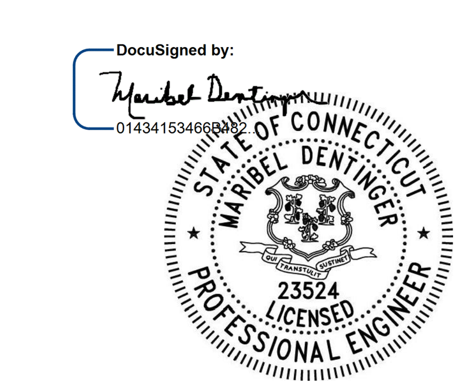
CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/28/24	MAA	CONSTRUCTION	MD
1	5/3/24	LAW	CONSTRUCTION	MD
2	5/22/24	LAW	CONSTRUCTION	MD



5/23/2024 | 8:25:26 AM 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:	REVISION:
T-1	2

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

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

GENERAL NOTES:

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

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
   #4 BARS AND SMALLER........40 ksi
   #5 BARS AND LARGER........60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH........3"
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 BARS AND LARGER........2"
   #5 BARS AND SMALLER........1–1/2"
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
   SLAB AND WALLS........3/4"
   BEAMS AND COLUMNS........1–1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

GREENFIELD GROUNDING NOTES:

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

TEMPLATENAME_DATEOFGENERATION

ELECTRICAL INSTALLATION NOTES:

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

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

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

APWA UNIFORM COLOR CODE:

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

ABBREVIATIONS:

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

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/28/24	MAA	CONSTRUCTION	MD
1	5/3/24	LAW	CONSTRUCTION	MD
2	5/22/24	LAW	CONSTRUCTION	MD

DocuSigned by:
Maribel Dentinger
01434153466B482...

STATE OF CONNECTICUT
MARIBEL DENTINGER
23524
LICENSED
PROFESSIONAL ENGINEER

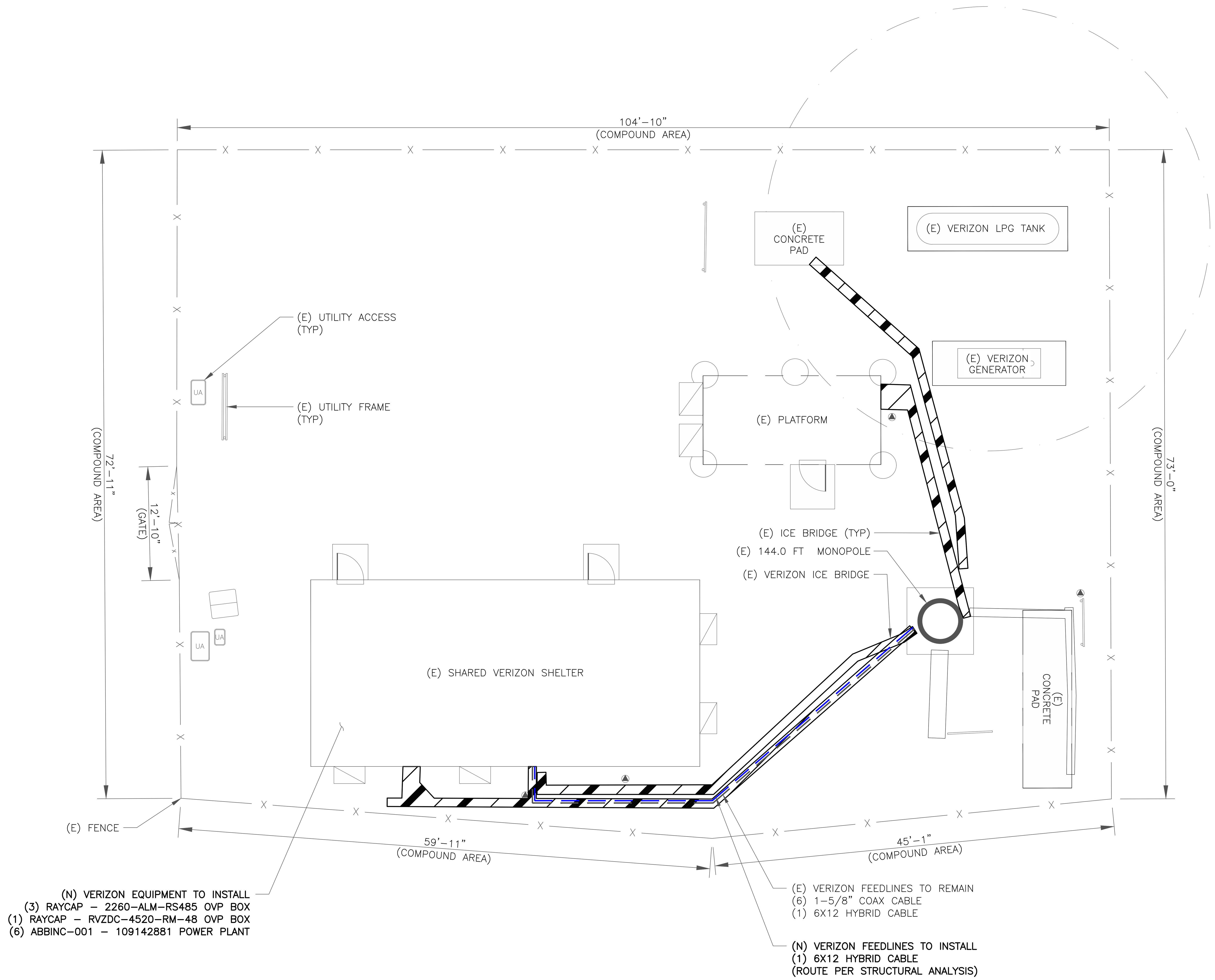
5/23/2024 | 8:25:26 AM CDT

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: T-2

REVISION: 2



1 SITE PLAN
SCALE: 8' 6' 4' 2' 0 8' — 1/8"=1'–0" (FULL SIZE), 1/16"=1'–0" (11x17)

N

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/28/24	MAA	CONSTRUCTION	MD
1	5/3/24	LAW	CONSTRUCTION	MD
2	5/22/24	LAW	CONSTRUCTION	MD

DocuSigned by:
Maribel Dentinger
0143415346684B2...

STATE OF CONNECTICUT
MARIBEL DENTINGER
23524
LICENSED
PROFESSIONAL ENGINEER

5/23/2024 | 8:25:26 AM CDT

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

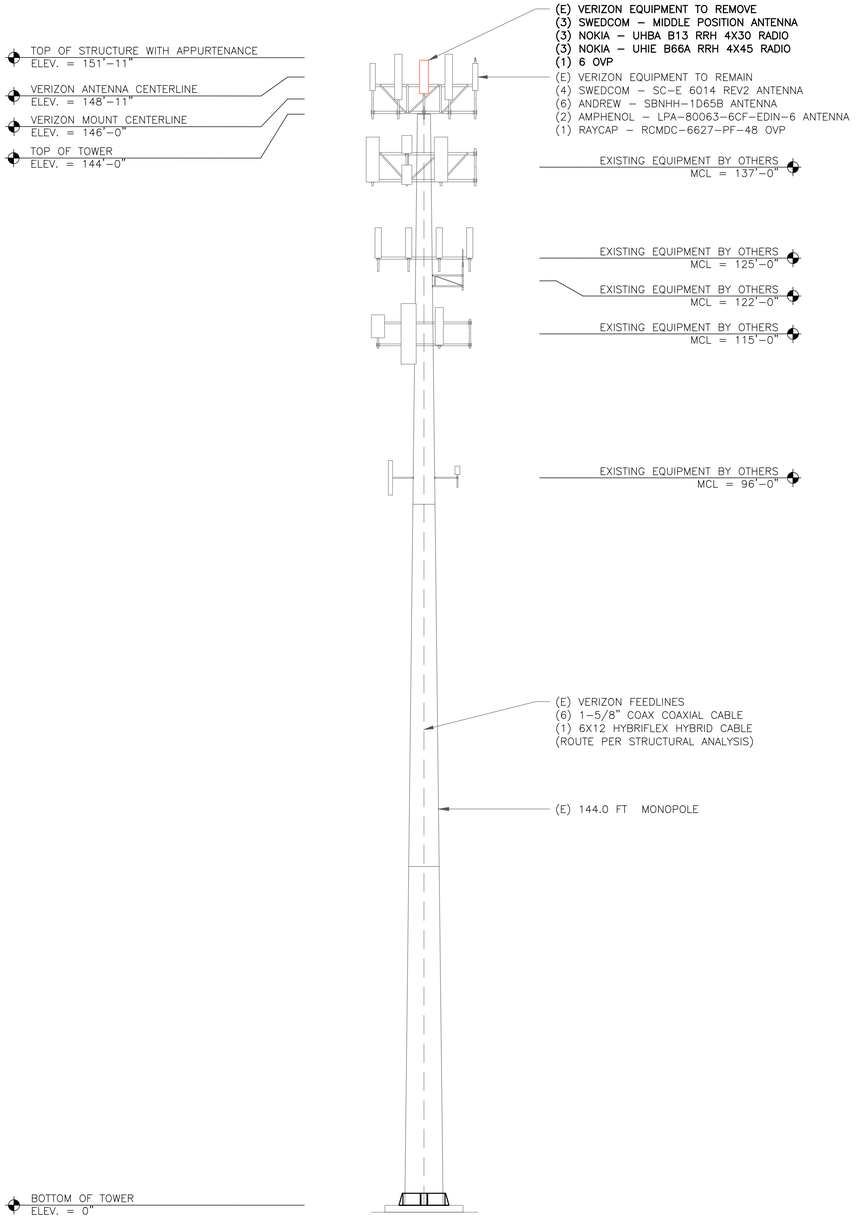
SHEET NUMBER: C-1

REVISION: 2

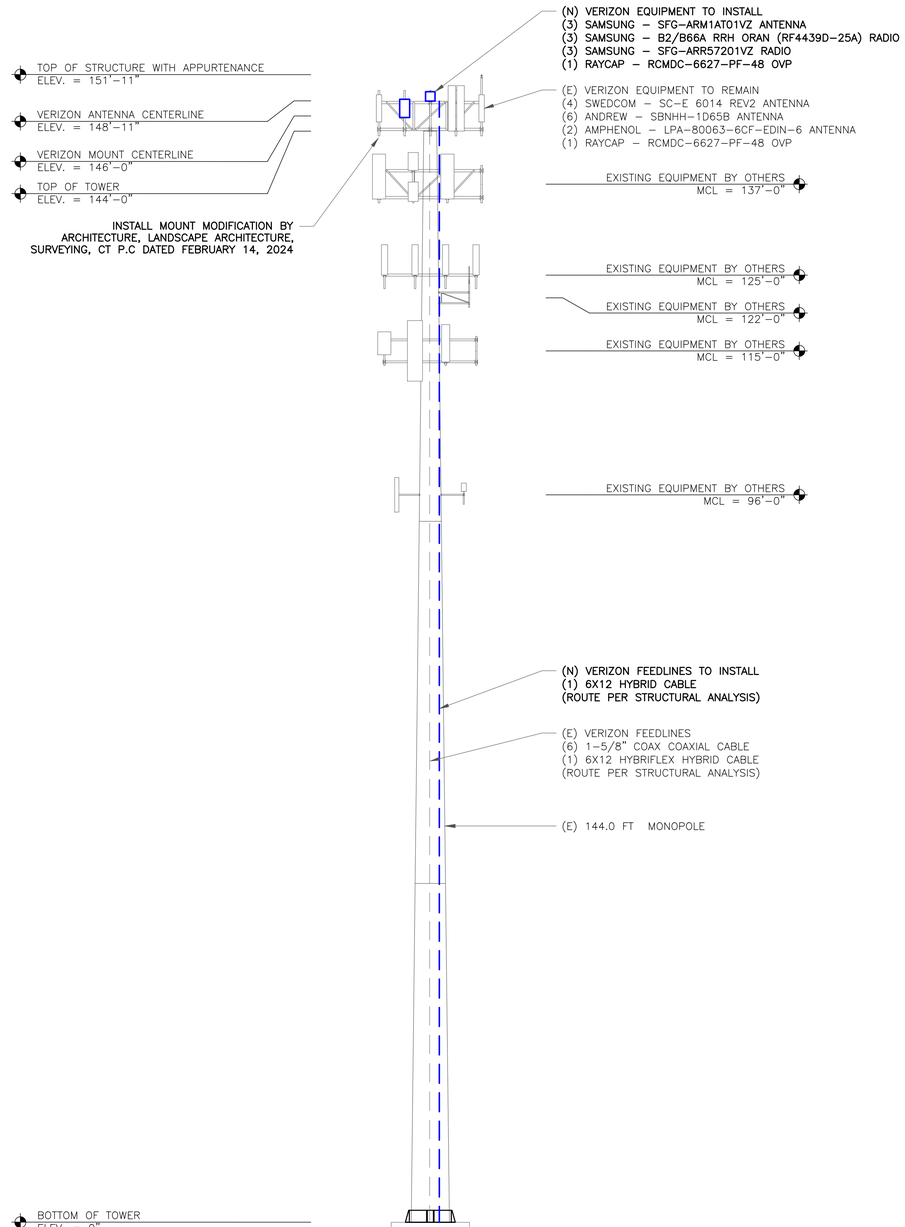
VERIZON EQUIPMENT

ANTENNA CL: 148'-11"
MOUNT CL: 146'-0"

FAA APPROVED HEIGHT:
N/A



1 EXISTING TOWER ELEVATION
SCALE: 10' 5' 0 10' 1"=10'-0" (FULL SIZE) 1"=20'-0" (11x17)



2 FINAL TOWER ELEVATION
SCALE: 10' 5' 0 10' 1"=10'-0" (FULL SIZE) 1"=20'-0" (11x17)

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL TOWER MODIFICATIONS ARE INSTALLED PER TOWER MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 02/14/2024.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

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DocuSigned by:
0183415346[illegible]

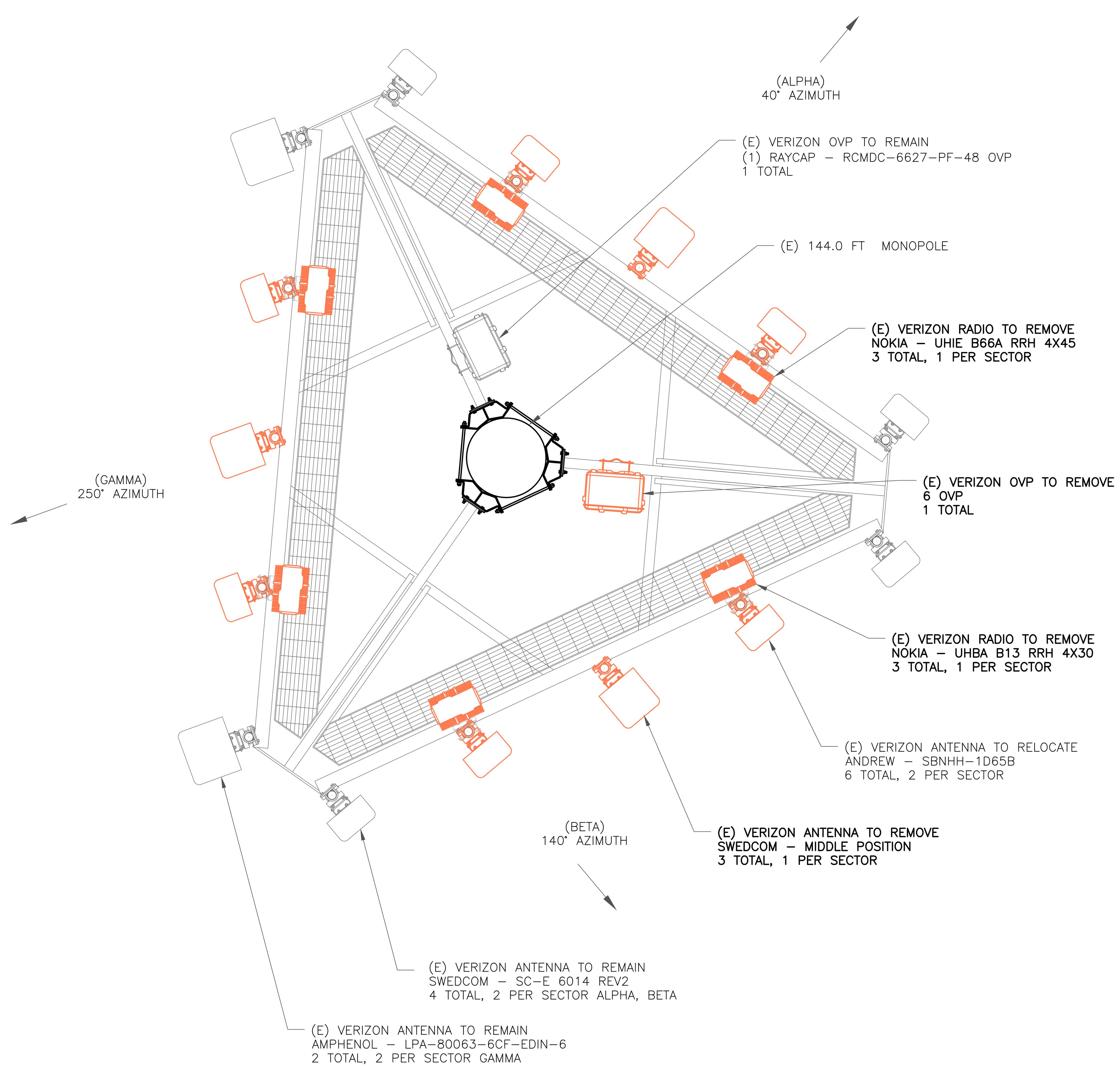
STATE OF CONNECTICUT
MARIBEL BENITEZ
23524
LICENSED
PROFESSIONAL ENGINEER

5/23/2024 | 8:25:26 AM CDT

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

SHEET NUMBER: C-2

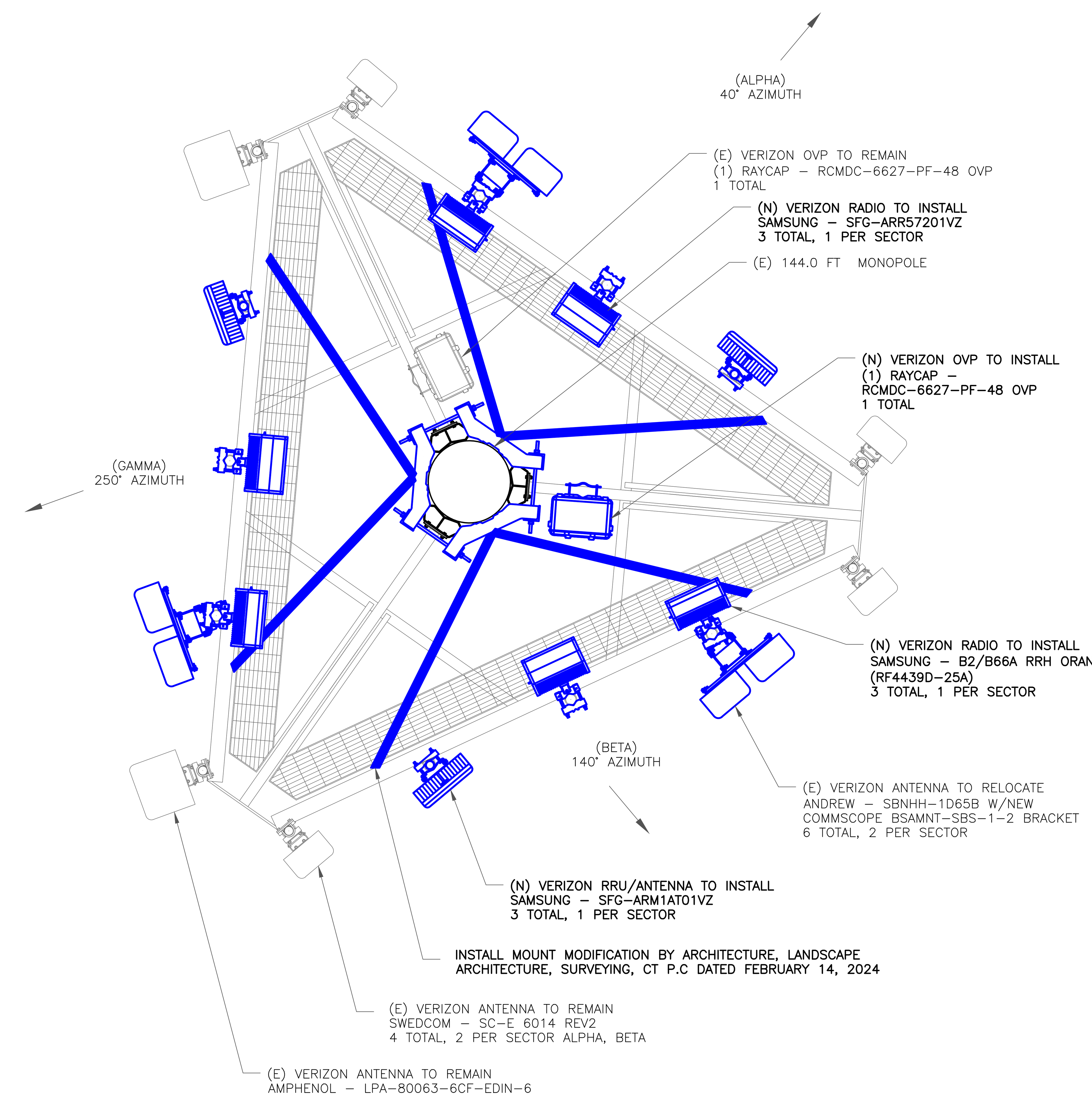
REVISION: 2



1 EXISTING ANTENNA PLAN

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

N



2 FINAL ANTENNA PLAN

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

N

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL TOWER MODIFICATIONS ARE INSTALLED PER TOWER MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 02/14/2024.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/28/24	MAA	CONSTRUCTION	MD
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2	5/22/24	LAW	CONSTRUCTION	MD

DocuSigned by: Maribel Dentinger
01434153466B482...

STATE OF CONNECTICUT MARIBEL DENTINGER 23524 LICENSED PROFESSIONAL ENGINEER

5/23/2024 | 8:25:26 AM CDT

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

SHEET NUMBER: C-3

REVISION: 2

TEMPLATENAME_DATEOFGENERATION

FINAL EQUIPMENT SCHEDULE
(VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	–	(E) SWEDCOM – SC-E 6014 REV2	40°	–	–	–	–	–	–	–	–	–	1	(N) RAYCAP – RCMDC-6627-PF-48	1	(E) HYBRID CABLE	6X12	225'±
A2	700 850 1900 AWS	(E) ANDREW – SBNHH-1D65B	40°	–	1	(N) SAMSUNG – B2/B66A RRH ORAN (RF4439D-25A)	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) ANDREW – SBNHH-1D65B	40°	–														
A3	–	–	–	–	1	(N) SAMSUNG – SFG-ARR57201VZ	TOWER	–	–	–	–	–	–	–	–	–	–	–
A4	CBAND	(N) SAMSUNG – SFG-ARM1AT01VZ	40°	148'-11"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
A5	–	(E) SWEDCOM – SC-E 6014 REV2	40°	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1	–	(E) SWEDCOM – SC-E 6014 REV2	140°	–	–	–	–	–	–	–	–	–	1	(E) RAYCAP – RCMDC-6627-PF-48	1	(N) HYBRID CABLE	6X12	225'±
B2	700 850 1900 AWS	(E) ANDREW – SBNHH-1D65B	140°	–	1	(N) SAMSUNG – B2/B66A RRH ORAN (RF4439D-25A)	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) ANDREW – SBNHH-1D65B	140°	–														
B3	–	–	–	–	1	(N) SAMSUNG – SFG-ARR57201VZ	TOWER	–	–	–	–	–	–	–	–	–	–	–
B4	CBAND	(N) SAMSUNG – SFG-ARM1AT01VZ	140°	148'-11"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B5	–	(E) SWEDCOM – SC-E 6014 REV2	140°	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
G1	–	(E) AMPHENOL – LPA-80063-6CF-EDIN-6	230°	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
G2	700 850 1900 AWS	(E) ANDREW – SBNHH-1D65B	230°	–	1	(N) SAMSUNG – B2/B66A RRH ORAN (RF4439D-25A)	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) ANDREW – SBNHH-1D65B	230°	–														
G3	–	–	–	–	1	(N) SAMSUNG – SFG-ARR57201VZ	TOWER	–	–	–	–	–	–	–	–	–	–	–
G4	CBAND	(N) SAMSUNG – SFG-ARM1AT01VZ	230°	148'-11"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
G5	–	(E) AMPHENOL – LPA-80063-6CF-EDIN-6	230°	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

UNUSED FEEDLINES

QTY.	STATUS/TYPE	SIZE	LENGTH
6	(E) COAX CABLE	1-5/8"	225'±

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

ISSUED FOR:

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0	3/28/24	MAA	CONSTRUCTION	MD
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2	5/22/24	LAW	CONSTRUCTION	MD

DocuSigned by:
[signature]
0134153401...

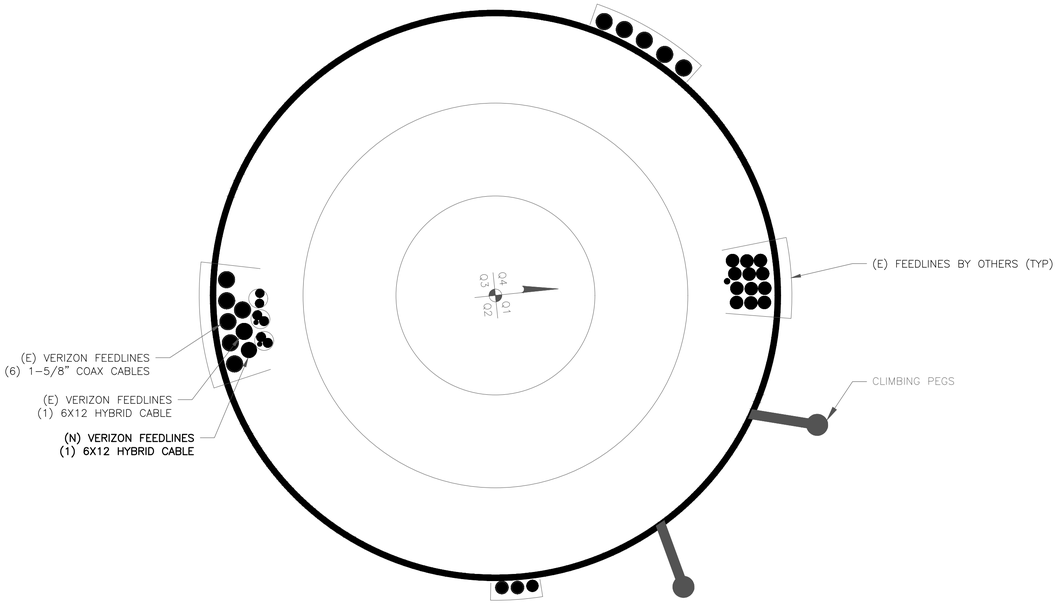
STATE OF CONNECTICUT
MARIBEL DENTINGER
23524
LICENSED
PROFESSIONAL ENGINEER

5/23/2024 | 8:25:26 AM CDT

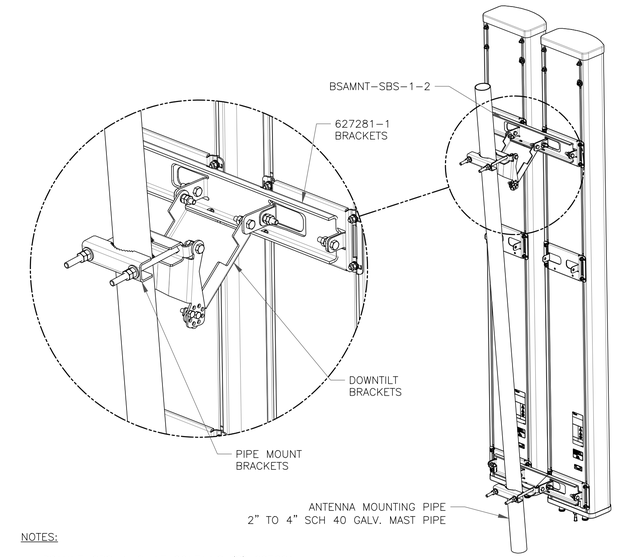
CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: C-4

REVISION: 2



1 BASE LEVEL DETAIL
SCALE: NOT TO SCALE



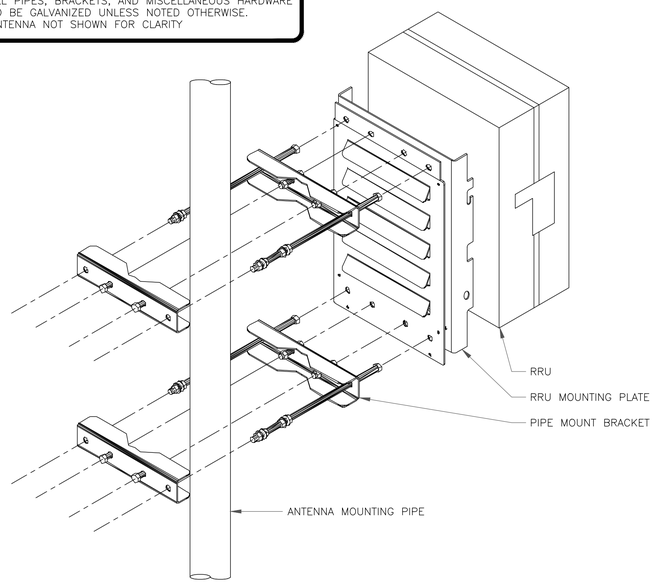
NOTES:

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

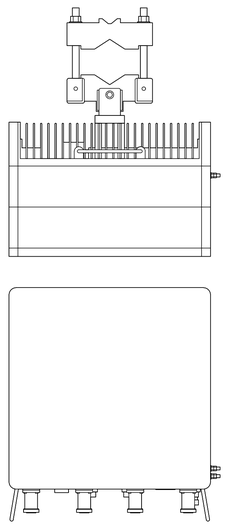
2 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRUs 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

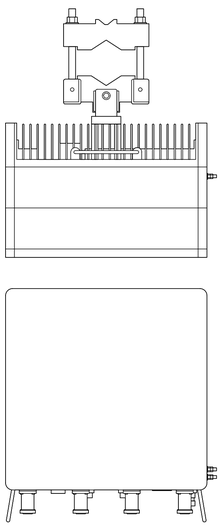


3 RRU MOUNTING DETAIL
SCALE: NOT TO SCALE



RADIO SPECS	
MANUFACTURER	SAMSUNG
MODEL #	RF4439D-25A
HxWxD	14.96" x 14.96" x 10.04"
WEIGHT	74.7 LBS

4 EQUIPMENT DETAILS
SCALE: NOT TO SCALE



RADIO SPECS	
MANUFACTURER	SAMSUNG
MODEL #	CBRS 4T4R
HxWxD	12.1" x 8.5" x 4.2"
WEIGHT	17.6 LBS

5 EQUIPMENT DETAILS
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

ISSUED FOR:

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2	5/22/24	LAW	CONSTRUCTION	MD

DocuSigned by:
0143415340...

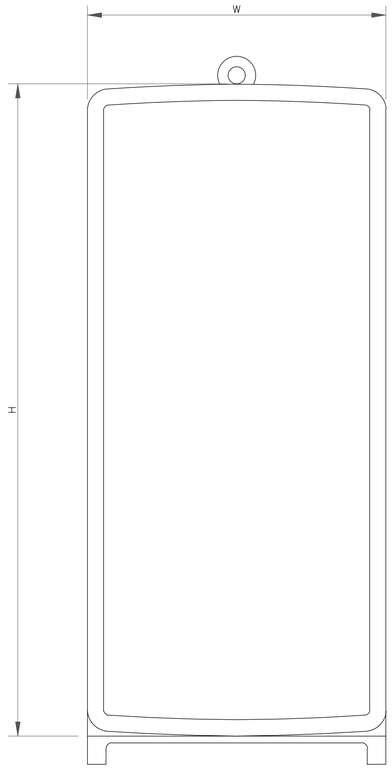
STATE OF CONNECTICUT
MARIBEL DENTINGER
23524
LICENSED
PROFESSIONAL ENGINEER

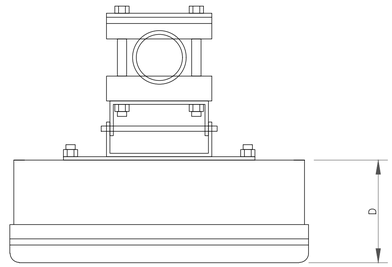
5/23/2024 | 8:25:26 AM CDT

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

SHEET NUMBER: C-5.1

REVISION: 2





ANTENNA SPECS

MANUFACTURER	SAMSUNG
MODEL #	C-BAND 64T64R MMU
HxWxD	35.12" x 16.06" x 5.51"
WEIGHT	87.1 LBS

1 EQUIPMENT SPECIFICATIONS
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
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DocuSigned by:
0183415346...

STATE OF CONNECTICUT
MARIBEL DENTINGER
23524
LICENSED
PROFESSIONAL ENGINEER

5/23/2024 | 8:25:26 AM CDT

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

SHEET NUMBER: C-5.2

REVISION: 2

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		

1 COLOR CODE MATRIX
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

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GLASTONBURY, CT 06033

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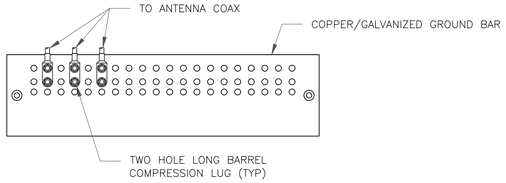
DocuSigned by:
STATE OF CONNECTICUT
MARIBEL BENITEZ
23524
LICENSED
PROFESSIONAL ENGINEER

5/23/2024 | 8:25:26 AM CDT

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

SHEET NUMBER: C-6

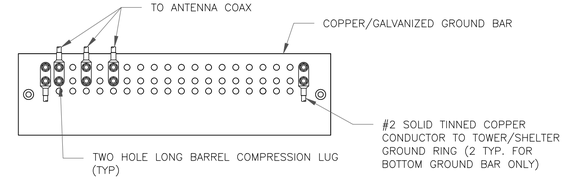
REVISION: 2



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

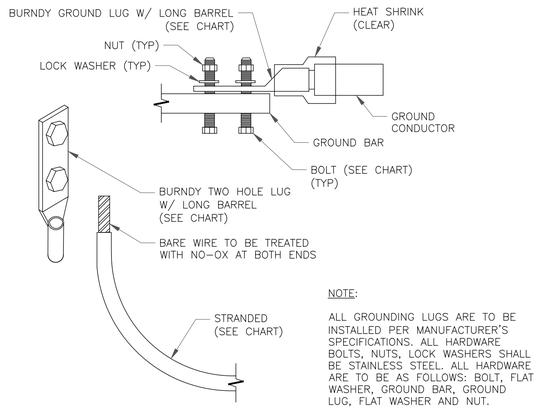


NOTES:

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

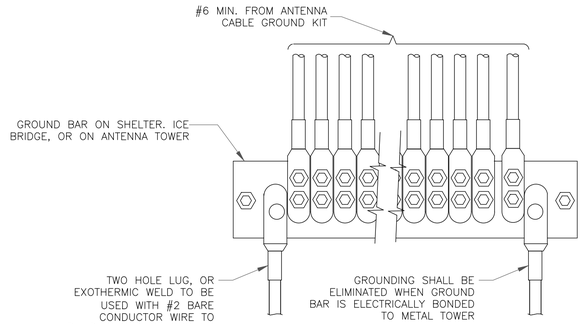
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" – 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" – 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" – 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" – 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" – 16 NC SS 2 BOLT



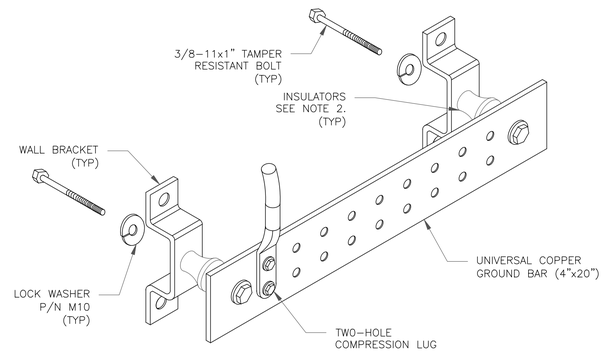
NOTE:

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

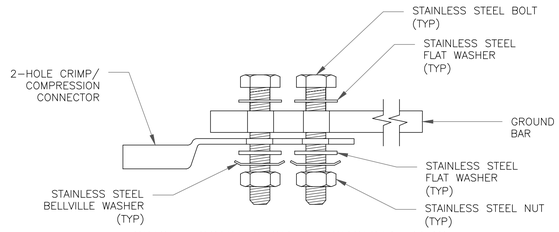


NOTES:

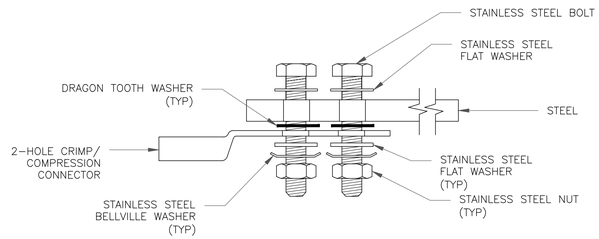
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

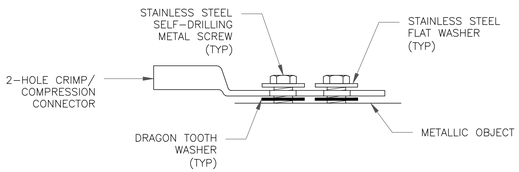
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

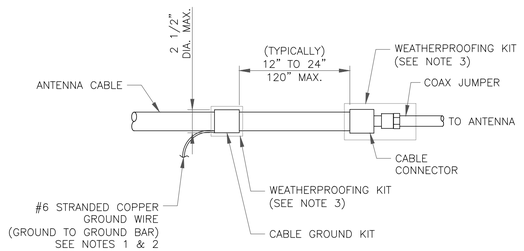


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

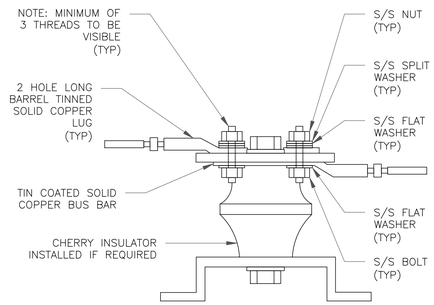
8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



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

CROWN CASTLE

VERIZON SITE NUMBER:
5000386182

BU #: **806368**

CROWN CASTLE SITE NAME
HRT 049B 943215

374 THREE MILE RD
GLASTONBURY, CT 06033

EXISTING 144.0 FT
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	3/28/24	MAA	CONSTRUCTION	MD
1	5/3/24	LAW	CONSTRUCTION	MD
2	5/22/24	LAW	CONSTRUCTION	MD

DocuSigned by:
0124515346...

STATE OF CONNECTICUT
MARIBEL BENITEZ
23524
LICENSED
PROFESSIONAL ENGINEER

5/23/2024 | 8:25:26 AM CDT

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

SHEET NUMBER: G-1

REVISION: 2

EXHIBIT E

Structural Analysis Report

Date: **April 29, 2024**

Telamon
319 Chapanoke Road, Suite 118,
Raleigh, NC 27603
(405) 348-5460

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Site Number:	5000386182
	Site Name:	E GLASTONBURY CT
Crown Castle Designation:	**BU Number:**	806368
	Site Name:	HRT 049B 943215
	JDE Job Number:	2109255
	Work Order Number:	2297381
	Order Number:	664140 Rev. 1
Engineering Firm Designation:	**Telamon Project Number:**	42285-806368-2297381-01-STR
Site Data:	**374 Three Mile Rd., GLASTONBURY, Hartford County, CT** **Latitude *41° 41' 36.93"*, Longitude *-72° 32' 50.11"*** **145 Foot - Monopole Tower**	

Telamon 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:

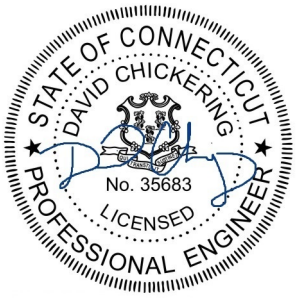
LC5: Proposed Equipment Configuration **Sufficient Capacity - 53.9%**

This analysis utilizes an ultimate 3-second gust wind speed of 119 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: Lavanya Chanda

Respectfully submitted by:

David Chickering, P.E.
Director of Business Process Improvement



David Chickering
Telamon Tower Engineering PLLC
PE # 35683 Exp. 01/31/2025

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 145 ft Monopole tower designed by ENGINEERED ENDEAVORS, INC.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	119 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
146.0	149.0	3	samsung telecommunications	MT6413-77A w/ Mount Pipe	8	1-5/8
		3	samsung telecommunications	RF4439D-25A		
		3	samsung telecommunications	RF4461D-13A		
	148.0	6	andrew	SBNHH-1D65B w/ Mount Pipe		
		1	raycap	RCMDC-6627-PF-48		
	147.0	4	swedcom	SC-E 6014 REV2 w/ Mount Pipe		
	146.0	3	-	15.5' Horizontal Pipe [#P2.5STD]		
		1	Site Pro 1	Horizontal Reinforcement Kit [#PRK-SFS-L]		
		1	-	Platform Mount [LP 1001-1]		
		2	antel	LPA-80063-6CF-EDIN w/ Mount Pipe		

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)
137.0	140.0	3	ericsson	AIR 6419 B77G_CCIV2	4 2 2	7/8 13/16 3/8
	138.0	1	cci antennas	DMP65R-BU6D w/ Mount Pipe		
		2	cci antennas	DMP65R-BU8D w/ Mount Pipe		
		1	cci antennas	OPA65R-BU6D w/ Mount Pipe		
		2	cci antennas	OPA65R-BU8D w/ Mount Pipe		
	137.0	1	-	Platform Mount [LP 1001-1]		
		3	ericsson	RRUS 32 B2_CCIV2		
		3	ericsson	RRUS 4426 B66		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14_CCIV2		
		3	raycap	DC9-48-60-24-8C-EV_CCIV2		
	136.0	3	ericsson	AIR 6449 B77D_CCIV3		
125.0	127.0	12	decibel	DB844G65ZAXY w/ Mount Pipe	12	1-1/4
	125.0	1	tower mounts	Platform Mount [LP 601-1]		
122.0	125.0	1	sigfox	CXL 900-3LW	1	1/2
	122.0	1	sigfox	CAVITY FILTER		
		1	sigfox	LNA		
		1	tower mounts	Side Arm Mount [SO 306-1]		
115.0	116.0	3	ericsson	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	5	1-5/8
		3	ericsson	AIR 6419 B41_TMO w/ Mount Pipe		
	115.0	3	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	ericsson	RADIO 4460 B2/B25 B66_TMO		
		3	rfs celwave	APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe		
		1	tower mounts	Platform Mount [LP 602-1]		
96.0	98.0	1	commscope	MD-IS4	2 1	1-1/4 1-1/8
		1	nokia	FWHR		
	97.0	1	airspan	IRELAY 464		
	96.0	1	commscope	HT65A-F-2X2 w/ Mount Pipe		
		1	tower mounts	Side Arm Mount [SO 701-3]		
	95.0	1	repeater tech	DA1900-39		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-TOWER MANUFACTURER DRAWINGS	262188	CCISITES
4-GEOTECHNICAL REPORTS	262197	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	974245	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	1037241	CCISITES
4-POST-MODIFICATION INSPECTION	1090825	CCISITES

3.1) Analysis Method

tnxTower (version 8.2.4.3), 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) 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. Telamon 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	145 - 92.5208	Pole	TP35.675x20.5x0.3438	1	-25.84	2304.69	45.0	Pass
L2	92.5208 - 44.7083	Pole	TP48.658x33.5537x0.4375	2	-40.65	4009.58	48.4	Pass
L3	44.7083 - 0	Pole	TP60.5x45.8987x0.4688	3	-62.62	5565.70	52.5	Pass
							Summary	
						Pole (L3)	52.5	Pass
						Rating =	52.5	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	48.1	Pass
1	Base Plate	0	53.9	Pass
2	Base Foundation (Compared w/ Design Loads)	0	53.6	Pass

Structure Rating (max from all components) =	53.9%

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.

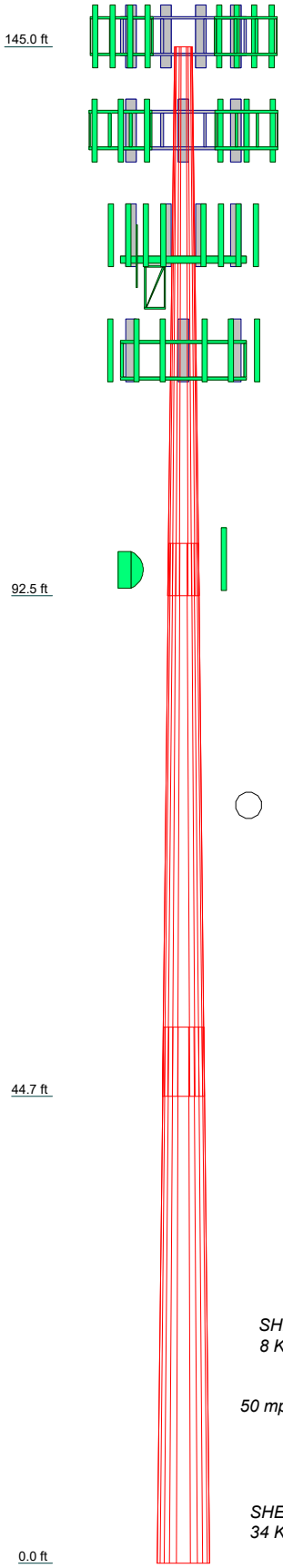
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	1	2	3
Length (ft)	52.48	52.77	51.29
Number of Sides	12	12	12
Thickness (in)	0.3438	0.4375	0.4688
Socket Length (ft)	4.96	6.58	
Top Dia (in)	20.5000	33.5537	45.8987
Bot Dia (in)	35.6750	48.6580	60.5000
Grade	A572-65		
Weight (K)	5.5	10.3	13.9



ALL REACTIONS ARE FACTORED

AXIAL 103 K
SHEAR 8 K
MOMENT 938 kip-ft
TORQUE 1 kip-ft
50 mph WIND - 1.5000 in ICE

AXIAL 63 K
SHEAR 34 K
MOMENT 3680 kip-ft
TORQUE 4 kip-ft
REACTIONS - 119 mph WIND

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 B to the TIA-222-H Standard.
3. Tower designed for a 119 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 0.00 ft
8. TOWER RATING: 52.5%

telamon

Telamon
319 Chapanoke Road, Suite 118,
Raleigh, NC 27603
Phone: (405) 348-5460
FAX: (405) 341-6334

Job:	***BU# 806368 - HRT 049B 943215***		
Project:	***42285-806368-2297381-01-STR***		
Client: Crown Castle		Drawn by: LC	App'd:
Code: TIA-222-H		Date: 04/29/24	Scale: NTS
Path:			Dwg No. E-1

Tower Input Data

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

- Tower is located in Hartford County, Connecticut.
- Tower base elevation above sea level: 474.00 ft.
- Basic wind speed of 119 mph.
- Risk Category II.
- Exposure Category B.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.5000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- 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

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

Tapered Pole Section Geometry

Section	*Elevation*	*Section Length*	*Splice Length*	*Number of Sides*	*Top Diameter*	*Bottom Diameter*	*Wall Thickness*	*Bend Radius*	*Pole Grade*
	ft	*ft*	*ft*		*in*	*in*	*in*	*in*	
L1	145.00-92.52	52.48	4.96	12	20.5000	35.6750	0.3438	1.3750	A572-65 (65 ksi)
L2	92.52-44.71	52.77	6.58	12	33.5537	48.6580	0.4375	1.7500	A572-65 (65 ksi)
L3	44.71-0.00	51.29		12	45.8987	60.5000	0.4688	1.8750	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	21.1019	22.3104	1156.9477	7.2159	10.6190	108.9507	2344.2898	10.9805	4.5728	13.303
	36.8122	39.1073	6231.0543	12.6486	18.4796	337.1847	12625.8054	19.2474	8.6396	25.134
L2	36.0523	46.6525	6530.4456	11.8556	17.3808	375.7268	13232.4532	22.9609	7.8199	17.874
	50.2201	67.9306	20161.1364	17.2629	25.2048	799.8913	40851.9282	33.4334	11.8678	27.127
L3	49.2927	68.5708	18063.8246	16.2639	23.7755	759.7656	36602.2060	33.7485	11.0446	23.562
	62.4689	90.6097	41678.8054	21.4912	31.3390	1329.9341	84452.5593	44.5953	14.9578	31.91

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 145.00-92.52				1	1	1			
L2 92.52-44.71				1	1	1			
L3 44.71-0.00				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 plf
*******										
Safety Line 3/8	C	No	Surface Ar (CaAa)	136.00 - 0.00	1	1	-0.100 0.000	0.3750		0.22
Climbing Rungs	C	No	Surface Ar (CaAa)	136.00 - 0.00	1	1	-0.050 -0.050	0.7050		1.80
*******										
HCS 6X12 4AWG(1-5/8)	B	No	Surface Ar (CaAa)	115.00 - 0.00	3	3	0.000 0.100	1.6600		2.40
HB158-21U6S24-xxM_TMO(1-5/8)	B	No	Surface Ar (CaAa)	115.00 - 0.00	2	2	0.100 0.200	1.9960		2.50
*******										
TYPE SOOW(1-1/8)	C	No	Surface Ar (CaAa)	96.00 - 0.00	1	1	0.300 0.300	1.1600		0.96
LDF6-50A(1-1/4)	C	No	Surface Ar (CaAa)	96.00 - 0.00	2	2	0.300 0.400	1.5500		0.60
*******										
*******										
*******										
*******										
*******										
*******										
*******										
*******										
*******										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
******									
HJ7-50A(1-5/8)	C	No	No	Inside Pole	145.00 - 0.00	6	No Ice	0.00	1.04
							1/2" Ice	0.00	1.04
							1" Ice	0.00	1.04
							2" Ice	0.00	1.04
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	145.00 - 0.00	1	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
							2" Ice	0.00	1.30
***									
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	145.00 - 0.00	1	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
							2" Ice	0.00	1.30
******									
PWRT-608-S(13/16)	C	No	No	Inside Pole	137.00 - 0.00	2	No Ice	0.00	0.62
							1/2" Ice	0.00	0.62
							1" Ice	0.00	0.62
							2" Ice	0.00	0.62
FB-L98B-235-XXX(3/8)	C	No	No	Inside Pole	137.00 - 0.00	2	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
PWRT-606-S(7/8)	C	No	No	Inside Pole	137.00 - 0.00	4	No Ice	0.00	0.89
							1/2" Ice	0.00	0.89
							1" Ice	0.00	0.89
							2" Ice	0.00	0.89
2" Conduit	C	No	No	Inside Pole	137.00 - 0.00	3	No Ice	0.00	2.80
							1/2" Ice	0.00	2.80
							1" Ice	0.00	2.80
							2" Ice	0.00	2.80
*******									
LDF6-50A(1-1/4)	B	No	No	Inside Pole	125.00 - 0.00	12	No Ice	0.00	0.60
							1/2" Ice	0.00	0.60
							1" Ice	0.00	0.60
							2" Ice	0.00	0.60
*******									
EC4-50(1/2)	B	No	No	Inside Pole	122.00 - 0.00	1	No Ice	0.00	0.16
							1/2" Ice	0.00	0.16
							1" Ice	0.00	0.16
							2" Ice	0.00	0.16
*******									
*******									
*******									
*******									
*******									
*******									
*******									
*******									
*******									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	145.00-92.52	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	20.168	0.000	0.51
		C	0.000	0.000	6.178	0.000	1.15
L2	92.52-44.71	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	42.897	0.000	0.94
		C	0.000	0.000	25.532	0.000	1.26

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L3	44.71-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	40.112	0.000	0.87
		C	0.000	0.000	23.874	0.000	1.18

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	145.00-92.52	A	1.447	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	41.472	0.000	0.93
		C		0.000	0.000	33.874	0.000	1.50
L2	92.52-44.71	A	1.370	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	88.209	0.000	1.81
		C		0.000	0.000	88.035	0.000	2.16
L3	44.71-0.00	A	1.222	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	80.775	0.000	1.64
		C		0.000	0.000	79.417	0.000	1.95

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	145.00-92.52	2.1490	-0.1300	2.4719	1.0266
L2	92.52-44.71	2.6247	0.6330	2.3495	2.0943
L3	44.71-0.00	2.7838	0.6777	2.6712	2.3267

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	2	Safety Line 3/8	92.52 - 136.00	1.0000	1.0000
L1	3	Climbing Rungs	92.52 - 136.00	1.0000	1.0000
L1	21	HCS 6X12 4AWG(1-5/8)	92.52 - 115.00	1.0000	1.0000
L1	22	HB158-21U6S24-xxM_TMO(1-5/8)	92.52 - 115.00	1.0000	1.0000
L1	24	TYPE SOOW(1-1/8)	92.52 - 96.00	1.0000	1.0000
L1	25	LDF6-50A(1-1/4)	92.52 - 96.00	1.0000	1.0000
L2	2	Safety Line 3/8	44.71 - 92.52	1.0000	1.0000
L2	3	Climbing Rungs	44.71 - 92.52	1.0000	1.0000
L2	21	HCS 6X12 4AWG(1-5/8)	44.71 - 92.52	1.0000	1.0000
L2	22	HB158-21U6S24-xxM_TMO(1-5/8)	44.71 - 92.52	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L2	24	TYPE SOOW(1-1/8)	44.71 - 92.52	1.0000	1.0000
L2	25	LDF6-50A(1-1/4)	44.71 - 92.52	1.0000	1.0000
L3	2	Safety Line 3/8	0.00 - 44.71	1.0000	1.0000
L3	3	Climbing Rungs	0.00 - 44.71	1.0000	1.0000
L3	21	HCS 6X12 4AWG(1-5/8)	0.00 - 44.71	1.0000	1.0000
L3	22	HB158-21U6S24-xxM_TMO(1-5/8)	0.00 - 44.71	1.0000	1.0000
L3	24	TYPE SOOW(1-1/8)	0.00 - 44.71	1.0000	1.0000
L3	25	LDF6-50A(1-1/4)	0.00 - 44.71	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
******									
(2) SC-E 6014 REV2 w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.56 3.91 4.26 4.98	4.22 4.78 5.35 6.55	0.03 0.07 0.12 0.22
(2) SC-E 6014 REV2 w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.56 3.91 4.26 4.98	4.22 4.78 5.35 6.55	0.03 0.07 0.12 0.22
(2) SBNHH-1D65B w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.49 4.89 5.72	3.30 3.68 4.07 4.87	0.07 0.13 0.20 0.39
(2) SBNHH-1D65B w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.49 4.89 5.72	3.30 3.68 4.07 4.87	0.07 0.13 0.20 0.39
(2) SBNHH-1D65B w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.49 4.89 5.72	3.30 3.68 4.07 4.87	0.07 0.13 0.20 0.39
(2) LPA-80063-6CF-EDIN w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	7.29 7.86 8.45 9.67	7.26 7.83 8.42 9.64	0.08 0.16 0.26 0.50
(2) 4' x 2" Pipe Mount	A	From Leg	4.00 0.00 0.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.79 1.03 1.28 1.81	0.79 1.03 1.28 1.81	0.03 0.04 0.04 0.07
4' x 2" Pipe Mount	C	From Leg	4.00 0.00 0.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.79 1.03 1.28 1.81	0.79 1.03 1.28 1.81	0.03 0.04 0.04 0.07

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Platform Mount [LP 1001-1]	C	None		0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	50.66 56.88 63.11 75.56	50.66 56.88 63.11 73.47	3.41 4.47 5.52 7.64
***									
RCMDC-6627-PF-48	B	From Leg	4.00 0.00 2.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.06 4.32 4.58 5.14	3.10 3.34 3.58 4.09	0.03 0.07 0.11 0.20
MT6413-77A w/ Mount Pipe	A	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.00 4.31 4.63 5.31	2.15 2.55 2.97 3.85	0.07 0.10 0.14 0.23
MT6413-77A w/ Mount Pipe	B	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.00 4.31 4.63 5.31	2.15 2.55 2.97 3.85	0.07 0.10 0.14 0.23
MT6413-77A w/ Mount Pipe	C	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.00 4.31 4.63 5.31	2.15 2.55 2.97 3.85	0.07 0.10 0.14 0.23
RF4439D-25A	A	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.25 1.39 1.54 1.87	0.07 0.09 0.11 0.17
RF4439D-25A	B	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.25 1.39 1.54 1.87	0.07 0.09 0.11 0.17
RF4439D-25A	C	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.25 1.39 1.54 1.87	0.07 0.09 0.11 0.17
RF4461D-13A	A	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.28 1.42 1.57 1.89	0.08 0.10 0.12 0.17
RF4461D-13A	B	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.28 1.42 1.57 1.89	0.08 0.10 0.12 0.17
RF4461D-13A	C	From Leg	4.00 0.00 3.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.28 1.42 1.57 1.89	0.08 0.10 0.12 0.17
Side Arm Mount [SO 102-3]	C	None		0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.60 4.18 4.75 5.90	3.60 4.18 4.75 5.90	0.07 0.10 0.14 0.20
Horizontal Reinforcement Kit [#PRK-SFS-L]	C	None		0.0000	146.00	No Ice 1/2" Ice 1" Ice	11.84 16.96 22.08 32.32	11.84 16.96 22.08 32.32	0.28 0.30 0.32 0.36

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice			
15.5' Horizontal Pipe [#P2.5STD]	A	From Leg	4.00 0.00 0.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.46 6.04 7.64 10.84	0.01 0.06 0.12 0.23	0.09 0.12 0.16 0.25
15.5' Horizontal Pipe [#P2.5STD]	B	From Leg	4.00 0.00 0.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.46 6.04 7.64 10.84	0.01 0.06 0.12 0.23	0.09 0.12 0.16 0.25
15.5' Horizontal Pipe [#P2.5STD]	C	From Leg	4.00 0.00 0.00	0.0000	146.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.46 6.04 7.64 10.84	0.01 0.06 0.12 0.23	0.09 0.12 0.16 0.25
******									
OPA65R-BU6D w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.25 13.00 13.76 15.34	6.05 6.71 7.39 8.79	0.09 0.18 0.27 0.51
AIR 6419 B77G_CCIV2	A	From Leg	4.00 0.00 3.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.76 5.23 5.71 6.75	2.21 2.59 2.98 3.84	0.07 0.09 0.13 0.20
AIR 6419 B77G_CCIV2	B	From Leg	4.00 0.00 3.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.76 5.23 5.71 6.75	2.21 2.59 2.98 3.84	0.07 0.09 0.13 0.20
AIR 6419 B77G_CCIV2	C	From Leg	4.00 0.00 3.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.76 5.23 5.71 6.75	2.21 2.59 2.98 3.84	0.07 0.09 0.13 0.20
AIR 6449 B77D_CCIV3	A	From Leg	4.00 0.00 -1.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.70 4.06 4.44 5.23	2.14 2.45 2.78 3.48	0.10 0.13 0.17 0.26
AIR 6449 B77D_CCIV3	B	From Leg	4.00 0.00 -1.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.70 4.06 4.44 5.23	2.14 2.45 2.78 3.48	0.10 0.13 0.17 0.26
AIR 6449 B77D_CCIV3	C	From Leg	4.00 0.00 -1.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.70 4.06 4.44 5.23	2.14 2.45 2.78 3.48	0.10 0.13 0.17 0.26
DMP65R-BU6D w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.96 12.70 13.46 15.02	5.97 6.63 7.30 8.69	0.11 0.20 0.30 0.53
DMP65R-BU8D w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	15.89 16.81 17.76 19.70	7.89 8.74 9.60 11.37	0.14 0.25 0.38 0.68
DMP65R-BU8D w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	137.00	No Ice 1/2" Ice	15.89 16.81 17.76	7.89 8.74 9.60	0.14 0.25 0.38

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice	19.70	11.37	0.68
						2" Ice			
OPA65R-BU8D w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	137.00	No Ice	17.46	8.58	0.11
						1/2" Ice	18.46	9.49	0.22
						1" Ice	19.48	10.42	0.35
						2" Ice	21.58	12.33	0.66
OPA65R-BU8D w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	137.00	No Ice	17.46	8.58	0.11
						1/2" Ice	18.46	9.49	0.22
						1" Ice	19.48	10.42	0.35
						2" Ice	21.58	12.33	0.66
RRUS 32 B2_CCIV2	A	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.86	1.78	0.06
						1/2" Ice	3.09	1.97	0.08
						1" Ice	3.32	2.17	0.10
						2" Ice	3.81	2.59	0.16
RRUS 32 B2_CCIV2	B	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.86	1.78	0.06
						1/2" Ice	3.09	1.97	0.08
						1" Ice	3.32	2.17	0.10
						2" Ice	3.81	2.59	0.16
RRUS 32 B2_CCIV2	C	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.86	1.78	0.06
						1/2" Ice	3.09	1.97	0.08
						1" Ice	3.32	2.17	0.10
						2" Ice	3.81	2.59	0.16
RRUS 4478 B14_CCIV2	A	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.02	1.25	0.06
						1/2" Ice	2.20	1.40	0.08
						1" Ice	2.39	1.55	0.10
						2" Ice	2.78	1.89	0.15
RRUS 4478 B14_CCIV2	B	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.02	1.25	0.06
						1/2" Ice	2.20	1.40	0.08
						1" Ice	2.39	1.55	0.10
						2" Ice	2.78	1.89	0.15
RRUS 4478 B14_CCIV2	C	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.02	1.25	0.06
						1/2" Ice	2.20	1.40	0.08
						1" Ice	2.39	1.55	0.10
						2" Ice	2.78	1.89	0.15
DC9-48-60-24-8C-EV_CCIV2	A	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.74	2.74	0.02
						1/2" Ice	2.96	2.96	0.04
						1" Ice	3.20	3.20	0.07
						2" Ice	3.68	3.68	0.14
DC9-48-60-24-8C-EV_CCIV2	B	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.74	2.74	0.02
						1/2" Ice	2.96	2.96	0.04
						1" Ice	3.20	3.20	0.07
						2" Ice	3.68	3.68	0.14
DC9-48-60-24-8C-EV_CCIV2	C	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	2.74	2.74	0.02
						1/2" Ice	2.96	2.96	0.04
						1" Ice	3.20	3.20	0.07
						2" Ice	3.68	3.68	0.14
RRUS 4426 B66	A	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	1.64	0.73	0.05
						1/2" Ice	1.80	0.84	0.06
						1" Ice	1.97	0.97	0.08
						2" Ice	2.33	1.24	0.11
RRUS 4426 B66	B	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice	1.64	0.73	0.05
						1/2" Ice	1.80	0.84	0.06
						1" Ice	1.97	0.97	0.08

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice 2" Ice	2.33	1.24	0.11
RRUS 4426 B66	C	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.33	0.73 0.84 0.97 1.24	0.05 0.06 0.08 0.11
RRUS 4449 B5/B12	A	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.14 2.33 2.72	1.41 1.56 1.73 2.07	0.07 0.09 0.11 0.16
RRUS 4449 B5/B12	B	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.14 2.33 2.72	1.41 1.56 1.73 2.07	0.07 0.09 0.11 0.16
RRUS 4449 B5/B12	C	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.14 2.33 2.72	1.41 1.56 1.73 2.07	0.07 0.09 0.11 0.16
(3) 3' x 2" Pipe Mount	A	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.58 0.77 0.97 1.39	0.58 0.77 0.97 1.39	0.01 0.02 0.02 0.05
(2) 3' x 2" Pipe Mount	B	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.58 0.77 0.97 1.39	0.58 0.77 0.97 1.39	0.01 0.02 0.02 0.05
(2) 3' x 2" Pipe Mount	C	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.58 0.77 0.97 1.39	0.58 0.77 0.97 1.39	0.01 0.02 0.02 0.05
8' x 2.375" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.00 0.01 0.03 0.09
8' x 2.375" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.00 0.01 0.03 0.09
8' x 2.375" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.00 0.01 0.03 0.09
Platform Mount [LP 1001-1]	C	None		0.0000	137.00	No Ice 1/2" Ice 1" Ice 2" Ice	61.79 68.59 75.39 88.99	61.79 68.59 75.39 88.99	3.24 4.52 5.80 8.36
******									
(4) DB844G65ZAXY w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	125.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.23 4.71 5.21 6.26	4.51 5.00 5.50 6.57	0.03 0.08 0.13 0.25
(4) DB844G65ZAXY w/ Mount Pipe	B	From Leg	4.00 0.00	0.0000	125.00	No Ice	4.23 4.71	4.51 5.00	0.03 0.08

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			2.00			1/2" Ice	5.21 6.26	5.50 6.57	0.13 0.25
						1" Ice 2" Ice			
(4) DB844G65ZAXY w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	125.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.23 4.71 5.21 6.26	4.51 5.00 5.50 6.57	0.03 0.08 0.13 0.25
Side Arm Mount [SO 701-3]	C	None		0.0000	125.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.02 4.18 5.33 7.63	3.02 4.18 5.33 7.63	0.20 0.24 0.28 0.36
Platform Mount [LP 601-1]	C	None		0.0000	125.00	No Ice 1/2" Ice 1" Ice 2" Ice	28.50 31.69 34.87 41.23	28.50 31.69 34.87 41.23	1.12 1.68 2.28 3.65
******									
CXL 900-3LW	C	From Leg	4.00 0.00 3.00	0.0000	122.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.14 0.33 0.48 0.81	0.14 0.33 0.48 0.81	0.00 0.00 0.01 0.02
LNA	C	From Leg	4.00 0.00 0.00	0.0000	122.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.14 0.19 0.25 0.39	0.05 0.09 0.13 0.24	0.00 0.00 0.00 0.01
CAVITY FILTER	C	From Leg	4.00 0.00 0.00	0.0000	122.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.19 0.25 0.32 0.47	0.08 0.12 0.17 0.29	0.00 0.00 0.01 0.02
Side Arm Mount [SO 306-1]	C	From Leg	2.00 0.00 0.00	0.0000	122.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.41 0.81 1.23 2.08	2.26 3.83 5.48 9.37	0.04 0.06 0.09 0.19
Side Arm Mount [SO 102-3]	C	None		0.0000	122.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.60 4.18 4.75 5.90	3.60 4.18 4.75 5.90	0.07 0.10 0.14 0.20
******									
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.76 4.12 4.48 5.24	3.15 3.49 3.84 4.58	0.19 0.25 0.32 0.48
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.76 4.12 4.48 5.24	3.15 3.49 3.84 4.58	0.19 0.25 0.32 0.48
AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.76 4.12 4.48 5.24	3.15 3.49 3.84 4.58	0.19 0.25 0.32 0.48
APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.19 0.31 0.46 0.79

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice			
APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.19 0.31 0.46 0.79
APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.19 0.31 0.46 0.79
AIR 6419 B41_TMO w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.58 7.06 7.57 8.62	3.50 3.90 4.32 5.20	0.11 0.16 0.22 0.36
AIR 6419 B41_TMO w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.58 7.06 7.57 8.62	3.50 3.90 4.32 5.20	0.11 0.16 0.22 0.36
AIR 6419 B41_TMO w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.58 7.06 7.57 8.62	3.50 3.90 4.32 5.20	0.11 0.16 0.22 0.36
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.14 2.32 2.51 2.91	1.69 1.85 2.02 2.39	0.11 0.13 0.16 0.22
RADIO 4460 B2/B25 B66_TMO	B	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.14 2.32 2.51 2.91	1.69 1.85 2.02 2.39	0.11 0.13 0.16 0.22
RADIO 4460 B2/B25 B66_TMO	C	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.14 2.32 2.51 2.91	1.69 1.85 2.02 2.39	0.11 0.13 0.16 0.22
6' x 2" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	0.02 0.03 0.05 0.09
6' x 2" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	0.02 0.03 0.05 0.09

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice			
6' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	0.02 0.03 0.05 0.09
Transition Ladder	C	From Face	2.00 0.00 -4.00	0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.00 8.00 10.00 14.00	6.00 8.00 10.00 14.00	0.16 0.24 0.32 0.48
Platform Mount [LP 602-1]	C	None		0.0000	115.00	No Ice 1/2" Ice 1" Ice 2" Ice	31.07 34.82 38.48 45.60	31.07 34.82 38.48 45.60	1.34 1.97 2.67 4.31
******									
IRELAY 464	A	From Leg	3.00 0.00 1.00	0.0000	96.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.36 0.60 0.72 0.98	0.36 0.60 0.72 0.98	0.01 0.02 0.03 0.05
HT65A-F-2X2 w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	96.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.98 2.29 2.62 3.30	1.93 2.24 2.56 3.24	0.04 0.08 0.12 0.22
MD-IS4	C	From Leg	3.00 0.00 2.00	0.0000	96.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.40 2.60 2.81 3.26	4.80 5.14 5.48 6.19	0.06 0.13 0.20 0.37
FWHR	B	From Leg	3.00 0.00 2.00	0.0000	96.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.03 1.16 1.30 1.59	0.51 0.60 0.70 0.92	0.03 0.04 0.05 0.08
2' Ice Shield	C	From Leg	3.00 0.00 4.00	0.0000	96.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.40 0.55 0.70 1.04	0.40 0.55 0.70 1.04	0.02 0.04 0.07 0.14
8' x 2" Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	96.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
Side Arm Mount [SO 701-3]	C	None		0.0000	96.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.02 4.18 5.33 7.63	3.02 4.18 5.33 7.63	0.20 0.24 0.28 0.36
****** ****** ****** ****** ****** ****** ****** ****** ****** ****** ****** ****** ******									

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
******								
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Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
DA1900-39	C	Paraboloid w/Shroud (HP)	From Leg	3.00 0.00 -1.00	30.0000		96.00	3.54	No Ice 1/2" Ice 1" Ice 2" Ice	9.86 10.32 10.77 11.68	0.05 0.10 0.15 0.26
******											
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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

Comb. No.	Description
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	145 - 92.5208	Pole	Max Tension	26	0.00	-0.00	0.00
			Max. Compression	26	-54.32	1.24	-4.16
			Max. Mx	20	-25.84	823.65	-0.59
			Max. My	14	-25.86	-0.06	-816.52
			Max. Vy	8	23.81	-823.16	-1.36
			Max. Vx	14	23.64	-0.06	-816.52
			Max. Torque	10			-2.44
L2	92.5208 - 44.7083	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.72	0.76	-6.82
			Max. Mx	8	-40.65	-2063.56	-4.86
			Max. My	14	-40.67	-2.11	-2040.80
			Max. Vy	8	29.10	-2063.56	-4.86
			Max. Vx	14	28.74	-2.11	-2040.80
			Max. Torque	10			-4.34
L3	44.7083 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-102.62	-2.45	-7.55
			Max. Mx	8	-62.62	-3680.15	-7.95
			Max. My	14	-62.62	-5.01	-3637.69
			Max. Vy	8	33.85	-3680.15	-7.95
			Max. Vx	14	33.51	-5.01	-3637.69
			Max. Torque	10			-4.33

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	31	102.62	-7.08	-4.06
	Max. H_x	20	62.64	33.73	0.06
	Max. H_z	2	62.64	0.10	33.47
	Max. M_x	2	3635.39	0.10	33.47
	Max. M_z	8	3680.15	-33.82	-0.06
	Max. Torsion	22	4.20	29.27	16.75
	Min. Vert	17	46.98	16.88	-28.92

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Min. H_x	8	62.64	-33.82	-0.06
	Min. H_z	14	62.64	-0.03	-33.47
	Min. M_x	14	-3637.69	-0.03	-33.47
	Min. M_z	20	-3668.34	33.73	0.06
	Min. Torsion	10	-4.33	-29.36	-16.77

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	52.20	0.00	0.00	0.88	-1.50	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	62.64	-0.10	-33.47	-3635.39	8.63	-2.54
0.9 Dead+1.0 Wind 0 deg - No Ice	46.98	-0.10	-33.47	-3598.80	9.00	-2.53
1.2 Dead+1.0 Wind 30 deg - No Ice	62.64	16.96	-28.90	-3139.00	-1845.57	0.31
0.9 Dead+1.0 Wind 30 deg - No Ice	46.98	16.96	-28.90	-3107.41	-1826.42	0.31
1.2 Dead+1.0 Wind 60 deg - No Ice	62.64	29.29	-16.65	-1808.62	-3187.90	2.31
0.9 Dead+1.0 Wind 60 deg - No Ice	46.98	29.29	-16.65	-1790.53	-3155.11	2.31
1.2 Dead+1.0 Wind 90 deg - No Ice	62.64	33.82	0.06	7.95	-3680.15	3.73
0.9 Dead+1.0 Wind 90 deg - No Ice	46.98	33.82	0.06	7.59	-3642.37	3.72
1.2 Dead+1.0 Wind 120 deg - No Ice	62.64	29.36	16.77	1822.68	-3194.72	4.33
0.9 Dead+1.0 Wind 120 deg - No Ice	46.98	29.36	16.77	1803.90	-3161.87	4.32
1.2 Dead+1.0 Wind 150 deg - No Ice	62.64	17.07	28.96	3148.09	-1857.40	3.90
0.9 Dead+1.0 Wind 150 deg - No Ice	46.98	17.07	28.96	3115.83	-1838.13	3.89
1.2 Dead+1.0 Wind 180 deg - No Ice	62.64	0.03	33.47	3637.69	-5.01	2.38
0.9 Dead+1.0 Wind 180 deg - No Ice	46.98	0.03	33.47	3600.48	-4.52	2.38
1.2 Dead+1.0 Wind 210 deg - No Ice	62.64	-16.88	28.92	3143.63	1834.15	0.09
0.9 Dead+1.0 Wind 210 deg - No Ice	46.98	-16.88	28.92	3111.41	1815.96	0.09
1.2 Dead+1.0 Wind 240 deg - No Ice	62.64	-29.21	16.63	1808.94	3175.84	-2.07
0.9 Dead+1.0 Wind 240 deg - No Ice	46.98	-29.21	16.63	1790.27	3144.03	-2.06
1.2 Dead+1.0 Wind 270 deg - No Ice	62.64	-33.73	-0.06	-5.69	3668.34	-3.55
0.9 Dead+1.0 Wind 270 deg - No Ice	46.98	-33.73	-0.06	-5.94	3631.54	-3.54
1.2 Dead+1.0 Wind 300 deg - No Ice	62.64	-29.27	-16.75	-1818.49	3182.63	-4.20
0.9 Dead+1.0 Wind 300 deg - No Ice	46.98	-29.27	-16.75	-1800.32	3150.76	-4.19
1.2 Dead+1.0 Wind 330 deg - No Ice	62.64	-16.99	-28.99	-3148.16	1845.93	-3.94
0.9 Dead+1.0 Wind 330 deg - No Ice	46.98	-16.99	-28.99	-3116.49	1827.66	-3.93
1.2 Dead+1.0 Ice+1.0 Temp	102.62	-0.00	0.00	7.55	-2.45	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	102.62	-0.03	-8.10	-916.38	0.42	-0.65
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	102.62	4.08	-6.99	-790.30	-468.51	0.03

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 60 deg+1.0 Ice+1.0 Temp	102.62	7.06	-4.03	-451.90	-808.89	0.56
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	102.62	8.16	0.02	9.93	-933.95	0.94
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	102.62	7.08	4.06	471.20	-811.04	1.10
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	102.62	4.12	7.01	808.02	-472.23	1.00
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	102.62	0.01	8.10	931.96	-3.88	0.62
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	102.62	-4.07	7.00	806.36	461.95	0.05
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	102.62	-7.05	4.02	467.08	802.20	-0.51
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	102.62	-8.14	-0.02	5.64	927.31	-0.90
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	102.62	-7.07	-4.06	-455.22	804.35	-1.08
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	102.62	-4.10	-7.02	-792.93	465.67	-1.01
Dead+Wind 0 deg - Service	52.20	-0.02	-8.01	-864.42	0.98	-0.61
Dead+Wind 30 deg - Service	52.20	4.06	-6.92	-746.29	-440.26	0.08
Dead+Wind 60 deg - Service	52.20	7.01	-3.99	-429.71	-759.69	0.56
Dead+Wind 90 deg - Service	52.20	8.10	0.02	2.57	-876.84	0.90
Dead+Wind 120 deg - Service	52.20	7.03	4.01	434.41	-761.32	1.04
Dead+Wind 150 deg - Service	52.20	4.09	6.93	749.81	-443.07	0.94
Dead+Wind 180 deg - Service	52.20	0.01	8.01	866.31	-2.27	0.57
Dead+Wind 210 deg - Service	52.20	-4.04	6.92	748.74	435.38	0.02
Dead+Wind 240 deg - Service	52.20	-6.99	3.98	431.14	754.66	-0.50
Dead+Wind 270 deg - Service	52.20	-8.08	-0.02	-0.68	871.87	-0.85
Dead+Wind 300 deg - Service	52.20	-7.01	-4.01	-432.06	756.28	-1.01
Dead+Wind 330 deg - Service	52.20	-4.07	-6.94	-748.48	438.19	-0.95

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-52.20	0.00	0.00	52.20	0.00	0.000%
2	-0.10	-62.64	-33.47	0.10	62.64	33.47	0.000%
3	-0.10	-46.98	-33.47	0.10	46.98	33.47	0.000%
4	16.96	-62.64	-28.90	-16.96	62.64	28.90	0.000%
5	16.96	-46.98	-28.90	-16.96	46.98	28.90	0.000%
6	29.29	-62.64	-16.65	-29.29	62.64	16.65	0.000%
7	29.29	-46.98	-16.65	-29.29	46.98	16.65	0.000%
8	33.82	-62.64	0.06	-33.82	62.64	-0.06	0.000%
9	33.82	-46.98	0.06	-33.82	46.98	-0.06	0.000%
10	29.36	-62.64	16.77	-29.36	62.64	-16.77	0.000%
11	29.36	-46.98	16.77	-29.36	46.98	-16.77	0.000%
12	17.07	-62.64	28.96	-17.07	62.64	-28.96	0.000%
13	17.07	-46.98	28.96	-17.07	46.98	-28.96	0.000%
14	0.03	-62.64	33.47	-0.03	62.64	-33.47	0.000%
15	0.03	-46.98	33.47	-0.03	46.98	-33.47	0.000%
16	-16.88	-62.64	28.92	16.88	62.64	-28.92	0.000%
17	-16.88	-46.98	28.92	16.88	46.98	-28.92	0.000%
18	-29.21	-62.64	16.63	29.21	62.64	-16.63	0.000%
19	-29.21	-46.98	16.63	29.21	46.98	-16.63	0.000%
20	-33.73	-62.64	-0.06	33.73	62.64	0.06	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
21	-33.73	-46.98	-0.06	33.73	46.98	0.06	0.000%
22	-29.27	-62.64	-16.75	29.27	62.64	16.75	0.000%
23	-29.27	-46.98	-16.75	29.27	46.98	16.75	0.000%
24	-16.99	-62.64	-28.99	16.99	62.64	28.99	0.000%
25	-16.99	-46.98	-28.99	16.99	46.98	28.99	0.000%
26	0.00	-102.62	0.00	0.00	102.62	-0.00	0.000%
27	-0.03	-102.62	-8.10	0.03	102.62	8.10	0.000%
28	4.08	-102.62	-6.99	-4.08	102.62	6.99	0.000%
29	7.06	-102.62	-4.03	-7.06	102.62	4.03	0.000%
30	8.16	-102.62	0.02	-8.16	102.62	-0.02	0.000%
31	7.08	-102.62	4.06	-7.08	102.62	-4.06	0.000%
32	4.12	-102.62	7.01	-4.12	102.62	-7.01	0.000%
33	0.01	-102.62	8.10	-0.01	102.62	-8.10	0.000%
34	-4.07	-102.62	7.00	4.07	102.62	-7.00	0.000%
35	-7.05	-102.62	4.02	7.05	102.62	-4.02	0.000%
36	-8.14	-102.62	-0.02	8.14	102.62	0.02	0.000%
37	-7.07	-102.62	-4.06	7.07	102.62	4.06	0.000%
38	-4.10	-102.62	-7.02	4.10	102.62	7.02	0.000%
39	-0.02	-52.20	-8.01	0.02	52.20	8.01	0.000%
40	4.06	-52.20	-6.92	-4.06	52.20	6.92	0.000%
41	7.01	-52.20	-3.99	-7.01	52.20	3.99	0.000%
42	8.10	-52.20	0.02	-8.10	52.20	-0.02	0.000%
43	7.03	-52.20	4.01	-7.03	52.20	-4.01	0.000%
44	4.09	-52.20	6.93	-4.09	52.20	-6.93	0.000%
45	0.01	-52.20	8.01	-0.01	52.20	-8.01	0.000%
46	-4.04	-52.20	6.92	4.04	52.20	-6.92	0.000%
47	-6.99	-52.20	3.98	6.99	52.20	-3.98	0.000%
48	-8.08	-52.20	-0.02	8.08	52.20	0.02	0.000%
49	-7.01	-52.20	-4.01	7.01	52.20	4.01	0.000%
50	-4.07	-52.20	-6.94	4.07	52.20	6.94	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	0.00048236
3	Yes	4	0.00000001	0.00030661
4	Yes	5	0.00000001	0.00027058
5	Yes	5	0.00000001	0.00012884
6	Yes	5	0.00000001	0.00025874
7	Yes	5	0.00000001	0.00012275
8	Yes	4	0.00000001	0.00070122
9	Yes	4	0.00000001	0.00045695
10	Yes	5	0.00000001	0.00029446
11	Yes	5	0.00000001	0.00014057
12	Yes	5	0.00000001	0.00025678
13	Yes	5	0.00000001	0.00012160
14	Yes	4	0.00000001	0.00042526
15	Yes	4	0.00000001	0.00026586
16	Yes	5	0.00000001	0.00026926
17	Yes	5	0.00000001	0.00012807
18	Yes	5	0.00000001	0.00027972
19	Yes	5	0.00000001	0.00013330
20	Yes	4	0.00000001	0.00063618
21	Yes	4	0.00000001	0.00041268
22	Yes	5	0.00000001	0.00025293
23	Yes	5	0.00000001	0.00011978
24	Yes	5	0.00000001	0.00028962
25	Yes	5	0.00000001	0.00013844
26	Yes	4	0.00000001	0.00002469
27	Yes	5	0.00000001	0.00016030
28	Yes	5	0.00000001	0.00017731
29	Yes	5	0.00000001	0.00017784
30	Yes	5	0.00000001	0.00016385
31	Yes	5	0.00000001	0.00018451
32	Yes	5	0.00000001	0.00018265
33	Yes	5	0.00000001	0.00016522
34	Yes	5	0.00000001	0.00018308
35	Yes	5	0.00000001	0.00018365
36	Yes	5	0.00000001	0.00016457
37	Yes	5	0.00000001	0.00017918
38	Yes	5	0.00000001	0.00017984
39	Yes	4	0.00000001	0.00003276
40	Yes	4	0.00000001	0.00008765
41	Yes	4	0.00000001	0.00007875
42	Yes	4	0.00000001	0.00004471
43	Yes	4	0.00000001	0.00011437
44	Yes	4	0.00000001	0.00007989
45	Yes	4	0.00000001	0.00003148
46	Yes	4	0.00000001	0.00008691
47	Yes	4	0.00000001	0.00009836
48	Yes	4	0.00000001	0.00004276
49	Yes	4	0.00000001	0.00007811
50	Yes	4	0.00000001	0.00010905

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	145 - 92.5208	15.597	43	1.0073	0.0046
L2	97.4792 - 44.7083	6.759	43	0.6926	0.0021
L3	51.2917 - 0	1.784	42	0.3251	0.0006

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
146.00	(2) SC-E 6014 REV2 w/ Mount Pipe	43	15.597	1.0073	0.0046	54766
137.00	OPA65R-BU6D w/ Mount Pipe	43	13.982	0.9576	0.0041	34229
125.00	(4) DB844G65ZAXY w/ Mount Pipe	43	11.607	0.8817	0.0035	13691
122.00	CXL 900-3LW	43	11.031	0.8624	0.0033	11905
115.00	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	43	9.722	0.8165	0.0030	9127
96.00	IRELAY 464	42	6.535	0.6814	0.0021	5833
95.00	DA1900-39	42	6.386	0.6738	0.0020	5827

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	145 - 92.5208	65.636	8	4.2402	0.0190
L2	97.4792 - 44.7083	28.424	8	2.9155	0.0088
L3	51.2917 - 0	7.494	8	1.3667	0.0027

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
146.00	(2) SC-E 6014 REV2 w/ Mount Pipe	8	65.636	4.2402	0.0190	13122
137.00	OPA65R-BU6D w/ Mount Pipe	8	58.833	4.0325	0.0172	8201
125.00	(4) DB844G65ZAXY w/ Mount Pipe	8	48.835	3.7150	0.0145	3279
122.00	CXL 900-3LW	8	46.406	3.6336	0.0138	2850
115.00	AIR 32 B2A B66AA_T-MOBILE w/ Mount Pipe	8	40.895	3.4393	0.0123	2184
96.00	IRELAY 464	8	27.480	2.8682	0.0086	1393
95.00	DA1900-39	8	26.853	2.8359	0.0084	1391

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	145 - 92.5208 (1)	TP35.675x20.5x0.3438	52.48	0.00	0.0	37.5203	-25.84	2194.94	0.012
L2	92.5208 - 44.7083 (2)	TP48.658x33.5537x0.4375	52.77	0.00	0.0	65.2761	-40.65	3818.65	0.011
L3	44.7083 - 0 (3)	TP60.5x45.8987x0.4688	51.29	0.00	0.0	90.6097	-62.62	5300.67	0.012

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	145 - 92.5208 (1)	TP35.675x20.5x0.3438	823.65	1793.08	0.459	0.00	1793.08	0.000
L2	92.5208 - 44.7083 (2)	TP48.658x33.5537x0.4375	2063.57	4149.03	0.497	0.00	4149.03	0.000
L3	44.7083 - 0 (3)	TP60.5x45.8987x0.4688	3680.16	6827.62	0.539	0.00	6827.62	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	145 - 92.5208 (1)	TP35.675x20.5x0.3438	23.81	658.48	0.036	2.12	1963.41	0.001
L2	92.5208 - 44.7083 (2)	TP48.658x33.5537x0.4375	29.10	1145.60	0.025	3.73	4669.30	0.001
L3	44.7083 - 0 (3)	TP60.5x45.8987x0.4688	33.85	1590.20	0.021	3.73	8397.08	0.000

Pole Interaction Design Data

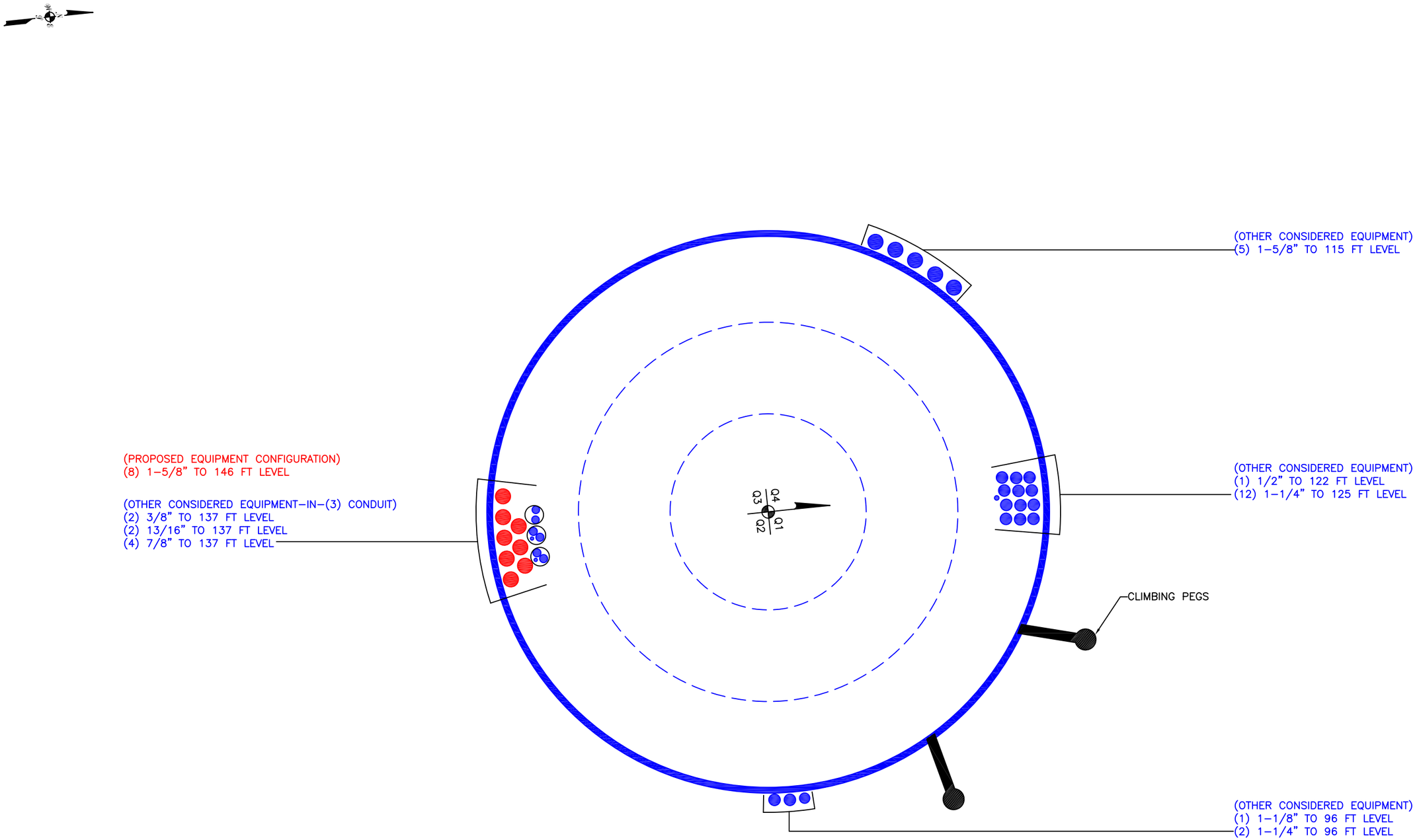
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	145 - 92.5208 (1)	0.012	0.459	0.000	0.036	0.001	0.473	1.050	
L2	92.5208 - 44.7083 (2)	0.011	0.497	0.000	0.025	0.001	0.509	1.050	
L3	44.7083 - 0 (3)	0.012	0.539	0.000	0.021	0.000	0.551	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	145 - 92.5208	Pole	TP35.675x20.5x0.3438	1	-25.84	2304.69	45.0	Pass
L2	92.5208 - 44.7083	Pole	TP48.658x33.5537x0.4375	2	-40.65	4009.58	48.4	Pass
L3	44.7083 - 0	Pole	TP60.5x45.8987x0.4688	3	-62.62	5565.70	52.5	Pass
							Summary	
						Pole (L3)	52.5	Pass
						RATING =	**52.5**	**Pass**

APPENDIX B

BASE LEVEL DRAWING


(OTHER CONSIDERED EQUIPMENT)
(5) 1-5/8" TO 115 FT LEVEL
(PROPOSED EQUIPMENT CONFIGURATION)
(8) 1-5/8" TO 146 FT LEVEL
(OTHER CONSIDERED EQUIPMENT-IN-(3) CONDUIT)
(2) 3/8" TO 137 FT LEVEL
(2) 13/16" TO 137 FT LEVEL
(4) 7/8" TO 137 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 1/2" TO 122 FT LEVEL
(12) 1-1/4" TO 125 FT LEVEL
Q4
Q3
Q1
Q2
CLIMBING PEGS
(OTHER CONSIDERED EQUIPMENT)
(1) 1-1/8" TO 96 FT LEVEL
(2) 1-1/4" TO 96 FT LEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

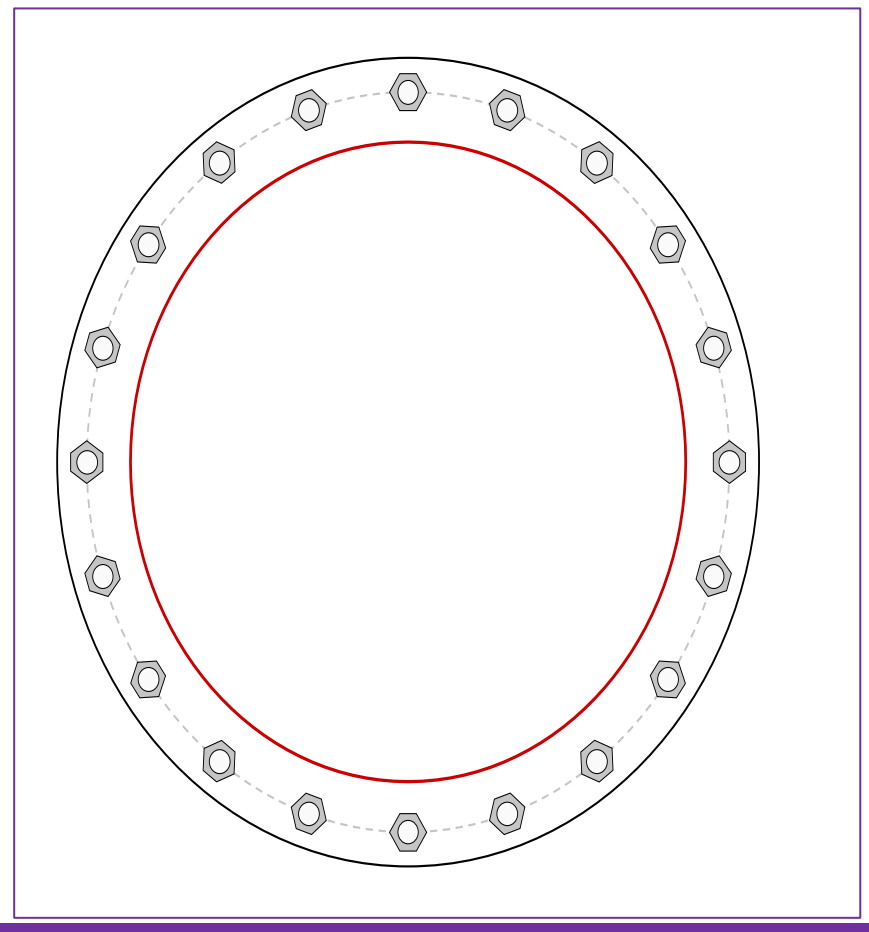
Monopole Base Plate Connection

Site Info	
BU #	806368
Site Name	HRT 049B 943215
Order #	664140 Rev. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.75

Applied Loads	
Moment (kip-ft)	3680.16
Axial Force (kips)	62.62
Shear Force (kips)	33.85

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(20) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 70" BC

Base Plate Data

76.5" OD x 2.25" Plate (A817 Gr.60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

60.5" x 0.46875" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

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

Pu_t = 122.99	ϕPn_t = 243.75	**Stress Rating**
Vu = 1.69	ϕVn = 149.1	**48.1%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	30.55	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**53.9%**	**Pass**

FOUNDATION REACTION COMPARISON

telamon

Date	04-29-2024
Client Site #	806368
Client Site Name	HRT 049B 943215
Telamon Project #	42285-806368-2297381-01-STR

**TIA-222-H Section 15.5 Applied*

Reaction Type	Original Design Reactions[2]	Factored Design Reactions [1]	Analysis Reactions	Capacity
Moment (ft-k)	5001.4	6751.9	3680.16	**51.9%**
Total Shear (k)	44.6	60.2	33.85	**53.6%**

Notes:

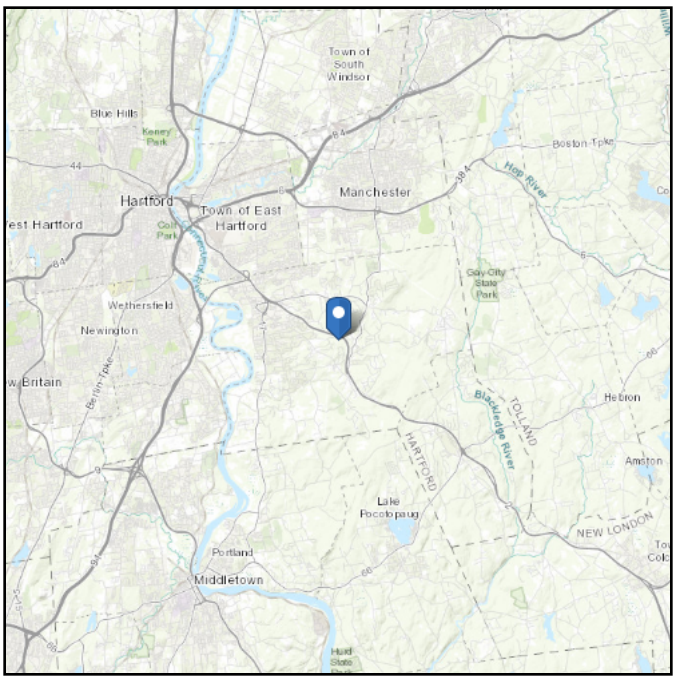
1) Factored by 1.35 per TIA-222-H 15.6.2 when original design reactions are based on an allowable stress design.

2)Design reactions were taken from the tower drawings by Engineered Endeavors, Inc., CCIsites document # 26218.

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	41.693592
Risk Category:	II	**Longitude:**	-72.547253
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	474.21489440715965 ft (NAVD 88)



Wind

Results:

Wind Speed	119 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	98 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Fri Apr 26 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.

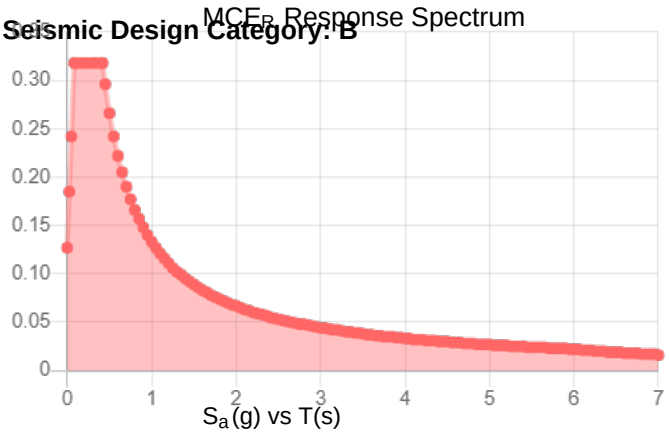
Seismic

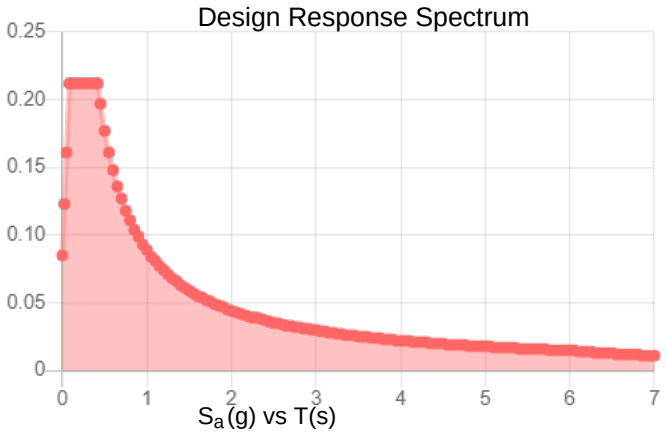
Site Soil Class: D - Default (see Section 11.4.3)

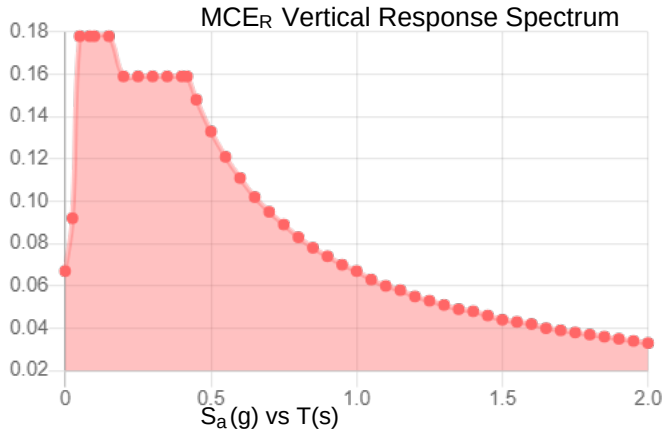
Results:

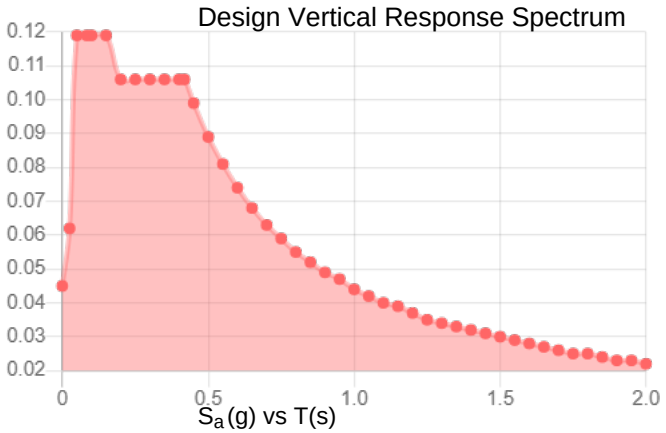
S_S :	0.199	S_{D1} :	0.089
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.109
F_v :	2.4	PGA_M :	0.172
S_{MS} :	0.318	F_{PGA} :	1.582
S_{M1} :	0.133	I_e :	1
S_{DS} :	0.212	C_v :	0.7

Seismic Design Category: B









Data Accessed: **Fri Apr 26 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:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Fri Apr 26 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.

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

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10222808
Colliers Engineering & Design Project #: 21777627 (Rev 1)

February 14, 2024

Site Information	*Site ID:*	*5000386182-VZW / E GLASTONBURY CT*
	Site Name:	*E GLASTONBURY CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*347 Three Mile Rd.* *Glastonbury, Connecticut 06033* *Hartford County*
	Latitude:	*41.69341667°*
	Longitude:	*-72.54733333°*
Structure Information	*Tower Type:*	*145-Ft Monopole*
	Mount Type:	*15.80-Ft Platform*

FUZE ID # 16231967

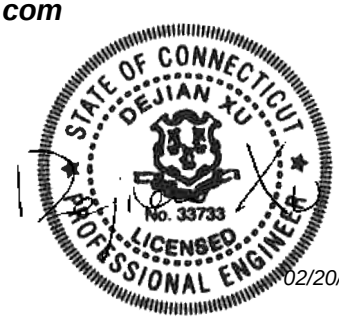
Analysis Results

Platform: **86.3% Pass w/ Modifications***

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

Report Prepared By: Prasanna Dhakal



02/20/2024

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 323806, dated September 21, 2023*
Mount Mapping Report	*Structural Components LLC, Site ID: 21777627, dated March 29, 2021*
Previous Mount Analysis	*Colliers Engineering & Design, Project #: 21777627 (Rev 1), dated January 31, 2024*
Mount Modification Drawings	*Maser Consulting Connecticut, Project #: 21777627A, dated June 15, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), 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:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.983
Seismic Parameters:	S_S:	0.200 g
	S_1:	0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance Load, Lm:	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
145.00	148.90	3	Samsung	MT6413-77A	Added
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4461d-13A	
		1	Raycap	RVZDC-6627-PF-48	
		2	Amphenol Antel	LPA-80063-6CF-EDIN-6	Retained
		6	Andrew	SBNHH-1D65B	
		4	Swedcom	SC-E 6014 rev2	
		3	-	GPS	

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

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

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to 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.

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped 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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	*73.1%*	*Pass*
Standoff Horizontal	*62.1%*	*Pass*
Standoff Bracing	*85.9%*	*Pass*
Support Rail	*49.4%*	*Pass*
Face Bracing	*86.3%*	*Pass*
Mount Pipe	*45.9%*	*Pass*
GPS mount	*19.2%*	*Pass*
Threaded Mount Connection	*77.4%*	*Pass*
Mod Support Rail	*25.9%*	*Pass*
Mod V-Bracing Kit	*21.8%*	*Pass*
Mount Connection	*74.6%*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**86.3%**

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 C Reinforcement	142.3	N244	460	1275	0.000	0.000	810	2133	0.000	0.000
Sector B Reinforcement	142.3	N256	453	1252	0.000	0.000	769	2012	0.000	0.000
Sector A Reinforcement	142.3	N282	470	1305	0.001	0.000	851	2257	0.000	0.000

Notes:
- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- 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	93.6	93.6	111.6	111.6
0.5	116.3	116.3	141.9	141.9
1	137.0	137.0	170.1	170.1

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 sectors.
- Ka factors included in (EPA)a calculations

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

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

Attachments:

1. **Contractor Required PMI Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Modification Drawings
4. Mount Photos
5. Mount Mapping Report (for reference only)
6. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

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 #: 5000386182 SMART Project #: 10222808 Fuze Project ID: 16231967

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

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

Base Requirements:

- If installation of the modification 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 drawings" showing contractor's name, 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 post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is 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 of the modifications.
  - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

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

- Photos showing each individual sector after installation of modifications. Each entire sector must 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 modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
    - If the materials are as specified on the drawings
        - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
        - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
    - If seeking permission to use an equivalent
        - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Antenna & Equipment Placement and Geometry Confirmation:

☐ 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.

Comments:

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

1. Contractor to inspect and install missing top hat bolts as necessary with bolt of same grade and size as existing. Contractor shall provide photos as part of PMI.
2. Contractor shall install proposed OVP on existing OVP pipe.

Response:

Special Instruction Confirmation:

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

Comments:

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:

Certifying Individual:

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

Structure: **386182-VZW - E GLASTONBURY CT**

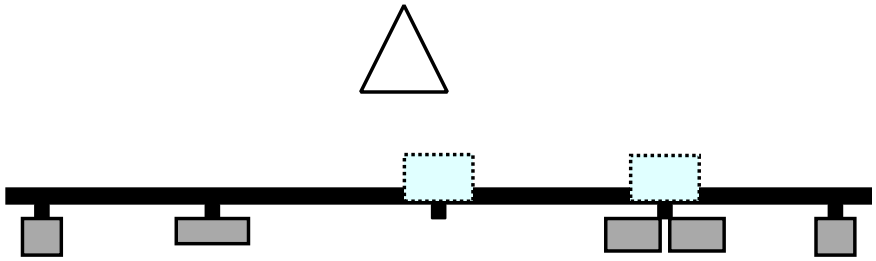
p **A** SE eESFSe

0 p lFSSSnFn

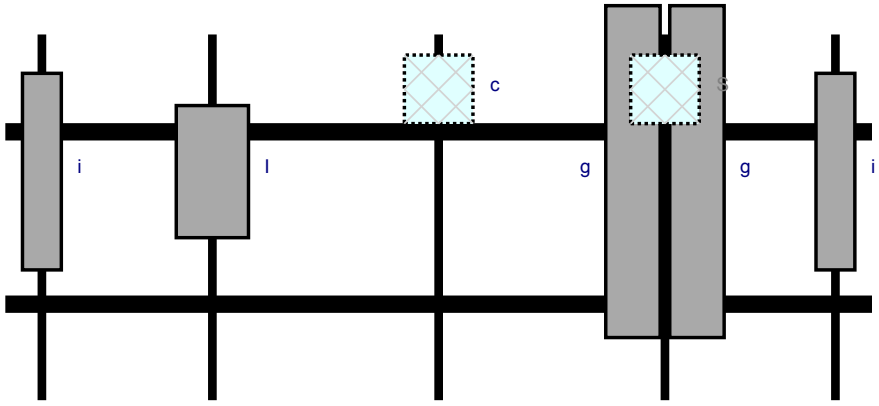
0 p leg FF p0

Colliers Engineering & Design

Plan View



Front View - 0 0



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g	C ig	lSD	llDo	leeDSoc	S		cF	C	FcESoESFSl
S	eeco CSg	lg	lg	leeDSoc	S		lS	F	
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ei		lS	o						FcESoESFSl

Structure: **386182-VZW - E GLASTONBURY CT**

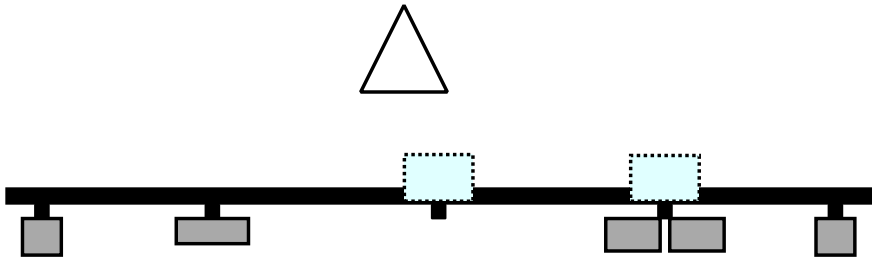
p **B** SE eESFSe

0 p I FSSSnFn

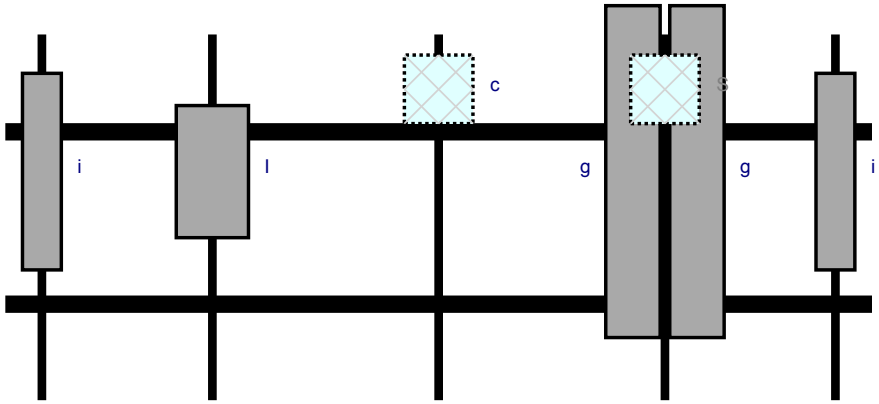
0 p I egDFF p0S

Colliers Engineering & Design

Plan View



Front View - 0 0



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Structure: **386182-VZW - E GLASTONBURY CT**

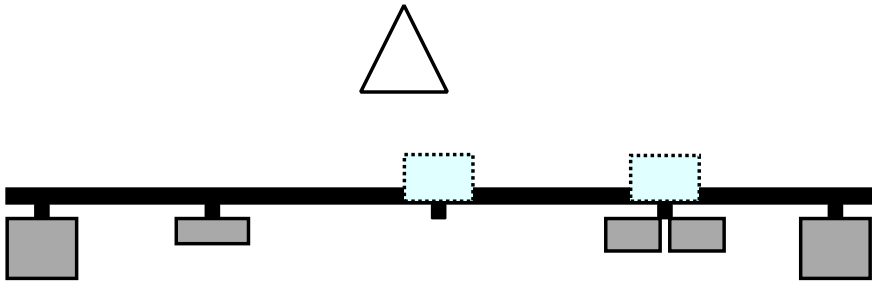
p **C** SE eESFSe

0 p lFSSSnFn

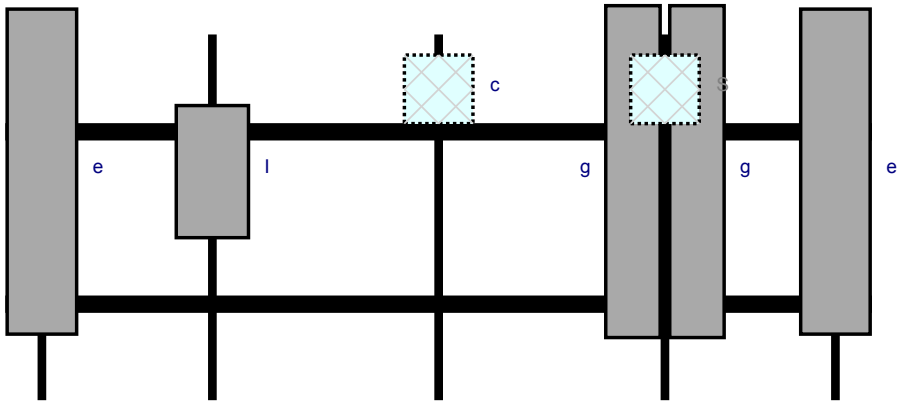
0 p leg FF pc

Colliers Engineering & Design

Plan View



Front View - 0 0



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g	C ig	lSD	llDn	leeDSoc S	cF	C	FcESoESFSl
S	eeco CSg	lg	lg	leeDSoc S	lS	F	
c	eeil Cc	lg	lg	oeDoSg c	lS	F	
l	ielcCl	SnDn	lgDn	egDSoSe e	cF	F	
e	GnFFicC C C	llD	lgDS	n g	cF	F	FcESoESFSl

GSFlo0 0 0 0 E D 0 0

PROJECT NOTES

1. SEE MODIFICATION NOTES
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

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MOUNT MODIFICATION DRAWINGS
EXISTING 15.80' PLATFORM

SITE NAME: E GLASTONBURY CT
SITE NUMBER: 468194

347 THREE MILE RD.
GLASTONBURY, CT 06033
HARTFORD COUNTY

PROJECT INFORMATION

SITE INFORMATION

LATITUDE:	41.693708° N
LONGITUDE:	72.547310° W
JURISDICTION:	HARTFORD COUNTY

APPLICANT/LESSEE

COMPANY:	VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY:	VERIZON WIRELESS
ADDRESS:	118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP:	WESTBOROUGH, MA 01581
CONTACT:	ANDREW CANDIELLO
EMAIL:	ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY:	MASER CONSULTING CONNECTICUT
CONTACT:	PETER ALBANO
PHONE:	856-797-0412
E-MAIL:	PETER.ALBANO@COLLIERSENGINEERING.COM

SHEET INDEX

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10070201
VZW LOCATION CODE (PSLC):	468194
FUZE ID:	16231967

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

REFERENCED DOCUMENTS

FAILING MOUNT ANALYSIS REPORT

SMART TOOL PROJECT #:	10050761
MASER CONSULTING PROJECT #:	21777627A
ANALYSIS DATE:	5/7/2021

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- NORTH CAROLINA
- SOUTH CAROLINA
- NEW MEXICO
- MARYLAND
- GEORGIA
- TEXAS
- TENNESSEE
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Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	21777627A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/15/2021	ISSUED FOR CONSTRUCTION	FAC	PMA

STATE OF CONNECTICUT
PETROS TSOUKALAS
Petros Ts Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING
ET COA #: PEC.0001371
LICENSED PROFESSIONAL ENGINEER

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

SITE NAME:
E GLASTONBURY CT
468194
347 THREE MILE RD.
GLASTONBURY, CT 06033
HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
12	VZWSMART	VZWSMART-MSK1	CROSSOVER PLATE	

OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
3	-	-	186" LONG, P2.5 STD	GALVANIZED
1	SITE PRO 1	PRK-SFS-L	HORIZONTAL REINFORCEMENT KIT (LONG)	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING FOR APPROVAL OF SUBSTITUTION.

NOTE: ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTE: WHEN SPECIFIED, VZWSMART KITS SHALL BE REQUIRED AND WILL BE VERIFIED DURING THE DESKTOP PMI

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- TEXAS
- TENNESSEE
- COLORADO

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SCALE : AS SHOWN
JOB NUMBER : 21777627A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/15/2021	ISSUED FOR CONSTRUCTION	FAC	PMA

STATE OF CONNECTICUT
PETROS TSOUKALAS
Petros Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING
CT C.O.A. #: PEC.0001139
LICENSED PROFESSIONAL ENGINEER

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

SITE NAME:
E GLASTONBURY CT
468194
347 THREE MILE RD.
GLASTONBURY, CT 06033
HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : BILL OF MATERIALS

SHEET NUMBER : S-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

DESIGN LOADS

WIND LOADS

a. BASIC WIND SPEED (3 SECOND GUST), V = 120 MPH

b. EXPOSURE CATEGORY B

c. TOPOGRAPHIC CATEGORY 1

d. MEAN BASE ELEVATION (AMSL) = 467.38'

ICE LOADS

a. ICE WIND SPEED (3 SECOND GUST), V = 50 MPH

b. ICE THICKNESS = 1.50 IN

SEISMIC LOADS

a. SEISMIC DESIGN CATEGORY B

b. SHORT TERM MCER GROUND MOTION, S_S = .200

c. LONG TERM MCER GROUND MOTION, S_I = .055

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO PETER.ALBANO@COLLIERSENGINEERING.COM
   b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

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STATE OF CONNECTICUT — PETROS TSOUKALAS — LICENSED PROFESSIONAL ENGINEER
Petros Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING
C.T. C.OA. #: JPC.0000131

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468194

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HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
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Mount Laurel, NJ 08054
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Fax: 856.722.1120

SHEET TITLE : MODIFICATION NOTES

SHEET NUMBER : S-2

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

\AcPublish_9068\Template.Mount MOD.dwg\S-2 By: FCENTONE

MODIFICATION INSPECTION NOTES

MI CHECKLIST	
CONSTRUCTION/ INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVED SHOP DRAWINGS
NA	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	ON SITE COLD GALVANIZING VERIFICATION
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
X	VZW PMI DOCUMENTS
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GC INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO EOR.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI (“FAILED MI”), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN:

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

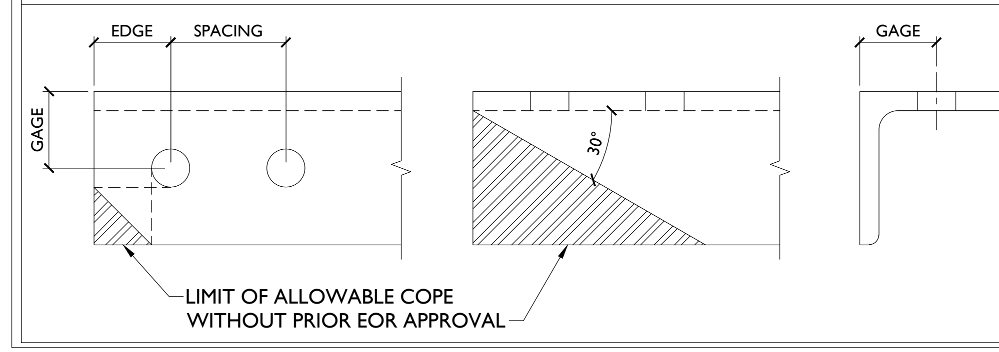
REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
  - RAW MATERIALS
  - PHOTOS OF ALL CRITICAL DETAILS
  - FOUNDATION MODIFICATIONS
  - WELD PREPARATION
  - BOLT INSTALLATION
  - FINAL INSTALLED CONDITION
  - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
  - FINAL INFIELD CONDITION

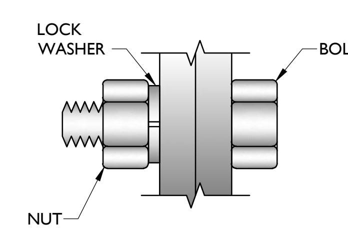
PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

ALLOWABLE COPING



BOLT SCHEDULE (IN.)				
BOLT DIAMETER	**STANDARD HOLE**	**SHORT SLOT**	**MIN. EDGE DISTANCE**	**SPACING**
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)	
LEG	**GAGE**
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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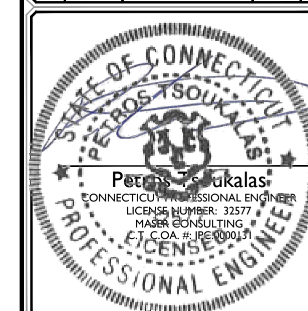

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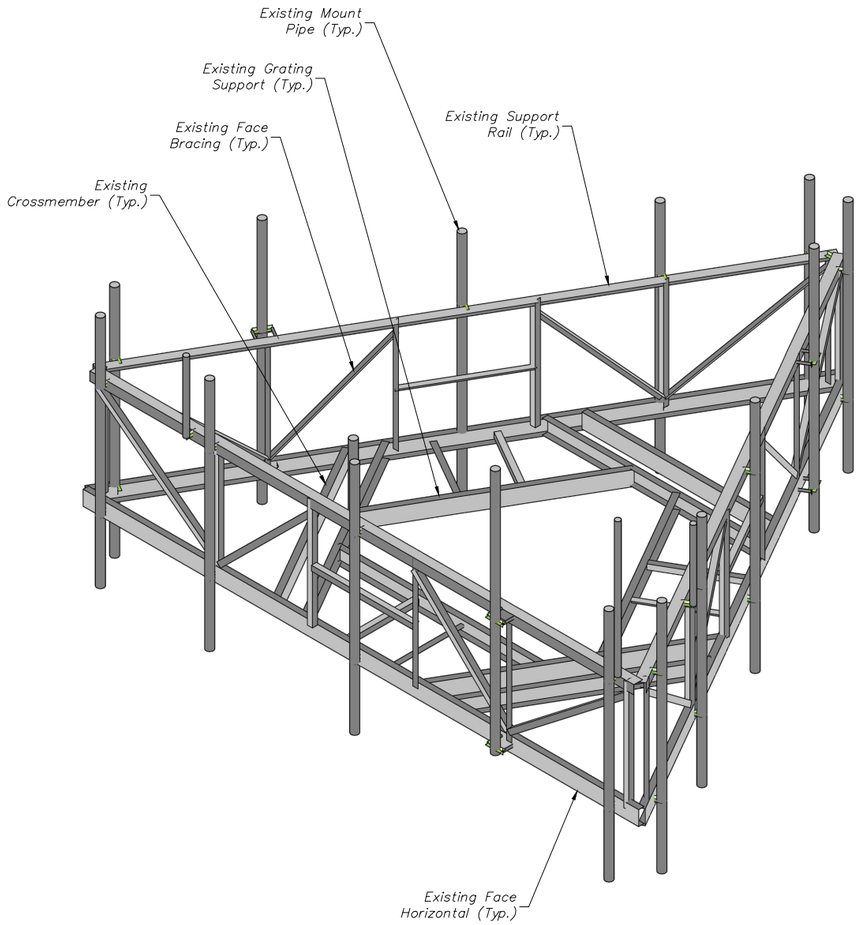
SHEET TITLE :
MODIFICATION NOTES

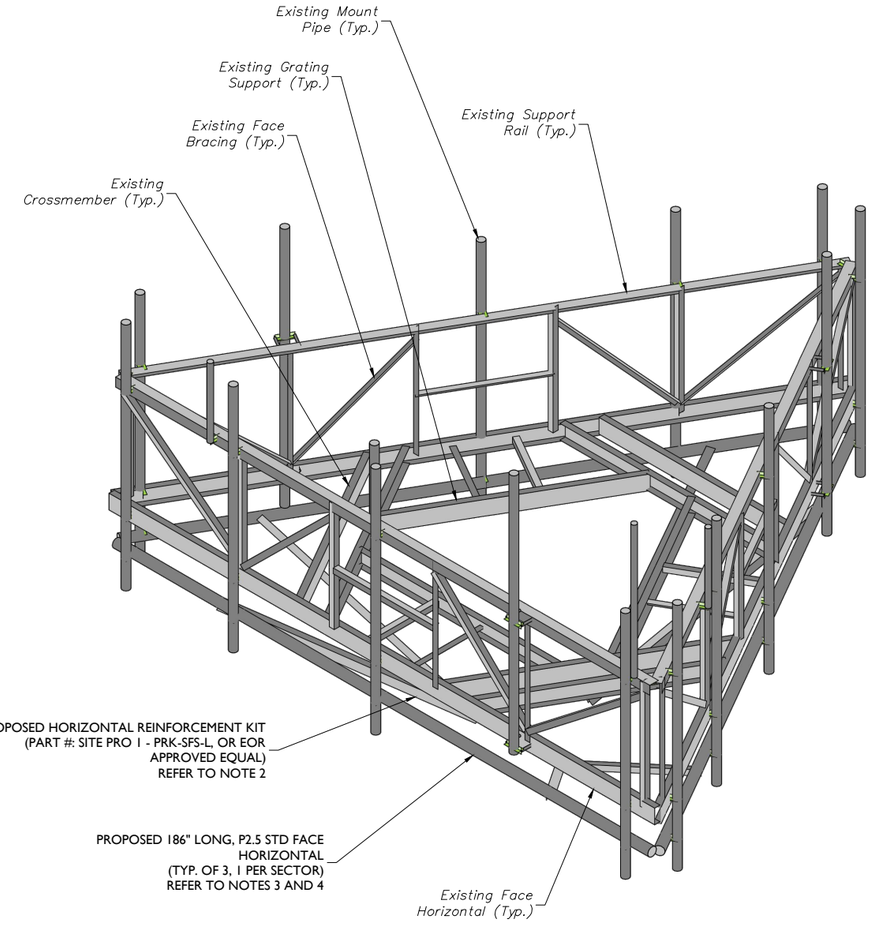
SHEET NUMBER :
S-3

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 EXISTING PLATFORM ISOMETRIC VIEW

SCALE : N.T.S.



2 PROPOSED PLATFORM ISOMETRIC VIEW

SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY STRUCTURAL COMPONENTS LLC ON 3/29/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (145'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
5. CONTRACTOR TO INSPECT AND INSTALL MISSING TOP HAT BOLTS AS NECESSARY.

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STATE OF CONNECTICUT · PETROS TSOUKALAS · LICENSED PROFESSIONAL ENGINEER
Petros Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING, P.A.
CT C.O.A. #: PEC.0001317

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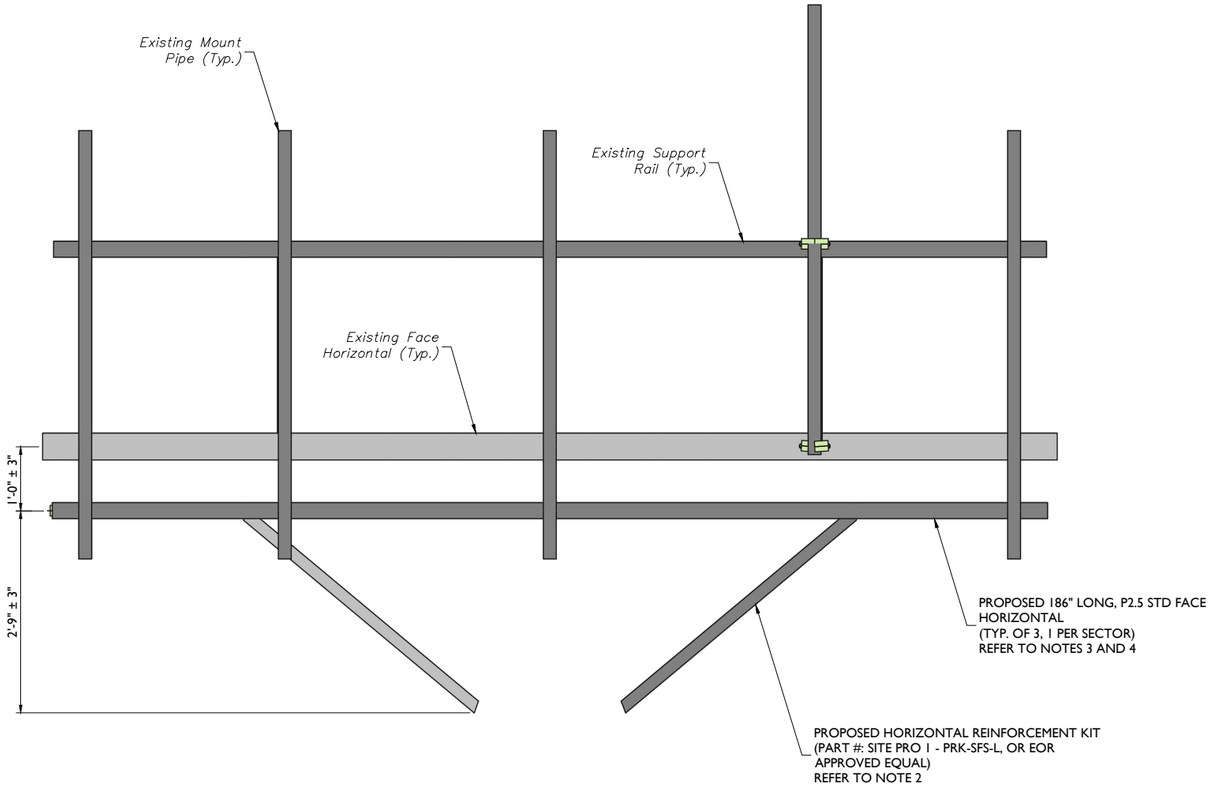
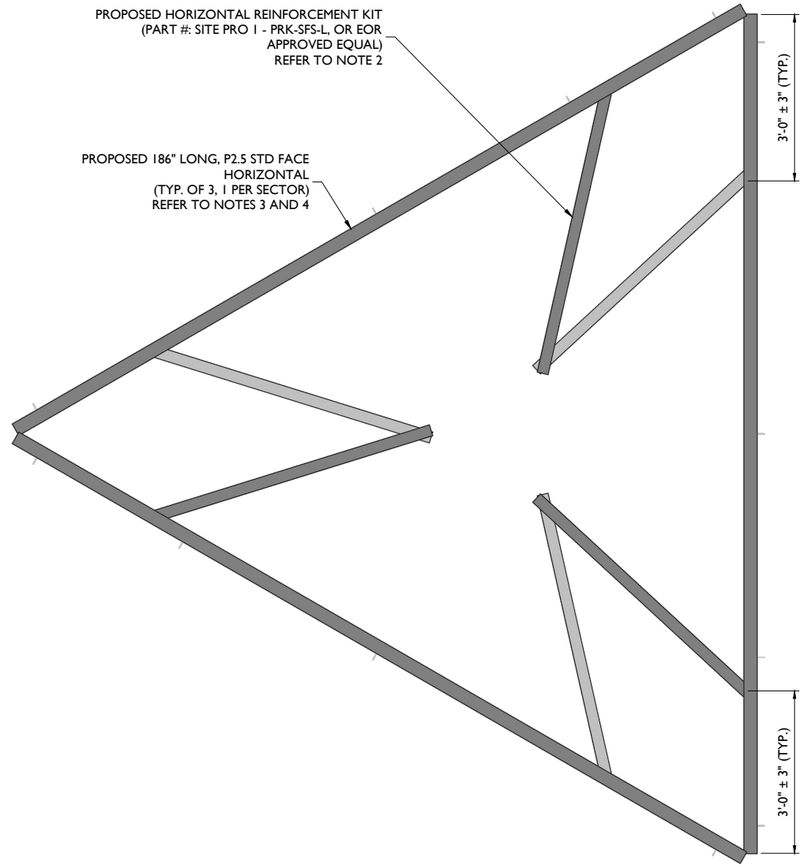
SHEET TITLE :
MODIFICATION DETAILS

SHEET NUMBER :
S-4



1 PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)

SCALE : N.T.S.



2 PROPOSED PLAN VIEW

SCALE : N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
5. CONTRACTOR TO INSPECT AND INSTALL MISSING TOP HAT BOLTS AS NECESSARY.

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CT COA #: PEC.0001171

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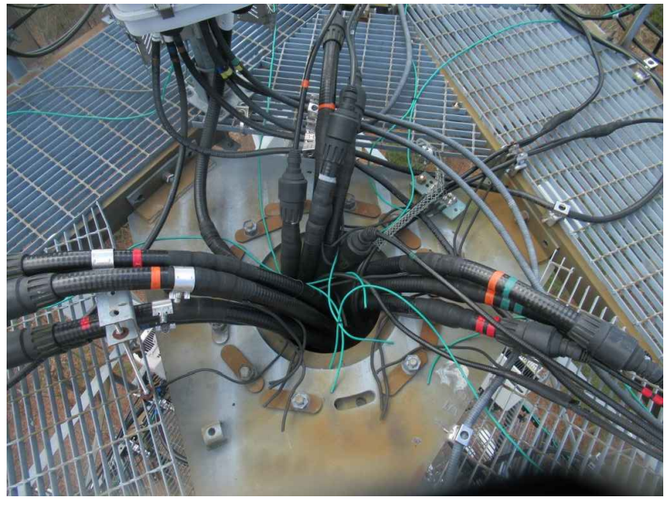
SHEET TITLE : MODIFICATION DETAILS

SHEET NUMBER : S-5

MOUNT PHOTO 1

MOUNT PHOTO 2



MOUNT PHOTO 3

MOUNT PHOTO 4

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PETROS TSOUKALAS
LICENSE
PROFESSIONAL ENGINEER

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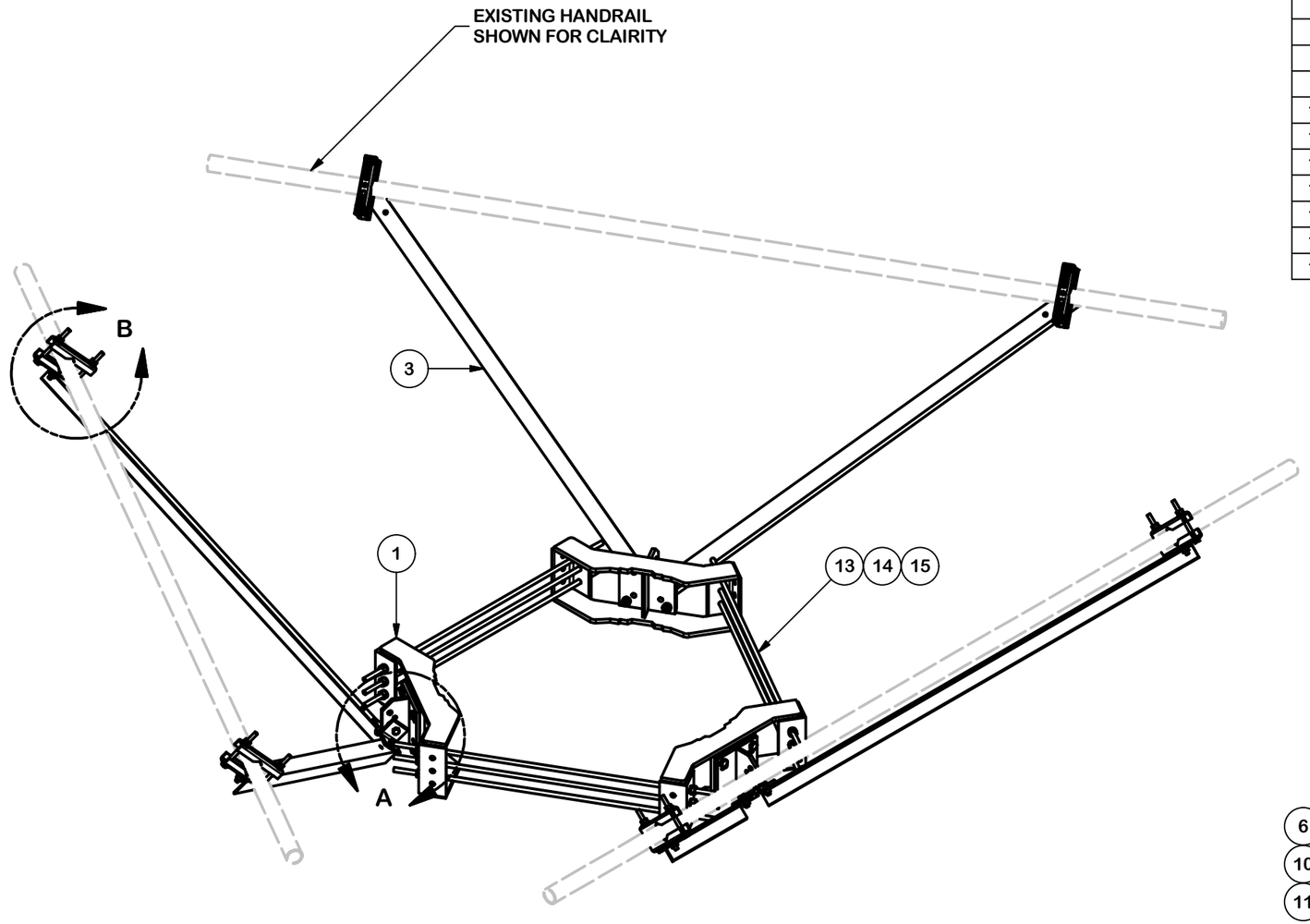
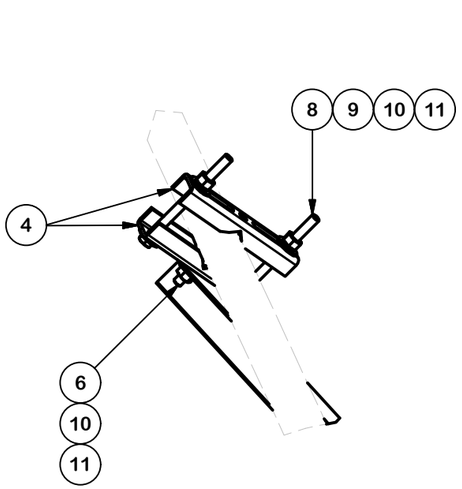
SHEET TITLE : MOUNT PHOTOS

SHEET NUMBER : S-6



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	3	X-TBW	T-BRACKET WELDMENT		13.60	40.80
3	6	X-254924	DIAGONAL ANGLE - SITE PRO 1	72 in	19.71	118.24
4	12	X-STU	STIFF ARM CHANNEL BRACKET	8 1/2 in	1.37	16.46
5	6	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	11.15
6	12	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	1.77
7	3	G12212	1/2" x 2-1/2" HDG HEX BOLT GR5	2 1/2 in	0.20	0.61
8	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
9	24	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.82
10	27	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.38
11	27	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.93
12	12	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	3.75
13	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24 in	0.40	3.59
13	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)	48 in	0.40	3.59
14	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
15	30	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.90
					TOTAL WT. #	642.04

DETAIL A



DETAIL B

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	SP1	BC	10/25/2017
REVISION HISTORY				

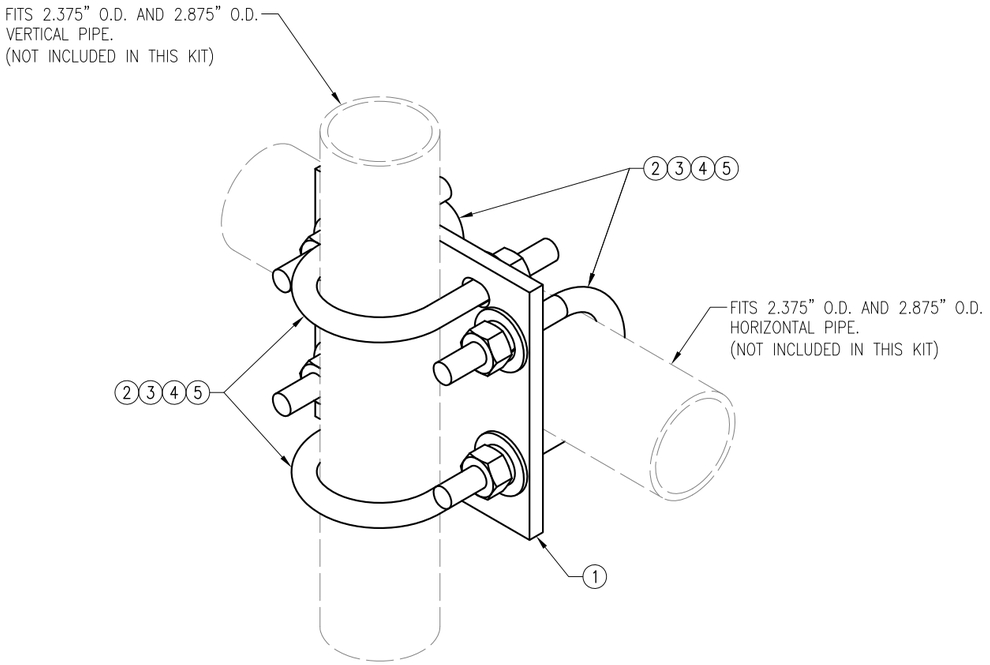
TOLERANCE NOTES

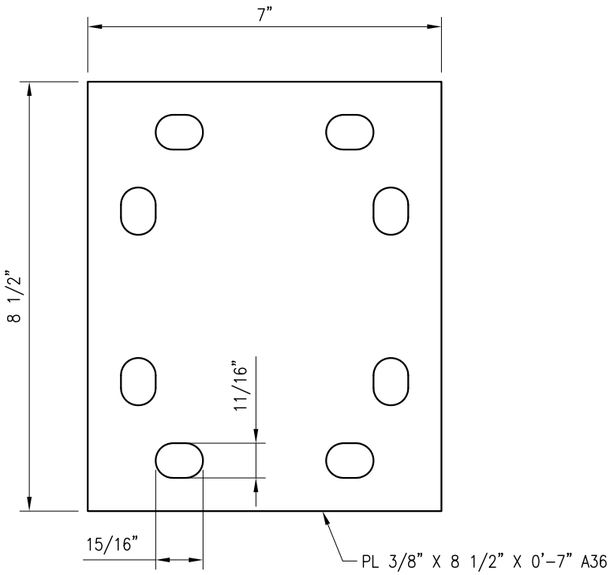
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION
HANDRAIL REINFORCEMENT KIT (LONG)

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
SP1	CSL3 2/23/2017	3RD PARTY	PRK-SFS-L
CLASS / SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81 / 02	SHOP	BMC 9/8/2017	PRK-SFS-L

SITE PRO 1
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





PL375-857

VZWSMART-MSK1 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1	6
2	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
3	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	8	LW-625	5/8" HDG LOCK WASHER	---	0
5	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	14

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VzW SMART Tool© Vendor

verizon

DRAWN BY: H.R | CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:

VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1

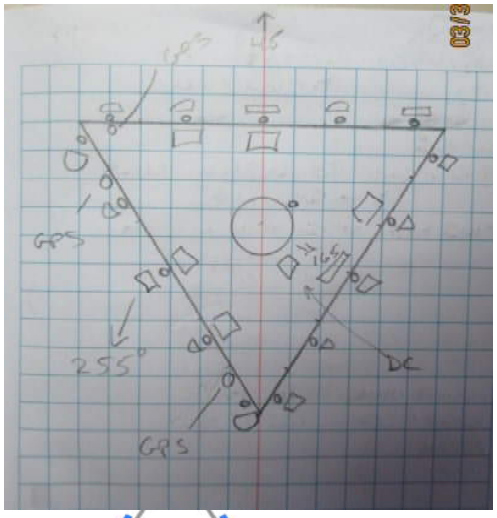
REV #: 0

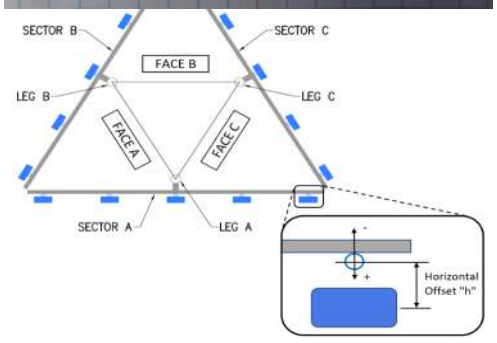
V3.0 Updated on 8-31-2020

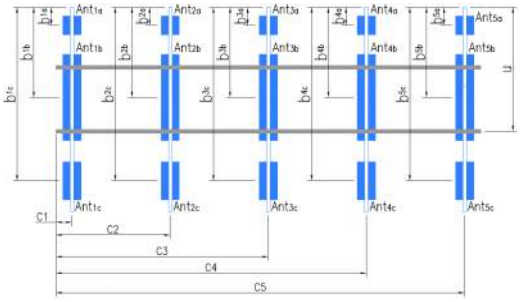
Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	Crown Castle	**Mapping Date:**	3/29/2021
Site Name:	E Glastonbury	**Tower Type:**	Monopole
Site Number or ID:	21777627	**Tower Height (Ft.):**	145
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	145







Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2-3/8 x 0.154 x 80	59.00	6.00	C1	2-3/8 x 0.154 x 80	59.00	6.00
A2	2-3/8 x 0.154 x 84	82.50	41.00	C2	2-3/8 x 0.154 x 84	71.00	41.00
A3	2-3/8 x 0.154 x 80	59.00	88.50	C3	2-3/8 x 0.154 x 80	59.00	88.50
A4	2-3/8 x 0.154 x 80	59.00	138.00	C4	2-3/8 x 0.154 x 80	59.00	138.00
A5	2-3/8 x 0.154 x 80	59.00	172.00	C5	2-3/8 x 0.154 x 80	59.00	172.00
A6				C6			
B1	2-3/8 x 0.154 x 80	59.00	6.00	D1			
B2	2-3/8 x 0.154 x 84	71.00	41.00	D2			
B3	2-3/8 x 0.154 x 80	59.00	88.50	D3			
B4	2-3/8 x 0.154 x 80	59.00	138.00	D4			
B5	2-3/8 x 0.154 x 80	59.00	172.00	D5			
B6				D6			

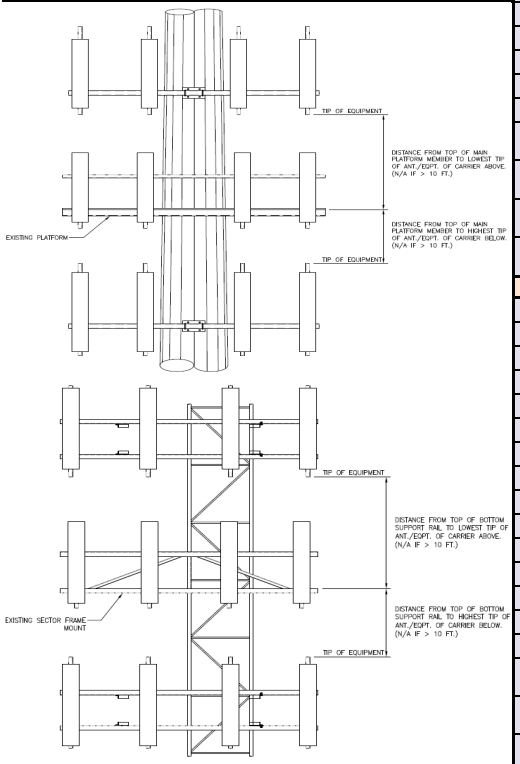
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of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

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	20.05

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}	GPS			4.00	1/2 tx	151.917	-24.00	-4.00		195
Ant_{1b}	Swedcom SC-E6014R	8.50	8.00	43.00	(1)1-5/8 t	147.833	25.00	12.00	45.00	9, 181
Ant_{1c}										
Ant_{2a}	UHIE B66a RRH4x45	12.00	7.00	25.50	Jumpers	150.458	17.00	-7.00		200
Ant_{2b}	comm SBNHH-1D65B	12.00	7.00	73.00	Jumpers	147.792	49.00	9.00	45.00	9, 200
Ant_{2c}										
Ant_{3a}	B13 RRH4x30	12.00	7.00	20.00	Jumpers	149.917	0.00	-6.00		220
Ant_{3b}	Swedcom SLCP2x601	14.00	11.00	53.00	2)1-5/8 t	147.042	34.50	14.50	45.00	9, 220
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	comm SBNHH-1D65B	12.00	7.00	73.00	Jumpers	146.75	38.00	8.50	45.00	9, 235
Ant_{4c}										
Ant_{5a}	Diplexor	6.50	7.00	4.50	Jumpers	147.167	33.00	3.00		251
Ant_{5b}	Sedcom SC-E6014Rev	8.50	8.00	43.00	1-5/8 tx	148.292	19.50	12.00	45.00	9, 235
Ant_{5c}										
Ant on Standoff	diplexor	6.50	0.75	4.50	Jumpers		24.00	3.00		246
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector					Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	45.00	Deg	Leg A:		Deg	
Sector B:	165.00	Deg	Leg B:		Deg	
Sector C:	285.00	Deg	Leg C:		Deg	
Sector D:		Deg	Leg D:		Deg	

Climbing Facility Information			
Location:	60.00	Deg	Other
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}										
Ant_{1b}	Swedcom SC-E6014R	8.50	8.00	43.00	(1)1-5/8 t	148.292	19.50	11.50	165.00	14, 259
Ant_{1c}										
Ant_{2a}	UHIE B66a RRH4x45	12.00	7.00	25.50	Jumpers	149.375	18.50	-7.00		264
Ant_{2b}	comm SBNHH-1D65B	12.00	7.00	73.00	Jumpers	147.625	39.50	8.00	165.00	14, 264
Ant_{2c}										
Ant_{3a}	B13 RRH4x30	12.00	7.00	20.00	Jumpers	149.917	0.00	-6.00		272
Ant_{3b}	Swedcom SLCP2x601	14.00	11.00	53.00	(2)1-5/8 t	147	35.00	13.00	165.00	14, 272
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	comm SBNHH-1D65B	12.00	7.00	73.00	Jumpers	147.875	24.50	8.50	165.00	14, 282
Ant_{4c}										
Ant_{5a}	Diplexor	6.50	7.00	4.50	Jumpers	147.083	34.00	30.00		282, 286
Ant_{5b}	Sedcom SC-E6014Rev	8.50	8.00	43.00	1-5/8 tx	148.292	19.50	12.00	165.00	14, 282
Ant_{5c}										
Ant on Standoff	diplexor	6.50	0.75	4.50	Jumpers		24.00	3.00		281
Ant on Standoff	RRFDC-3315-PF-48	14.00	9.00	19.00	1-1/2" Hybrid		35.00			343
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	MPA80063-6CF EDIN	15.00	12.00	71.00	(1)1-5/8 t	146.75	38.00	13.00	255.00	22, 294
Ant_{1c}										
Ant_{2a}	UHIE B66a RRH4x45	12.00	7.00	25.50		150.292	7.50	-7.00		310
Ant_{2b}	comm SBNHH-1D65B	12.00	7.00	73.00	Jumpers	148.333	31.00	8.50	255.00	22, 310
Ant_{2c}										
Ant_{3a}	B13 RRH4x30	12.00	7.00	20.00		150	-1.00	-6.00		318
Ant_{3b}	BXA-70063-6CF-EDIN	12.00	5.00	71.00	(2)1-5/8 t	146.833	37.00	10.50	255.00	22, 318
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	comm SBNHH-1D65B	12.00	7.00	73.00	Jumpers	147.875	24.50	8.50	255.00	22, 329
Ant_{4c}										
Ant_{5a}	Diplexor	6.50	7.00	4.50		147.083	34.00	3.00		33
Ant_{5b}	MPA80063-6CF EDIN	15.00	12.00	71.00	(1)1-5/8 t	146.792	37.50	14.00	255.00	22, 329, 337
Ant_{5c}										
Ant on Standoff	diplexor	6.50	0.75	4.50			24.00			319
Ant on Standoff	GPS (1x22 pipe)			4.00	1/2 tx		60.00			22, 302
Ant on Tower	GPS (1x22 pipe)			4.00	1/2 tx		60.00			22, 329, 337
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1		
2		
3		
4		
5		
6		
7		
8		

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

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

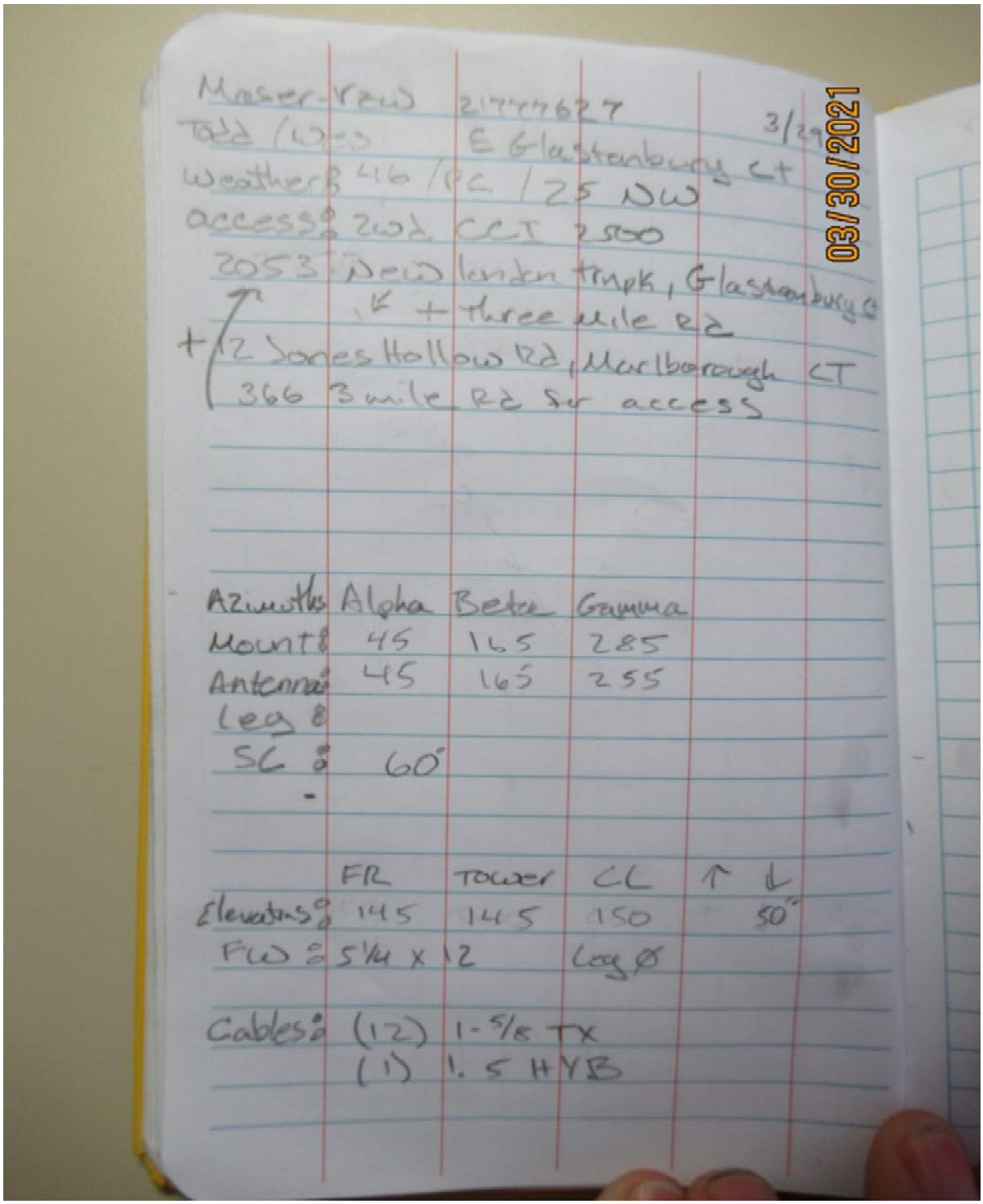
V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

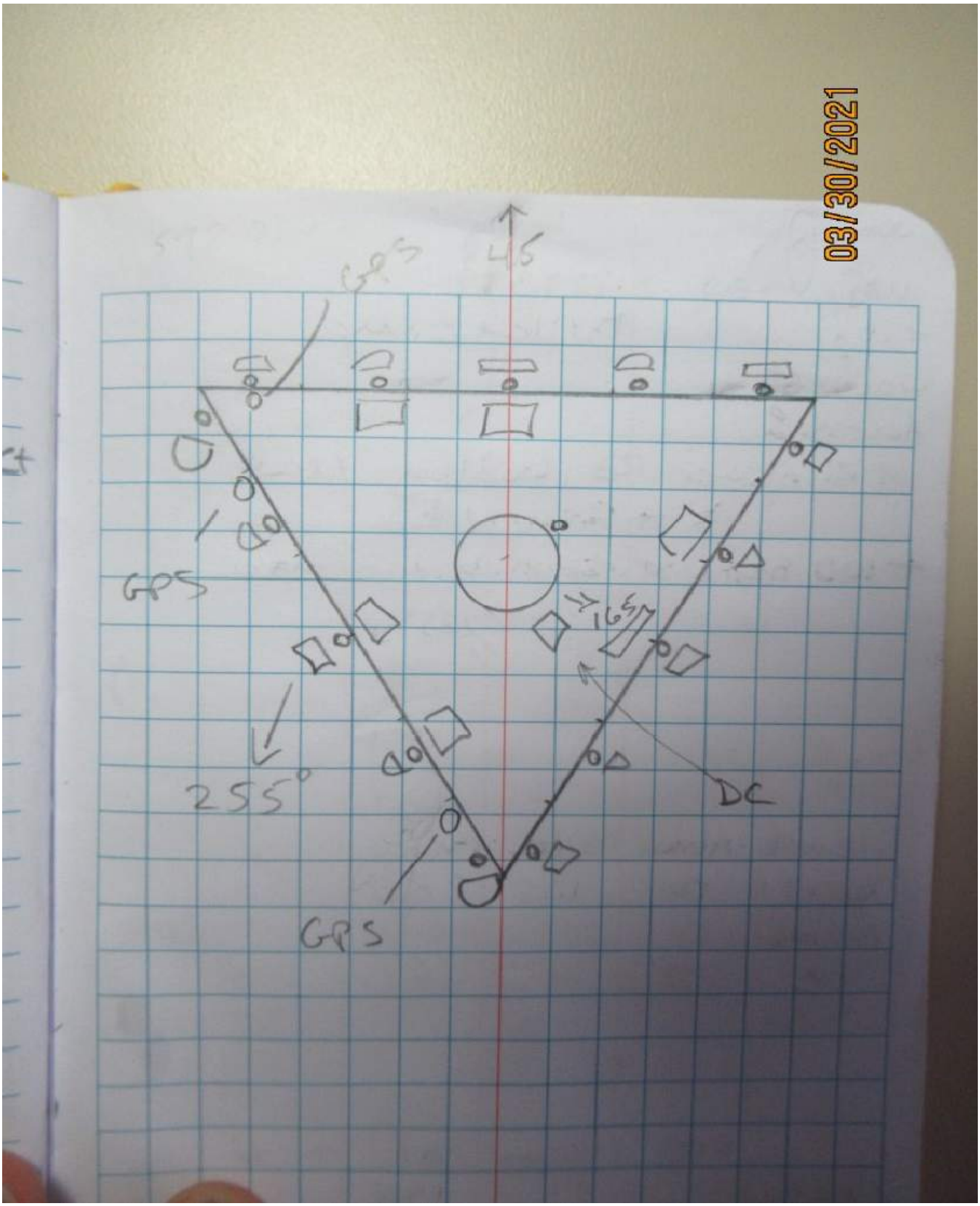
FCC #

Tower Owner:	Crown Castle	**Mapping Date:**	3/29/2021
Site Name:	E Glastonbury	**Tower Type:**	Monopole
Site Number or ID:	21777627	**Tower Height (Ft.):**	145
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	145

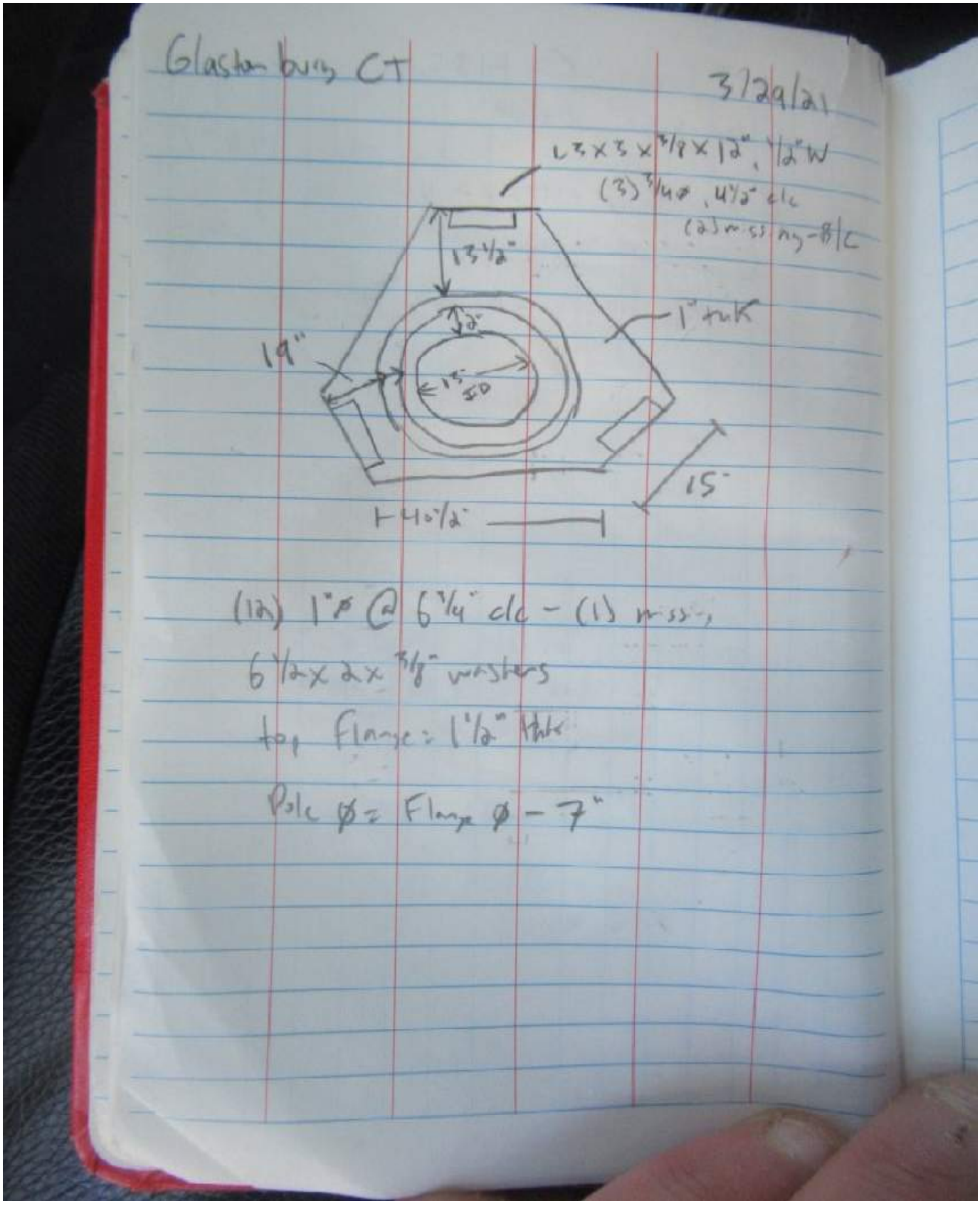
Please Insert Sketches of the Antenna Mount



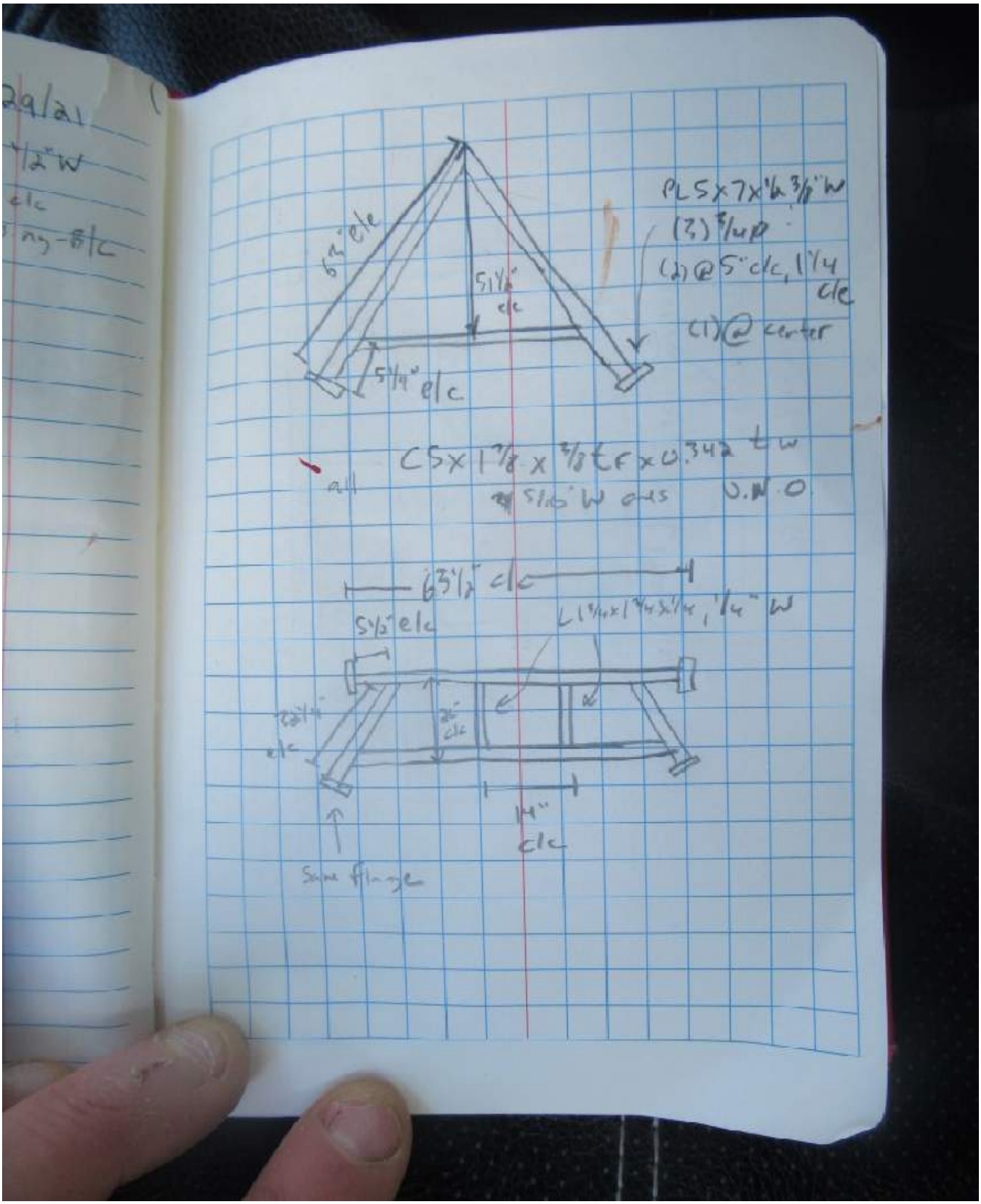
Please Insert Sketches of the Antenna Mount, cont'd



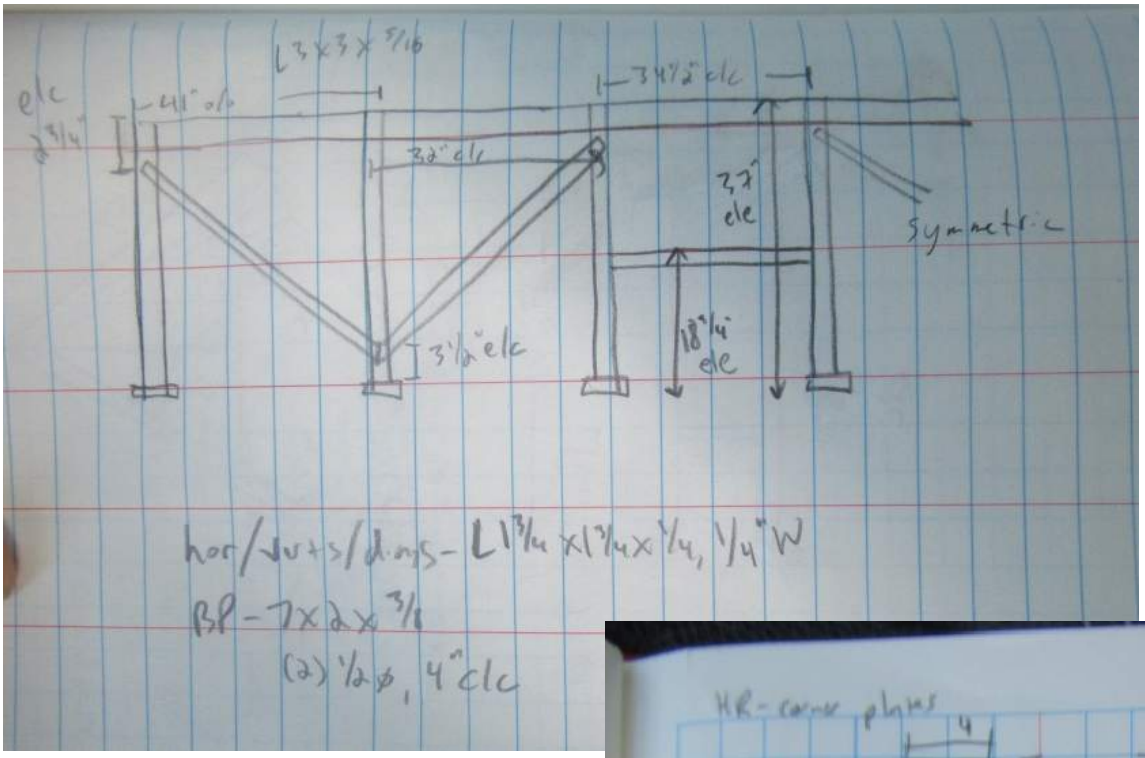
Please Insert Sketches of the Antenna Mount, cont'd

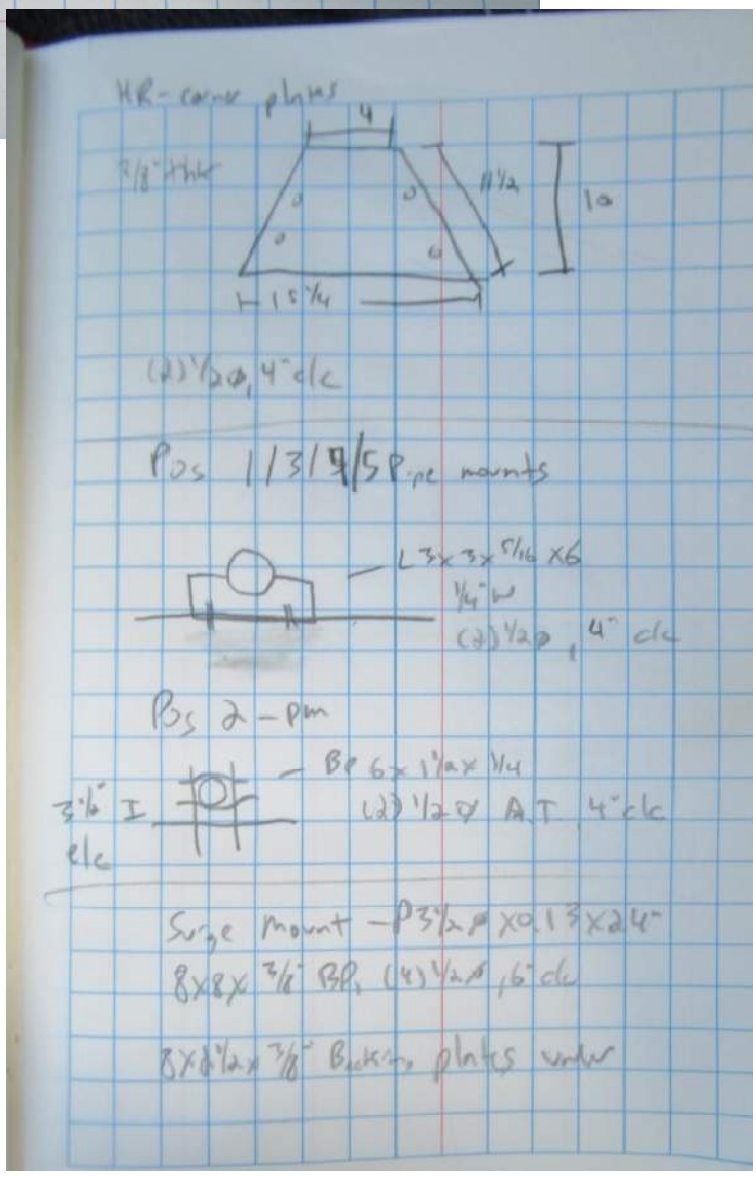


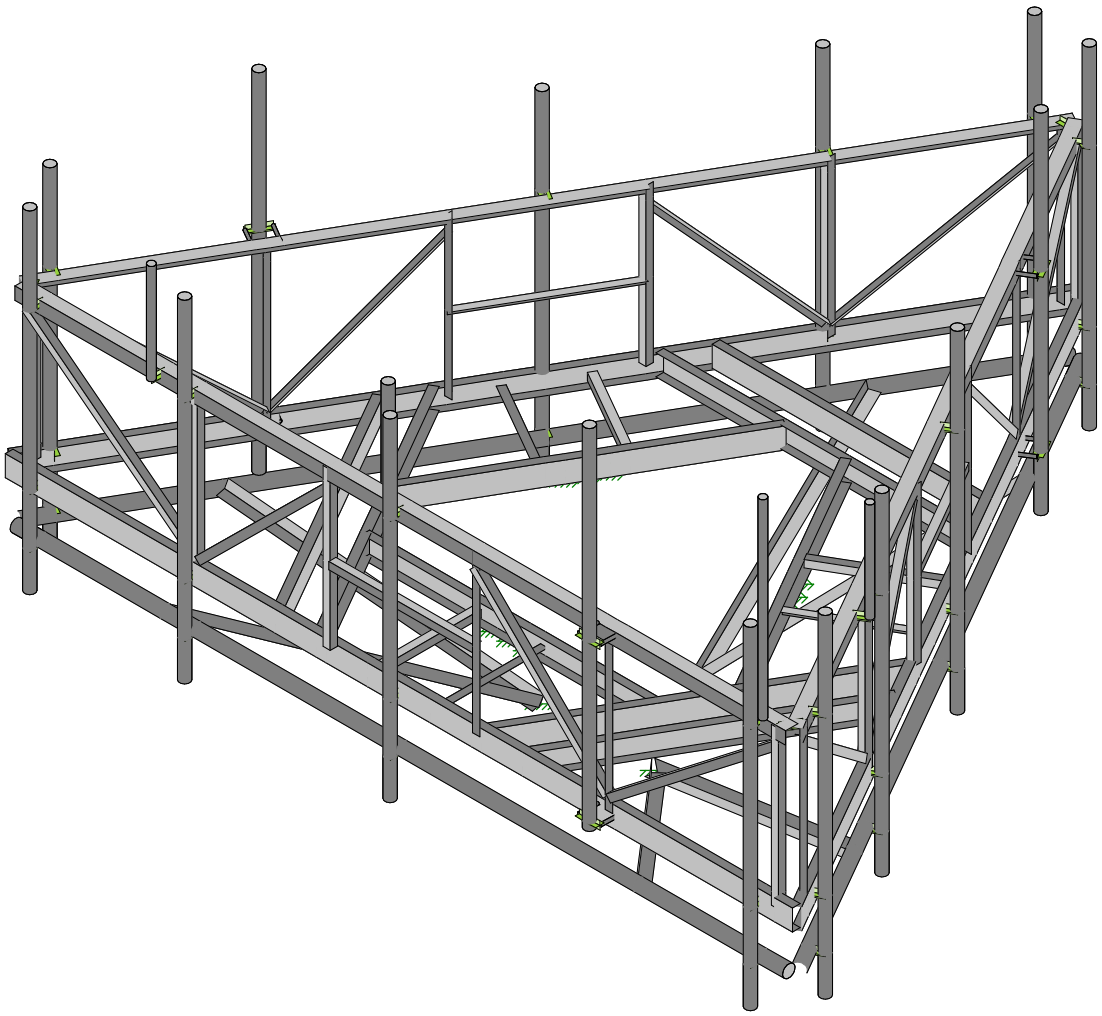
Please Insert Sketches of the Antenna Mount, cont'd



Please Insert Sketches of the Antenna Mount, cont'd

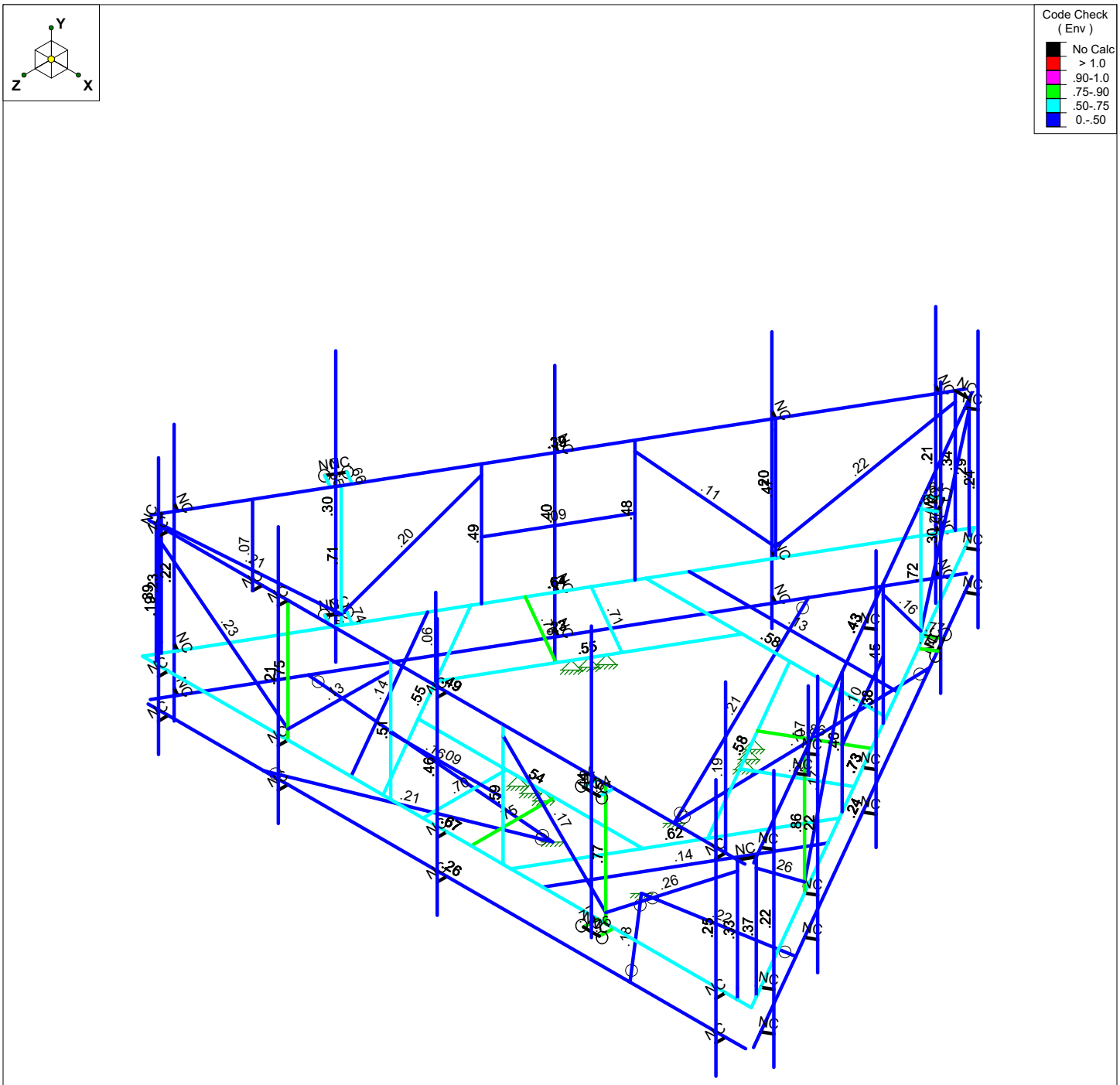






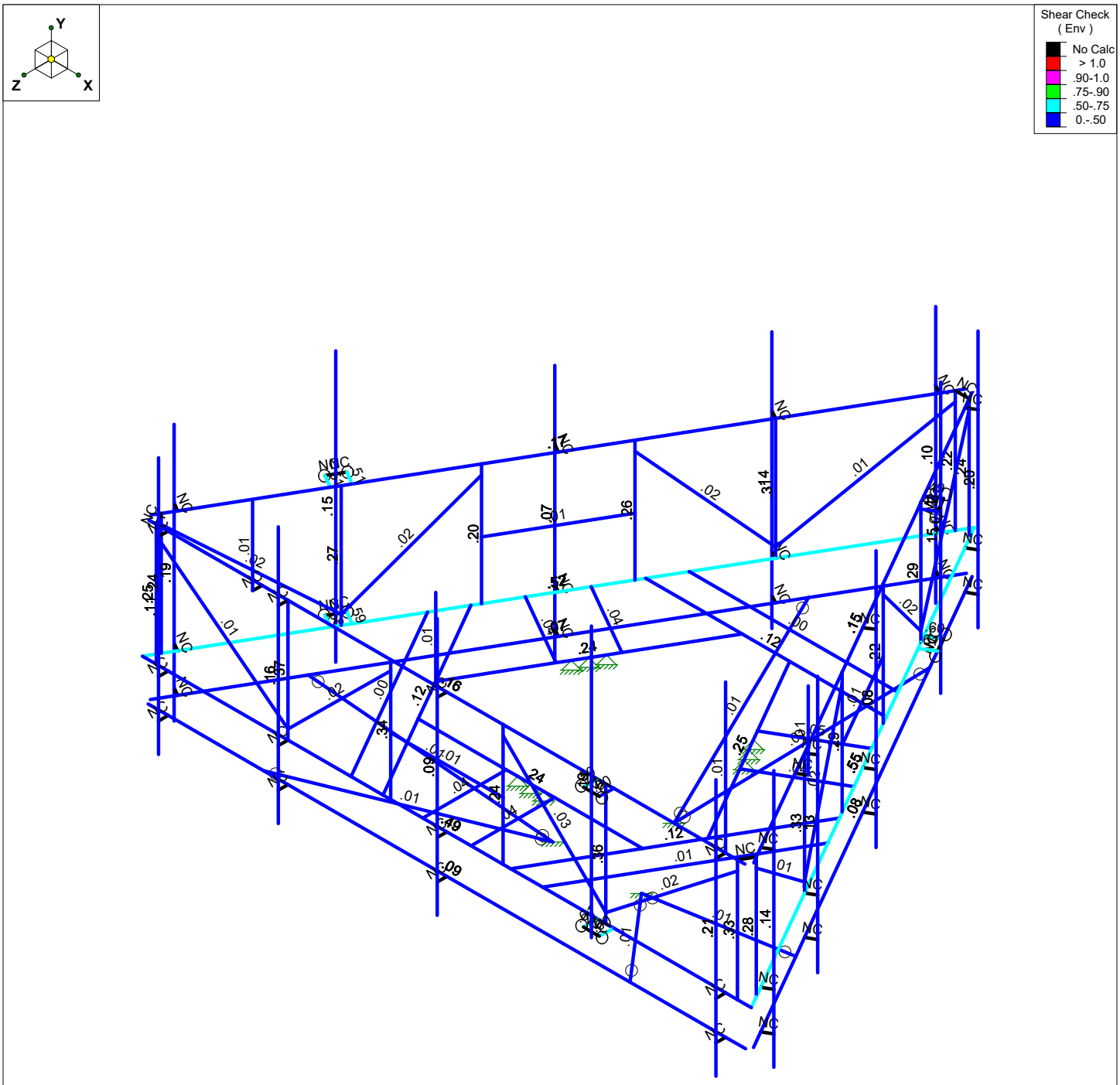
Envelope Only Solution

Colliers Engineering & De...	Antenna Mount Analysis	SK - 1
		Feb 14, 2024 at 9:03 AM
Project # 21777627		5000386182-VZW_MT_LO_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & De...	Antenna Mount Analysis	SK - 2
		Feb 14, 2024 at 9:04 AM
Project # 21777627		5000386182-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & De...	Antenna Mount Analysis	SK - 3
		Feb 14, 2024 at 9:04 AM
Project # 21777627		5000386182-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gr...	Y Gr...	Z Gr...	Joint	Point	Distributed	Area(Member)	Surfa...
1	Antenna D	None					120			
2	Antenna Di	None					120			
3	Antenna Wo (0 Deg)	None					120			
4	Antenna Wo (30 Deg)	None					120			
5	Antenna Wo (60 Deg)	None					120			
6	Antenna Wo (90 Deg)	None					120			
7	Antenna Wo (120 Deg)	None					120			
8	Antenna Wo (150 Deg)	None					120			
9	Antenna Wo (180 Deg)	None					120			
10	Antenna Wo (210 Deg)	None					120			
11	Antenna Wo (240 Deg)	None					120			
12	Antenna Wo (270 Deg)	None					120			
13	Antenna Wo (300 Deg)	None					120			
14	Antenna Wo (330 Deg)	None					120			
15	Antenna Wi (0 Deg)	None					120			
16	Antenna Wi (30 Deg)	None					120			
17	Antenna Wi (60 Deg)	None					120			
18	Antenna Wi (90 Deg)	None					120			
19	Antenna Wi (120 Deg)	None					120			
20	Antenna Wi (150 Deg)	None					120			
21	Antenna Wi (180 Deg)	None					120			
22	Antenna Wi (210 Deg)	None					120			
23	Antenna Wi (240 Deg)	None					120			
24	Antenna Wi (270 Deg)	None					120			
25	Antenna Wi (300 Deg)	None					120			
26	Antenna Wi (330 Deg)	None					120			
27	Antenna Wm (0 Deg)	None					120			
28	Antenna Wm (30 Deg)	None					120			
29	Antenna Wm (60 Deg)	None					120			
30	Antenna Wm (90 Deg)	None					120			
31	Antenna Wm (120 Deg)	None					120			
32	Antenna Wm (150 Deg)	None					120			
33	Antenna Wm (180 Deg)	None					120			
34	Antenna Wm (210 Deg)	None					120			
35	Antenna Wm (240 Deg)	None					120			
36	Antenna Wm (270 Deg)	None					120			
37	Antenna Wm (300 Deg)	None					120			
38	Antenna Wm (330 Deg)	None					120			
39	Structure D	None		-1					6	
40	Structure Di	None						94	6	
41	Structure Wo (0 Deg)	None						188		
42	Structure Wo (30 Deg)	None						188		
43	Structure Wo (60 Deg)	None						188		
44	Structure Wo (90 Deg)	None						188		
45	Structure Wo (120 Deg)	None						188		
46	Structure Wo (150 Deg)	None						188		
47	Structure Wo (180 Deg)	None						188		
48	Structure Wo (210 Deg)	None						188		
49	Structure Wo (240 Deg)	None						188		
50	Structure Wo (270 Deg)	None						188		
51	Structure Wo (300 Deg)	None						188		
52	Structure Wo (330 Deg)	None						188		
53	Structure Wi (0 Deg)	None						188		
54	Structure Wi (30 Deg)	None						188		
55	Structure Wi (60 Deg)	None						188		
56	Structure Wi (90 Deg)	None						188		

Basic Load Cases (Continued)

	BLC Description	Category	X Gr...	Y Gr...	Z Gr...	Joint	Point	Distributed	Area(Member)	Surfa...
57	Structure Wi (120 Deg)	None						188		
58	Structure Wi (150 Deg)	None						188		
59	Structure Wi (180 Deg)	None						188		
60	Structure Wi (210 Deg)	None						188		
61	Structure Wi (240 Deg)	None						188		
62	Structure Wi (270 Deg)	None						188		
63	Structure Wi (300 Deg)	None						188		
64	Structure Wi (330 Deg)	None						188		
65	Structure Wm (0 Deg)	None						188		
66	Structure Wm (30 Deg)	None						188		
67	Structure Wm (60 Deg)	None						188		
68	Structure Wm (90 Deg)	None						188		
69	Structure Wm (120 Deg)	None						188		
70	Structure Wm (150 Deg)	None						188		
71	Structure Wm (180 Deg)	None						188		
72	Structure Wm (210 Deg)	None						188		
73	Structure Wm (240 Deg)	None						188		
74	Structure Wm (270 Deg)	None						188		
75	Structure Wm (300 Deg)	None						188		
76	Structure Wm (330 Deg)	None						188		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					120			
82	Antenna Eh (0 Deg)	None					80			
83	Antenna Eh (90 Deg)	None					80			
84	Structure Ev	ELY		-.0427					6	
85	Structure Eh (0 Deg)	ELZ			-.1067				6	
86	Structure Eh (90 Deg)	ELX	.1067						6	
87	BLC 39 Transient Area Loads	None						60		
88	BLC 40 Transient Area Loads	None						65		
89	BLC 84 Transient Area Loads	None						96		
90	BLC 85 Transient Area Loads	None						96		
91	BLC 86 Transient Area Loads	None						96		

Load Combinations

	Description	S...	PDel...	SR...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 De...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 De...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 De...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 De...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 De...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 De...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 De...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 De...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0Wi...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								

Load Combinations (Continued)

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

Load Combinations (Continued)

	Description	S...	PDel...	SR...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
75	0.9D - 1.0Ev + 1.0Eh...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	ELZ	.866	E...	-.5				

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Desig...	A [in2]	Iyy [i...	Izz [i...	J [in4]
1	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Threaded Mount Connection	SR_0.625	Column	BAR	A36 Gr.36	Typical	.3068	.0075	.0075	.015
3	Standoff Horizontal	C5X9	Beam	Channel	A36 Gr.36	Typical	2.64	.624	8.89	.109
4	Face Horozintal	C5X9	Beam	Channel	A36 Gr.36	Typical	2.64	.624	8.89	.109
5	Support Rail	L3X3X5	Beam	Channel	A36 Gr.36	Typical	1.78	1.5	1.5	.0597
6	Lightning rod	PIPE_1.25	Column	Pipe	A53 Gr. B	Typical	.625	.184	.184	.368
7	Face Bracing	L1.75x1.75x3	Beam	Channel	A36 Gr.36	Typical	.6211	.1791	.1791	.0068
8	Standoff Bracing	L1.75x1.75x3	Beam	Channel	A36 Gr.36	Typical	.6211	.1791	.1791	.0068
9	GPS mount	PIPE_1.25	Column	Pipe	A53 Gr. B	Typical	.625	.184	.184	.368
10	Mod Support Rail	PIPE_2.5	Beam	Wide Flange	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
11	Mod V-Bracing Kit	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.0114

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
1	M1	N5	N4		180	Face Horozintal	Beam	Channel	A36 Gr.36	Typical
2	M2	N6	N7		180	Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
3	M5	N13	N16		90	Standoff Bracing	Beam	Channel	A36 Gr.36	Typical
4	M6	N12A	N15		180	Standoff Bracing	Beam	Channel	A36 Gr.36	Typical
5	M9	N19	N33		180	Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
6	M19	N4	N41		180	Face Horozintal	Beam	Channel	A36 Gr.36	Typical
7	M20	N41	N5		180	Face Horozintal	Beam	Channel	A36 Gr.36	Typical
8	M16	N30A	N31A			Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
9	M15	N27	N28		180	Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
10	M16A	N29	N30B			Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
11	M17A	N31B	N32		180	Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
12	M18A	N33A	N34			Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
13	M19A	N35	N36A		90	Support Rail	Beam	Channel	A36 Gr.36	Typical
14	M20A	N44	N42		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
15	M21	N45	N43			Face Bracing	Beam	Channel	A36 Gr.36	Typical
16	M16B	N37	N38		180	Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
17	M17	N40A	N42A		90	Standoff Bracing	Beam	Channel	A36 Gr.36	Typical
18	M18	N39	N41B		180	Standoff Bracing	Beam	Channel	A36 Gr.36	Typical
19	M19B	N43A	N44A		180	Standoff Horizontal	Beam	Channel	A36 Gr.36	Typical
20	M20B	N46A	N48A		90	Standoff Bracing	Beam	Channel	A36 Gr.36	Typical
21	M21A	N45A	N47A		180	Standoff Bracing	Beam	Channel	A36 Gr.36	Typical
22	M22	N46	N45B			Face Bracing	Beam	Channel	A36 Gr.36	Typical
23	M23	N48	N47			Face Bracing	Beam	Channel	A36 Gr.36	Typical
24	M24	N54	N53		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
25	M25	N52	N51		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
26	M26	N53A	N51A		180	Face Bracing	Beam	Channel	A36 Gr.36	Typical
27	M27	N55	N53B		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
28	M28	N57	N51A		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
29	M29	N59	N53B		180	Face Bracing	Beam	Channel	A36 Gr.36	Typical
30	M30	N54A	N52A		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
31	M31	N70	N75			RIGID	None	None	RIGID	Typical
32	M32	N62A	N67			RIGID	None	None	RIGID	Typical
33	M33	N69	N74			RIGID	None	None	RIGID	Typical
34	M34	N62	N66			RIGID	None	None	RIGID	Typical
35	M35	N68	N73			RIGID	None	None	RIGID	Typical
36	M36	N60	N65			RIGID	None	None	RIGID	Typical
37	M37	N46	N71			RIGID	None	None	RIGID	Typical
38	M40	N45B	N63			RIGID	None	None	RIGID	Typical
39	MP5A	N79	N83			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
40	MP4A	N76	N80			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
41	MP3A	N78	N82			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
42	MP1A	N77	N81			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
43	MP2A	N84	N85			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
44	M46	N86	N68			GPS mount	Column	Pipe	A53 Gr. B	Typical
45	M49	N99	N97		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
46	M50	N100	N98			Face Bracing	Beam	Channel	A36 Gr.36	Typical
47	M51	N102	N101			Face Bracing	Beam	Channel	A36 Gr.36	Typical
48	M52	N104	N103			Face Bracing	Beam	Channel	A36 Gr.36	Typical
49	M53	N108	N107		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
50	M54	N106	N105		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
51	M55	N109	N112		180	Face Bracing	Beam	Channel	A36 Gr.36	Typical
52	M56	N116	N114		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
53	M57	N118	N112		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
54	M58	N120	N114		180	Face Bracing	Beam	Channel	A36 Gr.36	Typical
55	M59	N115	N113		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
56	M60	N131	N136			RIGID	None	None	RIGID	Typical
57	M61	N123	N128			RIGID	None	None	RIGID	Typical
58	M62	N130	N135			RIGID	None	None	RIGID	Typical
59	M63	N122	N127			RIGID	None	None	RIGID	Typical
60	M64	N129	N134			RIGID	None	None	RIGID	Typical
61	M65	N121	N126			RIGID	None	None	RIGID	Typical
62	M66	N102	N132			RIGID	None	None	RIGID	Typical
63	M69	N101	N124			RIGID	None	None	RIGID	Typical
64	MP5C	N140	N144			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
65	MP4C	N137	N141			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
66	MP3C	N139	N143			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
67	MP1C	N138	N142			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
68	MP2C	N145	N146			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
69	M78	N160	N158		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
70	M79	N161	N159			Face Bracing	Beam	Channel	A36 Gr.36	Typical
71	M80	N163	N162			Face Bracing	Beam	Channel	A36 Gr.36	Typical
72	M81	N165	N164			Face Bracing	Beam	Channel	A36 Gr.36	Typical
73	M82	N169	N168		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
74	M83	N167	N166		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
75	M84	N170	N173		180	Face Bracing	Beam	Channel	A36 Gr.36	Typical
76	M85	N177	N175		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
77	M86	N179	N173		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
78	M87	N181	N175		180	Face Bracing	Beam	Channel	A36 Gr.36	Typical
79	M88	N176	N174		90	Face Bracing	Beam	Channel	A36 Gr.36	Typical
80	M89	N192	N197			RIGID	None	None	RIGID	Typical
81	M90	N184	N189			RIGID	None	None	RIGID	Typical
82	M91	N191	N196			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
83	M92	N183	N188			RIGID	None	None	RIGID	Typical
84	M93	N190	N195			RIGID	None	None	RIGID	Typical
85	M94	N182	N187			RIGID	None	None	RIGID	Typical
86	M95	N163	N193			RIGID	None	None	RIGID	Typical
87	M98	N162	N185			RIGID	None	None	RIGID	Typical
88	MP5B	N201	N205			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
89	MP4B	N198	N202			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
90	MP3B	N200	N204			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
91	MP1B	N199	N203			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
92	MP2B	N206	N207			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
93	M103A	N160	N100			RIGID	None	None	RIGID	Typical
94	M104	N44	N161			RIGID	None	None	RIGID	Typical
95	M105	N99	N45			RIGID	None	None	RIGID	Typical
96	M105B	N194A	N195A		90	Support Rail	Beam	Channel	A36 Gr.36	Typical
97	M106A	N196A	N197A		90	Support Rail	Beam	Channel	A36 Gr.36	Typical
98	O1	N198A	N43A			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
99	M108	N199A	N200A			RIGID	None	None	RIGID	Typical
100	GPS	N201A	N200A			GPS mount	Column	Pipe	A53 Gr. B	Typical
101	M110	N202A	N203A			RIGID	None	None	RIGID	Typical
102	GPS2	N204A	N203A			GPS mount	Column	Pipe	A53 Gr. B	Typical
103	M109	N208	N209			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
104	M110A	N210	N211			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
105	M110B	N209	N72			RIGID	None	None	RIGID	Typical
106	M111	N211	N72			RIGID	None	None	RIGID	Typical
107	M112	N213	N214			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
108	M113	N215	N216			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
109	M114	N214	N64			RIGID	None	None	RIGID	Typical
110	M115	N216	N64			RIGID	None	None	RIGID	Typical
111	M115A	N218	N219			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
112	M116	N220	N221			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
113	M117	N219	N133			RIGID	None	None	RIGID	Typical
114	M118	N221	N133			RIGID	None	None	RIGID	Typical
115	M119	N222	N223			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
116	M120	N224	N225			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
117	M121	N223	N125			RIGID	None	None	RIGID	Typical
118	M122	N225	N125			RIGID	None	None	RIGID	Typical
119	M123	N228	N229			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
120	M124	N230	N231			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
121	M125	N229	N194			RIGID	None	None	RIGID	Typical
122	M126	N231	N194			RIGID	None	None	RIGID	Typical
123	M127	N232	N233			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
124	M128	N234	N235			Threaded Mount ...	Column	BAR	A36 Gr.36	Typical
125	M129	N233	N186			RIGID	None	None	RIGID	Typical
126	M130	N235	N186			RIGID	None	None	RIGID	Typical
127	M128A	N237	N241			RIGID	None	None	RIGID	Typical
128	M129A	N236	N240			RIGID	None	None	RIGID	Typical
129	M130A	N235A	N239			RIGID	None	None	RIGID	Typical
130	M131	N234A	N238			RIGID	None	None	RIGID	Typical
131	M131A	N240A	N241A			Mod Support Rail	Beam	Wide Flange	A53 Gr. B	Typical
132	M132	N249	N253			RIGID	None	None	RIGID	Typical
133	M133	N248	N252			RIGID	None	None	RIGID	Typical
134	M134	N247	N251			RIGID	None	None	RIGID	Typical
135	M135	N246	N250			RIGID	None	None	RIGID	Typical
136	M136	N254	N255			Mod Support Rail	Beam	Wide Flange	A53 Gr. B	Typical
137	M142	N275	N279			RIGID	None	None	RIGID	Typical
138	M143	N274	N278			RIGID	None	None	RIGID	Typical
139	M144	N273	N277			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
140	M145	N272	N276			RIGID	None	None	RIGID	Typical
141	M146	N280	N281			Mod Support Rail	Beam	Wide Flange	A53 Gr. B	Typical
142	270	N245	N282			Mod V-Bracing Kit	Beam	Single Angle	A36 Gr.36	Typical
143	M143A	N257	N282		270	Mod V-Bracing Kit	Beam	Single Angle	A36 Gr.36	Typical
144	M144A	N258	N244			Mod V-Bracing Kit	Beam	Single Angle	A36 Gr.36	Typical
145	M145A	N283	N244		270	Mod V-Bracing Kit	Beam	Single Angle	A36 Gr.36	Typical
146	M146A	N284	N256			Mod V-Bracing Kit	Beam	Single Angle	A36 Gr.36	Typical
147	M147	N244A	N256		270	Mod V-Bracing Kit	Beam	Single Angle	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti...	Analysis ...	Inactive	Seismi...
1	M1						Yes				None
2	M2						Yes				None
3	M5						Yes				None
4	M6						Yes				None
5	M9						Yes				None
6	M19						Yes				None
7	M20						Yes				None
8	M16						Yes				None
9	M15						Yes				None
10	M16A						Yes				None
11	M17A						Yes				None
12	M18A						Yes				None
13	M19A						Yes	Default			None
14	M20A						Yes	Default			None
15	M21						Yes	Default			None
16	M16B						Yes				None
17	M17						Yes				None
18	M18						Yes				None
19	M19B						Yes				None
20	M20B						Yes				None
21	M21A						Yes				None
22	M22						Yes	Default			None
23	M23						Yes	Default			None
24	M24						Yes	Default			None
25	M25						Yes	Default			None
26	M26						Yes	Default			None
27	M27						Yes	Default			None
28	M28						Yes	Default			None
29	M29						Yes	Default			None
30	M30						Yes	Default			None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	M33						Yes	** NA **			None
34	M34						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	M36						Yes	** NA **			None
37	M37						Yes	** NA **			None
38	M40						Yes	** NA **			None
39	MP5A						Yes	** NA **			None
40	MP4A						Yes	** NA **			None
41	MP3A						Yes	** NA **			None
42	MP1A						Yes	** NA **			None
43	MP2A						Yes	** NA **			None
44	M46						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti...	Analysis ...	Inactive	Seismi...
45	M49						Yes	Default			None
46	M50						Yes	Default			None
47	M51						Yes	Default			None
48	M52						Yes	Default			None
49	M53						Yes	Default			None
50	M54						Yes	Default			None
51	M55						Yes	Default			None
52	M56						Yes	Default			None
53	M57						Yes	Default			None
54	M58						Yes	Default			None
55	M59						Yes	Default			None
56	M60						Yes	** NA **			None
57	M61						Yes	** NA **			None
58	M62						Yes	** NA **			None
59	M63						Yes	** NA **			None
60	M64						Yes	** NA **			None
61	M65						Yes	** NA **			None
62	M66						Yes	** NA **			None
63	M69						Yes	** NA **			None
64	MP5C						Yes	** NA **			None
65	MP4C						Yes	** NA **			None
66	MP3C						Yes	** NA **			None
67	MP1C						Yes	** NA **			None
68	MP2C						Yes	** NA **			None
69	M78						Yes	Default			None
70	M79						Yes	Default			None
71	M80						Yes	Default			None
72	M81						Yes	Default			None
73	M82						Yes	Default			None
74	M83						Yes	Default			None
75	M84						Yes	Default			None
76	M85						Yes	Default			None
77	M86						Yes	Default			None
78	M87						Yes	Default			None
79	M88						Yes	Default			None
80	M89						Yes	** NA **			None
81	M90						Yes	** NA **			None
82	M91						Yes	** NA **			None
83	M92						Yes	** NA **			None
84	M93						Yes	** NA **			None
85	M94						Yes	** NA **			None
86	M95						Yes	** NA **			None
87	M98						Yes	** NA **			None
88	MP5B						Yes	** NA **			None
89	MP4B						Yes	** NA **			None
90	MP3B						Yes	** NA **			None
91	MP1B						Yes	** NA **			None
92	MP2B						Yes	** NA **			None
93	M103A						Yes	** NA **			None
94	M104						Yes	** NA **			None
95	M105						Yes	** NA **			None
96	M105B						Yes	Default			None
97	M106A						Yes	Default			None
98	O1						Yes	** NA **			None
99	M108						Yes	** NA **			None
100	GPS						Yes	** NA **			None
101	M110						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti...	Analysis ...	Inactive	Seismi...
102	GPS2						Yes	** NA **			None
103	M109						Yes	** NA **			None
104	M110A						Yes	** NA **			None
105	M110B		OOOXOO				Yes	** NA **			None
106	M111		OOOXOO				Yes	** NA **			None
107	M112						Yes	** NA **			None
108	M113						Yes	** NA **			None
109	M114		OOOXOO				Yes	** NA **			None
110	M115		OOOXOO				Yes	** NA **			None
111	M115A						Yes	** NA **			None
112	M116						Yes	** NA **			None
113	M117		OOOXOO				Yes	** NA **			None
114	M118		OOOXOO				Yes	** NA **			None
115	M119						Yes	** NA **			None
116	M120						Yes	** NA **			None
117	M121		OOOXOO				Yes	** NA **			None
118	M122		OOOXOO				Yes	** NA **			None
119	M123						Yes	** NA **			None
120	M124						Yes	** NA **			None
121	M125		OOOXOO				Yes	** NA **			None
122	M126		OOOXOO				Yes	** NA **			None
123	M127						Yes	** NA **			None
124	M128						Yes	** NA **			None
125	M129		OOOXOO				Yes	** NA **			None
126	M130		OOOXOO				Yes	** NA **			None
127	M128A						Yes	** NA **			None
128	M129A						Yes	** NA **			None
129	M130A						Yes	** NA **			None
130	M131						Yes	** NA **			None
131	M131A						Yes				None
132	M132						Yes	** NA **			None
133	M133						Yes	** NA **			None
134	M134						Yes	** NA **			None
135	M135						Yes	** NA **			None
136	M136						Yes				None
137	M142						Yes	** NA **			None
138	M143						Yes	** NA **			None
139	M144						Yes	** NA **			None
140	M145						Yes	** NA **			None
141	M146						Yes				None
142	270	BenPIN	BenPIN				Yes				None
143	M143A	BenPIN	BenPIN				Yes				None
144	M144A	BenPIN	BenPIN				Yes				None
145	M145A	BenPIN	BenPIN				Yes				None
146	M146A	BenPIN	BenPIN				Yes				None
147	M147	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	1
2	MP4A	My	-.0143	1
3	MP4A	Mz	.0012	1
4	MP4A	Y	-28.65	4
5	MP4A	My	-.0143	4
6	MP4A	Mz	.0012	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4B	Y	-28.65	1
8	MP4B	My	.0012	1
9	MP4B	Mz	-.0143	1
10	MP4B	Y	-28.65	4
11	MP4B	My	.0012	4
12	MP4B	Mz	-.0143	4
13	MP4C	Y	-28.65	1
14	MP4C	My	.0143	1
15	MP4C	Mz	.0012	1
16	MP4C	Y	-28.65	4
17	MP4C	My	.0143	4
18	MP4C	Mz	.0012	4
19	MP2A	Y	-74.7	1
20	MP2A	My	-.062	1
21	MP2A	Mz	.0054	1
22	MP2B	Y	-74.7	1
23	MP2B	My	.0054	1
24	MP2B	Mz	-.062	1
25	MP2C	Y	-74.7	1
26	MP2C	My	.062	1
27	MP2C	Mz	.0054	1
28	MP3A	Y	-79.1	1
29	MP3A	My	-.0466	1
30	MP3A	Mz	.0466	1
31	MP3B	Y	-79.1	1
32	MP3B	My	-.0466	1
33	MP3B	Mz	.0466	1
34	MP3C	Y	-79.1	1
35	MP3C	My	-.0466	1
36	MP3C	Mz	.0466	1
37	MP1C	Y	-13.5	1
38	MP1C	My	.0067	1
39	MP1C	Mz	.000588	1
40	MP1C	Y	-13.5	4
41	MP1C	My	.0067	4
42	MP1C	Mz	.000588	4
43	MP5C	Y	-13.5	1
44	MP5C	My	.0067	1
45	MP5C	Mz	.000588	1
46	MP5C	Y	-13.5	4
47	MP5C	My	.0067	4
48	MP5C	Mz	.000588	4
49	MP2A	Y	-20	1
50	MP2A	My	-.0089	1
51	MP2A	Mz	.0125	1
52	MP2A	Y	-20	4
53	MP2A	My	-.0089	4
54	MP2A	Mz	.0125	4
55	MP2B	Y	-20	1
56	MP2B	My	-.0108	1
57	MP2B	Mz	-.011	1
58	MP2B	Y	-20	4
59	MP2B	My	-.0108	4
60	MP2B	Mz	-.011	4
61	MP2C	Y	-20	1
62	MP2C	My	.011	1
63	MP2C	Mz	-.0108	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP2C	Y	-20	4
65	MP2C	My	.011	4
66	MP2C	Mz	-.0108	4
67	MP2A	Y	-20	1
68	MP2A	My	-.011	1
69	MP2A	Mz	-.0108	1
70	MP2A	Y	-20	4
71	MP2A	My	-.011	4
72	MP2A	Mz	-.0108	4
73	MP2B	Y	-20	1
74	MP2B	My	.0125	1
75	MP2B	Mz	-.0089	1
76	MP2B	Y	-20	4
77	MP2B	My	.0125	4
78	MP2B	Mz	-.0089	4
79	MP2C	Y	-20	1
80	MP2C	My	.0089	1
81	MP2C	Mz	.0125	1
82	MP2C	Y	-20	4
83	MP2C	My	.0089	4
84	MP2C	Mz	.0125	4
85	MP1A	Y	-7.5	1
86	MP1A	My	-.0037	1
87	MP1A	Mz	.000327	1
88	MP1A	Y	-7.5	4
89	MP1A	My	-.0037	4
90	MP1A	Mz	.000327	4
91	MP1B	Y	-7.5	1
92	MP1B	My	.000327	1
93	MP1B	Mz	-.0037	1
94	MP1B	Y	-7.5	4
95	MP1B	My	.000327	4
96	MP1B	Mz	-.0037	4
97	MP5A	Y	-7.5	1
98	MP5A	My	-.0037	1
99	MP5A	Mz	.000327	1
100	MP5A	Y	-7.5	4
101	MP5A	My	-.0037	4
102	MP5A	Mz	.000327	4
103	MP5B	Y	-7.5	1
104	MP5B	My	.000327	1
105	MP5B	Mz	-.0037	1
106	MP5B	Y	-7.5	4
107	MP5B	My	.000327	4
108	MP5B	Mz	-.0037	4
109	GPS	Y	-10	.5
110	GPS	My	0	.5
111	GPS	Mz	0	.5
112	O1	Y	-32	1
113	O1	My	0	1
114	O1	Mz	0	1
115	GPS2	Y	-10	.5
116	GPS2	My	0	.5
117	GPS2	Mz	0	.5
118	M46	Y	-10	.5
119	M46	My	0	.5
120	M46	Mz	0	.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-47.8367	1
2	MP4A	My	-.0238	1
3	MP4A	Mz	.0021	1
4	MP4A	Y	-47.8367	4
5	MP4A	My	-.0238	4
6	MP4A	Mz	.0021	4
7	MP4B	Y	-47.8367	1
8	MP4B	My	.0021	1
9	MP4B	Mz	-.0238	1
10	MP4B	Y	-47.8367	4
11	MP4B	My	.0021	4
12	MP4B	Mz	-.0238	4
13	MP4C	Y	-47.8367	1
14	MP4C	My	.0238	1
15	MP4C	Mz	.0021	1
16	MP4C	Y	-47.8367	4
17	MP4C	My	.0238	4
18	MP4C	Mz	.0021	4
19	MP2A	Y	-72.219	1
20	MP2A	My	-.06	1
21	MP2A	Mz	.0052	1
22	MP2B	Y	-72.219	1
23	MP2B	My	.0052	1
24	MP2B	Mz	-.06	1
25	MP2C	Y	-72.219	1
26	MP2C	My	.06	1
27	MP2C	Mz	.0052	1
28	MP3A	Y	-72.957	1
29	MP3A	My	-.043	1
30	MP3A	Mz	.043	1
31	MP3B	Y	-72.957	1
32	MP3B	My	-.043	1
33	MP3B	Mz	.043	1
34	MP3C	Y	-72.957	1
35	MP3C	My	-.043	1
36	MP3C	Mz	.043	1
37	MP1C	Y	-140.7311	1
38	MP1C	My	.0701	1
39	MP1C	Mz	.0061	1
40	MP1C	Y	-140.7311	4
41	MP1C	My	.0701	4
42	MP1C	Mz	.0061	4
43	MP5C	Y	-140.7311	1
44	MP5C	My	.0701	1
45	MP5C	Mz	.0061	1
46	MP5C	Y	-140.7311	4
47	MP5C	My	.0701	4
48	MP5C	Mz	.0061	4
49	MP2A	Y	-97.2825	1
50	MP2A	My	-.0435	1
51	MP2A	Mz	.0608	1
52	MP2A	Y	-97.2825	4
53	MP2A	My	-.0435	4
54	MP2A	Mz	.0608	4
55	MP2B	Y	-97.2825	1
56	MP2B	My	-.0523	1
57	MP2B	Mz	-.0534	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2B	Y	-97.2825	4
59	MP2B	My	-.0523	4
60	MP2B	Mz	-.0534	4
61	MP2C	Y	-97.2825	1
62	MP2C	My	.0534	1
63	MP2C	Mz	-.0523	1
64	MP2C	Y	-97.2825	4
65	MP2C	My	.0534	4
66	MP2C	Mz	-.0523	4
67	MP2A	Y	-97.2825	1
68	MP2A	My	-.0534	1
69	MP2A	Mz	-.0523	1
70	MP2A	Y	-97.2825	4
71	MP2A	My	-.0534	4
72	MP2A	Mz	-.0523	4
73	MP2B	Y	-97.2825	1
74	MP2B	My	.0608	1
75	MP2B	Mz	-.0435	1
76	MP2B	Y	-97.2825	4
77	MP2B	My	.0608	4
78	MP2B	Mz	-.0435	4
79	MP2C	Y	-97.2825	1
80	MP2C	My	.0435	1
81	MP2C	Mz	.0608	1
82	MP2C	Y	-97.2825	4
83	MP2C	My	.0435	4
84	MP2C	Mz	.0608	4
85	MP1A	Y	-53.5174	1
86	MP1A	My	-.0267	1
87	MP1A	Mz	.0023	1
88	MP1A	Y	-53.5174	4
89	MP1A	My	-.0267	4
90	MP1A	Mz	.0023	4
91	MP1B	Y	-53.5174	1
92	MP1B	My	.0023	1
93	MP1B	Mz	-.0267	1
94	MP1B	Y	-53.5174	4
95	MP1B	My	.0023	4
96	MP1B	Mz	-.0267	4
97	MP5A	Y	-53.5174	1
98	MP5A	My	-.0267	1
99	MP5A	Mz	.0023	1
100	MP5A	Y	-53.5174	4
101	MP5A	My	-.0267	4
102	MP5A	Mz	.0023	4
103	MP5B	Y	-53.5174	1
104	MP5B	My	.0023	1
105	MP5B	Mz	-.0267	1
106	MP5B	Y	-53.5174	4
107	MP5B	My	.0023	4
108	MP5B	Mz	-.0267	4
109	GPS	Y	-21.2204	.5
110	GPS	My	0	.5
111	GPS	Mz	0	.5
112	O1	Y	-138.9757	1
113	O1	My	0	1
114	O1	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	GPS2	Y	-21.2204	.5
116	GPS2	My	0	.5
117	GPS2	Mz	0	.5
118	M46	Y	-21.2204	.5
119	M46	My	0	.5
120	M46	Mz	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-53.96	1
3	MP4A	Mx	-.0024	1
4	MP4A	X	0	4
5	MP4A	Z	-53.96	4
6	MP4A	Mx	-.0024	4
7	MP4B	X	0	1
8	MP4B	Z	-19.315	1
9	MP4B	Mx	.0096	1
10	MP4B	X	0	4
11	MP4B	Z	-19.315	4
12	MP4B	Mx	.0096	4
13	MP4C	X	0	1
14	MP4C	Z	-53.96	1
15	MP4C	Mx	-.0024	1
16	MP4C	X	0	4
17	MP4C	Z	-53.96	4
18	MP4C	Mx	-.0024	4
19	MP2A	X	0	1
20	MP2A	Z	-52.654	1
21	MP2A	Mx	-.0038	1
22	MP2B	X	0	1
23	MP2B	Z	-35.549	1
24	MP2B	Mx	.0295	1
25	MP2C	X	0	1
26	MP2C	Z	-52.654	1
27	MP2C	Mx	-.0038	1
28	MP3A	X	0	1
29	MP3A	Z	-53.552	1
30	MP3A	Mx	-.0316	1
31	MP3B	X	0	1
32	MP3B	Z	-53.552	1
33	MP3B	Mx	-.0316	1
34	MP3C	X	0	1
35	MP3C	Z	-53.552	1
36	MP3C	Mx	-.0316	1
37	MP1C	X	0	1
38	MP1C	Z	-167.336	1
39	MP1C	Mx	-.0073	1
40	MP1C	X	0	4
41	MP1C	Z	-167.336	4
42	MP1C	Mx	-.0073	4
43	MP5C	X	0	1
44	MP5C	Z	-167.336	1
45	MP5C	Mx	-.0073	1
46	MP5C	X	0	4
47	MP5C	Z	-167.336	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP5C	Mx	-.0073	4
49	MP2A	X	0	1
50	MP2A	Z	-94.145	1
51	MP2A	Mx	-.0588	1
52	MP2A	X	0	4
53	MP2A	Z	-94.145	4
54	MP2A	Mx	-.0588	4
55	MP2B	X	0	1
56	MP2B	Z	-41.08	1
57	MP2B	Mx	.0226	1
58	MP2B	X	0	4
59	MP2B	Z	-41.08	4
60	MP2B	Mx	.0226	4
61	MP2C	X	0	1
62	MP2C	Z	-94.145	1
63	MP2C	Mx	.0506	1
64	MP2C	X	0	4
65	MP2C	Z	-94.145	4
66	MP2C	Mx	.0506	4
67	MP2A	X	0	1
68	MP2A	Z	-94.145	1
69	MP2A	Mx	.0506	1
70	MP2A	X	0	4
71	MP2A	Z	-94.145	4
72	MP2A	Mx	.0506	4
73	MP2B	X	0	1
74	MP2B	Z	-41.08	1
75	MP2B	Mx	.0184	1
76	MP2B	X	0	4
77	MP2B	Z	-41.08	4
78	MP2B	Mx	.0184	4
79	MP2C	X	0	1
80	MP2C	Z	-94.145	1
81	MP2C	Mx	-.0588	1
82	MP2C	X	0	4
83	MP2C	Z	-94.145	4
84	MP2C	Mx	-.0588	4
85	MP1A	X	0	1
86	MP1A	Z	-57.124	1
87	MP1A	Mx	-.0025	1
88	MP1A	X	0	4
89	MP1A	Z	-57.124	4
90	MP1A	Mx	-.0025	4
91	MP1B	X	0	1
92	MP1B	Z	-54.452	1
93	MP1B	Mx	.0271	1
94	MP1B	X	0	4
95	MP1B	Z	-54.452	4
96	MP1B	Mx	.0271	4
97	MP5A	X	0	1
98	MP5A	Z	-57.124	1
99	MP5A	Mx	-.0025	1
100	MP5A	X	0	4
101	MP5A	Z	-57.124	4
102	MP5A	Mx	-.0025	4
103	MP5B	X	0	1
104	MP5B	Z	-54.452	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP5B	Mx	.0271	1
106	MP5B	X	0	4
107	MP5B	Z	-54.452	4
108	MP5B	Mx	.0271	4
109	GPS	X	0	.5
110	GPS	Z	-27.244	.5
111	GPS	Mx	0	.5
112	O1	X	0	1
113	O1	Z	-95.014	1
114	O1	Mx	0	1
115	GPS2	X	0	.5
116	GPS2	Z	-27.244	.5
117	GPS2	Mx	0	.5
118	M46	X	0	.5
119	M46	Z	-27.244	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	21.327	1
2	MP4A	Z	-36.939	1
3	MP4A	Mx	-.0122	1
4	MP4A	X	21.327	4
5	MP4A	Z	-36.939	4
6	MP4A	Mx	-.0122	4
7	MP4B	X	12.666	1
8	MP4B	Z	-21.938	1
9	MP4B	Mx	.0115	1
10	MP4B	X	12.666	4
11	MP4B	Z	-21.938	4
12	MP4B	Mx	.0115	4
13	MP4C	X	23.972	1
14	MP4C	Z	-41.521	1
15	MP4C	Mx	.0101	1
16	MP4C	X	23.972	4
17	MP4C	Z	-41.521	4
18	MP4C	Mx	.0101	4
19	MP2A	X	23.536	1
20	MP2A	Z	-40.765	1
21	MP2A	Mx	-.0225	1
22	MP2B	X	19.26	1
23	MP2B	Z	-33.359	1
24	MP2B	Mx	.0291	1
25	MP2C	X	24.842	1
26	MP2C	Z	-43.027	1
27	MP2C	Mx	.0175	1
28	MP3A	X	22.389	1
29	MP3A	Z	-38.779	1
30	MP3A	Mx	-.036	1
31	MP3B	X	22.389	1
32	MP3B	Z	-38.779	1
33	MP3B	Mx	-.036	1
34	MP3C	X	22.389	1
35	MP3C	Z	-38.779	1
36	MP3C	Mx	-.036	1
37	MP1C	X	81.971	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP1C	Z	-141.978	1
39	MP1C	Mx	.0346	1
40	MP1C	X	81.971	4
41	MP1C	Z	-141.978	4
42	MP1C	Mx	.0346	4
43	MP5C	X	81.971	1
44	MP5C	Z	-141.978	1
45	MP5C	Mx	.0346	1
46	MP5C	X	81.971	4
47	MP5C	Z	-141.978	4
48	MP5C	Mx	.0346	4
49	MP2A	X	38.414	1
50	MP2A	Z	-66.534	1
51	MP2A	Mx	-.0587	1
52	MP2A	X	38.414	4
53	MP2A	Z	-66.534	4
54	MP2A	Mx	-.0587	4
55	MP2B	X	25.147	1
56	MP2B	Z	-43.556	1
57	MP2B	Mx	.0104	1
58	MP2B	X	25.147	4
59	MP2B	Z	-43.556	4
60	MP2B	Mx	.0104	4
61	MP2C	X	42.465	1
62	MP2C	Z	-73.552	1
63	MP2C	Mx	.0628	1
64	MP2C	X	42.465	4
65	MP2C	Z	-73.552	4
66	MP2C	Mx	.0628	4
67	MP2A	X	38.414	1
68	MP2A	Z	-66.534	1
69	MP2A	Mx	.0147	1
70	MP2A	X	38.414	4
71	MP2A	Z	-66.534	4
72	MP2A	Mx	.0147	4
73	MP2B	X	25.147	1
74	MP2B	Z	-43.556	1
75	MP2B	Mx	.0352	1
76	MP2B	X	25.147	4
77	MP2B	Z	-43.556	4
78	MP2B	Mx	.0352	4
79	MP2C	X	42.465	1
80	MP2C	Z	-73.552	1
81	MP2C	Mx	-.027	1
82	MP2C	X	42.465	4
83	MP2C	Z	-73.552	4
84	MP2C	Mx	-.027	4
85	MP1A	X	28.126	1
86	MP1A	Z	-48.716	1
87	MP1A	Mx	-.0161	1
88	MP1A	X	28.126	4
89	MP1A	Z	-48.716	4
90	MP1A	Mx	-.0161	4
91	MP1B	X	27.458	1
92	MP1B	Z	-47.559	1
93	MP1B	Mx	.0249	1
94	MP1B	X	27.458	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	-47.559	4
96	MP1B	Mx	.0249	4
97	MP5A	X	28.126	1
98	MP5A	Z	-48.716	1
99	MP5A	Mx	-.0161	1
100	MP5A	X	28.126	4
101	MP5A	Z	-48.716	4
102	MP5A	Mx	-.0161	4
103	MP5B	X	27.458	1
104	MP5B	Z	-47.559	1
105	MP5B	Mx	.0249	1
106	MP5B	X	27.458	4
107	MP5B	Z	-47.559	4
108	MP5B	Mx	.0249	4
109	GPS	X	10.673	.5
110	GPS	Z	-18.486	.5
111	GPS	Mx	0	.5
112	O1	X	41.903	1
113	O1	Z	-72.579	1
114	O1	Mx	0	1
115	GPS2	X	10.673	.5
116	GPS2	Z	-18.486	.5
117	GPS2	Mx	0	.5
118	M46	X	10.673	.5
119	M46	Z	-18.486	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	21.938	1
2	MP4A	Z	-12.666	1
3	MP4A	Mx	-.0115	1
4	MP4A	X	21.938	4
5	MP4A	Z	-12.666	4
6	MP4A	Mx	-.0115	4
7	MP4B	X	36.939	1
8	MP4B	Z	-21.327	1
9	MP4B	Mx	.0122	1
10	MP4B	X	36.939	4
11	MP4B	Z	-21.327	4
12	MP4B	Mx	.0122	4
13	MP4C	X	26.519	1
14	MP4C	Z	-15.311	1
15	MP4C	Mx	.0125	1
16	MP4C	X	26.519	4
17	MP4C	Z	-15.311	4
18	MP4C	Mx	.0125	4
19	MP2A	X	33.359	1
20	MP2A	Z	-19.26	1
21	MP2A	Mx	-.0291	1
22	MP2B	X	40.765	1
23	MP2B	Z	-23.536	1
24	MP2B	Mx	.0225	1
25	MP2C	X	35.621	1
26	MP2C	Z	-20.566	1
27	MP2C	Mx	.0281	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP3A	X	38.779	1
29	MP3A	Z	-22.389	1
30	MP3A	Mx	-.036	1
31	MP3B	X	38.779	1
32	MP3B	Z	-22.389	1
33	MP3B	Mx	-.036	1
34	MP3C	X	38.779	1
35	MP3C	Z	-22.389	1
36	MP3C	Mx	-.036	1
37	MP1C	X	133.513	1
38	MP1C	Z	-77.084	1
39	MP1C	Mx	.0631	1
40	MP1C	X	133.513	4
41	MP1C	Z	-77.084	4
42	MP1C	Mx	.0631	4
43	MP5C	X	133.513	1
44	MP5C	Z	-77.084	1
45	MP5C	Mx	.0631	1
46	MP5C	X	133.513	4
47	MP5C	Z	-77.084	4
48	MP5C	Mx	.0631	4
49	MP2A	X	43.556	1
50	MP2A	Z	-25.147	1
51	MP2A	Mx	-.0352	1
52	MP2A	X	43.556	4
53	MP2A	Z	-25.147	4
54	MP2A	Mx	-.0352	4
55	MP2B	X	66.534	1
56	MP2B	Z	-38.414	1
57	MP2B	Mx	-.0147	1
58	MP2B	X	66.534	4
59	MP2B	Z	-38.414	4
60	MP2B	Mx	-.0147	4
61	MP2C	X	50.574	1
62	MP2C	Z	-29.199	1
63	MP2C	Mx	.0435	1
64	MP2C	X	50.574	4
65	MP2C	Z	-29.199	4
66	MP2C	Mx	.0435	4
67	MP2A	X	43.556	1
68	MP2A	Z	-25.147	1
69	MP2A	Mx	-.0104	1
70	MP2A	X	43.556	4
71	MP2A	Z	-25.147	4
72	MP2A	Mx	-.0104	4
73	MP2B	X	66.534	1
74	MP2B	Z	-38.414	1
75	MP2B	Mx	.0587	1
76	MP2B	X	66.534	4
77	MP2B	Z	-38.414	4
78	MP2B	Mx	.0587	4
79	MP2C	X	50.574	1
80	MP2C	Z	-29.199	1
81	MP2C	Mx	.0044	1
82	MP2C	X	50.574	4
83	MP2C	Z	-29.199	4
84	MP2C	Mx	.0044	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP1A	X	47.559	1
86	MP1A	Z	-27.458	1
87	MP1A	Mx	-.0249	1
88	MP1A	X	47.559	4
89	MP1A	Z	-27.458	4
90	MP1A	Mx	-.0249	4
91	MP1B	X	48.716	1
92	MP1B	Z	-28.126	1
93	MP1B	Mx	.0161	1
94	MP1B	X	48.716	4
95	MP1B	Z	-28.126	4
96	MP1B	Mx	.0161	4
97	MP5A	X	47.559	1
98	MP5A	Z	-27.458	1
99	MP5A	Mx	-.0249	1
100	MP5A	X	47.559	4
101	MP5A	Z	-27.458	4
102	MP5A	Mx	-.0249	4
103	MP5B	X	48.716	1
104	MP5B	Z	-28.126	1
105	MP5B	Mx	.0161	1
106	MP5B	X	48.716	4
107	MP5B	Z	-28.126	4
108	MP5B	Mx	.0161	4
109	GPS	X	18.486	.5
110	GPS	Z	-10.673	.5
111	GPS	Mx	0	.5
112	O1	X	72.579	1
113	O1	Z	-41.903	1
114	O1	Mx	0	1
115	GPS2	X	18.486	.5
116	GPS2	Z	-10.673	.5
117	GPS2	Mx	0	.5
118	M46	X	18.486	.5
119	M46	Z	-10.673	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	19.315	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.0096	1
4	MP4A	X	19.315	4
5	MP4A	Z	0	4
6	MP4A	Mx	-.0096	4
7	MP4B	X	53.96	1
8	MP4B	Z	0	1
9	MP4B	Mx	.0024	1
10	MP4B	X	53.96	4
11	MP4B	Z	0	4
12	MP4B	Mx	.0024	4
13	MP4C	X	19.315	1
14	MP4C	Z	0	1
15	MP4C	Mx	.0096	1
16	MP4C	X	19.315	4
17	MP4C	Z	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4C	Mx	.0096	4
19	MP2A	X	35.549	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.0295	1
22	MP2B	X	52.654	1
23	MP2B	Z	0	1
24	MP2B	Mx	.0038	1
25	MP2C	X	35.549	1
26	MP2C	Z	0	1
27	MP2C	Mx	.0295	1
28	MP3A	X	53.552	1
29	MP3A	Z	0	1
30	MP3A	Mx	-.0316	1
31	MP3B	X	53.552	1
32	MP3B	Z	0	1
33	MP3B	Mx	-.0316	1
34	MP3C	X	53.552	1
35	MP3C	Z	0	1
36	MP3C	Mx	-.0316	1
37	MP1C	X	147.788	1
38	MP1C	Z	0	1
39	MP1C	Mx	.0736	1
40	MP1C	X	147.788	4
41	MP1C	Z	0	4
42	MP1C	Mx	.0736	4
43	MP5C	X	147.788	1
44	MP5C	Z	0	1
45	MP5C	Mx	.0736	1
46	MP5C	X	147.788	4
47	MP5C	Z	0	4
48	MP5C	Mx	.0736	4
49	MP2A	X	41.08	1
50	MP2A	Z	0	1
51	MP2A	Mx	-.0184	1
52	MP2A	X	41.08	4
53	MP2A	Z	0	4
54	MP2A	Mx	-.0184	4
55	MP2B	X	94.145	1
56	MP2B	Z	0	1
57	MP2B	Mx	-.0506	1
58	MP2B	X	94.145	4
59	MP2B	Z	0	4
60	MP2B	Mx	-.0506	4
61	MP2C	X	41.08	1
62	MP2C	Z	0	1
63	MP2C	Mx	.0226	1
64	MP2C	X	41.08	4
65	MP2C	Z	0	4
66	MP2C	Mx	.0226	4
67	MP2A	X	41.08	1
68	MP2A	Z	0	1
69	MP2A	Mx	-.0226	1
70	MP2A	X	41.08	4
71	MP2A	Z	0	4
72	MP2A	Mx	-.0226	4
73	MP2B	X	94.145	1
74	MP2B	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP2B	Mx	.0588	1
76	MP2B	X	94.145	4
77	MP2B	Z	0	4
78	MP2B	Mx	.0588	4
79	MP2C	X	41.08	1
80	MP2C	Z	0	1
81	MP2C	Mx	.0184	1
82	MP2C	X	41.08	4
83	MP2C	Z	0	4
84	MP2C	Mx	.0184	4
85	MP1A	X	54.452	1
86	MP1A	Z	0	1
87	MP1A	Mx	-.0271	1
88	MP1A	X	54.452	4
89	MP1A	Z	0	4
90	MP1A	Mx	-.0271	4
91	MP1B	X	57.124	1
92	MP1B	Z	0	1
93	MP1B	Mx	.0025	1
94	MP1B	X	57.124	4
95	MP1B	Z	0	4
96	MP1B	Mx	.0025	4
97	MP5A	X	54.452	1
98	MP5A	Z	0	1
99	MP5A	Mx	-.0271	1
100	MP5A	X	54.452	4
101	MP5A	Z	0	4
102	MP5A	Mx	-.0271	4
103	MP5B	X	57.124	1
104	MP5B	Z	0	1
105	MP5B	Mx	.0025	1
106	MP5B	X	57.124	4
107	MP5B	Z	0	4
108	MP5B	Mx	.0025	4
109	GPS	X	27.244	.5
110	GPS	Z	0	.5
111	GPS	Mx	0	.5
112	O1	X	95.014	1
113	O1	Z	0	1
114	O1	Mx	0	1
115	GPS2	X	27.244	.5
116	GPS2	Z	0	.5
117	GPS2	Mx	0	.5
118	M46	X	27.244	.5
119	M46	Z	0	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	26.519	1
2	MP4A	Z	15.311	1
3	MP4A	Mx	-.0125	1
4	MP4A	X	26.519	4
5	MP4A	Z	15.311	4
6	MP4A	Mx	-.0125	4
7	MP4B	X	41.521	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP4B	Z	23.972	1
9	MP4B	Mx	-.0101	1
10	MP4B	X	41.521	4
11	MP4B	Z	23.972	4
12	MP4B	Mx	-.0101	4
13	MP4C	X	21.938	1
14	MP4C	Z	12.666	1
15	MP4C	Mx	.0115	1
16	MP4C	X	21.938	4
17	MP4C	Z	12.666	4
18	MP4C	Mx	.0115	4
19	MP2A	X	35.621	1
20	MP2A	Z	20.566	1
21	MP2A	Mx	-.0281	1
22	MP2B	X	43.027	1
23	MP2B	Z	24.842	1
24	MP2B	Mx	-.0175	1
25	MP2C	X	33.359	1
26	MP2C	Z	19.26	1
27	MP2C	Mx	.0291	1
28	MP3A	X	53.976	1
29	MP3A	Z	31.163	1
30	MP3A	Mx	-.0134	1
31	MP3B	X	53.976	1
32	MP3B	Z	31.163	1
33	MP3B	Mx	-.0134	1
34	MP3C	X	53.976	1
35	MP3C	Z	31.163	1
36	MP3C	Mx	-.0134	1
37	MP1C	X	130.928	1
38	MP1C	Z	75.591	1
39	MP1C	Mx	.0685	1
40	MP1C	X	130.928	4
41	MP1C	Z	75.591	4
42	MP1C	Mx	.0685	4
43	MP5C	X	130.928	1
44	MP5C	Z	75.591	1
45	MP5C	Mx	.0685	1
46	MP5C	X	130.928	4
47	MP5C	Z	75.591	4
48	MP5C	Mx	.0685	4
49	MP2A	X	50.574	1
50	MP2A	Z	29.199	1
51	MP2A	Mx	-.0044	1
52	MP2A	X	50.574	4
53	MP2A	Z	29.199	4
54	MP2A	Mx	-.0044	4
55	MP2B	X	73.552	1
56	MP2B	Z	42.465	1
57	MP2B	Mx	-.0628	1
58	MP2B	X	73.552	4
59	MP2B	Z	42.465	4
60	MP2B	Mx	-.0628	4
61	MP2C	X	43.556	1
62	MP2C	Z	25.147	1
63	MP2C	Mx	.0104	1
64	MP2C	X	43.556	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	Z	25.147	4
66	MP2C	Mx	.0104	4
67	MP2A	X	50.574	1
68	MP2A	Z	29.199	1
69	MP2A	Mx	-.0435	1
70	MP2A	X	50.574	4
71	MP2A	Z	29.199	4
72	MP2A	Mx	-.0435	4
73	MP2B	X	73.552	1
74	MP2B	Z	42.465	1
75	MP2B	Mx	.027	1
76	MP2B	X	73.552	4
77	MP2B	Z	42.465	4
78	MP2B	Mx	.027	4
79	MP2C	X	43.556	1
80	MP2C	Z	25.147	1
81	MP2C	Mx	.0352	1
82	MP2C	X	43.556	4
83	MP2C	Z	25.147	4
84	MP2C	Mx	.0352	4
85	MP1A	X	47.912	1
86	MP1A	Z	27.662	1
87	MP1A	Mx	-.0227	1
88	MP1A	X	47.912	4
89	MP1A	Z	27.662	4
90	MP1A	Mx	-.0227	4
91	MP1B	X	49.069	1
92	MP1B	Z	28.33	1
93	MP1B	Mx	-.012	1
94	MP1B	X	49.069	4
95	MP1B	Z	28.33	4
96	MP1B	Mx	-.012	4
97	MP5A	X	47.912	1
98	MP5A	Z	27.662	1
99	MP5A	Mx	-.0227	1
100	MP5A	X	47.912	4
101	MP5A	Z	27.662	4
102	MP5A	Mx	-.0227	4
103	MP5B	X	49.069	1
104	MP5B	Z	28.33	1
105	MP5B	Mx	-.012	1
106	MP5B	X	49.069	4
107	MP5B	Z	28.33	4
108	MP5B	Mx	-.012	4
109	GPS	X	28.702	.5
110	GPS	Z	16.571	.5
111	GPS	Mx	0	.5
112	O1	X	91.99	1
113	O1	Z	53.111	1
114	O1	Mx	0	1
115	GPS2	X	28.702	.5
116	GPS2	Z	16.571	.5
117	GPS2	Mx	0	.5
118	M46	X	28.702	.5
119	M46	Z	16.571	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	23.972	1
2	MP4A	Z	41.521	1
3	MP4A	Mx	-.0101	1
4	MP4A	X	23.972	4
5	MP4A	Z	41.521	4
6	MP4A	Mx	-.0101	4
7	MP4B	X	15.311	1
8	MP4B	Z	26.519	1
9	MP4B	Mx	-.0125	1
10	MP4B	X	15.311	4
11	MP4B	Z	26.519	4
12	MP4B	Mx	-.0125	4
13	MP4C	X	21.327	1
14	MP4C	Z	36.939	1
15	MP4C	Mx	.0122	1
16	MP4C	X	21.327	4
17	MP4C	Z	36.939	4
18	MP4C	Mx	.0122	4
19	MP2A	X	24.842	1
20	MP2A	Z	43.027	1
21	MP2A	Mx	-.0175	1
22	MP2B	X	20.566	1
23	MP2B	Z	35.621	1
24	MP2B	Mx	-.0281	1
25	MP2C	X	23.536	1
26	MP2C	Z	40.765	1
27	MP2C	Mx	.0225	1
28	MP3A	X	31.163	1
29	MP3A	Z	53.976	1
30	MP3A	Mx	.0134	1
31	MP3B	X	31.163	1
32	MP3B	Z	53.976	1
33	MP3B	Mx	.0134	1
34	MP3C	X	31.163	1
35	MP3C	Z	53.976	1
36	MP3C	Mx	.0134	1
37	MP1C	X	80.478	1
38	MP1C	Z	139.393	1
39	MP1C	Mx	.0462	1
40	MP1C	X	80.478	4
41	MP1C	Z	139.393	4
42	MP1C	Mx	.0462	4
43	MP5C	X	80.478	1
44	MP5C	Z	139.393	1
45	MP5C	Mx	.0462	1
46	MP5C	X	80.478	4
47	MP5C	Z	139.393	4
48	MP5C	Mx	.0462	4
49	MP2A	X	42.465	1
50	MP2A	Z	73.552	1
51	MP2A	Mx	.027	1
52	MP2A	X	42.465	4
53	MP2A	Z	73.552	4
54	MP2A	Mx	.027	4
55	MP2B	X	29.199	1
56	MP2B	Z	50.574	1
57	MP2B	Mx	-.0435	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2B	X	29.199	4
59	MP2B	Z	50.574	4
60	MP2B	Mx	-.0435	4
61	MP2C	X	38.414	1
62	MP2C	Z	66.534	1
63	MP2C	Mx	-.0147	1
64	MP2C	X	38.414	4
65	MP2C	Z	66.534	4
66	MP2C	Mx	-.0147	4
67	MP2A	X	42.465	1
68	MP2A	Z	73.552	1
69	MP2A	Mx	-.0628	1
70	MP2A	X	42.465	4
71	MP2A	Z	73.552	4
72	MP2A	Mx	-.0628	4
73	MP2B	X	29.199	1
74	MP2B	Z	50.574	1
75	MP2B	Mx	-.0044	1
76	MP2B	X	29.199	4
77	MP2B	Z	50.574	4
78	MP2B	Mx	-.0044	4
79	MP2C	X	38.414	1
80	MP2C	Z	66.534	1
81	MP2C	Mx	.0587	1
82	MP2C	X	38.414	4
83	MP2C	Z	66.534	4
84	MP2C	Mx	.0587	4
85	MP1A	X	28.33	1
86	MP1A	Z	49.069	1
87	MP1A	Mx	-.012	1
88	MP1A	X	28.33	4
89	MP1A	Z	49.069	4
90	MP1A	Mx	-.012	4
91	MP1B	X	27.662	1
92	MP1B	Z	47.912	1
93	MP1B	Mx	-.0227	1
94	MP1B	X	27.662	4
95	MP1B	Z	47.912	4
96	MP1B	Mx	-.0227	4
97	MP5A	X	28.33	1
98	MP5A	Z	49.069	1
99	MP5A	Mx	-.012	1
100	MP5A	X	28.33	4
101	MP5A	Z	49.069	4
102	MP5A	Mx	-.012	4
103	MP5B	X	27.662	1
104	MP5B	Z	47.912	1
105	MP5B	Mx	-.0227	1
106	MP5B	X	27.662	4
107	MP5B	Z	47.912	4
108	MP5B	Mx	-.0227	4
109	GPS	X	16.571	.5
110	GPS	Z	28.702	.5
111	GPS	Mx	0	.5
112	O1	X	53.111	1
113	O1	Z	91.99	1
114	O1	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	GPS2	X	16.571	.5
116	GPS2	Z	28.702	.5
117	GPS2	Mx	0	.5
118	M46	X	16.571	.5
119	M46	Z	28.702	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	53.96	1
3	MP4A	Mx	.0024	1
4	MP4A	X	0	4
5	MP4A	Z	53.96	4
6	MP4A	Mx	.0024	4
7	MP4B	X	0	1
8	MP4B	Z	19.315	1
9	MP4B	Mx	-.0096	1
10	MP4B	X	0	4
11	MP4B	Z	19.315	4
12	MP4B	Mx	-.0096	4
13	MP4C	X	0	1
14	MP4C	Z	53.96	1
15	MP4C	Mx	.0024	1
16	MP4C	X	0	4
17	MP4C	Z	53.96	4
18	MP4C	Mx	.0024	4
19	MP2A	X	0	1
20	MP2A	Z	52.654	1
21	MP2A	Mx	.0038	1
22	MP2B	X	0	1
23	MP2B	Z	35.549	1
24	MP2B	Mx	-.0295	1
25	MP2C	X	0	1
26	MP2C	Z	52.654	1
27	MP2C	Mx	.0038	1
28	MP3A	X	0	1
29	MP3A	Z	53.552	1
30	MP3A	Mx	.0316	1
31	MP3B	X	0	1
32	MP3B	Z	53.552	1
33	MP3B	Mx	.0316	1
34	MP3C	X	0	1
35	MP3C	Z	53.552	1
36	MP3C	Mx	.0316	1
37	MP1C	X	0	1
38	MP1C	Z	167.336	1
39	MP1C	Mx	.0073	1
40	MP1C	X	0	4
41	MP1C	Z	167.336	4
42	MP1C	Mx	.0073	4
43	MP5C	X	0	1
44	MP5C	Z	167.336	1
45	MP5C	Mx	.0073	1
46	MP5C	X	0	4
47	MP5C	Z	167.336	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP5C	Mx	.0073	4
49	MP2A	X	0	1
50	MP2A	Z	94.145	1
51	MP2A	Mx	.0588	1
52	MP2A	X	0	4
53	MP2A	Z	94.145	4
54	MP2A	Mx	.0588	4
55	MP2B	X	0	1
56	MP2B	Z	41.08	1
57	MP2B	Mx	-.0226	1
58	MP2B	X	0	4
59	MP2B	Z	41.08	4
60	MP2B	Mx	-.0226	4
61	MP2C	X	0	1
62	MP2C	Z	94.145	1
63	MP2C	Mx	-.0506	1
64	MP2C	X	0	4
65	MP2C	Z	94.145	4
66	MP2C	Mx	-.0506	4
67	MP2A	X	0	1
68	MP2A	Z	94.145	1
69	MP2A	Mx	-.0506	1
70	MP2A	X	0	4
71	MP2A	Z	94.145	4
72	MP2A	Mx	-.0506	4
73	MP2B	X	0	1
74	MP2B	Z	41.08	1
75	MP2B	Mx	-.0184	1
76	MP2B	X	0	4
77	MP2B	Z	41.08	4
78	MP2B	Mx	-.0184	4
79	MP2C	X	0	1
80	MP2C	Z	94.145	1
81	MP2C	Mx	.0588	1
82	MP2C	X	0	4
83	MP2C	Z	94.145	4
84	MP2C	Mx	.0588	4
85	MP1A	X	0	1
86	MP1A	Z	57.124	1
87	MP1A	Mx	.0025	1
88	MP1A	X	0	4
89	MP1A	Z	57.124	4
90	MP1A	Mx	.0025	4
91	MP1B	X	0	1
92	MP1B	Z	54.452	1
93	MP1B	Mx	-.0271	1
94	MP1B	X	0	4
95	MP1B	Z	54.452	4
96	MP1B	Mx	-.0271	4
97	MP5A	X	0	1
98	MP5A	Z	57.124	1
99	MP5A	Mx	.0025	1
100	MP5A	X	0	4
101	MP5A	Z	57.124	4
102	MP5A	Mx	.0025	4
103	MP5B	X	0	1
104	MP5B	Z	54.452	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP5B	Mx	-.0271	1
106	MP5B	X	0	4
107	MP5B	Z	54.452	4
108	MP5B	Mx	-.0271	4
109	GPS	X	0	.5
110	GPS	Z	27.244	.5
111	GPS	Mx	0	.5
112	O1	X	0	1
113	O1	Z	95.014	1
114	O1	Mx	0	1
115	GPS2	X	0	.5
116	GPS2	Z	27.244	.5
117	GPS2	Mx	0	.5
118	M46	X	0	.5
119	M46	Z	27.244	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-21.327	1
2	MP4A	Z	36.939	1
3	MP4A	Mx	.0122	1
4	MP4A	X	-21.327	4
5	MP4A	Z	36.939	4
6	MP4A	Mx	.0122	4
7	MP4B	X	-12.666	1
8	MP4B	Z	21.938	1
9	MP4B	Mx	-.0115	1
10	MP4B	X	-12.666	4
11	MP4B	Z	21.938	4
12	MP4B	Mx	-.0115	4
13	MP4C	X	-23.972	1
14	MP4C	Z	41.521	1
15	MP4C	Mx	-.0101	1
16	MP4C	X	-23.972	4
17	MP4C	Z	41.521	4
18	MP4C	Mx	-.0101	4
19	MP2A	X	-23.536	1
20	MP2A	Z	40.765	1
21	MP2A	Mx	.0225	1
22	MP2B	X	-19.26	1
23	MP2B	Z	33.359	1
24	MP2B	Mx	-.0291	1
25	MP2C	X	-24.842	1
26	MP2C	Z	43.027	1
27	MP2C	Mx	-.0175	1
28	MP3A	X	-22.389	1
29	MP3A	Z	38.779	1
30	MP3A	Mx	.036	1
31	MP3B	X	-22.389	1
32	MP3B	Z	38.779	1
33	MP3B	Mx	.036	1
34	MP3C	X	-22.389	1
35	MP3C	Z	38.779	1
36	MP3C	Mx	.036	1
37	MP1C	X	-81.971	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP1C	Z	141.978	1
39	MP1C	Mx	-.0346	1
40	MP1C	X	-81.971	4
41	MP1C	Z	141.978	4
42	MP1C	Mx	-.0346	4
43	MP5C	X	-81.971	1
44	MP5C	Z	141.978	1
45	MP5C	Mx	-.0346	1
46	MP5C	X	-81.971	4
47	MP5C	Z	141.978	4
48	MP5C	Mx	-.0346	4
49	MP2A	X	-38.414	1
50	MP2A	Z	66.534	1
51	MP2A	Mx	.0587	1
52	MP2A	X	-38.414	4
53	MP2A	Z	66.534	4
54	MP2A	Mx	.0587	4
55	MP2B	X	-25.147	1
56	MP2B	Z	43.556	1
57	MP2B	Mx	-.0104	1
58	MP2B	X	-25.147	4
59	MP2B	Z	43.556	4
60	MP2B	Mx	-.0104	4
61	MP2C	X	-42.465	1
62	MP2C	Z	73.552	1
63	MP2C	Mx	-.0628	1
64	MP2C	X	-42.465	4
65	MP2C	Z	73.552	4
66	MP2C	Mx	-.0628	4
67	MP2A	X	-38.414	1
68	MP2A	Z	66.534	1
69	MP2A	Mx	-.0147	1
70	MP2A	X	-38.414	4
71	MP2A	Z	66.534	4
72	MP2A	Mx	-.0147	4
73	MP2B	X	-25.147	1
74	MP2B	Z	43.556	1
75	MP2B	Mx	-.0352	1
76	MP2B	X	-25.147	4
77	MP2B	Z	43.556	4
78	MP2B	Mx	-.0352	4
79	MP2C	X	-42.465	1
80	MP2C	Z	73.552	1
81	MP2C	Mx	.027	1
82	MP2C	X	-42.465	4
83	MP2C	Z	73.552	4
84	MP2C	Mx	.027	4
85	MP1A	X	-28.126	1
86	MP1A	Z	48.716	1
87	MP1A	Mx	.0161	1
88	MP1A	X	-28.126	4
89	MP1A	Z	48.716	4
90	MP1A	Mx	.0161	4
91	MP1B	X	-27.458	1
92	MP1B	Z	47.559	1
93	MP1B	Mx	-.0249	1
94	MP1B	X	-27.458	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	47.559	4
96	MP1B	Mx	-.0249	4
97	MP5A	X	-28.126	1
98	MP5A	Z	48.716	1
99	MP5A	Mx	.0161	1
100	MP5A	X	-28.126	4
101	MP5A	Z	48.716	4
102	MP5A	Mx	.0161	4
103	MP5B	X	-27.458	1
104	MP5B	Z	47.559	1
105	MP5B	Mx	-.0249	1
106	MP5B	X	-27.458	4
107	MP5B	Z	47.559	4
108	MP5B	Mx	-.0249	4
109	GPS	X	-10.673	.5
110	GPS	Z	18.486	.5
111	GPS	Mx	0	.5
112	O1	X	-41.903	1
113	O1	Z	72.579	1
114	O1	Mx	0	1
115	GPS2	X	-10.673	.5
116	GPS2	Z	18.486	.5
117	GPS2	Mx	0	.5
118	M46	X	-10.673	.5
119	M46	Z	18.486	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-21.938	1
2	MP4A	Z	12.666	1
3	MP4A	Mx	.0115	1
4	MP4A	X	-21.938	4
5	MP4A	Z	12.666	4
6	MP4A	Mx	.0115	4
7	MP4B	X	-36.939	1
8	MP4B	Z	21.327	1
9	MP4B	Mx	-.0122	1
10	MP4B	X	-36.939	4
11	MP4B	Z	21.327	4
12	MP4B	Mx	-.0122	4
13	MP4C	X	-26.519	1
14	MP4C	Z	15.311	1
15	MP4C	Mx	-.0125	1
16	MP4C	X	-26.519	4
17	MP4C	Z	15.311	4
18	MP4C	Mx	-.0125	4
19	MP2A	X	-33.359	1
20	MP2A	Z	19.26	1
21	MP2A	Mx	.0291	1
22	MP2B	X	-40.765	1
23	MP2B	Z	23.536	1
24	MP2B	Mx	-.0225	1
25	MP2C	X	-35.621	1
26	MP2C	Z	20.566	1
27	MP2C	Mx	-.0281	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP3A	X	-38.779	1
29	MP3A	Z	22.389	1
30	MP3A	Mx	.036	1
31	MP3B	X	-38.779	1
32	MP3B	Z	22.389	1
33	MP3B	Mx	.036	1
34	MP3C	X	-38.779	1
35	MP3C	Z	22.389	1
36	MP3C	Mx	.036	1
37	MP1C	X	-133.513	1
38	MP1C	Z	77.084	1
39	MP1C	Mx	-.0631	1
40	MP1C	X	-133.513	4
41	MP1C	Z	77.084	4
42	MP1C	Mx	-.0631	4
43	MP5C	X	-133.513	1
44	MP5C	Z	77.084	1
45	MP5C	Mx	-.0631	1
46	MP5C	X	-133.513	4
47	MP5C	Z	77.084	4
48	MP5C	Mx	-.0631	4
49	MP2A	X	-43.556	1
50	MP2A	Z	25.147	1
51	MP2A	Mx	.0352	1
52	MP2A	X	-43.556	4
53	MP2A	Z	25.147	4
54	MP2A	Mx	.0352	4
55	MP2B	X	-66.534	1
56	MP2B	Z	38.414	1
57	MP2B	Mx	.0147	1
58	MP2B	X	-66.534	4
59	MP2B	Z	38.414	4
60	MP2B	Mx	.0147	4
61	MP2C	X	-50.574	1
62	MP2C	Z	29.199	1
63	MP2C	Mx	-.0435	1
64	MP2C	X	-50.574	4
65	MP2C	Z	29.199	4
66	MP2C	Mx	-.0435	4
67	MP2A	X	-43.556	1
68	MP2A	Z	25.147	1
69	MP2A	Mx	.0104	1
70	MP2A	X	-43.556	4
71	MP2A	Z	25.147	4
72	MP2A	Mx	.0104	4
73	MP2B	X	-66.534	1
74	MP2B	Z	38.414	1
75	MP2B	Mx	-.0587	1
76	MP2B	X	-66.534	4
77	MP2B	Z	38.414	4
78	MP2B	Mx	-.0587	4
79	MP2C	X	-50.574	1
80	MP2C	Z	29.199	1
81	MP2C	Mx	-.0044	1
82	MP2C	X	-50.574	4
83	MP2C	Z	29.199	4
84	MP2C	Mx	-.0044	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP1A	X	-47.559	1
86	MP1A	Z	27.458	1
87	MP1A	Mx	.0249	1
88	MP1A	X	-47.559	4
89	MP1A	Z	27.458	4
90	MP1A	Mx	.0249	4
91	MP1B	X	-48.716	1
92	MP1B	Z	28.126	1
93	MP1B	Mx	-.0161	1
94	MP1B	X	-48.716	4
95	MP1B	Z	28.126	4
96	MP1B	Mx	-.0161	4
97	MP5A	X	-47.559	1
98	MP5A	Z	27.458	1
99	MP5A	Mx	.0249	1
100	MP5A	X	-47.559	4
101	MP5A	Z	27.458	4
102	MP5A	Mx	.0249	4
103	MP5B	X	-48.716	1
104	MP5B	Z	28.126	1
105	MP5B	Mx	-.0161	1
106	MP5B	X	-48.716	4
107	MP5B	Z	28.126	4
108	MP5B	Mx	-.0161	4
109	GPS	X	-18.486	.5
110	GPS	Z	10.673	.5
111	GPS	Mx	0	.5
112	O1	X	-72.579	1
113	O1	Z	41.903	1
114	O1	Mx	0	1
115	GPS2	X	-18.486	.5
116	GPS2	Z	10.673	.5
117	GPS2	Mx	0	.5
118	M46	X	-18.486	.5
119	M46	Z	10.673	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-19.315	1
2	MP4A	Z	0	1
3	MP4A	Mx	.0096	1
4	MP4A	X	-19.315	4
5	MP4A	Z	0	4
6	MP4A	Mx	.0096	4
7	MP4B	X	-53.96	1
8	MP4B	Z	0	1
9	MP4B	Mx	-.0024	1
10	MP4B	X	-53.96	4
11	MP4B	Z	0	4
12	MP4B	Mx	-.0024	4
13	MP4C	X	-19.315	1
14	MP4C	Z	0	1
15	MP4C	Mx	-.0096	1
16	MP4C	X	-19.315	4
17	MP4C	Z	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4C	Mx	-.0096	4
19	MP2A	X	-35.549	1
20	MP2A	Z	0	1
21	MP2A	Mx	.0295	1
22	MP2B	X	-52.654	1
23	MP2B	Z	0	1
24	MP2B	Mx	-.0038	1
25	MP2C	X	-35.549	1
26	MP2C	Z	0	1
27	MP2C	Mx	-.0295	1
28	MP3A	X	-53.552	1
29	MP3A	Z	0	1
30	MP3A	Mx	.0316	1
31	MP3B	X	-53.552	1
32	MP3B	Z	0	1
33	MP3B	Mx	.0316	1
34	MP3C	X	-53.552	1
35	MP3C	Z	0	1
36	MP3C	Mx	.0316	1
37	MP1C	X	-147.788	1
38	MP1C	Z	0	1
39	MP1C	Mx	-.0736	1
40	MP1C	X	-147.788	4
41	MP1C	Z	0	4
42	MP1C	Mx	-.0736	4
43	MP5C	X	-147.788	1
44	MP5C	Z	0	1
45	MP5C	Mx	-.0736	1
46	MP5C	X	-147.788	4
47	MP5C	Z	0	4
48	MP5C	Mx	-.0736	4
49	MP2A	X	-41.08	1
50	MP2A	Z	0	1
51	MP2A	Mx	.0184	1
52	MP2A	X	-41.08	4
53	MP2A	Z	0	4
54	MP2A	Mx	.0184	4
55	MP2B	X	-94.145	1
56	MP2B	Z	0	1
57	MP2B	Mx	.0506	1
58	MP2B	X	-94.145	4
59	MP2B	Z	0	4
60	MP2B	Mx	.0506	4
61	MP2C	X	-41.08	1
62	MP2C	Z	0	1
63	MP2C	Mx	-.0226	1
64	MP2C	X	-41.08	4
65	MP2C	Z	0	4
66	MP2C	Mx	-.0226	4
67	MP2A	X	-41.08	1
68	MP2A	Z	0	1
69	MP2A	Mx	.0226	1
70	MP2A	X	-41.08	4
71	MP2A	Z	0	4
72	MP2A	Mx	.0226	4
73	MP2B	X	-94.145	1
74	MP2B	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP2B	Mx	-.0588	1
76	MP2B	X	-94.145	4
77	MP2B	Z	0	4
78	MP2B	Mx	-.0588	4
79	MP2C	X	-41.08	1
80	MP2C	Z	0	1
81	MP2C	Mx	-.0184	1
82	MP2C	X	-41.08	4
83	MP2C	Z	0	4
84	MP2C	Mx	-.0184	4
85	MP1A	X	-54.452	1
86	MP1A	Z	0	1
87	MP1A	Mx	.0271	1
88	MP1A	X	-54.452	4
89	MP1A	Z	0	4
90	MP1A	Mx	.0271	4
91	MP1B	X	-57.124	1
92	MP1B	Z	0	1
93	MP1B	Mx	-.0025	1
94	MP1B	X	-57.124	4
95	MP1B	Z	0	4
96	MP1B	Mx	-.0025	4
97	MP5A	X	-54.452	1
98	MP5A	Z	0	1
99	MP5A	Mx	.0271	1
100	MP5A	X	-54.452	4
101	MP5A	Z	0	4
102	MP5A	Mx	.0271	4
103	MP5B	X	-57.124	1
104	MP5B	Z	0	1
105	MP5B	Mx	-.0025	1
106	MP5B	X	-57.124	4
107	MP5B	Z	0	4
108	MP5B	Mx	-.0025	4
109	GPS	X	-27.244	.5
110	GPS	Z	0	.5
111	GPS	Mx	0	.5
112	O1	X	-95.014	1
113	O1	Z	0	1
114	O1	Mx	0	1
115	GPS2	X	-27.244	.5
116	GPS2	Z	0	.5
117	GPS2	Mx	0	.5
118	M46	X	-27.244	.5
119	M46	Z	0	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-26.519	1
2	MP4A	Z	-15.311	1
3	MP4A	Mx	.0125	1
4	MP4A	X	-26.519	4
5	MP4A	Z	-15.311	4
6	MP4A	Mx	.0125	4
7	MP4B	X	-41.521	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP4B	Z	-23.972	1
9	MP4B	Mx	.0101	1
10	MP4B	X	-41.521	4
11	MP4B	Z	-23.972	4
12	MP4B	Mx	.0101	4
13	MP4C	X	-21.938	1
14	MP4C	Z	-12.666	1
15	MP4C	Mx	-.0115	1
16	MP4C	X	-21.938	4
17	MP4C	Z	-12.666	4
18	MP4C	Mx	-.0115	4
19	MP2A	X	-35.621	1
20	MP2A	Z	-20.566	1
21	MP2A	Mx	.0281	1
22	MP2B	X	-43.027	1
23	MP2B	Z	-24.842	1
24	MP2B	Mx	.0175	1
25	MP2C	X	-33.359	1
26	MP2C	Z	-19.26	1
27	MP2C	Mx	-.0291	1
28	MP3A	X	-53.976	1
29	MP3A	Z	-31.163	1
30	MP3A	Mx	.0134	1
31	MP3B	X	-53.976	1
32	MP3B	Z	-31.163	1
33	MP3B	Mx	.0134	1
34	MP3C	X	-53.976	1
35	MP3C	Z	-31.163	1
36	MP3C	Mx	.0134	1
37	MP1C	X	-130.928	1
38	MP1C	Z	-75.591	1
39	MP1C	Mx	-.0685	1
40	MP1C	X	-130.928	4
41	MP1C	Z	-75.591	4
42	MP1C	Mx	-.0685	4
43	MP5C	X	-130.928	1
44	MP5C	Z	-75.591	1
45	MP5C	Mx	-.0685	1
46	MP5C	X	-130.928	4
47	MP5C	Z	-75.591	4
48	MP5C	Mx	-.0685	4
49	MP2A	X	-50.574	1
50	MP2A	Z	-29.199	1
51	MP2A	Mx	.0044	1
52	MP2A	X	-50.574	4
53	MP2A	Z	-29.199	4
54	MP2A	Mx	.0044	4
55	MP2B	X	-73.552	1
56	MP2B	Z	-42.465	1
57	MP2B	Mx	.0628	1
58	MP2B	X	-73.552	4
59	MP2B	Z	-42.465	4
60	MP2B	Mx	.0628	4
61	MP2C	X	-43.556	1
62	MP2C	Z	-25.147	1
63	MP2C	Mx	-.0104	1
64	MP2C	X	-43.556	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	Z	-25.147	4
66	MP2C	Mx	-.0104	4
67	MP2A	X	-50.574	1
68	MP2A	Z	-29.199	1
69	MP2A	Mx	.0435	1
70	MP2A	X	-50.574	4
71	MP2A	Z	-29.199	4
72	MP2A	Mx	.0435	4
73	MP2B	X	-73.552	1
74	MP2B	Z	-42.465	1
75	MP2B	Mx	-.027	1
76	MP2B	X	-73.552	4
77	MP2B	Z	-42.465	4
78	MP2B	Mx	-.027	4
79	MP2C	X	-43.556	1
80	MP2C	Z	-25.147	1
81	MP2C	Mx	-.0352	1
82	MP2C	X	-43.556	4
83	MP2C	Z	-25.147	4
84	MP2C	Mx	-.0352	4
85	MP1A	X	-47.912	1
86	MP1A	Z	-27.662	1
87	MP1A	Mx	.0227	1
88	MP1A	X	-47.912	4
89	MP1A	Z	-27.662	4
90	MP1A	Mx	.0227	4
91	MP1B	X	-49.069	1
92	MP1B	Z	-28.33	1
93	MP1B	Mx	.012	1
94	MP1B	X	-49.069	4
95	MP1B	Z	-28.33	4
96	MP1B	Mx	.012	4
97	MP5A	X	-47.912	1
98	MP5A	Z	-27.662	1
99	MP5A	Mx	.0227	1
100	MP5A	X	-47.912	4
101	MP5A	Z	-27.662	4
102	MP5A	Mx	.0227	4
103	MP5B	X	-49.069	1
104	MP5B	Z	-28.33	1
105	MP5B	Mx	.012	1
106	MP5B	X	-49.069	4
107	MP5B	Z	-28.33	4
108	MP5B	Mx	.012	4
109	GPS	X	-28.702	.5
110	GPS	Z	-16.571	.5
111	GPS	Mx	0	.5
112	O1	X	-91.99	1
113	O1	Z	-53.111	1
114	O1	Mx	0	1
115	GPS2	X	-28.702	.5
116	GPS2	Z	-16.571	.5
117	GPS2	Mx	0	.5
118	M46	X	-28.702	.5
119	M46	Z	-16.571	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-23.972	1
2	MP4A	Z	-41.521	1
3	MP4A	Mx	.0101	1
4	MP4A	X	-23.972	4
5	MP4A	Z	-41.521	4
6	MP4A	Mx	.0101	4
7	MP4B	X	-15.311	1
8	MP4B	Z	-26.519	1
9	MP4B	Mx	.0125	1
10	MP4B	X	-15.311	4
11	MP4B	Z	-26.519	4
12	MP4B	Mx	.0125	4
13	MP4C	X	-21.327	1
14	MP4C	Z	-36.939	1
15	MP4C	Mx	-.0122	1
16	MP4C	X	-21.327	4
17	MP4C	Z	-36.939	4
18	MP4C	Mx	-.0122	4
19	MP2A	X	-24.842	1
20	MP2A	Z	-43.027	1
21	MP2A	Mx	.0175	1
22	MP2B	X	-20.566	1
23	MP2B	Z	-35.621	1
24	MP2B	Mx	.0281	1
25	MP2C	X	-23.536	1
26	MP2C	Z	-40.765	1
27	MP2C	Mx	-.0225	1
28	MP3A	X	-31.163	1
29	MP3A	Z	-53.976	1
30	MP3A	Mx	-.0134	1
31	MP3B	X	-31.163	1
32	MP3B	Z	-53.976	1
33	MP3B	Mx	-.0134	1
34	MP3C	X	-31.163	1
35	MP3C	Z	-53.976	1
36	MP3C	Mx	-.0134	1
37	MP1C	X	-80.478	1
38	MP1C	Z	-139.393	1
39	MP1C	Mx	-.0462	1
40	MP1C	X	-80.478	4
41	MP1C	Z	-139.393	4
42	MP1C	Mx	-.0462	4
43	MP5C	X	-80.478	1
44	MP5C	Z	-139.393	1
45	MP5C	Mx	-.0462	1
46	MP5C	X	-80.478	4
47	MP5C	Z	-139.393	4
48	MP5C	Mx	-.0462	4
49	MP2A	X	-42.465	1
50	MP2A	Z	-73.552	1
51	MP2A	Mx	-.027	1
52	MP2A	X	-42.465	4
53	MP2A	Z	-73.552	4
54	MP2A	Mx	-.027	4
55	MP2B	X	-29.199	1
56	MP2B	Z	-50.574	1
57	MP2B	Mx	.0435	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2B	X	-29.199	4
59	MP2B	Z	-50.574	4
60	MP2B	Mx	.0435	4
61	MP2C	X	-38.414	1
62	MP2C	Z	-66.534	1
63	MP2C	Mx	.0147	1
64	MP2C	X	-38.414	4
65	MP2C	Z	-66.534	4
66	MP2C	Mx	.0147	4
67	MP2A	X	-42.465	1
68	MP2A	Z	-73.552	1
69	MP2A	Mx	.0628	1
70	MP2A	X	-42.465	4
71	MP2A	Z	-73.552	4
72	MP2A	Mx	.0628	4
73	MP2B	X	-29.199	1
74	MP2B	Z	-50.574	1
75	MP2B	Mx	.0044	1
76	MP2B	X	-29.199	4
77	MP2B	Z	-50.574	4
78	MP2B	Mx	.0044	4
79	MP2C	X	-38.414	1
80	MP2C	Z	-66.534	1
81	MP2C	Mx	-.0587	1
82	MP2C	X	-38.414	4
83	MP2C	Z	-66.534	4
84	MP2C	Mx	-.0587	4
85	MP1A	X	-28.33	1
86	MP1A	Z	-49.069	1
87	MP1A	Mx	.012	1
88	MP1A	X	-28.33	4
89	MP1A	Z	-49.069	4
90	MP1A	Mx	.012	4
91	MP1B	X	-27.662	1
92	MP1B	Z	-47.912	1
93	MP1B	Mx	.0227	1
94	MP1B	X	-27.662	4
95	MP1B	Z	-47.912	4
96	MP1B	Mx	.0227	4
97	MP5A	X	-28.33	1
98	MP5A	Z	-49.069	1
99	MP5A	Mx	.012	1
100	MP5A	X	-28.33	4
101	MP5A	Z	-49.069	4
102	MP5A	Mx	.012	4
103	MP5B	X	-27.662	1
104	MP5B	Z	-47.912	1
105	MP5B	Mx	.0227	1
106	MP5B	X	-27.662	4
107	MP5B	Z	-47.912	4
108	MP5B	Mx	.0227	4
109	GPS	X	-16.571	.5
110	GPS	Z	-28.702	.5
111	GPS	Mx	0	.5
112	O1	X	-53.111	1
113	O1	Z	-91.99	1
114	O1	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	GPS2	X	-16.571	.5
116	GPS2	Z	-28.702	.5
117	GPS2	Mx	0	.5
118	M46	X	-16.571	.5
119	M46	Z	-28.702	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-13.713	1
3	MP4A	Mx	-.000598	1
4	MP4A	X	0	4
5	MP4A	Z	-13.713	4
6	MP4A	Mx	-.000598	4
7	MP4B	X	0	1
8	MP4B	Z	-6.147	1
9	MP4B	Mx	.0031	1
10	MP4B	X	0	4
11	MP4B	Z	-6.147	4
12	MP4B	Mx	.0031	4
13	MP4C	X	0	1
14	MP4C	Z	-13.713	1
15	MP4C	Mx	-.000598	1
16	MP4C	X	0	4
17	MP4C	Z	-13.713	4
18	MP4C	Mx	-.000598	4
19	MP2A	X	0	1
20	MP2A	Z	-14.401	1
21	MP2A	Mx	-.001	1
22	MP2B	X	0	1
23	MP2B	Z	-10.27	1
24	MP2B	Mx	.0085	1
25	MP2C	X	0	1
26	MP2C	Z	-14.401	1
27	MP2C	Mx	-.001	1
28	MP3A	X	0	1
29	MP3A	Z	-12.419	1
30	MP3A	Mx	-.0073	1
31	MP3B	X	0	1
32	MP3B	Z	-12.419	1
33	MP3B	Mx	-.0073	1
34	MP3C	X	0	1
35	MP3C	Z	-12.419	1
36	MP3C	Mx	-.0073	1
37	MP1C	X	0	1
38	MP1C	Z	-33.037	1
39	MP1C	Mx	-.0014	1
40	MP1C	X	0	4
41	MP1C	Z	-33.037	4
42	MP1C	Mx	-.0014	4
43	MP5C	X	0	1
44	MP5C	Z	-33.037	1
45	MP5C	Mx	-.0014	1
46	MP5C	X	0	4
47	MP5C	Z	-33.037	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP5C	Mx	-.0014	4
49	MP2A	X	0	1
50	MP2A	Z	-28.118	1
51	MP2A	Mx	-.0176	1
52	MP2A	X	0	4
53	MP2A	Z	-28.118	4
54	MP2A	Mx	-.0176	4
55	MP2B	X	0	1
56	MP2B	Z	-19.888	1
57	MP2B	Mx	.0109	1
58	MP2B	X	0	4
59	MP2B	Z	-19.888	4
60	MP2B	Mx	.0109	4
61	MP2C	X	0	1
62	MP2C	Z	-28.118	1
63	MP2C	Mx	.0151	1
64	MP2C	X	0	4
65	MP2C	Z	-28.118	4
66	MP2C	Mx	.0151	4
67	MP2A	X	0	1
68	MP2A	Z	-28.118	1
69	MP2A	Mx	.0151	1
70	MP2A	X	0	4
71	MP2A	Z	-28.118	4
72	MP2A	Mx	.0151	4
73	MP2B	X	0	1
74	MP2B	Z	-19.888	1
75	MP2B	Mx	.0089	1
76	MP2B	X	0	4
77	MP2B	Z	-19.888	4
78	MP2B	Mx	.0089	4
79	MP2C	X	0	1
80	MP2C	Z	-28.118	1
81	MP2C	Mx	-.0176	1
82	MP2C	X	0	4
83	MP2C	Z	-28.118	4
84	MP2C	Mx	-.0176	4
85	MP1A	X	0	1
86	MP1A	Z	-12.433	1
87	MP1A	Mx	-.000542	1
88	MP1A	X	0	4
89	MP1A	Z	-12.433	4
90	MP1A	Mx	-.000542	4
91	MP1B	X	0	1
92	MP1B	Z	-11.921	1
93	MP1B	Mx	.0059	1
94	MP1B	X	0	4
95	MP1B	Z	-11.921	4
96	MP1B	Mx	.0059	4
97	MP5A	X	0	1
98	MP5A	Z	-12.433	1
99	MP5A	Mx	-.000542	1
100	MP5A	X	0	4
101	MP5A	Z	-12.433	4
102	MP5A	Mx	-.000542	4
103	MP5B	X	0	1
104	MP5B	Z	-11.921	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP5B	Mx	.0059	1
106	MP5B	X	0	4
107	MP5B	Z	-11.921	4
108	MP5B	Mx	.0059	4
109	GPS	X	0	.5
110	GPS	Z	-6.732	.5
111	GPS	Mx	0	.5
112	O1	X	0	1
113	O1	Z	-25.9	1
114	O1	Mx	0	1
115	GPS2	X	0	.5
116	GPS2	Z	-6.732	.5
117	GPS2	Mx	0	.5
118	M46	X	0	.5
119	M46	Z	-6.732	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	5.622	1
2	MP4A	Z	-9.737	1
3	MP4A	Mx	-.0032	1
4	MP4A	X	5.622	4
5	MP4A	Z	-9.737	4
6	MP4A	Mx	-.0032	4
7	MP4B	X	3.73	1
8	MP4B	Z	-6.461	1
9	MP4B	Mx	.0034	1
10	MP4B	X	3.73	4
11	MP4B	Z	-6.461	4
12	MP4B	Mx	.0034	4
13	MP4C	X	6.199	1
14	MP4C	Z	-10.738	1
15	MP4C	Mx	.0026	1
16	MP4C	X	6.199	4
17	MP4C	Z	-10.738	4
18	MP4C	Mx	.0026	4
19	MP2A	X	6.526	1
20	MP2A	Z	-11.304	1
21	MP2A	Mx	-.0062	1
22	MP2B	X	5.493	1
23	MP2B	Z	-9.515	1
24	MP2B	Mx	.0083	1
25	MP2C	X	6.842	1
26	MP2C	Z	-11.85	1
27	MP2C	Mx	.0048	1
28	MP3A	X	5.338	1
29	MP3A	Z	-9.245	1
30	MP3A	Mx	-.0086	1
31	MP3B	X	5.338	1
32	MP3B	Z	-9.245	1
33	MP3B	Mx	-.0086	1
34	MP3C	X	5.338	1
35	MP3C	Z	-9.245	1
36	MP3C	Mx	-.0086	1
37	MP1C	X	16.218	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP1C	Z	-28.09	1
39	MP1C	Mx	.0069	1
40	MP1C	X	16.218	4
41	MP1C	Z	-28.09	4
42	MP1C	Mx	.0069	4
43	MP5C	X	16.218	1
44	MP5C	Z	-28.09	1
45	MP5C	Mx	.0069	1
46	MP5C	X	16.218	4
47	MP5C	Z	-28.09	4
48	MP5C	Mx	.0069	4
49	MP2A	X	12.716	1
50	MP2A	Z	-22.024	1
51	MP2A	Mx	-.0194	1
52	MP2A	X	12.716	4
53	MP2A	Z	-22.024	4
54	MP2A	Mx	-.0194	4
55	MP2B	X	10.658	1
56	MP2B	Z	-18.461	1
57	MP2B	Mx	.0044	1
58	MP2B	X	10.658	4
59	MP2B	Z	-18.461	4
60	MP2B	Mx	.0044	4
61	MP2C	X	13.344	1
62	MP2C	Z	-23.113	1
63	MP2C	Mx	.0197	1
64	MP2C	X	13.344	4
65	MP2C	Z	-23.113	4
66	MP2C	Mx	.0197	4
67	MP2A	X	12.716	1
68	MP2A	Z	-22.024	1
69	MP2A	Mx	.0049	1
70	MP2A	X	12.716	4
71	MP2A	Z	-22.024	4
72	MP2A	Mx	.0049	4
73	MP2B	X	10.658	1
74	MP2B	Z	-18.461	1
75	MP2B	Mx	.0149	1
76	MP2B	X	10.658	4
77	MP2B	Z	-18.461	4
78	MP2B	Mx	.0149	4
79	MP2C	X	13.344	1
80	MP2C	Z	-23.113	1
81	MP2C	Mx	-.0085	1
82	MP2C	X	13.344	4
83	MP2C	Z	-23.113	4
84	MP2C	Mx	-.0085	4
85	MP1A	X	6.133	1
86	MP1A	Z	-10.623	1
87	MP1A	Mx	-.0035	1
88	MP1A	X	6.133	4
89	MP1A	Z	-10.623	4
90	MP1A	Mx	-.0035	4
91	MP1B	X	6.005	1
92	MP1B	Z	-10.401	1
93	MP1B	Mx	.0054	1
94	MP1B	X	6.005	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	-10.401	4
96	MP1B	Mx	.0054	4
97	MP5A	X	6.133	1
98	MP5A	Z	-10.623	1
99	MP5A	Mx	-.0035	1
100	MP5A	X	6.133	4
101	MP5A	Z	-10.623	4
102	MP5A	Mx	-.0035	4
103	MP5B	X	6.005	1
104	MP5B	Z	-10.401	1
105	MP5B	Mx	.0054	1
106	MP5B	X	6.005	4
107	MP5B	Z	-10.401	4
108	MP5B	Mx	.0054	4
109	GPS	X	2.917	.5
110	GPS	Z	-5.052	.5
111	GPS	Mx	0	.5
112	O1	X	11.638	1
113	O1	Z	-20.158	1
114	O1	Mx	0	1
115	GPS2	X	2.917	.5
116	GPS2	Z	-5.052	.5
117	GPS2	Mx	0	.5
118	M46	X	2.917	.5
119	M46	Z	-5.052	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.461	1
2	MP4A	Z	-3.73	1
3	MP4A	Mx	-.0034	1
4	MP4A	X	6.461	4
5	MP4A	Z	-3.73	4
6	MP4A	Mx	-.0034	4
7	MP4B	X	9.737	1
8	MP4B	Z	-5.622	1
9	MP4B	Mx	.0032	1
10	MP4B	X	9.737	4
11	MP4B	Z	-5.622	4
12	MP4B	Mx	.0032	4
13	MP4C	X	7.462	1
14	MP4C	Z	-4.308	1
15	MP4C	Mx	.0035	1
16	MP4C	X	7.462	4
17	MP4C	Z	-4.308	4
18	MP4C	Mx	.0035	4
19	MP2A	X	9.515	1
20	MP2A	Z	-5.493	1
21	MP2A	Mx	-.0083	1
22	MP2B	X	11.304	1
23	MP2B	Z	-6.526	1
24	MP2B	Mx	.0062	1
25	MP2C	X	10.061	1
26	MP2C	Z	-5.809	1
27	MP2C	Mx	.0079	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP3A	X	9.245	1
29	MP3A	Z	-5.338	1
30	MP3A	Mx	-.0086	1
31	MP3B	X	9.245	1
32	MP3B	Z	-5.338	1
33	MP3B	Mx	-.0086	1
34	MP3C	X	9.245	1
35	MP3C	Z	-5.338	1
36	MP3C	Mx	-.0086	1
37	MP1C	X	26.589	1
38	MP1C	Z	-15.351	1
39	MP1C	Mx	.0126	1
40	MP1C	X	26.589	4
41	MP1C	Z	-15.351	4
42	MP1C	Mx	.0126	4
43	MP5C	X	26.589	1
44	MP5C	Z	-15.351	1
45	MP5C	Mx	.0126	1
46	MP5C	X	26.589	4
47	MP5C	Z	-15.351	4
48	MP5C	Mx	.0126	4
49	MP2A	X	18.461	1
50	MP2A	Z	-10.658	1
51	MP2A	Mx	-.0149	1
52	MP2A	X	18.461	4
53	MP2A	Z	-10.658	4
54	MP2A	Mx	-.0149	4
55	MP2B	X	22.024	1
56	MP2B	Z	-12.716	1
57	MP2B	Mx	-.0049	1
58	MP2B	X	22.024	4
59	MP2B	Z	-12.716	4
60	MP2B	Mx	-.0049	4
61	MP2C	X	19.549	1
62	MP2C	Z	-11.287	1
63	MP2C	Mx	.0168	1
64	MP2C	X	19.549	4
65	MP2C	Z	-11.287	4
66	MP2C	Mx	.0168	4
67	MP2A	X	18.461	1
68	MP2A	Z	-10.658	1
69	MP2A	Mx	-.0044	1
70	MP2A	X	18.461	4
71	MP2A	Z	-10.658	4
72	MP2A	Mx	-.0044	4
73	MP2B	X	22.024	1
74	MP2B	Z	-12.716	1
75	MP2B	Mx	.0194	1
76	MP2B	X	22.024	4
77	MP2B	Z	-12.716	4
78	MP2B	Mx	.0194	4
79	MP2C	X	19.549	1
80	MP2C	Z	-11.287	1
81	MP2C	Mx	.0017	1
82	MP2C	X	19.549	4
83	MP2C	Z	-11.287	4
84	MP2C	Mx	.0017	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP1A	X	10.401	1
86	MP1A	Z	-6.005	1
87	MP1A	Mx	-.0054	1
88	MP1A	X	10.401	4
89	MP1A	Z	-6.005	4
90	MP1A	Mx	-.0054	4
91	MP1B	X	10.623	1
92	MP1B	Z	-6.133	1
93	MP1B	Mx	.0035	1
94	MP1B	X	10.623	4
95	MP1B	Z	-6.133	4
96	MP1B	Mx	.0035	4
97	MP5A	X	10.401	1
98	MP5A	Z	-6.005	1
99	MP5A	Mx	-.0054	1
100	MP5A	X	10.401	4
101	MP5A	Z	-6.005	4
102	MP5A	Mx	-.0054	4
103	MP5B	X	10.623	1
104	MP5B	Z	-6.133	1
105	MP5B	Mx	.0035	1
106	MP5B	X	10.623	4
107	MP5B	Z	-6.133	4
108	MP5B	Mx	.0035	4
109	GPS	X	5.052	.5
110	GPS	Z	-2.917	.5
111	GPS	Mx	0	.5
112	O1	X	20.158	1
113	O1	Z	-11.638	1
114	O1	Mx	0	1
115	GPS2	X	5.052	.5
116	GPS2	Z	-2.917	.5
117	GPS2	Mx	0	.5
118	M46	X	5.052	.5
119	M46	Z	-2.917	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.147	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.0031	1
4	MP4A	X	6.147	4
5	MP4A	Z	0	4
6	MP4A	Mx	-.0031	4
7	MP4B	X	13.713	1
8	MP4B	Z	0	1
9	MP4B	Mx	.000598	1
10	MP4B	X	13.713	4
11	MP4B	Z	0	4
12	MP4B	Mx	.000598	4
13	MP4C	X	6.147	1
14	MP4C	Z	0	1
15	MP4C	Mx	.0031	1
16	MP4C	X	6.147	4
17	MP4C	Z	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4C	Mx	.0031	4
19	MP2A	X	10.27	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.0085	1
22	MP2B	X	14.401	1
23	MP2B	Z	0	1
24	MP2B	Mx	.001	1
25	MP2C	X	10.27	1
26	MP2C	Z	0	1
27	MP2C	Mx	.0085	1
28	MP3A	X	12.419	1
29	MP3A	Z	0	1
30	MP3A	Mx	-.0073	1
31	MP3B	X	12.419	1
32	MP3B	Z	0	1
33	MP3B	Mx	-.0073	1
34	MP3C	X	12.419	1
35	MP3C	Z	0	1
36	MP3C	Mx	-.0073	1
37	MP1C	X	29.571	1
38	MP1C	Z	0	1
39	MP1C	Mx	.0147	1
40	MP1C	X	29.571	4
41	MP1C	Z	0	4
42	MP1C	Mx	.0147	4
43	MP5C	X	29.571	1
44	MP5C	Z	0	1
45	MP5C	Mx	.0147	1
46	MP5C	X	29.571	4
47	MP5C	Z	0	4
48	MP5C	Mx	.0147	4
49	MP2A	X	19.888	1
50	MP2A	Z	0	1
51	MP2A	Mx	-.0089	1
52	MP2A	X	19.888	4
53	MP2A	Z	0	4
54	MP2A	Mx	-.0089	4
55	MP2B	X	28.118	1
56	MP2B	Z	0	1
57	MP2B	Mx	-.0151	1
58	MP2B	X	28.118	4
59	MP2B	Z	0	4
60	MP2B	Mx	-.0151	4
61	MP2C	X	19.888	1
62	MP2C	Z	0	1
63	MP2C	Mx	.0109	1
64	MP2C	X	19.888	4
65	MP2C	Z	0	4
66	MP2C	Mx	.0109	4
67	MP2A	X	19.888	1
68	MP2A	Z	0	1
69	MP2A	Mx	-.0109	1
70	MP2A	X	19.888	4
71	MP2A	Z	0	4
72	MP2A	Mx	-.0109	4
73	MP2B	X	28.118	1
74	MP2B	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP2B	Mx	.0176	1
76	MP2B	X	28.118	4
77	MP2B	Z	0	4
78	MP2B	Mx	.0176	4
79	MP2C	X	19.888	1
80	MP2C	Z	0	1
81	MP2C	Mx	.0089	1
82	MP2C	X	19.888	4
83	MP2C	Z	0	4
84	MP2C	Mx	.0089	4
85	MP1A	X	11.921	1
86	MP1A	Z	0	1
87	MP1A	Mx	-.0059	1
88	MP1A	X	11.921	4
89	MP1A	Z	0	4
90	MP1A	Mx	-.0059	4
91	MP1B	X	12.433	1
92	MP1B	Z	0	1
93	MP1B	Mx	.000542	1
94	MP1B	X	12.433	4
95	MP1B	Z	0	4
96	MP1B	Mx	.000542	4
97	MP5A	X	11.921	1
98	MP5A	Z	0	1
99	MP5A	Mx	-.0059	1
100	MP5A	X	11.921	4
101	MP5A	Z	0	4
102	MP5A	Mx	-.0059	4
103	MP5B	X	12.433	1
104	MP5B	Z	0	1
105	MP5B	Mx	.000542	1
106	MP5B	X	12.433	4
107	MP5B	Z	0	4
108	MP5B	Mx	.000542	4
109	GPS	X	6.732	.5
110	GPS	Z	0	.5
111	GPS	Mx	0	.5
112	O1	X	25.9	1
113	O1	Z	0	1
114	O1	Mx	0	1
115	GPS2	X	6.732	.5
116	GPS2	Z	0	.5
117	GPS2	Mx	0	.5
118	M46	X	6.732	.5
119	M46	Z	0	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	7.462	1
2	MP4A	Z	4.308	1
3	MP4A	Mx	-.0035	1
4	MP4A	X	7.462	4
5	MP4A	Z	4.308	4
6	MP4A	Mx	-.0035	4
7	MP4B	X	10.738	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP4B	Z	6.199	1
9	MP4B	Mx	-.0026	1
10	MP4B	X	10.738	4
11	MP4B	Z	6.199	4
12	MP4B	Mx	-.0026	4
13	MP4C	X	6.461	1
14	MP4C	Z	3.73	1
15	MP4C	Mx	.0034	1
16	MP4C	X	6.461	4
17	MP4C	Z	3.73	4
18	MP4C	Mx	.0034	4
19	MP2A	X	10.061	1
20	MP2A	Z	5.809	1
21	MP2A	Mx	-.0079	1
22	MP2B	X	11.85	1
23	MP2B	Z	6.842	1
24	MP2B	Mx	-.0048	1
25	MP2C	X	9.515	1
26	MP2C	Z	5.493	1
27	MP2C	Mx	.0083	1
28	MP3A	X	12.266	1
29	MP3A	Z	7.082	1
30	MP3A	Mx	-.0031	1
31	MP3B	X	12.266	1
32	MP3B	Z	7.082	1
33	MP3B	Mx	-.0031	1
34	MP3C	X	12.266	1
35	MP3C	Z	7.082	1
36	MP3C	Mx	-.0031	1
37	MP1C	X	26.131	1
38	MP1C	Z	15.087	1
39	MP1C	Mx	.0137	1
40	MP1C	X	26.131	4
41	MP1C	Z	15.087	4
42	MP1C	Mx	.0137	4
43	MP5C	X	26.131	1
44	MP5C	Z	15.087	1
45	MP5C	Mx	.0137	1
46	MP5C	X	26.131	4
47	MP5C	Z	15.087	4
48	MP5C	Mx	.0137	4
49	MP2A	X	19.549	1
50	MP2A	Z	11.287	1
51	MP2A	Mx	-.0017	1
52	MP2A	X	19.549	4
53	MP2A	Z	11.287	4
54	MP2A	Mx	-.0017	4
55	MP2B	X	23.113	1
56	MP2B	Z	13.344	1
57	MP2B	Mx	-.0197	1
58	MP2B	X	23.113	4
59	MP2B	Z	13.344	4
60	MP2B	Mx	-.0197	4
61	MP2C	X	18.461	1
62	MP2C	Z	10.658	1
63	MP2C	Mx	.0044	1
64	MP2C	X	18.461	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	Z	10.658	4
66	MP2C	Mx	.0044	4
67	MP2A	X	19.549	1
68	MP2A	Z	11.287	1
69	MP2A	Mx	-.0168	1
70	MP2A	X	19.549	4
71	MP2A	Z	11.287	4
72	MP2A	Mx	-.0168	4
73	MP2B	X	23.113	1
74	MP2B	Z	13.344	1
75	MP2B	Mx	.0085	1
76	MP2B	X	23.113	4
77	MP2B	Z	13.344	4
78	MP2B	Mx	.0085	4
79	MP2C	X	18.461	1
80	MP2C	Z	10.658	1
81	MP2C	Mx	.0149	1
82	MP2C	X	18.461	4
83	MP2C	Z	10.658	4
84	MP2C	Mx	.0149	4
85	MP1A	X	10.469	1
86	MP1A	Z	6.044	1
87	MP1A	Mx	-.005	1
88	MP1A	X	10.469	4
89	MP1A	Z	6.044	4
90	MP1A	Mx	-.005	4
91	MP1B	X	10.69	1
92	MP1B	Z	6.172	1
93	MP1B	Mx	-.0026	1
94	MP1B	X	10.69	4
95	MP1B	Z	6.172	4
96	MP1B	Mx	-.0026	4
97	MP5A	X	10.469	1
98	MP5A	Z	6.044	1
99	MP5A	Mx	-.005	1
100	MP5A	X	10.469	4
101	MP5A	Z	6.044	4
102	MP5A	Mx	-.005	4
103	MP5B	X	10.69	1
104	MP5B	Z	6.172	1
105	MP5B	Mx	-.0026	1
106	MP5B	X	10.69	4
107	MP5B	Z	6.172	4
108	MP5B	Mx	-.0026	4
109	GPS	X	6.607	.5
110	GPS	Z	3.815	.5
111	GPS	Mx	0	.5
112	O1	X	24.702	1
113	O1	Z	14.262	1
114	O1	Mx	0	1
115	GPS2	X	6.607	.5
116	GPS2	Z	3.815	.5
117	GPS2	Mx	0	.5
118	M46	X	6.607	.5
119	M46	Z	3.815	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.199	1
2	MP4A	Z	10.738	1
3	MP4A	Mx	-.0026	1
4	MP4A	X	6.199	4
5	MP4A	Z	10.738	4
6	MP4A	Mx	-.0026	4
7	MP4B	X	4.308	1
8	MP4B	Z	7.462	1
9	MP4B	Mx	-.0035	1
10	MP4B	X	4.308	4
11	MP4B	Z	7.462	4
12	MP4B	Mx	-.0035	4
13	MP4C	X	5.622	1
14	MP4C	Z	9.737	1
15	MP4C	Mx	.0032	1
16	MP4C	X	5.622	4
17	MP4C	Z	9.737	4
18	MP4C	Mx	.0032	4
19	MP2A	X	6.842	1
20	MP2A	Z	11.85	1
21	MP2A	Mx	-.0048	1
22	MP2B	X	5.809	1
23	MP2B	Z	10.061	1
24	MP2B	Mx	-.0079	1
25	MP2C	X	6.526	1
26	MP2C	Z	11.304	1
27	MP2C	Mx	.0062	1
28	MP3A	X	7.082	1
29	MP3A	Z	12.266	1
30	MP3A	Mx	.0031	1
31	MP3B	X	7.082	1
32	MP3B	Z	12.266	1
33	MP3B	Mx	.0031	1
34	MP3C	X	7.082	1
35	MP3C	Z	12.266	1
36	MP3C	Mx	.0031	1
37	MP1C	X	15.953	1
38	MP1C	Z	27.631	1
39	MP1C	Mx	.0092	1
40	MP1C	X	15.953	4
41	MP1C	Z	27.631	4
42	MP1C	Mx	.0092	4
43	MP5C	X	15.953	1
44	MP5C	Z	27.631	1
45	MP5C	Mx	.0092	1
46	MP5C	X	15.953	4
47	MP5C	Z	27.631	4
48	MP5C	Mx	.0092	4
49	MP2A	X	13.344	1
50	MP2A	Z	23.113	1
51	MP2A	Mx	.0085	1
52	MP2A	X	13.344	4
53	MP2A	Z	23.113	4
54	MP2A	Mx	.0085	4
55	MP2B	X	11.287	1
56	MP2B	Z	19.549	1
57	MP2B	Mx	-.0168	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2B	X	11.287	4
59	MP2B	Z	19.549	4
60	MP2B	Mx	-.0168	4
61	MP2C	X	12.716	1
62	MP2C	Z	22.024	1
63	MP2C	Mx	-.0049	1
64	MP2C	X	12.716	4
65	MP2C	Z	22.024	4
66	MP2C	Mx	-.0049	4
67	MP2A	X	13.344	1
68	MP2A	Z	23.113	1
69	MP2A	Mx	-.0197	1
70	MP2A	X	13.344	4
71	MP2A	Z	23.113	4
72	MP2A	Mx	-.0197	4
73	MP2B	X	11.287	1
74	MP2B	Z	19.549	1
75	MP2B	Mx	-.0017	1
76	MP2B	X	11.287	4
77	MP2B	Z	19.549	4
78	MP2B	Mx	-.0017	4
79	MP2C	X	12.716	1
80	MP2C	Z	22.024	1
81	MP2C	Mx	.0194	1
82	MP2C	X	12.716	4
83	MP2C	Z	22.024	4
84	MP2C	Mx	.0194	4
85	MP1A	X	6.172	1
86	MP1A	Z	10.69	1
87	MP1A	Mx	-.0026	1
88	MP1A	X	6.172	4
89	MP1A	Z	10.69	4
90	MP1A	Mx	-.0026	4
91	MP1B	X	6.044	1
92	MP1B	Z	10.469	1
93	MP1B	Mx	-.005	1
94	MP1B	X	6.044	4
95	MP1B	Z	10.469	4
96	MP1B	Mx	-.005	4
97	MP5A	X	6.172	1
98	MP5A	Z	10.69	1
99	MP5A	Mx	-.0026	1
100	MP5A	X	6.172	4
101	MP5A	Z	10.69	4
102	MP5A	Mx	-.0026	4
103	MP5B	X	6.044	1
104	MP5B	Z	10.469	1
105	MP5B	Mx	-.005	1
106	MP5B	X	6.044	4
107	MP5B	Z	10.469	4
108	MP5B	Mx	-.005	4
109	GPS	X	3.815	.5
110	GPS	Z	6.607	.5
111	GPS	Mx	0	.5
112	O1	X	14.262	1
113	O1	Z	24.702	1
114	O1	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	GPS2	X	3.815	.5
116	GPS2	Z	6.607	.5
117	GPS2	Mx	0	.5
118	M46	X	3.815	.5
119	M46	Z	6.607	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	13.713	1
3	MP4A	Mx	.000598	1
4	MP4A	X	0	4
5	MP4A	Z	13.713	4
6	MP4A	Mx	.000598	4
7	MP4B	X	0	1
8	MP4B	Z	6.147	1
9	MP4B	Mx	-.0031	1
10	MP4B	X	0	4
11	MP4B	Z	6.147	4
12	MP4B	Mx	-.0031	4
13	MP4C	X	0	1
14	MP4C	Z	13.713	1
15	MP4C	Mx	.000598	1
16	MP4C	X	0	4
17	MP4C	Z	13.713	4
18	MP4C	Mx	.000598	4
19	MP2A	X	0	1
20	MP2A	Z	14.401	1
21	MP2A	Mx	.001	1
22	MP2B	X	0	1
23	MP2B	Z	10.27	1
24	MP2B	Mx	-.0085	1
25	MP2C	X	0	1
26	MP2C	Z	14.401	1
27	MP2C	Mx	.001	1
28	MP3A	X	0	1
29	MP3A	Z	12.419	1
30	MP3A	Mx	.0073	1
31	MP3B	X	0	1
32	MP3B	Z	12.419	1
33	MP3B	Mx	.0073	1
34	MP3C	X	0	1
35	MP3C	Z	12.419	1
36	MP3C	Mx	.0073	1
37	MP1C	X	0	1
38	MP1C	Z	33.037	1
39	MP1C	Mx	.0014	1
40	MP1C	X	0	4
41	MP1C	Z	33.037	4
42	MP1C	Mx	.0014	4
43	MP5C	X	0	1
44	MP5C	Z	33.037	1
45	MP5C	Mx	.0014	1
46	MP5C	X	0	4
47	MP5C	Z	33.037	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP5C	Mx	.0014	4
49	MP2A	X	0	1
50	MP2A	Z	28.118	1
51	MP2A	Mx	.0176	1
52	MP2A	X	0	4
53	MP2A	Z	28.118	4
54	MP2A	Mx	.0176	4
55	MP2B	X	0	1
56	MP2B	Z	19.888	1
57	MP2B	Mx	-.0109	1
58	MP2B	X	0	4
59	MP2B	Z	19.888	4
60	MP2B	Mx	-.0109	4
61	MP2C	X	0	1
62	MP2C	Z	28.118	1
63	MP2C	Mx	-.0151	1
64	MP2C	X	0	4
65	MP2C	Z	28.118	4
66	MP2C	Mx	-.0151	4
67	MP2A	X	0	1
68	MP2A	Z	28.118	1
69	MP2A	Mx	-.0151	1
70	MP2A	X	0	4
71	MP2A	Z	28.118	4
72	MP2A	Mx	-.0151	4
73	MP2B	X	0	1
74	MP2B	Z	19.888	1
75	MP2B	Mx	-.0089	1
76	MP2B	X	0	4
77	MP2B	Z	19.888	4
78	MP2B	Mx	-.0089	4
79	MP2C	X	0	1
80	MP2C	Z	28.118	1
81	MP2C	Mx	.0176	1
82	MP2C	X	0	4
83	MP2C	Z	28.118	4
84	MP2C	Mx	.0176	4
85	MP1A	X	0	1
86	MP1A	Z	12.433	1
87	MP1A	Mx	.000542	1
88	MP1A	X	0	4
89	MP1A	Z	12.433	4
90	MP1A	Mx	.000542	4
91	MP1B	X	0	1
92	MP1B	Z	11.921	1
93	MP1B	Mx	-.0059	1
94	MP1B	X	0	4
95	MP1B	Z	11.921	4
96	MP1B	Mx	-.0059	4
97	MP5A	X	0	1
98	MP5A	Z	12.433	1
99	MP5A	Mx	.000542	1
100	MP5A	X	0	4
101	MP5A	Z	12.433	4
102	MP5A	Mx	.000542	4
103	MP5B	X	0	1
104	MP5B	Z	11.921	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP5B	Mx	-.0059	1
106	MP5B	X	0	4
107	MP5B	Z	11.921	4
108	MP5B	Mx	-.0059	4
109	GPS	X	0	.5
110	GPS	Z	6.732	.5
111	GPS	Mx	0	.5
112	O1	X	0	1
113	O1	Z	25.9	1
114	O1	Mx	0	1
115	GPS2	X	0	.5
116	GPS2	Z	6.732	.5
117	GPS2	Mx	0	.5
118	M46	X	0	.5
119	M46	Z	6.732	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-5.622	1
2	MP4A	Z	9.737	1
3	MP4A	Mx	.0032	1
4	MP4A	X	-5.622	4
5	MP4A	Z	9.737	4
6	MP4A	Mx	.0032	4
7	MP4B	X	-3.73	1
8	MP4B	Z	6.461	1
9	MP4B	Mx	-.0034	1
10	MP4B	X	-3.73	4
11	MP4B	Z	6.461	4
12	MP4B	Mx	-.0034	4
13	MP4C	X	-6.199	1
14	MP4C	Z	10.738	1
15	MP4C	Mx	-.0026	1
16	MP4C	X	-6.199	4
17	MP4C	Z	10.738	4
18	MP4C	Mx	-.0026	4
19	MP2A	X	-6.526	1
20	MP2A	Z	11.304	1
21	MP2A	Mx	.0062	1
22	MP2B	X	-5.493	1
23	MP2B	Z	9.515	1
24	MP2B	Mx	-.0083	1
25	MP2C	X	-6.842	1
26	MP2C	Z	11.85	1
27	MP2C	Mx	-.0048	1
28	MP3A	X	-5.338	1
29	MP3A	Z	9.245	1
30	MP3A	Mx	.0086	1
31	MP3B	X	-5.338	1
32	MP3B	Z	9.245	1
33	MP3B	Mx	.0086	1
34	MP3C	X	-5.338	1
35	MP3C	Z	9.245	1
36	MP3C	Mx	.0086	1
37	MP1C	X	-16.218	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP1C	Z	28.09	1
39	MP1C	Mx	-.0069	1
40	MP1C	X	-16.218	4
41	MP1C	Z	28.09	4
42	MP1C	Mx	-.0069	4
43	MP5C	X	-16.218	1
44	MP5C	Z	28.09	1
45	MP5C	Mx	-.0069	1
46	MP5C	X	-16.218	4
47	MP5C	Z	28.09	4
48	MP5C	Mx	-.0069	4
49	MP2A	X	-12.716	1
50	MP2A	Z	22.024	1
51	MP2A	Mx	.0194	1
52	MP2A	X	-12.716	4
53	MP2A	Z	22.024	4
54	MP2A	Mx	.0194	4
55	MP2B	X	-10.658	1
56	MP2B	Z	18.461	1
57	MP2B	Mx	-.0044	1
58	MP2B	X	-10.658	4
59	MP2B	Z	18.461	4
60	MP2B	Mx	-.0044	4
61	MP2C	X	-13.344	1
62	MP2C	Z	23.113	1
63	MP2C	Mx	-.0197	1
64	MP2C	X	-13.344	4
65	MP2C	Z	23.113	4
66	MP2C	Mx	-.0197	4
67	MP2A	X	-12.716	1
68	MP2A	Z	22.024	1
69	MP2A	Mx	-.0049	1
70	MP2A	X	-12.716	4
71	MP2A	Z	22.024	4
72	MP2A	Mx	-.0049	4
73	MP2B	X	-10.658	1
74	MP2B	Z	18.461	1
75	MP2B	Mx	-.0149	1
76	MP2B	X	-10.658	4
77	MP2B	Z	18.461	4
78	MP2B	Mx	-.0149	4
79	MP2C	X	-13.344	1
80	MP2C	Z	23.113	1
81	MP2C	Mx	.0085	1
82	MP2C	X	-13.344	4
83	MP2C	Z	23.113	4
84	MP2C	Mx	.0085	4
85	MP1A	X	-6.133	1
86	MP1A	Z	10.623	1
87	MP1A	Mx	.0035	1
88	MP1A	X	-6.133	4
89	MP1A	Z	10.623	4
90	MP1A	Mx	.0035	4
91	MP1B	X	-6.005	1
92	MP1B	Z	10.401	1
93	MP1B	Mx	-.0054	1
94	MP1B	X	-6.005	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	10.401	4
96	MP1B	Mx	-.0054	4
97	MP5A	X	-6.133	1
98	MP5A	Z	10.623	1
99	MP5A	Mx	.0035	1
100	MP5A	X	-6.133	4
101	MP5A	Z	10.623	4
102	MP5A	Mx	.0035	4
103	MP5B	X	-6.005	1
104	MP5B	Z	10.401	1
105	MP5B	Mx	-.0054	1
106	MP5B	X	-6.005	4
107	MP5B	Z	10.401	4
108	MP5B	Mx	-.0054	4
109	GPS	X	-2.917	.5
110	GPS	Z	5.052	.5
111	GPS	Mx	0	.5
112	O1	X	-11.638	1
113	O1	Z	20.158	1
114	O1	Mx	0	1
115	GPS2	X	-2.917	.5
116	GPS2	Z	5.052	.5
117	GPS2	Mx	0	.5
118	M46	X	-2.917	.5
119	M46	Z	5.052	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.461	1
2	MP4A	Z	3.73	1
3	MP4A	Mx	.0034	1
4	MP4A	X	-6.461	4
5	MP4A	Z	3.73	4
6	MP4A	Mx	.0034	4
7	MP4B	X	-9.737	1
8	MP4B	Z	5.622	1
9	MP4B	Mx	-.0032	1
10	MP4B	X	-9.737	4
11	MP4B	Z	5.622	4
12	MP4B	Mx	-.0032	4
13	MP4C	X	-7.462	1
14	MP4C	Z	4.308	1
15	MP4C	Mx	-.0035	1
16	MP4C	X	-7.462	4
17	MP4C	Z	4.308	4
18	MP4C	Mx	-.0035	4
19	MP2A	X	-9.515	1
20	MP2A	Z	5.493	1
21	MP2A	Mx	.0083	1
22	MP2B	X	-11.304	1
23	MP2B	Z	6.526	1
24	MP2B	Mx	-.0062	1
25	MP2C	X	-10.061	1
26	MP2C	Z	5.809	1
27	MP2C	Mx	-.0079	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP3A	X	-9.245	1
29	MP3A	Z	5.338	1
30	MP3A	Mx	.0086	1
31	MP3B	X	-9.245	1
32	MP3B	Z	5.338	1
33	MP3B	Mx	.0086	1
34	MP3C	X	-9.245	1
35	MP3C	Z	5.338	1
36	MP3C	Mx	.0086	1
37	MP1C	X	-26.589	1
38	MP1C	Z	15.351	1
39	MP1C	Mx	-.0126	1
40	MP1C	X	-26.589	4
41	MP1C	Z	15.351	4
42	MP1C	Mx	-.0126	4
43	MP5C	X	-26.589	1
44	MP5C	Z	15.351	1
45	MP5C	Mx	-.0126	1
46	MP5C	X	-26.589	4
47	MP5C	Z	15.351	4
48	MP5C	Mx	-.0126	4
49	MP2A	X	-18.461	1
50	MP2A	Z	10.658	1
51	MP2A	Mx	.0149	1
52	MP2A	X	-18.461	4
53	MP2A	Z	10.658	4
54	MP2A	Mx	.0149	4
55	MP2B	X	-22.024	1
56	MP2B	Z	12.716	1
57	MP2B	Mx	.0049	1
58	MP2B	X	-22.024	4
59	MP2B	Z	12.716	4
60	MP2B	Mx	.0049	4
61	MP2C	X	-19.549	1
62	MP2C	Z	11.287	1
63	MP2C	Mx	-.0168	1
64	MP2C	X	-19.549	4
65	MP2C	Z	11.287	4
66	MP2C	Mx	-.0168	4
67	MP2A	X	-18.461	1
68	MP2A	Z	10.658	1
69	MP2A	Mx	.0044	1
70	MP2A	X	-18.461	4
71	MP2A	Z	10.658	4
72	MP2A	Mx	.0044	4
73	MP2B	X	-22.024	1
74	MP2B	Z	12.716	1
75	MP2B	Mx	-.0194	1
76	MP2B	X	-22.024	4
77	MP2B	Z	12.716	4
78	MP2B	Mx	-.0194	4
79	MP2C	X	-19.549	1
80	MP2C	Z	11.287	1
81	MP2C	Mx	-.0017	1
82	MP2C	X	-19.549	4
83	MP2C	Z	11.287	4
84	MP2C	Mx	-.0017	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP1A	X	-10.401	1
86	MP1A	Z	6.005	1
87	MP1A	Mx	.0054	1
88	MP1A	X	-10.401	4
89	MP1A	Z	6.005	4
90	MP1A	Mx	.0054	4
91	MP1B	X	-10.623	1
92	MP1B	Z	6.133	1
93	MP1B	Mx	-.0035	1
94	MP1B	X	-10.623	4
95	MP1B	Z	6.133	4
96	MP1B	Mx	-.0035	4
97	MP5A	X	-10.401	1
98	MP5A	Z	6.005	1
99	MP5A	Mx	.0054	1
100	MP5A	X	-10.401	4
101	MP5A	Z	6.005	4
102	MP5A	Mx	.0054	4
103	MP5B	X	-10.623	1
104	MP5B	Z	6.133	1
105	MP5B	Mx	-.0035	1
106	MP5B	X	-10.623	4
107	MP5B	Z	6.133	4
108	MP5B	Mx	-.0035	4
109	GPS	X	-5.052	.5
110	GPS	Z	2.917	.5
111	GPS	Mx	0	.5
112	O1	X	-20.158	1
113	O1	Z	11.638	1
114	O1	Mx	0	1
115	GPS2	X	-5.052	.5
116	GPS2	Z	2.917	.5
117	GPS2	Mx	0	.5
118	M46	X	-5.052	.5
119	M46	Z	2.917	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.147	1
2	MP4A	Z	0	1
3	MP4A	Mx	.0031	1
4	MP4A	X	-6.147	4
5	MP4A	Z	0	4
6	MP4A	Mx	.0031	4
7	MP4B	X	-13.713	1
8	MP4B	Z	0	1
9	MP4B	Mx	-.000598	1
10	MP4B	X	-13.713	4
11	MP4B	Z	0	4
12	MP4B	Mx	-.000598	4
13	MP4C	X	-6.147	1
14	MP4C	Z	0	1
15	MP4C	Mx	-.0031	1
16	MP4C	X	-6.147	4
17	MP4C	Z	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4C	Mx	-.0031	4
19	MP2A	X	-10.27	1
20	MP2A	Z	0	1
21	MP2A	Mx	.0085	1
22	MP2B	X	-14.401	1
23	MP2B	Z	0	1
24	MP2B	Mx	-.001	1
25	MP2C	X	-10.27	1
26	MP2C	Z	0	1
27	MP2C	Mx	-.0085	1
28	MP3A	X	-12.419	1
29	MP3A	Z	0	1
30	MP3A	Mx	.0073	1
31	MP3B	X	-12.419	1
32	MP3B	Z	0	1
33	MP3B	Mx	.0073	1
34	MP3C	X	-12.419	1
35	MP3C	Z	0	1
36	MP3C	Mx	.0073	1
37	MP1C	X	-29.571	1
38	MP1C	Z	0	1
39	MP1C	Mx	-.0147	1
40	MP1C	X	-29.571	4
41	MP1C	Z	0	4
42	MP1C	Mx	-.0147	4
43	MP5C	X	-29.571	1
44	MP5C	Z	0	1
45	MP5C	Mx	-.0147	1
46	MP5C	X	-29.571	4
47	MP5C	Z	0	4
48	MP5C	Mx	-.0147	4
49	MP2A	X	-19.888	1
50	MP2A	Z	0	1
51	MP2A	Mx	.0089	1
52	MP2A	X	-19.888	4
53	MP2A	Z	0	4
54	MP2A	Mx	.0089	4
55	MP2B	X	-28.118	1
56	MP2B	Z	0	1
57	MP2B	Mx	.0151	1
58	MP2B	X	-28.118	4
59	MP2B	Z	0	4
60	MP2B	Mx	.0151	4
61	MP2C	X	-19.888	1
62	MP2C	Z	0	1
63	MP2C	Mx	-.0109	1
64	MP2C	X	-19.888	4
65	MP2C	Z	0	4
66	MP2C	Mx	-.0109	4
67	MP2A	X	-19.888	1
68	MP2A	Z	0	1
69	MP2A	Mx	.0109	1
70	MP2A	X	-19.888	4
71	MP2A	Z	0	4
72	MP2A	Mx	.0109	4
73	MP2B	X	-28.118	1
74	MP2B	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP2B	Mx	-.0176	1
76	MP2B	X	-28.118	4
77	MP2B	Z	0	4
78	MP2B	Mx	-.0176	4
79	MP2C	X	-19.888	1
80	MP2C	Z	0	1
81	MP2C	Mx	-.0089	1
82	MP2C	X	-19.888	4
83	MP2C	Z	0	4
84	MP2C	Mx	-.0089	4
85	MP1A	X	-11.921	1
86	MP1A	Z	0	1
87	MP1A	Mx	.0059	1
88	MP1A	X	-11.921	4
89	MP1A	Z	0	4
90	MP1A	Mx	.0059	4
91	MP1B	X	-12.433	1
92	MP1B	Z	0	1
93	MP1B	Mx	-.000542	1
94	MP1B	X	-12.433	4
95	MP1B	Z	0	4
96	MP1B	Mx	-.000542	4
97	MP5A	X	-11.921	1
98	MP5A	Z	0	1
99	MP5A	Mx	.0059	1
100	MP5A	X	-11.921	4
101	MP5A	Z	0	4
102	MP5A	Mx	.0059	4
103	MP5B	X	-12.433	1
104	MP5B	Z	0	1
105	MP5B	Mx	-.000542	1
106	MP5B	X	-12.433	4
107	MP5B	Z	0	4
108	MP5B	Mx	-.000542	4
109	GPS	X	-6.732	.5
110	GPS	Z	0	.5
111	GPS	Mx	0	.5
112	O1	X	-25.9	1
113	O1	Z	0	1
114	O1	Mx	0	1
115	GPS2	X	-6.732	.5
116	GPS2	Z	0	.5
117	GPS2	Mx	0	.5
118	M46	X	-6.732	.5
119	M46	Z	0	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-7.462	1
2	MP4A	Z	-4.308	1
3	MP4A	Mx	.0035	1
4	MP4A	X	-7.462	4
5	MP4A	Z	-4.308	4
6	MP4A	Mx	.0035	4
7	MP4B	X	-10.738	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP4B	Z	-6.199	1
9	MP4B	Mx	.0026	1
10	MP4B	X	-10.738	4
11	MP4B	Z	-6.199	4
12	MP4B	Mx	.0026	4
13	MP4C	X	-6.461	1
14	MP4C	Z	-3.73	1
15	MP4C	Mx	-.0034	1
16	MP4C	X	-6.461	4
17	MP4C	Z	-3.73	4
18	MP4C	Mx	-.0034	4
19	MP2A	X	-10.061	1
20	MP2A	Z	-5.809	1
21	MP2A	Mx	.0079	1
22	MP2B	X	-11.85	1
23	MP2B	Z	-6.842	1
24	MP2B	Mx	.0048	1
25	MP2C	X	-9.515	1
26	MP2C	Z	-5.493	1
27	MP2C	Mx	-.0083	1
28	MP3A	X	-12.266	1
29	MP3A	Z	-7.082	1
30	MP3A	Mx	.0031	1
31	MP3B	X	-12.266	1
32	MP3B	Z	-7.082	1
33	MP3B	Mx	.0031	1
34	MP3C	X	-12.266	1
35	MP3C	Z	-7.082	1
36	MP3C	Mx	.0031	1
37	MP1C	X	-26.131	1
38	MP1C	Z	-15.087	1
39	MP1C	Mx	-.0137	1
40	MP1C	X	-26.131	4
41	MP1C	Z	-15.087	4
42	MP1C	Mx	-.0137	4
43	MP5C	X	-26.131	1
44	MP5C	Z	-15.087	1
45	MP5C	Mx	-.0137	1
46	MP5C	X	-26.131	4
47	MP5C	Z	-15.087	4
48	MP5C	Mx	-.0137	4
49	MP2A	X	-19.549	1
50	MP2A	Z	-11.287	1
51	MP2A	Mx	.0017	1
52	MP2A	X	-19.549	4
53	MP2A	Z	-11.287	4
54	MP2A	Mx	.0017	4
55	MP2B	X	-23.113	1
56	MP2B	Z	-13.344	1
57	MP2B	Mx	.0197	1
58	MP2B	X	-23.113	4
59	MP2B	Z	-13.344	4
60	MP2B	Mx	.0197	4
61	MP2C	X	-18.461	1
62	MP2C	Z	-10.658	1
63	MP2C	Mx	-.0044	1
64	MP2C	X	-18.461	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	Z	-10.658	4
66	MP2C	Mx	-.0044	4
67	MP2A	X	-19.549	1
68	MP2A	Z	-11.287	1
69	MP2A	Mx	.0168	1
70	MP2A	X	-19.549	4
71	MP2A	Z	-11.287	4
72	MP2A	Mx	.0168	4
73	MP2B	X	-23.113	1
74	MP2B	Z	-13.344	1
75	MP2B	Mx	-.0085	1
76	MP2B	X	-23.113	4
77	MP2B	Z	-13.344	4
78	MP2B	Mx	-.0085	4
79	MP2C	X	-18.461	1
80	MP2C	Z	-10.658	1
81	MP2C	Mx	-.0149	1
82	MP2C	X	-18.461	4
83	MP2C	Z	-10.658	4
84	MP2C	Mx	-.0149	4
85	MP1A	X	-10.469	1
86	MP1A	Z	-6.044	1
87	MP1A	Mx	.005	1
88	MP1A	X	-10.469	4
89	MP1A	Z	-6.044	4
90	MP1A	Mx	.005	4
91	MP1B	X	-10.69	1
92	MP1B	Z	-6.172	1
93	MP1B	Mx	.0026	1
94	MP1B	X	-10.69	4
95	MP1B	Z	-6.172	4
96	MP1B	Mx	.0026	4
97	MP5A	X	-10.469	1
98	MP5A	Z	-6.044	1
99	MP5A	Mx	.005	1
100	MP5A	X	-10.469	4
101	MP5A	Z	-6.044	4
102	MP5A	Mx	.005	4
103	MP5B	X	-10.69	1
104	MP5B	Z	-6.172	1
105	MP5B	Mx	.0026	1
106	MP5B	X	-10.69	4
107	MP5B	Z	-6.172	4
108	MP5B	Mx	.0026	4
109	GPS	X	-6.607	.5
110	GPS	Z	-3.815	.5
111	GPS	Mx	0	.5
112	O1	X	-24.702	1
113	O1	Z	-14.262	1
114	O1	Mx	0	1
115	GPS2	X	-6.607	.5
116	GPS2	Z	-3.815	.5
117	GPS2	Mx	0	.5
118	M46	X	-6.607	.5
119	M46	Z	-3.815	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.199	1
2	MP4A	Z	-10.738	1
3	MP4A	Mx	.0026	1
4	MP4A	X	-6.199	4
5	MP4A	Z	-10.738	4
6	MP4A	Mx	.0026	4
7	MP4B	X	-4.308	1
8	MP4B	Z	-7.462	1
9	MP4B	Mx	.0035	1
10	MP4B	X	-4.308	4
11	MP4B	Z	-7.462	4
12	MP4B	Mx	.0035	4
13	MP4C	X	-5.622	1
14	MP4C	Z	-9.737	1
15	MP4C	Mx	-.0032	1
16	MP4C	X	-5.622	4
17	MP4C	Z	-9.737	4
18	MP4C	Mx	-.0032	4
19	MP2A	X	-6.842	1
20	MP2A	Z	-11.85	1
21	MP2A	Mx	.0048	1
22	MP2B	X	-5.809	1
23	MP2B	Z	-10.061	1
24	MP2B	Mx	.0079	1
25	MP2C	X	-6.526	1
26	MP2C	Z	-11.304	1
27	MP2C	Mx	-.0062	1
28	MP3A	X	-7.082	1
29	MP3A	Z	-12.266	1
30	MP3A	Mx	-.0031	1
31	MP3B	X	-7.082	1
32	MP3B	Z	-12.266	1
33	MP3B	Mx	-.0031	1
34	MP3C	X	-7.082	1
35	MP3C	Z	-12.266	1
36	MP3C	Mx	-.0031	1
37	MP1C	X	-15.953	1
38	MP1C	Z	-27.631	1
39	MP1C	Mx	-.0092	1
40	MP1C	X	-15.953	4
41	MP1C	Z	-27.631	4
42	MP1C	Mx	-.0092	4
43	MP5C	X	-15.953	1
44	MP5C	Z	-27.631	1
45	MP5C	Mx	-.0092	1
46	MP5C	X	-15.953	4
47	MP5C	Z	-27.631	4
48	MP5C	Mx	-.0092	4
49	MP2A	X	-13.344	1
50	MP2A	Z	-23.113	1
51	MP2A	Mx	-.0085	1
52	MP2A	X	-13.344	4
53	MP2A	Z	-23.113	4
54	MP2A	Mx	-.0085	4
55	MP2B	X	-11.287	1
56	MP2B	Z	-19.549	1
57	MP2B	Mx	.0168	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2B	X	-11.287	4
59	MP2B	Z	-19.549	4
60	MP2B	Mx	.0168	4
61	MP2C	X	-12.716	1
62	MP2C	Z	-22.024	1
63	MP2C	Mx	.0049	1
64	MP2C	X	-12.716	4
65	MP2C	Z	-22.024	4
66	MP2C	Mx	.0049	4
67	MP2A	X	-13.344	1
68	MP2A	Z	-23.113	1
69	MP2A	Mx	.0197	1
70	MP2A	X	-13.344	4
71	MP2A	Z	-23.113	4
72	MP2A	Mx	.0197	4
73	MP2B	X	-11.287	1
74	MP2B	Z	-19.549	1
75	MP2B	Mx	.0017	1
76	MP2B	X	-11.287	4
77	MP2B	Z	-19.549	4
78	MP2B	Mx	.0017	4
79	MP2C	X	-12.716	1
80	MP2C	Z	-22.024	1
81	MP2C	Mx	-.0194	1
82	MP2C	X	-12.716	4
83	MP2C	Z	-22.024	4
84	MP2C	Mx	-.0194	4
85	MP1A	X	-6.172	1
86	MP1A	Z	-10.69	1
87	MP1A	Mx	.0026	1
88	MP1A	X	-6.172	4
89	MP1A	Z	-10.69	4
90	MP1A	Mx	.0026	4
91	MP1B	X	-6.044	1
92	MP1B	Z	-10.469	1
93	MP1B	Mx	.005	1
94	MP1B	X	-6.044	4
95	MP1B	Z	-10.469	4
96	MP1B	Mx	.005	4
97	MP5A	X	-6.172	1
98	MP5A	Z	-10.69	1
99	MP5A	Mx	.0026	1
100	MP5A	X	-6.172	4
101	MP5A	Z	-10.69	4
102	MP5A	Mx	.0026	4
103	MP5B	X	-6.044	1
104	MP5B	Z	-10.469	1
105	MP5B	Mx	.005	1
106	MP5B	X	-6.044	4
107	MP5B	Z	-10.469	4
108	MP5B	Mx	.005	4
109	GPS	X	-3.815	.5
110	GPS	Z	-6.607	.5
111	GPS	Mx	0	.5
112	O1	X	-14.262	1
113	O1	Z	-24.702	1
114	O1	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	GPS2	X	-3.815	.5
116	GPS2	Z	-6.607	.5
117	GPS2	Mx	0	.5
118	M46	X	-3.815	.5
119	M46	Z	-6.607	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-3.373	1
3	MP4A	Mx	-.000147	1
4	MP4A	X	0	4
5	MP4A	Z	-3.373	4
6	MP4A	Mx	-.000147	4
7	MP4B	X	0	1
8	MP4B	Z	-1.207	1
9	MP4B	Mx	.000601	1
10	MP4B	X	0	4
11	MP4B	Z	-1.207	4
12	MP4B	Mx	.000601	4
13	MP4C	X	0	1
14	MP4C	Z	-3.373	1
15	MP4C	Mx	-.000147	1
16	MP4C	X	0	4
17	MP4C	Z	-3.373	4
18	MP4C	Mx	-.000147	4
19	MP2A	X	0	1
20	MP2A	Z	-3.291	1
21	MP2A	Mx	-.000239	1
22	MP2B	X	0	1
23	MP2B	Z	-2.222	1
24	MP2B	Mx	.0018	1
25	MP2C	X	0	1
26	MP2C	Z	-3.291	1
27	MP2C	Mx	-.000239	1
28	MP3A	X	0	1
29	MP3A	Z	-3.347	1
30	MP3A	Mx	-.002	1
31	MP3B	X	0	1
32	MP3B	Z	-3.347	1
33	MP3B	Mx	-.002	1
34	MP3C	X	0	1
35	MP3C	Z	-3.347	1
36	MP3C	Mx	-.002	1
37	MP1C	X	0	1
38	MP1C	Z	-10.459	1
39	MP1C	Mx	-.000456	1
40	MP1C	X	0	4
41	MP1C	Z	-10.459	4
42	MP1C	Mx	-.000456	4
43	MP5C	X	0	1
44	MP5C	Z	-10.459	1
45	MP5C	Mx	-.000456	1
46	MP5C	X	0	4
47	MP5C	Z	-10.459	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP5C	Mx	-.000456	4
49	MP2A	X	0	1
50	MP2A	Z	-5.884	1
51	MP2A	Mx	-.0037	1
52	MP2A	X	0	4
53	MP2A	Z	-5.884	4
54	MP2A	Mx	-.0037	4
55	MP2B	X	0	1
56	MP2B	Z	-2.567	1
57	MP2B	Mx	.0014	1
58	MP2B	X	0	4
59	MP2B	Z	-2.567	4
60	MP2B	Mx	.0014	4
61	MP2C	X	0	1
62	MP2C	Z	-5.884	1
63	MP2C	Mx	.0032	1
64	MP2C	X	0	4
65	MP2C	Z	-5.884	4
66	MP2C	Mx	.0032	4
67	MP2A	X	0	1
68	MP2A	Z	-5.884	1
69	MP2A	Mx	.0032	1
70	MP2A	X	0	4
71	MP2A	Z	-5.884	4
72	MP2A	Mx	.0032	4
73	MP2B	X	0	1
74	MP2B	Z	-2.567	1
75	MP2B	Mx	.0011	1
76	MP2B	X	0	4
77	MP2B	Z	-2.567	4
78	MP2B	Mx	.0011	4
79	MP2C	X	0	1
80	MP2C	Z	-5.884	1
81	MP2C	Mx	-.0037	1
82	MP2C	X	0	4
83	MP2C	Z	-5.884	4
84	MP2C	Mx	-.0037	4
85	MP1A	X	0	1
86	MP1A	Z	-3.57	1
87	MP1A	Mx	-.000156	1
88	MP1A	X	0	4
89	MP1A	Z	-3.57	4
90	MP1A	Mx	-.000156	4
91	MP1B	X	0	1
92	MP1B	Z	-3.403	1
93	MP1B	Mx	.0017	1
94	MP1B	X	0	4
95	MP1B	Z	-3.403	4
96	MP1B	Mx	.0017	4
97	MP5A	X	0	1
98	MP5A	Z	-3.57	1
99	MP5A	Mx	-.000156	1
100	MP5A	X	0	4
101	MP5A	Z	-3.57	4
102	MP5A	Mx	-.000156	4
103	MP5B	X	0	1
104	MP5B	Z	-3.403	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP5B	Mx	.0017	1
106	MP5B	X	0	4
107	MP5B	Z	-3.403	4
108	MP5B	Mx	.0017	4
109	GPS	X	0	.5
110	GPS	Z	-1.703	.5
111	GPS	Mx	0	.5
112	O1	X	0	1
113	O1	Z	-5.938	1
114	O1	Mx	0	1
115	GPS2	X	0	.5
116	GPS2	Z	-1.703	.5
117	GPS2	Mx	0	.5
118	M46	X	0	.5
119	M46	Z	-1.703	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.333	1
2	MP4A	Z	-2.309	1
3	MP4A	Mx	-.000765	1
4	MP4A	X	1.333	4
5	MP4A	Z	-2.309	4
6	MP4A	Mx	-.000765	4
7	MP4B	X	.792	1
8	MP4B	Z	-1.371	1
9	MP4B	Mx	.000717	1
10	MP4B	X	.792	4
11	MP4B	Z	-1.371	4
12	MP4B	Mx	.000717	4
13	MP4C	X	1.498	1
14	MP4C	Z	-2.595	1
15	MP4C	Mx	.000633	1
16	MP4C	X	1.498	4
17	MP4C	Z	-2.595	4
18	MP4C	Mx	.000633	4
19	MP2A	X	1.471	1
20	MP2A	Z	-2.548	1
21	MP2A	Mx	-.0014	1
22	MP2B	X	1.204	1
23	MP2B	Z	-2.085	1
24	MP2B	Mx	.0018	1
25	MP2C	X	1.553	1
26	MP2C	Z	-2.689	1
27	MP2C	Mx	.0011	1
28	MP3A	X	1.399	1
29	MP3A	Z	-2.424	1
30	MP3A	Mx	-.0023	1
31	MP3B	X	1.399	1
32	MP3B	Z	-2.424	1
33	MP3B	Mx	-.0023	1
34	MP3C	X	1.399	1
35	MP3C	Z	-2.424	1
36	MP3C	Mx	-.0023	1
37	MP1C	X	5.123	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP1C	Z	-8.874	1
39	MP1C	Mx	.0022	1
40	MP1C	X	5.123	4
41	MP1C	Z	-8.874	4
42	MP1C	Mx	.0022	4
43	MP5C	X	5.123	1
44	MP5C	Z	-8.874	1
45	MP5C	Mx	.0022	1
46	MP5C	X	5.123	4
47	MP5C	Z	-8.874	4
48	MP5C	Mx	.0022	4
49	MP2A	X	2.401	1
50	MP2A	Z	-4.158	1
51	MP2A	Mx	-.0037	1
52	MP2A	X	2.401	4
53	MP2A	Z	-4.158	4
54	MP2A	Mx	-.0037	4
55	MP2B	X	1.572	1
56	MP2B	Z	-2.722	1
57	MP2B	Mx	.000649	1
58	MP2B	X	1.572	4
59	MP2B	Z	-2.722	4
60	MP2B	Mx	.000649	4
61	MP2C	X	2.654	1
62	MP2C	Z	-4.597	1
63	MP2C	Mx	.0039	1
64	MP2C	X	2.654	4
65	MP2C	Z	-4.597	4
66	MP2C	Mx	.0039	4
67	MP2A	X	2.401	1
68	MP2A	Z	-4.158	1
69	MP2A	Mx	.000917	1
70	MP2A	X	2.401	4
71	MP2A	Z	-4.158	4
72	MP2A	Mx	.000917	4
73	MP2B	X	1.572	1
74	MP2B	Z	-2.722	1
75	MP2B	Mx	.0022	1
76	MP2B	X	1.572	4
77	MP2B	Z	-2.722	4
78	MP2B	Mx	.0022	4
79	MP2C	X	2.654	1
80	MP2C	Z	-4.597	1
81	MP2C	Mx	-.0017	1
82	MP2C	X	2.654	4
83	MP2C	Z	-4.597	4
84	MP2C	Mx	-.0017	4
85	MP1A	X	1.758	1
86	MP1A	Z	-3.045	1
87	MP1A	Mx	-.001	1
88	MP1A	X	1.758	4
89	MP1A	Z	-3.045	4
90	MP1A	Mx	-.001	4
91	MP1B	X	1.716	1
92	MP1B	Z	-2.972	1
93	MP1B	Mx	.0016	1
94	MP1B	X	1.716	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	-2.972	4
96	MP1B	Mx	.0016	4
97	MP5A	X	1.758	1
98	MP5A	Z	-3.045	1
99	MP5A	Mx	-.001	1
100	MP5A	X	1.758	4
101	MP5A	Z	-3.045	4
102	MP5A	Mx	-.001	4
103	MP5B	X	1.716	1
104	MP5B	Z	-2.972	1
105	MP5B	Mx	.0016	1
106	MP5B	X	1.716	4
107	MP5B	Z	-2.972	4
108	MP5B	Mx	.0016	4
109	GPS	X	.667	.5
110	GPS	Z	-1.155	.5
111	GPS	Mx	0	.5
112	O1	X	2.619	1
113	O1	Z	-4.536	1
114	O1	Mx	0	1
115	GPS2	X	.667	.5
116	GPS2	Z	-1.155	.5
117	GPS2	Mx	0	.5
118	M46	X	.667	.5
119	M46	Z	-1.155	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.371	1
2	MP4A	Z	-.792	1
3	MP4A	Mx	-.000717	1
4	MP4A	X	1.371	4
5	MP4A	Z	-.792	4
6	MP4A	Mx	-.000717	4
7	MP4B	X	2.309	1
8	MP4B	Z	-1.333	1
9	MP4B	Mx	.000765	1
10	MP4B	X	2.309	4
11	MP4B	Z	-1.333	4
12	MP4B	Mx	.000765	4
13	MP4C	X	1.657	1
14	MP4C	Z	-.957	1
15	MP4C	Mx	.000784	1
16	MP4C	X	1.657	4
17	MP4C	Z	-.957	4
18	MP4C	Mx	.000784	4
19	MP2A	X	2.085	1
20	MP2A	Z	-1.204	1
21	MP2A	Mx	-.0018	1
22	MP2B	X	2.548	1
23	MP2B	Z	-1.471	1
24	MP2B	Mx	.0014	1
25	MP2C	X	2.226	1
26	MP2C	Z	-1.285	1
27	MP2C	Mx	.0018	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP3A	X	2.424	1
29	MP3A	Z	-1.399	1
30	MP3A	Mx	-.0023	1
31	MP3B	X	2.424	1
32	MP3B	Z	-1.399	1
33	MP3B	Mx	-.0023	1
34	MP3C	X	2.424	1
35	MP3C	Z	-1.399	1
36	MP3C	Mx	-.0023	1
37	MP1C	X	8.345	1
38	MP1C	Z	-4.818	1
39	MP1C	Mx	.0039	1
40	MP1C	X	8.345	4
41	MP1C	Z	-4.818	4
42	MP1C	Mx	.0039	4
43	MP5C	X	8.345	1
44	MP5C	Z	-4.818	1
45	MP5C	Mx	.0039	1
46	MP5C	X	8.345	4
47	MP5C	Z	-4.818	4
48	MP5C	Mx	.0039	4
49	MP2A	X	2.722	1
50	MP2A	Z	-1.572	1
51	MP2A	Mx	-.0022	1
52	MP2A	X	2.722	4
53	MP2A	Z	-1.572	4
54	MP2A	Mx	-.0022	4
55	MP2B	X	4.158	1
56	MP2B	Z	-2.401	1
57	MP2B	Mx	-.000917	1
58	MP2B	X	4.158	4
59	MP2B	Z	-2.401	4
60	MP2B	Mx	-.000917	4
61	MP2C	X	3.161	1
62	MP2C	Z	-1.825	1
63	MP2C	Mx	.0027	1
64	MP2C	X	3.161	4
65	MP2C	Z	-1.825	4
66	MP2C	Mx	.0027	4
67	MP2A	X	2.722	1
68	MP2A	Z	-1.572	1
69	MP2A	Mx	-.000649	1
70	MP2A	X	2.722	4
71	MP2A	Z	-1.572	4
72	MP2A	Mx	-.000649	4
73	MP2B	X	4.158	1
74	MP2B	Z	-2.401	1
75	MP2B	Mx	.0037	1
76	MP2B	X	4.158	4
77	MP2B	Z	-2.401	4
78	MP2B	Mx	.0037	4
79	MP2C	X	3.161	1
80	MP2C	Z	-1.825	1
81	MP2C	Mx	.000274	1
82	MP2C	X	3.161	4
83	MP2C	Z	-1.825	4
84	MP2C	Mx	.000274	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP1A	X	2.972	1
86	MP1A	Z	-1.716	1
87	MP1A	Mx	-.0016	1
88	MP1A	X	2.972	4
89	MP1A	Z	-1.716	4
90	MP1A	Mx	-.0016	4
91	MP1B	X	3.045	1
92	MP1B	Z	-1.758	1
93	MP1B	Mx	.001	1
94	MP1B	X	3.045	4
95	MP1B	Z	-1.758	4
96	MP1B	Mx	.001	4
97	MP5A	X	2.972	1
98	MP5A	Z	-1.716	1
99	MP5A	Mx	-.0016	1
100	MP5A	X	2.972	4
101	MP5A	Z	-1.716	4
102	MP5A	Mx	-.0016	4
103	MP5B	X	3.045	1
104	MP5B	Z	-1.758	1
105	MP5B	Mx	.001	1
106	MP5B	X	3.045	4
107	MP5B	Z	-1.758	4
108	MP5B	Mx	.001	4
109	GPS	X	1.155	.5
110	GPS	Z	-.667	.5
111	GPS	Mx	0	.5
112	O1	X	4.536	1
113	O1	Z	-2.619	1
114	O1	Mx	0	1
115	GPS2	X	1.155	.5
116	GPS2	Z	-.667	.5
117	GPS2	Mx	0	.5
118	M46	X	1.155	.5
119	M46	Z	-.667	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.207	1
2	MP4A	Z	0	1
3	MP4A	Mx	-.000601	1
4	MP4A	X	1.207	4
5	MP4A	Z	0	4
6	MP4A	Mx	-.000601	4
7	MP4B	X	3.373	1
8	MP4B	Z	0	1
9	MP4B	Mx	.000147	1
10	MP4B	X	3.373	4
11	MP4B	Z	0	4
12	MP4B	Mx	.000147	4
13	MP4C	X	1.207	1
14	MP4C	Z	0	1
15	MP4C	Mx	.000601	1
16	MP4C	X	1.207	4
17	MP4C	Z	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4C	Mx	.000601	4
19	MP2A	X	2.222	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.0018	1
22	MP2B	X	3.291	1
23	MP2B	Z	0	1
24	MP2B	Mx	.000239	1
25	MP2C	X	2.222	1
26	MP2C	Z	0	1
27	MP2C	Mx	.0018	1
28	MP3A	X	3.347	1
29	MP3A	Z	0	1
30	MP3A	Mx	-.002	1
31	MP3B	X	3.347	1
32	MP3B	Z	0	1
33	MP3B	Mx	-.002	1
34	MP3C	X	3.347	1
35	MP3C	Z	0	1
36	MP3C	Mx	-.002	1
37	MP1C	X	9.237	1
38	MP1C	Z	0	1
39	MP1C	Mx	.0046	1
40	MP1C	X	9.237	4
41	MP1C	Z	0	4
42	MP1C	Mx	.0046	4
43	MP5C	X	9.237	1
44	MP5C	Z	0	1
45	MP5C	Mx	.0046	1
46	MP5C	X	9.237	4
47	MP5C	Z	0	4
48	MP5C	Mx	.0046	4
49	MP2A	X	2.567	1
50	MP2A	Z	0	1
51	MP2A	Mx	-.0011	1
52	MP2A	X	2.567	4
53	MP2A	Z	0	4
54	MP2A	Mx	-.0011	4
55	MP2B	X	5.884	1
56	MP2B	Z	0	1
57	MP2B	Mx	-.0032	1
58	MP2B	X	5.884	4
59	MP2B	Z	0	4
60	MP2B	Mx	-.0032	4
61	MP2C	X	2.567	1
62	MP2C	Z	0	1
63	MP2C	Mx	.0014	1
64	MP2C	X	2.567	4
65	MP2C	Z	0	4
66	MP2C	Mx	.0014	4
67	MP2A	X	2.567	1
68	MP2A	Z	0	1
69	MP2A	Mx	-.0014	1
70	MP2A	X	2.567	4
71	MP2A	Z	0	4
72	MP2A	Mx	-.0014	4
73	MP2B	X	5.884	1
74	MP2B	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP2B	Mx	.0037	1
76	MP2B	X	5.884	4
77	MP2B	Z	0	4
78	MP2B	Mx	.0037	4
79	MP2C	X	2.567	1
80	MP2C	Z	0	1
81	MP2C	Mx	.0011	1
82	MP2C	X	2.567	4
83	MP2C	Z	0	4
84	MP2C	Mx	.0011	4
85	MP1A	X	3.403	1
86	MP1A	Z	0	1
87	MP1A	Mx	-.0017	1
88	MP1A	X	3.403	4
89	MP1A	Z	0	4
90	MP1A	Mx	-.0017	4
91	MP1B	X	3.57	1
92	MP1B	Z	0	1
93	MP1B	Mx	.000156	1
94	MP1B	X	3.57	4
95	MP1B	Z	0	4
96	MP1B	Mx	.000156	4
97	MP5A	X	3.403	1
98	MP5A	Z	0	1
99	MP5A	Mx	-.0017	1
100	MP5A	X	3.403	4
101	MP5A	Z	0	4
102	MP5A	Mx	-.0017	4
103	MP5B	X	3.57	1
104	MP5B	Z	0	1
105	MP5B	Mx	.000156	1
106	MP5B	X	3.57	4
107	MP5B	Z	0	4
108	MP5B	Mx	.000156	4
109	GPS	X	1.703	.5
110	GPS	Z	0	.5
111	GPS	Mx	0	.5
112	O1	X	5.938	1
113	O1	Z	0	1
114	O1	Mx	0	1
115	GPS2	X	1.703	.5
116	GPS2	Z	0	.5
117	GPS2	Mx	0	.5
118	M46	X	1.703	.5
119	M46	Z	0	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.657	1
2	MP4A	Z	.957	1
3	MP4A	Mx	-.000784	1
4	MP4A	X	1.657	4
5	MP4A	Z	.957	4
6	MP4A	Mx	-.000784	4
7	MP4B	X	2.595	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP4B	Z	1.498	1
9	MP4B	Mx	-.000633	1
10	MP4B	X	2.595	4
11	MP4B	Z	1.498	4
12	MP4B	Mx	-.000633	4
13	MP4C	X	1.371	1
14	MP4C	Z	.792	1
15	MP4C	Mx	.000717	1
16	MP4C	X	1.371	4
17	MP4C	Z	.792	4
18	MP4C	Mx	.000717	4
19	MP2A	X	2.226	1
20	MP2A	Z	1.285	1
21	MP2A	Mx	-.0018	1
22	MP2B	X	2.689	1
23	MP2B	Z	1.553	1
24	MP2B	Mx	-.0011	1
25	MP2C	X	2.085	1
26	MP2C	Z	1.204	1
27	MP2C	Mx	.0018	1
28	MP3A	X	3.373	1
29	MP3A	Z	1.948	1
30	MP3A	Mx	-.00084	1
31	MP3B	X	3.373	1
32	MP3B	Z	1.948	1
33	MP3B	Mx	-.00084	1
34	MP3C	X	3.373	1
35	MP3C	Z	1.948	1
36	MP3C	Mx	-.00084	1
37	MP1C	X	8.183	1
38	MP1C	Z	4.724	1
39	MP1C	Mx	.0043	1
40	MP1C	X	8.183	4
41	MP1C	Z	4.724	4
42	MP1C	Mx	.0043	4
43	MP5C	X	8.183	1
44	MP5C	Z	4.724	1
45	MP5C	Mx	.0043	1
46	MP5C	X	8.183	4
47	MP5C	Z	4.724	4
48	MP5C	Mx	.0043	4
49	MP2A	X	3.161	1
50	MP2A	Z	1.825	1
51	MP2A	Mx	-.000274	1
52	MP2A	X	3.161	4
53	MP2A	Z	1.825	4
54	MP2A	Mx	-.000274	4
55	MP2B	X	4.597	1
56	MP2B	Z	2.654	1
57	MP2B	Mx	-.0039	1
58	MP2B	X	4.597	4
59	MP2B	Z	2.654	4
60	MP2B	Mx	-.0039	4
61	MP2C	X	2.722	1
62	MP2C	Z	1.572	1
63	MP2C	Mx	.000649	1
64	MP2C	X	2.722	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	Z	1.572	4
66	MP2C	Mx	.000649	4
67	MP2A	X	3.161	1
68	MP2A	Z	1.825	1
69	MP2A	Mx	-.0027	1
70	MP2A	X	3.161	4
71	MP2A	Z	1.825	4
72	MP2A	Mx	-.0027	4
73	MP2B	X	4.597	1
74	MP2B	Z	2.654	1
75	MP2B	Mx	.0017	1
76	MP2B	X	4.597	4
77	MP2B	Z	2.654	4
78	MP2B	Mx	.0017	4
79	MP2C	X	2.722	1
80	MP2C	Z	1.572	1
81	MP2C	Mx	.0022	1
82	MP2C	X	2.722	4
83	MP2C	Z	1.572	4
84	MP2C	Mx	.0022	4
85	MP1A	X	2.995	1
86	MP1A	Z	1.729	1
87	MP1A	Mx	-.0014	1
88	MP1A	X	2.995	4
89	MP1A	Z	1.729	4
90	MP1A	Mx	-.0014	4
91	MP1B	X	3.067	1
92	MP1B	Z	1.771	1
93	MP1B	Mx	-.000748	1
94	MP1B	X	3.067	4
95	MP1B	Z	1.771	4
96	MP1B	Mx	-.000748	4
97	MP5A	X	2.995	1
98	MP5A	Z	1.729	1
99	MP5A	Mx	-.0014	1
100	MP5A	X	2.995	4
101	MP5A	Z	1.729	4
102	MP5A	Mx	-.0014	4
103	MP5B	X	3.067	1
104	MP5B	Z	1.771	1
105	MP5B	Mx	-.000748	1
106	MP5B	X	3.067	4
107	MP5B	Z	1.771	4
108	MP5B	Mx	-.000748	4
109	GPS	X	1.794	.5
110	GPS	Z	1.036	.5
111	GPS	Mx	0	.5
112	O1	X	5.749	1
113	O1	Z	3.319	1
114	O1	Mx	0	1
115	GPS2	X	1.794	.5
116	GPS2	Z	1.036	.5
117	GPS2	Mx	0	.5
118	M46	X	1.794	.5
119	M46	Z	1.036	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	1.498	1
2	MP4A	Z	2.595	1
3	MP4A	Mx	-.000633	1
4	MP4A	X	1.498	4
5	MP4A	Z	2.595	4
6	MP4A	Mx	-.000633	4
7	MP4B	X	.957	1
8	MP4B	Z	1.657	1
9	MP4B	Mx	-.000784	1
10	MP4B	X	.957	4
11	MP4B	Z	1.657	4
12	MP4B	Mx	-.000784	4
13	MP4C	X	1.333	1
14	MP4C	Z	2.309	1
15	MP4C	Mx	.000765	1
16	MP4C	X	1.333	4
17	MP4C	Z	2.309	4
18	MP4C	Mx	.000765	4
19	MP2A	X	1.553	1
20	MP2A	Z	2.689	1
21	MP2A	Mx	-.0011	1
22	MP2B	X	1.285	1
23	MP2B	Z	2.226	1
24	MP2B	Mx	-.0018	1
25	MP2C	X	1.471	1
26	MP2C	Z	2.548	1
27	MP2C	Mx	.0014	1
28	MP3A	X	1.948	1
29	MP3A	Z	3.373	1
30	MP3A	Mx	.00084	1
31	MP3B	X	1.948	1
32	MP3B	Z	3.373	1
33	MP3B	Mx	.00084	1
34	MP3C	X	1.948	1
35	MP3C	Z	3.373	1
36	MP3C	Mx	.00084	1
37	MP1C	X	5.03	1
38	MP1C	Z	8.712	1
39	MP1C	Mx	.0029	1
40	MP1C	X	5.03	4
41	MP1C	Z	8.712	4
42	MP1C	Mx	.0029	4
43	MP5C	X	5.03	1
44	MP5C	Z	8.712	1
45	MP5C	Mx	.0029	1
46	MP5C	X	5.03	4
47	MP5C	Z	8.712	4
48	MP5C	Mx	.0029	4
49	MP2A	X	2.654	1
50	MP2A	Z	4.597	1
51	MP2A	Mx	.0017	1
52	MP2A	X	2.654	4
53	MP2A	Z	4.597	4
54	MP2A	Mx	.0017	4
55	MP2B	X	1.825	1
56	MP2B	Z	3.161	1
57	MP2B	Mx	-.0027	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2B	X	1.825	4
59	MP2B	Z	3.161	4
60	MP2B	Mx	-.0027	4
61	MP2C	X	2.401	1
62	MP2C	Z	4.158	1
63	MP2C	Mx	-.000917	1
64	MP2C	X	2.401	4
65	MP2C	Z	4.158	4
66	MP2C	Mx	-.000917	4
67	MP2A	X	2.654	1
68	MP2A	Z	4.597	1
69	MP2A	Mx	-.0039	1
70	MP2A	X	2.654	4
71	MP2A	Z	4.597	4
72	MP2A	Mx	-.0039	4
73	MP2B	X	1.825	1
74	MP2B	Z	3.161	1
75	MP2B	Mx	-.000274	1
76	MP2B	X	1.825	4
77	MP2B	Z	3.161	4
78	MP2B	Mx	-.000274	4
79	MP2C	X	2.401	1
80	MP2C	Z	4.158	1
81	MP2C	Mx	.0037	1
82	MP2C	X	2.401	4
83	MP2C	Z	4.158	4
84	MP2C	Mx	.0037	4
85	MP1A	X	1.771	1
86	MP1A	Z	3.067	1
87	MP1A	Mx	-.000748	1
88	MP1A	X	1.771	4
89	MP1A	Z	3.067	4
90	MP1A	Mx	-.000748	4
91	MP1B	X	1.729	1
92	MP1B	Z	2.995	1
93	MP1B	Mx	-.0014	1
94	MP1B	X	1.729	4
95	MP1B	Z	2.995	4
96	MP1B	Mx	-.0014	4
97	MP5A	X	1.771	1
98	MP5A	Z	3.067	1
99	MP5A	Mx	-.000748	1
100	MP5A	X	1.771	4
101	MP5A	Z	3.067	4
102	MP5A	Mx	-.000748	4
103	MP5B	X	1.729	1
104	MP5B	Z	2.995	1
105	MP5B	Mx	-.0014	1
106	MP5B	X	1.729	4
107	MP5B	Z	2.995	4
108	MP5B	Mx	-.0014	4
109	GPS	X	1.036	.5
110	GPS	Z	1.794	.5
111	GPS	Mx	0	.5
112	O1	X	3.319	1
113	O1	Z	5.749	1
114	O1	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	GPS2	X	1.036	.5
116	GPS2	Z	1.794	.5
117	GPS2	Mx	0	.5
118	M46	X	1.036	.5
119	M46	Z	1.794	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	3.373	1
3	MP4A	Mx	.000147	1
4	MP4A	X	0	4
5	MP4A	Z	3.373	4
6	MP4A	Mx	.000147	4
7	MP4B	X	0	1
8	MP4B	Z	1.207	1
9	MP4B	Mx	-.000601	1
10	MP4B	X	0	4
11	MP4B	Z	1.207	4
12	MP4B	Mx	-.000601	4
13	MP4C	X	0	1
14	MP4C	Z	3.373	1
15	MP4C	Mx	.000147	1
16	MP4C	X	0	4
17	MP4C	Z	3.373	4
18	MP4C	Mx	.000147	4
19	MP2A	X	0	1
20	MP2A	Z	3.291	1
21	MP2A	Mx	.000239	1
22	MP2B	X	0	1
23	MP2B	Z	2.222	1
24	MP2B	Mx	-.0018	1
25	MP2C	X	0	1
26	MP2C	Z	3.291	1
27	MP2C	Mx	.000239	1
28	MP3A	X	0	1
29	MP3A	Z	3.347	1
30	MP3A	Mx	.002	1
31	MP3B	X	0	1
32	MP3B	Z	3.347	1
33	MP3B	Mx	.002	1
34	MP3C	X	0	1
35	MP3C	Z	3.347	1
36	MP3C	Mx	.002	1
37	MP1C	X	0	1
38	MP1C	Z	10.459	1
39	MP1C	Mx	.000456	1
40	MP1C	X	0	4
41	MP1C	Z	10.459	4
42	MP1C	Mx	.000456	4
43	MP5C	X	0	1
44	MP5C	Z	10.459	1
45	MP5C	Mx	.000456	1
46	MP5C	X	0	4
47	MP5C	Z	10.459	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP5C	Mx	.000456	4
49	MP2A	X	0	1
50	MP2A	Z	5.884	1
51	MP2A	Mx	.0037	1
52	MP2A	X	0	4
53	MP2A	Z	5.884	4
54	MP2A	Mx	.0037	4
55	MP2B	X	0	1
56	MP2B	Z	2.567	1
57	MP2B	Mx	-.0014	1
58	MP2B	X	0	4
59	MP2B	Z	2.567	4
60	MP2B	Mx	-.0014	4
61	MP2C	X	0	1
62	MP2C	Z	5.884	1
63	MP2C	Mx	-.0032	1
64	MP2C	X	0	4
65	MP2C	Z	5.884	4
66	MP2C	Mx	-.0032	4
67	MP2A	X	0	1
68	MP2A	Z	5.884	1
69	MP2A	Mx	-.0032	1
70	MP2A	X	0	4
71	MP2A	Z	5.884	4
72	MP2A	Mx	-.0032	4
73	MP2B	X	0	1
74	MP2B	Z	2.567	1
75	MP2B	Mx	-.0011	1
76	MP2B	X	0	4
77	MP2B	Z	2.567	4
78	MP2B	Mx	-.0011	4
79	MP2C	X	0	1
80	MP2C	Z	5.884	1
81	MP2C	Mx	.0037	1
82	MP2C	X	0	4
83	MP2C	Z	5.884	4
84	MP2C	Mx	.0037	4
85	MP1A	X	0	1
86	MP1A	Z	3.57	1
87	MP1A	Mx	.000156	1
88	MP1A	X	0	4
89	MP1A	Z	3.57	4
90	MP1A	Mx	.000156	4
91	MP1B	X	0	1
92	MP1B	Z	3.403	1
93	MP1B	Mx	-.0017	1
94	MP1B	X	0	4
95	MP1B	Z	3.403	4
96	MP1B	Mx	-.0017	4
97	MP5A	X	0	1
98	MP5A	Z	3.57	1
99	MP5A	Mx	.000156	1
100	MP5A	X	0	4
101	MP5A	Z	3.57	4
102	MP5A	Mx	.000156	4
103	MP5B	X	0	1
104	MP5B	Z	3.403	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
105	MP5B	Mx	-.0017	1
106	MP5B	X	0	4
107	MP5B	Z	3.403	4
108	MP5B	Mx	-.0017	4
109	GPS	X	0	.5
110	GPS	Z	1.703	.5
111	GPS	Mx	0	.5
112	O1	X	0	1
113	O1	Z	5.938	1
114	O1	Mx	0	1
115	GPS2	X	0	.5
116	GPS2	Z	1.703	.5
117	GPS2	Mx	0	.5
118	M46	X	0	.5
119	M46	Z	1.703	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.333	1
2	MP4A	Z	2.309	1
3	MP4A	Mx	.000765	1
4	MP4A	X	-1.333	4
5	MP4A	Z	2.309	4
6	MP4A	Mx	.000765	4
7	MP4B	X	-.792	1
8	MP4B	Z	1.371	1
9	MP4B	Mx	-.000717	1
10	MP4B	X	-.792	4
11	MP4B	Z	1.371	4
12	MP4B	Mx	-.000717	4
13	MP4C	X	-1.498	1
14	MP4C	Z	2.595	1
15	MP4C	Mx	-.000633	1
16	MP4C	X	-1.498	4
17	MP4C	Z	2.595	4
18	MP4C	Mx	-.000633	4
19	MP2A	X	-1.471	1
20	MP2A	Z	2.548	1
21	MP2A	Mx	.0014	1
22	MP2B	X	-1.204	1
23	MP2B	Z	2.085	1
24	MP2B	Mx	-.0018	1
25	MP2C	X	-1.553	1
26	MP2C	Z	2.689	1
27	MP2C	Mx	-.0011	1
28	MP3A	X	-1.399	1
29	MP3A	Z	2.424	1
30	MP3A	Mx	.0023	1
31	MP3B	X	-1.399	1
32	MP3B	Z	2.424	1
33	MP3B	Mx	.0023	1
34	MP3C	X	-1.399	1
35	MP3C	Z	2.424	1
36	MP3C	Mx	.0023	1
37	MP1C	X	-5.123	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP1C	Z	8.874	1
39	MP1C	Mx	-.0022	1
40	MP1C	X	-5.123	4
41	MP1C	Z	8.874	4
42	MP1C	Mx	-.0022	4
43	MP5C	X	-5.123	1
44	MP5C	Z	8.874	1
45	MP5C	Mx	-.0022	1
46	MP5C	X	-5.123	4
47	MP5C	Z	8.874	4
48	MP5C	Mx	-.0022	4
49	MP2A	X	-2.401	1
50	MP2A	Z	4.158	1
51	MP2A	Mx	.0037	1
52	MP2A	X	-2.401	4
53	MP2A	Z	4.158	4
54	MP2A	Mx	.0037	4
55	MP2B	X	-1.572	1
56	MP2B	Z	2.722	1
57	MP2B	Mx	-.000649	1
58	MP2B	X	-1.572	4
59	MP2B	Z	2.722	4
60	MP2B	Mx	-.000649	4
61	MP2C	X	-2.654	1
62	MP2C	Z	4.597	1
63	MP2C	Mx	-.0039	1
64	MP2C	X	-2.654	4
65	MP2C	Z	4.597	4
66	MP2C	Mx	-.0039	4
67	MP2A	X	-2.401	1
68	MP2A	Z	4.158	1
69	MP2A	Mx	-.000917	1
70	MP2A	X	-2.401	4
71	MP2A	Z	4.158	4
72	MP2A	Mx	-.000917	4
73	MP2B	X	-1.572	1
74	MP2B	Z	2.722	1
75	MP2B	Mx	-.0022	1
76	MP2B	X	-1.572	4
77	MP2B	Z	2.722	4
78	MP2B	Mx	-.0022	4
79	MP2C	X	-2.654	1
80	MP2C	Z	4.597	1
81	MP2C	Mx	.0017	1
82	MP2C	X	-2.654	4
83	MP2C	Z	4.597	4
84	MP2C	Mx	.0017	4
85	MP1A	X	-1.758	1
86	MP1A	Z	3.045	1
87	MP1A	Mx	.001	1
88	MP1A	X	-1.758	4
89	MP1A	Z	3.045	4
90	MP1A	Mx	.001	4
91	MP1B	X	-1.716	1
92	MP1B	Z	2.972	1
93	MP1B	Mx	-.0016	1
94	MP1B	X	-1.716	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	2.972	4
96	MP1B	Mx	-.0016	4
97	MP5A	X	-1.758	1
98	MP5A	Z	3.045	1
99	MP5A	Mx	.001	1
100	MP5A	X	-1.758	4
101	MP5A	Z	3.045	4
102	MP5A	Mx	.001	4
103	MP5B	X	-1.716	1
104	MP5B	Z	2.972	1
105	MP5B	Mx	-.0016	1
106	MP5B	X	-1.716	4
107	MP5B	Z	2.972	4
108	MP5B	Mx	-.0016	4
109	GPS	X	-.667	.5
110	GPS	Z	1.155	.5
111	GPS	Mx	0	.5
112	O1	X	-2.619	1
113	O1	Z	4.536	1
114	O1	Mx	0	1
115	GPS2	X	-.667	.5
116	GPS2	Z	1.155	.5
117	GPS2	Mx	0	.5
118	M46	X	-.667	.5
119	M46	Z	1.155	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.371	1
2	MP4A	Z	.792	1
3	MP4A	Mx	.000717	1
4	MP4A	X	-1.371	4
5	MP4A	Z	.792	4
6	MP4A	Mx	.000717	4
7	MP4B	X	-2.309	1
8	MP4B	Z	1.333	1
9	MP4B	Mx	-.000765	1
10	MP4B	X	-2.309	4
11	MP4B	Z	1.333	4
12	MP4B	Mx	-.000765	4
13	MP4C	X	-1.657	1
14	MP4C	Z	.957	1
15	MP4C	Mx	-.000784	1
16	MP4C	X	-1.657	4
17	MP4C	Z	.957	4
18	MP4C	Mx	-.000784	4
19	MP2A	X	-2.085	1
20	MP2A	Z	1.204	1
21	MP2A	Mx	.0018	1
22	MP2B	X	-2.548	1
23	MP2B	Z	1.471	1
24	MP2B	Mx	-.0014	1
25	MP2C	X	-2.226	1
26	MP2C	Z	1.285	1
27	MP2C	Mx	-.0018	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP3A	X	-2.424	1
29	MP3A	Z	1.399	1
30	MP3A	Mx	.0023	1
31	MP3B	X	-2.424	1
32	MP3B	Z	1.399	1
33	MP3B	Mx	.0023	1
34	MP3C	X	-2.424	1
35	MP3C	Z	1.399	1
36	MP3C	Mx	.0023	1
37	MP1C	X	-8.345	1
38	MP1C	Z	4.818	1
39	MP1C	Mx	-.0039	1
40	MP1C	X	-8.345	4
41	MP1C	Z	4.818	4
42	MP1C	Mx	-.0039	4
43	MP5C	X	-8.345	1
44	MP5C	Z	4.818	1
45	MP5C	Mx	-.0039	1
46	MP5C	X	-8.345	4
47	MP5C	Z	4.818	4
48	MP5C	Mx	-.0039	4
49	MP2A	X	-2.722	1
50	MP2A	Z	1.572	1
51	MP2A	Mx	.0022	1
52	MP2A	X	-2.722	4
53	MP2A	Z	1.572	4
54	MP2A	Mx	.0022	4
55	MP2B	X	-4.158	1
56	MP2B	Z	2.401	1
57	MP2B	Mx	.000917	1
58	MP2B	X	-4.158	4
59	MP2B	Z	2.401	4
60	MP2B	Mx	.000917	4
61	MP2C	X	-3.161	1
62	MP2C	Z	1.825	1
63	MP2C	Mx	-.0027	1
64	MP2C	X	-3.161	4
65	MP2C	Z	1.825	4
66	MP2C	Mx	-.0027	4
67	MP2A	X	-2.722	1
68	MP2A	Z	1.572	1
69	MP2A	Mx	.000649	1
70	MP2A	X	-2.722	4
71	MP2A	Z	1.572	4
72	MP2A	Mx	.000649	4
73	MP2B	X	-4.158	1
74	MP2B	Z	2.401	1
75	MP2B	Mx	-.0037	1
76	MP2B	X	-4.158	4
77	MP2B	Z	2.401	4
78	MP2B	Mx	-.0037	4
79	MP2C	X	-3.161	1
80	MP2C	Z	1.825	1
81	MP2C	Mx	-.000274	1
82	MP2C	X	-3.161	4
83	MP2C	Z	1.825	4
84	MP2C	Mx	-.000274	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP1A	X	-2.972	1
86	MP1A	Z	1.716	1
87	MP1A	Mx	.0016	1
88	MP1A	X	-2.972	4
89	MP1A	Z	1.716	4
90	MP1A	Mx	.0016	4
91	MP1B	X	-3.045	1
92	MP1B	Z	1.758	1
93	MP1B	Mx	-.001	1
94	MP1B	X	-3.045	4
95	MP1B	Z	1.758	4
96	MP1B	Mx	-.001	4
97	MP5A	X	-2.972	1
98	MP5A	Z	1.716	1
99	MP5A	Mx	.0016	1
100	MP5A	X	-2.972	4
101	MP5A	Z	1.716	4
102	MP5A	Mx	.0016	4
103	MP5B	X	-3.045	1
104	MP5B	Z	1.758	1
105	MP5B	Mx	-.001	1
106	MP5B	X	-3.045	4
107	MP5B	Z	1.758	4
108	MP5B	Mx	-.001	4
109	GPS	X	-1.155	.5
110	GPS	Z	.667	.5
111	GPS	Mx	0	.5
112	O1	X	-4.536	1
113	O1	Z	2.619	1
114	O1	Mx	0	1
115	GPS2	X	-1.155	.5
116	GPS2	Z	.667	.5
117	GPS2	Mx	0	.5
118	M46	X	-1.155	.5
119	M46	Z	.667	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.207	1
2	MP4A	Z	0	1
3	MP4A	Mx	.000601	1
4	MP4A	X	-1.207	4
5	MP4A	Z	0	4
6	MP4A	Mx	.000601	4
7	MP4B	X	-3.373	1
8	MP4B	Z	0	1
9	MP4B	Mx	-.000147	1
10	MP4B	X	-3.373	4
11	MP4B	Z	0	4
12	MP4B	Mx	-.000147	4
13	MP4C	X	-1.207	1
14	MP4C	Z	0	1
15	MP4C	Mx	-.000601	1
16	MP4C	X	-1.207	4
17	MP4C	Z	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4C	Mx	-.000601	4
19	MP2A	X	-2.222	1
20	MP2A	Z	0	1
21	MP2A	Mx	.0018	1
22	MP2B	X	-3.291	1
23	MP2B	Z	0	1
24	MP2B	Mx	-.000239	1
25	MP2C	X	-2.222	1
26	MP2C	Z	0	1
27	MP2C	Mx	-.0018	1
28	MP3A	X	-3.347	1
29	MP3A	Z	0	1
30	MP3A	Mx	.002	1
31	MP3B	X	-3.347	1
32	MP3B	Z	0	1
33	MP3B	Mx	.002	1
34	MP3C	X	-3.347	1
35	MP3C	Z	0	1
36	MP3C	Mx	.002	1
37	MP1C	X	-9.237	1
38	MP1C	Z	0	1
39	MP1C	Mx	-.0046	1
40	MP1C	X	-9.237	4
41	MP1C	Z	0	4
42	MP1C	Mx	-.0046	4
43	MP5C	X	-9.237	1
44	MP5C	Z	0	1
45	MP5C	Mx	-.0046	1
46	MP5C	X	-9.237	4
47	MP5C	Z	0	4
48	MP5C	Mx	-.0046	4
49	MP2A	X	-2.567	1
50	MP2A	Z	0	1
51	MP2A	Mx	.0011	1
52	MP2A	X	-2.567	4
53	MP2A	Z	0	4
54	MP2A	Mx	.0011	4
55	MP2B	X	-5.884	1
56	MP2B	Z	0	1
57	MP2B	Mx	.0032	1
58	MP2B	X	-5.884	4
59	MP2B	Z	0	4
60	MP2B	Mx	.0032	4
61	MP2C	X	-2.567	1
62	MP2C	Z	0	1
63	MP2C	Mx	-.0014	1
64	MP2C	X	-2.567	4
65	MP2C	Z	0	4
66	MP2C	Mx	-.0014	4
67	MP2A	X	-2.567	1
68	MP2A	Z	0	1
69	MP2A	Mx	.0014	1
70	MP2A	X	-2.567	4
71	MP2A	Z	0	4
72	MP2A	Mx	.0014	4
73	MP2B	X	-5.884	1
74	MP2B	Z	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP2B	Mx	-.0037	1
76	MP2B	X	-5.884	4
77	MP2B	Z	0	4
78	MP2B	Mx	-.0037	4
79	MP2C	X	-2.567	1
80	MP2C	Z	0	1
81	MP2C	Mx	-.0011	1
82	MP2C	X	-2.567	4
83	MP2C	Z	0	4
84	MP2C	Mx	-.0011	4
85	MP1A	X	-3.403	1
86	MP1A	Z	0	1
87	MP1A	Mx	.0017	1
88	MP1A	X	-3.403	4
89	MP1A	Z	0	4
90	MP1A	Mx	.0017	4
91	MP1B	X	-3.57	1
92	MP1B	Z	0	1
93	MP1B	Mx	-.000156	1
94	MP1B	X	-3.57	4
95	MP1B	Z	0	4
96	MP1B	Mx	-.000156	4
97	MP5A	X	-3.403	1
98	MP5A	Z	0	1
99	MP5A	Mx	.0017	1
100	MP5A	X	-3.403	4
101	MP5A	Z	0	4
102	MP5A	Mx	.0017	4
103	MP5B	X	-3.57	1
104	MP5B	Z	0	1
105	MP5B	Mx	-.000156	1
106	MP5B	X	-3.57	4
107	MP5B	Z	0	4
108	MP5B	Mx	-.000156	4
109	GPS	X	-1.703	.5
110	GPS	Z	0	.5
111	GPS	Mx	0	.5
112	O1	X	-5.938	1
113	O1	Z	0	1
114	O1	Mx	0	1
115	GPS2	X	-1.703	.5
116	GPS2	Z	0	.5
117	GPS2	Mx	0	.5
118	M46	X	-1.703	.5
119	M46	Z	0	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.657	1
2	MP4A	Z	-.957	1
3	MP4A	Mx	.000784	1
4	MP4A	X	-1.657	4
5	MP4A	Z	-.957	4
6	MP4A	Mx	.000784	4
7	MP4B	X	-2.595	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP4B	Z	-1.498	1
9	MP4B	Mx	.000633	1
10	MP4B	X	-2.595	4
11	MP4B	Z	-1.498	4
12	MP4B	Mx	.000633	4
13	MP4C	X	-1.371	1
14	MP4C	Z	-.792	1
15	MP4C	Mx	-.000717	1
16	MP4C	X	-1.371	4
17	MP4C	Z	-.792	4
18	MP4C	Mx	-.000717	4
19	MP2A	X	-2.226	1
20	MP2A	Z	-1.285	1
21	MP2A	Mx	.0018	1
22	MP2B	X	-2.689	1
23	MP2B	Z	-1.553	1
24	MP2B	Mx	.0011	1
25	MP2C	X	-2.085	1
26	MP2C	Z	-1.204	1
27	MP2C	Mx	-.0018	1
28	MP3A	X	-3.373	1
29	MP3A	Z	-1.948	1
30	MP3A	Mx	.00084	1
31	MP3B	X	-3.373	1
32	MP3B	Z	-1.948	1
33	MP3B	Mx	.00084	1
34	MP3C	X	-3.373	1
35	MP3C	Z	-1.948	1
36	MP3C	Mx	.00084	1
37	MP1C	X	-8.183	1
38	MP1C	Z	-4.724	1
39	MP1C	Mx	-.0043	1
40	MP1C	X	-8.183	4
41	MP1C	Z	-4.724	4
42	MP1C	Mx	-.0043	4
43	MP5C	X	-8.183	1
44	MP5C	Z	-4.724	1
45	MP5C	Mx	-.0043	1
46	MP5C	X	-8.183	4
47	MP5C	Z	-4.724	4
48	MP5C	Mx	-.0043	4
49	MP2A	X	-3.161	1
50	MP2A	Z	-1.825	1
51	MP2A	Mx	.000274	1
52	MP2A	X	-3.161	4
53	MP2A	Z	-1.825	4
54	MP2A	Mx	.000274	4
55	MP2B	X	-4.597	1
56	MP2B	Z	-2.654	1
57	MP2B	Mx	.0039	1
58	MP2B	X	-4.597	4
59	MP2B	Z	-2.654	4
60	MP2B	Mx	.0039	4
61	MP2C	X	-2.722	1
62	MP2C	Z	-1.572	1
63	MP2C	Mx	-.000649	1
64	MP2C	X	-2.722	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	Z	-1.572	4
66	MP2C	Mx	-.000649	4
67	MP2A	X	-3.161	1
68	MP2A	Z	-1.825	1
69	MP2A	Mx	.0027	1
70	MP2A	X	-3.161	4
71	MP2A	Z	-1.825	4
72	MP2A	Mx	.0027	4
73	MP2B	X	-4.597	1
74	MP2B	Z	-2.654	1
75	MP2B	Mx	-.0017	1
76	MP2B	X	-4.597	4
77	MP2B	Z	-2.654	4
78	MP2B	Mx	-.0017	4
79	MP2C	X	-2.722	1
80	MP2C	Z	-1.572	1
81	MP2C	Mx	-.0022	1
82	MP2C	X	-2.722	4
83	MP2C	Z	-1.572	4
84	MP2C	Mx	-.0022	4
85	MP1A	X	-2.995	1
86	MP1A	Z	-1.729	1
87	MP1A	Mx	.0014	1
88	MP1A	X	-2.995	4
89	MP1A	Z	-1.729	4
90	MP1A	Mx	.0014	4
91	MP1B	X	-3.067	1
92	MP1B	Z	-1.771	1
93	MP1B	Mx	.000748	1
94	MP1B	X	-3.067	4
95	MP1B	Z	-1.771	4
96	MP1B	Mx	.000748	4
97	MP5A	X	-2.995	1
98	MP5A	Z	-1.729	1
99	MP5A	Mx	.0014	1
100	MP5A	X	-2.995	4
101	MP5A	Z	-1.729	4
102	MP5A	Mx	.0014	4
103	MP5B	X	-3.067	1
104	MP5B	Z	-1.771	1
105	MP5B	Mx	.000748	1
106	MP5B	X	-3.067	4
107	MP5B	Z	-1.771	4
108	MP5B	Mx	.000748	4
109	GPS	X	-1.794	.5
110	GPS	Z	-1.036	.5
111	GPS	Mx	0	.5
112	O1	X	-5.749	1
113	O1	Z	-3.319	1
114	O1	Mx	0	1
115	GPS2	X	-1.794	.5
116	GPS2	Z	-1.036	.5
117	GPS2	Mx	0	.5
118	M46	X	-1.794	.5
119	M46	Z	-1.036	.5
120	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-1.498	1
2	MP4A	Z	-2.595	1
3	MP4A	Mx	.000633	1
4	MP4A	X	-1.498	4
5	MP4A	Z	-2.595	4
6	MP4A	Mx	.000633	4
7	MP4B	X	-.957	1
8	MP4B	Z	-1.657	1
9	MP4B	Mx	.000784	1
10	MP4B	X	-.957	4
11	MP4B	Z	-1.657	4
12	MP4B	Mx	.000784	4
13	MP4C	X	-1.333	1
14	MP4C	Z	-2.309	1
15	MP4C	Mx	-.000765	1
16	MP4C	X	-1.333	4
17	MP4C	Z	-2.309	4
18	MP4C	Mx	-.000765	4
19	MP2A	X	-1.553	1
20	MP2A	Z	-2.689	1
21	MP2A	Mx	.0011	1
22	MP2B	X	-1.285	1
23	MP2B	Z	-2.226	1
24	MP2B	Mx	.0018	1
25	MP2C	X	-1.471	1
26	MP2C	Z	-2.548	1
27	MP2C	Mx	-.0014	1
28	MP3A	X	-1.948	1
29	MP3A	Z	-3.373	1
30	MP3A	Mx	-.00084	1
31	MP3B	X	-1.948	1
32	MP3B	Z	-3.373	1
33	MP3B	Mx	-.00084	1
34	MP3C	X	-1.948	1
35	MP3C	Z	-3.373	1
36	MP3C	Mx	-.00084	1
37	MP1C	X	-5.03	1
38	MP1C	Z	-8.712	1
39	MP1C	Mx	-.0029	1
40	MP1C	X	-5.03	4
41	MP1C	Z	-8.712	4
42	MP1C	Mx	-.0029	4
43	MP5C	X	-5.03	1
44	MP5C	Z	-8.712	1
45	MP5C	Mx	-.0029	1
46	MP5C	X	-5.03	4
47	MP5C	Z	-8.712	4
48	MP5C	Mx	-.0029	4
49	MP2A	X	-2.654	1
50	MP2A	Z	-4.597	1
51	MP2A	Mx	-.0017	1
52	MP2A	X	-2.654	4
53	MP2A	Z	-4.597	4
54	MP2A	Mx	-.0017	4
55	MP2B	X	-1.825	1
56	MP2B	Z	-3.161	1
57	MP2B	Mx	.0027	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2B	X	-1.825	4
59	MP2B	Z	-3.161	4
60	MP2B	Mx	.0027	4
61	MP2C	X	-2.401	1
62	MP2C	Z	-4.158	1
63	MP2C	Mx	.000917	1
64	MP2C	X	-2.401	4
65	MP2C	Z	-4.158	4
66	MP2C	Mx	.000917	4
67	MP2A	X	-2.654	1
68	MP2A	Z	-4.597	1
69	MP2A	Mx	.0039	1
70	MP2A	X	-2.654	4
71	MP2A	Z	-4.597	4
72	MP2A	Mx	.0039	4
73	MP2B	X	-1.825	1
74	MP2B	Z	-3.161	1
75	MP2B	Mx	.000274	1
76	MP2B	X	-1.825	4
77	MP2B	Z	-3.161	4
78	MP2B	Mx	.000274	4
79	MP2C	X	-2.401	1
80	MP2C	Z	-4.158	1
81	MP2C	Mx	-.0037	1
82	MP2C	X	-2.401	4
83	MP2C	Z	-4.158	4
84	MP2C	Mx	-.0037	4
85	MP1A	X	-1.771	1
86	MP1A	Z	-3.067	1
87	MP1A	Mx	.000748	1
88	MP1A	X	-1.771	4
89	MP1A	Z	-3.067	4
90	MP1A	Mx	.000748	4
91	MP1B	X	-1.729	1
92	MP1B	Z	-2.995	1
93	MP1B	Mx	.0014	1
94	MP1B	X	-1.729	4
95	MP1B	Z	-2.995	4
96	MP1B	Mx	.0014	4
97	MP5A	X	-1.771	1
98	MP5A	Z	-3.067	1
99	MP5A	Mx	.000748	1
100	MP5A	X	-1.771	4
101	MP5A	Z	-3.067	4
102	MP5A	Mx	.000748	4
103	MP5B	X	-1.729	1
104	MP5B	Z	-2.995	1
105	MP5B	Mx	.0014	1
106	MP5B	X	-1.729	4
107	MP5B	Z	-2.995	4
108	MP5B	Mx	.0014	4
109	GPS	X	-1.036	.5
110	GPS	Z	-1.794	.5
111	GPS	Mx	0	.5
112	O1	X	-3.319	1
113	O1	Z	-5.749	1
114	O1	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	GPS2	X	-1.036	.5
116	GPS2	Z	-1.794	.5
117	GPS2	Mx	0	.5
118	M46	X	-1.036	.5
119	M46	Z	-1.794	.5
120	M46	Mx	0	.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%76

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%50

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

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-1.2224	1
2	MP4A	My	-.000609	1
3	MP4A	Mz	5.3e-5	1
4	MP4A	Y	-1.2224	4
5	MP4A	My	-.000609	4
6	MP4A	Mz	5.3e-5	4
7	MP4B	Y	-1.2224	1
8	MP4B	My	5.3e-5	1
9	MP4B	Mz	-.000609	1
10	MP4B	Y	-1.2224	4
11	MP4B	My	5.3e-5	4
12	MP4B	Mz	-.000609	4
13	MP4C	Y	-1.2224	1
14	MP4C	My	.000609	1
15	MP4C	Mz	5.3e-5	1
16	MP4C	Y	-1.2224	4
17	MP4C	My	.000609	4
18	MP4C	Mz	5.3e-5	4
19	MP2A	Y	-3.1872	1
20	MP2A	My	-.0026	1
21	MP2A	Mz	.000231	1
22	MP2B	Y	-3.1872	1
23	MP2B	My	.000231	1
24	MP2B	Mz	-.0026	1
25	MP2C	Y	-3.1872	1
26	MP2C	My	.0026	1
27	MP2C	Mz	.000231	1
28	MP3A	Y	-3.3749	1
29	MP3A	My	-.002	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP3A	Mz	.002	1
31	MP3B	Y	-3.3749	1
32	MP3B	My	-.002	1
33	MP3B	Mz	.002	1
34	MP3C	Y	-3.3749	1
35	MP3C	My	-.002	1
36	MP3C	Mz	.002	1
37	MP1C	Y	-.576	1
38	MP1C	My	.000287	1
39	MP1C	Mz	2.5e-5	1
40	MP1C	Y	-.576	4
41	MP1C	My	.000287	4
42	MP1C	Mz	2.5e-5	4
43	MP5C	Y	-.576	1
44	MP5C	My	.000287	1
45	MP5C	Mz	2.5e-5	1
46	MP5C	Y	-.576	4
47	MP5C	My	.000287	4
48	MP5C	Mz	2.5e-5	4
49	MP2A	Y	-.8533	1
50	MP2A	My	-.000382	1
51	MP2A	Mz	.000533	1
52	MP2A	Y	-.8533	4
53	MP2A	My	-.000382	4
54	MP2A	Mz	.000533	4
55	MP2B	Y	-.8533	1
56	MP2B	My	-.000459	1
57	MP2B	Mz	-.000468	1
58	MP2B	Y	-.8533	4
59	MP2B	My	-.000459	4
60	MP2B	Mz	-.000468	4
61	MP2C	Y	-.8533	1
62	MP2C	My	.000468	1
63	MP2C	Mz	-.000459	1
64	MP2C	Y	-.8533	4
65	MP2C	My	.000468	4
66	MP2C	Mz	-.000459	4
67	MP2A	Y	-.8533	1
68	MP2A	My	-.000468	1
69	MP2A	Mz	-.000459	1
70	MP2A	Y	-.8533	4
71	MP2A	My	-.000468	4
72	MP2A	Mz	-.000459	4
73	MP2B	Y	-.8533	1
74	MP2B	My	.000533	1
75	MP2B	Mz	-.000382	1
76	MP2B	Y	-.8533	4
77	MP2B	My	.000533	4
78	MP2B	Mz	-.000382	4
79	MP2C	Y	-.8533	1
80	MP2C	My	.000382	1
81	MP2C	Mz	.000533	1
82	MP2C	Y	-.8533	4
83	MP2C	My	.000382	4
84	MP2C	Mz	.000533	4
85	MP1A	Y	-.32	1
86	MP1A	My	-.000159	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
87	MP1A	Mz	1.4e-5	1
88	MP1A	Y	-.32	4
89	MP1A	My	-.000159	4
90	MP1A	Mz	1.4e-5	4
91	MP1B	Y	-.32	1
92	MP1B	My	1.4e-5	1
93	MP1B	Mz	-.000159	1
94	MP1B	Y	-.32	4
95	MP1B	My	1.4e-5	4
96	MP1B	Mz	-.000159	4
97	MP5A	Y	-.32	1
98	MP5A	My	-.000159	1
99	MP5A	Mz	1.4e-5	1
100	MP5A	Y	-.32	4
101	MP5A	My	-.000159	4
102	MP5A	Mz	1.4e-5	4
103	MP5B	Y	-.32	1
104	MP5B	My	1.4e-5	1
105	MP5B	Mz	-.000159	1
106	MP5B	Y	-.32	4
107	MP5B	My	1.4e-5	4
108	MP5B	Mz	-.000159	4
109	GPS	Y	-.4267	.5
110	GPS	My	0	.5
111	GPS	Mz	0	.5
112	O1	Y	-1.3653	1
113	O1	My	0	1
114	O1	Mz	0	1
115	GPS2	Y	-.4267	.5
116	GPS2	My	0	.5
117	GPS2	Mz	0	.5
118	M46	Y	-.4267	.5
119	M46	My	0	.5
120	M46	Mz	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Z	-3.056	1
2	MP4A	Mx	-.000133	1
3	MP4A	Z	-3.056	4
4	MP4A	Mx	-.000133	4
5	MP4B	Z	-3.056	1
6	MP4B	Mx	.0015	1
7	MP4B	Z	-3.056	4
8	MP4B	Mx	.0015	4
9	MP4C	Z	-3.056	1
10	MP4C	Mx	-.000133	1
11	MP4C	Z	-3.056	4
12	MP4C	Mx	-.000133	4
13	MP2A	Z	-7.968	1
14	MP2A	Mx	-.000579	1
15	MP2B	Z	-7.968	1
16	MP2B	Mx	.0066	1
17	MP2C	Z	-7.968	1
18	MP2C	Mx	-.000579	1
19	MP3A	Z	-8.4373	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP3A	Mx	-.005	1
21	MP3B	Z	-8.4373	1
22	MP3B	Mx	-.005	1
23	MP3C	Z	-8.4373	1
24	MP3C	Mx	-.005	1
25	MP1C	Z	-1.44	1
26	MP1C	Mx	-6.3e-5	1
27	MP1C	Z	-1.44	4
28	MP1C	Mx	-6.3e-5	4
29	MP5C	Z	-1.44	1
30	MP5C	Mx	-6.3e-5	1
31	MP5C	Z	-1.44	4
32	MP5C	Mx	-6.3e-5	4
33	MP2A	Z	-2.1333	1
34	MP2A	Mx	-.0013	1
35	MP2A	Z	-2.1333	4
36	MP2A	Mx	-.0013	4
37	MP2B	Z	-2.1333	1
38	MP2B	Mx	.0012	1
39	MP2B	Z	-2.1333	4
40	MP2B	Mx	.0012	4
41	MP2C	Z	-2.1333	1
42	MP2C	Mx	.0011	1
43	MP2C	Z	-2.1333	4
44	MP2C	Mx	.0011	4
45	MP2A	Z	-2.1333	1
46	MP2A	Mx	.0011	1
47	MP2A	Z	-2.1333	4
48	MP2A	Mx	.0011	4
49	MP2B	Z	-2.1333	1
50	MP2B	Mx	.000954	1
51	MP2B	Z	-2.1333	4
52	MP2B	Mx	.000954	4
53	MP2C	Z	-2.1333	1
54	MP2C	Mx	-.0013	1
55	MP2C	Z	-2.1333	4
56	MP2C	Mx	-.0013	4
57	MP1A	Z	-.8	1
58	MP1A	Mx	-3.5e-5	1
59	MP1A	Z	-.8	4
60	MP1A	Mx	-3.5e-5	4
61	MP1B	Z	-.8	1
62	MP1B	Mx	.000398	1
63	MP1B	Z	-.8	4
64	MP1B	Mx	.000398	4
65	MP5A	Z	-.8	1
66	MP5A	Mx	-3.5e-5	1
67	MP5A	Z	-.8	4
68	MP5A	Mx	-3.5e-5	4
69	MP5B	Z	-.8	1
70	MP5B	Mx	.000398	1
71	MP5B	Z	-.8	4
72	MP5B	Mx	.000398	4
73	GPS	Z	-1.0667	.5
74	GPS	Mx	0	.5
75	O1	Z	-3.4133	1
76	O1	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
77	GPS2	Z	-1.0667	.5
78	GPS2	Mx	0	.5
79	M46	Z	-1.0667	.5
80	M46	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	3.056	1
2	MP4A	Mx	-.0015	1
3	MP4A	X	3.056	4
4	MP4A	Mx	-.0015	4
5	MP4B	X	3.056	1
6	MP4B	Mx	.000133	1
7	MP4B	X	3.056	4
8	MP4B	Mx	.000133	4
9	MP4C	X	3.056	1
10	MP4C	Mx	.0015	1
11	MP4C	X	3.056	4
12	MP4C	Mx	.0015	4
13	MP2A	X	7.968	1
14	MP2A	Mx	-.0066	1
15	MP2B	X	7.968	1
16	MP2B	Mx	.000579	1
17	MP2C	X	7.968	1
18	MP2C	Mx	.0066	1
19	MP3A	X	8.4373	1
20	MP3A	Mx	-.005	1
21	MP3B	X	8.4373	1
22	MP3B	Mx	-.005	1
23	MP3C	X	8.4373	1
24	MP3C	Mx	-.005	1
25	MP1C	X	1.44	1
26	MP1C	Mx	.000717	1
27	MP1C	X	1.44	4
28	MP1C	Mx	.000717	4
29	MP5C	X	1.44	1
30	MP5C	Mx	.000717	1
31	MP5C	X	1.44	4
32	MP5C	Mx	.000717	4
33	MP2A	X	2.1333	1
34	MP2A	Mx	-.000954	1
35	MP2A	X	2.1333	4
36	MP2A	Mx	-.000954	4
37	MP2B	X	2.1333	1
38	MP2B	Mx	-.0011	1
39	MP2B	X	2.1333	4
40	MP2B	Mx	-.0011	4
41	MP2C	X	2.1333	1
42	MP2C	Mx	.0012	1
43	MP2C	X	2.1333	4
44	MP2C	Mx	.0012	4
45	MP2A	X	2.1333	1
46	MP2A	Mx	-.0012	1
47	MP2A	X	2.1333	4
48	MP2A	Mx	-.0012	4
49	MP2B	X	2.1333	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
50	MP2B	Mx	.0013	1
51	MP2B	X	2.1333	4
52	MP2B	Mx	.0013	4
53	MP2C	X	2.1333	1
54	MP2C	Mx	.000954	1
55	MP2C	X	2.1333	4
56	MP2C	Mx	.000954	4
57	MP1A	X	.8	1
58	MP1A	Mx	-.000398	1
59	MP1A	X	.8	4
60	MP1A	Mx	-.000398	4
61	MP1B	X	.8	1
62	MP1B	Mx	3.5e-5	1
63	MP1B	X	.8	4
64	MP1B	Mx	3.5e-5	4
65	MP5A	X	.8	1
66	MP5A	Mx	-.000398	1
67	MP5A	X	.8	4
68	MP5A	Mx	-.000398	4
69	MP5B	X	.8	1
70	MP5B	Mx	3.5e-5	1
71	MP5B	X	.8	4
72	MP5B	Mx	3.5e-5	4
73	GPS	X	1.0667	.5
74	GPS	Mx	0	.5
75	O1	X	3.4133	1
76	O1	Mx	0	1
77	GPS2	X	1.0667	.5
78	GPS2	Mx	0	.5
79	M46	X	1.0667	.5
80	M46	Mx	0	.5

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N97	N32	N31B	N43	Y	B-C	-.009
2	N19	N98	N158	N33	Y	A-D	-.009
3	N27	N28	N42	N159	Y	A-B	-.009
4	N7	N6	N31B	N28	Y	A-B	-.009
5	N43A	N44A	N33	N27	Y	A-B	-.009
6	N37	N19	N32	N38	Y	B-C	-.009

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N97	N43	N31B	N32	Y	B-C	-.016
2	N19	N98	N158	N33	Y	A-D	-.016
3	N27	N28	N42	N159	Y	A-B	-.016
4	N28	N31B	N6	N7	Y	A-B	-.016
5	N43A	N44A	N33	N27	Y	A-B	-.016
6	N32	N38	N37	N19	Y	B-C	-.016

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N97	N32	N31B	N43	Y	Two Way	-.000222
2	N19	N98	N158	N33	Y	Two Way	-.000222

Member Area Loads (BLC 84 : Structure Ev) (Continued)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
3	N27	N28	N42	N159	Y	Two Way	-.000222
4	N7	N6	N31B	N28	Y	Two Way	-.000222
5	N43A	N44A	N33	N27	Y	Two Way	-.000222
6	N37	N19	N32	N38	Y	Two Way	-.000222

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N97	N32	N31B	N43	Z	Two Way	-.000555
2	N19	N98	N158	N33	Z	Two Way	-.000555
3	N27	N28	N42	N159	Z	Two Way	-.000555
4	N7	N6	N31B	N28	Z	Two Way	-.000555
5	N43A	N44A	N33	N27	Z	Two Way	-.000555
6	N37	N19	N32	N38	Z	Two Way	-.000555

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N97	N32	N31B	N43	X	Two Way	.000555
2	N19	N98	N158	N33	X	Two Way	.000555
3	N27	N28	N42	N159	X	Two Way	.000555
4	N7	N6	N31B	N28	X	Two Way	.000555
5	N43A	N44A	N33	N27	X	Two Way	.000555
6	N37	N19	N32	N38	X	Two Way	.000555

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	...	MZ [k-ft]	LC
1	N200B	...	2048.125	8	9636.429	17	3777.822	12	0	75	0	75	0	75
2		...	-2003.59	2	-1672.518	11	-3827.673	6	0	1	0	1	0	1
3	N199B	...	2.895	12	-69.33	1	3204.686	7	0	75	0	75	0	75
4		...	-2.895	2	-13162.751	19	-2970.792	1	0	1	0	1	0	1
5	N201B	...	1751.872	11	9002.654	21	3482.145	2	0	75	0	75	0	75
6		...	-1802.565	5	-1691.215	3	-3973.426	8	0	1	0	1	0	1
7	N202B	...	2513.234	3	-318.543	9	1345.232	9	0	75	0	75	0	75
8		...	-2330.011	9	-13351.838	15	-1451.016	3	0	1	0	1	0	1
9	N203B	...	3110.961	8	9342.642	13	2801.119	1	0	75	0	75	0	75
10		...	-3111.744	2	-2039.864	7	-2889.684	7	0	1	0	1	0	1
11	N204B	...	3324.148	11	9692.135	17	2216.312	3	0	75	0	75	0	75
12		...	-3790.08	5	-1763.345	11	-1971.014	8	0	1	0	1	0	1
13	N205A	...	2500.743	5	-42.108	5	1443.805	5	0	75	0	75	0	75
14		...	-2623.454	11	-12884.467	23	-1514.652	11	0	1	0	1	0	1
15	N206A	...	3538.134	9	9209.334	21	2188.856	11	0	75	0	75	0	75
16		...	-3546.268	3	-1525.327	3	-2197.611	5	0	1	0	1	0	1
17	N207A	...	3393.038	12	9103.231	13	2392.238	2	0	75	0	75	0	75
18		...	-3035.333	6	-2207.787	7	-2192.753	8	0	1	0	1	0	1
19	N244	...	131.343	5	809.589	13	54.093	7	0	14	0	10	0	4
20		...	-188.505	11	-3.177	7	-2131.102	13	0	8	0	4	0	10
21	N256	...	-3.868	3	768.7	21	1124.476	20	0	12	0	6	0	6
22		...	-1685.46	21	22.385	2	-39.053	2	0	6	0	12	0	12
23	N282	...	2004.387	17	851.103	17	1051.461	18	0	2	0	2	0	2
24		...	55.721	11	28.052	11	-93.31	12	-.001	8	0	8	0	8
25	Totals:	...	6391.821	10	14146.414	16	6768.684	1						
26		...	-6391.83	4	3401.369	73	-6768.679	7						

Joint Reactions

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N200B	-1347.332	-162.208	2664.002	0	0	0
2	1	N199B	0	-69.33	-2970.792	0	0	0
3	1	N201B	751.184	408.949	2571.956	0	0	0
4	1	N202B	1383.924	-5649.894	-797.078	0	0	0
5	1	N203B	-2850.222	7190.003	2801.119	0	0	0
6	1	N204B	1923.014	277.198	1329.254	0	0	0
7	1	N205A	-1234.477	-6214.42	-710.795	0	0	0
8	1	N206A	-1934.307	1035.64	800.244	0	0	0
9	1	N207A	2994.459	7237.519	2380.741	0	0	0
10	1	N244	-14.869	459.789	-1274.796	0	0	0
11	1	N256	-192.244	61.405	-36.495	0	0	0
12	1	N282	520.801	168.049	11.325	0	0	0
13	1	Totals:	-.069	4742.7	6768.684			
14	1	COG (ft):	X: .03	Y: 1.372	Z: .048			
15	2	N200B	-2003.59	2153.177	656.897	0	0	0
16	2	N199B	-2.895	-600.485	-2379.398	0	0	0
17	2	N201B	-297.657	-1232.224	3482.145	0	0	0
18	2	N202B	2274.478	-7106.669	-1309.827	0	0	0
19	2	N203B	-3111.744	6666.451	1949.876	0	0	0
20	2	N204B	113.295	2703.686	2212.625	0	0	0
21	2	N205A	-6.112	-4120.878	-3.529	0	0	0
22	2	N206A	-2970.52	-830.28	-340.423	0	0	0
23	2	N207A	1860.948	6380.46	2392.238	0	0	0
24	2	N244	83.886	408.092	-1110.543	0	0	0
25	2	N256	-57.795	22.385	-39.053	0	0	0
26	2	N282	817.255	298.996	205.473	0	0	0
27	2	Totals:	-3300.451	4742.71	5716.481			
28	2	COG (ft):	X: .03	Y: 1.372	Z: .048			
29	3	N200B	-1696.014	4439.596	-1224.682	0	0	0
30	3	N199B	-1.672	-2017.653	-1152.434	0	0	0
31	3	N201B	-818.149	-1691.215	3152.621	0	0	0
32	3	N202B	2513.234	-7664.491	-1451.016	0	0	0
33	3	N203B	-2594.147	5195.446	227.103	0	0	0
34	3	N204B	-1953.547	4915.113	2216.312	0	0	0
35	3	N205A	1153.302	-2241.645	667.79	0	0	0
36	3	N206A	-3546.268	-1525.327	-1081.907	0	0	0
37	3	N207A	295.679	4630.439	2201.334	0	0	0
38	3	N244	118.691	293.138	-767.233	0	0	0
39	3	N256	-3.868	26.81	57.559	0	0	0
40	3	N282	979.462	382.503	360.786	0	0	0
41	3	Totals:	-5553.297	4742.715	3206.232			
42	3	COG (ft):	X: .03	Y: 1.372	Z: .048			
43	4	N200B	-1132.799	6181.939	-2614.188	0	0	0
44	4	N199B	0	-3823.359	208.434	0	0	0
45	4	N201B	-1246.641	-1085.534	2171.975	0	0	0
46	4	N202B	2117.135	-7301.66	-1225.672	0	0	0
47	4	N203B	-1390.47	3169.931	-1386.028	0	0	0
48	4	N204B	-3377.031	6481.866	1767.463	0	0	0
49	4	N205A	2088.025	-860.818	1208.865	0	0	0
50	4	N206A	-3290.641	-1173.197	-1713.579	0	0	0
51	4	N207A	-1325.466	2484.505	1335.825	0	0	0
52	4	N244	129.534	173.168	-444.452	0	0	0
53	4	N256	-50.618	61.469	198.855	0	0	0
54	4	N282	1087.143	434.406	492.553	0	0	0
55	4	Totals:	-6391.83	4742.715	.05			
56	4	COG (ft):	X: .03	Y: 1.372	Z: .048			

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
57	5	N200B	-683.896	7196.731	-3619.903	0	0	0
58	5	N199B	-1.672	-5744.459	1577.73	0	0	0
59	5	N201B	-1802.565	401.658	793.35	0	0	0
60	5	N202B	1242.208	-6110.258	-719.119	0	0	0
61	5	N203B	242.35	833.617	-2304.665	0	0	0
62	5	N204B	-3790.08	7274.656	1200.294	0	0	0
63	5	N205A	2500.743	-42.108	1443.805	0	0	0
64	5	N206A	-1827.523	20.114	-2197.611	0	0	0
65	5	N207A	-2560.725	202.738	-269.668	0	0	0
66	5	N244	131.343	82.863	-210.199	0	0	0
67	5	N256	-267.991	157.084	385.533	0	0	0
68	5	N282	1136.944	470.075	640.632	0	0	0
69	5	Totals:	-5680.863	4742.711	-3279.822			
70	5	COG (ft):	X: .03	Y: 1.372	Z: .048			
71	6	N200B	156.98	7117.147	-3827.673	0	0	0
72	6	N199B	-2.895	-7379.407	2762.29	0	0	0
73	6	N201B	-1761.849	2603.816	-1117.694	0	0	0
74	6	N202B	40.935	-4288.272	-23.634	0	0	0
75	6	N203B	1816.586	-1180.622	-2798.705	0	0	0
76	6	N204B	-3422.476	6921.689	233.74	0	0	0
77	6	N205A	2127.908	-221.876	1225.205	0	0	0
78	6	N206A	234.322	2036.502	-1916.935	0	0	0
79	6	N207A	-3035.333	-1627.207	-1662.444	0	0	0
80	6	N244	74.988	19.397	-22.01	0	0	0
81	6	N256	-593.144	299.688	597.153	0	0	0
82	6	N282	989.951	441.846	706.658	0	0	0
83	6	Totals:	-3374.027	4742.701	-5844.048			
84	6	COG (ft):	X: .03	Y: 1.372	Z: .048			
85	7	N200B	1386.794	5688.976	-2697.973	0	0	0
86	7	N199B	0	-8084.908	3204.686	0	0	0
87	7	N201B	-801.267	4950.898	-3046.386	0	0	0
88	7	N202B	-1211.671	-2330.302	697.628	0	0	0
89	7	N203B	2847.167	-2039.864	-2889.684	0	0	0
90	7	N204B	-2363.243	5234.24	-1086.768	0	0	0
91	7	N205A	1116.786	-1650.823	642.847	0	0	0
92	7	N206A	1902.694	4444.933	-812.216	0	0	0
93	7	N207A	-2635.417	-2207.787	-2174.567	0	0	0
94	7	N244	-42.079	-3.177	54.093	0	0	0
95	7	N256	-860.063	412.249	741.638	0	0	0
96	7	N282	660.36	328.255	598.023	0	0	0
97	7	Totals:	.06	4742.689	-6768.679			
98	7	COG (ft):	X: .03	Y: 1.372	Z: .048			
99	8	N200B	2048.125	3381.733	-681.663	0	0	0
100	8	N199B	2.895	-7558.388	2613.136	0	0	0
101	8	N201B	246.446	6588.916	-3973.426	0	0	0
102	8	N202B	-2095.894	-877.071	1206.722	0	0	0
103	8	N203B	3110.961	-1519.654	-2037.896	0	0	0
104	8	N204B	-559.574	2815.152	-1971.014	0	0	0
105	8	N205A	-109.508	-3737.412	-63.225	0	0	0
106	8	N206A	2951.598	6306.682	335.325	0	0	0
107	8	N207A	-1514.142	-1356.33	-2192.753	0	0	0
108	8	N244	-140.284	48.244	-105.095	0	0	0
109	8	N256	-1002.597	453.353	750.417	0	0	0
110	8	N282	362.415	197.454	402.996	-.001	0	0
111	8	Totals:	3300.443	4742.679	-5716.476			
112	8	COG (ft):	X: .03	Y: 1.372	Z: .048			
113	9	N200B	1740.359	1087.567	1194.419	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
114	9	N199B	1.672	-6138.439	1384.327	0	0	0
115	9	N201B	765.711	7049.98	-3646.271	0	0	0
116	9	N202B	-2330.011	-318.543	1345.232	0	0	0
117	9	N203B	2602.972	-43.681	-320.501	0	0	0
118	9	N204B	1494.851	596.699	-1966.477	0	0	0
119	9	N205A	-1270.298	-5624.068	-735.337	0	0	0
120	9	N206A	3538.134	7006.509	1081.362	0	0	0
121	9	N207A	40.803	399.771	-2006.211	0	0	0
122	9	N244	-175.185	162.722	-441.017	0	0	0
123	9	N256	-1059.328	449.86	654.894	0	0	0
124	9	N282	203.61	114.297	249.354	0	0	0
125	9	Totals:	5553.289	4742.674	-3206.227			
126	9	COG (ft):	X: .03	Y: 1.372	Z: .048			
127	10	N200B	1174.054	-659.697	2571.227	0	0	0
128	10	N199B	0	-4325.706	20.254	0	0	0
129	10	N201B	1194.005	6439.166	-2651.882	0	0	0
130	10	N202B	-1936.033	-685.977	1121.112	0	0	0
131	10	N203B	1408.22	1990.041	1284.211	0	0	0
132	10	N204B	2910.438	-972.213	-1508.942	0	0	0
133	10	N205A	-2208.068	-7008.185	-1278.172	0	0	0
134	10	N206A	3280.722	6651.617	1710.17	0	0	0
135	10	N207A	1660.426	2553.923	-1138.763	0	0	0
136	10	N244	-186.005	281.89	-760.247	0	0	0
137	10	N256	-1008.384	414.273	510.289	0	0	0
138	10	N282	102.445	63.542	120.697	0	0	0
139	10	Totals:	6391.821	4742.674	-.046			
140	10	COG (ft):	X: .03	Y: 1.372	Z: .048			
141	11	N200B	722.647	-1672.518	3566.844	0	0	0
142	11	N199B	1.672	-2408.86	-1349.891	0	0	0
143	11	N201B	1751.872	4957.1	-1259.13	0	0	0
144	11	N202B	-1065.703	-1873.068	617.214	0	0	0
145	11	N203B	-223.744	4319.355	2199.3	0	0	0
146	11	N204B	3324.148	-1763.345	-939.284	0	0	0
147	11	N205A	-2623.454	-7824.229	-1514.652	0	0	0
148	11	N206A	1806.049	5461.693	2188.856	0	0	0
149	11	N207A	2904.773	4829.11	473.158	0	0	0
150	11	N244	-188.505	371.702	-996.995	0	0	0
151	11	N256	-784.62	317.686	319.557	0	0	0
152	11	N282	55.721	28.052	-25.152	0	0	0
153	11	Totals:	5680.855	4742.678	3279.827			
154	11	COG (ft):	X: .03	Y: 1.372	Z: .048			
155	12	N200B	-120.323	-1596.025	3777.822	0	0	0
156	12	N199B	2.895	-776.783	-2530.853	0	0	0
157	12	N201B	1712.563	2763.709	654.556	0	0	0
158	12	N202B	131.482	-3686.674	-75.911	0	0	0
159	12	N203B	-1809.116	6328.311	2701.175	0	0	0
160	12	N204B	2970.437	-1415.576	19.573	0	0	0
161	12	N205A	-2249.675	-7648.148	-1295.507	0	0	0
162	12	N206A	-266.478	3452.575	1904.27	0	0	0
163	12	N207A	3393.038	6656.113	1870.678	0	0	0
164	12	N244	-132.756	436.192	-1193.605	0	0	0
165	12	N256	-455.726	174.022	105.165	0	0	0
166	12	N282	197.677	54.971	-93.31	0	0	0
167	12	Totals:	3374.018	4742.688	5844.053			
168	12	COG (ft):	X: .03	Y: 1.372	Z: .048			
169	13	N200B	-370.975	7418.173	696.35	0	0	0
170	13	N199B	0	-10769.688	-614.044	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
171	13	N201B	196.447	6967.238	212.393	0	0	0
172	13	N202B	731.999	-12709.812	-422.129	0	0	0
173	13	N203B	-931.703	9342.642	714.117	0	0	0
174	13	N204B	-118.038	7570.881	792.211	0	0	0
175	13	N205A	-565.833	-12369.836	-326.193	0	0	0
176	13	N206A	-716.535	7375.267	251.432	0	0	0
177	13	N207A	1459.8	9103.231	1124.11	0	0	0
178	13	N244	-79.169	809.589	-2131.102	0	0	0
179	13	N256	-1413.845	650.042	882.613	0	0	0
180	13	N282	1807.815	758.682	842.039	0	0	0
181	13	Totals:	-.037	14146.409	2021.797			
182	13	COG (ft):	X: .105	Y: 1.459	Z: .006			
183	14	N200B	-589.933	8099.87	100.864	0	0	0
184	14	N199B	-.736	-10909.187	-448.307	0	0	0
185	14	N201B	-132.128	6462.528	501.378	0	0	0
186	14	N202B	1006.527	-13161.885	-580.268	0	0	0
187	14	N203B	-1016.382	9213.093	483.066	0	0	0
188	14	N204B	-648.394	8291.175	1077.729	0	0	0
189	14	N205A	-191.983	-11756.228	-110.842	0	0	0
190	14	N206A	-1041.332	6806.196	-111.594	0	0	0
191	14	N207A	1131.473	8875.521	1120.472	0	0	0
192	14	N244	-48.319	793.772	-2080.329	0	0	0
193	14	N256	-1363.038	634.77	875.13	0	0	0
194	14	N282	1898.474	796.788	897.394	0	0	0
195	14	Totals:	-995.773	14146.413	1724.694			
196	14	COG (ft):	X: .105	Y: 1.459	Z: .006			
197	15	N200B	-528.539	8801.682	-482.004	0	0	0
198	15	N199B	-.425	-11326.212	-84.63	0	0	0
199	15	N201B	-316.6	6298.908	428.781	0	0	0
200	15	N202B	1092.607	-13351.838	-630.817	0	0	0
201	15	N203B	-867.495	8777.132	-11.27	0	0	0
202	15	N204B	-1268.195	8978.42	1108.038	0	0	0
203	15	N205A	167.033	-11173.139	96.928	0	0	0
204	15	N206A	-1213.879	6565.675	-360.541	0	0	0
205	15	N207A	659.146	8357.086	1045.619	0	0	0
206	15	N244	-35.987	760.315	-1978.564	0	0	0
207	15	N256	-1340.967	634.11	901.856	0	0	0
208	15	N282	1957.204	824.275	945.859	0	0	0
209	15	Totals:	-1696.098	14146.414	979.254			
210	15	COG (ft):	X: .105	Y: 1.459	Z: .006			
211	16	N200B	-358.735	9346.166	-926.378	0	0	0
212	16	N199B	0	-11881.03	339.639	0	0	0
213	16	N201B	-452.46	6475.229	129.745	0	0	0
214	16	N202B	973.082	-13242.26	-562.659	0	0	0
215	16	N203B	-497.551	8145.093	-504.234	0	0	0
216	16	N204B	-1706.066	9471.986	974.487	0	0	0
217	16	N205A	451.405	-10731.213	261.469	0	0	0
218	16	N206A	-1123.571	6659.638	-551.602	0	0	0
219	16	N207A	159.132	7687.186	776.354	0	0	0
220	16	N244	-33.219	724.998	-1880.922	0	0	0
221	16	N256	-1364.019	648.166	951.971	0	0	0
222	16	N282	1996.248	842.455	992.156	0	0	0
223	16	Totals:	-1955.754	14146.414	.026			
224	16	COG (ft):	X: .105	Y: 1.459	Z: .006			
225	17	N200B	-210.632	9636.429	-1219.614	0	0	0
226	17	N199B	-.425	-12464.6	760.979	0	0	0
227	17	N201B	-610.404	6944.476	-313.945	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
228	17	N202B	696.072	-12863.768	-402.368	0	0	0
229	17	N203B	9.594	7434.777	-785.657	0	0	0
230	17	N204B	-1820.483	9692.135	791.009	0	0	0
231	17	N205A	569.048	-10499.194	328.54	0	0	0
232	17	N206A	-672.907	7044.422	-686.202	0	0	0
233	17	N207A	-211.475	6993.597	289.027	0	0	0
234	17	N244	-34.612	697.374	-1805.94	0	0	0
235	17	N256	-1438.125	679.662	1013.83	0	0	0
236	17	N282	2004.387	851.103	1037.349	0	0	0
237	17	Totals:	-1719.96	14146.413	-992.993			
238	17	COG (ft):	X: .105	Y: 1.459	Z: .006			
239	18	N200B	31.623	9584.209	-1252.249	0	0	0
240	18	N199B	-.736	-12948.07	1106.495	0	0	0
241	18	N201B	-603.243	7625.147	-899.429	0	0	0
242	18	N202B	329.847	-12304.867	-190.437	0	0	0
243	18	N203B	490.235	6843.601	-912.038	0	0	0
244	18	N204B	-1685.593	9556.57	506.912	0	0	0
245	18	N205A	452.229	-10584.712	260.244	0	0	0
246	18	N206A	-47.041	7674.705	-605.425	0	0	0
247	18	N207A	-343.085	6462.32	-142.564	0	0	0
248	18	N244	-52.001	678.074	-1746.085	0	0	0
249	18	N256	-1533.032	720.201	1074.584	0	0	0
250	18	N282	1951.271	839.233	1051.461	0	0	0
251	18	Totals:	-1009.527	14146.41	-1748.53			
252	18	COG (ft):	X: .105	Y: 1.459	Z: .006			
253	19	N200B	388.016	9155.245	-908.776	0	0	0
254	19	N199B	0	-13162.751	1233.375	0	0	0
255	19	N201B	-325.829	8334.503	-1472.107	0	0	0
256	19	N202B	-43.346	-11714.209	24.535	0	0	0
257	19	N203B	800.507	6581.024	-927.704	0	0	0
258	19	N204B	-1362.065	9049.803	120.158	0	0	0
259	19	N205A	148.168	-11013.837	85.054	0	0	0
260	19	N206A	465.13	8399.819	-278.033	0	0	0
261	19	N207A	-224.07	6286.765	-307.203	0	0	0
262	19	N244	-86.843	672.141	-1724.762	0	0	0
263	19	N256	-1611.524	752.52	1116.444	0	0	0
264	19	N282	1851.86	805.383	1017.242	0	0	0
265	19	Totals:	.005	14146.406	-2021.776			
266	19	COG (ft):	X: .105	Y: 1.459	Z: .006			
267	20	N200B	607.417	8474.309	-312.327	0	0	0
268	20	N199B	.736	-13023.586	1067.577	0	0	0
269	20	N201B	2.601	8838.815	-1762.594	0	0	0
270	20	N202B	-317.363	-11262.52	182.379	0	0	0
271	20	N203B	885.386	6710.357	-696.657	0	0	0
272	20	N204B	-832.109	8330.246	-165.476	0	0	0
273	20	N205A	-225.49	-11626.751	-130.187	0	0	0
274	20	N206A	791.16	8968.379	85.604	0	0	0
275	20	N207A	103.097	6514.009	-304.157	0	0	0
276	20	N244	-117.633	687.933	-1775.078	0	0	0
277	20	N256	-1663.068	767.952	1124.476	0	0	0
278	20	N282	1761.005	767.26	961.766	0	0	0
279	20	Totals:	995.741	14146.403	-1724.672			
280	20	COG (ft):	X: .105	Y: 1.459	Z: .006			
281	21	N200B	546.021	7771.875	270.118	0	0	0
282	21	N199B	.425	-12606.372	703.66	0	0	0
283	21	N201B	186.95	9002.654	-1690.217	0	0	0
284	21	N202B	-403.075	-11072.444	232.715	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
285	21	N203B	737.497	7146.632	-202.937	0	0	0
286	21	N204B	-213.38	7642.481	-195.052	0	0	0
287	21	N205A	-584.628	-12210.362	-338.026	0	0	0
288	21	N206A	964.78	9209.334	335.003	0	0	0
289	21	N207A	574.358	7032.801	-229.737	0	0	0
290	21	N244	-129.982	721.323	-1876.1	0	0	0
291	21	N256	-1685.46	768.7	1097.89	0	0	0
292	21	N282	1702.558	739.779	913.449	0	0	0
293	21	Totals:	1696.066	14146.401	-979.233			
294	21	COG (ft):	X: .105	Y: 1.459	Z: .006			
295	22	N200B	375.902	7226.884	713.199	0	0	0
296	22	N199B	0	-12050.942	279.112	0	0	0
297	22	N201B	322.808	8825.959	-1389.879	0	0	0
298	22	N202B	-283.745	-11182.36	164.67	0	0	0
299	22	N203B	368.44	7779.362	289.217	0	0	0
300	22	N204B	223.7	7148.662	-60.653	0	0	0
301	22	N205A	-869.323	-12652.641	-502.754	0	0	0
302	22	N206A	874.307	9115.227	525.823	0	0	0
303	22	N207A	1074.281	7703.423	39.717	0	0	0
304	22	N244	-132.765	756.558	-1973.38	0	0	0
305	22	N256	-1662.019	754.58	1047.458	0	0	0
306	22	N282	1664.135	721.689	867.465	0	0	0
307	22	Totals:	1955.722	14146.401	-.005			
308	22	COG (ft):	X: .105	Y: 1.459	Z: .006			
309	23	N200B	227.546	6936.85	1005.405	0	0	0
310	23	N199B	.425	-11467.772	-142.262	0	0	0
311	23	N201B	480.917	8357.129	-944.816	0	0	0
312	23	N202B	-7.144	-11560.531	4.615	0	0	0
313	23	N203B	-138.695	8489.055	570.449	0	0	0
314	23	N204B	338.148	6928.687	123.04	0	0	0
315	23	N205A	-987.22	-12884.467	-569.972	0	0	0
316	23	N206A	422.501	8730.741	659.871	0	0	0
317	23	N207A	1445.842	8396.483	527.622	0	0	0
318	23	N244	-131.423	784.152	-2048.632	0	0	0
319	23	N256	-1587.274	722.996	985.2	0	0	0
320	23	N282	1656.306	713.08	822.494	0	0	0
321	23	Totals:	1719.928	14146.403	993.014			
322	23	COG (ft):	X: .105	Y: 1.459	Z: .006			
323	24	N200B	-14.841	6988.83	1038.361	0	0	0
324	24	N199B	.736	-10984.607	-487.427	0	0	0
325	24	N201B	473.906	7677.25	-359.151	0	0	0
326	24	N202B	358.772	-12118.7	-207.137	0	0	0
327	24	N203B	-620.418	9079.731	697.639	0	0	0
328	24	N204B	204.445	7063.777	406.407	0	0	0
329	24	N205A	-870.271	-12799.285	-501.601	0	0	0
330	24	N206A	-204.42	8101.125	578.728	0	0	0
331	24	N207A	1578.694	8927.482	959.615	0	0	0
332	24	N244	-114.081	803.559	-2109.301	0	0	0
333	24	N256	-1492.027	682.367	924.222	0	0	0
334	24	N282	1708.999	724.877	808.196	0	0	0
335	24	Totals:	1009.495	14146.406	1748.552			
336	24	COG (ft):	X: .105	Y: 1.459	Z: .006			
337	25	N200B	-86.997	4597.381	-150.374	0	0	0
338	25	N199B	0	-5458.461	70.507	0	0	0
339	25	N201B	-114.876	2675.367	-60.171	0	0	0
340	25	N202B	261.775	-4983.486	-151.015	0	0	0
341	25	N203B	-27.018	2235.385	-130.005	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
342	25	N204B	-502.897	4397.268	340.333	0	0	0
343	25	N205A	26.326	-3615.033	15.32	0	0	0
344	25	N206A	-92.375	2683.801	-71.367	0	0	0
345	25	N207A	79.76	2140.539	148.163	0	0	0
346	25	N244	3.835	182.15	-468.124	0	0	0
347	25	N256	-524.416	242.207	382.912	0	0	0
348	25	N282	976.874	395.577	496.861	0	0	0
349	25	Totals:	-.01	5492.696	423.039			
350	25	COG (ft):	X: .587	Y: 1.185	Z: .664			
351	26	N200B	-128.175	4741.77	-276.112	0	0	0
352	26	N199B	-.181	-5491.367	107.467	0	0	0
353	26	N201B	-180.428	2572.843	-2.749	0	0	0
354	26	N202B	317.207	-5074.341	-182.931	0	0	0
355	26	N203B	-43.367	2202.858	-183.264	0	0	0
356	26	N204B	-615.795	4548.548	395.586	0	0	0
357	26	N205A	103.042	-3484.423	59.491	0	0	0
358	26	N206A	-157.549	2567.321	-142.909	0	0	0
359	26	N207A	9.302	2087.19	149.094	0	0	0
360	26	N244	9.979	178.908	-457.999	0	0	0
361	26	N256	-515.778	239.706	382.579	0	0	0
362	26	N282	995.46	403.682	509.02	0	0	0
363	26	Totals:	-206.284	5492.696	357.275			
364	26	COG (ft):	X: .587	Y: 1.185	Z: .664			
365	27	N200B	-108.952	4884.723	-393.549	0	0	0
366	27	N199B	-.104	-5579.785	184.213	0	0	0
367	27	N201B	-212.926	2544.026	-23.268	0	0	0
368	27	N202B	331.942	-5109.153	-191.647	0	0	0
369	27	N203B	-11.258	2110.885	-290.824	0	0	0
370	27	N204B	-744.578	4686.841	395.586	0	0	0
371	27	N205A	175.539	-3366.775	101.468	0	0	0
372	27	N206A	-193.894	2523.666	-189.413	0	0	0
373	27	N207A	-88.19	1977.769	137.316	0	0	0
374	27	N244	12.146	171.717	-436.78	0	0	0
375	27	N256	-512.325	239.95	388.596	0	0	0
376	27	N282	1005.516	408.832	518.688	0	0	0
377	27	Totals:	-347.084	5492.697	200.389			
378	27	COG (ft):	X: .587	Y: 1.185	Z: .664			
379	28	N200B	-73.662	4993.632	-480.014	0	0	0
380	28	N199B	0	-5692.678	269.378	0	0	0
381	28	N201B	-239.691	2581.989	-84.977	0	0	0
382	28	N202B	307.218	-5086.284	-177.581	0	0	0
383	28	N203B	63.727	1984.083	-391.435	0	0	0
384	28	N204B	-833.313	4784.774	367.298	0	0	0
385	28	N205A	234.054	-3280.355	135.34	0	0	0
386	28	N206A	-177.913	2545.666	-228.828	0	0	0
387	28	N207A	-189.452	1843.503	83.174	0	0	0
388	28	N244	12.82	164.222	-416.736	0	0	0
389	28	N256	-515.361	242.134	397.531	0	0	0
390	28	N282	1012.083	412.01	526.851	0	0	0
391	28	Totals:	-399.491	5492.697	0			
392	28	COG (ft):	X: .587	Y: 1.185	Z: .664			
393	29	N200B	-45.524	5056.889	-542.552	0	0	0
394	29	N199B	-.104	-5812.498	355.007	0	0	0
395	29	N201B	-274.469	2674.78	-171.597	0	0	0
396	29	N202B	252.662	-5011.889	-145.995	0	0	0
397	29	N203B	165.736	1838.267	-448.757	0	0	0
398	29	N204B	-859.164	4834.221	331.789	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
399	29	N205A	259.933	-3229.249	150.073	0	0	0
400	29	N206A	-86.175	2620.075	-258.931	0	0	0
401	29	N207A	-266.905	1701.17	-17.352	0	0	0
402	29	N244	12.955	158.58	-402.063	0	0	0
403	29	N256	-529.134	248.132	409.33	0	0	0
404	29	N282	1015.13	414.219	536.052	0	0	0
405	29	Totals:	-355.058	5492.696	-204.996			
406	29	COG (ft):	X: .587	Y: 1.185	Z: .664			
407	30	N200B	7.104	5051.859	-555.586	0	0	0
408	30	N199B	-.181	-5914.464	428.967	0	0	0
409	30	N201B	-271.918	2812.149	-291.188	0	0	0
410	30	N202B	177.705	-4898.241	-102.598	0	0	0
411	30	N203B	264.395	1712.554	-479.838	0	0	0
412	30	N204B	-836.602	4812.265	271.596	0	0	0
413	30	N205A	236.596	-3240.397	136.39	0	0	0
414	30	N206A	42.978	2745.788	-241.255	0	0	0
415	30	N207A	-296.938	1587.017	-104.526	0	0	0
416	30	N244	9.454	154.587	-390.118	0	0	0
417	30	N256	-549.577	257.072	422.654	0	0	0
418	30	N282	1006.098	412.507	540.246	0	0	0
419	30	Totals:	-210.886	5492.696	-365.256			
420	30	COG (ft):	X: .587	Y: 1.185	Z: .664			
421	31	N200B	83.905	4962.351	-485.399	0	0	0
422	31	N199B	0	-5958.587	456.577	0	0	0
423	31	N201B	-211.802	2959.072	-411.484	0	0	0
424	31	N202B	99.43	-4775.762	-57.527	0	0	0
425	31	N203B	329.049	1658.759	-485.75	0	0	0
426	31	N204B	-770.752	4706.708	189.35	0	0	0
427	31	N205A	173.264	-3329.85	99.914	0	0	0
428	31	N206A	147.251	2896.469	-172.182	0	0	0
429	31	N207A	-271.974	1550.789	-136.47	0	0	0
430	31	N244	2.12	153.161	-385.26	0	0	0
431	31	N256	-566.169	264.108	431.608	0	0	0
432	31	N282	985.675	405.476	533.577	0	0	0
433	31	Totals:	-.002	5492.695	-423.046			
434	31	COG (ft):	X: .587	Y: 1.185	Z: .664			
435	32	N200B	125.104	4817.994	-359.626	0	0	0
436	32	N199B	.181	-5925.699	419.616	0	0	0
437	32	N201B	-146.253	3061.583	-468.972	0	0	0
438	32	N202B	44.023	-4684.922	-25.625	0	0	0
439	32	N203B	345.407	1691.272	-432.489	0	0	0
440	32	N204B	-657.877	4555.457	134.093	0	0	0
441	32	N205A	96.557	-3460.433	55.747	0	0	0
442	32	N206A	212.474	3012.933	-100.614	0	0	0
443	32	N207A	-201.563	1604.117	-137.427	0	0	0
444	32	N244	-4.022	156.402	-395.365	0	0	0
445	32	N256	-574.838	266.617	431.965	0	0	0
446	32	N282	967.083	397.372	521.415	0	0	0
447	32	Totals:	206.273	5492.694	-357.282			
448	32	COG (ft):	X: .587	Y: 1.185	Z: .664			
449	33	N200B	105.879	4675.01	-242.21	0	0	0
450	33	N199B	.104	-5837.27	342.863	0	0	0
451	33	N201B	-113.761	3090.408	-448.463	0	0	0
452	33	N202B	29.306	-4650.107	-16.92	0	0	0
453	33	N203B	313.335	1783.265	-324.95	0	0	0
454	33	N204B	-529.143	4417.136	134.126	0	0	0
455	33	N205A	24.054	-3578.11	13.767	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
456	33	N206A	248.862	3056.606	-54.092	0	0	0
457	33	N207A	-104.111	1713.561	-125.666	0	0	0
458	33	N244	-6.19	163.592	-416.556	0	0	0
459	33	N256	-578.303	266.378	425.953	0	0	0
460	33	N282	957.04	392.224	511.753	0	0	0
461	33	Totals:	347.073	5492.694	-200.396			
462	33	COG (ft):	X: .587	Y: 1.185	Z: .664			
463	34	N200B	70.577	4566.083	-155.794	0	0	0
464	34	N199B	0	-5724.349	257.685	0	0	0
465	34	N201B	-86.996	3052.425	-386.699	0	0	0
466	34	N202B	54.022	-4672.994	-30.98	0	0	0
467	34	N203B	238.384	1910.099	-224.371	0	0	0
468	34	N204B	-440.438	4319.195	162.448	0	0	0
469	34	N205A	-34.473	-3664.543	-20.112	0	0	0
470	34	N206A	232.873	3034.596	-14.688	0	0	0
471	34	N207A	-2.855	1847.86	-71.517	0	0	0
472	34	N244	-6.863	171.084	-436.586	0	0	0
473	34	N256	-575.25	264.19	417.005	0	0	0
474	34	N282	950.498	389.05	503.602	0	0	0
475	34	Totals:	399.479	5492.694	-.007			
476	34	COG (ft):	X: .587	Y: 1.185	Z: .664			
477	35	N200B	42.429	4502.834	-93.296	0	0	0
478	35	N199B	.104	-5604.546	172.053	0	0	0
479	35	N201B	-52.211	2959.654	-300.024	0	0	0
480	35	N202B	108.559	-4747.372	-62.556	0	0	0
481	35	N203B	136.379	2055.888	-167.063	0	0	0
482	35	N204B	-414.586	4269.755	197.966	0	0	0
483	35	N205A	-60.363	-3715.639	-34.85	0	0	0
484	35	N206A	141.09	2960.2	15.394	0	0	0
485	35	N207A	74.633	1990.168	29.035	0	0	0
486	35	N244	-7.001	176.723	-451.268	0	0	0
487	35	N256	-561.451	258.188	405.19	0	0	0
488	35	N282	947.463	386.842	494.41	0	0	0
489	35	Totals:	355.047	5492.694	204.989			
490	35	COG (ft):	X: .587	Y: 1.185	Z: .664			
491	36	N200B	-10.207	4507.851	-80.25	0	0	0
492	36	N199B	.181	-5502.591	98.107	0	0	0
493	36	N201B	-54.756	2822.32	-180.423	0	0	0
494	36	N202B	183.501	-4860.987	-105.944	0	0	0
495	36	N203B	37.677	2181.58	-135.951	0	0	0
496	36	N204B	-437.092	4291.69	258.129	0	0	0
497	36	N205A	-37.021	-3704.505	-21.165	0	0	0
498	36	N206A	11.895	2834.516	-2.297	0	0	0
499	36	N207A	104.72	2104.308	116.227	0	0	0
500	36	N244	-3.503	180.72	-463.247	0	0	0
501	36	N256	-540.995	249.244	391.855	0	0	0
502	36	N282	956.476	388.549	490.208	0	0	0
503	36	Totals:	210.875	5492.695	365.249			
504	36	COG (ft):	X: .587	Y: 1.185	Z: .664			
505	37	N200B	2.66	3708.204	46.186	0	0	0
506	37	N199B	0	-5506.096	92.03	0	0	0
507	37	N201B	-41.116	3632.527	-267.725	0	0	0
508	37	N202B	143.635	-4295.877	-82.807	0	0	0
509	37	N203B	-6.822	2202.454	-24.74	0	0	0
510	37	N204B	-279.925	3518.561	196.043	0	0	0
511	37	N205A	-65.004	-4269.109	-37.409	0	0	0
512	37	N206A	44.987	3537.594	19.867	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
513	37	N207A	151.013	2152.8	86.206	0	0	0
514	37	N244	-19.551	187.979	-485.06	0	0	0
515	37	N256	-691.157	308.121	479.443	0	0	0
516	37	N282	761.273	315.534	401.003	0	0	0
517	37	Totals:	-.006	5492.692	423.036			
518	37	COG (ft):	X: .026	Y: 1.185	Z: .664			
519	38	N200B	-38.541	3852.645	-79.587	0	0	0
520	38	N199B	-.181	-5539.033	129.025	0	0	0
521	38	N201B	-106.641	3529.947	-210.362	0	0	0
522	38	N202B	199.104	-4386.795	-114.744	0	0	0
523	38	N203B	-23.236	2169.959	-77.947	0	0	0
524	38	N204B	-392.813	3669.857	251.307	0	0	0
525	38	N205A	11.697	-4138.512	6.753	0	0	0
526	38	N206A	-20.212	3421.109	-51.666	0	0	0
527	38	N207A	80.607	2099.445	87.173	0	0	0
528	38	N244	-13.406	184.753	-474.967	0	0	0
529	38	N256	-682.511	305.638	479.114	0	0	0
530	38	N282	779.852	323.679	413.171	0	0	0
531	38	Totals:	-206.281	5492.693	357.271			
532	38	COG (ft):	X: .026	Y: 1.185	Z: .664			
533	39	N200B	-19.341	3995.679	-197.091	0	0	0
534	39	N199B	-.104	-5627.466	205.8	0	0	0
535	39	N201B	-139.119	3501.061	-230.925	0	0	0
536	39	N202B	213.878	-4421.679	-123.482	0	0	0
537	39	N203B	8.795	2078.04	-185.424	0	0	0
538	39	N204B	-521.534	3808.158	251.301	0	0	0
539	39	N205A	84.171	-4020.851	48.717	0	0	0
540	39	N206A	-56.59	3377.421	-98.155	0	0	0
541	39	N207A	-16.813	1990.016	75.439	0	0	0
542	39	N244	-11.24	177.574	-453.769	0	0	0
543	39	N256	-679.061	305.888	485.139	0	0	0
544	39	N282	789.878	328.853	422.837	0	0	0
545	39	Totals:	-347.081	5492.693	200.385			
546	39	COG (ft):	X: .026	Y: 1.185	Z: .664			
547	40	N200B	15.928	4104.639	-283.613	0	0	0
548	40	N199B	0	-5740.352	290.985	0	0	0
549	40	N201B	-165.877	3538.969	-292.67	0	0	0
550	40	N202B	189.176	-4398.855	-109.43	0	0	0
551	40	N203B	83.725	1951.302	-285.959	0	0	0
552	40	N204B	-610.191	3906.073	222.998	0	0	0
553	40	N205A	142.66	-3934.426	82.574	0	0	0
554	40	N206A	-40.625	3399.406	-137.549	0	0	0
555	40	N207A	-118.009	1855.745	21.329	0	0	0
556	40	N244	-10.57	170.087	-433.739	0	0	0
557	40	N256	-682.108	308.07	494.084	0	0	0
558	40	N282	796.404	332.036	430.987	0	0	0
559	40	Totals:	-399.487	5492.693	-.004			
560	40	COG (ft):	X: .026	Y: 1.185	Z: .664			
561	41	N200B	44.046	4167.917	-346.216	0	0	0
562	41	N199B	-.104	-5860.118	376.635	0	0	0
563	41	N201B	-200.651	3631.679	-379.323	0	0	0
564	41	N202B	134.634	-4324.511	-77.852	0	0	0
565	41	N203B	185.688	1805.58	-343.213	0	0	0
566	41	N204B	-635.948	3955.498	187.471	0	0	0
567	41	N205A	168.532	-3883.316	97.302	0	0	0
568	41	N206A	51.075	3473.79	-167.639	0	0	0
569	41	N207A	-195.417	1713.44	-79.176	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
570	41	N244	-10.436	164.445	-419.061	0	0	0
571	41	N256	-695.883	314.047	505.892	0	0	0
572	41	N282	799.409	334.24	440.179	0	0	0
573	41	Totals:	-355.055	5492.693	-204.999			
574	41	COG (ft):	X: .026	Y: 1.185	Z: .664			
575	42	N200B	96.665	4162.906	-359.329	0	0	0
576	42	N199B	-.181	-5962.001	450.606	0	0	0
577	42	N201B	-198.105	3768.958	-498.918	0	0	0
578	42	N202B	59.685	-4210.921	-34.459	0	0	0
579	42	N203B	284.307	1679.967	-374.239	0	0	0
580	42	N204B	-613.287	3933.537	127.252	0	0	0
581	42	N205A	145.204	-3894.43	83.624	0	0	0
582	42	N206A	180.169	3599.439	-149.966	0	0	0
583	42	N207A	-225.434	1599.34	-166.337	0	0	0
584	42	N244	-13.931	160.439	-407.082	0	0	0
585	42	N256	-716.318	322.953	519.219	0	0	0
586	42	N282	790.345	332.507	444.368	0	0	0
587	42	Totals:	-210.883	5492.692	-365.259			
588	42	COG (ft):	X: .026	Y: 1.185	Z: .664			
589	43	N200B	173.476	4073.4	-289.183	0	0	0
590	43	N199B	0	-6006.06	478.198	0	0	0
591	43	N201B	-138.009	3915.857	-619.172	0	0	0
592	43	N202B	-18.602	-4088.448	10.619	0	0	0
593	43	N203B	348.966	1626.211	-380.142	0	0	0
594	43	N204B	-547.376	3827.977	44.979	0	0	0
595	43	N205A	81.886	-3983.84	47.156	0	0	0
596	43	N206A	284.416	3750.065	-80.9	0	0	0
597	43	N207A	-200.487	1563.143	-198.289	0	0	0
598	43	N244	-21.261	158.993	-402.181	0	0	0
599	43	N256	-732.912	329.956	528.174	0	0	0
600	43	N282	769.906	325.437	437.691	0	0	0
601	43	Totals:	.002	5492.691	-423.049			
602	43	COG (ft):	X: .026	Y: 1.185	Z: .664			
603	44	N200B	214.696	3928.992	-163.374	0	0	0
604	44	N199B	.181	-5973.141	441.202	0	0	0
605	44	N201B	-72.489	4018.425	-676.601	0	0	0
606	44	N202B	-74.046	-3997.543	42.542	0	0	0
607	44	N203B	365.388	1658.692	-326.934	0	0	0
608	44	N204B	-434.512	3676.71	-10.288	0	0	0
609	44	N205A	5.193	-4114.41	2.998	0	0	0
610	44	N206A	349.666	3866.534	-9.34	0	0	0
611	44	N207A	-130.129	1616.477	-199.282	0	0	0
612	44	N244	-27.403	162.218	-412.253	0	0	0
613	44	N256	-741.589	332.447	528.527	0	0	0
614	44	N282	751.321	317.291	425.52	0	0	0
615	44	Totals:	206.277	5492.691	-357.285			
616	44	COG (ft):	X: .026	Y: 1.185	Z: .664			
617	45	N200B	195.496	3785.928	-45.892	0	0	0
618	45	N199B	.104	-5884.697	364.42	0	0	0
619	45	N201B	-40.015	4047.318	-656.047	0	0	0
620	45	N202B	-88.802	-3962.657	51.27	0	0	0
621	45	N203B	333.395	1750.631	-219.477	0	0	0
622	45	N204B	-305.839	3538.381	-10.249	0	0	0
623	45	N205A	-67.286	-4232.099	-38.968	0	0	0
624	45	N206A	386.085	3910.24	37.167	0	0	0
625	45	N207A	-32.749	1725.93	-187.566	0	0	0
626	45	N244	-29.57	169.395	-433.422	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
627	45	N256	-745.051	332.2	522.506	0	0	0
628	45	N282	741.308	312.12	415.861	0	0	0
629	45	Totals:	347.077	5492.69	-200.399			
630	45	COG (ft):	X: .026	Y: 1.185	Z: .664			
631	46	N200B	160.215	3676.948	40.581	0	0	0
632	46	N199B	0	-5771.784	279.222	0	0	0
633	46	N201B	-13.258	4009.391	-594.249	0	0	0
634	46	N202B	-64.108	-3985.499	37.222	0	0	0
635	46	N203B	258.5	1877.402	-118.974	0	0	0
636	46	N204B	-217.213	3440.457	18.087	0	0	0
637	46	N205A	-125.787	-4318.537	-72.832	0	0	0
638	46	N206A	370.114	3888.245	76.55	0	0	0
639	46	N207A	68.441	1860.233	-133.448	0	0	0
640	46	N244	-30.24	176.879	-453.439	0	0	0
641	46	N256	-741.988	330.015	513.548	0	0	0
642	46	N282	734.807	308.94	407.722	0	0	0
643	46	Totals:	399.483	5492.69	-.01			
644	46	COG (ft):	X: .026	Y: 1.185	Z: .664			
645	47	N200B	132.087	3613.678	103.145	0	0	0
646	47	N199B	.104	-5652.035	193.568	0	0	0
647	47	N201B	21.524	3916.701	-507.541	0	0	0
648	47	N202B	-9.584	-4059.826	5.654	0	0	0
649	47	N203B	156.541	2023.096	-61.735	0	0	0
650	47	N204B	-191.454	3391.04	53.624	0	0	0
651	47	N205A	-151.669	-4369.637	-87.566	0	0	0
652	47	N206A	278.368	3813.874	106.619	0	0	0
653	47	N207A	145.884	2002.512	-32.918	0	0	0
654	47	N244	-30.377	182.519	-468.127	0	0	0
655	47	N256	-728.188	324.034	501.724	0	0	0
656	47	N282	731.814	306.737	398.539	0	0	0
657	47	Totals:	355.051	5492.691	204.986			
658	47	COG (ft):	X: .026	Y: 1.185	Z: .664			
659	48	N200B	79.459	3618.677	116.27	0	0	0
660	48	N199B	.181	-5550.162	119.612	0	0	0
661	48	N201B	18.983	3779.456	-387.936	0	0	0
662	48	N202B	65.349	-4173.383	-37.729	0	0	0
663	48	N203B	57.878	2148.688	-30.678	0	0	0
664	48	N204B	-214.06	3412.98	113.812	0	0	0
665	48	N205A	-128.337	-4358.537	-73.887	0	0	0
666	48	N206A	149.233	3688.253	88.93	0	0	0
667	48	N207A	175.955	2116.601	54.261	0	0	0
668	48	N244	-26.884	186.529	-480.139	0	0	0
669	48	N256	-707.737	315.124	488.386	0	0	0
670	48	N282	740.859	308.465	394.342	0	0	0
671	48	Totals:	210.879	5492.691	365.246			
672	48	COG (ft):	X: .026	Y: 1.185	Z: .664			
673	49	N200B	149.223	2490.711	130.591	0	0	0
674	49	N199B	0	-4844.795	240.246	0	0	0
675	49	N201B	14.367	3962.625	-597.504	0	0	0
676	49	N202B	-37.678	-3464.504	21.753	0	0	0
677	49	N203B	122.663	2219.614	-34.893	0	0	0
678	49	N204B	-129.244	2406.664	-13.895	0	0	0
679	49	N205A	-119.344	-4700.718	-68.903	0	0	0
680	49	N206A	246.275	4033.318	80.946	0	0	0
681	49	N207A	129.968	2233.436	-52.149	0	0	0
682	49	N244	-47.932	204.979	-535.319	0	0	0
683	49	N256	-823.598	359.538	547.446	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
684	49	N282	495.299	216.822	281.674	0	0	0
685	49	Totals:	0	5117.689	-.006			
686	49	COG (ft):	X: -.551	Y: 1.271	Z: .378			
687	50	N200B	53.657	3328.748	-73.477	0	0	0
688	50	N199B	0	-4920.671	203.22	0	0	0
689	50	N201B	-56.801	3227.986	-345.41	0	0	0
690	50	N202B	78.235	-4095.762	-45.169	0	0	0
691	50	N203B	85.562	2246.973	-123.464	0	0	0
692	50	N204B	-324.304	3215.756	124.717	0	0	0
693	50	N205A	-27.824	-4033.59	-16.064	0	0	0
694	50	N206A	79.667	3193.764	-15.882	0	0	0
695	50	N207A	77.005	2187.999	24.71	0	0	0
696	50	N244	-24.593	201.627	-525.534	0	0	0
697	50	N256	-620.676	279.305	429.371	0	0	0
698	50	N282	680.068	285.558	362.978	0	0	0
699	50	Totals:	-.003	5117.693	-.002			
700	50	COG (ft):	X: .028	Y: 1.271	Z: .378			
701	51	N200B	22.449	3228.098	-29.708	0	0	0
702	51	N199B	0	-4766.568	141.615	0	0	0
703	51	N201B	-28.062	3129.191	-288.69	0	0	0
704	51	N202B	109.598	-4666.284	-63.276	0	0	0
705	51	N203B	.065	3009.753	-51.909	0	0	0
706	51	N204B	-274.109	3218.346	150.419	0	0	0
707	51	N205A	-74.761	-4597.842	-43.163	0	0	0
708	51	N206A	-6.325	3201.27	-1.489	0	0	0
709	51	N207A	208.612	2937.993	123.054	0	0	0
710	51	N244	-33.576	267.842	-708.692	0	0	0
711	51	N256	-617.518	279.22	414.118	0	0	0
712	51	N282	693.62	292.126	357.726	0	0	0
713	51	Totals:	-.005	5533.143	.003			
714	51	COG (ft):	X: .03	Y: 1.372	Z: .048			
715	52	N200B	-40.716	2720.473	120.496	0	0	0
716	52	N199B	0	-4027.05	-43.51	0	0	0
717	52	N201B	28.636	2657.861	-103.636	0	0	0
718	52	N202B	170.99	-4213.945	-98.317	0	0	0
719	52	N203B	-148.391	2889.495	90.74	0	0	0
720	52	N204B	-151.213	2730.533	199.44	0	0	0
721	52	N205A	-137.569	-4178.462	-79.021	0	0	0
722	52	N206A	-102.407	2748.381	61.448	0	0	0
723	52	N207A	331.87	2828.234	245.657	0	0	0
724	52	N244	-29.036	247.221	-654.738	0	0	0
725	52	N256	-534.013	240.174	348.216	0	0	0
726	52	N282	611.841	255.431	302.357	0	0	0
727	52	Totals:	-.008	4898.346	389.132			
728	52	COG (ft):	X: .03	Y: 1.376	Z: .048			
729	53	N200B	-75.587	2828.927	28.326	0	0	0
730	53	N199B	-.202	-4045.279	-18.852	0	0	0
731	53	N201B	-23.238	2572.498	-55.597	0	0	0
732	53	N202B	223.033	-4289.637	-128.534	0	0	0
733	53	N203B	-172.594	2873.75	45.206	0	0	0
734	53	N204B	-249.187	2844.864	244.055	0	0	0
735	53	N205A	-64.426	-4081.485	-36.729	0	0	0
736	53	N206A	-174.969	2654.51	-1.373	0	0	0
737	53	N207A	265.574	2797	251.703	0	0	0
738	53	N244	-23.614	244.938	-648.302	0	0	0
739	53	N256	-525.079	237.292	348.058	0	0	0
740	53	N282	625.716	260.968	309.03	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
741	53	Totals:	-194.573	4898.346	336.99			
742	53	COG (ft):	X: .03	Y: 1.376	Z: .048			
743	54	N200B	-84.878	2945.079	-78.527	0	0	0
744	54	N199B	-.35	-4110.24	44.528	0	0	0
745	54	N201B	-75.544	2540.053	-61.179	0	0	0
746	54	N202B	241.39	-4322.788	-139.366	0	0	0
747	54	N203B	-150.563	2801.865	-24.755	0	0	0
748	54	N204B	-345.476	2960.306	258.996	0	0	0
749	54	N205A	8.172	-3981.487	5.123	0	0	0
750	54	N206A	-202.13	2608.723	-64.165	0	0	0
751	54	N207A	177.651	2713.127	219.536	0	0	0
752	54	N244	-19.826	240.623	-636.313	0	0	0
753	54	N256	-521.975	237.13	352.896	0	0	0
754	54	N282	636.537	265.954	317.797	0	0	0
755	54	Totals:	-336.993	4898.346	194.57			
756	54	COG (ft):	X: .03	Y: 1.376	Z: .048			
757	55	N200B	-66.105	3037.834	-171.451	0	0	0
758	55	N199B	-.405	-4204.545	129.667	0	0	0
759	55	N201B	-114.274	2569.217	-118.89	0	0	0
760	55	N202B	221.142	-4304.517	-127.91	0	0	0
761	55	N203B	-88.208	2693.08	-100.403	0	0	0
762	55	N204B	-414.287	3045.952	240.256	0	0	0
763	55	N205A	60.788	-3905.243	35.33	0	0	0
764	55	N206A	-176.629	2623.285	-110.12	0	0	0
765	55	N207A	91.656	2599.067	157.774	0	0	0
766	55	N244	-18.686	235.433	-621.99	0	0	0
767	55	N256	-525.531	239.729	361.433	0	0	0
768	55	N282	641.405	269.054	326.31	0	0	0
769	55	Totals:	-389.134	4898.346	.005			
770	55	COG (ft):	X: .03	Y: 1.376	Z: .048			
771	56	N200B	-24.287	3082.326	-225.515	0	0	0
772	56	N199B	-.35	-4302.924	213.749	0	0	0
773	56	N201B	-129.04	2652.187	-213.287	0	0	0
774	56	N202B	167.707	-4239.709	-97.23	0	0	0
775	56	N203B	-2.243	2576.541	-161.449	0	0	0
776	56	N204B	-437.157	3078.839	192.838	0	0	0
777	56	N205A	79.315	-3873.193	45.792	0	0	0
778	56	N206A	-105.284	2694.306	-126.91	0	0	0
779	56	N207A	30.644	2485.384	82.96	0	0	0
780	56	N244	-20.501	230.76	-609.176	0	0	0
781	56	N256	-534.798	244.394	371.385	0	0	0
782	56	N282	639.006	269.435	332.283	0	0	0
783	56	Totals:	-336.989	4898.346	-194.56			
784	56	COG (ft):	X: .03	Y: 1.376	Z: .048			
785	57	N200B	29.364	3066.652	-226.231	0	0	0
786	57	N199B	-.202	-4379.008	274.24	0	0	0
787	57	N201B	-115.896	2766.7	-319.073	0	0	0
788	57	N202B	95.422	-4145.755	-55.559	0	0	0
789	57	N203B	84.287	2483.49	-191.539	0	0	0
790	57	N204B	-407.972	3050.176	129.458	0	0	0
791	57	N205A	58.801	-3893.908	33.715	0	0	0
792	57	N206A	-7.22	2802.724	-110.038	0	0	0
793	57	N207A	10.946	2402.549	15.144	0	0	0
794	57	N244	-24.783	227.856	-601.301	0	0	0
795	57	N256	-547.296	249.875	380.088	0	0	0
796	57	N282	629.982	266.995	334.113	0	0	0
797	57	Totals:	-194.566	4898.346	-336.982			

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
798	57	COG (ft):	X: .03	Y: 1.376	Z: .048			
799	58	N200B	80.484	2995.006	-173.409	0	0	0
800	58	N199B	0	-4412.418	294.936	0	0	0
801	58	N201B	-78.363	2882.089	-407.924	0	0	0
802	58	N202B	23.646	-4047.815	-14.056	0	0	0
803	58	N203B	148.225	2438.849	-182.621	0	0	0
804	58	N204B	-334.56	2967.634	67.094	0	0	0
805	58	N205A	4.739	-3961.844	2.332	0	0	0
806	58	N206A	91.318	2919.504	-64.019	0	0	0
807	58	N207A	37.824	2372.748	-27.52	0	0	0
808	58	N244	-30.383	227.498	-600.466	0	0	0
809	58	N256	-559.684	254.705	385.214	0	0	0
810	58	N282	616.754	262.388	331.313	0	0	0
811	58	Totals:	0	4898.345	-389.127			
812	58	COG (ft):	X: .03	Y: 1.376	Z: .048			
813	59	N200B	115.365	2886.567	-81.206	0	0	0
814	59	N199B	.202	-4394.18	270.272	0	0	0
815	59	N201B	-26.496	2967.426	-455.999	0	0	0
816	59	N202B	-28.382	-3972.143	16.153	0	0	0
817	59	N203B	172.43	2454.606	-137.084	0	0	0
818	59	N204B	-236.594	2853.317	22.473	0	0	0
819	59	N205A	-68.396	-4058.809	-39.955	0	0	0
820	59	N206A	163.914	3013.349	-1.182	0	0	0
821	59	N207A	104.088	2403.992	-33.583	0	0	0
822	59	N244	-35.803	229.781	-606.893	0	0	0
823	59	N256	-568.636	257.59	385.384	0	0	0
824	59	N282	602.871	256.849	324.635	0	0	0
825	59	Totals:	194.564	4898.345	-336.985			
826	59	COG (ft):	X: .03	Y: 1.376	Z: .048			
827	60	N200B	124.661	2770.403	25.643	0	0	0
828	60	N199B	.35	-4329.202	206.875	0	0	0
829	60	N201B	25.802	2999.859	-450.416	0	0	0
830	60	N202B	-46.729	-3939.003	26.979	0	0	0
831	60	N203B	150.429	2526.513	-67.143	0	0	0
832	60	N204B	-140.335	2737.867	7.552	0	0	0
833	60	N205A	-140.999	-4158.811	-81.81	0	0	0
834	60	N206A	191.107	3059.124	61.621	0	0	0
835	60	N207A	191.977	2487.884	-1.426	0	0	0
836	60	N244	-39.591	234.092	-618.86	0	0	0
837	60	N256	-571.748	257.754	380.55	0	0	0
838	60	N282	592.059	251.863	315.871	0	0	0
839	60	Totals:	336.984	4898.344	-194.565			
840	60	COG (ft):	X: .03	Y: 1.376	Z: .048			
841	61	N200B	105.881	2677.623	118.529	0	0	0
842	61	N199B	.405	-4234.89	121.726	0	0	0
843	61	N201B	64.532	2970.71	-392.669	0	0	0
844	61	N202B	-26.487	-3957.265	15.526	0	0	0
845	61	N203B	88.102	2635.309	8.481	0	0	0
846	61	N204B	-71.546	2652.2	26.317	0	0	0
847	61	N205A	-193.629	-4235.074	-112.025	0	0	0
848	61	N206A	165.605	3044.578	107.57	0	0	0
849	61	N207A	277.971	2601.953	60.345	0	0	0
850	61	N244	-40.732	239.279	-633.172	0	0	0
851	61	N256	-568.184	255.155	372.005	0	0	0
852	61	N282	587.207	248.766	307.368	0	0	0
853	61	Totals:	389.125	4898.344	0			
854	61	COG (ft):	X: .03	Y: 1.376	Z: .048			

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
855	62	N200B	64.052	2633.117	172.56	0	0	0
856	62	N199B	.35	-4136.519	37.649	0	0	0
857	62	N201B	79.305	2887.766	-298.236	0	0	0
858	62	N202B	26.933	-4022.054	-15.145	0	0	0
859	62	N203B	2.134	2751.835	69.524	0	0	0
860	62	N204B	-48.669	2619.299	73.74	0	0	0
861	62	N205A	-212.165	-4267.136	-122.493	0	0	0
862	62	N206A	94.228	2973.584	124.343	0	0	0
863	62	N207A	339.016	2715.627	135.176	0	0	0
864	62	N244	-38.919	243.953	-645.995	0	0	0
865	62	N256	-558.9	250.486	362.042	0	0	0
866	62	N282	589.614	248.387	301.401	0	0	0
867	62	Totals:	336.98	4898.344	194.565			
868	62	COG (ft):	X: .03	Y: 1.376	Z: .048			
869	63	N200B	10.397	2648.802	173.281	0	0	0
870	63	N199B	.202	-4060.452	-22.825	0	0	0
871	63	N201B	66.168	2773.265	-192.45	0	0	0
872	63	N202B	99.208	-4115.998	-56.811	0	0	0
873	63	N203B	-84.427	2844.864	99.634	0	0	0
874	63	N204B	-77.823	2647.97	137.101	0	0	0
875	63	N205A	-191.646	-4246.415	-110.413	0	0	0
876	63	N206A	-3.869	2865.177	107.461	0	0	0
877	63	N207A	358.748	2798.443	203.001	0	0	0
878	63	N244	-34.638	246.86	-653.891	0	0	0
879	63	N256	-546.392	245.003	353.334	0	0	0
880	63	N282	598.629	250.826	299.566	0	0	0
881	63	Totals:	194.557	4898.345	336.987			
882	63	COG (ft):	X: .03	Y: 1.376	Z: .048			
883	64	N200B	-46.763	1846.497	128.973	0	0	0
884	64	N199B	0	-2736.432	-82.629	0	0	0
885	64	N201B	36.316	1810.913	-24.92	0	0	0
886	64	N202B	140.613	-2950.802	-80.778	0	0	0
887	64	N203B	-148.122	2075.397	104.761	0	0	0
888	64	N204B	-76.358	1859.046	158.372	0	0	0
889	64	N205A	-116.794	-2934.196	-67.026	0	0	0
890	64	N206A	-100.851	1881.843	61.797	0	0	0
891	64	N207A	274.923	2033.691	211.964	0	0	0
892	64	N244	-19.989	174.698	-462.555	0	0	0
893	64	N256	-366.553	164.503	235.931	0	0	0
894	64	N282	423.572	176.212	205.241	0	0	0
895	64	Totals:	-.007	3401.37	389.131			
896	64	COG (ft):	X: .03	Y: 1.367	Z: .048			
897	65	N200B	-81.62	1954.962	36.862	0	0	0
898	65	N199B	-.202	-2754.676	-57.973	0	0	0
899	65	N201B	-15.533	1725.552	23.062	0	0	0
900	65	N202B	192.642	-3026.501	-110.988	0	0	0
901	65	N203B	-172.355	2059.637	59.269	0	0	0
902	65	N204B	-174.267	1973.389	202.965	0	0	0
903	65	N205A	-43.68	-2837.201	-24.751	0	0	0
904	65	N206A	-173.393	1787.976	-1	0	0	0
905	65	N207A	208.655	2002.445	218.017	0	0	0
906	65	N244	-14.588	172.413	-456.138	0	0	0
907	65	N256	-357.642	161.612	235.767	0	0	0
908	65	N282	437.411	181.763	211.898	0	0	0
909	65	Totals:	-194.571	3401.371	336.99			
910	65	COG (ft):	X: .03	Y: 1.367	Z: .048			
911	66	N200B	-90.912	2071.118	-69.951	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
912	66	N199B	-.35	-2819.656	5.391	0	0	0
913	66	N201B	-67.82	1693.116	17.459	0	0	0
914	66	N202B	210.998	-3059.652	-121.82	0	0	0
915	66	N203B	-150.374	1987.744	-10.64	0	0	0
916	66	N204B	-270.485	2088.833	217.893	0	0	0
917	66	N205A	28.888	-2737.194	17.083	0	0	0
918	66	N206A	-200.564	1742.199	-63.776	0	0	0
919	66	N207A	120.781	1918.565	185.884	0	0	0
920	66	N244	-10.814	168.091	-444.181	0	0	0
921	66	N256	-354.548	161.444	240.585	0	0	0
922	66	N282	448.207	186.763	220.641	0	0	0
923	66	Totals:	-336.991	3401.371	194.569			
924	66	COG (ft):	X: .03	Y: 1.367	Z: .048			
925	67	N200B	-72.152	2163.866	-162.863	0	0	0
926	67	N199B	-.405	-2913.979	90.503	0	0	0
927	67	N201B	-106.541	1722.294	-40.229	0	0	0
928	67	N202B	190.763	-3041.374	-110.371	0	0	0
929	67	N203B	-88.075	1878.959	-86.239	0	0	0
930	67	N204B	-339.238	2174.471	199.153	0	0	0
931	67	N205A	81.48	-2660.95	47.276	0	0	0
932	67	N206A	-175.1	1756.773	-109.724	0	0	0
933	67	N207A	34.842	1804.503	124.175	0	0	0
934	67	N244	-9.679	162.889	-429.894	0	0	0
935	67	N256	-358.096	164.044	249.092	0	0	0
936	67	N282	453.067	189.874	229.127	0	0	0
937	67	Totals:	-389.133	3401.371	.005			
938	67	COG (ft):	X: .03	Y: 1.367	Z: .048			
939	68	N200B	-30.359	2208.345	-216.948	0	0	0
940	68	N199B	-.35	-3012.372	174.556	0	0	0
941	68	N201B	-121.311	1805.278	-134.568	0	0	0
942	68	N202B	137.35	-2976.553	-79.704	0	0	0
943	68	N203B	-2.158	1762.431	-147.256	0	0	0
944	68	N204B	-362.077	2207.342	151.747	0	0	0
945	68	N205A	99.997	-2628.911	57.734	0	0	0
946	68	N206A	-103.812	1827.807	-126.519	0	0	0
947	68	N207A	-26.121	1690.824	49.419	0	0	0
948	68	N244	-11.487	158.204	-417.111	0	0	0
949	68	N256	-367.34	168.716	259.012	0	0	0
950	68	N282	450.68	190.26	235.078	0	0	0
951	68	Totals:	-336.988	3401.371	-194.561			
952	68	COG (ft):	X: .03	Y: 1.367	Z: .048			
953	69	N200B	23.263	2192.654	-217.712	0	0	0
954	69	N199B	-.202	-3088.459	235.024	0	0	0
955	69	N201B	-108.182	1919.802	-240.276	0	0	0
956	69	N202B	65.092	-2882.585	-38.048	0	0	0
957	69	N203B	84.345	1669.395	-177.34	0	0	0
958	69	N204B	-332.899	2178.659	88.388	0	0	0
959	69	N205A	79.491	-2649.644	45.66	0	0	0
960	69	N206A	-5.806	1936.234	-109.664	0	0	0
961	69	N207A	-45.791	1607.997	-18.351	0	0	0
962	69	N244	-15.752	155.29	-409.253	0	0	0
963	69	N256	-379.808	174.209	267.69	0	0	0
964	69	N282	441.685	187.818	236.897	0	0	0
965	69	Totals:	-194.565	3401.37	-336.983			
966	69	COG (ft):	X: .03	Y: 1.367	Z: .048			
967	70	N200B	74.359	2120.99	-164.951	0	0	0
968	70	N199B	0	-3121.863	255.707	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
969	70	N201B	-70.673	2035.197	-329.047	0	0	0
970	70	N202B	-6.662	-2784.633	3.442	0	0	0
971	70	N203B	148.285	1624.773	-168.444	0	0	0
972	70	N204B	-259.527	2096.099	26.048	0	0	0
973	70	N205A	25.449	-2717.6	14.289	0	0	0
974	70	N206A	92.686	2053.018	-63.668	0	0	0
975	70	N207A	-18.914	1578.208	-60.992	0	0	0
976	70	N244	-21.332	154.926	-408.417	0	0	0
977	70	N256	-392.164	179.052	272.805	0	0	0
978	70	N282	428.494	183.202	234.099	0	0	0
979	70	Totals:	0	3401.37	-389.128			
980	70	COG (ft):	X: .03	Y: 1.367	Z: .048			
981	71	N200B	109.226	2012.54	-72.806	0	0	0
982	71	N199B	.202	-3103.611	231.046	0	0	0
983	71	N201B	-18.832	2120.532	-377.065	0	0	0
984	71	N202B	-58.675	-2708.953	33.643	0	0	0
985	71	N203B	172.52	1640.545	-122.948	0	0	0
986	71	N204B	-161.626	1981.77	-18.551	0	0	0
987	71	N205A	-47.656	-2814.582	-27.981	0	0	0
988	71	N206A	165.26	2146.859	-.854	0	0	0
989	71	N207A	47.321	1609.463	-67.062	0	0	0
990	71	N244	-26.731	157.211	-414.825	0	0	0
991	71	N256	-401.092	181.947	272.98	0	0	0
992	71	N282	414.647	177.649	227.436	0	0	0
993	71	Totals:	194.565	3401.369	-336.986			
994	71	COG (ft):	X: .03	Y: 1.367	Z: .048			
995	72	N200B	118.522	1896.373	34.003	0	0	0
996	72	N199B	.35	-3038.614	167.666	0	0	0
997	72	N201B	33.447	2152.956	-371.461	0	0	0
998	72	N202B	-77.022	-2675.813	44.469	0	0	0
999	72	N203B	150.569	1712.461	-53.06	0	0	0
1000	72	N204B	-65.437	1866.318	-33.46	0	0	0
1001	72	N205A	-120.229	-2914.595	-69.819	0	0	0
1002	72	N206A	192.463	2192.626	61.932	0	0	0
1003	72	N207A	135.162	1693.362	-34.939	0	0	0
1004	72	N244	-30.504	161.53	-426.761	0	0	0
1005	72	N256	-404.195	182.118	268.167	0	0	0
1006	72	N282	403.86	172.648	218.696	0	0	0
1007	72	Totals:	336.985	3401.369	-194.566			
1008	72	COG (ft):	X: .03	Y: 1.367	Z: .048			
1009	73	N200B	99.756	1803.599	126.878	0	0	0
1010	73	N199B	.405	-2944.283	82.543	0	0	0
1011	73	N201B	72.168	2123.793	-313.736	0	0	0
1012	73	N202B	-56.793	-2694.083	33.023	0	0	0
1013	73	N203B	88.298	1821.256	22.516	0	0	0
1014	73	N204B	3.293	1780.659	-14.694	0	0	0
1015	73	N205A	-172.836	-2990.857	-100.02	0	0	0
1016	73	N206A	167	2178.066	107.875	0	0	0
1017	73	N207A	221.1	1807.434	26.779	0	0	0
1018	73	N244	-31.641	166.728	-441.036	0	0	0
1019	73	N256	-400.639	179.517	259.652	0	0	0
1020	73	N282	399.016	169.54	210.22	0	0	0
1021	73	Totals:	389.127	3401.369	-.001			
1022	73	COG (ft):	X: .03	Y: 1.367	Z: .048			
1023	74	N200B	57.953	1759.106	180.93	0	0	0
1024	74	N199B	.35	-2845.899	-1.505	0	0	0
1025	74	N201B	86.946	2040.834	-219.361	0	0	0

Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1026	74	N202B	-3.395	-2758.884	2.365	0	0	0
1027	74	N203B	2.377	1937.772	83.529	0	0	0
1028	74	N204B	26.14	1747.774	32.717	0	0	0
1029	74	N205A	-191.362	-3022.908	-110.483	0	0	0
1030	74	N206A	95.678	2107.059	124.654	0	0	0
1031	74	N207A	282.096	1921.104	101.552	0	0	0
1032	74	N244	-29.835	171.414	-453.829	0	0	0
1033	74	N256	-391.377	174.841	249.72	0	0	0
1034	74	N282	401.411	169.156	204.275	0	0	0
1035	74	Totals:	336.982	3401.369	194.564			
1036	74	COG (ft):	X: .03	Y: 1.367	Z: .048			
1037	75	N200B	4.326	1774.809	181.697	0	0	0
1038	75	N199B	.202	-2769.828	-61.955	0	0	0
1039	75	N201B	73.825	1926.322	-113.655	0	0	0
1040	75	N202B	68.854	-2852.842	-39.286	0	0	0
1041	75	N203B	-84.156	2030.785	113.633	0	0	0
1042	75	N204B	-3.008	1776.465	96.057	0	0	0
1043	75	N205A	-170.85	-3002.17	-98.407	0	0	0
1044	75	N206A	-2.36	1998.643	107.788	0	0	0
1045	75	N207A	301.8	2003.911	169.331	0	0	0
1046	75	N244	-25.57	174.331	-461.708	0	0	0
1047	75	N256	-378.901	169.346	241.037	0	0	0
1048	75	N282	410.397	171.598	202.452	0	0	0
1049	75	Totals:	194.559	3401.369	336.987			
1050	75	COG (ft):	X: .03	Y: 1.367	Z: .048			

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo.....		LC	phi*Pnc...	phi*Pnt ...	phi*Mn y...	phi*Mn...	Cb	Eqn
1	M1	C5X9	.666	6....	5	.487	9....	z	1	3922.078	85536	1.909	11.853	2.547	H1-...
2	M2	C5X9	.544	3....	20	.240	2....	y	17	28889....	85536	1.909	11.853	1.532	H1-...
3	M5	L1.75x1....	.702	2....	3	.041	0	y	3	14882....	20123.4...	.414	.932	2.147	H2-1
4	M6	L1.75x1....	.752	2....	11	.044	0	z	11	14882....	20123.4...	.414	.932	2.145	H2-1
5	M9	C5X9	.577	2.47	1	.118	3.12	z	4	25144....	85536	1.909	11.853	1.232	H1-...
6	M19	C5X9	.731	3....	1	.554	6....	z	8	3922.078	85536	1.909	11.853	2.529	H1-...
7	M20	C5X9	.644	6....	9	.523	9....	z	5	3922.078	85536	1.909	11.853	2.598	H1-...
8	M16	C5X9	.132	5....	10	.004	2....	z	22	33414....	85536	1.909	11.853	2.387	H1-...
9	M15	C5X9	.550	3....	11	.123	3.12	z	6	25144....	85536	1.909	11.853	1.302	H1-...
10	M16A	C5X9	.144	5....	6	.004	2....	z	18	33414....	85536	1.909	11.853	2.189	H1-...
11	M17A	C5X9	.621	3....	7	.123	3.12	z	8	25144....	85536	1.909	11.853	1.298	H1-...
12	M18A	C5X9	.142	5....	2	.005	0	y	19	33414....	85536	1.909	11.853	2.146	H1-...
13	M19A	L3X3X5	.494	3....	7	.165	3....	z	13	3968.359	57672	2.015	3.795	2.138	H2-1
14	M20A	L1.75x1....	.394	0	5	.245	.229	z	6	10669....	20123.4...	.414	.932	3.343	H2-1
15	M21	L1.75x1....	.328	0	8	.330	.229	y	8	10669....	20123.4...	.414	.932	3.355	H2-1
16	M16B	C5X9	.575	3....	16	.254	3....	y	17	28889....	85536	1.909	11.853	1.56	H1-...
17	M17	L1.75x1....	.737	2....	11	.044	0	y	12	14882....	20123.4...	.414	.932	2.15	H2-1
18	M18	L1.75x1....	.859	2....	7	.049	0	z	7	14882....	20123.4...	.414	.932	2.152	H2-1
19	M19B	C5X9	.545	3....	24	.240	3....	y	13	28889....	85536	1.909	11.853	1.546	H1-...
20	M20B	L1.75x1....	.706	2....	7	.041	0	y	7	14882....	20123.4...	.414	.932	2.149	H2-1
21	M21A	L1.75x1....	.761	2....	3	.044	0	z	3	14882....	20123.4...	.414	.932	2.146	H2-1
22	M22	L1.75x1....	.752	3....	6	.365	3....	y	6	10669....	20123.4...	.414	.932	3.12	H2-1
23	M23	L1.75x1....	.507	3....	1	.339	.229	y	6	10669....	20123.4...	.414	.932	2.045	H2-1
24	M24	L1.75x1....	.587	3....	1	.237	.229	z	8	10669....	20123.4...	.414	.932	1.996	H2-1
25	M25	L1.75x1....	.770	3....	8	.358	3....	z	8	10669....	20123.4...	.414	.932	2.902	H2-1
26	M26	L1.75x1....	.229	0	6	.014	4....	z	1	6161.433	20123.4...	.414	.818	1.234	H2-1
27	M27	L1.75x1....	.255	3....	8	.023	0	y	7	6161.433	20123.4...	.414	.796	1.102	H2-1

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo.....		LC	phi*Pnc...	phi*Pnt ...	phi*Mn y...	phi*Mn...	Cb	Eqn
28	M28	L1.75x1....	.134	0	17	.024	0	y	7	8135.583	20123.4...	.414	.932	2.545	H2-1
29	M29	L1.75x1....	.173	0	21	.026	0	z	1	8135.583	20123.4...	.414	.903	1.797	H2-1
30	M30	L1.75x1....	.090	2....	10	.012	2....	z	8	11648....	20123.4...	.414	.932	2.331	H2-1
31	MP5A	PIPE_2.0	.188	4....	22	.110	1....		11	18857....	32130	1.872	1.872	2.346	H1-...
32	MP4A	PIPE_2.0	.207	4....	19	.156	4....		7	18857....	32130	1.872	1.872	2.324	H1-...
33	MP3A	PIPE_2.0	.459	4....	7	.091	4....		7	18857....	32130	1.872	1.872	2.077	H1-...
34	MP1A	PIPE_2.0	.249	4....	18	.205	4....		16	18857....	32130	1.872	1.872	2.515	H1-...
35	MP2A	PIPE_2.0	.442	3....	7	.189	3....		7	17855....	32130	1.872	1.872	1.181	H1-...
36	M46	PIPE_1.25	.192	3....	6	.009	3....		6	13601....	19687.5	.801	.801	1.96	H1-...
37	M49	L1.75x1....	.371	0	1	.283	.229	y	7	10669....	20123.4...	.414	.932	3.853	H2-1
38	M50	L1.75x1....	.294	0	4	.235	0	z	4	10669....	20123.4...	.414	.932	2.211	H2-1
39	M51	L1.75x1....	.863	3....	1	.331	3....	z	2	10669....	20123.4...	.414	.932	3.368	H2-1
40	M52	L1.75x1....	.464	0	1	.291	.229	z	2	10669....	20123.4...	.414	.932	1.964	H2-1
41	M53	L1.75x1....	.451	3....	9	.215	.229	y	19	10669....	20123.4...	.414	.932	2.074	H2-1
42	M54	L1.75x1....	.718	3....	17	.290	2....	y	4	10669....	20123.4...	.414	.932	3.58	H2-1
43	M55	L1.75x1....	.263	4....	14	.012	4....	z	9	6161.433	20123.4...	.414	.932	2.814	H2-1
44	M56	L1.75x1....	.203	0	4	.015	4....	y	3	6161.433	20123.4...	.414	.81	1.186	H2-1
45	M57	L1.75x1....	.166	0	13	.023	0	z	2	8135.583	20123.4...	.414	.932	2.77	H2-1
46	M58	L1.75x1....	.164	0	18	.021	0	z	9	8135.583	20123.4...	.414	.884	1.581	H2-1
47	M59	L1.75x1....	.098	0	12	.013	2....	z	6	11648....	20123.4...	.414	.932	2.34	H2-1
48	MP5C	PIPE_2.0	.220	4....	18	.142	4....		8	18857....	32130	1.872	1.872	2.273	H1-...
49	MP4C	PIPE_2.0	.224	4....	14	.128	4....		3	18857....	32130	1.872	1.872	2.285	H1-...
50	MP3C	PIPE_2.0	.379	4....	3	.080	4....		15	18857....	32130	1.872	1.872	1.865	H1-...
51	MP1C	PIPE_2.0	.242	4....	14	.198	4....		23	18857....	32130	1.872	1.872	2.079	H1-...
52	MP2C	PIPE_2.0	.299	2....	1	.150	2....		2	17855....	32130	1.872	1.872	1.42	H1-...
53	M78	L1.75x1....	.342	0	10	.217	.196	y	4	10669....	20123.4...	.414	.932	2.175	H2-1
54	M79	L1.75x1....	.234	0	1	.236	.229	z	12	10669....	20123.4...	.414	.932	4.015	H2-1
55	M80	L1.75x1....	.466	3....	9	.315	2....	z	10	10669....	20123.4...	.414	.932	4.35	H2-1
56	M81	L1.75x1....	.476	3....	4	.261	0	z	10	10669....	20123.4...	.414	.932	2.104	H2-1
57	M82	L1.75x1....	.491	0	13	.196	0	y	16	10669....	20123.4...	.414	.914	1.623	H2-1
58	M83	L1.75x1....	.711	3....	12	.270	3....	y	12	10669....	20123.4...	.414	.932	2.952	H2-1
59	M84	L1.75x1....	.219	0	10	.013	4....	z	5	6161.433	20123.4...	.414	.842	1.408	H2-1
60	M85	L1.75x1....	.214	2....	12	.016	0	y	11	6161.433	20123.4...	.414	.817	1.228	H2-1
61	M86	L1.75x1....	.110	0	21	.022	0	y	5	8135.583	20123.4...	.414	.932	2.275	H2-1
62	M87	L1.75x1....	.200	0	13	.024	0	z	5	8135.583	20123.4...	.414	.906	1.83	H2-1
63	M88	L1.75x1....	.092	2....	2	.012	2....	z	2	11648....	20123.4...	.414	.932	2.35	H2-1
64	MP5B	PIPE_2.0	.209	4....	13	.101	4....		4	18857....	32130	1.872	1.872	1.996	H1-...
65	MP4B	PIPE_2.0	.203	4....	23	.136	4....		11	18857....	32130	1.872	1.872	2.027	H1-...
66	MP3B	PIPE_2.0	.398	4....	11	.075	4....		11	18857....	32130	1.872	1.872	1.968	H1-...
67	MP1B	PIPE_2.0	.217	4....	22	.188	4....		19	18857....	32130	1.872	1.872	2.237	H1-...
68	MP2B	PIPE_2.0	.299	2....	10	.155	2....		11	17855....	32130	1.872	1.872	1.825	H1-...
69	M105B	L3X3X5	.432	14...	7	.149	3....	z	21	3968.359	57672	2.015	3.842	2.239	H2-1
70	M106A	L3X3X5	.387	3....	11	.169	3....	z	17	3968.359	57672	2.015	3.799	2.147	H2-1
71	O1	PIPE_2.0	.064	2	11	.012	2		11	30625....	32130	1.872	1.872	3.014	H1-...
72	GPS	PIPE_1.25	.074	2	6	.007	2		6	17811....	19687.5	.801	.801	2.168	H1-...
73	GPS2	PIPE_1.25	.074	2	5	.007	2		5	17811....	19687.5	.801	.801	2.168	H1-...
74	M109	SR_0.625	.641	0	21	.500	0		14	9515.202	9940.196	.104	.104	1.67	H1-...
75	M110A	SR_0.625	.641	0	15	.503	0		13	9515.202	9940.196	.104	.104	1.67	H1-...
76	M112	SR_0.625	.758	0	19	.599	0		19	9515.202	9940.196	.104	.104	1.678	H1-...
77	M113	SR_0.625	.774	0	19	.607	0		19	9515.202	9940.196	.104	.104	1.676	H1-...
78	M115A	SR_0.625	.643	0	24	.486	0		23	9515.202	9940.196	.104	.104	1.67	H1-...
79	M116	SR_0.625	.643	0	24	.489	0		22	9515.202	9940.196	.104	.104	1.67	H1-...
80	M119	SR_0.625	.773	0	14	.603	0		14	9515.202	9940.196	.104	.104	1.685	H1-...
81	M120	SR_0.625	.770	0	15	.609	0		15	9515.202	9940.196	.104	.104	1.671	H1-...
82	M123	SR_0.625	.651	0	19	.506	0		18	9515.202	9940.196	.104	.104	1.67	H1-...
83	M124	SR_0.625	.658	0	18	.510	0		16	9515.202	9940.196	.104	.104	1.67	H1-...
84	M127	SR_0.625	.736	0	23	.580	0		23	9515.202	9940.196	.104	.104	1.681	H1-...

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo.....		LC	phi*Pnc...	phi*Pnt ...	phi*Mn y...	phi*Mn...	Cb	Eqn
85	M128	SR_0.625	.740	0	23	.585	0		23	9515.202	9940.196	.104	.104	1.674	H1-...
86	M131A	PIPE_2.5	.259	7.75	7	.089	3....		7	9468.517	50715	3.596	3.596	1.758	H1-...
87	M136	PIPE_2.5	.243	2....	15	.077	3....		2	9468.517	50715	3.596	3.596	2.47	H1-...
88	M146	PIPE_2.5	.226	2....	23	.075	3....		11	9468.517	50715	3.596	3.596	2.638	H1-...
89	270	L2.5x2.5x3	.180	2....	19	.009	5....	z	2	10541....	29192.4	.873	1.566	1.136	H2-1
90	M143A	L2.5x2.5x3	.218	2....	14	.011	0	y	7	10541....	29192.4	.873	1.566	1.136	H2-1
91	M144A	L2.5x2.5x3	.174	2....	15	.008	5....	z	11	10541....	29192.4	.873	1.566	1.136	H2-1
92	M145A	L2.5x2.5x3	.206	2....	23	.010	5....	y	4	10541....	29192.4	.873	1.566	1.136	H2-1
93	M146A	L2.5x2.5x3	.165	2....	23	.008	0	z	6	10541....	29192.4	.873	1.566	1.136	H2-1
94	M147	L2.5x2.5x3	.206	2....	19	.011	5....	y	12	10541....	29192.4	.873	1.566	1.136	H2-1

VzW SMART Tool© Vendor

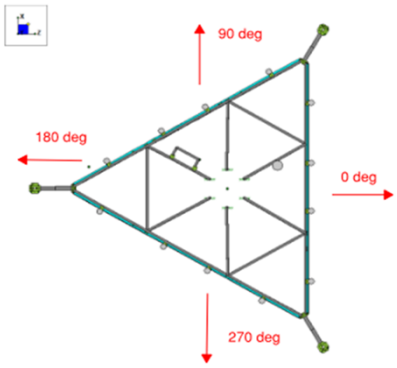
Client:	Verizon Wireless	Date:	2/14/2024
Site Name:	E GLASTONBURY CT		
MDG #:	5000386182		
Fuze ID #:	16231967	Page:	1

Version 2.00

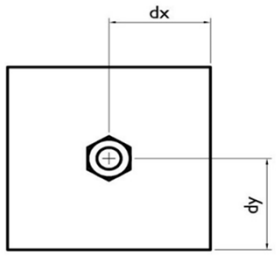
I. Mount-to-Tower Connection Check

Custom Orientation Required	Yes

Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N200B	0
N199B	0
N201B	0
N206A	300
N205A	300
N207A	300
N203B	120
N202B	120
N204B	120



Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel
Bolt Quantity per Reaction:	1
d_x (in) *(Delta X of typ. bolt config. sketch)* :	4.5
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	1.5
Bolt Type:	A325N
Bolt Diameter (in):	0.75
Required Tensile Strength / bolt (kips):	0.0
Required Shear Strength / bolt (kips):	13.4
Tensile Capacity / bolt (kips):	29.8
Shear Capacity / bolt (kips):	17.9
Bolt Overall Utilization:	**74.6%**
Tower Connection Baseplate Checks	No



NO MOMENT RESISTANCE

PROJECT NOTES

1. SEE MODIFICATION NOTES
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 15.80' PLATFORM

SITE NAME: E GLASTONBURY CT
SITE NUMBER: 468194

347 THREE MILE RD.
GLASTONBURY, CT 06033
HARTFORD COUNTY

PROJECT INFORMATION

SITE INFORMATION

LATITUDE:	41.693708° N
LONGITUDE:	72.547310° W
JURISDICTION:	HARTFORD COUNTY

APPLICANT/LESSEE

COMPANY:	VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY:	VERIZON WIRELESS
ADDRESS:	118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP:	WESTBOROUGH, MA 01581
CONTACT:	ANDREW CANDIELLO
EMAIL:	ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY:	MASER CONSULTING CONNECTICUT
CONTACT:	PETER ALBANO
PHONE:	856-797-0412
E-MAIL:	PETER.ALBANO@COLLIERSENGINEERING.COM

SHEET INDEX

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10070201
VZW LOCATION CODE (PSLC):	468194
FUZE ID:	16231967

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

REFERENCED DOCUMENTS

FAILING MOUNT ANALYSIS REPORT

SMART TOOL PROJECT #:	10050761
MASER CONSULTING PROJECT #:	21777627A
ANALYSIS DATE:	5/7/2021

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	21777627A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/15/2021	ISSUED FOR CONSTRUCTION	FAC	PMA

STATE OF CONNECTICUT
PETROS TSOUKALAS
Petros Ts Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING
ET COA #: PEC.0001371
LICENSED PROFESSIONAL ENGINEER

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

SITE NAME:
E GLASTONBURY CT
468194
347 THREE MILE RD.
GLASTONBURY, CT 06033
HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
12	VZWSMART	VZWSMART-MSK1	CROSSOVER PLATE	

OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
3	-	-	186" LONG, P2.5 STD	GALVANIZED
1	SITE PRO 1	PRK-SFS-L	HORIZONTAL REINFORCEMENT KIT (LONG)	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING FOR APPROVAL OF SUBSTITUTION.

NOTE: ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTE: WHEN SPECIFIED, VZWSMART KITS SHALL BE REQUIRED AND WILL BE VERIFIED DURING THE DESKTOP PMI

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SCALE : AS SHOWN
JOB NUMBER : 21777627A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/15/2021	ISSUED FOR CONSTRUCTION	FAC	PMA

STATE OF CONNECTICUT
PETROS TSOUKALAS
Petros Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING
CT C.O.A. #: PEC.0001139
LICENSED PROFESSIONAL ENGINEER

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SITE NAME:
E GLASTONBURY CT
468194
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GLASTONBURY, CT 06033
HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : BILL OF MATERIALS

SHEET NUMBER : S-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

DESIGN LOADS

WIND LOADS

a. BASIC WIND SPEED (3 SECOND GUST), V = 120 MPH

b. EXPOSURE CATEGORY B

c. TOPOGRAPHIC CATEGORY 1

d. MEAN BASE ELEVATION (AMSL) = 467.38'

ICE LOADS

a. ICE WIND SPEED (3 SECOND GUST), V = 50 MPH

b. ICE THICKNESS = 1.50 IN

SEISMIC LOADS

a. SEISMIC DESIGN CATEGORY B

b. SHORT TERM MCER GROUND MOTION, S_S = .200

c. LONG TERM MCER GROUND MOTION, S_1 = .055

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO PETER.ALBANO@COLLIERSENGINEERING.COM
   b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

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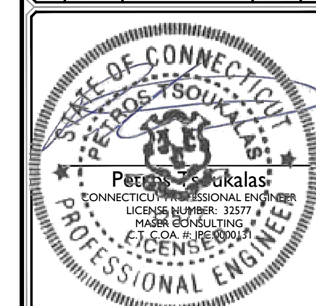
SCALE :	JOB NUMBER :
AS SHOWN	21777627A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0	6/15/2021	ISSUED FOR CONSTRUCTION	FAC	PMA



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SITE NAME:

E GLASTONBURY CT
468194

347 THREE MILE RD.
GLASTONBURY, CT 06033
HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE :
MODIFICATION NOTES

SHEET NUMBER :
S-2

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

MODIFICATION INSPECTION NOTES

MI CHECKLIST	
CONSTRUCTION/ INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVED SHOP DRAWINGS
NA	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	ON SITE COLD GALVANIZING VERIFICATION
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
X	VZW PMI DOCUMENTS
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GC INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO EOR.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI (“FAILED MI”), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN:

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

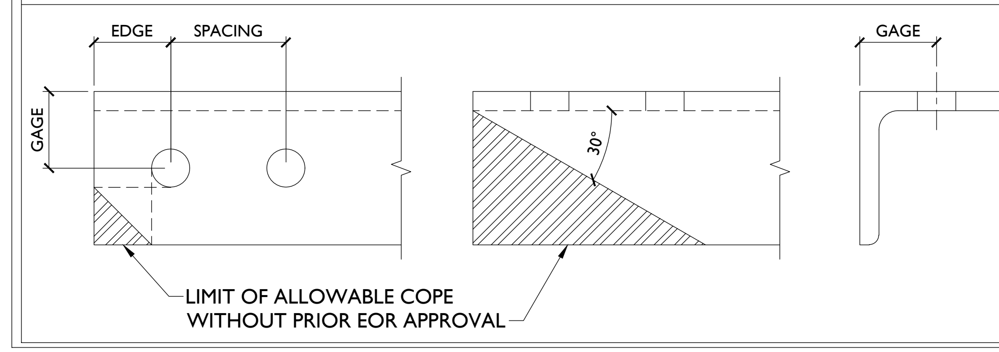
REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
  - RAW MATERIALS
  - PHOTOS OF ALL CRITICAL DETAILS
  - FOUNDATION MODIFICATIONS
  - WELD PREPARATION
  - BOLT INSTALLATION
  - FINAL INSTALLED CONDITION
  - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
  - FINAL INFIELD CONDITION

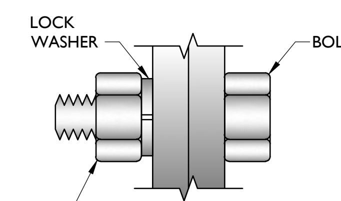
PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

ALLOWABLE COPING



BOLT SCHEDULE (IN.)				
BOLT DIAMETER	**STANDARD HOLE**	**SHORT SLOT**	**MIN. EDGE DISTANCE**	**SPACING**
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)	
LEG	**GAGE**
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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JOB NUMBER : 21777627A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0	6/15/2021	ISSUED FOR CONSTRUCTION	FAC	PMA

STATE OF CONNECTICUT
PETROS TSOUKALAS
LICENSED PROFESSIONAL ENGINEER
Petros Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING
C.T. C.OA. #: PEC0001131

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SITE NAME:
E GLASTONBURY CT
468194
347 THREE MILE RD.
GLASTONBURY, CT 06033
HARTFORD COUNTY

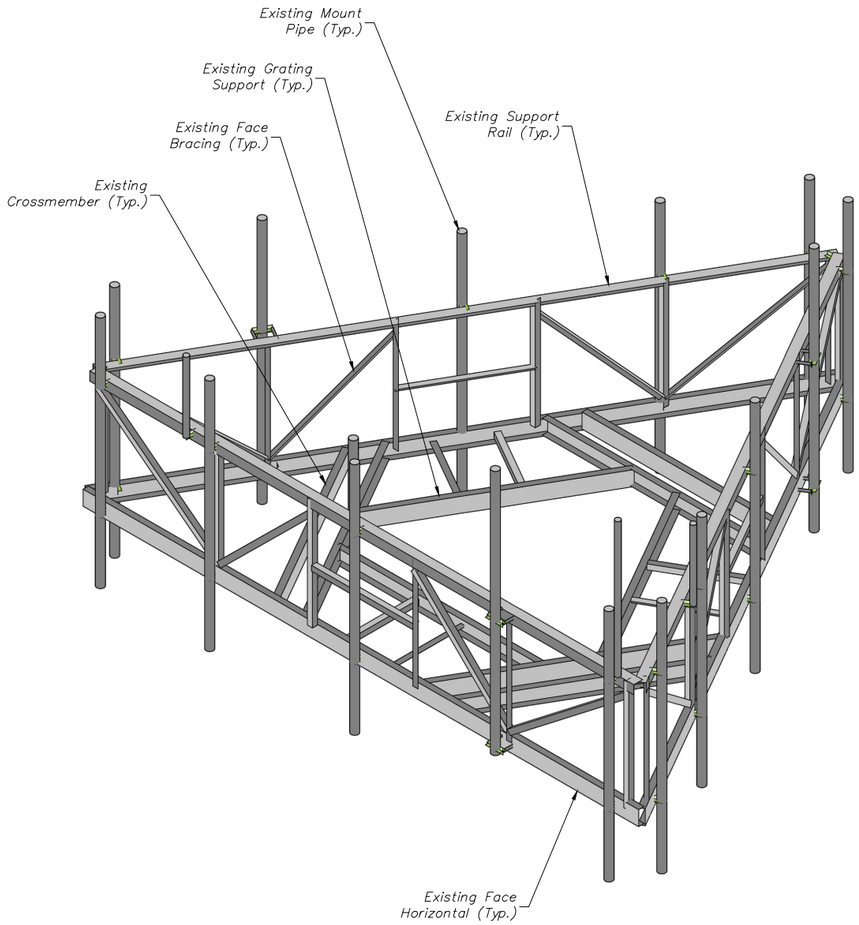
MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : MODIFICATION NOTES

SHEET NUMBER : S-3

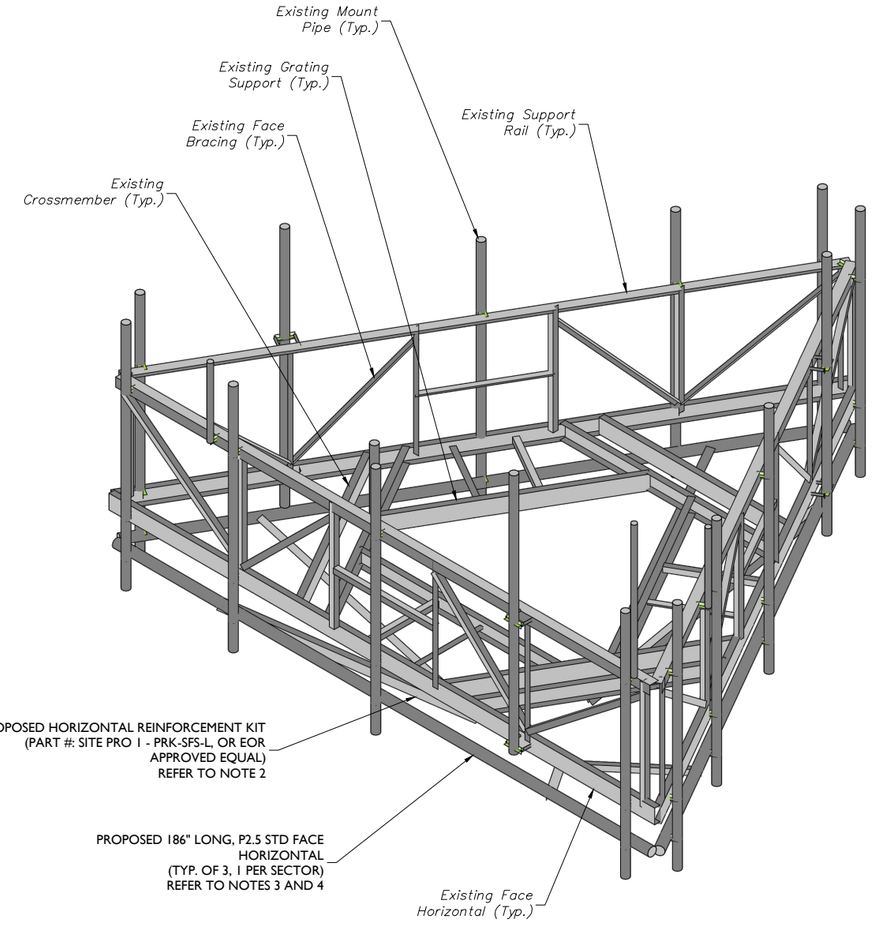
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

\AcPublish_9068\Template.Mount MOD.dwg\S-3 By: FCENTONE



1 EXISTING PLATFORM ISOMETRIC VIEW

SCALE : N.T.S.



2 PROPOSED PLATFORM ISOMETRIC VIEW

SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY STRUCTURAL COMPONENTS LLC ON 3/29/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (145'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
5. CONTRACTOR TO INSPECT AND INSTALL MISSING TOP HAT BOLTS AS NECESSARY.

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AS SHOWN	21777627A

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Petros Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING, P.A.
CT C.O.A. #: PEC.0001317

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468194

347 THREE MILE RD.
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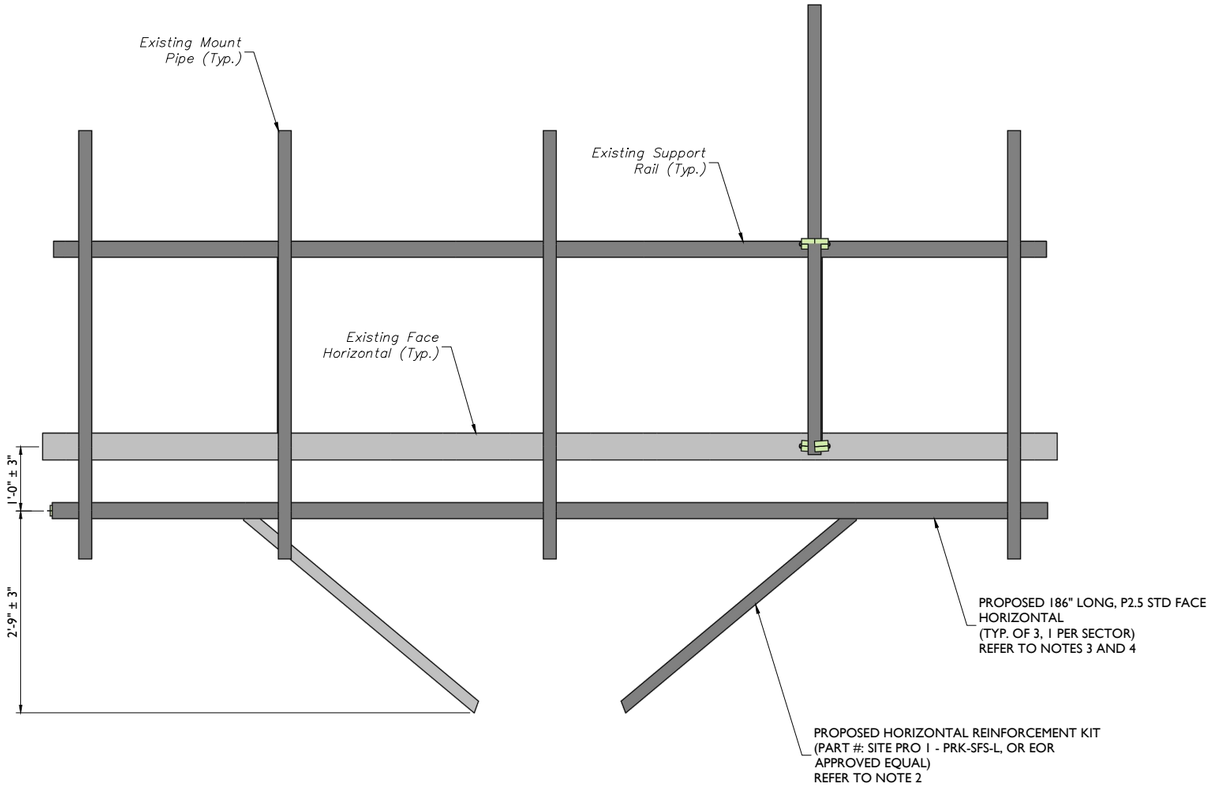
HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

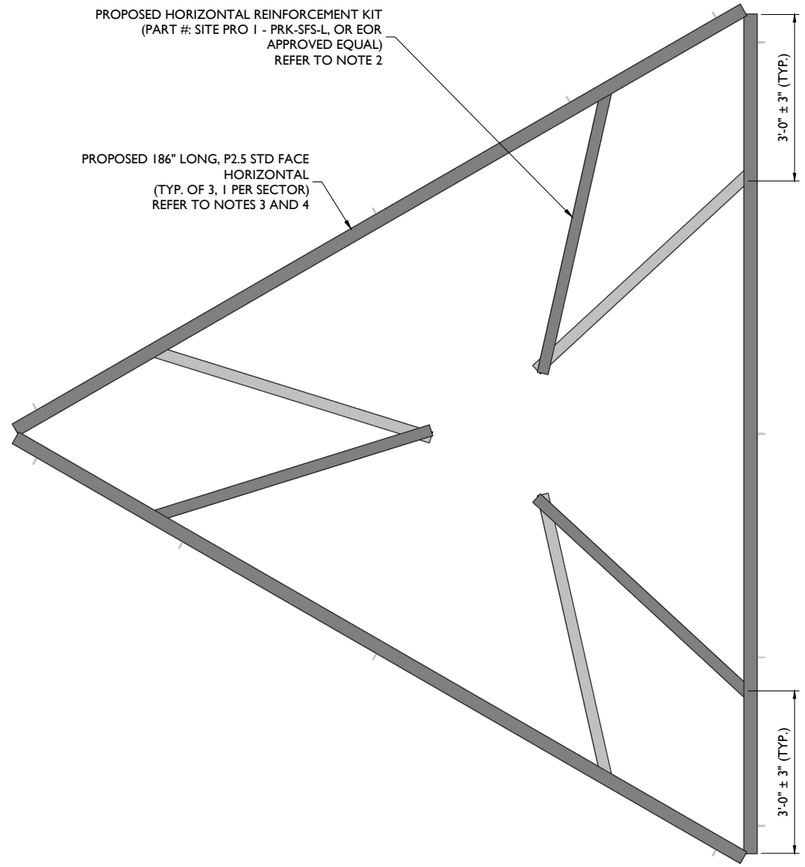
SHEET TITLE :
MODIFICATION DETAILS

SHEET NUMBER :
S-4



1 PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)

SCALE : N.T.S.



2 PROPOSED PLAN VIEW

SCALE : N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
5. CONTRACTOR TO INSPECT AND INSTALL MISSING TOP HAT BOLTS AS NECESSARY.

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CT COA #: PEC.0001171

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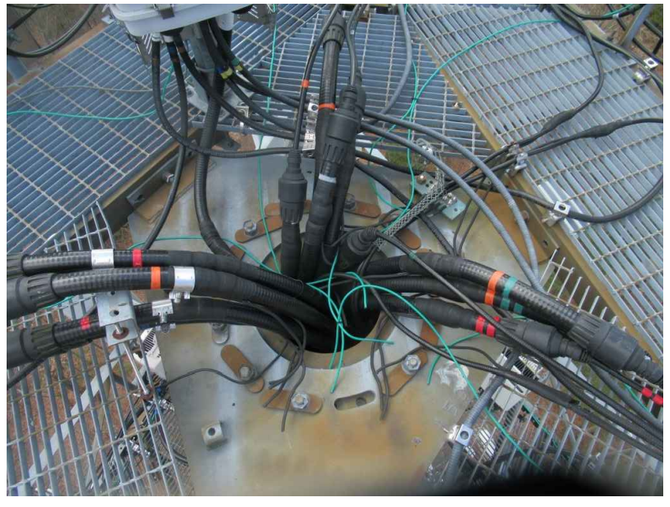
SHEET TITLE : MODIFICATION DETAILS

SHEET NUMBER : S-5

MOUNT PHOTO 1

MOUNT PHOTO 2



MOUNT PHOTO 3

MOUNT PHOTO 4

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JOB NUMBER : 21777627A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/15/2021	ISSUED FOR CONSTRUCTION	FAC	PMA

STATE OF CONNECTICUT
PETROS TSOUKALAS
LICENSE
PROFESSIONAL ENGINEER

Petros Tsoukalas
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32577
MASER CONSULTING
CT C.O.A. #: PEC.0001297

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Mount Laurel, NJ 08054

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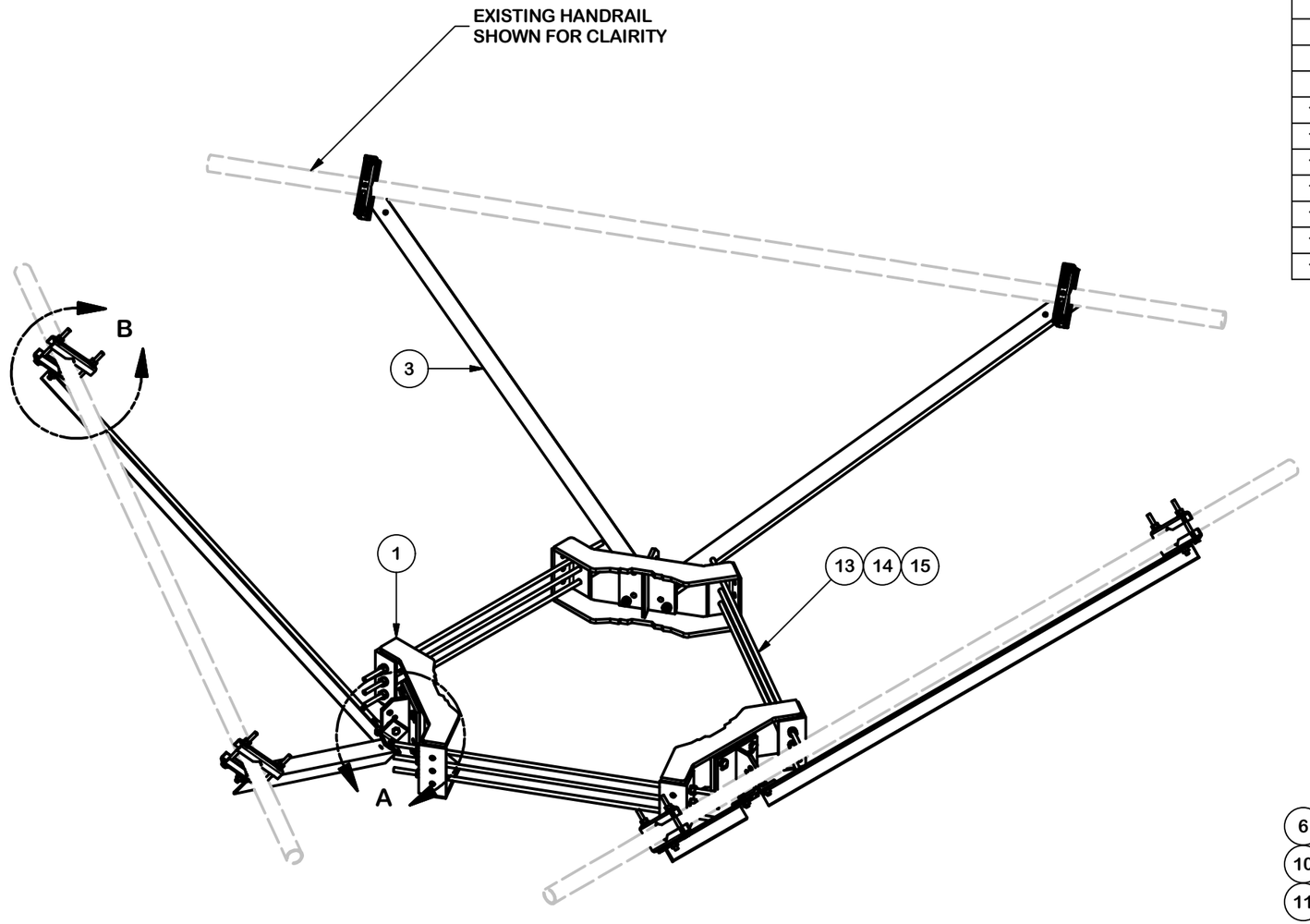
Fax: 856.722.1120

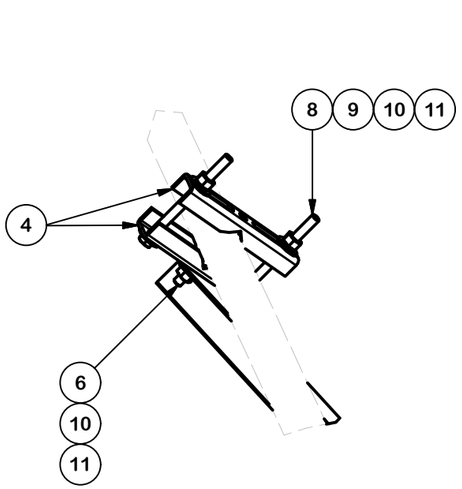
SHEET TITLE : MOUNT PHOTOS

SHEET NUMBER : S-6



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	3	X-TBW	T-BRACKET WELDMENT		13.60	40.80
3	6	X-254924	DIAGONAL ANGLE - SITE PRO 1	72 in	19.71	118.24
4	12	X-STU	STIFF ARM CHANNEL BRACKET	8 1/2 in	1.37	16.46
5	6	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	11.15
6	12	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	1.77
7	3	G12212	1/2" x 2-1/2" HDG HEX BOLT GR5	2 1/2 in	0.20	0.61
8	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
9	24	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.82
10	27	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.38
11	27	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.93
12	12	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	3.75
13	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24 in	0.40	3.59
13	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)	48 in	0.40	3.59
14	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
15	30	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.90
					TOTAL WT. #	642.04

DETAIL A



DETAIL B

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	SP1	BC	10/25/2017
REVISION HISTORY				

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 ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION
HANDRAIL REINFORCEMENT KIT (LONG)

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
SP1	CSL3 2/23/2017	3RD PARTY	PRK-SFS-L
CLASS / SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81 / 02	SHOP	BMC 9/8/2017	PRK-SFS-L

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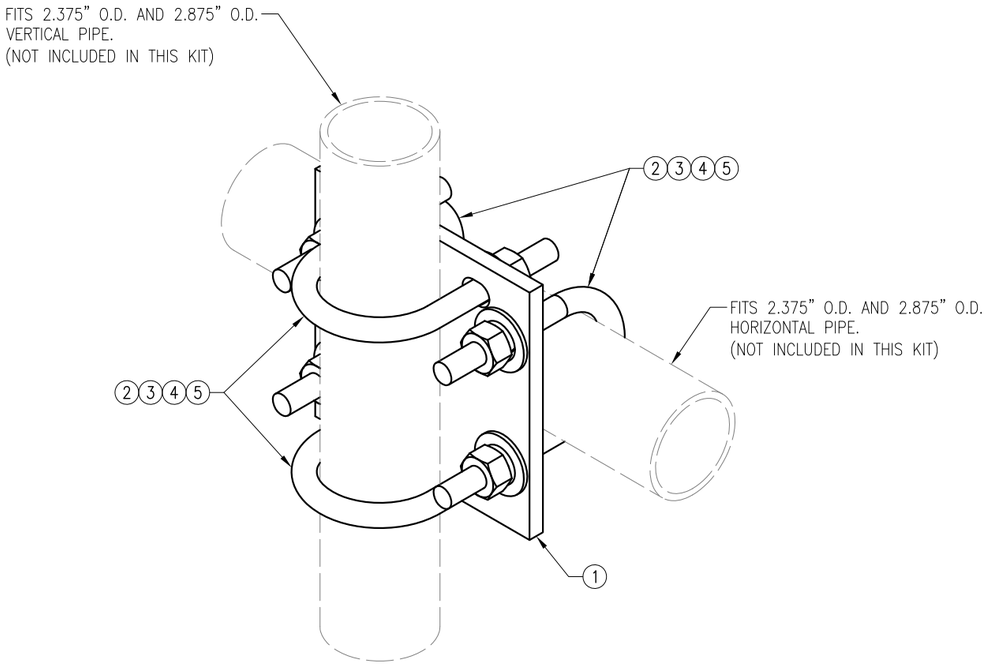
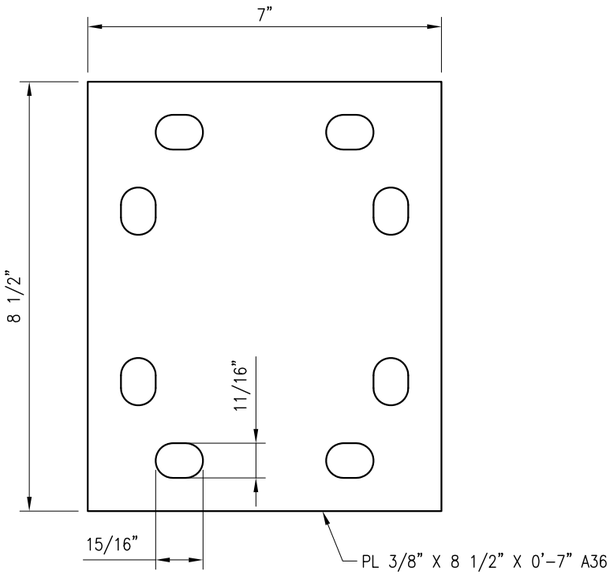
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX





PL375-857

VZWSMART-MSK1 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1	6
2	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
3	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	8	LW-625	5/8" HDG LOCK WASHER	---	0
5	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	14

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VzW SMART Tool© Vendor

verizon

DRAWN BY: H.R | CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:

VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1

REV #: 0

EXHIBIT G

Power Density / RF Emissions Report

FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Prepared for:

Crown Site ID: 806368_HRT 049B 943215

Verizon Wireless Site Name: E. Glastonbury CT

Verizon Wireless FUZE ID: 16231967

Site Address:

374 Three Mile Road

Glastonbury, CT 06033

May 19, 2024

Fox Hill Telecom Project Number: 240132

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	16.94 %

Fox Hill Telecom, Inc Worcester MA 01609

FOX HILL TELECOM

May 19, 2024

Crown Castle
1800 W. Park Drive
Westborough, MA 01581

Emissions Analysis for:

Crown Castle Site: **806368 – HRT 049B 943215**

Verizon Wireless Site: E. Glastonbury CT

Fox Hill Telecom, Inc ("Fox Hill") was directed to analyze the proposed upgrades for Verizon Wireless to the Crown Castle facility located at **374 Three Mile Road, Glastonbury, 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ 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 ($\mu W/cm^2$). The general population exposure limits for the 700 MHz band & the 850 MHz cellular band are approximately 497 $\mu W/cm^2$ and 586 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 3700 MHz (C band) frequency bands is 1000 $\mu W/cm^2$. 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 **374 Three Mile Road, Glastonbury, 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

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

S = Power Density (in μw/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	3700 MHz (C Band)	2	160

Table 1: Channel Data Table

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) 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 SBNHH-1D65B	148
A	2	Samsung MT64137-77A	149
A	3	Swedcom SC-E 6014 REV2 (Dormant)	147
A	4	Swedcom SC-E 6014 REV2 (Dormant)	147
B	1	Commscope SBNHH-1D65B	148
B	2	Samsung MT64137-77A	149
B	3	Swedcom SC-E 6014 REV2 (Dormant)	147
B	4	Swedcom SC-E 6014 REV2 (Dormant)	147
C	1	Commscope SBNHH-1D65B	148
C	2	Samsung MT64137-77A	149
C	3	Amphenol LPA-80063-6CF-EDIN-6 (Dormant)	146
C	4	Amphenol LPA-80063-6CF-EDIN-6 (Dormant)	146

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 SBNHH-1D65B	700 MHz / 850 MHz / 1900 MHz (PCS) / 2100 MHz (AWS)	12.15 / 12.45 / 15.05 / 15.15	16	640	15,793.30	1.69
Antenna A2	Samsung MT64137-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	2.45
Antenna A3	Swedcom SC-E 6014 REV2 (Dormant)	NA	NA	0	0	0.00	0.00
Antenna A4	Swedcom SC-E 6014 REV2 (Dormant)	NA	NA	0	0	0.00	0.00
						Sector A Composite MPE%	**4.14**
Antenna B1	Commscope SBNHH-1D65B	700 MHz / 850 MHz / 1900 MHz (PCS) / 2100 MHz (AWS)	12.15 / 12.45 / 15.05 / 15.15	16	640	15,793.30	1.69
Antenna B2	Samsung MT64137-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	2.45
Antenna B3	Swedcom SC-E 6014 REV2 (Dormant)	NA	NA	0	0	0.00	0.00
Antenna B4	Swedcom SC-E 6014 REV2 (Dormant)	NA	NA	0	0	0.00	0.00
						Sector B Composite MPE%	**4.14**
Antenna C1	Commscope SBNHH-1D65B	700 MHz / 850 MHz / 1900 MHz (PCS) / 2100 MHz (AWS)	12.15 / 12.45 / 15.05 / 15.15	16	640	15,793.30	1.69
Antenna C2	Samsung MT64137-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	2.45
Antenna C3	Amphenol LPA-80063-6CF-EDIN-6 (Dormant)	NA	NA	0	0	0.00	0.00
Antenna C4	Amphenol LPA-80063-6CF-EDIN-6 (Dormant)	NA	NA	0	0	0.00	0.00
						Sector C Composite MPE%	**4.14**

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	**4.14 %**
AT&T	5.18 %
Sig Fox	0.03 %
T-Mobile	3.80 %
XM Satellite Radio	3.79 %
Site Total MPE %:	**16.94 %**

Table 4: All Carrier MPE Contributions

Verizon Wireless Sector A Total:	4.14 %
Verizon Wireless Sector B Total:	4.14 %
Verizon Wireless Sector C Total:	4.14 %
Site Total:	16.94 %

Table 5: Site MPE Summary

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 ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
Verizon Wireless 700 MHz LTE	4	656.24	148	3.03	700 MHz	497	0.61%
Verizon Wireless 850 MHz LTE / 5G	4	703.17	148	2.93	850 MHz	586	0.50%
Verizon Wireless 1900 MHz (PCS) LTE	4	1,279.56	148	2.90	1900 MHz (PCS)	1000	0.29%
Verizon Wireless 2100 MHz (AWS) LTE	4	1,309.36	148	2.90	2100 MHz (AWS)	1000	0.29%
Verizon Wireless 3700 MHz (C Band) 5G	2	33,046.08	149	24.50	3700 MHz (C Band)	1000	2.45%
						Total:	4.14 %

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:	4.14 %
Sector B:	4.14 %
Sector C:	4.14 %
Verizon Wireless Maximum Total (per sector):	4.14 %
Site Total:	16.94 %
Site Compliance Status:	**COMPLIANT**

The estimated composite emissions value for this site, assuming all carriers present, is **16.94 %** 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.

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Fox Hill Telecom, Inc
Worcester, MA 01609
(978)660-3998

EXHIBIT H

Recipient Mailing Records

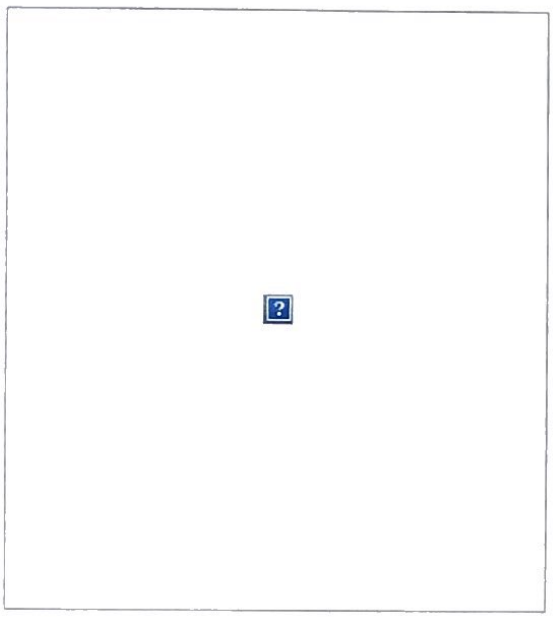
From: TrackingUpdates@fedex.com
To: Bachi, Jenifer
Subject: FedEx Shipment 776679080630: Your package has been delivered / 806368 - Town Mgr
Date: Tuesday, June 4, 2024 11:26:11 AM

Hi. Your package was delivered Tue, 06/04/2024 at 9:58am.

OBTAIN PROOF OF DELIVERY

How was your delivery ?

TRACKING NUMBER	776679080630
FROM	KING OF PRUSSIA, PA, US
TO	GLASTONBURY, CT, US
SHIP DATE	Mon 6/03/2024 06:02 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	KING OF PRUSSIA, PA, US
DESTINATION	GLASTONBURY, CT, US
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight



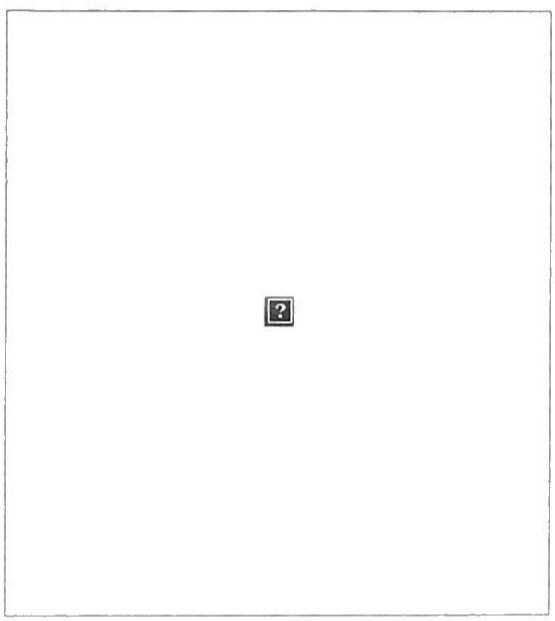
From: TrackingUpdates@fedex.com
To: Bachi, Jenifer
Subject: FedEx Shipment 776679145550: Your package has been delivered /806368-2ED
Date: Tuesday, June 4, 2024 11:26:14 AM

Hi. Your package was delivered Tue, 06/04/2024 at 9:58am.

OBTAIN PROOF OF DELIVERY

How was your delivery ?

TRACKING NUMBER	776679145550
FROM	KING OF PRUSSIA, PA, US
TO	GLASTONBURY, CT, US
SHIP DATE	Mon 6/03/2024 06:02 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	KING OF PRUSSIA, PA, US
DESTINATION	GLASTONBURY, CT, US
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight



Absolutely, positively committed to you

Every delivery deserves extra care. Even if it means one of our drivers takes on the role of ringbearer for a customer's wedding. We'll work to make your next delivery special too.

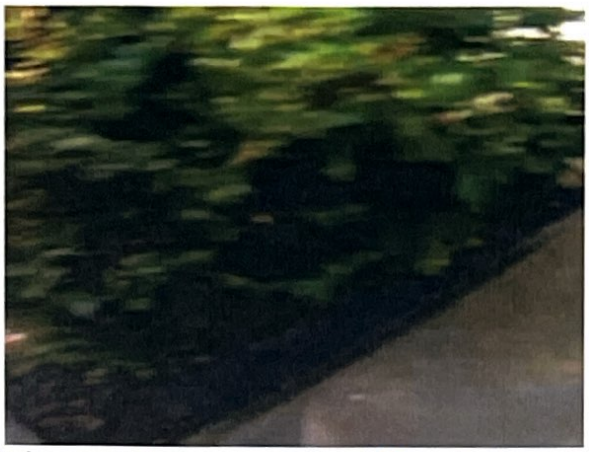
WATCH FEDEX IN ACTION

FOLLOW FEDEX

From: TrackingUpdates@fedex.com
To: Bachi, Jenifer
Subject: FedEx Shipment 776679183415: Your package has been delivered / 806368 - LL
Date: Tuesday, June 4, 2024 11:27:34 AM

Hi. Your package was delivered Tue, 06/04/2024 at 11:21am.

OBTAIN PROOF OF DELIVERY



Delivery picture not showing? View in browser.

How was your delivery ?

TRACKING NUMBER	776679183415
FROM	KING OF PRUSSIA, PA, US
TO	GLASTONBURY, CT, US
SHIP DATE	Mon 6/03/2024 06:02 PM
DELIVERED TO	Residence
PACKAGING TYPE	FedEx Pak
ORIGIN	KING OF PRUSSIA, PA, US
DESTINATION	GLASTONBURY, CT, US
SPECIAL HANDLING	Deliver Weekday Residential Delivery
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:KPDA (610) 635-3221
JENIFER BACHI
CROWN CASTLE
3200 HORIZON DRIVE
SUITE 150
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 04JUN24
ACTWGT: 2.00 LB
CAD: 104924192/INET4730

BILL SENDER

TO MELANIE A. BACHMAN, EXEC DIRECTOR
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQUARE

NEW BRITAIN CT 06051
(860) 827-2935 REF: 1766.668
INV:
PO: 806368_VERIZON DEPT:

583B6CA09AE3

FedEx Express

J242024032601uv

WED - 05 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7766 7898 4244

EB BDLA

06051
CT-US BDL