August 17, 2020

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

Re:	**Notice of Exempt Modification – Antenna and RRU Add**
Property Address:	**131 Bishop Crossing, Griswold, CT 06351**
Applicant:	**AT&T Mobility, LLC**

Dear Ms. Bachman:

On behalf of AT&T, please accept this application 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).

AT&T currently maintains a wireless telecommunications facility consisting of nine (9) wireless telecommunication antennas at an antenna center line height of 151feet on an existing 146-foot monopole, owned by SBA Communications Corp., at 8051 Congress Ave., Boca Raton, FL 33487. AT&T now intends to remove and replace (6) six of these antennas with (6) six new antennas. In addition, AT&T intends to remove and replace (6) six of their RRUS, as well as add (3) new RRUs. AT&T is also proposing to add (2) Raycap Squid, as well as one (2) fiber lines and (4) DC Power Cables to their equipment configuration. All the changes will take place on the existing antenna mount.

Attached is a summary of the planned modifications including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-5I0j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Jack Cipriano – Building & Zoning Enforcement Officer Town of Griswold, CT at 28 Main St. Jewett City, CT 06351 and Todd Babbitt – First Selectman, Town of Griswold, CT at 28 Main St. Jewett City, CT 06351. A copy of this letter is being sent to the property owner, Polinsky Harvey at 129 Bishop Crossing Rd., Griswold, CT 06351 and to the tower company, SBA Communications Corp., at 8501 Congress Ave., Boca Raton, FL 33487.

The following is a list of subsequent decisions by the Connecticut Siting Council:

- **EM-AT&T-058-020301** - AT&T Wireless notice of intent to modify an existing telecommunications facility located at 131 A Bishop Crossing Road, **Griswold**, Connecticut.
- **EM-CING-104-058-137-121-086-061106** - New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunications facilities located at 292 Plain Hill Road, Norwich; 131 Bishop Crossing, **Jewett City**; 173 South Broad Street, Stonington; 160 Witch Meadow, Salem; and 557 Route 82, Montville, Connecticut.
- **EM-CING-058-081209 -** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 131 Bishop Crossing, **Griswold**, Connecticut.
- **EM-CING-058-121031 –** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 131 Bishops Crossing, **Griswold**, Connecticut.
- **EM-CING-058-200401** – New Cingular Wireless PCS, LLC (AT&T) notice of intent to modify an existing telecommunications facility located at 131 Bishop Crossing Road, **Griswold**, Connecticut.

The planned modifications to AT&T's 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. AT&T's replacement antennas will be installed at the 151-foot level of the 146-foot self-support tower.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require and extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility 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 worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in Tab 2.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

For the foregoing reasons, AT&T 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,

Sharon R. Keefe

85 Rangeway Road
Bldg. 3, Suite 102
Billerica, MA 01862

Sharon R. Keefe
Project Manager – AT&T New England
sharon.Keefe@smartlinkgroup.com
c. 978-930-3918
www.smartlinkgroup.com

CC w/enclosures:
Jack Cipriano – Building & Zoning Enforcement Office, Town of Griswold CT
Todd Babbitt – First Selectman, Town of Griswold CT
Polinksy Harvey – Property Owner
SBA Communications – Tower Company

August 17, 2020

Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Original Zoning Decision
Property Address:131 Bishop Crossing, Griswold, CT 06351
Applicant: AT&T Mobility, LLC

To Whom It May Concern;

Upon review of the above referenced property, and consultation with the Town of Griswold Building and Zoning Enforcement officer, it has been determined that the original zoning decision cannot be located for this site. Additional inquiries may be directed to the Griswold Town Hall, 860-376-7060.

Thank you.

85 Rangeway Road
Bldg. 3, Suite 102
Billerica, MA 01862

Sharon R. Keefe
Project Manager – AT&T New England
sharon.Keefe@smartlinkgroup.com
c. 978-930-3918
www.smartlinkgroup.com

qPublic.net™ Town of Griswold, CT

Summary

ParcelId	10800
Account Number	P0329501
Location Address	131 BISHOP CROSSING RD
Map-Block-Lot	20 /54 /35A
	Dev Lot. 7091
Use Class/Description	4310 TEL REL TW
Assessing Neighborhood	0050A
Census Tract	7091
Acreage	0.18
Utilities	

Owner

POLINSKY HARVEY
129 BISHOP CROSSING RD
GRISWOLD, CT 06351

Current Appraised Value

		2017	2016	2015
+	Building Value	$0	$0	$0
+	XF Value	$0	$0	$0
+	OB Value	$96,600	$96,600	$96,600
+	Land Value	$156,500	$156,500	$150,000
+	Special Land Value			
+	Total Appraised Value	$253,100	$253,100	$246,600
+	Net Appraised Value	$253,100	$253,100	$246,600
+	Current Assessment	$177,170	$177,170	$172,620

Assessment History

		2017	2016	2015
+	Building Value	$0	$0	$0
+	OB/Misc	$67,620	$67,620	$67,620
+	Land	$109,550	$109,550	$105,000
+	Total Assessment	$177,170	$177,170	$172,620

Land

Use	Class	Zoning	Area	Value
4310 TEL REL TW	I	R60	7744 SF	$156,500

Out Buildings\Extra Features

Description	Sub Description	Area	Year Built	Value
CELL TOWER		151HEIGHT	1998	$68,000
CELL EQUIP SHELTER		240S.F.	2007	$18,000
CELL EQUIP SHELTER		200S.F.	2000	$10,000
CONC PAD/CELL SITES		96S.F.	1999	$100
CONC PAD/CELL SITES		384S.F.	2000	$500

Sales History

Sales Date	Type of Document	Grantee	Vacant/Improved	Book/Page	Amount
04-05-2019		POLINSKY HARVEY	Vacant	386/ 6	$0
01-13-1999		POLINSKY HARVEY	Improved		$0

Permit Information

Permit ID	Issue Date	Type	Description	Amount	Inspection Date	% Complete	Date Complete	Comments
41-19	08-14-2018	MN	MAINTENANCE	$20,000		0		SWAP 6 EXISTING CELL ANTENNAS WITH 6 NEWER TECHNOLOGY CELL ANTENNAS AND ASSOC EQUPMT AT EXISTING CELL SITE
139-13	02-28-2013	AD	2 ANT/6 REMOTE RADIO	$25,000		100	07-23-2013	
374-07	05-23-2007	AD	POWERHOUSE	$52,750		100	04-02-2008	240-08 CC
291-07	04-05-2007	AD	ANTENNA	$50,000		100	04-02-2008	239-08 CC
518-01	06-26-2002		ANTENNA	$30,000		100	08-08-2002	22-03 CO
136-00	12-19-2000	AD	POWERHOUSE	$0		100	10-01-2001	192-01 CO
123-98	07-15-1998		POWER HOUSE	$0	12/9/1998 12:00:00 AM	100	12-09-1998	79-98
260-97	05-13-1998		150' TOWER	$0	12/9/1998 12:00:00 AM	100	12-09-1998	79-98

Sketch

No data available for the following modules: Building Data, Building Data, Commercial Building, Photos.

Last Data Upload: 8/19/2020, 8:32:34 PM

Version 2.3.78

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

Structural Analysis Report

Existing 146 ft FWT Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT00303-S

Customer Site Name: Griswold

Carrier Name: AT&T (App#: 134253, V5)

Carrier Site ID / Name: CTL02025 / Griswold Bishops Crossings

Site Location: 131 Bishop Crossing

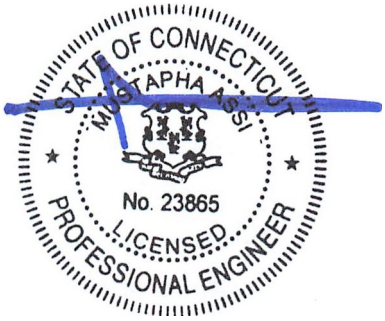
Griswold, Connecticut

New London County

Latitude: 41.623352

Longitude: -71.942241

Exp.01/31/2021



08/04/2020

Analysis Result:

Max Structural Usage: 52.7% [Pass]

Max Foundation Usage: 44.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Younus Alkarawi

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Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Younus Alkarawi

Introduction

The purpose of this report is to summarize the analysis results on the 146 ft FWT Monopole 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	Tower Drawing prepared by FWT, Job #16937 dated 5/11/98
Foundation Drawing	Foundation Drawing prepared by FWT, Job #16937 dated 5/11/98
Geotechnical Report	Geotechnical Report prepared by Sage, Project #M129 dated 4/30/98
Modification Drawings	N/A

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 **TESPoles,** 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} = 135.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 105.0 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" 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 = 0.168, S_1 = 0.06

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
-	151.0	6	Powerwave - 7770 - Panel	13' Low Profile Platform	(12) 1 5/8" (2) DC (1) Fiber	AT&T
-		3	KMW - AM-X-CD-16-65-00T - Panel			
-		6	Powerwave - LGP21401 - TMA/TTA			
-		6	Ericsson - RRUS-11 - RRU			
-		6	Powerwave - LGP21903 - Diplexer			
-		1	Raycap - DC6-48-60-18-8F - Surge Suppressor			
9	117.0	3	RFS APXVTM14-C-I20 - Panel	(3) Modified T-Arms: (SitePro PRK-1245L, Sitepro PRK-SFS-H-L, (3) 8.5' Horizontal Rail (3) 9' Long Corner Braces, (12) Sitepro SCXx-K)	(4) 1 1/4" Fiber	Sprint Nextel
10		3	Commscope NNVV-65B-R4 - Panel			
11		3	ALU 1900 Mhz			
12		6	ALU 800 Mhz			
13		3	ALU TD-RRH8x20-25			

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
1	151.0	3	Powerwave 7770- Panel	13' Low Profile Platform	(12) 1-5/8" (6) 1/2" DC Power (3) 3/8" Fiber (1) 1/2"	AT&T
2		3	Cci DMP65R-BU6DA- Panel			
3		3	Cci OPA65R-BU6DA- Panel			
4		6	Powerwave LGP21401 TMA			
5		3	Ericsson 4449 B5/B12- RRU			
6		3	Ericsson 4478 B14- RRU			
7		3	Ericsson RRUS 8843 B2 B66A			
8		3	Raycap DC6-48-60-18-8F- - Surge Suppressor			

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:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	**52.7%**	**50.3%**	**33.7%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	2885.9	29.4	37.0

Two foundation design options were included in the referenced foundation design document. Since it is not known which option was installed, both designs were analyzed using the supplied documents and soils report and both were found 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 ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.9236 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 ANSI/TIA/EIA 222-G 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 EIA/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.

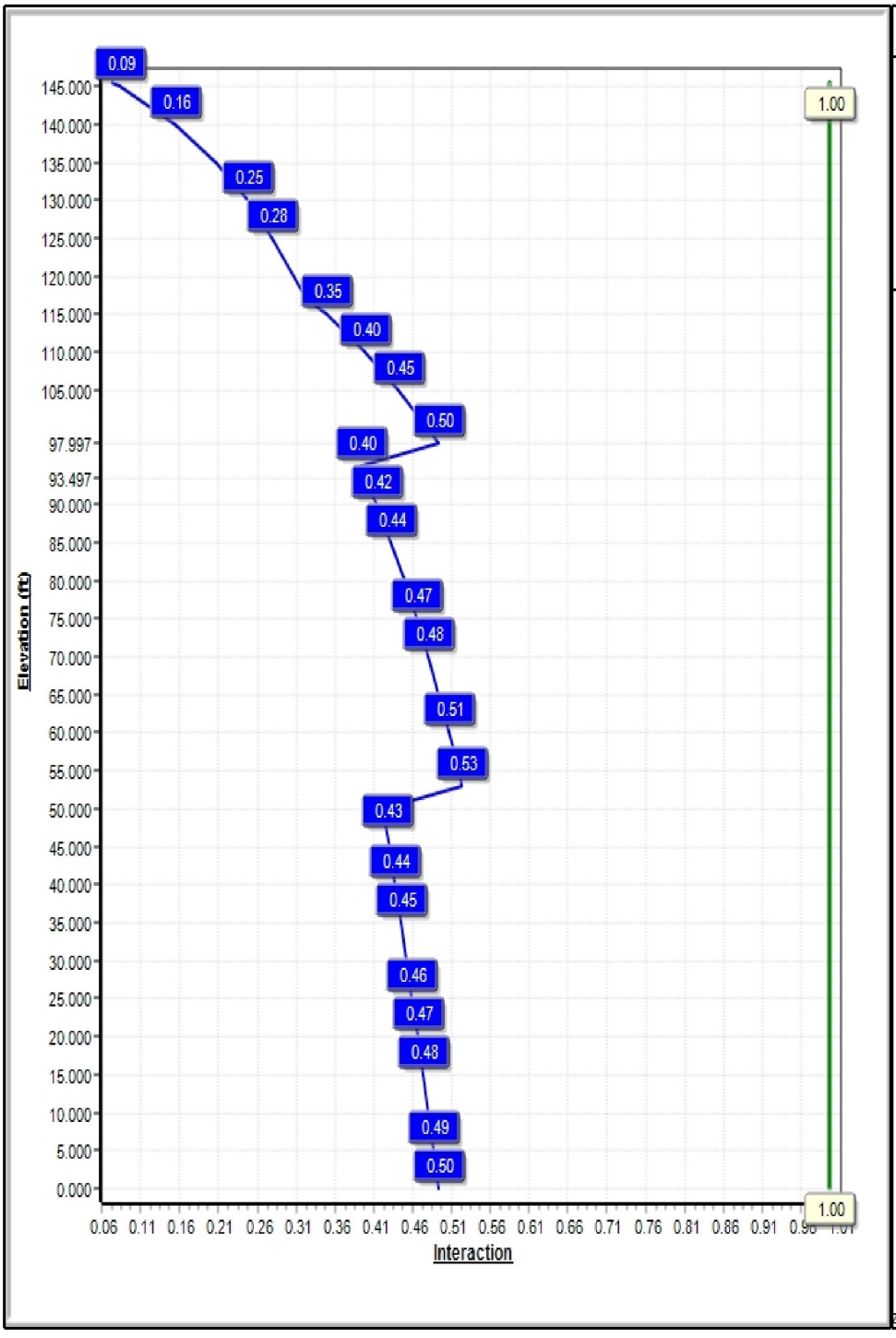
Usage Diagram - Max Ratio 52.73% at 53.0ft

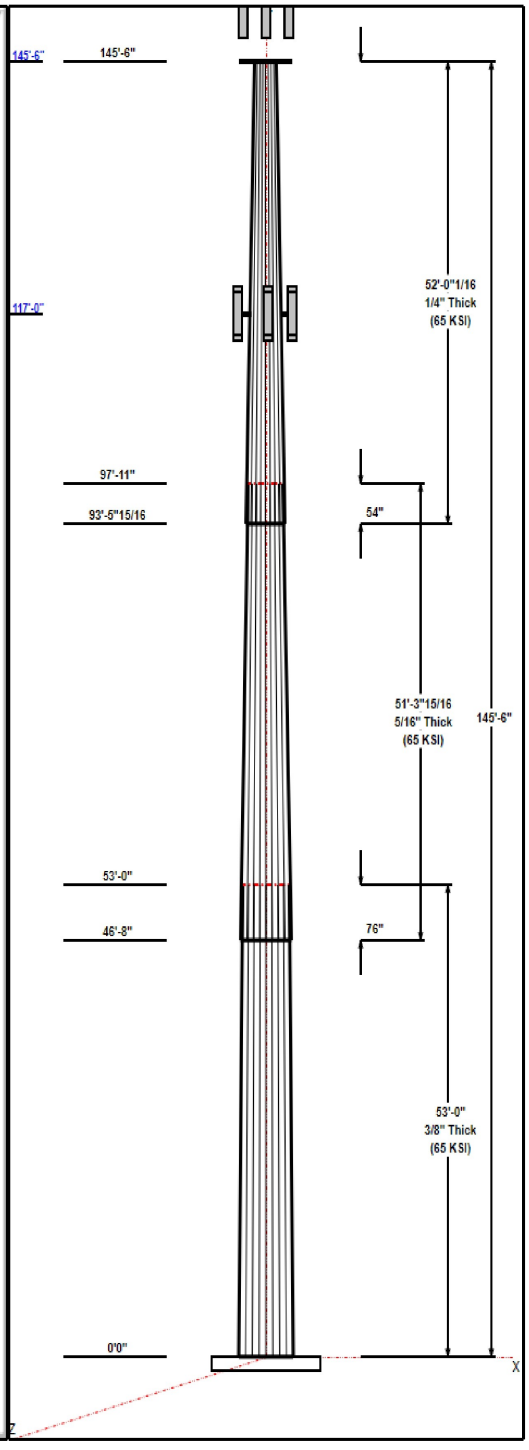
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Gh:**	1.1		
Base Elev:	0.000 (ft)			Page: 1	

Tower Engineering Solutions

Dead Load Factor:	1.20	**Iterations:**	22
Wind Load Factor:	1.60		

Load Case : 1.2D + 1.6W 105 mph Wind





Structure: CT00303-S-SBA

Type: Tapered
Site Name: Griswold
Height: 145.50 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.31701

8/4/2020

Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.00	46.20	63.00	0.375		0.31701	65
2	51.33	32.56	48.83	0.313	Slip	0.31701	65
3	52.00	18.00	34.49	0.250	Slip	0.31701	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
145.50	151.00	3	7770.00	AT&T
145.50	151.00	6	LGP21401	AT&T
145.50	151.00	3	DC6-48-60-18-8F	AT&T
145.50	145.50	1	Low Profile Platform	Sprint Nextel
145.50	151.00	3	DMP65R-BU6DA	AT&T
145.50	151.00	3	OPA65R-BU6DA	AT&T
145.50	151.00	3	4449 B5/B12	AT&T
145.50	151.00	3	4478 B14	AT&T
145.50	151.00	3	RRUS 8843 B2 B66A	AT&T
117.00	117.00	3	RFS APXVTM14-C-I20	Sprint Nextel
117.00	117.00	3	Commscope	Sprint Nextel
117.00	117.00	3	Modified T-Arm	Sprint Nextel
117.00	117.00	1	SitePro PRK-1245L	Sprint Nextel
117.00	117.00	1	Sitepro PRK-SFS-H-L	Sprint Nextel
117.00	117.00	1	(3) 8.5' Horizontal Rail	Sprint Nextel
117.00	117.00	1	(3) 9' Long Corner Braces	Sprint Nextel
117.00	117.00	3	ALU 1900 Mhz	Sprint Nextel
117.00	117.00	6	ALU 800 Mhz	Sprint Nextel
117.00	117.00	3	ALU TD-RRH8x20-25	Sprint Nextel

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	151.00	Inside	1 5/8" Coax	AT&T
0.00	151.00	Inside	1/2" Coax	AT&T
0.00	151.00	Inside	1/2" DC Power	AT&T
0.00	151.00	Inside	3/8" Fiber	AT&T
0.00	117.00	Inside	1 1/4" Fiber	Sprint Nextel

Anchor Bolts

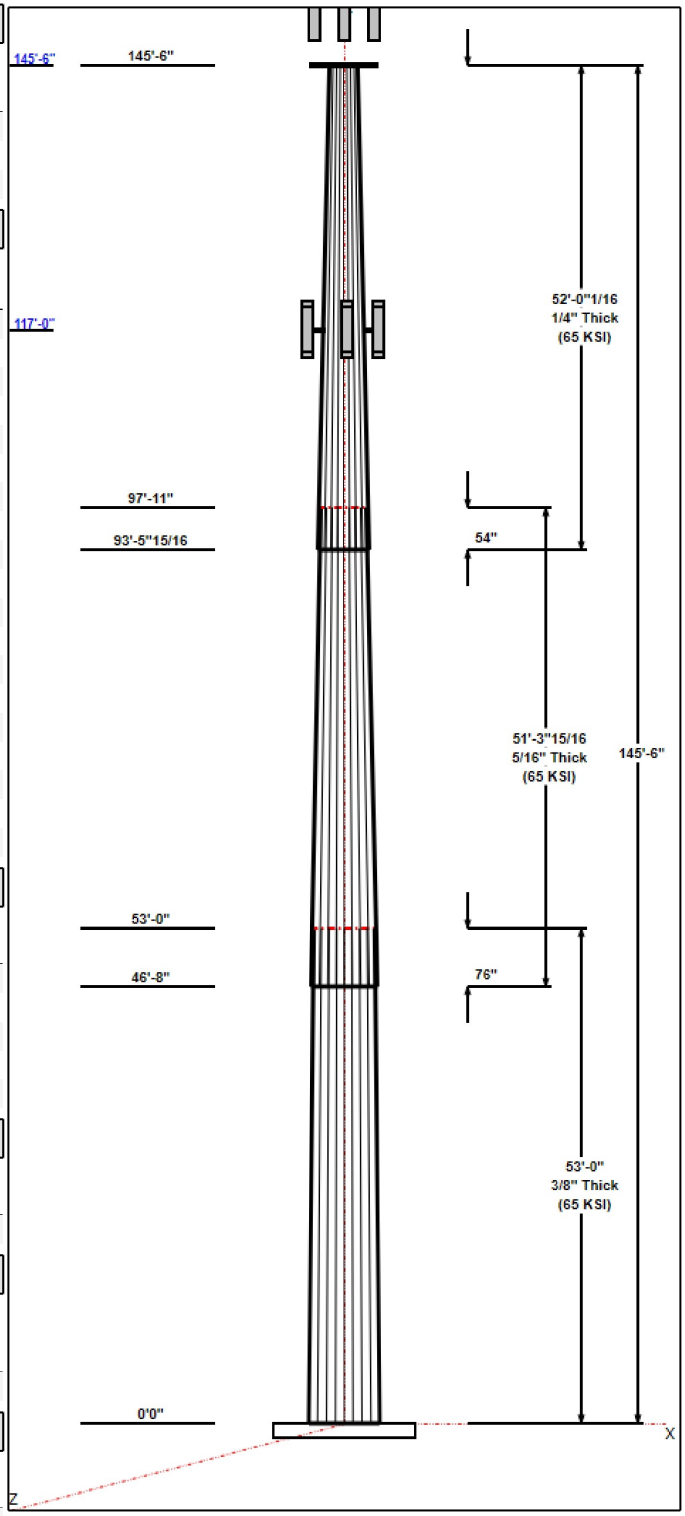
Qty	Specifications	Grade (ksi)	Arrangement
16	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.5000	76.0	60.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 105 mph Wind	2885.9	29.4	37.0
0.9D + 1.6W 105 mph Wind	2869.8	29.4	27.7
1.2D + 1.0Di + 1.0Wi 50 mph Wind	690.6	7.3	56.4
1.2D + 1.0E	142.9	1.3	37.0
0.9D + 1.0E	142.0	1.3	27.7



1.0D + 1.0W 60 mph Wind	587.0	6.0	30.8

Structure: CT00303-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Griswold
Height: 145.50 (ft)

8/4/2020

Tower Engineering Solutions

Shaft Properties

Structure:	CT00303-S-SBA		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	53.000	0.3750	65		0.00	11,639
2	18	51.330	0.3125	65	Slip	76.00	6,996
3	18	52.003	0.2500	65	Slip	54.00	3,650
					Total Shaft Weight:		**22,285**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	63.00	0.00	74.54	36933.36	28.21	168.00	46.20	53.00	54.54	14469.0	20.31	123.2	0.317010
2	48.83	46.67	48.12	14312.70	26.14	156.26	32.56	98.00	31.98	4201.88	16.96	104.1	0.317010
3	34.49	93.50	27.16	4022.70	22.91	137.94	18.00	145.50	14.08	560.63	11.28	72.00	0.317010

Load Summary

Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	**Elev (ft)**	**Description**	**Qty**	**Weight (lb)**	**CaAa (sf)**	**CaAa Factor**	**Weight (lb)**	**CaAa (sf)**	**CaAa Factor**	**Hor. Ecc. (ft)**	**Vert Ecc (ft)**
1	145.50	7770.00	3	39.00	5.50	0.73	173.67	6.562	0.73	0.00	5.50
2	145.50	LGP21401	6	19.00	1.29	1.00	52.59	2.123	1.00	0.00	5.50
3	145.50	DC6-48-60-18-8F	3	32.80	1.30	1.00	96.37	1.917	1.00	0.00	5.50
4	145.50	Low Profile Platform	1	1200.00	28.00	1.00	2243.94	51.384	1.00	0.00	0.00
5	145.50	DMP65R-BU6DA	3	79.40	12.71	0.72	373.05	14.170	0.72	0.00	5.50
6	145.50	OPA65R-BU6DA	3	60.20	12.71	0.73	350.53	14.361	0.73	0.00	5.50
7	145.50	4449 B5/B12	3	71.00	1.97	0.67	124.22	2.516	0.67	0.00	5.50
8	145.50	4478 B14	3	59.40	1.75	0.67	100.74	2.298	0.67	0.00	5.50
9	145.50	RRUS 8843 B2 B66A	3	72.00	1.64	0.67	118.70	2.135	0.67	0.00	5.50
10	117.00	RFS APXVTM14-C-I20	3	56.20	6.34	0.77	211.90	7.424	0.77	0.00	0.00
11	117.00	Commscope NNVV-65B-R4	3	77.40	12.27	0.75	355.95	13.690	0.75	0.00	0.00
12	117.00	Modified T-Arm	3	350.00	10.00	0.75	588.33	18.512	0.75	0.00	0.00
13	117.00	SitePro PRK-1245L	1	464.91	9.50	0.75	781.49	19.204	0.75	0.00	0.00
14	117.00	Sitepro PRK-SFS-H-L	1	230.00	6.70	0.75	543.24	13.544	0.75	0.00	0.00
15	117.00	(3) 8.5' Horizontal Rail	1	300.00	4.25	0.75	647.29	8.302	0.75	0.00	0.00
16	117.00	(3) 9' Long Corner Braces	1	350.00	6.75	0.75	755.17	13.185	0.75	0.00	0.00
17	117.00	ALU 1900 Mhz	3	44.00	3.80	0.67	150.49	5.156	0.67	0.00	0.00
18	117.00	ALU 800 Mhz	6	53.00	2.49	0.67	125.15	3.606	0.67	0.00	0.00
19	117.00	ALU TD-RRH8x20-25	3	70.00	4.05	0.67	177.20	4.842	0.67	0.00	0.00
		Totals:	**53**	**6,011.11**			**14,500.97**				

Linear Appurtenances

Bottom Elev. (ft)	**Top Elev. (ft)**	**Description**	**Exposed Width**	**Exposed**
0.00	151.00	(12) 1 5/8" Coax	0.00	Inside
0.00	151.00	(1) 1/2" Coax	0.00	Inside
0.00	151.00	(6) 1/2" DC Power	0.00	Inside
0.00	151.00	(3) 3/8" Fiber	0.00	Inside
0.00	117.00	(4) 1 1/4" Fiber	0.00	Inside

Shaft Section Properties

Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 7	

Tower Engineering Solutions

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.3750	63.000	74.537	36933.4	28.21	168.00	68.2	1154.	0.0
5.00		0.3750	61.415	72.650	34199.4	27.47	163.77	69.1	1096.	1252.1
10.00		0.3750	59.830	70.764	31603.7	26.72	159.55	70.0	1040.	1220.0
15.00		0.3750	58.245	68.877	29142.9	25.98	155.32	70.8	985.5	1187.9
20.00		0.3750	56.660	66.991	26813.2	25.23	151.09	71.7	932.1	1155.8
25.00		0.3750	55.075	65.104	24611.1	24.49	146.87	72.6	880.2	1123.7
30.00		0.3750	53.490	63.217	22533.0	23.74	142.64	73.5	829.7	1091.6
35.00		0.3750	51.905	61.331	20575.3	23.00	138.41	74.4	780.8	1059.5
40.00		0.3750	50.320	59.444	18734.4	22.25	134.19	75.2	733.3	1027.4
45.00		0.3750	48.735	57.558	17006.8	21.50	129.96	76.1	687.3	995.3
46.67	Bot - Section 2	0.3750	48.206	56.929	16455.4	21.26	128.55	76.4	672.3	324.6
50.00		0.3750	47.149	55.671	15388.7	20.76	125.73	77.0	642.8	1178.5
53.00	Top - Section 1	0.3125	46.823	46.131	12608.4	25.01	149.84	0.0	0.0	1038.3
55.00		0.3125	46.189	45.503	12099.8	24.65	147.81	72.4	516.0	311.8
60.00		0.3125	44.604	43.930	10888.5	23.76	142.73	73.5	480.8	760.8
65.00		0.3125	43.019	42.358	9760.8	22.86	137.66	74.5	446.9	734.1
70.00		0.3125	41.434	40.786	8713.8	21.97	132.59	75.6	414.2	707.3
75.00		0.3125	39.849	39.214	7744.6	21.07	127.52	76.6	382.8	680.6
80.00		0.3125	38.264	37.642	6849.9	20.18	122.45	77.7	352.6	653.8
85.00		0.3125	36.679	36.070	6027.0	19.29	117.37	78.7	323.6	627.1
90.00		0.3125	35.094	34.498	5272.8	18.39	112.30	79.8	295.9	600.3
93.50	Bot - Section 3	0.3125	33.986	33.398	4784.6	17.77	108.75	80.5	277.3	403.9
95.00		0.3125	33.509	32.926	4584.3	17.50	107.23	80.8	269.5	307.6
98.00	Top - Section 2	0.2500	33.059	26.033	3540.5	21.91	132.24	0.0	0.0	600.2
100.00		0.2500	32.424	25.529	3338.9	21.46	129.70	76.2	202.8	175.7
105.00		0.2500	30.839	24.271	2869.3	20.34	123.36	77.5	183.3	423.7
110.00		0.2500	29.254	23.014	2446.0	19.22	117.02	78.8	164.7	402.3
115.00		0.2500	27.669	21.756	2066.5	18.10	110.68	80.1	147.1	380.9
117.00		0.2500	27.035	21.253	1926.4	17.66	108.14	80.6	140.3	146.4
120.00		0.2500	26.084	20.498	1728.4	16.99	104.34	81.4	130.5	213.1
125.00		0.2500	24.499	19.241	1429.4	15.87	97.99	82.6	114.9	338.1
130.00		0.2500	22.914	17.983	1167.0	14.75	91.65	82.6	100.3	316.7
135.00		0.2500	21.329	16.725	938.9	13.63	85.31	82.6	86.7	295.3
140.00		0.2500	19.744	15.468	742.6	12.51	78.97	82.6	74.1	273.9
145.00		0.2500	18.159	14.210	575.8	11.40	72.63	82.6	62.5	252.5
145.50		0.2500	18.000	14.084	560.6	11.28	72.00	82.6	61.3	24.1
										22284.7

Wind Loading - Shaft

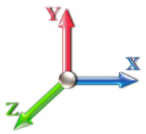
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 105 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	22.791	25.07	516.07	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	22.791	25.07	503.08	0.650	0.000	5.00	26.320	17.11	686.2	0.0	1502.5
10.00		1.00	0.85	22.791	25.07	490.10	0.650	0.000	5.00	25.649	16.67	668.7	0.0	1464.0
15.00		1.00	0.85	22.791	25.07	477.12	0.650	0.000	5.00	24.978	16.24	651.3	0.0	1425.5
20.00		1.00	0.90	24.182	26.60	478.09	0.650	0.000	5.00	24.308	15.80	672.5	0.0	1387.0
25.00		1.00	0.95	25.345	27.88	475.76	0.650	0.000	5.00	23.637	15.36	685.4	0.0	1348.5
30.00		1.00	0.98	26.337	28.97	471.02	0.650	0.000	5.00	22.967	14.93	692.0	0.0	1309.9
35.00		1.00	1.01	27.206	29.93	464.54	0.650	0.000	5.00	22.296	14.49	693.9	0.0	1271.4
40.00		1.00	1.04	27.981	30.78	456.73	0.650	0.000	5.00	21.625	14.06	692.2	0.0	1232.9
45.00		1.00	1.07	28.684	31.55	447.86	0.650	0.000	5.00	20.955	13.62	687.6	0.0	1194.4
46.67	Bot - Section 2	1.00	1.08	28.904	31.79	444.70	0.650	0.000	1.67	6.836	4.44	226.0	0.0	389.6
50.00		1.00	1.09	29.327	32.26	438.12	0.650	0.000	3.33	13.624	8.86	457.1	0.0	1414.2
53.00	Top - Section 1	1.00	1.11	29.689	32.66	431.93	0.650	0.000	3.00	12.007	7.80	407.8	0.0	1245.9
55.00		1.00	1.12	29.922	32.91	433.53	0.650	0.000	2.00	7.871	5.12	269.4	0.0	374.2
60.00		1.00	1.14	30.475	33.52	422.51	0.650	0.000	5.00	19.207	12.48	669.6	0.0	913.0
65.00		1.00	1.16	30.993	34.09	410.94	0.650	0.000	5.00	18.537	12.05	657.2	0.0	880.9
70.00		1.00	1.17	31.480	34.63	398.90	0.650	0.000	5.00	17.866	11.61	643.4	0.0	848.8
75.00		1.00	1.19	31.941	35.13	386.44	0.650	0.000	5.00	17.195	11.18	628.3	0.0	816.7
80.00		1.00	1.21	32.377	35.62	373.59	0.650	0.000	5.00	16.525	10.74	612.1	0.0	784.6
85.00		1.00	1.22	32.793	36.07	360.41	0.650	0.000	5.00	15.854	10.31	594.8	0.0	752.5
90.00		1.00	1.24	33.190	36.51	346.92	0.650	0.000	5.00	15.183	9.87	576.5	0.0	720.4
93.50	Bot - Section 3	1.00	1.25	33.458	36.80	337.31	0.650	0.000	3.50	10.220	6.64	391.2	0.0	484.7
95.00		1.00	1.25	33.570	36.93	333.14	0.650	0.000	1.50	4.357	2.83	167.3	0.0	369.2
98.00	Top - Section 2	1.00	1.26	33.791	37.17	324.75	0.650	0.000	3.00	8.503	5.53	328.7	0.0	720.3
100.00		1.00	1.27	33.935	37.33	324.10	0.650	0.000	2.00	5.550	3.61	215.5	0.0	210.9
105.00		1.00	1.28	34.285	37.71	309.84	0.650	0.000	5.00	13.383	8.70	524.9	0.0	508.4
110.00		1.00	1.29	34.623	38.08	295.36	0.650	0.000	5.00	12.712	8.26	503.5	0.0	482.7
115.00		1.00	1.30	34.948	38.44	280.66	0.650	0.000	5.00	12.042	7.83	481.4	0.0	457.0
117.00	Appurtenance(s)	1.00	1.31	35.075	38.58	274.73	0.650	0.000	2.00	4.629	3.01	185.7	0.0	175.6
120.00		1.00	1.32	35.263	38.79	265.77	0.650	0.000	3.00	6.742	4.38	272.0	0.0	255.7
125.00		1.00	1.33	35.567	39.12	250.70	0.650	0.000	5.00	10.701	6.96	435.4	0.0	405.7
130.00		1.00	1.34	35.862	39.45	235.45	0.650	0.000	5.00	10.030	6.52	411.5	0.0	380.0
135.00		1.00	1.35	36.148	39.76	220.03	0.650	0.000	5.00	9.359	6.08	387.0	0.0	354.3
140.00		1.00	1.36	36.426	40.07	204.46	0.650	0.000	5.00	8.689	5.65	362.1	0.0	328.6
145.00		1.00	1.37	36.696	40.37	188.74	0.650	0.000	5.00	8.018	5.21	336.6	0.0	303.0
145.50	Appurtenance(s)	1.00	1.37	36.722	40.39	187.16	0.650	0.000	0.50	0.765	0.50	32.1	0.0	28.9
								Totals:	**145.50**			**16,907.1**		**26,741.7**

Discrete Appurtenance Forces

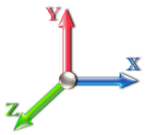
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 105 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	145.50	7770.00	3	37.010	40.712	0.66	0.90	10.84	140.40	0.000	5.500	706.13	0.00	3883.73
2	145.50	4478 B14	3	37.010	40.712	0.60	0.90	3.17	213.84	0.000	5.500	206.21	0.00	1134.17
3	145.50	4449 B5/B12	3	37.010	40.712	0.60	0.90	3.56	255.60	0.000	5.500	232.14	0.00	1276.75
4	145.50	OPA65R-BU6DA	3	37.010	40.712	0.66	0.90	25.05	216.72	0.000	5.500	1631.81	0.00	8974.95
5	145.50	DMP65R-BU6DA	3	37.010	40.712	0.65	0.90	24.71	285.84	0.000	5.500	1609.46	0.00	8852.00
6	145.50	Low Profile Platform	1	36.722	40.395	1.00	1.00	28.00	1440.00	0.000	0.000	1809.68	0.00	0.00
7	145.50	DC6-48-60-18-8F	3	37.010	40.712	0.90	0.90	3.51	118.08	0.000	5.500	228.64	0.00	1257.50
8	145.50	LGP21401	6	37.010	40.712	0.90	0.90	6.97	136.80	0.000	5.500	453.75	0.00	2495.65
9	145.50	RRUS 8843 B2 B66A	3	37.010	40.712	0.60	0.90	2.97	259.20	0.000	5.500	193.25	0.00	1062.88
10	117.00	ALU 1900 Mhz	3	35.075	38.583	0.54	0.80	6.11	158.40	0.000	0.000	377.21	0.00	0.00
11	117.00	(3) 9' Long Corner Braces	1	35.075	38.583	0.56	0.75	3.80	420.00	0.000	0.000	234.39	0.00	0.00
12	117.00	(3) 8.5' Horizontal Rail	1	35.075	38.583	0.56	0.75	2.39	360.00	0.000	0.000	147.58	0.00	0.00
13	117.00	Sitepro PRK-SFS-H-L	1	35.075	38.583	0.56	0.75	3.77	276.00	0.000	0.000	232.65	0.00	0.00
14	117.00	SitePro PRK-1245L	1	35.075	38.583	0.56	0.75	5.34	557.89	0.000	0.000	329.88	0.00	0.00
15	117.00	Modified T-Arm	3	35.075	38.583	0.56	0.75	16.88	1260.00	0.000	0.000	1041.73	0.00	0.00
16	117.00	Commscope	3	35.075	38.583	0.60	0.80	22.09	278.64	0.000	0.000	1363.42	0.00	0.00
17	117.00	RFS APXVTM14-C-I20	3	35.075	38.583	0.62	0.80	11.72	202.32	0.000	0.000	723.28	0.00	0.00
18	117.00	ALU TD-RRH8x20-25	3	35.075	38.583	0.54	0.80	6.51	252.00	0.000	0.000	402.03	0.00	0.00
19	117.00	ALU 800 Mhz	6	35.075	38.583	0.54	0.80	8.01	381.60	0.000	0.000	494.34	0.00	0.00
							Totals:		**7,213.33**			**12,417.58**		

Total Applied Force Summary

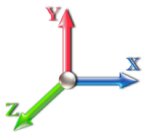
Structure:	CT00303-S-SBA		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 10

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 105 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		686.23	1609.69	0.00	0.00
10.00		668.74	1571.18	0.00	0.00
15.00		651.26	1532.66	0.00	0.00
20.00		672.46	1494.14	0.00	0.00
25.00		685.36	1455.63	0.00	0.00
30.00		691.97	1417.11	0.00	0.00
35.00		693.92	1378.59	0.00	0.00
40.00		692.24	1340.08	0.00	0.00
45.00		687.61	1301.56	0.00	0.00
46.67		226.04	425.29	0.00	0.00
50.00		457.10	1485.62	0.00	0.00
53.00		407.82	1310.22	0.00	0.00
55.00		269.41	417.04	0.00	0.00
60.00		669.62	1020.12	0.00	0.00
65.00		657.22	988.02	0.00	0.00
70.00		643.41	955.93	0.00	0.00
75.00		628.32	923.83	0.00	0.00
80.00		612.07	891.73	0.00	0.00
85.00		594.77	859.63	0.00	0.00
90.00		576.51	827.54	0.00	0.00
93.50		391.17	559.65	0.00	0.00
95.00		167.31	401.38	0.00	0.00
98.00		328.71	784.51	0.00	0.00
100.00		215.47	253.83	0.00	0.00
105.00		524.91	615.54	0.00	0.00
110.00		503.52	589.86	0.00	0.00
115.00		481.44	564.18	0.00	0.00
117.00	(25) attachments	5532.25	4365.34	0.00	0.00
120.00		271.99	310.52	0.00	0.00
125.00		435.39	496.99	0.00	0.00
130.00		411.49	471.31	0.00	0.00
135.00		387.04	445.63	0.00	0.00
140.00		362.07	419.96	0.00	0.00
145.00		336.60	394.28	0.00	0.00
145.50	(28) attachments	7103.20	3104.50	0.00	28937.61
	Totals:	**29,324.63**	**36,983.09**	**0.00**	**28,937.61**

Calculated Forces

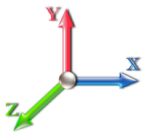
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 11	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 105 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-36.95	-29.36	0.00	-2885.8	0.00	2885.86	4576.28	2288.14	11797.9	5907.74	0.00	0.000	0.000	0.497
5.00	-35.29	-28.74	0.00	-2739.0	0.00	2739.06	4517.77	2258.89	11350.5	5683.71	0.06	-0.108	0.000	0.490
10.00	-33.67	-28.13	0.00	-2595.3	0.00	2595.36	4456.28	2228.14	10903.5	5459.88	0.23	-0.219	0.000	0.483
15.00	-32.08	-27.54	0.00	-2454.7	0.00	2454.70	4391.82	2195.91	10457.5	5236.55	0.52	-0.333	0.000	0.476
20.00	-30.54	-26.92	0.00	-2317.0	0.00	2317.00	4324.38	2162.19	10013.1	5014.00	0.94	-0.449	0.000	0.469
25.00	-29.03	-26.28	0.00	-2182.4	0.00	2182.41	4253.96	2126.98	9570.83	4792.53	1.47	-0.569	0.000	0.462
30.00	-27.57	-25.63	0.00	-2051.0	0.00	2051.00	4180.57	2090.28	9131.30	4572.43	2.13	-0.691	0.000	0.455
35.00	-26.14	-24.98	0.00	-1922.8	0.00	1922.83	4104.19	2052.10	8695.09	4354.01	2.92	-0.817	0.000	0.448
40.00	-24.76	-24.32	0.00	-1797.9	0.00	1797.93	4024.85	2012.42	8262.80	4137.54	3.85	-0.945	0.000	0.441
45.00	-23.43	-23.65	0.00	-1676.3	0.00	1676.31	3942.52	1971.26	7835.01	3923.33	4.91	-1.077	0.000	0.433
46.67	-22.98	-23.44	0.00	-1636.9	0.00	1636.90	3914.42	1957.21	7693.52	3852.48	5.30	-1.123	0.000	0.431
50.00	-21.47	-22.99	0.00	-1558.7	0.00	1558.76	3857.22	1928.61	7412.31	3711.67	6.11	-1.215	0.000	0.426
53.00	-20.14	-22.58	0.00	-1489.7	0.00	1489.79	2988.70	1494.35	5718.32	2863.41	6.90	-1.300	0.000	0.527
55.00	-19.69	-22.34	0.00	-1444.6	0.00	1444.64	2965.19	1482.60	5595.48	2801.90	7.46	-1.358	0.000	0.522
60.00	-18.62	-21.70	0.00	-1332.9	0.00	1332.95	2904.34	1452.17	5290.00	2648.93	8.97	-1.521	0.000	0.510
65.00	-17.59	-21.06	0.00	-1224.4	0.00	1224.48	2840.50	1420.25	4987.29	2497.35	10.65	-1.688	0.000	0.497
70.00	-16.59	-20.44	0.00	-1119.1	0.00	1119.16	2773.69	1386.84	4687.92	2347.44	12.51	-1.859	0.000	0.483
75.00	-15.63	-19.83	0.00	-1016.9	0.00	1016.96	2703.90	1351.95	4392.49	2199.51	14.56	-2.033	0.000	0.468
80.00	-14.70	-19.23	0.00	-917.82	0.00	917.82	2631.14	1315.57	4101.58	2053.84	16.78	-2.211	0.000	0.453
85.00	-13.81	-18.65	0.00	-821.67	0.00	821.67	2555.39	1277.70	3815.78	1910.73	19.19	-2.391	0.000	0.436
90.00	-12.96	-18.07	0.00	-728.44	0.00	728.44	2476.68	1238.34	3535.67	1770.46	21.80	-2.574	0.000	0.417
93.50	-12.39	-17.67	0.00	-665.26	0.00	665.26	2419.86	1209.93	3343.48	1674.23	23.73	-2.706	0.000	0.403
95.00	-11.97	-17.50	0.00	-638.69	0.00	638.69	2394.98	1197.49	3261.85	1633.35	24.59	-2.764	0.000	0.396
98.00	-11.17	-17.16	0.00	-586.24	0.00	586.24	1772.11	886.06	2389.60	1196.58	26.36	-2.878	0.000	0.497
100.00	-10.89	-16.96	0.00	-551.87	0.00	551.87	1749.91	874.96	2313.65	1158.54	27.59	-2.955	0.000	0.483
105.00	-10.24	-16.44	0.00	-467.09	0.00	467.09	1692.43	846.21	2126.56	1064.86	30.80	-3.172	0.000	0.445
110.00	-9.62	-15.94	0.00	-384.90	0.00	384.90	1631.96	815.98	1943.46	973.18	34.24	-3.383	0.000	0.402
115.00	-9.05	-15.44	0.00	-305.22	0.00	305.22	1568.52	784.26	1764.96	883.79	37.89	-3.584	0.000	0.352
117.00	-5.03	-9.65	0.00	-274.33	0.00	274.33	1542.31	771.16	1694.98	848.75	39.41	-3.664	0.000	0.327
120.00	-4.71	-9.38	0.00	-245.37	0.00	245.37	1502.10	751.05	1591.63	797.00	41.75	-3.779	0.000	0.311
125.00	-4.22	-8.92	0.00	-198.49	0.00	198.49	1429.48	714.74	1420.86	711.49	45.80	-3.962	0.000	0.282
130.00	-3.75	-8.49	0.00	-153.89	0.00	153.89	1336.04	668.02	1240.29	621.07	50.05	-4.137	0.000	0.251
135.00	-3.31	-8.08	0.00	-111.45	0.00	111.45	1242.60	621.30	1071.99	536.79	54.46	-4.299	0.000	0.210
140.00	-2.91	-7.69	0.00	-71.06	0.00	71.06	1149.16	574.58	915.96	458.66	59.04	-4.437	0.000	0.158
145.00	-2.53	-7.33	0.00	-32.60	0.00	32.60	1055.72	527.86	772.20	386.67	63.74	-4.536	0.000	0.087
145.50	0.00	-7.10	0.00	-28.94	0.00	28.94	1046.38	523.19	758.49	379.81	64.22	-4.544	0.000	0.076

Wind Loading - Shaft

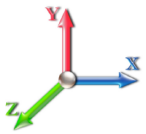
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 105 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	22.791	25.07	516.07	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	22.791	25.07	503.08	0.650	0.000	5.00	26.320	17.11	686.2	0.0	1126.9
10.00		1.00	0.85	22.791	25.07	490.10	0.650	0.000	5.00	25.649	16.67	668.7	0.0	1098.0
15.00		1.00	0.85	22.791	25.07	477.12	0.650	0.000	5.00	24.978	16.24	651.3	0.0	1069.1
20.00		1.00	0.90	24.182	26.60	478.09	0.650	0.000	5.00	24.308	15.80	672.5	0.0	1040.2
25.00		1.00	0.95	25.345	27.88	475.76	0.650	0.000	5.00	23.637	15.36	685.4	0.0	1011.3
30.00		1.00	0.98	26.337	28.97	471.02	0.650	0.000	5.00	22.967	14.93	692.0	0.0	982.5
35.00		1.00	1.01	27.206	29.93	464.54	0.650	0.000	5.00	22.296	14.49	693.9	0.0	953.6
40.00		1.00	1.04	27.981	30.78	456.73	0.650	0.000	5.00	21.625	14.06	692.2	0.0	924.7
45.00		1.00	1.07	28.684	31.55	447.86	0.650	0.000	5.00	20.955	13.62	687.6	0.0	895.8
46.67	Bot - Section 2	1.00	1.08	28.904	31.79	444.70	0.650	0.000	1.67	6.836	4.44	226.0	0.0	292.2
50.00		1.00	1.09	29.327	32.26	438.12	0.650	0.000	3.33	13.624	8.86	457.1	0.0	1060.6
53.00	Top - Section 1	1.00	1.11	29.689	32.66	431.93	0.650	0.000	3.00	12.007	7.80	407.8	0.0	934.4
55.00		1.00	1.12	29.922	32.91	433.53	0.650	0.000	2.00	7.871	5.12	269.4	0.0	280.6
60.00		1.00	1.14	30.475	33.52	422.51	0.650	0.000	5.00	19.207	12.48	669.6	0.0	684.7
65.00		1.00	1.16	30.993	34.09	410.94	0.650	0.000	5.00	18.537	12.05	657.2	0.0	660.6
70.00		1.00	1.17	31.480	34.63	398.90	0.650	0.000	5.00	17.866	11.61	643.4	0.0	636.6
75.00		1.00	1.19	31.941	35.13	386.44	0.650	0.000	5.00	17.195	11.18	628.3	0.0	612.5
80.00		1.00	1.21	32.377	35.62	373.59	0.650	0.000	5.00	16.525	10.74	612.1	0.0	588.4
85.00		1.00	1.22	32.793	36.07	360.41	0.650	0.000	5.00	15.854	10.31	594.8	0.0	564.4
90.00		1.00	1.24	33.190	36.51	346.92	0.650	0.000	5.00	15.183	9.87	576.5	0.0	540.3
93.50	Bot - Section 3	1.00	1.25	33.458	36.80	337.31	0.650	0.000	3.50	10.220	6.64	391.2	0.0	363.5
95.00		1.00	1.25	33.570	36.93	333.14	0.650	0.000	1.50	4.357	2.83	167.3	0.0	276.9
98.00	Top - Section 2	1.00	1.26	33.791	37.17	324.75	0.650	0.000	3.00	8.503	5.53	328.7	0.0	540.2
100.00		1.00	1.27	33.935	37.33	324.10	0.650	0.000	2.00	5.550	3.61	215.5	0.0	158.2
105.00		1.00	1.28	34.285	37.71	309.84	0.650	0.000	5.00	13.383	8.70	524.9	0.0	381.3
110.00		1.00	1.29	34.623	38.08	295.36	0.650	0.000	5.00	12.712	8.26	503.5	0.0	362.0
115.00		1.00	1.30	34.948	38.44	280.66	0.650	0.000	5.00	12.042	7.83	481.4	0.0	342.8
117.00	Appurtenance(s)	1.00	1.31	35.075	38.58	274.73	0.650	0.000	2.00	4.629	3.01	185.7	0.0	131.7
120.00		1.00	1.32	35.263	38.79	265.77	0.650	0.000	3.00	6.742	4.38	272.0	0.0	191.8
125.00		1.00	1.33	35.567	39.12	250.70	0.650	0.000	5.00	10.701	6.96	435.4	0.0	304.3
130.00		1.00	1.34	35.862	39.45	235.45	0.650	0.000	5.00	10.030	6.52	411.5	0.0	285.0
135.00		1.00	1.35	36.148	39.76	220.03	0.650	0.000	5.00	9.359	6.08	387.0	0.0	265.7
140.00		1.00	1.36	36.426	40.07	204.46	0.650	0.000	5.00	8.689	5.65	362.1	0.0	246.5
145.00		1.00	1.37	36.696	40.37	188.74	0.650	0.000	5.00	8.018	5.21	336.6	0.0	227.2
145.50	Appurtenance(s)	1.00	1.37	36.722	40.39	187.16	0.650	0.000	0.50	0.765	0.50	32.1	0.0	21.7
								Totals:	**145.50**			**16,907.1**		**20,056.3**

Discrete Appurtenance Forces

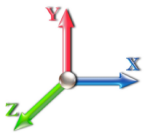
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 105 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	145.50	7770.00	3	37.010	40.712	0.66	0.90	10.84	105.30	0.000	5.500	706.13	0.00	3883.73
2	145.50	4478 B14	3	37.010	40.712	0.60	0.90	3.17	160.38	0.000	5.500	206.21	0.00	1134.17
3	145.50	4449 B5/B12	3	37.010	40.712	0.60	0.90	3.56	191.70	0.000	5.500	232.14	0.00	1276.75
4	145.50	OPA65R-BU6DA	3	37.010	40.712	0.66	0.90	25.05	162.54	0.000	5.500	1631.81	0.00	8974.95
5	145.50	DMP65R-BU6DA	3	37.010	40.712	0.65	0.90	24.71	214.38	0.000	5.500	1609.46	0.00	8852.00
6	145.50	Low Profile Platform	1	36.722	40.395	1.00	1.00	28.00	1080.00	0.000	0.000	1809.68	0.00	0.00
7	145.50	DC6-48-60-18-8F	3	37.010	40.712	0.90	0.90	3.51	88.56	0.000	5.500	228.64	0.00	1257.50
8	145.50	LGP21401	6	37.010	40.712	0.90	0.90	6.97	102.60	0.000	5.500	453.75	0.00	2495.65
9	145.50	RRUS 8843 B2 B66A	3	37.010	40.712	0.60	0.90	2.97	194.40	0.000	5.500	193.25	0.00	1062.88
10	117.00	ALU 1900 Mhz	3	35.075	38.583	0.54	0.80	6.11	118.80	0.000	0.000	377.21	0.00	0.00
11	117.00	(3) 9' Long Corner Braces	1	35.075	38.583	0.56	0.75	3.80	315.00	0.000	0.000	234.39	0.00	0.00
12	117.00	(3) 8.5' Horizontal Rail	1	35.075	38.583	0.56	0.75	2.39	270.00	0.000	0.000	147.58	0.00	0.00
13	117.00	Sitepro PRK-SFS-H-L	1	35.075	38.583	0.56	0.75	3.77	207.00	0.000	0.000	232.65	0.00	0.00
14	117.00	SitePro PRK-1245L	1	35.075	38.583	0.56	0.75	5.34	418.42	0.000	0.000	329.88	0.00	0.00
15	117.00	Modified T-Arm	3	35.075	38.583	0.56	0.75	16.88	945.00	0.000	0.000	1041.73	0.00	0.00
16	117.00	Commscope	3	35.075	38.583	0.60	0.80	22.09	208.98	0.000	0.000	1363.42	0.00	0.00
17	117.00	RFS APXVTM14-C-I20	3	35.075	38.583	0.62	0.80	11.72	151.74	0.000	0.000	723.28	0.00	0.00
18	117.00	ALU TD-RRH8x20-25	3	35.075	38.583	0.54	0.80	6.51	189.00	0.000	0.000	402.03	0.00	0.00
19	117.00	ALU 800 Mhz	6	35.075	38.583	0.54	0.80	8.01	286.20	0.000	0.000	494.34	0.00	0.00
							Totals:		**5,410.00**			**12,417.58**		

Total Applied Force Summary

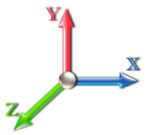
Structure:	CT00303-S-SBA		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 14

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 105 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		686.23	1207.27	0.00	0.00
10.00		668.74	1178.38	0.00	0.00
15.00		651.26	1149.49	0.00	0.00
20.00		672.46	1120.61	0.00	0.00
25.00		685.36	1091.72	0.00	0.00
30.00		691.97	1062.83	0.00	0.00
35.00		693.92	1033.94	0.00	0.00
40.00		692.24	1005.06	0.00	0.00
45.00		687.61	976.17	0.00	0.00
46.67		226.04	318.97	0.00	0.00
50.00		457.10	1114.21	0.00	0.00
53.00		407.82	982.67	0.00	0.00
55.00		269.41	312.78	0.00	0.00
60.00		669.62	765.09	0.00	0.00
65.00		657.22	741.02	0.00	0.00
70.00		643.41	716.95	0.00	0.00
75.00		628.32	692.87	0.00	0.00
80.00		612.07	668.80	0.00	0.00
85.00		594.77	644.73	0.00	0.00
90.00		576.51	620.65	0.00	0.00
93.50		391.17	419.74	0.00	0.00
95.00		167.31	301.04	0.00	0.00
98.00		328.71	588.38	0.00	0.00
100.00		215.47	190.37	0.00	0.00
105.00		524.91	461.66	0.00	0.00
110.00		503.52	442.40	0.00	0.00
115.00		481.44	423.14	0.00	0.00
117.00	(25) attachments	5532.25	3274.00	0.00	0.00
120.00		271.99	232.89	0.00	0.00
125.00		435.39	372.74	0.00	0.00
130.00		411.49	353.48	0.00	0.00
135.00		387.04	334.22	0.00	0.00
140.00		362.07	314.97	0.00	0.00
145.00		336.60	295.71	0.00	0.00
145.50	(28) attachments	7103.20	2328.37	0.00	28937.61
	Totals:	**29,324.63**	**27,737.32**	**0.00**	**28,937.61**

Calculated Forces

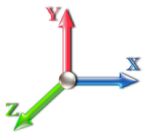
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 105 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-27.71	-29.35	0.00	-2869.7	0.00	2869.76	4576.28	2288.14	11797.9	5907.74	0.00	0.000	0.000	0.492
5.00	-26.45	-28.71	0.00	-2723.0	0.00	2723.00	4517.77	2258.89	11350.5	5683.71	0.06	-0.108	0.000	0.485
10.00	-25.22	-28.09	0.00	-2579.4	0.00	2579.43	4456.28	2228.14	10903.5	5459.88	0.23	-0.218	0.000	0.478
15.00	-24.02	-27.48	0.00	-2438.9	0.00	2438.98	4391.82	2195.91	10457.5	5236.55	0.52	-0.331	0.000	0.471
20.00	-22.84	-26.85	0.00	-2301.5	0.00	2301.57	4324.38	2162.19	10013.1	5014.00	0.93	-0.447	0.000	0.464
25.00	-21.70	-26.20	0.00	-2167.3	0.00	2167.32	4253.96	2126.98	9570.83	4792.53	1.46	-0.565	0.000	0.457
30.00	-20.59	-25.54	0.00	-2036.3	0.00	2036.32	4180.57	2090.28	9131.30	4572.43	2.12	-0.687	0.000	0.450
35.00	-19.51	-24.88	0.00	-1908.6	0.00	1908.62	4104.19	2052.10	8695.09	4354.01	2.91	-0.811	0.000	0.443
40.00	-18.47	-24.21	0.00	-1784.2	0.00	1784.24	4024.85	2012.42	8262.80	4137.54	3.83	-0.939	0.000	0.436
45.00	-17.47	-23.53	0.00	-1663.1	0.00	1663.19	3942.52	1971.26	7835.01	3923.33	4.88	-1.070	0.000	0.428
46.67	-17.12	-23.32	0.00	-1623.9	0.00	1623.97	3914.42	1957.21	7693.52	3852.48	5.26	-1.116	0.000	0.426
50.00	-15.98	-22.87	0.00	-1546.2	0.00	1546.24	3857.22	1928.61	7412.31	3711.67	6.07	-1.207	0.000	0.421
53.00	-14.98	-22.46	0.00	-1477.6	0.00	1477.64	2988.70	1494.35	5718.32	2863.41	6.86	-1.291	0.000	0.521
55.00	-14.63	-22.21	0.00	-1432.7	0.00	1432.73	2965.19	1482.60	5595.48	2801.90	7.41	-1.348	0.000	0.517
60.00	-13.82	-21.56	0.00	-1321.7	0.00	1321.70	2904.34	1452.17	5290.00	2648.93	8.91	-1.510	0.000	0.504
65.00	-13.04	-20.92	0.00	-1213.9	0.00	1213.91	2840.50	1420.25	4987.29	2497.35	10.58	-1.676	0.000	0.491
70.00	-12.28	-20.29	0.00	-1109.3	0.00	1109.32	2773.69	1386.84	4687.92	2347.44	12.43	-1.845	0.000	0.477
75.00	-11.55	-19.67	0.00	-1007.8	0.00	1007.87	2703.90	1351.95	4392.49	2199.51	14.45	-2.018	0.000	0.463
80.00	-10.85	-19.07	0.00	-909.50	0.00	909.50	2631.14	1315.57	4101.58	2053.84	16.66	-2.194	0.000	0.447
85.00	-10.17	-18.48	0.00	-814.14	0.00	814.14	2555.39	1277.70	3815.78	1910.73	19.06	-2.373	0.000	0.430
90.00	-9.52	-17.91	0.00	-721.72	0.00	721.72	2476.68	1238.34	3535.67	1770.46	21.64	-2.554	0.000	0.412
93.50	-9.09	-17.51	0.00	-659.11	0.00	659.11	2419.86	1209.93	3343.48	1674.23	23.56	-2.684	0.000	0.398
95.00	-8.78	-17.34	0.00	-632.78	0.00	632.78	2394.98	1197.49	3261.85	1633.35	24.41	-2.742	0.000	0.391
98.00	-8.18	-17.00	0.00	-580.81	0.00	580.81	1772.11	886.06	2389.60	1196.58	26.17	-2.855	0.000	0.490
100.00	-7.95	-16.80	0.00	-546.76	0.00	546.76	1749.91	874.96	2313.65	1158.54	27.39	-2.931	0.000	0.477
105.00	-7.46	-16.27	0.00	-462.78	0.00	462.78	1692.43	846.21	2126.56	1064.86	30.57	-3.146	0.000	0.439
110.00	-6.99	-15.77	0.00	-381.40	0.00	381.40	1631.96	815.98	1943.46	973.18	33.98	-3.356	0.000	0.397
115.00	-6.56	-15.28	0.00	-302.54	0.00	302.54	1568.52	784.26	1764.96	883.79	37.60	-3.554	0.000	0.347
117.00	-3.62	-9.56	0.00	-271.98	0.00	271.98	1542.31	771.16	1694.98	848.75	39.11	-3.634	0.000	0.323
120.00	-3.38	-9.28	0.00	-243.30	0.00	243.30	1502.10	751.05	1591.63	797.00	41.43	-3.748	0.000	0.308
125.00	-3.01	-8.83	0.00	-196.88	0.00	196.88	1429.48	714.74	1420.86	711.49	45.45	-3.929	0.000	0.279
130.00	-2.67	-8.41	0.00	-152.71	0.00	152.71	1336.04	668.02	1240.29	621.07	49.66	-4.103	0.000	0.248
135.00	-2.34	-8.00	0.00	-110.68	0.00	110.68	1242.60	621.30	1071.99	536.79	54.04	-4.263	0.000	0.208
140.00	-2.04	-7.62	0.00	-70.68	0.00	70.68	1149.16	574.58	915.96	458.66	58.58	-4.401	0.000	0.156
145.00	-1.76	-7.26	0.00	-32.57	0.00	32.57	1055.72	527.86	772.20	386.67	63.24	-4.500	0.000	0.086
145.50	0.00	-7.10	0.00	-28.94	0.00	28.94	1046.38	523.19	758.49	379.81	63.72	-4.507	0.000	0.076

Wind Loading - Shaft

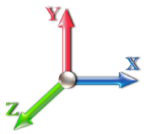
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.242	5.00	27.355	32.83	186.6	487.5	1990.1
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.331	5.00	26.758	32.11	182.5	510.0	1974.1
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.386	5.00	26.134	31.36	178.3	517.8	1943.3
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.427	5.00	25.497	30.60	184.5	519.1	1906.1
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.459	5.00	24.853	29.82	188.5	516.7	1865.1
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.486	5.00	24.205	29.05	190.8	511.7	1821.6
35.00		1.00	1.01	6.169	6.79	0.00	1.200	1.509	5.00	23.553	28.26	191.8	504.8	1776.3
40.00		1.00	1.04	6.345	6.98	0.00	1.200	1.529	5.00	22.900	27.48	191.8	496.6	1729.5
45.00		1.00	1.07	6.504	7.15	0.00	1.200	1.547	5.00	22.244	26.69	191.0	487.3	1681.7
46.67	Bot - Section 2	1.00	1.08	6.554	7.21	0.00	1.200	1.553	1.67	7.267	8.72	62.9	161.3	550.9
50.00		1.00	1.09	6.650	7.32	0.00	1.200	1.564	3.33	14.493	17.39	127.2	322.1	1736.3
53.00	Top - Section 1	1.00	1.11	6.732	7.41	0.00	1.200	1.573	3.00	12.794	15.35	113.7	286.1	1532.0
55.00		1.00	1.12	6.785	7.46	0.00	1.200	1.579	2.00	8.397	10.08	75.2	188.9	563.1
60.00		1.00	1.14	6.910	7.60	0.00	1.200	1.592	5.00	20.534	24.64	187.3	460.8	1373.7
65.00		1.00	1.16	7.028	7.73	0.00	1.200	1.605	5.00	19.874	23.85	184.4	448.6	1329.5
70.00		1.00	1.17	7.138	7.85	0.00	1.200	1.617	5.00	19.214	23.06	181.0	436.0	1284.8
75.00		1.00	1.19	7.243	7.97	0.00	1.200	1.628	5.00	18.552	22.26	177.4	423.0	1239.7
80.00		1.00	1.21	7.342	8.08	0.00	1.200	1.639	5.00	17.890	21.47	173.4	409.6	1194.1
85.00		1.00	1.22	7.436	8.18	0.00	1.200	1.649	5.00	17.228	20.67	169.1	395.8	1148.3
90.00		1.00	1.24	7.526	8.28	0.00	1.200	1.658	5.00	16.565	19.88	164.6	381.7	1102.0
93.50	Bot - Section 3	1.00	1.25	7.587	8.35	0.00	1.200	1.665	3.50	11.190	13.43	112.1	259.9	744.6
95.00		1.00	1.25	7.612	8.37	0.00	1.200	1.667	1.50	4.774	5.73	48.0	112.0	481.2
98.00	Top - Section 2	1.00	1.26	7.662	8.43	0.00	1.200	1.672	3.00	9.339	11.21	94.5	218.0	938.3
100.00		1.00	1.27	7.695	8.46	0.00	1.200	1.676	2.00	6.110	7.33	62.1	143.4	354.3
105.00		1.00	1.28	7.774	8.55	0.00	1.200	1.684	5.00	14.786	17.74	151.7	343.0	851.3
110.00		1.00	1.29	7.851	8.64	0.00	1.200	1.692	5.00	14.122	16.95	146.4	327.8	810.5
115.00		1.00	1.30	7.925	8.72	0.00	1.200	1.699	5.00	13.458	16.15	140.8	312.5	769.5
117.00	Appurtenance(s)	1.00	1.31	7.954	8.75	0.00	1.200	1.702	2.00	5.196	6.24	54.6	122.5	298.1
120.00		1.00	1.32	7.996	8.80	0.00	1.200	1.707	3.00	7.596	9.11	80.2	178.2	433.9
125.00		1.00	1.33	8.065	8.87	0.00	1.200	1.714	5.00	12.129	14.55	129.1	281.2	686.9
130.00		1.00	1.34	8.132	8.95	0.00	1.200	1.720	5.00	11.464	13.76	123.1	265.3	645.3
135.00		1.00	1.35	8.197	9.02	0.00	1.200	1.727	5.00	10.798	12.96	116.8	249.2	603.5
140.00		1.00	1.36	8.260	9.09	0.00	1.200	1.733	5.00	10.133	12.16	110.5	233.0	561.6
145.00		1.00	1.37	8.321	9.15	0.00	1.200	1.739	5.00	9.467	11.36	104.0	216.6	519.5
145.50	Appurtenance(s)	1.00	1.37	8.327	9.16	0.00	1.200	1.740	0.50	0.910	1.09	10.0	21.5	50.4
								Totals:	**145.50**			**4,785.7**		**38,491.3**

Discrete Appurtenance Forces

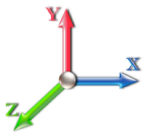
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	145.50	7770.00	3	8.392	9.232	0.66	0.90	12.93	544.41	0.000	5.500	119.39	0.00	656.67
2	145.50	4478 B14	3	8.392	9.232	0.60	0.90	4.16	309.66	0.000	5.500	38.38	0.00	211.08
3	145.50	4449 B5/B12	3	8.392	9.232	0.60	0.90	4.55	374.45	0.000	5.500	42.01	0.00	231.07
4	145.50	OPA65R-BU6DA	3	8.392	9.232	0.66	0.90	28.31	1087.70	0.000	5.500	261.30	0.00	1437.18
5	145.50	DMP65R-BU6DA	3	8.392	9.232	0.65	0.90	27.55	964.89	0.000	5.500	254.29	0.00	1398.60
6	145.50	Low Profile Platform	1	8.327	9.160	1.00	1.00	51.38	2183.94	0.000	0.000	470.67	0.00	0.00
7	145.50	DC6-48-60-18-8F	3	8.392	9.232	0.90	0.90	5.18	258.70	0.000	5.500	47.78	0.00	262.81
8	145.50	LGP21401	6	8.392	9.232	0.90	0.90	11.47	325.12	0.000	5.500	105.84	0.00	582.12
9	145.50	RRUS 8843 B2 B66A	3	8.392	9.232	0.60	0.90	3.86	363.31	0.000	5.500	35.66	0.00	196.13
10	117.00	ALU 1900 Mhz	3	7.954	8.749	0.54	0.80	8.29	384.26	0.000	0.000	72.53	0.00	0.00
11	117.00	(3) 9' Long Corner Braces	1	7.954	8.749	0.56	0.75	7.42	1175.17	0.000	0.000	64.89	0.00	0.00
12	117.00	(3) 8.5' Horizontal Rail	1	7.954	8.749	0.56	0.75	4.67	1007.29	0.000	0.000	40.85	0.00	0.00
13	117.00	Sitepro PRK-SFS-H-L	1	7.954	8.749	0.56	0.75	7.62	488.24	0.000	0.000	66.65	0.00	0.00
14	117.00	SitePro PRK-1245L	1	7.954	8.749	0.56	0.75	10.80	779.38	0.000	0.000	94.51	0.00	0.00
15	117.00	Modified T-Arm	3	7.954	8.749	0.56	0.75	31.24	1765.00	0.000	0.000	273.31	0.00	0.00
16	117.00	Commscope	3	7.954	8.749	0.60	0.80	24.64	916.89	0.000	0.000	215.60	0.00	0.00
17	117.00	RFS APXVTM14-C-I20	3	7.954	8.749	0.62	0.80	13.72	669.42	0.000	0.000	120.04	0.00	0.00
18	117.00	ALU TD-RRH8x20-25	3	7.954	8.749	0.54	0.80	7.79	573.60	0.000	0.000	68.11	0.00	0.00
19	117.00	ALU 800 Mhz	6	7.954	8.749	0.54	0.80	11.60	687.87	0.000	0.000	101.45	0.00	0.00
							Totals:		**14,859.30**			**2,493.27**		

Total Applied Force Summary

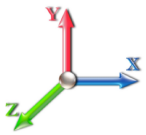
Structure:	CT00303-S-SBA		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 18

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		186.61	2097.23	0.00	0.00
10.00		182.54	2081.22	0.00	0.00
15.00		178.28	2050.51	0.00	0.00
20.00		184.55	2013.29	0.00	0.00
25.00		188.54	1972.29	0.00	0.00
30.00		190.81	1928.76	0.00	0.00
35.00		191.80	1883.42	0.00	0.00
40.00		191.79	1836.70	0.00	0.00
45.00		190.98	1788.87	0.00	0.00
46.67		62.87	586.63	0.00	0.00
50.00		127.22	1807.77	0.00	0.00
53.00		113.69	1596.28	0.00	0.00
55.00		75.20	605.96	0.00	0.00
60.00		187.31	1480.88	0.00	0.00
65.00		184.37	1436.67	0.00	0.00
70.00		181.04	1391.97	0.00	0.00
75.00		177.37	1346.82	0.00	0.00
80.00		173.38	1301.29	0.00	0.00
85.00		169.11	1255.41	0.00	0.00
90.00		164.57	1209.21	0.00	0.00
93.50		112.06	819.54	0.00	0.00
95.00		47.97	513.38	0.00	0.00
98.00		94.45	1002.52	0.00	0.00
100.00		62.06	397.21	0.00	0.00
105.00		151.74	958.50	0.00	0.00
110.00		146.35	917.70	0.00	0.00
115.00		140.78	876.68	0.00	0.00
117.00	(25) attachments	1172.50	8788.12	0.00	0.00
120.00		80.17	488.69	0.00	0.00
125.00		129.12	778.21	0.00	0.00
130.00		123.05	736.62	0.00	0.00
135.00		116.84	694.86	0.00	0.00
140.00		110.48	652.94	0.00	0.00
145.00		103.99	610.87	0.00	0.00
145.50	(28) attachments	1385.34	6471.69	0.00	4975.65
	Totals:	**7,278.93**	**56,378.70**	**0.00**	**4,975.65**

Calculated Forces

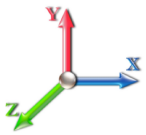
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-56.38	-7.29	0.00	-690.57	0.00	690.57	4576.28	2288.14	11797.9	5907.74	0.00	0.000	0.000	0.129
5.00	-54.28	-7.13	0.00	-654.12	0.00	654.12	4517.77	2258.89	11350.5	5683.71	0.01	-0.026	0.000	0.127
10.00	-52.19	-6.97	0.00	-618.47	0.00	618.47	4456.28	2228.14	10903.5	5459.88	0.06	-0.052	0.000	0.125
15.00	-50.14	-6.81	0.00	-583.62	0.00	583.62	4391.82	2195.91	10457.5	5236.55	0.13	-0.079	0.000	0.123
20.00	-48.12	-6.65	0.00	-549.55	0.00	549.55	4324.38	2162.19	10013.1	5014.00	0.22	-0.107	0.000	0.121
25.00	-46.15	-6.48	0.00	-516.31	0.00	516.31	4253.96	2126.98	9570.83	4792.53	0.35	-0.135	0.000	0.119
30.00	-44.22	-6.31	0.00	-483.92	0.00	483.92	4180.57	2090.28	9131.30	4572.43	0.51	-0.164	0.000	0.116
35.00	-42.33	-6.13	0.00	-452.39	0.00	452.39	4104.19	2052.10	8695.09	4354.01	0.70	-0.194	0.000	0.114
40.00	-40.49	-5.95	0.00	-421.74	0.00	421.74	4024.85	2012.42	8262.80	4137.54	0.92	-0.224	0.000	0.112
45.00	-38.70	-5.77	0.00	-391.97	0.00	391.97	3942.52	1971.26	7835.01	3923.33	1.17	-0.255	0.000	0.110
46.67	-38.11	-5.71	0.00	-382.36	0.00	382.36	3914.42	1957.21	7693.52	3852.48	1.26	-0.266	0.000	0.109
50.00	-36.30	-5.59	0.00	-363.31	0.00	363.31	3857.22	1928.61	7412.31	3711.67	1.45	-0.287	0.000	0.107
53.00	-34.71	-5.48	0.00	-346.54	0.00	346.54	2988.70	1494.35	5718.32	2863.41	1.64	-0.307	0.000	0.133
55.00	-34.10	-5.42	0.00	-335.58	0.00	335.58	2965.19	1482.60	5595.48	2801.90	1.77	-0.320	0.000	0.131
60.00	-32.62	-5.24	0.00	-308.50	0.00	308.50	2904.34	1452.17	5290.00	2648.93	2.13	-0.358	0.000	0.128
65.00	-31.18	-5.07	0.00	-282.29	0.00	282.29	2840.50	1420.25	4987.29	2497.35	2.52	-0.397	0.000	0.124
70.00	-29.78	-4.90	0.00	-256.94	0.00	256.94	2773.69	1386.84	4687.92	2347.44	2.96	-0.436	0.000	0.120
75.00	-28.43	-4.73	0.00	-232.45	0.00	232.45	2703.90	1351.95	4392.49	2199.51	3.44	-0.476	0.000	0.116
80.00	-27.13	-4.57	0.00	-208.80	0.00	208.80	2631.14	1315.57	4101.58	2053.84	3.96	-0.517	0.000	0.112
85.00	-25.87	-4.40	0.00	-185.97	0.00	185.97	2555.39	1277.70	3815.78	1910.73	4.52	-0.558	0.000	0.107
90.00	-24.66	-4.24	0.00	-163.96	0.00	163.96	2476.68	1238.34	3535.67	1770.46	5.13	-0.599	0.000	0.103
93.50	-23.84	-4.13	0.00	-149.13	0.00	149.13	2419.86	1209.93	3343.48	1674.23	5.58	-0.628	0.000	0.099
95.00	-23.33	-4.08	0.00	-142.92	0.00	142.92	2394.98	1197.49	3261.85	1633.35	5.78	-0.641	0.000	0.097
98.00	-22.33	-3.99	0.00	-130.69	0.00	130.69	1772.11	886.06	2389.60	1196.58	6.19	-0.667	0.000	0.122
100.00	-21.93	-3.93	0.00	-122.70	0.00	122.70	1749.91	874.96	2313.65	1158.54	6.47	-0.684	0.000	0.118
105.00	-20.97	-3.79	0.00	-103.04	0.00	103.04	1692.43	846.21	2126.56	1064.86	7.21	-0.732	0.000	0.109
110.00	-20.05	-3.64	0.00	-84.11	0.00	84.11	1631.96	815.98	1943.46	973.18	8.01	-0.778	0.000	0.099
115.00	-19.17	-3.50	0.00	-65.90	0.00	65.90	1568.52	784.26	1764.96	883.79	8.85	-0.822	0.000	0.087
117.00	-10.40	-2.20	0.00	-58.90	0.00	58.90	1542.31	771.16	1694.98	848.75	9.19	-0.839	0.000	0.076
120.00	-9.91	-2.12	0.00	-52.29	0.00	52.29	1502.10	751.05	1591.63	797.00	9.73	-0.864	0.000	0.072
125.00	-9.14	-1.99	0.00	-41.68	0.00	41.68	1429.48	714.74	1420.86	711.49	10.66	-0.903	0.000	0.065
130.00	-8.40	-1.86	0.00	-31.74	0.00	31.74	1336.04	668.02	1240.29	621.07	11.62	-0.939	0.000	0.057
135.00	-7.71	-1.73	0.00	-22.46	0.00	22.46	1242.60	621.30	1071.99	536.79	12.62	-0.972	0.000	0.048
140.00	-7.06	-1.61	0.00	-13.80	0.00	13.80	1149.16	574.58	915.96	458.66	13.66	-1.000	0.000	0.036
145.00	-6.45	-1.50	0.00	-5.73	0.00	5.73	1055.72	527.86	772.20	386.67	14.72	-1.018	0.000	0.021
145.50	0.00	-1.39	0.00	-4.98	0.00	4.98	1046.38	523.19	758.49	379.81	14.82	-1.020	0.000	0.013

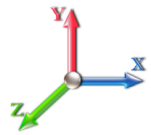
Seismic Segment Forces (Factored)

Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

Tower Engineering Solutions

Load Case: 1.2D + 1.0E

Gust Response Factor	1.10			**Sds**	0.18	**Iterations**	19
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10	**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.51	**SA**	0.05	**S1**	0.06
						Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1252.1	0.00	0.03	0.02	16.32	
10.00		1220.0	0.01	0.05	0.03	24.06	
15.00		1187.9	0.02	0.06	0.04	27.62	
20.00		1155.8	0.04	0.07	0.04	29.10	
25.00		1123.7	0.06	0.07	0.04	29.64	
30.00		1091.6	0.08	0.07	0.04	29.81	
35.00		1059.5	0.11	0.07	0.04	29.85	
40.00		1027.4	0.14	0.07	0.03	29.75	
45.00		995.33	0.18	0.07	0.03	29.36	
46.67	Bot - Section 2	324.64	0.19	0.06	0.02	9.60	
50.00		1178.4	0.22	0.06	0.02	34.76	
53.00	Top - Section 1	1038.2	0.25	0.06	0.02	30.19	
55.00		311.81	0.27	0.05	0.02	8.91	
60.00		760.80	0.32	0.04	0.01	19.98	
65.00		734.05	0.38	0.03	0.01	16.32	
70.00		707.31	0.44	0.01	0.01	11.55	
75.00		680.56	0.50	-0.02	0.01	5.98	
80.00		653.81	0.57	-0.04	0.01	0.24	
85.00		627.06	0.65	-0.07	0.02	-4.82	
90.00		600.31	0.72	-0.09	0.03	-8.37	
93.50	Bot - Section 3	403.93	0.78	-0.11	0.05	-6.68	
95.00		307.64	0.81	-0.11	0.06	-5.25	
98.00	Top - Section 2	600.24	0.86	-0.12	0.07	-10.22	
100.00		175.75	0.89	-0.12	0.08	-2.83	
105.00		423.65	0.98	-0.11	0.12	-4.39	
110.00		402.25	1.08	-0.08	0.17	0.16	
115.00		380.85	1.18	-0.01	0.24	6.22	
117.00	Appurtenance(s)	3602.0	1.22	0.03	0.27	87.09	
120.00		213.11	1.29	0.10	0.32	8.00	
125.00		338.06	1.39	0.27	0.43	21.66	
130.00		316.66	1.51	0.52	0.55	30.40	
135.00		295.26	1.63	0.86	0.71	39.38	
140.00		273.86	1.75	1.32	0.89	48.29	
145.00		252.46	1.88	1.91	1.12	56.78	
145.50	Appurtenance(s)	2579.4	1.89	1.98	1.14	593.43	
	Totals:	**28,295.9**				**1,231.9**	**Total Wind:** **29,324.6**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Tower Engineering Solutions

Load Case: 1.2D + 1.0E

Iterations 19

Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.51	**SA**	0.05	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-36.98	-1.28	0.00	-142.87	0.00	142.87	4576.28	2288.14	11797.9	5907.74		0.00	0.00	0.032
5.00	-35.37	-1.26	0.00	-136.50	0.00	136.50	4517.77	2258.89	11350.5	5683.71		0.00	-0.01	0.032
10.00	-33.80	-1.24	0.00	-130.19	0.00	130.19	4456.28	2228.14	10903.5	5459.88		0.01	-0.01	0.031
15.00	-32.27	-1.22	0.00	-123.98	0.00	123.98	4391.82	2195.91	10457.5	5236.55		0.03	-0.02	0.031
20.00	-30.77	-1.19	0.00	-117.90	0.00	117.90	4324.38	2162.19	10013.1	5014.00		0.05	-0.02	0.031
25.00	-29.32	-1.16	0.00	-111.95	0.00	111.95	4253.96	2126.98	9570.83	4792.53		0.07	-0.03	0.030
30.00	-27.90	-1.14	0.00	-106.13	0.00	106.13	4180.57	2090.28	9131.30	4572.43		0.11	-0.03	0.030
35.00	-26.52	-1.11	0.00	-100.45	0.00	100.45	4104.19	2052.10	8695.09	4354.01		0.15	-0.04	0.030
40.00	-25.18	-1.08	0.00	-94.91	0.00	94.91	4024.85	2012.42	8262.80	4137.54		0.19	-0.05	0.029
45.00	-23.88	-1.05	0.00	-89.51	0.00	89.51	3942.52	1971.26	7835.01	3923.33		0.25	-0.06	0.029
46.67	-23.46	-1.04	0.00	-87.76	0.00	87.76	3914.42	1957.21	7693.52	3852.48		0.27	-0.06	0.029
50.00	-21.97	-1.01	0.00	-84.28	0.00	84.28	3857.22	1928.61	7412.31	3711.67		0.31	-0.06	0.028
53.00	-20.66	-0.98	0.00	-81.26	0.00	81.26	2988.70	1494.35	5718.32	2863.41		0.35	-0.07	0.035
55.00	-20.24	-0.97	0.00	-79.30	0.00	79.30	2965.19	1482.60	5595.48	2801.90		0.38	-0.07	0.035
60.00	-19.22	-0.95	0.00	-74.45	0.00	74.45	2904.34	1452.17	5290.00	2648.93		0.46	-0.08	0.035
65.00	-18.23	-0.94	0.00	-69.68	0.00	69.68	2840.50	1420.25	4987.29	2497.35		0.55	-0.09	0.034
70.00	-17.28	-0.93	0.00	-64.99	0.00	64.99	2773.69	1386.84	4687.92	2347.44		0.65	-0.10	0.034
75.00	-16.35	-0.92	0.00	-60.35	0.00	60.35	2703.90	1351.95	4392.49	2199.51		0.75	-0.11	0.033
80.00	-15.46	-0.92	0.00	-55.73	0.00	55.73	2631.14	1315.57	4101.58	2053.84		0.87	-0.12	0.033
85.00	-14.60	-0.93	0.00	-51.11	0.00	51.11	2555.39	1277.70	3815.78	1910.73		1.01	-0.13	0.032
90.00	-13.78	-0.93	0.00	-46.48	0.00	46.48	2476.68	1238.34	3535.67	1770.46		1.15	-0.14	0.032
93.50	-13.22	-0.93	0.00	-43.25	0.00	43.25	2419.86	1209.93	3343.48	1674.23		1.26	-0.15	0.031
95.00	-12.81	-0.93	0.00	-41.86	0.00	41.86	2394.98	1197.49	3261.85	1633.35		1.30	-0.15	0.031
98.00	-12.03	-0.93	0.00	-39.08	0.00	39.08	1772.11	886.06	2389.60	1196.58		1.40	-0.16	0.039
100.00	-11.78	-0.93	0.00	-37.23	0.00	37.23	1749.91	874.96	2313.65	1158.54		1.47	-0.17	0.039
105.00	-11.16	-0.93	0.00	-32.59	0.00	32.59	1692.43	846.21	2126.56	1064.86		1.66	-0.18	0.037
110.00	-10.57	-0.93	0.00	-27.95	0.00	27.95	1631.96	815.98	1943.46	973.18		1.85	-0.20	0.035
115.00	-10.01	-0.92	0.00	-23.31	0.00	23.31	1568.52	784.26	1764.96	883.79		2.07	-0.21	0.033
117.00	-5.64	-0.82	0.00	-21.47	0.00	21.47	1542.31	771.16	1694.98	848.75		2.16	-0.22	0.029
120.00	-5.33	-0.81	0.00	-19.01	0.00	19.01	1502.10	751.05	1591.63	797.00		2.30	-0.23	0.027
125.00	-4.83	-0.79	0.00	-14.95	0.00	14.95	1429.48	714.74	1420.86	711.49		2.54	-0.24	0.024
130.00	-4.36	-0.76	0.00	-11.01	0.00	11.01	1336.04	668.02	1240.29	621.07		2.80	-0.25	0.021
135.00	-3.92	-0.72	0.00	-7.22	0.00	7.22	1242.60	621.30	1071.99	536.79		3.08	-0.27	0.017
140.00	-3.50	-0.67	0.00	-3.64	0.00	3.64	1149.16	574.58	915.96	458.66		3.36	-0.27	0.011
145.00	-3.10	-0.61	0.00	-0.30	0.00	0.30	1055.72	527.86	772.20	386.67		3.65	-0.28	0.004
145.50	0.00	-0.59	0.00	0.00	0.00	0.00	1046.38	523.19	758.49	379.81		3.68	-0.28	0.000

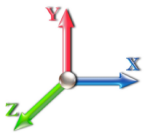
Seismic Segment Forces (Factored)

Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

Tower Engineering Solutions

Load Case: 0.9D + 1.0E

Gust Response Factor	1.10			**Sds**	0.18	**Iterations**	19
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10	**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.51	**SA**	0.05	**S1**	0.06
						Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1252.1	0.00	0.03	0.02	16.32	
10.00		1220.0	0.01	0.05	0.03	24.06	
15.00		1187.9	0.02	0.06	0.04	27.62	
20.00		1155.8	0.04	0.07	0.04	29.10	
25.00		1123.7	0.06	0.07	0.04	29.64	
30.00		1091.6	0.08	0.07	0.04	29.81	
35.00		1059.5	0.11	0.07	0.04	29.85	
40.00		1027.4	0.14	0.07	0.03	29.75	
45.00		995.33	0.18	0.07	0.03	29.36	
46.67	Bot - Section 2	324.64	0.19	0.06	0.02	9.60	
50.00		1178.4	0.22	0.06	0.02	34.76	
53.00	Top - Section 1	1038.2	0.25	0.06	0.02	30.19	
55.00		311.81	0.27	0.05	0.02	8.91	
60.00		760.80	0.32	0.04	0.01	19.98	
65.00		734.05	0.38	0.03	0.01	16.32	
70.00		707.31	0.44	0.01	0.01	11.55	
75.00		680.56	0.50	-0.02	0.01	5.98	
80.00		653.81	0.57	-0.04	0.01	0.24	
85.00		627.06	0.65	-0.07	0.02	-4.82	
90.00		600.31	0.72	-0.09	0.03	-8.37	
93.50	Bot - Section 3	403.93	0.78	-0.11	0.05	-6.68	
95.00		307.64	0.81	-0.11	0.06	-5.25	
98.00	Top - Section 2	600.24	0.86	-0.12	0.07	-10.22	
100.00		175.75	0.89	-0.12	0.08	-2.83	
105.00		423.65	0.98	-0.11	0.12	-4.39	
110.00		402.25	1.08	-0.08	0.17	0.16	
115.00		380.85	1.18	-0.01	0.24	6.22	
117.00	Appurtenance(s)	3602.0	1.22	0.03	0.27	87.09	
120.00		213.11	1.29	0.10	0.32	8.00	
125.00		338.06	1.39	0.27	0.43	21.66	
130.00		316.66	1.51	0.52	0.55	30.40	
135.00		295.26	1.63	0.86	0.71	39.38	
140.00		273.86	1.75	1.32	0.89	48.29	
145.00		252.46	1.88	1.91	1.12	56.78	
145.50	Appurtenance(s)	2579.4	1.89	1.98	1.14	593.43	
	Totals:	**28,295.9**				**1,231.9**	**Total Wind:** **29,324.6**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT00303-S-SBA		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 23

Tower Engineering Solutions

Load Case: 0.9D + 1.0E

Iterations 19

Gust Response Factor	1.10			**Sds**	0.18			**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.51	**SA**	0.05	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-27.74	-1.27	0.00	-141.99	0.00	141.99	4576.28	2288.14	11797.9	5907.74		0.00	0.00	0.030
5.00	-26.53	-1.26	0.00	-135.62	0.00	135.62	4517.77	2258.89	11350.5	5683.71		0.00	-0.01	0.030
10.00	-25.35	-1.24	0.00	-129.31	0.00	129.31	4456.28	2228.14	10903.5	5459.88		0.01	-0.01	0.029
15.00	-24.20	-1.21	0.00	-123.12	0.00	123.12	4391.82	2195.91	10457.5	5236.55		0.03	-0.02	0.029
20.00	-23.08	-1.19	0.00	-117.05	0.00	117.05	4324.38	2162.19	10013.1	5014.00		0.05	-0.02	0.029
25.00	-21.99	-1.16	0.00	-111.11	0.00	111.11	4253.96	2126.98	9570.83	4792.53		0.07	-0.03	0.028
30.00	-20.93	-1.13	0.00	-105.32	0.00	105.32	4180.57	2090.28	9131.30	4572.43		0.11	-0.03	0.028
35.00	-19.89	-1.10	0.00	-99.66	0.00	99.66	4104.19	2052.10	8695.09	4354.01		0.15	-0.04	0.028
40.00	-18.89	-1.07	0.00	-94.15	0.00	94.15	4024.85	2012.42	8262.80	4137.54		0.19	-0.05	0.027
45.00	-17.91	-1.05	0.00	-88.78	0.00	88.78	3942.52	1971.26	7835.01	3923.33		0.25	-0.05	0.027
46.67	-17.59	-1.04	0.00	-87.04	0.00	87.04	3914.42	1957.21	7693.52	3852.48		0.27	-0.06	0.027
50.00	-16.48	-1.00	0.00	-83.58	0.00	83.58	3857.22	1928.61	7412.31	3711.67		0.31	-0.06	0.027
53.00	-15.49	-0.97	0.00	-80.57	0.00	80.57	2988.70	1494.35	5718.32	2863.41		0.35	-0.07	0.033
55.00	-15.18	-0.96	0.00	-78.63	0.00	78.63	2965.19	1482.60	5595.48	2801.90		0.38	-0.07	0.033
60.00	-14.42	-0.95	0.00	-73.81	0.00	73.81	2904.34	1452.17	5290.00	2648.93		0.46	-0.08	0.033
65.00	-13.68	-0.93	0.00	-69.08	0.00	69.08	2840.50	1420.25	4987.29	2497.35		0.54	-0.09	0.032
70.00	-12.96	-0.92	0.00	-64.43	0.00	64.43	2773.69	1386.84	4687.92	2347.44		0.64	-0.10	0.032
75.00	-12.27	-0.92	0.00	-59.83	0.00	59.83	2703.90	1351.95	4392.49	2199.51		0.75	-0.11	0.032
80.00	-11.60	-0.92	0.00	-55.25	0.00	55.25	2631.14	1315.57	4101.58	2053.84		0.87	-0.12	0.031
85.00	-10.95	-0.92	0.00	-50.67	0.00	50.67	2555.39	1277.70	3815.78	1910.73		1.00	-0.13	0.031
90.00	-10.33	-0.92	0.00	-46.09	0.00	46.09	2476.68	1238.34	3535.67	1770.46		1.14	-0.14	0.030
93.50	-9.91	-0.92	0.00	-42.88	0.00	42.88	2419.86	1209.93	3343.48	1674.23		1.25	-0.15	0.030
95.00	-9.61	-0.92	0.00	-41.51	0.00	41.51	2394.98	1197.49	3261.85	1633.35		1.29	-0.15	0.029
98.00	-9.02	-0.92	0.00	-38.76	0.00	38.76	1772.11	886.06	2389.60	1196.58		1.39	-0.16	0.037
100.00	-8.83	-0.92	0.00	-36.92	0.00	36.92	1749.91	874.96	2313.65	1158.54		1.46	-0.17	0.037
105.00	-8.37	-0.92	0.00	-32.33	0.00	32.33	1692.43	846.21	2126.56	1064.86		1.64	-0.18	0.035
110.00	-7.93	-0.92	0.00	-27.74	0.00	27.74	1631.96	815.98	1943.46	973.18		1.84	-0.20	0.033
115.00	-7.50	-0.91	0.00	-23.15	0.00	23.15	1568.52	784.26	1764.96	883.79		2.05	-0.21	0.031
117.00	-4.23	-0.81	0.00	-21.32	0.00	21.32	1542.31	771.16	1694.98	848.75		2.14	-0.22	0.028
120.00	-4.00	-0.81	0.00	-18.88	0.00	18.88	1502.10	751.05	1591.63	797.00		2.28	-0.23	0.026
125.00	-3.62	-0.78	0.00	-14.85	0.00	14.85	1429.48	714.74	1420.86	711.49		2.52	-0.24	0.023
130.00	-3.27	-0.75	0.00	-10.94	0.00	10.94	1336.04	668.02	1240.29	621.07		2.78	-0.25	0.020
135.00	-2.94	-0.71	0.00	-7.18	0.00	7.18	1242.60	621.30	1071.99	536.79		3.05	-0.26	0.016
140.00	-2.62	-0.66	0.00	-3.62	0.00	3.62	1149.16	574.58	915.96	458.66		3.33	-0.27	0.010
145.00	-2.33	-0.60	0.00	-0.30	0.00	0.30	1055.72	527.86	772.20	386.67		3.62	-0.27	0.003
145.50	0.00	-0.59	0.00	0.00	0.00	0.00	1046.38	523.19	758.49	379.81		3.65	-0.27	0.000

Wind Loading - Shaft

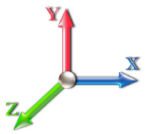
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 20

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.19	294.90	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	287.48	0.650	0.000	5.00	26.320	17.11	140.0	0.0	1252.1
10.00		1.00	0.85	7.442	8.19	280.06	0.650	0.000	5.00	25.649	16.67	136.5	0.0	1220.0
15.00		1.00	0.85	7.442	8.19	272.64	0.650	0.000	5.00	24.978	16.24	132.9	0.0	1187.9
20.00		1.00	0.90	7.896	8.69	273.19	0.650	0.000	5.00	24.308	15.80	137.2	0.0	1155.8
25.00		1.00	0.95	8.276	9.10	271.86	0.650	0.000	5.00	23.637	15.36	139.9	0.0	1123.7
30.00		1.00	0.98	8.600	9.46	269.15	0.650	0.000	5.00	22.967	14.93	141.2	0.0	1091.6
35.00		1.00	1.01	8.883	9.77	265.45	0.650	0.000	5.00	22.296	14.49	141.6	0.0	1059.5
40.00		1.00	1.04	9.137	10.05	260.99	0.650	0.000	5.00	21.625	14.06	141.3	0.0	1027.4
45.00		1.00	1.07	9.366	10.30	255.92	0.650	0.000	5.00	20.955	13.62	140.3	0.0	995.3
46.67	Bot - Section 2	1.00	1.08	9.438	10.38	254.12	0.650	0.000	1.67	6.836	4.44	46.1	0.0	324.6
50.00		1.00	1.09	9.576	10.53	250.36	0.650	0.000	3.33	13.624	8.86	93.3	0.0	1178.5
53.00	Top - Section 1	1.00	1.11	9.694	10.66	246.82	0.650	0.000	3.00	12.007	7.80	83.2	0.0	1038.3
55.00		1.00	1.12	9.770	10.75	247.73	0.650	0.000	2.00	7.871	5.12	55.0	0.0	311.8
60.00		1.00	1.14	9.951	10.95	241.43	0.650	0.000	5.00	19.207	12.48	136.7	0.0	760.8
65.00		1.00	1.16	10.120	11.13	234.82	0.650	0.000	5.00	18.537	12.05	134.1	0.0	734.1
70.00		1.00	1.17	10.279	11.31	227.94	0.650	0.000	5.00	17.866	11.61	131.3	0.0	707.3
75.00		1.00	1.19	10.430	11.47	220.82	0.650	0.000	5.00	17.195	11.18	128.2	0.0	680.6
80.00		1.00	1.21	10.572	11.63	213.48	0.650	0.000	5.00	16.525	10.74	124.9	0.0	653.8
85.00		1.00	1.22	10.708	11.78	205.95	0.650	0.000	5.00	15.854	10.31	121.4	0.0	627.1
90.00		1.00	1.24	10.838	11.92	198.24	0.650	0.000	5.00	15.183	9.87	117.7	0.0	600.3
93.50	Bot - Section 3	1.00	1.25	10.925	12.02	192.75	0.650	0.000	3.50	10.220	6.64	79.8	0.0	403.9
95.00		1.00	1.25	10.962	12.06	190.36	0.650	0.000	1.50	4.357	2.83	34.1	0.0	307.6
98.00	Top - Section 2	1.00	1.26	11.034	12.14	185.57	0.650	0.000	3.00	8.503	5.53	67.1	0.0	600.2
100.00		1.00	1.27	11.081	12.19	185.20	0.650	0.000	2.00	5.550	3.61	44.0	0.0	175.7
105.00		1.00	1.28	11.195	12.31	177.05	0.650	0.000	5.00	13.383	8.70	107.1	0.0	423.7
110.00		1.00	1.29	11.305	12.44	168.78	0.650	0.000	5.00	12.712	8.26	102.8	0.0	402.3
115.00		1.00	1.30	11.412	12.55	160.38	0.650	0.000	5.00	12.042	7.83	98.3	0.0	380.9
117.00	Appurtenance(s)	1.00	1.31	11.453	12.60	156.99	0.650	0.000	2.00	4.629	3.01	37.9	0.0	146.4
120.00		1.00	1.32	11.514	12.67	151.87	0.650	0.000	3.00	6.742	4.38	55.5	0.0	213.1
125.00		1.00	1.33	11.614	12.78	143.26	0.650	0.000	5.00	10.701	6.96	88.9	0.0	338.1
130.00		1.00	1.34	11.710	12.88	134.54	0.650	0.000	5.00	10.030	6.52	84.0	0.0	316.7
135.00		1.00	1.35	11.803	12.98	125.73	0.650	0.000	5.00	9.359	6.08	79.0	0.0	295.3
140.00		1.00	1.36	11.894	13.08	116.84	0.650	0.000	5.00	8.689	5.65	73.9	0.0	273.9
145.00		1.00	1.37	11.982	13.18	107.85	0.650	0.000	5.00	8.018	5.21	68.7	0.0	252.5
145.50	Appurtenance(s)	1.00	1.37	11.991	13.19	106.95	0.650	0.000	0.50	0.765	0.50	6.6	0.0	24.1
								Totals:	**145.50**			**3,450.4**		**22,284.7**

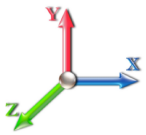
Discrete Appurtenance Forces

Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 20

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	145.50	7770.00	3	12.085	13.294	0.66	0.90	10.84	117.00	0.000	5.500	144.11	0.00	792.60
2	145.50	4478 B14	3	12.085	13.294	0.60	0.90	3.17	178.20	0.000	5.500	42.08	0.00	231.46
3	145.50	4449 B5/B12	3	12.085	13.294	0.60	0.90	3.56	213.00	0.000	5.500	47.37	0.00	260.56
4	145.50	OPA65R-BU6DA	3	12.085	13.294	0.66	0.90	25.05	180.60	0.000	5.500	333.02	0.00	1831.62
5	145.50	DMP65R-BU6DA	3	12.085	13.294	0.65	0.90	24.71	238.20	0.000	5.500	328.46	0.00	1806.53
6	145.50	Low Profile Platform	1	11.991	13.190	1.00	1.00	28.00	1200.00	0.000	0.000	369.32	0.00	0.00
7	145.50	DC6-48-60-18-8F	3	12.085	13.294	0.90	0.90	3.51	98.40	0.000	5.500	46.66	0.00	256.63
8	145.50	LGP21401	6	12.085	13.294	0.90	0.90	6.97	114.00	0.000	5.500	92.60	0.00	509.32
9	145.50	RRUS 8843 B2 B66A	3	12.085	13.294	0.60	0.90	2.97	216.00	0.000	5.500	39.44	0.00	216.91
10	117.00	ALU 1900 Mhz	3	11.453	12.598	0.54	0.80	6.11	132.00	0.000	0.000	76.98	0.00	0.00
11	117.00	(3) 9' Long Corner Braces	1	11.453	12.598	0.56	0.75	3.80	350.00	0.000	0.000	47.83	0.00	0.00
12	117.00	(3) 8.5' Horizontal Rail	1	11.453	12.598	0.56	0.75	2.39	300.00	0.000	0.000	30.12	0.00	0.00
13	117.00	Sitepro PRK-SFS-H-L	1	11.453	12.598	0.56	0.75	3.77	230.00	0.000	0.000	47.48	0.00	0.00
14	117.00	SitePro PRK-1245L	1	11.453	12.598	0.56	0.75	5.34	464.91	0.000	0.000	67.32	0.00	0.00
15	117.00	Modified T-Arm	3	11.453	12.598	0.56	0.75	16.88	1050.00	0.000	0.000	212.60	0.00	0.00
16	117.00	Commscope	3	11.453	12.598	0.60	0.80	22.09	232.20	0.000	0.000	278.25	0.00	0.00
17	117.00	RFS APXVTM14-C-I20	3	11.453	12.598	0.62	0.80	11.72	168.60	0.000	0.000	147.61	0.00	0.00
18	117.00	ALU TD-RRH8x20-25	3	11.453	12.598	0.54	0.80	6.51	210.00	0.000	0.000	82.05	0.00	0.00
19	117.00	ALU 800 Mhz	6	11.453	12.598	0.54	0.80	8.01	318.00	0.000	0.000	100.89	0.00	0.00
							Totals:		**6,011.11**			**2,534.20**		

Total Applied Force Summary

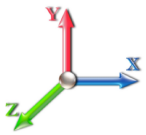
Structure:	CT00303-S-SBA		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 26

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 20

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		140.05	1341.41	0.00	0.00
10.00		136.48	1309.31	0.00	0.00
15.00		132.91	1277.22	0.00	0.00
20.00		137.24	1245.12	0.00	0.00
25.00		139.87	1213.02	0.00	0.00
30.00		141.22	1180.92	0.00	0.00
35.00		141.62	1148.83	0.00	0.00
40.00		141.27	1116.73	0.00	0.00
45.00		140.33	1084.63	0.00	0.00
46.67		46.13	354.41	0.00	0.00
50.00		93.29	1238.02	0.00	0.00
53.00		83.23	1091.85	0.00	0.00
55.00		54.98	347.53	0.00	0.00
60.00		136.66	850.10	0.00	0.00
65.00		134.13	823.35	0.00	0.00
70.00		131.31	796.61	0.00	0.00
75.00		128.23	769.86	0.00	0.00
80.00		124.91	743.11	0.00	0.00
85.00		121.38	716.36	0.00	0.00
90.00		117.66	689.61	0.00	0.00
93.50		79.83	466.38	0.00	0.00
95.00		34.15	334.49	0.00	0.00
98.00		67.08	653.76	0.00	0.00
100.00		43.97	211.53	0.00	0.00
105.00		107.13	512.95	0.00	0.00
110.00		102.76	491.55	0.00	0.00
115.00		98.25	470.15	0.00	0.00
117.00	(25) attachments	1129.03	3637.78	0.00	0.00
120.00		55.51	258.77	0.00	0.00
125.00		88.86	414.16	0.00	0.00
130.00		83.98	392.76	0.00	0.00
135.00		78.99	371.36	0.00	0.00
140.00		73.89	349.96	0.00	0.00
145.00		68.69	328.56	0.00	0.00
145.50	(28) attachments	1449.63	2587.08	0.00	5905.64
	Totals:	**5,984.62**	**30,819.24**	**0.00**	**5,905.64**

Calculated Forces

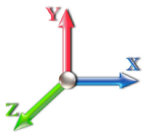
Structure:	CT00303-S-SBA	**Code:**	EIA/TIA-222-G	8/4/2020	
Site Name:	Griswold	**Exposure:**	C		
Height:	145.50 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 20

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-30.82	-5.99	0.00	-587.01	0.00	587.01	4576.28	2288.14	11797.9	5907.74	0.00	0.000	0.000	0.106
5.00	-29.47	-5.86	0.00	-557.06	0.00	557.06	4517.77	2258.89	11350.5	5683.71	0.01	-0.022	0.000	0.105
10.00	-28.16	-5.73	0.00	-527.76	0.00	527.76	4456.28	2228.14	10903.5	5459.88	0.05	-0.045	0.000	0.103
15.00	-26.88	-5.61	0.00	-499.08	0.00	499.08	4391.82	2195.91	10457.5	5236.55	0.11	-0.068	0.000	0.101
20.00	-25.64	-5.48	0.00	-471.03	0.00	471.03	4324.38	2162.19	10013.1	5014.00	0.19	-0.091	0.000	0.100
25.00	-24.42	-5.35	0.00	-443.61	0.00	443.61	4253.96	2126.98	9570.83	4792.53	0.30	-0.116	0.000	0.098
30.00	-23.24	-5.22	0.00	-416.85	0.00	416.85	4180.57	2090.28	9131.30	4572.43	0.43	-0.141	0.000	0.097
35.00	-22.09	-5.08	0.00	-390.76	0.00	390.76	4104.19	2052.10	8695.09	4354.01	0.59	-0.166	0.000	0.095
40.00	-20.97	-4.95	0.00	-365.34	0.00	365.34	4024.85	2012.42	8262.80	4137.54	0.78	-0.192	0.000	0.094
45.00	-19.88	-4.81	0.00	-340.60	0.00	340.60	3942.52	1971.26	7835.01	3923.33	1.00	-0.219	0.000	0.092
46.67	-19.53	-4.77	0.00	-332.58	0.00	332.58	3914.42	1957.21	7693.52	3852.48	1.08	-0.228	0.000	0.091
50.00	-18.29	-4.68	0.00	-316.69	0.00	316.69	3857.22	1928.61	7412.31	3711.67	1.24	-0.247	0.000	0.090
53.00	-17.20	-4.59	0.00	-302.66	0.00	302.66	2988.70	1494.35	5718.32	2863.41	1.40	-0.264	0.000	0.111
55.00	-16.85	-4.54	0.00	-293.48	0.00	293.48	2965.19	1482.60	5595.48	2801.90	1.52	-0.276	0.000	0.110
60.00	-16.00	-4.41	0.00	-270.77	0.00	270.77	2904.34	1452.17	5290.00	2648.93	1.82	-0.309	0.000	0.108
65.00	-15.17	-4.28	0.00	-248.73	0.00	248.73	2840.50	1420.25	4987.29	2497.35	2.17	-0.343	0.000	0.105
70.00	-14.37	-4.15	0.00	-227.33	0.00	227.33	2773.69	1386.84	4687.92	2347.44	2.54	-0.378	0.000	0.102
75.00	-13.60	-4.03	0.00	-206.56	0.00	206.56	2703.90	1351.95	4392.49	2199.51	2.96	-0.413	0.000	0.099
80.00	-12.86	-3.91	0.00	-186.43	0.00	186.43	2631.14	1315.57	4101.58	2053.84	3.41	-0.449	0.000	0.096
85.00	-12.14	-3.79	0.00	-166.90	0.00	166.90	2555.39	1277.70	3815.78	1910.73	3.90	-0.486	0.000	0.092
90.00	-11.45	-3.67	0.00	-147.97	0.00	147.97	2476.68	1238.34	3535.67	1770.46	4.43	-0.523	0.000	0.088
93.50	-10.98	-3.59	0.00	-135.15	0.00	135.15	2419.86	1209.93	3343.48	1674.23	4.82	-0.550	0.000	0.085
95.00	-10.65	-3.55	0.00	-129.75	0.00	129.75	2394.98	1197.49	3261.85	1633.35	5.00	-0.562	0.000	0.084
98.00	-9.99	-3.48	0.00	-119.10	0.00	119.10	1772.11	886.06	2389.60	1196.58	5.36	-0.585	0.000	0.105
100.00	-9.78	-3.44	0.00	-112.12	0.00	112.12	1749.91	874.96	2313.65	1158.54	5.61	-0.600	0.000	0.102
105.00	-9.26	-3.34	0.00	-94.91	0.00	94.91	1692.43	846.21	2126.56	1064.86	6.26	-0.645	0.000	0.095
110.00	-8.77	-3.24	0.00	-78.23	0.00	78.23	1631.96	815.98	1943.46	973.18	6.96	-0.687	0.000	0.086
115.00	-8.30	-3.14	0.00	-62.05	0.00	62.05	1568.52	784.26	1764.96	883.79	7.70	-0.728	0.000	0.076
117.00	-4.68	-1.96	0.00	-55.78	0.00	55.78	1542.31	771.16	1694.98	848.75	8.01	-0.744	0.000	0.069
120.00	-4.42	-1.90	0.00	-49.90	0.00	49.90	1502.10	751.05	1591.63	797.00	8.49	-0.768	0.000	0.066
125.00	-4.00	-1.81	0.00	-40.37	0.00	40.37	1429.48	714.74	1420.86	711.49	9.31	-0.805	0.000	0.060
130.00	-3.61	-1.73	0.00	-31.31	0.00	31.31	1336.04	668.02	1240.29	621.07	10.17	-0.841	0.000	0.053
135.00	-3.24	-1.64	0.00	-22.69	0.00	22.69	1242.60	621.30	1071.99	536.79	11.07	-0.874	0.000	0.045
140.00	-2.89	-1.56	0.00	-14.47	0.00	14.47	1149.16	574.58	915.96	458.66	12.00	-0.902	0.000	0.034
145.00	-2.56	-1.49	0.00	-6.65	0.00	6.65	1055.72	527.86	772.20	386.67	12.96	-0.922	0.000	0.020
145.50	0.00	-1.45	0.00	-5.91	0.00	5.91	1046.38	523.19	758.49	379.81	13.06	-0.924	0.000	0.016

Final Analysis Summary

Structure:	CT00303-S-SBA		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 28

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 105 mph Wind	29.4	0.00	36.95	0.00	0.00	2885.86
0.9D + 1.6W 105 mph Wind	29.4	0.00	27.71	0.00	0.00	2869.76
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.3	0.00	56.38	0.00	0.00	690.57
1.2D + 1.0E	1.3	0.00	36.98	0.00	0.00	142.87
0.9D + 1.0E	1.3	0.00	27.74	0.00	0.00	141.99
1.0D + 1.0W 60 mph Wind	6.0	0.00	30.82	0.00	0.00	587.01

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 105 mph Wind	-20.14	-22.58	0.00	-1489.7	0.00	-1489.7	2988.70	1494.3	5718.32	2863.41	53.00	0.527
0.9D + 1.6W 105 mph Wind	-14.98	-22.46	0.00	-1477.6	0.00	-1477.6	2988.70	1494.3	5718.32	2863.41	53.00	0.521
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-34.71	-5.48	0.00	-346.54	0.00	-346.54	2988.70	1494.3	5718.32	2863.41	53.00	0.133
1.2D + 1.0E	-12.03	-0.93	0.00	-39.08	0.00	-39.08	1772.11	886.06	2389.60	1196.58	98.00	0.039
0.9D + 1.0E	-9.02	-0.92	0.00	-38.76	0.00	-38.76	1772.11	886.06	2389.60	1196.58	98.00	0.037
1.0D + 1.0W 60 mph Wind	-17.20	-4.59	0.00	-302.66	0.00	-302.66	2988.70	1494.3	5718.32	2863.41	53.00	0.111

Base Plate Summary

Structure:	CT00303-S-SB		**Code:**	EIA/TIA-222-G	8/4/2020
Site Name:	Griswold		**Exposure:**	C	
Height:	145.50 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 29

Tower Engineering Solutions

Reactions	
Original Design	
Moment (kip-ft):	4168.00
Axial (kip):	38.20
Shear (kip):	37.90
Analysis (1.2D + 1.6W)	
Moment (kip-ft):	2885.86
Axial (kip):	36.95
Shear (kip):	29.36

Base Plate	
Yield (ksi):	60.00
Width (in):	76.00
Style:	Round
Polygon Sides:	0.00
Clip Length (in):	0.00
Effective Len (in):	15.68
Moment (kip-in):	445.21
Allow Stress (ksi):	81.00
Applied Stress (ksi):	27.54
Stress Ratio:	0.34

Anchor Bolts	
Bolt Circle:	70.00
Number Bolts:	16.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Radial
Cluster Dist (in):	6.00
Start Angle (deg):	45.00
Compression	
Force (kip):	127.20
Allowable (kip):	260.00
Ratio:	0.50
Tension	
Force (kip):	120.16
Allowable (kip):	260.00
Ratio:	0.48

Last revised on 11/28/2017

Monopole Mat Foundation Design

			Date 8/4/2020
Customer Name:	AT&T	**EIA/TIA Standard:**	EIA-222-G
Site Name:		**Structure Height (Ft.):**	145.5
Site Number:	CT00303-S-SBA	**Engineer Name:**	T. Alajaj
Engr. Number:	96431	**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

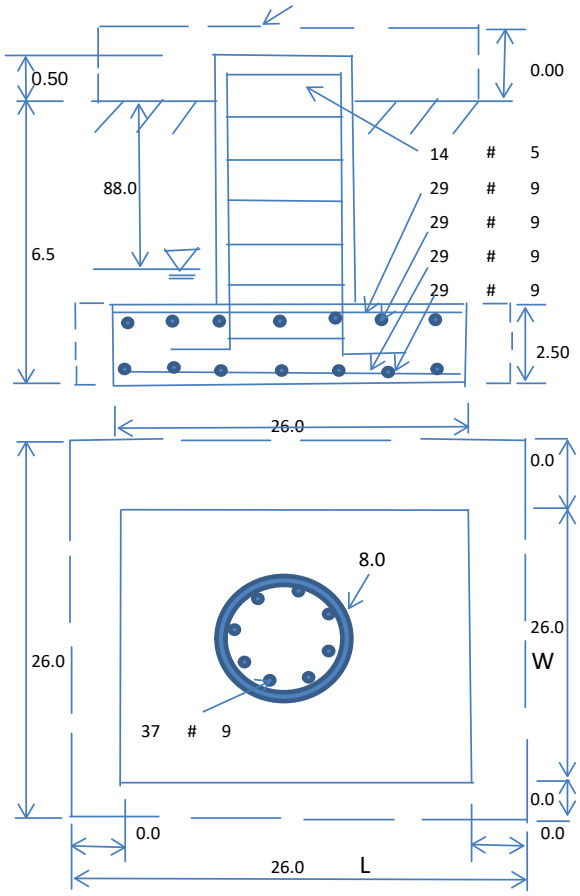
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	37.0	Shear Force (Kips):	29.4
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2885.9
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	8.0	Depth of Base BG (ft.):	6.5
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	2.50
Length of Pad (ft.):	26	Width of Pad (ft.):	26
Final Length of pad (ft)	26.0	Final width of pad (ft):	26.0
Control Value for Cell D18:	0	Control Value for Cell F18:	0



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 #:	9	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	37	Tie Spacing (in):	6.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	9	
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):	29	Qty. of Rebar in Pad (W):	29	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	29	Qty. of Rebar in Pad (W):	29	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	145.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	88.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	20000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00			

Foundation Analysis and Design: Uplift Strength Reduction Factor: 0.75 — Compression Strength Reduction Factor: 0.75

Total Dry Soil Volume (cu. Ft.):	2502.94	Total Dry Soil Weight (Kips):	362.93
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	362.93	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1916.19	Total Dry Concrete Weight (Kips):	287.43
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	287.43	Total Vertical Load on Base (Kips):	687.36

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	1922	<	Allowable Factored Soil Bearing (psf):	15000	0.13	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	8090.2	>	Design Factored Momont (kips-ft):	3092	0.38	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	2.62	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			
					Load/ Capacity Ratio		
(1) Concrete Pier:							
Vertical Steel Rebar Area (sq. in./each):	1.00		Tie/ Stirrup Area (sq.in./each):	0.31			
Calculated Moment Capacity (Mn, Kips-Ft):	6859.7	>	Design Factored Moment (Mu, Kips-Ft):	3018.2	0.44	OK!	
Calculated Shear Capacity (Kips):	10708	>	Design Factored Shear (Kips):	29.4	0.03	OK!	
Calculated Tension Capacity (Tn, Kips):	19980	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!	
Calculated Compession Capacity (Pn, Kips):	9548.8	>	Design Factored Axial Load (Pu Kips):	37.0	0.00	OK!	
Moment & Axial Strength Combination:	0.44	OK!	Check Tie Spacing (Design/Required):		0.5	OK!	
Pier Reinforcement Ratio:	0.005		Reinforcement Ratio is satisfied per ACI				
(2).Concrete Pad							
One-Way Design Shear Capacity (L-Direction, Kips):	677.7	>	One-Way Factored Shear (L-D., Kips):	192.4	0.28	OK!	
One-Way Design Shear Capacity (W-Direction, Kips):	677.7	>	One-Way Factored Shear (W-D., Kips):	192.4	0.28	OK!	
One-Way Design Shear Capacity (Corner-Corner. Kips):	635.0	>	One-Way Factored Shear (C-C, Kips):	187.9	0.30	OK!	
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0035	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0035			
Lower Steel Pad Moment Capacity (L-Direction, Kips-ft)	33074	>	Moment at Bottom (L-Dir. K-Ft):	10199	0.31	OK!	
Lower Steel Pad Moment Capacity (W-Direction, Kips-ft)	33074	>	Moment at Bottom (W-Dir. K-Ft):	10199	0.31	OK!	
Lower Steel Pad Moment Capacity (Corner-Corner, K-ft):	46212	>	Moment at Bottom (C-C Dir. K-Ft):	14424	0.31	OK!	
Upper Steel Pad Reinforcement Ratio (L-Direct):	0.0035	OK!	Upper Steel Reinf. Ratio (W-Dir):	0.0035			
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	3307.4	>	Moment at the top (L-Dir. K-Ft):	461.2	0.14	OK!	
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3307.4	>	Moment at the top (W-Dir. K-Ft):	461.2	0.14	OK!	
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	46212	>	Moment at the top (C-C Dir. K-Ft):	434.5	0.09	OK!	
(3).Check Punching Shear Capacity due to Moment in the Pier:							
Moment transferred by punching shear:	11544	k-ft.	Max. factored shear stress v_{u_CD}:		1.9	Psi	
Max. factored shear stress v_{u_AB}:	7.9	Psi	Factored shear Strength ϕv_n:		164.3	Psi	
Max. factored shear stress v_u:	7.9	Psi	Check Usage of Punching Shear Capacity:		0.05	OK!	

Pier Foundation Design For Monopole

Customer Name:	AT&T	IA TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft):	145.5
Site Number:	CT00303-S-SBA	Engineer Name:	T. Alaa
Engr Number:	96431	Engineer Login ID:	

Date: 8/4/2020

Foundation Info Obtained from: Drawings /Calculations

Structure Type: Monopole

Analysis or Design? Analysis

Acceptable overstress (5.0%

Base Reactions (Factored):

Axial Load (Kips):	37.0	Shear Force (Kips):	29.4
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2885.9

Foundation Geometries:

Mods required -Yes/No ?:	No			ft.
Diameter of Pier (ft.):	8.0	Depth of Base B. G. S. :	23.0	ft.
Pier Height A. G. (ft.):	0.50			

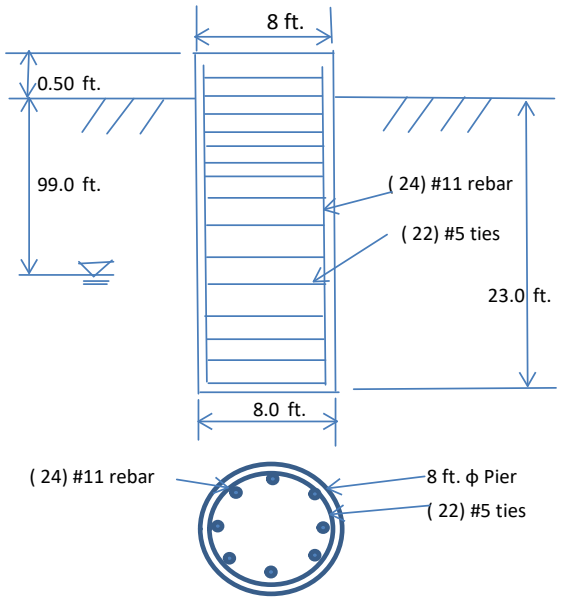
Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield strength:	60	ksi
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	24	Tie Spacing:	18.0	in.
Concrete Cover (in.):	4	Concrete unit weight:	150.0	pcf

Soil Design Parameters:

Water Table B.G.S. (ft):	99.0	Unit weight of water:	62.4	psf
Ratio of Uplift/Axial Skin Friction:	1.0	Pullout failure Angle:	30	(°)

Skin Frictions are to be obtained from: Soil Report



Monopole Pier Foundation

Depth of Layers (ft) Top	Depth of Layers (ft) Bottom	γ_{soil} (pcf)	ϕ (°)	Cohesion (psf)	Ultimate Skin Friction (psf)	Ultimate Bearing (psf)	Soil Types
0.0	3.0	145	0	0		0	Sand
3.0	30.0	145	33	0	500	8000	Sand
30.0	35.0	145	33	0	420	8000	Sand

Soil weight Increase Factor for bouyant soils (1.0 to 1.15): 1.1

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Soil Bearing Strength Reduction Factor:	0.75	
Total Dry Soil Volume from Conical Failure (cu. Ft.):	8060	Dry Soil Weight from Conical Failure:	1169	Kips
Total Buoyant Soil Volume from Conical Failure (cu. Ft.):	0	Buoyant Soil Weight from Conical Failure (Ki	0	Kips
Total Dry Concrete Volume (cu. Ft.):	1181	Total Dry Concrete Weight:	177.2	Kips
Total Buoyant Concrete Volume (cu. Ft.):	0.0	Total Buoyant Concrete Weight:	0.00	Kips
Total Effective Concrete Weight (Kips):	177.2	Total Effective Soil Weight:	1168.7	Kips
Total Effective Vertical Load on Base (Kips):	46.6			

Check Soil Capacities:

					Usage	
Allowable Foundation Overturning Resistance (kips-ft.):	8377.6	>	Design Factored Momont (kips-ft):	3360	0.40	OK!
Factor of Safety of Passive Soil Resistance against Moment:	2.49	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

Reinforcing Concrete Pier:

					Usage	
Vertical Steel Rebar Area (sq. in./each):	1.56		Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	7178.0	>	Design Factored Moment (Mu, K-Ft):	3002.4	0.42	OK!
Calculated Shear Capacity (Kips):	1274.2	>	Design Factored Shear (Kips):	318.3	0.25	OK!
Calculated Tension Capacity (Tn, Kips):	2021.8	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	9548	>	Design Factored Axial Load (Pu Kips):	37.0	0.00	OK!
Moment & Axial Strength Combination:	0.42	OK!	Max. Allowable Tie/Stirrup Spacing:	12.00	in.	
Pier Reinforcement Ratio:	0.005		Reinforcement Ratio is too small			

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Mount Modification Analysis Report

June 9, 2020

Site Name	Griswold - SBA
Site Number	CTL02025
FA Number	10035274
PTN Number	2051A0V59Y/ 2051A0V4FC/ 2051A0V55Y/ 2051A0V4Y3/ 2051A0V4KR
PACE Number	MRCTB046693/ MRCTB046809/ MRCTB046519/ MRCTB046942/ MRCTB046551
Infinigy Job Number	1106-A0001-B
Client	Smartlink
Carrier	AT&T
Site Location	131 Bishop Crossing Road Griswold, CT 06351 New London County 41º 37' 24.2" N NAD83 71º 56' 31.6" W NAD83
Mount Centerline EL.	151.0 ft
Mount Type	Platform w/ Handrail
CSR	**75.3%**
Overall Result	**Pass**
Note	**See appended documents for mount modifications.**

Upon reviewing the results of this analysis, it is our opinion that the proposed mount meets the specified TIA code requirements. The proposed mounts and connections for the proposed carrier are therefore deemed adequate to support the final loading configuration as listed in this report.

Brenden Archer
Project Engineer II

Contents

Introduction

Infinigy Engineering has been requested to perform a post modification mount analysis on the proposed AT&T mounts. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The mount was analyzed using RISA-3D Version 17.0.4 analysis software.

Supporting Documentation

Proposed Loading	AT&T, RFDS Application ID No. 3719796, dated May 7, 2020
Structural Analysis	FDH Engineering, INC, Project No. 12-08596E S1, dated August 24, 2012
Photos	Infinigy Engineering, PLLC, Site No. CTL02025, dated April 22, 2020

Analysis Code Requirements

Wind Speed	124 mph (3-Second Gust)
Wind Speed w/ ice	50 mph (3-Second Gust) w/ 1" ice
TIA Revision	ANSI/TIA-222-H
Adopted IBC	2018 IBC
Risk Category	II
Exposure Category	C
Topographic Category	1
Calculated Crest Height	0.0 ft.
Spectral Response	S_s = 0.188 g / S_1 = 0.054 g
Site Class	D-Stiff Soil (Assumed)
HSML	274.0 ft

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the proposed mount meets the specified TIA code requirements. The proposed mounts and connections are therefore deemed adequate to support the final loading configuration as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Brenden Archer
Project Engineer II | **INFINIGY**
1033 Watervliet Shaker Rd, Albany, NY 12205
(518) 690-0790
barcher@infinigy.com | www.infinigy.com

Final Configuration Loading

Mount CL (ft)	Rad. HT (ft)	Horiz. O/S (ft)*	Qty	Appurtenance	Carrier
151.0	151.0	9.0	3	POWERWAVE 7770	AT&T
		1.0	3	CCI ANTENNAS DMP65R-BU6DA	
		14.0	3	CCI ANTENNAS OPA65R-BU6DA	
		1.0	3	ERICSSON RRUS-4449 B5/B12	
		1.0	3	ERICSSON RRUS-8843 B2/B66A	
		14.0	3	ERICSSON RRUS 4478 B14	
		9.0	6	POWERWAVE LGP21401	
		--	3	RAYCAP DC6-48-60-18-8F**	

***Horizontal Offset is defined as the distance from the left most edge of the mount face horizontal when viewed facing the tower**

**** Raycap assumed to be installed on standoff pipe**

Structure Usages

Standoff	50.3%	Pass
Horizontal	58.2%	Pass
Mount Pipe	58.3%	Pass
Handrail	41.7%	Pass
RATING =	**58.3%**	**Pass**

Mount Connection Usages

Reaction Data	Design Capacity*	Analysis Reactions	Results
Max Tension (lbs.)	15,050.1	11,328.0	75.3%
Max Shear (lbs.)	9,940.2	800.0	8.0%
Combined Tension/Shear	--	--	57.0%

***Assumed (1) ¾" A307 Anchor Bolt, (4) per mount to tower connection. Contractor to field verify anchor diameters prior to installation of proposed equipment.**

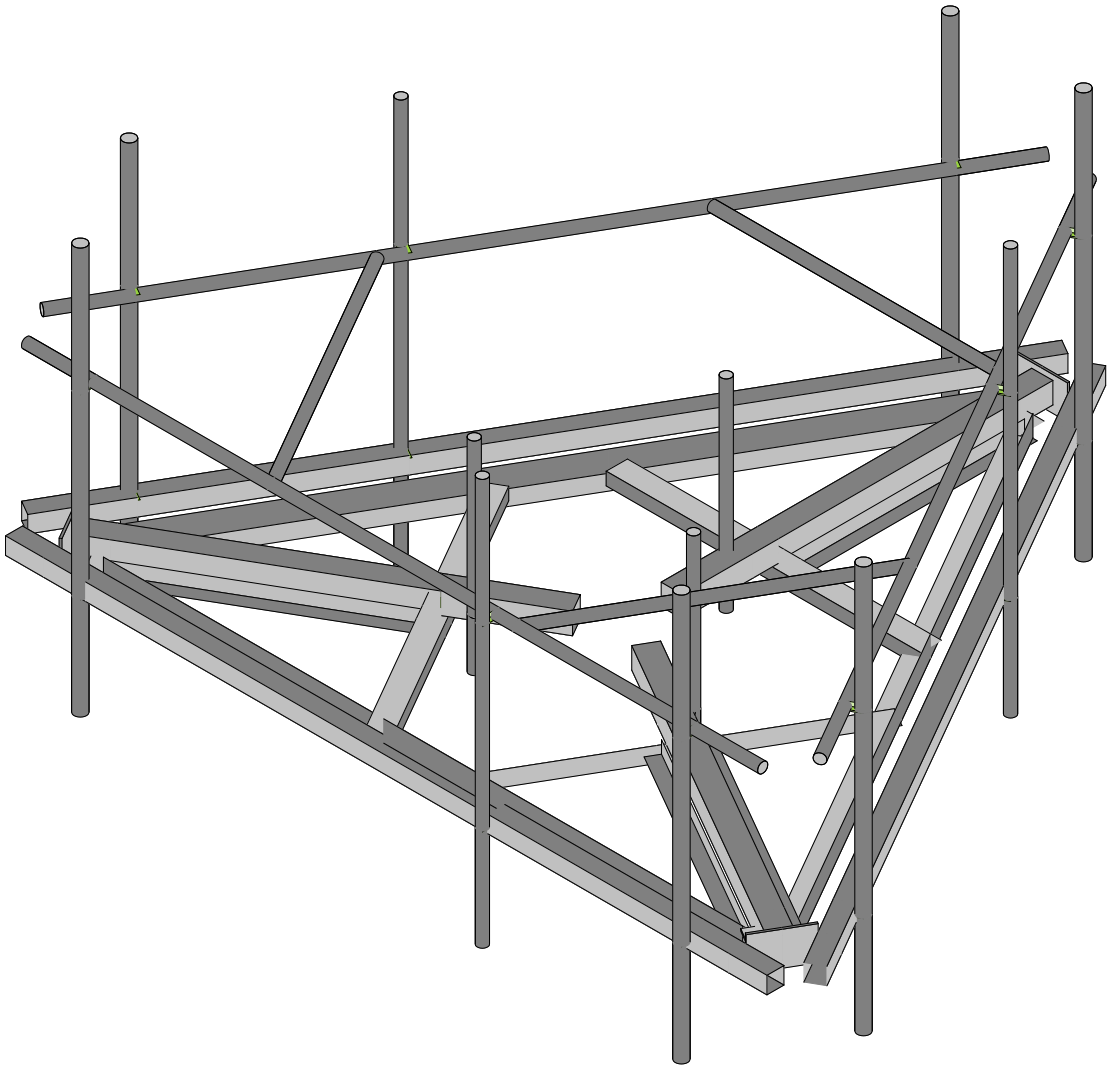
- Anchor reactions are acceptable per rigorous structural analysis.

Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of "like new" and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure's condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

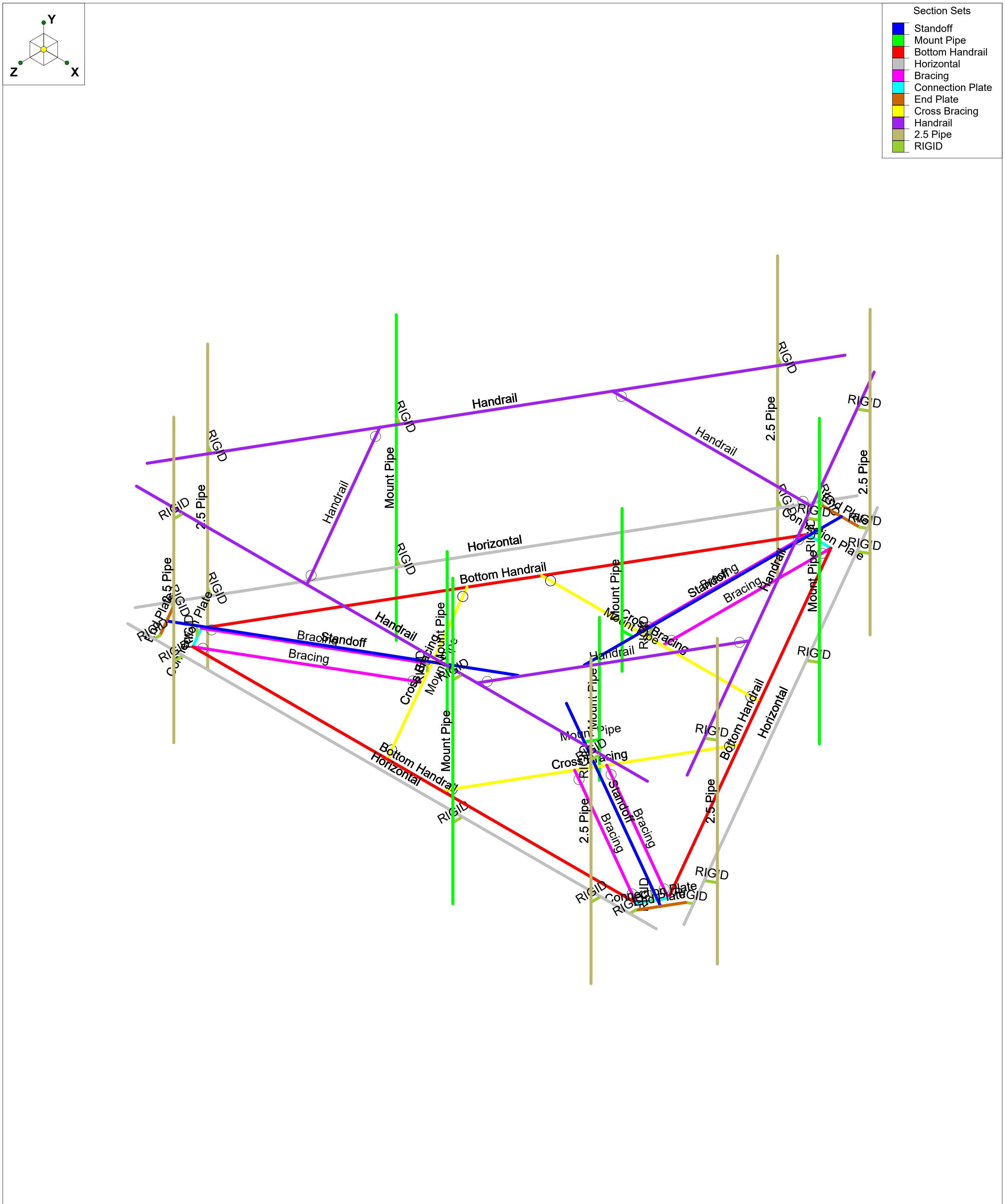
Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the proposed carriers mount structure only and does not reflect adequacy of the existing tower, other mounts, or coax mounting attachments. These elements are assumed to be adequate for the purposes of this analysis and are assumed to have been installed per their manufacturer requirements.



Envelope Only Solution

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:42 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



Envelope Only Solution

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:42 AM
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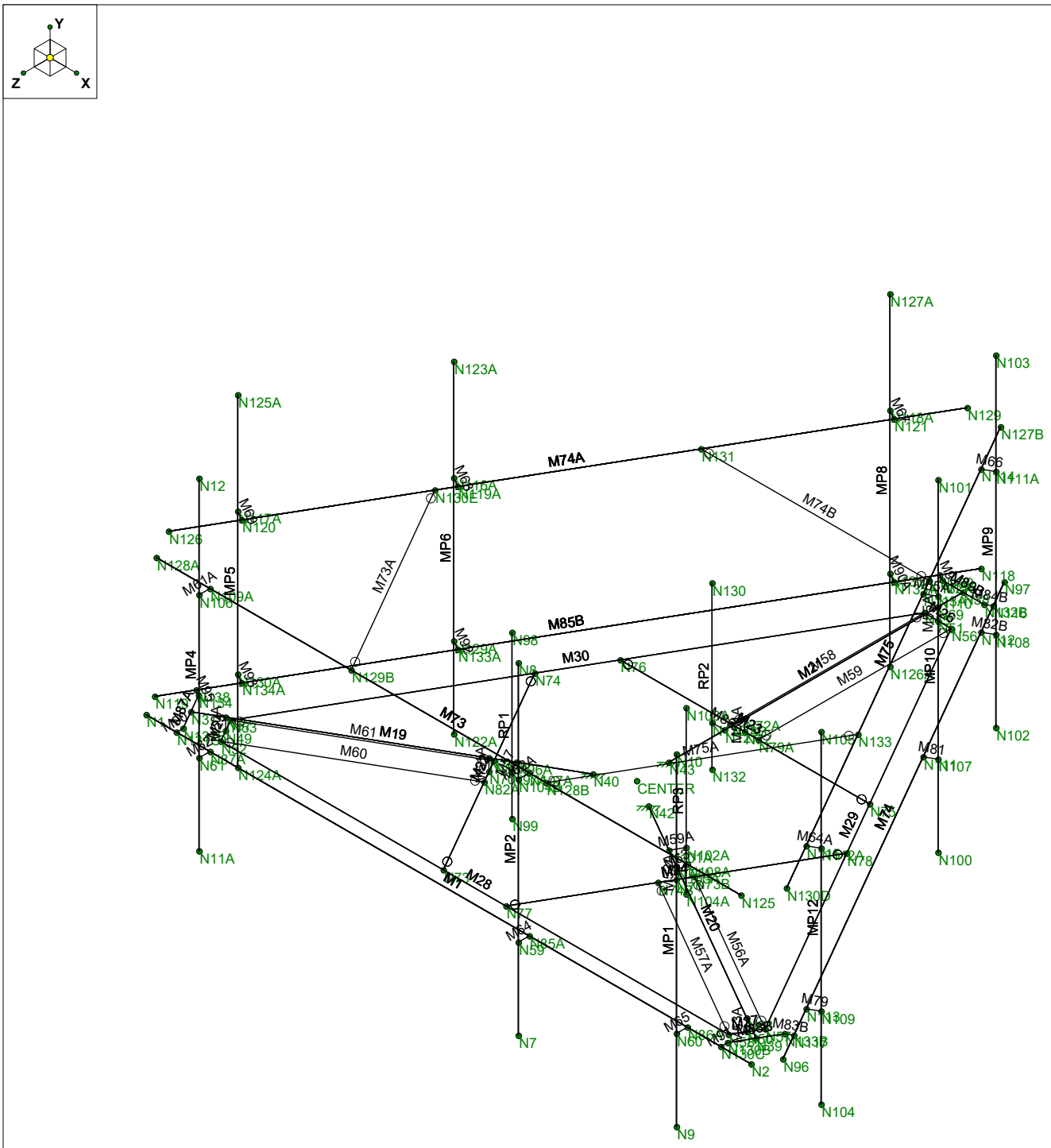

Envelope Only Solution

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
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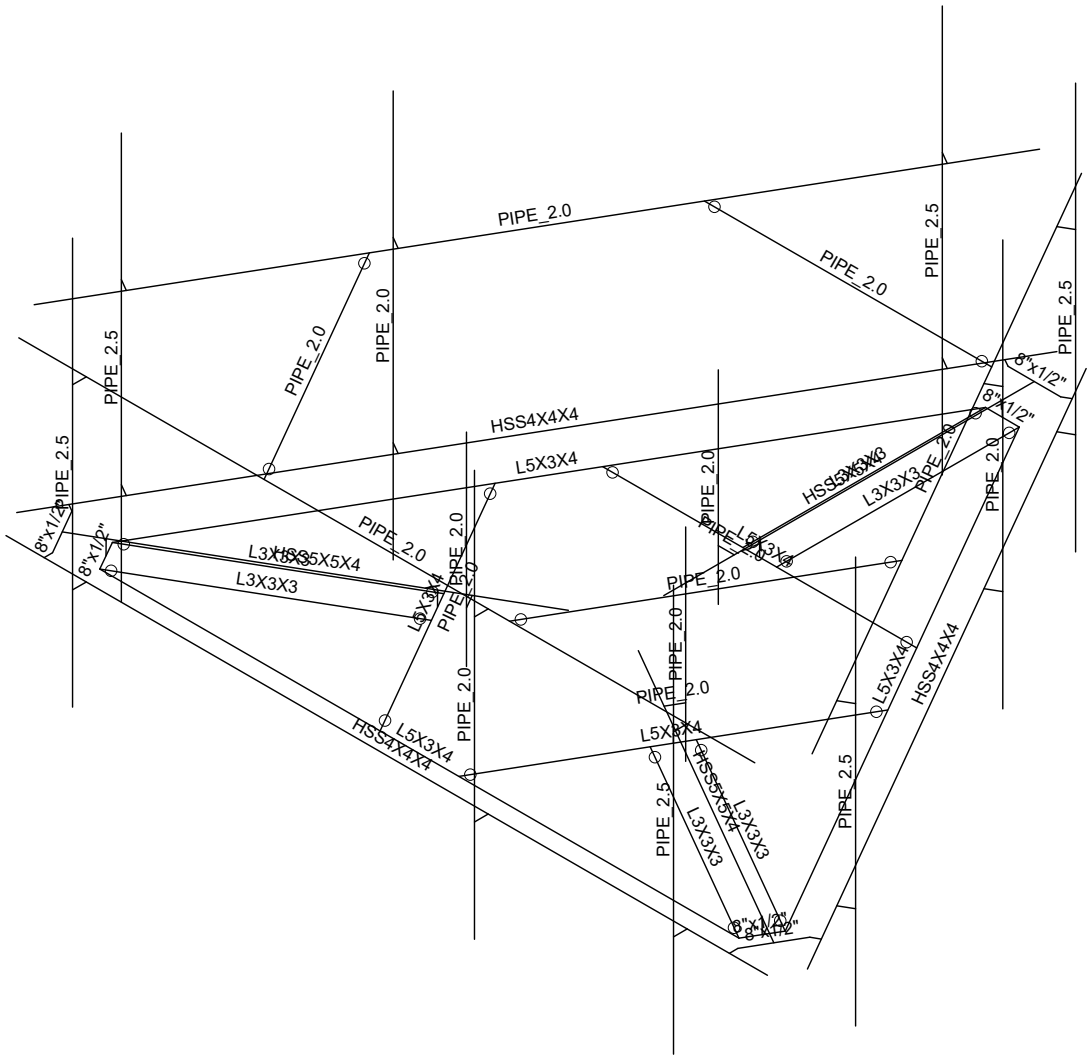

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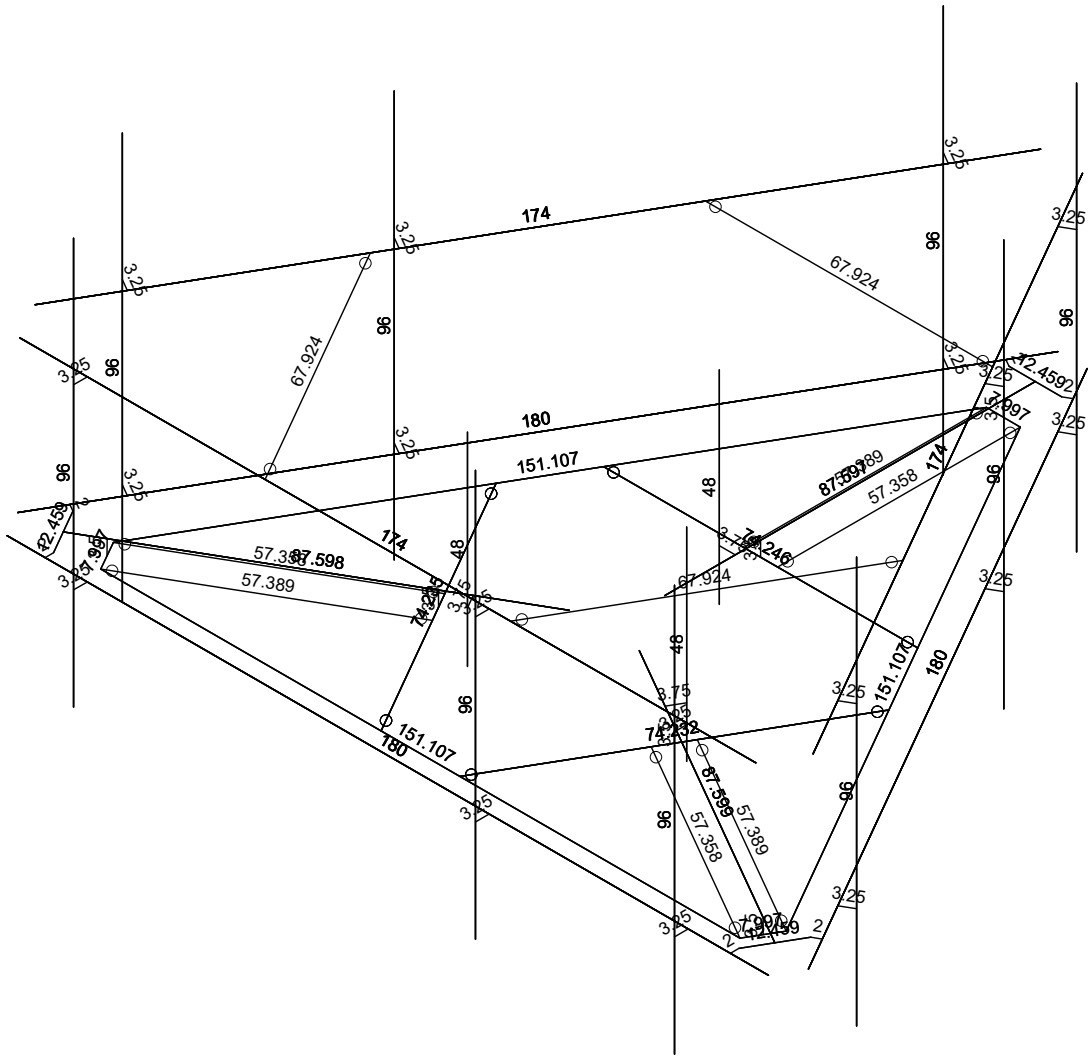
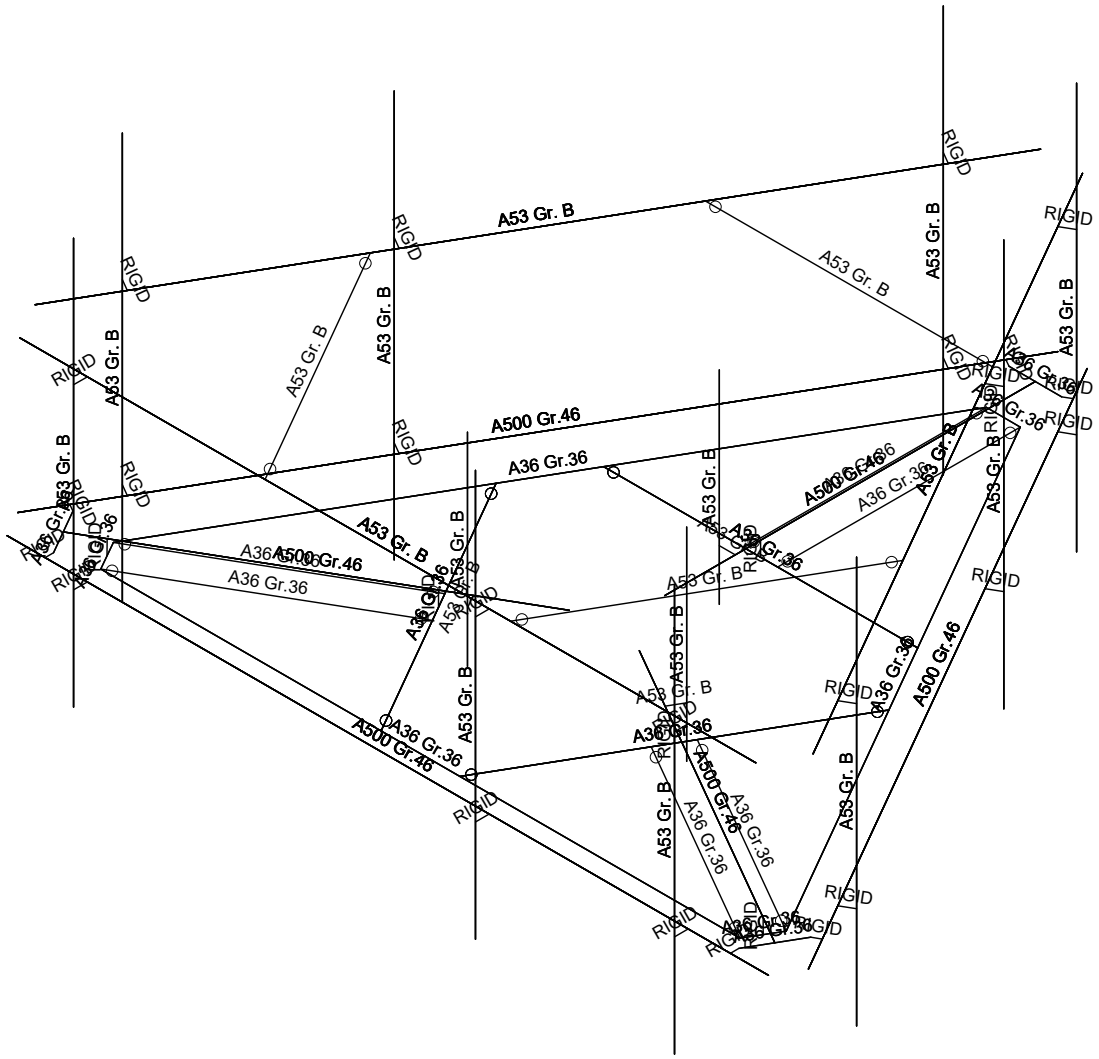


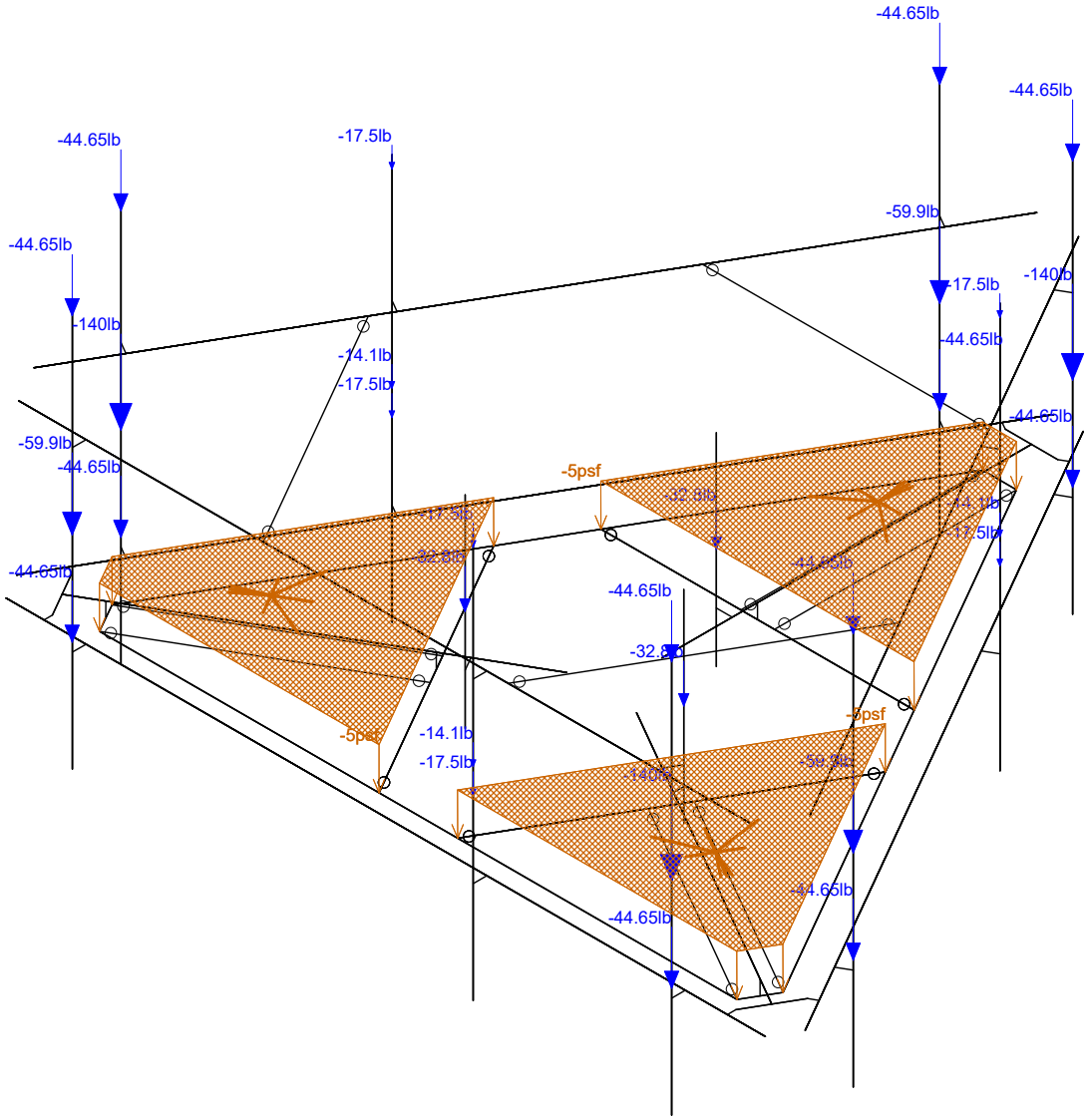
Member Length (in) Displayed
Envelope Only Solution

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:43 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



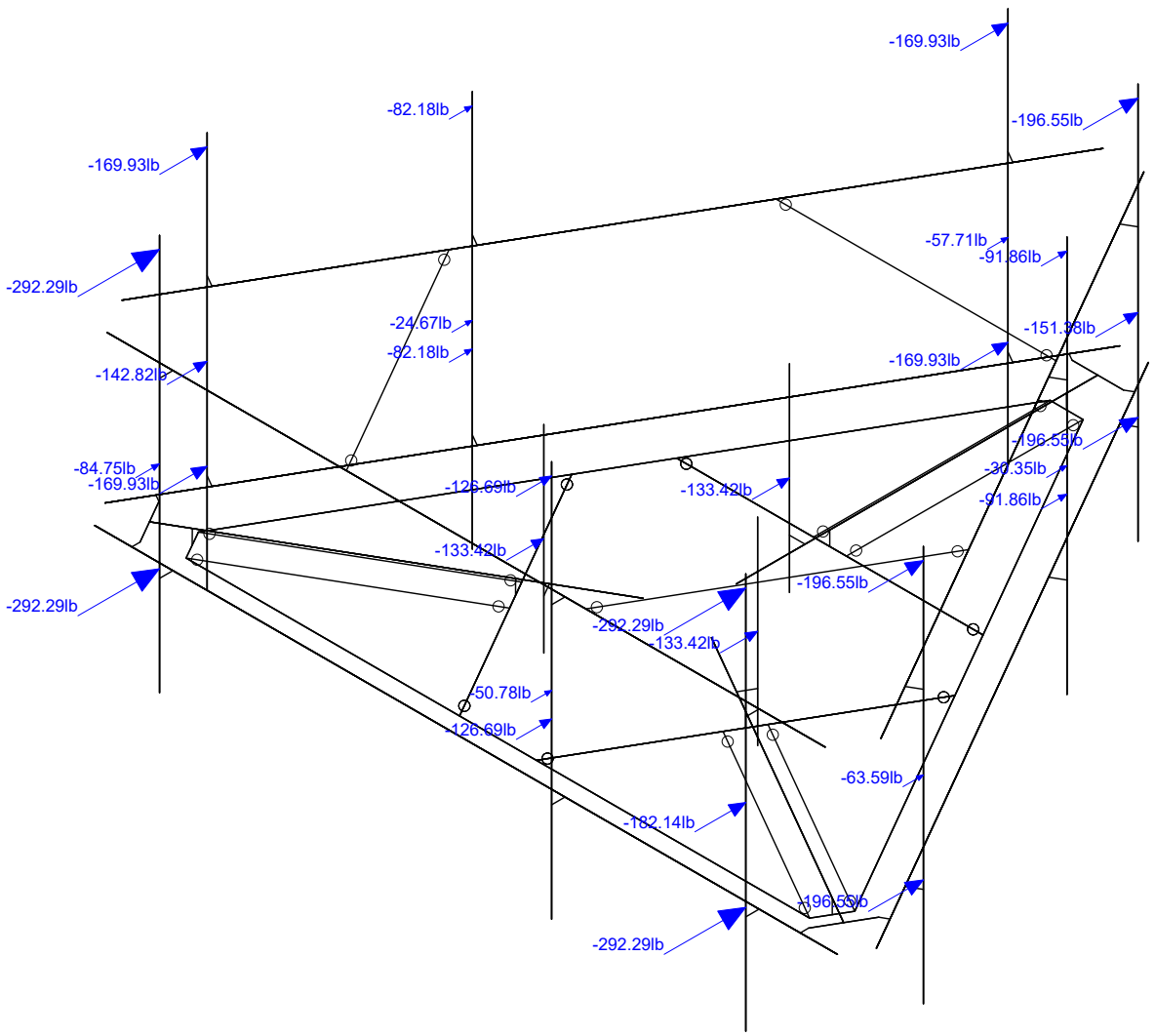
Envelope Only Solution

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:43 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



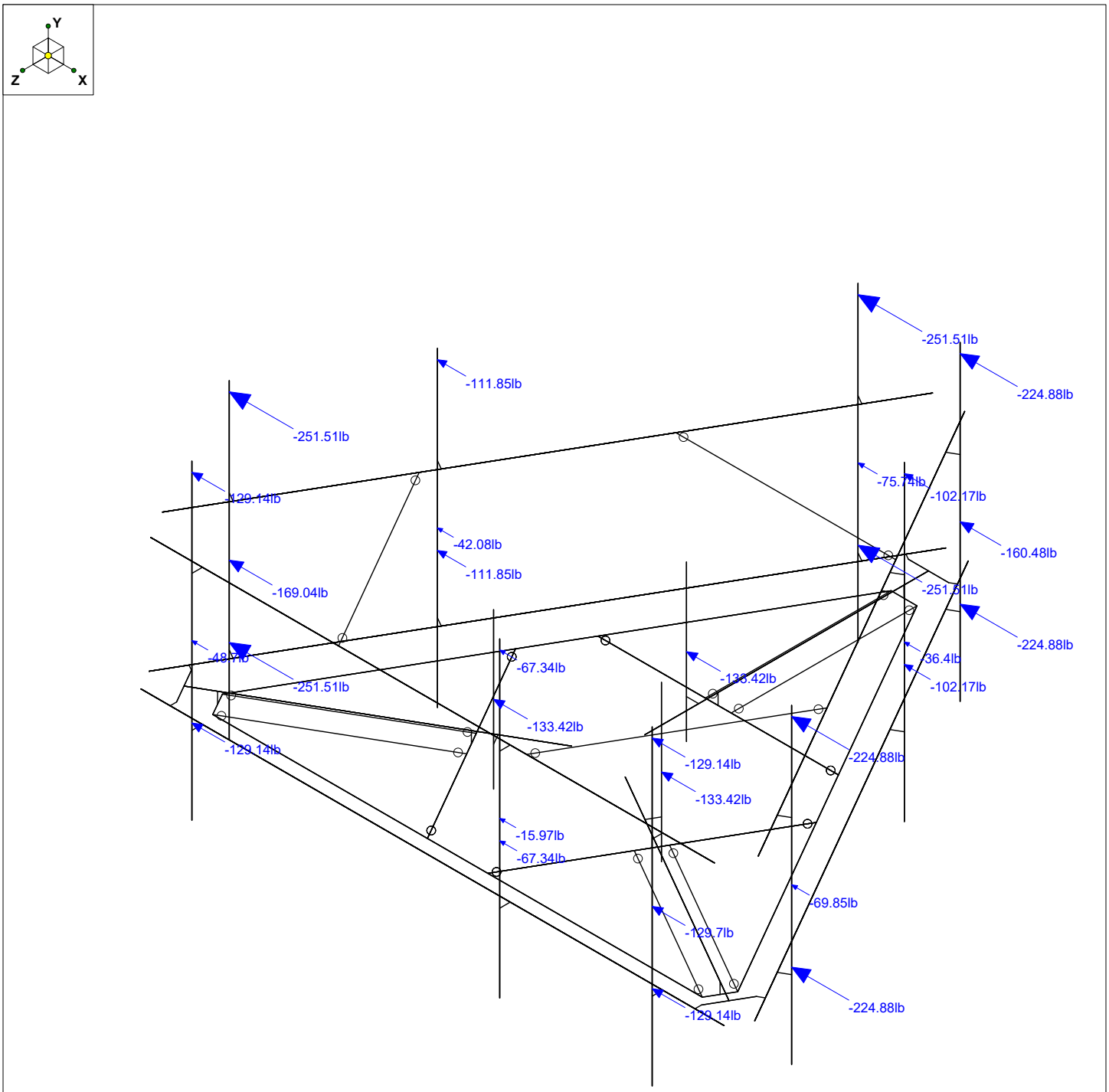
Loads: BLC 1, Self Weight

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:44 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



Loads: BLC 2, Wind Load AZI 0

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:44 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



Loads: BLC 5, Wind Load AZI 90

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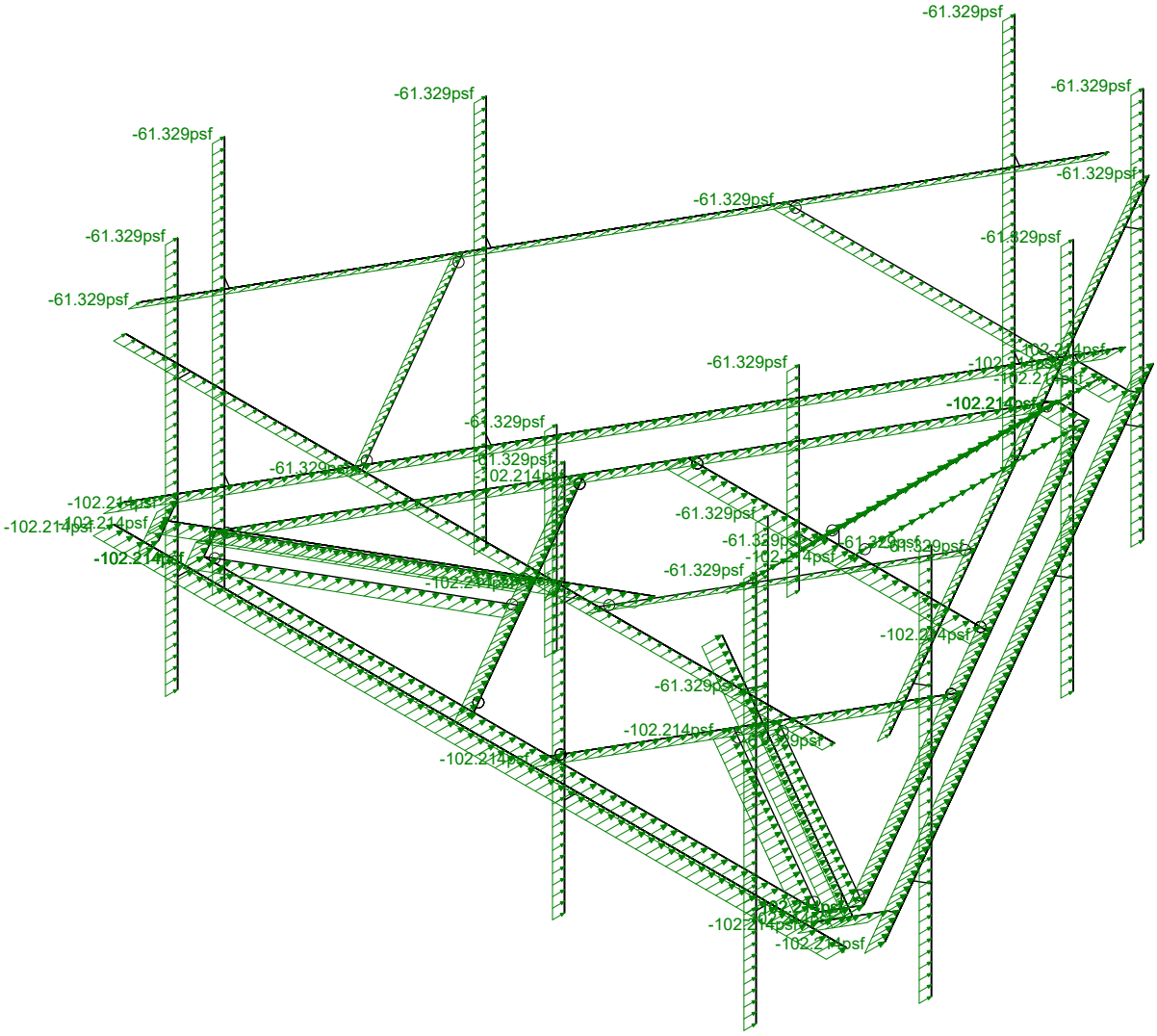

Loads: BLC 14, Distr. Wind Load Z

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
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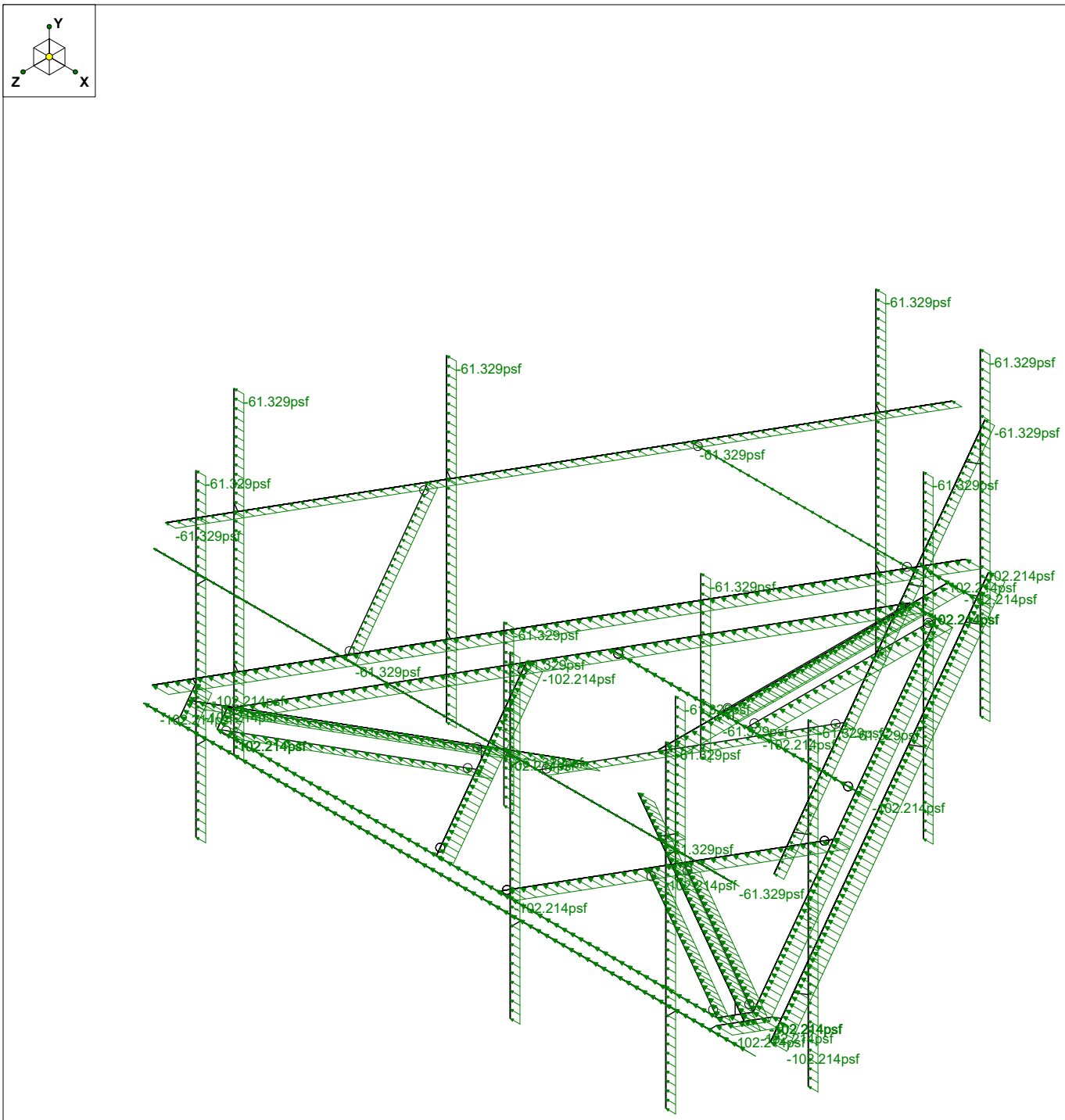

Loads: BLC 15, Distr. Wind Load X

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
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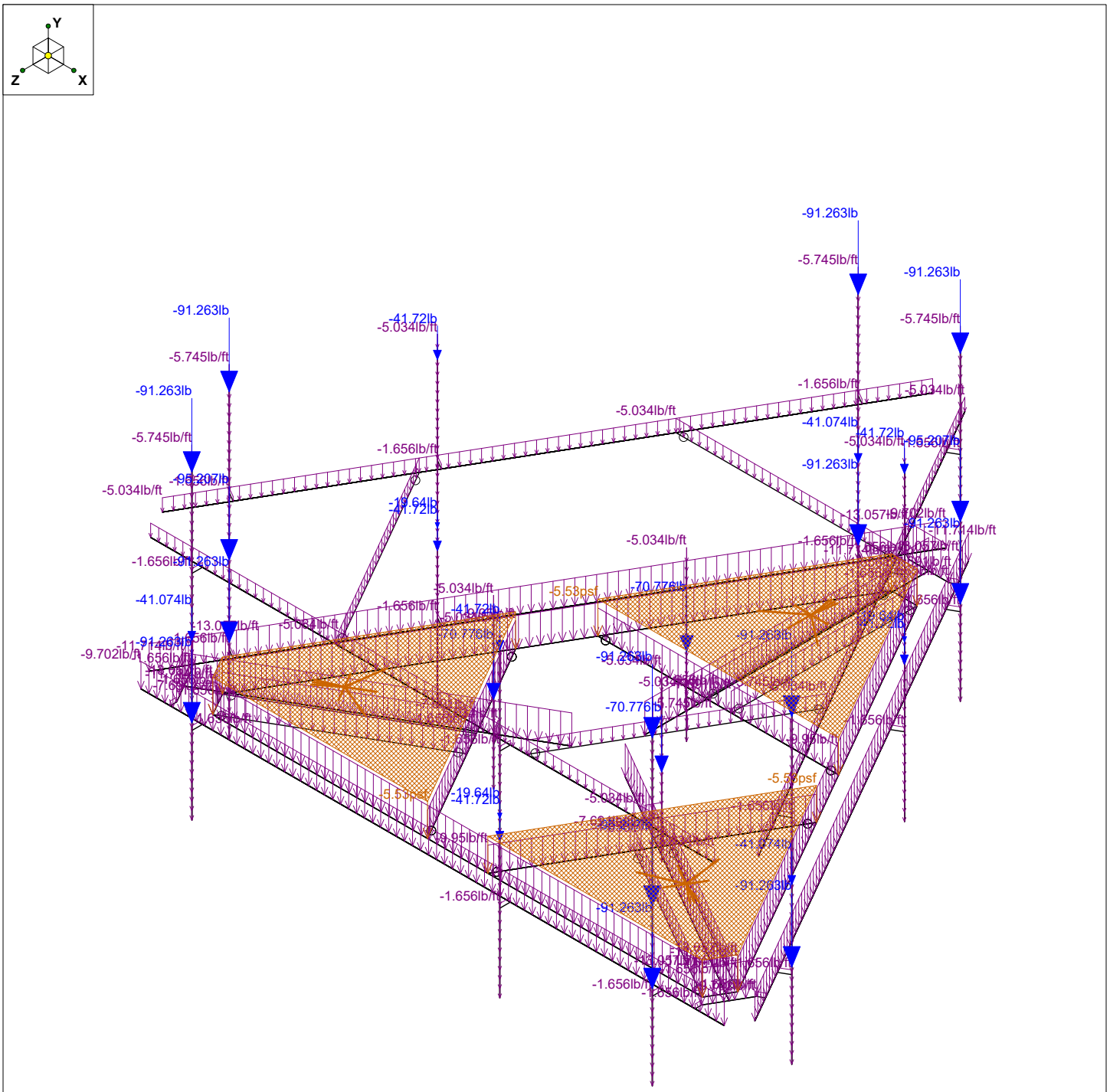

Loads: BLC 16, Ice Weight

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
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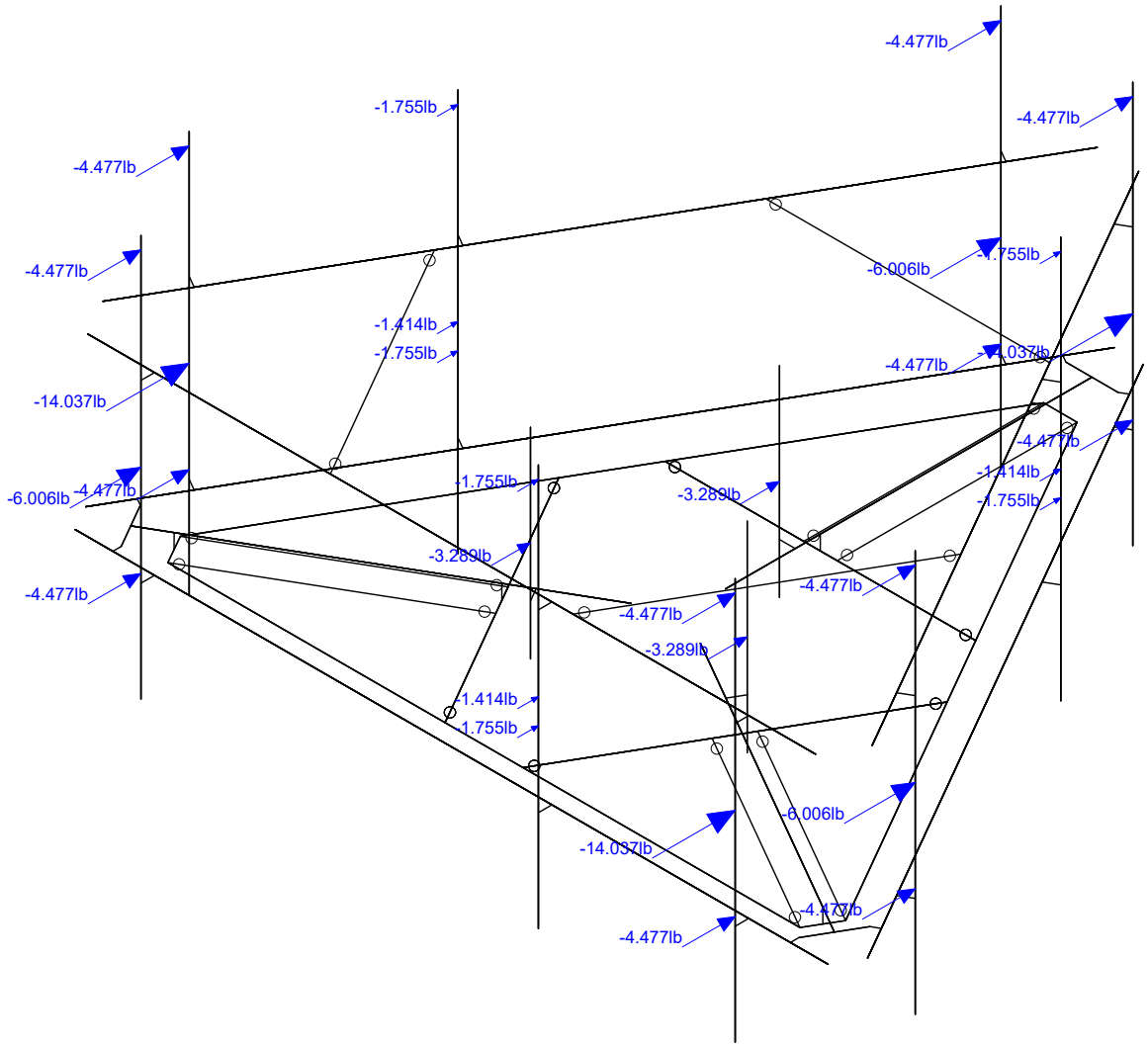

Loads: BLC 31, Seismic Load Z

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
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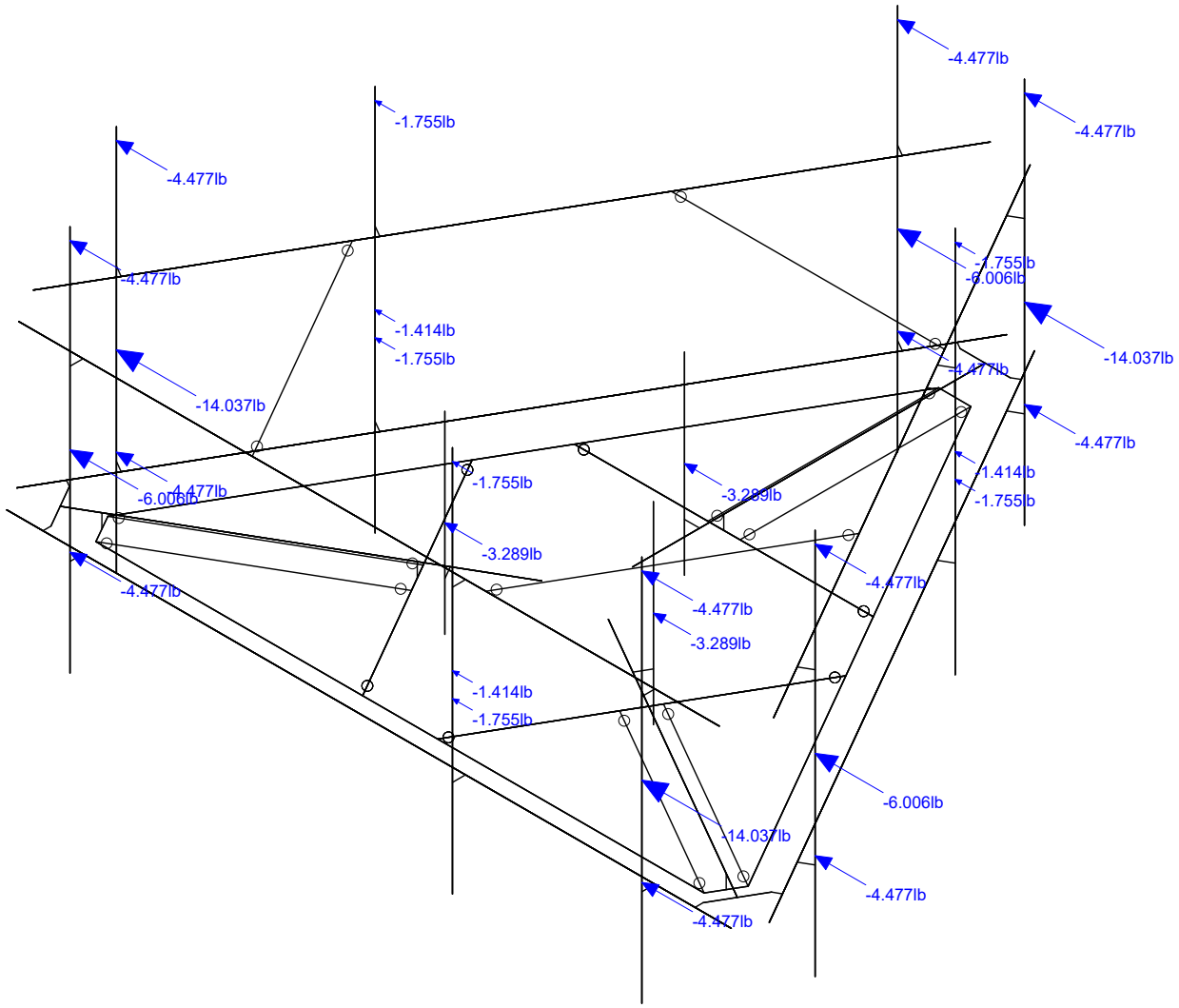
1106-A0001-B		Proposed_CTL02025_loaded.r3d



Loads: BLC 32, Seismic Load X

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:46 AM
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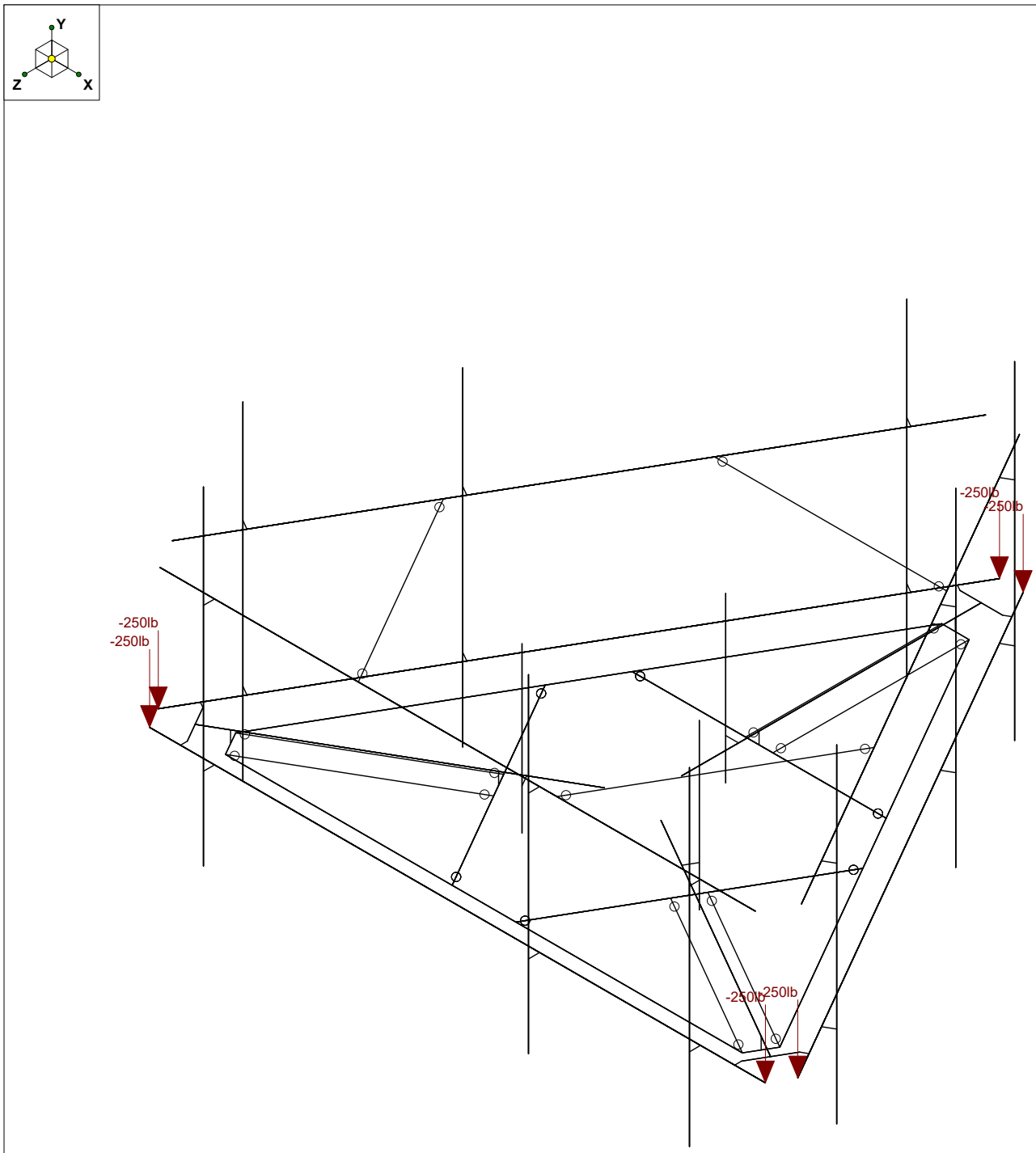
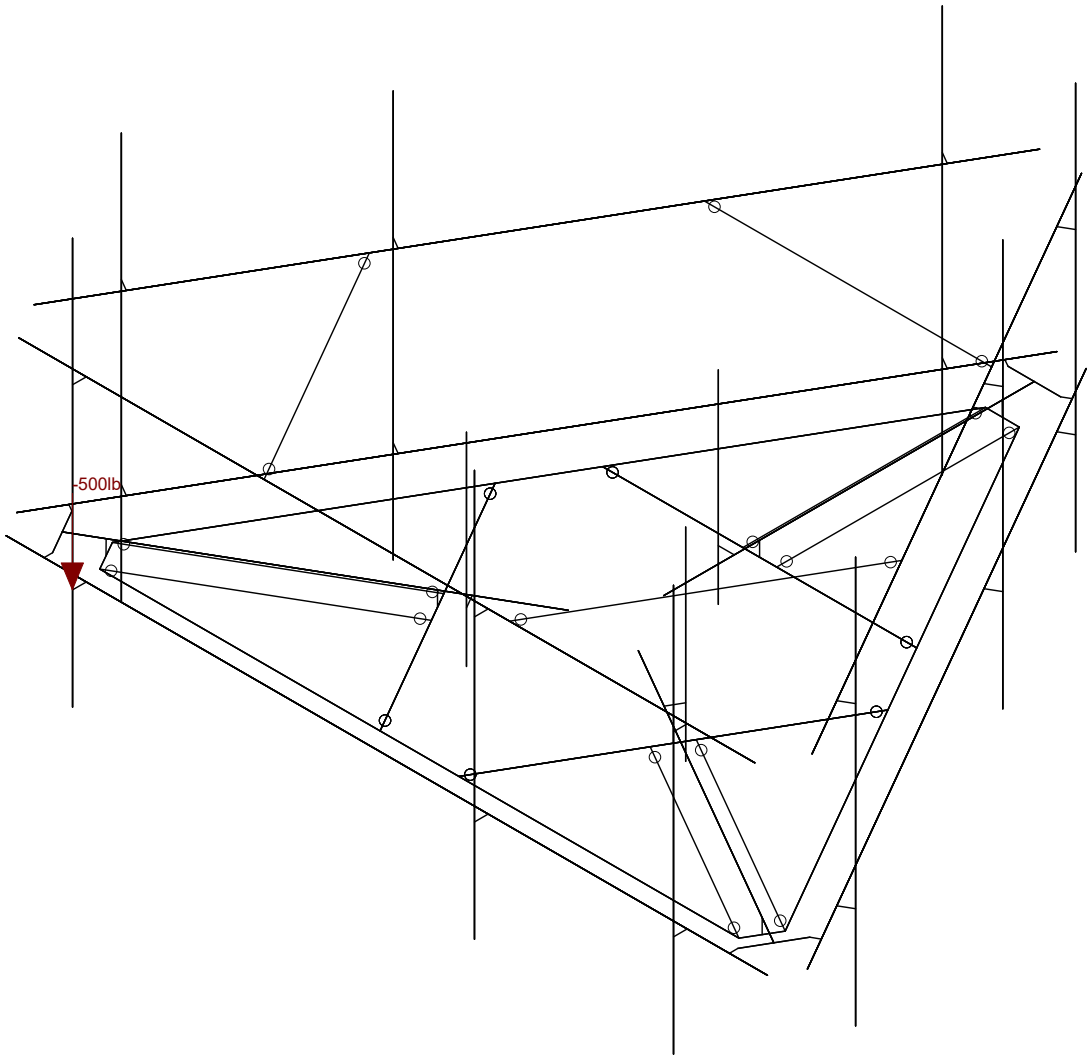


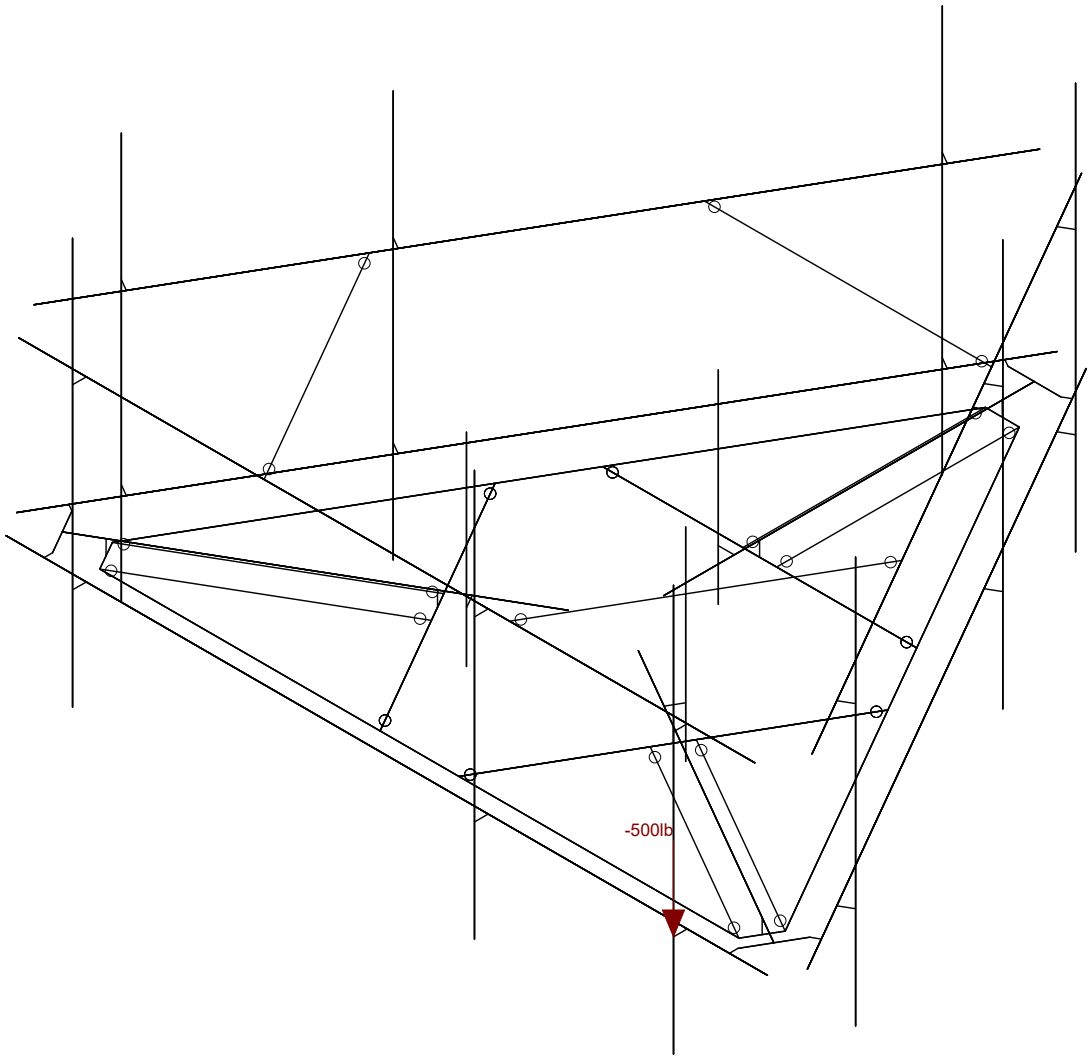
Loads: BLC 33, Service Live Loads

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:47 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



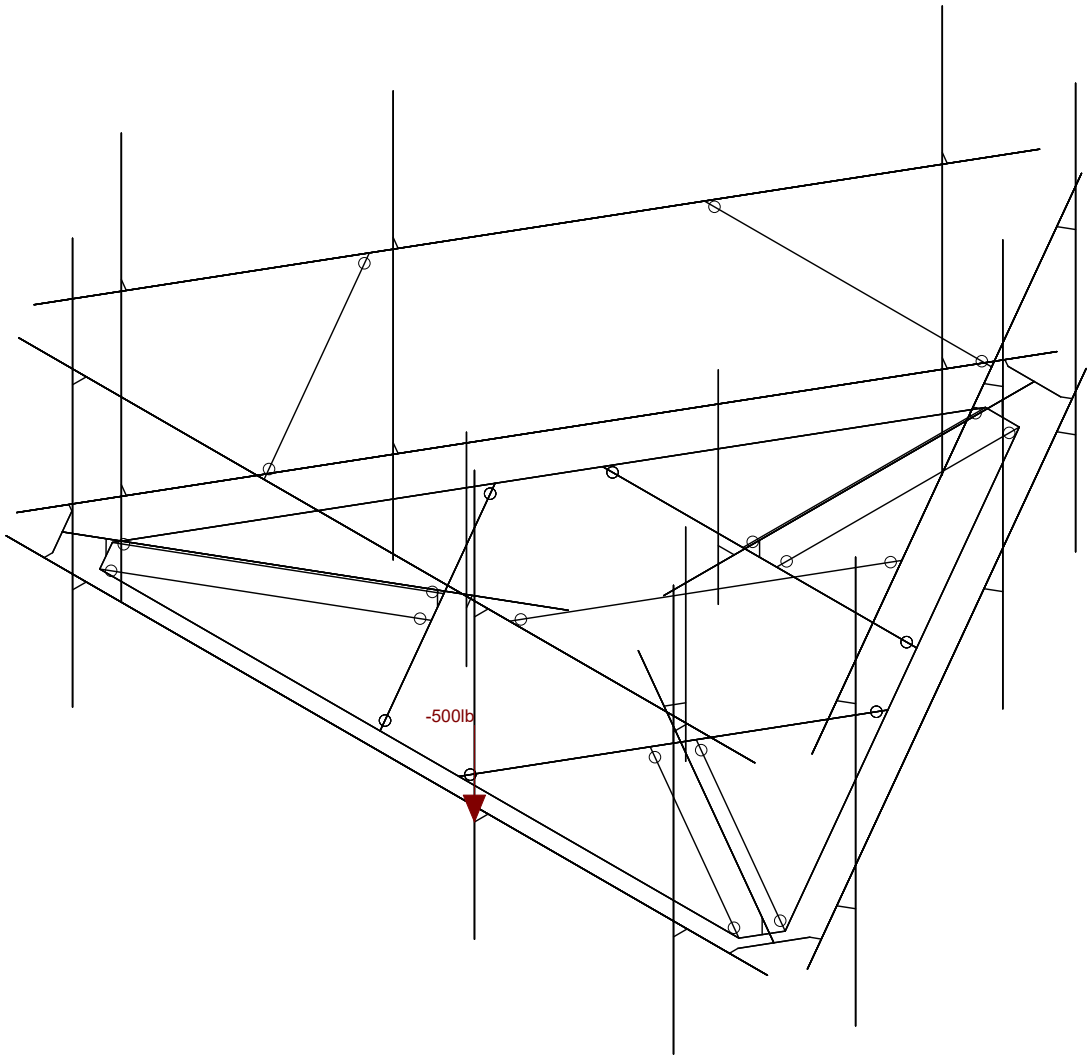
Loads: BLC 36, Maintenance Load 3

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:46 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



Loads: BLC 35, Maintenance Load 2

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:46 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d



Loads: BLC 34, Maintenance Load 1

Infingy Engineering, PLLC	CTL02025_10035274	Final Configuration
BDA		June 4, 2020 at 10:46 AM
1106-A0001-B		Proposed_CTL02025_loaded.r3d

Program Inputs

PROJECT INFORMATION	
Client:	Smartlink
Carrier:	AT&T
Engineer:	Brenden Archer

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	C	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil	
Ground Elevation:	274	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Platform	
Num Sectors:	3	
Centerline AGL:	151.0	ft
Tower Height AGL:	145.0	ft

TOPOGRAPHIC DATA		
Topo Feature:	N/A	
Slope Distance:	N/A	ft
Crest Distance:	N/A	ft
Crest Height:	N/A	ft

FACTORS		
Directionality Fact. (K_d):	0.95	
Ground Ele. Factor (K_e):	0.99	*Rev H Only
Rooftop Speed-Up (K_s):	1.00	*Rev H Only
Topographic Factor (K_{zt}):	1.00	
Gust Effect Factor (G_h):	1.0	

CODE STANDARDS		
Building Code:	2018 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-16	

WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	124	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	1	in
Flat Pressure:	102.21	psf
Round Pressure:	61.33	psf
Ice Wind Pressure:	9.97	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.19	g
1-Second Accel. (S_1):	0.05	g
Short-Period Design (S_{DS}):	0.20	
1-Second Design (S_{D1}):	0.09	
Short-Period Coeff. (F_a):	1.60	
1-Second Coeff. (F_v):	2.40	
Amplification Factor (a_p):	1.00	
Response Mod. (R_p):	2.50	
Overstrength (Ω_o):	1.00	

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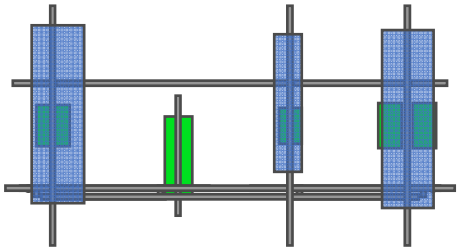
the solutions are endless

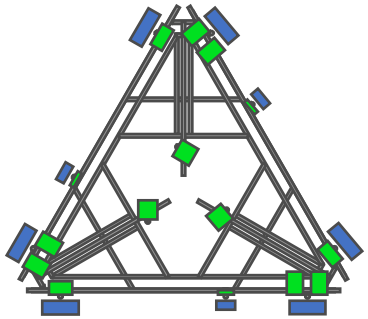
Infinigy Load Calculator V2.1.4

Program Inputs

ELEVATION VIEW



PLAN VIEW



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the solutions are endless

Infinigy Load Calculator V2.1.4

APPURTENANCE INFORMATION

Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
POWERWAVE TECHNOLOGIES 7770.00	151.0	3	0.90	51.11	5.51	2.93	253.37	134.69	35.00	3.51	MP2
CCI ANTENNAS DMP65R-BU6DA	151.0	3	0.90	51.11	12.71	5.62	584.59	258.28	89.30	8.95	MP1
CCI ANTENNAS OPA65R-BU6D	151.0	3	0.90	51.11	12.25	6.05	563.38	278.14	63.50	6.37	MP4
ERICSSON TME-RADIO 4449	151.0	3	0.90	51.11	1.98	1.41	91.07	64.85	70.00	7.02	MP1
ERICSSON TME-RADIO 8843	151.0	3	0.90	51.11	1.98	1.41	91.07	64.85	70.00	7.02	MP1
ERICSSON TME-RRUS 4478 B14	151.0	3	0.90	51.11	1.84	1.06	84.75	48.70	59.90	6.01	MP4
WERWAVE TECHNOLOGIES TME-LGP21	151.0	6	0.90	51.11	1.10	0.35	50.78	15.97	14.10	1.41	MP2
RAYCAP TME-DC6-48-60-18-8F	151.0	3	0.90	51.11	2.90	2.90	133.42	133.42	32.80	3.29	RP1

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
1	M1	N1	N2			Horizontal	Beam	Tube	A500 Gr.46	Typical
2	MP2	N8	N7			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
3	MP1	N10	N9			2.5 Pipe	Beam	Pipe	A53 Gr. B	Typical
4	MP4	N12	N11A			2.5 Pipe	Beam	Pipe	A53 Gr. B	Typical
5	M19	N37	N40			Standoff	Beam	Tube	A500 Gr.46	Typical
6	M20	N39	N42			Standoff	Beam	Tube	A500 Gr.46	Typical
7	M21	N38	N43			Standoff	Beam	Tube	A500 Gr.46	Typical
8	M22	N74	N73		90	Cross Bracing	Beam	Single Angle	A36 Gr.36	Typical
9	M23	N75	N76		90	Cross Bracing	Beam	Single Angle	A36 Gr.36	Typical
10	M24	N77	N78		90	Cross Bracing	Beam	Single Angle	A36 Gr.36	Typical
11	M25	N52	N53		90	Connection Plate	Beam	None	A36 Gr.36	Typical
12	M26	N55	N56		90	Connection Plate	Beam	None	A36 Gr.36	Typical
13	M27	N57	N58		90	Connection Plate	Beam	None	A36 Gr.36	Typical
14	M28	N52	N58		270	Bottom Handrail	Beam	Single Angle	A36 Gr.36	Typical
15	M29	N57	N56		270	Bottom Handrail	Beam	Single Angle	A36 Gr.36	Typical
16	M30	N55	N53		270	Bottom Handrail	Beam	Single Angle	A36 Gr.36	Typical
17	M50A	N67	N49			RIGID	None	None	RIGID	Typical
18	M51A	N70A	N70			RIGID	None	None	RIGID	Typical
19	M52A	N71A	N71			RIGID	None	None	RIGID	Typical
20	M53A	N68	N50			RIGID	None	None	RIGID	Typical
21	M54A	N72A	N72			RIGID	None	None	RIGID	Typical
22	M55A	N69	N51			RIGID	None	None	RIGID	Typical
23	M56A	N57	N73B			Bracing	Beam	Single Angle	A36 Gr.36	Typical
24	M57A	N74B	N58			Bracing	Beam	Single Angle	A36 Gr.36	Typical
25	M58	N55	N78B			Bracing	Beam	Single Angle	A36 Gr.36	Typical
26	M59	N79A	N56			Bracing	Beam	Single Angle	A36 Gr.36	Typical
27	M60	N52	N82A			Bracing	Beam	Single Angle	A36 Gr.36	Typical
28	M61	N83A	N53			Bracing	Beam	Single Angle	A36 Gr.36	Typical
29	M62	N61	N87A			RIGID	None	None	RIGID	Typical
30	M64	N59	N85A			RIGID	None	None	RIGID	Typical
31	M65	N60	N86A			RIGID	None	None	RIGID	Typical
32	M86	N127	N128			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
33	RP2	N130	N132			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
34	M87A	N134	N131B			End Plate	Beam	None	A36 Gr.36	Typical
35	M88B	N130B	N133B			End Plate	Beam	None	A36 Gr.36	Typical
36	M89B	N135	N132B			End Plate	Beam	None	A36 Gr.36	Typical
37	M90	N131B	N131C			RIGID	None	None	RIGID	Typical
38	M91	N130B	N130C			RIGID	None	None	RIGID	Typical
39	M74	N96	N97			Horizontal	Beam	Tube	A500 Gr.46	Typical
40	MP10	N101	N100			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
41	MP9	N103	N102			2.5 Pipe	Beam	Pipe	A53 Gr. B	Typical
42	MP12	N105	N104			2.5 Pipe	Beam	Pipe	A53 Gr. B	Typical
43	M79	N109	N113			RIGID	None	None	RIGID	Typical
44	M81	N107	N111			RIGID	None	None	RIGID	Typical
45	M82B	N108	N112			RIGID	None	None	RIGID	Typical
46	M83B	N133B	N117			RIGID	None	None	RIGID	Typical
47	M84B	N132B	N116			RIGID	None	None	RIGID	Typical
48	M85B	N118	N119			Horizontal	Beam	Tube	A500 Gr.46	Typical
49	MP6	N123A	N122A			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
50	MP5	N125A	N124A			2.5 Pipe	Beam	Pipe	A53 Gr. B	Typical
51	MP8	N127A	N126A			2.5 Pipe	Beam	Pipe	A53 Gr. B	Typical
52	M90A	N131A	N135A			RIGID	None	None	RIGID	Typical
53	M92	N129A	N133A			RIGID	None	None	RIGID	Typical
54	M93	N130A	N134A			RIGID	None	None	RIGID	Typical
55	M94	N135	N139			RIGID	None	None	RIGID	Typical
56	M95	N134	N138			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
57	M57	N96A	N97A			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
58	RP1	N98	N99			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
59	M59A	N101A	N102A			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
60	RP3	N103A	N104A			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
61	M61A	N106	N109A			RIGID	None	None	RIGID	Typical
62	M62A	N104B	N107A			RIGID	None	None	RIGID	Typical
63	M63	N105A	N108A			RIGID	None	None	RIGID	Typical
64	M64A	N112A	N115			RIGID	None	None	RIGID	Typical
65	M65A	N110	N113A			RIGID	None	None	RIGID	Typical
66	M66	N111A	N114			RIGID	None	None	RIGID	Typical
67	M67	N118A	N121			RIGID	None	None	RIGID	Typical
68	M68	N116A	N119A			RIGID	None	None	RIGID	Typical
69	M69	N117A	N120			RIGID	None	None	RIGID	Typical
70	M73	N125	N128A			Handrail	Beam	Pipe	A53 Gr. B	Typical
71	M74A	N126	N129			Handrail	Beam	Pipe	A53 Gr. B	Typical
72	M75	N127B	N130D			Handrail	Beam	Pipe	A53 Gr. B	Typical
73	M73A	N129B	N130E			Handrail	Beam	Pipe	A53 Gr. B	Typical
74	M74B	N131	N132A			Handrail	Beam	Pipe	A53 Gr. B	Typical
75	M75A	N133	N128B			Handrail	Beam	Pipe	A53 Gr. B	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		30	91.5	0
3	Total General		30	91.5	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	8"x1/2"	6	61.4	69.608
7	A36 Gr.36	L5X3X4	6	676	371.896
8	A36 Gr.36	L3X3X3	6	344.2	106.4
9	A500 Gr.46	HSS4X4X4	3	540	516.031
10	A500 Gr.46	HSS5X5X4	3	262.8	320.432
11	A53 Gr. B	PIPE_2.0	15	1169	338.123
12	A53 Gr. B	PIPE_2.5	6	576	262.967
13	Total HR Steel		45	3629.5	1985.457

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
1	Self Weight	DL		-1			33		3	
2	Wind Load AZI 0	WLZ					66			
3	Wind Load AZI 30	None					66			
4	Wind Load AZI 60	None					66			
5	Wind Load AZI 90	WLX					66			
6	Wind Load AZI 120	None					66			
7	Wind Load AZI 150	None					66			
8	Wind Load AZI 180	None					66			
9	Wind Load AZI 210	None					66			
10	Wind Load AZI 240	None					66			
11	Wind Load AZI 270	None					66			
12	Wind Load AZI 300	None					66			
13	Wind Load AZI 330	None					66			
14	Distr. Wind Load Z	WLZ						75		
15	Distr. Wind Load X	WLX						75		
16	Ice Weight	OL1					33	75	3	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
17	Ice Wind Load AZI 0	OL2					66			
18	Ice Wind Load AZI 30	None					66			
19	Ice Wind Load AZI 60	None					66			
20	Ice Wind Load AZI 90	OL3					66			
21	Ice Wind Load AZI 120	None					66			
22	Ice Wind Load AZI 150	None					66			
23	Ice Wind Load AZI 180	None					66			
24	Ice Wind Load AZI 210	None					66			
25	Ice Wind Load AZI 240	None					66			
26	Ice Wind Load AZI 270	None					66			
27	Ice Wind Load AZI 300	None					66			
28	Ice Wind Load AZI 330	None					66			
29	Distr. Ice Wind Load Z	OL2						75		
30	Distr. Ice Wind Load X	OL3						75		
31	Seismic Load Z	ELZ			-.1		33			
32	Seismic Load X	ELX	-.1				33			
33	Service Live Loads	LL				6				
34	Maintenance Load 1	LL				1				
35	Maintenance Load 2	LL				1				
36	Maintenance Load 3	LL				1				
37	Maintenance Load 4	LL				1				
38	Maintenance Load 5	LL				1				
39	Maintenance Load 6	LL				1				
40	Maintenance Load 7	LL				1				
41	Maintenance Load 8	LL				1				
42	Maintenance Load 9	LL				1				
43	BLC 1 Transient Area Loads	None						75		
44	BLC 16 Transient Area Loads	None						75		

Load Combinations

	Description	S...	PD...	S...	B...	Fact...	BLC	Fact...	BLC	Fact...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4DL	Y...	Y		1	1.4																		
2	1.2DL + 1WL AZI 0	Y...	Y		1	1.2	2	1	14	1	15													
3	1.2DL + 1WL AZI 30	Y...	Y		1	1.2	3	1	14	.866	15	.5												
4	1.2DL + 1WL AZI 60	Y...	Y		1	1.2	4	1	14	.5	15	.866												
5	1.2DL + 1WL AZI 90	Y...	Y		1	1.2	5	1	14		15	1												
6	1.2DL + 1WL AZI 120	Y...	Y		1	1.2	6	1	14	-.5	15	.866												
7	1.2DL + 1WL AZI 150	Y...	Y		1	1.2	7	1	14	-.866	15	.5												
8	1.2DL + 1WL AZI 180	Y...	Y		1	1.2	8	1	14	-1	15													
9	1.2DL + 1WL AZI 210	Y...	Y		1	1.2	9	1	14	-.866	15	-.5												
10	1.2DL + 1WL AZI 240	Y...	Y		1	1.2	10	1	14	-.5	15	-.8...												
11	1.2DL + 1WL AZI 270	Y...	Y		1	1.2	11	1	14		15	-1												
12	1.2DL + 1WL AZI 300	Y...	Y		1	1.2	12	1	14	.5	15	-.8...												
13	1.2DL + 1WL AZI 330	Y...	Y		1	1.2	13	1	14	.866	15	-.5												
14	0.9DL + 1WL AZI 0	Y...	Y		1	.9	2	1	14	1	15													
15	0.9DL + 1WL AZI 30	Y...	Y		1	.9	3	1	14	.866	15	.5												
16	0.9DL + 1WL AZI 60	Y...	Y		1	.9	4	1	14	.5	15	.866												
17	0.9DL + 1WL AZI 90	Y...	Y		1	.9	5	1	14		15	1												
18	0.9DL + 1WL AZI 120	Y...	Y		1	.9	6	1	14	-.5	15	.866												
19	0.9DL + 1WL AZI 150	Y...	Y		1	.9	7	1	14	-.866	15	.5												
20	0.9DL + 1WL AZI 180	Y...	Y		1	.9	8	1	14	-1	15													
21	0.9DL + 1WL AZI 210	Y...	Y		1	.9	9	1	14	-.866	15	-.5												
22	0.9DL + 1WL AZI 240	Y...	Y		1	.9	10	1	14	-.5	15	-.8...												
23	0.9DL + 1WL AZI 270	Y...	Y		1	.9	11	1	14		15	-1												
24	0.9DL + 1WL AZI 300	Y...	Y		1	.9	12	1	14	.5	15	-.8...												

Load Combinations (Continued)

	Description	S...	PD...	S...	B...	Fact...	BLC	Fact...	BLC	Fact...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
25	0.9DL + 1WL AZI 330	Y...	Y		1	.9	13	1	14	.866	15	-.5														
26	1.2D + 1.0Di	Y...	Y		1	1.2	16	1																		
27	1.2D + 1.0Di +1.0Wi AZI 0	Y...	Y		1	1.2	16	1	17	1	29	1	30														
28	1.2D + 1.0Di +1.0Wi AZI 30	Y...	Y		1	1.2	16	1	18	1	29	.866	30	.5													
29	1.2D + 1.0Di +1.0Wi AZI 60	Y...	Y		1	1.2	16	1	19	1	29	.5	30	.866													
30	1.2D + 1.0Di +1.0Wi AZI 90	Y...	Y		1	1.2	16	1	20	1	29		30	1													
31	1.2D + 1.0Di +1.0Wi AZI 120	Y...	Y		1	1.2	16	1	21	1	29	-.5	30	.866													
32	1.2D + 1.0Di +1.0Wi AZI 150	Y...	Y		1	1.2	16	1	22	1	29	-.8...	30	.5													
33	1.2D + 1.0Di +1.0Wi AZI 180	Y...	Y		1	1.2	16	1	23	1	29	-1	30														
34	1.2D + 1.0Di +1.0Wi AZI 210	Y...	Y		1	1.2	16	1	24	1	29	-.8...	30	-.5													
35	1.2D + 1.0Di +1.0Wi AZI 240	Y...	Y		1	1.2	16	1	25	1	29	-.5	30	-.8...													
36	1.2D + 1.0Di +1.0Wi AZI 270	Y...	Y		1	1.2	16	1	26	1	29		30	-1													
37	1.2D + 1.0Di +1.0Wi AZI 300	Y...	Y		1	1.2	16	1	27	1	29	.5	30	-.8...													
38	1.2D + 1.0Di +1.0Wi AZI 330	Y...	Y		1	1.2	16	1	28	1	29	.866	30	-.5													
39	(1.2 + 0.2Sds)DL + 1.0E AZI 0	Y...	Y		1	1.24	31	1	32																		
40	(1.2 + 0.2Sds)DL + 1.0E AZI 30	Y...	Y		1	1.24	31	.866	32	.5																	
41	(1.2 + 0.2Sds)DL + 1.0E AZI 60	Y...	Y		1	1.24	31	.5	32	.866																	
42	(1.2 + 0.2Sds)DL + 1.0E AZI 90	Y...	Y		1	1.24	31		32	1																	
43	(1.2 + 0.2Sds)DL + 1.0E AZI 120	Y...	Y		1	1.24	31	-.5	32	.866																	
44	(1.2 + 0.2Sds)DL + 1.0E AZI 150	Y...	Y		1	1.24	31	-.866	32	.5																	
45	(1.2 + 0.2Sds)DL + 1.0E AZI 180	Y...	Y		1	1.24	31	-1	32																		
46	(1.2 + 0.2Sds)DL + 1.0E AZI 210	Y...	Y		1	1.24	31	-.866	32	-.5																	
47	(1.2 + 0.2Sds)DL + 1.0E AZI 240	Y...	Y		1	1.24	31	-.5	32	-.866																	
48	(1.2 + 0.2Sds)DL + 1.0E AZI 270	Y...	Y		1	1.24	31		32	-1																	
49	(1.2 + 0.2Sds)DL + 1.0E AZI 300	Y...	Y		1	1.24	31	.5	32	-.866																	
50	(1.2 + 0.2Sds)DL + 1.0E AZI 330	Y...	Y		1	1.24	31	.866	32	-.5																	
51	(0.9 - 0.2Sds)DL + 1.0E AZI 0	Y...	Y		1	.86	31	1	32																		
52	(0.9 - 0.2Sds)DL + 1.0E AZI 30	Y...	Y		1	.86	31	.866	32	.5																	
53	(0.9 - 0.2Sds)DL + 1.0E AZI 60	Y...	Y		1	.86	31	.5	32	.866																	
54	(0.9 - 0.2Sds)DL + 1.0E AZI 90	Y...	Y		1	.86	31		32	1																	
55	(0.9 - 0.2Sds)DL + 1.0E AZI 120	Y...	Y		1	.86	31	-.5	32	.866																	
56	(0.9 - 0.2Sds)DL + 1.0E AZI 150	Y...	Y		1	.86	31	-.866	32	.5																	
57	(0.9 - 0.2Sds)DL + 1.0E AZI 180	Y...	Y		1	.86	31	-1	32																		
58	(0.9 - 0.2Sds)DL + 1.0E AZI 210	Y...	Y		1	.86	31	-.866	32	-.5																	
59	(0.9 - 0.2Sds)DL + 1.0E AZI 240	Y...	Y		1	.86	31	-.5	32	-.866																	
60	(0.9 - 0.2Sds)DL + 1.0E AZI 270	Y...	Y		1	.86	31		32	-1																	
61	(0.9 - 0.2Sds)DL + 1.0E AZI 300	Y...	Y		1	.86	31	.5	32	-.866																	
62	(0.9 - 0.2Sds)DL + 1.0E AZI 330	Y...	Y		1	.86	31	.866	32	-.5																	
63	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	2	.234	14	.234	15		33	1.5													
64	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	3	.234	14	.203	15	.117	33	1.5													
65	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	4	.234	14	.117	15	.203	33	1.5													
66	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	5	.234	14		15	.234	33	1.5													
67	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	6	.234	14	-.117	15	.203	33	1.5													
68	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	7	.234	14	-.203	15	.117	33	1.5													
69	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	8	.234	14	-.234	15		33	1.5													
70	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	9	.234	14	-.203	15	-.1...	33	1.5													
71	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	10	.234	14	-.117	15	-.2...	33	1.5													
72	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	11	.234	14		15	-.2...	33	1.5													
73	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	12	.234	14	.117	15	-.2...	33	1.5													
74	1.0DL + 1.5LL + 1.0SWL (60 m...	Y...	Y		1	1	13	.234	14	.203	15	-.1...	33	1.5													
75	1.2DL + 1.5LL	Y...	Y		1	1.2	33	1.5																			
76	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	2	.059	14	.059	15														
77	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	3	.059	14	.051	15	.029													
78	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	4	.059	14	.029	15	.051													
79	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	5	.059	14		15	.059													
80	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	6	.059	14	-.0...	15	.051													
81	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	7	.059	14	-.0...	15	.029													

Load Combinations (Continued)

	Description	S...	PD...	S...	B...	Fact...	BLC	Fact...	BLC	Fact...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
82	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	8	.059	14	-.0...	15											
83	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	9	.059	14	-.0...	15	-.0...										
84	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	10	.059	14	-.0...	15	-.0...										
85	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	11	.059	14		15	-.0...										
86	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	12	.059	14	.029	15	-.0...										
87	1.2DL + 1.5LM-MP1 + 1SWL (3...	Y...	Y		1	1.2	34	1.5	13	.059	14	.051	15	-.0...										
88	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	2	.059	14	.059	15											
89	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	3	.059	14	.051	15	.029										
90	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	4	.059	14	.029	15	.051										
91	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	5	.059	14		15	.059										
92	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	6	.059	14	-.0...	15	.051										
93	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	7	.059	14	-.0...	15	.029										
94	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	8	.059	14	-.0...	15											
95	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	9	.059	14	-.0...	15	-.0...										
96	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	10	.059	14	-.0...	15	-.0...										
97	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	11	.059	14		15	-.0...										
98	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	12	.059	14	.029	15	-.0...										
99	1.2DL + 1.5LM-MP2 + 1SWL (3...	Y...	Y		1	1.2	35	1.5	13	.059	14	.051	15	-.0...										
100	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	2	.059	14	.059	15											
101	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	3	.059	14	.051	15	.029										
102	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	4	.059	14	.029	15	.051										
103	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	5	.059	14		15	.059										
104	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	6	.059	14	-.0...	15	.051										
105	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	7	.059	14	-.0...	15	.029										
106	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	8	.059	14	-.0...	15											
107	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	9	.059	14	-.0...	15	-.0...										
108	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	10	.059	14	-.0...	15	-.0...										
109	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	11	.059	14		15	-.0...										
110	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	12	.059	14	.029	15	-.0...										
111	1.2DL + 1.5LM-MP3 + 1SWL (3...	Y...	Y		1	1.2	36	1.5	13	.059	14	.051	15	-.0...										
112	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	2	.059	14	.059	15											
113	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	3	.059	14	.051	15	.029										
114	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	4	.059	14	.029	15	.051										
115	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	5	.059	14		15	.059										
116	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	6	.059	14	-.0...	15	.051										
117	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	7	.059	14	-.0...	15	.029										
118	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	8	.059	14	-.0...	15											
119	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	9	.059	14	-.0...	15	-.0...										
120	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	10	.059	14	-.0...	15	-.0...										
121	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	11	.059	14		15	-.0...										
122	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	12	.059	14	.029	15	-.0...										
123	1.2DL + 1.5LM-MP4 + 1SWL (3...	Y...	Y		1	1.2	37	1.5	13	.059	14	.051	15	-.0...										
124	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	2	.059	14	.059	15											
125	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	3	.059	14	.051	15	.029										
126	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	4	.059	14	.029	15	.051										
127	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	5	.059	14		15	.059										
128	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	6	.059	14	-.0...	15	.051										
129	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	7	.059	14	-.0...	15	.029										
130	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	8	.059	14	-.0...	15											
131	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	9	.059	14	-.0...	15	-.0...										
132	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	10	.059	14	-.0...	15	-.0...										
133	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	11	.059	14		15	-.0...										
134	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	12	.059	14	.029	15	-.0...										
135	1.2DL + 1.5LM-MP5 + 1SWL (3...	Y...	Y		1	1.2	38	1.5	13	.059	14	.051	15	-.0...										
136	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	2	.059	14	.059	15											
137	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	3	.059	14	.051	15	.029										
138	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	4	.059	14	.029	15	.051										

Load Combinations (Continued)

	Description	S...	PD...	S...	B...	Fact...	BLC	Fact...	BLC	Fact...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
139	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	5	.059	14		15	.059										
140	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	6	.059	14	-.0...	15	.051										
141	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	7	.059	14	-.0...	15	.029										
142	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	8	.059	14	-.0...	15											
143	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	9	.059	14	-.0...	15	-.0...										
144	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	10	.059	14	-.0...	15	-.0...										
145	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	11	.059	14		15	-.0...										
146	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	12	.059	14	.029	15	-.0...										
147	1.2DL + 1.5LM-MP6 + 1SWL (3...	Y...	Y		1	1.2	39	1.5	13	.059	14	.051	15	-.0...										
148	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	2	.059	14	.059	15											
149	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	3	.059	14	.051	15	.029										
150	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	4	.059	14	.029	15	.051										
151	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	5	.059	14		15	.059										
152	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	6	.059	14	-.0...	15	.051										
153	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	7	.059	14	-.0...	15	.029										
154	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	8	.059	14	-.0...	15											
155	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	9	.059	14	-.0...	15	-.0...										
156	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	10	.059	14	-.0...	15	-.0...										
157	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	11	.059	14		15	-.0...										
158	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	12	.059	14	.029	15	-.0...										
159	1.2DL + 1.5LM-MP7 + 1SWL (3...	Y...	Y		1	1.2	40	1.5	13	.059	14	.051	15	-.0...										
160	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	2	.059	14	.059	15											
161	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	3	.059	14	.051	15	.029										
162	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	4	.059	14	.029	15	.051										
163	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	5	.059	14		15	.059										
164	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	6	.059	14	-.0...	15	.051										
165	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	7	.059	14	-.0...	15	.029										
166	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	8	.059	14	-.0...	15											
167	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	9	.059	14	-.0...	15	-.0...										
168	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	10	.059	14	-.0...	15	-.0...										
169	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	11	.059	14		15	-.0...										
170	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	12	.059	14	.029	15	-.0...										
171	1.2DL + 1.5LM-MP8 + 1SWL (3...	Y...	Y		1	1.2	41	1.5	13	.059	14	.051	15	-.0...										
172	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	2	.059	14	.059	15											
173	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	3	.059	14	.051	15	.029										
174	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	4	.059	14	.029	15	.051										
175	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	5	.059	14		15	.059										
176	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	6	.059	14	-.0...	15	.051										
177	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	7	.059	14	-.0...	15	.029										
178	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	8	.059	14	-.0...	15											
179	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	9	.059	14	-.0...	15	-.0...										
180	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	10	.059	14	-.0...	15	-.0...										
181	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	11	.059	14		15	-.0...										
182	1.2DL + 1.5LM-MP9 + 1SWL (3...	Y...	Y		1	1.2	42	1.5	12	.059	14	.029	15	-.0...										

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N40	max	12553.775	31	3141.924	31	565.547	24	1934.708	14	1293.043	15	1658.224	23
2		min	-8.542	24	7.171	24	-7327.284	31	-6547.078	7	-1299.975	9	-10456.1...	30
3	N42	max	18.421	16	3140.028	35	401.142	16	2069.966	14	1380.154	19	10383.263	36
4		min	-12551.991	35	27.455	16	-7322.75	35	-6788.121	8	-1389.611	13	-1476.029	17
5	N43	max	1427.093	5	3147.674	27	14559.691	27	12047.722	27	2617.418	23	2995.803	11
6		min	-1427.255	11	-41.333	20	-508.921	20	-1959.628	20	-2626.407	5	-2940.1	17
7	Totals:	max	8664.823	17	8933.547	38	9146.209	14						
8		min	-8664.826	11	3039.711	56	-9146.21	20						

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

	Member	Shape	Code Che...	Loc[in]	LC	Shear Ch...	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*P...	phi*M...	phi*M.....		Eqn
1	MP1	PIPE_2.5	.583	70.737	13	.125	70.737		2	30038.461	50715	3596....	3596....	...	H1-1b
2	M28	L5X3X4	.582	63.624	32	.016	63.624	z	30	34232.586	62856	1938....	5528....	...	H2-1
3	M30	L5X3X4	.581	63.624	28	.016	63.624	z	38	34230.08	62856	1938....	5528....	...	H2-1
4	M29	L5X3X4	.580	63.624	37	.016	83.506	y	11	34230.08	62856	1938....	5528....	...	H2-1
5	MP5	PIPE_2.5	.576	70.737	9	.124	70.737		10	30038.461	50715	3596....	3596....	...	H1-1b
6	MP12	PIPE_2.5	.559	70.737	7	.126	70.737		6	30038.461	50715	3596....	3596....	...	H1-1b
7	MP9	PIPE_2.5	.545	70.737	5	.121	70.737		6	30038.461	50715	3596....	3596....	...	H1-1b
8	MP6	PIPE_2.0	.545	70.737	7	.177	70.737		7	14916.096	32130	1871....	1871....	...	H1-1b
9	MP10	PIPE_2.0	.540	70.737	3	.177	70.737		3	14916.096	32130	1871....	1871....	...	H1-1b
10	MP4	PIPE_2.5	.535	70.737	3	.132	70.737		7	30038.461	50715	3596....	3596....	...	H1-1b
11	MP8	PIPE_2.5	.530	70.737	11	.130	70.737		10	30038.461	50715	3596....	3596....	...	H1-1b
12	MP2	PIPE_2.0	.510	70.737	12	.173	70.737		12	14916.096	32130	1871....	1871....	...	H1-1b
13	M19	HSS5X5X4	.503	87.598	31	.181	6.916	z	3	177130.734	178020	2625...	2625...	...	H1-1b
14	M20	HSS5X5X4	.503	87.599	35	.185	6.916	z	7	177130.734	178020	2625...	2625...	...	H1-1b
15	M21	HSS5X5X4	.500	87.597	27	.176	6.916	z	11	177130.734	178020	2625...	2625...	...	H1-1b
16	M74A	PIPE_2.0	.417	18.316	8	.159	155.684		12	4678.524	32130	1871....	1871....	...	H1-1b
17	M73	PIPE_2.0	.398	18.316	12	.161	18.316		13	4678.524	32130	1871....	1871....	...	H1-1b
18	M75	PIPE_2.0	.398	18.316	4	.161	155.684		8	4678.524	32130	1871....	1871....	...	H1-1b
19	M23	L5X3X4	.340	37.123	27	.055	37.123	y	7	30586.862	62856	1938....	6270....	...	H2-1
20	M24	L5X3X4	.339	37.116	35	.048	33.209	y	5	30593.358	62856	1938....	6278....	...	H2-1
21	M22	L5X3X4	.329	37.118	31	.051	41.025	y	11	30591.934	62856	1938....	6315....	...	H2-1
22	M89B	8"x1/2"	.329	6.23	7	.480	6.23	y	31	87547.255	129600	1350	21600	...	H1-1b
23	M88B	8"x1/2"	.322	0	7	.496	6.558	y	7	87547.255	129600	1350	21600	...	H1-1b
24	M87A	8"x1/2"	.301	0	3	.487	6.23	y	3	87547.255	129600	1350	21600	...	H1-1b
25	M27	8"x1/2"	.205	3.998	7	.285	7.997	y	7	110261.081	129600	1350	21600	...	H1-1b
26	M25	8"x1/2"	.200	3.998	3	.279	3.998	y	3	110261.081	129600	1350	21600	...	H1-1b
27	M26	8"x1/2"	.198	3.998	11	.281	3.998	y	11	110261.081	129600	1350	21600	...	H1-1b
28	M85B	HSS4X4X4	.143	113.684	12	.184	170.526	z	4	107305.244	139518	1618...	1618...	...	H1-1b
29	M74	HSS4X4X4	.142	113.684	8	.183	170.526	z	12	107305.244	139518	1618...	1618...	...	H1-1b
30	M1	HSS4X4X4	.141	113.684	3	.188	170.526	z	8	107305.244	139518	1618...	1618...	...	H1-1b
31	M59A	PIPE_2.0	.110	0	13	.130	0		10	32092.409	32130	1871....	1871....	...	H1-1b
32	M57	PIPE_2.0	.110	0	9	.130	0		6	32092.409	32130	1871....	1871....	...	H1-1b
33	M86	PIPE_2.0	.110	0	5	.130	0		2	32092.409	32130	1871....	1871....	...	H1-1b
34	M59	L3X3X3	.100	28.679	5	.016	57.358	z	5	21326.831	35316	1320....	2411....	...	H2-1
35	M58	L3X3X3	.099	28.694	11	.017	0	z	11	21315.373	35316	1320....	2411....	...	H2-1
36	RP2	PIPE_2.0	.097	35.368	2	.018	35.368		2	26521.424	32130	1871....	1871....	...	H1-1b
37	RP1	PIPE_2.0	.097	35.368	6	.018	35.368		6	26521.424	32130	1871....	1871....	...	H1-1b
38	RP3	PIPE_2.0	.097	35.368	10	.018	35.368		10	26521.424	32130	1871....	1871....	...	H1-1b
39	M57A	L3X3X3	.088	28.679	2	.015	0	z	13	21326.831	35316	1320....	2411....	...	H2-1
40	M56A	L3X3X3	.088	28.694	20	.015	57.389	z	7	21315.373	35316	1320....	2411....	...	H2-1
41	M61	L3X3X3	.087	28.679	20	.015	57.358	z	9	21326.831	35316	1320....	2411....	...	H2-1
42	M60	L3X3X3	.086	28.694	2	.015	57.389	z	3	21315.373	35316	1320....	2411....	...	H2-1
43	M74B	PIPE_2.0	.041	33.962	8	.175	0		11	21881.665	32130	1871....	1871....	...	H1-1b
44	M73A	PIPE_2.0	.036	33.962	12	.183	0		3	21881.665	32130	1871....	1871....	...	H1-1b
45	M75A	PIPE_2.0	.036	33.962	4	.188	0		7	21881.665	32130	1871....	1871....	...	H1-1b

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff	HSS5X5X4	Beam	Tube	A500 Gr.46	Typical	4.3	16	16	25.8
2	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
3	Bottom Handrail	L5X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.94	1.41	5.09	.044
4	Horizontal	HSS4X4X4	Beam	Tube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
5	Bracing	L3X3X3	Beam	Single Angle	A36 Gr.36	Typical	1.09	.948	.948	.014
6	Connection Plate	8"x1/2"	Beam	None	A36 Gr.36	Typical	4	.083	21.333	.32

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
7	End Plate	8"x1/2"	Beam	None	A36 Gr.36	Typical	4	.083	21.333	.32
8	Cross Bracing	L5X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.94	1.41	5.09	.044
9	Handrail	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
10	2.5 Pipe	PIPE_2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89

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	Default			None
2	MP2						Yes	** NA **			None
3	MP1						Yes				None
4	MP4						Yes				None
5	M19						Yes				None
6	M20						Yes				None
7	M21						Yes				None
8	M22	BenPIN	BenPIN				Yes	Default			None
9	M23	BenPIN	BenPIN				Yes				None
10	M24	BenPIN	BenPIN				Yes				None
11	M25						Yes	Default			None
12	M26						Yes				None
13	M27						Yes				None
14	M28						Yes				None
15	M29						Yes				None
16	M30						Yes				None
17	M50A						Yes	** NA **			None
18	M51A						Yes	** NA **			None
19	M52A						Yes	** NA **			None
20	M53A						Yes	** NA **			None
21	M54A						Yes	** NA **			None
22	M55A						Yes	** NA **			None
23	M56A	BenPIN	BenPIN				Yes				None
24	M57A	BenPIN	BenPIN				Yes				None
25	M58	BenPIN	BenPIN				Yes				None
26	M59	BenPIN	BenPIN				Yes				None
27	M60	BenPIN	BenPIN				Yes	Default			None
28	M61	BenPIN	BenPIN				Yes				None
29	M62						Yes	** NA **			None
30	M64						Yes	** NA **			None
31	M65						Yes	** NA **			None
32	M86						Yes	** NA **			None
33	RP2						Yes	** NA **			None
34	M87A						Yes				None
35	M88B						Yes	Default			None
36	M89B						Yes				None
37	M90						Yes	** NA **			None
38	M91						Yes	** NA **			None
39	M74						Yes	Default			None
40	MP10						Yes	** NA **			None
41	MP9						Yes				None
42	MP12						Yes				None
43	M79						Yes	** NA **			None
44	M81						Yes	** NA **			None
45	M82B						Yes	** NA **			None
46	M83B						Yes	** NA **			None
47	M84B						Yes	** NA **			None
48	M85B						Yes	Default			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...
49	MP6						Yes	** NA **			None
50	MP5						Yes				None
51	MP8						Yes				None
52	M90A						Yes	** NA **			None
53	M92						Yes	** NA **			None
54	M93						Yes	** NA **			None
55	M94						Yes	** NA **			None
56	M95						Yes	** NA **			None
57	M57						Yes	** NA **			None
58	RP1						Yes	** NA **			None
59	M59A						Yes	** NA **			None
60	RP3						Yes	** NA **			None
61	M61A						Yes	** NA **			None
62	M62A						Yes	** NA **			None
63	M63						Yes	** NA **			None
64	M64A						Yes	** NA **			None
65	M65A						Yes	** NA **			None
66	M66						Yes	** NA **			None
67	M67						Yes	** NA **			None
68	M68						Yes	** NA **			None
69	M69						Yes	** NA **			None
70	M73						Yes				None
71	M74A						Yes				None
72	M75						Yes				None
73	M73A	BenPIN	BenPIN				Yes				None
74	M74B	BenPIN	BenPIN				Yes				None
75	M75A	BenPIN	BenPIN				Yes				None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torq...	Kyy	Kzz	Cb	Function
1	M1	Horizontal	180	Segment	Segment	Segment	Segment					Lateral
2	MP2	Mount Pipe	96			Lbyy						Lateral
3	MP1	2.5 Pipe	96			Lbyy						Lateral
4	MP4	2.5 Pipe	96			Lbyy						Lateral
5	M19	Standoff	87.598	Segment	Segment	Segment	Segment					Lateral
6	M20	Standoff	87.599	Segment	Segment	Segment	Segment					Lateral
7	M21	Standoff	87.597	Segment	Segment	Segment	Segment					Lateral
8	M22	Cross Braci...	74.235			Lbyy						Lateral
9	M23	Cross Braci...	74.246			Lbyy						Lateral
10	M24	Cross Braci...	74.232			Lbyy						Lateral
11	M25	Connection ...	7.997			Lbyy						Lateral
12	M26	Connection ...	7.997			Lbyy						Lateral
13	M27	Connection ...	7.997			Lbyy						Lateral
14	M28	Bottom Han...	151.107	Segment	Segment	Segment						Lateral
15	M29	Bottom Han...	151.107	Segment	Segment	Segment						Lateral
16	M30	Bottom Han...	151.107	Segment	Segment	Segment						Lateral
17	M56A	Bracing	57.389			Lbyy						Lateral
18	M57A	Bracing	57.358			Lbyy						Lateral
19	M58	Bracing	57.389			Lbyy						Lateral
20	M59	Bracing	57.358			Lbyy						Lateral
21	M60	Bracing	57.389			Lbyy						Lateral
22	M61	Bracing	57.358			Lbyy						Lateral
23	M86	Mount Pipe	3.75									Lateral
24	RP2	Mount Pipe	48			Lbyy						Lateral
25	M87A	End Plate	12.459			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torq...	Kyy	Kzz	Cb	Function
26	M88B	End Plate	12.459			Lbyy						Lateral
27	M89B	End Plate	12.459			Lbyy						Lateral
28	M74	Horizontal	180	Segment	Segment	Segment	Segment					Lateral
29	MP10	Mount Pipe	96			Lbyy						Lateral
30	MP9	2.5 Pipe	96			Lbyy						Lateral
31	MP12	2.5 Pipe	96			Lbyy						Lateral
32	M85B	Horizontal	180	Segment	Segment	Segment	Segment					Lateral
33	MP6	Mount Pipe	96			Lbyy						Lateral
34	MP5	2.5 Pipe	96			Lbyy						Lateral
35	MP8	2.5 Pipe	96			Lbyy						Lateral
36	M57	Mount Pipe	3.75									Lateral
37	RP1	Mount Pipe	48			Lbyy						Lateral
38	M59A	Mount Pipe	3.75									Lateral
39	RP3	Mount Pipe	48			Lbyy						Lateral
40	M73	Handrail	174			Lbyy						Lateral
41	M74A	Handrail	174			Lbyy						Lateral
42	M75	Handrail	174			Lbyy						Lateral
43	M73A	Handrail	67.924			Lbyy						Lateral
44	M74B	Handrail	67.924			Lbyy						Lateral
45	M75A	Handrail	67.924			Lbyy						Lateral

Joint Loads and Enforced Displacements (BLC 33 : Service Live Loads)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N1	L	Y	-250
2	N2	L	Y	-250
3	N96	L	Y	-250
4	N97	L	Y	-250
5	N118	L	Y	-250
6	N119	L	Y	-250

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N59	L	Y	-500

Joint Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N60	L	Y	-500

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N61	L	Y	-500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N107	L	Y	-500

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Load 5)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N108	L	Y	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Load 6)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Load 6) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N109	L	Y	-500

Joint Loads and Enforced Displacements (BLC 40 : Maintenance Load 7)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N129A	L	Y	-500

Joint Loads and Enforced Displacements (BLC 41 : Maintenance Load 8)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N130A	L	Y	-500

Joint Loads and Enforced Displacements (BLC 42 : Maintenance Load 9)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*i...
1	N131A	L	Y	-500

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-17.5	54
2	MP2	Y	-17.5	3
3	MP1	Y	-44.65	70
4	MP1	Y	-44.65	3
5	MP4	Y	-31.75	70
6	MP4	Y	-31.75	3
7	MP1	Y	-70	48
8	MP1	Y	-70	48
9	MP4	Y	-59.9	48
10	MP2	Y	-14.1	48
11	RP1	Y	-32.8	24
12	MP6	Y	-17.5	54
13	MP6	Y	-17.5	3
14	MP5	Y	-44.65	70
15	MP5	Y	-44.65	3
16	MP8	Y	-31.75	70
17	MP8	Y	-31.75	3
18	MP5	Y	-70	48
19	MP5	Y	-70	48
20	MP8	Y	-59.9	48
21	MP6	Y	-14.1	48
22	RP2	Y	-32.8	24
23	MP10	Y	-17.5	54
24	MP10	Y	-17.5	3
25	MP9	Y	-44.65	70
26	MP9	Y	-44.65	3
27	MP12	Y	-31.75	70
28	MP12	Y	-31.75	3
29	MP9	Y	-70	48
30	MP9	Y	-70	48
31	MP12	Y	-59.9	48
32	MP10	Y	-14.1	48
33	RP3	Y	-32.8	24

Member Point Loads (BLC 2 : Wind Load AZI_0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	54

Member Point Loads (BLC 2 : Wind Load AZI 0) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
2	MP2	Z	-126.69	54
3	MP2	X	0	3
4	MP2	Z	-126.69	3
5	MP1	X	0	70
6	MP1	Z	-292.29	70
7	MP1	X	0	3
8	MP1	Z	-292.29	3
9	MP4	X	0	70
10	MP4	Z	-281.69	70
11	MP4	X	0	3
12	MP4	Z	-281.69	3
13	MP1	X	0	48
14	MP1	Z	-91.07	48
15	MP1	X	0	48
16	MP1	Z	-91.07	48
17	MP4	X	0	48
18	MP4	Z	-84.75	48
19	MP2	X	0	48
20	MP2	Z	-50.78	48
21	RP1	X	0	24
22	RP1	Z	-133.42	24
23	MP6	X	0	54
24	MP6	Z	-82.18	54
25	MP6	X	0	3
26	MP6	Z	-82.18	3
27	MP5	X	0	70
28	MP5	Z	-169.93	70
29	MP5	X	0	3
30	MP5	Z	-169.93	3
31	MP8	X	0	70
32	MP8	Z	-174.73	70
33	MP8	X	0	3
34	MP8	Z	-174.73	3
35	MP5	X	0	48
36	MP5	Z	-71.41	48
37	MP5	X	0	48
38	MP5	Z	-71.41	48
39	MP8	X	0	48
40	MP8	Z	-57.71	48
41	MP6	X	0	48
42	MP6	Z	-24.67	48
43	RP2	X	0	24
44	RP2	Z	-133.42	24
45	MP10	X	0	54
46	MP10	Z	-91.86	54
47	MP10	X	0	3
48	MP10	Z	-91.86	3
49	MP9	X	0	70
50	MP9	Z	-196.55	70
51	MP9	X	0	3
52	MP9	Z	-196.55	3
53	MP12	X	0	70
54	MP12	Z	-198	70
55	MP12	X	0	3
56	MP12	Z	-198	3
57	MP9	X	0	48
58	MP9	Z	-75.69	48

Member Point Loads (BLC 2 : Wind Load AZI 0) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
59	MP9	X	0	48
60	MP9	Z	-75.69	48
61	MP12	X	0	48
62	MP12	Z	-63.59	48
63	MP10	X	0	48
64	MP10	Z	-30.35	48
65	RP3	X	0	24
66	RP3	Z	-133.42	24

Member Point Loads (BLC 3 : Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-55.93	54
2	MP2	Z	-96.87	54
3	MP2	X	-55.93	3
4	MP2	Z	-96.87	3
5	MP1	X	-125.75	70
6	MP1	Z	-217.81	70
7	MP1	X	-125.75	3
8	MP1	Z	-217.81	3
9	MP4	X	-123.02	70
10	MP4	Z	-213.07	70
11	MP4	X	-123.02	3
12	MP4	Z	-213.07	3
13	MP1	X	-42.26	48
14	MP1	Z	-73.2	48
15	MP1	X	-42.26	48
16	MP1	Z	-73.2	48
17	MP4	X	-37.87	48
18	MP4	Z	-65.59	48
19	MP2	X	-21.04	48
20	MP2	Z	-36.44	48
21	RP1	X	-66.71	24
22	RP1	Z	-115.55	24
23	MP6	X	-55.93	54
24	MP6	Z	-96.87	54
25	MP6	X	-55.93	3
26	MP6	Z	-96.87	3
27	MP5	X	-125.75	70
28	MP5	Z	-217.81	70
29	MP5	X	-125.75	3
30	MP5	Z	-217.81	3
31	MP8	X	-123.02	70
32	MP8	Z	-213.07	70
33	MP8	X	-123.02	3
34	MP8	Z	-213.07	3
35	MP5	X	-42.26	48
36	MP5	Z	-73.2	48
37	MP5	X	-42.26	48
38	MP5	Z	-73.2	48
39	MP8	X	-37.87	48
40	MP8	Z	-65.59	48
41	MP6	X	-21.04	48
42	MP6	Z	-36.44	48
43	RP2	X	-66.71	24
44	RP2	Z	-115.55	24
45	MP10	X	-34.57	54

Member Point Loads (BLC 3 : Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
46	MP10	Z	-59.87	54
47	MP10	X	-34.57	3
48	MP10	Z	-59.87	3
49	MP9	X	-67.03	70
50	MP9	Z	-116.1	70
51	MP9	X	-67.03	3
52	MP9	Z	-116.1	3
53	MP12	X	-71.69	70
54	MP12	Z	-124.16	70
55	MP12	X	-71.69	3
56	MP12	Z	-124.16	3
57	MP9	X	-32.82	48
58	MP9	Z	-56.85	48
59	MP9	X	-32.82	48
60	MP9	Z	-56.85	48
61	MP12	X	-24.89	48
62	MP12	Z	-43.12	48
63	MP10	X	-8.51	48
64	MP10	Z	-14.74	48
65	RP3	X	-66.71	24
66	RP3	Z	-115.55	24

Member Point Loads (BLC 4 : Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-71.17	54
2	MP2	Z	-41.09	54
3	MP2	X	-71.17	3
4	MP2	Z	-41.09	3
5	MP1	X	-147.16	70
6	MP1	Z	-84.96	70
7	MP1	X	-147.16	3
8	MP1	Z	-84.96	3
9	MP4	X	-151.32	70
10	MP4	Z	-87.36	70
11	MP4	X	-151.32	3
12	MP4	Z	-87.36	3
13	MP1	X	-61.84	48
14	MP1	Z	-35.7	48
15	MP1	X	-61.84	48
16	MP1	Z	-35.7	48
17	MP4	X	-49.98	48
18	MP4	Z	-28.86	48
19	MP2	X	-21.36	48
20	MP2	Z	-12.33	48
21	RP1	X	-115.55	24
22	RP1	Z	-66.71	24
23	MP6	X	-109.71	54
24	MP6	Z	-63.34	54
25	MP6	X	-109.71	3
26	MP6	Z	-63.34	3
27	MP5	X	-253.13	70
28	MP5	Z	-146.15	70
29	MP5	X	-253.13	3
30	MP5	Z	-146.15	3
31	MP8	X	-243.95	70
32	MP8	Z	-140.85	70

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
33	MP8	X	-243.95	3
34	MP8	Z	-140.85	3
35	MP5	X	-78.87	48
36	MP5	Z	-45.54	48
37	MP5	X	-78.87	48
38	MP5	Z	-45.54	48
39	MP8	X	-73.39	48
40	MP8	Z	-42.37	48
41	MP6	X	-43.98	48
42	MP6	Z	-25.39	48
43	RP2	X	-115.55	24
44	RP2	Z	-66.71	24
45	MP10	X	-64.33	54
46	MP10	Z	-37.14	54
47	MP10	X	-64.33	3
48	MP10	Z	-37.14	3
49	MP9	X	-128.37	70
50	MP9	Z	-74.11	70
51	MP9	X	-128.37	3
52	MP9	Z	-74.11	3
53	MP12	X	-134.89	70
54	MP12	Z	-77.88	70
55	MP12	X	-134.89	3
56	MP12	Z	-77.88	3
57	MP9	X	-58.82	48
58	MP9	Z	-33.96	48
59	MP9	X	-58.82	48
60	MP9	Z	-33.96	48
61	MP12	X	-45.83	48
62	MP12	Z	-26.46	48
63	MP10	X	-17.35	48
64	MP10	Z	-10.02	48
65	RP3	X	-115.55	24
66	RP3	Z	-66.71	24

Member Point Loads (BLC 5 : Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-67.34	54
2	MP2	Z	0	54
3	MP2	X	-67.34	3
4	MP2	Z	0	3
5	MP1	X	-129.14	70
6	MP1	Z	0	70
7	MP1	X	-129.14	3
8	MP1	Z	0	3
9	MP4	X	-139.07	70
10	MP4	Z	0	70
11	MP4	X	-139.07	3
12	MP4	Z	0	3
13	MP1	X	-64.85	48
14	MP1	Z	0	48
15	MP1	X	-64.85	48
16	MP1	Z	0	48
17	MP4	X	-48.7	48
18	MP4	Z	0	48
19	MP2	X	-15.97	48

Member Point Loads (BLC 5 : Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
20	MP2	Z	0	48
21	RP1	X	-133.42	24
22	RP1	Z	0	24
23	MP6	X	-111.85	54
24	MP6	Z	0	54
25	MP6	X	-111.85	3
26	MP6	Z	0	3
27	MP5	X	-251.51	70
28	MP5	Z	0	70
29	MP5	X	-251.51	3
30	MP5	Z	0	3
31	MP8	X	-246.04	70
32	MP8	Z	0	70
33	MP8	X	-246.04	3
34	MP8	Z	0	3
35	MP5	X	-84.52	48
36	MP5	Z	0	48
37	MP5	X	-84.52	48
38	MP5	Z	0	48
39	MP8	X	-75.74	48
40	MP8	Z	0	48
41	MP6	X	-42.08	48
42	MP6	Z	0	48
43	RP2	X	-133.42	24
44	RP2	Z	0	24
45	MP10	X	-102.17	54
46	MP10	Z	0	54
47	MP10	X	-102.17	3
48	MP10	Z	0	3
49	MP9	X	-224.88	70
50	MP9	Z	0	70
51	MP9	X	-224.88	3
52	MP9	Z	0	3
53	MP12	X	-222.76	70
54	MP12	Z	0	70
55	MP12	X	-222.76	3
56	MP12	Z	0	3
57	MP9	X	-80.24	48
58	MP9	Z	0	48
59	MP9	X	-80.24	48
60	MP9	Z	0	48
61	MP12	X	-69.85	48
62	MP12	Z	0	48
63	MP10	X	-36.4	48
64	MP10	Z	0	48
65	RP3	X	-133.42	24
66	RP3	Z	0	24

Member Point Loads (BLC 6 : Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-71.17	54
2	MP2	Z	41.09	54
3	MP2	X	-71.17	3
4	MP2	Z	41.09	3
5	MP1	X	-147.16	70
6	MP1	Z	84.96	70

Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP1	X	-147.16	3
8	MP1	Z	84.96	3
9	MP4	X	-151.32	70
10	MP4	Z	87.36	70
11	MP4	X	-151.32	3
12	MP4	Z	87.36	3
13	MP1	X	-61.84	48
14	MP1	Z	35.7	48
15	MP1	X	-61.84	48
16	MP1	Z	35.7	48
17	MP4	X	-49.98	48
18	MP4	Z	28.86	48
19	MP2	X	-21.36	48
20	MP2	Z	12.33	48
21	RP1	X	-115.55	24
22	RP1	Z	66.71	24
23	MP6	X	-71.17	54
24	MP6	Z	41.09	54
25	MP6	X	-71.17	3
26	MP6	Z	41.09	3
27	MP5	X	-147.16	70
28	MP5	Z	84.96	70
29	MP5	X	-147.16	3
30	MP5	Z	84.96	3
31	MP8	X	-151.32	70
32	MP8	Z	87.36	70
33	MP8	X	-151.32	3
34	MP8	Z	87.36	3
35	MP5	X	-61.84	48
36	MP5	Z	35.7	48
37	MP5	X	-61.84	48
38	MP5	Z	35.7	48
39	MP8	X	-49.98	48
40	MP8	Z	28.86	48
41	MP6	X	-21.36	48
42	MP6	Z	12.33	48
43	RP2	X	-115.55	24
44	RP2	Z	66.71	24
45	MP10	X	-108.16	54
46	MP10	Z	62.45	54
47	MP10	X	-108.16	3
48	MP10	Z	62.45	3
49	MP9	X	-248.87	70
50	MP9	Z	143.69	70
51	MP9	X	-248.87	3
52	MP9	Z	143.69	3
53	MP12	X	-240.23	70
54	MP12	Z	138.7	70
55	MP12	X	-240.23	3
56	MP12	Z	138.7	3
57	MP9	X	-78.19	48
58	MP9	Z	45.14	48
59	MP9	X	-78.19	48
60	MP9	Z	45.14	48
61	MP12	X	-72.45	48
62	MP12	Z	41.83	48
63	MP10	X	-43.07	48

Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
64	MP10	Z	24.87	48
65	RP3	X	-115.55	24
66	RP3	Z	66.71	24

Member Point Loads (BLC 7 : Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-55.93	54
2	MP2	Z	96.87	54
3	MP2	X	-55.93	3
4	MP2	Z	96.87	3
5	MP1	X	-125.75	70
6	MP1	Z	217.81	70
7	MP1	X	-125.75	3
8	MP1	Z	217.81	3
9	MP4	X	-123.02	70
10	MP4	Z	213.07	70
11	MP4	X	-123.02	3
12	MP4	Z	213.07	3
13	MP1	X	-42.26	48
14	MP1	Z	73.2	48
15	MP1	X	-42.26	48
16	MP1	Z	73.2	48
17	MP4	X	-37.87	48
18	MP4	Z	65.59	48
19	MP2	X	-21.04	48
20	MP2	Z	36.44	48
21	RP1	X	-66.71	24
22	RP1	Z	115.55	24
23	MP6	X	-33.67	54
24	MP6	Z	58.32	54
25	MP6	X	-33.67	3
26	MP6	Z	58.32	3
27	MP5	X	-64.57	70
28	MP5	Z	111.84	70
29	MP5	X	-64.57	3
30	MP5	Z	111.84	3
31	MP8	X	-69.54	70
32	MP8	Z	120.44	70
33	MP8	X	-69.54	3
34	MP8	Z	120.44	3
35	MP5	X	-32.43	48
36	MP5	Z	56.17	48
37	MP5	X	-32.43	48
38	MP5	Z	56.17	48
39	MP8	X	-24.35	48
40	MP8	Z	42.17	48
41	MP6	X	-7.98	48
42	MP6	Z	13.83	48
43	RP2	X	-66.71	24
44	RP2	Z	115.55	24
45	MP10	X	-59.87	54
46	MP10	Z	103.7	54
47	MP10	X	-59.87	3
48	MP10	Z	103.7	3
49	MP9	X	-136.6	70
50	MP9	Z	236.61	70

Member Point Loads (BLC 7 : Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
51	MP9	X	-136.6	3
52	MP9	Z	236.61	3
53	MP12	X	-132.5	70
54	MP12	Z	229.5	70
55	MP12	X	-132.5	3
56	MP12	Z	229.5	3
57	MP9	X	-44	48
58	MP9	Z	76.22	48
59	MP9	X	-44	48
60	MP9	Z	76.22	48
61	MP12	X	-40.27	48
62	MP12	Z	69.74	48
63	MP10	X	-23.35	48
64	MP10	Z	40.45	48
65	RP3	X	-66.71	24
66	RP3	Z	115.55	24

Member Point Loads (BLC 8 : Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	54
2	MP2	Z	126.69	54
3	MP2	X	0	3
4	MP2	Z	126.69	3
5	MP1	X	0	70
6	MP1	Z	292.29	70
7	MP1	X	0	3
8	MP1	Z	292.29	3
9	MP4	X	0	70
10	MP4	Z	281.69	70
11	MP4	X	0	3
12	MP4	Z	281.69	3
13	MP1	X	0	48
14	MP1	Z	91.07	48
15	MP1	X	0	48
16	MP1	Z	91.07	48
17	MP4	X	0	48
18	MP4	Z	84.75	48
19	MP2	X	0	48
20	MP2	Z	50.78	48
21	RP1	X	0	24
22	RP1	Z	133.42	24
23	MP6	X	0	54
24	MP6	Z	82.18	54
25	MP6	X	0	3
26	MP6	Z	82.18	3
27	MP5	X	0	70
28	MP5	Z	169.93	70
29	MP5	X	0	3
30	MP5	Z	169.93	3
31	MP8	X	0	70
32	MP8	Z	174.73	70
33	MP8	X	0	3
34	MP8	Z	174.73	3
35	MP5	X	0	48
36	MP5	Z	71.41	48
37	MP5	X	0	48

Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
38	MP5	Z	71.41	48
39	MP8	X	0	48
40	MP8	Z	57.71	48
41	MP6	X	0	48
42	MP6	Z	24.67	48
43	RP2	X	0	24
44	RP2	Z	133.42	24
45	MP10	X	0	54
46	MP10	Z	91.86	54
47	MP10	X	0	3
48	MP10	Z	91.86	3
49	MP9	X	0	70
50	MP9	Z	196.55	70
51	MP9	X	0	3
52	MP9	Z	196.55	3
53	MP12	X	0	70
54	MP12	Z	198	70
55	MP12	X	0	3
56	MP12	Z	198	3
57	MP9	X	0	48
58	MP9	Z	75.69	48
59	MP9	X	0	48
60	MP9	Z	75.69	48
61	MP12	X	0	48
62	MP12	Z	63.59	48
63	MP10	X	0	48
64	MP10	Z	30.35	48
65	RP3	X	0	24
66	RP3	Z	133.42	24

Member Point Loads (BLC 9 : Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	55.93	54
2	MP2	Z	96.87	54
3	MP2	X	55.93	3
4	MP2	Z	96.87	3
5	MP1	X	125.75	70
6	MP1	Z	217.81	70
7	MP1	X	125.75	3
8	MP1	Z	217.81	3
9	MP4	X	123.02	70
10	MP4	Z	213.07	70
11	MP4	X	123.02	3
12	MP4	Z	213.07	3
13	MP1	X	42.26	48
14	MP1	Z	73.2	48
15	MP1	X	42.26	48
16	MP1	Z	73.2	48
17	MP4	X	37.87	48
18	MP4	Z	65.59	48
19	MP2	X	21.04	48
20	MP2	Z	36.44	48
21	RP1	X	66.71	24
22	RP1	Z	115.55	24
23	MP6	X	55.93	54
24	MP6	Z	96.87	54

Member Point Loads (BLC 9 : Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP6	X	55.93	3
26	MP6	Z	96.87	3
27	MP5	X	125.75	70
28	MP5	Z	217.81	70
29	MP5	X	125.75	3
30	MP5	Z	217.81	3
31	MP8	X	123.02	70
32	MP8	Z	213.07	70
33	MP8	X	123.02	3
34	MP8	Z	213.07	3
35	MP5	X	42.26	48
36	MP5	Z	73.2	48
37	MP5	X	42.26	48
38	MP5	Z	73.2	48
39	MP8	X	37.87	48
40	MP8	Z	65.59	48
41	MP6	X	21.04	48
42	MP6	Z	36.44	48
43	RP2	X	66.71	24
44	RP2	Z	115.55	24
45	MP10	X	34.57	54
46	MP10	Z	59.87	54
47	MP10	X	34.57	3
48	MP10	Z	59.87	3
49	MP9	X	67.03	70
50	MP9	Z	116.1	70
51	MP9	X	67.03	3
52	MP9	Z	116.1	3
53	MP12	X	71.69	70
54	MP12	Z	124.16	70
55	MP12	X	71.69	3
56	MP12	Z	124.16	3
57	MP9	X	32.82	48
58	MP9	Z	56.85	48
59	MP9	X	32.82	48
60	MP9	Z	56.85	48
61	MP12	X	24.89	48
62	MP12	Z	43.12	48
63	MP10	X	8.51	48
64	MP10	Z	14.74	48
65	RP3	X	66.71	24
66	RP3	Z	115.55	24

Member Point Loads (BLC 10 : Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	71.17	54
2	MP2	Z	41.09	54
3	MP2	X	71.17	3
4	MP2	Z	41.09	3
5	MP1	X	147.16	70
6	MP1	Z	84.96	70
7	MP1	X	147.16	3
8	MP1	Z	84.96	3
9	MP4	X	151.32	70
10	MP4	Z	87.36	70
11	MP4	X	151.32	3

Member Point Loads (BLC 10 : Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
12	MP4	Z	87.36	3
13	MP1	X	61.84	48
14	MP1	Z	35.7	48
15	MP1	X	61.84	48
16	MP1	Z	35.7	48
17	MP4	X	49.98	48
18	MP4	Z	28.86	48
19	MP2	X	21.36	48
20	MP2	Z	12.33	48
21	RP1	X	115.55	24
22	RP1	Z	66.71	24
23	MP6	X	109.71	54
24	MP6	Z	63.34	54
25	MP6	X	109.71	3
26	MP6	Z	63.34	3
27	MP5	X	253.13	70
28	MP5	Z	146.15	70
29	MP5	X	253.13	3
30	MP5	Z	146.15	3
31	MP8	X	243.95	70
32	MP8	Z	140.85	70
33	MP8	X	243.95	3
34	MP8	Z	140.85	3
35	MP5	X	78.87	48
36	MP5	Z	45.54	48
37	MP5	X	78.87	48
38	MP5	Z	45.54	48
39	MP8	X	73.39	48
40	MP8	Z	42.37	48
41	MP6	X	43.98	48
42	MP6	Z	25.39	48
43	RP2	X	115.55	24
44	RP2	Z	66.71	24
45	MP10	X	64.33	54
46	MP10	Z	37.14	54
47	MP10	X	64.33	3
48	MP10	Z	37.14	3
49	MP9	X	128.37	70
50	MP9	Z	74.11	70
51	MP9	X	128.37	3
52	MP9	Z	74.11	3
53	MP12	X	134.89	70
54	MP12	Z	77.88	70
55	MP12	X	134.89	3
56	MP12	Z	77.88	3
57	MP9	X	58.82	48
58	MP9	Z	33.96	48
59	MP9	X	58.82	48
60	MP9	Z	33.96	48
61	MP12	X	45.83	48
62	MP12	Z	26.46	48
63	MP10	X	17.35	48
64	MP10	Z	10.02	48
65	RP3	X	115.55	24
66	RP3	Z	66.71	24

Member Point Loads (BLC 11 : Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	67.34	54
2	MP2	Z	0	54
3	MP2	X	67.34	3
4	MP2	Z	0	3
5	MP1	X	129.14	70
6	MP1	Z	0	70
7	MP1	X	129.14	3
8	MP1	Z	0	3
9	MP4	X	139.07	70
10	MP4	Z	0	70
11	MP4	X	139.07	3
12	MP4	Z	0	3
13	MP1	X	64.85	48
14	MP1	Z	0	48
15	MP1	X	64.85	48
16	MP1	Z	0	48
17	MP4	X	48.7	48
18	MP4	Z	0	48
19	MP2	X	15.97	48
20	MP2	Z	0	48
21	RP1	X	133.42	24
22	RP1	Z	0	24
23	MP6	X	111.85	54
24	MP6	Z	0	54
25	MP6	X	111.85	3
26	MP6	Z	0	3
27	MP5	X	251.51	70
28	MP5	Z	0	70
29	MP5	X	251.51	3
30	MP5	Z	0	3
31	MP8	X	246.04	70
32	MP8	Z	0	70
33	MP8	X	246.04	3
34	MP8	Z	0	3
35	MP5	X	84.52	48
36	MP5	Z	0	48
37	MP5	X	84.52	48
38	MP5	Z	0	48
39	MP8	X	75.74	48
40	MP8	Z	0	48
41	MP6	X	42.08	48
42	MP6	Z	0	48
43	RP2	X	133.42	24
44	RP2	Z	0	24
45	MP10	X	102.17	54
46	MP10	Z	0	54
47	MP10	X	102.17	3
48	MP10	Z	0	3
49	MP9	X	224.88	70
50	MP9	Z	0	70
51	MP9	X	224.88	3
52	MP9	Z	0	3
53	MP12	X	222.76	70
54	MP12	Z	0	70
55	MP12	X	222.76	3
56	MP12	Z	0	3
57	MP9	X	80.24	48

Member Point Loads (BLC 11 : Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
58	MP9	Z	0	48
59	MP9	X	80.24	48
60	MP9	Z	0	48
61	MP12	X	69.85	48
62	MP12	Z	0	48
63	MP10	X	36.4	48
64	MP10	Z	0	48
65	RP3	X	133.42	24
66	RP3	Z	0	24

Member Point Loads (BLC 12 : Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	71.17	54
2	MP2	Z	-41.09	54
3	MP2	X	71.17	3
4	MP2	Z	-41.09	3
5	MP1	X	147.16	70
6	MP1	Z	-84.96	70
7	MP1	X	147.16	3
8	MP1	Z	-84.96	3
9	MP4	X	151.32	70
10	MP4	Z	-87.36	70
11	MP4	X	151.32	3
12	MP4	Z	-87.36	3
13	MP1	X	61.84	48
14	MP1	Z	-35.7	48
15	MP1	X	61.84	48
16	MP1	Z	-35.7	48
17	MP4	X	49.98	48
18	MP4	Z	-28.86	48
19	MP2	X	21.36	48
20	MP2	Z	-12.33	48
21	RP1	X	115.55	24
22	RP1	Z	-66.71	24
23	MP6	X	71.17	54
24	MP6	Z	-41.09	54
25	MP6	X	71.17	3
26	MP6	Z	-41.09	3
27	MP5	X	147.16	70
28	MP5	Z	-84.96	70
29	MP5	X	147.16	3
30	MP5	Z	-84.96	3
31	MP8	X	151.32	70
32	MP8	Z	-87.36	70
33	MP8	X	151.32	3
34	MP8	Z	-87.36	3
35	MP5	X	61.84	48
36	MP5	Z	-35.7	48
37	MP5	X	61.84	48
38	MP5	Z	-35.7	48
39	MP8	X	49.98	48
40	MP8	Z	-28.86	48
41	MP6	X	21.36	48
42	MP6	Z	-12.33	48
43	RP2	X	115.55	24
44	RP2	Z	-66.71	24

Member Point Loads (BLC 12 : Wind Load AZI 300) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
45	MP10	X	108.16	54
46	MP10	Z	-62.45	54
47	MP10	X	108.16	3
48	MP10	Z	-62.45	3
49	MP9	X	248.87	70
50	MP9	Z	-143.69	70
51	MP9	X	248.87	3
52	MP9	Z	-143.69	3
53	MP12	X	240.23	70
54	MP12	Z	-138.7	70
55	MP12	X	240.23	3
56	MP12	Z	-138.7	3
57	MP9	X	78.19	48
58	MP9	Z	-45.14	48
59	MP9	X	78.19	48
60	MP9	Z	-45.14	48
61	MP12	X	72.45	48
62	MP12	Z	-41.83	48
63	MP10	X	43.07	48
64	MP10	Z	-24.87	48
65	RP3	X	115.55	24
66	RP3	Z	-66.71	24

Member Point Loads (BLC 13 : Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	55.93	54
2	MP2	Z	-96.87	54
3	MP2	X	55.93	3
4	MP2	Z	-96.87	3
5	MP1	X	125.75	70
6	MP1	Z	-217.81	70
7	MP1	X	125.75	3
8	MP1	Z	-217.81	3
9	MP4	X	123.02	70
10	MP4	Z	-213.07	70
11	MP4	X	123.02	3
12	MP4	Z	-213.07	3
13	MP1	X	42.26	48
14	MP1	Z	-73.2	48
15	MP1	X	42.26	48
16	MP1	Z	-73.2	48
17	MP4	X	37.87	48
18	MP4	Z	-65.59	48
19	MP2	X	21.04	48
20	MP2	Z	-36.44	48
21	RP1	X	66.71	24
22	RP1	Z	-115.55	24
23	MP6	X	33.67	54
24	MP6	Z	-58.32	54
25	MP6	X	33.67	3
26	MP6	Z	-58.32	3
27	MP5	X	64.57	70
28	MP5	Z	-111.84	70
29	MP5	X	64.57	3
30	MP5	Z	-111.84	3
31	MP8	X	69.54	70

Member Point Loads (BLC 13 : Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
32	MP8	Z	-120.44	70
33	MP8	X	69.54	3
34	MP8	Z	-120.44	3
35	MP5	X	32.43	48
36	MP5	Z	-56.17	48
37	MP5	X	32.43	48
38	MP5	Z	-56.17	48
39	MP8	X	24.35	48
40	MP8	Z	-42.17	48
41	MP6	X	7.98	48
42	MP6	Z	-13.83	48
43	RP2	X	66.71	24
44	RP2	Z	-115.55	24
45	MP10	X	59.87	54
46	MP10	Z	-103.7	54
47	MP10	X	59.87	3
48	MP10	Z	-103.7	3
49	MP9	X	136.6	70
50	MP9	Z	-236.61	70
51	MP9	X	136.6	3
52	MP9	Z	-236.61	3
53	MP12	X	132.5	70
54	MP12	Z	-229.5	70
55	MP12	X	132.5	3
56	MP12	Z	-229.5	3
57	MP9	X	44	48
58	MP9	Z	-76.22	48
59	MP9	X	44	48
60	MP9	Z	-76.22	48
61	MP12	X	40.27	48
62	MP12	Z	-69.74	48
63	MP10	X	23.35	48
64	MP10	Z	-40.45	48
65	RP3	X	66.71	24
66	RP3	Z	-115.55	24

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-41.72	54
2	MP2	Y	-41.72	3
3	MP1	Y	-91.263	70
4	MP1	Y	-91.263	3
5	MP4	Y	-92.539	70
6	MP4	Y	-92.539	3
7	MP1	Y	-47.604	48
8	MP1	Y	-47.604	48
9	MP4	Y	-41.074	48
10	MP2	Y	-19.64	48
11	RP1	Y	-70.776	24
12	MP6	Y	-41.72	54
13	MP6	Y	-41.72	3
14	MP5	Y	-91.263	70
15	MP5	Y	-91.263	3
16	MP8	Y	-92.539	70
17	MP8	Y	-92.539	3
18	MP5	Y	-47.604	48

Member Point Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
19	MP5	Y	-47.604	48
20	MP8	Y	-41.074	48
21	MP6	Y	-19.64	48
22	RP2	Y	-70.776	24
23	MP10	Y	-41.72	54
24	MP10	Y	-41.72	3
25	MP9	Y	-91.263	70
26	MP9	Y	-91.263	3
27	MP12	Y	-92.539	70
28	MP12	Y	-92.539	3
29	MP9	Y	-47.604	48
30	MP9	Y	-47.604	48
31	MP12	Y	-41.074	48
32	MP10	Y	-19.64	48
33	RP3	Y	-70.776	24

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	54
2	MP2	Z	-11.65	54
3	MP2	X	0	3
4	MP2	Z	-11.65	3
5	MP1	X	0	70
6	MP1	Z	-22.66	70
7	MP1	X	0	3
8	MP1	Z	-22.66	3
9	MP4	X	0	70
10	MP4	Z	-22.92	70
11	MP4	X	0	3
12	MP4	Z	-22.92	3
13	MP1	X	0	48
14	MP1	Z	-8.33	48
15	MP1	X	0	48
16	MP1	Z	-8.33	48
17	MP4	X	0	48
18	MP4	Z	-7.76	48
19	MP2	X	0	48
20	MP2	Z	-5.88	48
21	RP1	X	0	24
22	RP1	Z	-12.72	24
23	MP6	X	0	54
24	MP6	Z	-9.61	54
25	MP6	X	0	3
26	MP6	Z	-9.61	3
27	MP5	X	0	70
28	MP5	Z	-16.19	70
29	MP5	X	0	3
30	MP5	Z	-16.19	3
31	MP8	X	0	70
32	MP8	Z	-16.3	70
33	MP8	X	0	3
34	MP8	Z	-16.3	3
35	MP5	X	0	48
36	MP5	Z	-7.49	48
37	MP5	X	0	48
38	MP5	Z	-7.49	48

Member Point Loads (BLC 17 : Ice Wind Load AZI 0) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
39	MP8	X	0	48
40	MP8	Z	-6.56	48
41	MP6	X	0	48
42	MP6	Z	-3.78	48
43	RP2	X	0	24
44	RP2	Z	-12.72	24
45	MP10	X	0	54
46	MP10	Z	-10.05	54
47	MP10	X	0	3
48	MP10	Z	-10.05	3
49	MP9	X	0	70
50	MP9	Z	-17.6	70
51	MP9	X	0	3
52	MP9	Z	-17.6	3
53	MP12	X	0	70
54	MP12	Z	-17.74	70
55	MP12	X	0	3
56	MP12	Z	-17.74	3
57	MP9	X	0	48
58	MP9	Z	-7.67	48
59	MP9	X	0	48
60	MP9	Z	-7.67	48
61	MP12	X	0	48
62	MP12	Z	-6.82	48
63	MP10	X	0	48
64	MP10	Z	-4.24	48
65	RP3	X	0	24
66	RP3	Z	-12.72	24

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-5.49	54
2	MP2	Z	-9.5	54
3	MP2	X	-5.49	3
4	MP2	Z	-9.5	3
5	MP1	X	-10.25	70
6	MP1	Z	-17.76	70
7	MP1	X	-10.25	3
8	MP1	Z	-17.76	3
9	MP4	X	-10.36	70
10	MP4	Z	-17.94	70
11	MP4	X	-10.36	3
12	MP4	Z	-17.94	3
13	MP1	X	-4.02	48
14	MP1	Z	-6.97	48
15	MP1	X	-4.02	48
16	MP1	Z	-6.97	48
17	MP4	X	-3.68	48
18	MP4	Z	-6.38	48
19	MP2	X	-2.59	48
20	MP2	Z	-4.49	48
21	RP1	X	-6.36	24
22	RP1	Z	-11.02	24
23	MP6	X	-5.49	54
24	MP6	Z	-9.5	54
25	MP6	X	-5.49	3

Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
26	MP6	Z	-9.5	3
27	MP5	X	-10.25	70
28	MP5	Z	-17.76	70
29	MP5	X	-10.25	3
30	MP5	Z	-17.76	3
31	MP8	X	-10.36	70
32	MP8	Z	-17.94	70
33	MP8	X	-10.36	3
34	MP8	Z	-17.94	3
35	MP5	X	-4.02	48
36	MP5	Z	-6.97	48
37	MP5	X	-4.02	48
38	MP5	Z	-6.97	48
39	MP8	X	-3.68	48
40	MP8	Z	-6.38	48
41	MP6	X	-2.59	48
42	MP6	Z	-4.49	48
43	RP2	X	-6.36	24
44	RP2	Z	-11.02	24
45	MP10	X	-4.5	54
46	MP10	Z	-7.8	54
47	MP10	X	-4.5	3
48	MP10	Z	-7.8	3
49	MP9	X	-7.15	70
50	MP9	Z	-12.38	70
51	MP9	X	-7.15	3
52	MP9	Z	-12.38	3
53	MP12	X	-7.18	70
54	MP12	Z	-12.44	70
55	MP12	X	-7.18	3
56	MP12	Z	-12.44	3
57	MP9	X	-3.62	48
58	MP9	Z	-6.27	48
59	MP9	X	-3.62	48
60	MP9	Z	-6.27	48
61	MP12	X	-3.1	48
62	MP12	Z	-5.37	48
63	MP10	X	-1.58	48
64	MP10	Z	-2.74	48
65	RP3	X	-6.36	24
66	RP3	Z	-11.02	24

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-8.32	54
2	MP2	Z	-4.8	54
3	MP2	X	-8.32	3
4	MP2	Z	-4.8	3
5	MP1	X	-14.02	70
6	MP1	Z	-8.1	70
7	MP1	X	-14.02	3
8	MP1	Z	-8.1	3
9	MP4	X	-14.12	70
10	MP4	Z	-8.15	70
11	MP4	X	-14.12	3
12	MP4	Z	-8.15	3

Member Point Loads (BLC 19 : Ice Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
13	MP1	X	-6.48	48
14	MP1	Z	-3.74	48
15	MP1	X	-6.48	48
16	MP1	Z	-3.74	48
17	MP4	X	-5.68	48
18	MP4	Z	-3.28	48
19	MP2	X	-3.27	48
20	MP2	Z	-1.89	48
21	RP1	X	-11.02	24
22	RP1	Z	-6.36	24
23	MP6	X	-10.09	54
24	MP6	Z	-5.83	54
25	MP6	X	-10.09	3
26	MP6	Z	-5.83	3
27	MP5	X	-19.63	70
28	MP5	Z	-11.33	70
29	MP5	X	-19.63	3
30	MP5	Z	-11.33	3
31	MP8	X	-19.85	70
32	MP8	Z	-11.46	70
33	MP8	X	-19.85	3
34	MP8	Z	-11.46	3
35	MP5	X	-7.21	48
36	MP5	Z	-4.16	48
37	MP5	X	-7.21	48
38	MP5	Z	-4.16	48
39	MP8	X	-6.72	48
40	MP8	Z	-3.88	48
41	MP6	X	-5.09	48
42	MP6	Z	-2.94	48
43	RP2	X	-11.02	24
44	RP2	Z	-6.36	24
45	MP10	X	-8.01	54
46	MP10	Z	-4.62	54
47	MP10	X	-8.01	3
48	MP10	Z	-4.62	3
49	MP9	X	-13.03	70
50	MP9	Z	-7.52	70
51	MP9	X	-13.03	3
52	MP9	Z	-7.52	3
53	MP12	X	-13.1	70
54	MP12	Z	-7.56	70
55	MP12	X	-13.1	3
56	MP12	Z	-7.56	3
57	MP9	X	-6.35	48
58	MP9	Z	-3.67	48
59	MP9	X	-6.35	48
60	MP9	Z	-3.67	48
61	MP12	X	-5.5	48
62	MP12	Z	-3.17	48
63	MP10	X	-2.95	48
64	MP10	Z	-1.7	48
65	RP3	X	-11.02	24
66	RP3	Z	-6.36	24

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

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

Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-8.93	54
2	MP2	Z	0	54
3	MP2	X	-8.93	3
4	MP2	Z	0	3
5	MP1	X	-14.04	70
6	MP1	Z	0	70
7	MP1	X	-14.04	3
8	MP1	Z	0	3
9	MP4	X	-14.1	70
10	MP4	Z	0	70
11	MP4	X	-14.1	3
12	MP4	Z	0	3
13	MP1	X	-7.21	48
14	MP1	Z	0	48
15	MP1	X	-7.21	48
16	MP1	Z	0	48
17	MP4	X	-6.16	48
18	MP4	Z	0	48
19	MP2	X	-3.08	48
20	MP2	Z	0	48
21	RP1	X	-12.72	24
22	RP1	Z	0	24
23	MP6	X	-10.97	54
24	MP6	Z	0	54
25	MP6	X	-10.97	3
26	MP6	Z	0	3
27	MP5	X	-20.51	70
28	MP5	Z	0	70
29	MP5	X	-20.51	3
30	MP5	Z	0	3
31	MP8	X	-20.71	70
32	MP8	Z	0	70
33	MP8	X	-20.71	3
34	MP8	Z	0	3
35	MP5	X	-8.05	48
36	MP5	Z	0	48
37	MP5	X	-8.05	48
38	MP5	Z	0	48
39	MP8	X	-7.36	48
40	MP8	Z	0	48
41	MP6	X	-5.18	48
42	MP6	Z	0	48
43	RP2	X	-12.72	24
44	RP2	Z	0	24
45	MP10	X	-10.53	54
46	MP10	Z	0	54
47	MP10	X	-10.53	3
48	MP10	Z	0	3
49	MP9	X	-19.1	70
50	MP9	Z	0	70
51	MP9	X	-19.1	3
52	MP9	Z	0	3
53	MP12	X	-19.27	70
54	MP12	Z	0	70
55	MP12	X	-19.27	3
56	MP12	Z	0	3
57	MP9	X	-7.86	48

Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
58	MP9	Z	0	48
59	MP9	X	-7.86	48
60	MP9	Z	0	48
61	MP12	X	-7.1	48
62	MP12	Z	0	48
63	MP10	X	-4.72	48
64	MP10	Z	0	48
65	RP3	X	-12.72	24
66	RP3	Z	0	24

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-8.32	54
2	MP2	Z	4.8	54
3	MP2	X	-8.32	3
4	MP2	Z	4.8	3
5	MP1	X	-14.02	70
6	MP1	Z	8.1	70
7	MP1	X	-14.02	3
8	MP1	Z	8.1	3
9	MP4	X	-14.12	70
10	MP4	Z	8.15	70
11	MP4	X	-14.12	3
12	MP4	Z	8.15	3
13	MP1	X	-6.48	48
14	MP1	Z	3.74	48
15	MP1	X	-6.48	48
16	MP1	Z	3.74	48
17	MP4	X	-5.68	48
18	MP4	Z	3.28	48
19	MP2	X	-3.27	48
20	MP2	Z	1.89	48
21	RP1	X	-11.02	24
22	RP1	Z	6.36	24
23	MP6	X	-8.32	54
24	MP6	Z	4.8	54
25	MP6	X	-8.32	3
26	MP6	Z	4.8	3
27	MP5	X	-14.02	70
28	MP5	Z	8.1	70
29	MP5	X	-14.02	3
30	MP5	Z	8.1	3
31	MP8	X	-14.12	70
32	MP8	Z	8.15	70
33	MP8	X	-14.12	3
34	MP8	Z	8.15	3
35	MP5	X	-6.48	48
36	MP5	Z	3.74	48
37	MP5	X	-6.48	48
38	MP5	Z	3.74	48
39	MP8	X	-5.68	48
40	MP8	Z	3.28	48
41	MP6	X	-3.27	48
42	MP6	Z	1.89	48
43	RP2	X	-11.02	24
44	RP2	Z	6.36	24

Member Point Loads (BLC 21 : Ice Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
45	MP10	X	-10.02	54
46	MP10	Z	5.79	54
47	MP10	X	-10.02	3
48	MP10	Z	5.79	3
49	MP9	X	-19.4	70
50	MP9	Z	11.2	70
51	MP9	X	-19.4	3
52	MP9	Z	11.2	3
53	MP12	X	-19.62	70
54	MP12	Z	11.33	70
55	MP12	X	-19.62	3
56	MP12	Z	11.33	3
57	MP9	X	-7.18	48
58	MP9	Z	4.15	48
59	MP9	X	-7.18	48
60	MP9	Z	4.15	48
61	MP12	X	-6.68	48
62	MP12	Z	3.86	48
63	MP10	X	-5.02	48
64	MP10	Z	2.9	48
65	RP3	X	-11.02	24
66	RP3	Z	6.36	24

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-5.49	54
2	MP2	Z	9.5	54
3	MP2	X	-5.49	3
4	MP2	Z	9.5	3
5	MP1	X	-10.25	70
6	MP1	Z	17.76	70
7	MP1	X	-10.25	3
8	MP1	Z	17.76	3
9	MP4	X	-10.36	70
10	MP4	Z	17.94	70
11	MP4	X	-10.36	3
12	MP4	Z	17.94	3
13	MP1	X	-4.02	48
14	MP1	Z	6.97	48
15	MP1	X	-4.02	48
16	MP1	Z	6.97	48
17	MP4	X	-3.68	48
18	MP4	Z	6.38	48
19	MP2	X	-2.59	48
20	MP2	Z	4.49	48
21	RP1	X	-6.36	24
22	RP1	Z	11.02	24
23	MP6	X	-4.46	54
24	MP6	Z	7.73	54
25	MP6	X	-4.46	3
26	MP6	Z	7.73	3
27	MP5	X	-7.02	70
28	MP5	Z	12.16	70
29	MP5	X	-7.02	3
30	MP5	Z	12.16	3
31	MP8	X	-7.05	70

Member Point Loads (BLC 22 : Ice Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
32	MP8	Z	12.21	70
33	MP8	X	-7.05	3
34	MP8	Z	12.21	3
35	MP5	X	-3.6	48
36	MP5	Z	6.24	48
37	MP5	X	-3.6	48
38	MP5	Z	6.24	48
39	MP8	X	-3.08	48
40	MP8	Z	5.33	48
41	MP6	X	-1.54	48
42	MP6	Z	2.67	48
43	RP2	X	-6.36	24
44	RP2	Z	11.02	24
45	MP10	X	-5.67	54
46	MP10	Z	9.82	54
47	MP10	X	-5.67	3
48	MP10	Z	9.82	3
49	MP9	X	-10.83	70
50	MP9	Z	18.75	70
51	MP9	X	-10.83	3
52	MP9	Z	18.75	3
53	MP12	X	-10.94	70
54	MP12	Z	18.95	70
55	MP12	X	-10.94	3
56	MP12	Z	18.95	3
57	MP9	X	-4.1	48
58	MP9	Z	7.1	48
59	MP9	X	-4.1	48
60	MP9	Z	7.1	48
61	MP12	X	-3.79	48
62	MP12	Z	6.56	48
63	MP10	X	-2.78	48
64	MP10	Z	4.81	48
65	RP3	X	-6.36	24
66	RP3	Z	11.02	24

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	54
2	MP2	Z	11.65	54
3	MP2	X	0	3
4	MP2	Z	11.65	3
5	MP1	X	0	70
6	MP1	Z	22.66	70
7	MP1	X	0	3
8	MP1	Z	22.66	3
9	MP4	X	0	70
10	MP4	Z	22.92	70
11	MP4	X	0	3
12	MP4	Z	22.92	3
13	MP1	X	0	48
14	MP1	Z	8.33	48
15	MP1	X	0	48
16	MP1	Z	8.33	48
17	MP4	X	0	48
18	MP4	Z	7.76	48

Member Point Loads (BLC 23 : Ice Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
19	MP2	X	0	48
20	MP2	Z	5.88	48
21	RP1	X	0	24
22	RP1	Z	12.72	24
23	MP6	X	0	54
24	MP6	Z	9.61	54
25	MP6	X	0	3
26	MP6	Z	9.61	3
27	MP5	X	0	70
28	MP5	Z	16.19	70
29	MP5	X	0	3
30	MP5	Z	16.19	3
31	MP8	X	0	70
32	MP8	Z	16.3	70
33	MP8	X	0	3
34	MP8	Z	16.3	3
35	MP5	X	0	48
36	MP5	Z	7.49	48
37	MP5	X	0	48
38	MP5	Z	7.49	48
39	MP8	X	0	48
40	MP8	Z	6.56	48
41	MP6	X	0	48
42	MP6	Z	3.78	48
43	RP2	X	0	24
44	RP2	Z	12.72	24
45	MP10	X	0	54
46	MP10	Z	10.05	54
47	MP10	X	0	3
48	MP10	Z	10.05	3
49	MP9	X	0	70
50	MP9	Z	17.6	70
51	MP9	X	0	3
52	MP9	Z	17.6	3
53	MP12	X	0	70
54	MP12	Z	17.74	70
55	MP12	X	0	3
56	MP12	Z	17.74	3
57	MP9	X	0	48
58	MP9	Z	7.67	48
59	MP9	X	0	48
60	MP9	Z	7.67	48
61	MP12	X	0	48
62	MP12	Z	6.82	48
63	MP10	X	0	48
64	MP10	Z	4.24	48
65	RP3	X	0	24
66	RP3	Z	12.72	24

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	5.49	54
2	MP2	Z	9.5	54
3	MP2	X	5.49	3
4	MP2	Z	9.5	3
5	MP1	X	10.25	70

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
6	MP1	Z	17.76	70
7	MP1	X	10.25	3
8	MP1	Z	17.76	3
9	MP4	X	10.36	70
10	MP4	Z	17.94	70
11	MP4	X	10.36	3
12	MP4	Z	17.94	3
13	MP1	X	4.02	48
14	MP1	Z	6.97	48
15	MP1	X	4.02	48
16	MP1	Z	6.97	48
17	MP4	X	3.68	48
18	MP4	Z	6.38	48
19	MP2	X	2.59	48
20	MP2	Z	4.49	48
21	RP1	X	6.36	24
22	RP1	Z	11.02	24
23	MP6	X	5.49	54
24	MP6	Z	9.5	54
25	MP6	X	5.49	3
26	MP6	Z	9.5	3
27	MP5	X	10.25	70
28	MP5	Z	17.76	70
29	MP5	X	10.25	3
30	MP5	Z	17.76	3
31	MP8	X	10.36	70
32	MP8	Z	17.94	70
33	MP8	X	10.36	3
34	MP8	Z	17.94	3
35	MP5	X	4.02	48
36	MP5	Z	6.97	48
37	MP5	X	4.02	48
38	MP5	Z	6.97	48
39	MP8	X	3.68	48
40	MP8	Z	6.38	48
41	MP6	X	2.59	48
42	MP6	Z	4.49	48
43	RP2	X	6.36	24
44	RP2	Z	11.02	24
45	MP10	X	4.5	54
46	MP10	Z	7.8	54
47	MP10	X	4.5	3
48	MP10	Z	7.8	3
49	MP9	X	7.15	70
50	MP9	Z	12.38	70
51	MP9	X	7.15	3
52	MP9	Z	12.38	3
53	MP12	X	7.18	70
54	MP12	Z	12.44	70
55	MP12	X	7.18	3
56	MP12	Z	12.44	3
57	MP9	X	3.62	48
58	MP9	Z	6.27	48
59	MP9	X	3.62	48
60	MP9	Z	6.27	48
61	MP12	X	3.1	48
62	MP12	Z	5.37	48

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
63	MP10	X	1.58	48
64	MP10	Z	2.74	48
65	RP3	X	6.36	24
66	RP3	Z	11.02	24

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	8.32	54
2	MP2	Z	4.8	54
3	MP2	X	8.32	3
4	MP2	Z	4.8	3
5	MP1	X	14.02	70
6	MP1	Z	8.1	70
7	MP1	X	14.02	3
8	MP1	Z	8.1	3
9	MP4	X	14.12	70
10	MP4	Z	8.15	70
11	MP4	X	14.12	3
12	MP4	Z	8.15	3
13	MP1	X	6.48	48
14	MP1	Z	3.74	48
15	MP1	X	6.48	48
16	MP1	Z	3.74	48
17	MP4	X	5.68	48
18	MP4	Z	3.28	48
19	MP2	X	3.27	48
20	MP2	Z	1.89	48
21	RP1	X	11.02	24
22	RP1	Z	6.36	24
23	MP6	X	10.09	54
24	MP6	Z	5.83	54
25	MP6	X	10.09	3
26	MP6	Z	5.83	3
27	MP5	X	19.63	70
28	MP5	Z	11.33	70
29	MP5	X	19.63	3
30	MP5	Z	11.33	3
31	MP8	X	19.85	70
32	MP8	Z	11.46	70
33	MP8	X	19.85	3
34	MP8	Z	11.46	3
35	MP5	X	7.21	48
36	MP5	Z	4.16	48
37	MP5	X	7.21	48
38	MP5	Z	4.16	48
39	MP8	X	6.72	48
40	MP8	Z	3.88	48
41	MP6	X	5.09	48
42	MP6	Z	2.94	48
43	RP2	X	11.02	24
44	RP2	Z	6.36	24
45	MP10	X	8.01	54
46	MP10	Z	4.62	54
47	MP10	X	8.01	3
48	MP10	Z	4.62	3
49	MP9	X	13.03	70

Member Point Loads (BLC 25 : Ice Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
50	MP9	Z	7.52	70
51	MP9	X	13.03	3
52	MP9	Z	7.52	3
53	MP12	X	13.1	70
54	MP12	Z	7.56	70
55	MP12	X	13.1	3
56	MP12	Z	7.56	3
57	MP9	X	6.35	48
58	MP9	Z	3.67	48
59	MP9	X	6.35	48
60	MP9	Z	3.67	48
61	MP12	X	5.5	48
62	MP12	Z	3.17	48
63	MP10	X	2.95	48
64	MP10	Z	1.7	48
65	RP3	X	11.02	24
66	RP3	Z	6.36	24

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	8.93	54
2	MP2	Z	0	54
3	MP2	X	8.93	3
4	MP2	Z	0	3
5	MP1	X	14.04	70
6	MP1	Z	0	70
7	MP1	X	14.04	3
8	MP1	Z	0	3
9	MP4	X	14.1	70
10	MP4	Z	0	70
11	MP4	X	14.1	3
12	MP4	Z	0	3
13	MP1	X	7.21	48
14	MP1	Z	0	48
15	MP1	X	7.21	48
16	MP1	Z	0	48
17	MP4	X	6.16	48
18	MP4	Z	0	48
19	MP2	X	3.08	48
20	MP2	Z	0	48
21	RP1	X	12.72	24
22	RP1	Z	0	24
23	MP6	X	10.97	54
24	MP6	Z	0	54
25	MP6	X	10.97	3
26	MP6	Z	0	3
27	MP5	X	20.51	70
28	MP5	Z	0	70
29	MP5	X	20.51	3
30	MP5	Z	0	3
31	MP8	X	20.71	70
32	MP8	Z	0	70
33	MP8	X	20.71	3
34	MP8	Z	0	3
35	MP5	X	8.05	48
36	MP5	Z	0	48

Member Point Loads (BLC 26 : Ice Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
37	MP5	X	8.05	48
38	MP5	Z	0	48
39	MP8	X	7.36	48
40	MP8	Z	0	48
41	MP6	X	5.18	48
42	MP6	Z	0	48
43	RP2	X	12.72	24
44	RP2	Z	0	24
45	MP10	X	10.53	54
46	MP10	Z	0	54
47	MP10	X	10.53	3
48	MP10	Z	0	3
49	MP9	X	19.1	70
50	MP9	Z	0	70
51	MP9	X	19.1	3
52	MP9	Z	0	3
53	MP12	X	19.27	70
54	MP12	Z	0	70
55	MP12	X	19.27	3
56	MP12	Z	0	3
57	MP9	X	7.86	48
58	MP9	Z	0	48
59	MP9	X	7.86	48
60	MP9	Z	0	48
61	MP12	X	7.1	48
62	MP12	Z	0	48
63	MP10	X	4.72	48
64	MP10	Z	0	48
65	RP3	X	12.72	24
66	RP3	Z	0	24

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	8.32	54
2	MP2	Z	-4.8	54
3	MP2	X	8.32	3
4	MP2	Z	-4.8	3
5	MP1	X	14.02	70
6	MP1	Z	-8.1	70
7	MP1	X	14.02	3
8	MP1	Z	-8.1	3
9	MP4	X	14.12	70
10	MP4	Z	-8.15	70
11	MP4	X	14.12	3
12	MP4	Z	-8.15	3
13	MP1	X	6.48	48
14	MP1	Z	-3.74	48
15	MP1	X	6.48	48
16	MP1	Z	-3.74	48
17	MP4	X	5.68	48
18	MP4	Z	-3.28	48
19	MP2	X	3.27	48
20	MP2	Z	-1.89	48
21	RP1	X	11.02	24
22	RP1	Z	-6.36	24
23	MP6	X	8.32	54

Member Point Loads (BLC 27 : Ice Wind Load AZI 300) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP6	Z	-4.8	54
25	MP6	X	8.32	3
26	MP6	Z	-4.8	3
27	MP5	X	14.02	70
28	MP5	Z	-8.1	70
29	MP5	X	14.02	3
30	MP5	Z	-8.1	3
31	MP8	X	14.12	70
32	MP8	Z	-8.15	70
33	MP8	X	14.12	3
34	MP8	Z	-8.15	3
35	MP5	X	6.48	48
36	MP5	Z	-3.74	48
37	MP5	X	6.48	48
38	MP5	Z	-3.74	48
39	MP8	X	5.68	48
40	MP8	Z	-3.28	48
41	MP6	X	3.27	48
42	MP6	Z	-1.89	48
43	RP2	X	11.02	24
44	RP2	Z	-6.36	24
45	MP10	X	10.02	54
46	MP10	Z	-5.79	54
47	MP10	X	10.02	3
48	MP10	Z	-5.79	3
49	MP9	X	19.4	70
50	MP9	Z	-11.2	70
51	MP9	X	19.4	3
52	MP9	Z	-11.2	3
53	MP12	X	19.62	70
54	MP12	Z	-11.33	70
55	MP12	X	19.62	3
56	MP12	Z	-11.33	3
57	MP9	X	7.18	48
58	MP9	Z	-4.15	48
59	MP9	X	7.18	48
60	MP9	Z	-4.15	48
61	MP12	X	6.68	48
62	MP12	Z	-3.86	48
63	MP10	X	5.02	48
64	MP10	Z	-2.9	48
65	RP3	X	11.02	24
66	RP3	Z	-6.36	24

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	5.49	54
2	MP2	Z	-9.5	54
3	MP2	X	5.49	3
4	MP2	Z	-9.5	3
5	MP1	X	10.25	70
6	MP1	Z	-17.76	70
7	MP1	X	10.25	3
8	MP1	Z	-17.76	3
9	MP4	X	10.36	70
10	MP4	Z	-17.94	70

Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
11	MP4	X	10.36	3
12	MP4	Z	-17.94	3
13	MP1	X	4.02	48
14	MP1	Z	-6.97	48
15	MP1	X	4.02	48
16	MP1	Z	-6.97	48
17	MP4	X	3.68	48
18	MP4	Z	-6.38	48
19	MP2	X	2.59	48
20	MP2	Z	-4.49	48
21	RP1	X	6.36	24
22	RP1	Z	-11.02	24
23	MP6	X	4.46	54
24	MP6	Z	-7.73	54
25	MP6	X	4.46	3
26	MP6	Z	-7.73	3
27	MP5	X	7.02	70
28	MP5	Z	-12.16	70
29	MP5	X	7.02	3
30	MP5	Z	-12.16	3
31	MP8	X	7.05	70
32	MP8	Z	-12.21	70
33	MP8	X	7.05	3
34	MP8	Z	-12.21	3
35	MP5	X	3.6	48
36	MP5	Z	-6.24	48
37	MP5	X	3.6	48
38	MP5	Z	-6.24	48
39	MP8	X	3.08	48
40	MP8	Z	-5.33	48
41	MP6	X	1.54	48
42	MP6	Z	-2.67	48
43	RP2	X	6.36	24
44	RP2	Z	-11.02	24
45	MP10	X	5.67	54
46	MP10	Z	-9.82	54
47	MP10	X	5.67	3
48	MP10	Z	-9.82	3
49	MP9	X	10.83	70
50	MP9	Z	-18.75	70
51	MP9	X	10.83	3
52	MP9	Z	-18.75	3
53	MP12	X	10.94	70
54	MP12	Z	-18.95	70
55	MP12	X	10.94	3
56	MP12	Z	-18.95	3
57	MP9	X	4.1	48
58	MP9	Z	-7.1	48
59	MP9	X	4.1	48
60	MP9	Z	-7.1	48
61	MP12	X	3.79	48
62	MP12	Z	-6.56	48
63	MP10	X	2.78	48
64	MP10	Z	-4.81	48
65	RP3	X	6.36	24
66	RP3	Z	-11.02	24

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Z	-1.755	54
2	MP2	Z	-1.755	3
3	MP1	Z	-4.477	70
4	MP1	Z	-4.477	3
5	MP4	Z	-3.183	70
6	MP4	Z	-3.183	3
7	MP1	Z	-7.019	48
8	MP1	Z	-7.019	48
9	MP4	Z	-6.006	48
10	MP2	Z	-1.414	48
11	RP1	Z	-3.289	24
12	MP6	Z	-1.755	54
13	MP6	Z	-1.755	3
14	MP5	Z	-4.477	70
15	MP5	Z	-4.477	3
16	MP8	Z	-3.183	70
17	MP8	Z	-3.183	3
18	MP5	Z	-7.019	48
19	MP5	Z	-7.019	48
20	MP8	Z	-6.006	48
21	MP6	Z	-1.414	48
22	RP2	Z	-3.289	24
23	MP10	Z	-1.755	54
24	MP10	Z	-1.755	3
25	MP9	Z	-4.477	70
26	MP9	Z	-4.477	3
27	MP12	Z	-3.183	70
28	MP12	Z	-3.183	3
29	MP9	Z	-7.019	48
30	MP9	Z	-7.019	48
31	MP12	Z	-6.006	48
32	MP10	Z	-1.414	48
33	RP3	Z	-3.289	24

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-1.755	54
2	MP2	X	-1.755	3
3	MP1	X	-4.477	70
4	MP1	X	-4.477	3
5	MP4	X	-3.183	70
6	MP4	X	-3.183	3
7	MP1	X	-7.019	48
8	MP1	X	-7.019	48
9	MP4	X	-6.006	48
10	MP2	X	-1.414	48
11	RP1	X	-3.289	24
12	MP6	X	-1.755	54
13	MP6	X	-1.755	3
14	MP5	X	-4.477	70
15	MP5	X	-4.477	3
16	MP8	X	-3.183	70
17	MP8	X	-3.183	3
18	MP5	X	-7.019	48
19	MP5	X	-7.019	48
20	MP8	X	-6.006	48

Member Point Loads (BLC 32 : Seismic Load X) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
21	MP6	X	-1.414	48
22	RP2	X	-3.289	24
23	MP10	X	-1.755	54
24	MP10	X	-1.755	3
25	MP9	X	-4.477	70
26	MP9	X	-4.477	3
27	MP12	X	-3.183	70
28	MP12	X	-3.183	3
29	MP9	X	-7.019	48
30	MP9	X	-7.019	48
31	MP12	X	-6.006	48
32	MP10	X	-1.414	48
33	RP3	X	-3.289	24

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
1	M1	SZ	-102.214	-102.214	0	%100
2	MP2	SZ	-61.329	-61.329	0	%100
3	MP1	SZ	-61.329	-61.329	0	%100
4	MP4	SZ	-61.329	-61.329	0	%100
5	M19	SZ	-102.214	-102.214	0	%100
6	M20	SZ	-102.214	-102.214	0	%100
7	M21	SZ	-102.214	-102.214	0	%100
8	M22	SZ	-102.214	-102.214	0	%100
9	M23	SZ	-102.214	-102.214	0	%100
10	M24	SZ	-102.214	-102.214	0	%100
11	M25	SZ	-102.214	-102.214	0	%100
12	M26	SZ	-102.214	-102.214	0	%100
13	M27	SZ	-102.214	-102.214	0	%100
14	M28	SZ	-102.214	-102.214	0	%100
15	M29	SZ	-102.214	-102.214	0	%100
16	M30	SZ	-102.214	-102.214	0	%100
17	M50A	SZ	0	0	0	%100
18	M51A	SZ	0	0	0	%100
19	M52A	SZ	0	0	0	%100
20	M53A	SZ	0	0	0	%100
21	M54A	SZ	0	0	0	%100
22	M55A	SZ	0	0	0	%100
23	M56A	SZ	-102.214	-102.214	0	%100
24	M57A	SZ	-102.214	-102.214	0	%100
25	M58	SZ	-102.214	-102.214	0	%100
26	M59	SZ	-102.214	-102.214	0	%100
27	M60	SZ	-102.214	-102.214	0	%100
28	M61	SZ	-102.214	-102.214	0	%100
29	M62	SZ	0	0	0	%100
30	M64	SZ	0	0	0	%100
31	M65	SZ	0	0	0	%100
32	M86	SZ	-61.329	-61.329	0	%100
33	RP2	SZ	-61.329	-61.329	0	%100
34	M87A	SZ	-102.214	-102.214	0	%100
35	M88B	SZ	-102.214	-102.214	0	%100
36	M89B	SZ	-102.214	-102.214	0	%100
37	M90	SZ	0	0	0	%100
38	M91	SZ	0	0	0	%100
39	M74	SZ	-102.214	-102.214	0	%100

Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
40	MP10	SZ	-61.329	-61.329	0	%100
41	MP9	SZ	-61.329	-61.329	0	%100
42	MP12	SZ	-61.329	-61.329	0	%100
43	M79	SZ	0	0	0	%100
44	M81	SZ	0	0	0	%100
45	M82B	SZ	0	0	0	%100
46	M83B	SZ	0	0	0	%100
47	M84B	SZ	0	0	0	%100
48	M85B	SZ	-102.214	-102.214	0	%100
49	MP6	SZ	-61.329	-61.329	0	%100
50	MP5	SZ	-61.329	-61.329	0	%100
51	MP8	SZ	-61.329	-61.329	0	%100
52	M90A	SZ	0	0	0	%100
53	M92	SZ	0	0	0	%100
54	M93	SZ	0	0	0	%100
55	M94	SZ	0	0	0	%100
56	M95	SZ	0	0	0	%100
57	M57	SZ	-61.329	-61.329	0	%100
58	RP1	SZ	-61.329	-61.329	0	%100
59	M59A	SZ	-61.329	-61.329	0	%100
60	RP3	SZ	-61.329	-61.329	0	%100
61	M61A	SZ	0	0	0	%100
62	M62A	SZ	0	0	0	%100
63	M63	SZ	0	0	0	%100
64	M64A	SZ	0	0	0	%100
65	M65A	SZ	0	0	0	%100
66	M66	SZ	0	0	0	%100
67	M67	SZ	0	0	0	%100
68	M68	SZ	0	0	0	%100
69	M69	SZ	0	0	0	%100
70	M73	SZ	-61.329	-61.329	0	%100
71	M74A	SZ	-61.329	-61.329	0	%100
72	M75	SZ	-61.329	-61.329	0	%100
73	M73A	SZ	-61.329	-61.329	0	%100
74	M74B	SZ	-61.329	-61.329	0	%100
75	M75A	SZ	-61.329	-61.329	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
1	M1	SX	-102.214	-102.214	0	%100
2	MP2	SX	-61.329	-61.329	0	%100
3	MP1	SX	-61.329	-61.329	0	%100
4	MP4	SX	-61.329	-61.329	0	%100
5	M19	SX	-102.214	-102.214	0	%100
6	M20	SX	-102.214	-102.214	0	%100
7	M21	SX	-102.214	-102.214	0	%100
8	M22	SX	-102.214	-102.214	0	%100
9	M23	SX	-102.214	-102.214	0	%100
10	M24	SX	-102.214	-102.214	0	%100
11	M25	SX	-102.214	-102.214	0	%100
12	M26	SX	-102.214	-102.214	0	%100
13	M27	SX	-102.214	-102.214	0	%100
14	M28	SX	-102.214	-102.214	0	%100
15	M29	SX	-102.214	-102.214	0	%100
16	M30	SX	-102.214	-102.214	0	%100
17	M50A	SX	0	0	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
18	M51A	SX	0	0	0	%100
19	M52A	SX	0	0	0	%100
20	M53A	SX	0	0	0	%100
21	M54A	SX	0	0	0	%100
22	M55A	SX	0	0	0	%100
23	M56A	SX	-102.214	-102.214	0	%100
24	M57A	SX	-102.214	-102.214	0	%100
25	M58	SX	-102.214	-102.214	0	%100
26	M59	SX	-102.214	-102.214	0	%100
27	M60	SX	-102.214	-102.214	0	%100
28	M61	SX	-102.214	-102.214	0	%100
29	M62	SX	0	0	0	%100
30	M64	SX	0	0	0	%100
31	M65	SX	0	0	0	%100
32	M86	SX	-61.329	-61.329	0	%100
33	RP2	SX	-61.329	-61.329	0	%100
34	M87A	SX	-102.214	-102.214	0	%100
35	M88B	SX	-102.214	-102.214	0	%100
36	M89B	SX	-102.214	-102.214	0	%100
37	M90	SX	0	0	0	%100
38	M91	SX	0	0	0	%100
39	M74	SX	-102.214	-102.214	0	%100
40	MP10	SX	-61.329	-61.329	0	%100
41	MP9	SX	-61.329	-61.329	0	%100
42	MP12	SX	-61.329	-61.329	0	%100
43	M79	SX	0	0	0	%100
44	M81	SX	0	0	0	%100
45	M82B	SX	0	0	0	%100
46	M83B	SX	0	0	0	%100
47	M84B	SX	0	0	0	%100
48	M85B	SX	-102.214	-102.214	0	%100
49	MP6	SX	-61.329	-61.329	0	%100
50	MP5	SX	-61.329	-61.329	0	%100
51	MP8	SX	-61.329	-61.329	0	%100
52	M90A	SX	0	0	0	%100
53	M92	SX	0	0	0	%100
54	M93	SX	0	0	0	%100
55	M94	SX	0	0	0	%100
56	M95	SX	0	0	0	%100
57	M57	SX	-61.329	-61.329	0	%100
58	RP1	SX	-61.329	-61.329	0	%100
59	M59A	SX	-61.329	-61.329	0	%100
60	RP3	SX	-61.329	-61.329	0	%100
61	M61A	SX	0	0	0	%100
62	M62A	SX	0	0	0	%100
63	M63	SX	0	0	0	%100
64	M64A	SX	0	0	0	%100
65	M65A	SX	0	0	0	%100
66	M66	SX	0	0	0	%100
67	M67	SX	0	0	0	%100
68	M68	SX	0	0	0	%100
69	M69	SX	0	0	0	%100
70	M73	SX	-61.329	-61.329	0	%100
71	M74A	SX	-61.329	-61.329	0	%100
72	M75	SX	-61.329	-61.329	0	%100
73	M73A	SX	-61.329	-61.329	0	%100
74	M74B	SX	-61.329	-61.329	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
75	M75A	SX	-61.329	-61.329	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
1	M1	Y	-9.702	-9.702	0	%100
2	MP2	Y	-5.034	-5.034	0	%100
3	MP1	Y	-5.745	-5.745	0	%100
4	MP4	Y	-5.745	-5.745	0	%100
5	M19	Y	-11.714	-11.714	0	%100
6	M20	Y	-11.714	-11.714	0	%100
7	M21	Y	-11.714	-11.714	0	%100
8	M22	Y	-9.95	-9.95	0	%100
9	M23	Y	-9.95	-9.95	0	%100
10	M24	Y	-9.95	-9.95	0	%100
11	M25	Y	-13.057	-13.057	0	%100
12	M26	Y	-13.057	-13.057	0	%100
13	M27	Y	-13.057	-13.057	0	%100
14	M28	Y	-11.714	-11.714	0	%100
15	M29	Y	-11.714	-11.714	0	%100
16	M30	Y	-11.714	-11.714	0	%100
17	M50A	Y	-1.656	-1.656	0	%100
18	M51A	Y	-1.656	-1.656	0	%100
19	M52A	Y	-1.656	-1.656	0	%100
20	M53A	Y	-1.656	-1.656	0	%100
21	M54A	Y	-1.656	-1.656	0	%100
22	M55A	Y	-1.656	-1.656	0	%100
23	M56A	Y	-7.691	-7.691	0	%100
24	M57A	Y	-7.691	-7.691	0	%100
25	M58	Y	-7.691	-7.691	0	%100
26	M59	Y	-7.691	-7.691	0	%100
27	M60	Y	-7.691	-7.691	0	%100
28	M61	Y	-7.691	-7.691	0	%100
29	M62	Y	-1.656	-1.656	0	%100
30	M64	Y	-1.656	-1.656	0	%100
31	M65	Y	-1.656	-1.656	0	%100
32	M86	Y	-5.034	-5.034	0	%100
33	RP2	Y	-5.034	-5.034	0	%100
34	M87A	Y	-13.057	-13.057	0	%100
35	M88B	Y	-13.057	-13.057	0	%100
36	M89B	Y	-13.057	-13.057	0	%100
37	M90	Y	-1.656	-1.656	0	%100
38	M91	Y	-1.656	-1.656	0	%100
39	M74	Y	-9.702	-9.702	0	%100
40	MP10	Y	-5.034	-5.034	0	%100
41	MP9	Y	-5.745	-5.745	0	%100
42	MP12	Y	-5.745	-5.745	0	%100
43	M79	Y	-1.656	-1.656	0	%100
44	M81	Y	-1.656	-1.656	0	%100
45	M82B	Y	-1.656	-1.656	0	%100
46	M83B	Y	-1.656	-1.656	0	%100
47	M84B	Y	-1.656	-1.656	0	%100
48	M85B	Y	-9.702	-9.702	0	%100
49	MP6	Y	-5.034	-5.034	0	%100
50	MP5	Y	-5.745	-5.745	0	%100
51	MP8	Y	-5.745	-5.745	0	%100
52	M90A	Y	-1.656	-1.656	0	%100

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
53	M92	Y	-1.656	-1.656	0	%100
54	M93	Y	-1.656	-1.656	0	%100
55	M94	Y	-1.656	-1.656	0	%100
56	M95	Y	-1.656	-1.656	0	%100
57	M57	Y	-5.034	-5.034	0	%100
58	RP1	Y	-5.034	-5.034	0	%100
59	M59A	Y	-5.034	-5.034	0	%100
60	RP3	Y	-5.034	-5.034	0	%100
61	M61A	Y	-1.656	-1.656	0	%100
62	M62A	Y	-1.656	-1.656	0	%100
63	M63	Y	-1.656	-1.656	0	%100
64	M64A	Y	-1.656	-1.656	0	%100
65	M65A	Y	-1.656	-1.656	0	%100
66	M66	Y	-1.656	-1.656	0	%100
67	M67	Y	-1.656	-1.656	0	%100
68	M68	Y	-1.656	-1.656	0	%100
69	M69	Y	-1.656	-1.656	0	%100
70	M73	Y	-5.034	-5.034	0	%100
71	M74A	Y	-5.034	-5.034	0	%100
72	M75	Y	-5.034	-5.034	0	%100
73	M73A	Y	-5.034	-5.034	0	%100
74	M74B	Y	-5.034	-5.034	0	%100
75	M75A	Y	-5.034	-5.034	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
1	M1	SZ	-14.076	-14.076	0	%100
2	MP2	SZ	-19.748	-19.748	0	%100
3	MP1	SZ	-18.048	-18.048	0	%100
4	MP4	SZ	-18.048	-18.048	0	%100
5	M19	SZ	-13.255	-13.255	0	%100
6	M20	SZ	-13.255	-13.255	0	%100
7	M21	SZ	-13.255	-13.255	0	%100
8	M22	SZ	-13.953	-13.953	0	%100
9	M23	SZ	-13.953	-13.953	0	%100
10	M24	SZ	-13.953	-13.953	0	%100
11	M25	SZ	-12.868	-12.868	0	%100
12	M26	SZ	-12.868	-12.868	0	%100
13	M27	SZ	-12.868	-12.868	0	%100
14	M28	SZ	-13.255	-13.255	0	%100
15	M29	SZ	-13.255	-13.255	0	%100
16	M30	SZ	-13.255	-13.255	0	%100
17	M50A	SZ	0	0	0	%100
18	M51A	SZ	0	0	0	%100
19	M52A	SZ	0	0	0	%100
20	M53A	SZ	0	0	0	%100
21	M54A	SZ	0	0	0	%100
22	M55A	SZ	0	0	0	%100
23	M56A	SZ	-15.444	-15.444	0	%100
24	M57A	SZ	-15.444	-15.444	0	%100
25	M58	SZ	-15.444	-15.444	0	%100
26	M59	SZ	-15.444	-15.444	0	%100
27	M60	SZ	-15.444	-15.444	0	%100
28	M61	SZ	-15.444	-15.444	0	%100
29	M62	SZ	0	0	0	%100
30	M64	SZ	0	0	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
31	M65	SZ	0	0	0	%100
32	M86	SZ	-19.748	-19.748	0	%100
33	RP2	SZ	-19.748	-19.748	0	%100
34	M87A	SZ	-12.868	-12.868	0	%100
35	M88B	SZ	-12.868	-12.868	0	%100
36	M89B	SZ	-12.868	-12.868	0	%100
37	M90	SZ	0	0	0	%100
38	M91	SZ	0	0	0	%100
39	M74	SZ	-14.076	-14.076	0	%100
40	MP10	SZ	-19.748	-19.748	0	%100
41	MP9	SZ	-18.048	-18.048	0	%100
42	MP12	SZ	-18.048	-18.048	0	%100
43	M79	SZ	0	0	0	%100
44	M81	SZ	0	0	0	%100
45	M82B	SZ	0	0	0	%100
46	M83B	SZ	0	0	0	%100
47	M84B	SZ	0	0	0	%100
48	M85B	SZ	-14.076	-14.076	0	%100
49	MP6	SZ	-19.748	-19.748	0	%100
50	MP5	SZ	-18.048	-18.048	0	%100
51	MP8	SZ	-18.048	-18.048	0	%100
52	M90A	SZ	0	0	0	%100
53	M92	SZ	0	0	0	%100
54	M93	SZ	0	0	0	%100
55	M94	SZ	0	0	0	%100
56	M95	SZ	0	0	0	%100
57	M57	SZ	-19.748	-19.748	0	%100
58	RP1	SZ	-19.748	-19.748	0	%100
59	M59A	SZ	-19.748	-19.748	0	%100
60	RP3	SZ	-19.748	-19.748	0	%100
61	M61A	SZ	0	0	0	%100
62	M62A	SZ	0	0	0	%100
63	M63	SZ	0	0	0	%100
64	M64A	SZ	0	0	0	%100
65	M65A	SZ	0	0	0	%100
66	M66	SZ	0	0	0	%100
67	M67	SZ	0	0	0	%100
68	M68	SZ	0	0	0	%100
69	M69	SZ	0	0	0	%100
70	M73	SZ	-19.748	-19.748	0	%100
71	M74A	SZ	-19.748	-19.748	0	%100
72	M75	SZ	-19.748	-19.748	0	%100
73	M73A	SZ	-19.748	-19.748	0	%100
74	M74B	SZ	-19.748	-19.748	0	%100
75	M75A	SZ	-19.748	-19.748	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
1	M1	SX	-14.076	-14.076	0	%100
2	MP2	SX	-19.748	-19.748	0	%100
3	MP1	SX	-18.048	-18.048	0	%100
4	MP4	SX	-18.048	-18.048	0	%100
5	M19	SX	-13.255	-13.255	0	%100
6	M20	SX	-13.255	-13.255	0	%100
7	M21	SX	-13.255	-13.255	0	%100
8	M22	SX	-13.953	-13.953	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
9	M23	SX	-13.953	-13.953	0	%100
10	M24	SX	-13.953	-13.953	0	%100
11	M25	SX	-12.868	-12.868	0	%100
12	M26	SX	-12.868	-12.868	0	%100
13	M27	SX	-12.868	-12.868	0	%100
14	M28	SX	-13.255	-13.255	0	%100
15	M29	SX	-13.255	-13.255	0	%100
16	M30	SX	-13.255	-13.255	0	%100
17	M50A	SX	0	0	0	%100
18	M51A	SX	0	0	0	%100
19	M52A	SX	0	0	0	%100
20	M53A	SX	0	0	0	%100
21	M54A	SX	0	0	0	%100
22	M55A	SX	0	0	0	%100
23	M56A	SX	-15.444	-15.444	0	%100
24	M57A	SX	-15.444	-15.444	0	%100
25	M58	SX	-15.444	-15.444	0	%100
26	M59	SX	-15.444	-15.444	0	%100
27	M60	SX	-15.444	-15.444	0	%100
28	M61	SX	-15.444	-15.444	0	%100
29	M62	SX	0	0	0	%100
30	M64	SX	0	0	0	%100
31	M65	SX	0	0	0	%100
32	M86	SX	-19.748	-19.748	0	%100
33	RP2	SX	-19.748	-19.748	0	%100
34	M87A	SX	-12.868	-12.868	0	%100
35	M88B	SX	-12.868	-12.868	0	%100
36	M89B	SX	-12.868	-12.868	0	%100
37	M90	SX	0	0	0	%100
38	M91	SX	0	0	0	%100
39	M74	SX	-14.076	-14.076	0	%100
40	MP10	SX	-19.748	-19.748	0	%100
41	MP9	SX	-18.048	-18.048	0	%100
42	MP12	SX	-18.048	-18.048	0	%100
43	M79	SX	0	0	0	%100
44	M81	SX	0	0	0	%100
45	M82B	SX	0	0	0	%100
46	M83B	SX	0	0	0	%100
47	M84B	SX	0	0	0	%100
48	M85B	SX	-14.076	-14.076	0	%100
49	MP6	SX	-19.748	-19.748	0	%100
50	MP5	SX	-18.048	-18.048	0	%100
51	MP8	SX	-18.048	-18.048	0	%100
52	M90A	SX	0	0	0	%100
53	M92	SX	0	0	0	%100
54	M93	SX	0	0	0	%100
55	M94	SX	0	0	0	%100
56	M95	SX	0	0	0	%100
57	M57	SX	-19.748	-19.748	0	%100
58	RP1	SX	-19.748	-19.748	0	%100
59	M59A	SX	-19.748	-19.748	0	%100
60	RP3	SX	-19.748	-19.748	0	%100
61	M61A	SX	0	0	0	%100
62	M62A	SX	0	0	0	%100
63	M63	SX	0	0	0	%100
64	M64A	SX	0	0	0	%100
65	M65A	SX	0	0	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
66	M66	SX	0	0	0	%100
67	M67	SX	0	0	0	%100
68	M68	SX	0	0	0	%100
69	M69	SX	0	0	0	%100
70	M73	SX	-19.748	-19.748	0	%100
71	M74A	SX	-19.748	-19.748	0	%100
72	M75	SX	-19.748	-19.748	0	%100
73	M73A	SX	-19.748	-19.748	0	%100
74	M74B	SX	-19.748	-19.748	0	%100
75	M75A	SX	-19.748	-19.748	0	%100

Member Distributed Loads (BLC 43 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
1	M22	Y	-.168	-2.598	0	14.847
2	M22	Y	-2.598	-2.225	14.847	29.694
3	M22	Y	-2.225	-2.152	29.694	44.541
4	M22	Y	-2.152	-3.207	44.541	59.388
5	M22	Y	-3.207	-1.347	59.388	74.235
6	M28	Y	-.168	-1.668	0	12.089
7	M28	Y	-1.668	-4.009	12.089	24.177
8	M28	Y	-4.009	-4.968	24.177	36.266
9	M28	Y	-4.968	-3.404	36.266	48.354
10	M28	Y	-3.404	-1.208	48.354	60.443
11	M30	Y	-.087	-1.757	75.553	90.664
12	M30	Y	-1.757	-4.664	90.664	105.775
13	M30	Y	-4.664	-4.359	105.775	120.885
14	M30	Y	-4.359	-1.945	120.885	135.996
15	M30	Y	-1.945	-.202	135.996	151.107
16	M60	Y	-2.127	-3.189	0	11.478
17	M60	Y	-3.189	-3.431	11.478	22.956
18	M60	Y	-3.431	-4.374	22.956	34.433
19	M60	Y	-4.374	-5.202	34.433	45.911
20	M60	Y	-5.202	-4.395	45.911	57.389
21	M61	Y	-4.417	-5.153	0	11.472
22	M61	Y	-5.153	-4.484	11.472	22.943
23	M61	Y	-4.484	-3.54	22.943	34.415
24	M61	Y	-3.54	-3.129	34.415	45.887
25	M61	Y	-3.129	-2.119	45.887	57.358
26	M23	Y	-.149	-2.573	0	14.849
27	M23	Y	-2.573	-2.2	14.849	29.698
28	M23	Y	-2.2	-2.21	29.698	44.548
29	M23	Y	-2.21	-2.584	44.548	59.397
30	M23	Y	-2.584	-.149	59.397	74.246
31	M29	Y	-.087	-1.755	75.553	90.664
32	M29	Y	-1.755	-4.672	90.664	105.775
33	M29	Y	-4.672	-4.366	105.775	120.885
34	M29	Y	-4.366	-1.942	120.885	135.996
35	M29	Y	-1.942	-.202	135.996	151.107
36	M30	Y	-.202	-1.948	0	15.111
37	M30	Y	-1.948	-4.366	15.111	30.221
38	M30	Y	-4.366	-4.673	30.221	45.332
39	M30	Y	-4.673	-1.762	45.332	60.443
40	M30	Y	-1.762	-.087	60.443	75.553
41	M58	Y	-2.119	-3.129	0	11.478
42	M58	Y	-3.129	-3.541	11.478	22.956
43	M58	Y	-3.541	-4.486	22.956	34.433

Member Distributed Loads (BLC 43 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
44	M58	Y	-4.486	-5.155	34.433	45.911
45	M58	Y	-5.155	-4.419	45.911	57.389
46	M59	Y	-4.418	-5.151	0	11.472
47	M59	Y	-5.151	-4.484	11.472	22.943
48	M59	Y	-4.484	-3.543	22.943	34.415
49	M59	Y	-3.543	-3.129	34.415	45.887
50	M59	Y	-3.129	-2.117	45.887	57.358
51	M24	Y	-.168	-2.597	0	14.846
52	M24	Y	-2.597	-2.224	14.846	29.693
53	M24	Y	-2.224	-2.153	29.693	44.539
54	M24	Y	-2.153	-3.208	44.539	59.386
55	M24	Y	-3.208	-1.348	59.386	74.232
56	M28	Y	-.087	-1.756	75.553	90.664
57	M28	Y	-1.756	-4.661	90.664	105.775
58	M28	Y	-4.661	-4.357	105.775	120.885
59	M28	Y	-4.357	-1.945	120.885	135.996
60	M28	Y	-1.945	-.202	135.996	151.107
61	M29	Y	-.168	-1.668	0	12.089
62	M29	Y	-1.668	-4.011	12.089	24.177
63	M29	Y	-4.011	-4.97	24.177	36.266
64	M29	Y	-4.97	-3.406	36.266	48.354
65	M29	Y	-3.406	-1.209	48.354	60.443
66	M56A	Y	-2.127	-3.189	0	11.478
67	M56A	Y	-3.189	-3.432	11.478	22.956
68	M56A	Y	-3.432	-4.375	22.956	34.433
69	M56A	Y	-4.375	-5.203	34.433	45.911
70	M56A	Y	-5.203	-4.396	45.911	57.389
71	M57A	Y	-4.416	-5.152	0	11.472
72	M57A	Y	-5.152	-4.482	11.472	22.943
73	M57A	Y	-4.482	-3.539	22.943	34.415
74	M57A	Y	-3.539	-3.128	34.415	45.887
75	M57A	Y	-3.128	-2.119	45.887	57.358

Member Distributed Loads (BLC 44 : BLC 16 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
1	M22	Y	-.185	-2.874	0	14.847
2	M22	Y	-2.874	-2.461	14.847	29.694
3	M22	Y	-2.461	-2.38	29.694	44.541
4	M22	Y	-2.38	-3.547	44.541	59.388
5	M22	Y	-3.547	-1.49	59.388	74.235
6	M28	Y	-.186	-1.845	0	12.089
7	M28	Y	-1.845	-4.434	12.089	24.177
8	M28	Y	-4.434	-5.495	24.177	36.266
9	M28	Y	-5.495	-3.765	36.266	48.354
10	M28	Y	-3.765	-1.336	48.354	60.443
11	M30	Y	-.096	-1.944	75.553	90.664
12	M30	Y	-1.944	-5.159	90.664	105.775
13	M30	Y	-5.159	-4.821	105.775	120.885
14	M30	Y	-4.821	-2.152	120.885	135.996
15	M30	Y	-2.152	-.224	135.996	151.107
16	M60	Y	-2.352	-3.527	0	11.478
17	M60	Y	-3.527	-3.795	11.478	22.956
18	M60	Y	-3.795	-4.838	22.956	34.433
19	M60	Y	-4.838	-5.754	34.433	45.911
20	M60	Y	-5.754	-4.861	45.911	57.389
21	M61	Y	-4.886	-5.699	0	11.472

Member Distributed Loads (BLC 44 : BLC 16 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Locatio...	End Location[...
22	M61	Y	-5.699	-4.959	11.472	22.943
23	M61	Y	-4.959	-3.915	22.943	34.415
24	M61	Y	-3.915	-3.46	34.415	45.887
25	M61	Y	-3.46	-2.343	45.887	57.358
26	M23	Y	-.165	-2.846	0	14.849
27	M23	Y	-2.846	-2.434	14.849	29.698
28	M23	Y	-2.434	-2.444	29.698	44.548
29	M23	Y	-2.444	-2.858	44.548	59.397
30	M23	Y	-2.858	-.165	59.397	74.246
31	M29	Y	-.096	-1.942	75.553	90.664
32	M29	Y	-1.942	-5.167	90.664	105.775
33	M29	Y	-5.167	-4.829	105.775	120.885
34	M29	Y	-4.829	-2.148	120.885	135.996
35	M29	Y	-2.148	-.223	135.996	151.107
36	M30	Y	-.224	-2.154	0	15.111
37	M30	Y	-2.154	-4.829	15.111	30.221
38	M30	Y	-4.829	-5.169	30.221	45.332
39	M30	Y	-5.169	-1.948	45.332	60.443
40	M30	Y	-1.948	-.097	60.443	75.553
41	M58	Y	-2.343	-3.461	0	11.478
42	M58	Y	-3.461	-3.917	11.478	22.956
43	M58	Y	-3.917	-4.961	22.956	34.433
44	M58	Y	-4.961	-5.702	34.433	45.911
45	M58	Y	-5.702	-4.888	45.911	57.389
46	M59	Y	-4.887	-5.697	0	11.472
47	M59	Y	-5.697	-4.96	11.472	22.943
48	M59	Y	-4.96	-3.919	22.943	34.415
49	M59	Y	-3.919	-3.461	34.415	45.887
50	M59	Y	-3.461	-2.342	45.887	57.358
51	M24	Y	-.185	-2.872	0	14.846
52	M24	Y	-2.872	-2.459	14.846	29.693
53	M24	Y	-2.459	-2.381	29.693	44.539
54	M24	Y	-2.381	-3.549	44.539	59.386
55	M24	Y	-3.549	-1.491	59.386	74.232
56	M28	Y	-.096	-1.942	75.553	90.664
57	M28	Y	-1.942	-5.156	90.664	105.775
58	M28	Y	-5.156	-4.819	105.775	120.885
59	M28	Y	-4.819	-2.151	120.885	135.996
60	M28	Y	-2.151	-.224	135.996	151.107
61	M29	Y	-.186	-1.845	0	12.089
62	M29	Y	-1.845	-4.436	12.089	24.177
63	M29	Y	-4.436	-5.497	24.177	36.266
64	M29	Y	-5.497	-3.767	36.266	48.354
65	M29	Y	-3.767	-1.337	48.354	60.443
66	M56A	Y	-2.352	-3.527	0	11.478
67	M56A	Y	-3.527	-3.795	11.478	22.956
68	M56A	Y	-3.795	-4.839	22.956	34.433
69	M56A	Y	-4.839	-5.755	34.433	45.911
70	M56A	Y	-5.755	-4.862	45.911	57.389
71	M57A	Y	-4.884	-5.698	0	11.472
72	M57A	Y	-5.698	-4.958	11.472	22.943
73	M57A	Y	-4.958	-3.915	22.943	34.415
74	M57A	Y	-3.915	-3.46	34.415	45.887
75	M57A	Y	-3.46	-2.343	45.887	57.358

Member Area Loads (BLC 1 : Self Weight)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N73	N52	N53	N74	Y	Two Way	-5
2	N76	N75	N56	N55	Y	Two Way	-5
3	N78	N57	N58	N77	Y	Two Way	-5

Member Area Loads (BLC 16 : Ice Weight)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N73	N52	N53	N74	Y	Two Way	-5.53
2	N76	N75	N56	N55	Y	Two Way	-5.53
3	N78	N57	N58	N77	Y	Two Way	-5.53

INFINIGY

FROM ZERO TO INFINIGY

the solutions are endless

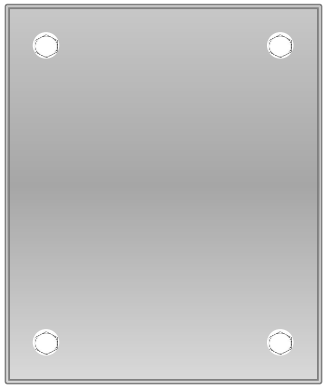
Bolt Calculation Tool, V1.4

PROJECT DATA	
Site Name:	Griswold - SBA
Site Number:	CTL02025
Job Code:	1106-A0001-B
Connection Description:	Standoff to Collar

APPLIED LOADS		
Bolt Tension:	11327.97	lbs
Bolt Shear:	800.00	lbs

BOLT PROPERTIES		
Bolt Type:	Bolt	-
Bolt Diameter:	0.75	in
Bolt Grade:	A307	-
# of Bolts:	4	-
Threads Excluded?	No	-

BOLT CHECK		
Tensile Strength	15050.70	
Shear Strength	9940.20	
Tensile Usage	75.3%	
Shear Usage	8.0%	
Interaction Check	0.57	***≤1.05***
Result	Pass	



ANTENNA MOUNT MODIFICATION DRAWINGS

PREPARED BY:

INFINIGY

FROM ZERO TO INFINIGY

the solutions are endless

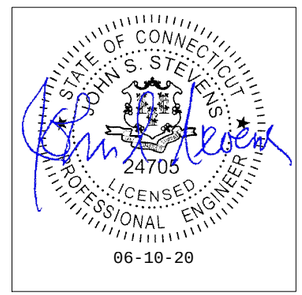
smartlink

at&t

CTL02025
GRISWOLD - SBA
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

06/09/20

INFINIGY JOB # 1106-A0001-B



PROFESSIONAL SEAL

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

S1

GENERAL NOTES:

1. THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA–222 STANDARD, AWWA–D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
2. ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
3. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
4. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
5. ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA–1019–A–2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
7. INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

STEEL CONSTRUCTION NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
2. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
3. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
5. ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
   - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
   - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
   - RECTANGULAR HSS TO BE A500, GRADE B. FY=46 KSI, U.N.O.
   - ROUND HSS TO BE A500, GRADE B. FY=42 KSI, U.N.O.
   - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
   - BOLTS TO BE A325–X. Fu=120 KSI, U.N.O.
   - U–BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
6. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
7. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
8. ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
   - MECHANICAL ANCHORS: KWIK BOLT–TZ, U.N.O.
   - CMU BLOCK ANCHORS: ADHESIVE – HY120, U.N.O.
   - CONCRETE ANCHORS: ADHESIVE – HY150, U.N.O.
   - CONCRETE REBAR: ADHESIVE – RE500, U.N.O.
9. ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"–20 LOW CARBON STEEL COPPER–FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
10. BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
11. MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.

CONCRETE CONSTRUCTION NOTES:

1. CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI–318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR IS NOT PERMITTED.
2. EXISTING CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH NEW PROPOSED CONCRETE SHOULD BE WIRE BRUSHED CLEAN AND TREATED WITH APPROPRIATE MECHANICAL SCRATCH COAT AND REPAIR MATERIALS OR APPROPRIATE CHEMICAL METHODS SUCH AS THE APPLICATION OF A BONDING AGENT, EX. SAKRETE OR EQUIVALENT, TO ENSURE A QUALITY BOND BETWEEN EXISTING AND PROPOSED CONCRETE SURFACES.

FIBER REINFORCED POLYMER (FRP) NOTES:

1. FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE FY = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
2. IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
3. ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
4. THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
5. STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
6. ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
7. TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

INSTALLATION TORQUE TABLE

SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8–16 UNC	8 FT–LBS	4 FT–LBS
1/2–13 UNC	18 FT–LBS	8 FT–LBS
5/8–11 UNC	35 FT–LBS	16 FT–LBS
3/4–10 UNC	50 FT–LBS	24 FT–LBS
1–8 UNC	110 FT–LBS	50 FT–LBS

8. WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
9. STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
10. ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
11. ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
12. ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
13. ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
14. EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
15. FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
16. ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2016.
17. SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

RATIO OF EDGE DISTANCE TO FRP FASTENER DIAMETER

	RANGE	RECOMMENDED
EDGE DISTANCE – CL* BOLT TO END	2.0–4.0	3.0
EDGE DISTANCE – CL* BOLT TO SIDE	1.5–3.5	2.5
BOLT PITCH – CL* TO CL*	4.0–5.0	5.0

WOOD CONSTRUCTION NOTES:

1. ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR–LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
2. ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR–LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
3. ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F–1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

MASONRY CONSTRUCTION NOTES:

1. ALL BRICK TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
   - FOR INTERIOR/ABOVE GRADE APPLICATIONS TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 100 PSI SHALL BE USED. FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 133 PSI.
   - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
2. ALL CMU TO BE 1500 PSI MIN. REINFORCING BAR (IF APPLICABLE) TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. ALL MORTAR TO BE 2000 PSI MIN.
   - FOR INTERIOR/ABOVE GRADE APPLICATIONS, TYPE N MORTAR HAVING MINIMUM MODULUS OF RUPTURE OF 64 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 158 PSI FOR FULLY GROUTED BLOCKS.
   - FOR EXTERIOR/BELOW GRADE APPLICATIONS TYPE M OR S MORTAR HAVING A MINIMUM MODULUS OF RUPTURE OF 84 PSI SHALL BE USED FOR UNGROUTED BLOCKS, AND 163 PSI FOR FULLY GROUTED BLOCKS.
   - BRICK AND MORTAR INSTALLATION TO CONFORM TO MSJC BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.

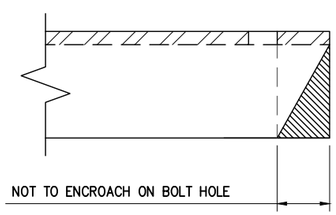
TOWER PLUMB & TENSION NOTES:

1. PLUMB AND TENSION TOWER UPON COMPLETION OF STRUCTURAL MODIFICATIONS DETAILED IN THESE DRAWINGS.
2. RETENSIONING OF EXISTING GUY WIRES SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE AND GUY WIRES.
3. PLUMB THE TOWER WHILE RETENSIONING THE EXISTING GUY WIRES. THE HORIZONTAL DISTANCE BETWEEN THE VERTICAL CENTERLINES AT ANY TWO ELEVATIONS SHALL NOT EXCEED 0.25% OF THE VERTICAL DISTANCE BETWEEN TWO ELEVATIONS FOR LATTICED STRUCTURES.
4. THE TWIST BETWEEN ANY TWO ELEVATIONS THROUGHOUT THE HEIGHT OF A LATTICE STRUCTURE SHALL NOT EXCEED 0.5 DEGREES IN 10 FEET. THE MAXIMUM TWIST OVER THE LATTICE STRUCTURE HEIGHT SHALL NOT EXCEED 5 DEGREES.

SPECIAL INSPECTIONS NOTES:

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
   a. STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
   b. HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN–OF–THE–NUT" METHOD.
   c. MECHANICAL AND EPOXIED ANCHORAGES.
   d. FIBER REINFORCED POLYMER.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
      - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP



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STATE OF CONNECTICUT
JOHN S. STEVENS
24705
LICENSED PROFESSIONAL ENGINEER

06-10-20

No.	Submittal / Revision	App'd	Date
0	ISSUED FOR REVIEW	DMB	06/09/20

Drawn: DMB Date: 06/09/20
Designed: BA Date: 06/09/20
Checked: MBD Date: 06/09/20

Project Number: 1106-A0001-B

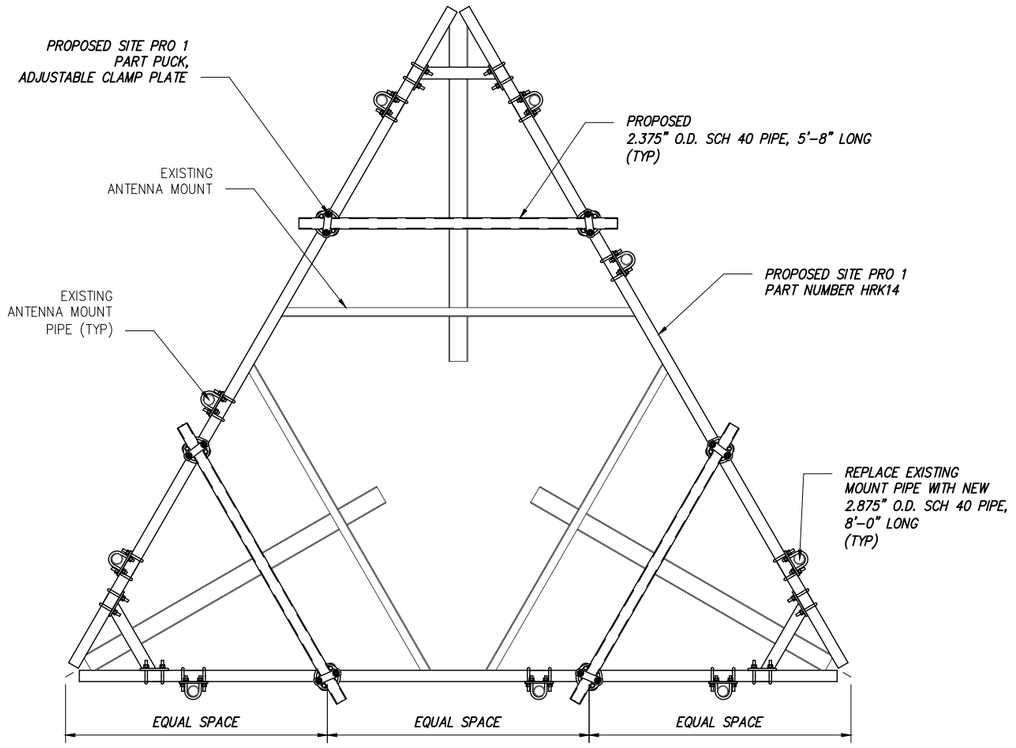
Project Title:
GRISWOLD - SBA
CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

Prepared For: smartlink

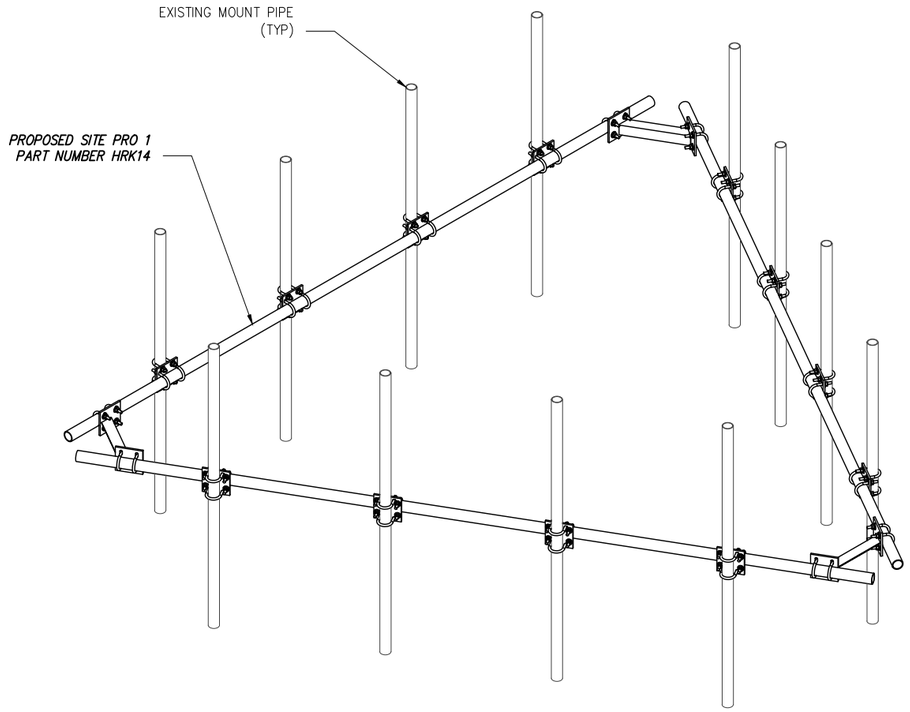
Drawing Scale: AS NOTED
Date: 06/09/20
SD

Drawing Title
GENERAL NOTES

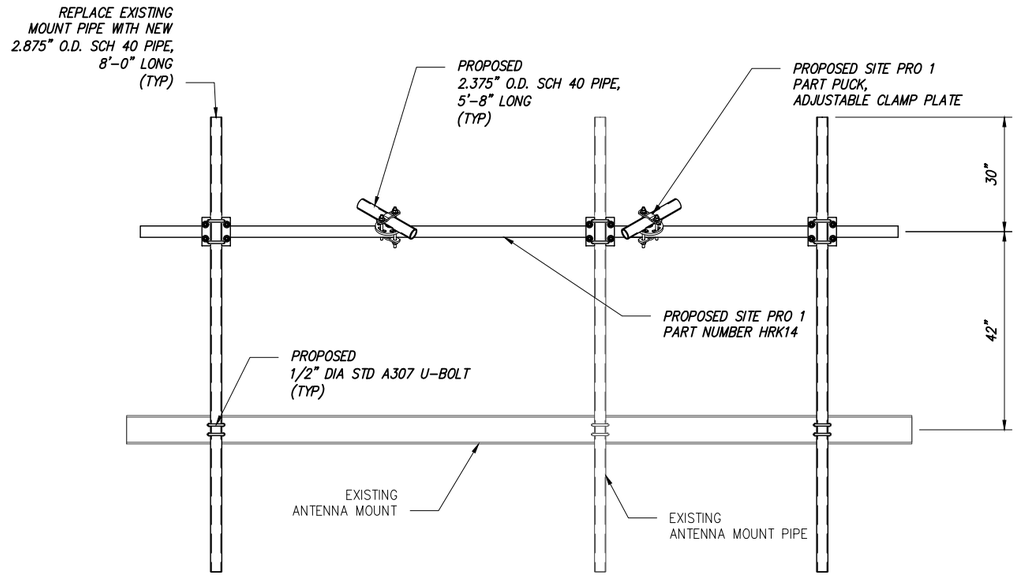
Drawing Number
S2



1 PLAN VIEW
SCALE: NOT TO SCALE



3 TYPICAL SITE PRO 1 PART # HRK14
SCALE: NOT TO SCALE



2 ELEVATION VIEW
SCALE: NOT TO SCALE

INFINIGY
INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

STATE OF CONNECTICUT
JOHN S. STEVENS
24705
LICENSED PROFESSIONAL ENGINEER
06-10-20

No.	Submittal / Revision	App'd	Date
0	ISSUED FOR REVIEW	DMB	06/09/20

Drawn: DMB Date: 06/09/20
Designed: BA Date: 06/09/20
Checked: MBD Date: 06/09/20

Project Number:
1106-A0001-B

Project Title:
GRISWOLD - SBA
CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

Prepared For:
smartlink

Drawing Scale: AS NOTED
Date: 06/09/20
SD

Drawing Title
MOUNT MOD

Drawing Number
S2

Mount Analysis and Mapping Checklist

Mount Detail	Both
Mount Type	Platform
Mount Model Number	FWT
If RT, then how is it attached	
If WT, then how is it attached	
Result of previous mount analysis or PE opinion letter	Pass

Inspector (Mapping)
(Vendor name)
(Inspector name)
(Contact phone)
(Contact email)

Mount Mapping Detail	Both
Material condition (discoloration, cracks, pitting)	
Mfg. drawing, cutsheet, spec. available?	
Date of previous mount mapping	
Searched prior OEM for material?	
Photos of installation available?	
Original tower drawings show mounts?	
Searched for previous mapping?	
Is latest mod design (dwgs) available?	
Is the latest structural analysis available?	

Project Detail	Both
Market	New England
PACE Project ID	MRCTB046551
Site Name	Griswold - SBA
City, State	Griswold, CT
RFDS Version Number	2
Initiative (list mult., if applicable)	AWS
Tower Owner	
SA Vendor	
A&E firm (for structural analysis)	
A&E firm (for mapping, if different)	
Last amendment date or last site visit	

Site Information	Both
Original Lease Date	
FA Code	
Tower Type	Monopole
Tower Height (Ft)	145
AT&T Rad Center # 1	151
AT&T Rad Center # 2	

Note: For each table in this form, note whether the information applies to "Mapping" only, or "Both" mount analysis and mapping. Equipment detail is for "Mapping" but is not labeled. Sketches are only required for mapping.

Measurements and Deliverables on sketches	Mapping
Pipe / Angle dimenions and lengths	
bolt diameters and lengths	
U-Bolt diameters and lengths	
Steel Grade if indicated	
welds :length and sizes	
appurtenance relative locations	
Grounding Condition	

Equipment Detail Alpha Sector	Model Number for Ant, MW, RRU, TMA, Squid / Size of Coax, DC-Fiber Trunks & Jumpers	Height / COAX-DC-Fiber Trunk & Jumper Lengths in feet	Approx Az	mount position location
Antennas	0	0	0	0
MW	0	0	0	0
RRU	0	0	0	0
TMA	0	0	0	0
Coax	0	0	0	0
RET (not imbedded in antenna)	0	0	0	0
DC Cable	0	0	0	0
Fiber Cable	0	0	0	0
Squid	0	0	0	0
Equipment Detail Beta Sector				
Antennas	0	0	0	0
MW	0	0	0	0
RRU	0	0	0	0
TMA	0	0	0	0
Coax	0	0	0	0
RET (not imbedded in antenna)	0	0	0	0
DC Cable	0	0	0	0
Fiber Cable	0	0	0	0
Squid	0	0	0	0
Equipment Detail Gamma Sector				
Antennas	0	0	0	0
MW	0	0	0	0
RRU	0	0	0	0
TMA	0	0	0	0
Coax	0	0	0	0
RET (not imbedded in antenna)	0	0	0	0
DC Cable	0	0	0	0
Fiber Cable	0	0	0	0
Squid	0	0	0	0

Comments

AT&T TARP Mount Program AMSS Form								
INPUT FIELDS							OUTPUT FIELDS	
BASIC WINDFSPEED (mph)	**Radial Ice (in)**	**Height (ft)**	**Exposure Category**	**Class**	**TOPO Category**	**Number of Mount Pipes / Sector**	Allowable EPA / pipe (ft sq)	Allowable Weight / Pipe (lbf)
							NOTE : Specify how many pipes are being considered per face for each EPA/WT pair	
96	**1"**	**151**	**C**	**II**	**1**	**3**	***14***	***950***

INFINIGY

Non-Ionizing Radiation Report

Compiled For: Smartlink on behalf of AT&T

Site Name: Griswold-RTE 81

Site FA: 10035274

USID: 65057

131 Bishop Crossing Road, Griswold, CT 06351

Latitude: 41.6233811 Longitude: -71.9421111

Structure Type: Monopole Tower

Report Date: May 26, 2020

Status: AT&T will be compliant with FCC rules on RF Exposure.

Table of Contents

1. Executive Summary:

Smartlink on behalf of AT&T has contracted Infinigy Solutions, LLC to determine whether the site Griswold-RTE 81 located at 131 Bishop Crossing Road in Griswold, CT Will Be Compliant with all Federal Communications Commission (FCC) rules and regulations for radio frequency (RF) exposure as indicated in **47CFR§1.1310**.

The report incorporates a theoretical RF field analysis in accordance with the FCC Rules and Regulations for all individuals classified as "Occupational or Controlled" and "General Public or Uncontrolled" (see Appendix A and B).

This document and the conclusions herein are based on information provided by AT&T.

As a result of the analysis, **AT&T Will Be Compliant with FCC rules.**

Site Cumulative Exposure %		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0179
	% Exposure	2.64141%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0179
	% Exposure	0.54444%

2. Site Summary:

Site Information	
Site Name: Griswold-RTE 81	
Site Address: 131 Bishop Crossing Road, Griswold, CT 06351	
Site Type: Monopole Tower	
Compliance Status	Will Be Compliant
Mitigation Required	No
Signage Required	None (there is existing signage installed at the site)
Barriers Required	No
Access Locked	No
Area Controlled or Uncontrolled	Uncontrolled

3. Site Compliance

This report also incorporates overview of the site information:

- Antenna Inventory Table
- Calculation Tables showing exposure for each carrier transmit frequency
- Total exposure for all carriers existing and proposed at ground level considering the centerline of all antennas and horizontal distance from the tower.
- Maximum Effective Radiated Power Assumed as Worst Case for Calculations used in this study
- Calculations based on flat ground around base of the structure

4. Site Compliance Recommendations

Infinigy recommends the following upon the installation of antennas at the site:

Base of tower

None. There is a yellow caution sign installed at the gate of the compound.

5. Antenna Inventory Table

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency/Technology	Rad Ctr (Ft)	Azi (Deg))	Total ERP Power (Watts)
1a	Alpha	AT&T	CCI	DMP65R-BU6DA-700	700-LTE	151	0	1476
1b	Alpha	AT&T	CCI	DMP65R-BU6DA-850	850-LTE	151	0	1000
1c	Alpha	AT&T	CCI	DMP65R-BU6DA-850	850-5G	151	0	1000
1d	Alpha	AT&T	CCI	DMP65R-BU6DA-1900	1900-LTE	151	0	4842
2a	Alpha	AT&T	CCI	OPA-65R-BU6DA-700	700-LTE	151	0	2951
2b	Alpha	AT&T	CCI	OPA-65R-BU6DA-2100	2100-LTE	151	0	5070
3	Alpha	AT&T	Powerwave	7770-850	850-UMTS	151	0	1000
4a	Beta	AT&T	CCI	DMP65R-BU6DA-700	700-LTE	151	120	1476
4b	Beta	AT&T	CCI	DMP65R-BU6DA-850	850-LTE	151	120	1000
4c	Beta	AT&T	CCI	DMP65R-BU6DA-850	850-5G	151	120	1000
4d	Beta	AT&T	CCI	DMP65R-BU6DA-1900	1900-LTE	151	120	4842
5a	Beta	AT&T	CCI	OPA-65R-BU6DA-700	700-LTE	151	120	2951
5b	Beta	AT&T	CCI	OPA-65R-BU6DA-2100	2100-LTE	151	120	5070
6	Beta	AT&T	Powerwave	7770-850	850-UMTS	151	120	1000
7a	Gamma	AT&T	CCI	DMP65R-BU6DA-700	700-LTE	151	230	1476
7b	Gamma	AT&T	CCI	DMP65R-BU6DA-850	850-LTE	151	230	1000
7c	Gamma	AT&T	CCI	DMP65R-BU6DA-850	850-5G	151	230	1000
7d	Gamma	AT&T	CCI	DMP65R-BU6DA-1900	1900-LTE	151	230	4842
8a	Gamma	AT&T	CCI	OPA-65R-BU6DA-700	700-LTE	151	230	2951
8b	Gamma	AT&T	CCI	OPA-65R-BU6DA-2100	2100-LTE	151	230	5070
9	Gamma	AT&T	Powerwave	7770-850	850-UMTS	151	230	1000
10	Alpha	Sprint	KMW	AM-X-CD-14-65-850	850-LTE	137	0	1144
11	Alpha	Sprint	KMW	AM-X-CD-14-65-1900	1900-LTE	137	0	1376
12a	Alpha	Sprint	KMW	ET-X-WM-18-65-2500	2500-LTE	137	0	1919

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency/Technology	Rad Ctr (Ft)	Azi (Deg))	Total ERP Power (Watts)
12b	Alpha	Sprint	KMW	ET-X-WM-18-65-2500	2500-5G	137	0	1919
13	Beta	Sprint	KMW	AM-X-CD-14-65-850	850-LTE	137	120	1144
14	Beta	Sprint	KMW	AM-X-CD-14-65-1900	1900-LTE	137	120	1376
15a	Beta	Sprint	KMW	ET-X-WM-18-65-2500	2500-LTE	137	120	1919
15b	Beta	Sprint	KMW	ET-X-WM-18-65-2500	2500-5G	137	120	1919
16	Gamma	Sprint	KMW	AM-X-CD-14-65-850	850-LTE	137	240	1144
17	Gamma	Sprint	KMW	AM-X-CD-14-65-1900	1900-LTE	137	240	1376
18a	Gamma	Sprint	KMW	ET-X-WM-18-65-2500	2500-LTE	137	240	1919
18b	Gamma	Sprint	KMW	ET-X-WM-18-65-2500	2500-5G	137	240	1919

6. RF Guidelines

To ensure safety of company workers, the following points need to be taken into consideration and implemented at wireless sites in accordance with the Carriers policies:

a) Worksite: Any employee at the site should avoid working directly in front of the antenna or in areas predicted to exceed general population exposure limits by 100%. Workers should insist that the transmitters be switched off during the work period.

b) RF Safety Training and Awareness: All employees working in areas exceeding the general population limits should have a basic awareness of RF safety measures. Videos, classroom lectures and online courses are all appropriate training methods on these topics.

c) Site Access: Restricting access to transmitting antenna locations is one of the most important elements of RF safety. This can be done with:

- Locked doors/gates/ladder access
- Alarmed doors
- Restrictive barriers

d) Three-foot Buffer: There is an inverse relationship between the strength of the field and the distance from the antenna. The RF field diminishes with distance from the antenna. Workers should maintain a three-foot distance from the antennas.

e) Antennas: Workers should always assume that the antenna is transmitting and should never stop right in front of the antenna. If someone must pass by an antenna, he/she should move quickly, thus reducing RF exposure.

Attachment 1: Site Exposure Analysis Per Carrier

AT&T All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0124
	% Exposure	1.70360%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0124
	% Exposure	0.35688%

Sprint All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm^2)	0.0055
	% Exposure	0.9378%
Controlled / Occupational	Exposure values at the site (mW/cm^2)	0.0055
	% Exposure	0.18756%

Attachment 2: AT&T Exposure Analysis Per Band

AT&T 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.5**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.63%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.3**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.14%**

AT&T 850 MHz UMTS		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

AT&T 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

AT&T 850 MHz 5G		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

AT&T 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0035**
	% Exposure	**0.35%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0035**
	% Exposure	**0.07%**

AT&T 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**1.0**
	Exposure values at the site (mW/cm^2)	**0.0036**
	% Exposure	**0.36%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**5.0**
	Exposure values at the site (mW/cm^2)	**0.0036**
	% Exposure	**0.07269%**

Attachment 3: Sprint Exposure Analysis Per Band

Sprint 862 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.5**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.63%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.3**
	Exposure values at the site (mW/cm^2)	**0.0032**
	% Exposure	**0.14%**

Sprint 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

Sprint 2500 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

Sprint 2500 MHz 5G		
Uncontrolled / General Population	FCC's exposure limits (mW/cm^2)	**0.6**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.12%**
Controlled / Occupational	FCC's Exposure limits(mW/cm^2)	**2.8**
	Exposure values at the site (mW/cm^2)	**0.0007**
	% Exposure	**0.03%**

7. Appendix A: FCC Guidelines

FCC Policies

The Federal Communications Commission (FCC) in 1996 implemented regulations and policies for analysis of RF propagation to evaluate RF emissions. All the analysis and results of this report are compared with FCC's (Federal Communications Commission) rules to determine whether a site is compliant for Occupational/Controlled or General Public/Uncontrolled exposure. All the analysis of RF propagation is done in terms of a percentage. The limits primarily indicate the power density and are generally expressed in terms of milliwatts per centimeter square, mW/cm^2.

FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the scenario/ situation in which that exposure takes place or the status of the individuals who are subjected to that exposure. The decision as to which tier is applied to a scenario is based on the following definitions:

Occupational / Controlled

These limits apply in situations when someone is exposed to RF energy through his/her occupation, is fully aware of the harmful effects of the RF exposure and has an ability to exercise control over this exposure. Occupational / controlled exposure limits also apply when exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. limits for Occupational/Controlled exposure can be found on Table 1(A).

General Population / Uncontrolled

These limits apply to situations in which the general public may be exposed or in which persons who are exposed because of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure to RF. Therefore, members of the general public would always be considered under this category, for example, in the case of a telecommunications tower that exposes people in a nearby residential area. Exposure limits for General Population/Uncontrolled can be found on Table 1(B).

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

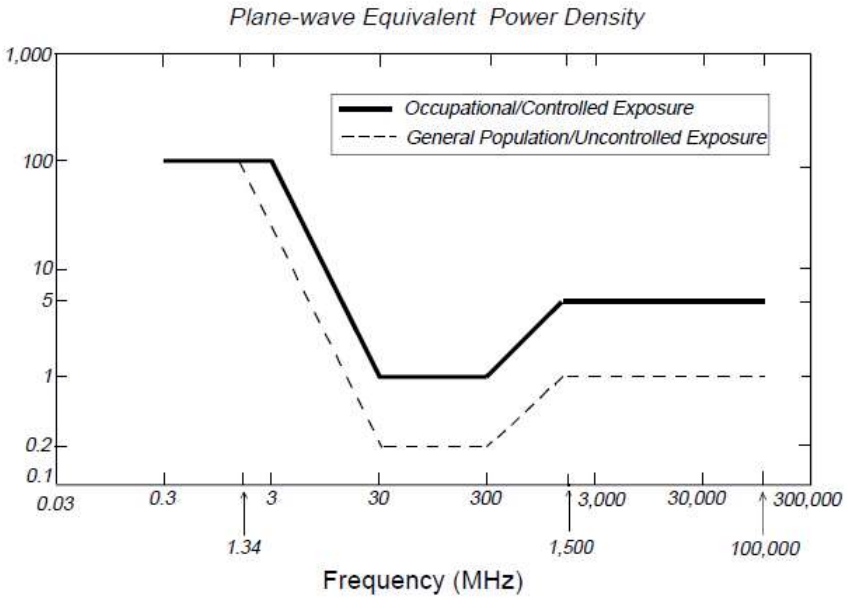
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

Figure 1. *FCC Limits for Maximum Permissible Exposure (MPE)*



OSHA Statement:

The objective of the OSHA Act is to ensure the safety and health of the working men and women by enforcing certain standards. The act also assists and encourages the states in their efforts to ensure safe and healthy working conditions through means of research, information, education and training in the field of occupational safety and health and for other purposes.

According to OSHA Act section 5, important duties to be considered are:

(a) Each employer

1) Shall furnish to each of his employees' employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious harm to his employees
2) Shall comply with occupational safety and health standards promulgated under this act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

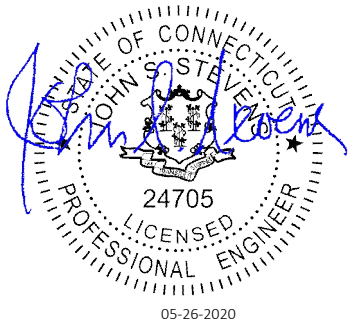
8. Appendix B: Preparer Certification

I, Tim Harris, preparer of this report, certify that I am fully trained and aware of the rules and regulations of both the Federal Communications Commission and the Occupational Safety and Heath Administration regarding Human Exposure to Radio Frequency Radiation. In addition, I have been trained in 1) RF safety and 2) RF modeling using RoofView modeling software.

I certify that the information contained in this report is true and correct to the best of my knowledge.

Timothy A. Harris *5/26/2020*

Signature Date



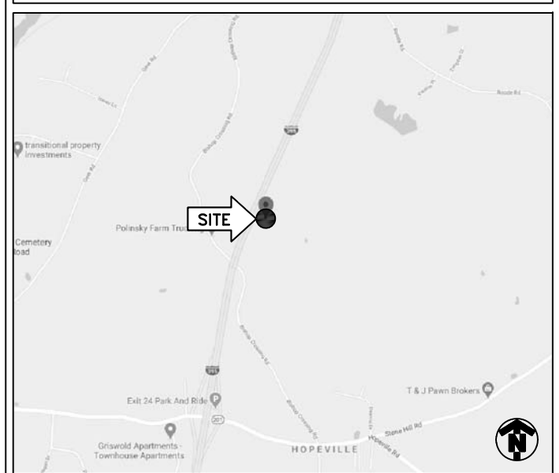
SHEET INDEX

DRIVING DIRECTIONS

FROM 550 COCHITUATE RD.:

GET ON I-90 WEST/MASSACHUETTS TURNPIKE. HEAD NORTHWEST TOWARD LEGGATT MCCALL CONN. TURN LEFT ONTO LEGGATT MCCALL CONN. CONTINUE ONTO BURR STREET. TURN LEFT ONTO COCHITUATE ROAD. USE THE RIGHT LANE TO TAKE THE RAMP TO I-90 EAST/MASSPIKE WEST/SPRINGFIELD/BOSTON. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-90 WEST/MASSACHUETTS TURNPIKE/WORCESTER/SPRINGFIELD AND MERGE ONTO I-90 WEST/MASSACHUETTS TURNPIKE. FOLLOW I-90 WEST/MASSACHUETTS TURNPIKE TO I-395 NORTH IN GRISWOLD. MERGE ONTO I-90 WEST/MASSACHUETTS TURNPIKE. TAKE EXIT 10 TOWARD MA-12 NORTH/AUBURN/WORCESTER. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-395 SOUTH/US-20 EAST/NORWICH CT AND MERGE ONTO I-395 SOUTH. TAKE EXIT 24 FOR CT-201 TOWARD HOPEVILLE. TURN LEFT ONTO CT-201/HOPEVILLE ROAD. TURN LEFT TO MERGE ONTO I-395 NORTH TOWARD WORCESTER.

LOCATION MAP



PROJECT

LTE 2C/3C/4C/5G NR/RETROFIT

SITE NAME

GRISWOLD BISHOP CROSSING

CELL SITE ID

CTL02025

FA SITE NUMBER

10035274

PACE ID

MRCTB046693/MRCTB046809/MRCTB046519
MRCTB046942/MRCTB046551

SITE ADDRESS

131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

STRUCTURE TYPE

MONOPOLE

PROJECT TEAM

smartlink

PROJECT MANAGER

INFINIGY

1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

ENGINEER

SCOPE OF WORK (PER LTE RFDS, DATED 05/07/2020 V2.00):

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- FACILITY HAS NO PLUMBING OR REFRIGERANTS.
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

TOWER
- REMOVE (6) PANEL ANTENNAS
- INSTALL (6) PANEL ANTENNAS
- REMOVE (3) RRUS-11 B12
- INSTALL (3) B14 4478
- INSTALL (3) 4449 B5/B12
- INSTALL (3) 8843 B2/B66A
- INSTALL (2) DC6 'SQUID' W/(4) DC CABLES AND (2) FIBER CABLES
- INSTALL HANDRAIL KIT

GROUND
- ADD XMU
- ADD 6630 5G
- ADD IDLe CABLE

PROJECT SUMMARY

SITE NAME:	GRISWOLD BISHOP CROSSING	
CELL SITE ID:	CTL02025	
FA SITE #:	10035274	
SITE ADDRESS:	131 BISHOP CROSSING ROAD GRISWOLD, CT 06351	
COUNTY:	NEW LONDON	
SITE COORDINATES: LATITUDE: LONGITUDE:	 41.6233811° N 71.9421111° W	 (NAD 83) (NAD 83)
RAD CENTER	±151'	(AGL)
LANDLORD:	SBA TOWERS	
APPLICANT:	AT&T MOBILITY 550 COCHITUATE RD. FRAMINGHAM, MA 01701	
CLIENT REPRESENTATIVE:	SMARTLINK, LLC 85 RANGEWAY RD., BUILDING 3, SUITE 102 NORTH BILLERICA, MA 01862	
CONTACT:	SHARON KEEFE 978-930-3918	
ENGINEER:	INFINIGY 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205	
CONTACT:	ALEX WELLER (518) 690-0790	
BUILDING CODE:	2018 CT STATE BUILDING CODE 2015 INTERNATIONAL BUILDING CODE ANSI/TIA-222 G 2015 INTERNATIONAL PLUMBING CODE 2015 INTERNATIONAL MECHANICAL CODE 2015 INTERNATIONAL ENERGY CONSERVATION CODE 2017 NFPA 70	
ELECTRICAL CODE:	NATIONAL ELECTRICAL CODE (LATEST EDITION)	

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STATE OF CONNECTICUT
JOHN S. STEVENS
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LICENSED PROFESSIONAL ENGINEER
07-10-2020

No.	Submittal / Revision	App'd	Date
1	ISSUED FOR PERMIT	BMM	07/10/20
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Drawn: BMM Date: 06/25/20
Designed: ASW Date: 06/25/20
Checked: ASW Date: 06/25/20

Project Number: 499-006

Project Title:
GRISWOLD BISHOPS CROSSING
CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 07/10/20
CD

Drawing Title
TITLE PAGE

Drawing Number
T1

GENERAL NOTES

PART 1 – GENERAL REQUIREMENTS

1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC").
D. AND NFPA 101 (LIFE SAFETY CODE).
E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM).
F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).

1.2 DEFINITIONS:
A: WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
B: COMPANY: AT&T CORPORATION
C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
D: CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
E: THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.

1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.

1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.

1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.

1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.

1.7 NOTICE TO PROCEED:
A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE AT&T WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – EXECUTION

2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.

2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.

2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
A. CONTRACTOR SHALL PROCURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY AT&T TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.

2.5 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

PART 3 – RECEIPT OF MATERIAL & EQUIPMENT

3.1 RECEIPT OF MATERIAL AND EQUIPMENT: CONTRACTOR IS RESPONSIBLE FOR AT&T PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO AT&T OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

PART 4 – GENERAL REQUIREMENTS FOR CONSTRUCTION

4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.

4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.

4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION.

4.5 CONDUCT TESTING AS REQUIRED HEREIN.

PART 5 – TESTS AND INSPECTIONS

5.1 TESTS AND INSPECTIONS:
A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.

B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.

C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.

D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.

E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.

F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.

G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

PART 6 – TRENCHING AND BACKFILLING

6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.

A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.

B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL DIGGING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.

C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.

E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.

F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOLID SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.

G. BACKFILLING OF TRENCHES. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTLING THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH
F	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
T	TRANSFORMER
M	KILOWATT HOUR METER
JB	JUNCTION BOX
PB	PULL BOX TO NEC/TELCO STANDARDS
----------	UNDERGROUND UTILITIES
	EXOTHERMIC WELD CONNECTION
	MECHANICAL CONNECTION
OR	GROUND ROD
OR	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	120AC DUPLEX RECEPTACLE
G	GROUND CONDUCTOR
	DC POWER AND FIBER OPTIC TRUNK CABLES
	DC POWER CABLES
# / #	REPRESENTS DETAIL NUMBER REF. DRAWING NUMBER

ABBREVIATIONS

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SST	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TYP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
C	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RGS	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TTLNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
EMT	ELECTRICAL METALLIC TUBING
AGL	ABOVE GROUND LEVEL

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CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

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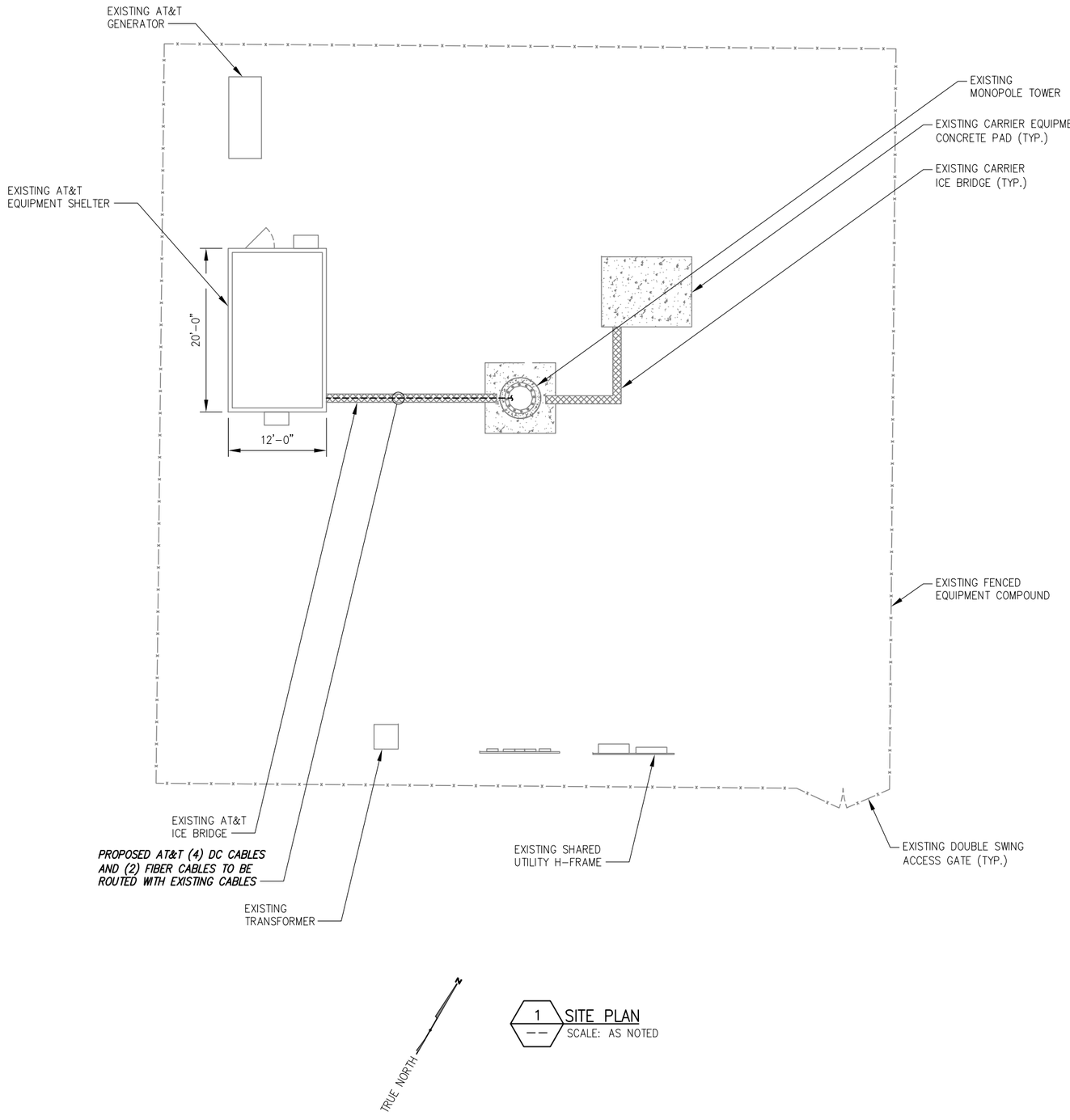
GENERAL NOTES

Drawing Number
C1



1 SITE PLAN
SCALE: AS NOTED

GRAPHIC SCALE:

10' 5' 0 5' 10'

SCALE (11x17): 1" = 10'-0"
SCALE (22x34): 1" = 5'-0"

BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.

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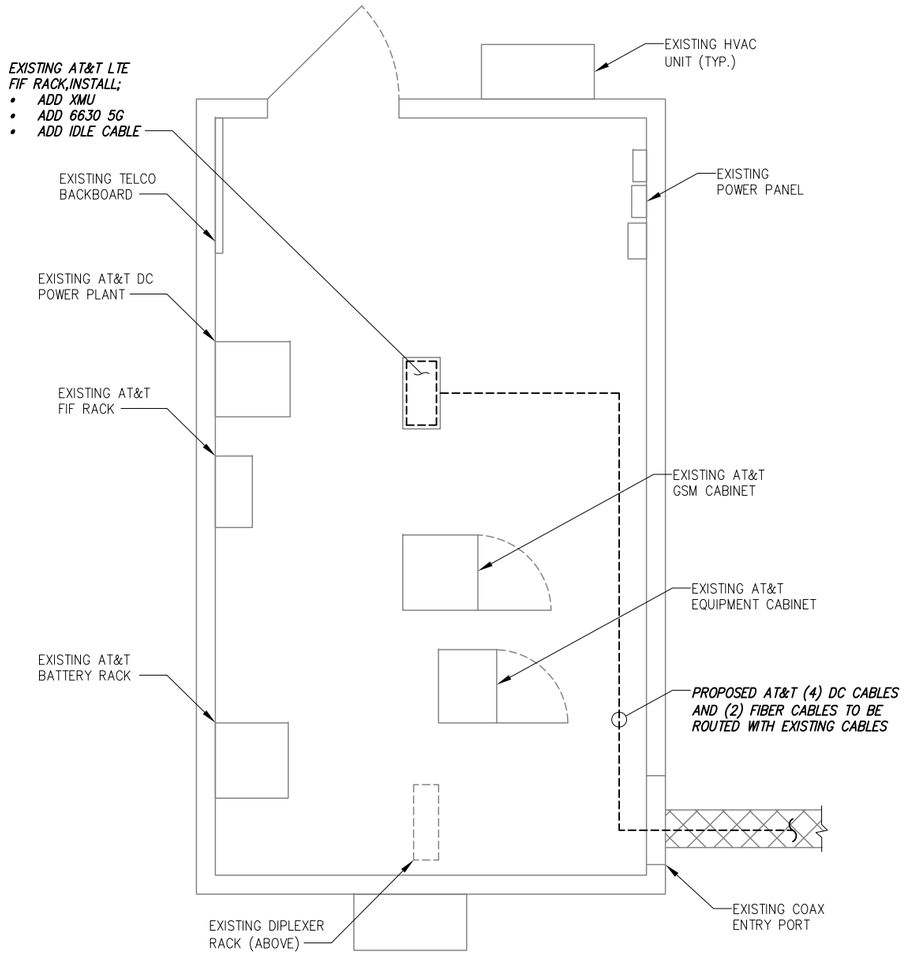
Drawing Title
OVERALL SITE PLAN

Drawing Number
C2



TRUE NORTH

2 ENLARGED EQUIPMENT PLAN
SCALE: AS NOTED

GRAPHIC SCALE:
4' 2' 0 2' 4'
SCALE (11x17): 1" = 4'-0"
SCALE (22x34): 1" = 2'-0"

BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.

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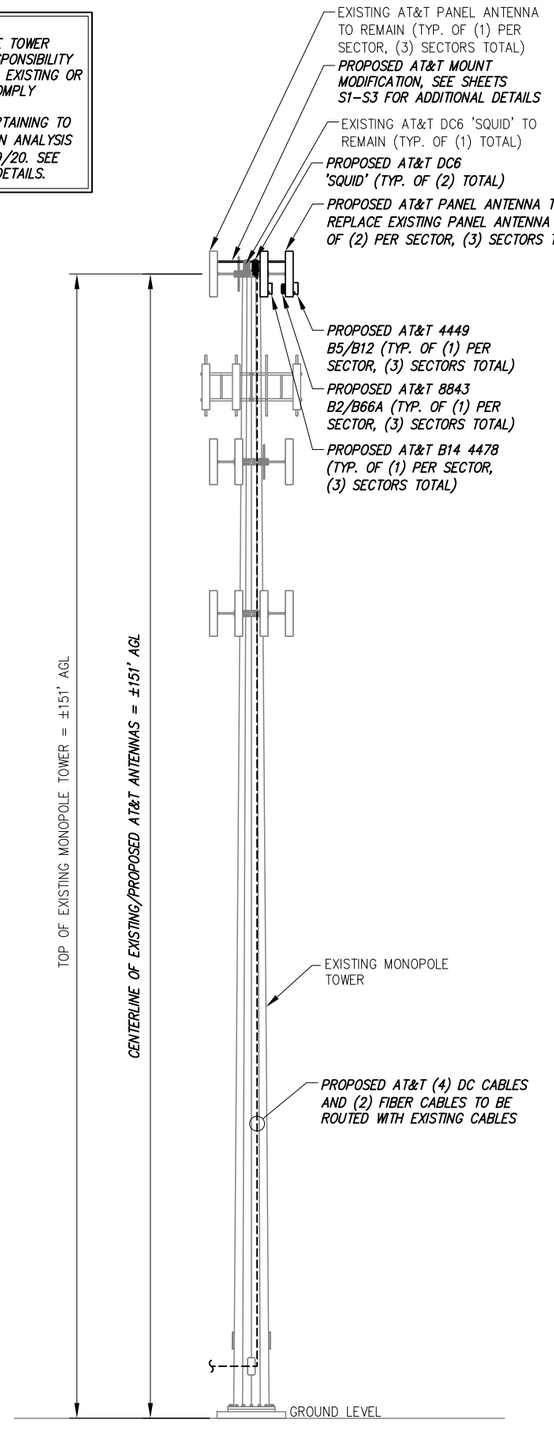
Drawing Title
ENLARGED SITE PLAN

Drawing Number
C2A

NOTE:
- *INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER LOADING FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY REGARDING ITS EXISTING OR PROPOSED LOADING. FINAL INSTALLATION TO COMPLY STRUCTURAL ANALYSIS.*
- *FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'MOUNT MODIFICATION ANALYSIS REPORT' COMPLETED BY INFINIGY, DATED 06/09/20. SEE SHEETS S1-S3 FOR ADDITIONAL MODIFICATION DETAILS.*

NOTE:
- 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
- 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS



1 ELEVATION VIEW
NOT TO SCALE

FINAL ANTENNA CONFIGURATION & CABLE SCHEDULE BASED ON LTE RFDS DATED 05/07/2020 V2.00

SECTOR	ANTENNA POSITION	ANTENNA STATUS & TECHNOLOGY	ANTENNA MANF/MODEL	TMA/ DIPLEXER	RRUS	AZIMUTH	ANTENNA ℄ HEIGHT	CABLE FEEDER TYPE	CABLE FEEDER LENGTH	RAYCAP UNIT
ALPHA	A-1	*(P) LTE 700/850/ 1900/5G 850*	*CCI DMP65R-BU6DA*	--	*(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A*	*0°*	*±151'*	(1) (E) FIBER CABLE (2) (E) DC CABLES	--	(1) (E) DC6 'SQUID' *(2) (P) DC6 'SQUID'*
	A-2	*(P) LTE 700/AWS*	*CCI OPA65R-BU6DA*	--	*(1) (P) B14 4478*	*0°*	*±151'*	SEE A-1 FOR CABLE INFORMATION	--	
	A-3	--	--	--	--	--	--	--	--	
	A-4	(E) UMTS 850	POWERWAVE 7770	(2) (E) LGP21401	--	118°	±151'	(2) (E) 1-5/8" COAX CABLES	±180'	
BETA	B-1	*(P) LTE 700/850/ 1900/5G 850*	*CCI DMP65R-BU6DA*	--	*(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A*	*120°*	*±151'*	*(1) (P) FIBER CABLE (2) (P) DC CABLES*	--	
	B-2	*(P) LTE 700/AWS*	*CCI OPA65R-BU6DA*	--	*(1) (P) B14 4478*	*120°*	*±151'*	SEE A-1 FOR CABLE INFORMATION	--	
	B-3	--	--	--	--	--	--	--	--	
	B-4	(E) UMTS 850	POWERWAVE 7770	(2) (E) LGP21401	--	238°	±151'	(2) (E) 1-5/8" COAX CABLES	±180'	
GAMMA	G-1	*(P) LTE 700/850/ 1900/5G 850*	*CCI DMP65R-BU6DA*	--	*(1) (P) 4449 B5/B12 (1) (P) 8843 B2/B66A*	*230°*	*±151'*	*(1) (P) FIBER CABLE (2) (P) DC CABLES*	--	
	G-2	*(P) LTE 700/AWS*	*CCI OPA65R-BU6DA*	--	*(1) (P) B14 4478*	*230°*	*±151'*	SEE A-1 FOR CABLE INFORMATION	--	
	G-3	--	--	--	--	--	--	--	--	
	G-4	(E) UMTS 850	POWERWAVE 7770	(2) (E) LGP21401	--	8°	±151'	(2) (E) 1-5/8" COAX CABLES	±180'	

2 AT&T ANTENNA SCHEDULE
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CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

Prepared For: smartlink

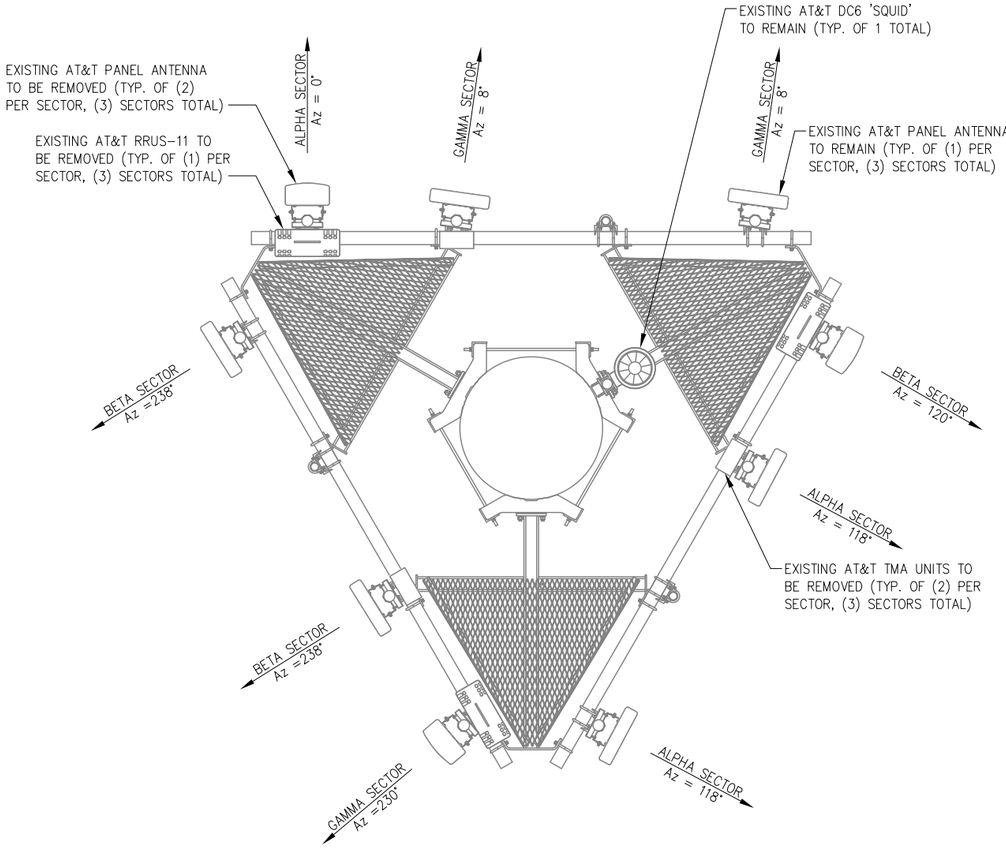
Drawing Scale: AS NOTED
Date: 07/10/20
CD

Drawing Title
ELEVATION VIEW

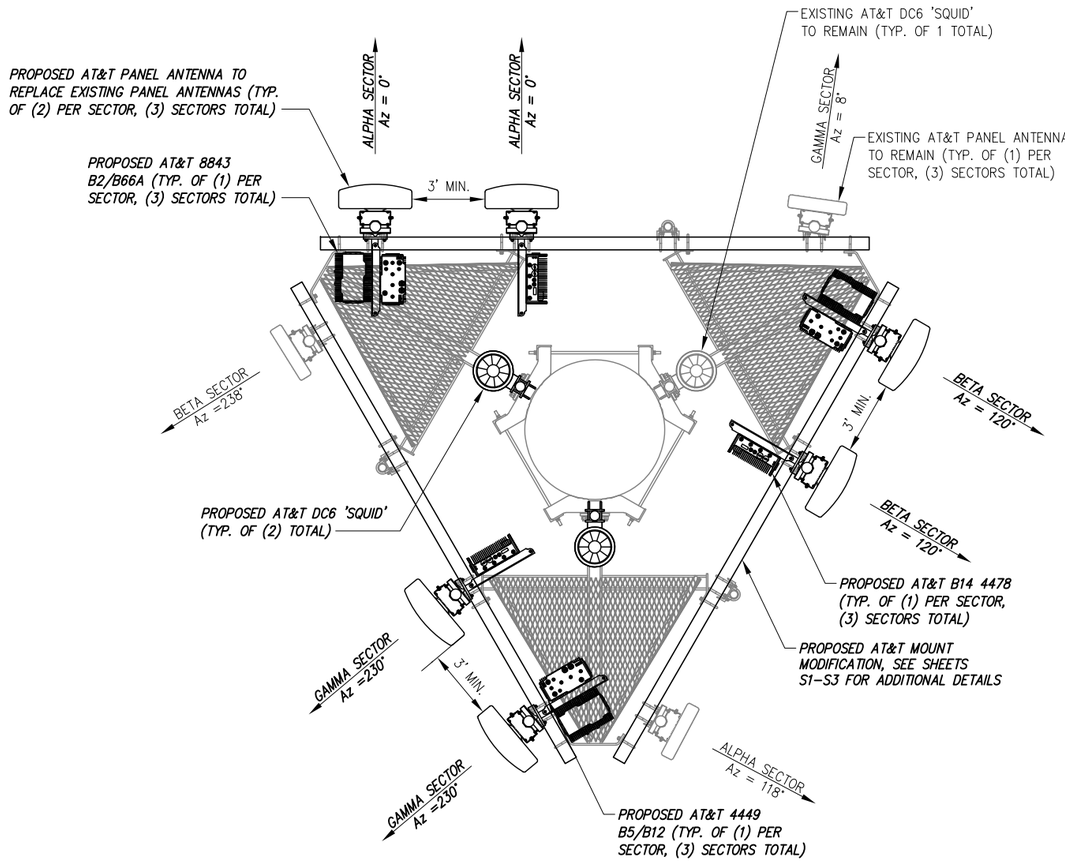
Drawing Number
C3

NOTE:
- *INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER LOADING FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY REGARDING ITS EXISTING OR PROPOSED LOADING. FINAL INSTALLATION TO COMPLY STRUCTURAL ANALYSIS.*
- *FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'MOUNT MODIFICATION ANALYSIS REPORT' COMPLETED BY INFINIGY, DATED 06/09/20. SEE SHEETS S1-S3 FOR ADDITIONAL MODIFICATION DETAILS.*

NOTE:
- 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
- 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS



1 EXISTING ANTENNA ORIENTATION PLAN
NOT TO SCALE



2 PROPOSED ANTENNA ORIENTATION PLAN
NOT TO SCALE

INFINIGY
INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

STATE OF CONNECTICUT
JOHN S. STEVENS
24705
LICENSED PROFESSIONAL ENGINEER
07-10-2020

No.	Submittal / Revision	App'd	Date
1	ISSUED FOR PERMIT	BMM	07/10/20
0	ISSUED FOR REVIEW	BMM	06/25/20

Drawn: BMM Date: 06/25/20
Designed: ASW Date: 06/25/20
Checked: ASW Date: 06/25/20

Project Number: 499-006

Project Title:
GRISWOLD BISHOPS CROSSING
CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

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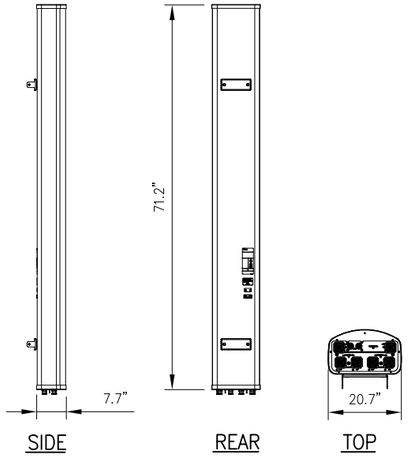
Drawing Scale: AS NOTED
Date: 07/10/20
CD

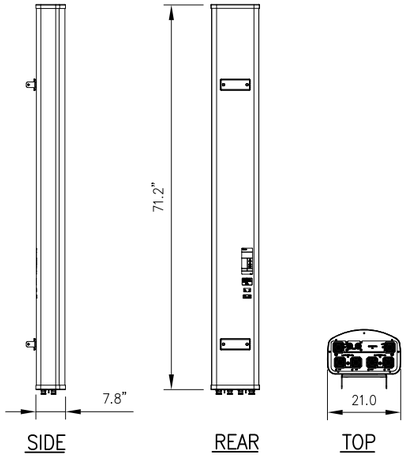
Drawing Title
ANTENNA ORIENTATION PLAN

Drawing Number
C4



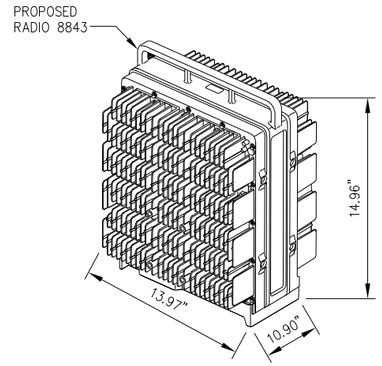
CCI MODEL NO.:	DMP65R-BU6DA
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	71.2"x20.7"x7.7"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	79.4 LBS
CONNECTOR:	7-16 DIN FEMALE

1 -- ANTENNA DETAIL
NOT TO SCALE



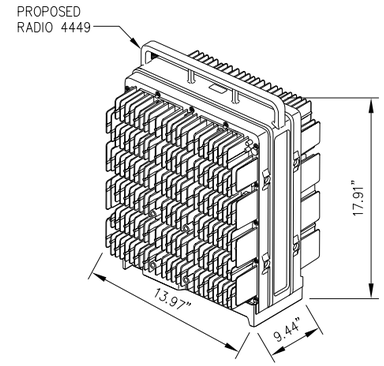
CCI MODEL NO.:	OPA65R-BU6DA
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	71.2"x21.0"x7.8"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	60.2 LBS
CONNECTOR:	7-16 DIN FEMALE

2 -- ANTENNA DETAIL
NOT TO SCALE



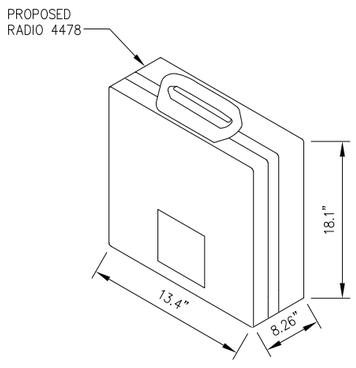
RADIO 8843 SPECIFICATIONS
- HxWxD, (INCHES) : 14.96"x13.97"x10.90"
- WEIGHT (LBS) : 71.87
- COLOR : GRAY

3 -- ERICSSON RADIO 8843 DETAIL
NOT TO SCALE



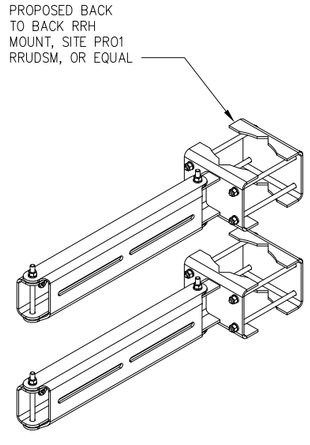
RADIO 4449 SPECIFICATIONS
- HxWxD, (INCHES) : 17.91"x13.97"x9.44"
- WEIGHT (LBS) : 70.54
- COLOR : GRAY

4 -- ERICSSON RADIO 4449 DETAIL
NOT TO SCALE

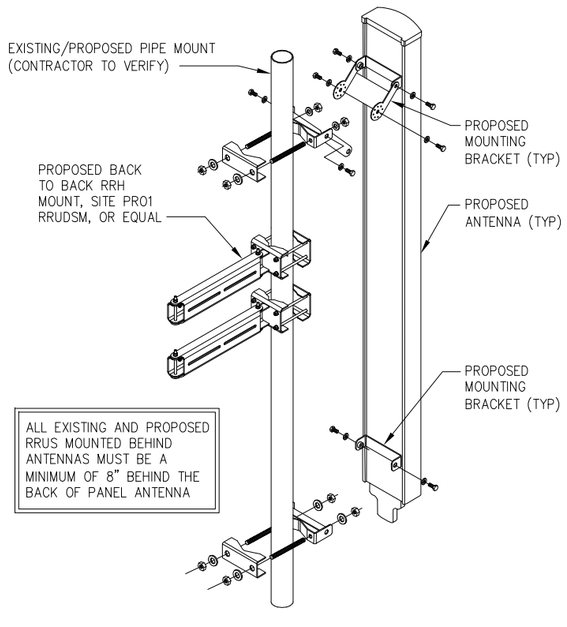


RADIO 4478-B14 SPECIFICATIONS
- HxWxD, (INCHES) : 18.1"x13.4"x8.26"
- WEIGHT (LBS) : 59.5
- COLOR : GRAY
- MOUNTING BRACKET: SXK1250244/1

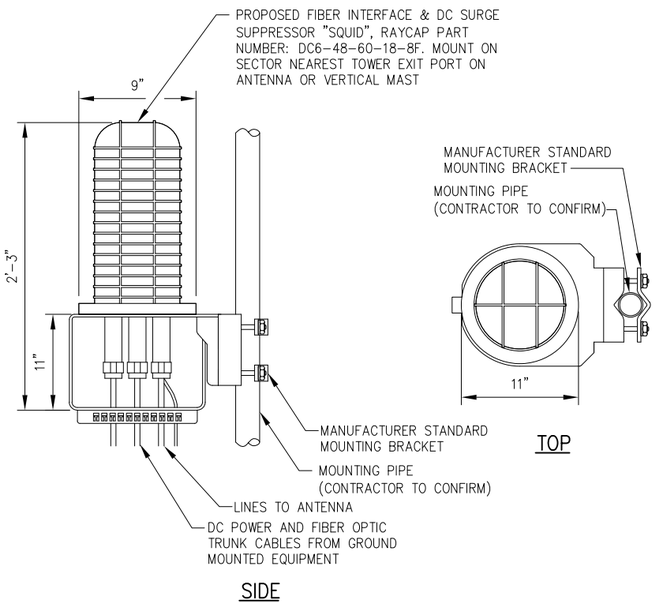
5 -- XX ERICSSON RADIO 4478-B14 DETAIL
NOT TO SCALE



6 -- BACK TO BACK PIPE MOUNT DETAIL
NOT TO SCALE



7 -- ANTENNA MOUNTING DETAIL
NOT TO SCALE



8 -- SQUID DETAIL
NOT TO SCALE

INFINIGY
INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
Albany, NY 12205
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Fax # (518) 690-0793

at&t

STATE OF CONNECTICUT
JOHN S. STEVENS
24705
LICENSED PROFESSIONAL ENGINEER
07-10-2020

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1	ISSUED FOR PERMIT	BMM	07/10/20
0	ISSUED FOR REVIEW	BMM	06/25/20

Drawn: BMM Date: 06/25/20
Designed: ASW Date: 06/25/20
Checked: ASW Date: 06/25/20

Project Number: 499-006

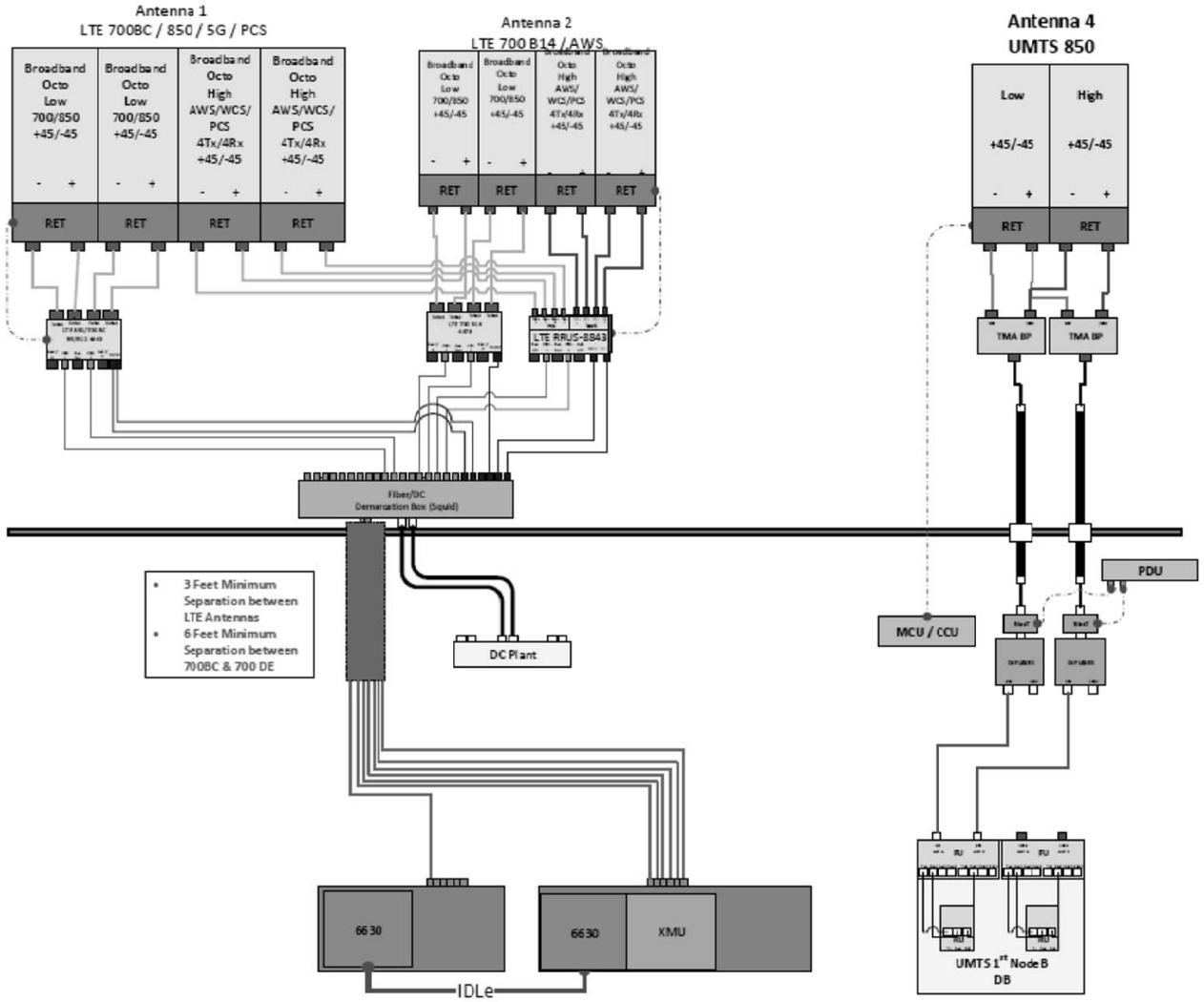
Project Title:
GRISWOLD BISHOPS CROSSING
CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 07/10/20
CD

Drawing Title
EQUIPMENT DETAILS

Drawing Number
C5



ALPHA/BETA/GAMMA

1 — PLUMBING DIAGRAM (FINAL CONFIGURATION)
NOT TO SCALE

*BASED ON LTE RFDS, DATED 05/07/2020 V2.00

INFINIGY
INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
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GRISWOLD, CT 06351

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Date: 07/10/20
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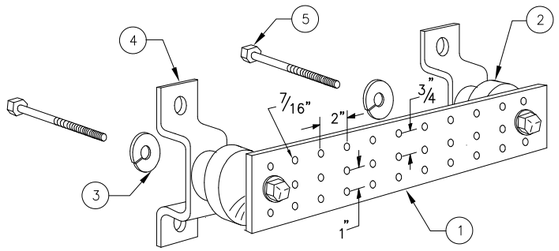
Drawing Title
PLUMBING DIAGRAM

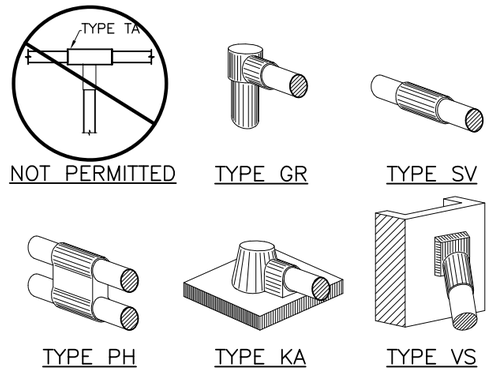
Drawing Number
C6



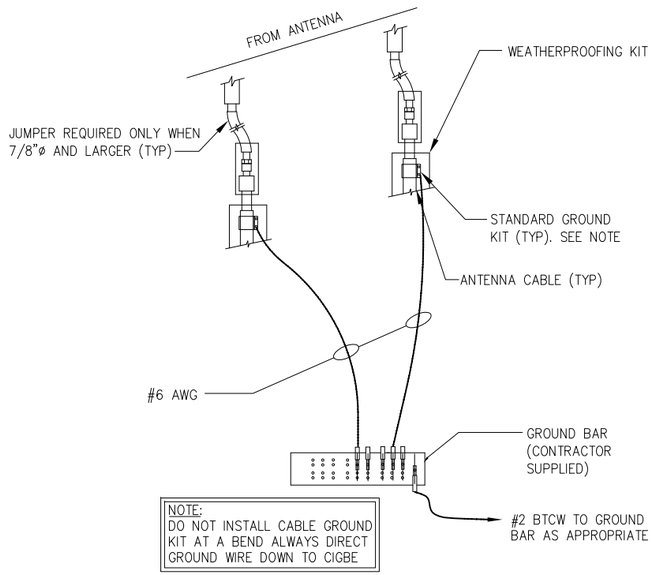
LEGEND

1 – SOLID TINNED COPPER GROUND BAR, 1/4"x 4"x 20" MIN., NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2 – INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061–4
3 – 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015–8
4 – WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A–6056
5 – 5/8–11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012–1
6 – GROUND BAR SHALL BE SIZED TO ACCOMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
7 – GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
8 – GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
9 – HARDWARE DIAMETER SHALL BE MINIMUM 3/8"

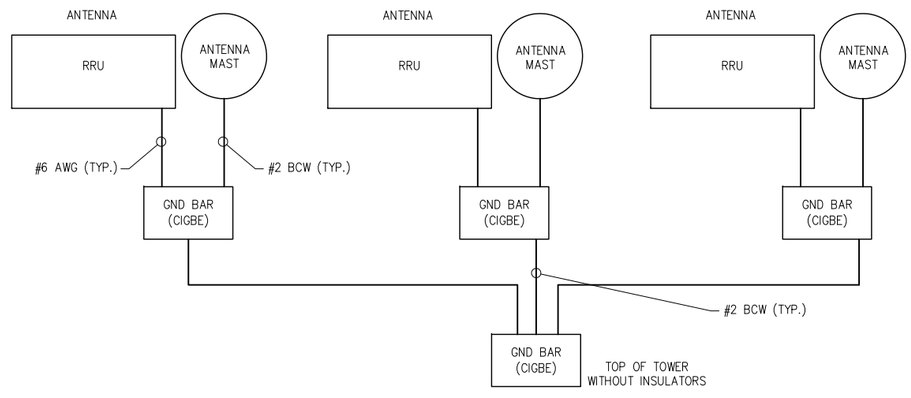
1 — GROUND BAR
NOT TO SCALE



2 — CADWELDS (TYPICAL)
NOT TO SCALE



3 — CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS
NOT TO SCALE



4 — SCHEMATIC DIAGRAM GROUNDING SYSTEM
NOT TO SCALE

INFINIGY
INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd
Albany, NY 12205
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Fax # (518) 690-0793

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STATE OF CONNECTICUT
JOHN S. STEVENS
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07-10-2020

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CTL02025
FA# 10035274
131 BISHOP CROSSING ROAD
GRISWOLD, CT 06351

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 07/10/20
CD

Drawing Title
GROUNDING DETAILS

Drawing Number
C7

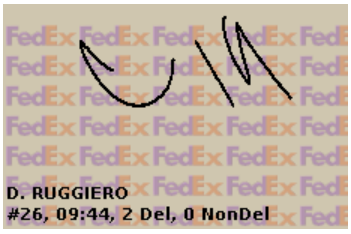
IMPORTANT!
We are continuing to respond to the impact of COVID-19 around the world. See our latest updates. For COVID-19-related recipient closures, you can redirect packages, Ask FedEx, or contact the shipper.

771292101968

Delivered
Thursday 8/20/2020 at 9:44 am

DELIVERED

Signed for by: DRUGGIERO



GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM

Smartlink Group
Sharon Keefe
85 Rangeway Rd.
Bldg 3, Suite 102
NORTH BILLERICA, MA US 01862
978 930-3918

TO

Griswold Town Hall
First Selectman Todd Babbitt
28 MAIN ST
JEWETT CITY, CT US 06351220428
860 376-7060

Shipment Facts

TRACKING NUMBER
771292101968

SERVICE
FedEx Ground

REFERENCE
CSC NOTICE CTL02025

WEIGHT
1 lbs / 0.45 kgs

DELIVERY ATTEMPTS
1

TOTAL PIECES
1

TERMS
Shipper

PACKAGING
Package

STANDARD TRANSIT
8/20/2020

SHIP DATE
Wed 8/19/2020

ACTUAL DELIVERY
Thu 8/20/2020 9:44 am

Ask FedEx

Travel History

Local Scan Time

Thursday , 8/20/2020		
9:44 am	Jewett City, CT	Delivered
7:24 am	JOHNSTON, RI	On FedEx vehicle for delivery
7:20 am	JOHNSTON, RI	At local FedEx facility
5:20 am	WILLINGTON, CT	Departed FedEx location
3:05 am	WILLINGTON, CT	Arrived at FedEx location
Wednesday , 8/19/2020		
10:05 pm	WILMINGTON, MA	Left FedEx origin facility
8:49 pm	WILMINGTON, MA	Arrived at FedEx location
3:14 pm	WILMINGTON, MA	Picked up
Tuesday , 8/18/2020		
9:40 pm	WILMINGTON, MA	In FedEx possession
		Package received after final location pickup has occurred. Scheduled for pickup next business day.
2:20 pm		Shipment information sent to FedEx

IMPORTANT!
We are continuing to respond to the impact of COVID-19 around the world. See our latest updates. For COVID-19-related recipient closures, you can redirect packages, Ask FedEx, or contact the shipper.

771292395761

Delivered
Thursday 8/20/2020 at 9:44 am

DELIVERED

Signed for by: DRUGGIERO

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM

Smartlink LLC
Sharon Keefe
85 Rangeway Rd.
Bldg 3, Suite 102
NORTH BILLERICA, MA US 01862
978 930-3918

TO

Griswold Town Hall
Jack Cipriano Building & Zoning
28 MAIN ST
JEWETT CITY, CT US 06351220428
860 376-7060

Shipment Facts

TRACKING NUMBER
771292395761

SERVICE
FedEx Ground

REFERENCE
CSC NOTICE CTL02025

WEIGHT
1 lbs / 0.45 kgs

DELIVERY ATTEMPTS
1

TOTAL PIECES
1

TERMS
Shipper

PACKAGING
Package

STANDARD TRANSIT
8/20/2020

SHIP DATE
Wed 8/19/2020

ACTUAL DELIVERY
Thu 8/20/2020 9:44 am

Ask FedEx

Travel History

Local Scan Time

Thursday , 8/20/2020		
9:44 am	Jewett City, CT	Delivered
7:25 am	JOHNSTON, RI	On FedEx vehicle for delivery
7:20 am	JOHNSTON, RI	At local FedEx facility
5:20 am	WILLINGTON, CT	Departed FedEx location
3:07 am	WILLINGTON, CT	Arrived at FedEx location
Wednesday , 8/19/2020		
10:05 pm	WILMINGTON, MA	Left FedEx origin facility
8:49 pm	WILMINGTON, MA	Arrived at FedEx location
3:14 pm	WILMINGTON, MA	Picked up
Tuesday , 8/18/2020		
9:40 pm	WILMINGTON, MA	In FedEx possession
		Package received after final location pickup has occurred. Scheduled for pickup next business day.
2:20 pm		Shipment information sent to FedEx

IMPORTANT!
We are continuing to respond to the impact of COVID-19 around the world. See our latest updates. For COVID-19-related recipient closures, you can redirect packages, Ask FedEx, or contact the shipper.

771291978210

Delivered
Thursday 8/20/2020 at 3:17 pm

DELIVERED

Signature not required

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM

Smartlink Group
Sharon Keefe
85 Rangeway Rd.
Bldg 3, Suite 102
NORTH BILLERICA, MA US 01862
978 930-3918

TO

POLINSKY HARVEY
POLINSKY HARVEY
129 BISHOP CROSSING RD
JEWETT CITY, CT US 06351120529
978 930-3918

Shipment Facts

TRACKING NUMBER
771291978210

SERVICE
FedEx Home Delivery

REFERENCE
CSC NOTICE CTL02025

WEIGHT
1 lbs / 0.45 kgs

DELIVERY ATTEMPTS
1

TOTAL PIECES
1

TERMS
Shipper

PACKAGING
Package

STANDARD TRANSIT
8/20/2020

SHIP DATE
Wed 8/19/2020

ACTUAL DELIVERY
Thu 8/20/2020 3:17 pm

Travel History

Local Scan Time

Thursday , 8/20/2020

3:17 pm	Jewett City, CT	Delivered

Given to customer. Signature Service not requested.

Ask FedEx

7:50 am	JOHNSTON, RI	On FedEx vehicle for delivery
7:33 am	JOHNSTON, RI	At local FedEx facility
5:20 am	WILLINGTON, CT	Departed FedEx location
2:57 am	WILLINGTON, CT	Arrived at FedEx location
Wednesday , 8/19/2020		
10:05 pm	WILMINGTON, MA	Left FedEx origin facility
8:48 pm	WILMINGTON, MA	Arrived at FedEx location
3:14 pm	WILMINGTON, MA	Picked up
Tuesday , 8/18/2020		
9:40 pm	WILMINGTON, MA	In FedEx possession
		Package received after final location pickup has occurred. Scheduled for pickup next business day.
2:04 pm		Shipment information sent to FedEx

IMPORTANT!
We are continuing to respond to the impact of COVID-19 around the world. See our latest updates. For COVID-19-related recipient closures, you can redirect packages, Ask FedEx, or contact the shipper.

771292684166

Scheduled delivery:
Monday 8/24/2020 by end of day

IN TRANSIT

Departed FedEx location

WILLINGTON, CT

GET STATUS UPDATES

FROM

Smartlink LLC
Sharon Keefe
85 Rangeway Rd.
Bldg 3, Suite 102
NORTH BILLERICA, MA US 01862
978 930-3918

TO

SBA Communications Corp.
Zoning Team
8051 CONGRESS AVE
BOCA RATON, FL US 33487131099
561 226-9476

Shipment Facts

TRACKING NUMBER
771292684166

SERVICE
FedEx Ground

REFERENCE
CSC NOTICE CTL02025

WEIGHT
1 lbs / 0.45 kgs

TOTAL PIECES
1

TERMS
Shipper

PACKAGING
Package

STANDARD TRANSIT
8/24/2020

SHIP DATE
Wed 8/19/2020

SCHEDULED DELIVERY
Mon 8/24/2020 by end of day

Travel History

Local Scan Time

Thursday , 8/20/2020

10:16 am	WILLINGTON, CT	Departed FedEx location
7:23 am	WILLINGTON, CT	Arrived at FedEx location

Wednesday , 8/19/2020		
8:58 pm	WILMINGTON, MA	Left FedEx origin facility
7:14 pm	WILMINGTON, MA	Arrived at FedEx location
3:14 pm	WILMINGTON, MA	Picked up
Tuesday , 8/18/2020		
9:35 pm	WILMINGTON, MA	In FedEx possession
		Package received after final location pickup has occurred. Scheduled for pickup next business day.
2:50 pm		Shipment information sent to FedEx

Sharon Keefe

From: TrackingUpdates@fedex.com
Sent: Monday, August 24, 2020 5:18 PM
To: Sharon Keefe
Subject: FedEx Shipment 771292684166: Your package has been delivered

Hi. Your package was delivered Mon, 08/24/2020 at 5:16pm.

Delivered to 8051 CONGRESS AVE, Boca Raton, FL 33487

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 771292684166

FROM
Smartlink LLC
85 Rangeway Rd.
Bldg 3, Suite 102
NORTH BILLERICA, MA, US, 01862

TO
Zoning Team
8051 Congress Avenue
BOCA RATON, FL, US, 33487

REFERENCE	CSC NOTICE CTL02025
SHIP DATE	Wed 8/19/2020 12:00 AM
PACKAGING TYPE	Package
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	BOCA RATON, FL, US, 33487
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Ground

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 4:17 PM CDT 08/24/2020.

All weights are estimated.