Robinson+Cole

KENNETH C. BALDWIN

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Hartford, CT 06103-3597
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Also admitted in Massachusetts
and New York

June 3, 2021

Via Electronic Mail

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

Re: **Notice of Exempt Modification – Facility Modification**
2577 Main Street, Glastonbury, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains an existing wireless telecommunications facility at the above-referenced property address (the "Property"). The facility consists of antennas and remote radio heads attached to a tower and related equipment on the ground, near the base of the tower. The tower was approved by the Town of Glastonbury ("Town") in 1999. Cellco's shared use of the tower was approved by the Council in February of 2014 (TS-VER-054-140117). A copy of the Town's tower approval and Council's Tower Share approval are included in Attachment 1.

Cellco now intends to modify its facility by replacing nine (9) existing antennas with three (3) Samsung MT6407-77A antennas and six (6) NHH-65B-R2B antennas and replacing nine (9) remote radio heads ("RRHs") with six (6) newer model RRHs on Cellco's existing antenna mounting structure. A set of project plans showing Cellco's proposed facility modifications and new antennas and RRHs specifications are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 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 Glastonbury's Town Manager and Land Use Officer.

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

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's replacement antennas and RRHs will be installed on Cellco's existing antenna mounting structure.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

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

4. The installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative General Power Density table for the modified facility is included in Attachment 3. The modified facility will be capable of providing Cellco's 5G wireless service.

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

6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation, tower base plate and antenna mounting support structure, with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4. Also included in Attachment 4 is a separate letter prepared by the consulting engineer responsible for the preparation of the MA verifying that the antenna model described in the MA, as a nL-Sub6 Antenna or L-Sub6 Antenna, is the Samsung 64T64R model antenna and RRH that will be installed on the tower.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials is included in Attachment 6.

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

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Richard J. Johnson, Glastonbury Town Manager
Rebecca Augur, Director of Planning and Land Use Services
Saint Isidore and Maria Parish Corporation
Aleksey Tyurin

ATTACHMENT 1

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

Glastonbury - St Paul's R.C.Ch

September 3, 1999

Ronald C. Clark
Manager Real Estate Operations
Nextel Communications
100 Corporate Park
Rocky Hill, CT 06067

RE: TS-NEXTEL-054-990805 - Nextel Communications request for an order to approve tower sharing at a telecommunications tower to be replaced at the St. Paul's Roman Catholic Church on 2577 Main Street in Glastonbury, Connecticut.

Dear Mr. Clark:

At a public meeting held August 31, 1999, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures.

This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated August 4, 1999 and received by the Council on August 5, 1999. Please notify the Council when all work is complete.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/sll

cc: Richard J. Johnson, Town Manager, Town of Glastonbury

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Town of Glastonbury

2155 MAIN STREET • P.O. BOX 6523 • GLASTONBURY, CONNECTICUT 06033-6523

July 18, 2000

Attorney Anthony B. Gioffre III
Cuddy & Feder & Worby LLP
90 Maple Avenue
White Plains, New York 10601-5196

RE: **Approved Wetlands Regulated Activity at 2577 Main Street, Glastonbury, Connecticut**

Dear Mr. Gioffre:

Pursuant to Section 4.(C).(2) of Public Act 96-157 you are hereby **approved to conduct your activities of constructing a wireless telecommunications facility (including a 130' tower) within the wetlands' conservation buffer area** at 2577 Main Street, as represented by the plans, reports and correspondence submitted to our office. This approval is contingent upon **your responsibility**:

1. to arrange and hold a preconstruction meeting at the site, with the site contractor, a Nextel representative and myself in attendance, in order to discuss the environmental safeguards to be taken during construction;

2. to stabilize the disturbed land areas with vegetation (e.g. grasses, legumes, herbaceous plants and shrubs) that provides conservation benefits regarding the adjacent wetlands;

3. **to publish this approval (one time) in a newspaper** that circulates in Glastonbury within 10 days of the date of this approval letter to you; and

4. **to await a 15-day appeal period** (15 days from the date of newspaper publication) **before beginning the work within the buffer.**

Failure to comply with these four requirements will automatically nullify this approval and conducting your activity would constitute a wetlands violation.

Attached for your consideration and potential use is a draft public notice advertisement that needs to be published once by you in a newspaper which circulates in Glastonbury.

Please call me at 652-7514 to advise me when the notice is to appear and in what newspaper, or if you have any questions.

Sincerely,

Tom Mocko, Environmental Planner

/Enclosure

wetsglap.wpd

PUBLIC NOTICE
TOWN OF GLASTONBURY, CT

On July 18, 2000, the duly authorized agent of the Glastonbury Inland Wetlands and Watercourses Agency approved a wireless telecommunications facility, including a 130-foot replacement tower, within the wetlands' conservation buffer area at 2577 Main Street, west of St. Paul's Church.

Anthony B. Gioffre III, Legal Counsel

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

February 11, 2014

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103

RE: **TS-VER-054-140117** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 2577 Main Street, Glastonbury, Connecticut.

Dear Attorney Baldwin:

At a public meeting held February 6, 2014, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures with the following conditions:

- The coax shall be installed in accordance with the Structural Analysis Report prepared by FDH Engineering, Inc. dated September 24, 2013;
- Prior to antenna installation, the tower modifications listed in FDH Engineering Inc. (Project No. 1338401400) drawings dated June 17, 2013 and (Project No. 13SB5C1400) drawings dated September 10, 2013 prepared by FDH Engineering Inc. dated September 24, 2013, and stamped by Bradley Newman, shall be implemented;
- Within 45 days following completion of the antenna installation, Cellco shall provide documentation certified by a professional engineer that its installation complied with the requirements of the structural analysis;
- Furthermore, Cellco shall submit to the Council a Radio Frequency Exposure Report with field measurements taken in the vicinity of this facility within 60 days after the installation has been completed;
- Any deviation from the proposed installation as specified in the original tower share request and supporting materials with the Council shall render this decision invalid;
- Any material changes to the proposed installation as specified in the original tower share request and supporting materials filed with the Council shall require an explicit request for modification to the Council pursuant to Connecticut General Statutes § 16-50aa, including all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65;
- Not less than 45 days after completion of the proposed installation, the Council shall be notified in writing that the installation has been completed;
- The validity of this action shall expire one year from the date of this letter; and

- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction. Please be advised that the validity of this action shall expire one year from the date of this letter.

The proposed shared use is to be implemented as specified in your letter dated January 17, 2014, including the placement of all necessary equipment and shelters within the tower compound.

Thank you for your attention and cooperation.

Very truly yours,

Robert Stein

Robert Stein
Chairman

RS/MP/jb

c: The Honorable Stewart Beckett III, Chairman, Town of Glastonbury
Richard J. Johnson, Town Manager, Town of Glastonbury
Kenith Leslie, Community Development Director, Town of Glastonbury
Sean Gormley, SBA

ATTACHMENT 2

verizon

WIRELESS COMMUNICATIONS FACILITY

GLASTONBURY WEST CT
2577 MAIN STREET
GLASTONBURY CT, 06033

DRAWING INDEX

SITE DIRECTIONS

START: 20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492

END: 2577 MAIN STREET
GLASTONBURY CT, 06033

1.	HEAD SOUTH TOWARD ALEXANDER DRIVE	279 FT
2.	SLIGHT RIGHT TOWARDS ALEXANDER DRIVE	289 FT
3.	TURN RIGHT TOWARD ALEXANDER DRIVE	167 FT
4.	TURN RIGHT ONTO ALEXANDER DRIVE	0.3 MI
5.	TURN RIGHT ONTO BARNES INDUSTRIAL ROAD S.	0.1 MI
6.	TURN RIGHT ONTO CT-68 E	1.6 MI
7.	CONTINUE STRAIGHT TO STAY ON CT-68 E	0.2 MI
8.	TURN RIGHT TO MERGE ONTO CT-15 N TOWARD HARTFORD	1.6 MI
9.	SHARP LEFT TO MERGE ONTO I-91 N TOWARD HARTFORD	0.3 MI
10.	MERGE ONTO I-91 N	17.2 MI
11.	TAKE EXIT ONTO CT-3 N TOWARD GLASTONBURY	1.8 MI
12.	TAKE THE EXIT TOWARD GLASTONBURY /MAIN STREET	0.3 MI
13.	USE THE LEFT 2 LANES TO TURN LEFT ONTO GLASTONBURY BLVD	0.3 MI
14.	TURN RIGHT ONTO MAIN STREET (DESTINATION WILL BE ON THE RIGHT)	0.6 MI

LOCATION MAP
SCALE : 1" = 1000'-0"

SITE INFORMATION

VZ SITE NAME: GLASTONBURY WEST CT
VZ PROJ FUZE I.D.: 16232043
VZ LOCATION CODE: 20202199190
VZ PROJECT CODE: 468258

LOCATION: 2577 MAIN STREET
GLASTONBURY CT, 06033

PROJECT SCOPE: REFER TO NOTE SHEET C-1 FOR SCOPE OF WORK.

MAP/BLOCK/LOT: D5/4140/W00038A/TWR

ZONING DISTRICT: TOWN CENTER

LATITUDE: 41° 42' 51.8004" N (41.714389° N)

LONGITUDE: 72° 36' 46.9008" W (72.613028° W)

SITE COORDINATES AND GROUND ELEVATION OBTAINED FROM GOOGLE EARTH.

GROUND ELEVATION: 58'± AMSL

PROPERTY OWNER: SAINT ISIDORE AND MARIA PARISH CORP
2577 MAIN STREET
GLASTONBURY, CT 06033

APPLICANT: CELLCO PARTNERSHIP
d/b/a VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

LEGAL/REGULATORY COUNSEL: ROBINSON & COLE, LLP
KENNETH C. BALDWIN, ESQ.
280 TRUMBULL STREET
HARTFORD, CT 06103

ENGINEER CONTACT: ALL-POINTS TECHNOLOGY CORP., P.C.
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385
(860) 663-1697

VERIZON SMART TOOL PROJECT # 10032203

Cellco Partnership d/b/a
verizon
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	02/19/21	FOR REVIEW: JRM
1	05/20/21	FOR FILING: JRM
2		
3		
4		
5		
6		

STATE OF CONNECTICUT
MICHAEL TRODDEN
33313
LICENSED
PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: SAINT ISIDORE AND MARIA
ADDRESS: PARISH CORP 2577 MAIN STREET GLASTONBURY, CT 06033

GLASTONBURY WEST CT

SITE ADDRESS: 2577 MAIN STREET GLASTONBURY CT, 06033

APT FILING NUMBER: CT141_11930

DRAWN BY: DRA

DATE: 02/19/21 **CHECKED BY:** JRM

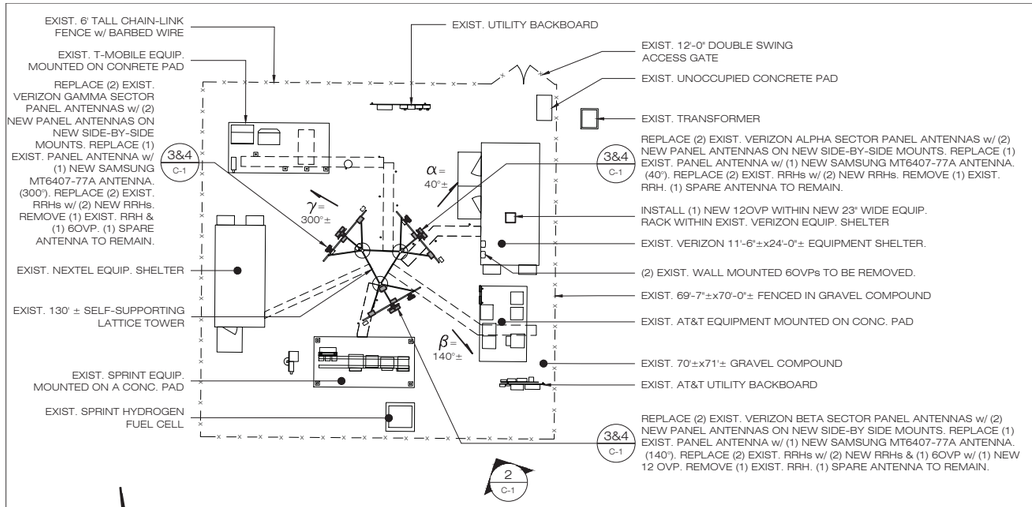
VZ PROJECT CODE: 20202199190

VZ LOCATION CODE: 468258

VZ FUZE ID: 16232043

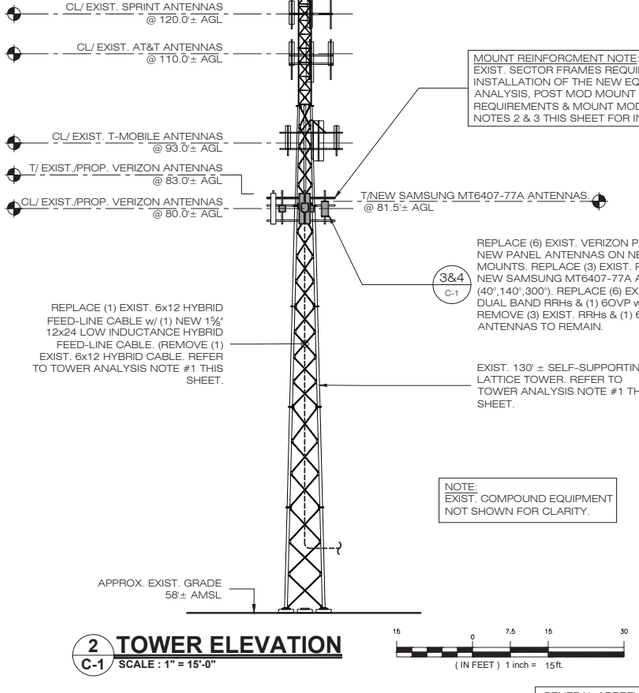
SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1



1 COMPOUND PLAN
C-1 SCALE : 1" = 15'-0"

15 0 7.5 15 30
(IN FEET) 1 inch = 15ft.

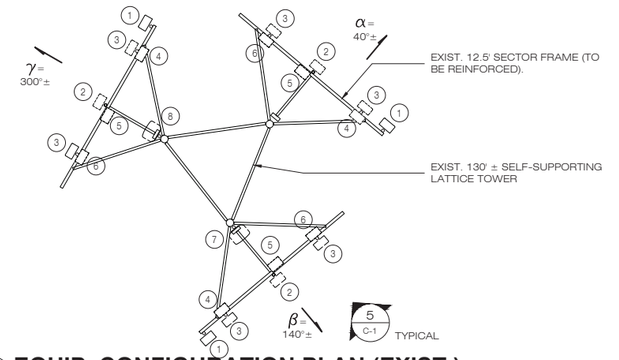


MOUNT REINFORCMENT NOTE:
EXIST. SECTOR FRAMES REQUIRE REINFORCMENT PRIOR TO THE INSTALLATION OF THE NEW EQUIPMENT. REFER TO MOUNT ANALYSIS, POST MOD MOUNT ANALYSIS REPORT, PMI REQUIREMENTS & MOUNT MODIFICATION DESIGN DRAWING NOTES 2 & 3 THIS SHEET FOR INFORMATION.

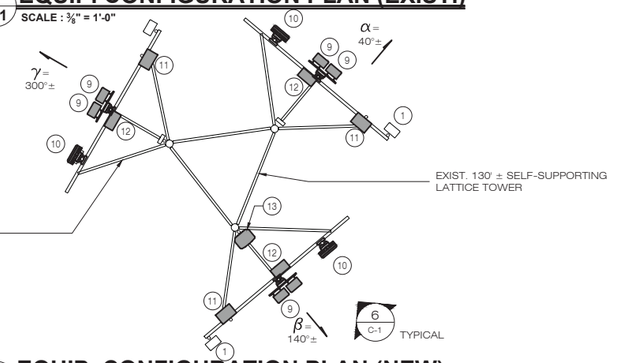
NOTE:
EXIST. COMPOUND EQUIPMENT NOT SHOWN FOR CLARITY.

2 TOWER ELEVATION
C-1 SCALE : 1" = 15'-0"

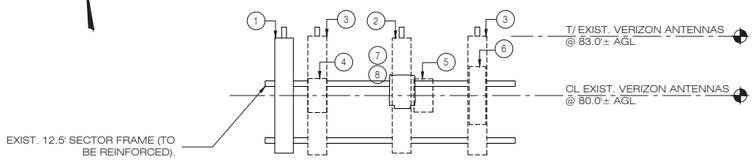
15 0 7.5 15 30
(IN FEET) 1 inch = 15ft.



3 EQUIP. CONFIGURATION PLAN (EXIST.)
C-1 SCALE : ⅜" = 1'-0"



4 EQUIP. CONFIGURATION PLAN (NEW)
C-1 SCALE : ¼" = 1'-0"

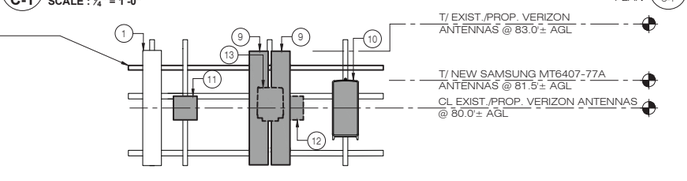


EXISTNG ELEVATION (FRONT)

EXIST. AZIMUTHS
ALPHA: 40°
BETA: 140°
GAMMA: 300°

MOUNT REINFORCMENT NOTE:
EXIST. SECTOR FRAMES REQUIRE REINFORCMENT PRIOR TO THE INSTALLATION OF THE NEW EQUIPMENT. REFER TO MOUNT ANALYSIS, POST MOD MOUNT ANALYSIS REPORT, PMI REQUIREMENTS & MOUNT MODIFICATION DESIGN DRAWING NOTES 2 & 3 THIS SHEET FOR INFORMATION.

5 EQUIP. MOUNTING CONFIG. (EXIST.)
C-1 SCALE : ¼" = 1'-0"

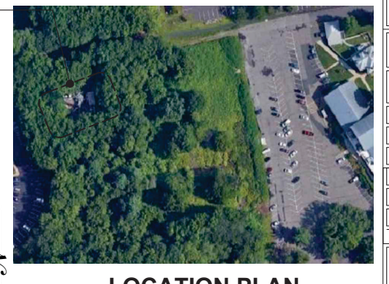


PROPOSED ELEVATION (FRONT)

NEW AZIMUTHS
ALPHA: 40°
BETA: 140°
GAMMA 300°

6 EQUIP. MOUNTING CONFIG. (NEW)
C-1 SCALE : ¼" = 1'-0"

COMPOUND PLAN 1 C-1



LOCATION PLAN
SCALE: 1" = 200'

GENERAL ABBREVIATION LIST:

ABP	ABOVE BASE PLATE
AGL	ABOVE GROUND LEVEL
AMSL	ABOVE MEAN SEA LEVEL
AWS	ADVANCED WIRELESS SERVICE
HDG	HOT DIP GALVANIZED
OVP	OVER VOLTAGE PROTECTION
RRH	REMOTE RADIO HEAD
V.I.F.	VERIFY IN FIELD
W.P.	WORK POINT
A.F.R.	ABOVE FINISH ROOF

SCOPE OF WORK (ALL) SECTORS

1. EXIST. ANTENNA (TO REMAIN AS SPARE) MODEL: ANDREW LNX-6514DS-A1M
2. EXIST. ANTENNA (TO BE REPLACED) MODEL: ANDREW LNX-6514DS-A1M
3. EXIST. ANTENNA (TO BE REPLACED) MODEL: ANDREW HBXX-6517DS-A2M
4. EXIST. RRH (TO BE REPLACED) MODEL: NOKIA B13 RRH 4x30-700
5. EXIST. RRH (TO BE REMOVED) MODEL: NOKIA B25 4x30W PCS RRH
6. EXIST. RRH (TO BE REPLACED) MODEL: NOKIA B4 2x60W AWS RRH
7. EXIST. 6 OVP (TO BE REPLACED @ BETA) MODEL: RAYCAP RRFDC-3315-PF-48 (V.I.F.)
8. EXIST. 6 OVP (TO BE REMOVED @ GAMMA) MODEL: RAYCAP RRFDC-3315-PF-48 (V.I.F.)
9. NEW ANTENNA MODEL: COMMSCOPE NHH-65B-R2B MOUNTED ON NEW COMMSCOPE SIDE-BY-SIDE MOUNT (P/N BASMNT-SBS-1-2)
10. NEW ANTENNA MODEL: SAMSUNG MT6407-77A
11. NEW DUAL BAND RRH MODEL: SAMSUNG B13/B5 RRH-BR04C (RFV01U-D2A)
12. NEW DUAL BAND RRH MODEL: SAMSUNG B66/B2A RRH-BR049 (RFV01U-D1A)
13. NEW 12OVP (@ BETA MOUNTED TO TOWER LEG) (TO MATCH EXIST.) MODEL: RAYCAP RVZDC-6627-PF-48

NOTES:

1. REFER TO TOWER STRUCTURAL ANALYSIS REPORT PREPARED BY TOWER ENGINEERING SOLUTIONS, DATED 05/17/21 AVAILABLE UNDER SEPARATE COVER.
2. REFER TO MOUNT ANALYSIS REPORT PREPARED BY MASER CONSULTING, P.A., PROJECT #20777629A MARKED REV0, DATED 02/04/21 AVAILABLE UNDER SEPARATE COVER.
3. REFER TO POST MOD MOUNT ANAYLSIS REPORT, PMI REQUIREMENTS & MOUNT MODIFICATION DESIGN DRAWINGS PREPARED BY MASER CONSULTING, P.A., PROJECT #20777629A DATED 03/10/21 & 03/09/21. AVAILABLE UNDER SEPERATE COVER.
4. BASE MAPPING FROM FIELD MEASUREMENTS TAKEN BY ALL-POINTS TECH. CORP., P.C. ON 01/28/21.
5. PROJECT SCOPE INCLUDES THE FOLLOWING:
   - REPLACEMENT OF SIX (6) EXIST. PANEL ANTENNAS w/ SIX (6) NEW PANEL ANTENNAS ON SIDE-BY-SIDE MOUNTS.
   - REPLACEMENT OF THREE (3) EXIST. PANEL ANTENNAS w/ (3) NEW SAMSUNG MT6407-77A ANTENNAS.
   - REPLACEMENT OF SIX (6) EXIST. RRHs w/ SIX (6) NEW DUAL BAND RRHs.
   - REPLACEMENT OF (1) EXIST. 6OVP w/ (1) NEW 12OVP.
   - REPLACEMENT OF (2) EXIST. 6x12 HYBRID FEED-LINE CABLES w/ (1) NEW 1⅝" 12x24 LOW INDUCTANCE HYBRID FEED-LINE CABLE.
   - REPLACEMENT OF (2) EXIST. WALL MOUNTED 6OVPs WITHIN EQUIP. SHELTER w/ (1) NEW RACK MOUNTED 12OVP.
   - INSTALLATION OF (1) NEW 23" WIDE EQUIP. RACK WITHIN EQUIP. SHELTER.
   - REMOVAL OF (1) EXIST. 6x12 HYBRID CABLE.
   - REMOVAL OF THREE (3) EXIST. RRHs.
   - REMOVAL OF ALL UN-USED COAXIAL CABLE FEED-LINES.
4. ALL EXPOSED STEEL AND HARDWARE TO BE HOT DIP GALV. (HDG). PAINT TO MATCH EXIST. (WHERE APPLICABLE)
5. CAP & WEATHERPROOF ALL UN-USED CABLE ENTRY PORTS (WHERE APPLICABLE).
6. MOUNT & GROUND ALL NEW EQUIPMENT IN ACCORDANCE WITH NEC (NFPA-70), NESC AND MANUFACTURERS SPECIFICATION.
7. SECURE ALL NEW ANTENNA CABLES PER MANUFACTURER RECOMMENDATIONS.
8. BOND NEW ANTENNA MOUNTING PIPES TO ANTENNA SECTOR GROUND BAR w/ # 2 AWG, BCW, (WHERE APPLICABLE).
9. CONTRACTOR SHALL INSTALL NEW SIDE-BY-SIDE & DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED TO INSTALL NEW MOUNT BRACKETS. UNLESS NOTED OTHER WISE, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MASTS REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.
10. ANTENNA CONFIGURATIONS SHOWN HEREIN ARE FRONT ELEVATIONS.
11. ANTENNA SPACING DIMENSIONS ARE TO THE CENTER OF THE EXIST. ANTENNA AND PROP. ANTENNA FACE.
12. REFER TO THE FINAL RFDS PROVIDED BY VERIZON FOR THE LATEST INFORMATION REGARDING EQUIPMENT MODELS, REQUIRED CABLING & DOWN-TILT INFORMATION.
13. APPLY 3M FILM OVER ALL EXPOSED MMWAVE ANTENNAS COLOR TO MATCH EXIST. STRUCTURE (WHERE APPLICABLE) COORDINATE WITH VERIZON CONSTRUCTION MANAGER AND LL.
14. PAINT ALL NEW NON SAMSUNG MT6407-77A ANTENNAS & APPURTENANCES TO MATCH EXIST. STRUCTURE (WHERE APPLICABLE) COORDINATE W/ VERIZON CONSTRUCTION MANAGER & BUILDING OWNER.

Cellco Partnership d/b/a
verizon
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	02/19/21	FOR REVIEW: JRM
1	05/20/21	FOR FILING: JRM
2		
3		
4		
5		
6		

STATE OF CONNECTICUT · MICHAEL TRODDEN · 33313 · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: SAINT ISIDORE AND MARIA
ADDRESS: PARISH CORP 2577 MAIN STREET GLASTONBURY, CT 06033

GLASTONBURY WEST CT

SITE ADDRESS: 2577 MAIN STREET GLASTONBURY, CT, 06033

APT FILING NUMBER: CT141_11930

DRAWN BY: DRA
DATE: 02/19/21 CHECKED BY: JRM

VZ PROJECT CODE: 20202199190
VZ LOCATION CODE: 468258
VZ FUZE ID: 16232043

SHEET TITLE:
COMPOUND PLAN, TOWER ELEVATION, EQUIP. CONFIGURATION PLANS & ELEVATIONS

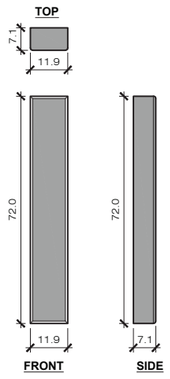
SHEET NUMBER:
C-1

EQUIPMENT DATA

EQUIPMENT SPECIFICATIONS

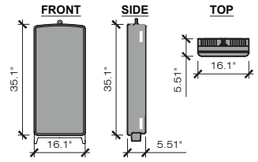
SECTOR	ANTENNA MAKE/MODEL	QTY	AZIMUTH	EQUIPMENT STATUS	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LBS)
ALPHA	SAMSUNG MT6407-77A	1	40°	NEW	35.1(5)	16.1(5)	5.51(5)	87.1(2)(5)
	700/850/1900/2100: COMMSCOPE NHH-65B-R2B	1	40°	NEW	72.0	11.9	7.1	43.7(2)
	700/850/1900/2100: COMMSCOPE NHH-65B-R2B	1	40°	NEW	72.0	11.9	7.1	43.7(2)
	SPARE: ANDREW LNX-6514DS-A1M	1	40°	ETR	80.6	11.9	7.1	32.2(2)
BETA	SAMSUNG MT6407-77A	1	140°	NEW	35.1(5)	16.1(5)	5.51(5)	87.1(2)(5)
	700/850/1900/2100: COMMSCOPE NHH-65B-R2B	1	140°	NEW	72.0	11.9	7.1	43.7(2)
	700/850/1900/2100: COMMSCOPE NHH-65B-R2B	1	140°	NEW	72.0	11.9	7.1	43.7(2)
	SPARE: ANDREW LNX-6514DS-A1M	1	140°	ETR	80.6	11.9	7.1	32.2(2)
GAMMA	SAMSUNG MT6407-77A	1	300°	NEW	35.1(5)	16.1(5)	5.51(5)	87.1(2)(5)
	700/850/1900/2100: COMMSCOPE NHH-65B-R2B	1	300°	NEW	72.0	11.9	7.1	43.7(2)
	700/850/1900/2100: COMMSCOPE NHH-65B-R2B	1	300°	NEW	72.0	11.9	7.1	43.7(2)
	SPARE: ANDREW LNX-6514DS-A1M	1	300°	ETR	80.6	11.9	7.1	32.2(2)
	APPURTENANCE MAKE/MODEL							
	SAMSUNG B2/B66A RRH-BR049 (RFV01U-D1A)	3	-	NEW	14.9	14.9	10.04	97.5
	SAMSUNG B5/B13 RRH-BR04C (RFV01U-D2A)	3	-	NEW	14.9	14.9	8.14	82.0
	RAYCAP RVZDC-6627-PF-48	1	-	NEW	29.5	16.5	12.6	32.0

(1) 'ETR' DENOTES EXIST. TO REMAIN
(2) WEIGHT WITHOUT MOUNTING BRACKET.
(3) ANTENNA DATA BASED ON RFDS REV0 DATED 12/16/20
(4) EQUIPMENT CONFIGURATION INDICATED ABOVE VIEWED FROM BEHIND.
(5) NOT TO EXCEED



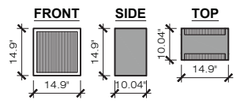
COMMSCOPE NHH-65B-R2B
HxWxD=72.0"x11.9"x7.1" 43.7 Lbs)

2 B-1 NEW ANTENNA DETAIL
SCALE : ½" = 1'-0"

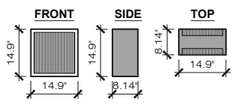


SAMSUNG MT6407-77A
HxWxD=35.1"x16.1"x5.51"
WT=87.1 Lbs
(NOT TO EXCEED)

3 B-1 NEW ANTENNA DETAIL
SCALE : ½" = 1'-0"



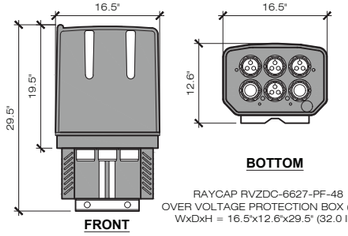
SAMSUNG DUAL HIGH BAND B2/B66A
RRH-BR049 (RFV01U-D1A)
RRH PCS/AWS
REMOTE RADIO HEAD (RRH)
WxDxH=14.9"x14.9"x10.04" (97.5 Lbs)



SAMSUNG DUAL LOW BAND B5/B13
RRH-BR04C (RFV01U-D2A)
RRH 850/700
REMOTE RADIO HEAD (RRH)
WxDxH=14.9"x14.9"x8.14" (82.0 Lbs)

NOTE: WEIGHTS INCLUDE SOLAR SHEILD & MOUNTING BRACKET

4 B-1 RRH EQUIPMENT DETAILS
SCALE : ½" = 1'-0"

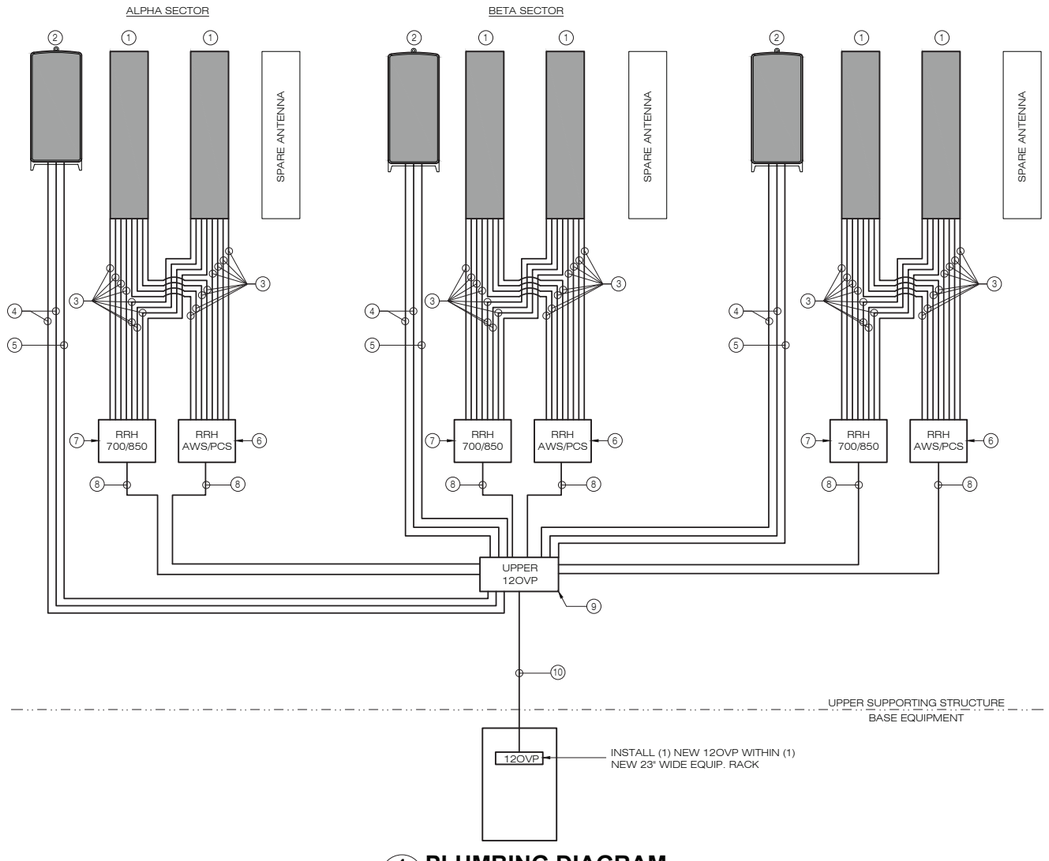


RAYCAP RVZDC-6627-PF-48
OVER VOLTAGE PROTECTION BOX (OVP)
WxDxH = 16.5"x12.6"x29.5" (32.0 lbs)

5 B-1 OVER VOLTAGE PROTECTION BOX (OVP)
SCALE : 1" = 1'-0"

BILL OF MATERIALS				
		QUANTITY	LENGTH	COMMENTS
1	700/850/1900/2100	6		(COMMSCOPE NHH-65B-R2B) MOUNTED W/ NEW COMMSCOPE SIDE-BY-SIDE MOUNT (BASMNT-SBS-1-2)
2	SAMSUNG MT6407-77A	3		MOUNTED ON EXIST. PIPE MAST
3	1/2" JUMPER CABLE	48	15 FT	ROUTE FROM RRH TO ANTENNAS
4	ANTENNA LINK CABLES	6	15 M	ROUTE FROM UPPER OVP TO ANTENNAS
5	ANTENNA POWER CABLES	3	15 M	PROPRIETARY POWER CABLE FROM UPPER OVP TO ANTENNAS
6	AWS/PCS RRH	3		SAMSUNG B2/B66 RRH-BR049 (RFV01U-D1A) MOUNTED TO EXIST. PIPE MAST
7	700/850 RRH	3		SAMSUNG B5/B13 RRH-BR04C (RFV01U-D2A) MOUNTED TO EXIST. PIPE MAST
8	RRH CABLES	6	15M	PROPRIETARY POWER & FIBER CABLES
9	UPPER 12OVP	1		(RVZDC-6627-PF-48)
10	HYBRID CABLE	1	120' ±	12x24 LOW INDUCTANCE HYBRID CABLE (1⅝"Ø)

NOTES:
1. INFORMATION SHOWN HEREON IS FOR USE BY VERIZON EQUIPMENT OPERATIONS.
2. INFORMATION IS BASED ON RFDS REV0 DATED 12/16/20.
3. * DENOTES EQUIPMENT DESIGNATED "FOR LEASING ONLY" (WHERE APPLICABLE)
4. INSTALL ALARM BOARDS AT ALL OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING.
5. INSTALL UP-CONVERTER(S) LOCATED AT BASE OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING AS NECESSARY.
6. COORDINATE ANTENNA CABLING REQUIREMENTS WITH VERIZON ENGINEERING.
7. CONTRACTOR SHALL INSTALL NEW SIDE-BY-SIDE & DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED TO INSTALL NEW MOUNT BRACKETS. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MAST REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.



1 B-1 PLUMBING DIAGRAM
SCALE : ½" = 1'-0"

NOTE: EQUIPMENT CONFIGURATION AS VIEWED FROM BEHIND.

Cellco Partnership d/b/a
verizon
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	02/19/21	FOR REVIEW: JRM
1	05/20/21	FOR FILING: JRM
2		
3		
4		
5		
6		

STATE OF CONNECTICUT
MICHAEL TRODDEN
33313
LICENSED
PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: SAINT ISIDORE AND MARIA
ADDRESS: PARISH CORP 2577 MAIN STREET GLASTONBURY, CT 06033

GLASTONBURY WEST CT

SITE ADDRESS: 2577 MAIN STREET GLASTONBURY CT, 06033

APT FILING NUMBER: CT141_11930

DRAWN BY: DRA
DATE: 02/19/21 CHECKED BY: JRM

VZ PROJECT CODE: 20202199190
VZ LOCATION CODE: 468258
VZ FUZE ID: 16232043

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER:
B-1

DESIGN BASIS:

GOVERNING CODES/DESIGN STANDARDS:

2015 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE 2018 CONNECTICUT STATE BUILDING CODE
ASCE 7-10
TIA-222-G (TOWER)

01 GENERAL:

ABBREVIATIONS USED IN THESE SPECIFICATIONS INCLUDE THE FOLLOWING:

ACI	AMERICAN CONCRETE INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWS	AMERICAN WELDING SOCIETY
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN STANDARDS AND TESTING METHODS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
ICC-ES	INTERNATIONAL CODE COUNCIL EVALUATION SERVICE
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
UL	UNDERWIRTERS LABORATORIES
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

EVERY INDIVIDUAL TRADE, DISCIPLINE, AND CONTRACTOR SHALL INCLUDE THESE GENERAL SPECIFICATIONS.

THE ENGINEER IS NOT RESPONSIBLE FOR NOR A GUARANTOR OF THE INSTALLING CONTRACTORS WORK, ADEQUACY OF ANY SITE COMPONENT, SUPERVISION OF ANY WORK, AND SAFETY IN, ON, OR ABOUT THE WORK SITE.

ANY REFERENCE HEREIN TO AN OR EQUAL ITEM, THAT EQUAL ITEM SHALL BE PRE-APPROVED BY THE CONSTRUCTION MANAGER BEFORE INSTALLATION

ALL TRADES SHALL COORDINATE THEIR WORK WITH ALL OTHER TRADES AND OTHER WORK AND CONDITIONS AS APNEWRIATE OR REQUIRED TO AVOID CONFLICTS. RESOLVE AND COORDINATE ALL CONFLICTS WITH ALL AFFECTED WORK AND SITE OPERATIONS. COORDINATION WITH THE SITE SHALL BE WITH THE OWNER, OR OWNER'S SPECIFIED REPRESENTATIVE, FOR EVERYTHING RELATED TO THE INSTALLATION OF THIS PROJECT.

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE EDITIONS OF ALL APPLICABLE CODES AND SHALL BE ACCEPTABLE TO ALL AUTHORITIES HAVING JURISDICTION (AHJ). WHERE A CONFLICT EXISTS BETWEEN CODES, PLANS, SPECIFICATIONS, AND/OR AHJ, THE MORE STRINGENT AUTHORITY SHALL APPLY. WHERE CONFLICT EXISTS BETWEEN PLANS AND SPECIFICATIONS, PLAN SHALL APPLY. WHERE CONFLICT EXISTS BETWEEN PLAN SHEETS, CONSTRUCTION MANAGER SHALL BE CONSULTED PRIOR TO COMMENCING ANY WORK.

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND NEWERLY OPERATIVE AND USABLE SYSTEM THROUGHOUT AND AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN AND/OR OTHERWISE REQUIRED.

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INSTALLATIONS, AND EQUIPMENT IN THE FIELD PRIOR TO BID, FABRICATION, AND INSTALLATION OF ANY WORK.

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. THE ENGINEER SHALL BE NOTIFIED FOR INSPECTIONS PRIOR TO CLOSING PENETRATIONS AND OF ANY CONDITIONS WHICH PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR SHALL VISIT THE SITE TO MANAGE AND GAIN APPROVAL FOR ALL TENANT DISRUPTIONS, POWER OUTAGES, WORK SCHEDULES, DEFINITION OF WORK AREA AND WORK STORAGE, NEWER BUILDING/SITE ACCESS, NOISE AND CLEANLINESS REQUIREMENTS WITH THE BUILDING/SITE MANAGEMENT PRIOR TO ALL WORK. ANY DISRUPTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE IMPLEMENTED ONLY UPON WRITTEN APPROVAL OF THE OWNER.

THE CONTRACTOR SHALL SAFEGUARD AGAINST CREATING ANY HAZARD AFFECTING TENANT EGRESS OR COMPROMISING SITE SECURITY MEASURES.

PRIOR TO ALL BELOW-GRADE WORK AND ANY SURFACE WORK IN A NEW AREA FOR STRUCTURES OR VEHICLES, CONTRACTOR SHALL ENGAGE A MARKOUT SERVICE TO IDENTIFY ANY UNDERGROUND STRUCTURES, CONDUITS, AND PIPELINES IN THE AREA. ALL EXISTING SEWER, WATER, GAS, ELECTRIC, FIBER OPTIC, AND OTHER UNDERGROUND UTILITIES IDENTIFIED OR ENCOUNTERED, SHALL BE PROTECTED AT ALL TIMES. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN DIGGING OR EXCAVATING IN ANY MANNER AROUND OR NEAR SUCH UTILITIES. CONTRACTOR IS RESPONSIBLE FOR REPAIRS, REPLACEMENT, AND ALL DAMAGES DUE TO DAMAGE OF UTILITIES BY HIS OPERATIONS.

ALL EXISTING AND NEW EQUIPMENT AND MATERIAL LOCATIONS, ROUTING, ORIENTATION, MOUNTING, SPECIFICATIONS AND GENERAL INSTALLED CHARACTERISTICS SHALL BE CONSIDERED DIAGRAMMATIC ON THE PLANS. EXACT CONDITIONS SHALL BE DETERMINED IN THE FIELD PRIOR TO ANY INSTALLATION. ANY DIFFERENCES THAT MAY CAUSE SCHEDULE, COST, OR QUALITY SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER OR ENGINEER PRIOR TO ANY WORK.

ALL REFERENCES HEREIN TO VERIFICATION OF ANY CONDITION OF SITE, FIELD, PLANS, OR SPECIFICATIONS PRIOR TO ANY WORK SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR. ANY AND ALL ADDITIONS, MODIFICATIONS, CHANGES, REPAIR, OR DEMOLITION AS A RESULT OF FAILURE TO BRING ANY EXISTING CONDITION NEWERLY TO THE ATTENTION OF THE OWNER OR ENGINEER SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR WITHOUT DELAY, COST, OR CHANGES IN QUALITY.

ALL NOTES THIS SHEET SHALL APPLY UNLESS SPECIFICALLY NOTED OTHERWISE ON THE INCLUDED DRAWINGS OR IN SEPARATE PROJECT SPECIFICATIONS AS APPLICABLE. ALL SPECIFICATIONS SHALL BE CONSIDERED REQUIRED UNLESS APPROVED EQUAL BY THE OWNER, CONSTRUCTION MANAGER, OR ENGINEER AS APPLICABLE.

THE WORDS “PROVIDE” OR “INSTALL” SHALL MEAN FURNISH AND INSTALL.

CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR THE INSTALLATION OF HIS WORK. ANY PATCHING SHALL MATCH EXISTING SURROUNDING AREA IN ALL RESPECTS. ALL REMOVED MATERIAL SHALL BE REMOVED FROM THE PREMISES DAILY IN AN APPROVED SAFE MANNER.

ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE PROMPTLY WHEN DEEMED TO BE SURPLUS.

EVERY CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS WORK AND NEWLY INSTALLED OR EXISTING WORK, INCLUDING PROTECTION OF THE SITE, ALL STRUCTURES, AND ALL OCCUPANTS. FURNISH, INSTALL, MAINTAIN, AND REMOVE AS APNEWRIATE, ALL APNEWRIATE BARRIERS, SAFETY GUARDS, SIGNAGE, AND SECURITY AS REQUIRED.

EVERY CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR RESPECTIVE FEES, PERMITS, INSPECTIONS, TESTING, CERTIFICATES, AND ALL MANAGEMENT OF SAME REQUIRED FOR COMPLETION OF AND LEGAL OCCUPANCY OF THE FINISHED PROJECT.

ALL CONTRACTORS SHALL PROVIDE ALL NECESSARY TOOLS, FIXTURES, SERVICES, MATERIALS, JOB AIDS, AND PERSONNEL REQUIRED FOR THE EXECUTION OF THEIR WORK.

EACH CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP BY THEM TO BE FREE OF DEFECTS AND MAINTAINED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE INSTALLATION BY THE OWNER AND ENGINEER.

ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS IN THE TRADE HAVING JURISDICTION.

ANY DEVIATION, MODIFICATION, ADDITION, OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE OWNER OR ENGINEER.

ALL CONTRACTORS SHALL SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIALS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION, AND SHALL NOT PROCEED UNTIL ENGINEER APPROVAL IN WRITING IS RETURNED. EACH CONTRACTOR SHALL MAINTAIN ON JOB SITE A COMPLETE SET OF SHOP DRAWINGS WITH ANY DEVIATIONS FROM THE ORIGINAL DESIGN SHALL BE NOTED.

ALL MATERIALS AND EQUIPMENT SHALL BE NEW, WITHOUT BLEMISH OR DEFECT, AND SUITABLE AND LISTED FOR THE INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS OR SPECIFICATIONS. ALL ITEMS OF EQUIPMENT OR MATERIAL THAT ARE OF ONE GENERIC TYPE SHALL BE ONE MANUFACTURER THROUGHOUT.

ALL MATERIALS, EQUIPMENT, TOOLS, AND ITEMS UNDER THE CONTRACTOR'S RESPONSIBILITY ON THE JOBSITE SHALL BE ADEQUATELY SECURED, MAINTAINED, AND PROTECTED, SO AS NOT TO BECOME DAMAGED OR CREATE ANY HAZARD TO PERSONNEL OR NEWERTY.

THE CONTRACTORS HOURS OF WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES AND BE APPROVED BY THE OWNER.

CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR ALL OF HIS CREW AND INSURE THAT EVERY CREW MEMBER FOLLOWS SAVE WORK PRACTICES. SAFETY TRAINING SHALL INCLUDE, BUT NOT BE LIMITED TO, FALL PROTECTION, CONFINED SPACE ENTRY, ELECTRICAL SAFETY, AND TRENCHING/EXCAVATION SAFETY WHERE SUCH WORK IS EXECUTED OR ENCOUNTERED.

ALL TEMPORARY WORK REQUIRED OR SPECIFIED AS A PART OF THIS WORK, SHALL MEET ALL OF THE SAME REQUIREMENTS AS PERMANENT INSTALLATIONS, SHALL MEET ALL APPLICABLE CODE REQUIREMENTS, AND SHALL BE COMPLETELY REMOVED AFTER ITS PURPOSES HAVE BEEN SERVED.

ANY EXISTING UTILITY, SERVICE, STRUCTURE, EQUIPMENT, OR FIXTURE OBSTRUCTING THE WORK SHALL BE REMOVED AND/OR RELOCATED AS DIRECTED BY THE CONSTRUCTION MANAGER.

IF ASBESTOS IS ENCOUNTERED DURING WORK EXECUTION, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER AND CEASE ALL ACTIVITIES IN AFFECTED AREAS UNTIL NOTIFIED BY THE CONSTRUCTION TO RESUME OPERATIONS.

EXIST. ELECTRICAL AND MECHANICAL FIXTURES, PIPING, WIRING AND EQUIPMENT OBSTRUCTING THE WORK SHALL BE REMOVED AND/OR RELOCATED AS DIRECTED BY THE CONSTRUCTION MANAGER. TEMPORARY SERVICE INTERRUPTIONS MUST BE COORDINATED WITH OWNER.

05 STEEL:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

MATERIALS:

WIDE FLANGE	ASTM A992, GR 50
TUBING	ASTM A500, GR B
PIPE	ASTM A53, GR B
BOLTS	ASTM A325
GRATING	TYPE GW-2 (1-1/4"x3/16" BARS)
EXISTING METALS	ASTM A36

PROVIDE CERTIFICATION THAT WELDERS TO BE USED IN WORK ARE LICENSED AND HAVE SATISFACTORILY PASSED AWS QUALIFICATION TEST UNDER THE PROVISIONS OF APPENDIX D, PARTS II AND III OF THE AWS CODE FOR WELDING IN BUILDING CONSTRUCTION.

ALL BUILDING CONNECTION POINTS TO BE CENTERED ON EXISTING STRUCTURAL BEARING POINTS AND THE LOCATIONS ARE TO BE VERIFIED IN FIELD PRIOR TO THE FABRICATION OF STEEL.

DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATION FOR *"THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS"*.

NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS OTHERWISE NOTED.

ALL STEEL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIPPED GALVANIZED) COATINGS" ON IRON AND STEEL PRODUCTS WITH A COATING WEIGHT OF 2 OZ/SF.

ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE."

DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY TOUCHING UP ALL DAMAGED GALVANIZED STEEL WITH COLD ZINC, "GALVANOX", "DRY GALV", OR "ZINC IT", IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH UP DAMAGED NON-GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.

THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW. FIELD CUTTING OF STRUCTURAL STEEL IS NOT PERMITTED EXCEPT WITH THE PRIOR APPROVAL OF THE ENGINEER.

CONTRACTOR TO REMOVE AND RE-INSTALL ALL FIRE PROOFING AS REQUIRED DURING CONSTRUCTION.

THE STEEL STRUCTURE SHALL BE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER COMPLETION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION.

ALL STEEL ELEMENTS SHALL BE INSTALLED PLUMB AND LEVEL.

TOWER MANUFACTURER'S DESIGNS SHALL PREVAIL FOR TOWER.

CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC *"MANUAL OF STEEL CONSTRUCTION"*. CONNECTIONS SHALL BE PROVIDED TO CONFORM TO THE REQUIREMENTS OF TYPE 2 CONSTRUCTION.

STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE MINIMUM 3/4" DIAMETER AND EACH CONNECTION SHALL HAVE MINIMUM TWO BOLTS. LOCK WASHERS ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES. IF TENSION CONTROL BOLTS ARE USED, CONNECTIONS SHALL BE DESIGNED FOR SLIP CRITICAL BOLT ALLOWABLE LOAD VALUES.

DESIGN CONNECTIONS AT BEAM ENDS FOR 10 KIPS (MIN).

ALL U-BOLTED CONNECTIONS SHALL BE COMPLETED WITH DOUBLE NUTS OR A LOCK WASHER.

CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS *"STANDARD QUALIFICATION PROCEDURES"*. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE LARGER OF 1/4" FILLET OR MINIMUM SIZE PER TABLE J2.4 IN THE AISC *"MANUAL OF STEEL CONSTRUCTION"*. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE REGARDING DAMAGED GALVANIZED SURFACES.

ALL ARC AND GAS WELDING SHALL BE DONE BY A LICENSED AND CERTIFIED WELDER IN ACCORDANCE WITH AWS.

SEAL ALL PENETRATIONS AND SEAMS BETWEEN MASONRY AND STEEL WITH DOW CORNING 790 SILICONE BUILDING SEALANT OR EQUAL.

26 ELECTRICAL:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

ALL ELECTRICAL CONDUCTORS:

- INSULATION SHALL BE MINIMUM 600V TYPE THHN, THWN-2, OR XHHW.
- BRANCH CIRCUIT CONDUCTORS SHALL BE SOFT DRAWN 98% MINIMUM CONDUCTIVITY NEWERLY REFINED COPPER.
- FEEDER CIRCUIT CONDUCTORS SHALL BE EITHER COPPER OR ALUMINUM OF THE APNEWRIATE SIZE FOR THE APPLICATION, OR AS SPECIFICALLY NOTED.
- PERMANENTLY LABEL OR TAG ALL CONDUCTORS WITH THEIR CIRCUIT DESIGNATION AT ALL TERMINATION ENDS, SPLICES, AND VISIBLE AS PASS-THROUGH IN ALL ENCLOSURES.

ALL CONDUIT, RACEWAY, WIREWAYS, DUCTS, ETC. SHALL BE LISTED AND SUITABLE FOR THE APPLICATION. ONLY THE FOLLOWING CONDUITS AS APPROVED AND LISTED FOR THE APPLICATION SHALL BE ACCEPTABLE:

- ELECTRICAL METALLIC TUBING (EMT).
- COMPRESSION COUPLINGS AND CONNECTORS ONLY MADE UP WRENCH TIGHT.
- FLEXIBLE METAL CONDUIT (FMC) AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC).
- FINAL CONNECTIONS TO VIBRATING OR ADJUSTABLE EQUIPMENT INCLUDING, BUT NOT LIMITED TO, LIGHT FIXTURES, HVAC UNITS, TRANSFORMERS, MOTORS, ETC. OR WHERE EQUIPMENT IS PLACED UPON SLAB ON-GRADE.
- RIGID GALVANIZED STEEL (RGS).
- ALL FITTINGS, CONNECTORS, AND COUPLINGS SHALL BE THREADED MADE UP WRENCH TIGHT.
- RIGID POLYVINYL CHLORIDE (PVC) SCHEDULE 40 OR SCHEDULE 80.
- MAY BE USED FOR SERVICES, EXTERIOR, BELOW GRADE, AND WET LOCATIONS.
- SHALL NOT BE USED IN CONCRETE SLABS NOR EXPOSED WITHIN A BUILDING OR STRUCTURE.
- METAL-CLAD CABLE (MC)
- CONCEALED INSTALLATIONS ONLY.
- WITHIN A DUCT WITH SMOOTH OR CORRUGATED METAL JACKET AND NO OUTER COVERING OVER THE METAL JACKET.

IN FINISHED SPACES, ALL CONDUITS SHALL BE CONCEALED EXCEPT TO MAKE A FINAL CONNECTION TO EQUIPMENT NOT MOUNTED IN OR AGAINST FINISH MATERIAL.

ALL FEEDER AND BRANCH CIRCUITS SHALL HAVE A SEPARATE NEWERLY SIZED AND MARKED GROUNDING CONDUCTOR, PER APPLICABLE CODES, THAT BONDS ALL ENCLOSURES, BOXES, ETC. CONDUIT SHALL NOT BE USED AS A GROUNDING OR BONDING CONDUCTOR.

IF EXISTING ELECTRIC SERVICE IS TO REMAIN, CONTRACTOR SHALL BE VERIFY THAT IT MEETS PROJECT REQUIREMENTS WITHOUT MODIFICATION. IF IT IS TO BE ADDED OR REPLACED AS A PART OF THIS WORK, CONTRACTOR SHALL ORDER FROM, COORDINATE WITH, AND GAIN APPROVAL FROM THE ELECTRICAL UTILITY. ALL ELECTRICAL EQUIPMENT SHALL BE AS SPECIFIED AND AS APPROVED BY THE LOCAL UTILITY WHERE APPLICABLE.

ALL EQUIPMENT, ENCLOSURES, ETC. SHALL BE SUITABLE FOR THE INSTALLED ENVIRONMENT, MINIMUM NEMA 3R FOR ALL EXTERIOR INSTALLATIONS.

WIRING DEVICES SHALL BE SPECIFICATION GRADE AND WIRING DEVICE COVER PLATES SHALL BE PLASTIC WITH ENGRAVING AS SPECIFIED. COLOR SHALL BE IVORY. ALL DEVICES AND COVER PLATES SHALL BE OF THE SAME MANUFACTURER.

ALL FIRE-RATED PENETRATIONS SHALL BE SEALED USING A SUITABLE AND LISTED FIRE SEALING DEVICE OR GROUT THAT WILL MAINTAIN THE FIRE RATING OF THE STRUCTURE PENETRATED.

PROVIDE PERMANENTLY AFFIXED ENGRAVED NAMEPLATES FOR ALL CODE REQUIRED LABELING AND ON ALL PANELS, METERING, DISCONNECTS, AND ELECTRICAL EQUIPMENT THAT IDENTIFIES EQUIPMENT SERVED, ELECTRICAL SOURCE WITH CIRCUIT IDENTIFICATION, AND VOLTAGES WITHIN.

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL FINAL TERMINATIONS TO ALL EQUIPMENT.

ALL ELECTRICAL APPURTENANCES THAT ARE DISCONNECTED SHALL BE COMPLETELY REMOVED WITH EXISTING STRUCTURES TO REMAIN, REPAIRED, FINISHED, FILLED, PAINTED, ETC. ALL PANEL SCHEDULES, EQUIPMENT LABELING, AND CODE-REQUIRED LABELING, SHALL BE VERIFIED AND NEWERLY COMPLETED TO MATCH THE INSTALLATION.

26 GROUNDING:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

GROUND ALL SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH BEST INDUSTRY PRACTICE, THE REQUIREMENTS OF THE NFPA 70 NATIONAL ELECTRICAL CODE (NEC), AND ALL OTHER APPLICABLE CODES AND REGULATIONS.

ALL GROUNDING ELECTRODES PRESENT AT EACH SERVICE LOCATION SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM.

ALL EQUIPMENT ENCLOSURES, DEVICES, AND CONDUITS SHALL BE GROUNDED BY THE INSTALLATION OF A SEPARATE GROUNDING CONDUCTOR FOR ALL FEEDER AND BRANCH CIRCUITS THAT IS SIZED PER CODE OR IS OF THE SIZE INDICATED ON THE DRAWINGS, SHALL BE CONTINUOUS IN LENGTH, AND SHALL BE BONDED TO EACH ENCLOSURE PASSED THROUGH. CONDUIT SHALL NOT BE USED AS A GROUNDING OR BONDING WIRE OR CIRCUIT.

BOND ALL METALLIC CONDUITS TOGETHER THAT ARE CONNECTED TO NON-METALLIC ENCLOSURES, IN-GROUND BOXES, AND TO AN ENCLOSURE WHERE A GROUND BUS IS SPECIFIED OR SUPPLIED. ACCOMPLISH THIS BOND WITH GROUNDING CONDUCTORS MINIMUM SIZED TO THE LARGEST GROUNDING CONDUCTOR PRESENT IN THE ENCLOSURE CONNECTED TO A GROUNDING TYPE BUSHING EQUALLY SIZED OR MAXIMUM GROUND WIRE ACCOMMODATION AVAILABLE IN STANDARD MANUFACTURE FOR THE CONDUIT SIZE, WHICHEVER IS LESS.

EQUIPMENT GROUNDING AND LOAD SIDE BONDING CONDUCTORS SHALL BE SIZED PER THE CIRCUIT'S OVER-CURRENT PROTECTIVE DEVICE (OCPD) SIZE. WHERE THE UNGROUNDED CONDUCTORS ARE INCREASED IN SIZE ABOVE THE STANDARD FOR THE CIRCUIT'S OCPD, INCREASE THE GROUNDING CONDUCTOR NEWORTIONATELY TO THE CROSS-SECTIONAL AREA OF THE UNGROUNDED CONDUCTORS.

SERVICE MAIN BONDING JUMPERS AND GROUNDING ELECTRODE CONDUCTORS SHALL BE SIZED AND INSTALLED PER THE MINIMUM OF ALL APPLICABLE CODES AND REGULATIONS.

26 LIGHTNING PROTECTION:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS AND THE GROUNDING SPECIFICATIONS HEREIN.

THE LIGHTNING PROTECTION GROUNDING SYSTEM (LPGS) SHALL CONSIST OF BONDING ALL EQUIPMENT AND CONDUCTIVE STRUCTURES TO LOCALIZED SINGLE-POINT GROUNDING CONNECTIONS (TYPICALLY GROUND BARS) WHICH ARE BONDED TOGETHER AND TO AN IN-GROUND SYSTEM. IF THE LPGS IS ON A BUILDING, IT SHALL BE EFFECTIVELY BONDED TO THE ELECTRICAL SERVICE MAIN BONDING JUMPER AND TO ADDITIONAL IN-GROUND ELECTRODES AS MAY BE REQUIRED OR INDICATED. IF THE LPGS IS ON A DEDICATED COMMUNICATION SITE, ALL EQUIPMENT AREAS AND TOWERS SHALL EACH HAVE THEIR OWN IN-GROUND RING WITH EVERY RING BONDED TOGETHER, AND ALL CONDUCTIVE STRUCTURES IN CLOSE PROXIMITY (FENCES, ICE BRIDGES, ISOLATED EQUIPMENT, ETC.) ALSO BONDED TO PROVIDE A COMMON ELECTRICAL EQUIPOTENTIAL SYSTEM FOR ALL CONDUCTIVE ELEMENTS AND STRUCTURES.

CONDUCTORS:

- MIN #2 AWG SOLID BARE TINNED COPPER (SBTC) FOR ALL IN-GROUND CONDUCTORS.
- MIN #2 AWG COPPER GREEN STRANDED FOR BONDING STRUCTURES, AND FOR INTER-SYSTEM BONDING OF INDIVIDUAL ELEMENTS SUCH AS GROUND BAR TO GROUND BAR.
- MIN #6 AWG COPPER GREEN STRANDED OR ALL EQUIPMENT BONDING.
- INSTALL ALL IN-GROUND CONDUCTORS IN THE SAME HORIZONTAL PLANE OR IN A DOWNWARD DIRECTION AWAY FROM THE TOWER AND EQUIPMENT AREAS.
- AVOID LONG RUNS. MAKE DIRECT RUNS AS MUCH AS POSSIBLE.
- PLACE THROUGH NON-METALLIC SLEEVES WHEN PASSING THROUGH FLOORS, WALLS, CEILINGS, AND SIMILAR STRUCTURES.
- MAKE ALL CONNECTIONS IN CONTACT WITH EARTH WITH EXOTHERMIC WELDING. MAKE ALL OTHER CONNECTIONS WITH EXOTHERMIC WELDING, IRREVERSIBLE COMPRESSION CONNECTORS, OR LISTED COMPRESSION TWO-HOLE LUGS.
- INSTALL ALL CONDUCTORS WITH A MINIMUM 18 INCH BEND RADIUS AND NO BEND LONGER THAN A 90 DEGREE ARC. ALL BENDS SHALL BE HORIZONTAL, OR DOWNWARD TOWARDS EARTH.
- ALL CONDUCTORS PASSING FROM ABOVE-GROUND TO IN-GROUND CONNECTIONS, WHERE EXPOSED, SHALL BE COVERED AND PROTECTED WITH A NON-METALLIC CONDUIT SEALED AT BOTH ENDS.
- IF 2 OR MORE IN-GROUND CONDUCTOS ARE IN THE SAME PATH (2 RINGS OVERLAPPING, BONDING FOLLOWING ANOTHER RING OR RADIAL, OR SIMILAR), COMBINE WITH A SHARED SINGLE CONDUCTOR.

EQUIPMENT AND TOWER GROUND RINGS SHALL BE:

- BONDED TO ANY CONDUCTIVE OBJECT OR STRUCTURE WITHIN 5 FEET OF EQUIPMENT GROUND RINGS AND WITHIN 20 FEET OF TOWER GROUND RINGS.
- INSTALLED MINIMUM 18 INCHES FROM FOUNDATIONS, FOOTINGS, AND SIMILAR.

INSTALL ALL IN-GROUND RINGS, RADIALS, BONDS CONNECTING THEM, AND ALL SIMILAR GROUNDING:

- MIN 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE, WHICHEVER IS GREATER DEPTH.
- MIN 2 FEET FROM FOUNDATIONS, FOOTINGS, OTHER GROUNDING SYSTEMS, AND SIMILAR STRUCTURES, EXCEPT WHEN MAKING A BOND TO ANY OF THESE STRUCTURES. DO NOT BOND TO FOUNDATION INTERNAL REINFORCEMENT.

ALL EQUIPMENT GROUPED IN A COMMON AREA, COMPOUND, STRUCTURE, OR SIMILAR SHALL BE BONDED TO A SINGLE-POINT GROUND, PREFERABLY AN ISOLATED GROUND BAR. BOND THE GROUND BAR TO THE SYSTEM WITH MINIMUM SINGLE BONDING CONDUCTOR. IF BONDING TO AN IN-GROUND RING, INSTALL 2 BONDING CONDUCTORS MINIMUM WITH EACH CONDUCTOR INSTALLED DIRECTIONALLY AWAY FROM EACH OTHER AND PARALLEL TO THE IN-GROUND CONDUCTOR, WITH NO TEE CONNECTIONS.

TOWER GROUNDING:

- EACH TOWER LEG SHALL BE BONDED TO ITS RING. SINGLE-LEGGED TOWERS, OR MONOPOLES, SHALL HAVE 2 BONDS ON OPPOSITE SIDES.
- BOND TO TOWER BASE, NOT TO VERTICAL TOWER STRUCTURE, AWAY FROM TOWER MOUNTING HARDWARE.
- EACH BOND SHALL HAVE A CORRESPONDING GROUND ROD ON THE RING.
- EACH BOND SHALL CONSIST OF 2 CONDUCTORS FROM THE TOWER TO ITS RING WITH EACH CONDUCTOR DIRECTED IN OPPOSITE DIRECTIONS WITH A PARALLEL CONNECTION ON THE RING ON OPPOSITE SIDES OF THE GROUND ROD.

EQUIPMENT AREA GROUNDING:

- COMMUNICATION AREAS ON EARTH SHALL HAVE A GROUND RING.
- BOND ALL EQUIPMENT TO A SINGLE-POINT GROUND (GROUND BAR).
- BOND THE EQIPMENT SINGLE-POINT GROUND TO THE EQUIPMENT GROUND RING WITH MINIMUM 2 CONDUCTORS DIRECTED IN OPPOSITE DIRECTIONS WITH PARALLEL CONNECTIONS ON THE RING.
- IF EQUIPMENT IS ENCLOSED IN A SHELTER:
- IF THE SHELTER IS CONSIDERED TO BE EXPOSED TO A DIRECT LIGHTNING STRIKE, INSTALL A BUILDING LIGHTNING PROTECTION SYSTEM PER APPLICABLE VERSION OF NFPA 780.
- BOND ALL FIXED CONDUCTIVE BUILDING COMPONENTS TOGETHER AND TO THE BUILDING RING GROUND AT THE CORNERS. THIS IS TYPICALLY CALLED THE HALO GROUND. DO NOT BOND EQUIPMENT TO THE HALO GROUND.
- BOND ALL EQUIPMENT TOGETHER TO A SINGLE-POINT OR INTERIOR EQUIPMENT RING GROUND (IEGR). BOND THE SINGLE-POINT OR IEGR TO THE EXTERNAL EQUIPMENT RING GROUND.
- PLACE GROUND RODS AT THE EQUIPMENT GROUND RING CORNERS.

GROUND RODS:

- SEPARATION SPACE BETWEEN ANY 2 GROUND RODS SHALL BE NO CLOSER THAN THEIR DEPTH. THIS APPLIES TO ALL RODS IN THE COMPLETE SYSTEM.
- DRIVE VERTICALLY IN UNDISTURBED SOIL WITH THE TOP AT SAME DEPTH AS THE IN-GROUND CONDUCTOR. IF NOT POSSIBLE TO INSTALL VERTICALLY, PLACE AS CLOSE TO VERTICAL AS POSSIBLE AND IN A DIRECTION AWAY FROM THE NEAREST ABOVE-GROUND CONDUCTIVE ELEMENT (TOWER, EQUIPMENT, ETC.).

RADIALS (TYP. NEW DEDICATED COMMUNICATION SITES):

- WHERE FEASIBLE WITH ENOUGH SPACE AVAILABLE, INSTALL A MINIMUM OF 4, MAXIMUM 10 RING RADIALS.
- EACH RADIAL'S LENGTH SHALL BE MIN 20 FT, MAX 80 FT.
- EXTEND RADIALS PERPENDICULAR FROM RINGS IN AS STRAIGHT LINE AS POSSIBLE, AWAY FROM OTHER RING GROUNDS, RADIALS, BONDS, AND SIMILAR.
- A COMMON PRACTICE IS TO PLACE 4 RADIALS FROM THE TOWER RING TO THE 4 CORNERS OF THE AVAILABLE AREA.

AT A MINIMUM, BOND ALL COMPOUND CONDUCTIVE FENCE CORNER POSTS AND GATE POSTS TO THE LPGS. PREFERABLY, INSTALL A GROUND RING THAT FOLLOWS THE FENCE LINE, BONDING ALL POSTS TO THE RING.

27 ANTENNAS & CABLES:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRANSMISSION CABLES, JUMPERS, CONNECTORS, GROUNDING STRAPS, ANTENNAS, MOUNT AND HARDWARE. ALL MATERIALS SHALL BE INSPECTED BY THE CONTRACTOR FOR DAMAGE UPON DELIVERY. JUMPERS SHALL BE SUPPLIED AT ANTENNAS AND EQUIPMENT INSIDE SHELTER. COORDINATE LENGTH OF JUMPER CABLES WITH OWNER. COORDINATE AND VERIFY ALL OF THE MATERIALS TO BE PROVIDED WITH OWNER PRIOR TO SUBMITTING BID AND ORDERING MATERIALS.

AFTER INSTALLATION, THE TRANSMISSION LINE SYSTEM SHALL BE PIM / SWEEP TESTED FOR NEWER INSTALLATION AND DAMAGE WITH ANTENNAS CONNECTED. CONTRACTOR SHALL OBTAIN AND USE LATEST TESTING PROCEDURES FROM OWNER OR MANUFACTURER PRIOR TO BIDDING.

ANTENNA CABLES SHALL BE UNIQUELY COLOR-CODED AT THE ANTENNAS, BOTH SIDES OF EQUIPMENT SHELTER WALL, AND JUMPER CABLES AT THE EQUIPMENT.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONNECTORS, ASSOCIATED CABLE MOUNTING AND GROUNDING HARDWARE, WALL MOUNTS, STANDOFFS, AND ALL ASSOCIATED HARDWARE TO INSTALL ALL CABLES AND ANTENNAS TO THE MANUFACTURER'S AND OWNER'S SPECIFICATIONS.

ANTENNA CABLES SHALL BE FOAM DIELECTRIC COAXIAL CABLES AS FOLLOWS:

- BASE STATION ANTENNAS:
  - 7/8" DIAMETER FOR CABLE LENGTHS UP TO 100 FT.
  - 1-5/8" DIAMETER FOR CABLE LENGTHS GREATER THAN 100 FT.
  - GPS ANTENNAS:
  - 7/8" DIAMETER FOR CABLE LENGTHS UP TO 200 FT.
  - 1-5/8" DIAMETER FOR CABLE LENGTHS GREATER THAN 200 FT.

MINIMUM BENDING RADIUS FOR COAXIAL CABLES SHALL BE:

- 15 FT FOR 7/8" COAXIAL CABLES.
- 25 FT FOR 1-5/8" COAXIAL CABLES.

CABLE SHALL BE INSTALLED WITH A MINIMUM NUMBER OF BENDS WHERE POSSIBLE. CABLE SHALL NOT BE LEFT UNTERMINATED AND SHALL BE SEALED IMMEDIATELY AFTER BEING INSTALLED.

ALL EXTERIOR CABLE CONNECTIONS SHALL BE COVERED WITH A WATERPROOF SPLICING KIT.

CONTRACTOR SHALL VERIFY EXACT LENGTH AND DIRECTION OF TRAVEL IN FIELD PRIOR TO CONSTRUCTION.

CABLE SHALL BE FURNISHED AND INSTALLED WITHOUT SPLICES AND WITH CONNECTORS AT EACH END.

27 CABLE TRAY:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

CABLE TRAY SHALL BE MADE OF EITHER CORROSION RESISTANT METAL OR WITH A CORROSION RESISTANT FINISH.

CABLE TRAY SHALL BE OF LADDER TRAY TYPE WITH FLAT COVER CLAMPED TO SIDE RAILS.

CABLE LADDER SHALL BE SIZED TO FIT ALL CABLES IN ACCORDANCE WITH NEC AND NEMA 11-15-84.

CABLE LADDER TRAYS SHALL BE NEMA CLASS 12A BY PW INDUSTRIES, INC. OR EQUAL.

CABLE LADDER TRAY SHALL BE SUPPORTED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

ALL WORKMANSHIP SHALL CONFORM TO THESE REQUIREMENTS AND ALL LOCAL CODES AND STANDARDS TO ENSURE SAFE AND ADEQUATE GROUNDING SYSTEM.

Cellco Partnership d/b/a

verizon

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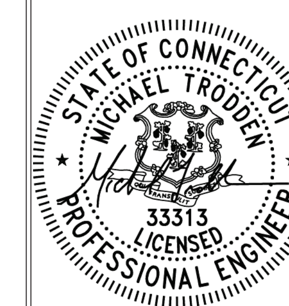
CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	02/19/21	FOR REVIEW: JRM
1	05/20/21	FOR FILING: JRM
2		
3		
4		
5		
6		



DESIGN PROFESSIONALS OF RECORD

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GLASTONBURY WEST CT

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APT FILING NUMBER: CT141_11930

DRAWN BY: DRA

DATE: 02/19/21 **CHECKED BY: JRM**

VZ PROJECT CODE: 20202199190

VZ LOCATION CODE: 468258

VZ FUZE ID: 16232043

SHEET TITLE:

NOTES & SPECIFICATIONS

SHEET NUMBER:

N-1

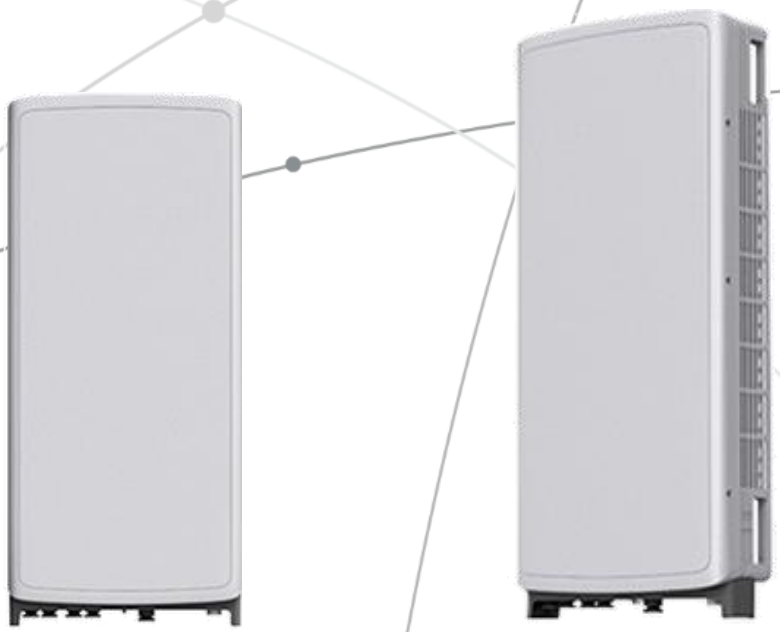
SAMSUNG

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..

Model Code : MT6407-77A

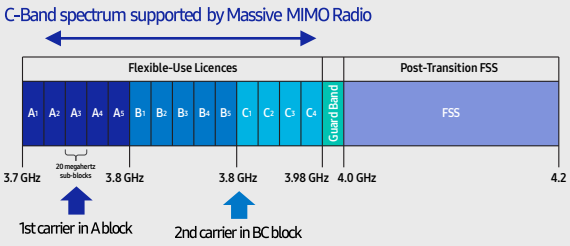


Points of Differentiation

Wide Bandwidth

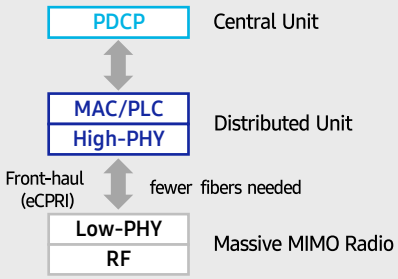
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks



Future Proof Product

Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface.
It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



Enhanced Performance

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

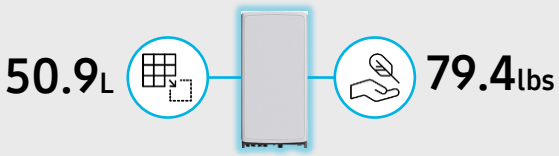
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

Furthermore, as C-Band massive MIMO Radio supports MU-MIMO(Multi-user MIMO) , it enables to increase user throughput by minimizing interference.

Well Matched Design

Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment..



Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/ Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs

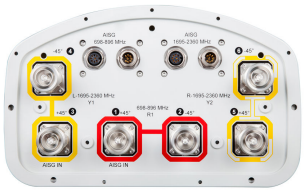
SAMSUNG

About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.

129 Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, Korea

NHH-65B-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Effective Projective Area (EPA), frontal	0.26 m^2 | 2.799 ft^2
Effective Projective Area (EPA), lateral	0.22 m^2 | 2.368 ft^2
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information, General

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male

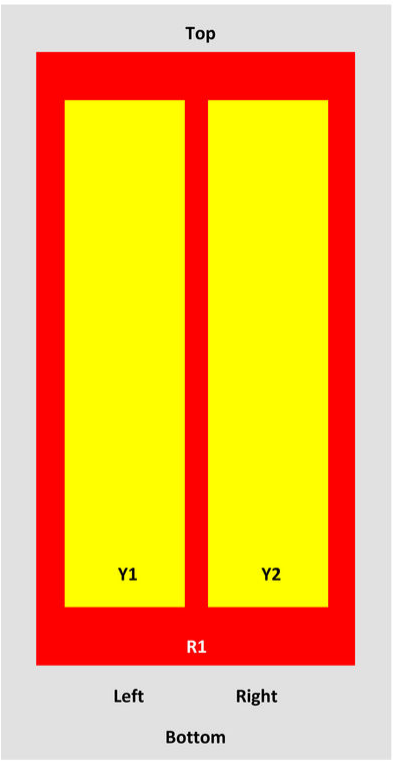
Dimensions

Width	301 mm | 11.85 in
Length	1828 mm | 71.969 in
Depth	180 mm | 7.087 in

Array Layout

NHH-65B-R2B

NHH



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxx1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxxx2
Y2	1695-2360	5-6		

View from the front of the antenna

(Sizes of colored boxes are not true depictions of array sizes)

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz
Total Input Power, maximum	900 W @ 50 °C

Remote Electrical Tilt (RET) Information, Electrical

Protocol	3GPP/AISG 2.0 (Single RET)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3
Internal RET	High band (1) | Low band (1)

NHH-65B-R2B

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	14.9	15	17.7	17.9	18.4	18.7
Beamwidth, Horizontal, degrees	65	60	71	69	64	57
Beamwidth, Vertical, degrees	12.4	11.2	5.7	5.2	4.9	4.6
Beam Tilt, degrees	0–14	0–14	0–7	0–7	0–7	0–7
USLS (First Lobe), dB	13	14	18	18	19	18
Front-to-Back Ratio at 180°, dB	30	29	31	30	29	31
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50° C, maximum, watts	300	300	300	300	300	300

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	14.5	14.5	17.3	17.7	18.1	18.5
Gain by all Beam Tilts Tolerance, dB	±0.6	±1.1	±0.4	±0.4	±0.5	±0.3
Gain by Beam Tilt, average, dBi	0 ° | 14.4 7 ° | 14.6 14 ° | 14.3	0 ° | 14.7 7 ° | 14.7 14 ° | 14.1	0 ° | 17.2 4 ° | 17.3 7 ° | 17.3	0 ° | 17.6 4 ° | 17.7 7 ° | 17.7	0 ° | 18.0 4 ° | 18.2 7 ° | 18.1	0 ° | 18.3 4 ° | 18.5 7 ° | 18.6
Beamwidth, Horizontal Tolerance, degrees	±2	±2.1	±3	±4.1	±6.5	±2.9
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.7	±0.3	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	13	14	16	16	17	15
Front-to-Back Total Power at 180° ± 30°, dB	23	22	27	27	25	25
CPR at Boresight, dB	22	21	23	23	22	19
CPR at Sector, dB	10	7	16	13	11	4

Material Specifications

Radiator Material	Low loss circuit board

NHH-65B-R2B

Reflector Material	Aluminum

Mechanical Specifications

Wind Loading at Velocity, frontal	278.0 N @ 150 km/h | 63.6 lbf @ 150 km/h
Wind Loading at Velocity, lateral	230.0 N @ 150 km/h | 51.7 lbf @ 150 km/h
Wind Loading at Velocity, maximum	120.7 lbf @ 150 km/h | 537.0 N @ 150 km/h
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	409 mm | 16.102 in
Depth, packed	299 mm | 11.772 in
Length, packed	1952 mm | 76.85 in
Net Weight, without mounting kit	19.8 kg | 43.651 lb
Weight, gross	32.3 kg | 71.209 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

Included Products

BSAMNT-3 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

SAMSUNG

Dual-Band Radio Unit
AWS/PCS (B66/B2)
RFV01U-D1A

Samsung's RFV01U-D1A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D1A RU targets dual-band support across Band 66 (AWS) and Band 2 (PCS), making it an ideal product for broad coverage footprints across multiple common mid-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation
- Built-in Broadcast Auxiliary Services (BAS) filter ensures compliant AWS operation without impacting footprint

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
    B66: DL(2,110-2,180MHz)/UL(1,710-1,780MHz)
    B2: DL(1,930-1,990MHz)/UL(1,850-1,910MHz)
Instantaneous Bandwidth:
    70MHz(B66) + 60MHz(B2)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 255mm (36.8L)
Weight: 38.3kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

SAMSUNG

Dual-Band Radio Unit
700/850MHz (B13/B5)
RFV01U-D2A

Samsung's RFV01U-D2A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D2A RU targets dual-band support across Band 13 (700MHz) and Band 5 (850MHz), making it an ideal product for broad coverage footprints across multiple common low-end, long-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
B13: DL(746-756MHz)/UL(777-787MHz)
B5: DL(869-894MHz)/UL(824-849MHz)
Instantaneous Bandwidth: 10MHz(B13) + 25MHz(B5)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 207mm (29.9L)
Weight: 31.9kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

ATTACHMENT 3

	General	Power	Density					
Site Name: Glastonbury W								
Tower Height: Verizon @ 80ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*T-Mobile	1	6444	93	2500	0.3062	1.0000	3.06%	
*T-Mobile	1	6444	93	2500	0.3062	1.0000	3.06%	
*T-Mobile	2	592	93	600	0.0563	0.4000	1.41%	
*T-Mobile	1	1578	93	600	0.0750	0.4000	1.87%	
*T-Mobile	2	649	93	700	0.0617	0.4667	1.32%	
*T-Mobile	2	2204	93	1900	0.2094	1.0000	2.09%	
*T-Mobile	2	1295	93	2100	0.1231	1.0000	1.23%	
*T-Mobile	4	1028	93	1900	0.1954	1.0000	1.95%	
*T-Mobile	2	2057	93	1900	0.1955	1.0000	1.95%	
*T-Mobile	2	2308	93	2100	0.2193	1.0000	2.19%	
*MetroPCS CDMA	3	727	100	2135	0.0888	1.0000	0.89%	
*MetroPCS LTE	1	1200	100	2130	0.0488	1.0000	0.49%	
*Clearwire	2	153	128	2496	0.0074	1.0000	0.07%	
*Clearwire	1	211	124	18 GHz	0.0054	1.0000	0.05%	
*Nextel	9	100	128	851	0.0217	0.5673	0.38%	
*AT&T-UMTS	2	400	110	850	0.0266	0.5667	0.47%	
*AT&T-UMTS	4	1194	110	1900	0.1588	1.0000	1.59%	
*AT&T-UMTS	4	1194	110	1900	0.1588	1.0000	1.59%	
*AT&T-UMTS	4	1194	110	1900	0.1588	1.0000	1.59%	
*AT&T-PCS-UMTS	4	1236	110	2300	0.1644	1.0000	1.64%	
*AT&T-GSM	2	736	110	700	0.0489	0.4667	1.05%	
*AT&T-PCS-LTE	2	885	110	850	0.0589	0.5667	1.04%	
*AT&T-LTE	4	1181	110	2100	0.1571	1.0000	1.57%	
VZW 700	**4**	**685**	**80**	**0.0154**	**751**	**0.5007**	**3.08%**	
VZW Cellular	**4**	**690**	**80**	**0.0155**	**874**	**0.5827**	**2.66%**	
VZW PCS	**4**	**1469**	**80**	**0.0330**	**1975**	**1.0000**	**3.30%**	
VZW AWS	**4**	**1652**	**80**	**0.0371**	**2120**	**1.0000**	**3.71%**	
VZW CBAND	**4**	**6531**	**80**	**0.1468**	**3730.005**	**1.0000**	**14.68%**	
								58.42%
* Source: Siting Council								

ATTACHMENT 4

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 130 ft Nudd Corporation Self Supporting Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT46126-A

Customer Site Name: Glastonbury-main St.

Carrier Name: Verizon (App#: 150210, v1)

Carrier Site ID / Name: 468258 / Glastonbury West CT

Site Location: 2577 Main Street

Glastonbury, Connecticut

Hartford County

Latitude: 41.714389

Longitude: -72.613028

Analysis Result:

Max Structural Usage: 99.8% [Pass]

Max Foundation Usage: 80% [Pass]

Additional Usage Caused by New Mount/Mount Modification: +2%

Report Prepared By: Ram Kodali

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

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Customer Site Name: Glastonbury-main St.

Carrier Name: Verizon (App#: 150210, v1)

Carrier Site ID / Name: 468258 / Glastonbury West CT

Site Location: 2577 Main Street

Glastonbury, Connecticut

Hartford County

Latitude: 41.714389

Longitude: -72.613028

Analysis Result:

Max Structural Usage: 99.8% [Pass]

Max Foundation Usage: 80% [Pass]

Additional Usage Caused by New Mount/Mount Modification: +2%

Report Prepared By: Ram Kodali

Introduction

The purpose of this report is to summarize the analysis results on the 130 ft Nudd Corporation Self Supporting Tower to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Fred A Nudd Corp., Project # 6893B, dated 7/30/02
Foundation Drawing	Fred A Nudd Corp., Dwg # 99-6893-2, dated 9/16/99
Geotechnical Report	Tectonic Engineering Consultants P.C, Project # 1170.C057, dated 8/26/99
Modification Drawings	TowerCo, Job # 090403.05, dated 8/12/09; FDH, Project # 1338401400, dated 6/17/13; FDH, Project # 13SB5C1400, dated 9/10/13
Mount Analysis	Maser Consulting, Job # 20777629A, dated 3/9/21

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2**.** In accordance with this standard, the structure was analyzed using **TESTowers,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 124 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 97 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S_S = 0.18, S_1 = 0.063

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	120.0	3	APXVSPP18-C-A20 - Panel	(3) Sector Frame	(4) 1-1/4" Fiber	Sprint Nextel
2		3	APXVTM14-C-120 - Panel			
3		4	ACU-A20-N RET			
4		3	1900 4X45 65 MHz RRU			
5		3	800 MHz 2X50W RRU			
6		3	TD-RRH8x20-25			
7		3	800 MHz filter			
8	118.5	3	800 MHz filter			
9	110.0	3	Kathrein 800 10121 - Panel	(3) T-Frames	(18) 1 1/4" (2) 1/2" Fiber (4) 3/4" DC (18) 3/8" in (1) 3" Conduit	AT&T
10		2	CCI HPA-65R-BUU-H6 - Panel			
11		1	CCI HPA-65R-BUU-H8 - Panel			
12		2	CCI HPA65R-BU6A - Panel			
13		1	CCI HPA65R-BU8A - Panel			
14		2	Kathrein 800 10965 - Panel			
15		1	Kathrein 800 10966 - Panel			
16		6	Powerwave LGP21401			
17		6	Powerwave LGP21901			
18		12	Kathrein 860 10025			
19		3	Ericsson RRUS-32			
20		3	Ericsson 4449 B5/B12			
21		3	Ericsson RRUS 8843 B2 B66A			
22		2	Raycap DC6-48-60-18-8F			
23		3	Andrew ATSBT-TOP-MF			
24	93.0	3	APXVAARR24_43-U-NA20 - Panel	(3) T-Frames w/ (3)2" x-strong pipe & SitePro1 SFS-V Stabilizer kit	(10) 1 5/8" (1) 1 5/8" Hybrid (2) 1-1/4" Hybrid	T-Mobile
25		3	Ericsson AIR6449 B41 - Panel			
26		3	AIR 32 KRD9011461-B66A - Panel			
27		3	Ericsson KRY 112 144/2			
28		3	Commscope SDX1926Q-43			
29		3	Ericsson 4449 B71+B85			
30		3	Ericsson 4415 B25			
-	80.0	6	Andrew HBXX-6517DS-A2M - Panel	(3) Sector Frame	(2) 1 5/8" Hybrid	Verizon*
-		6	Andrew LNX-6514DS-A1M - Panel			
-		6	ALU RRH2x40-700			
-		3	ALU RRH2x40-AWS			
-		3	ALU RRH2x60-PCS			
-		2	RFS DB-T1-6Z-8AB-0Z			

*Verizon's existing loads are based on the current collocation form.

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
31	80.0	6	Commscope NHH-65B-R2B - Panel	(3) Sector Frame w/ (3) BASMNT-SBS-1-2 & (3) VZWSMART-SFK1 / VZSMART-SFK-3	(2) 1 5/8" Hybrid	Verizon
32		3	Samsung 64T64R - Panel			
33		3	Andrew LNX-6514DS-A1M - Panel			
34		3	B5/B13 RRH-BR04C (RFV01U-D2A)			
35		2	RFS DB-C1-12C-24AB-0Z			
36		3	B2/B66A RRH-BR049 (RFV01U-D1A)			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

Tower Component	Legs	Diagonals	Horizontals
Max. Usage:	**99.8%**	**95.8%**	**34.1%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Compression (Kips)	Uplift (Kips)	Shear (Kips)
Analysis Reactions	408.2	379.7	21.3

The foundation has been investigated using the supplied documents and soils report and was found to be adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity)

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.4398 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.

4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Structure: CT46126-A-SBA

Site Name:	Glastonbury-main St.			**Code:**	EIA/TIA-222-G	5/17/2021
Type:	Self Support	**Base Shape:**	Triangle	**Basic WS:**	97.00	
Height:	130.00 (ft)	**Base Width:**	7.50	**Basic Ice WS:**	50.00	
Base Elev:	0.00 (ft)	**Top Width:**	2.50	**Operational WS:**	60.00	Page: 1

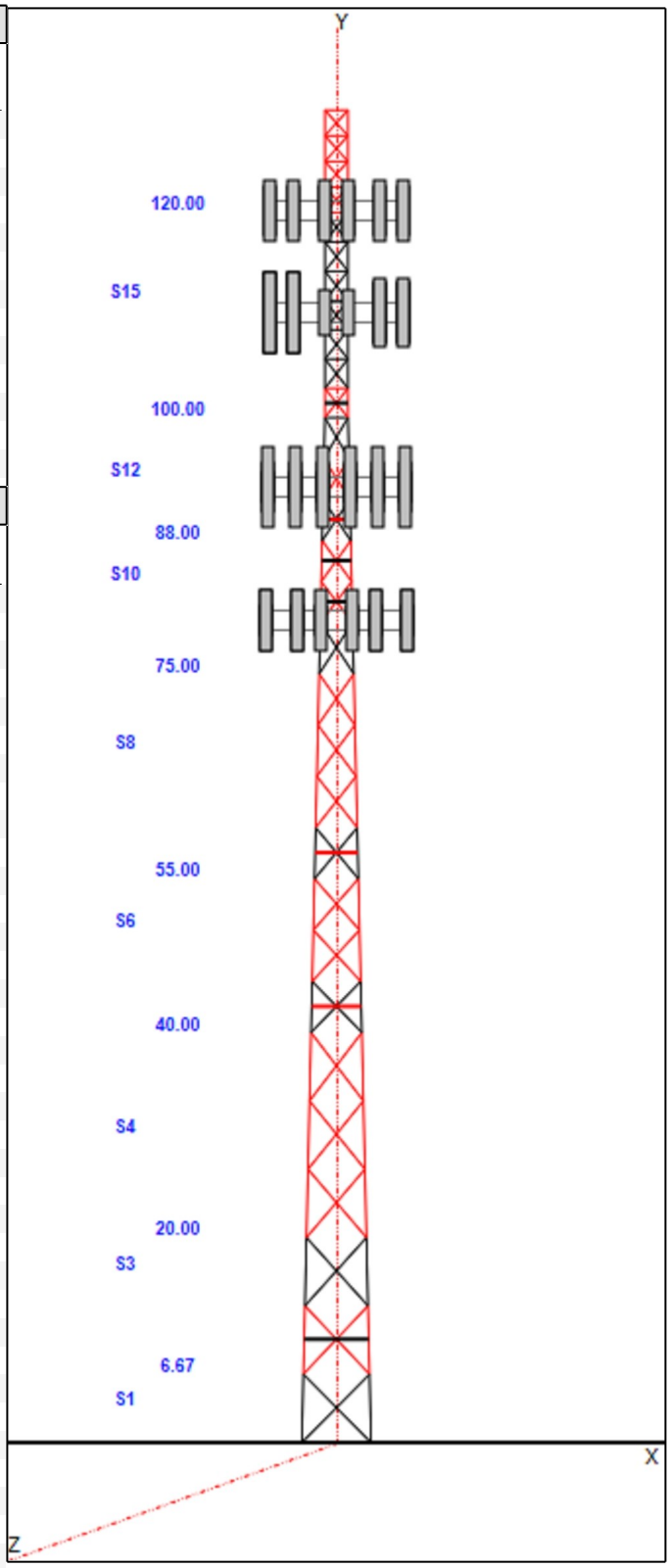
IES Tower Engineering Solutions

Section Properties

Sect	Leg Members	Diagonal Members	Horizontal Members
1	MOD 6PX+7.625x.301_1	DAE 2X2X0.1875	
2-3	PX 6" DIA PIPE	SAE 2X2X0.1875	
4	PX 6" DIA PIPE	DAE 1.75X1.75X.1875	
5	MOD 6PST+7.625x.301_	SAE 2X2X0.25	
6	MOD 6PST+7.625x.301_	DAE 1.5x1.5x.1875	
7-8	PST 6" DIA PIPE	DAE 1.5x1.5x.1875	
9	PST 6" DIA PIPE	SAE 2X2X0.25	
10	MOD 4"PST+5"PX1/2P	DAE 1.5x1.5x.1875	
11	PST 4" DIA PIPE	DAE 1.5x1.5x.1875	
12	PST 4" DIA PIPE	SAE 2X2X0.25	
13	PST 4" DIA PIPE	SAE 1.5X1.5X0.1875	SAE 1.25x1.25x0.1875
14-15	SOL 2" SOLID	SOL 3/4" SOLID	SAE 1.25x1.25x0.1875
16	SOL 1 1/2" SOLID	SOL 3/4" SOLID	SAE 1.25x1.25x0.1875

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description
130.00	130.00	1	Beacon
120.00	120.00	3	APXVSPP18-C-A20
120.00	120.00	3	APXVTM14-C-120
120.00	120.00	4	ACU-A20-N RET
120.00	120.00	3	1900 4X45 65 MHz RRU
120.00	120.00	3	800 MHz 2X50W RRU
120.00	120.00	3	TD-RRH8x20-25
120.00	120.00	3	800 MHz filter
120.00	118.50	3	Sector Frame
118.50	118.50	3	800 MHz filter
110.00	108.50	3	T-Frames
110.00	110.00	3	800 10121
110.00	110.00	2	HPA-65R-BUU-H6
110.00	110.00	1	HPA-65R-BUU-H8
110.00	110.00	2	HPA65R-BU6A
110.00	110.00	1	HPA65R-BU8A
110.00	110.00	2	800 10965
110.00	110.00	1	800 10966
110.00	110.00	6	LGP21401
110.00	110.00	6	LGP21901
110.00	110.00	12	860 10025
110.00	110.00	3	RRUS-32
110.00	110.00	3	4449 B5/B12
110.00	110.00	3	8843 B2 B66A
110.00	110.00	2	DC6-48-60-18-8F
110.00	110.00	3	ATSBT-TOP-MF
93.00	93.00	3	SDX1926Q-43
93.00	93.00	3	4415 B25
93.00	91.50	3	T-Frames
93.00	93.00	3	AIR6449 B41
93.00	93.00	3	AIR 32 KRD9011461-B66A
93.00	93.00	3	APXVAARR24_43-U-NA20
93.00	93.00	3	KRY 112 144/2
93.00	93.00	3	4449 B71+B85
93.00	93.00	1	(3) SitePro1 SFS-V
93.00	93.00	1	(3) 2" X-Strong Pipe



80.00	80.00	3	T-Frames
80.00	80.00	6	NHH-65B-R2B
80.00	80.00	3	64T64R
80.00	80.00	3	LNX-6514DS-A1M
80.00	80.00	3	B5/B13 RRH-BR04C (RFV01U-D2A)
80.00	80.00	2	DB-C1-12C-24AB-0Z
80.00	80.00	1	(3) HR w/ V-Brace Kits
80.00	80.00	1	(3) Stabilizer Kit
80.00	80.00	3	BSAMNT-SBS-1-2
80.00	80.00	3	B2/B66A RRH-BR049 (RFV01U-D1A)

Linear Appurtenances

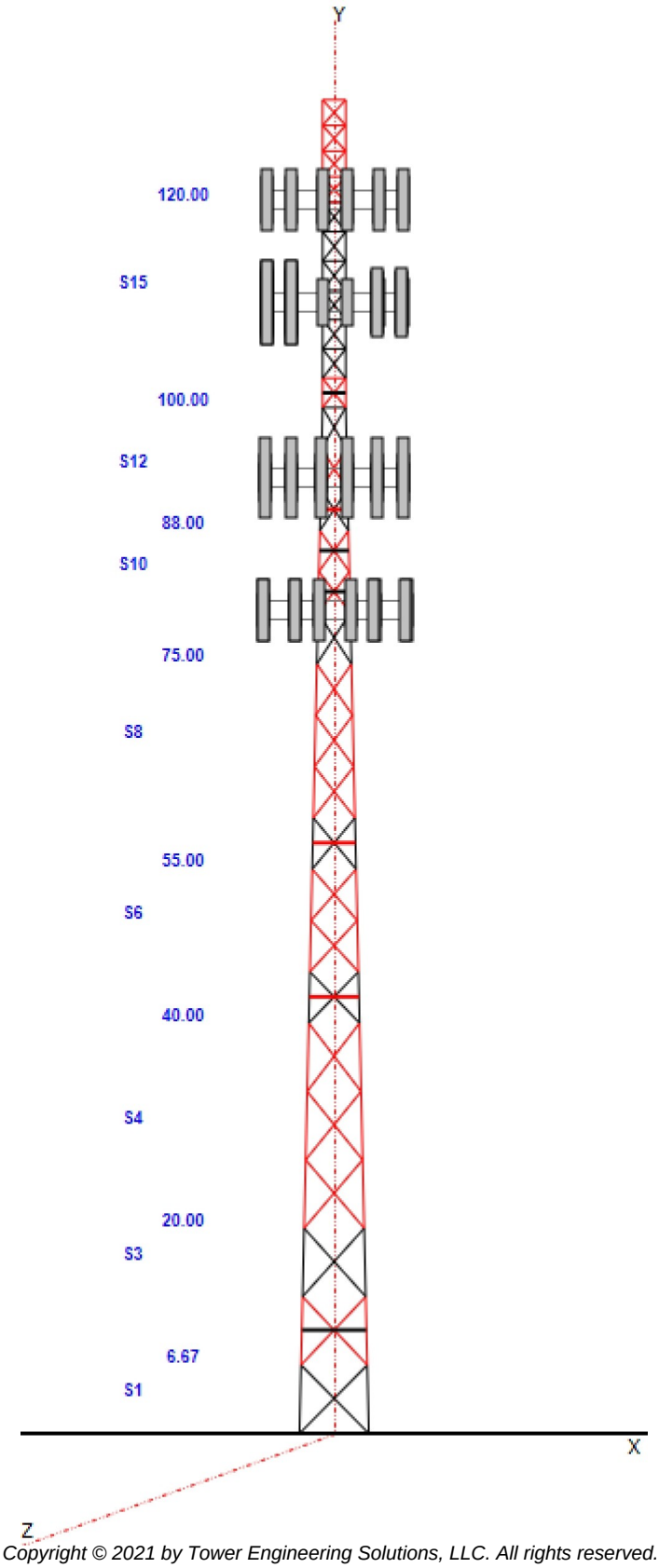
Elev From (ft)	Elev To (ft)	Qty	Description
0.00	130.00	1	Climbing Ladder
0.00	130.00	1	Safety Cable
0.00	130.00	1	W/G Ladder
0.00	130.00	2	W/G Ladder
0.00	120.00	4	1-1/4" Fiber
0.00	110.00	18	1 1/4" Coax
0.00	110.00	2	1/2" Fiber
0.00	110.00	1	3" Conduit
0.00	110.00	4	3/4" DC
0.00	93.00	10	1 5/8" Coax
0.00	93.00	1	1 5/8" Hybrid
0.00	93.00	2	1-1/4" Hybrid
0.00	80.00	2	1 5/8" Hybrid

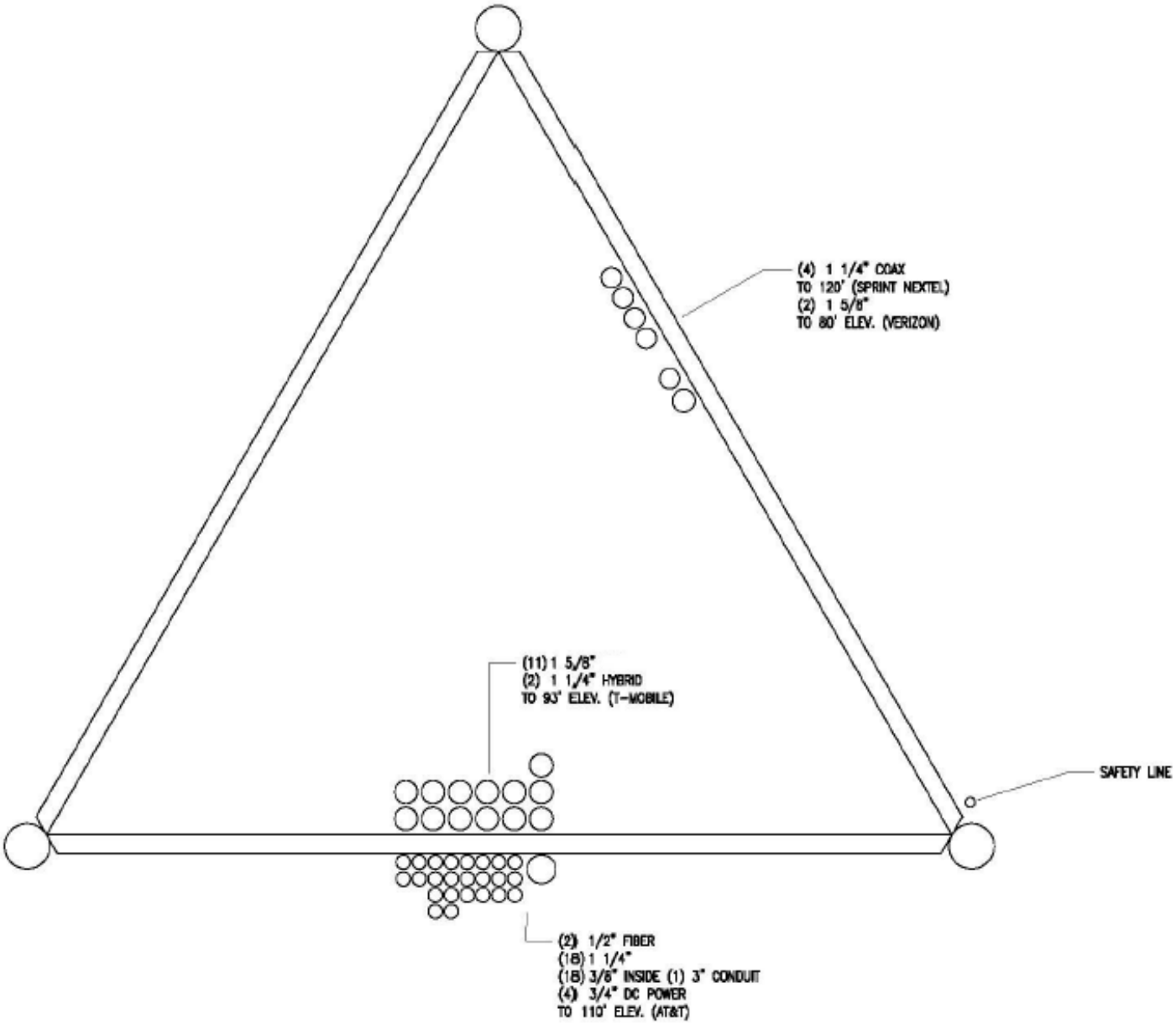
Base Reactions

Leg			Overturning		
Max Uplift:	-379.74	(kips	Moment:	2569.85	(ft-kips)
Max Down:	408.21	(kips	Total Down:	37.66	(kips)
Max Shear:	21.32	(kips	Total Shear:	31.60	(kips)

Structure: CT46126-A-SBA

Site Name:	Glastonbury-main St.			**Code:**	EIA/TIA-222-G	5/17/2021
Type:	Self Support	**Base Shape:**	Triangle	**Basic WS:**	97.00	
Height:	130.00 (ft)	**Base Width:**	7.50	**Basic Ice WS:**	50.00	
Base Elev:	0.00 (ft)	**Top Width:**	2.50	**Operational WS:**	60.00	Page: 3





Loading Summary

Structure:	CT46126-A-SBA		**Code:**	EIA/TIA-222-G	5/17/2021
Site Name:	Glastonbury-main St.		**Exposure:**	C	
Height:	130.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	0.85	**Topography:** 1	**Struct Class:**	II	Page: 5

Tower Engineering Solutions

Discrete Appurtenances Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	Ice Weight (lb)	Ice CaAa (sf)	Len (in)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
130.00	Beacon	1	36.00	2.720	210.38	3.963	28.000	17.500	17.500	1.00	1.00	0.000
120.00	APXVSPP18-C-A20	3	57.00	8.020	330.31	9.728	72.000	11.800	7.000	0.80	0.83	0.000
120.00	APXVTM14-C-120	3	56.00	6.340	276.13	7.808	56.300	12.600	6.300	0.80	0.79	0.000
120.00	ACU-A20-N RET	4	1.00	0.140	6.56	0.524	4.000	2.000	3.500	0.80	0.67	0.000
120.00	1900 4X45 65 MHz RRU	3	60.00	2.710	164.52	4.346	25.100	11.100	10.700	0.80	0.67	0.000
120.00	800 MHz 2X50W RRU	3	64.00	2.400	163.92	3.849	19.000	13.000	12.200	0.80	0.67	0.000
120.00	TD-RRH8x20-25	3	70.00	4.050	221.90	5.126	26.100	18.600	6.700	0.80	0.67	0.000
120.00	800 MHz filter	3	68.30	3.460	185.36	5.161	19.200	18.500	10.400	0.80	0.67	0.000
120.00	Sector Frame	3	450.00	14.000	905.37	23.108	0.000	0.000	0.000	0.75	0.75	-1.500
118.50	800 MHz filter	3	68.30	3.460	185.36	5.161	19.200	18.500	10.400	0.80	0.67	0.000
110.00	T-Frames	3	450.00	14.000	905.37	23.108	0.000	0.000	0.000	0.75	0.75	-1.500
110.00	800 10121	3	46.30	5.150	234.21	6.529	54.500	10.300	5.900	0.80	0.79	0.000
110.00	HPA-65R-BUU-H6	2	51.00	9.660	387.73	11.459	72.000	14.800	9.000	0.80	0.85	0.000
110.00	HPA-65R-BUU-H8	1	68.00	12.980	463.13	15.108	92.400	14.800	7.400	0.80	0.79	0.000
110.00	HPA65R-BU6A	2	43.00	7.860	330.28	9.552	71.200	11.700	8.400	0.80	0.88	0.000
110.00	HPA65R-BU8A	1	54.00	11.230	417.52	13.396	96.000	11.700	7.600	0.80	0.86	0.000
110.00	800 10965	2	108.60	13.810	511.58	15.882	78.700	20.000	6.900	0.80	0.71	0.000
110.00	800 10966	1	125.70	17.360	608.25	19.729	96.000	20.000	6.900	0.80	0.72	0.000
110.00	LGP21401	6	14.10	1.290	46.46	2.372	14.400	9.200	2.600	0.80	0.67	0.000
110.00	LGP21901	6	5.50	0.230	15.45	0.706	4.000	6.000	3.000	0.80	0.67	0.000
110.00	860 10025	12	1.20	0.180	8.96	0.670	7.600	2.400	2.000	0.80	0.67	0.000
110.00	RRUS-32	3	77.00	3.870	233.15	4.362	29.900	13.300	9.500	0.80	0.75	0.000
110.00	4449 B5/B12	3	71.00	1.970	140.09	2.678	17.900	13.200	9.400	0.80	0.67	0.000
110.00	8843 B2 B66A	3	72.00	1.640	132.63	2.283	14.900	13.200	10.900	0.80	0.67	0.000
110.00	DC6-48-60-18-8F	2	31.80	0.920	111.82	1.487	24.000	11.000	11.000	0.90	0.90	0.000
110.00	ATSBT-TOP-MF	3	1.80	0.200	9.36	0.649	5.600	3.700	2.000	0.80	0.67	0.000
93.00	SDX1926Q-43	3	6.10	0.300	26.34	0.567	6.900	4.100	2.900	0.80	0.67	0.000
93.00	4415 B25	3	46.00	1.640	98.08	2.293	15.000	13.200	5.400	0.80	0.67	0.000
93.00	T-Frames	3	450.00	14.000	895.75	22.915	0.000	0.000	0.000	0.75	0.75	-1.500
93.00	AIR6449 B41	3	103.00	5.650	276.72	6.854	33.100	20.500	8.300	0.80	0.71	0.000
93.00	AIR 32 KRD9011461-B66A	3	132.20	6.510	375.85	7.956	56.600	12.900	8.700	0.80	0.87	0.000
93.00	APXVAARR24_43-U-NA20	3	128.00	20.240	675.60	22.671	95.900	24.000	7.800	0.80	0.70	0.000
93.00	KRY 112 144/2	3	11.00	0.410	24.66	1.012	6.900	6.100	2.700	0.80	0.67	0.000
93.00	4449 B71+B85	3	74.00	1.650	166.53	2.351	15.000	13.200	9.300	0.80	0.67	0.000
93.00	(3) SitePro1 SFS-V	1	140.00	3.700	362.88	8.609	0.000	0.000	0.000	0.75	1.00	0.000
93.00	(3) 2" X-Strong Pipe	1	650.00	15.500	1684.78	36.063	0.000	0.000	0.000	0.75	1.00	0.000
80.00	T-Frames	3	500.00	17.500	1371.30	34.883	0.000	0.000	0.000	0.75	0.75	0.000
80.00	NHH-65B-R2B	6	43.70	8.080	307.42	9.720	72.000	11.900	7.100	0.80	0.83	0.000
80.00	64T64R	3	87.10	4.700	244.09	5.876	35.120	16.060	5.510	0.80	0.70	0.000
80.00	LNX-6514DS-A1M	3	38.80	8.090	302.52	9.720	72.000	11.900	7.100	0.80	0.80	0.000
80.00	B5/B13 RRH-BR04C (RFV01U-D2A)	3	70.30	1.870	162.49	2.603	15.000	15.000	8.100	0.80	0.67	0.000
80.00	DB-C1-12C-24AB-0Z	2	32.00	4.060	174.20	5.086	29.500	16.500	12.500	0.90	0.90	0.000
80.00	(3) HR w/ V-Brace Kits	1	650.00	15.500	1669.42	35.758	0.000	0.000	0.000	0.75	1.00	0.000
80.00	(3) Stabilizer Kit	1	180.00	6.100	462.30	14.072	0.000	0.000	0.000	0.75	1.00	0.000
80.00	BSAMNT-SBS-1-2	3	25.35	0.100	47.44	0.187	0.000	0.000	0.000	0.75	0.75	0.000
80.00	B2/B66A RRH-BR049	3	84.40	1.870	185.80	2.603	15.000	15.000	10.000	0.80	0.67	0.000
	Totals:	**136**	**12,938.55**		**38,082.20**						**Number of Appurtenances :**	**46**

Linear Appurtenances Properties

Elev. From (ft)	Elev. To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	130.00	Climbing Ladder	1	1.50	6.90	100.00	2	Individual NR		N	1.00	1.00	
0.00	130.00	Safety Cable	1	0.38	0.27	100.00	2	Individual NR		N	1.00	1.00	
0.00	130.00	W/G Ladder	1	2.00	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	130.00	W/G Ladder	2	2.00	6.00	100.00	2,3	Individual NR		N	1.00	1.00	
0.00	120.00	1-1/4" Fiber	4	1.25	0.95	100.00	2	Individual IR		N	1.00	1.00	
0.00	110.00	1 1/4" Coax	18	1.55	0.66	33.30	1	Block		N	0.50	1.00	
0.00	110.00	1/2" Fiber	2	0.50	0.16	50.00	1	Block		N	1.00	1.00	0
0.00	110.00	3" Conduit	1	3.00	1.78	100.00	1	Individual NR		N	1.00	1.00	
0.00	110.00	3/4" DC	4	0.75	0.40	50.00	1	Block		N	0.50	1.00	
0.00	93.00	1 5/8" Coax	10	1.98	1.04	100.00	1	Block		N	0.50	1.00	0
0.00	93.00	1 5/8" Hybrid	1	2.00	1.10	100.00	1	Individual NR		N	1.00	1.00	
0.00	93.00	1-1/4" Hybrid	2	1.25	0.95	50.00	1	Block		N	0.50	1.00	0
0.00	80.00	1 5/8" Hybrid	2	2.00	1.10	100.00	2	Individual IR		N	1.00	1.00	

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 7	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W Normal Wind — 1.2D + 1.6W 97 mph Wind at Normal To Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	1.00	1.00	0.00	7.19	31.79	0.00	1,787.6	0.0	431.82	421.23	853.05
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	1.00	1.00	0.00	7.99	31.79	0.00	1,402.2	0.0	473.13	421.17	894.30
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	1.00	1.00	0.00	6.70	31.79	0.00	1,317.9	0.0	412.81	430.11	842.92
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	1.00	1.00	0.00	18.43	95.38	0.00	4,278.2	0.0	1268.12	1460.23	2,728.36
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	1.00	1.00	0.00	6.97	23.84	0.00	1,193.2	0.0	454.61	392.83	847.44
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	1.00	1.00	0.00	9.53	47.69	0.00	2,179.8	0.0	680.35	813.01	1,493.37
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	1.00	1.00	0.00	5.25	23.84	0.00	895.3	0.0	377.01	418.64	795.66
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	1.00	1.00	0.00	13.16	71.53	0.00	2,578.0	0.0	980.55	1299.05	2,279.61
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	1.00	1.00	0.00	4.96	23.84	0.00	833.1	0.0	357.80	445.80	803.60
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	1.00	1.00	0.00	7.26	35.48	0.00	1,457.2	0.0	543.66	660.25	1,203.91
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	1.00	1.00	0.00	3.44	17.74	0.00	572.0	0.0	258.59	334.95	593.55
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	1.00	1.00	0.00	3.30	11.98	0.00	488.5	0.0	247.94	323.28	571.22
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	1.00	1.00	0.00	3.13	10.06	0.00	435.4	0.0	235.02	321.17	556.19
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	1.00	1.00	0.00	1.50	7.18	0.00	325.5	0.0	126.35	231.06	357.41
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	1.00	1.00	0.00	6.40	28.69	0.00	1,677.0	0.0	586.82	975.91	1,562.73
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	1.00	1.00	0.00	3.69	6.56	0.00	715.4	0.0	350.61	285.33	635.94
														22,136.2	**0.0**			**17,019.24**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 8	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 60° Wind — 1.2D + 1.6W 97 mph Wind at 60° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.80	1.00	0.00	6.57	31.79	0.00	1,787.6	0.0	394.68	421.23	815.91
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.80	1.00	0.00	7.16	31.79	0.00	1,402.2	0.0	423.54	421.17	844.70
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.80	1.00	0.00	6.11	31.79	0.00	1,317.9	0.0	376.36	430.11	806.47
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.80	1.00	0.00	16.96	95.38	0.00	4,278.2	0.0	1166.76	1460.23	2,626.99
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.80	1.00	0.00	6.25	23.84	0.00	1,193.2	0.0	407.74	392.83	800.57
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.80	1.00	0.00	8.89	47.69	0.00	2,179.8	0.0	634.42	813.01	1,447.44
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.80	1.00	0.00	4.79	23.84	0.00	895.3	0.0	343.65	418.64	762.30
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.80	1.00	0.00	12.27	71.53	0.00	2,578.0	0.0	914.24	1299.05	2,213.29
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.80	1.00	0.00	4.58	23.84	0.00	833.1	0.0	330.73	445.80	776.53
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.80	1.00	0.00	6.57	35.48	0.00	1,457.2	0.0	491.70	660.25	1,151.95
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.80	1.00	0.00	3.10	17.74	0.00	572.0	0.0	233.72	334.95	568.68
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.80	1.00	0.00	3.00	11.98	0.00	488.5	0.0	225.35	323.28	548.63
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.80	1.00	0.00	2.86	10.06	0.00	435.4	0.0	215.17	321.17	536.34
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.80	1.00	0.00	1.37	7.18	0.00	325.5	0.0	115.24	231.06	346.31
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.80	1.00	0.00	6.11	28.69	0.00	1,677.0	0.0	560.09	975.91	1,536.00
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.80	1.00	0.00	3.44	6.56	0.00	715.4	0.0	327.18	285.33	612.51
														22,136.2	**0.0**			**16,394.63**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 9	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 90° Wind — 1.2D + 1.6W 97 mph Wind at 90° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.85	1.00	0.00	6.73	31.79	0.00	1,787.6	0.0	403.96	421.23	825.19
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.85	1.00	0.00	7.37	31.79	0.00	1,402.2	0.0	435.94	421.17	857.10
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.85	1.00	0.00	6.26	31.79	0.00	1,317.9	0.0	385.47	430.11	815.58
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.85	1.00	0.00	17.33	95.38	0.00	4,278.2	0.0	1192.10	1460.23	2,652.34
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.85	1.00	0.00	6.43	23.84	0.00	1,193.2	0.0	419.46	392.83	812.29
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.85	1.00	0.00	9.05	47.69	0.00	2,179.8	0.0	645.91	813.01	1,458.92
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.85	1.00	0.00	4.91	23.84	0.00	895.3	0.0	351.99	418.64	770.64
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.85	1.00	0.00	12.49	71.53	0.00	2,578.0	0.0	930.82	1299.05	2,229.87
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.85	1.00	0.00	4.67	23.84	0.00	833.1	0.0	337.50	445.80	783.30
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.85	1.00	0.00	6.74	35.48	0.00	1,457.2	0.0	504.69	660.25	1,164.94
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.85	1.00	0.00	3.19	17.74	0.00	572.0	0.0	239.94	334.95	574.90
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.85	1.00	0.00	3.07	11.98	0.00	488.5	0.0	230.99	323.28	554.28
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.85	1.00	0.00	2.93	10.06	0.00	435.4	0.0	220.13	321.17	541.30
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.85	1.00	0.00	1.40	7.18	0.00	325.5	0.0	118.02	231.06	349.08
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.85	1.00	0.00	6.18	28.69	0.00	1,677.0	0.0	566.77	975.91	1,542.69
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.85	1.00	0.00	3.50	6.56	0.00	715.4	0.0	333.04	285.33	618.37
														22,136.2	**0.0**			**16,550.78**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 10	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W Normal Wind — 0.9D + 1.6W 97 mph Wind at Normal To Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	1.00	1.00	0.00	7.19	31.79	0.00	1,340.7	0.0	431.82	421.23	853.05
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	1.00	1.00	0.00	7.99	31.79	0.00	1,051.7	0.0	473.13	421.17	894.30
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	1.00	1.00	0.00	6.70	31.79	0.00	988.4	0.0	412.81	430.11	842.92
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	1.00	1.00	0.00	18.43	95.38	0.00	3,208.7	0.0	1268.12	1460.23	2,728.36
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	1.00	1.00	0.00	6.97	23.84	0.00	894.9	0.0	454.61	392.83	847.44
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	1.00	1.00	0.00	9.53	47.69	0.00	1,634.9	0.0	680.35	813.01	1,493.37
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	1.00	1.00	0.00	5.25	23.84	0.00	671.5	0.0	377.01	418.64	795.66
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	1.00	1.00	0.00	13.16	71.53	0.00	1,933.5	0.0	980.55	1299.05	2,279.61
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	1.00	1.00	0.00	4.96	23.84	0.00	624.8	0.0	357.80	445.80	803.60
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	1.00	1.00	0.00	7.26	35.48	0.00	1,092.9	0.0	543.66	660.25	1,203.91
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	1.00	1.00	0.00	3.44	17.74	0.00	429.0	0.0	258.59	334.95	593.55
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	1.00	1.00	0.00	3.30	11.98	0.00	366.4	0.0	247.94	323.28	571.22
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	1.00	1.00	0.00	3.13	10.06	0.00	326.6	0.0	235.02	321.17	556.19
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	1.00	1.00	0.00	1.50	7.18	0.00	244.1	0.0	126.35	231.06	357.41
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	1.00	1.00	0.00	6.40	28.69	0.00	1,257.7	0.0	586.82	975.91	1,562.73
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	1.00	1.00	0.00	3.69	6.56	0.00	536.5	0.0	350.61	285.33	635.94
														16,602.2	**0.0**			**17,019.24**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 11	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 60° Wind — 0.9D + 1.6W 97 mph Wind at 60° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.80	1.00	0.00	6.57	31.79	0.00	1,340.7	0.0	394.68	421.23	815.91
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.80	1.00	0.00	7.16	31.79	0.00	1,051.7	0.0	423.54	421.17	844.70
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.80	1.00	0.00	6.11	31.79	0.00	988.4	0.0	376.36	430.11	806.47
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.80	1.00	0.00	16.96	95.38	0.00	3,208.7	0.0	1166.76	1460.23	2,626.99
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.80	1.00	0.00	6.25	23.84	0.00	894.9	0.0	407.74	392.83	800.57
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.80	1.00	0.00	8.89	47.69	0.00	1,634.9	0.0	634.42	813.01	1,447.44
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.80	1.00	0.00	4.79	23.84	0.00	671.5	0.0	343.65	418.64	762.30
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.80	1.00	0.00	12.27	71.53	0.00	1,933.5	0.0	914.24	1299.05	2,213.29
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.80	1.00	0.00	4.58	23.84	0.00	624.8	0.0	330.73	445.80	776.53
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.80	1.00	0.00	6.57	35.48	0.00	1,092.9	0.0	491.70	660.25	1,151.95
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.80	1.00	0.00	3.10	17.74	0.00	429.0	0.0	233.72	334.95	568.68
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.80	1.00	0.00	3.00	11.98	0.00	366.4	0.0	225.35	323.28	548.63
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.80	1.00	0.00	2.86	10.06	0.00	326.6	0.0	215.17	321.17	536.34
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.80	1.00	0.00	1.37	7.18	0.00	244.1	0.0	115.24	231.06	346.31
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.80	1.00	0.00	6.11	28.69	0.00	1,257.7	0.0	560.09	975.91	1,536.00
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.80	1.00	0.00	3.44	6.56	0.00	536.5	0.0	327.18	285.33	612.51
														16,602.2	**0.0**			**16,394.63**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 12	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 90° Wind — 0.9D + 1.6W 97 mph Wind at 90° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.85	1.00	0.00	6.73	31.79	0.00	1,340.7	0.0	403.96	421.23	825.19
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.85	1.00	0.00	7.37	31.79	0.00	1,051.7	0.0	435.94	421.17	857.10
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.85	1.00	0.00	6.26	31.79	0.00	988.4	0.0	385.47	430.11	815.58
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.85	1.00	0.00	17.33	95.38	0.00	3,208.7	0.0	1192.10	1460.23	2,652.34
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.85	1.00	0.00	6.43	23.84	0.00	894.9	0.0	419.46	392.83	812.29
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.85	1.00	0.00	9.05	47.69	0.00	1,634.9	0.0	645.91	813.01	1,458.92
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.85	1.00	0.00	4.91	23.84	0.00	671.5	0.0	351.99	418.64	770.64
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.85	1.00	0.00	12.49	71.53	0.00	1,933.5	0.0	930.82	1299.05	2,229.87
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.85	1.00	0.00	4.67	23.84	0.00	624.8	0.0	337.50	445.80	783.30
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.85	1.00	0.00	6.74	35.48	0.00	1,092.9	0.0	504.69	660.25	1,164.94
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.85	1.00	0.00	3.19	17.74	0.00	429.0	0.0	239.94	334.95	574.90
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.85	1.00	0.00	3.07	11.98	0.00	366.4	0.0	230.99	323.28	554.28
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.85	1.00	0.00	2.93	10.06	0.00	326.6	0.0	220.13	321.17	541.30
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.85	1.00	0.00	1.40	7.18	0.00	244.1	0.0	118.02	231.06	349.08
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.85	1.00	0.00	6.18	28.69	0.00	1,257.7	0.0	566.77	975.91	1,542.69
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.85	1.00	0.00	3.50	6.56	0.00	536.5	0.0	333.04	285.33	618.37
														16,602.2	**0.0**			**16,550.78**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 13	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi Normal Wind — 1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00
Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	4.62	3.092	17.27	8.79	0.37	2.12	1.00	1.00	1.59	13.87	54.19	5.30	4,001.3	2213.8	115.80	148.09	263.89
2	10.0	4.62	4.190	17.03	9.66	0.41	2.05	1.00	1.00	1.77	15.07	56.23	5.92	3,741.2	2338.9	121.57	153.08	274.65
3	16.7	4.72	2.959	17.39	10.02	0.41	2.05	1.00	1.00	1.87	14.06	57.27	6.23	3,619.3	2301.5	115.90	160.27	276.17
4	30.0	5.34	7.367	53.08	30.99	0.44	1.99	1.00	1.00	1.98	42.08	175.58	19.81	12,438.	8160.3	380.69	528.47	909.16
5	42.5	5.75	3.592	14.80	8.44	0.58	1.82	1.00	1.00	2.05	14.40	44.48	5.13	3,395.3	2202.1	128.02	108.90	236.92
6	50.0	5.95	3.218	29.50	16.78	0.55	1.85	1.00	1.00	2.08	24.20	89.52	10.42	6,577.1	4397.3	226.01	244.45	470.46
7	57.5	6.13	2.325	13.85	8.33	0.58	1.81	1.00	1.00	2.11	12.49	45.00	5.29	3,213.0	2317.7	118.06	116.20	234.26
8	67.5	6.34	4.449	41.25	24.68	0.61	1.80	1.00	1.00	2.15	35.26	135.87	16.11	9,166.9	6588.9	342.10	346.21	688.31
9	77.5	6.53	1.875	13.64	8.12	0.68	1.78	1.00	1.00	2.18	12.78	45.54	5.45	2,874.2	2041.1	125.87	96.18	222.05
10	84.0	6.64	3.471	19.95	13.45	0.72	1.78	1.00	1.00	2.20	19.93	66.83	8.78	5,004.1	3547.0	199.91	124.87	324.79
11	90.0	6.73	1.652	9.64	6.63	0.75	1.79	1.00	1.00	2.21	9.85	33.51	4.42	2,323.2	1751.1	100.83	55.85	156.67
12	94.0	6.80	1.503	9.58	6.58	0.78	1.80	1.00	1.00	2.22	9.85	24.46	3.33	1,747.8	1259.3	102.58	47.10	149.68
13	98.0	6.86	1.320	10.45	7.45	0.88	1.90	1.00	1.00	2.23	11.24	21.46	2.97	1,620.3	1184.9	124.15	25.75	149.90
14	101.4	6.91	0.660	7.29	5.90	0.92	1.95	1.00	1.00	2.24	7.82	15.36	2.13	1,215.9	890.4	89.37	13.08	102.44
15	111.4	7.04	1.458	44.14	35.71	0.87	1.89	1.00	1.00	2.26	43.27	66.86	9.14	5,752.6	4075.7	489.45	91.56	581.01
16	125.0	7.22	1.233	27.35	23.15	0.95	2.01	1.00	1.00	2.28	28.87	17.99	3.81	2,608.9	1893.5	355.09	12.13	367.22
														69,299.7	**47163.5**			**5,407.58**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 14	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 60° Wind — 1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00
Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	4.62	3.092	17.27	8.79	0.37	2.12	0.80	1.00	1.59	13.25	54.19	5.30	4,001.3	2213.8	110.64	148.09	258.73
2	10.0	4.62	4.190	17.03	9.66	0.41	2.05	0.80	1.00	1.77	14.23	56.23	5.92	3,741.2	2338.9	114.81	153.08	267.88
3	16.7	4.72	2.959	17.39	10.02	0.41	2.05	0.80	1.00	1.87	13.47	57.27	6.23	3,619.3	2301.5	111.02	160.27	271.29
4	30.0	5.34	7.367	53.08	30.99	0.44	1.99	0.80	1.00	1.98	40.61	175.58	19.81	12,438.	8160.3	367.36	528.47	895.83
5	42.5	5.75	3.592	14.80	8.44	0.58	1.82	0.80	1.00	2.05	13.68	44.48	5.13	3,395.3	2202.1	121.63	108.90	230.54
6	50.0	5.95	3.218	29.50	16.78	0.55	1.85	0.80	1.00	2.08	23.56	89.52	10.42	6,577.1	4397.3	220.00	244.45	464.45
7	57.5	6.13	2.325	13.85	8.33	0.58	1.81	0.80	1.00	2.11	12.03	45.00	5.29	3,213.0	2317.7	113.67	116.20	229.87
8	67.5	6.34	4.449	41.25	24.68	0.61	1.80	0.80	1.00	2.15	34.37	135.87	16.11	9,166.9	6588.9	333.46	346.21	679.67
9	77.5	6.53	1.875	13.64	8.12	0.68	1.78	0.80	1.00	2.18	12.40	45.54	5.45	2,874.2	2041.1	122.17	96.18	218.35
10	84.0	6.64	3.471	19.95	13.45	0.72	1.78	0.80	1.00	2.20	19.23	66.83	8.78	5,004.1	3547.0	192.95	124.87	317.82
11	90.0	6.73	1.652	9.64	6.63	0.75	1.79	0.80	1.00	2.21	9.52	33.51	4.42	2,323.2	1751.1	97.44	55.85	153.29
12	94.0	6.80	1.503	9.58	6.58	0.78	1.80	0.80	1.00	2.22	9.55	24.46	3.33	1,747.8	1259.3	99.45	47.10	146.55
13	98.0	6.86	1.320	10.45	7.45	0.88	1.90	0.80	1.00	2.23	10.97	21.46	2.97	1,620.3	1184.9	121.23	25.75	146.99
14	101.4	6.91	0.660	7.29	5.90	0.92	1.95	0.80	1.00	2.24	7.69	15.36	2.13	1,215.9	890.4	87.86	13.08	100.94
15	111.4	7.04	1.458	44.14	35.71	0.87	1.89	0.80	1.00	2.26	42.97	66.86	9.14	5,752.6	4075.7	486.15	91.56	577.71
16	125.0	7.22	1.233	27.35	23.15	0.95	2.01	0.80	1.00	2.28	28.63	17.99	3.81	2,608.9	1893.5	352.06	12.13	364.19
														69,299.7	**47163.5**			**5,324.09**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 15	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 90° Wind — 1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00
Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	4.62	3.092	17.27	8.79	0.37	2.12	0.85	1.00	1.59	13.40	54.19	5.30	4,001.3	2213.8	111.93	148.09	260.02
2	10.0	4.62	4.190	17.03	9.66	0.41	2.05	0.85	1.00	1.77	14.44	56.23	5.92	3,741.2	2338.9	116.50	153.08	269.57
3	16.7	4.72	2.959	17.39	10.02	0.41	2.05	0.85	1.00	1.87	13.62	57.27	6.23	3,619.3	2301.5	112.24	160.27	272.51
4	30.0	5.34	7.367	53.08	30.99	0.44	1.99	0.85	1.00	1.98	40.98	175.58	19.81	12,438.	8160.3	370.69	528.47	899.16
5	42.5	5.75	3.592	14.80	8.44	0.58	1.82	0.85	1.00	2.05	13.86	44.48	5.13	3,395.3	2202.1	123.23	108.90	232.13
6	50.0	5.95	3.218	29.50	16.78	0.55	1.85	0.85	1.00	2.08	23.72	89.52	10.42	6,577.1	4397.3	221.50	244.45	465.95
7	57.5	6.13	2.325	13.85	8.33	0.58	1.81	0.85	1.00	2.11	12.15	45.00	5.29	3,213.0	2317.7	114.76	116.20	230.96
8	67.5	6.34	4.449	41.25	24.68	0.61	1.80	0.85	1.00	2.15	34.59	135.87	16.11	9,166.9	6588.9	335.62	346.21	681.83
9	77.5	6.53	1.875	13.64	8.12	0.68	1.78	0.85	1.00	2.18	12.50	45.54	5.45	2,874.2	2041.1	123.10	96.18	219.28
10	84.0	6.64	3.471	19.95	13.45	0.72	1.78	0.85	1.00	2.20	19.41	66.83	8.78	5,004.1	3547.0	194.69	124.87	319.56
11	90.0	6.73	1.652	9.64	6.63	0.75	1.79	0.85	1.00	2.21	9.60	33.51	4.42	2,323.2	1751.1	98.29	55.85	154.13
12	94.0	6.80	1.503	9.58	6.58	0.78	1.80	0.85	1.00	2.22	9.62	24.46	3.33	1,747.8	1259.3	100.23	47.10	147.33
13	98.0	6.86	1.320	10.45	7.45	0.88	1.90	0.85	1.00	2.23	11.04	21.46	2.97	1,620.3	1184.9	121.96	25.75	147.71
14	101.4	6.91	0.660	7.29	5.90	0.92	1.95	0.85	1.00	2.24	7.72	15.36	2.13	1,215.9	890.4	88.24	13.08	101.31
15	111.4	7.04	1.458	44.14	35.71	0.87	1.89	0.85	1.00	2.26	43.05	66.86	9.14	5,752.6	4075.7	486.97	91.56	578.54
16	125.0	7.22	1.233	27.35	23.15	0.95	2.01	0.85	1.00	2.28	28.69	17.99	3.81	2,608.9	1893.5	352.82	12.13	364.95
														69,299.7	**47163.5**			**5,344.96**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 16	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W Normal Wind — 1.0D + 1.0W 60 mph Wind at Normal To Face

Wind Load Factor: 1.00 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	6.66	3.092	8.48	0.00	0.22	2.54	1.00	1.00	0.00	7.89	31.79	0.00	1,489.7	0.0	113.30	100.73	214.03
2	10.0	6.66	4.190	7.36	0.00	0.23	2.50	1.00	1.00	0.00	8.46	31.79	0.00	1,168.5	0.0	119.77	100.71	220.48
3	16.7	6.80	2.959	7.36	0.00	0.21	2.55	1.00	1.00	0.00	7.21	31.79	0.00	1,098.2	0.0	106.17	102.85	209.03
4	30.0	7.69	7.367	22.09	0.00	0.22	2.52	1.00	1.00	0.00	20.10	95.38	0.00	3,565.2	0.0	330.60	349.19	679.79
5	42.5	8.28	3.592	6.36	0.00	0.33	2.22	1.00	1.00	0.00	7.35	23.84	0.00	994.3	0.0	114.68	93.94	208.62
6	50.0	8.57	3.218	12.71	0.00	0.28	2.34	1.00	1.00	0.00	10.46	47.69	0.00	1,816.5	0.0	178.55	194.42	372.97
7	57.5	8.82	2.325	5.52	0.00	0.30	2.29	1.00	1.00	0.00	5.59	23.84	0.00	746.1	0.0	95.90	100.11	196.01
8	67.5	9.13	4.449	16.57	0.00	0.30	2.30	1.00	1.00	0.00	14.19	71.53	0.00	2,148.3	0.0	252.95	310.65	563.60
9	77.5	9.40	1.875	5.52	0.00	0.35	2.16	1.00	1.00	0.00	5.23	23.84	0.00	694.3	0.0	90.35	106.60	196.96
10	84.0	9.56	3.471	6.50	0.00	0.34	2.20	1.00	1.00	0.00	7.44	35.48	0.00	1,214.3	0.0	133.27	157.89	291.16
11	90.0	9.70	1.652	3.00	0.00	0.34	2.18	1.00	1.00	0.00	3.49	17.74	0.00	476.7	0.0	62.91	80.10	143.01
12	94.0	9.79	1.503	3.00	0.00	0.35	2.16	1.00	1.00	0.00	3.36	11.98	0.00	407.1	0.0	60.34	77.31	137.64
13	98.0	9.87	1.320	3.00	0.00	0.36	2.14	1.00	1.00	0.00	3.18	10.06	0.00	362.8	0.0	57.23	76.80	134.03
14	101.4	9.94	0.660	1.39	0.00	0.27	2.38	1.00	1.00	0.00	1.50	7.18	0.00	271.2	0.0	30.21	55.25	85.47
15	111.4	10.14	1.458	8.44	0.00	0.22	2.54	1.00	1.00	0.00	6.40	28.69	0.00	1,397.5	0.0	140.33	233.37	373.70
16	125.0	10.39	1.233	4.20	0.00	0.21	2.57	1.00	1.00	0.00	3.69	6.56	0.00	596.2	0.0	83.84	68.23	152.07
														18,446.9	**0.0**			**4,178.57**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 17	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60° Wind — 1.0D + 1.0W 60 mph Wind at 60° From Face

Wind Load Factor: 1.00 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	6.66	3.092	8.48	0.00	0.22	2.54	0.80	1.00	0.00	7.27	31.79	0.00	1,489.7	0.0	104.42	100.73	205.15
2	10.0	6.66	4.190	7.36	0.00	0.23	2.50	0.80	1.00	0.00	7.62	31.79	0.00	1,168.5	0.0	107.91	100.71	208.62
3	16.7	6.80	2.959	7.36	0.00	0.21	2.55	0.80	1.00	0.00	6.62	31.79	0.00	1,098.2	0.0	97.46	102.85	200.31
4	30.0	7.69	7.367	22.09	0.00	0.22	2.52	0.80	1.00	0.00	18.62	95.38	0.00	3,565.2	0.0	306.36	349.19	655.55
5	42.5	8.28	3.592	6.36	0.00	0.33	2.22	0.80	1.00	0.00	6.63	23.84	0.00	994.3	0.0	103.47	93.94	197.41
6	50.0	8.57	3.218	12.71	0.00	0.28	2.34	0.80	1.00	0.00	9.82	47.69	0.00	1,816.5	0.0	167.57	194.42	361.99
7	57.5	8.82	2.325	5.52	0.00	0.30	2.29	0.80	1.00	0.00	5.12	23.84	0.00	746.1	0.0	87.92	100.11	188.04
8	67.5	9.13	4.449	16.57	0.00	0.30	2.30	0.80	1.00	0.00	13.30	71.53	0.00	2,148.3	0.0	237.09	310.65	547.74
9	77.5	9.40	1.875	5.52	0.00	0.35	2.16	0.80	1.00	0.00	4.86	23.84	0.00	694.3	0.0	83.88	106.60	190.48
10	84.0	9.56	3.471	6.50	0.00	0.34	2.20	0.80	1.00	0.00	6.75	35.48	0.00	1,214.3	0.0	120.84	157.89	278.73
11	90.0	9.70	1.652	3.00	0.00	0.34	2.18	0.80	1.00	0.00	3.16	17.74	0.00	476.7	0.0	56.96	80.10	137.06
12	94.0	9.79	1.503	3.00	0.00	0.35	2.16	0.80	1.00	0.00	3.06	11.98	0.00	407.1	0.0	54.93	77.31	132.24
13	98.0	9.87	1.320	3.00	0.00	0.36	2.14	0.80	1.00	0.00	2.92	10.06	0.00	362.8	0.0	52.48	76.80	129.28
14	101.4	9.94	0.660	1.39	0.00	0.27	2.38	0.80	1.00	0.00	1.37	7.18	0.00	271.2	0.0	27.56	55.25	82.81
15	111.4	10.14	1.458	8.44	0.00	0.22	2.54	0.80	1.00	0.00	6.11	28.69	0.00	1,397.5	0.0	133.94	233.37	367.31
16	125.0	10.39	1.233	4.20	0.00	0.21	2.57	0.80	1.00	0.00	3.44	6.56	0.00	596.2	0.0	78.24	68.23	146.47
														18,446.9	**0.0**			**4,029.20**

Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 18	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 90° Wind — 1.0D + 1.0W 60 mph Wind at 90° From Face

Wind Load Factor: 1.00 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	3.3	6.66	3.092	8.48	0.00	0.22	2.54	0.85	1.00	0.00	7.42	31.79	0.00	1,489.7	0.0	106.64	100.73	207.37
2	10.0	6.66	4.190	7.36	0.00	0.23	2.50	0.85	1.00	0.00	7.83	31.79	0.00	1,168.5	0.0	110.87	100.71	211.59
3	16.7	6.80	2.959	7.36	0.00	0.21	2.55	0.85	1.00	0.00	6.77	31.79	0.00	1,098.2	0.0	99.64	102.85	202.49
4	30.0	7.69	7.367	22.09	0.00	0.22	2.52	0.85	1.00	0.00	18.99	95.38	0.00	3,565.2	0.0	312.42	349.19	661.61
5	42.5	8.28	3.592	6.36	0.00	0.33	2.22	0.85	1.00	0.00	6.81	23.84	0.00	994.3	0.0	106.27	93.94	200.21
6	50.0	8.57	3.218	12.71	0.00	0.28	2.34	0.85	1.00	0.00	9.98	47.69	0.00	1,816.5	0.0	170.31	194.42	364.73
7	57.5	8.82	2.325	5.52	0.00	0.30	2.29	0.85	1.00	0.00	5.24	23.84	0.00	746.1	0.0	89.92	100.11	190.03
8	67.5	9.13	4.449	16.57	0.00	0.30	2.30	0.85	1.00	0.00	13.53	71.53	0.00	2,148.3	0.0	241.06	310.65	551.70
9	77.5	9.40	1.875	5.52	0.00	0.35	2.16	0.85	1.00	0.00	4.95	23.84	0.00	694.3	0.0	85.50	106.60	192.10
10	84.0	9.56	3.471	6.50	0.00	0.34	2.20	0.85	1.00	0.00	6.92	35.48	0.00	1,214.3	0.0	123.95	157.89	281.84
11	90.0	9.70	1.652	3.00	0.00	0.34	2.18	0.85	1.00	0.00	3.25	17.74	0.00	476.7	0.0	58.45	80.10	138.55
12	94.0	9.79	1.503	3.00	0.00	0.35	2.16	0.85	1.00	0.00	3.13	11.98	0.00	407.1	0.0	56.28	77.31	133.59
13	98.0	9.87	1.320	3.00	0.00	0.36	2.14	0.85	1.00	0.00	2.99	10.06	0.00	362.8	0.0	53.67	76.80	130.47
14	101.4	9.94	0.660	1.39	0.00	0.27	2.38	0.85	1.00	0.00	1.40	7.18	0.00	271.2	0.0	28.22	55.25	83.48
15	111.4	10.14	1.458	8.44	0.00	0.22	2.54	0.85	1.00	0.00	6.18	28.69	0.00	1,397.5	0.0	135.53	233.37	368.91
16	125.0	10.39	1.233	4.20	0.00	0.21	2.57	0.85	1.00	0.00	3.50	6.56	0.00	596.2	0.0	79.64	68.23	147.87
														18,446.9	**0.0**			**4,066.54**

Force/Stress Compression Summary

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	6.667	MOD - 6PX+7.625x.301_1/2P	-397.93	1.2D + 1.6W Normal Wind	6.67	100	100	100	36.87	54.00	519.92	76.5	Member X
2	13.33	PX - 6" DIA PIPE	-383.67	1.2D + 1.6W Normal Wind	6.67	50	50	50	18.27	54.00	397.62	96.5	Member X
3	20	PX - 6" DIA PIPE	-366.79	1.2D + 1.6W Normal Wind	6.67	100	100	100	36.55	54.00	367.37	99.8	Member X
4	40	PX - 6" DIA PIPE	-348.52	1.2D + 1.6W Normal Wind	6.67	100	100	100	36.54	54.00	367.38	94.9	Member X
5	45	MOD - 6PST+7.625x.301_.5P	-293.15	1.2D + 1.6W Normal Wind	5.00	50	50	50	13.90	54.00	435.04	67.4	Member X
6	55	MOD - 6PST+7.625x.301_.5P	-275.77	1.2D + 1.6W Normal Wind	5.00	100	100	100	27.80	54.00	415.57	66.4	Member X
7	60	PST - 6" DIA PIPE	-240.59	1.2D + 1.6W Normal Wind	5.00	50	50	50	13.34	54.00	267.40	90.0	Member X
8	75	PST - 6" DIA PIPE	-222.62	1.2D + 1.6W Normal Wind	5.00	100	100	100	26.68	54.00	256.37	86.8	Member X
9	80	PST - 6" DIA PIPE	-157.80	1.2D + 1.6W Normal Wind	5.00	100	100	100	26.68	54.00	256.37	61.6	Member X
10	88	MOD - 4"PST+5"PX1/2P	-138.72	1.2D + 1.6W Normal Wind	4.00	50	50	50	15.25	54.00	297.27	46.7	Member X
11	92	PST - 4" DIA PIPE	-105.41	1.2D + 1.6W Normal Wind	4.00	50	50	50	15.90	54.00	151.02	69.8	Member X
12	96	PST - 4" DIA PIPE	-90.98	1.2D + 1.6W Normal Wind	4.00	100	100	100	31.80	54.00	142.24	64.0	Member X
13	100	PST - 4" DIA PIPE	-76.56	1.2D + 1.6W Normal Wind	4.00	100	100	100	31.80	54.00	142.24	53.8	Member X
14	102.8	SOL - 2" SOLID	-63.86	1.2D + 1.6W Normal Wind	2.86	50	50	50	34.28	45.00	117.76	54.2	Member X
15	120	SOL - 2" SOLID	-51.02	1.2D + 1.6W Normal Wind	2.86	100	100	100	68.57	45.00	93.37	54.6	Member X
16	130	SOL - 1 1/2" SOLID	-2.02	1.2D + 1.6W Normal Wind	2.50	100	100	100	80.00	45.00	46.97	4.3	Member X

Splices

		Top Splice						Bottom Splice					
Sect	Top Elev	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	6.667	1.2D + 1.6W Normal Wind	391.89	0.00	0.0			1.2D + 1.6W Normal Wind	408.34	0.00			
2	13.33	1.2D + 1.6W Normal Wind	375.88	0.00	0.0			1.2D + 1.6W Normal Wind	391.89	0.00			
3	20	1.2D + 1.6W Normal Wind	358.66	0.00	0.0			1.2D + 1.6W Normal Wind	375.88	0.00			
4	40	1.2D + 1.6W Normal Wind	300.69	0.00	0.0			1.2D + 1.6W Normal Wind	358.66	0.00		1 A325	8
5	45	1.2D + 1.6W Normal Wind	285.03	0.00	0.0			1.2D + 1.6W Normal Wind	300.69	0.00		1 A325	8
6	55	1.2D + 1.6W Normal Wind	250.89	0.00	0.0			1.2D + 1.6W Normal Wind	285.03	0.00			
7	60	1.2D + 1.6W Normal Wind	232.33	0.00	0.0			1.2D + 1.6W Normal Wind	250.89	0.00			
8	75	1.2D + 1.6W Normal Wind	170.12	0.00	0.0			1.2D + 1.6W Normal Wind	232.33	0.00		1 A325	8
9	80	1.2D + 1.6W Normal Wind	147.81	0.00	0.0			1.2D + 1.6W Normal Wind	170.12	0.00			
10	88	1.2D + 1.6W Normal Wind	115.17	0.00	0.0			1.2D + 1.6W Normal Wind	147.81	0.00		1 A325	8
11	92	1.2D + 1.6W Normal Wind	98.44	0.00	0.0			1.2D + 1.6W Normal Wind	115.17	0.00			
12	96	1.2D + 1.6W Normal Wind	84.16	0.00	0.0			1.2D + 1.6W Normal Wind	98.44	0.00			
13	100	1.2D + 1.6W Normal Wind	72.09	0.00	0.0			1.2D + 1.6W Normal Wind	84.16	0.00			
14	102.8	1.2D + 1.6W Normal Wind	58.75	0.00	0.0			1.2D + 1.6W Normal Wind	72.09	0.00		3/4 A325	6
15	120	1.2D + 1.0Di + 1.0Wi Normal Wi	4.71	0.00	0.0			1.2D + 1.6W Normal Wind	58.75	0.00			
16	130	1.2D + 1.0Di + 1.0Wi 90° Wind	0.28	0.00	0.0			1.2D + 1.0Di + 1.0Wi Normal Wi	4.71	0.00		3/4 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
1	6.66										0.00	0	0				
2	13.3										0.00	0	0				
3	20										0.00	0	0				
4	40										0.00	0	0				
5	45										0.00	0	0				
6	55										0.00	0	0				
7	60										0.00	0	0				
8	75										0.00	0	0				
9	80										0.00	0	0				

Force/Stress Compression Summary

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 20	

IES Tower Engineering Solutions

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
10	88										0.00	0	0				
11	92										0.00	0	0				
12	96										0.00	0	0				
13	100	SAE - 1.25x1.25x0.1875	-1.44	0.9D + 1.6W Normal Wind	2.50	100	100	100	122.95	36.00	6.34	1	1	7.95	7.50	23	Member Z
14	102.	SAE - 1.25x1.25x0.1875	-1.64	0.9D + 1.6W Normal Wind	2.50	100	100	100	86.07	36.00	9.52	0	0			17	Member Z
15	120	SAE - 1.25x1.25x0.1875	-1.22	0.9D + 1.6W Normal Wind	2.50	100	100	100	86.07	36.00	9.52	0	0			13	Member Z
16	130	SAE - 1.25x1.25x0.1875	-0.16	0.9D + 1.6W 60° Wind	2.50	100	100	100	86.07	36.00	9.52	0	0			2	Member Z

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
1	6.66	DAE - 2X2X0.1875	-7.53	1.2D + 1.6W Normal Wind	9.91	50	50	25	96.96	36.00	28.25	2	2	15.90	37.1	47	Bolt Shear
2	13.3	SAE - 2X2X0.1875	-6.97	0.9D + 1.6W 90° Wind	9.67	50	50	50	147.21	36.00	7.40	1	1	9.72	7.50	94	Member Z
3	20	SAE - 2X2X0.1875	-7.19	0.9D + 1.6W 90° Wind	9.43	50	50	50	143.59	36.00	7.78	1	1	9.72	7.50	96	Bolt Bear
4	40	DAE - 1.75X1.75X.1875	-7.88	1.2D + 1.6W 90° Wind	8.75	50	50	25	97.77	36.00	24.29	2	2	15.90	37.1	50	Bolt Shear
5	45	SAE - 2X2X0.25	-6.57	1.2D + 1.6W 90° Wind	7.34	50	50	50	114.49	36.00	15.27	1	1	7.95	10.0	83	Bolt Shear
6	55	DAE - 1.5x1.5x.1875	-6.99	1.2D + 1.6W 90° Wind	6.98	50	50	25	92.77	36.00	21.83	2	2	15.90	37.1	44	Bolt Shear
7	60	DAE - 1.5x1.5x.1875	-7.46	1.2D + 1.6W 90° Wind	6.81	50	50	25	90.48	36.00	22.32	2	2	15.90	37.1	47	Bolt Shear
8	75	DAE - 1.5x1.5x.1875	-8.32	1.2D + 1.6W 90° Wind	6.33	50	50	25	84.03	36.00	23.68	2	2	15.90	37.1	52	Bolt Shear
9	80	SAE - 2X2X0.25	-8.03	1.2D + 1.6W 90° Wind	6.18	50	50	25	60.85	36.00	25.06	2	2	15.90	24.8	51	Bolt Shear
10	88	DAE - 1.5x1.5x.1875	-5.89	1.2D + 1.6W 90° Wind	5.12	50	50	25	80.44	36.00	24.43	2	2	15.90	37.1	37	Bolt Shear
11	92	DAE - 1.5x1.5x.1875	-6.34	1.2D + 1.6W 90° Wind	5.00	50	50	25	66.42	36.00	27.23	2	2	15.90	37.1	40	Bolt Shear
12	96	SAE - 2X2X0.25	-4.72	1.2D + 1.6W 90° Wind	4.88	50	50	50	86.20	36.00	20.60	1	1	7.95	10.0	59	Bolt Shear
13	100	SAE - 1.5X1.5X0.1875	-4.50	1.2D + 1.6W Normal Wind	4.77	50	50	50	103.28	36.00	9.79	1	1	7.95	7.50	60	Bolt Bear
14	102.	SOL - 3/4" SOLID	-5.42	1.2D + 1.6W Normal Wind	3.80	50	50	50	109.34	36.00	7.63	0	0				T-Only
15	120	SOL - 3/4" SOLID	-5.05	1.2D + 1.6W Normal Wind	3.80	50	50	50	109.34	36.00	7.63	0	0				T-Only
16	130	SOL - 3/4" SOLID	-0.33	1.2D + 1.6W Normal Wind	3.54	50	50	50	101.82	36.00	8.29	0	0				T-Only

Force/Stress Tension Summary

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 21	

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LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	6.667	MOD - 6PX+7.625x.301_1/2P	371.49	0.9D + 1.6W 60° Wind	54	578.83	64.2	Member
2	13.333	PX - 6" DIA PIPE	358.30	0.9D + 1.6W 60° Wind	54	408.24	87.8	Member
3	20	PX - 6" DIA PIPE	342.60	0.9D + 1.6W 60° Wind	54	408.24	83.9	Member
4	40	PX - 6" DIA PIPE	325.63	0.9D + 1.6W 60° Wind	54	408.24	79.8	Member
5	45	MOD - 6PST+7.625x.301_.5P	273.39	0.9D + 1.6W 60° Wind	54	441.73	61.9	Member
6	55	MOD - 6PST+7.625x.301_.5P	257.17	0.9D + 1.6W 60° Wind	54	441.73	58.2	Member
7	60	PST - 6" DIA PIPE	224.46	0.9D + 1.6W 60° Wind	54	271.19	82.8	Member
8	75	PST - 6" DIA PIPE	207.32	0.9D + 1.6W 60° Wind	54	271.19	76.4	Member
9	80	PST - 6" DIA PIPE	145.27	0.9D + 1.6W 60° Wind	54	271.19	53.6	Member
10	88	MOD - 4"PST+5"PX1/2P	129.12	0.9D + 1.6W 60° Wind	54	302.78	42.6	Member
11	92	PST - 4" DIA PIPE	97.82	0.9D + 1.6W 60° Wind	54	154.06	63.5	Member
12	96	PST - 4" DIA PIPE	85.64	1.2D + 1.6W 60° Wind	54	154.06	55.6	Member
13	100	PST - 4" DIA PIPE	71.99	1.2D + 1.6W 60° Wind	54	154.06	46.7	Member
14	102.85	SOL - 2" SOLID	59.68	0.9D + 1.6W 60° Wind	45	127.23	46.9	Member
15	120	SOL - 2" SOLID	47.14	0.9D + 1.6W 60° Wind	45	127.23	37.0	Member
16	130	SOL - 1 1/2" SOLID	1.63	0.9D + 1.6W 60° Wind	45	71.57	2.3	Member

Splices

		Top Splice						Bottom Splice					
Sect	Top Elev	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	6.667	0.9D + 1.6W 60° Wind	364.71	0.00	0.0			0.9D + 1.6W 60° Wind	380.3	0.00			
2	13.333	0.9D + 1.6W 60° Wind	349.67	0.00	0.0			0.9D + 1.6W 60° Wind	364.7	0.00			
3	20	0.9D + 1.6W 60° Wind	333.70	0.00	0.0			0.9D + 1.6W 60° Wind	349.6	0.00			
4	40	0.9D + 1.6W 60° Wind	279.48	0.00	0.0			0.9D + 1.6W 60° Wind	333.7	424.08	78.7	1 A325	8
5	45	0.9D + 1.6W 60° Wind	264.94	0.00	0.0			0.9D + 1.6W 60° Wind	279.4	424.08	65.9	1 A325	8
6	55	0.9D + 1.6W 60° Wind	232.99	0.00	0.0			0.9D + 1.6W 60° Wind	264.9	0.00			
7	60	0.9D + 1.6W 60° Wind	215.56	0.00	0.0			0.9D + 1.6W 60° Wind	232.9	0.00			
8	75	0.9D + 1.6W 60° Wind	156.24	0.00	0.0			0.9D + 1.6W 60° Wind	215.5	424.08	50.8	1 A325	8
9	80	0.9D + 1.6W 60° Wind	134.86	0.00	0.0			0.9D + 1.6W 60° Wind	156.2	0.00			
10	88	0.9D + 1.6W 60° Wind	106.48	0.00	0.0			0.9D + 1.6W 60° Wind	134.8	424.08	31.8	1 A325	8
11	92	0.9D + 1.6W 60° Wind	90.17	0.00	0.0			0.9D + 1.6W 60° Wind	106.4	0.00			
12	96	1.2D + 1.6W 60° Wind	78.57	0.00	0.0			0.9D + 1.6W 60° Wind	90.17	0.00			
13	100	0.9D + 1.6W 60° Wind	67.11	0.00	0.0			1.2D + 1.6W 60° Wind	78.57	0.00			
14	102.85	0.9D + 1.6W 60° Wind	54.23	0.00	0.0			0.9D + 1.6W 60° Wind	67.11	180.60	37.2	3/4 A325	6
15	120	0.9D + 1.6W 60° Wind	1.45	0.00	0.0			0.9D + 1.6W 60° Wind	54.23	0.00			
16	130		0.00	0.00	0.0			0.9D + 1.6W 60° Wind	1.45	120.40	1.2	3/4 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	6.667	-			36	0.00	0	0					
2	13.333	-			36	0.00	0	0					
3	20	-			36	0.00	0	0					
4	40	-			36	0.00	0	0					
5	45	-			36	0.00	0	0					
6	55	-			36	0.00	0	0					
7	60	-			36	0.00	0	0					
8	75	-			36	0.00	0	0					
9	80	-			36	0.00	0	0					
10	88	-			36	0.00	0	0					

Force/Stress Tension Summary

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 22	

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HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
11	92	-			36	0.00	0	0					
12	96	-			36	0.00	0	0					
13	100	SAE - 1.25x1.25x0.1875	1.77	1.2D + 1.6W 60° Wind	36	13.78	1	1	7.95	7.50	5.21	34.1	Blck Shear
14	102.85	SAE - 1.25x1.25x0.1875	2.05	1.2D + 1.6W 60° Wind	36	14.06	0	0				14.6	Member
15	120	SAE - 1.25x1.25x0.1875	1.60	1.2D + 1.6W 60° Wind	36	14.06	0	0				11.4	Member
16	130	SAE - 1.25x1.25x0.1875	0.20	1.2D + 1.6W 90° Wind	36	14.06	0	0				1.4	Member

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	6.667	DAE - 2X2X0.1875	6.44	0.9D + 1.6W 60° Wind	36	46.33	2	2	15.90	37.19	23.25	40.5	Bolt Shear
2	13.333	SAE - 2X2X0.1875	5.83	0.9D + 1.6W 90° Wind	36	23.00	1	1	9.72	7.50	7.25	80.5	Blck Shear
3	20	SAE - 2X2X0.1875	6.21	0.9D + 1.6W 90° Wind	36	23.00	1	1	9.72	7.50	7.25	85.8	Blck Shear
4	40	DAE - 1.75X1.75X.1875	6.79	0.9D + 1.6W 90° Wind	36	40.18	2	2	15.90	37.19	21.21	42.7	Bolt Shear
5	45	SAE - 2X2X0.25	6.06	1.2D + 1.6W 90° Wind	36	30.46	1	1	7.95	10.01	9.66	76.2	Bolt Shear
6	55	DAE - 1.5x1.5x.1875	6.50	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	40.9	Bolt Shear
7	60	DAE - 1.5x1.5x.1875	6.59	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	41.5	Bolt Shear
8	75	DAE - 1.5x1.5x.1875	7.73	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	48.6	Bolt Shear
9	80	SAE - 2X2X0.25	7.49	1.2D + 1.6W 90° Wind	36	27.30	2	2	15.90	24.80	15.50	48.3	Blck Shear
10	88	DAE - 1.5x1.5x.1875	5.72	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	36.0	Bolt Shear
11	92	DAE - 1.5x1.5x.1875	5.81	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	36.5	Bolt Shear
12	96	SAE - 2X2X0.25	4.48	1.2D + 1.6W 90° Wind	36	30.46	1	1	7.95	10.01	9.66	56.4	Bolt Shear
13	100	SAE - 1.5X1.5X0.1875	4.12	1.2D + 1.6W 60° Wind	36	17.17	1	1	7.95	7.50	5.21	79.1	Blck Shear
14	102.85	SOL - 3/4" SOLID	5.09	1.2D + 1.6W 60° Wind	36	14.31	0	0				35.6	Member
15	120	SOL - 3/4" SOLID	4.82	1.2D + 1.6W 90° Wind	36	14.31	0	0				33.6	Member
16	130	SOL - 3/4" SOLID	0.42	1.2D + 1.6W 60° Wind	36	14.31	0	0				3.0	Member

Seismic Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 23	

Tower Engineering Solutions

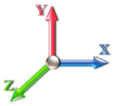
Load Case: 1.2D + 1.0E

Dead Load Factor	1.20	**Sds**	0.192	**Ss**	0.1800	**Fa**	1.6000	**Ke**	0.0000
Seismic Load Factor	1.00	**Sd1**	0.100	**S1**	0.0630	**Fv**	2.4000	**Kg**	0.0000
Seismic Importance Factor	1.00	**SA**	0.118	**R**	3.0000	**Vs**	1.4872	**f1**	1.1746

Sect #	Elev (ft)	Wz (lb)	a	b	c	Lateral Fsz (lb)
1	3.33	1489.6	0.00	0.03	0.01	4.08
2	10.00	1168.5	0.01	0.06	0.03	7.07
3	16.67	1098.2	0.03	0.07	0.04	8.69
4	30.00	3565.1	0.10	0.07	0.04	38.59
5	42.50	994.32	0.20	0.06	0.02	13.97
6	50.00	1816.5	0.28	0.05	0.01	28.89
7	57.50	746.06	0.37	0.03	0.01	12.87
8	67.50	2148.3	0.51	-0.02	0.01	38.47
9	77.50	4268.3	0.67	-0.08	0.02	76.25
10	84.00	1214.3	0.79	-0.11	0.05	22.54
11	90.00	476.68	0.91	-0.12	0.09	9.92
12	94.00	4047.9	0.99	-0.11	0.13	95.90
13	98.00	362.84	1.07	-0.08	0.17	10.17
14	101.43	271.24	1.15	-0.04	0.22	8.98
15	111.43	7085.0	1.39	0.26	0.42	400.93
16	125.00	632.15	1.75	1.31	0.89	70.94

Seismic Section Forces

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 24	



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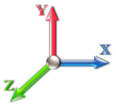
Load Case: 0.9D + 1.0E

Dead Load Factor	0.90	**Sds**	0.192	**Ss**	0.1800	**Fa**	1.6000	**Ke**	0.0000
Seismic Load Factor	1.00	**Sd1**	0.100	**S1**	0.0630	**Fv**	2.4000	**Kg**	0.0000
Seismic Importance Factor	1.00	**SA**	0.118	**R**	3.0000	**Vs**	1.4872	**f1**	1.1746

Sect #	Elev (ft)	Wz (lb)	a	b	c	Lateral Fsz (lb)
1	3.33	1489.6	0.00	0.03	0.01	4.08
2	10.00	1168.5	0.01	0.06	0.03	7.07
3	16.67	1098.2	0.03	0.07	0.04	8.69
4	30.00	3565.1	0.10	0.07	0.04	38.59
5	42.50	994.32	0.20	0.06	0.02	13.97
6	50.00	1816.5	0.28	0.05	0.01	28.89
7	57.50	746.06	0.37	0.03	0.01	12.87
8	67.50	2148.3	0.51	-0.02	0.01	38.47
9	77.50	4268.3	0.67	-0.08	0.02	76.25
10	84.00	1214.3	0.79	-0.11	0.05	22.54
11	90.00	476.68	0.91	-0.12	0.09	9.92
12	94.00	4047.9	0.99	-0.11	0.13	95.90
13	98.00	362.84	1.07	-0.08	0.17	10.17
14	101.43	271.24	1.15	-0.04	0.22	8.98
15	111.43	7085.0	1.39	0.26	0.42	400.93
16	125.00	632.15	1.75	1.31	0.89	70.94

Support Forces Summary

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 25	



Tower Engineering Solutions

Load Case	Node	FX (kips)	FY (kips)	FZ (kips)	(-) = Uplift (+) = Down
1.2D + 1.6W Normal Wind	1	0.00	408.21	-21.32	
	1a	8.62	-185.27	-5.14	
	1b	-8.62	-185.27	-5.14	
1.2D + 1.6W 60° Wind	1	-0.17	207.61	-10.63	
	1a	-9.32	208.52	5.15	
	1b	-17.33	-378.47	-10.01	
1.2D + 1.6W 90° Wind	1	-0.18	12.61	-0.37	
	1a	-15.90	352.86	9.04	
	1b	-15.08	-327.80	-8.67	
0.9D + 1.6W Normal Wind	1	0.00	403.19	-21.17	
	1a	8.71	-187.47	-5.22	
	1b	-8.71	-187.47	-5.22	
0.9D + 1.6W 60° Wind	1	-0.19	203.54	-10.49	
	1a	-9.21	204.44	5.06	
	1b	-17.43	-379.74	-10.06	
0.9D + 1.6W 90° Wind	1	-0.20	9.46	-0.24	
	1a	-15.77	348.08	8.95	
	1b	-15.18	-329.30	-8.71	
1.2D + 1.0Di + 1.0Wi Normal Wind	1	0.00	149.02	-6.04	
	1a	2.44	-20.85	-1.44	
	1b	-2.44	-20.85	-1.44	
1.2D + 1.0Di + 1.0Wi 60° Wind	1	-0.03	92.02	-3.05	
	1a	-2.66	92.29	1.50	
	1b	-4.96	-76.99	-2.87	
1.2D + 1.0Di + 1.0Wi 90° Wind	1	-0.03	35.78	-0.12	
	1a	-4.53	133.66	2.59	
	1b	-4.30	-62.12	-2.47	
1.2D + 1.0E	1	0.00	24.79	1.83	
	1a	2.33	6.44	-1.32	
	1b	-2.33	6.44	-1.32	
0.9D + 1.0E	1	0.00	21.60	1.96	
	1a	2.44	3.32	-1.39	
	1b	-2.44	3.32	-1.39	
1.0D + 1.0W Normal Wind	1	0.00	105.23	-5.46	
	1a	1.78	-36.92	-1.09	
	1b	-1.78	-36.92	-1.09	
1.0D + 1.0W 60° Wind	1	-0.05	57.18	-2.90	
	1a	-2.54	57.39	1.41	
	1b	-3.91	-83.18	-2.26	
1.0D + 1.0W 90° Wind	1	-0.05	10.46	-0.43	
	1a	-4.12	91.91	2.34	
	1b	-3.37	-70.99	-1.92	

Max Reactions

Leg			Overturning		
Max Uplift:	-379.74	(kips)	Moment:	2569.85	(ft-kips)
Max Down:	408.21	(kips)	Total Down:	37.66	(kips)
Max Shear:	21.32	(kips)	Total Shear:	31.60	(kips)

Analysis Summary

Structure:	CT46126-A-SBA	**Code:**	EIA/TIA-222-G	5/17/2021	
Site Name:	Glastonbury-main St.	**Exposure:**	C		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Max Reactions

Leg			Overturning		
Max Uplift:	-379.74	(kips)	Moment:	2569.85	(ft-kips)
Max Down:	408.21	(kips)	Total Down:	37.66	(kips)
Max Shear:	21.32	(kips)	Total Shear:	31.60	(kips)

Anchor Bolts

Bolt Size (in.):	1.50	Number Bolts:	8
Yield Strength (Ksi):	55.00	Tensile Strength (Ksi):	75.00
Detail Type:	C		

Interaction Ratio: 0.62

Max Usages

Max Leg: 99.8% (1.2D + 1.6W Normal Wind - Sect 3)
Max Diag: 95.8% (0.9D + 1.6W 90° Wind - Sect 3)
Max Horiz: 34.1% (1.2D + 1.6W 60° Wind - Sect 13)

Max Deflection, Twist and Sway

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
0.9D + 1.0E - Normal To Face	80.00	0.0400	0.0010	0.0650
	92.00	0.0546	0.0010	0.0785
	111.43	0.0858	0.0002	0.1001
	117.14	0.0959	0.0001	0.1010
	120.00	0.1009	0.0000	0.1010
	130.00	0.1185	0.0000	0.1011
0.9D + 1.6W 97 mph Wind at 60° From Face	80.00	1.1916	-0.0260	1.8243
	92.00	1.6009	-0.0240	2.1290
	111.43	2.4216	-0.0408	2.6413
	117.14	2.6825	-0.0423	2.6223
	120.00	2.8136	-0.0434	2.6773
	130.00	3.2713	-0.0410	2.6245
0.9D + 1.6W 97 mph Wind at 90° From Face	80.00	1.1945	-0.0279	1.8360
	92.00	1.6050	-0.0243	2.1404
	111.43	2.4302	0.0272	2.6862
	117.14	2.6924	0.0272	2.6269
	120.00	2.8244	0.0271	2.7349
	130.00	3.2847	0.0271	2.6402
0.9D + 1.6W 97 mph Wind at Normal To Face	80.00	1.1950	0.0402	1.8260
	92.00	1.6041	0.0438	2.1115
	111.43	2.4232	0.0267	2.5322
	117.14	2.6824	0.0258	2.6325
	120.00	2.8126	0.0250	2.5266
	130.00	3.2671	0.0253	2.6062

1.0D + 1.0W 60 mph Wind at 60° From Face	80.00	0.2854	0.0060	0.4360
	92.00	0.3833	0.0054	0.5094
	111.43	0.5796	-0.0019	0.6313
	117.14	0.6419	-0.0023	0.6266
	120.00	0.6733	-0.0025	0.6398
	130.00	0.7827	-0.0023	0.6271
1.0D + 1.0W 60 mph Wind at 90° From Face	80.00	0.2864	-0.0067	0.4398
	92.00	0.3847	-0.0059	0.5125
	111.43	0.5821	0.0018	0.6423
	117.14	0.6448	0.0016	0.6281
	120.00	0.6764	0.0015	0.6539
	130.00	0.7865	0.0015	0.6311
1.0D + 1.0W 60 mph Wind at Normal To Face	80.00	0.2877	0.0084	0.4391
	92.00	0.3859	0.0087	0.5065
	111.43	0.5820	0.0020	0.6071
	117.14	0.6441	-0.0016	0.6310
	120.00	0.6754	-0.0014	0.6057
	130.00	0.7843	-0.0014	0.6247
1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face	80.00	0.3466	-0.0072	0.5335
	92.00	0.4667	-0.0065	0.6286
	111.43	0.7113	-0.0028	0.7911
	117.14	0.7897	-0.0034	0.7890
	120.00	0.8292	-0.0037	0.8048
	130.00	0.9672	-0.0036	0.7915
1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face	80.00	0.3472	-0.0082	0.5375
	92.00	0.4676	-0.0074	0.6311
	111.43	0.7132	0.0027	0.8030
	117.14	0.7919	0.0025	0.7899
	120.00	0.8316	0.0024	0.8202
	130.00	0.9702	0.0024	0.7952
1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face	80.00	0.3467	0.0102	0.5357
	92.00	0.4668	-0.0107	0.6214
	111.43	0.7097	-0.0031	0.7595
	117.14	0.7874	-0.0026	0.7900
	120.00	0.8266	-0.0023	0.7613
	130.00	0.9634	-0.0022	0.7845
1.2D + 1.0E - Normal To Face	80.00	0.0403	-0.0010	0.0656
	92.00	0.0549	-0.0010	0.0792
	111.43	0.0864	-0.0002	0.1008
	117.14	0.0965	-0.0001	0.1017
	120.00	0.1016	0.0000	0.1017
	130.00	0.1193	0.0000	0.1017
1.2D + 1.6W 97 mph Wind at 60° From Face	80.00	1.1992	-0.0262	1.8378
	92.00	1.6117	-0.0242	2.1459
	111.43	2.4392	-0.0413	2.6634
	117.14	2.7023	-0.0429	2.6448
	120.00	2.8345	-0.0440	2.6998
	130.00	3.2961	-0.0416	2.6469
1.2D + 1.6W 97 mph Wind at 90° From Face	80.00	1.2022	-0.0281	1.8498
	92.00	1.6159	-0.0245	2.1573
	111.43	2.4478	0.0276	2.7085
	117.14	2.7123	0.0277	2.6495
	120.00	2.8454	0.0276	2.7575
	130.00	3.3096	0.0276	2.6627
1.2D + 1.6W 97 mph Wind at Normal To Face	80.00	1.2027	0.0405	1.8397
	92.00	1.6149	-0.0442	2.1280
	111.43	2.4406	-0.0271	2.5541
	117.14	2.7020	-0.0263	2.6548
	120.00	2.8333	-0.0254	2.5488
	130.00	3.2917	-0.0258	2.6284

Mat Foundation Design for Self Supporting Tower

			Date: 5/17/2021
Customer Name:	SBA Communications Corp	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	130
Site Nmber:	CT46126-A-SBA	Engineer Name:	Rama K.
Engr. Number:	107245	Engineer Login ID:	

Foundation Info Obtained from: Drawings/Calculations

Analysis or Design? Analysis

Number of Tower Legs: 3 Legs

Base Reactions (Factored):

(1). Individual Leg:

Axial Load (Kips):	408.2	Uplift Force (Kips):	379.7
Shear Force (Kips):	21.3		

(2). Tower Base:

Total Vertical Load (Kips):	37.7	Total Shear Force (Kips):	31.6
Moment (Kips-ft):	2569.9		

Foundation Geometries:

Leg distance (Center-to-Center ft.):		7.5	Mods required -Yes/No ?:	No	
Diameter of Pier (ft.):	Round	3.0	Pier Height A. G. (ft.):	0.50	
Tower center to mat center (ft):			Depth of Base BG (ft.):	4.0	
Length of Pad (ft.):		26	Width of Pad (ft.):	26	
Thickness of Pad (ft):		3.00			

Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	28	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf

Rebar at the bottom of the concrete pad:

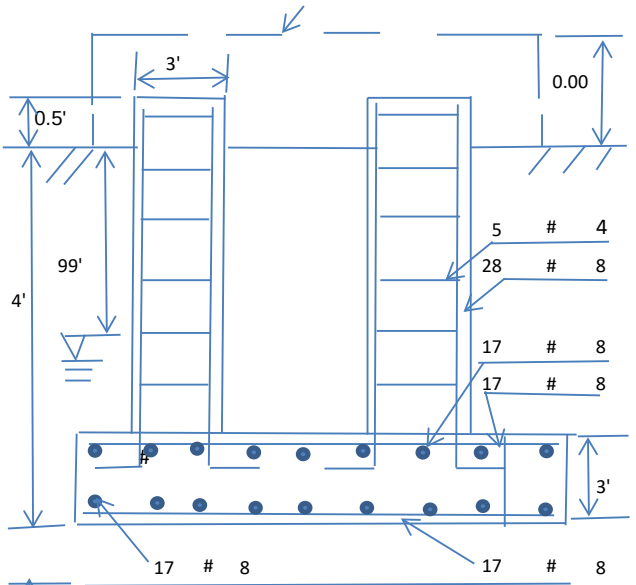
Qty. of Rebar in Pad (L):	17	Qty. of Rebar in Pad (W):	17

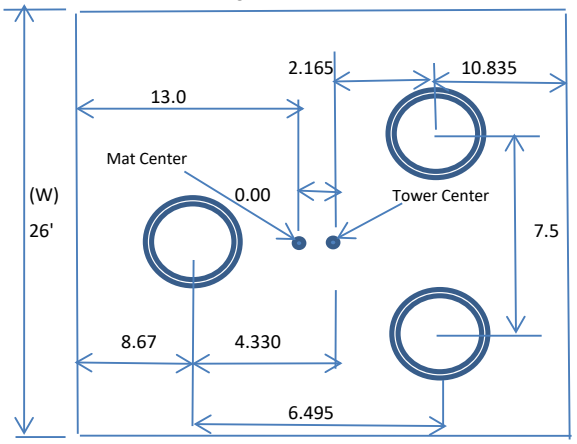
Rebar at the top of the concrete pad:

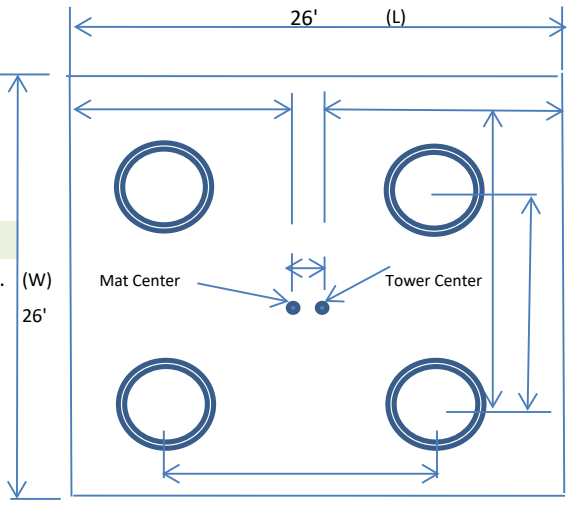
Qty. of Rebar in Pad (L):	17	Qty. of Rebar in Pad (W):	17

Soil Design Parameters:

Soil Unit Weight (pcf):	100.0	Soil Buoyant Weight:	50.0	Pcf
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	6000	Consider ties in concrete shear strength:	Yes	
Consider Soil Lateral Resistance ?	Yes	Enter soil C (psf) or Phi (deg.):	30.0	Deg.
		Depth to ignor lateral resistance	1.0	Ft.







Apply 1.35 for e/w per G/H: 1.35

Foundation Analysis and Design:	Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75			
Total Dry Soil Volume (cu. Ft.):		654.79	Total Dry Soil Weight (Kips):	65.48			
Total Buoyant Soil Volume (cu. Ft.):		0.00	Total Buoyant Soil Weight (Kips):	0.00			
Total Effective Soil Weight (Kips):		65.48	Weight from the Concrete Block at Top (K):	0.00			
Total Dry Concrete Volume (cu. Ft.):		2059.81	Total Dry Concrete Weight (Kips):	308.97			
Total Buoyant Concrete Volume (cu. Ft.):		0.00	Total Buoyant Concrete Weight (Kips):	0.00			
Total Effective Concrete Weight (Kips):		308.97	Total Vertical Load on Base (Kips):	412.11			
Check Soil Capacities:						Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):		1764.50	<	Allowable Factored Soil Bearing (psf):	4500	0.39	OK!
Allowable Foundation Overturning Resistance (kips-ft.):		4870.7	>	Design Factored Momont (kips-ft):	2712	0.56	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):		1.80	OK!				
Check the capacities of Reinforceing Concrete:							
Strength reduction factor (Flexure and axial tension):		0.90	Strength reduction factor (Shear):		0.75		
Strength reduction factor (Axial compresion):		0.65	Wind Load Factor on Concrete Design:		1.00		
(1) Concrete Pier:						Load/ Capacity Ratio	
	Vertical Steel Rebar Area (sq. in./each):	0.79		Tie / Stirrup Area (sq. in./each):	0.20		
	Calculated Moment Capacity (Mn,Kips-Ft):	942.8	>	Design Factored Moment (Mu, Kips-Ft)	32.0	0.03	OK!
	Calculated Shear Capacity (Kips):	61.5	>	Design Factored Shear (Kips):	21.3	0.35	OK!
	Calculated Tension Capacity (Tn, Kips):	1194.5	>	Design Factored Tension (Tu Kips):	379.7	0.32	OK!
	Calculated Compression Capacity (Pn, Kips):	1320.4	>	Design Factored Axial Load (Pu Kips):	408.2	0.31	OK!
	Moment & Tension Strength Combination:	0.03	OK!	Check Tie Spacing (Design/Req'd):	1.00		
	Pier Reinforcement Ratio:	0.022	Reinforcement Ratio is satisfied per ACI				
(2).Concrete Pad:							
	One-Way Design Shear Capacity (L or W Direction, Kips):	833.1	>	One-Way Factored Shear (L/W-Dir Kips	217.5	0.26	OK!
	One-Way Design Shear Capacity (Diagonal Dir., Kips):	842.5	>	One-Way Factored Shear (Dia. Dir, Kips	184.4	0.22	OK!
	Lower Steel Pad Reinforcement Ratio (L or W-Direct.):	0.0013		Lower Steel Reinf. Ratio (Dia. Dir.):	0.0011		
	Lower Steel Pad Moment Capacity (L or W-Dir. Kips-ft):	1933.5	>	Moment at Bottom (L-Direct. K-Ft):	1553.1	0.80	OK!
	Lower Steel Pad Moment Capacity (Dia. Direction,K-ft):	1937.6	>	Moment at Bottom (Dia. Dir. K-Ft):	1286.0	0.66	OK!
	Upper Steel Pad Reinforcement Ratio (L or W -Direction):	0.0013		Upper Steel Reinf. Ratio (Dia. Dir.):	0.0011		
	Upper Steel Pad Moment Capacity (L or W-Dir., Kips-ft):	1933.5	>	Moment at the top (L-Dir Kips-Ft):	703.0	0.36	OK!
	Upper Steel Pad Moment Capacity (Dia. Direction, K-ft):	1937.6	>	Moment at the top (Dia. Dir., K-Ft):	428.5	0.22	OK!
	Punching Failure Capacity (Kips):	1149.2	>	Punch. Failure Factored Shear (K):	408.2	0.36	OK!

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Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10044065
Maser Consulting Connecticut Project #: 20777629A

March 10, 2021

Site Information	*Site ID:*	*468258-VZW / Glastonbury West CT*
	Site Name:	*Glastonbury West CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*2577 Main St.* *Glastonbury, Connecticut 06033* *Hartford County*
	Latitude:	*41.7143289°*
	Longitude:	*-72.613028°*
Structure Information	*Tower Type:*	*Self Support*
	Mount Type:	*12.50-Ft T-Frame*

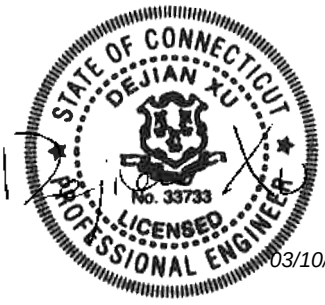
FUZE ID # 16232043

Analysis Results

T-Frame: **65.9% Pass**

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

Report Prepared By: Selene Chen



03/10/2021

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS Site ID: 1702842, dated December 16, 2020*
Mount Mapping Report	*RKS Design & Engineering LLC., Site ID: SBA : CT46126, dated January 10, 2021*
Mount Analysis Report	*Maser Consulting Connecticut, Project #: 20777629A, dated February 4, 2021*
Mount Modification Drawings	*Maser Consulting Connecticut, Project #: 20777629A, dated March 9, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	118 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.50 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.999
Seismic Parameters:	S_S:	0.196
	S_1:	0.055
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
79.00	80.00	6	Commscope	NHH-65B-R2B	Added
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RVZDC-6627-PF-48	
		3	-	VZS01	
		3	Andrew	LNX-6514DS-A1M	Retained

Standard Conditions:

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

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

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

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

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

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

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

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

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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Antenna Pipe	*39.6%*	*Pass*
Tie Back	*17.8%*	*Pass*
Face Vertical	*48.2%*	*Pass*
Face Horizontal	*61.7%*	*Pass*
Standoff Horizontal	*30.1%*	*Pass*
Standoff Pipe	*65.9%*	*Pass*
Mast Pipe	*39.6%*	*Pass*
Standoff Vertical	*62.3%*	*Pass*
Kicker	*18.8%*	*Pass*
Connection Check	*26.4%*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	***65.9%***

Recommendation:

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

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

Attachments:

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


01/10/2021


01/10/2021 09:22

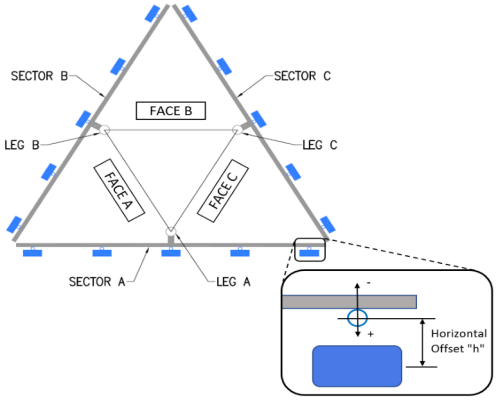
V3.0 Updated on 8-31-2020

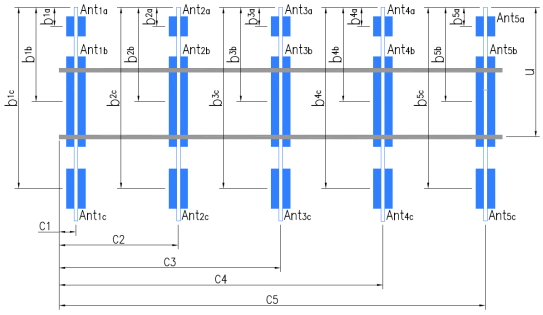
Antenna Mount Mapping Form (PATENT PENDING)

FCC # 1231397

Tower Owner:	SBA	**Mapping Date:**	1/10/2021
Site Name:	VZW : GLASTONBURY WEST CT.	**Tower Type:**	Self Support
Site Number or ID:	SBA : CT46126	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS Design & Engineering LLC.	**Mount Elevation (Ft.):**	80.75

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





Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2.375"Ø x 0.16" x 72.50"LOI	60.00	24.00	C1	PIPE 2.375"Ø x 0.16" x 72.50"LONG	59.00	24.00
A2	PIPE 2.375"Ø x 0.16" x 72.50"LOI	58.75	72.00	C2	PIPE 2.375"Ø x 0.16" x 72.50"LONG	58.50	72.00
A3	PIPE 2.375"Ø x 0.16" x 72.50"LOI	58.50	125.50	C3	PIPE 2.375"Ø x 0.16" x 72.50"LONG	57.50	125.50
A4	PIPE 2.375"Ø x 0.16" x 72.50"LOI	59.00	146.50	C4	PIPE 2.375"Ø x 0.16" x 72.50"LONG	59.00	146.50
A5				C5			
A6				C6			
B1	PIPE 2.375"Ø x 0.16" x 72.50"LOI	59.00	24.00	D1			
B2	PIPE 2.375"Ø x 0.16" x 72.50"LOI	58.75	72.00	D2			
B3	PIPE 2.375"Ø x 0.16" x 72.50"LOI	58.50	125.50	D3			
B4	PIPE 2.375"Ø x 0.16" x 72.50"LOI	58.75	146.50	D4			
B5				D5			
B6				D6			

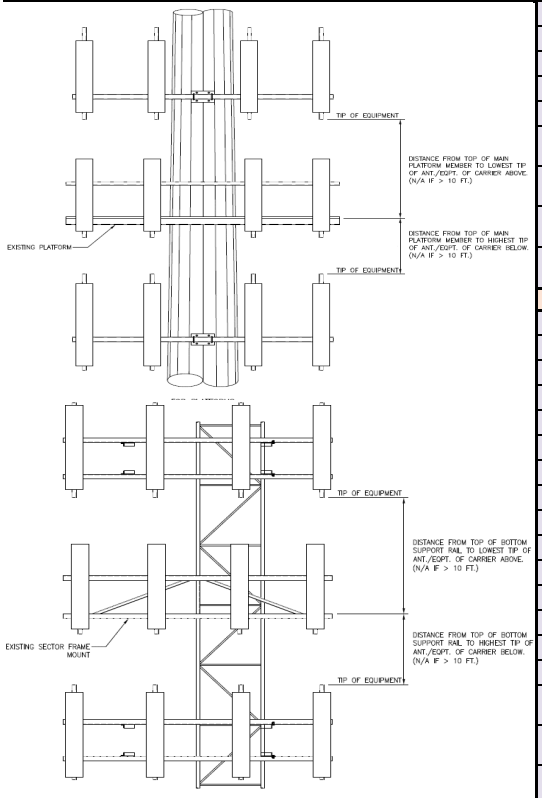
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	15.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	8.5
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	
Please enter additional infomation or comments below.	

Tower Face Width at Mount Elev. (ft.):	3.5	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	6.62

	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}	B4 RRH2x60-4R	10.63	5.75	36.50		81.1667	40.00	-9.00		205
Ant_{1b}	HBXX-6517DS-A2M	12.00	6.50	75.00		81.875	31.50	8.75	50.00	13, 205
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	LNX-6514DS-A1M	12.00	7.00	72.75		81.4792	35.00	7.50	50.00	13, 208
Ant_{2c}										
Ant_{3a}	B25 RRH 4x30	12.00	7.00	21.00		81.2917	37.00	-7.00		213
Ant_{3b}	HBXX-6517DS-A2M	12.00	6.50	75.00		81.8125	30.75	8.75	50.00	13, 213
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LNX-6514DS-A1M	12.00	7.00	72.75		81.7083	32.50	7.50	50.00	13, 213
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	RRFDC-3315-PF-48	15.00	10.00	18.50			57.00	6.00		301
Ant on Standoff	B13 RRH4x30	12.00	7.50	21.00			24.75	-7.00		208
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	50.00	Deg	Leg A:	60.00	Deg
Sector B:	150.00	Deg	Leg B:	180.00	Deg
Sector C:	350.00	Deg	Leg C:	300.00	Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	300.00	Deg	On Leg C
Climbing Facility	Corrosion Type:		N/A
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}	B4 RRH2x60-4R	10.63	5.75	36.50		81.0833	40.00	-9.00		218
Ant_{1b}	HBXX-6517DS-A2M	12.00	6.50	75.00		81.875	30.50	8.75	150.00	21, 218
Ant_{1c}										
Ant_{2a}										219
Ant_{2b}	LNX-6514DS-A1M	12.00	7.00	72.75		81.5625	34.00	7.50	150.00	21, 219
Ant_{2c}										
Ant_{3a}	B25 RRH 4x30	12.00	7.00	21.00		81.2917	37.00	-7.00		223
Ant_{3b}	HBXX-6517DS-A2M	12.00	6.50	75.00		81.8333	30.50	8.75	150.00	21, 223
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LNX-6514DS-A1M	12.00	7.00	72.75		81.5625	34.00	7.50	150.00	21, 223
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	RRFDC-3315-PF-48	15.00	10.00	18.50			57.00	6.00		485
Ant on Standoff	B13 RRH4x30	12.00	7.50	21.00			24.75	-7.00		219
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}	B4 RRH2x60-4R	10.63	5.75	36.50		81	41.00	-9.00		225
Ant_{1b}	HBXX-6517DS-A2M	12.00	6.50	75.00		81.8125	31.25	8.75	350.00	28, 225
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	LNX-6514DS-A1M	12.00	7.00	72.75		81.625	33.00	8.00	350.00	28, 229
Ant_{2c}										
Ant_{3a}	B25 RRH 4x30	12.00	7.00	21.00		81.2083	37.00	-7.00		233
Ant_{3b}	HBXX-6517DS-A2M	12.00	6.50	75.00		81.7917	30.00	10.00	350.00	28, 234
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LNX-6514DS-A1M	12.00	7.00	72.75		81.6667	33.00	8.00	350.00	28, 234
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff	B13 RRH4x30	12.00	7.50	21.00			24.75	-7.00		229
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

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

1	COAX : TOTAL (2) 1.50"Ø HYBRID	50
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.

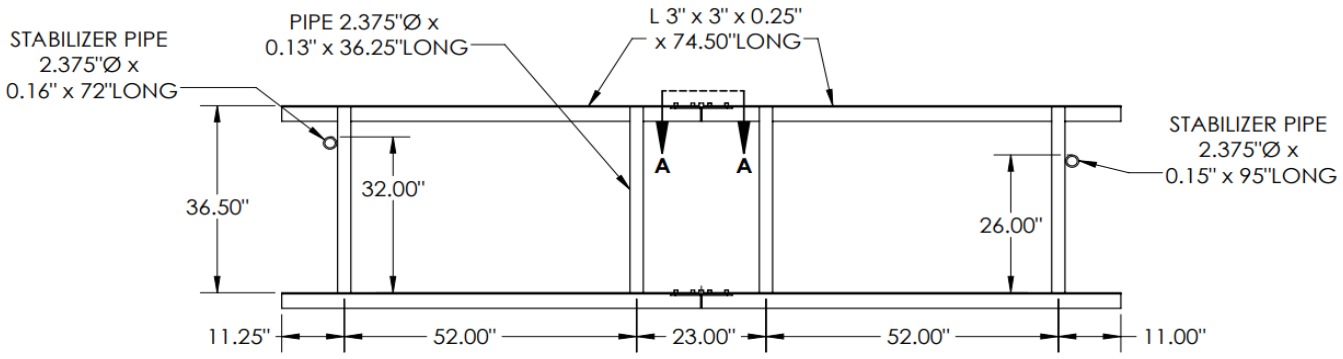
Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

Antenna Mount Mapping Form (PATENT PENDING)

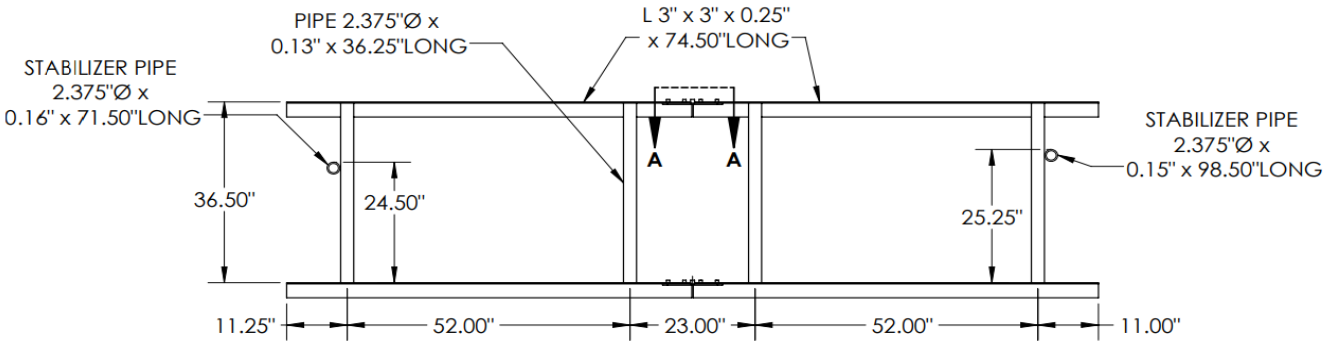
FCC # 1231397

Tower Owner:	SBA	**Mapping Date:**	1/10/2021
Site Name:	VZW : GLASTONBURY WEST CT.	**Tower Type:**	Self Support
Site Number or ID:	SBA : CT46126	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS Design & Engineering LLC.	**Mount Elevation (Ft.):**	80.75

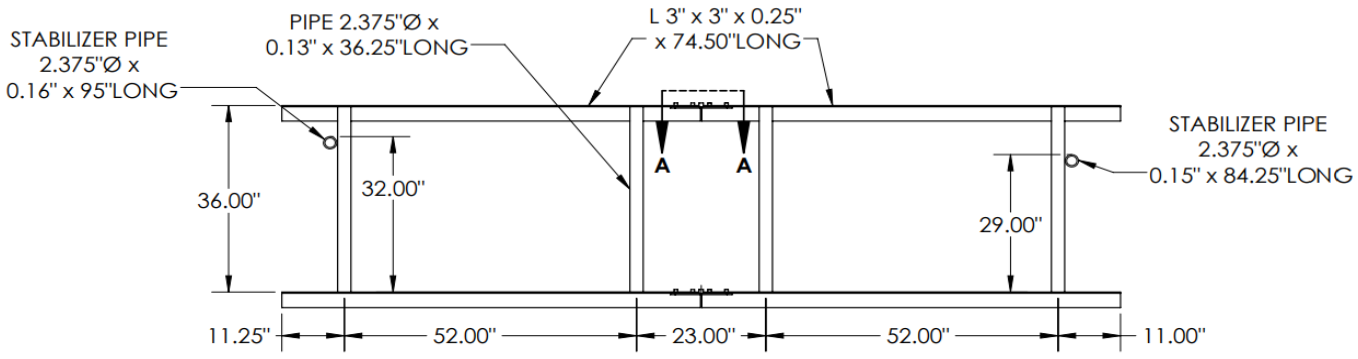
Please Insert Sketches of the Antenna Mount



SECTOR : A

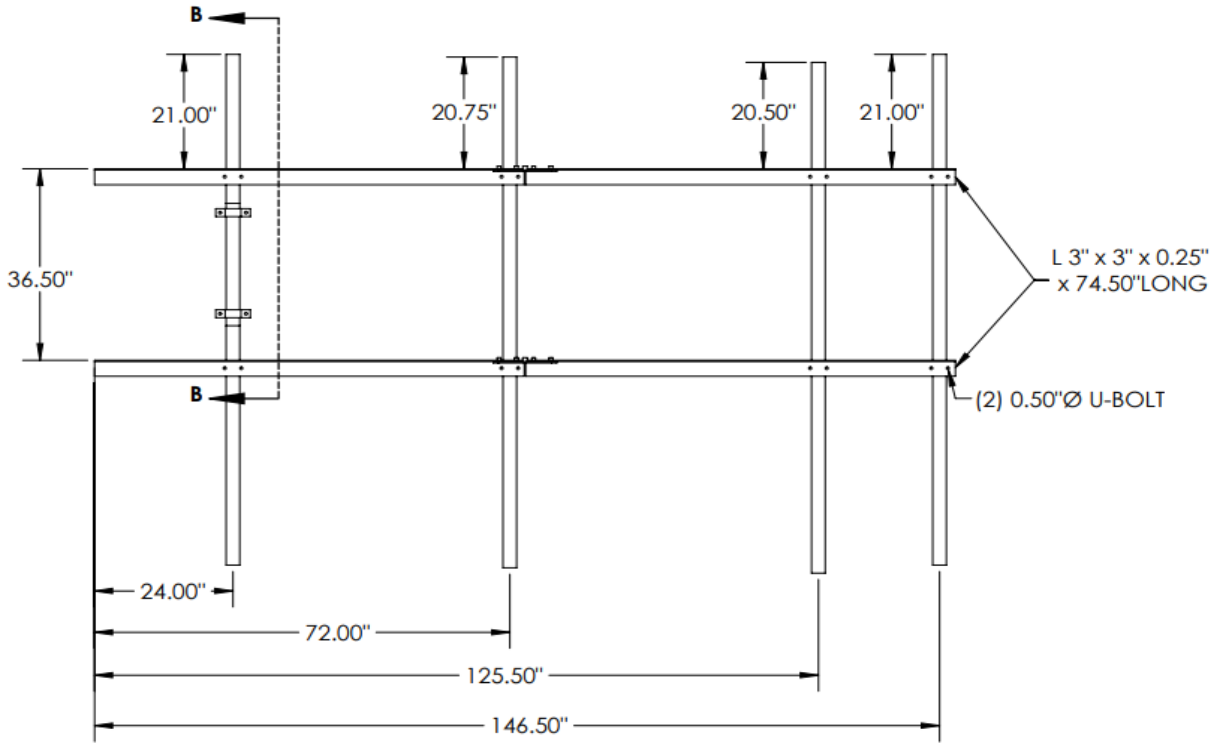


SECTOR : B

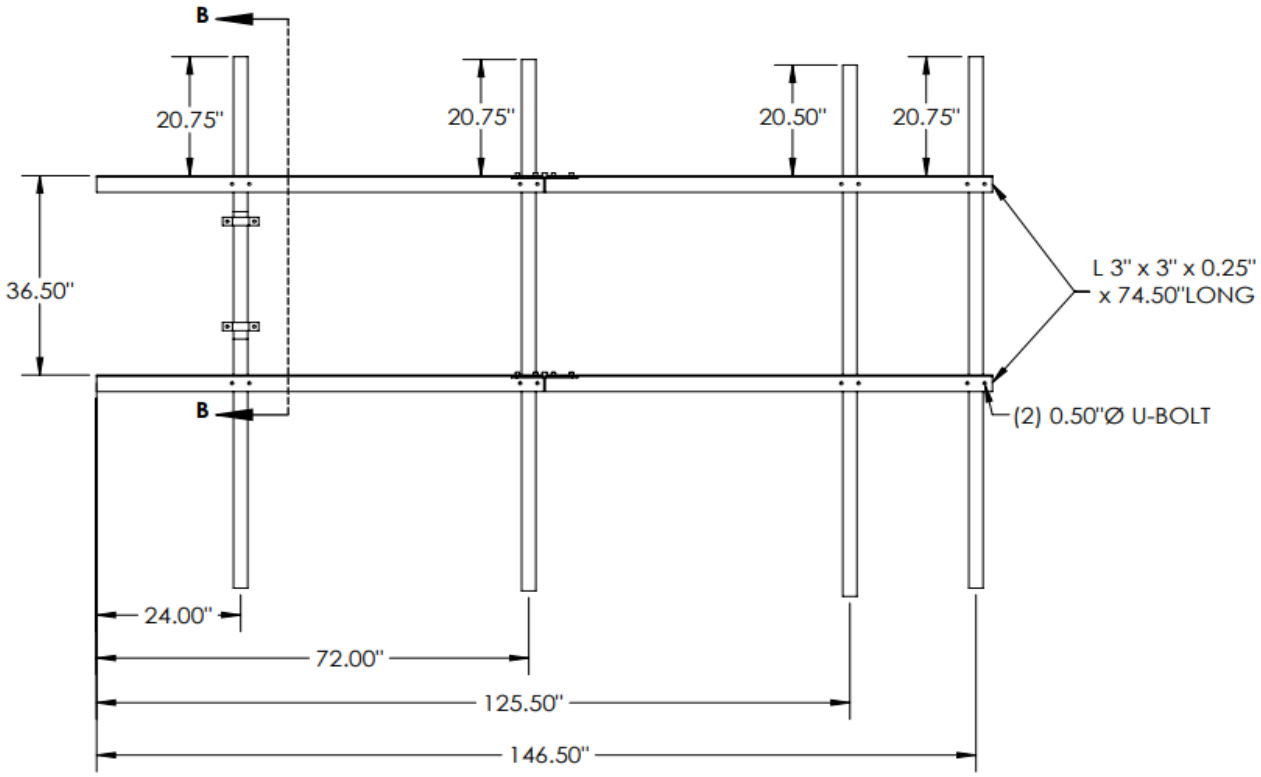


SECTOR : C

Please Insert Sketches of the Antenna Mount, cont'd

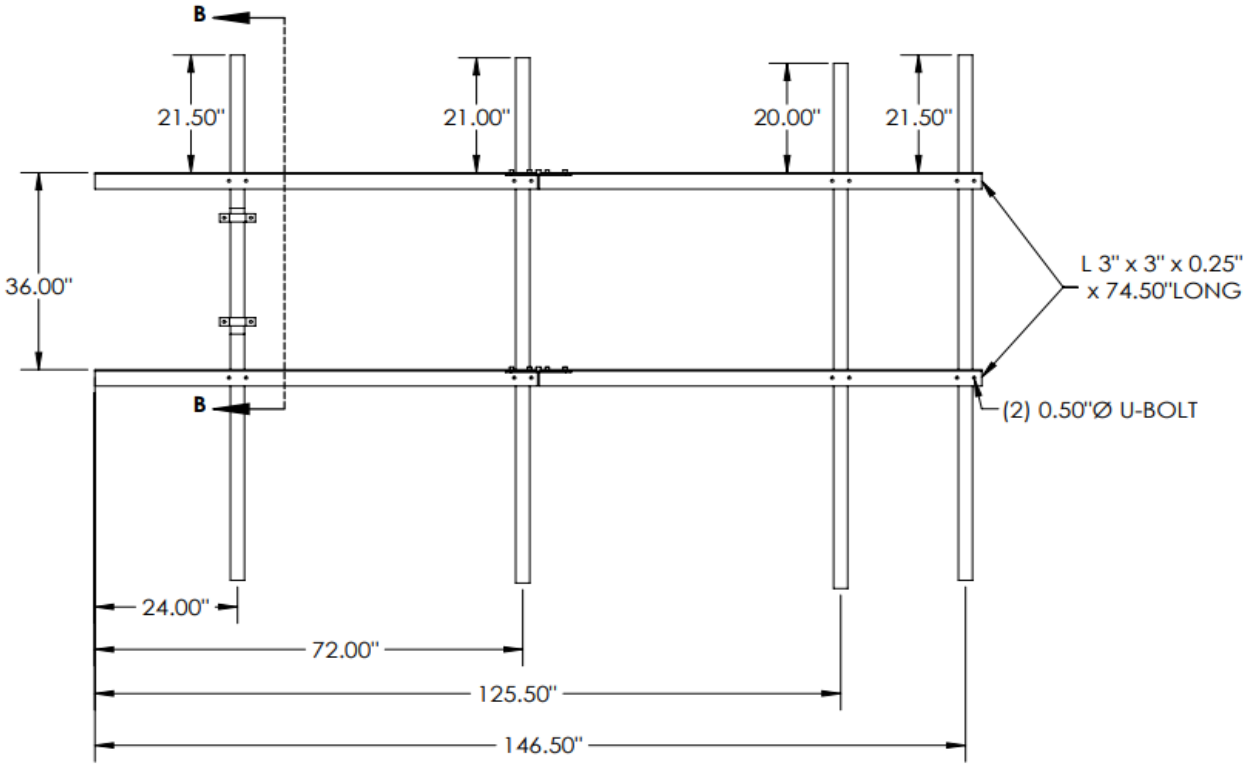


SECTOR : A

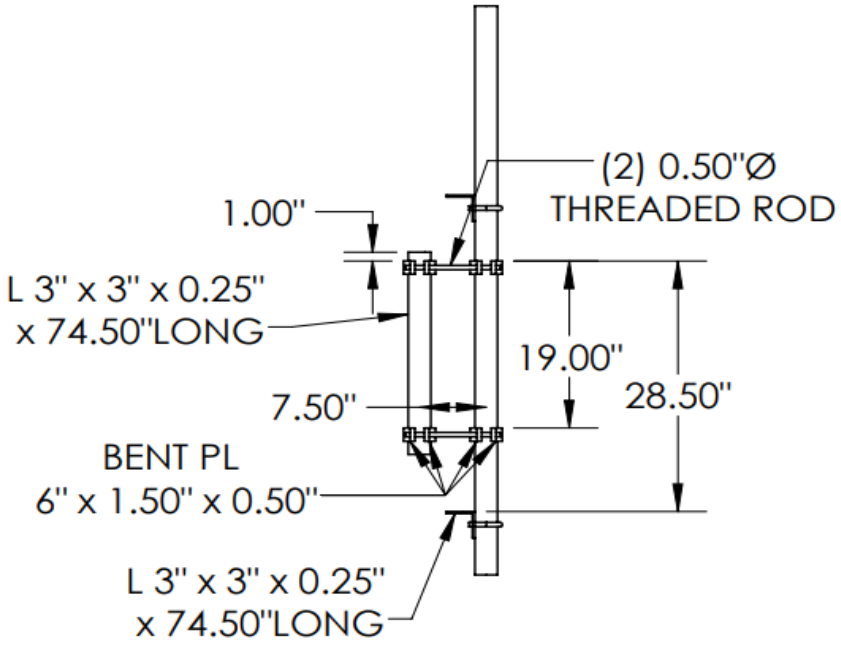


SECTOR : B

Please Insert Sketches of the Antenna Mount, cont'd

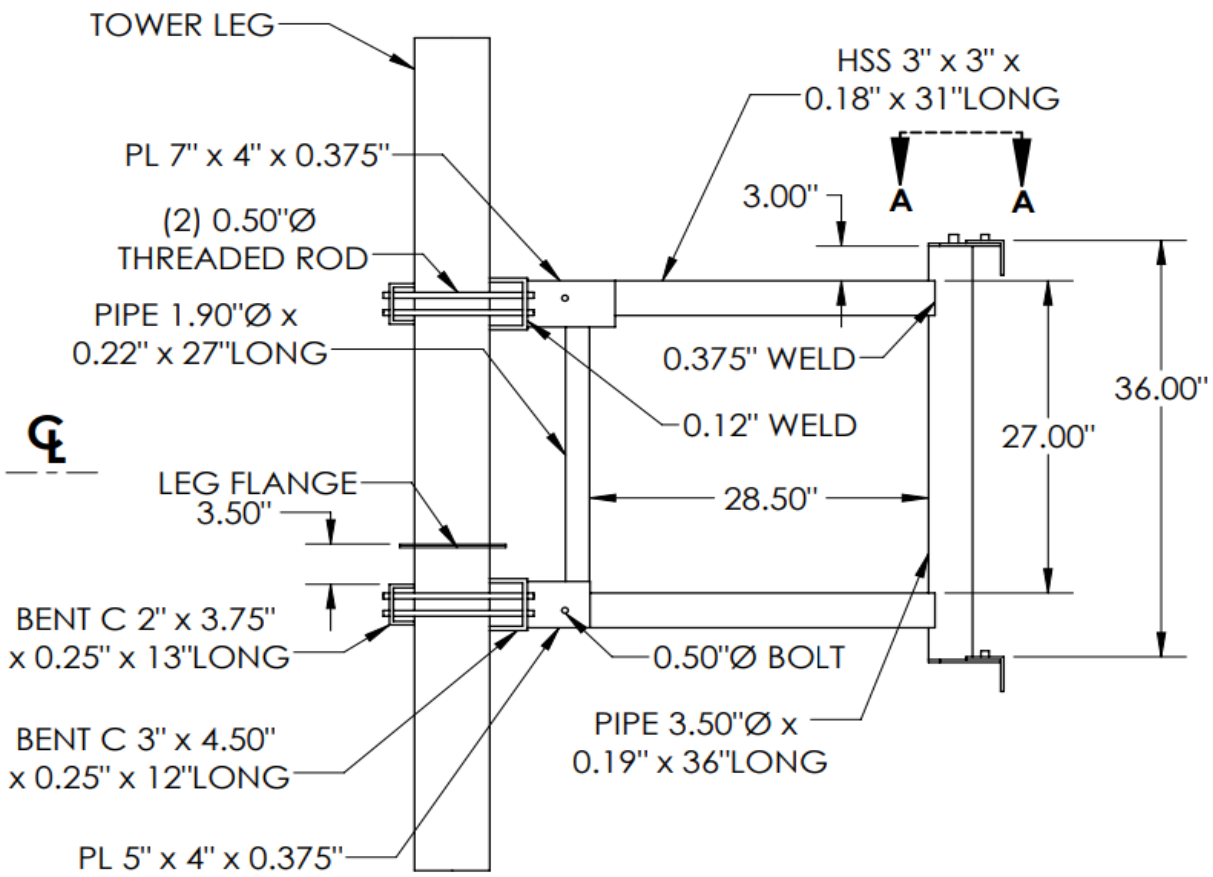


SECTOR : C

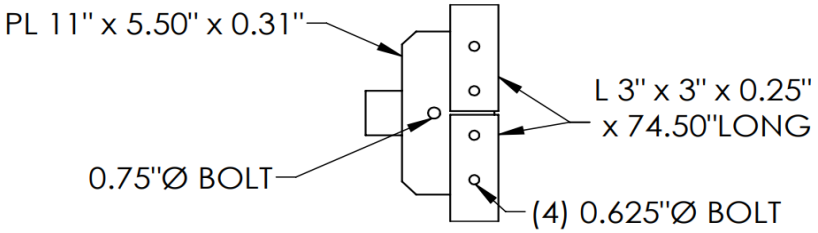


SECTION B-B

Please Insert Sketches of the Antenna Mount, cont'd

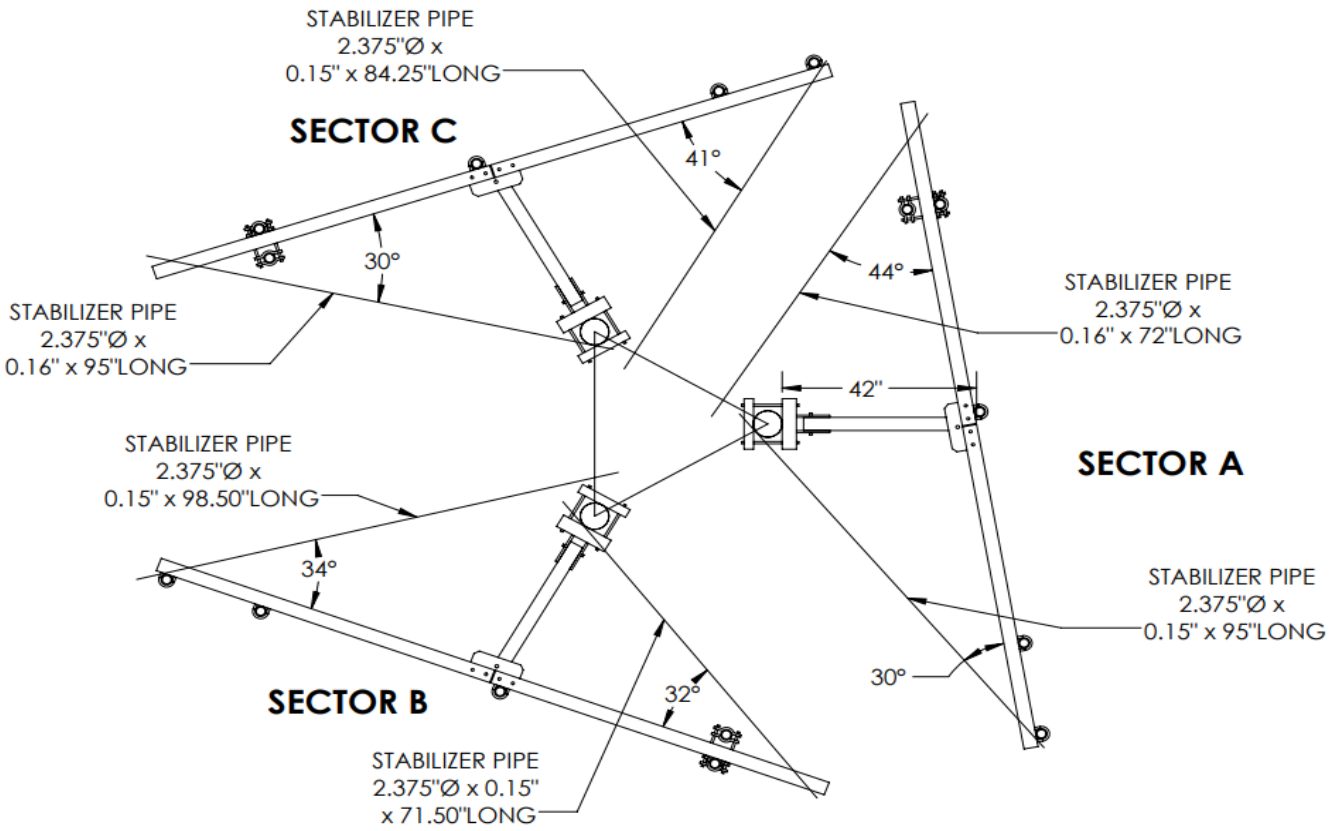


STAND-OFF ASSEMBLY : 1

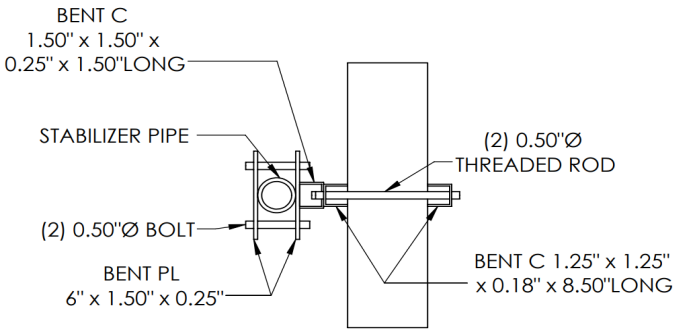


SECTION A-A

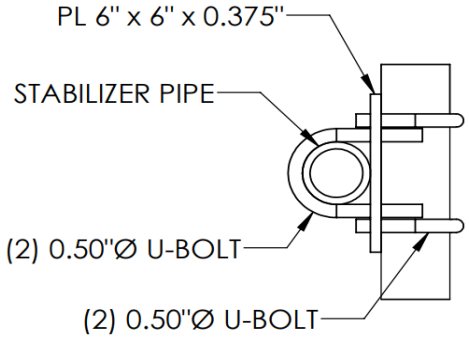
Please Insert Sketches of the Antenna Mount, cont'd



ANTENNA PLAN VIEW

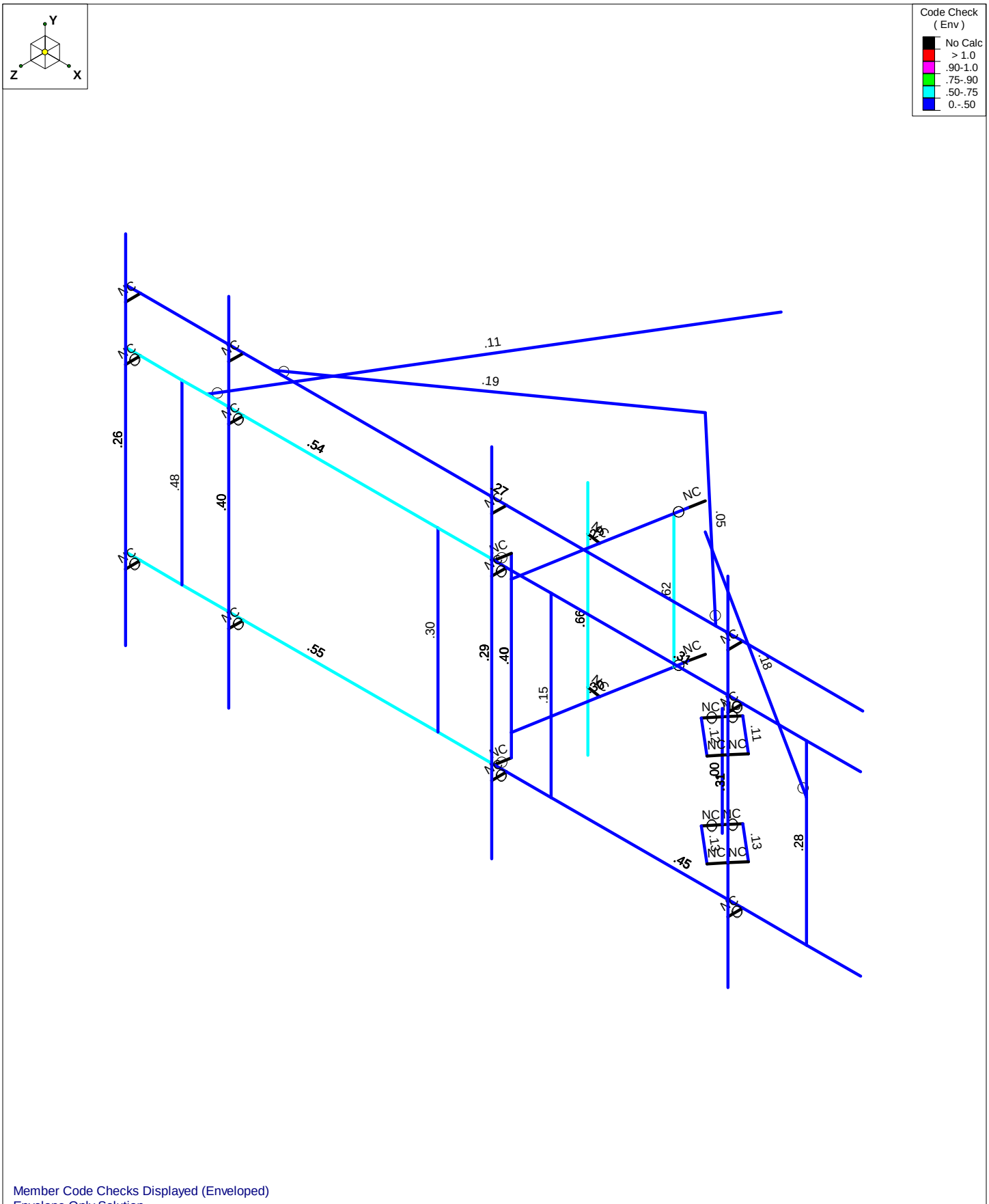


STABILIZER TOWER CONNECTION



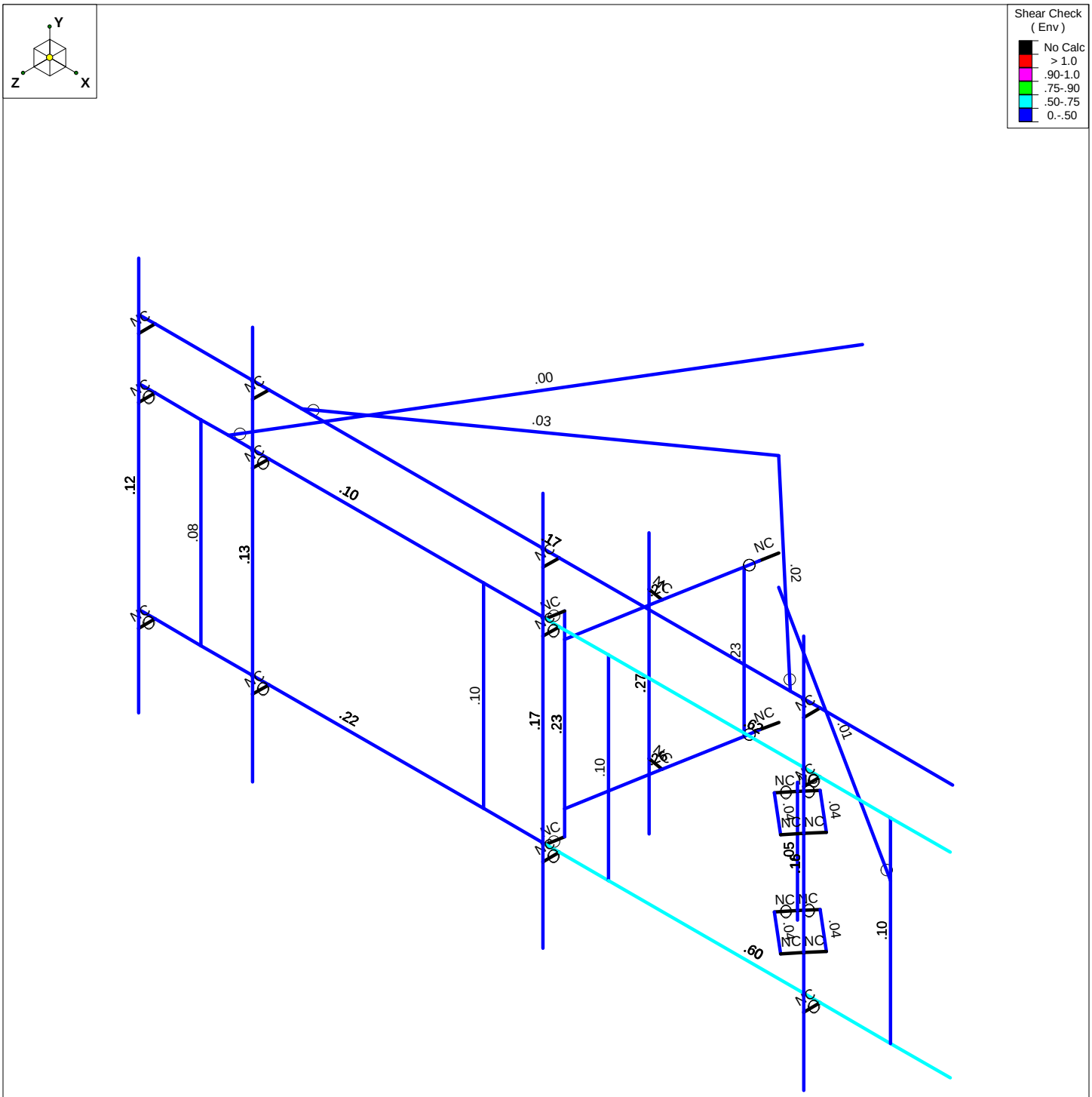
STABILIZER MOUNT CONNECTION

Maser Consulting	468258-VZW_MT_LOT_SectorA_H	SK - 1
		Mar 9, 2021 at 2:02 PM
		MOD_468258-VZW_MT_LOT_A_H....



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	468258-VZW_MT_LOT_SectorA_H	SK - 2
		Mar 9, 2021 at 2:04 PM
		MOD_468258-VZW_MT_LOT_A_H....



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	468258-VZW_MT_LOT_SectorA_H	SK - 3
		Mar 9, 2021 at 2:04 PM
		MOD_468258-VZW_MT_LOT_A_H....

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
52	Structure Wo (330 D...	None						54		
53	Structure Wi (0 Deg)	None						54		
54	Structure Wi (30 Deg)	None						54		
55	Structure Wi (60 Deg)	None						54		
56	Structure Wi (90 Deg)	None						54		
57	Structure Wi (120 De...	None						54		
58	Structure Wi (150 De...	None						54		
59	Structure Wi (180 De...	None						54		
60	Structure Wi (210 De...	None						54		
61	Structure Wi (240 De...	None						54		
62	Structure Wi (270 De...	None						54		
63	Structure Wi (300 De...	None						54		
64	Structure Wi (330 De...	None						54		
65	Structure Wm (0 Deg)	None						54		
66	Structure Wm (30 D...	None						54		
67	Structure Wm (60 D...	None						54		
68	Structure Wm (90 D...	None						54		
69	Structure Wm (120 ...	None						54		
70	Structure Wm (150 ...	None						54		
71	Structure Wm (180 ...	None						54		
72	Structure Wm (210 ...	None						54		
73	Structure Wm (240 ...	None						54		
74	Structure Wm (270 ...	None						54		
75	Structure Wm (300 ...	None						54		
76	Structure Wm (330 ...	None						54		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			

Load Combinations

	Description	Solve	PDelta	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	1.2D+1.0Wo (0...	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (6...	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (9...	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (1...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (2...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (3...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								

Load Combinations (Continued)

	Description	Solve	PDelta	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
19	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1										
20	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1										
21	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1										
22	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1										
23	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1										
24	1.2D + 1.0Di + ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1										
25	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1												
26	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1												
27	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1												
28	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1												
29	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1												
30	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1												
31	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1												
32	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1												
33	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1												
34	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1												
35	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1												
36	1.2D + 1.5Lm1 ...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1												
37	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1												
38	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1												
39	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1												
40	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1												
41	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1												
42	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1												
43	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1												
44	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1												
45	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1												
46	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1												
47	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1												
48	1.2D + 1.5Lm2 ...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1												
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5																
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5																
51	1.4D	Yes	Y		1	1.4	39	1.4																		
52	Seismic Mass		Y		1	1	39	1																		
53	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1												
54	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866												
55	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5												
56	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ													
57	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5												
58	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866												
59	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX		SY	1	SZ	1												
60	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866												
61	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5												
62	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ													
63	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5												
64	1.2D + 1.0Ev + ...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866												

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-4	-.5	4	0	
2	N2	-10.208333	-.5	4	0	
3	N3	2.208333	-.5	4	0	
4	N12	-10	-.5	4	0	
5	N13	-10	-.5	4.25	0	
6	N10	-3.791667	-.5	4	0	
7	N12A	0.208333	-.5	4	0	
8	N13A	-3.791667	-.5	4.25	0	
9	N15	0.208333	-.5	4.25	0	
10	N16	-4	2.5	4	0	
11	N17	-10.208333	2.5	4	0	
12	N18	2.208333	2.5	4	0	
13	N23	-10	2.5	4	0	
14	N24	-10	2.5	4.25	0	
15	N25	-3.791667	2.5	4	0	
16	N27	0.208333	2.5	4	0	
17	N28	-3.791667	2.5	4.25	0	
18	N30	0.208333	2.5	4.25	0	
19	N37	-10	4.416667	4.25	0	
20	N38	-3.791667	4.395833	4.25	0	
21	N40	0.208333	4.5	4.25	0	
22	N41	-10	-1.625	4.25	0	
23	N42	-3.791667	-1.645833	4.25	0	
24	N44	0.208333	-1.541667	4.25	0	
25	N25A	-3.956588	-.5	3.753798	0	
26	N26	-3.956588	2.5	3.753798	0	
27	N37A	-8.25	-.5	4	0	
28	N38B	-8.25	-.5	4.25	0	
29	N39	-8.25	2.5	4	0	
30	N40A	-8.25	2.5	4.25	0	
31	N41A	-8.25	4.375	4.25	0	
32	N42A	-8.25	-1.666667	4.25	0	
33	N43	-3.956588	2.125	3.753798	0	
34	N44A	-3.507997	2.125	1.209711	0	
35	N45	-3.464585	2.125	0.963509	0	
36	N46	-3.544174	2.125	1.41488	0	
37	N44B	-3.956588	-.125	3.753798	0	
38	N45A	-3.507997	-.125	1.209711	0	
39	N46A	-3.464585	-.125	0.963509	0	
40	N47	-3.544174	-.125	1.41488	0	
41	N44C	-9.291667	-.5	4	0	
42	N45B	-9.291667	2.5	4	0	
43	N46B	-4.958333	-.5	4	0	
44	N47A	-4.958333	2.5	4	0	
45	N48	-3.041667	-.5	4	0	
46	N49	-3.041667	2.5	4	0	
47	N50	1.291667	-.5	4	0	
48	N51	1.291667	2.5	4	0	
49	N52	-8.875	2.5	4	0	
50	N53	1.291667	1.666667	4	0	
51	N53B	-3.732292	2.125	2.481755	0	
52	N54	-3.732292	-.125	2.481755	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
53	N55A	-3.978494	2.125	2.438343	0	
54	N56	-3.978494	-.125	2.438343	0	
55	N57	-3.978494	2.875	2.438343	0	
56	N58	-3.978494	-1.125	2.438343	0	
57	N59	0.208333	1.875	4.25	0	
58	N60	0.208333	0.291667	4.25	0	
59	N61	0.047636	1.875	4.441511	0	
60	N62	0.047636	0.291667	4.441511	0	
61	N63	0.36903	1.875	4.058489	0	
62	N64	0.36903	0.291667	4.058489	0	
63	N65	-0.398119	1.875	3.741126	0	
64	N66	-0.398119	0.291667	3.741126	0	
65	N67	-0.558815	1.875	3.932638	0	
66	N68	-0.558815	0.291667	3.932638	0	
67	N69	-0.237422	1.875	3.549615	0	
68	N70	-0.237422	0.291667	3.549615	0	
69	N71	-0.398119	2	3.741126	0	
70	N72	-0.398119	0.166667	3.741126	0	
71	N73A	-3.464585	1.666667	0.963509	0	
72	N74A	-5.214575	2.5	-2.067592	0	
73	N73	-10.25	3.416667	4	0	
74	N74	2.25	3.416667	4	0	
75	N75	-10	3.416667	4	0	
76	N76	-10	3.416667	4.25	0	
77	N77	-3.791667	3.416667	4	0	
78	N78	0.208333	3.416667	4	0	
79	N79	-3.791667	3.416667	4.25	0	
80	N80	0.208333	3.416667	4.25	0	
81	N81	-8.25	3.416667	4	0	
82	N82	-8.25	3.416667	4.25	0	
83	N83	-3.464585	3.416667	0.963509	0	
84	N84	-7.75	3.416667	4	0	
85	N85	-.25	3.416667	4	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Face Horizontal	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
3	Threaded Rod	SR_0.5	Beam	BAR	A36 Gr.36	Typical	.196	.003	.003	.006
4	Mast Pipe	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
5	Standoff Vertical	PIPE_1.5	Column	Pipe	A53 Gr. B	Typical	.749	.293	.293	.586
6	Face Vertical	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
7	Standoff Horizontal	HSS3X3X3	Beam	Tube	A500 Gr. B ...	Typical	1.89	2.46	2.46	4.03
8	Tie Back	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
9	Secondary Horizo...	PIPE_2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
10	V-Brace Kit	L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical	1.19	.692	.692	.026

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N1		180	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
2	LIVE2	N12	N13			RIGID	None	None	RIGID	Typical
3	LIVE1	N10	N13A			RIGID	None	None	RIGID	Typical
4	M6	N12A	N15			RIGID	None	None	RIGID	Typical
5	M7A	N17	N16		180	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
6	M9	N23	N24			RIGID	None	None	RIGID	Typical
7	M10	N25	N28			RIGID	None	None	RIGID	Typical
8	M12	N27	N30			RIGID	None	None	RIGID	Typical
9	MP4A	N37	N41			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
10	MP2A	N38	N42			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
11	MP1A	N40	N44			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
12	M14	N16	N26			RIGID	None	None	RIGID	Typical
13	M15	N1	N25A			RIGID	None	None	RIGID	Typical
14	M18	N46	N47			Standoff Vertical	Column	Pipe	A53 Gr. B	Typical
15	M19	N26	N25A			Mast Pipe	Column	Pipe	A53 Gr. B	Typical
16	M21A	N37A	N38B			RIGID	None	None	RIGID	Typical
17	M22A	N39	N40A			RIGID	None	None	RIGID	Typical
18	MP3A	N41A	N42A			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
19	M24	N43	N44A			Standoff Horiz...	Beam	Tube	A500 Gr. ...	Typical
20	M25	N44A	N45			RIGID	None	None	RIGID	Typical
21	M24A	N44B	N45A			Standoff Horiz...	Beam	Tube	A500 Gr. ...	Typical
22	M25A	N45A	N46A			RIGID	None	None	RIGID	Typical
23	FACE	N1	N3		180	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
24	M24B	N16	N18		180	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
25	M25B	N45B	N44C			Face Vertical	Column	Pipe	A53 Gr. B	Typical
26	RADIO	N47A	N46B			Face Vertical	Column	Pipe	A53 Gr. B	Typical
27	M27	N49	N48			Face Vertical	Column	Pipe	A53 Gr. B	Typical
28	M28	N51	N50			Face Vertical	Column	Pipe	A53 Gr. B	Typical
29	M29	N52	N74A			Tie Back	Beam	Pipe	A53 Gr. B	Typical
30	M30	N53	N73A			Tie Back	Beam	Pipe	A53 Gr. B	Typical
31	M31	N53B	N55A			RIGID	None	None	RIGID	Typical
32	M32	N54	N56			RIGID	None	None	RIGID	Typical
33	OVP	N57	N58			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
34	M34	N63	N59			RIGID	None	None	RIGID	Typical
35	M35	N64	N60			RIGID	None	None	RIGID	Typical
36	M36	N61	N59			RIGID	None	None	RIGID	Typical
37	M37	N62	N60			RIGID	None	None	RIGID	Typical
38	M38	N69	N65			RIGID	None	None	RIGID	Typical
39	M39	N70	N66			RIGID	None	None	RIGID	Typical
40	M40	N67	N65			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
41	M41	N68	N66			RIGID	None	None	RIGID	Typical
42	M42	N61	N67			Threaded Rod	Beam	BAR	A36 Gr.36	Typical
43	M43	N63	N69			Threaded Rod	Beam	BAR	A36 Gr.36	Typical
44	M44	N64	N70			Threaded Rod	Beam	BAR	A36 Gr.36	Typical
45	M45	N62	N68			Threaded Rod	Beam	BAR	A36 Gr.36	Typical
46	M46	N71	N72			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
47	M49	N78	N80			RIGID	None	None	RIGID	Typical
48	M50	N81	N82			RIGID	None	None	RIGID	Typical
49	M51	N73	N74			Secondary Hor...	Beam	Pipe	A53 Gr. B	Typical
50	M52	N84	N83			V-Brace Kit	Beam	Single Angle	A36 Gr.36	Typical
51	M53	N85	N83		270	V-Brace Kit	Beam	Single Angle	A36 Gr.36	Typical
52	M52A	N76	N75			RIGID	None	None	RIGID	Typical
53	M53A	N79	N77			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	LIVE2		OOOXOO				Yes	** NA **			None
3	LIVE1		OOOXOO				Yes	** NA **			None
4	M6		OOOXOO				Yes	** NA **			None
5	M7A						Yes				None
6	M9		OOOXOO				Yes	** NA **			None
7	M10		OOOXOO				Yes	** NA **			None
8	M12		OOOXOO				Yes	** NA **			None
9	MP4A						Yes	** NA **			None
10	MP2A						Yes	** NA **			None
11	MP1A						Yes	** NA **			None
12	M14		OOOOOO				Yes	** NA **			None
13	M15		OOOOOO				Yes	** NA **			None
14	M18						Yes	** NA **			None
15	M19						Yes	** NA **			None
16	M21A		OOOXOO				Yes	** NA **			None
17	M22A		OOOXOO				Yes	** NA **			None
18	MP3A						Yes	** NA **			None
19	M24		OOOOOO				Yes	Default			None
20	M25						Yes	** NA **			None
21	M24A		OOOOOO				Yes	Default			None
22	M25A						Yes	** NA **			None
23	FACE						Yes				None
24	M24B						Yes				None
25	M25B						Yes	** NA **			None
26	RADIO						Yes	** NA **			None
27	M27						Yes	** NA **			None
28	M28						Yes	** NA **			None
29	M29	BenPIN					Yes				None
30	M30	OOOOXO					Yes	Default			None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	OVP						Yes	** NA **			None
34	M34						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
35	M35						Yes	** NA **			None
36	M36						Yes	** NA **			None
37	M37						Yes	** NA **			None
38	M38		OOOXOO				Yes	** NA **			None
39	M39		OOOXOO				Yes	** NA **			None
40	M40		OOOXOO				Yes	** NA **			None
41	M41		OOOXOO				Yes	** NA **			None
42	M42						Yes				None
43	M43						Yes				None
44	M44						Yes				None
45	M45						Yes				None
46	M46						Yes	** NA **			None
47	M49						Yes	** NA **			None
48	M50						Yes	** NA **			None
49	M51						Yes				None
50	M52	BenPIN					Yes				None
51	M53	BenPIN					Yes	Default			None
52	M52A						Yes	** NA **			None
53	M53A						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-21.85	.5
2	MP2A	My	-.011	.5
3	MP2A	Mz	-.013	.5
4	MP2A	Y	-21.85	4.5
5	MP2A	My	-.011	4.5
6	MP2A	Mz	-.013	4.5
7	MP2A	Y	-21.85	.5
8	MP2A	My	-.011	.5
9	MP2A	Mz	.013	.5
10	MP2A	Y	-21.85	4.5
11	MP2A	My	-.011	4.5
12	MP2A	Mz	.013	4.5
13	MP2A	Y	-84.4	1
14	MP2A	My	.042	1
15	MP2A	Mz	0	1
16	RADIO	Y	-70.3	1.5
17	RADIO	My	0	1.5
18	RADIO	Mz	0	1.5
19	OVP	Y	-32	1
20	OVP	My	0	1
21	OVP	Mz	0	1
22	MP4A	Y	-22.95	.5
23	MP4A	My	-.011	.5
24	MP4A	Mz	0	.5
25	MP4A	Y	-22.95	4.5
26	MP4A	My	-.011	4.5
27	MP4A	Mz	0	4.5
28	MP1A	Y	-43.55	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP1A	My	-.022	1.5
30	MP1A	Mz	0	1.5
31	MP1A	Y	-43.55	3.56
32	MP1A	My	-.022	3.56
33	MP1A	Mz	0	3.56

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-89.886	.5
2	MP2A	My	-.045	.5
3	MP2A	Mz	-.052	.5
4	MP2A	Y	-89.886	4.5
5	MP2A	My	-.045	4.5
6	MP2A	Mz	-.052	4.5
7	MP2A	Y	-89.886	.5
8	MP2A	My	-.045	.5
9	MP2A	Mz	.052	.5
10	MP2A	Y	-89.886	4.5
11	MP2A	My	-.045	4.5
12	MP2A	Mz	.052	4.5
13	MP2A	Y	-67.204	1
14	MP2A	My	.034	1
15	MP2A	Mz	0	1
16	RADIO	Y	-60.638	1.5
17	RADIO	My	0	1.5
18	RADIO	Mz	0	1.5
19	OVP	Y	-112.443	1
20	OVP	My	0	1
21	OVP	Mz	0	1
22	MP4A	Y	-99.74	.5
23	MP4A	My	-.05	.5
24	MP4A	Mz	0	.5
25	MP4A	Y	-99.74	4.5
26	MP4A	My	-.05	4.5
27	MP4A	Mz	0	4.5
28	MP1A	Y	-53.022	1.5
29	MP1A	My	-.027	1.5
30	MP1A	Mz	0	1.5
31	MP1A	Y	-53.022	3.56
32	MP1A	My	-.027	3.56
33	MP1A	Mz	0	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-148.516	.5
3	MP2A	Mx	.087	.5
4	MP2A	X	0	4.5
5	MP2A	Z	-148.516	4.5
6	MP2A	Mx	.087	4.5
7	MP2A	X	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP2A	Z	-148.516	.5
9	MP2A	Mx	-.087	.5
10	MP2A	X	0	4.5
11	MP2A	Z	-148.516	4.5
12	MP2A	Mx	-.087	4.5
13	MP2A	X	0	1
14	MP2A	Z	-68.562	1
15	MP2A	Mx	0	1
16	RADIO	X	0	1.5
17	RADIO	Z	-55.572	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	0	1
20	OVP	Z	-119.547	1
21	OVP	Mx	0	1
22	MP4A	X	0	.5
23	MP4A	Z	-169.654	.5
24	MP4A	Mx	0	.5
25	MP4A	X	0	4.5
26	MP4A	Z	-169.654	4.5
27	MP4A	Mx	0	4.5
28	MP1A	X	0	1.5
29	MP1A	Z	-86.39	1.5
30	MP1A	Mx	0	1.5
31	MP1A	X	0	3.56
32	MP1A	Z	-86.39	3.56
33	MP1A	Mx	0	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	67.967	.5
2	MP2A	Z	-117.722	.5
3	MP2A	Mx	.035	.5
4	MP2A	X	67.967	4.5
5	MP2A	Z	-117.722	4.5
6	MP2A	Mx	.035	4.5
7	MP2A	X	67.967	.5
8	MP2A	Z	-117.722	.5
9	MP2A	Mx	-.103	.5
10	MP2A	X	67.967	4.5
11	MP2A	Z	-117.722	4.5
12	MP2A	Mx	-.103	4.5
13	MP2A	X	31.44	1
14	MP2A	Z	-54.455	1
15	MP2A	Mx	.016	1
16	RADIO	X	20.4	1.5
17	RADIO	Z	-35.334	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	48.737	1
20	OVP	Z	-84.415	1
21	OVP	Mx	0	1
22	MP4A	X	77.728	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP4A	Z	-134.629	.5
24	MP4A	Mx	-.039	.5
25	MP4A	X	77.728	4.5
26	MP4A	Z	-134.629	4.5
27	MP4A	Mx	-.039	4.5
28	MP1A	X	36.624	1.5
29	MP1A	Z	-63.434	1.5
30	MP1A	Mx	-.018	1.5
31	MP1A	X	36.624	3.56
32	MP1A	Z	-63.434	3.56
33	MP1A	Mx	-.018	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	95.927	.5
2	MP2A	Z	-55.383	.5
3	MP2A	Mx	-.016	.5
4	MP2A	X	95.927	4.5
5	MP2A	Z	-55.383	4.5
6	MP2A	Mx	-.016	4.5
7	MP2A	X	95.927	.5
8	MP2A	Z	-55.383	.5
9	MP2A	Mx	-.08	.5
10	MP2A	X	95.927	4.5
11	MP2A	Z	-55.383	4.5
12	MP2A	Mx	-.08	4.5
13	MP2A	X	44.612	1
14	MP2A	Z	-25.757	1
15	MP2A	Mx	.022	1
16	RADIO	X	32.97	1.5
17	RADIO	Z	-19.035	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	80.883	1
20	OVP	Z	-46.698	1
21	OVP	Mx	0	1
22	MP4A	X	110.036	.5
23	MP4A	Z	-63.53	.5
24	MP4A	Mx	-.055	.5
25	MP4A	X	110.036	4.5
26	MP4A	Z	-63.53	4.5
27	MP4A	Mx	-.055	4.5
28	MP1A	X	40.671	1.5
29	MP1A	Z	-23.482	1.5
30	MP1A	Mx	-.02	1.5
31	MP1A	X	40.671	3.56
32	MP1A	Z	-23.482	3.56
33	MP1A	Mx	-.02	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	98.184	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP2A	Z	0	.5
3	MP2A	Mx	-.049	.5
4	MP2A	X	98.184	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	-.049	4.5
7	MP2A	X	98.184	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	-.049	.5
10	MP2A	X	98.184	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	-.049	4.5
13	MP2A	X	45.83	1
14	MP2A	Z	0	1
15	MP2A	Mx	.023	1
16	RADIO	X	50.113	1.5
17	RADIO	Z	0	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	111.389	1
20	OVP	Z	0	1
21	OVP	Mx	0	1
22	MP4A	X	112.861	.5
23	MP4A	Z	0	.5
24	MP4A	Mx	-.056	.5
25	MP4A	X	112.861	4.5
26	MP4A	Z	0	4.5
27	MP4A	Mx	-.056	4.5
28	MP1A	X	33.821	1.5
29	MP1A	Z	0	1.5
30	MP1A	Mx	-.017	1.5
31	MP1A	X	33.821	3.56
32	MP1A	Z	0	3.56
33	MP1A	Mx	-.017	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	95.927	.5
2	MP2A	Z	55.383	.5
3	MP2A	Mx	-.08	.5
4	MP2A	X	95.927	4.5
5	MP2A	Z	55.383	4.5
6	MP2A	Mx	-.08	4.5
7	MP2A	X	95.927	.5
8	MP2A	Z	55.383	.5
9	MP2A	Mx	-.016	.5
10	MP2A	X	95.927	4.5
11	MP2A	Z	55.383	4.5
12	MP2A	Mx	-.016	4.5
13	MP2A	X	44.612	1
14	MP2A	Z	25.757	1
15	MP2A	Mx	.022	1
16	RADIO	X	56.192	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	RADIO	Z	32.442	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	115.582	1
20	OVP	Z	66.731	1
21	OVP	Mx	0	1
22	MP4A	X	110.036	.5
23	MP4A	Z	63.53	.5
24	MP4A	Mx	-.055	.5
25	MP4A	X	110.036	4.5
26	MP4A	Z	63.53	4.5
27	MP4A	Mx	-.055	4.5
28	MP1A	X	40.671	1.5
29	MP1A	Z	23.482	1.5
30	MP1A	Mx	-.02	1.5
31	MP1A	X	40.671	3.56
32	MP1A	Z	23.482	3.56
33	MP1A	Mx	-.02	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	67.967	.5
2	MP2A	Z	117.722	.5
3	MP2A	Mx	-.103	.5
4	MP2A	X	67.967	4.5
5	MP2A	Z	117.722	4.5
6	MP2A	Mx	-.103	4.5
7	MP2A	X	67.967	.5
8	MP2A	Z	117.722	.5
9	MP2A	Mx	.035	.5
10	MP2A	X	67.967	4.5
11	MP2A	Z	117.722	4.5
12	MP2A	Mx	.035	4.5
13	MP2A	X	31.44	1
14	MP2A	Z	54.455	1
15	MP2A	Mx	.016	1
16	RADIO	X	33.807	1.5
17	RADIO	Z	58.556	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	68.771	1
20	OVP	Z	119.114	1
21	OVP	Mx	0	1
22	MP4A	X	77.728	.5
23	MP4A	Z	134.629	.5
24	MP4A	Mx	-.039	.5
25	MP4A	X	77.728	4.5
26	MP4A	Z	134.629	4.5
27	MP4A	Mx	-.039	4.5
28	MP1A	X	36.624	1.5
29	MP1A	Z	63.434	1.5
30	MP1A	Mx	-.018	1.5
31	MP1A	X	36.624	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
32	MP1A	Z	63.434	3.56
33	MP1A	Mx	-.018	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	148.516	.5
3	MP2A	Mx	-.087	.5
4	MP2A	X	0	4.5
5	MP2A	Z	148.516	4.5
6	MP2A	Mx	-.087	4.5
7	MP2A	X	0	.5
8	MP2A	Z	148.516	.5
9	MP2A	Mx	.087	.5
10	MP2A	X	0	4.5
11	MP2A	Z	148.516	4.5
12	MP2A	Mx	.087	4.5
13	MP2A	X	0	1
14	MP2A	Z	68.562	1
15	MP2A	Mx	0	1
16	RADIO	X	0	1.5
17	RADIO	Z	55.572	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	0	1
20	OVP	Z	119.547	1
21	OVP	Mx	0	1
22	MP4A	X	0	.5
23	MP4A	Z	169.654	.5
24	MP4A	Mx	0	.5
25	MP4A	X	0	4.5
26	MP4A	Z	169.654	4.5
27	MP4A	Mx	0	4.5
28	MP1A	X	0	1.5
29	MP1A	Z	86.39	1.5
30	MP1A	Mx	0	1.5
31	MP1A	X	0	3.56
32	MP1A	Z	86.39	3.56
33	MP1A	Mx	0	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-67.967	.5
2	MP2A	Z	117.722	.5
3	MP2A	Mx	-.035	.5
4	MP2A	X	-67.967	4.5
5	MP2A	Z	117.722	4.5
6	MP2A	Mx	-.035	4.5
7	MP2A	X	-67.967	.5
8	MP2A	Z	117.722	.5
9	MP2A	Mx	.103	.5
10	MP2A	X	-67.967	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP2A	Z	117.722	4.5
12	MP2A	Mx	.103	4.5
13	MP2A	X	-31.44	1
14	MP2A	Z	54.455	1
15	MP2A	Mx	-.016	1
16	RADIO	X	-20.4	1.5
17	RADIO	Z	35.334	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-48.737	1
20	OVP	Z	84.415	1
21	OVP	Mx	0	1
22	MP4A	X	-77.728	.5
23	MP4A	Z	134.629	.5
24	MP4A	Mx	.039	.5
25	MP4A	X	-77.728	4.5
26	MP4A	Z	134.629	4.5
27	MP4A	Mx	.039	4.5
28	MP1A	X	-36.624	1.5
29	MP1A	Z	63.434	1.5
30	MP1A	Mx	.018	1.5
31	MP1A	X	-36.624	3.56
32	MP1A	Z	63.434	3.56
33	MP1A	Mx	.018	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-95.927	.5
2	MP2A	Z	55.383	.5
3	MP2A	Mx	.016	.5
4	MP2A	X	-95.927	4.5
5	MP2A	Z	55.383	4.5
6	MP2A	Mx	.016	4.5
7	MP2A	X	-95.927	.5
8	MP2A	Z	55.383	.5
9	MP2A	Mx	.08	.5
10	MP2A	X	-95.927	4.5
11	MP2A	Z	55.383	4.5
12	MP2A	Mx	.08	4.5
13	MP2A	X	-44.612	1
14	MP2A	Z	25.757	1
15	MP2A	Mx	-.022	1
16	RADIO	X	-32.97	1.5
17	RADIO	Z	19.035	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-80.883	1
20	OVP	Z	46.698	1
21	OVP	Mx	0	1
22	MP4A	X	-110.036	.5
23	MP4A	Z	63.53	.5
24	MP4A	Mx	.055	.5
25	MP4A	X	-110.036	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP4A	Z	63.53	4.5
27	MP4A	Mx	.055	4.5
28	MP1A	X	-40.671	1.5
29	MP1A	Z	23.482	1.5
30	MP1A	Mx	.02	1.5
31	MP1A	X	-40.671	3.56
32	MP1A	Z	23.482	3.56
33	MP1A	Mx	.02	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-98.184	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.049	.5
4	MP2A	X	-98.184	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	.049	4.5
7	MP2A	X	-98.184	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	.049	.5
10	MP2A	X	-98.184	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	.049	4.5
13	MP2A	X	-45.83	1
14	MP2A	Z	0	1
15	MP2A	Mx	-.023	1
16	RADIO	X	-50.113	1.5
17	RADIO	Z	0	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-111.389	1
20	OVP	Z	0	1
21	OVP	Mx	0	1
22	MP4A	X	-112.861	.5
23	MP4A	Z	0	.5
24	MP4A	Mx	.056	.5
25	MP4A	X	-112.861	4.5
26	MP4A	Z	0	4.5
27	MP4A	Mx	.056	4.5
28	MP1A	X	-33.821	1.5
29	MP1A	Z	0	1.5
30	MP1A	Mx	.017	1.5
31	MP1A	X	-33.821	3.56
32	MP1A	Z	0	3.56
33	MP1A	Mx	.017	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-95.927	.5
2	MP2A	Z	-55.383	.5
3	MP2A	Mx	.08	.5
4	MP2A	X	-95.927	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2A	Z	-55.383	4.5
6	MP2A	Mx	.08	4.5
7	MP2A	X	-95.927	.5
8	MP2A	Z	-55.383	.5
9	MP2A	Mx	.016	.5
10	MP2A	X	-95.927	4.5
11	MP2A	Z	-55.383	4.5
12	MP2A	Mx	.016	4.5
13	MP2A	X	-44.612	1
14	MP2A	Z	-25.757	1
15	MP2A	Mx	-.022	1
16	RADIO	X	-56.192	1.5
17	RADIO	Z	-32.442	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-115.582	1
20	OVP	Z	-66.731	1
21	OVP	Mx	0	1
22	MP4A	X	-110.036	.5
23	MP4A	Z	-63.53	.5
24	MP4A	Mx	.055	.5
25	MP4A	X	-110.036	4.5
26	MP4A	Z	-63.53	4.5
27	MP4A	Mx	.055	4.5
28	MP1A	X	-40.671	1.5
29	MP1A	Z	-23.482	1.5
30	MP1A	Mx	.02	1.5
31	MP1A	X	-40.671	3.56
32	MP1A	Z	-23.482	3.56
33	MP1A	Mx	.02	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-67.967	.5
2	MP2A	Z	-117.722	.5
3	MP2A	Mx	.103	.5
4	MP2A	X	-67.967	4.5
5	MP2A	Z	-117.722	4.5
6	MP2A	Mx	.103	4.5
7	MP2A	X	-67.967	.5
8	MP2A	Z	-117.722	.5
9	MP2A	Mx	-.035	.5
10	MP2A	X	-67.967	4.5
11	MP2A	Z	-117.722	4.5
12	MP2A	Mx	-.035	4.5
13	MP2A	X	-31.44	1
14	MP2A	Z	-54.455	1
15	MP2A	Mx	-.016	1
16	RADIO	X	-33.807	1.5
17	RADIO	Z	-58.556	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-68.771	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	OVP	Z	-119.114	1
21	OVP	Mx	0	1
22	MP4A	X	-77.728	.5
23	MP4A	Z	-134.629	.5
24	MP4A	Mx	.039	.5
25	MP4A	X	-77.728	4.5
26	MP4A	Z	-134.629	4.5
27	MP4A	Mx	.039	4.5
28	MP1A	X	-36.624	1.5
29	MP1A	Z	-63.434	1.5
30	MP1A	Mx	.018	1.5
31	MP1A	X	-36.624	3.56
32	MP1A	Z	-63.434	3.56
33	MP1A	Mx	.018	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-30.652	.5
3	MP2A	Mx	.018	.5
4	MP2A	X	0	4.5
5	MP2A	Z	-30.652	4.5
6	MP2A	Mx	.018	4.5
7	MP2A	X	0	.5
8	MP2A	Z	-30.652	.5
9	MP2A	Mx	-.018	.5
10	MP2A	X	0	4.5
11	MP2A	Z	-30.652	4.5
12	MP2A	Mx	-.018	4.5
13	MP2A	X	0	1
14	MP2A	Z	-15.829	1
15	MP2A	Mx	0	1
16	RADIO	X	0	1.5
17	RADIO	Z	-13.184	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	0	1
20	OVP	Z	-26.135	1
21	OVP	Mx	0	1
22	MP4A	X	0	.5
23	MP4A	Z	-34.855	.5
24	MP4A	Mx	0	.5
25	MP4A	X	0	4.5
26	MP4A	Z	-34.855	4.5
27	MP4A	Mx	0	4.5
28	MP1A	X	0	1.5
29	MP1A	Z	-18.406	1.5
30	MP1A	Mx	0	1.5
31	MP1A	X	0	3.56
32	MP1A	Z	-18.406	3.56
33	MP1A	Mx	0	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	14.18	.5
2	MP2A	Z	-24.561	.5
3	MP2A	Mx	.007	.5
4	MP2A	X	14.18	4.5
5	MP2A	Z	-24.561	4.5
6	MP2A	Mx	.007	4.5
7	MP2A	X	14.18	.5
8	MP2A	Z	-24.561	.5
9	MP2A	Mx	-.021	.5
10	MP2A	X	14.18	4.5
11	MP2A	Z	-24.561	4.5
12	MP2A	Mx	-.021	4.5
13	MP2A	X	7.335	1
14	MP2A	Z	-12.704	1
15	MP2A	Mx	.004	1
16	RADIO	X	5.088	1.5
17	RADIO	Z	-8.813	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	10.923	1
20	OVP	Z	-18.92	1
21	OVP	Mx	0	1
22	MP4A	X	16.129	.5
23	MP4A	Z	-27.936	.5
24	MP4A	Mx	-.008	.5
25	MP4A	X	16.129	4.5
26	MP4A	Z	-27.936	4.5
27	MP4A	Mx	-.008	4.5
28	MP1A	X	7.917	1.5
29	MP1A	Z	-13.714	1.5
30	MP1A	Mx	-.004	1.5
31	MP1A	X	7.917	3.56
32	MP1A	Z	-13.714	3.56
33	MP1A	Mx	-.004	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	20.592	.5
2	MP2A	Z	-11.889	.5
3	MP2A	Mx	-.003	.5
4	MP2A	X	20.592	4.5
5	MP2A	Z	-11.889	4.5
6	MP2A	Mx	-.003	4.5
7	MP2A	X	20.592	.5
8	MP2A	Z	-11.889	.5
9	MP2A	Mx	-.017	.5
10	MP2A	X	20.592	4.5
11	MP2A	Z	-11.889	4.5
12	MP2A	Mx	-.017	4.5
13	MP2A	X	10.695	1
14	MP2A	Z	-6.175	1
15	MP2A	Mx	.005	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	RADIO	X	8.332	1.5
17	RADIO	Z	-4.811	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	18.233	1
20	OVP	Z	-10.527	1
21	OVP	Mx	0	1
22	MP4A	X	23.437	.5
23	MP4A	Z	-13.532	.5
24	MP4A	Mx	-.012	.5
25	MP4A	X	23.437	4.5
26	MP4A	Z	-13.532	4.5
27	MP4A	Mx	-.012	4.5
28	MP1A	X	9.26	1.5
29	MP1A	Z	-5.346	1.5
30	MP1A	Mx	-.005	1.5
31	MP1A	X	9.26	3.56
32	MP1A	Z	-5.346	3.56
33	MP1A	Mx	-.005	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	21.487	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.011	.5
4	MP2A	X	21.487	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	-.011	4.5
7	MP2A	X	21.487	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	-.011	.5
10	MP2A	X	21.487	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	-.011	4.5
13	MP2A	X	11.191	1
14	MP2A	Z	0	1
15	MP2A	Mx	.006	1
16	RADIO	X	12.073	1.5
17	RADIO	Z	0	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	24.55	1
20	OVP	Z	0	1
21	OVP	Mx	0	1
22	MP4A	X	24.466	.5
23	MP4A	Z	0	.5
24	MP4A	Mx	-.012	.5
25	MP4A	X	24.466	4.5
26	MP4A	Z	0	4.5
27	MP4A	Mx	-.012	4.5
28	MP1A	X	8.122	1.5
29	MP1A	Z	0	1.5
30	MP1A	Mx	-.004	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP1A	X	8.122	3.56
32	MP1A	Z	0	3.56
33	MP1A	Mx	-.004	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	20.592	.5
2	MP2A	Z	11.889	.5
3	MP2A	Mx	-.017	.5
4	MP2A	X	20.592	4.5
5	MP2A	Z	11.889	4.5
6	MP2A	Mx	-.017	4.5
7	MP2A	X	20.592	.5
8	MP2A	Z	11.889	.5
9	MP2A	Mx	-.003	.5
10	MP2A	X	20.592	4.5
11	MP2A	Z	11.889	4.5
12	MP2A	Mx	-.003	4.5
13	MP2A	X	10.695	1
14	MP2A	Z	6.175	1
15	MP2A	Mx	.005	1
16	RADIO	X	13.06	1.5
17	RADIO	Z	7.54	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	24.975	1
20	OVP	Z	14.419	1
21	OVP	Mx	0	1
22	MP4A	X	23.437	.5
23	MP4A	Z	13.532	.5
24	MP4A	Mx	-.012	.5
25	MP4A	X	23.437	4.5
26	MP4A	Z	13.532	4.5
27	MP4A	Mx	-.012	4.5
28	MP1A	X	9.26	1.5
29	MP1A	Z	5.346	1.5
30	MP1A	Mx	-.005	1.5
31	MP1A	X	9.26	3.56
32	MP1A	Z	5.346	3.56
33	MP1A	Mx	-.005	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	14.18	.5
2	MP2A	Z	24.561	.5
3	MP2A	Mx	-.021	.5
4	MP2A	X	14.18	4.5
5	MP2A	Z	24.561	4.5
6	MP2A	Mx	-.021	4.5
7	MP2A	X	14.18	.5
8	MP2A	Z	24.561	.5
9	MP2A	Mx	.007	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	14.18	4.5
11	MP2A	Z	24.561	4.5
12	MP2A	Mx	.007	4.5
13	MP2A	X	7.335	1
14	MP2A	Z	12.704	1
15	MP2A	Mx	.004	1
16	RADIO	X	7.818	1.5
17	RADIO	Z	13.541	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	14.815	1
20	OVP	Z	25.661	1
21	OVP	Mx	0	1
22	MP4A	X	16.129	.5
23	MP4A	Z	27.936	.5
24	MP4A	Mx	-.008	.5
25	MP4A	X	16.129	4.5
26	MP4A	Z	27.936	4.5
27	MP4A	Mx	-.008	4.5
28	MP1A	X	7.917	1.5
29	MP1A	Z	13.714	1.5
30	MP1A	Mx	-.004	1.5
31	MP1A	X	7.917	3.56
32	MP1A	Z	13.714	3.56
33	MP1A	Mx	-.004	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	30.652	.5
3	MP2A	Mx	-.018	.5
4	MP2A	X	0	4.5
5	MP2A	Z	30.652	4.5
6	MP2A	Mx	-.018	4.5
7	MP2A	X	0	.5
8	MP2A	Z	30.652	.5
9	MP2A	Mx	.018	.5
10	MP2A	X	0	4.5
11	MP2A	Z	30.652	4.5
12	MP2A	Mx	.018	4.5
13	MP2A	X	0	1
14	MP2A	Z	15.829	1
15	MP2A	Mx	0	1
16	RADIO	X	0	1.5
17	RADIO	Z	13.184	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	0	1
20	OVP	Z	26.135	1
21	OVP	Mx	0	1
22	MP4A	X	0	.5
23	MP4A	Z	34.855	.5
24	MP4A	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP4A	X	0	4.5
26	MP4A	Z	34.855	4.5
27	MP4A	Mx	0	4.5
28	MP1A	X	0	1.5
29	MP1A	Z	18.406	1.5
30	MP1A	Mx	0	1.5
31	MP1A	X	0	3.56
32	MP1A	Z	18.406	3.56
33	MP1A	Mx	0	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-14.18	.5
2	MP2A	Z	24.561	.5
3	MP2A	Mx	-.007	.5
4	MP2A	X	-14.18	4.5
5	MP2A	Z	24.561	4.5
6	MP2A	Mx	-.007	4.5
7	MP2A	X	-14.18	.5
8	MP2A	Z	24.561	.5
9	MP2A	Mx	.021	.5
10	MP2A	X	-14.18	4.5
11	MP2A	Z	24.561	4.5
12	MP2A	Mx	.021	4.5
13	MP2A	X	-7.335	1
14	MP2A	Z	12.704	1
15	MP2A	Mx	-.004	1
16	RADIO	X	-5.088	1.5
17	RADIO	Z	8.813	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-10.923	1
20	OVP	Z	18.92	1
21	OVP	Mx	0	1
22	MP4A	X	-16.129	.5
23	MP4A	Z	27.936	.5
24	MP4A	Mx	.008	.5
25	MP4A	X	-16.129	4.5
26	MP4A	Z	27.936	4.5
27	MP4A	Mx	.008	4.5
28	MP1A	X	-7.917	1.5
29	MP1A	Z	13.714	1.5
30	MP1A	Mx	.004	1.5
31	MP1A	X	-7.917	3.56
32	MP1A	Z	13.714	3.56
33	MP1A	Mx	.004	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-20.592	.5
2	MP2A	Z	11.889	.5
3	MP2A	Mx	.003	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	-20.592	4.5
5	MP2A	Z	11.889	4.5
6	MP2A	Mx	.003	4.5
7	MP2A	X	-20.592	.5
8	MP2A	Z	11.889	.5
9	MP2A	Mx	.017	.5
10	MP2A	X	-20.592	4.5
11	MP2A	Z	11.889	4.5
12	MP2A	Mx	.017	4.5
13	MP2A	X	-10.695	1
14	MP2A	Z	6.175	1
15	MP2A	Mx	-.005	1
16	RADIO	X	-8.332	1.5
17	RADIO	Z	4.811	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-18.233	1
20	OVP	Z	10.527	1
21	OVP	Mx	0	1
22	MP4A	X	-23.437	.5
23	MP4A	Z	13.532	.5
24	MP4A	Mx	.012	.5
25	MP4A	X	-23.437	4.5
26	MP4A	Z	13.532	4.5
27	MP4A	Mx	.012	4.5
28	MP1A	X	-9.26	1.5
29	MP1A	Z	5.346	1.5
30	MP1A	Mx	.005	1.5
31	MP1A	X	-9.26	3.56
32	MP1A	Z	5.346	3.56
33	MP1A	Mx	.005	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-21.487	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.011	.5
4	MP2A	X	-21.487	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	.011	4.5
7	MP2A	X	-21.487	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	.011	.5
10	MP2A	X	-21.487	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	.011	4.5
13	MP2A	X	-11.191	1
14	MP2A	Z	0	1
15	MP2A	Mx	-.006	1
16	RADIO	X	-12.073	1.5
17	RADIO	Z	0	1.5
18	RADIO	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	OVP	X	-24.55	1
20	OVP	Z	0	1
21	OVP	Mx	0	1
22	MP4A	X	-24.466	.5
23	MP4A	Z	0	.5
24	MP4A	Mx	.012	.5
25	MP4A	X	-24.466	4.5
26	MP4A	Z	0	4.5
27	MP4A	Mx	.012	4.5
28	MP1A	X	-8.122	1.5
29	MP1A	Z	0	1.5
30	MP1A	Mx	.004	1.5
31	MP1A	X	-8.122	3.56
32	MP1A	Z	0	3.56
33	MP1A	Mx	.004	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-20.592	.5
2	MP2A	Z	-11.889	.5
3	MP2A	Mx	.017	.5
4	MP2A	X	-20.592	4.5
5	MP2A	Z	-11.889	4.5
6	MP2A	Mx	.017	4.5
7	MP2A	X	-20.592	.5
8	MP2A	Z	-11.889	.5
9	MP2A	Mx	.003	.5
10	MP2A	X	-20.592	4.5
11	MP2A	Z	-11.889	4.5
12	MP2A	Mx	.003	4.5
13	MP2A	X	-10.695	1
14	MP2A	Z	-6.175	1
15	MP2A	Mx	-.005	1
16	RADIO	X	-13.06	1.5
17	RADIO	Z	-7.54	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-24.975	1
20	OVP	Z	-14.419	1
21	OVP	Mx	0	1
22	MP4A	X	-23.437	.5
23	MP4A	Z	-13.532	.5
24	MP4A	Mx	.012	.5
25	MP4A	X	-23.437	4.5
26	MP4A	Z	-13.532	4.5
27	MP4A	Mx	.012	4.5
28	MP1A	X	-9.26	1.5
29	MP1A	Z	-5.346	1.5
30	MP1A	Mx	.005	1.5
31	MP1A	X	-9.26	3.56
32	MP1A	Z	-5.346	3.56
33	MP1A	Mx	.005	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-14.18	.5
2	MP2A	Z	-24.561	.5
3	MP2A	Mx	.021	.5
4	MP2A	X	-14.18	4.5
5	MP2A	Z	-24.561	4.5
6	MP2A	Mx	.021	4.5
7	MP2A	X	-14.18	.5
8	MP2A	Z	-24.561	.5
9	MP2A	Mx	-.007	.5
10	MP2A	X	-14.18	4.5
11	MP2A	Z	-24.561	4.5
12	MP2A	Mx	-.007	4.5
13	MP2A	X	-7.335	1
14	MP2A	Z	-12.704	1
15	MP2A	Mx	-.004	1
16	RADIO	X	-7.818	1.5
17	RADIO	Z	-13.541	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-14.815	1
20	OVP	Z	-25.661	1
21	OVP	Mx	0	1
22	MP4A	X	-16.129	.5
23	MP4A	Z	-27.936	.5
24	MP4A	Mx	.008	.5
25	MP4A	X	-16.129	4.5
26	MP4A	Z	-27.936	4.5
27	MP4A	Mx	.008	4.5
28	MP1A	X	-7.917	1.5
29	MP1A	Z	-13.714	1.5
30	MP1A	Mx	.004	1.5
31	MP1A	X	-7.917	3.56
32	MP1A	Z	-13.714	3.56
33	MP1A	Mx	.004	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-9.6	.5
3	MP2A	Mx	.006	.5
4	MP2A	X	0	4.5
5	MP2A	Z	-9.6	4.5
6	MP2A	Mx	.006	4.5
7	MP2A	X	0	.5
8	MP2A	Z	-9.6	.5
9	MP2A	Mx	-.006	.5
10	MP2A	X	0	4.5
11	MP2A	Z	-9.6	4.5
12	MP2A	Mx	-.006	4.5
13	MP2A	X	0	1
14	MP2A	Z	-4.432	1
15	MP2A	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	RADIO	X	0	1.5
17	RADIO	Z	-3.592	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	0	1
20	OVP	Z	-7.727	1
21	OVP	Mx	0	1
22	MP4A	X	0	.5
23	MP4A	Z	-10.966	.5
24	MP4A	Mx	0	.5
25	MP4A	X	0	4.5
26	MP4A	Z	-10.966	4.5
27	MP4A	Mx	0	4.5
28	MP1A	X	0	1.5
29	MP1A	Z	-5.584	1.5
30	MP1A	Mx	0	1.5
31	MP1A	X	0	3.56
32	MP1A	Z	-5.584	3.56
33	MP1A	Mx	0	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	4.393	.5
2	MP2A	Z	-7.609	.5
3	MP2A	Mx	.002	.5
4	MP2A	X	4.393	4.5
5	MP2A	Z	-7.609	4.5
6	MP2A	Mx	.002	4.5
7	MP2A	X	4.393	.5
8	MP2A	Z	-7.609	.5
9	MP2A	Mx	-.007	.5
10	MP2A	X	4.393	4.5
11	MP2A	Z	-7.609	4.5
12	MP2A	Mx	-.007	4.5
13	MP2A	X	2.032	1
14	MP2A	Z	-3.52	1
15	MP2A	Mx	.001	1
16	RADIO	X	1.319	1.5
17	RADIO	Z	-2.284	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	3.15	1
20	OVP	Z	-5.456	1
21	OVP	Mx	0	1
22	MP4A	X	5.024	.5
23	MP4A	Z	-8.702	.5
24	MP4A	Mx	-.003	.5
25	MP4A	X	5.024	4.5
26	MP4A	Z	-8.702	4.5
27	MP4A	Mx	-.003	4.5
28	MP1A	X	2.367	1.5
29	MP1A	Z	-4.1	1.5
30	MP1A	Mx	-.001	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP1A	X	2.367	3.56
32	MP1A	Z	-4.1	3.56
33	MP1A	Mx	-.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	6.2	.5
2	MP2A	Z	-3.58	.5
3	MP2A	Mx	-.001	.5
4	MP2A	X	6.2	4.5
5	MP2A	Z	-3.58	4.5
6	MP2A	Mx	-.001	4.5
7	MP2A	X	6.2	.5
8	MP2A	Z	-3.58	.5
9	MP2A	Mx	-.005	.5
10	MP2A	X	6.2	4.5
11	MP2A	Z	-3.58	4.5
12	MP2A	Mx	-.005	4.5
13	MP2A	X	2.884	1
14	MP2A	Z	-1.665	1
15	MP2A	Mx	.001	1
16	RADIO	X	2.131	1.5
17	RADIO	Z	-1.23	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	5.228	1
20	OVP	Z	-3.018	1
21	OVP	Mx	0	1
22	MP4A	X	7.112	.5
23	MP4A	Z	-4.106	.5
24	MP4A	Mx	-.004	.5
25	MP4A	X	7.112	4.5
26	MP4A	Z	-4.106	4.5
27	MP4A	Mx	-.004	4.5
28	MP1A	X	2.629	1.5
29	MP1A	Z	-1.518	1.5
30	MP1A	Mx	-.001	1.5
31	MP1A	X	2.629	3.56
32	MP1A	Z	-1.518	3.56
33	MP1A	Mx	-.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	6.346	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.003	.5
4	MP2A	X	6.346	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	-.003	4.5
7	MP2A	X	6.346	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	-.003	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	6.346	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	-.003	4.5
13	MP2A	X	2.962	1
14	MP2A	Z	0	1
15	MP2A	Mx	.001	1
16	RADIO	X	3.239	1.5
17	RADIO	Z	0	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	7.2	1
20	OVP	Z	0	1
21	OVP	Mx	0	1
22	MP4A	X	7.295	.5
23	MP4A	Z	0	.5
24	MP4A	Mx	-.004	.5
25	MP4A	X	7.295	4.5
26	MP4A	Z	0	4.5
27	MP4A	Mx	-.004	4.5
28	MP1A	X	2.186	1.5
29	MP1A	Z	0	1.5
30	MP1A	Mx	-.001	1.5
31	MP1A	X	2.186	3.56
32	MP1A	Z	0	3.56
33	MP1A	Mx	-.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	6.2	.5
2	MP2A	Z	3.58	.5
3	MP2A	Mx	-.005	.5
4	MP2A	X	6.2	4.5
5	MP2A	Z	3.58	4.5
6	MP2A	Mx	-.005	4.5
7	MP2A	X	6.2	.5
8	MP2A	Z	3.58	.5
9	MP2A	Mx	-.001	.5
10	MP2A	X	6.2	4.5
11	MP2A	Z	3.58	4.5
12	MP2A	Mx	-.001	4.5
13	MP2A	X	2.884	1
14	MP2A	Z	1.665	1
15	MP2A	Mx	.001	1
16	RADIO	X	3.632	1.5
17	RADIO	Z	2.097	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	7.471	1
20	OVP	Z	4.313	1
21	OVP	Mx	0	1
22	MP4A	X	7.112	.5
23	MP4A	Z	4.106	.5
24	MP4A	Mx	-.004	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP4A	X	7.112	4.5
26	MP4A	Z	4.106	4.5
27	MP4A	Mx	-.004	4.5
28	MP1A	X	2.629	1.5
29	MP1A	Z	1.518	1.5
30	MP1A	Mx	-.001	1.5
31	MP1A	X	2.629	3.56
32	MP1A	Z	1.518	3.56
33	MP1A	Mx	-.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	4.393	.5
2	MP2A	Z	7.609	.5
3	MP2A	Mx	-.007	.5
4	MP2A	X	4.393	4.5
5	MP2A	Z	7.609	4.5
6	MP2A	Mx	-.007	4.5
7	MP2A	X	4.393	.5
8	MP2A	Z	7.609	.5
9	MP2A	Mx	.002	.5
10	MP2A	X	4.393	4.5
11	MP2A	Z	7.609	4.5
12	MP2A	Mx	.002	4.5
13	MP2A	X	2.032	1
14	MP2A	Z	3.52	1
15	MP2A	Mx	.001	1
16	RADIO	X	2.185	1.5
17	RADIO	Z	3.785	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	4.445	1
20	OVP	Z	7.699	1
21	OVP	Mx	0	1
22	MP4A	X	5.024	.5
23	MP4A	Z	8.702	.5
24	MP4A	Mx	-.003	.5
25	MP4A	X	5.024	4.5
26	MP4A	Z	8.702	4.5
27	MP4A	Mx	-.003	4.5
28	MP1A	X	2.367	1.5
29	MP1A	Z	4.1	1.5
30	MP1A	Mx	-.001	1.5
31	MP1A	X	2.367	3.56
32	MP1A	Z	4.1	3.56
33	MP1A	Mx	-.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	9.6	.5
3	MP2A	Mx	-.006	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	0	4.5
5	MP2A	Z	9.6	4.5
6	MP2A	Mx	-.006	4.5
7	MP2A	X	0	.5
8	MP2A	Z	9.6	.5
9	MP2A	Mx	.006	.5
10	MP2A	X	0	4.5
11	MP2A	Z	9.6	4.5
12	MP2A	Mx	.006	4.5
13	MP2A	X	0	1
14	MP2A	Z	4.432	1
15	MP2A	Mx	0	1
16	RADIO	X	0	1.5
17	RADIO	Z	3.592	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	0	1
20	OVP	Z	7.727	1
21	OVP	Mx	0	1
22	MP4A	X	0	.5
23	MP4A	Z	10.966	.5
24	MP4A	Mx	0	.5
25	MP4A	X	0	4.5
26	MP4A	Z	10.966	4.5
27	MP4A	Mx	0	4.5
28	MP1A	X	0	1.5
29	MP1A	Z	5.584	1.5
30	MP1A	Mx	0	1.5
31	MP1A	X	0	3.56
32	MP1A	Z	5.584	3.56
33	MP1A	Mx	0	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-4.393	.5
2	MP2A	Z	7.609	.5
3	MP2A	Mx	-.002	.5
4	MP2A	X	-4.393	4.5
5	MP2A	Z	7.609	4.5
6	MP2A	Mx	-.002	4.5
7	MP2A	X	-4.393	.5
8	MP2A	Z	7.609	.5
9	MP2A	Mx	.007	.5
10	MP2A	X	-4.393	4.5
11	MP2A	Z	7.609	4.5
12	MP2A	Mx	.007	4.5
13	MP2A	X	-2.032	1
14	MP2A	Z	3.52	1
15	MP2A	Mx	-.001	1
16	RADIO	X	-1.319	1.5
17	RADIO	Z	2.284	1.5
18	RADIO	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	OVP	X	-3.15	1
20	OVP	Z	5.456	1
21	OVP	Mx	0	1
22	MP4A	X	-5.024	.5
23	MP4A	Z	8.702	.5
24	MP4A	Mx	.003	.5
25	MP4A	X	-5.024	4.5
26	MP4A	Z	8.702	4.5
27	MP4A	Mx	.003	4.5
28	MP1A	X	-2.367	1.5
29	MP1A	Z	4.1	1.5
30	MP1A	Mx	.001	1.5
31	MP1A	X	-2.367	3.56
32	MP1A	Z	4.1	3.56
33	MP1A	Mx	.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-6.2	.5
2	MP2A	Z	3.58	.5
3	MP2A	Mx	.001	.5
4	MP2A	X	-6.2	4.5
5	MP2A	Z	3.58	4.5
6	MP2A	Mx	.001	4.5
7	MP2A	X	-6.2	.5
8	MP2A	Z	3.58	.5
9	MP2A	Mx	.005	.5
10	MP2A	X	-6.2	4.5
11	MP2A	Z	3.58	4.5
12	MP2A	Mx	.005	4.5
13	MP2A	X	-2.884	1
14	MP2A	Z	1.665	1
15	MP2A	Mx	-.001	1
16	RADIO	X	-2.131	1.5
17	RADIO	Z	1.23	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-5.228	1
20	OVP	Z	3.018	1
21	OVP	Mx	0	1
22	MP4A	X	-7.112	.5
23	MP4A	Z	4.106	.5
24	MP4A	Mx	.004	.5
25	MP4A	X	-7.112	4.5
26	MP4A	Z	4.106	4.5
27	MP4A	Mx	.004	4.5
28	MP1A	X	-2.629	1.5
29	MP1A	Z	1.518	1.5
30	MP1A	Mx	.001	1.5
31	MP1A	X	-2.629	3.56
32	MP1A	Z	1.518	3.56
33	MP1A	Mx	.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-6.346	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.003	.5
4	MP2A	X	-6.346	4.5
5	MP2A	Z	0	4.5
6	MP2A	Mx	.003	4.5
7	MP2A	X	-6.346	.5
8	MP2A	Z	0	.5
9	MP2A	Mx	.003	.5
10	MP2A	X	-6.346	4.5
11	MP2A	Z	0	4.5
12	MP2A	Mx	.003	4.5
13	MP2A	X	-2.962	1
14	MP2A	Z	0	1
15	MP2A	Mx	-.001	1
16	RADIO	X	-3.239	1.5
17	RADIO	Z	0	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-7.2	1
20	OVP	Z	0	1
21	OVP	Mx	0	1
22	MP4A	X	-7.295	.5
23	MP4A	Z	0	.5
24	MP4A	Mx	.004	.5
25	MP4A	X	-7.295	4.5
26	MP4A	Z	0	4.5
27	MP4A	Mx	.004	4.5
28	MP1A	X	-2.186	1.5
29	MP1A	Z	0	1.5
30	MP1A	Mx	.001	1.5
31	MP1A	X	-2.186	3.56
32	MP1A	Z	0	3.56
33	MP1A	Mx	.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-6.2	.5
2	MP2A	Z	-3.58	.5
3	MP2A	Mx	.005	.5
4	MP2A	X	-6.2	4.5
5	MP2A	Z	-3.58	4.5
6	MP2A	Mx	.005	4.5
7	MP2A	X	-6.2	.5
8	MP2A	Z	-3.58	.5
9	MP2A	Mx	.001	.5
10	MP2A	X	-6.2	4.5
11	MP2A	Z	-3.58	4.5
12	MP2A	Mx	.001	4.5
13	MP2A	X	-2.884	1
14	MP2A	Z	-1.665	1
15	MP2A	Mx	-.001	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	RADIO	X	-3.632	1.5
17	RADIO	Z	-2.097	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-7.471	1
20	OVP	Z	-4.313	1
21	OVP	Mx	0	1
22	MP4A	X	-7.112	.5
23	MP4A	Z	-4.106	.5
24	MP4A	Mx	.004	.5
25	MP4A	X	-7.112	4.5
26	MP4A	Z	-4.106	4.5
27	MP4A	Mx	.004	4.5
28	MP1A	X	-2.629	1.5
29	MP1A	Z	-1.518	1.5
30	MP1A	Mx	.001	1.5
31	MP1A	X	-2.629	3.56
32	MP1A	Z	-1.518	3.56
33	MP1A	Mx	.001	3.56

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-4.393	.5
2	MP2A	Z	-7.609	.5
3	MP2A	Mx	.007	.5
4	MP2A	X	-4.393	4.5
5	MP2A	Z	-7.609	4.5
6	MP2A	Mx	.007	4.5
7	MP2A	X	-4.393	.5
8	MP2A	Z	-7.609	.5
9	MP2A	Mx	-.002	.5
10	MP2A	X	-4.393	4.5
11	MP2A	Z	-7.609	4.5
12	MP2A	Mx	-.002	4.5
13	MP2A	X	-2.032	1
14	MP2A	Z	-3.52	1
15	MP2A	Mx	-.001	1
16	RADIO	X	-2.185	1.5
17	RADIO	Z	-3.785	1.5
18	RADIO	Mx	0	1.5
19	OVP	X	-4.445	1
20	OVP	Z	-7.699	1
21	OVP	Mx	0	1
22	MP4A	X	-5.024	.5
23	MP4A	Z	-8.702	.5
24	MP4A	Mx	.003	.5
25	MP4A	X	-5.024	4.5
26	MP4A	Z	-8.702	4.5
27	MP4A	Mx	.003	4.5
28	MP1A	X	-2.367	1.5
29	MP1A	Z	-4.1	1.5
30	MP1A	Mx	.001	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP1A	X	-2.367	3.56
32	MP1A	Z	-4.1	3.56
33	MP1A	Mx	.001	3.56

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	LIVE2	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	LIVE1	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

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

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-11.758	-11.758	0	%100
2	M7A	Y	-11.758	-11.758	0	%100
3	MP4A	Y	-8.023	-8.023	0	%100
4	MP2A	Y	-8.023	-8.023	0	%100
5	MP1A	Y	-8.023	-8.023	0	%100
6	M18	Y	-7.073	-7.073	0	%100
7	M19	Y	-10.272	-10.272	0	%100
8	MP3A	Y	-8.023	-8.023	0	%100
9	M24	Y	-11.758	-11.758	0	%100
10	M24A	Y	-11.758	-11.758	0	%100
11	FACE	Y	-11.758	-11.758	0	%100
12	M24B	Y	-11.758	-11.758	0	%100
13	M25B	Y	-8.023	-8.023	0	%100
14	RADIO	Y	-8.023	-8.023	0	%100
15	M27	Y	-8.023	-8.023	0	%100
16	M28	Y	-8.023	-8.023	0	%100
17	M29	Y	-8.023	-8.023	0	%100
18	M30	Y	-8.023	-8.023	0	%100
19	OVP	Y	-8.023	-8.023	0	%100
20	M42	Y	-4.273	-4.273	0	%100
21	M43	Y	-4.273	-4.273	0	%100
22	M44	Y	-4.273	-4.273	0	%100
23	M45	Y	-4.273	-4.273	0	%100
24	M46	Y	-8.023	-8.023	0	%100
25	M51	Y	-9.023	-9.023	0	%100
26	M52	Y	-10.343	-10.343	0	%100

Member Distributed Loads (BLC 40 : Structure Di) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
27	M53	Y	-10.343	-10.343	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-18.281	-18.281	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	-18.281	-18.281	0	%100
5	MP4A	X	0	0	0	%100
6	MP4A	Z	-8.708	-8.708	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	-8.708	-8.708	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	-8.708	-8.708	0	%100
11	M18	X	0	0	0	%100
12	M18	Z	-5.574	-5.574	0	%100
13	M19	X	0	0	0	%100
14	M19	Z	-9.336	-9.336	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	-8.708	-8.708	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	-.267	-.267	0	%100
19	M24A	X	0	0	0	%100
20	M24A	Z	-.267	-.267	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	-18.281	-18.281	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	-18.281	-18.281	0	%100
25	M25B	X	0	0	0	%100
26	M25B	Z	-7.121	-7.121	0	%100
27	RADIO	X	0	0	0	%100
28	RADIO	Z	-7.121	-7.121	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	-7.121	-7.121	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	-7.121	-7.121	0	%100
33	M29	X	0	0	0	%100
34	M29	Z	-2.323	-2.323	0	%100
35	M30	X	0	0	0	%100
36	M30	Z	-6.186	-6.186	0	%100
37	OVP	X	0	0	0	%100
38	OVP	Z	-7.935	-7.935	0	%100
39	M42	X	0	0	0	%100
40	M42	Z	-.956	-.956	0	%100
41	M43	X	0	0	0	%100
42	M43	Z	-.956	-.956	0	%100
43	M44	X	0	0	0	%100
44	M44	Z	-.956	-.956	0	%100
45	M45	X	0	0	0	%100
46	M45	Z	-.956	-.956	0	%100
47	M46	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
48	M46	Z	-6.17	-6.17	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	-10.541	-10.541	0	%100
51	M52	X	0	0	0	%100
52	M52	Z	-10.171	-10.171	0	%100
53	M53	X	0	0	0	%100
54	M53	Z	-7.565	-7.565	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	6.855	6.855	0	%100
2	M1	Z	-11.874	-11.874	0	%100
3	M7A	X	6.855	6.855	0	%100
4	M7A	Z	-11.874	-11.874	0	%100
5	MP4A	X	4.354	4.354	0	%100
6	MP4A	Z	-7.541	-7.541	0	%100
7	MP2A	X	4.354	4.354	0	%100
8	MP2A	Z	-7.541	-7.541	0	%100
9	MP1A	X	4.354	4.354	0	%100
10	MP1A	Z	-7.541	-7.541	0	%100
11	M18	X	2.787	2.787	0	%100
12	M18	Z	-4.828	-4.828	0	%100
13	M19	X	4.668	4.668	0	%100
14	M19	Z	-8.085	-8.085	0	%100
15	MP3A	X	4.354	4.354	0	%100
16	MP3A	Z	-7.541	-7.541	0	%100
17	M24	X	.517	.517	0	%100
18	M24	Z	-.896	-.896	0	%100
19	M24A	X	.517	.517	0	%100
20	M24A	Z	-.896	-.896	0	%100
21	FACE	X	6.855	6.855	0	%100
22	FACE	Z	-11.874	-11.874	0	%100
23	M24B	X	6.855	6.855	0	%100
24	M24B	Z	-11.874	-11.874	0	%100
25	M25B	X	3.56	3.56	0	%100
26	M25B	Z	-6.167	-6.167	0	%100
27	RADIO	X	3.56	3.56	0	%100
28	RADIO	Z	-6.167	-6.167	0	%100
29	M27	X	3.56	3.56	0	%100
30	M27	Z	-6.167	-6.167	0	%100
31	M28	X	3.56	3.56	0	%100
32	M28	Z	-6.167	-6.167	0	%100
33	M29	X	.002	.002	0	%100
34	M29	Z	-.003	-.003	0	%100
35	M30	X	4.345	4.345	0	%100
36	M30	Z	-7.526	-7.526	0	%100
37	OVP	X	3.968	3.968	0	%100
38	OVP	Z	-6.872	-6.872	0	%100
39	M42	X	.79	.79	0	%100
40	M42	Z	-1.369	-1.369	0	%100
41	M43	X	.79	.79	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
42	M43	Z	-1.369	-1.369	0	%100
43	M44	X	.79	.79	0	%100
44	M44	Z	-1.369	-1.369	0	%100
45	M45	X	.79	.79	0	%100
46	M45	Z	-1.369	-1.369	0	%100
47	M46	X	3.085	3.085	0	%100
48	M46	Z	-5.343	-5.343	0	%100
49	M51	X	3.953	3.953	0	%100
50	M51	Z	-6.847	-6.847	0	%100
51	M52	X	1.332	1.332	0	%100
52	M52	Z	-2.307	-2.307	0	%100
53	M53	X	6.775	6.775	0	%100
54	M53	Z	-11.735	-11.735	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.958	3.958	0	%100
2	M1	Z	-2.285	-2.285	0	%100
3	M7A	X	3.958	3.958	0	%100
4	M7A	Z	-2.285	-2.285	0	%100
5	MP4A	X	7.541	7.541	0	%100
6	MP4A	Z	-4.354	-4.354	0	%100
7	MP2A	X	7.541	7.541	0	%100
8	MP2A	Z	-4.354	-4.354	0	%100
9	MP1A	X	7.541	7.541	0	%100
10	MP1A	Z	-4.354	-4.354	0	%100
11	M18	X	4.828	4.828	0	%100
12	M18	Z	-2.787	-2.787	0	%100
13	M19	X	8.085	8.085	0	%100
14	M19	Z	-4.668	-4.668	0	%100
15	MP3A	X	7.541	7.541	0	%100
16	MP3A	Z	-4.354	-4.354	0	%100
17	M24	X	4.494	4.494	0	%100
18	M24	Z	-2.595	-2.595	0	%100
19	M24A	X	4.494	4.494	0	%100
20	M24A	Z	-2.595	-2.595	0	%100
21	FACE	X	3.958	3.958	0	%100
22	FACE	Z	-2.285	-2.285	0	%100
23	M24B	X	3.958	3.958	0	%100
24	M24B	Z	-2.285	-2.285	0	%100
25	M25B	X	6.167	6.167	0	%100
26	M25B	Z	-3.56	-3.56	0	%100
27	RADIO	X	6.167	6.167	0	%100
28	RADIO	Z	-3.56	-3.56	0	%100
29	M27	X	6.167	6.167	0	%100
30	M27	Z	-3.56	-3.56	0	%100
31	M28	X	6.167	6.167	0	%100
32	M28	Z	-3.56	-3.56	0	%100
33	M29	X	1.761	1.761	0	%100
34	M29	Z	-1.017	-1.017	0	%100
35	M30	X	5.939	5.939	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
36	M30	Z	-3.429	-3.429	0	%100
37	OVP	X	6.872	6.872	0	%100
38	OVP	Z	-3.968	-3.968	0	%100
39	M42	X	1.246	1.246	0	%100
40	M42	Z	-.719	-.719	0	%100
41	M43	X	1.246	1.246	0	%100
42	M43	Z	-.719	-.719	0	%100
43	M44	X	1.246	1.246	0	%100
44	M44	Z	-.719	-.719	0	%100
45	M45	X	1.246	1.246	0	%100
46	M45	Z	-.719	-.719	0	%100
47	M46	X	5.343	5.343	0	%100
48	M46	Z	-3.085	-3.085	0	%100
49	M51	X	2.282	2.282	0	%100
50	M51	Z	-1.318	-1.318	0	%100
51	M52	X	.114	.114	0	%100
52	M52	Z	-.066	-.066	0	%100
53	M53	X	11.382	11.382	0	%100
54	M53	Z	-6.571	-6.571	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	0	0	0	%100
5	MP4A	X	8.708	8.708	0	%100
6	MP4A	Z	0	0	0	%100
7	MP2A	X	8.708	8.708	0	%100
8	MP2A	Z	0	0	0	%100
9	MP1A	X	8.708	8.708	0	%100
10	MP1A	Z	0	0	0	%100
11	M18	X	5.574	5.574	0	%100
12	M18	Z	0	0	0	%100
13	M19	X	9.336	9.336	0	%100
14	M19	Z	0	0	0	%100
15	MP3A	X	8.708	8.708	0	%100
16	MP3A	Z	0	0	0	%100
17	M24	X	8.577	8.577	0	%100
18	M24	Z	0	0	0	%100
19	M24A	X	8.577	8.577	0	%100
20	M24A	Z	0	0	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	0	0	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	0	0	0	%100
25	M25B	X	7.121	7.121	0	%100
26	M25B	Z	0	0	0	%100
27	RADIO	X	7.121	7.121	0	%100
28	RADIO	Z	0	0	0	%100
29	M27	X	7.121	7.121	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M27	Z	0	0	0	%100
31	M28	X	7.121	7.121	0	%100
32	M28	Z	0	0	0	%100
33	M29	X	6.384	6.384	0	%100
34	M29	Z	0	0	0	%100
35	M30	X	2.521	2.521	0	%100
36	M30	Z	0	0	0	%100
37	OVP	X	7.935	7.935	0	%100
38	OVP	Z	0	0	0	%100
39	M42	X	.673	.673	0	%100
40	M42	Z	0	0	0	%100
41	M43	X	.673	.673	0	%100
42	M43	Z	0	0	0	%100
43	M44	X	.673	.673	0	%100
44	M44	Z	0	0	0	%100
45	M45	X	.673	.673	0	%100
46	M45	Z	0	0	0	%100
47	M46	X	6.17	6.17	0	%100
48	M46	Z	0	0	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	0	0	0	%100
51	M52	X	5.106	5.106	0	%100
52	M52	Z	0	0	0	%100
53	M53	X	6.75	6.75	0	%100
54	M53	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.958	3.958	0	%100
2	M1	Z	2.285	2.285	0	%100
3	M7A	X	3.958	3.958	0	%100
4	M7A	Z	2.285	2.285	0	%100
5	MP4A	X	7.541	7.541	0	%100
6	MP4A	Z	4.354	4.354	0	%100
7	MP2A	X	7.541	7.541	0	%100
8	MP2A	Z	4.354	4.354	0	%100
9	MP1A	X	7.541	7.541	0	%100
10	MP1A	Z	4.354	4.354	0	%100
11	M18	X	4.828	4.828	0	%100
12	M18	Z	2.787	2.787	0	%100
13	M19	X	8.085	8.085	0	%100
14	M19	Z	4.668	4.668	0	%100
15	MP3A	X	7.541	7.541	0	%100
16	MP3A	Z	4.354	4.354	0	%100
17	M24	X	6.763	6.763	0	%100
18	M24	Z	3.905	3.905	0	%100
19	M24A	X	6.763	6.763	0	%100
20	M24A	Z	3.905	3.905	0	%100
21	FACE	X	3.958	3.958	0	%100
22	FACE	Z	2.285	2.285	0	%100
23	M24B	X	3.958	3.958	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
24	M24B	Z	2.285	2.285	0	%100
25	M25B	X	6.167	6.167	0	%100
26	M25B	Z	3.56	3.56	0	%100
27	RADIO	X	6.167	6.167	0	%100
28	RADIO	Z	3.56	3.56	0	%100
29	M27	X	6.167	6.167	0	%100
30	M27	Z	3.56	3.56	0	%100
31	M28	X	6.167	6.167	0	%100
32	M28	Z	3.56	3.56	0	%100
33	M29	X	7.538	7.538	0	%100
34	M29	Z	4.352	4.352	0	%100
35	M30	X	.015	.015	0	%100
36	M30	Z	.009	.009	0	%100
37	OVP	X	6.872	6.872	0	%100
38	OVP	Z	3.968	3.968	0	%100
39	M42	X	.043	.043	0	%100
40	M42	Z	.025	.025	0	%100
41	M43	X	.043	.043	0	%100
42	M43	Z	.025	.025	0	%100
43	M44	X	.043	.043	0	%100
44	M44	Z	.025	.025	0	%100
45	M45	X	.043	.043	0	%100
46	M45	Z	.025	.025	0	%100
47	M46	X	5.343	5.343	0	%100
48	M46	Z	3.085	3.085	0	%100
49	M51	X	2.282	2.282	0	%100
50	M51	Z	1.318	1.318	0	%100
51	M52	X	10.923	10.923	0	%100
52	M52	Z	6.307	6.307	0	%100
53	M53	X	.663	.663	0	%100
54	M53	Z	.383	.383	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	6.855	6.855	0	%100
2	M1	Z	11.874	11.874	0	%100
3	M7A	X	6.855	6.855	0	%100
4	M7A	Z	11.874	11.874	0	%100
5	MP4A	X	4.354	4.354	0	%100
6	MP4A	Z	7.541	7.541	0	%100
7	MP2A	X	4.354	4.354	0	%100
8	MP2A	Z	7.541	7.541	0	%100
9	MP1A	X	4.354	4.354	0	%100
10	MP1A	Z	7.541	7.541	0	%100
11	M18	X	2.787	2.787	0	%100
12	M18	Z	4.828	4.828	0	%100
13	M19	X	4.668	4.668	0	%100
14	M19	Z	8.085	8.085	0	%100
15	MP3A	X	4.354	4.354	0	%100
16	MP3A	Z	7.541	7.541	0	%100
17	M24	X	1.827	1.827	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
18	M24	Z	3.164	3.164	0	%100
19	M24A	X	1.827	1.827	0	%100
20	M24A	Z	3.164	3.164	0	%100
21	FACE	X	6.855	6.855	0	%100
22	FACE	Z	11.874	11.874	0	%100
23	M24B	X	6.855	6.855	0	%100
24	M24B	Z	11.874	11.874	0	%100
25	M25B	X	3.56	3.56	0	%100
26	M25B	Z	6.167	6.167	0	%100
27	RADIO	X	3.56	3.56	0	%100
28	RADIO	Z	6.167	6.167	0	%100
29	M27	X	3.56	3.56	0	%100
30	M27	Z	6.167	6.167	0	%100
31	M28	X	3.56	3.56	0	%100
32	M28	Z	6.167	6.167	0	%100
33	M29	X	3.337	3.337	0	%100
34	M29	Z	5.78	5.78	0	%100
35	M30	X	.925	.925	0	%100
36	M30	Z	1.602	1.602	0	%100
37	OVP	X	3.968	3.968	0	%100
38	OVP	Z	6.872	6.872	0	%100
39	M42	X	.095	.095	0	%100
40	M42	Z	.165	.165	0	%100
41	M43	X	.095	.095	0	%100
42	M43	Z	.165	.165	0	%100
43	M44	X	.095	.095	0	%100
44	M44	Z	.165	.165	0	%100
45	M45	X	.095	.095	0	%100
46	M45	Z	.165	.165	0	%100
47	M46	X	3.085	3.085	0	%100
48	M46	Z	5.343	5.343	0	%100
49	M51	X	3.953	3.953	0	%100
50	M51	Z	6.847	6.847	0	%100
51	M52	X	7.573	7.573	0	%100
52	M52	Z	13.116	13.116	0	%100
53	M53	X	.586	.586	0	%100
54	M53	Z	1.016	1.016	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	18.281	18.281	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	18.281	18.281	0	%100
5	MP4A	X	0	0	0	%100
6	MP4A	Z	8.708	8.708	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	8.708	8.708	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	8.708	8.708	0	%100
11	M18	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
12	M18	Z	5.574	5.574	0	%100
13	M19	X	0	0	0	%100
14	M19	Z	9.336	9.336	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	8.708	8.708	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	.267	.267	0	%100
19	M24A	X	0	0	0	%100
20	M24A	Z	.267	.267	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	18.281	18.281	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	18.281	18.281	0	%100
25	M25B	X	0	0	0	%100
26	M25B	Z	7.121	7.121	0	%100
27	RADIO	X	0	0	0	%100
28	RADIO	Z	7.121	7.121	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	7.121	7.121	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	7.121	7.121	0	%100
33	M29	X	0	0	0	%100
34	M29	Z	2.323	2.323	0	%100
35	M30	X	0	0	0	%100
36	M30	Z	6.186	6.186	0	%100
37	OVP	X	0	0	0	%100
38	OVP	Z	7.935	7.935	0	%100
39	M42	X	0	0	0	%100
40	M42	Z	.956	.956	0	%100
41	M43	X	0	0	0	%100
42	M43	Z	.956	.956	0	%100
43	M44	X	0	0	0	%100
44	M44	Z	.956	.956	0	%100
45	M45	X	0	0	0	%100
46	M45	Z	.956	.956	0	%100
47	M46	X	0	0	0	%100
48	M46	Z	6.17	6.17	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	10.541	10.541	0	%100
51	M52	X	0	0	0	%100
52	M52	Z	10.171	10.171	0	%100
53	M53	X	0	0	0	%100
54	M53	Z	7.565	7.565	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-6.855	-6.855	0	%100
2	M1	Z	11.874	11.874	0	%100
3	M7A	X	-6.855	-6.855	0	%100
4	M7A	Z	11.874	11.874	0	%100
5	MP4A	X	-4.354	-4.354	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
6	MP4A	Z	7.541	7.541	0	%100
7	MP2A	X	-4.354	-4.354	0	%100
8	MP2A	Z	7.541	7.541	0	%100
9	MP1A	X	-4.354	-4.354	0	%100
10	MP1A	Z	7.541	7.541	0	%100
11	M18	X	-2.787	-2.787	0	%100
12	M18	Z	4.828	4.828	0	%100
13	M19	X	-4.668	-4.668	0	%100
14	M19	Z	8.085	8.085	0	%100
15	MP3A	X	-4.354	-4.354	0	%100
16	MP3A	Z	7.541	7.541	0	%100
17	M24	X	-.517	-.517	0	%100
18	M24	Z	.896	.896	0	%100
19	M24A	X	-.517	-.517	0	%100
20	M24A	Z	.896	.896	0	%100
21	FACE	X	-6.855	-6.855	0	%100
22	FACE	Z	11.874	11.874	0	%100
23	M24B	X	-6.855	-6.855	0	%100
24	M24B	Z	11.874	11.874	0	%100
25	M25B	X	-3.56	-3.56	0	%100
26	M25B	Z	6.167	6.167	0	%100
27	RADIO	X	-3.56	-3.56	0	%100
28	RADIO	Z	6.167	6.167	0	%100
29	M27	X	-3.56	-3.56	0	%100
30	M27	Z	6.167	6.167	0	%100
31	M28	X	-3.56	-3.56	0	%100
32	M28	Z	6.167	6.167	0	%100
33	M29	X	-.002	-.002	0	%100
34	M29	Z	.003	.003	0	%100
35	M30	X	-4.345	-4.345	0	%100
36	M30	Z	7.526	7.526	0	%100
37	OVP	X	-3.968	-3.968	0	%100
38	OVP	Z	6.872	6.872	0	%100
39	M42	X	-.79	-.79	0	%100
40	M42	Z	1.369	1.369	0	%100
41	M43	X	-.79	-.79	0	%100
42	M43	Z	1.369	1.369	0	%100
43	M44	X	-.79	-.79	0	%100
44	M44	Z	1.369	1.369	0	%100
45	M45	X	-.79	-.79	0	%100
46	M45	Z	1.369	1.369	0	%100
47	M46	X	-3.085	-3.085	0	%100
48	M46	Z	5.343	5.343	0	%100
49	M51	X	-3.953	-3.953	0	%100
50	M51	Z	6.847	6.847	0	%100
51	M52	X	-1.332	-1.332	0	%100
52	M52	Z	2.307	2.307	0	%100
53	M53	X	-6.775	-6.775	0	%100
54	M53	Z	11.735	11.735	0	%100

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

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

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.958	-3.958	0	%100
2	M1	Z	2.285	2.285	0	%100
3	M7A	X	-3.958	-3.958	0	%100
4	M7A	Z	2.285	2.285	0	%100
5	MP4A	X	-7.541	-7.541	0	%100
6	MP4A	Z	4.354	4.354	0	%100
7	MP2A	X	-7.541	-7.541	0	%100
8	MP2A	Z	4.354	4.354	0	%100
9	MP1A	X	-7.541	-7.541	0	%100
10	MP1A	Z	4.354	4.354	0	%100
11	M18	X	-4.828	-4.828	0	%100
12	M18	Z	2.787	2.787	0	%100
13	M19	X	-8.085	-8.085	0	%100
14	M19	Z	4.668	4.668	0	%100
15	MP3A	X	-7.541	-7.541	0	%100
16	MP3A	Z	4.354	4.354	0	%100
17	M24	X	-4.494	-4.494	0	%100
18	M24	Z	2.595	2.595	0	%100
19	M24A	X	-4.494	-4.494	0	%100
20	M24A	Z	2.595	2.595	0	%100
21	FACE	X	-3.958	-3.958	0	%100
22	FACE	Z	2.285	2.285	0	%100
23	M24B	X	-3.958	-3.958	0	%100
24	M24B	Z	2.285	2.285	0	%100
25	M25B	X	-6.167	-6.167	0	%100
26	M25B	Z	3.56	3.56	0	%100
27	RADIO	X	-6.167	-6.167	0	%100
28	RADIO	Z	3.56	3.56	0	%100
29	M27	X	-6.167	-6.167	0	%100
30	M27	Z	3.56	3.56	0	%100
31	M28	X	-6.167	-6.167	0	%100
32	M28	Z	3.56	3.56	0	%100
33	M29	X	-1.761	-1.761	0	%100
34	M29	Z	1.017	1.017	0	%100
35	M30	X	-5.939	-5.939	0	%100
36	M30	Z	3.429	3.429	0	%100
37	OVP	X	-6.872	-6.872	0	%100
38	OVP	Z	3.968	3.968	0	%100
39	M42	X	-1.246	-1.246	0	%100
40	M42	Z	.719	.719	0	%100
41	M43	X	-1.246	-1.246	0	%100
42	M43	Z	.719	.719	0	%100
43	M44	X	-1.246	-1.246	0	%100
44	M44	Z	.719	.719	0	%100
45	M45	X	-1.246	-1.246	0	%100
46	M45	Z	.719	.719	0	%100
47	M46	X	-5.343	-5.343	0	%100
48	M46	Z	3.085	3.085	0	%100
49	M51	X	-2.282	-2.282	0	%100
50	M51	Z	1.318	1.318	0	%100
51	M52	X	-.114	-.114	0	%100
52	M52	Z	.066	.066	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M53	X	-11.382	-11.382	0	%100
54	M53	Z	6.571	6.571	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	0	0	0	%100
5	MP4A	X	-8.708	-8.708	0	%100
6	MP4A	Z	0	0	0	%100
7	MP2A	X	-8.708	-8.708	0	%100
8	MP2A	Z	0	0	0	%100
9	MP1A	X	-8.708	-8.708	0	%100
10	MP1A	Z	0	0	0	%100
11	M18	X	-5.574	-5.574	0	%100
12	M18	Z	0	0	0	%100
13	M19	X	-9.336	-9.336	0	%100
14	M19	Z	0	0	0	%100
15	MP3A	X	-8.708	-8.708	0	%100
16	MP3A	Z	0	0	0	%100
17	M24	X	-8.577	-8.577	0	%100
18	M24	Z	0	0	0	%100
19	M24A	X	-8.577	-8.577	0	%100
20	M24A	Z	0	0	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	0	0	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	0	0	0	%100
25	M25B	X	-7.121	-7.121	0	%100
26	M25B	Z	0	0	0	%100
27	RADIO	X	-7.121	-7.121	0	%100
28	RADIO	Z	0	0	0	%100
29	M27	X	-7.121	-7.121	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	-7.121	-7.121	0	%100
32	M28	Z	0	0	0	%100
33	M29	X	-6.384	-6.384	0	%100
34	M29	Z	0	0	0	%100
35	M30	X	-2.521	-2.521	0	%100
36	M30	Z	0	0	0	%100
37	OVP	X	-7.935	-7.935	0	%100
38	OVP	Z	0	0	0	%100
39	M42	X	-.673	-.673	0	%100
40	M42	Z	0	0	0	%100
41	M43	X	-.673	-.673	0	%100
42	M43	Z	0	0	0	%100
43	M44	X	-.673	-.673	0	%100
44	M44	Z	0	0	0	%100
45	M45	X	-.673	-.673	0	%100
46	M45	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M46	X	-6.17	-6.17	0	%100
48	M46	Z	0	0	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	0	0	0	%100
51	M52	X	-5.106	-5.106	0	%100
52	M52	Z	0	0	0	%100
53	M53	X	-6.75	-6.75	0	%100
54	M53	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.958	-3.958	0	%100
2	M1	Z	-2.285	-2.285	0	%100
3	M7A	X	-3.958	-3.958	0	%100
4	M7A	Z	-2.285	-2.285	0	%100
5	MP4A	X	-7.541	-7.541	0	%100
6	MP4A	Z	-4.354	-4.354	0	%100
7	MP2A	X	-7.541	-7.541	0	%100
8	MP2A	Z	-4.354	-4.354	0	%100
9	MP1A	X	-7.541	-7.541	0	%100
10	MP1A	Z	-4.354	-4.354	0	%100
11	M18	X	-4.828	-4.828	0	%100
12	M18	Z	-2.787	-2.787	0	%100
13	M19	X	-8.085	-8.085	0	%100
14	M19	Z	-4.668	-4.668	0	%100
15	MP3A	X	-7.541	-7.541	0	%100
16	MP3A	Z	-4.354	-4.354	0	%100
17	M24	X	-6.763	-6.763	0	%100
18	M24	Z	-3.905	-3.905	0	%100
19	M24A	X	-6.763	-6.763	0	%100
20	M24A	Z	-3.905	-3.905	0	%100
21	FACE	X	-3.958	-3.958	0	%100
22	FACE	Z	-2.285	-2.285	0	%100
23	M24B	X	-3.958	-3.958	0	%100
24	M24B	Z	-2.285	-2.285	0	%100
25	M25B	X	-6.167	-6.167	0	%100
26	M25B	Z	-3.56	-3.56	0	%100
27	RADIO	X	-6.167	-6.167	0	%100
28	RADIO	Z	-3.56	-3.56	0	%100
29	M27	X	-6.167	-6.167	0	%100
30	M27	Z	-3.56	-3.56	0	%100
31	M28	X	-6.167	-6.167	0	%100
32	M28	Z	-3.56	-3.56	0	%100
33	M29	X	-7.538	-7.538	0	%100
34	M29	Z	-4.352	-4.352	0	%100
35	M30	X	-.015	-.015	0	%100
36	M30	Z	-.009	-.009	0	%100
37	OVP	X	-6.872	-6.872	0	%100
38	OVP	Z	-3.968	-3.968	0	%100
39	M42	X	-.043	-.043	0	%100
40	M42	Z	-.025	-.025	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
41	M43	X	-.043	-.043	0	%100
42	M43	Z	-.025	-.025	0	%100
43	M44	X	-.043	-.043	0	%100
44	M44	Z	-.025	-.025	0	%100
45	M45	X	-.043	-.043	0	%100
46	M45	Z	-.025	-.025	0	%100
47	M46	X	-5.343	-5.343	0	%100
48	M46	Z	-3.085	-3.085	0	%100
49	M51	X	-2.282	-2.282	0	%100
50	M51	Z	-1.318	-1.318	0	%100
51	M52	X	-10.923	-10.923	0	%100
52	M52	Z	-6.307	-6.307	0	%100
53	M53	X	-.663	-.663	0	%100
54	M53	Z	-.383	-.383	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-6.855	-6.855	0	%100
2	M1	Z	-11.874	-11.874	0	%100
3	M7A	X	-6.855	-6.855	0	%100
4	M7A	Z	-11.874	-11.874	0	%100
5	MP4A	X	-4.354	-4.354	0	%100
6	MP4A	Z	-7.541	-7.541	0	%100
7	MP2A	X	-4.354	-4.354	0	%100
8	MP2A	Z	-7.541	-7.541	0	%100
9	MP1A	X	-4.354	-4.354	0	%100
10	MP1A	Z	-7.541	-7.541	0	%100
11	M18	X	-2.787	-2.787	0	%100
12	M18	Z	-4.828	-4.828	0	%100
13	M19	X	-4.668	-4.668	0	%100
14	M19	Z	-8.085	-8.085	0	%100
15	MP3A	X	-4.354	-4.354	0	%100
16	MP3A	Z	-7.541	-7.541	0	%100
17	M24	X	-1.827	-1.827	0	%100
18	M24	Z	-3.164	-3.164	0	%100
19	M24A	X	-1.827	-1.827	0	%100
20	M24A	Z	-3.164	-3.164	0	%100
21	FACE	X	-6.855	-6.855	0	%100
22	FACE	Z	-11.874	-11.874	0	%100
23	M24B	X	-6.855	-6.855	0	%100
24	M24B	Z	-11.874	-11.874	0	%100
25	M25B	X	-3.56	-3.56	0	%100
26	M25B	Z	-6.167	-6.167	0	%100
27	RADIO	X	-3.56	-3.56	0	%100
28	RADIO	Z	-6.167	-6.167	0	%100
29	M27	X	-3.56	-3.56	0	%100
30	M27	Z	-6.167	-6.167	0	%100
31	M28	X	-3.56	-3.56	0	%100
32	M28	Z	-6.167	-6.167	0	%100
33	M29	X	-3.337	-3.337	0	%100
34	M29	Z	-5.78	-5.78	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	M30	X	-.925	-.925	0	%100
36	M30	Z	-1.602	-1.602	0	%100
37	OVP	X	-3.968	-3.968	0	%100
38	OVP	Z	-6.872	-6.872	0	%100
39	M42	X	-.095	-.095	0	%100
40	M42	Z	-.165	-.165	0	%100
41	M43	X	-.095	-.095	0	%100
42	M43	Z	-.165	-.165	0	%100
43	M44	X	-.095	-.095	0	%100
44	M44	Z	-.165	-.165	0	%100
45	M45	X	-.095	-.095	0	%100
46	M45	Z	-.165	-.165	0	%100
47	M46	X	-3.085	-3.085	0	%100
48	M46	Z	-5.343	-5.343	0	%100
49	M51	X	-3.953	-3.953	0	%100
50	M51	Z	-6.847	-6.847	0	%100
51	M52	X	-7.573	-7.573	0	%100
52	M52	Z	-13.116	-13.116	0	%100
53	M53	X	-.586	-.586	0	%100
54	M53	Z	-1.016	-1.016	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-5.362	-5.362	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	-5.362	-5.362	0	%100
5	MP4A	X	0	0	0	%100
6	MP4A	Z	-3.614	-3.614	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	-3.614	-3.614	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	-3.614	-3.614	0	%100
11	M18	X	0	0	0	%100
12	M18	Z	-2.494	-2.494	0	%100
13	M19	X	0	0	0	%100
14	M19	Z	-3.281	-3.281	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	-3.614	-3.614	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	-.094	-.094	0	%100
19	M24A	X	0	0	0	%100
20	M24A	Z	-.094	-.094	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	-5.362	-5.362	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	-5.362	-5.362	0	%100
25	M25B	X	0	0	0	%100
26	M25B	Z	-2.882	-2.882	0	%100
27	RADIO	X	0	0	0	%100
28	RADIO	Z	-2.882	-2.882	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
29	M27	X	0	0	0	%100
30	M27	Z	-2.882	-2.882	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	-2.882	-2.882	0	%100
33	M29	X	0	0	0	%100
34	M29	Z	-.995	-.995	0	%100
35	M30	X	0	0	0	%100
36	M30	Z	-2.526	-2.526	0	%100
37	OVP	X	0	0	0	%100
38	OVP	Z	-3.176	-3.176	0	%100
39	M42	X	0	0	0	%100
40	M42	Z	-.921	-.921	0	%100
41	M43	X	0	0	0	%100
42	M43	Z	-.921	-.921	0	%100
43	M44	X	0	0	0	%100
44	M44	Z	-.921	-.921	0	%100
45	M45	X	0	0	0	%100
46	M45	Z	-.921	-.921	0	%100
47	M46	X	0	0	0	%100
48	M46	Z	-2.54	-2.54	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	-4.058	-4.058	0	%100
51	M52	X	0	0	0	%100
52	M52	Z	-3.116	-3.116	0	%100
53	M53	X	0	0	0	%100
54	M53	Z	-2.318	-2.318	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.011	2.011	0	%100
2	M1	Z	-3.483	-3.483	0	%100
3	M7A	X	2.011	2.011	0	%100
4	M7A	Z	-3.483	-3.483	0	%100
5	MP4A	X	1.807	1.807	0	%100
6	MP4A	Z	-3.13	-3.13	0	%100
7	MP2A	X	1.807	1.807	0	%100
8	MP2A	Z	-3.13	-3.13	0	%100
9	MP1A	X	1.807	1.807	0	%100
10	MP1A	Z	-3.13	-3.13	0	%100
11	M18	X	1.247	1.247	0	%100
12	M18	Z	-2.16	-2.16	0	%100
13	M19	X	1.641	1.641	0	%100
14	M19	Z	-2.841	-2.841	0	%100
15	MP3A	X	1.807	1.807	0	%100
16	MP3A	Z	-3.13	-3.13	0	%100
17	M24	X	.183	.183	0	%100
18	M24	Z	-.317	-.317	0	%100
19	M24A	X	.183	.183	0	%100
20	M24A	Z	-.317	-.317	0	%100
21	FACE	X	2.011	2.011	0	%100
22	FACE	Z	-3.483	-3.483	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
23	M24B	X	2.011	2.011	0	%100
24	M24B	Z	-3.483	-3.483	0	%100
25	M25B	X	1.441	1.441	0	%100
26	M25B	Z	-2.496	-2.496	0	%100
27	RADIO	X	1.441	1.441	0	%100
28	RADIO	Z	-2.496	-2.496	0	%100
29	M27	X	1.441	1.441	0	%100
30	M27	Z	-2.496	-2.496	0	%100
31	M28	X	1.441	1.441	0	%100
32	M28	Z	-2.496	-2.496	0	%100
33	M29	X	.000689	.000689	0	%100
34	M29	Z	-.001	-.001	0	%100
35	M30	X	1.774	1.774	0	%100
36	M30	Z	-3.073	-3.073	0	%100
37	OVP	X	1.588	1.588	0	%100
38	OVP	Z	-2.75	-2.75	0	%100
39	M42	X	.761	.761	0	%100
40	M42	Z	-1.319	-1.319	0	%100
41	M43	X	.761	.761	0	%100
42	M43	Z	-1.319	-1.319	0	%100
43	M44	X	.761	.761	0	%100
44	M44	Z	-1.319	-1.319	0	%100
45	M45	X	.761	.761	0	%100
46	M45	Z	-1.319	-1.319	0	%100
47	M46	X	1.27	1.27	0	%100
48	M46	Z	-2.2	-2.2	0	%100
49	M51	X	1.522	1.522	0	%100
50	M51	Z	-2.636	-2.636	0	%100
51	M52	X	.408	.408	0	%100
52	M52	Z	-.707	-.707	0	%100
53	M53	X	2.076	2.076	0	%100
54	M53	Z	-3.595	-3.595	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.161	1.161	0	%100
2	M1	Z	-.67	-.67	0	%100
3	M7A	X	1.161	1.161	0	%100
4	M7A	Z	-.67	-.67	0	%100
5	MP4A	X	3.13	3.13	0	%100
6	MP4A	Z	-1.807	-1.807	0	%100
7	MP2A	X	3.13	3.13	0	%100
8	MP2A	Z	-1.807	-1.807	0	%100
9	MP1A	X	3.13	3.13	0	%100
10	MP1A	Z	-1.807	-1.807	0	%100
11	M18	X	2.16	2.16	0	%100
12	M18	Z	-1.247	-1.247	0	%100
13	M19	X	2.841	2.841	0	%100
14	M19	Z	-1.641	-1.641	0	%100
15	MP3A	X	3.13	3.13	0	%100
16	MP3A	Z	-1.807	-1.807	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
17	M24	X	1.591	1.591	0	%100
18	M24	Z	-.919	-.919	0	%100
19	M24A	X	1.591	1.591	0	%100
20	M24A	Z	-.919	-.919	0	%100
21	FACE	X	1.161	1.161	0	%100
22	FACE	Z	-.67	-.67	0	%100
23	M24B	X	1.161	1.161	0	%100
24	M24B	Z	-.67	-.67	0	%100
25	M25B	X	2.496	2.496	0	%100
26	M25B	Z	-1.441	-1.441	0	%100
27	RADIO	X	2.496	2.496	0	%100
28	RADIO	Z	-1.441	-1.441	0	%100
29	M27	X	2.496	2.496	0	%100
30	M27	Z	-1.441	-1.441	0	%100
31	M28	X	2.496	2.496	0	%100
32	M28	Z	-1.441	-1.441	0	%100
33	M29	X	.754	.754	0	%100
34	M29	Z	-.435	-.435	0	%100
35	M30	X	2.425	2.425	0	%100
36	M30	Z	-1.4	-1.4	0	%100
37	OVP	X	2.75	2.75	0	%100
38	OVP	Z	-1.588	-1.588	0	%100
39	M42	X	1.201	1.201	0	%100
40	M42	Z	-.693	-.693	0	%100
41	M43	X	1.201	1.201	0	%100
42	M43	Z	-.693	-.693	0	%100
43	M44	X	1.201	1.201	0	%100
44	M44	Z	-.693	-.693	0	%100
45	M45	X	1.201	1.201	0	%100
46	M45	Z	-.693	-.693	0	%100
47	M46	X	2.2	2.2	0	%100
48	M46	Z	-1.27	-1.27	0	%100
49	M51	X	.879	.879	0	%100
50	M51	Z	-.507	-.507	0	%100
51	M52	X	.035	.035	0	%100
52	M52	Z	-.02	-.02	0	%100
53	M53	X	3.487	3.487	0	%100
54	M53	Z	-2.013	-2.013	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	0	0	0	%100
5	MP4A	X	3.614	3.614	0	%100
6	MP4A	Z	0	0	0	%100
7	MP2A	X	3.614	3.614	0	%100
8	MP2A	Z	0	0	0	%100
9	MP1A	X	3.614	3.614	0	%100
10	MP1A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	M18	X	2.494	2.494	0	%100
12	M18	Z	0	0	0	%100
13	M19	X	3.281	3.281	0	%100
14	M19	Z	0	0	0	%100
15	MP3A	X	3.614	3.614	0	%100
16	MP3A	Z	0	0	0	%100
17	M24	X	3.037	3.037	0	%100
18	M24	Z	0	0	0	%100
19	M24A	X	3.037	3.037	0	%100
20	M24A	Z	0	0	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	0	0	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	0	0	0	%100
25	M25B	X	2.882	2.882	0	%100
26	M25B	Z	0	0	0	%100
27	RADIO	X	2.882	2.882	0	%100
28	RADIO	Z	0	0	0	%100
29	M27	X	2.882	2.882	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	2.882	2.882	0	%100
32	M28	Z	0	0	0	%100
33	M29	X	2.733	2.733	0	%100
34	M29	Z	0	0	0	%100
35	M30	X	1.03	1.03	0	%100
36	M30	Z	0	0	0	%100
37	OVP	X	3.176	3.176	0	%100
38	OVP	Z	0	0	0	%100
39	M42	X	.649	.649	0	%100
40	M42	Z	0	0	0	%100
41	M43	X	.649	.649	0	%100
42	M43	Z	0	0	0	%100
43	M44	X	.649	.649	0	%100
44	M44	Z	0	0	0	%100
45	M45	X	.649	.649	0	%100
46	M45	Z	0	0	0	%100
47	M46	X	2.54	2.54	0	%100
48	M46	Z	0	0	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	0	0	0	%100
51	M52	X	1.565	1.565	0	%100
52	M52	Z	0	0	0	%100
53	M53	X	2.068	2.068	0	%100
54	M53	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.161	1.161	0	%100
2	M1	Z	.67	.67	0	%100
3	M7A	X	1.161	1.161	0	%100
4	M7A	Z	.67	.67	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	MP4A	X	3.13	3.13	0	%100
6	MP4A	Z	1.807	1.807	0	%100
7	MP2A	X	3.13	3.13	0	%100
8	MP2A	Z	1.807	1.807	0	%100
9	MP1A	X	3.13	3.13	0	%100
10	MP1A	Z	1.807	1.807	0	%100
11	M18	X	2.16	2.16	0	%100
12	M18	Z	1.247	1.247	0	%100
13	M19	X	2.841	2.841	0	%100
14	M19	Z	1.641	1.641	0	%100
15	MP3A	X	3.13	3.13	0	%100
16	MP3A	Z	1.807	1.807	0	%100
17	M24	X	2.395	2.395	0	%100
18	M24	Z	1.383	1.383	0	%100
19	M24A	X	2.395	2.395	0	%100
20	M24A	Z	1.383	1.383	0	%100
21	FACE	X	1.161	1.161	0	%100
22	FACE	Z	.67	.67	0	%100
23	M24B	X	1.161	1.161	0	%100
24	M24B	Z	.67	.67	0	%100
25	M25B	X	2.496	2.496	0	%100
26	M25B	Z	1.441	1.441	0	%100
27	RADIO	X	2.496	2.496	0	%100
28	RADIO	Z	1.441	1.441	0	%100
29	M27	X	2.496	2.496	0	%100
30	M27	Z	1.441	1.441	0	%100
31	M28	X	2.496	2.496	0	%100
32	M28	Z	1.441	1.441	0	%100
33	M29	X	3.228	3.228	0	%100
34	M29	Z	1.863	1.863	0	%100
35	M30	X	.006	.006	0	%100
36	M30	Z	.004	.004	0	%100
37	OVP	X	2.75	2.75	0	%100
38	OVP	Z	1.588	1.588	0	%100
39	M42	X	.041	.041	0	%100
40	M42	Z	.024	.024	0	%100
41	M43	X	.041	.041	0	%100
42	M43	Z	.024	.024	0	%100
43	M44	X	.041	.041	0	%100
44	M44	Z	.024	.024	0	%100
45	M45	X	.041	.041	0	%100
46	M45	Z	.024	.024	0	%100
47	M46	X	2.2	2.2	0	%100
48	M46	Z	1.27	1.27	0	%100
49	M51	X	.879	.879	0	%100
50	M51	Z	.507	.507	0	%100
51	M52	X	3.347	3.347	0	%100
52	M52	Z	1.932	1.932	0	%100
53	M53	X	.203	.203	0	%100
54	M53	Z	.117	.117	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.011	2.011	0	%100
2	M1	Z	3.483	3.483	0	%100
3	M7A	X	2.011	2.011	0	%100
4	M7A	Z	3.483	3.483	0	%100
5	MP4A	X	1.807	1.807	0	%100
6	MP4A	Z	3.13	3.13	0	%100
7	MP2A	X	1.807	1.807	0	%100
8	MP2A	Z	3.13	3.13	0	%100
9	MP1A	X	1.807	1.807	0	%100
10	MP1A	Z	3.13	3.13	0	%100
11	M18	X	1.247	1.247	0	%100
12	M18	Z	2.16	2.16	0	%100
13	M19	X	1.641	1.641	0	%100
14	M19	Z	2.841	2.841	0	%100
15	MP3A	X	1.807	1.807	0	%100
16	MP3A	Z	3.13	3.13	0	%100
17	M24	X	.647	.647	0	%100
18	M24	Z	1.12	1.12	0	%100
19	M24A	X	.647	.647	0	%100
20	M24A	Z	1.12	1.12	0	%100
21	FACE	X	2.011	2.011	0	%100
22	FACE	Z	3.483	3.483	0	%100
23	M24B	X	2.011	2.011	0	%100
24	M24B	Z	3.483	3.483	0	%100
25	M25B	X	1.441	1.441	0	%100
26	M25B	Z	2.496	2.496	0	%100
27	RADIO	X	1.441	1.441	0	%100
28	RADIO	Z	2.496	2.496	0	%100
29	M27	X	1.441	1.441	0	%100
30	M27	Z	2.496	2.496	0	%100
31	M28	X	1.441	1.441	0	%100
32	M28	Z	2.496	2.496	0	%100
33	M29	X	1.429	1.429	0	%100
34	M29	Z	2.475	2.475	0	%100
35	M30	X	.378	.378	0	%100
36	M30	Z	.654	.654	0	%100
37	OVP	X	1.588	1.588	0	%100
38	OVP	Z	2.75	2.75	0	%100
39	M42	X	.092	.092	0	%100
40	M42	Z	.159	.159	0	%100
41	M43	X	.092	.092	0	%100
42	M43	Z	.159	.159	0	%100
43	M44	X	.092	.092	0	%100
44	M44	Z	.159	.159	0	%100
45	M45	X	.092	.092	0	%100
46	M45	Z	.159	.159	0	%100
47	M46	X	1.27	1.27	0	%100
48	M46	Z	2.2	2.2	0	%100
49	M51	X	1.522	1.522	0	%100
50	M51	Z	2.636	2.636	0	%100
51	M52	X	2.32	2.32	0	%100
52	M52	Z	4.019	4.019	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M53	X	.18	.18	0	%100
54	M53	Z	.311	.311	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	5.362	5.362	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	5.362	5.362	0	%100
5	MP4A	X	0	0	0	%100
6	MP4A	Z	3.614	3.614	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	3.614	3.614	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	3.614	3.614	0	%100
11	M18	X	0	0	0	%100
12	M18	Z	2.494	2.494	0	%100
13	M19	X	0	0	0	%100
14	M19	Z	3.281	3.281	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	3.614	3.614	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	.094	.094	0	%100
19	M24A	X	0	0	0	%100
20	M24A	Z	.094	.094	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	5.362	5.362	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	5.362	5.362	0	%100
25	M25B	X	0	0	0	%100
26	M25B	Z	2.882	2.882	0	%100
27	RADIO	X	0	0	0	%100
28	RADIO	Z	2.882	2.882	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	2.882	2.882	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	2.882	2.882	0	%100
33	M29	X	0	0	0	%100
34	M29	Z	.995	.995	0	%100
35	M30	X	0	0	0	%100
36	M30	Z	2.526	2.526	0	%100
37	OVP	X	0	0	0	%100
38	OVP	Z	3.176	3.176	0	%100
39	M42	X	0	0	0	%100
40	M42	Z	.921	.921	0	%100
41	M43	X	0	0	0	%100
42	M43	Z	.921	.921	0	%100
43	M44	X	0	0	0	%100
44	M44	Z	.921	.921	0	%100
45	M45	X	0	0	0	%100
46	M45	Z	.921	.921	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M46	X	0	0	0	%100
48	M46	Z	2.54	2.54	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	4.058	4.058	0	%100
51	M52	X	0	0	0	%100
52	M52	Z	3.116	3.116	0	%100
53	M53	X	0	0	0	%100
54	M53	Z	2.318	2.318	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.011	-2.011	0	%100
2	M1	Z	3.483	3.483	0	%100
3	M7A	X	-2.011	-2.011	0	%100
4	M7A	Z	3.483	3.483	0	%100
5	MP4A	X	-1.807	-1.807	0	%100
6	MP4A	Z	3.13	3.13	0	%100
7	MP2A	X	-1.807	-1.807	0	%100
8	MP2A	Z	3.13	3.13	0	%100
9	MP1A	X	-1.807	-1.807	0	%100
10	MP1A	Z	3.13	3.13	0	%100
11	M18	X	-1.247	-1.247	0	%100
12	M18	Z	2.16	2.16	0	%100
13	M19	X	-1.641	-1.641	0	%100
14	M19	Z	2.841	2.841	0	%100
15	MP3A	X	-1.807	-1.807	0	%100
16	MP3A	Z	3.13	3.13	0	%100
17	M24	X	-.183	-.183	0	%100
18	M24	Z	.317	.317	0	%100
19	M24A	X	-.183	-.183	0	%100
20	M24A	Z	.317	.317	0	%100
21	FACE	X	-2.011	-2.011	0	%100
22	FACE	Z	3.483	3.483	0	%100
23	M24B	X	-2.011	-2.011	0	%100
24	M24B	Z	3.483	3.483	0	%100
25	M25B	X	-1.441	-1.441	0	%100
26	M25B	Z	2.496	2.496	0	%100
27	RADIO	X	-1.441	-1.441	0	%100
28	RADIO	Z	2.496	2.496	0	%100
29	M27	X	-1.441	-1.441	0	%100
30	M27	Z	2.496	2.496	0	%100
31	M28	X	-1.441	-1.441	0	%100
32	M28	Z	2.496	2.496	0	%100
33	M29	X	-.000689	-.000689	0	%100
34	M29	Z	.001	.001	0	%100
35	M30	X	-1.774	-1.774	0	%100
36	M30	Z	3.073	3.073	0	%100
37	OVP	X	-1.588	-1.588	0	%100
38	OVP	Z	2.75	2.75	0	%100
39	M42	X	-.761	-.761	0	%100
40	M42	Z	1.319	1.319	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
41	M43	X	-.761	-.761	0	%100
42	M43	Z	1.319	1.319	0	%100
43	M44	X	-.761	-.761	0	%100
44	M44	Z	1.319	1.319	0	%100
45	M45	X	-.761	-.761	0	%100
46	M45	Z	1.319	1.319	0	%100
47	M46	X	-1.27	-1.27	0	%100
48	M46	Z	2.2	2.2	0	%100
49	M51	X	-1.522	-1.522	0	%100
50	M51	Z	2.636	2.636	0	%100
51	M52	X	-.408	-.408	0	%100
52	M52	Z	.707	.707	0	%100
53	M53	X	-2.076	-2.076	0	%100
54	M53	Z	3.595	3.595	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.161	-1.161	0	%100
2	M1	Z	.67	.67	0	%100
3	M7A	X	-1.161	-1.161	0	%100
4	M7A	Z	.67	.67	0	%100
5	MP4A	X	-3.13	-3.13	0	%100
6	MP4A	Z	1.807	1.807	0	%100
7	MP2A	X	-3.13	-3.13	0	%100
8	MP2A	Z	1.807	1.807	0	%100
9	MP1A	X	-3.13	-3.13	0	%100
10	MP1A	Z	1.807	1.807	0	%100
11	M18	X	-2.16	-2.16	0	%100
12	M18	Z	1.247	1.247	0	%100
13	M19	X	-2.841	-2.841	0	%100
14	M19	Z	1.641	1.641	0	%100
15	MP3A	X	-3.13	-3.13	0	%100
16	MP3A	Z	1.807	1.807	0	%100
17	M24	X	-1.591	-1.591	0	%100
18	M24	Z	.919	.919	0	%100
19	M24A	X	-1.591	-1.591	0	%100
20	M24A	Z	.919	.919	0	%100
21	FACE	X	-1.161	-1.161	0	%100
22	FACE	Z	.67	.67	0	%100
23	M24B	X	-1.161	-1.161	0	%100
24	M24B	Z	.67	.67	0	%100
25	M25B	X	-2.496	-2.496	0	%100
26	M25B	Z	1.441	1.441	0	%100
27	RADIO	X	-2.496	-2.496	0	%100
28	RADIO	Z	1.441	1.441	0	%100
29	M27	X	-2.496	-2.496	0	%100
30	M27	Z	1.441	1.441	0	%100
31	M28	X	-2.496	-2.496	0	%100
32	M28	Z	1.441	1.441	0	%100
33	M29	X	-.754	-.754	0	%100
34	M29	Z	.435	.435	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	M30	X	-2.425	-2.425	0	%100
36	M30	Z	1.4	1.4	0	%100
37	OVP	X	-2.75	-2.75	0	%100
38	OVP	Z	1.588	1.588	0	%100
39	M42	X	-1.201	-1.201	0	%100
40	M42	Z	.693	.693	0	%100
41	M43	X	-1.201	-1.201	0	%100
42	M43	Z	.693	.693	0	%100
43	M44	X	-1.201	-1.201	0	%100
44	M44	Z	.693	.693	0	%100
45	M45	X	-1.201	-1.201	0	%100
46	M45	Z	.693	.693	0	%100
47	M46	X	-2.2	-2.2	0	%100
48	M46	Z	1.27	1.27	0	%100
49	M51	X	-.879	-.879	0	%100
50	M51	Z	.507	.507	0	%100
51	M52	X	-.035	-.035	0	%100
52	M52	Z	.02	.02	0	%100
53	M53	X	-3.487	-3.487	0	%100
54	M53	Z	2.013	2.013	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	0	0	0	%100
5	MP4A	X	-3.614	-3.614	0	%100
6	MP4A	Z	0	0	0	%100
7	MP2A	X	-3.614	-3.614	0	%100
8	MP2A	Z	0	0	0	%100
9	MP1A	X	-3.614	-3.614	0	%100
10	MP1A	Z	0	0	0	%100
11	M18	X	-2.494	-2.494	0	%100
12	M18	Z	0	0	0	%100
13	M19	X	-3.281	-3.281	0	%100
14	M19	Z	0	0	0	%100
15	MP3A	X	-3.614	-3.614	0	%100
16	MP3A	Z	0	0	0	%100
17	M24	X	-3.037	-3.037	0	%100
18	M24	Z	0	0	0	%100
19	M24A	X	-3.037	-3.037	0	%100
20	M24A	Z	0	0	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	0	0	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	0	0	0	%100
25	M25B	X	-2.882	-2.882	0	%100
26	M25B	Z	0	0	0	%100
27	RADIO	X	-2.882	-2.882	0	%100
28	RADIO	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
29	M27	X	-2.882	-2.882	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	-2.882	-2.882	0	%100
32	M28	Z	0	0	0	%100
33	M29	X	-2.733	-2.733	0	%100
34	M29	Z	0	0	0	%100
35	M30	X	-1.03	-1.03	0	%100
36	M30	Z	0	0	0	%100
37	OVP	X	-3.176	-3.176	0	%100
38	OVP	Z	0	0	0	%100
39	M42	X	-.649	-.649	0	%100
40	M42	Z	0	0	0	%100
41	M43	X	-.649	-.649	0	%100
42	M43	Z	0	0	0	%100
43	M44	X	-.649	-.649	0	%100
44	M44	Z	0	0	0	%100
45	M45	X	-.649	-.649	0	%100
46	M45	Z	0	0	0	%100
47	M46	X	-2.54	-2.54	0	%100
48	M46	Z	0	0	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	0	0	0	%100
51	M52	X	-1.565	-1.565	0	%100
52	M52	Z	0	0	0	%100
53	M53	X	-2.068	-2.068	0	%100
54	M53	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.161	-1.161	0	%100
2	M1	Z	-.67	-.67	0	%100
3	M7A	X	-1.161	-1.161	0	%100
4	M7A	Z	-.67	-.67	0	%100
5	MP4A	X	-3.13	-3.13	0	%100
6	MP4A	Z	-1.807	-1.807	0	%100
7	MP2A	X	-3.13	-3.13	0	%100
8	MP2A	Z	-1.807	-1.807	0	%100
9	MP1A	X	-3.13	-3.13	0	%100
10	MP1A	Z	-1.807	-1.807	0	%100
11	M18	X	-2.16	-2.16	0	%100
12	M18	Z	-1.247	-1.247	0	%100
13	M19	X	-2.841	-2.841	0	%100
14	M19	Z	-1.641	-1.641	0	%100
15	MP3A	X	-3.13	-3.13	0	%100
16	MP3A	Z	-1.807	-1.807	0	%100
17	M24	X	-2.395	-2.395	0	%100
18	M24	Z	-1.383	-1.383	0	%100
19	M24A	X	-2.395	-2.395	0	%100
20	M24A	Z	-1.383	-1.383	0	%100
21	FACE	X	-1.161	-1.161	0	%100
22	FACE	Z	-.67	-.67	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
23	M24B	X	-1.161	-1.161	0	%100
24	M24B	Z	-.67	-.67	0	%100
25	M25B	X	-2.496	-2.496	0	%100
26	M25B	Z	-1.441	-1.441	0	%100
27	RADIO	X	-2.496	-2.496	0	%100
28	RADIO	Z	-1.441	-1.441	0	%100
29	M27	X	-2.496	-2.496	0	%100
30	M27	Z	-1.441	-1.441	0	%100
31	M28	X	-2.496	-2.496	0	%100
32	M28	Z	-1.441	-1.441	0	%100
33	M29	X	-3.228	-3.228	0	%100
34	M29	Z	-1.863	-1.863	0	%100
35	M30	X	-.006	-.006	0	%100
36	M30	Z	-.004	-.004	0	%100
37	OVP	X	-2.75	-2.75	0	%100
38	OVP	Z	-1.588	-1.588	0	%100
39	M42	X	-.041	-.041	0	%100
40	M42	Z	-.024	-.024	0	%100
41	M43	X	-.041	-.041	0	%100
42	M43	Z	-.024	-.024	0	%100
43	M44	X	-.041	-.041	0	%100
44	M44	Z	-.024	-.024	0	%100
45	M45	X	-.041	-.041	0	%100
46	M45	Z	-.024	-.024	0	%100
47	M46	X	-2.2	-2.2	0	%100
48	M46	Z	-1.27	-1.27	0	%100
49	M51	X	-.879	-.879	0	%100
50	M51	Z	-.507	-.507	0	%100
51	M52	X	-3.347	-3.347	0	%100
52	M52	Z	-1.932	-1.932	0	%100
53	M53	X	-.203	-.203	0	%100
54	M53	Z	-.117	-.117	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.011	-2.011	0	%100
2	M1	Z	-3.483	-3.483	0	%100
3	M7A	X	-2.011	-2.011	0	%100
4	M7A	Z	-3.483	-3.483	0	%100
5	MP4A	X	-1.807	-1.807	0	%100
6	MP4A	Z	-3.13	-3.13	0	%100
7	MP2A	X	-1.807	-1.807	0	%100
8	MP2A	Z	-3.13	-3.13	0	%100
9	MP1A	X	-1.807	-1.807	0	%100
10	MP1A	Z	-3.13	-3.13	0	%100
11	M18	X	-1.247	-1.247	0	%100
12	M18	Z	-2.16	-2.16	0	%100
13	M19	X	-1.641	-1.641	0	%100
14	M19	Z	-2.841	-2.841	0	%100
15	MP3A	X	-1.807	-1.807	0	%100
16	MP3A	Z	-3.13	-3.13	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
17	M24	X	-.647	-.647	0	%100
18	M24	Z	-1.12	-1.12	0	%100
19	M24A	X	-.647	-.647	0	%100
20	M24A	Z	-1.12	-1.12	0	%100
21	FACE	X	-2.011	-2.011	0	%100
22	FACE	Z	-3.483	-3.483	0	%100
23	M24B	X	-2.011	-2.011	0	%100
24	M24B	Z	-3.483	-3.483	0	%100
25	M25B	X	-1.441	-1.441	0	%100
26	M25B	Z	-2.496	-2.496	0	%100
27	RADIO	X	-1.441	-1.441	0	%100
28	RADIO	Z	-2.496	-2.496	0	%100
29	M27	X	-1.441	-1.441	0	%100
30	M27	Z	-2.496	-2.496	0	%100
31	M28	X	-1.441	-1.441	0	%100
32	M28	Z	-2.496	-2.496	0	%100
33	M29	X	-1.429	-1.429	0	%100
34	M29	Z	-2.475	-2.475	0	%100
35	M30	X	-.378	-.378	0	%100
36	M30	Z	-.654	-.654	0	%100
37	OVP	X	-1.588	-1.588	0	%100
38	OVP	Z	-2.75	-2.75	0	%100
39	M42	X	-.092	-.092	0	%100
40	M42	Z	-.159	-.159	0	%100
41	M43	X	-.092	-.092	0	%100
42	M43	Z	-.159	-.159	0	%100
43	M44	X	-.092	-.092	0	%100
44	M44	Z	-.159	-.159	0	%100
45	M45	X	-.092	-.092	0	%100
46	M45	Z	-.159	-.159	0	%100
47	M46	X	-1.27	-1.27	0	%100
48	M46	Z	-2.2	-2.2	0	%100
49	M51	X	-1.522	-1.522	0	%100
50	M51	Z	-2.636	-2.636	0	%100
51	M52	X	-2.32	-2.32	0	%100
52	M52	Z	-4.019	-4.019	0	%100
53	M53	X	-.18	-.18	0	%100
54	M53	Z	-.311	-.311	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-1.185	-1.185	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	-1.185	-1.185	0	%100
5	MP4A	X	0	0	0	%100
6	MP4A	Z	-.564	-.564	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	-.564	-.564	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	-.564	-.564	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	M18	X	0	0	0	%100
12	M18	Z	-.361	-.361	0	%100
13	M19	X	0	0	0	%100
14	M19	Z	-.605	-.605	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	-.564	-.564	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	-.017	-.017	0	%100
19	M24A	X	0	0	0	%100
20	M24A	Z	-.017	-.017	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	-1.185	-1.185	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	-1.185	-1.185	0	%100
25	M25B	X	0	0	0	%100
26	M25B	Z	-.461	-.461	0	%100
27	RADIO	X	0	0	0	%100
28	RADIO	Z	-.461	-.461	0	%100
29	M27	X	0	0	0	%100
30	M27	Z	-.461	-.461	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	-.461	-.461	0	%100
33	M29	X	0	0	0	%100
34	M29	Z	-.151	-.151	0	%100
35	M30	X	0	0	0	%100
36	M30	Z	-.401	-.401	0	%100
37	OVP	X	0	0	0	%100
38	OVP	Z	-.514	-.514	0	%100
39	M42	X	0	0	0	%100
40	M42	Z	-.062	-.062	0	%100
41	M43	X	0	0	0	%100
42	M43	Z	-.062	-.062	0	%100
43	M44	X	0	0	0	%100
44	M44	Z	-.062	-.062	0	%100
45	M45	X	0	0	0	%100
46	M45	Z	-.062	-.062	0	%100
47	M46	X	0	0	0	%100
48	M46	Z	-.4	-.4	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	-.683	-.683	0	%100
51	M52	X	0	0	0	%100
52	M52	Z	-.659	-.659	0	%100
53	M53	X	0	0	0	%100
54	M53	Z	-.49	-.49	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.444	.444	0	%100
2	M1	Z	-.77	-.77	0	%100
3	M7A	X	.444	.444	0	%100
4	M7A	Z	-.77	-.77	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	MP4A	X	.282	.282	0	%100
6	MP4A	Z	-.489	-.489	0	%100
7	MP2A	X	.282	.282	0	%100
8	MP2A	Z	-.489	-.489	0	%100
9	MP1A	X	.282	.282	0	%100
10	MP1A	Z	-.489	-.489	0	%100
11	M18	X	.181	.181	0	%100
12	M18	Z	-.313	-.313	0	%100
13	M19	X	.303	.303	0	%100
14	M19	Z	-.524	-.524	0	%100
15	MP3A	X	.282	.282	0	%100
16	MP3A	Z	-.489	-.489	0	%100
17	M24	X	.034	.034	0	%100
18	M24	Z	-.058	-.058	0	%100
19	M24A	X	.034	.034	0	%100
20	M24A	Z	-.058	-.058	0	%100
21	FACE	X	.444	.444	0	%100
22	FACE	Z	-.77	-.77	0	%100
23	M24B	X	.444	.444	0	%100
24	M24B	Z	-.77	-.77	0	%100
25	M25B	X	.231	.231	0	%100
26	M25B	Z	-.4	-.4	0	%100
27	RADIO	X	.231	.231	0	%100
28	RADIO	Z	-.4	-.4	0	%100
29	M27	X	.231	.231	0	%100
30	M27	Z	-.4	-.4	0	%100
31	M28	X	.231	.231	0	%100
32	M28	Z	-.4	-.4	0	%100
33	M29	X	.000104	.000104	0	%100
34	M29	Z	-.000181	-.000181	0	%100
35	M30	X	.282	.282	0	%100
36	M30	Z	-.488	-.488	0	%100
37	OVP	X	.257	.257	0	%100
38	OVP	Z	-.445	-.445	0	%100
39	M42	X	.051	.051	0	%100
40	M42	Z	-.089	-.089	0	%100
41	M43	X	.051	.051	0	%100
42	M43	Z	-.089	-.089	0	%100
43	M44	X	.051	.051	0	%100
44	M44	Z	-.089	-.089	0	%100
45	M45	X	.051	.051	0	%100
46	M45	Z	-.089	-.089	0	%100
47	M46	X	.2	.2	0	%100
48	M46	Z	-.346	-.346	0	%100
49	M51	X	.256	.256	0	%100
50	M51	Z	-.444	-.444	0	%100
51	M52	X	.086	.086	0	%100
52	M52	Z	-.149	-.149	0	%100
53	M53	X	.439	.439	0	%100
54	M53	Z	-.761	-.761	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.257	.257	0	%100
2	M1	Z	-.148	-.148	0	%100
3	M7A	X	.257	.257	0	%100
4	M7A	Z	-.148	-.148	0	%100
5	MP4A	X	.489	.489	0	%100
6	MP4A	Z	-.282	-.282	0	%100
7	MP2A	X	.489	.489	0	%100
8	MP2A	Z	-.282	-.282	0	%100
9	MP1A	X	.489	.489	0	%100
10	MP1A	Z	-.282	-.282	0	%100
11	M18	X	.313	.313	0	%100
12	M18	Z	-.181	-.181	0	%100
13	M19	X	.524	.524	0	%100
14	M19	Z	-.303	-.303	0	%100
15	MP3A	X	.489	.489	0	%100
16	MP3A	Z	-.282	-.282	0	%100
17	M24	X	.291	.291	0	%100
18	M24	Z	-.168	-.168	0	%100
19	M24A	X	.291	.291	0	%100
20	M24A	Z	-.168	-.168	0	%100
21	FACE	X	.257	.257	0	%100
22	FACE	Z	-.148	-.148	0	%100
23	M24B	X	.257	.257	0	%100
24	M24B	Z	-.148	-.148	0	%100
25	M25B	X	.4	.4	0	%100
26	M25B	Z	-.231	-.231	0	%100
27	RADIO	X	.4	.4	0	%100
28	RADIO	Z	-.231	-.231	0	%100
29	M27	X	.4	.4	0	%100
30	M27	Z	-.231	-.231	0	%100
31	M28	X	.4	.4	0	%100
32	M28	Z	-.231	-.231	0	%100
33	M29	X	.114	.114	0	%100
34	M29	Z	-.066	-.066	0	%100
35	M30	X	.385	.385	0	%100
36	M30	Z	-.222	-.222	0	%100
37	OVP	X	.445	.445	0	%100
38	OVP	Z	-.257	-.257	0	%100
39	M42	X	.081	.081	0	%100
40	M42	Z	-.047	-.047	0	%100
41	M43	X	.081	.081	0	%100
42	M43	Z	-.047	-.047	0	%100
43	M44	X	.081	.081	0	%100
44	M44	Z	-.047	-.047	0	%100
45	M45	X	.081	.081	0	%100
46	M45	Z	-.047	-.047	0	%100
47	M46	X	.346	.346	0	%100
48	M46	Z	-.2	-.2	0	%100
49	M51	X	.148	.148	0	%100
50	M51	Z	-.085	-.085	0	%100
51	M52	X	.007	.007	0	%100
52	M52	Z	-.004	-.004	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M53	X	.738	.738	0	%100
54	M53	Z	-.426	-.426	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	0	0	0	%100
5	MP4A	X	.564	.564	0	%100
6	MP4A	Z	0	0	0	%100
7	MP2A	X	.564	.564	0	%100
8	MP2A	Z	0	0	0	%100
9	MP1A	X	.564	.564	0	%100
10	MP1A	Z	0	0	0	%100
11	M18	X	.361	.361	0	%100
12	M18	Z	0	0	0	%100
13	M19	X	.605	.605	0	%100
14	M19	Z	0	0	0	%100
15	MP3A	X	.564	.564	0	%100
16	MP3A	Z	0	0	0	%100
17	M24	X	.556	.556	0	%100
18	M24	Z	0	0	0	%100
19	M24A	X	.556	.556	0	%100
20	M24A	Z	0	0	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	0	0	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	0	0	0	%100
25	M25B	X	.461	.461	0	%100
26	M25B	Z	0	0	0	%100
27	RADIO	X	.461	.461	0	%100
28	RADIO	Z	0	0	0	%100
29	M27	X	.461	.461	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	.461	.461	0	%100
32	M28	Z	0	0	0	%100
33	M29	X	.414	.414	0	%100
34	M29	Z	0	0	0	%100
35	M30	X	.163	.163	0	%100
36	M30	Z	0	0	0	%100
37	OVP	X	.514	.514	0	%100
38	OVP	Z	0	0	0	%100
39	M42	X	.044	.044	0	%100
40	M42	Z	0	0	0	%100
41	M43	X	.044	.044	0	%100
42	M43	Z	0	0	0	%100
43	M44	X	.044	.044	0	%100
44	M44	Z	0	0	0	%100
45	M45	X	.044	.044	0	%100
46	M45	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
47	M46	X	.4	.4	0	%100
48	M46	Z	0	0	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	0	0	0	%100
51	M52	X	.331	.331	0	%100
52	M52	Z	0	0	0	%100
53	M53	X	.437	.437	0	%100
54	M53	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.257	.257	0	%100
2	M1	Z	.148	.148	0	%100
3	M7A	X	.257	.257	0	%100
4	M7A	Z	.148	.148	0	%100
5	MP4A	X	.489	.489	0	%100
6	MP4A	Z	.282	.282	0	%100
7	MP2A	X	.489	.489	0	%100
8	MP2A	Z	.282	.282	0	%100
9	MP1A	X	.489	.489	0	%100
10	MP1A	Z	.282	.282	0	%100
11	M18	X	.313	.313	0	%100
12	M18	Z	.181	.181	0	%100
13	M19	X	.524	.524	0	%100
14	M19	Z	.303	.303	0	%100
15	MP3A	X	.489	.489	0	%100
16	MP3A	Z	.282	.282	0	%100
17	M24	X	.438	.438	0	%100
18	M24	Z	.253	.253	0	%100
19	M24A	X	.438	.438	0	%100
20	M24A	Z	.253	.253	0	%100
21	FACE	X	.257	.257	0	%100
22	FACE	Z	.148	.148	0	%100
23	M24B	X	.257	.257	0	%100
24	M24B	Z	.148	.148	0	%100
25	M25B	X	.4	.4	0	%100
26	M25B	Z	.231	.231	0	%100
27	RADIO	X	.4	.4	0	%100
28	RADIO	Z	.231	.231	0	%100
29	M27	X	.4	.4	0	%100
30	M27	Z	.231	.231	0	%100
31	M28	X	.4	.4	0	%100
32	M28	Z	.231	.231	0	%100
33	M29	X	.489	.489	0	%100
34	M29	Z	.282	.282	0	%100
35	M30	X	.000971	.000971	0	%100
36	M30	Z	.000561	.000561	0	%100
37	OVP	X	.445	.445	0	%100
38	OVP	Z	.257	.257	0	%100
39	M42	X	.003	.003	0	%100
40	M42	Z	.002	.002	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
41	M43	X	.003	.003	0	%100
42	M43	Z	.002	.002	0	%100
43	M44	X	.003	.003	0	%100
44	M44	Z	.002	.002	0	%100
45	M45	X	.003	.003	0	%100
46	M45	Z	.002	.002	0	%100
47	M46	X	.346	.346	0	%100
48	M46	Z	.2	.2	0	%100
49	M51	X	.148	.148	0	%100
50	M51	Z	.085	.085	0	%100
51	M52	X	.708	.708	0	%100
52	M52	Z	.409	.409	0	%100
53	M53	X	.043	.043	0	%100
54	M53	Z	.025	.025	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.444	.444	0	%100
2	M1	Z	.77	.77	0	%100
3	M7A	X	.444	.444	0	%100
4	M7A	Z	.77	.77	0	%100
5	MP4A	X	.282	.282	0	%100
6	MP4A	Z	.489	.489	0	%100
7	MP2A	X	.282	.282	0	%100
8	MP2A	Z	.489	.489	0	%100
9	MP1A	X	.282	.282	0	%100
10	MP1A	Z	.489	.489	0	%100
11	M18	X	.181	.181	0	%100
12	M18	Z	.313	.313	0	%100
13	M19	X	.303	.303	0	%100
14	M19	Z	.524	.524	0	%100
15	MP3A	X	.282	.282	0	%100
16	MP3A	Z	.489	.489	0	%100
17	M24	X	.118	.118	0	%100
18	M24	Z	.205	.205	0	%100
19	M24A	X	.118	.118	0	%100
20	M24A	Z	.205	.205	0	%100
21	FACE	X	.444	.444	0	%100
22	FACE	Z	.77	.77	0	%100
23	M24B	X	.444	.444	0	%100
24	M24B	Z	.77	.77	0	%100
25	M25B	X	.231	.231	0	%100
26	M25B	Z	.4	.4	0	%100
27	RADIO	X	.231	.231	0	%100
28	RADIO	Z	.4	.4	0	%100
29	M27	X	.231	.231	0	%100
30	M27	Z	.4	.4	0	%100
31	M28	X	.231	.231	0	%100
32	M28	Z	.4	.4	0	%100
33	M29	X	.216	.216	0	%100
34	M29	Z	.375	.375	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	M30	X	.06	.06	0	%100
36	M30	Z	.104	.104	0	%100
37	OVP	X	.257	.257	0	%100
38	OVP	Z	.445	.445	0	%100
39	M42	X	.006	.006	0	%100
40	M42	Z	.011	.011	0	%100
41	M43	X	.006	.006	0	%100
42	M43	Z	.011	.011	0	%100
43	M44	X	.006	.006	0	%100
44	M44	Z	.011	.011	0	%100
45	M45	X	.006	.006	0	%100
46	M45	Z	.011	.011	0	%100
47	M46	X	.2	.2	0	%100
48	M46	Z	.346	.346	0	%100
49	M51	X	.256	.256	0	%100
50	M51	Z	.444	.444	0	%100
51	M52	X	.491	.491	0	%100
52	M52	Z	.85	.85	0	%100
53	M53	X	.038	.038	0	%100
54	M53	Z	.066	.066	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	1.185	1.185	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	1.185	1.185	0	%100
5	MP4A	X	0	0	0	%100
6	MP4A	Z	.564	.564	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	.564	.564	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	.564	.564	0	%100
11	M18	X	0	0	0	%100
12	M18	Z	.361	.361	0	%100
13	M19	X	0	0	0	%100
14	M19	Z	.605	.605	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	.564	.564	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	.017	.017	0	%100
19	M24A	X	0	0	0	%100
20	M24A	Z	.017	.017	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	1.185	1.185	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	1.185	1.185	0	%100
25	M25B	X	0	0	0	%100
26	M25B	Z	.461	.461	0	%100
27	RADIO	X	0	0	0	%100
28	RADIO	Z	.461	.461	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
29	M27	X	0	0	0	%100
30	M27	Z	.461	.461	0	%100
31	M28	X	0	0	0	%100
32	M28	Z	.461	.461	0	%100
33	M29	X	0	0	0	%100
34	M29	Z	.151	.151	0	%100
35	M30	X	0	0	0	%100
36	M30	Z	.401	.401	0	%100
37	OVP	X	0	0	0	%100
38	OVP	Z	.514	.514	0	%100
39	M42	X	0	0	0	%100
40	M42	Z	.062	.062	0	%100
41	M43	X	0	0	0	%100
42	M43	Z	.062	.062	0	%100
43	M44	X	0	0	0	%100
44	M44	Z	.062	.062	0	%100
45	M45	X	0	0	0	%100
46	M45	Z	.062	.062	0	%100
47	M46	X	0	0	0	%100
48	M46	Z	.4	.4	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	.683	.683	0	%100
51	M52	X	0	0	0	%100
52	M52	Z	.659	.659	0	%100
53	M53	X	0	0	0	%100
54	M53	Z	.49	.49	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.444	-.444	0	%100
2	M1	Z	.77	.77	0	%100
3	M7A	X	-.444	-.444	0	%100
4	M7A	Z	.77	.77	0	%100
5	MP4A	X	-.282	-.282	0	%100
6	MP4A	Z	.489	.489	0	%100
7	MP2A	X	-.282	-.282	0	%100
8	MP2A	Z	.489	.489	0	%100
9	MP1A	X	-.282	-.282	0	%100
10	MP1A	Z	.489	.489	0	%100
11	M18	X	-.181	-.181	0	%100
12	M18	Z	.313	.313	0	%100
13	M19	X	-.303	-.303	0	%100
14	M19	Z	.524	.524	0	%100
15	MP3A	X	-.282	-.282	0	%100
16	MP3A	Z	.489	.489	0	%100
17	M24	X	-.034	-.034	0	%100
18	M24	Z	.058	.058	0	%100
19	M24A	X	-.034	-.034	0	%100
20	M24A	Z	.058	.058	0	%100
21	FACE	X	-.444	-.444	0	%100
22	FACE	Z	.77	.77	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
23	M24B	X	-.444	-.444	0	%100
24	M24B	Z	.77	.77	0	%100
25	M25B	X	-.231	-.231	0	%100
26	M25B	Z	.4	.4	0	%100
27	RADIO	X	-.231	-.231	0	%100
28	RADIO	Z	.4	.4	0	%100
29	M27	X	-.231	-.231	0	%100
30	M27	Z	.4	.4	0	%100
31	M28	X	-.231	-.231	0	%100
32	M28	Z	.4	.4	0	%100
33	M29	X	-.000104	-.000104	0	%100
34	M29	Z	.000181	.000181	0	%100
35	M30	X	-.282	-.282	0	%100
36	M30	Z	.488	.488	0	%100
37	OVP	X	-.257	-.257	0	%100
38	OVP	Z	.445	.445	0	%100
39	M42	X	-.051	-.051	0	%100
40	M42	Z	.089	.089	0	%100
41	M43	X	-.051	-.051	0	%100
42	M43	Z	.089	.089	0	%100
43	M44	X	-.051	-.051	0	%100
44	M44	Z	.089	.089	0	%100
45	M45	X	-.051	-.051	0	%100
46	M45	Z	.089	.089	0	%100
47	M46	X	-.2	-.2	0	%100
48	M46	Z	.346	.346	0	%100
49	M51	X	-.256	-.256	0	%100
50	M51	Z	.444	.444	0	%100
51	M52	X	-.086	-.086	0	%100
52	M52	Z	.149	.149	0	%100
53	M53	X	-.439	-.439	0	%100
54	M53	Z	.761	.761	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.257	-.257	0	%100
2	M1	Z	.148	.148	0	%100
3	M7A	X	-.257	-.257	0	%100
4	M7A	Z	.148	.148	0	%100
5	MP4A	X	-.489	-.489	0	%100
6	MP4A	Z	.282	.282	0	%100
7	MP2A	X	-.489	-.489	0	%100
8	MP2A	Z	.282	.282	0	%100
9	MP1A	X	-.489	-.489	0	%100
10	MP1A	Z	.282	.282	0	%100
11	M18	X	-.313	-.313	0	%100
12	M18	Z	.181	.181	0	%100
13	M19	X	-.524	-.524	0	%100
14	M19	Z	.303	.303	0	%100
15	MP3A	X	-.489	-.489	0	%100
16	MP3A	Z	.282	.282	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
17	M24	X	-.291	-.291	0	%100
18	M24	Z	.168	.168	0	%100
19	M24A	X	-.291	-.291	0	%100
20	M24A	Z	.168	.168	0	%100
21	FACE	X	-.257	-.257	0	%100
22	FACE	Z	.148	.148	0	%100
23	M24B	X	-.257	-.257	0	%100
24	M24B	Z	.148	.148	0	%100
25	M25B	X	-.4	-.4	0	%100
26	M25B	Z	.231	.231	0	%100
27	RADIO	X	-.4	-.4	0	%100
28	RADIO	Z	.231	.231	0	%100
29	M27	X	-.4	-.4	0	%100
30	M27	Z	.231	.231	0	%100
31	M28	X	-.4	-.4	0	%100
32	M28	Z	.231	.231	0	%100
33	M29	X	-.114	-.114	0	%100
34	M29	Z	.066	.066	0	%100
35	M30	X	-.385	-.385	0	%100
36	M30	Z	.222	.222	0	%100
37	OVP	X	-.445	-.445	0	%100
38	OVP	Z	.257	.257	0	%100
39	M42	X	-.081	-.081	0	%100
40	M42	Z	.047	.047	0	%100
41	M43	X	-.081	-.081	0	%100
42	M43	Z	.047	.047	0	%100
43	M44	X	-.081	-.081	0	%100
44	M44	Z	.047	.047	0	%100
45	M45	X	-.081	-.081	0	%100
46	M45	Z	.047	.047	0	%100
47	M46	X	-.346	-.346	0	%100
48	M46	Z	.2	.2	0	%100
49	M51	X	-.148	-.148	0	%100
50	M51	Z	.085	.085	0	%100
51	M52	X	-.007	-.007	0	%100
52	M52	Z	.004	.004	0	%100
53	M53	X	-.738	-.738	0	%100
54	M53	Z	.426	.426	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M7A	X	0	0	0	%100
4	M7A	Z	0	0	0	%100
5	MP4A	X	-.564	-.564	0	%100
6	MP4A	Z	0	0	0	%100
7	MP2A	X	-.564	-.564	0	%100
8	MP2A	Z	0	0	0	%100
9	MP1A	X	-.564	-.564	0	%100
10	MP1A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
11	M18	X	-.361	-.361	0	%100
12	M18	Z	0	0	0	%100
13	M19	X	-.605	-.605	0	%100
14	M19	Z	0	0	0	%100
15	MP3A	X	-.564	-.564	0	%100
16	MP3A	Z	0	0	0	%100
17	M24	X	-.556	-.556	0	%100
18	M24	Z	0	0	0	%100
19	M24A	X	-.556	-.556	0	%100
20	M24A	Z	0	0	0	%100
21	FACE	X	0	0	0	%100
22	FACE	Z	0	0	0	%100
23	M24B	X	0	0	0	%100
24	M24B	Z	0	0	0	%100
25	M25B	X	-.461	-.461	0	%100
26	M25B	Z	0	0	0	%100
27	RADIO	X	-.461	-.461	0	%100
28	RADIO	Z	0	0	0	%100
29	M27	X	-.461	-.461	0	%100
30	M27	Z	0	0	0	%100
31	M28	X	-.461	-.461	0	%100
32	M28	Z	0	0	0	%100
33	M29	X	-.414	-.414	0	%100
34	M29	Z	0	0	0	%100
35	M30	X	-.163	-.163	0	%100
36	M30	Z	0	0	0	%100
37	OVP	X	-.514	-.514	0	%100
38	OVP	Z	0	0	0	%100
39	M42	X	-.044	-.044	0	%100
40	M42	Z	0	0	0	%100
41	M43	X	-.044	-.044	0	%100
42	M43	Z	0	0	0	%100
43	M44	X	-.044	-.044	0	%100
44	M44	Z	0	0	0	%100
45	M45	X	-.044	-.044	0	%100
46	M45	Z	0	0	0	%100
47	M46	X	-.4	-.4	0	%100
48	M46	Z	0	0	0	%100
49	M51	X	0	0	0	%100
50	M51	Z	0	0	0	%100
51	M52	X	-.331	-.331	0	%100
52	M52	Z	0	0	0	%100
53	M53	X	-.437	-.437	0	%100
54	M53	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.257	-.257	0	%100
2	M1	Z	-.148	-.148	0	%100
3	M7A	X	-.257	-.257	0	%100
4	M7A	Z	-.148	-.148	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
5	MP4A	X	-.489	-.489	0	%100
6	MP4A	Z	-.282	-.282	0	%100
7	MP2A	X	-.489	-.489	0	%100
8	MP2A	Z	-.282	-.282	0	%100
9	MP1A	X	-.489	-.489	0	%100
10	MP1A	Z	-.282	-.282	0	%100
11	M18	X	-.313	-.313	0	%100
12	M18	Z	-.181	-.181	0	%100
13	M19	X	-.524	-.524	0	%100
14	M19	Z	-.303	-.303	0	%100
15	MP3A	X	-.489	-.489	0	%100
16	MP3A	Z	-.282	-.282	0	%100
17	M24	X	-.438	-.438	0	%100
18	M24	Z	-.253	-.253	0	%100
19	M24A	X	-.438	-.438	0	%100
20	M24A	Z	-.253	-.253	0	%100
21	FACE	X	-.257	-.257	0	%100
22	FACE	Z	-.148	-.148	0	%100
23	M24B	X	-.257	-.257	0	%100
24	M24B	Z	-.148	-.148	0	%100
25	M25B	X	-.4	-.4	0	%100
26	M25B	Z	-.231	-.231	0	%100
27	RADIO	X	-.4	-.4	0	%100
28	RADIO	Z	-.231	-.231	0	%100
29	M27	X	-.4	-.4	0	%100
30	M27	Z	-.231	-.231	0	%100
31	M28	X	-.4	-.4	0	%100
32	M28	Z	-.231	-.231	0	%100
33	M29	X	-.489	-.489	0	%100
34	M29	Z	-.282	-.282	0	%100
35	M30	X	-.000971	-.000971	0	%100
36	M30	Z	-.000561	-.000561	0	%100
37	OVP	X	-.445	-.445	0	%100
38	OVP	Z	-.257	-.257	0	%100
39	M42	X	-.003	-.003	0	%100
40	M42	Z	-.002	-.002	0	%100
41	M43	X	-.003	-.003	0	%100
42	M43	Z	-.002	-.002	0	%100
43	M44	X	-.003	-.003	0	%100
44	M44	Z	-.002	-.002	0	%100
45	M45	X	-.003	-.003	0	%100
46	M45	Z	-.002	-.002	0	%100
47	M46	X	-.346	-.346	0	%100
48	M46	Z	-.2	-.2	0	%100
49	M51	X	-.148	-.148	0	%100
50	M51	Z	-.085	-.085	0	%100
51	M52	X	-.708	-.708	0	%100
52	M52	Z	-.409	-.409	0	%100
53	M53	X	-.043	-.043	0	%100
54	M53	Z	-.025	-.025	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.444	-.444	0	%100
2	M1	Z	-.77	-.77	0	%100
3	M7A	X	-.444	-.444	0	%100
4	M7A	Z	-.77	-.77	0	%100
5	MP4A	X	-.282	-.282	0	%100
6	MP4A	Z	-.489	-.489	0	%100
7	MP2A	X	-.282	-.282	0	%100
8	MP2A	Z	-.489	-.489	0	%100
9	MP1A	X	-.282	-.282	0	%100
10	MP1A	Z	-.489	-.489	0	%100
11	M18	X	-.181	-.181	0	%100
12	M18	Z	-.313	-.313	0	%100
13	M19	X	-.303	-.303	0	%100
14	M19	Z	-.524	-.524	0	%100
15	MP3A	X	-.282	-.282	0	%100
16	MP3A	Z	-.489	-.489	0	%100
17	M24	X	-.118	-.118	0	%100
18	M24	Z	-.205	-.205	0	%100
19	M24A	X	-.118	-.118	0	%100
20	M24A	Z	-.205	-.205	0	%100
21	FACE	X	-.444	-.444	0	%100
22	FACE	Z	-.77	-.77	0	%100
23	M24B	X	-.444	-.444	0	%100
24	M24B	Z	-.77	-.77	0	%100
25	M25B	X	-.231	-.231	0	%100
26	M25B	Z	-.4	-.4	0	%100
27	RADIO	X	-.231	-.231	0	%100
28	RADIO	Z	-.4	-.4	0	%100
29	M27	X	-.231	-.231	0	%100
30	M27	Z	-.4	-.4	0	%100
31	M28	X	-.231	-.231	0	%100
32	M28	Z	-.4	-.4	0	%100
33	M29	X	-.216	-.216	0	%100
34	M29	Z	-.375	-.375	0	%100
35	M30	X	-.06	-.06	0	%100
36	M30	Z	-.104	-.104	0	%100
37	OVP	X	-.257	-.257	0	%100
38	OVP	Z	-.445	-.445	0	%100
39	M42	X	-.006	-.006	0	%100
40	M42	Z	-.011	-.011	0	%100
41	M43	X	-.006	-.006	0	%100
42	M43	Z	-.011	-.011	0	%100
43	M44	X	-.006	-.006	0	%100
44	M44	Z	-.011	-.011	0	%100
45	M45	X	-.006	-.006	0	%100
46	M45	Z	-.011	-.011	0	%100
47	M46	X	-.2	-.2	0	%100
48	M46	Z	-.346	-.346	0	%100
49	M51	X	-.256	-.256	0	%100
50	M51	Z	-.444	-.444	0	%100
51	M52	X	-.491	-.491	0	%100
52	M52	Z	-.85	-.85	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
53	M53	X	-.038	-.038	0	%100
54	M53	Z	-.066	-.066	0	%100

Member Area Loads

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

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N45	max	883.368	18	1470.043	17	-41.112	12	.007	5	0	51	.729	11
2		min	-90.09	12	467.453	12	-4007.625	18	-.346	23	0	1	-1.31	29
3	N46A	max	99.814	9	1418.792	13	4024.252	14	.015	5	0	51	.69	11
4		min	-894.446	15	477.698	7	193.031	8	-.338	23	0	1	-1.288	29
5	N73A	max	706.73	12	62.002	50	461.977	12	0	51	0	51	0	51
6		min	-714.94	30	-33.93	29	-449.274	30	0	1	0	1	0	1
7	N74A	max	986.643	6	47.122	17	1698.764	12	0	51	0	51	0	51
8		min	-1009.041	12	13.463	36	-1690.822	6	0	1	0	1	0	1
9	N83	max	1817.53	11	80.055	23	1569.762	5	0	51	0	51	0	51
10		min	-1897.915	5	7.3	5	-1610.175	11	0	1	0	1	0	1
11	Totals:	max	1505.768	11	3036.62	23	2457.719	1						
12		min	-1505.758	5	1066.32	5	-2457.715	7						

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	M1	L3X3X4	.548	6.208	3	.216	.905	y	35	19865.949	46656	1.688	3.625	2....	H2-1
2	M7A	L3X3X4	.535	5.238	30	.095	1.358	z	5	19865.949	46656	1.688	3.488	1....	H2-1
3	MP4A	PIPE_2.0	.263	1.951	12	.118	1.888		12	20741.582	32130	1.872	1.872	2....	H1-1b
4	MP2A	PIPE_2.0	.291	1.888	11	.170	1.007		5	20741.582	32130	1.872	1.872	2....	H1-1b
5	MP1A	PIPE_2.0	.307	1.133	17	.161	1.133		29	20741.582	32130	1.872	1.872	2....	H1-1b
6	M18	PIPE_1.5	.623	2.25	13	.229	0		29	22661.625	23593.5	1.105	1.105	2....	H1-1b
7	M19	PIPE_3.0	.396	.375	17	.231	.375		29	62138.029	65205	5.749	5.749	2....	H1-1b
8	MP3A	PIPE_2.0	.396	1.007	36	.128	1.825		5	20741.582	32130	1.872	1.872	3....	H1-1b
9	M24	HSS3X3X3	.293	0	17	.267	2.583	y	29	74454.772	78246	6.796	6.796	1....	H1-1b
10	M24A	HSS3X3X3	.301	0	17	.262	2.583	y	29	74454.772	78246	6.796	6.796	1....	H1-1b
11	FACE	L3X3X4	.446	0	2	.597	0	y	17	19865.949	46656	1.688	3.726	2....	H2-1
12	M24B	L3X3X4	.306	0	15	.617	0	y	14	19865.949	46656	1.688	3.627	2....	H2-1
13	M25B	PIPE_2.0	.482	3	29	.078	3		2	28843.414	32130	1.872	1.872	2....	H1-1b
14	RADIO	PIPE_2.0	.305	3	29	.101	3		2	28843.414	32130	1.872	1.872	2....	H1-1b
15	M27	PIPE_2.0	.146	0	50	.103	0		29	28843.414	32130	1.872	1.872	2....	H1-1b
16	M28	PIPE_2.0	.285	.813	30	.102	0		50	28843.414	32130	1.872	1.872	1....	H1-1b
17	M29	PIPE_2.0	.112	7.086	12	.005	0		23	17596.993	32130	1.872	1.872	1....	H1-1b*
18	M30	PIPE_2.0	.178	0	50	.007	5.643		50	21933.331	32130	1.872	1.872	1....	H1-1b
19	OVP	PIPE_2.0	.659	.75	17	.266	.75		29	26521.424	32130	1.872	1.872	1....	H1-1b
20	M42	SR_0.5	.119	0	14	.035	0		13	4693.719	6361.725	.053	.053	1....	H1-1b
21	M43	SR_0.5	.115	0	14	.038	0		14	4693.719	6361.725	.053	.053	1....	H1-1b
22	M44	SR_0.5	.130	0	15	.042	0		20	4693.719	6361.725	.053	.053	1....	H1-1b
23	M45	SR_0.5	.126	0	20	.043	0		19	4693.719	6361.725	.053	.053	1....	H1-1b

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
24	M46	PIPE_2.0	.001	.936	8	.045	1.7		26	30860.931	32130	1.872	1.872	1....	H1-1b
25	M51	PIPE_2.5	.268	2.604	9	.174	2.474		3	14558.792	50715	3.596	3.596	1....	H1-1b
26	M52	L2.5x2.5x4	.188	2.517	5	.025	5.252	z	11	15674.002	38556	1.114	2.228	1....	H2-1
27	M53	L2.5x2.5x4	.052	4.422	26	.023	4.422	z	23	20370.027	38556	1.114	2.302	1....	H2-1

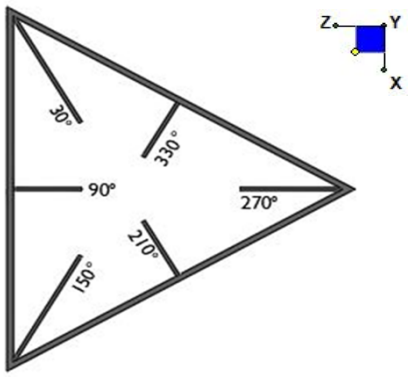
Client:	Verizon	Date:	3/9/2021
Site Name:	Glastonburt West CT		
Project No.	20777269A		
Title:	Mount Fix	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

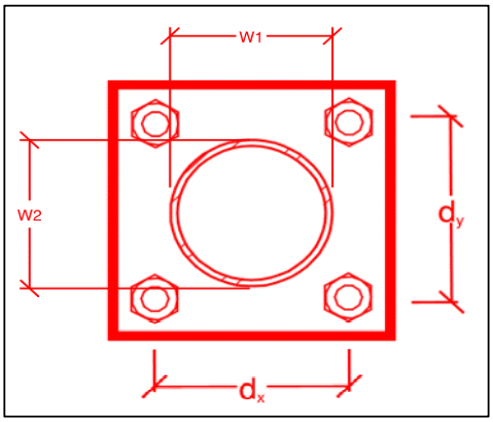
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N45	90
N46A	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	11
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	3
Bolt Type:	A307
Bolt Diameter (in):	0.5
Required Tensile Strength (kips):	6.3
Required Shear Strength (kips):	4.1
Tensile Strength / bolt (kips):	6.4
Shear Strength / bolt (kips):	3.8
Tensile Capacity Overall:	**24.4%***
Shear Capacity Overall:	**26.4%**



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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

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

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

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact Maser Consulting Connecticut immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded **to** https://pmi.vzwsmart.com as depicted on the drawings

Photo Requirements:

- *Base and "During Installation Photos"*
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - "During Installation Photos if provided - must be placed only in this folder
- *Photos taken at ground level*
  - Overall tower structure before and after installation of the modifications
  - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- *Photos taken at Mount Elevation*
    - Photos showing each individual sector before and also after installation of modifications. Each entire sector must be in one photo to show in the inter-connection of members.
        - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
    - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
    - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
    - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
    - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
    - Photos showing the safety climb wire rope above and below the mount prior to modification.
    - Photos showing the climbing facility and safety climb if present.

Material Certification:

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

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

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

Certifying Individual: Company _____

Name _____

Signature _____

Antenna & equipment placement and Geometry Confirmation:

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

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

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

Certifying Individual: Company _____

Name _____

Signature _____

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

Issue:

Install new 48" long P2.0 STD pipe on the existing standoff horizontal member for new OVP in Alpha sector - connect to standoff using crossover plates (Perfect Vision PV-XP-30ST20 or EOR approved equivalent) Contractor to install the proposed radios at face vertical pipes near position 2 of each sector, one radio per each side. Contractor to install safety climb cable guide (SitePro1 Part #115-352 or EOR approved equivalent) in locations where wire rope might rub against mount standoffs. Contractor to provide photos of safety climb cable guide installation.

Response:

Schedule A – Photo & Document File Structure

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

Structure: 468258-VZW - Glastonbury West CT

Sector: **A**

Structure Type: Self Support

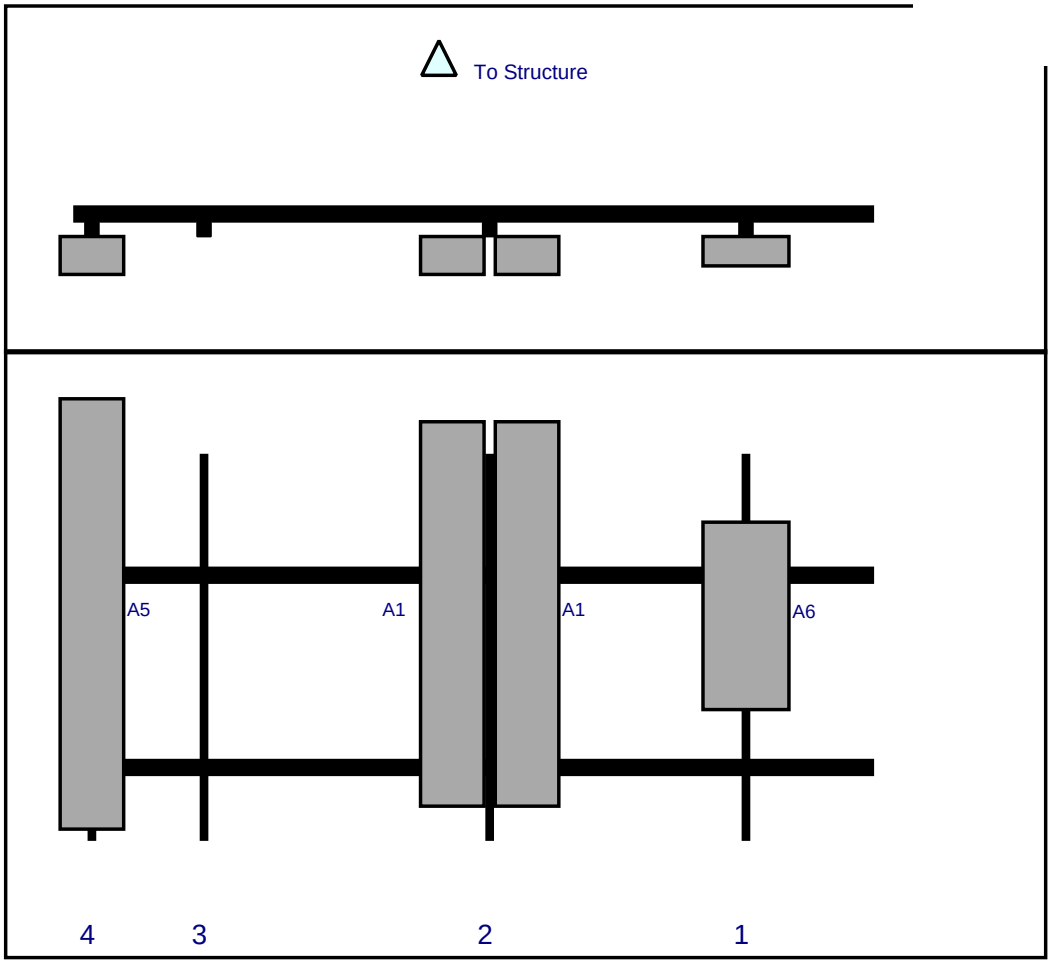
Mount Elev: 79.00

3/10/2021

MASER CONSULTING — CONNECTICUT —

Plan View

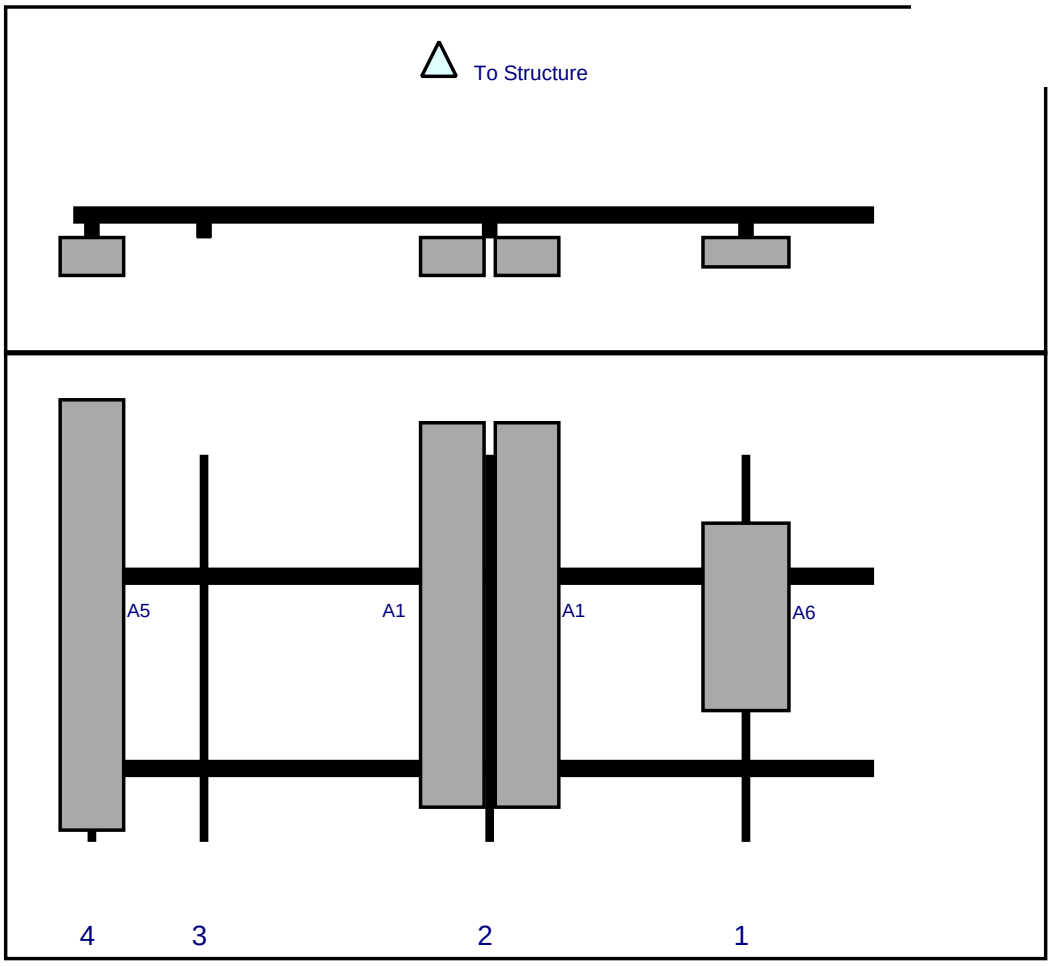
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	VZS01	35.1	16.1	126	1	a	Front	30.36	0	Added	
A1	NHH-65B-R2B	72	11.9	78	2	a	Front	30	-7	Added	
A1	NHH-65B-R2B	72	11.9	78	2	b	Front	30	7	Added	
A5	LNX-6514DS-A1M	80.6	11.9	3.5	4	a	Front	30	0	Retained	01/10/2021

Plan View

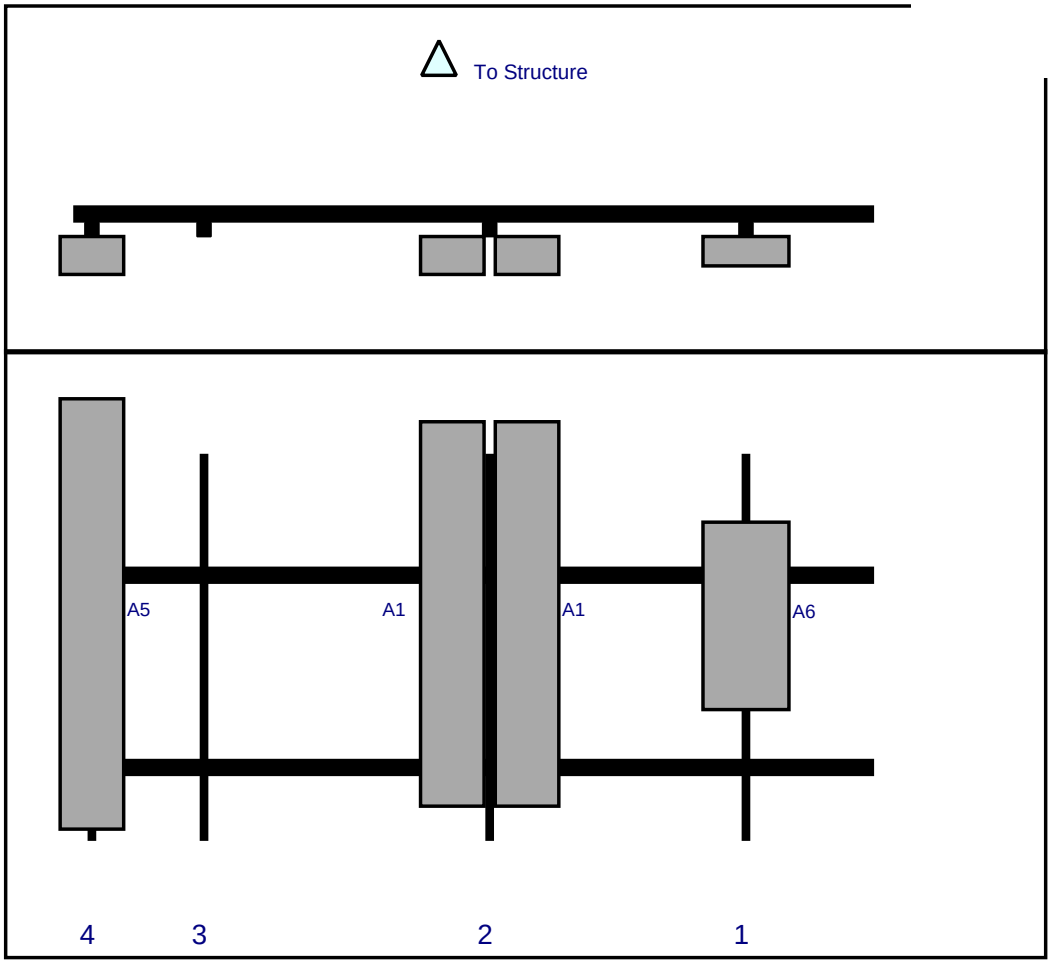
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	VZS01	35.1	16.1	126	1	a	Front	30.36	0	Added	
A1	NHH-65B-R2B	72	11.9	78	2	a	Front	30	-7	Added	
A1	NHH-65B-R2B	72	11.9	78	2	b	Front	30	7	Added	
A5	LNX-6514DS-A1M	80.6	11.9	3.5	4	a	Front	30	0	Retained	01/10/2021

Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	VZS01	35.1	16.1	126	1	a	Front	30.36	0	Added	
A1	NHH-65B-R2B	72	11.9	78	2	a	Front	30	-7	Added	
A1	NHH-65B-R2B	72	11.9	78	2	b	Front	30	7	Added	
A5	LNX-6514DS-A1M	80.6	11.9	3.5	4	a	Front	30	0	Retained	01/10/2021

Maser Consulting Connecticut

Subject	TIA-222-H Adoption and Wind Speed Usage
Site Information	Site ID: 468258-VZW / Glastonbury West CT Site Name: Glastonbury West CT Carrier Name: Verizon Wireless Address: 2577 Main St. Glastonbury, Connecticut 06033 Hartford County Latitude: 41.7143289° Longitude: -72.613028°
Structure Information	Tower Type: Self Support Mount Type: 12.50-Ft T-Frame

To Whom It May Concern,

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

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

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

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

Sincerely,

Dejian Xu

Dejian Xu, PE
Technical Specialist

MASER CONSULTING
— CONNECTICUT—

331 Newman Springs Road, Suite 203
Red Bank, NJ 07701
T: 732.383.1950
www.maserconsulting.com

March 29, 2021

Mr. Andrew Leone
Verizon Wireless
20 Alexander Dr.
Wallingford, CT 06492

Re: Verizon Wireless antenna Model Clarification for CT Siting Council

Dear Mr. Leone,

This letter is intended to clarify and confirm the antenna naming convention used by Verizon Wireless as a part of an antenna upgrade project on numerous wireless facilities.

The antenna naming convention "Licensed Sub-6, L-Sub6, nL-Sub6, VZS01" and any other slight variants refer to the 64T64RMMU antenna manufactured by Samsung Electronics. These names are interchangeable and are used in various documents, including but not limited to the "Antenna Mount Analysis".

If you have any questions or comments, or require additional information, please do not hesitate to contact me.

Very truly yours,
MASER CONSULTING CONNECTICUT

Petros Toukalas
Connecticut Professional Engineer
License Number: 32577

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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verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 12.50' T-FRAME

SITE NAME: GLASTONBURY WEST CT
SITE NUMBER: 468258

2577 MAIN ST.
GLASTONBURY, CT 06033
HARTFORD COUNTY

PROJECT INFORMATION

SITE INFORMATION

LATITUDE: 41.7143289° N
LONGITUDE: 72.613028° 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: GREG DULNIK
PHONE: (615) 686-2575
E-MAIL: GREG.DULNIK@COLLIERSENGINEERING.COM

SHEET INDEX

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10044065
VZW LOCATION CODE (PSLC):	468258
FUZE ID:	16232043

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

CONTRACTOR PMI REQUIREMENTS

FAILING MOUNT ANALYSIS REPORT

SMART TOOL PROJECT #:	10032203
MASER CONSULTING PROJECT #:	20777629A
ANALYSIS DATE:	2/4/2021

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

SCALE: AS SHOWN
JOB NUMBER: 20777629A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
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0	03/09/21	ISSUED FOR CONSTRUCTION	FAC	DX

STATE OF CONNECTICUT DEJIAN XU No. 33733 LICENSED PROFESSIONAL ENGINEER
DEJIAN XU
CONNECTICUT LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 33733
03/10/2021

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:
GLASTONBURY WEST CT
468258

2577 MAIN ST.
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
3	VZWSMART	VZWSMART-SFK1	TIE BACK ASSEMBLY	FINAL LENGTH TO BE DETERMINED IN FIELD, TRIM AS REQUIRED
3		VZWSMART-SFK3	V-BRACING KIT	FINAL LENGTH TO BE DETERMINED IN FIELD, TRIM AS REQUIRED
12		VZWSMART-MSK1	CROSSOVER PLATE	
		-		
		-		
		-		
		-		
		-		
		-		

OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
3	-	-	150" LONG, P2.5 STD PIPE	GALVANIZED
1	-	-	48" LONG, P2.0 STD PIPE	GALVANIZED
2	PERFECT VISION	PV-XP-30ST20	SQUARE TUBE CROSSOVER PLATE	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING TO OBTAIN 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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LICENSED PROFESSIONAL ENGINEER
DEJIAN XU
LICENSE NO. 33733 PROFESSIONAL ENGINEER - LICENSE NUMBER - STATE
03/10/2021

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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 = 118 MPH

b. EXPOSURE CATEGORY C

c. TOPOGRAPHIC CATEGORY 1

d. MEAN BASE ELEVATION (AMSL) = 30.39'

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 = .196

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 GREG.DULNIK@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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DEJIAN XU
CONNECTICUT LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 33733
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HARTFORD COUNTY

MT. LAUREL OFFICE
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Fax: 856.722.1120

SHEET TITLE : MODIFICATION NOTES

SHEET NUMBER : S-2

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

\AcPublish_19972\Unsaved Drawing1.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.

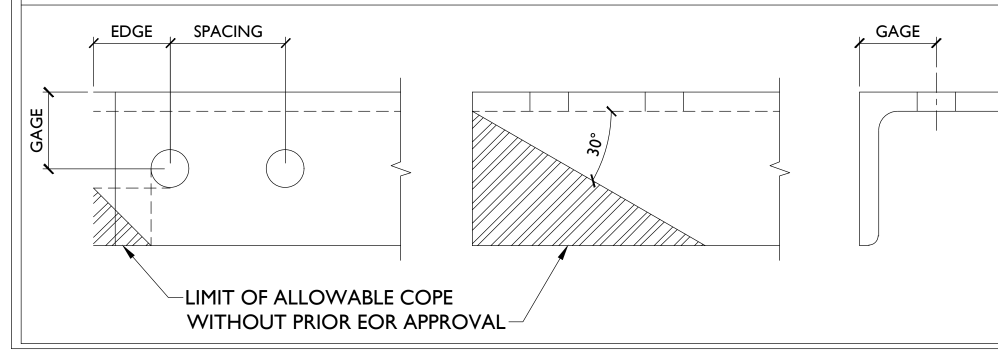
REQUIRED PHOTOS

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

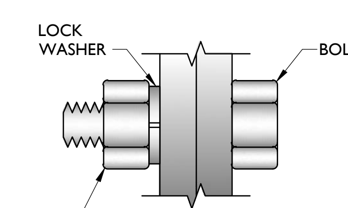


BOLT SCHEDULE (IN.)

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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SCALE: AS SHOWN | JOB NUMBER: 20777629A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
.	.	.	.	.
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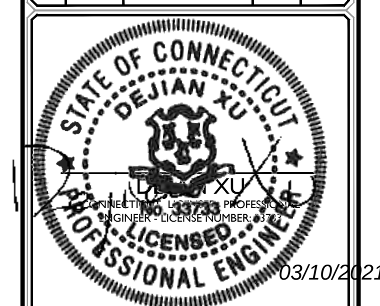
0	03/09/21	ISSUED FOR CONSTRUCTION	FAC	DX



SITE NAME:
GLASTONBURY WEST CT
468258

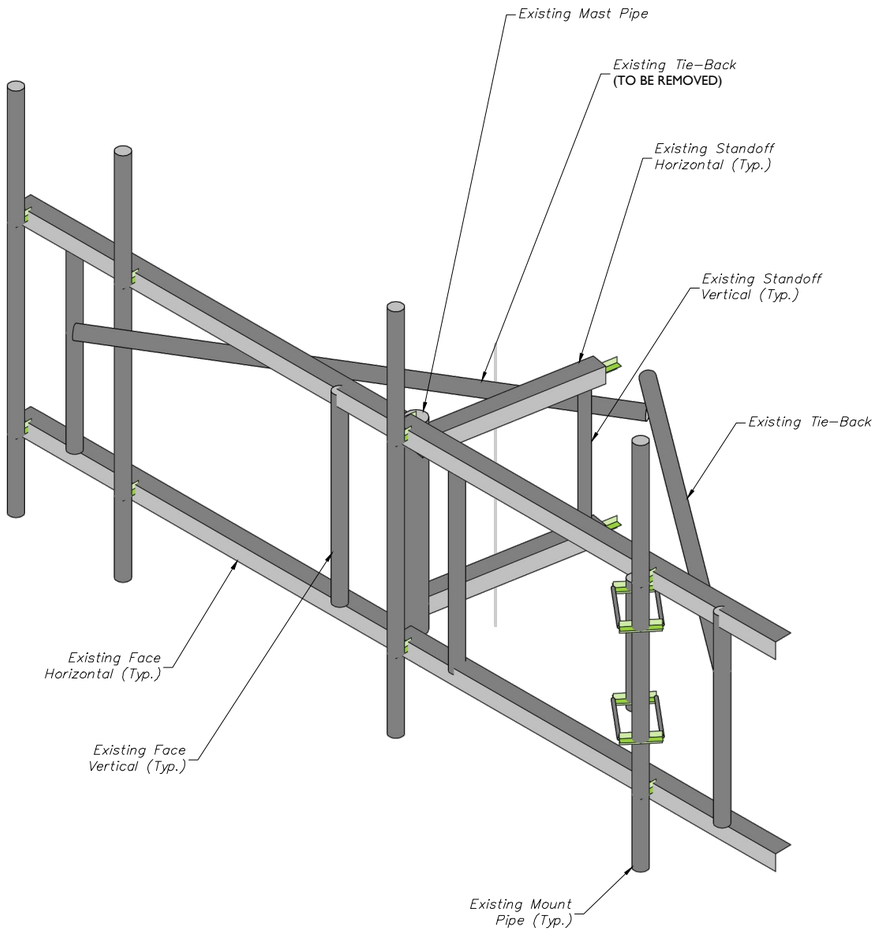
2577 MAIN ST.
GLASTONBURY, CT 06033
HARTFORD COUNTY

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

SHEET TITLE: MODIFICATION NOTES

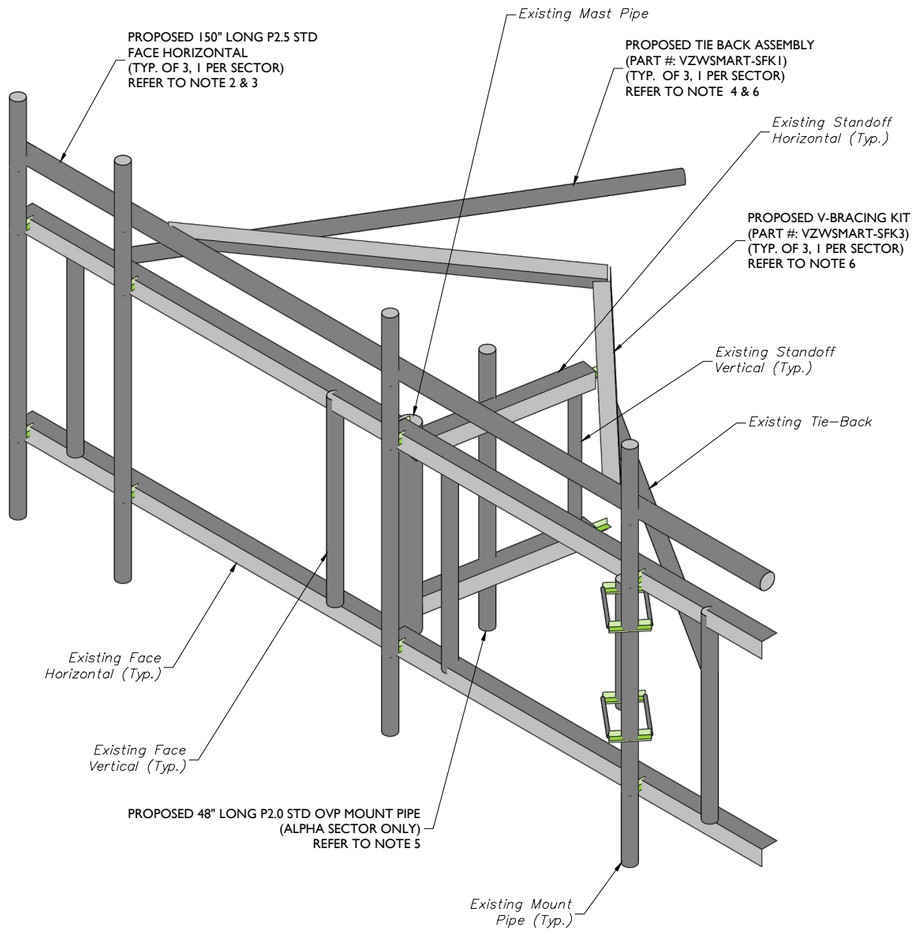
SHEET NUMBER: S-3

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 EXISTING T-FRAME ISOMETRIC VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.



2 PROPOSED T-FRAME ISOMETRIC VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY RKS DESIGN & ENGINEERING, LLC ON 1/10/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (79'-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. 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.
3. CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
4. CONNECT OTHER END OF TIEBACK TO ADJACENT TOWER LEG.
5. CONNECT NEW OVP MOUNT PIPE TO EXISTING STANDOFF WITH SQUARE TUBE CROSSOVER PLATES (PERFECT VISION PART #: PV-XP-30ST20, OR EOR APPROVED EQUAL).
6. FINAL LENGTH TO BE DETERMINED IN FIELD, CONTRACTOR TO TRIM AS REQUIRED.

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STATE OF CONNECTICUT
DEJIAN XU
LICENSED PROFESSIONAL ENGINEER
03/10/2021

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468258

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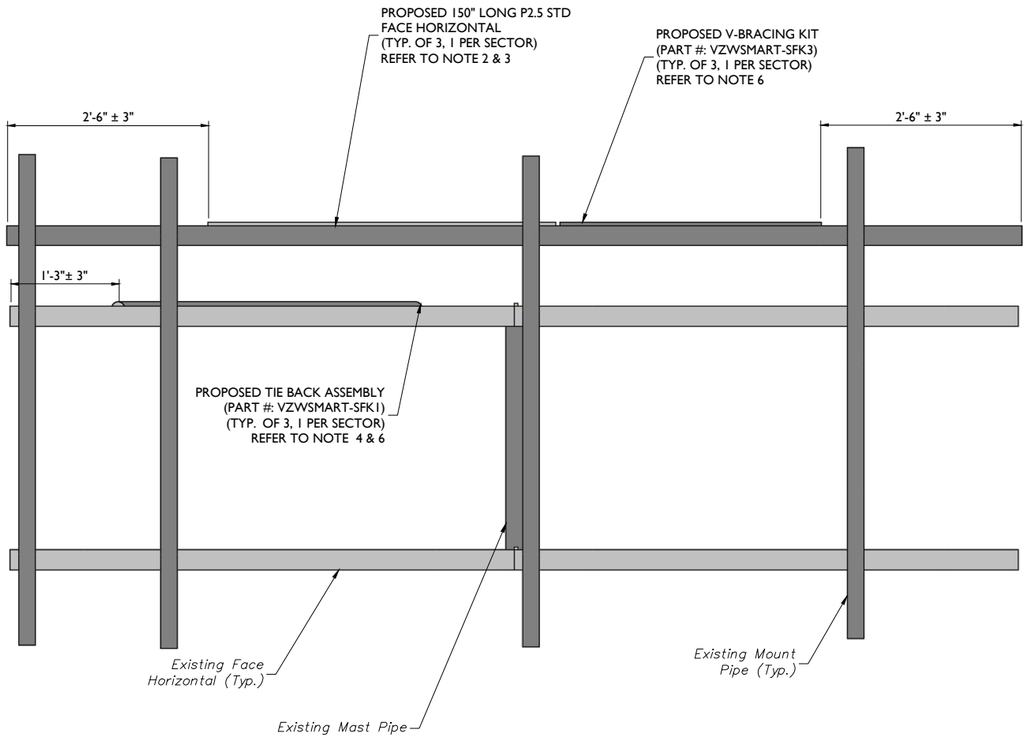
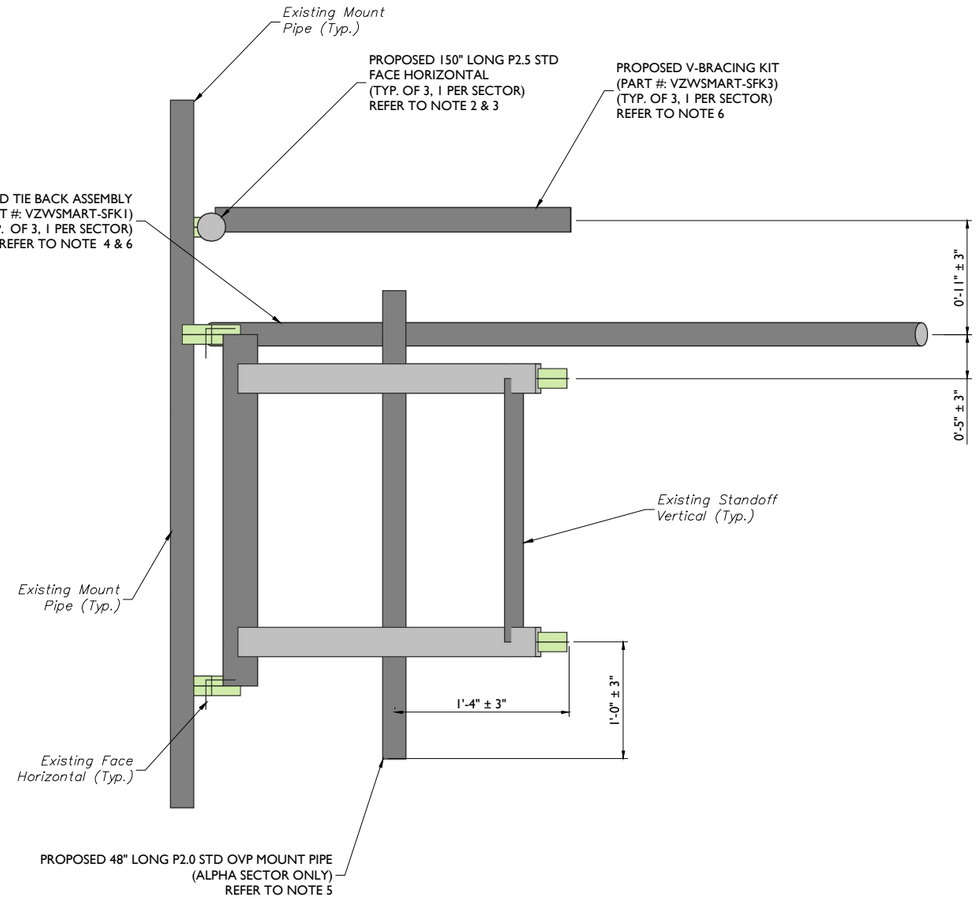
SHEET TITLE :
MODIFICATION DETAILS

SHEET NUMBER :
S-4



1 PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)

SCALE : N.T.S.

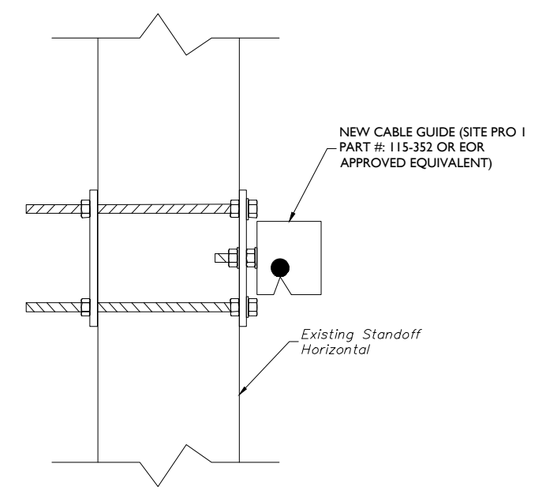


2 PROPOSED SIDE ELEVATION (TYP. ALL SECTORS)

SCALE : N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. 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.
3. CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
4. CONNECT OTHER END OF TIEBACK TO ADJACENT TOWER LEG.
5. CONNECT NEW OVP MOUNT PIPE TO EXISTING STANDOFF WITH SQUARE TUBE CROSSOVER PLATES (PERFECT VISION PART #: PV-XP-30ST20, OR EOR APPROVED EQUAL).
6. FINAL LENGTH TO BE DETERMINED IN FIELD, CONTRACTOR TO TRIM AS REQUIRED.



3 PROPOSED CABLE GUIDE STANDOFF PIPE ATTACHMENT - PLAN VIEW

SCALE : N.T.S.

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STATE OF CONNECTICUT
DEJIAN XU
LICENSED PROFESSIONAL ENGINEER
03/10/2021

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.

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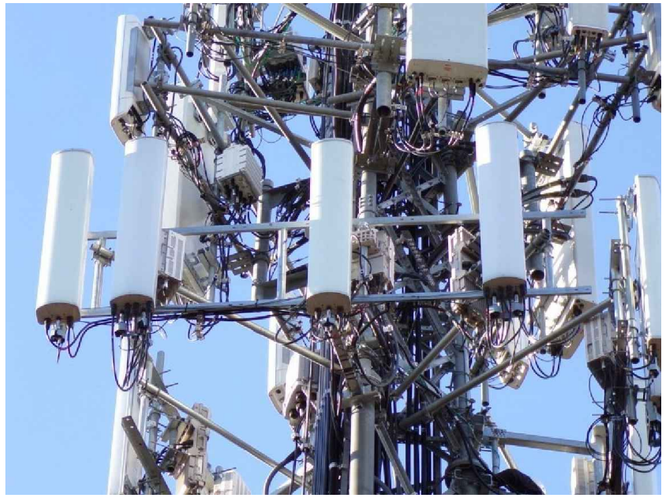
SHEET TITLE :
MODIFICATION DETAILS

SHEET NUMBER :
S-5



MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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STATE OF CONNECTICUT
DEJIAN XU
LICENSED PROFESSIONAL ENGINEER
DEJIAN XU
LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 31726
03/10/2021

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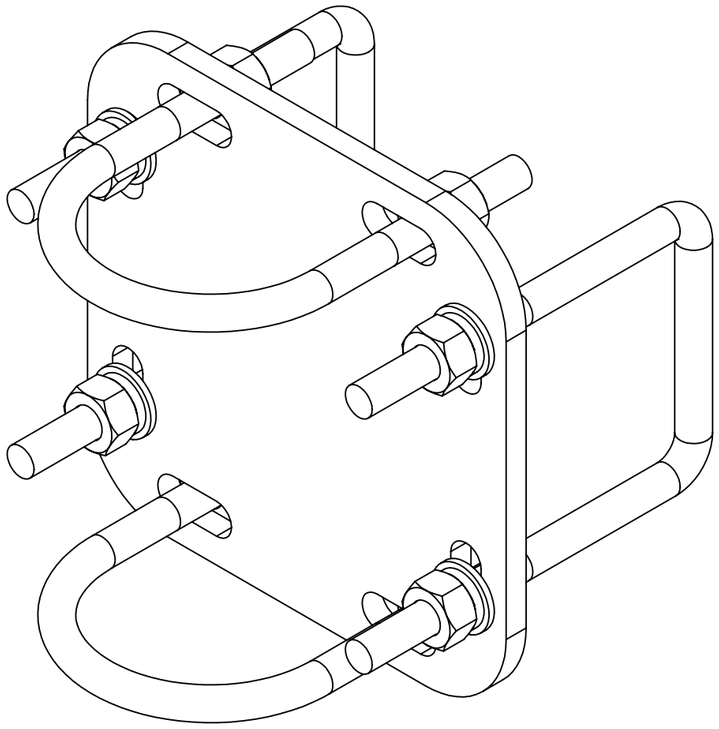
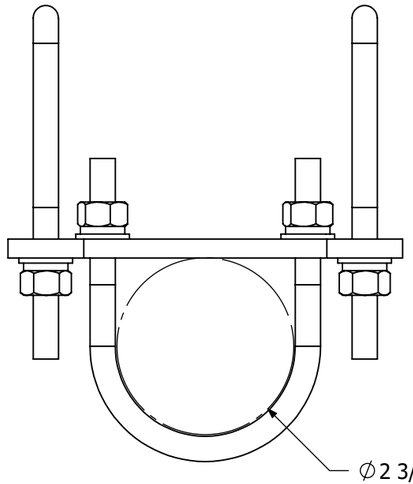
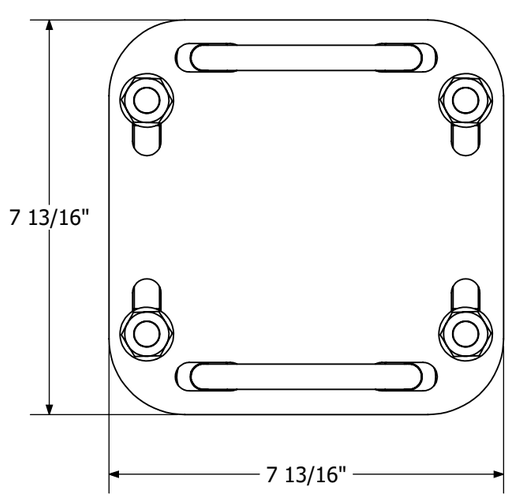
SHEET TITLE : MOUNT PHOTOS

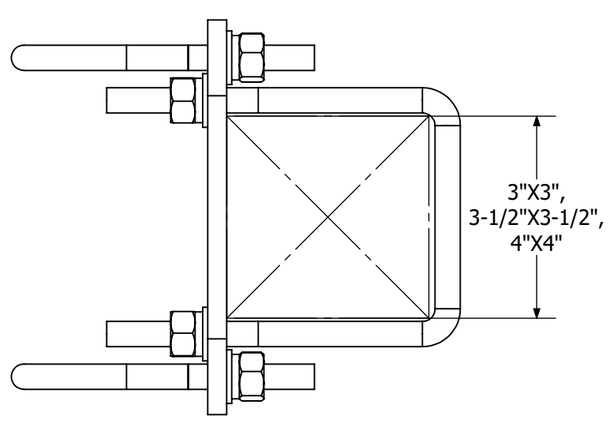
SHEET NUMBER : S-6

PV-XP-ST
SQUARE TUBE TO ROUND PIPE CROSSOVER









PV-XP-ST
SQUARE TUBE TO ROUND PIPE CROSSOVER
WEIGHT: SEE TABLE 1

Table 1: Crossover Configurations

Part Number	Square Tube	Round Pipe	Weight (lbs)
PV-XP-30ST20	3"	NPS 2 (2-3/8" OD)	10
PV-XP-30ST25	3"	NPS 2-1/2 (2-7/8" OD)	10
PV-XP-30ST30	3"	NPS 3 (3-1/2" OD)	10
PV-XP-35ST20	3-1/2"	NPS 2 (2-3/8" OD)	10
PV-XP-35ST25	3-1/2"	NPS 2-1/2 (2-7/8" OD)	10
PV-XP-35ST30	3-1/2"	NPS 3 (3-1/2" OD)	10
PV-XP-40ST20	4"	NPS 2 (2-3/8" OD)	10
PV-XP-40ST25	4"	NPS 2-1/2 (2-7/8" OD)	10
PV-XP-40ST30	4"	NPS 3 (3-1/2" OD)	10

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Little Rock, AR 72223
1-800-205-8620

STAMP:

REVISIONS:

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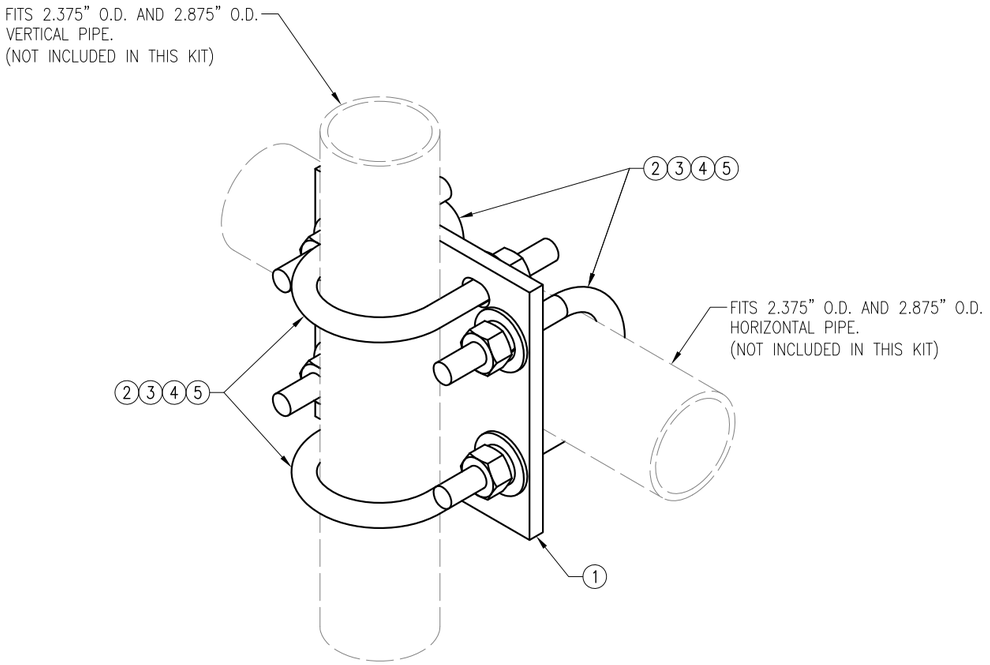
0	9/27/16	INITIAL RELEASE	DJN	AM	SS
1					
2					
3					
4					
5					

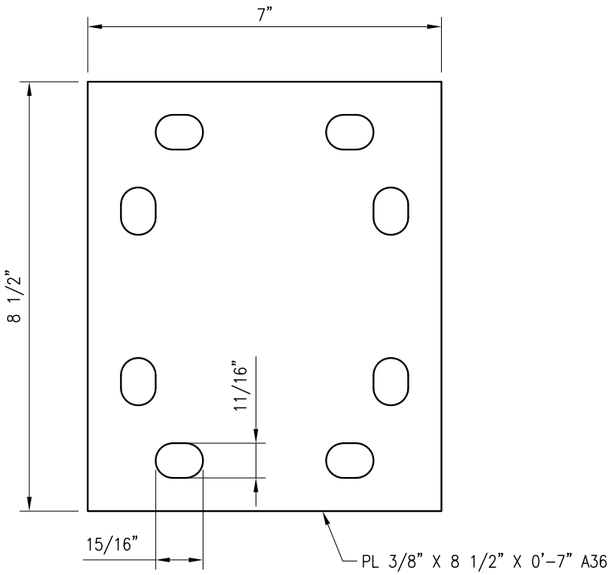
SITE INFORMATION:

DESIGN TYPE:
SQUARE TUBE CROSSOVER PLATE

SHEET TITLE:
ENGINEERING DETAIL

SHEET TITLE:	REVISION:
E-1	0





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

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DRAWN BY: H.R | CHECKED BY: HMA

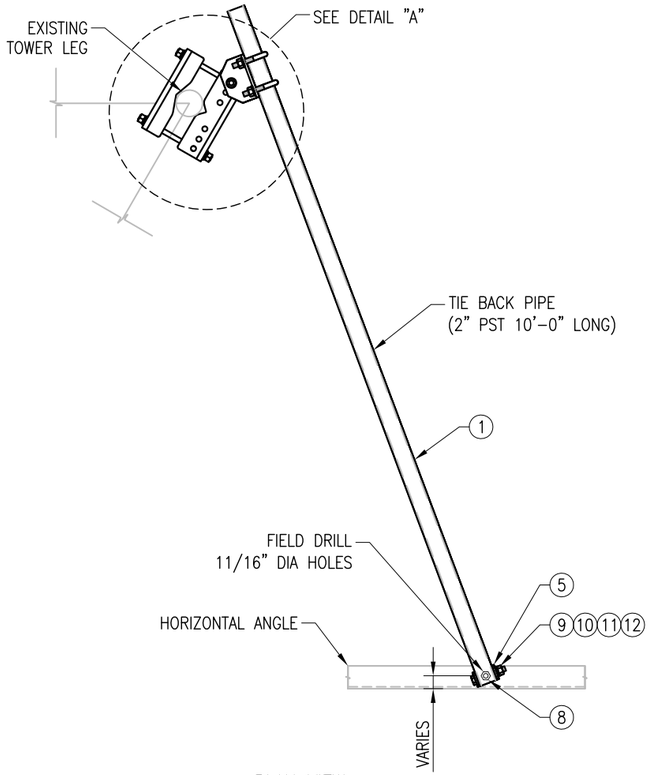
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:

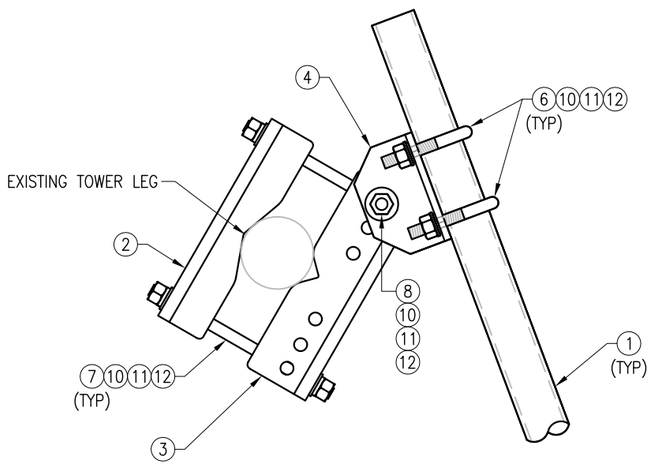
VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1

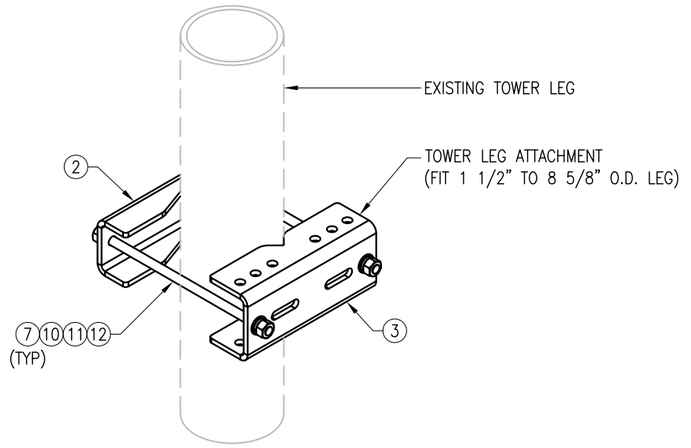
REV #: 0



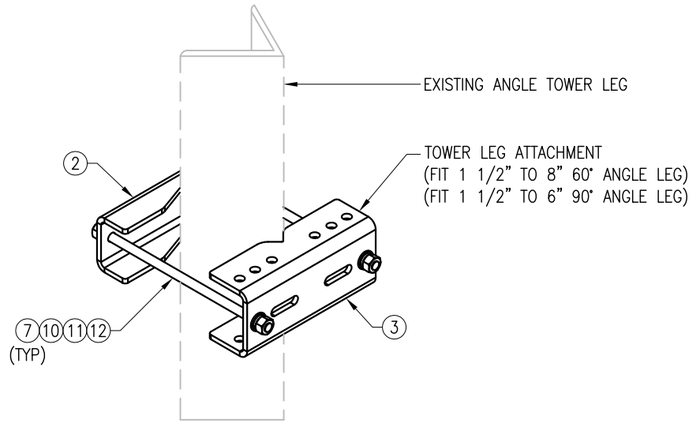
PLAN VIEW
TIE BACK ASSEMBLY



DETAIL "A"



ROUND TOWER LEG ATTACHMENT DETAIL



ANGLE TOWER LEG ATTACHMENT DETAIL

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

VZWSMART-SFK1 (TIE BACK ASSEMBLY)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PST2375-10	2" PST (2.375" O.D. X 0.154" THK) X 10'-0" A53 GR-B 35KSI	SFK1-F1	38
2	1	BP825-12	PL 3/8" X 8 1/4" X 1'-0" A36 BENT PLATE	SFK1-F2	11
3	1	BP11125-12	PL 3/8" X 11 1/8" X 1'-0" A36 BENT PLATE	SFK1-F3	14
4	1	BP6-9375	PL 3/8" X 6" X 9 3/8" A36 BENT PLATE	SFK1-F4	6
5	1	BP2-875	PL 1/4" X 2" X 8 3/4" A36 BENT PLATE	SFK1-F4	1
6	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	2
7	2	---	THREADED ROD 5/8" DIA. X 1'-6" F1554-36 HDG	---	0
8	2	---	BOLT 5/8" X 2" A325	---	0
9	1	---	BOLT 5/8" X 4 1/4" A325	---	0
10	11	FW-625	5/8" HDG USS FLAT WASHER	---	1
11	11	LW-625	5/8" HDG LOCK WASHER	---	0
12	11	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	72

VzW
SMART Tool©
Vendor

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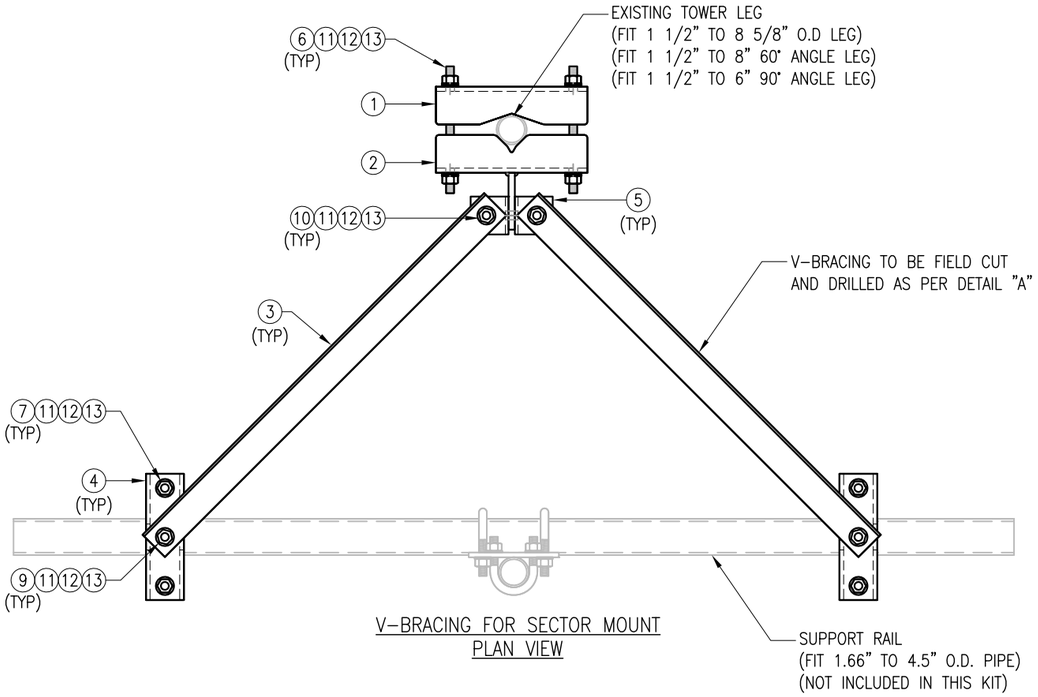
DRAWN BY: BT | CHECKED BY: HMA/KW

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

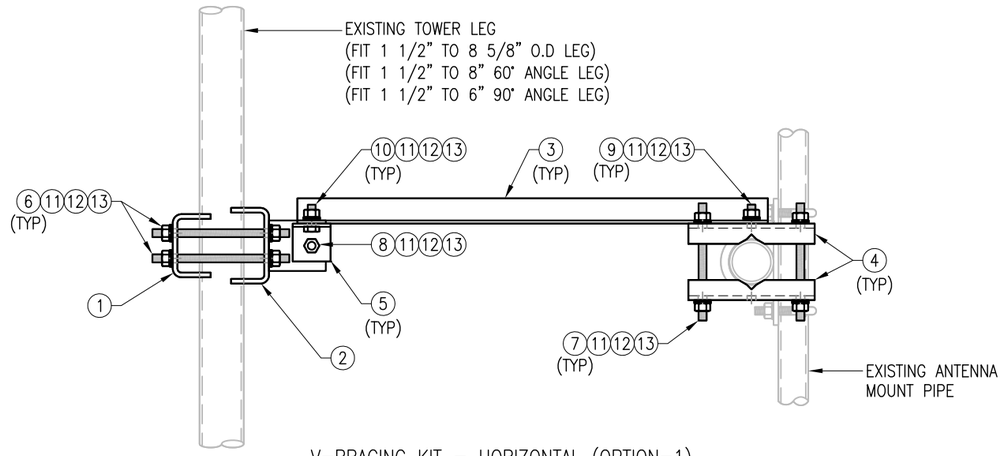
SHEET TITLE:
VZWSMART-SFK1
TIE BACK ASSEMBLY

SHEET NUMBER: VZWSMART-SFK1

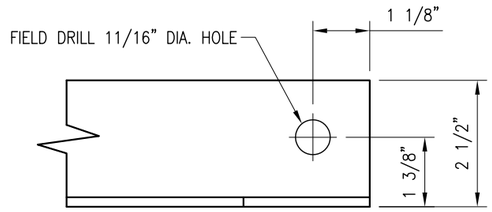
REV #: 0



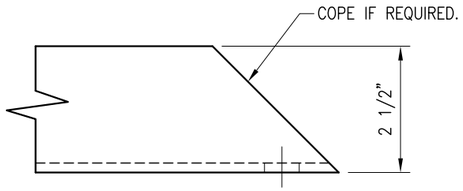
V-BRACING FOR SECTOR MOUNT
PLAN VIEW



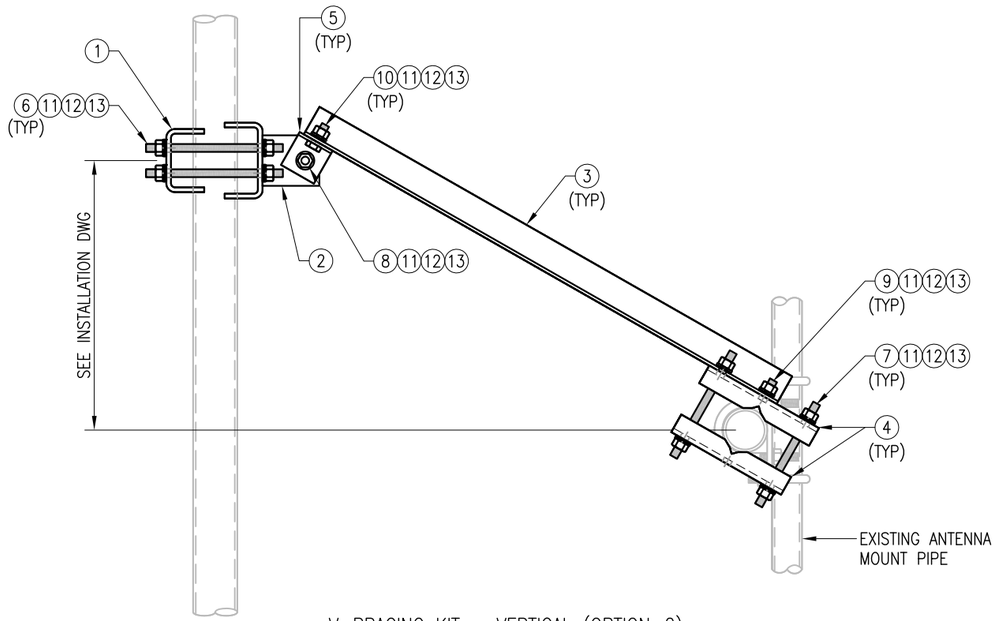
V-BRACING KIT - HORIZONTAL (OPTION-1)
SIDE VIEW



PLAN VIEW



FRONT VIEW
DETAIL "A"



V-BRACING KIT - VERTICAL (OPTION-2)
SIDE VIEW

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

VZWSMART-SFK3 (V-BRACING KIT)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	BP9625-12	PL 3/8" X 9 5/8" X 1'-0" A36 BENT PLATE	VBSM-F1	12
2	1	BRKW-VBSM	WELDMENT BRACKET	VBSM-F3	16
3	2	L252525-8	L 2 1/2" X 2 1/2" X 1/4" X 8'-0" A36	VBSM-F5	67
4	4	BP6875-10	PL 3/8" X 6 7/8" X 10" A36 BENT PLATE	VBSM-F2	20
5	2	AL-333	L 3" X 3" X 1/4" X 3" A36	VBSM-F2	3
6	4	---	THREADED ROD 5/8" DIA. X 1'-6" F1554-36 HDG	---	--
7	4	---	THREADED ROD 5/8" DIA. X 10" F1554-36 HDG	---	--
8	1	---	BOLT 5/8" X 2 1/4" A325	---	--
9	2	---	BOLT 5/8" X 2" A325	---	--
10	2	---	BOLT 5/8" X 1 3/4" A325	---	--
11	21	FW-625	5/8" HDG USS FLAT WASHER	---	2
12	21	LW-625	5/8" HDG LOCK WASHER	---	0
13	21	NUT-625	5/8" HDG HEX NUT	---	2
				GALVANIZED WT	122

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-SFK3
V-BRACING KIT

SHEET NUMBER: VZWSMART-SFK3

REV #: 0

ATTACHMENT 5


MAIN STREET
WELLES STREET
2615-2639
2384
2334
2310
2377
2493
2401
0
50
100ft

Town of Glastonbury GIS Parcel Report

Report Generated 6/2/2021 8:27:19 AM

Owner of Record

GIS ID: 41402577
Owner: SAINTS ISIDORE AND MARIA PARISH CORP
Co-Owner:
Address: 2577 MAIN ST
City, State ZIP: GLASTONBURY, CT 06033-2023

Account Number: 41402577
Property Address: 2577 MAIN ST

Property highlighted in blue

Parcel Information

Map/Street/Lot D5 / 4140 / W0038 **Property ID:** 12111
Developer Lot ID: **Water:** Public-MDC
Parcel Acreage: 4.07 **Sewer:** Sewer Tax Rec
Zoning Code: PBD **Census:** 5203

Valuation Summary

Item	Appraised Value	Assessed Value
Buildings	2155600	1508900
Land	734900	514400
Appurtenances	104700	73400
Total	**3015200**	**2110700**

Owner of Record	Deed / Page	Sale Date	Sale Price
SAINTS ISIDORE AND MARIA PARISH CORP	3570/0272	2019-07-18	0
ST PAULS ROMAN CATHOLIC CHURCH	0450/0069	1988-10-04	0

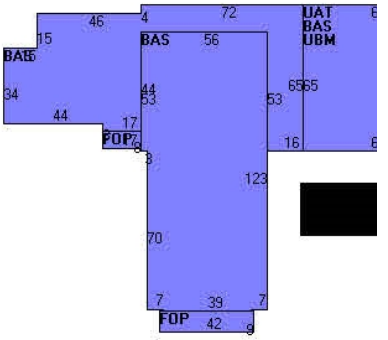
Town of Glastonbury GIS Parcel Report

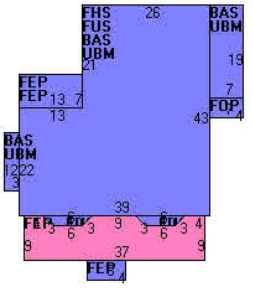
Report Generated 6/2/2021 8:27:19 AM

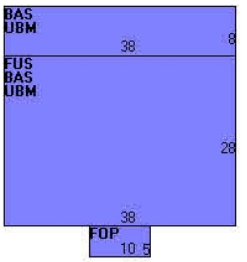
Building Information

Building ID 14170

Year Constructed :	1988	**Number of Rooms :**	
Building Type :	Ind/Comm	**Number of Bedrooms :**	
Style :	Churches	**Number of Bathrooms :**	
Occupany :	Exempt MDL-96	**Number of Half-Baths :**	
Stories :	1	**Exterior Wall :**	Brick
Building Zone :	PBD	**Interior Wall :**	Drywall
Roof Type :	Gable	**Interior Floor :**	Carpet
Roof Material :	Asphalt Shingl	**Interior Floor #2 :**	No entry
Est. Gross S.F. :	23623	**Air Conditioning Type :**	Partial A/C
Est. Living S.F. :	15149	**Heat Type :**	Forced Air
		Fuel Type :	Gas







Subarea Type	Est. Gross S.F.	Est. Living S.F.
First Floor	1573	1573
Porch, Enclosed	547	0
Half Story, Finished	1404	702
Porch, Open	28	0
Upper Story, Finished	1436	1436
Basement	1573	0
First Floor	15149	15149

Outbuilding Type	Est. Gross S.F.	Comments
Garage	924.00	
LIGHT 1	1.00	
Paving	96515.00	
Air Condition	10000.00	

Basement, Finished	3965	0
Porch, Open	664	0
Attic, Unfinished	3905	0
Basement	-60	0
First Floor	1368	1368
Porch, Open	50	0
Upper Story, Finished	1064	1064
Basement	1368	0

ATTACHMENT 6

UNITED STATES POSTAL SERVICE®

GLASTONBURY WEST

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here ***Postmark with Date of Receipt.***
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	3	3	neopost 06/03/2021 US POSTAGE $002.89⁰ ZIP 06103 041L12203937
	Postmaster, per *(name of receiving employee)* V.P		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Richard J. Johnson, Town Manager Town of Glastonbury 2155 Main Street Glastonbury, CT 06033				
2.	Rebecca Augur, Director of Planning and Land Use Services Town of Glastonbury 2155 Main Street Glastonbury, CT 06033				
3.	Saint Isidore and Maria Parish Corporation 2577 Main Street Glastonbury, CT 06033				
4.					
5.					
6.					

OLD STATE HOUSE STATION 06033 JUN - 3 2021 USPS