Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts and New York

August 2, 2023

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

Re: Notice of Exempt Modification – Facility Modification 160 West Street, Cromwell, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility at the above-referenced address (the "Property"). Cellco's facility consists of antennas and remote radio heads attached to a tower. Equipment associated with the facility is located on the ground adjacent to the tower. Cellco's facility was approved by the Siting Council ("Council") in November of 2007 (Docket No. 338). A copy of the Council's Docket No. 338 Decision and Order approval is included in <u>Attachment 1</u>.

Cellco's proposed modification involves the installation of two (2) interference mitigation filters ("filters") on Cellco's existing antenna platform and mounting assembly. The filter specification sheet is included in <u>Attachment 2</u>.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Cromwell's Chief Elected Official and Land Use Officer.

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

1. The proposed modifications will not result in an increase in the height of the existing tower. The filters will be installed on Cellco's existing antenna platform and mounting assembly.

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Melanie A. Bachman, Esq. August 2, 2023 Page 2

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

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

4. The installation of Cellco's new filters will not result in a change to radio frequency (RF) emissions from the facility. Therefore, no new RF emissions information is included in this filing.

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

6. According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, foundation, antenna platform and mounting assembly can support Cellco's proposed modifications. A copy of the SA and MA are included in <u>Attachment 3</u>.

A copy of the parcel map and Property owner information is included in <u>Attachment 4</u>. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in <u>Attachment 5</u>.

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

Sincerely,

Kunie mu

Kenneth C. Baldwin

Enclosures

Copy to:

Anthony Salvatore, Town Manager Stuart Popper, Director of Planning and Development 160 West Street, LLC, Property Owner Alex Tyurin, Verizon Wireless

ATTACHMENT 1

DOCKET NO. 338 – Sprint Nextel Corporation application for a	}	Connecticut
Certificate of Environmental Compatibility and Public Need for		Siting
the construction, maintenance and operation of a	}	Shing
telecommunications facility located at 160 West Street,		Council
Cromwell, Connecticut.	}	Counterr
		November 29, 2007

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Sprint Nextel Corporation, hereinafter referred to as the Certificate Holder, for the construction, maintenance and operation of a wireless telecommunications facility at 160 West Street in Cromwell, Connecticut.

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

- 1. The tower shall be designed and constructed as a simulated pine tree no taller than 80 feet above ground level, sufficient to accommodate the antennas of Sprint Nextel Corporation, Cellco Partnership d/b/a Verizon Wireless and other entities. Such design shall attempt to mimic the existing pine trees adjacent to the site to the greatest extent possible.
- 2. The tower shall be relocated 20 to 40 feet to the south.
- 3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Cromwell for comment, and all parties and intervenors, and interested parties, as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
 - b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the <u>2002 Connecticut Guidelines for Soil Erosion and Sediment Control</u>, as amended.
 - c) Photo-simulations of the selected tree tower design from the site property and adjacent residential neighborhood.

- 4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
- 5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
- 6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
- 7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Cromwell public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
- 8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council's Final Decision shall not be counted in calculating this deadline.
- 9. Any request for extension of the time period referred to in Condition 8 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Cromwell. Any proposed modifications to this Decision and Order shall likewise be so served.
- 10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
- 11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.
- 12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Docket No. 338 Decision and Order Page 3

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the <u>Hartford Courant</u> and <u>The Middletown Press</u>.

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

The parties and intervenors to this proceeding are:

Applicant Sprint Nextel Corporation

Its Representative

Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP CityPlace I, 185 Asylum Street Hartford, CT 06103

<u>Intervenor</u> Cellco Partnership d/b/a Verizon Wireless

Its Representative

Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597

ATTACHMENT 2



BSF0020F3V1-1

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The BSF0020 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the BSF0020 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the BSF0020 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.

FEATURES

- · Passes full 700 and 850 bands
- Low insertion loss
- Rejection of 900MHz uplink
- DC/AISG pass
- Twin unit
- Dual twin mounting available



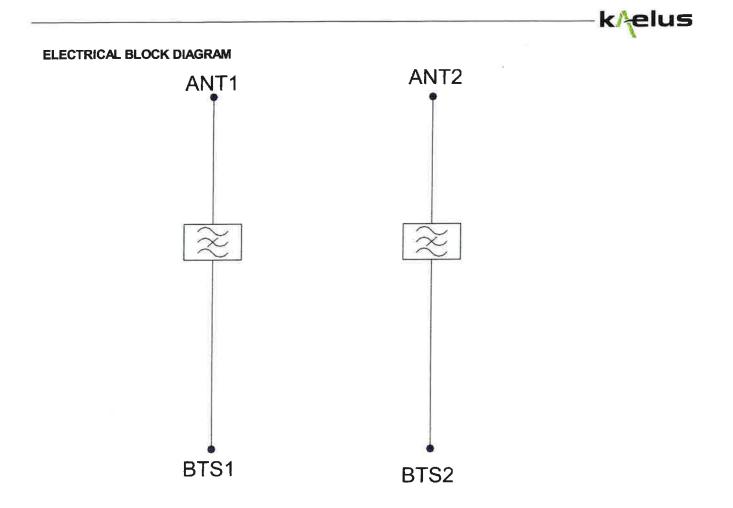
TECHNICAL SPECIFICATIONS

BAND NAME	YOU PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891 5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 1	18dB minimum
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @	894.1 - 896.5MHz
ELECTRICAL		
Impedance	500	ลาก
Intermodulation products	-160dBc maximum in UL Band (assuming -153dBc maximun	20MHz Signal), with 2 x 43dBm carriers n with 2 x 43dBm
DC / AISG		
Passband	0 - 13	BMHz
Insertion loss	0.3dB m	aximum
Return loss	15dB m	inimum
Input voltage range	± 33	3V
DC current rating	2A continuou	us, 4A peak
Compliance	3GPP TS	25.461
ENVIRONMENTAL		
For further details of environmental co	ompliance, please contact Kaelus,	
Temperature range	-20°C to +60°C j	-4°F to +140°F
Ingress protection	IP6	37
Altitude	2600m	8530ft
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 - Unit m	ust be terminated with some lightning protection circuits
MTBF	>1,000,00	10 hours
Compliance	ETSI EN 300 019 class 4.1H, I	RoHS, NEBS GR-487-CORE
MECHANICAL		
Dimensions H x D x W	269 x 277 x 80mm 10.60 x 10.90 x 3.15	in (Excluding brackets and connectors)
Weight	8.0 kg 17.6 lbs	s (no bracket)
Finish	Powder coated, ligh	nt grey (RAL7035)
Connectors	RF: 4.3-10	0 (F) x 4
Mounting	Optional pole/wall bracket supplied with two metal clamps 49 information infor	5-178mm diameter poles or custom bracket. See orderination.



ORDERING INFORMATION

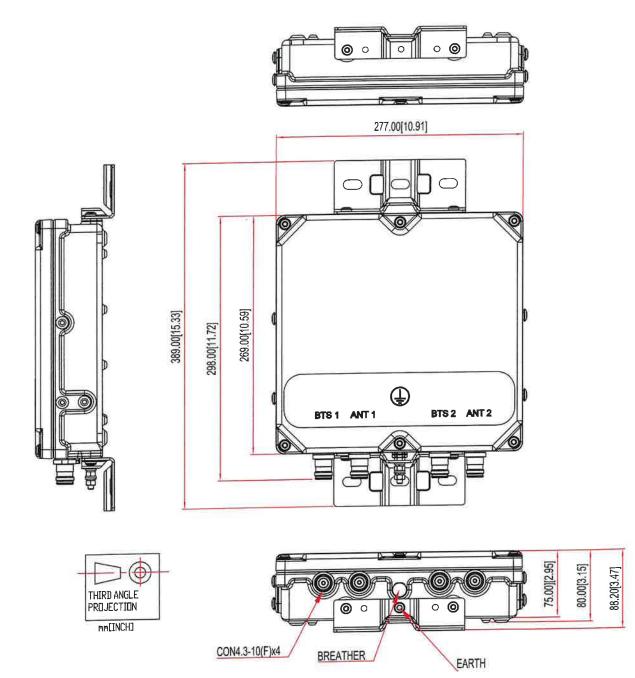
	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	
PART NUMBER BSF0020F3V1	TWIN, 2 in / 2 out	DC/AISG PASS NO BRACKET	4.3-10 (F)	
BSF0020F3V1-1	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)	
BSF0020F3V1-2	QUAD, 4 in / 4 out	DC/AISG PASS	4.3-10 (F)	



9



MECHANICAL BLOCK DIAGRAM



ATTACHMENT 3



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

Structural Analysis Report

Existing 76 ft TransAmerican Monopole Customer Name: SBA Communications Corp Customer Site Number: CT46122-A Customer Site Name: Middletown North Carrier Name: Verizon (App#: 232674-3) Carrier Site ID / Name: 5000245641 / CROMWELL CT Site Location: 160 West Street Cromwell, Connecticut Middlesex County Latitude: 41.606000 Longitude: -72.670388



07/07/2023

Max Structural Usage: 66.1% [Pass] Max Foundation Usage: 48.2% [Pass] Additional Usage Caused by New Mount/Mount Modification: N/A

Analysis Result:

Report Prepared By : Tawfeeq Alajaj



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

Structural Analysis Report

Existing 76 ft TransAmerican Monopole Customer Name: SBA Communications Corp Customer Site Number: CT46122-A Customer Site Name: Middletown North Carrier Name: Verizon (App#: 232674-3) Carrier Site ID / Name: 5000245641 / CROMWELL CT Site Location: 160 West Street Cromwell, Connecticut Middlesex County Latitude: 41.606000 Longitude: -72.670388

<u>Analysis Result:</u> Max Structural Usage: 66.1% [Pass] Max Foundation Usage: 48.2% [Pass] Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By : Tawfeeq Alajaj

Introduction

The purpose of this report is to summarize the analysis results on the 76 ft TransAmerican 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	TransAmerican Power Products, Inc., Order #TP-8949 dated July 19, 2010
	Vertical Solutions, Project #100264.02 dated February 23, 2010
Foundation Drawing	Clarence Welti Association, Inc., Project Name: Transcend Wireless Tower dated
Geotechnical Report	February 1, 2010
Modification Drawings	N/A
Mount Analysis	N/A

Analysis Criteria

The feasibility analysis was performed in accordance with the requirements and stipulations of the TIA-222-H. 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:	119.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S _S = 0.205, S ₁ = 0.055

This structural analysis is based upon the tower being classified as a Risk Category 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.

ltems	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1		3	RFS APXVAALL24-43-U-NA20			
2		3	Ericsson Air 32 KRD901146- 1_B66A_B2A	(3) T-Arms		
3		3	Ericsson AIR6449 B41	w/ replaced new standoff, face	(6) 7/8"	
4	74.0 3 Commscope SDX1926Q-43 6 Andrew ATM200-A20		horizontal and new support rail	(4) 1 5/8" Fiber	T-Mobile	
5			with end connection	(6) 3/8" RET		
6		3	Ericsson 4449 B71 + B85	1		
7	3		Ericsson 4415 B25	1		
8		3	Ericsson 4415 B66A			
9		6	Commscope JAHH-65B-R3B			
10		3	Samsung Telecommunications VZS01			
11		4	Andrew DB846F65ZAXY	(3) T-Arms	(18) 1 5/8" Coax (2) 1 5/8" Hybrid	
12		2	Decibel DB846H80E-SX w/Mount Pipe	(3) TBD VZWSMART-SFK4		Verizon
13	64.0	3	Commscope CBC78T-DS-43- 2X/E14F05P50	(Mount Reinforcement) (3) Commscope BSAMNT-SBS-2-		
14		3	Samsung B2/B66A RRH-BR049	2 (side-by-side mounts)		
15	5 3		Samsung B5/B13 RRH-BR04C			
16	2 RFS DB-T		RFS DB-T1-6Z-8AB-0Z			
17		3	JMA Wireless MX08FRO665-21			
18	51.0	3	Fujitsu TA08025-B605	Commscope MC-K6MHDX-9-96		Dish
19	51.0	3	Fujitsu TA08025-B604	T-Arms		Wireless
20		1	Raycap RDIDC-9181-PF-48			

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.

ltems	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
9	\$7	6	Commscope JAHH-65B-R3B			
10		3	Samsung Telecommunications VZS01			
11	1	4	Andrew DB846F65ZAXY	(3) T-Arms		
12		2	Decibel DB846H80E-SX w/Mount Pipe	(3) TBD VZWSMART-SFK4		
13	64.0	3	Commscope CBC78T-DS-43- 2X/E14F05P50	(Mount Reinforcement) (3) Commscope BSAMNT-SBS-2-	(18) 1 5/8" Coax (2) 1 5/8" Hybrid	Verizon
14		3	Samsung B2/B66A RRH-BR049	2 (side-by-side mounts)		
15		3	Samsung B5/B13 RRH-BR04C			
16		2	RFS DB-T1-6Z-8AB-0Z			
17	-	2	Kaelus BSF0020F3V1-1 Filter			

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:	66.1%	65.5%	45.6%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Original Design Reactions	2800.0	52.0
Analysis Reactions	1822.6	31.3
Factored Reactions*	3780.0	70.2
% of Design Reactions	48.2%	44.6%

* Per section 15.6.2 of the TIA-222-H standard, factored reactions were obtained by multiplying a 1.35 factor to the original design reactions.

No foundation drawing is available for the analysis of the existing foundation. Since the reactions calculated from the current analysis are less than those indicated on the original structural design drawing, the foundations are assumed to be adequate to resist the reactions from the current analysis.

Service Load Condition (Rigidity):

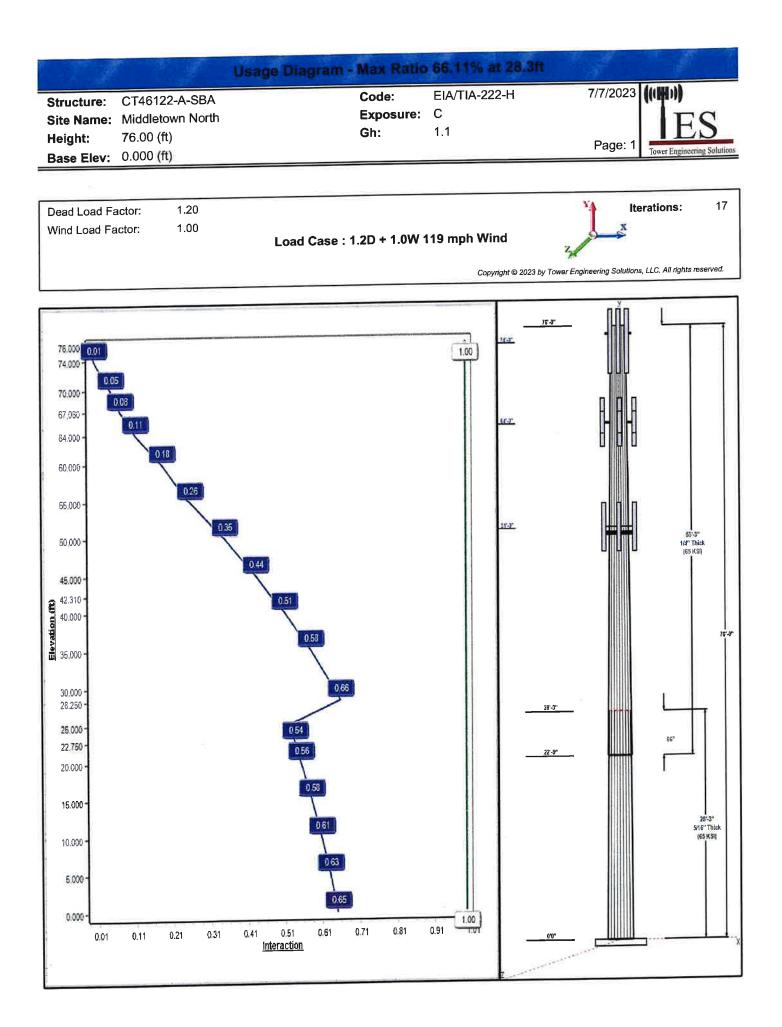
Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.5540 degrees under the operational wind speed as specified in the Analysis Criteria.

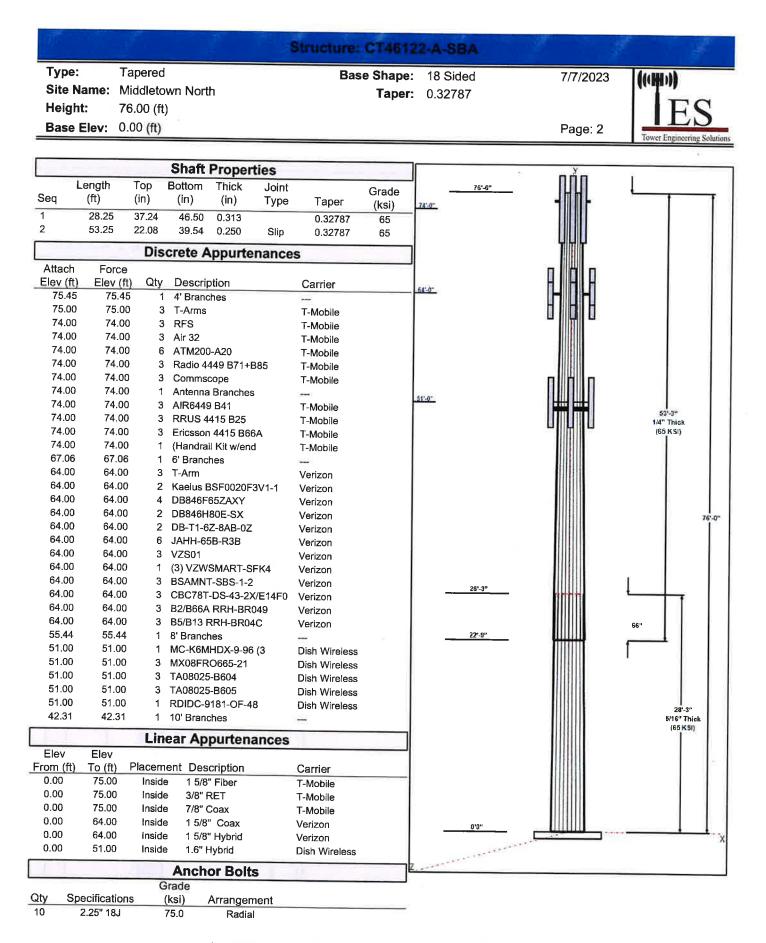
Conclusions

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

Standard Conditions

- 1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
- 2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
- 3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
- 4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
- 5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
- 6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

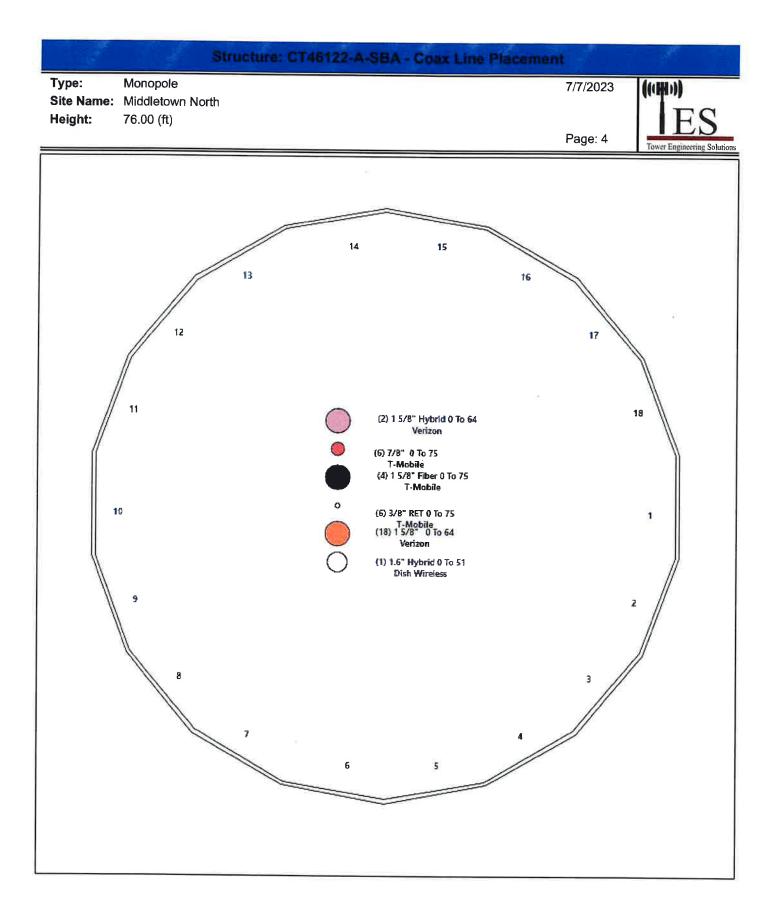




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Structure: CT46122-A-SBA ((明)) 7/7/2023 Base Shape: 18 Sided Type: Tapered Taper: 0.32787 Site Name: Middletown North 76.00 (ft) Height: Page: 3 Base Elev: 0.00 (ft) Tower Engin

	E	Base Pla	ite		
Thickness (in)	Specifications (in)	Grade (ksi)	Geo	metry	
2.0000	2.0000 60.0			und	
		Reactio	ns		
Load Case			ment -Kips)	Shear (Kips)	Axial (Kips)
	19 mph Wind	18	22.6	31.3	24.2
0.9D + 1.0W	•	18	16.6	31.3	18.2
•···-	1.0Wi 50 mph Wind	4	53.6	7.9	36.4
1.2D + 1.0Ev		5	3.5	0.9	25.2
0.9D + 1.0Ev		5	3.5	0.9	19.1
1.0D + 1.0W 6		4	13.7	7.1	20.2



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			Sh	aft Properties			
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	
+ +	Middletown North			Exposure:	С	diama and	
Height:	76.00 (ft)			Crest Height:	0.00		S
Base Elev:	. ,			Site Class:	D - Stiff Soil		
Gh:	1.1	Topography:	1	Struct Class:	11	Page: 5	ng solutio

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (Ib)	
1	18	28.250	0.3125	65		0.00	3,962	
2	18	53.250	0.2500	65	Slip	66.00	4,394	
_					Total Sha	aft Weight:	8,356	

			Bo	ottom						ор	_		
Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	lx (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	lx (in^4)	W/t Ratio	D/t Ratio	Taper
1	46.50	0.00	45.81	12347.18	24.83	148.80	37.24	28.25	36.62	6309.09	19.60	119.1	0.327865
2	39.54	22.75	31.18	6080.87	26.48	158.16	22.08	76.00	17.32	1043.23	14.16	88.33	0.327865

			L	oad Summary			
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	
Site Name:	Middletown North	1		Exposure:	С		((·····))
Height:	76.00 (ft)			Crest Height:	0.00		TC
Base Elev:	0.000 (ft)			-	D - Stiff Soil		IES
Gh:	1.1	Topography:	1	Struct Class:	П	Page: 6	Tower Engineering Soluti

Discrete Appurtenances

No. Elev (ft) Description Weight (b) CaAa (sf) CaAa Factor CaAa Factor CaAa Factor CaAa (sf) CaAa Factor CaAa Factor <t< th=""><th></th><th></th><th></th><th></th><th colspan="3">No Ice</th><th></th><th>Ice</th><th></th><th></th><th></th></t<>					No Ice				Ice			
2 75.00 T-Arms 1 50.00 60.00 80.00 0.75 246.84 13.801 0.75 0.00 0.00 3 74.00 RFS APXVALL24-43-U-NA20 3 128.00 20.24 0.70 375.22 21.404 0.70 0.00 0.00 4 74.00 Af 32 KR3041146-1_B66A_B2A 3 132.20 6.51 0.87 238.23 7.189 0.87 0.00 0.00 5 74.00 Radio At49 B71+B85 3 71.00 1.97 0.67 10.416 2.310 0.67 0.00 0.00 6 74.00 Commscope SDX1926Q-43 3 7.00 0.72 0.67 15.91 1.113 0.67 0.00 0.00 7 74.00 Commscope SDX1926Q-43 3 103.00 5.65 0.71 188.18 6.240 0.71 0.00 0.00 7 74.00 RRUS 4415 B25 3 46.00 1.64 0.67 71.53 1.96 0.67 0.00 0.00 17 74.00 RRUS 4415 B25 3	No.		Description	Qty				-			Ecc.	Ecc
3 74.00 RFS APXVAALL24-43-U-NA20 3 128.00 20.35 0.70 375.22 21.044 0.70 0.00 0.00 4 74.00 Air 32 KRD901146-1_B66A_B2A 3 132.20 6.51 0.87 238.23 7.189 0.87 0.00 0.00 6 74.00 Ardio 4449 B71+B85 3 71.00 1.97 0.67 104.16 2.310 0.67 0.00 0.00 7 74.00 Antena Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 7 74.00 Antena Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 10 74.00 Antena Branches 1 96.00 12.45 1.00 4.67 71.53 1.960 0.67 0.00 0.00 10 74.00 RRU6449 B41 3 130.00 5.65 0.71 14.81.48 6.240 0.71 0.00 0.00 0.00 11 74.00 RRU6449 B41				1	390.00	36.86	1.00	559.45	52.875	1.00	0.00	0.00
3 74.00 RFS APXVAAL1243-LINA20 3 128.00 20.24 0.70 375.22 21.404 0.70 0.00 0.00 4 74.00 Air 32 KRD901146-1_B66A_B2A 3 132.20 6.51 0.87 238.23 7.169 0.87 0.00 0.00 0.00 6 74.00 ATM200-A20 6 0.50 0.12 0.50 137.5 0.257 1.00 0.00 0.00 7 74.00 Canmacope SDX1926Q-43 3 7.00 0.72 0.67 15.91 1.113 0.67 0.00 0.00 0.00 9 74.00 Antenabranches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 0.00 10 74.00 RRG449 B41 3 103.00 5.65 0.71 188.18 6.240 0.71 0.00 0.00 10 74.00 RRG449 B41 3 103.00 5.65 0.71 188.18 6.240 0.67 0.00 0.00 10 Frictosos 41415 B66A 3 </td <td>2</td> <td></td> <td></td> <td>3</td> <td>160.00</td> <td>8.00</td> <td>0.75</td> <td>246.84</td> <td>13.801</td> <td>0.75</td> <td>0.00</td> <td>0.00</td>	2			3	160.00	8.00	0.75	246.84	13.801	0.75	0.00	0.00
4 74.00 Air 32 KR0901146-1_B66A_B2A 3 132.20 6.51 0.87 238.23 7.189 0.87 0.00 0.00 5 74.00 ATM200-A20 6 0.50 0.12 0.67 0.67 0.267 1.00 0.00 0.00 6 74.00 Radio 444 B71+B85 3 71.00 1.97 0.67 15.91 1.113 0.67 0.00 0.00 7 74.00 Antenna Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 9 74.00 Antenna Branches 3 46.00 1.64 0.67 71.53 1.960 0.67 0.00 0.00 10 74.00 RNG 4415 B26A 3 46.00 1.84 0.67 71.53 1.960 0.67 0.00 0.00 0.00 11 74.00 Rhandik tik wiend connection) 1 261.72 6.75 1.00 456.61 1.848 1.00 0.00 0.00 13 67.06 Branches 1 400.00 <td>З</td> <td>74.00</td> <td>RFS APXVAALL24-43-U-NA20</td> <td>3</td> <td>128.00</td> <td>20.24</td> <td>0.70</td> <td>375.22</td> <td>21.404</td> <td>0.70</td> <td>0.00</td> <td>0.00</td>	З	74.00	RFS APXVAALL24-43-U-NA20	3	128.00	20.24	0.70	375.22	21.404	0.70	0.00	0.00
5 74.00 ATM200-A20 6 0.50 0.12 0.50 3.75 0.257 1.00 0.00 0.00 6 74.00 Radio 4449 B71+B85 3 71.00 1.97 0.67 104.16 2.310 0.67 0.00 0.00 8 74.00 Antenna Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 9 74.00 Altenna Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 9 74.00 AlteA49 B41 3 103.00 5.65 0.71 188.18 6.240 0.71 0.00 0.00 17 74.00 Ricsson 4415 B26 3 46.00 1.86 0.67 84.39 2.195 0.67 0.00 0.00 12 74.00 (Handrail Kit wlend connection) 1 261.72 6.75 1.00 5.67 12.00 0.00 0.00 0.00 13 67.06 Batao BSF0020F3V1-1 Filter 2 19.80 <t< td=""><td>4</td><td>74.00</td><td>Air 32 KRD901146-1_B66A_B2A</td><td>З</td><td>132.20</td><td>6.51</td><td>0.87</td><td>238.23</td><td>7.189</td><td>0.87</td><td>0.00</td><td></td></t<>	4	74.00	Air 32 KRD901146-1_B66A_B2A	З	132.20	6.51	0.87	238.23	7.189	0.87	0.00	
6 74.00 Radio 4449 B71+B85 3 71.00 1.97 0.67 104.16 2.310 0.67 0.00 0.00 7 74.00 Commscope SDX1926Q-43 3 7.00 0.72 0.67 15.91 1.113 0.67 0.00 0.00 9 74.00 Alrena Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 0.00 9 74.00 Alre6449 B41 3 103.00 5.65 0.71 188.18 6.240 0.71 0.00 0.00 0.00 10 74.00 RUS 4415 B25 3 46.00 1.84 0.67 74.33 1.960 0.67 0.00 0.00 0.00 11 74.00 (Handrail Kt w/end connection) 1 26.75 1.00 454.66 1.084 1.00 0.00 0.00 0.00 13 64.00 Kaelus BSF0202F3V1-1 Filter 2 19.80 0.70 0.80 35.37 0.912 0.80 0.00 0.00 0.00 16 64	5	74.00	ATM200-A20	6	0.50	0.12	0.50	3.75	0.257	1.00		
7 74.00 Commscope SDX1926Q-43 3 7.00 0.72 0.67 15.91 1.113 0.67 0.00 0.00 8 74.00 Antenna Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 10 74.00 AR6449 B41 3 103.00 5.65 0.71 188.18 6.240 0.71 0.00 0.00 0.00 10 74.00 RRUS 4415 B25 3 46.00 1.64 0.67 71.53 1.960 0.67 0.00 0.00 0.00 12 74.00 (Handrall Kit w(end connection)) 1 261.72 6.75 1.00 454.66 10.848 1.00 0.00 0.00 13 67.06 Branches 1 40.00 83.63 1.00 571.76 19.540 1.00 0.00 0.00 0.00 14 64.00 DB846F652AXY 4 21.00 7.05 0.93 132.84 7.76 0.93 0.00 0.00 0.00 16 64.00 <t< td=""><td>6</td><td>74.00</td><td>Radio 4449 B71+B85</td><td>3</td><td>71.00</td><td>1.97</td><td>0.67</td><td>104.16</td><td>2.310</td><td>0.67</td><td></td><td></td></t<>	6	74.00	Radio 4449 B71+B85	3	71.00	1.97	0.67	104.16	2.310	0.67		
8 74.00 Antenna Branches 1 96.00 22.43 1.00 137.63 32.157 1.00 0.00 0.00 9 74.00 AlR6449 B41 3 103.00 5.65 0.71 188.18 6.240 0.71 0.00 0.00 10 74.00 RRUS 4415 B25 3 46.00 1.64 0.67 71.53 1.960 0.67 0.00 0.00 12 74.00 Hardsan Kit w/end connection) 1 261.72 6.75 1.00 454.66 10.848 1.00 0.00 0.00 13 67.06 6' Branches 1 400.00 83.63 1.00 571.76 19.540 1.00 0.00 0.00 14 64.00 T-Arm 3 320.00 8.00 0.75 456.77 12.274 0.75 0.00 0.00 16 64.00 DB846F65ZAXY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 17 64.00 DB841-65ZAB-02 2 44.00 3.30 <td< td=""><td>7</td><td>74.00</td><td>Commscope SDX1926Q-43</td><td>3</td><td>7.00</td><td>0.72</td><td>0.67</td><td></td><td></td><td></td><td></td><td></td></td<>	7	74.00	Commscope SDX1926Q-43	3	7.00	0.72	0.67					
9 74.00 AlR6449 B41 3 103.00 5.65 0.71 188.18 6.240 0.71 0.00 0.00 10 74.00 RRUS 4415 B25 3 46.00 1.64 0.67 71.53 1.960 0.67 0.00 0.00 12 74.00 CHason 4415 B66A 3 49.60 1.86 0.67 84.39 2.195 0.67 0.00 0.00 12 74.00 (Handrail Kit w/end connection) 1 261.72 6.75 1.00 454.66 10.848 1.00 0.00 0.00 13 67.06 6'Branches 1 400.00 83.63 1.00 571.76 19.540 1.00 0.00 0.00 14 64.00 Kaelus BSF0020F3V1-1 Filter 2 19.80 0.70 0.80 35.37 0.912 0.80 0.00 0.00 16 64.00 D8846H80E-SX 2 16.00 5.01 1.12 105.02 5.721 1.12 0.00 0.00 16 64.00 DB-1-16Z-8AB-02 2 44.00	8	74.00	Antenna Branches	1	96.00	22.43						
10 74.00 RRUS 4415 B25 3 46.00 1.64 0.67 71.53 1.960 0.67 0.00 0.00 11 74.00 Ericsson 4415 B66A 3 49.60 1.86 0.67 84.39 2.195 0.67 0.00 0.00 12 74.00 (Handrall Kit wlend connection) 1 261.72 6.75 1.00 554.66 10.848 1.00 0.00 0.00 13 67.06 6 Branches 1 400.00 83.63 1.00 571.76 19.540 1.00 0.00 0.00 14 64.00 T-Arm 3 320.00 8.00 0.75 455.77 12.274 0.75 0.00 0.00 16 64.00 DB846F65ZAYY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 18 64.00 DB846F65ZAYY 4 21.00 7.05 1.12 105.03 5.321 0.67 0.00 0.00 18 64.00 DB-T1-6Z-8AB-02 2 44.00 3.30	9	74.00	AIR6449 B41	3	103.00	5.65	0.71					
11 74.00 Ericsson 4415 B66A 3 49.60 1.86 0.67 84.39 2.195 0.67 0.00 0.00 12 74.00 (Handrail Kit w/end connection) 1 261.72 6.75 1.00 454.66 10.848 1.00 0.00 0.00 13 67.06 6' Branches 1 400.00 88.63 1.00 571.76 19.540 1.00 0.00 0.00 14 64.00 T-Arm 3 320.00 8.00 0.75 456.77 12.274 0.75 0.00 0.00 15 64.00 DB846F65ZAXY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 16 64.00 DB846H80E-SX 2 16.00 5.01 1.12 105.02 5.721 1.12 0.00 0.00 18 64.00 JAHH-65B-R3B 6 63.30 9.11 0.83 195.06 9.916 0.83 0.00 0.00 20 64.00 VZS01 3 87.10 4.30 0.69<	10	74.00	RRUS 4415 B25	3	46.00	1.64	0.67					
12 74.00 (Handrail Kit w/end connection) 1 261.72 6.75 1.00 454.66 10.848 1.00 0.00 0.00 13 67.06 6'' Branches 1 400.00 83.63 1.00 571.76 19.540 1.00 0.00 0.00 14 64.00 T-Arm 3 320.00 83.63 1.00 571.76 19.540 1.00 0.00 0.00 15 64.00 Kaelus BSF0020F3V1-1 Filter 2 19.80 0.70 0.80 35.37 0.912 0.80 0.00 0.00 16 64.00 DB846F65ZAXY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 17 64.00 DB-T1-62-8AB-02 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 0.00 18 64.00 DE-T1-62-8AB-02 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 0.00 164.00 (3) VZWSMART-SFK4 1	11	74.00	Ericsson 4415 B66A	3	49.60	1.86	0.67	84.39				
13 67.06 6' Branches 1 400.00 83.63 1.00 571.76 19.540 1.00 0.00 0.00 14 64.00 T-Arm 3 320.00 8.00 0.75 456.77 12.274 0.75 0.00 0.00 15 64.00 Kaelus BSF0020F3V1-1 Filter 2 19.80 0.70 0.80 35.37 0.912 0.80 0.00 0.00 16 64.00 DB846F65ZAXY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 18 64.00 DB846H80E-SX 2 16.00 5.01 1.12 105.02 5.721 1.12 0.00 0.00 18 64.00 DB-T1-6Z-8AB-0Z 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 20 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 21 64.00 BZMART-SFK4 1 500.00 0.75 86.18	12	74.00	(Handrail Kit w/end connection)	1	261.72	6.75						
14 64.00 T-Arm 3 320.00 8.00 0.75 456.77 12.274 0.75 0.00 0.00 15 64.00 Kaelus BSF0020F3V1-1 Filter 2 19.80 0.70 0.80 35.37 0.912 0.80 0.00 0.00 16 64.00 DB846F85ZAXY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 17 64.00 DB846F80EX 2 16.00 5.01 1.12 105.02 5.721 1.12 0.00 0.00 18 64.00 DB-T1-6Z-8AB-0Z 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 20 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 21 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.	13	67.06	6' Branches	1	400.00							
15 64.00 Kaelus BSF0020F3V1-1 Filter 2 19.80 0.70 0.80 35.37 0.912 0.80 0.00 0.00 16 64.00 DB846F65ZAXY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 17 64.00 DB846H80E-SX 2 16.00 5.01 1.12 105.02 5.721 1.12 0.00 0.00 18 64.00 DB-T1-62-8AB-0Z 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 19 64.00 JAHH-65B-R3B 6 63.30 9.11 0.83 195.06 9.916 0.83 0.00 0.00 21 64.00 (3) VZWSMART-SFK4 1 500.00 16.50 0.75 863.28 26.373 0.75 0.00 0.00 0.00 22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.18 0.000 0.75 0.00 0.00 23 64.00 E2/86A RRH-BR049 3 84.40	14	64.00	T-Arm	3	320.00	8.00	0.75					
16 64.00 DB846F65ZAXY 4 21.00 7.05 0.93 132.84 7.776 0.93 0.00 0.00 17 64.00 DB846H80E-SX 2 16.00 5.01 1.12 105.02 5.721 1.12 0.00 0.00 18 64.00 DB-T1-6Z-8AB-0Z 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 19 64.00 JAHH-65B-R3B 6 63.30 9.11 0.83 195.06 9.916 0.83 0.00 0.00 20 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 21 64.00 JVZWSMART-SFK4 1 500.00 175 863.28 26.373 0.75 0.00 0.00 22 64.00 B2/B6A RRH-BR049 3 21.80 0.37 0.67 32.27 0.528 0.67 0.00 0.00 23 64.00 B2/B6A RRH-BR049 3 84.40 1.64 0.67 118.34	15	64.00	Kaelus BSF0020F3V1-1 Filter	2	19.80	0.70	0.80					
17 64.00 DB846H80E-SX 2 16.00 5.01 1.12 105.02 5.721 1.12 0.00 0.00 18 64.00 DB-T1-6Z-8AB-0Z 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 19 64.00 JAHH-65B-R3B 6 63.30 9.11 0.83 195.06 9.916 0.83 0.00 0.00 20 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 20 64.00 VZSVMART-SFK4 1 500.00 16.50 0.75 863.28 26.373 0.75 0.00 0.00 22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.18 0.000 0.75 0.00 0.00 23 64.00 BS/B6A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 24 64.00 BS/B13 RRH-BR04C 3 70.30 2.22 0.67	16	64.00	DB846F65ZAXY	4								
18 64.00 DB-T1-6Z-8AB-0Z 2 44.00 3.30 0.67 126.03 5.321 0.67 0.00 0.00 19 64.00 JAHH-65B-R3B 6 63.30 9.11 0.83 195.06 9.916 0.83 0.00 0.00 20 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 20 64.00 (3) VZWSMART-SFK4 1 500.00 16.50 0.75 863.28 26.373 0.75 0.00 0.00 22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.18 0.000 0.75 0.00 0.00 23 64.00 BS/B13 RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 24 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 25 54.4 8' Branches 1 1638.00 150.70 1.00 </td <td>17</td> <td>64.00</td> <td>DB846H80E-SX</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	17	64.00	DB846H80E-SX	2								
19 64.00 JAHH-65B-R3B 6 63.30 9.11 0.83 195.06 9.916 0.83 0.00 0.00 20 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 20 64.00 (3) VZWSMART-SFK4 1 500.00 16.50 0.75 863.28 26.373 0.75 0.00 0.00 22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.18 0.000 0.75 0.00 0.00 23 64.00 B2/B66A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 24 64.00 B2/B66A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 25 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 26 55.44 8' Branches 1 1638.00 150.70 1.	18	64.00	DB-T1-6Z-8AB-0Z	2	44.00							
20 64.00 VZS01 3 87.10 4.30 0.69 149.51 4.830 0.69 0.00 0.00 21 64.00 (3) VZWSMART-SFK4 1 500.00 16.50 0.75 863.28 26.373 0.75 0.00 0.00 22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.18 0.000 0.75 0.00 0.00 23 64.00 CBC78T-DS-43-2X/E14F05P50 3 21.80 0.37 0.67 32.27 0.528 0.67 0.00 0.00 24 64.00 B2/B66A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 25 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 26 55.44 8' Branches 1 1638.00 150.70 1.00 2328.09 14.190 1.00 0.00 0.00 27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.0	19	64.00	JAHH-65B-R3B	6	63.30							
21 64.00 (3) VZWSMART-SFK4 1 500.00 16.50 0.75 863.28 26.373 0.75 0.00 0.00 22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.18 0.000 0.75 0.00 0.00 23 64.00 CBC78T-DS-43-2X/E14F05P50 3 21.80 0.37 0.67 32.27 0.528 0.67 0.00 0.00 24 64.00 B2/B66A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 25 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 26 55.44 8' Branches 1 1638.00 150.70 1.00 2328.09 14.190 1.00 0.00 0.00 27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.00 20.95 0.75 1424.84 36.705 0.75 0.00 0.00 0.00 28 51.00 TA08025-B604 3	20	64.00	VZS01	3	87.10	4.30	0.69					
22 64.00 BSAMNT-SBS-1-2 3 25.35 0.00 0.75 36.18 0.000 0.75 0.00 0.075 23 64.00 CBC78T-DS-43-2X/E14F05P50 3 21.80 0.37 0.67 32.27 0.528 0.67 0.00 0.00 24 64.00 B2/B66A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 25 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 26 55.44 8' Branches 1 1638.00 150.70 1.00 2328.09 14.190 1.00 0.00 0.00 27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.00 20.95 0.75 1424.84 36.705 0.75 0.00 0.00 0.00 28 51.00 MX08FRO665-21 3 64.50 12.49 0.74 238.58 13.367 0.74 0.00 0.00 0.00 29 51.00 TA08025-B604	21	64.00	(3) VZWSMART-SFK4	1								
23 64.00 CBC78T-DS-43-2X/E14F05P50 3 21.80 0.37 0.67 32.27 0.528 0.67 0.00 0.00 24 64.00 B2/B66A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 25 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 26 55.44 8' Branches 1 1638.00 150.70 1.00 2328.09 14.190 1.00 0.00 0.00 27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.00 20.95 0.75 1424.84 36.705 0.75 0.00 0.00 28 51.00 MX08FRO665-21 3 64.50 12.49 0.74 238.58 13.367 0.74 0.00 0.00 29 51.00 TA08025-B604 3 63.90 1.96 0.67 94.20 2.296 0.67 0.00 0.00 30 51.00 TA08025-B605 3 75.00	22	64.00	BSAMNT-SBS-1-2	3								
24 64.00 B2/B66A RRH-BR049 3 84.40 1.64 0.67 118.34 1.956 0.67 0.00 0.00 25 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 26 55.44 8' Branches 1 1638.00 150.70 1.00 2328.09 14.190 1.00 0.00 0.00 27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.00 20.95 0.75 1424.84 36.705 0.75 0.00 0.00 0.00 28 51.00 MX08FR0665-21 3 64.50 12.49 0.74 238.58 13.367 0.74 0.00 0.00 0.00 29 51.00 TA08025-B604 3 63.90 1.96 0.67 94.20 2.296 0.67 0.00 0.00 0.00 30 51.00 RA8025-B605 3 75.00 1.96 0.67 106.30 2.296 0.67 0.00 0.00 0.00 31 51.00	23	64.00	CBC78T-DS-43-2X/E14F05P50	3							_	
25 64.00 B5/B13 RRH-BR04C 3 70.30 2.22 0.67 105.75 2.599 0.67 0.00 0.00 26 55.44 8' Branches 1 1638.00 150.70 1.00 2328.09 14.190 1.00 0.00 0.00 27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.00 20.95 0.75 1424.84 36.705 0.75 0.00 0.00 28 51.00 MX08FR0665-21 3 64.50 12.49 0.74 238.58 13.367 0.74 0.00 0.00 29 51.00 TA08025-B604 3 63.90 1.96 0.67 94.20 2.296 0.67 0.00 0.00 30 51.00 TA08025-B605 3 75.00 1.96 0.67 106.30 2.296 0.67 0.00 0.00 31 51.00 RDIDC-9181-OF-48 1 21.90 2.01 1.00 53.77 2.350 1.00 0.00 0.00 32 42.31 10' Branches 1 54.43 1.00	24	64.00	B2/B66A RRH-BR049	з							_	
26 55.44 8' Branches 1 1638.00 150.70 1.00 2328.09 14.190 1.00 0.00 0.00 27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.00 20.95 0.75 1424.84 36.705 0.75 0.00 0.00 28 51.00 MX08FR0665-21 3 64.50 12.49 0.74 238.58 13.367 0.74 0.00 0.00 29 51.00 TA08025-B604 3 63.90 1.96 0.67 94.20 2.296 0.67 0.00 0.00 30 51.00 TA08025-B605 3 75.00 1.96 0.67 106.30 2.296 0.67 0.00 0.00 31 51.00 RDIDC-9181-OF-48 1 21.90 2.01 1.00 53.77 2.350 1.00 0.00 0.00 32 42.31 10' Branches 1 540.00 54.43 1.00 761.44 76.750 1.00 0.00 0.00	25	64.00	B5/B13 RRH-BR04C									
27 51.00 MC-K6MHDX-9-96 (3 Sectors) 1 899.00 20.95 0.75 1424.84 36.705 0.75 0.00 0.00 28 51.00 MX08FRO665-21 3 64.50 12.49 0.74 238.58 13.367 0.74 0.00 0.00 29 51.00 TA08025-B604 3 63.90 1.96 0.67 94.20 2.296 0.67 0.00 0.00 30 51.00 TA08025-B605 3 75.00 1.96 0.67 106.30 2.296 0.67 0.00 0.00 31 51.00 RDIDC-9181-OF-48 1 21.90 2.01 1.00 53.77 2.350 1.00 0.00 0.00 32 42.31 10' Branches 1 540.00 54.43 1.00 761.44 76.750 1.00 0.00 0.00	26	55.44	8' Branches	1								
28 51.00 MX08FRO665-21 3 64.50 12.49 0.74 238.58 13.367 0.74 0.00 0.00 29 51.00 TA08025-B604 3 63.90 1.96 0.67 94.20 2.296 0.67 0.00 0.00 30 51.00 TA08025-B605 3 75.00 1.96 0.67 106.30 2.296 0.67 0.00 0.00 31 51.00 RDIDC-9181-OF-48 1 21.90 2.01 1.00 53.77 2.350 1.00 0.00 0.00 32 42.31 10' Branches 1 540.00 54.43 1.00 761.44 76.750 1.00 0.00 0.00	27			1								
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31 51.00 RDIDC-9181-OF-48 1 21.90 2.01 1.00 53.77 2.350 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	30	51.00	TA08025-B605									
32 42.31 10' Branches 1 540.00 54.43 1.00 761.44 76.750 1.00 0.00 0.00	31	51.00	RDIDC-9181-OF-48									
	32	42.31	10' Branches									
				82		04.40			10.100	1.00	0.00	0.00

Linear Appurtenances

Bottom	Тор				
Elev. (ft)	Elev. (ft)	Description	Exposed Width	Exposed	
0.00	75.00	(4) 1 5/8" Fiber	0.00	Inside	
0.00	75.00	(6) 3/8" RET	0.00	Inside	
0.00	75.00	(6) 7/8" Coax	0.00	Inside	
0.00	64.00	(18) 1 5/8" Coax	0.00	Inside	
0.00	64.00	(2) 1 5/8" Hybrid	0.00	Inside	
0.00	51.00	(1) 1.6" Hybrid	0.00	Inside	

			Shaft :	Section Prope	orties		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	44,000,000
	Middletown North			Exposure:	С		de ma vit
Height:	76.00 (ft)			Crest Height:	0.00		IFS
Base Elev:				Site Class:	D - Stiff Soil		
Gh:	1.1	Topography:	1	Struct Class:	II	Page: 7	Tower Engineering Solution

Increment Length: 5 (ft)

Elev	-	Thick (in)	Dia (in)	Area (in^2)	lx (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (Ib)
(ft)	Description	0.3125	46,500	45.811	12347.2	24.83	148.80	72.2	523.0	0.0
0.00		0.3125	44.861	44.185	11078.6	23.90	143.55	73.3	486.4	765.6
5.00		0.3125	43.221	42.559	9900.0	22.98	138.31	74.4	451.1	737.9
10.00			41.582	40.933	8808.1	22.05	133.06	75.5	417.2	710.3
15.00		0.3125	39.943	40.330 39.307	7799.6	21.13	127.82	76.6	384.6	682.6
20.00		0.3125	39.943 39.041	38.413	7279.3	20.62	124.93		367.2	363.6
22.75	Bot - Section 2	0.3125	38.303	37.681	6871.2	20.20	122.57		353.3	527.7
25.00		0.3125	36.303	29.746	5281.5	25.21	150.95	0.0	0.0	744.5
28.25	Top - Section 1	0.2500	37.164	29.290	5042.7	24.80	148.66		267.2	175.8
30.00		0.2500	35.525	29,290	4400.2	23.65	142.10		244.0	487.3
35.00		0.2500	33.885	26.689	3814.8	22.49	135.54		221.7	465.1
40.00		0.2500	33.005	26.088	3562.9	21.95	132.51		211.8	207.4
42.31		0.2500	32.246	25.388	3283.8	21.33	128.98		200.6	235.6
45.00		0.2500	32.240	25.388	2804.5	20.18	122.43		180.5	420.9
50.00		0.2500	30.807	23.827	2714.6	19.95	121.12		176.6	81.5
51.00		0.2500	28.967	22.786	2374.2	19.02	115.87		161.4	317.2
55.00		0.2500	-	22.700	2338.6	18.92	115.29		159.8	34.0
55.44		0.2500	28.823 27.328	22.072	1990.4	17.86	109.31		143.5	342.6
60.00		0.2500	26.017	20,445	1715.0	16.94	104.07		129.8	285.4
64.00		0.2500		20.445	1650.3	16.71	102.76		126.5	69.1
65.00		0.2500	25.689	19.649	1522.3	16.23	100.05	-	119.9	139.6
67.06		0.2500	25.013	18.884	1351.4	15.55	96.20		110.7	192.7
70.00		0.2500	24.049	16.604	1140.1	14.63	90.95	82.5		250.0
74.00		0.2500	22.738	17.644	1090.9	14.40	89.64			60.3
75.00		0.2500	22.410	17.565	1090.9	14.40	89.05	82.5		26.8
75.45		0.2500	22.263		1043.2	14.16	88.33	82.5		32.6
76.00		0.2500	22.082	17.323	1043.2	14.10	00.00	52.0	÷0.1	8356.2
										0000.2

	ļ.				W	ind Lo	ading) - Shi	aft	e.		- We		
Structu	re: CT4612	2-A-SBA				Co	ode:		TIA-222-⊢			7/7/20	123	_
Site Na	me: Middleta	own Nort	h			Fx	posur		C			171720	((H	100
Height:	76.00 (f						-							
		'						ight: (FC
Base El	ev: 0.000 (fi	()				Sit	te Clas	is: [D - Stiff So	bil				LO
Gh:	1.1		Торо	graphy	/: 1	St	ruct C	lass:				Page	e: 8 Tower	Engineering Solut
Load C	ase: 1.2D +			Wind							3	1	Iterati	ons [,]
	Dead Load F		1.20									X		
	Wind Load F	actor	1.00								2			
Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	lce Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (Ib)	Dead Load Ice (Ib)	Tot Dead Load (Ib)
0.00		1.00	0.85	29.135	32.05	430.67	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	29.135	32.05	415.49	0.730	0.000		19.327	14.11	452.2	0.0	918.7
10.00		1.00	0.85	29.135	32.05	400.31	0.730	0.000	5.00	18.634	13.60	435.9	0.0	885.5
15.00		1.00	0.85	29.135	32.05	385.12	0.730	0.000	5.00	17.940	13.10	419.7	0.0	852.3
20.00		1.00	0.90	30.914	34.00	381.06	0.730	0.000	5.00	17.246	12.59	428.1	0.0	819.1
	- Section 2	1.00		31.764	34.94	377.55	0.730	0.000	2.75	9.190	6.71	234.4	0.0	436.4
25.00		1.00	-	32.400	35.64	374.11	0.730	0.000	2.25	7.458	5.44	194.0	0.0	633.3
	- Section 1	1.00		33.245	36.57	368.41	0.730	0.000	3.25	10.525	7.68	281.0	0.0	893.4
30.00		1.00		33.668	37.04	370.01	0.730	0.000	1.75	5.546	4.05	149.9	0.0	210.9
35.00		1.00		34.779	38.26	359.48	0.730	0.000	5.00	15.377	11.23	429.4	0.0	584.7
40.00		1.00		35.770	39.35	347.74	0.730	0.000	5.00	14.684	10.72	421.8	0.0	558.2
	urtenance(s)	1.00		36.196	39.82	341.99	0.730	0.000	2.31	6.550	4.78	190.4	0.0	248.9
45.00		1.00		36.669	40.34	335.05	0.730	0.000	2.69	7.440	5.43	219.1	0.0	282.7
50.00		1.00		37.491	41.24	321.56	0.730	0.000	5.00	13.296	9.71	400.3	0.0	505.1
51.00 Appl 55.00	urtenance(s)	1.00		37.648	41.41	318.78	0.730	0.000	1.00	2.576	1.88	77.9	0.0	97.8
	urtennennen (n)	1.00		38.251	42.08	307.41	0.730	0.000		10.027	7.32	308.0	0.0	380.7
55.44 Appl 60.00	urtenance(s)	1.00		38.315	42.15	306.13	0.730	0.000	0.44	1.076	0.79	33.1	0.0	40.8
	urtenance(s) =	1.00		38.958	42.85	292.68	0.730	0.000		10.833	7.91	338.9	0.0	411.1
65.00 Appl 65.00	internance(s)	1.00		39.491	43.44	280.53	0.730	0.000	4.00	9.028	6.59	286.3	0.0	342.4
	urtenance(s)	1.00		39.620	43.58	277.45	0.730	0.000	1.00	2.188	1.60	69.6	0.0	83.0
70.00 Appl 70.00	internative(s)	1.00		39.881	43.87	271.04	0.730	0.000	2.06	4.419	3.23	141.5	0.0	167.5
				40.243	44.27	261.78	0.730	0.000	2.94	6.103	4.46	197.2	0.0	231.3
00 Appl	00 Appurtenance(s) 1.00			40.717	44.79	248.96	0.730	0.000	4.00	7.918	5.78	258.9	0.0	299.9

245.71 0.730

244.25 0.730

242.46 0.730

0.000

0.000

0.000

Totals:

0.45 0.851

1.910

1.032

1.00

0.55

76.00

1.39

0.62

0.75

62.6

27.9

33.9

6,092.1

0.0

0.0

0.0

72.3

32.2

39.1

10,027.4

1.00

1.00

1.00

75.00 Appurtenance(s)

75.45 Appurtenance(s)

76.00

1.19 40.946 45.04

44.91

44.97

1.19 40.832

1.19 40.883

				- 25										
				Di	screte		_		orces			0000		
Str	ucture:	CT46122-A-SBA				Co	de:		IA-222-H		((()	2023	(明))	
	Name:	Middletown North				Exp	oosure	e: C	;			144	1.11	
						Cre	est Hei	aht: 0	.00				T	C
	ght:	76.00 (ft)					e Class	-) - Stiff So	hil				D_
Bas	se Elev:	0.000 (ft)											ower Enginee	ring Solutions
Gh:		1.1	Τορος	graphy	: 1	Str	uct Cla	ass: II		1	Ра	ige: 9	-	
_	_													
Lo		: 1.2D + 1.0W 119 ad Load Factor	mph \ 1.20	Vind							1	lter	ations	17
			1.00								3			
	Wir	nd Load Factor	1.00								F			
	Elev			qz	qzGh	Orient Factor	Ka	Total CaAa	Dead Load (Ib)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (Ib)	Mom Y (Ib-ft)	Mom Z (Ib-ft)
No.	(ft)	Description	Qty	(psf)	(psf)	x Ka	Ka	(sf)	468.00	0.000	0.000	1657.65	0.00	0.00
1	75.45 4'	Branches	1	40.883		1.00	1.00	36.86	408.00 576.00	0.000	0.000	606.35	0.00	0.00
2	75.00 T-		3	40.832		0.56	0.75	13.50 22.43	115.20	0.000	0.000	1004.60	0.00	0.00
3		ntenna Branches	1	40.717		1.00 0.57	1.00 0.80	9.63	370.80	0.000	0.000	431.20	0.00	0.00
4		R6449 B41	3	40.717		0.57	0.80	2.64	165.60	0.000	0.000	118.11	0.00	0.00
5		RUS 4415 B25	3	40.717	44.788 44.788	0.54	0.80	2.99	178.56	0.000	0.000	133.96	0.00	0.00
6		icsson 4415 B66A	3		44.788	1.00	1.00	6.75	314.06	0.000	0.000	302.32	0.00	0.00
7		andrail Kit w/end	1 3	40.717		0.56	0.80	34.00	460.80	0.000	0.000	1522.94	0.00	0.00
8	74.00 RF		3	40.717		0.70	0.80	13.59	475.92	0.000	0.000	608.80	0.00	0.00
9	74.00 Ai		6		44.788	0.40	0.80	0.29	3.60	0.000	0.000	12.90	0.00	0.00
10		TM200-A20 adio 4449 B71+B85	3		44.788	0.54	0.80	3.17	255.60	0.000	0.000	141.88	0.00	0.00
11 12		ommscope	3			0.54	0.80	1.16	25.20	0.000	0.000	51.85	0.00	0.00
		Branches	1	39.881	43.869	1.00	1.00	83.63	480.00	0.000	0.000	3668.78	0.00	0.00
13 14		5/B13 RRH-BR04C	3	39.491	43.440	0.54	0.80	3.57	253.08	0.000	0.000	155.07	0.00	0.00
15		2/B66A RRH-BR049	3	39.491	43.440	0.54	0.80	2.64	303.84	0.000	0.000	114.56	0.00	0.00
16		BC78T-DS-43-2X/E14F0		39.491	43.440	0.54	0.80	0.59	78.48	0.000	0.000	25.85	0.00	0.00
17		SAMNT-SBS-1-2	з	39.491	43.440	0.56	0.75	0.00	91.26	0.000	0.000	0.00	0.00	0.00 0.00
18		B846H80E-SX	2	39.491	43.440	0.90	0.80	8.98	38.40	0.000	0.000	390.00	0.00	0.00
19	64.00 T-	Arm	3		43.440	0.56	0.75	13.50	1152.00	0.000	0.000	586.44 38.92	0.00 0.00	0.00
20	64.00 Ka	aelus BSF0020F3V1-1	2	39.491		0.64	0.80	0.90	47.52	0.000 0.000	0.000 0.000	30.92 911.41	0.00	0.00
21	64.00 DI	B846F65ZAXY	4	39.491		0.74	0.80	20.98	100.80	0.000	0.000	403.18	0.00	0.00
22	64.00 (3) VZWSMART-SFK4	1	39.491	43.440	0.56	0.75	9.28	600.00 105.60	0.000	0.000	153.67	0.00	0.00
23	64.00 D	B-T1-6Z-8AB-0Z	2	39.491	43.440	0.54	0.80	3.54 36.29	455.76	0.000	0.000	1576.62	0.00	0.00
24		AHH-65B-R3B	6		43.440	0.66	0.80	30.29 7.12	455.76 313.56	0.000	0.000	309.33	0.00	0.00
25	64.00 V		3		43.440	0 <i>.</i> 55 1.00	0.80 1.00	150.70	1965.60	0.000	0.000	6351.48	0.00	0.00
26		Branches	1		42.147	0.59	0.80	22.18	232.20	0.000	0.000	918.62	0.00	0.00
27		X08FRO665-21	3		41.412 41.412		0.00	11.78	1078.80	0.000	0.000	488.02	0.00	0.00
28		C-K6MHDX-9-96 (3	1 1		41.412	0.50	0.80	1.61	26.28	0.000	0.000	66.59	0.00	0.00
29		DIDC-9181-OF-48			41.412		0.80	3.15	270.00	0.000	0.000	130.52	0.00	0.00
30		A08025-B605	3 3		41.412		0.80	3.15	230.04	0.000	0.000	130.52	0.00	0.00
31		A08025-B604	3 1		39.815		1.00	54.43	648.00	0.000	0.000	2167.15	0.00	0.00
32	42.31 10	0' Branches		50.150	00.010		Totals	and the second second second	11,880.56			25,179.28		

			Total	Applied F	orce Summary	
Structu	ure: CT46122	2-A-SBA		Code	TIA-222-	H 7/7/2023
Site Na	ame: Middletov	wn North		Expos		((H)))
Height	: 76.00 (ft)			-	Height: 0.00	
Base E				Site C	-	
Gh:	1.1		ography: 1		t Class:	Page: 10
Load	Case: 1.2D + 1 Dead Load Fa Wind Load Fa	actor 1.20				Iterations 17
Elev (ft)	Description	Lateral FX (-) (Ib)	Axial FY (-) (Ib)	Torsion MY (Ib-ft)	Moment MZ (Ib-ft)	
0.00		0.00	0.00	0.00	0.00	
5.00		452.17	1097.50	0.00	0.00	
10.00		435.94	1064.30	0.00	0.00	
15.00		419.71	1031.11	0.00	0.00	
20.00		428.12	997.91	0.00	0.00	

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28.25

30.00

35.00

40.00

42.31

45.00

50.00

51.00

55.00

55.44

60.00

64.00

65.00

67.06

70.00

74.00

75.00

75.45

76.00

(1) attachments

(11) attachments

(1) attachments

(35) attachments

(1) attachments

(29) attachments

(3) attachments

(1) attachments

Totals:

234.40

194.04

280.97

149.94

429.44

421.76

2357.51

219.08

400.29

1812.14

307.97

6384.58

338.90

4951.33

3810.30

197.22

668.98

1685.57

31,271.35

33.93

4587.45

69.60

534.70

713.76

1009.62

273.51

763.53

736.97

979.51

378.90

683.86

1970.90

518.92

2021.64

568.70

4020.97

92.41

667.01

259.10

2703.11

657.79

500.20

39.07

24,285.02

	R.		<i>ë</i>			Calc	ulated Fo	rces	1			1002	f.	
Struc Site N Heigh Base Gh:	lame: nt:		• •	lorth	oography:	1	Code: Exposure: Crest Heig Site Class: Struct Clas	C ht: 0.0 D -	-222-H D Stiff Soil			7/2023 age: 11	Tower Engineer	S ing Solutions
Load	Dea	d Load	- 1.0W I Facto I Facto		0					Z	ľ	lte	erations	17
Seg Elev	Pu FY (-)	Vu FX (-) (kips)	Tu MY (-) (ft-kins)	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)	Twist (deg)	Stress Ratio
(ft)	(kips) -24.23	-31.32	0.00	-1822.5	0.00	1822.58	2976.77	803.98	3080.93	2832.01	0.00	0.000	0.000	0.653
0.00	-24.23	-30.94	0.00	-1666.0	0.00	1666.01	2914.38	775.44	2866.11	2673.58	0.11	-0.201	0.000	0.633
5.00	-23.02	-30.58	0.00	-1511.3	0.00	1511.30	2848.80	746.90	2659.05	2516.58	0.43	-0.405	0.000	0.610
10.00 15.00	-21.85	-30.23	0.00	-1358.4	0.00	1358.40	2780.04	718.37	2459.75	2361.34	0.97	-0.611	0.000	0.584
	-20.71	-29.84	0.00	-1207.2	0.00	1207.28	2708.10	689.83	2268.22	2208.17	1.72	-0.818	0.000	0.556
20.00 22.75	-19.04	-29.63	0.00	-1125.2	0.00	1125.22	2667.17	674.14	2166.19	2124.93	2.23	-0.935	0.000	0.539
25.00	-18.28	-29.46	0.00	-1058.5	0.00	1058.55	2632.97	661.30	2084.45	2057.41	2.69	-1.031	0.000	0.523
28.25	-17.22	-29.20	0.00	-962.79	0.00	962.79	1920.92	522.03	1623.69	1483.43	3.45	-1.167	0.000	0.661
30.00	-16.87	-29.09	0.00	-911.70	0.00	911.70	1904.07	514.04	1574.37	1447.76	3.89	-1.241	0.000	0.642
35.00	-16.00	-28.70	0.00	-766.27	0.00	766.27	1853.76	491.22	1437.64	1346.49	5.32	-1.478	0.000	0.581
40.00	-15.20	-28.30	0.00	-622.75	0.00	622.75	1800.28	468.39	1307.12	1246.45	6.99	-1.702	0.000	0.512
40.00	-14.25	-25.94	0.00	-557.37	0.00	557.37	1774.49	457.84	1248.92	1200.72	7.84	-1.804	0.000	0.475
45.00	-13.81	-25.75	0.00	-487.58	0.00	487.58	1743.61	445.56	1182.81	1147.94	8.89	-1.916	0.000	0.436
50.00	-13.09	-25.35	0.00	-358.84	0.00	358.84	1683.75	422.73	1064.71	1051.30	11.01	-2.100	0.000	0.353
51.00	-11.15		0.00	-333.49	0.00	333.49	1671.40	418.16	1041.84	1032.22	11.45	-2.135	0.000	0.333
55.00	-10.62	-23.17	0.00	-239.57	0.00	239.57	1620.72	399.90	952.83	956.84	13.29	-2.255	0.000	0.260
55.44	-8.84			-229.37	0.00	229.37	1615.02	397.89	943.28	948.65	13.50	-2.267	0.000	0.249
60.00	-8.26	-16.37		-153.15	0.00	153.15	1554.50	377.07	847.15	864.91	15.72	-2.373	0.000	0.184
64.00	-4.44	-11.25		-87.69	0.00	87.69	1499.23	358.81	767.08	793.39	17.75	-2.442	0.000	0.114
65.00	-4.35	-11.18		-76.43	0.00	76.43	1485.09	354.25	747.68	775.81	18.26	-2.456	0.000	0.102
67.06	-4.33	-7.35		-53.40	0.00	53.40	1455.57	344.84	708.50	740.00	19.32	-2.479	0.000	0.075
70.00	-3.59	-7.14		-31.80	0.00	31.80	1403.00	331.42	654.42	685.23	20.86	-2.502	0.000	0.049
70.00	-1.09	-2.44		-3.24	0.00	3.24	1325.69	313.15	584.28	611.42		-2.517	0.000	0.006
75.00	-0.46	-1.74		-0.80	0.00	0.80	1306.36	308.59	567.37	593.63	23.49	-2.518	0.000	0.002
75.00	-0.40	-0.04		-0.02		0.02	1297.66	306.53	559.84	585.71	23.73	-2.518	0.000	0.000
75.45	0.04	-0.04		0.00		0.00	1287.03	304.02	550.71	576.10	24.02	-2.518	0.000	0.000
10.00	0.00	0.00	0.00											

	-				100 C							_			_
		, Alf			W	ind Lo	ading	- Sha	aft						
Structu	re: CT461	22-A-SBA				Co	de:		ГІА-222 - Н			7/7/20)23		-
Site Nar	ne: Middle	town North	ו			Ex	posur	e: (0				((1)#	D))	
Height:	76.00	(ft)					est He		0.00					TO	
Base El	ev: 0.000	(ft)					e Clas	-	D - Stiff So	oil				ES	l
Gh:	1.1		Τορο	graphy	r: 1	Str	uct Cl					Page:	12 Tower	Engineering Sol	utio
			_				_		_	_	_	i ago.	12		
	ase: 0.9D - Dead Load		9 mph ^v 0.90	Wind							3	x	Iteratio	ons	17
	Wind Load		1.00								2				
Elev								lce				Wind	Dead	Tot	-
(ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)			Dead Load (Ib)	
0.00	Description	Kzt	-		•	-	Cf 0.730	Thick				Force X	Load Ice	Load (Ib)	
0.00 5.00	Description	1.00 1.00	0.85	(psf)	(psf)	(mph-ft)	_	Thick (in)	(ft)	(sf) 0.000	(sf)	Force X (Ib)	Load Ice (Ib)	Load	_
0.00 5.00 10.00	Description	1.00 1.00 1.00	0.85 0.85 0.85	(psf) 29.135 29.135 29.135	(psf) 32.05	(mph-ft) 430.67	0.730	Thick (in) 0.000	(ft) 0.00 5.00	(sf) 0.000	(sf) 0.00	Force X (Ib)	Load Ice (Ib) 0.0	Load (Ib) 0.0	
0.00 5.00	Description	1.00 1.00	0.85 0.85 0.85 0.85	(psf) 29.135 29.135	(psf) 32.05 32.05	(mph-ft) 430.67 415.49	0.730 0.730 0.730 0.730	Thick (in) 0.000 0.000	(ft) 0.00 5.00 5.00	(sf) 0.000 19.327	(sf) 0.00 14.11	Force X (lb) 0.0 452.2	Load Ice (Ib) 0.0 0.0	Load (Ib) 0.0 689.0	

377.55 0.730

359.48 0.730

347.74 0.730

374.11

368.41

370.01

341.99

335.05

321.56

318.78

307.41

306.13

292.68

280.53

277.45

271.04

261.78

248.96

245.71

244.25

242.46

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Totals:

2.75

2.25

3.25

1.75

2.31

2.69

1.00

0.44

4.56

4.00

1.00

2.06

2.94

4.00

1.00

0.45

0.55

76.00

9.190

7.458

5.546

6.550

7.440

2.576

1.076

10.833

9.028

2.188

4,419

6.103

7.918

1.910

0.851

1.032

10.525

5.00 15.377

5.00 14.684

5.00 13.296

4.00 10.027

6.71

5.44

7.68

4.05

11.23

10.72

4.78

5.43

9.71

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7.32

0.79

7.91

6.59

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3.23

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5.78

1.39

0.62

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281.0

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421.8

190.4

219.1

400.3

77.9

308.0

33.1

338.9

286.3

69.6

141.5

197.2

258.9

62.6

27.9

33.9

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327.3

475.0

670.1

158.2

438.5

418.6

186.7

212.0

378.8

73.4

285.5

30.6

308.3

256.8

62.2

125.7

173.5

225.0

54.2

24.2

29.3

7,520.5

22.75 Bot - Section 2

28.25 Top - Section 1

42.31 Appurtenance(s)

51.00 Appurtenance(s)

55.44 Appurtenance(s)

64.00 Appurtenance(s)

67.06 Appurtenance(s)

74.00 Appurtenance(s)

75.00 Appurtenance(s)

75.45 Appurtenance(s)

25.00

30.00

35.00

40.00

45.00

50,00

55.00

60.00

65.00

70.00

76.00

1.00

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0.93 31.764

0.95 32.400

0.97 33.245

0.98 33.668

34.779

35.770

36.196

36.669

37.491

1.10 37.648

1.12 38.251

1.12 38.315

1.14 38.958

1.15 39.491

1.16 39.620

1.16 39.881

1.17 40.243

1.19 40.717

1.19 40.832

1.19 40.883

1.19 40.946

1.01

1.04

1.06

1.07

1.09

34.94

35.64

36.57

37.04

38.26

39.35

39.82

40.34

41.24

41.41

42.08

42.15

42.85

43.44

43.58

43.87

44.27

44.79

44.91

44.97

45.04

												-	1 10	
		the state of the s		Di	screte	Appu	irtena	nce F	orces					
Str	ucture:	CT46122-A-SBA			_	Co	de:	Т	IA-222-H		7/7/	2023		
						Exr	osure	: C				11	(明))	
Site	Name:					-		ght: 0.					IT	C
Heig	ght:	76.00 (ft)						-					I H	5
Bas	e Elev:	0.000 (ft)				Site	e Class	s: D	- Stiff So	lic				
			Tono	graphy	: 1	Str	uct Cla	ass: II			Pag	e: 13	ower Enginee	ing Solutions
Gh:		1.1	Toboi	Jiapiiy			_	_						
Loa	ad Case	: 0.9D + 1.0W 119	mph V	Vind							Y	lter x	ations	17
	De	ad Load Factor	0.90								9	2		
	Wi	nd Load Factor	1.00								24			
						Orient		Total	Dead	Horiz	Vert	Wind	Mom	Mom
	Elev			qz	qzGh	Factor		CaAa	Load	Ecc	Ecc	FX (Ib)	Y (lb-ft)	Z (Ib-ft)
No.	(ft)	Description	Qty	(psf)	(psf)	x Ka	Ka	(sf)	(lb)	(ft)	(ft)	(lb)		0.00
1	75.45 4	Branches	1	40.883	44.972	1.00	1.00	36.86	351.00	0.000	0,000	1657.65	0.00 0.00	0.00
2	75.00 T	-Arms	3	40.832		0.56	0.75	13.50	432.00	0.000	0.000	606.35	0.00	0.00
3	74.00 A	ntenna Branches	1		44.788	1.00	1.00	22.43	86.40	0.000	0.000 0.000	1004.60 431.20	0.00	0.00
4	74.00 A	IR6449 B41	3		44.788	0.57	0.80	9.63	278.10	0.000 0.000	0.000	118.11	0.00	0.00
5	74.00 R	RUS 4415 B25	3	40.717		0.54	0.80	2.64	124.20 133.92	0.000	0.000	133.96	0.00	0.00
6	74.00 E	ricsson 4415 B66A	3	40.717	44.788	0.54	0.80	2.99	235.55	0.000	0.000	302.32	0.00	0.00
7		Handrail Kit w/end	1		44.788	1.00	1.00 0.80	6.75 34.00	235.55 345.60	0.000	0.000	1522.94	0.00	0.00
8	74.00 R	FS	3		44.788	0.56	0.80	13.59	356.94	0.000	0.000	608.80	0.00	0.00
9	74.00 A		3	40.717	44.788 44.788	0.70 0.40	0.80	0.29	2.70	0.000	0.000	12.90	0.00	0.00
10		TM200-A20	6		44.788	0.40	0.80	3.17	191.70	0.000	0.000	141.88	0.00	0.00
11		adio 4449 B71+B85	3	40.717		0.54	0.80	1.16	18.90	0.000	0.000	51.85	0.00	0.00
12		Commscope	3 1	39.881	43.869	1.00	1.00	83.63	360.00	0.000	0.000	3668.78	0.00	0.00
13		Branches	3		43.440	0.54	0.80	3.57	189.81	0.000	0.000	155.07	0.00	0.00
14		5/B13 RRH-BR04C	3	39.491		0.54	0.80	2.64	227.88	0.000	0.000	114.56	0.00	0.00
15		2/B66A RRH-BR049 CBC78T-DS-43-2X/E14F0		39,491		0.54	0.80	0.59	58.86	0.000	0.000	25.85	0.00	0.00
16		SAMNT-SBS-1-2	3	39,491		0.56	0.75	0.00	68.45	0.000	0.000	0.00	0.00	0.00
17 18)B846H80E-SX	2	39.491		0.90	0.80	8.98	28.80	0.000	0.000	390.00	0.00	0.00
19	64.00 T		3	39.491		0.56	0.75	13.50	864.00	0.000	0.000	586.44	0.00	0.00
20		aelus BSF0020F3V1-1	2	39.491	43.440	0.64	0.80	0.90	35.64	0.000	0.000	38.92	0.00	0.00
21		B846F65ZAXY	4	39.491	43.440	0.74	0.80	20.98	75.60	0.000	0.000	911.41	0.00	0.00
22		3) VZWSMART-SFK4	1	39.491	43.440	0.56	0.75	9.28	450.00	0.000	0.000	403.18	0.00 0.00	0.00 0.00
23)B-T1-6Z-8AB-0Z	2	39.491		0.54	0.80	3.54	79.20	0.000	0.000	153.67	0.00	0.00
24	64.00 J	AHH-65B-R3B	6		43.440	0.66	0.80	36.29	341.82	0.000	0.000	1576.62 309.33	0.00	0.00
25	64.00 V		3		43.440		0.80	7.12	235.17	0.000	0.000 0.000	6351.48	0.00	0.00
26		' Branches	1		42.147		1.00	150.70	1474.20	0.000 0.000	0.000	918.62	0.00	0.00
27		IX08FRO665-21	3		41.412		0.80	22.18	174.15	0.000	0.000	488.02	0.00	0.00
28		IC-K6MHDX-9-96 (3	1		41.412		0.75	11.78	809.10 19.71	0.000	0.000	66.59	0.00	0.00
29		RDIDC-9181-OF-48	1		41.412		0.80	1.61 3.15	202.50	0.000	0.000	130.52	0.00	0.00
30		A08025-B605	3		41.412		0.80	3.15	172.53	0.000	0.000	130.52	0.00	0.00
31		A08025-B604	3		41.412		0.80 1.00	54.43	486.00	0.000	0.000	2167.15		0.00
32	42.31 1	10' Branches	1	36.196	39.815	1.00				0.000			100.000	
							Totals	5:	8,91 0.4 2		2	25,179.28		

		Tota	l App	lied Force S	ummary		
Structure:	CT46122-A-SB/	4		Code:	TIA-222-H	7/7/2023	
Site Name:	Middletown Nort	th		Exposure:	С		(((用)))
Height:	76.00 (ft)			Crest Height:	0.00		IDO
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		IES
Gh:	1.1	Topography: 1		Struct Class:		Page: 14	Tower Engineering Solut
Load Case	: 0.9D + 1.0W 11	9 mph Wind				¥ 4	terations
Dea	d Load Factor	0.90				x	
Win	d Load Factor	1.00				2	

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (Ib-ft)	Moment MZ (Ib-ft)
0.00		0.00	0.00	0.00	0.00
5.00		452.17	823.13	0.00	0.00
10.00		435.94	798.23	0.00	0.00
15.00		419.71	773.33	0.00	0.00
20.00		428.12	748.43	0.00	0.00
22.75		234.40	401.03	0.00	0.00
25.00		194.04	535.32	0.00	0.00
28.25		280.97	757.22	0.00	0.00
30.00		149.94	205.13	0.00	0.00
35.00		429.44	572.65	0.00	0.00
40.00		421.76	552.73	0.00	0.00
42.31	(1) attachments	2357.51	734.63	0.00	0.00
45.00		219.08	284.18	0.00	0.00
50.00		400.29	512.89	0.00	0.00
51.00	(11) attachments	1812.14	1478.18	0.00	0.00
55.00		307.97	389.19	0.00	0.00
55.44	(1) attachments	6384.58	1516.23	0.00	0.00
60.00		338.90	426.53	0.00	0.00
64.00	(35) attachments	4951.33	3015.73	0.00	0.00
65.00		69.60	69.31	0.00	0.00
67.06	(1) attachments	3810.30	500.26	0.00	0.00
70.00		197.22	194.32	0.00	0.00
74.00	(29) attachments	4587.45	2027.33	0.00	0.00
75.00	(3) attachments	668.98	493.34	0.00	0.00
75.45	(1) attachments	1685.57	375.15	0.00	0.00
76.00		33.93	29.30	0.00	0.00
	Totals:	31,271.35	18,213.76	0.00	0.00

			E.		r ?	Calc	ulated Fo	rces	, A					
Site N Heigh	Structure: CT46122-A-SBA Site Name: Middletown North Height: 76.00 (ft) Base Elev: 0.000 (ft) Gh: 1.1 Topography:				1	Code: Exposure: Crest Heig Site Class: Struct Clas	D -	7/7/2023 Page: 15						
Load	Dea	d Load	- 1.0W I Facto I Facto		0					2	ľ	ite S	erations	17
Seg Elev	Pu FY (-) (kips)	Vu FX (-) (kins)	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)	Twist (deg)	Stress Ratio
(ft) 0.00	-18.16	-31.30	0.00	-1816.5	0.00	1816.56	2976.77	803.98	3080.93	2832.01	0.00	0.000	0.000	0.649
5.00	-17.23	-30.91	0.00	-1660.0	0.00	1660.04	2914.38	775.44	2866.11	2673.58	0.11	-0.200	0.000	0.628
10.00	-17.23	-30.53	0.00	-1505.4	0.00	1505.49	2848.80	746.90	2659.05	2516.58	0.43	-0.403	0.000	0.606
15.00	-15.44	-30.16	0.00	-1352.8	0.00	1352.84	2780.04	718.37	2459.75	2361.34	0.96	-0.609	0.000	0.580
20.00	-14.62	-29.76	0.00	-1202.0	0.00	1202.05	2708.10	689.83	2268.22	2208.17	1.72	-0.815	0.000	0.552
20.00	-14.02	-29.55	0.00	-1120.2	0.00	1120.20	2667.17	674.14	2166.19	2124.93	2.22	-0.932	0.000	0.534
25.00	-13.57	-29.37	0.00	-1053.7	0.00	1053.72	2632.97	661.30	2084.45	2057.41	2.68	-1.027	0.000	0.519
23.00	-12.77	-29.10	0.00	-958.26	0.00	958.26	1920.92	522.03	1623.69	1483.43	3.43	-1.163	0.000	0.656
30.00	-12.49	-28.98	0.00	-907.34	0.00	907.34	1904.0 7	514.04	1574.37	1447.76	3.87	-1.236	0.000	0.636
35.00	-11.81	-28.59	0.00	-762.44	0.00	762.44	1853.76	491.22	1437.64	1346.49	5.30	-1.472	0.000	0.576
40.00	-11.19	-28.18	0.00	-619.52	0.00	619.52	1800.28	468.39	1307.12	1246.45	6.96	-1.695	0.000	0.507
40.00	-10.48	-25.82	0.00	-554.42	0.00	554.42	1774.49	457.84	1248.92	1200.72	7.81	-1.796	0.000	0.471
45.00	-10.14	-25.62	0.00	-484.97	0.00	484.97	1743.61	445.56	11 82. 81	11 47.9 4	8.86	-1.908	0.000	0.432
40.00 50.00	-9.59	-25.22	0.00	-356.88	0.00	356.88	1683.75	422.73	1064.71	1051.30	10.96	-2.090	0.000	0.349
51.00	-8.15	-23.36	0.00	-331.66	0.00	331.66	1671.40	418.16	1041.84	1032.22	11.40	-2.125	0.000	0.329
55.00	-7.75	-23.05	0.00	-238.20	0.00	238.20	1620.72	399.90	952.83	956.84	13.24	-2.245	0.000	0.257
55.44	-6.47	-16.62		-228.06	0.00	228.06	1615.02	397.89	943.28	948.65	13.45	-2.257	0.000	0.246
60.00	-6.03	-16.27	0.00	-152.29	0.00	152.29	1554.50	377.07	847.15	864.91	15.66	-2.362	0.000	0.182 0.113
64.00	-3.22	-11.20		-87.20	0.00	87.20	1499.23	358.81	767.08	793.39	17.67	-2.431	0.000	
65.00	-3.15	-11.13		-76.00	0.00	76.00	1485.09	354.25	747.68	775.81	18.18	-2.444	0.000	0.101 0.074
67.06	-2.81	-7.30		-53.08	0.00	53.08	1455.57	344.84	708.50	740.00	19.24	-2.467	0.000	0.074
70.00	-2.62	-7.10		-31.61	0.00	31.61	1403.00	331.42	654.42	685.23	20.77	-2.491	0.000	0.048
74.00	-0.79	-2.43		-3.23	0.00	3.23	1325.69	313.15	584.28	611.42		-2.505	0.000	0.008
75.00	-0.33	-1.74		-0.80	0.00	0.80	1306.36	308.59	567.37	593.63	23.39	-2.506	0.000	0.002
75.45	-0.03	-0.04		-0.02	0.00	0.02	1297.66	306.53	559.84	585.71	23.62		0.000	0.000
76.00	0.00	-0.03		0.00	0.00	0.00	1287.03	304.02	550.71	576.10	23.91	-2.506	0.000	Ų.UUU

Shewat					_	ind Lo							_	ř.
Structure: CT46122-A-SBA Site Name: Middletown North						Co	ode:		TIA-222-H	1		7/7/20	23	
						Ex	Exposure: C					(((1)))		
Height	: 76.00 (ft)				Сг	est He	ight: (0.00					TO
Base E	lev: 0.000 (1	ft)					te Clas	-		- 11				HN
Gh:		,	-						D - Stiff S	OII				LO
Gn:	1.1		Торо	graphy	/: 1	Sti	ruct C	ass: I	1			Page:	16 Tower	Engineering So
Load (Case: 1.2D +	1.0Di + 1	0Wi 5) moh '	Wind						Y	A	lée ne ét	
	Dead Load		1.20	o mpri	· · · · · ·							I x	Iterati	ons
	Wind Load	Factor	1.00								3			
Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	lce Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (Ib)	Dead Load ice (Ib)	Tot Dead Load (Ib)
0.00		1.00	0.85	5.144	5.66	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.144	5.66	0.00	1.200	0.828	5.00	20.017	24.02	135.9	237.0	1155.7
10.00		1.00	0.85	5.144	5.66	0.00	1.200	0.887	5.00	19.373	23.25	131.5	245.2	1130.7
15.00		1.00	0.85	5.144	5.66	0.00	1.200	0.924	5.00	18.710	22.45	127.0	246.1	1098.4
20.00		1.00	0.90	5.458	6.00	0.00	1.200	0.951	5.00	18.039	21.65	130.0	243.7	1062.8
	t - Section 2	1.00	0.93	5.608	6.17	0.00	1.200	0.963	2.75	9.631	11.56	71.3	132.8	569.2
25.00		1.00	0.95	5.720	6.29	0.00	1.200	0.973	2.25	7.823	9.39	59.1	109.1	742.4
	p - Section 1	1.00	0.97	5.869	6.46	0.00	1.200	0.985	3.25	11.058	13.27	85.7	155.2	1048.6
30.00		1.00	0. 9 8	5.944	6.54	0.00	1.200	0.991	1.75	5.835	7.00	45.8	82.9	293.8
35.00 40.00		1.00	1.01	6.140	6.75	0.00	1.200	1.006	5.00	16.215	19.46	131.4	230.2	814.9
		1.00	1.04	6.315	6.95	0.00	1.200	1.019	5.00	15.533	18.64	129.5	222.9	781.1
42.31 App 45.00	ourtenance(s)	1.00	1.06	6.390	7.03	0.00	1.200	1.025	2.31	6.944	8.33	58.6	101.3	350.2
40.00 50.00		1.00	1.07	6.474	7.12	0.00	1.200	1.032	2.69	7.903	9.48	67.5	115.7	398.4
	ourtenance(s)	1.00	1.09	6.619	7.28	0.00	1.200	1.042	5.00	14.165	17.00	123.8	206.6	711.7
51.00 App 55.00	Junenance(s)	1.00	1.10	6.646	7.31	0.00	1.200	1.044	1.00	2.750	3.30	24.1	41.0	138.8
		1.00	1.12	6.753	7.43	0.00	1.200	1.052		10.728	12.87	95.6	158.3	539.0
55.44 App 60.00	ourtenance(s)	1.00	1.12	6.764	7.44	0.00	1.200	1.053	0.44	1.153	1.38	10.3	17.3	58.2
	utononeo/o)	1.00	1.14	6.878	7.57	0.00	1.200	1.062	4.56	11.640	13.97	105.7	172.2	583.3
64.00 App 65.00	ourtenance(s)	1.00	1.15	6.972	7.67	0.00	1.200	1.068	4.00	9.740	11.69	89.6	145.0	487.4
	uterere (a)	1.00	1.16	6.995	7.69	0.00	1.200	1.070	1.00	2.366	2.84	21.8	35.9	118.8
	ourtenance(s)	1.00	1.16	7.041	7.74			1.073	2.06	4.788	5.75	44.5	72.3	239.8
70.00		1 00	1 17	7 105	7 9 1	0.00	1 200	4 070	2.04	0.004	7.00			

76.00

74.00 Appurtenance(s)

75.00 Appurtenance(s)

75.45 Appurtenance(s)

1.00

1.00

1.00

1.00

1.00

1.17 7.105

1.19 7.188

1.19 7.229

7.208

7.218

1.19

1.19

7.81

7.91

7.93

7.94

7.95

0.00 1.200

0.00 1.200

0.00 1.200

0.00 1.200

0.00 1.200

1.078

1.084

1.086

1.086

1.087

Totals:

6.631

8.641

2.091

0.932

1.132

7.96

10.37

2.51

1.12

1.36

62.2

82.0

19.9

8.9

10.8

1,872.4

99.8

129.4

31.9

14.3

17.3

331.1

429.3

104.3

46.5

56.4

13,290.7

2.94

4.00

1.00

0.45

0.55

76.00

				g								Æ	100	8
				Di	scret	e App	urten		Forces	lle - F			- 50	
Str	ucture:	CT46122-A-SBA				Co	de:	Т	IA-222-F	-	7/7/	2023	ALL AND AND A	
	e Name:	Middletown North				Ex	posure	e: C)			140	((HI)))	
	• • • • • • • • • • • • • •					Сп	est He	ight: 0	.00					C
Hei	ight:	76.00 (ft)						-		oil			IE	S
Bas	se Elev:	0.000 (ft)					e Clas) - Stiff S	UII	_		lower Enginee	ring Solutions
Gh	:	1.1	Τορο	graphy	: 1	Str	uct Cl	ass:			Pag	e: 17	luwer Enginee	
Lo	ad Case	: 1.2D + 1.0Di + 1.0	0Wi 50) mph V	Vind						Y	ltei	rations	16
	Dea	ad Load Factor	1.20								A	×		
	Wir	nd Load Factor	1.00								3			
												141° - 4	Mom	Mom
					01	Orient		Total CaAa	Dead Load	Horiz Ecc	Vert Ecc	Wind FX	Y	Z
	Elev	Description	Qty	qz (psf)	qzGh (psf)	Factor x Ka	Ка	(sf)	(lb)	(ft)	(ft)	(Ib)	(lb-ft)	(lb-ft)
No.	(ft)	Description				_	1.00	52.88	298.55	0.000	0.000	419.79	0.00	0.00
1		Branches	1	7.218	7.939 7.929	1.00 0.56	0.75	23.29	716.53	0.000	0.000	184.67	0.00	0.00
2	75.00 T-		3 1	7.208 7.188	7.929	1.00	1.00	32.16	252.83	0.000	0.000	254.26	0.00	0.00
3		tenna Branches	3	7.188	7.907	0.57	0.80	10.63	531.23	0.000	0.000	84.08	0.00	0.00
4		R6449 B41	3	7.188	7.907	0.54	0.80	3.15	214.00	0.000	0.000	24.92	0.00	0.00
5		RUS 4415 B25	3	7.188	7.907	0.54	0.80	3.53	282.94	0.000	0.000	27.91	0.00	0.00
6		icsson 4415 B66A	1	7.188	7.907	1.00	1.00	10.85	768.72	0.000	0.000	85.77	0.00	0.00
7	•	andrail Kit w/end	3	7.188	7.907	0.56	0.80	35.96	1202.47	0.000	0.000	284.32	0.00	0.00
8 9	74.00 RF 74.00 Ai		3	7.188	7.907	0.70	0.80	15.01	794.02	0.000	0.000	118.69	0.00	0.00
9 10		FM200-A20	6	7.188	7.907	0.80	0.80	1.23	14.13	0.000	0.000	9.76	0.00	0.00
11		adio 4449 B71+B85	3	7.188	7.907	0.54	0.80	3.71	314.28	0.000	0.000	29.37	0.00	0.00
12		ommscope	3	7.188	7.907	0.54	0.80	1.7 9	39.64	0.000	0.000	14.14	0.00	0.00
13		Branches	1	7.041	7.745	1.00	1.00	119.54	1051.76	0.000	0.000	925.81	0.00	0.00
14		5/B13 RRH-BR04C	3	6.972	7.669	0.54	0.80	4.18	307.84	0.000	0.000	32.06	0.00	0.00
15		2/B66A RRH-BR049	3	6.972	7.669	0.54	0.80	3.15	414.97	0.000	0.000	24.12	0.00	0.00
16		BC78T-DS-43-2X/E14F0	3	6.972	7.669	0.54	0.80	0.85	109.90	0.000	0.000	6.52	0.00	0.00
17		SAMNT-SBS-1-2	3	6.972	7.669	0.56	0.75	0.00	120.31	0.000	0.000	0.00	0.00	0.00
18	64.00 DE	B846H80E-SX	2	6.972	7.669	0.90	0.80	10.25	216.44	0.000	0.000	78.62	0.00	0.00
19	64.00 T-		3	6.972	7.669	0.56	0.75	20.71	1262.30	0.000	0.000	158.84	0.00	0.00 0.00
20	64.00 Ka	aelus BSF0020F3V1-1	2	6.972	7.669	0.64	0.80	1.17	78.66	0.000	0.000	8.95	0.00	0.00
21		B846F65ZAXY	4	6.972	7.669	0.74	0.80	23.14	548.17	0.000	0.000	177.47 113.77	0.00 0.00	0.00
22) VZWSMART-SFK4	1	6.972	7.669	0.56	0.75	14.83	813.28	0.000	0.000 0.000	43.74	0.00	0.00
23		B-T1-6Z-8AB-0Z	2	6.972	7.669	0.54	0.80	5.70	269.66	0.000	0.000	43.74 302.96	0.00	0.00
24		\HH-65B-R3B	6	6.972	7.669	0.66	0.80	39.50	1246.33	0.000 0.000	0.000	61.34	0.00	0.00
25	64.00 VZ		3	6.972	7.669	0.55	0.80	8.00	500.80 4293.69	0.000	0.000	1593.70	0.00	0.00
26		Branches	1	6.764	7.441	1.00		214.19 23.74	4293.89 552.85	0.000	0.000	173.56	0.00	0.00
27		X08FRO665-21	3	6.646	7.311	0.59	0.80 0.75	23.74	1503.64	0.000	0.000	150.95	0.00	0.00
28		C-K6MHDX-9-96 (3	1	6.646	7.311	0.56	0.75	20.65 1.88	45.45	0.000	0.000	13.75	0.00	0.00
29		DIDC-9181-OF-48	1	6.646	7.311	0.80 0.54	0.80	3.69	326.11	0.000	0.000	26.99	0.00	0.00
30		A08025-B605	3	6.646 6.646	7.311 7.311	0.54	0.80	3.69	284.64	0.000	0.000	26.99	0.00	0.00
31		408025-B604	3 1								0.000	539.48	0.00	0.00
32	42.31 10) Branches	1	0.590	1.029	1.00								
32)' Branches	1	6.390	7.029	1.00	1.00 Totals	76.75	1409.44 20,785.59	0.000		539.48 5,997.29	0.00	

	194	То	tal Ap	plied Force S	ummary		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	241
Site Name:	Middletown North	1		Exposure:	С		(((闘)))
Height:	76.00 (ft)			Crest Height:	0.00		TC
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		IES.
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 Factor1.20Wind Load Factor1.00



16

Elev (ft)	Description	Lateral FX (-) (Ib)	Axial FY (-) (Ib)	Torsion MY (Ib-ft)	Moment MZ (Ib-ft)
	Description				
0.00		0.00	0.00	0.00	0.00
5.00		135.91	1334.51	0.00	0.00
10.00		131.53	1309.54	0.00	0.00
15.00		127.03	1277.20	0.00	0.00
20.00		129.95	1241.58	0.00	0.00
22.75		71.29	667.50	0.00	0.00
25.00		59.07	822.81	0.00	0.00
28.25		85.67	1164.86	0.00	0.00
30.00		45.78	356.37	0.00	0.00
35.00		131.42	993.71	0.00	0.00
40.00		129.48	959.86	0.00	0.00
42.31	attachments	598.05	1842.27	0.00	0.00
45.00		67.53	494.58	0.00	0.00
50.00		123.76	890.50	0.00	0.00
51.00	(11) attachments	416.35	2887.26	0.00	0.00
55.00		95.63	677.22	0.00	0.00
55.44	(1) attachments	1604.00	4367.08	0.00	0.00
60.00		105.68	740.85	0.00	0.00
64.00	(35) attachments	1098.02	6514.34	0.00	0.00
65.00		21.84	128,28	0.00	0.00
67.06	(1) attachments	970.30	1311.03	0.00	0.00
70.00		62.19	358.85	0.00	0.00
74.00	(29) attachments	1015.22	4881.41	0.00	0.00
75.00	(3) attachments	204.57	830.27	0.00	0.00
75.45	(1) attachments	428.67	345.05	0.00	0.00
76.00	.,	10.80	56.41	0.00	0.00
	Totals:	7,869.73	36,453.33	0.00	0.00

1918	-			Sec. 1	N.	Calc	ulated Fo	rces		- Alt	1			
Struc Site N Heigh	lame:	-	122-A-S etown N (ft)				Code: Exposure: Crest Heig	TIA C	н 222-Н 0		7/	7/2023		S
Base		0.000	• •				Site Class:		Stiff Soil				Tower Engineer	ring Solutions
Gh:		1.1		Тој	ography	: 1	Struct Clas	ss: II			Pa	ige: 19		
Load	Dea	d Load	l Facto	r 1.2		Vind				2	Å	ite ×	erations	16
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-)	Tu MY (-) (ft-kips)	r 1.0 Mu MZ (ft-kips)	Mu MX	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-36.45	-7.89	0.00	-453.59	0.00	453.59	2976.77 2914.38	803.98 775.44	3080.93 2866.11	2832.01 2673.58	0.00 0.03	0.000 -0.050	0.000 0.000	0.173 0.167
5.00	-35.11	-7.78	0.00	-414.17	0.00	414.17 375.27	2914.38 2848.80	746.90	2659.05	2516.58	0.00	-0.101	0.000	0.161
10.00	-33.79	-7.68	0.00	-375.27	0.00 0.00	336.89	2780.04	718.37	2459.75	2361.34	0.24	-0.152	0.000	0.154
15.00	-32.51	-7.58	0.00	-336.89	0.00	299.01	2708.10	689.83	2268.22	2208.17	0.43	-0.203	0.000	0.147
20.00	-31.26	-7.46 -7.40	0.00 0.00	-299.01 -278.48	0.00	278.48	2667.17	674.14	2166.19	2124.93	0.55	-0.232	0.000	0.143
22.75	-30.59	-7.40 -7.36	0.00	-276.46	0.00	261.83	2632.97	661.30	2084.45	2057.41	0.67	-0.256	0.000	0.139
25.00	-29.77 -28.60	-7.28	0.00	-237.92	0.00	237.92	1920.92	522.03	1623.69	1483.43	0.86	-0.290	0.000	0.175
28.25 30.00	-28.24	-7.25	0.00	-225.18	0.00	225.18	1904.07	514.04	1574.37	1447.76	0.97	-0.308	0.000	0.171
30.00	-20.24	-7.14	0.00	-188.93	0.00	188.93	1853.76	491.22	1437.64	1346.49	1.32	-0.366	0.000	0.155
40.00	-26.27	-7.02	0.00	-153.24	0.00	153.24	1800.28	468.39	1307.12	1246.45	1.73	-0.422	0.000	0.138
42.31	-24.43	-6.42	0.00	-137.02	0.00	137.02	1774.49	457.84	1248.92	1200.72	1.95	-0.447	0.000	0.128
45.00	-23.93	-6.36	0.00	-119.75	0.00	119.75	1743.61	445.56	1182.81	1147.94	2.21	-0.474	0.000	0.118
50.00	-23.04	-6.24	0.00	-87.92	0.00	87.92	1683.75	422.73	1064.71	1051.30	2.73	-0.519	0.000	0.098 0.091
51.00	-20.16	-5.81	0.00	-81.68	0.00	81.68	1671.40	418.16	1041.84	1032.22	2.84	-0.528	0.000	0.091
55.00	-19.48	-5.71	0.00	-58.45	0.00	58.45	1620.72	399.90	952.83	956.84	3.29	-0.557	0.000 0.000	0.073
55.44	-15.13	-4.07	0.00	-55.93	0.00	55.93	1615.02	397.89	943.28	948.65	3.34	-0.560	0.000	0.053
60.00	-14.39	-3.96	0.00	-37.38	0.00	37.38	1554.50	377.07	847.15	864.91	3.89 4.39	-0.586 -0.603	0.000	0.033
64.00	-7.88	-2.80	0.00	-21.54	0.00	21.54	1499.23	358.81	767.08	793.39	4.39 4.52	-0.603	0.000	0.032
65.00	-7.75	-2.77	0.00	-18.74	0.00	18.74	1485.09	354.25	747.68 708.50	775.81 740.00	4.52 4.78	-0.608	0.000	0.023
67.06	-6.45	-1.79	0.00	-13.03	0.00	13.03	1455.57	344.84	708.50 654.42	685.23	4.76	-0.612	0.000	0.016
70.00	-6.09	-1.73	0.00	-7.76	0.00	7.76	1403.00	331.42 313.15	604.42 584.28	611.42		-0.621	0.000	0.002
74.00	-1.22	-0.66	0.00	-0.86	0.00	0.86	1325.69	313.15	567.37	593.63	5.81	-0.621	0.000	0.001
75.00	-0.40	-0.44	0.00	-0.21	0.00	0.21	1306.36	308.59	559.84	585.71	5.87	-0.621	0.000	0.000
75.45	-0.06	-0.01	0.00	-0.01	0.00	0.01	1297.66 1287.03	306.53	550.71	576.10	5.94	-0.621	0.000	0.000
76.00	0.00	-0.01	0.00	0.00	0.00	0.00	1287.03	304.0Z	000.71	570.10	0.04	U.ULI		

	1 6 1	1	Seismic Se	ament F	orces (Facto	(ben	a an	81
Stru	cture: CT46122-A-SBA			Code:		TIA-222		7/7/2023	
	Name: Middletown Nort					п л- 222 С	2-11		1
Heig				Expos					!
•				Crest	leight:	0.00			FC
	Elev: 0.000 (ft)			Site Cl	ass:	D - Stiff	Soil		<u>U</u> U
Gh:	1.1	Торо	graphy: 1	Struct	Class:	H		Page: 20 Tower Eng	ineering Solutions
Load	d Case: 1.2D + 1.0Ev +	1.0Eh						1teration	is 15
G	ust Response Factor	1.10				Sds	0.22	~	is 0.20
	Dead Load Factor	1.20	Seismic Load	Factor	1.00	Sd1	0.09	z s	51 0.06
	Wind Load Factor	0.00	Structure Freq	uency (f1)	0.81	SA	0.07	Seismic Importance Facto	or 1.00
Тор					Vertical	Latera	al		
Elev (ft)	Description		Wz (Ib)	Hz (lb)	Ev (Ib)	Fs (lb)			R: 1.50
0.00			0.00	0.00	0.00	0.0	00		
5.00			944.38	2.50	41.30	0.5	59		
10.00			916.72	7.50	40.09	2.5		~	
15.00 20.00			889.06	12.50	38.88	4.9			
20.00 22.75	Bot - Section 2		861.39	17.50	37.67	7.4			
25.00	Bot - Section 2		461.97 608.21	21.38	20.20	4.1			
28.25	Top - Section 1		860.72	23.88 26.63	26.60 37.64	7.0			
30.00			238.35	20.03	37.64 10.42	13.2 2.5			
35.00			666.08	32.50	29.13	Z.a 12.2			
40.00			643.94	37.50	28.16	14.2			
42.31	Appurtenance(s)		830.03	41.16	36.30	22.8			
45.00			331.79	43.66	14.51	7.0			
50.00			599.68	47.50	26.23	17.8			
51.00	Appurtenance(s)		1648.3	50.50	72.09	77.2	27		
55.00			455.47	53.00	19.92	14.2	1		
55.44	Appurtenance(s)		1687.2	55.22	73.79	90.1	4		
60.00			500.18	57.72	21.87	18.1	6		
64.00	Appurtenance(s)		3373.8	62.00	147.55	272.4	-6		
65.00			78.58	64.50	3.44	1 <i>.</i> 6			
67.06	Appurtenance(s)		559.09	66.03	24.45	25.4			
70.00	Apputazaza(a)		220.55	68.53	9.65	7.4			
74.00 75.00	Appurtenance(s) Appurtenance(s)		2258.9	72.00	98.79	193.1			
75.00 75.45	Appurtenance(s)		549.73	74.50	24.04	29.2			
76.00	http://www.celaince/a/		416.83 32.55	75.22 75.72	18.23	20.3			
		Totals:	3	15.12	1.42	0.6		-	
		TOTAIS:	20,633.7		902.4	867.	.0	Total Wind: 31,	271.3

£.	987 - L	<u>.</u>		3		Calco	ulated F	orces		1		jak.		
		1. 1		15			Code:		-222-H		7/	7/2023	an ngi	1
Struc	ture:	CT461	22-A-S	BA				-	\-ZZZ-11			172020	((開))	
Site N	lame:	Middle	town N	orth			Exposure					- P	T	\sim
Heigh	nt-	76.00	(ft)				Crest Hei	ght: 0.0	0				\mathbf{H}	C
•		0.000	• •				Site Class	s: D-	Stiff Soil					2
Base	Elev:		(11)	_			Struct Cla				Pa	ge: 21	Tower Engineer	ing Solutions
Gh:		1.1		Тор	ography	/: 1	Struct Cla	155. 11				go		_
	Canal	1 20		/ + 1.0Eh							YA	lte	erations	15
								ç	Sds 0.2	2		X	Ss	0.20
Gi	ust Res	ponse	Facto							12	1		S1	0.06
	Dea	d Load	Facto	r 1.20) Seism	ic Load Fac	ctor		6d1 0.0		P.			
	Win	d Load	Facto	r 0.00	Struct	ure Freque	ncy (f1)	0.81	SA 0.0	7 Seis	mic Imp	portance	Factor	1.00
Seg	Pu	Vu	Tu	Mu	Mu	Resultant	phi	phi	phi	phi	Total		Rotation	Stress
Elev	FY (-)	FX (-)	MY (-)	MZ	MX	Moment	Pn	Vn	Tn	Mn	Deflect	Sway (deg)	Twist (deg)	Stress Ratio
(ft)	(kips)	(kips)	(ft-kips)	(ft-kips)		(ft-kips)	(kips)	(kips) 803.98	(ft-kips) 3080.93	(ft-kips) 2832.01	(in)	0.00	0.00	0.027
0.00	-25.19	-0.87	0.00	-53.52	0.00	53.52	2976.77 2914.38	775.44	2866.11	2632.01		0.00	-0.01	0.027
5.00	-24.05	-0.87	0.00	-49.18	0.00	49.18	2914.38	746.90		2516.58		0.01	-0.01	0.026
10.00	-22.94	-0.87	0.00	-44.83	0.00	44.83 40.48	2780.04	718.37	2459.75	2361.34		0.03	-0.02	0.025
15.00	-21.87	-0.87	0.00	-40.48	0.00	40.46 36.15	2708.10	689.83		2208.17		0.05	-0.02	0.024
20.00	-20.84	-0.86	0.00	-36.15	0.00	30.15	2667.17	674.14		2124.93		0.07	-0.03	0.024
22.75	-20.28	-0.86	0.00	-33.78	0.00	33.76	2632.97	661.30		2057.41		0.08	-0.03	0.023
25.00	-19.54	-0.85	0.00	-31.85	0.00	29.09	1920.92		1623.69	1483.43		0.10	-0.03	0.029
28.25	-18.50	-0.84	0.00	-29.09	0.00	29.09	1904.07	514.04		1447.76		0.12	-0.04	0.029
30.00	-18.21	-0.84	0.00	-27.62	0.00	27.02	1853.76	491.22		1346.49		0.16	-0.04	0.027
35.00	-17.42	-0.83	0.00	-23.44	0.00	19.30	1800.28	468.39		1246.45		0.21	-0.05	0.025
40.00	-16.65	-0.81	0.00	-19.30	0.00 0.00	19.30	1774.49	457.84	1248.92	1200.72		0.23	-0.05	0.023
42.31	-15.64	-0.79	0.00	-17.43	0.00	17.43	1743.61	445.56		1147.94		0.27	-0.06	0.022
45.00	-15.24	-0.78	0.00	-15.30	0.00	11.38	1683.75			1051.30		0.33	-0.06	0.019
50.00	-14.53	-0.77	0.00	-11.38	0.00	10.62	1671.40			1032.22		0.34	-0.06	0.018
51.00	-12.49	-0.69	0.00	-10.62 -7.87	0.00	7.87	1620.72		952.83	956.84		0.40	-0.07	0.016
55.00	-11.95	-0.67	0.00	-7.87 -7.57	0.00	7.57	1615.02			948.65		0.40	-0.07	0.014
55.44	-9.86	-0.58	0.00		0.00	4.92	1554.50		847.15	864.91		0.47	-0.07	0.012
60.00	-9.27	-0.56	0.00	-4.92	0.00	2.68	1499.23		767.08	793.39		0.53	-0.07	0.007
64.00	-5.10	-0.28	0.00	-2.68	0.00	2.39	1485.09			775.81		0.55	-0.08	0.006
65.00	-5.00	-0.28	0.00	-2.39 -1.81	0.00	2.39	1455.57			740.00		0.58	-0.08	0.005
67.06	-4.31	-0.26	0.00		0.00	1.06	1403.00			685.23		0.63	-0.08	0.004
70.00	-4.04	-0.25	0.00	-1.06 -0.06	0.00	0.06	1325.69			611.42		0.69	-0.08	0.001
74.00	-1.24	-0.05	0.00		0.00	0.00	1306.36			593.63		0.71	-0.08	0.000
75.00	-0.56	-0.02		-0.01	0.00	0.00	1297.66			585.71		0.72	-0.08	0.000
75.45	-0.04	0.00	0.00	0.00	0.00	0.00	1287.03			576.10		0.73	-0.08	0.000
76.00	0.00	0.00	0.00	0.00	0.00	0.00	1207.00	001.02						

		Į.	Seismic Se	gment F	orces (Facto	red)		e e	
	cture: CT46122-A-SBA			Code:		TIA-222	2-H	7/7/2023	4	_
Site	Name: Middletown Nort	h		Expos	ure:	С			(((罪)))	
Heig	ht: 76.00 (ft)			Crest I	Height:	0.00				a
Base	Elev: 0.000 (ft)			Site Cl	-	D - Stiff	Soil			5
Gh:	1.1	Topo	graphy: 1		Class:		001	Dage: 22	Tower Engineeri	ng Solutions
								Page: 22		
Load	d Case: 0.9D + 1.0Ev +	1.0Eh						¥ I	terations	15
G	ust Response Factor	1.10				Sds	0.22	X	Ss	0.20
	Dead Load Factor	0.90	Seismic Load	Factor	1.00	Sd1	0.09	Z	S1	0.06
	Wind Load Factor	0.00	Structure Free	uency (f1)	0.81	SA	0.07	Seismic Important	ce Factor	1.00
Тор					Vertical	Latera	al			
Elev (ft)	Description		Wz	Hz	Ev	Fs				
_	Description		(lb)	(lb)	(lb)	(Ib)			R	: 1.50
0.00 5.00			0.00	0.00	0.00	0.0				
5.00 10.00			899.68	2.50	39.35	0.5				
15.00			872.02 844.36	7.50 12.50	38.14 36.93	2.4				
20.00			816.69	17.50	36.93	4.6 7.0				
22.75	Bot - Section 2		437.39	21.38	19.13	3.9				
25.00			588.09	23.88	25.72	6.9				
28.25	Top - Section 1		831.67	26.63	36.37	12.9	_			
30.00			222.71	29.13	9.74	2.4				
35.00			621.38	32.50	27.17	11.3				
40.00			599.24	37.50	26.21	13.1				
42.31	Appurtenance(s)		809.38	41.16	35.40	22.5	5			
45.00			307.74	43.66	13.46	6.5	51			
50.00			554.98	47.50	24.27	16.3	8			
51.00	Appurtenance(s)		1639.4	50.50	71.70	78.3	4			
55.00			420.91	53.00	18.41	13.0	3			
55.44	Appurtenance(s)		1683.4	55.22	73.62	91.7	-			
60.00 64.00	Apputer200(2)		460.79	57.72	20.15	16.5				
65.00	Appurtenance(s)		3339.2	62.00	146.04	274.4				
67.06	Appurtenance(s)		76.22	64.50	3.33	1.6				
70.00	hppartenance(s)		554.22 213.60	66.03 68.53	24.24	25.6				
74.00	Appurtenance(s)		213.60	72.00	9.34 98.38	7.3				
75.00	Appurtenance(s)		547.37	72.00	90.38 23.94	196.1 29.7				
75.45	Appurtenance(s)		416.83	74.50	23.94 18.23	29.7				
76.00			32.55	75.72	1.42	20.7				
		Totals:		-	876.4	867.	_	Total Wind	24 074	-
					010.4	007.	v		: 31,271.	3

- 38						Calco	ulated Fo	orces					d.	
Struct		CT461	22-A-S	BA			Code:	TIA	-222-H		7/7	7/2023	((明))	
		•••••	town N				Exposure	c c					de alla inte	
Site N	S			orui			Crest Heig		0				E	C
Heigh		76.00	• •				Site Class		- Stiff Soi	1		- 1		5
Base	Elev:	0.000	(ft)						Sun Sui	•	D -		Tower Engineer	ing Solutions
Gh:		1.1		Тор	ography	: 1	Struct Cla	iss: II			Pa	ige: 23		
beol	Case.	0.9D	+ 1.0Ev	, + 1.0Eh							YA	It	erations	15
								S	ids 0.2	22	5	X	Ss	0.20
Gi	ust Res	-						1.00 S	id1 0.0	מח			S1	0.06
	Dea	d Load	I Facto	-		ic Load Fac							-	1.00
	Win	d Load	Facto	r 0.00	Struct	ure Freque	ncy (f1)	0.81	SA 0.0)/ Seis	-		e Factor	1.00
Seq	Pu	Vu	Tu	Mu	Mu	Resultant	phi	phi	phi	phi Mn	Total Deflect	Rotation Sway	Rotation Twist	Stress
Elev	FY (-)	FX (-)	MY (-)	MZ	MX	Moment	Pn (kips)	Vn (kips)	Tn (ft-kips)	(ft-kips)	(in)	(deg)	(deg)	Ratio
(ft)	(kips)			(ft-kips)		(ft-kips) 53.52	2976.77	803.98	3080.93	2832.01	()	0.00	0.00	0.025
0.00	-19.09	-0.87	0.00	-53.52 -49.19	0.00 0.00	49.19	2914.38	775.44	2866.11	2673.58		0.00	-0.01	0.025
5.00	-18.23	-0.87	0.00 0.00	-49.19 -44.84	0.00	44.84	2848.80	746.90	2659.05	2516.58		0.01	-0.01	0.024
10.00	-17.39 -16.58	-0.87 -0.87	0.00	-40.50	0.00	40.50	2780.04	718.37	2459.75	2361.34		0.03	-0.02	0.023
15.00 20.00	-16.56	-0.86	0.00	-36.18	0.00	36.18	2708.10	689.83	2268.22	2208.17		0.05	-0.02	0.022
20.00	-15.38	-0.86	0.00	-33.81	0.00	33.81	2667.17	674.14	2166.19	2124.93		0.07	-0.03	0.022
25.00	-14.82	-0.85	0.00	-31.89	0.00	31.89	2632.97	661.30	2084.45			0.08	-0.03	0.021 0.027
23.00	-14.02	-0.84	0.00	-29.13	0.00	29.13	1920.92	522.03	1623.69	1483.43		0.10	-0.03	0.027
30.00	-13.81	-0.84	0.00	-27.66	0.00	27.66	1904.07	514.04	1574.37	1447.76		0.12	-0.04 -0.04	0.020
35.00	-13.21	-0.83	0.00	-23.49	0.00	23.49	1853.76	491.22	1437.64			0.16	-0.04 -0.05	0.023
40.00	-12.63	-0.81	0.00	-19.36	0.00	19.36	1800.28	468.39	1307.12			0.21	-0.05	0.023
42.31	-11.86	-0.79	0.00	-17.48	0.00	17.48	1774.49	457.84	1248.92			0.23 0.27	-0.05	0.021
45.00	-11.56	-0.78		-15.36	0.00	15.36	1743.61	445.56	1182.81			0.27	-0.06	0.020
50.00	-11.02	-0.77	0.00	-11.43	0.00	11.43	1683.75	422.73	1064.71	1051.30		0.33	-0.06	0.016
51.00	-9.47	-0.69	0.00	-10.67	0.00	10.67	1671.40	418.16		1032.22 956.84		0.34	-0.07	0.014
55.00	-9.07	-0.68	0.00	-7.91	0.00	7.91	1620.72	399.90	952.83	956.84 948.65		0.40	-0.07	0.013
55.44	-7.48	-0.58	0.00	-7.62	0.00	7.62	1615.02	397.89	943.28 847.15			0.41	-0.07	0.010
60.00	-7.03	-0.57	0.00	-4.96	0.00	4.96	1554.50	377.07	767.08	793.39		0.54	-0.07	0.006
64.00	-3.87	-0.29	0.00	-2.70	0.00	2.70	1499.23	358.81	767.08			0.55	-0.08	0.006
65.00	-3.79	-0.29	0.00	-2.42	0.00	2.42	1485.09	354.25 344.84	708.50			0.58	-0.08	0.005
67.06	-3.27	-0.26	0.00	-1.83	0.00	1.83	1455.57	344.84 331.42	654.42			0.63	-0.08	0.004
70.00	-3.07	-0.25	0.00	-1.07	0.00	1.07	1403.00	331.42				0.70	-0.08	0.001
74.00	-0.94	-0.05		-0.06	0.00	0.06	1325.69 1306.36		567.37			0.71	-0.08	0.000
75.00	-0.42	-0.02		-0.01	0.00	0.01	1297.66		559.84			0.72	-0.08	0.000
75.45	-0.03	0.00		0.00	0.00	0.00	1297.00	306.03		576.10		0.73	-0.08	0.000
76.00	0.00	0.00	0.00	0.00	0.00	0.00	1201.03	JU4.UZ	550.71	0,0.10				

					N	/ind Lo	ading	g - Sh	aft			Ĩ			
Structu	Ire: CT4612	2-A-SBA		.00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .											
Site Na	me: Middleto	own Nortl	h			Fx	nosur			•				b h	
Height:							-								
Base El		,						•						FC	
	`	u)				Si	te Clas	ss:	D - Stiff S	lic				LO	,
Gh:	1.1		Торо	graphy	/: 1	St	ruct C	lass:	11			Page:	24 Tower	Engineering So	lutions
Load C	ase: 1.0D +	1.0W 60	mph W	'ind							3	1	lterati	ons	16
	Dead Load F	actor	1.00									x			
	Wind Load F	actor	1.00								7/				
											X				
Elev (ft)	Description	Kzt	Kz	•		-	Cf	Thick	-			Force X	Load Ice	Dead Load	
0.00		1.00	0.85	6.627	7.29	217.15	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0	_
5.00		1.00	0.85	6.627	7.29	209.49	0.730	0.000							
10.00		1.00	0.85	6.627	7.29	201.84	0.730	0.000	5.00	18.634					
15.00		1.00	0.85	6.627	7.29	194.18	0.730	0.000	5.00	17.940	13.10				
20.00		1.00			7.73	192.13	0.730	0.000	5.00	17.246	12.59	97.4			
	- Section 2	1.00	0.93		7.95	190.36	0.730	0.000	2.75	9.190	6.71	53.3			
25.00		1.00	0.95		8.11	188.63	0.730	0.000	2.25	7.458	5.44	44.1			
	- Section 1	1.00	0.97			185.75		0.000	3.25	10.525	7.68	63.9	0.0		
30.00		1.00						0.000	1.75	5.546	4.05	34.1	0.0		
35.00		1.00	1.01	7.911	8.70	181.25	0.730	0.000	5.00	15.377	11.23	97 7	0.0	487 3	

1.00

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70.00

76.00

42.31 Appurtenance(s)

51.00 Appurtenance(s)

55.44 Appurtenance(s)

64.00 Appurtenance(s)

67.06 Appurtenance(s)

74.00 Appurtenance(s)

75.00 Appurtenance(s)

75.45 Appurtenance(s)

1.04

1.06

1.07

1.09

1.10

1.12

1.12

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1.15

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8.136

8.233

8.341

8.528

8.563

8.701

8.715

8.861

8.983

9.012

9.071

9.154

9.261

9.288

9.299

9.314

8.95

9.06

9.17

9.38

9.42

9.57

9.59

9.75

9.88

9.91

9.98

10.07

10.19

10.22

10.23

10.24

175.33 0.730

172.43 0.730

168.93 0.730

0.730

0.730

0.730

0.730

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0.730

0.730

0.730

162.13

160.73

155.00

154.35

147.57

141.45

139.89

136.66

131.99

125.52 0.730

123.89 0.730

123.15 0.730

122.25 0.730

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Totals:

5.00 15.377

5.00 14.684

5.00 13.296

4.00 10.027

6.550

7.440

2.576

1.076

10.833

9.028

2.188

4.419

6.103

7.918

1.910

0.851

1.032

2.31

2.69

1.00

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4.56

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2.06

2.94

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76.00

11.23

10.72

4.78

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9.71

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7.32

0.79

7.91

6.59

1.60

3.23

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97.7

95.9

43.3

49.8

91.0

17.7

70.1

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77 1

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44.9

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487.3

465.1

207.4

235.6

420.9

81.5

317.2

34.0

342.6

285.4

69.1

139.6

192.7

250.0

60.3

26.8

32.6

8,356.2

F		1 1		Di	scret		irtena	ance F	orces					
Str	ucture:	CT46122-A-SBA				Co	de:	Т	IA-222-H		7/7/	2023		
	e Name:	Middletown North				Ex	osure	: C	;			1	(甲)))	
						-		ght: 0	.00				D	C
	ight:	76.00 (ft)					e Clas	-	- Stiff So	hil				5
Ba	se Elev:	0.000 (ft)								511	Dec	e: 25 🖣	ower Enginee	ring Solutions
Gh	:	1.1	Τοροί	graphy:	: 1	Str		ass: II			Fay	e. 25	_	
Lo	ad Case	: 1.0D + 1.0W 60 m	ıph W	ind							¥4	lter x	ations	16
	Dea	ad Load Factor	1.00								9-1			
			1.00								Z			
	Elev			qz	qzGh	Orient Factor	Ka	Total CaAa (sf)	Dead Load (Ib)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (Ib)	Mom Y (Ib-ft)	Mom Z (Ib-ft)
No.	(ft)	Description	Qty	(psf)	(psf)	x Ka 1.00	1.00	36.86	390.00	0.000	0.000	377.05	0.00	0.00
1		Branches	1 3	9.299 9.288	10.229 10.216	0.56	0.75	13.50	480.00	0.000	0.000	137.92	0.00	0.00
2	75.00 T-		3 1	9.260 9.261		1.00	1.00	22.43	96.00	0.000	0.000	228.51	0.00	0.00
3		ntenna Branches R6449 B41	3	9.261	10.187	0.57	0.80	9.63	309.00	0.000	0.000	98.08	0.00	0.00
4 5		R0449 D41 RUS 4415 B25	3	9.261	10.187	0.54	0.80	2.64	138.00	0.000	0.000	26.87	0.00	0.00
6		icsson 4415 B66A	3		10.187	0.54	0.80	2.99	148.80	0.000	0.000	30.47	0.00	0.00
7		andrail Kit w/end	1	9.261	10.187	1.00	1.00	6.75	261.72	0.000	0.000	68.77	0.00	0.00
8	74.00 RF		3	9.261	10.187	0.56	0.80	34.00	384.00	0.000	0.000	346.41	0.00	0.00 0.00
9	74.00 Ai		3	9.261	10.187	0.70	0.80	13.59	396.60	0.000	0.000	138.48	0.00	0.00
10	74.00 AT	TM200-A20	6	9.26 1	10.187	0.40	0.80	0.29	3.00	0.000	0.000	2.93	0.00 0.00	0.00
11	74.00 Ra	adio 4449 B71+B85	3	9.261	10.187	0.54	0.80	3.17	213.00	0.000	0.000 0.000	32.27 11.79	0.00	0.00
12	74.00 Co	ommscope	3	9.261	10.187	0.54	0.80	1.16	21.00	0.000 0.000	0.000	834.50	0.00	0.00
13	67.06 6'	Branches	1	9.071	9.978	1.00	1.00	83.63	400.00 210.90	0.000	0.000	35.27	0.00	0.00
14		5/B13 RRH-BR04C	3	8.983	9.881	0.54	0.80	3.57 2.64	253.20	0.000	0.000	26.06	0.00	0.00
15		2/B66A RRH-BR049	3	8.983	9.881	0.54	0.80 0.80	2.64 0.59	255.20 65.40	0.000	0.000	5.88	0.00	0.00
16		BC78T-DS-43-2X/E14F0		8.983	9.881	0.54 0.56	0.80	0.00	76.05	0.000	0.000	0.00	0.00	0.00
17		SAMNT-SBS-1-2	3	8.983 8.983	9.881 9.881	0.90	0.80	8.98	32.00	0.000	0.000	88.71	0.00	0.00
18		B846H80E-SX	2 3	8.983	9.881	0.56	0.75	13.50	960.00	0.000	0.000	133.39	0.00	0.00
19	64.00 T-		2	8.983	9.881	0.64	0.80	0.90	39.60	0.000	0.000	8.85	0.00	0.00
20		aelus BSF0020F3V1-1	2 4	8.983	9.881	0.74	0.80	20.98	84.00	0.000	0.000	207.31	0.00	0.00
21		B846F65ZAXY) VZWSMART-SFK4	1	8.983	9.881	0.56	0.75	9.28	500.00	0.000	0.000	91.7 1	0.00	0.00
22	04.00 (J	B-T1-6Z-8AB-0Z	2	8.983	9.881	0.54	0.80	3.54	88.00	0.000	0.000	34.95	0.00	0.00
23 24		AHH-65B-R3B	6	8.983	9.881	0.66	0.80	36.29	379.80	0.000	0.000	358.62	0.00	0.00
24 25	64.00 JA 64.00 VZ		3	8.983	9.881	0.55	0.80	7.12	261.30	0.000	0.000	70.36	0.00	0.00
25 26		Branches	1	8.715	9.587	1.00	1.00	150.70	1638.00	0.000	0.000	1444.70	0.00	0.00
20 27		X08FRO665-21	3	8.563	9.420	0.59	0.80	22.18	193.50	0.000	0.000	208.95	0.00	0.00
28		C-K6MHDX-9-96 (3	1	8.563	9.420	0.56	0.75	11.78	899.00	0.000	0.000	111.00		0.00 0.00
29		DIDC-9181-OF-48	1	8.563	9.420	0.80	0.80	1.61	21.90	0.000	0.000	15.15	0.00 0.00	0.00
30		A08025-B605	3	8.563	9.420	0.54	0.80	3.15	225.00	0.000	0.000	29.69 29.69	0.00	0.00
31		A08025-B604	3	8.563	9.420	0.54	0.80	3.15	191.70	0.000	0.000 0.000	492.94	0.00	0.00
32	42.31 10	0' Branches	1	8.233	9.056	1.00	1.00 Totals	54.43	540.00 9.900.47	0.000	0.000	5,727.26	0.00	0.00

Totals: 9,900.47

5,727.26

		Tot	al App	lied Force S	ummary		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	
Site Name:	Middletown North	ו		Exposure:	С		(((明)))
Height:	76.00 (ft)			Crest Height:	0.00		EC
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		IES.
Gh:	1.1	Topography:	1	Struct Class:	II	Page: 26	Tower Engineering Solutions
Load Case	: 1.0D + 1.0W 60	mph Wind				×4 I	terations 16
Dea	d Load Factor	1.00				L_X	
Win	d Load Factor	1.00				2	

Elev (ft)	Description	Lateral FX (-) (Ib)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (Ib-ft)					
0.00		0.00	0.00	0.00	0.00					
5.00		102.85	914.58	0.00	0.00					
10.00		99.16	886.92	0.00	0.00					
15.00		95.47	859.26	0.00	0.00					
20.00		97.38	831.59	0.00	0.00					
22.75		53.32	445.58	0.00	0.00					
25.00		44.14	594.80	0.00	0.00					
28.25		63.91	841.35	0.00	0.00					
30.00		34.10	227.92	0.00	0.00					
35.00		97.68	636.28	0.00	0.00					
40.00		95.93	614.14	0.00	0.00					
42.31	(1) attachments	536.24	816.26	0.00	0.00					
45.00		49.83	315.75	0.00	0.00					
50.00		91.05	569.88	0.00	0.00				9	
51.00	(11) attachments	412.19	1642.42	0.00	0.00					
55.00		70.05	432.43	0.00	0.00					
55.44	(1) attachments	1452.23	1684.70	0.00	0.00					
60.00		77.09	473.92	0.00	0.00					
64.00	(35) attachments	1126.23	3350.81	0.00	0.00					
65.00		15.83	77.01	0.00	0.00					
67.06	(1) attachments	866.69	555.85	0.00	0.00					
70.00		44.86	215.91	0.00	0.00					
74.00	(29) attachments	1043.46	2252.59	0.00	0.00					
75.00	(3) attachments	152.17	548.16	0.00	0.00					
75.45	(1) attachments	383.40	416.83	0.00	0.00					
76.00		7.72	32.55	0.00	0.00					
	Totals:	7,112.96	20,237.52	0.00	0.00					

	ţ.	-32	J.		1	Calc	ulated Fo	rces			¥.			
Struc Site N Heigh Base Gh:	Name: nt:			lorth	pography:	1	Code: Exposure: Crest Heig Site Class Struct Class	C ht: 0.0	-222-H 0 Stiff Soil			7/2023 age: 27	Tower Engineer	S ring Solutions
Load	Dea	d Loac	- 1.0W I Facto I Facto		0					Z	ľ	ite S	erations	16
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)	Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-20.23	-7.12	0.00	-413.74	0.00	413.74	2976.77	803.98	3080.93	2832.01	0.00	0.000	0.000	0.153
5.00	-19.31	-7.03	0.00	-378.14	0.00	378.14	2914.38	775.44	2866.11	2673.58	0.02	-0.046	0.000	0.148
10.00	-18.42	-6.95	0.00	-342.98	0.00	342.98	2848.80	746.90	2659.05	2516.58	0.10	-0.092	0.000	0.143
15.00	-17.56	-6.86	0.00	-308.24	0.00	308.24	2780.04	718.37	2459.75	2361.34	0.22	-0.139	0.000	0.137
20.00	-16.72	-6.78	0.00	-273.92	0.00	273.92	2708.10	689.83	2268.22	2208.17	0.39	-0.186	0.000	0.130
22.75	-16.27	-6.73	0.00	-255.28	0.00	255.28	2667.17	674.14	2166.19	2124.93	0.51	-0.212	0.000	0.126
25.00	-15.68	-6.69	0.00	-240.15	0.00	240.15	2632.97	661.30	2084.45	2057.41	0.61	-0.234	0.000	0.123
28.25	-14.83	-6.63	0.00	-218.41	0.00	218.41	1920.92	522.03	1623.69	1483.43	0.78	-0.265	0.000	0.155
30.00	-14.60	-6.60	0.00	-206.81	0.00	206.81	1904.07	514.04	1574.37	1447.76	0.88	-0.282	0.000	0.151
35.00	-13.96	-6.51	0.00	-173.81	0.00	173.81	1853.76	491.22	1437.64	1346.49	1.21	-0.335	0.000	0.137
40.00	-13.34	-6.42	0.00	-141.24	0.00	141.24	1800.28	468.39	1307.12	1246.45	1.59	-0.386	0.000	0.121
42.31	-12.53	-5.88	0.00	-126.41	0.00	126.41	1774.49	457.84	1248.92	1200.72	1.78	-0.409	0.000	0.113
45.00	-12.21	-5.84	0.00	-110.58	0.00	110.58	1743.61	445.56	1182.81	1147.94	2.02	-0.435	0.000	0.104
50.00	-11.64	-5.75	0.00	-81.38	0.00	81.38	1683.75	422.73	1064.71	1051.30	2.50	-0.476	0.000	0.085
51.00	-9.99	-5.33	0.00	-75.63	0.00	75.63	1671.40	418.16	1041.84	1032.22	2.60	-0.484	0.000	0.079
55.00	-9.56	-5.26	0.00	-54.32	0.00	54.32	1620.72	399.90	952.83	956.84	3.02	-0.512	0.000	0.063
55.44	-7.89	-3.79	0.00	-52.01	0.00	52.01	1615.02	397.89	943.28	948.65	3.06	-0.514	0.000	0.060
60.00	-7.41	-3.71	0.00	-34.73	0.00	34.73	1554.50	377.07	847.15	864.91	3.57	-0.538	0.000	0.045
64.00	-4.07	-2.55	0.00	-19.89	0.00	19.89	1499.23	358.81	767.08	793.39	4.03	-0.554	0.000	0.028
65.00	-4.00	-2.54	0.00	-17.33	0.00	17.33	1485.09	354.25	747.68	775.81	4.14	-0.557	0.000	0.025
67.06	-3.45	-1.67	0.00	-12.11	0.00	12.11	1455.57	344.84	708.50	740.00	4.39	-0.562	0.000	0.019
70.00	-3.23	-1.62	0.00	-7.21	0.00	7.21	1403.00	331.42	654.42	685.23	4.73	-0.568	0.000	0.013
74.00	-0.99	-0.55	0.00	-0.74	0.00	0.74	1325.69	313.15	584.28	611.42	5.21	-0.571	0.000	0.002
75.00	-0.45	-0.40	0.00	-0.18	0.00	0.18	1306.36	308.59	567.37	593.63	5.33	-0.571	0.000	0.001
75.45	-0.03	-0.01	0.00	0.00	0.00	0.00	1297.66	306.53	559.84	585.71	5.38	-0.571	0.000	0.000
76.00	0.00	-0.01	0.00	0.00	0.00	0.00	1287.03	304.02	550.71	576.10	5.45	-0.571	0.000	0.000

			Final A	nalysis Sum	mary		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	(
Site Name:	Middletown North			Exposure:	С		((+++++)))
Height:	76.00 (ft)			Crest Height:	0.00		LEC
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		IES
Gh:	1.1 T	opography:	1	Struct Class:	11	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 + 1.0W 119 mph Wind	31.3	0.00	24.23	0.00	0.00	1822.58	
0.9D + 1.0W 119 mph Wind	31.3	0.00	18.16	0.00	0.00	1816.56	
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.9	0.00	36.45	0.00	0.00	453.59	
1.2D + 1.0Ev + 1.0Eh	0.9	0.00	25.19	0.00	0.00	53.52	
0.9D + 1.0Ev + 1.0Eh	0.9	0.00	19.0 9	0.00	0.00	53.52	
1.0D + 1.0W 60 mph Wind	7.1	0.00	20.23	0.00	0.00	413.74	

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)	t phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.0W 119 mph Wind	-17.22	-29.20	0.00	-962.79	0.00	-962.79	1920.92	522.03	1623.69	1483.43	28.25	0.661
0.9D + 1.0W 119 mph Wind	-12.77	-29.10	0.00	-958.26	0.00	-958.26	1920.92	522.03	1623.69	1483.43	28.25	0.656
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-28.60	-7.28	0.00	-237.92	0.00	-237.92	1920.92	522.03	1623.69	1483.43	28.25	0.175
1.2D + 1.0Ev + 1.0Eh	-18.50	-0.84	0.00	-29.09	0.00	-29.09	1920.92	522.03	1623.69	1483.43	28.25	0.029
0.9D + 1.0Ev + 1.0Eh	-14.02	-0.84	0.00	-29.13	0.00	-29.13	1920.92	522.03	1623.69	1483.43	28.25	0.027
1.0D + 1.0W 60 mph Wind	-14.83	-6.63	0.00	-218.41	0.00	-218.41	1920.92	522.03	1623.69	1483.43	28.25	0.155

Base Plate Summary

	CT46122-A-SB	Code: Exposure:	TIA-222-H C	7/7/2023 (((井)))
Height:	Middletown North 76.00 (ft)	Crest Height:	0.00	ES
Base Elev: Gh:		Site Class: Struct Class:	D - Stiff Soil II	Page: 29 Tower Engineering Solutions

Reactions		Base Pla	te	Anchor B	olts
Original Desi		Yield (ksi):	60.00	Bolt Circle:	54.00
Moment (kip-ft):	2800.00	Width (in):	60.00	Number Bolts:	10.00
Axial (kip):	27.00	Style:	Round	Bolt Type:	2.25" 18J
Shear (kip):	52.00	Polygon Sides:	0.00	Bolt Diameter (in):	2.25
	(0110)	Clip Length (in):	0.00	Yield (ksi):	75.00
Analysis (1.2D +			29.11	Ultimate (ksi):	100.00
Moment (kip-ft):	1822.58	Effective Len (in):	616.61	Arrangement:	Radial
Axial (kip):	24.23	Moment (kip-in):	81.00	Cluster Dist (in):	0.00
Shear (kip):	31.32	Allow Stress (ksi):		Start Angle (deg):	0.00
		Applied Stress (ksi):	31.59	Compress	sion
		Stress Ratio:	0.39	Force (kip):	164.43
				Allowable (kip):	268.39
				Ratio:	0.61
				Tensior	ı
				Force (kip):	159.58
				Allowable (kip):	243.75
				Ratio:	0.65

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

Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10207050 Colliers Engineering & Design CT, P.C. Project #: 23777134

July 21, 2023

Site Information

Site ID: Site Name: Carrier Name: Address: 5000245641-VZW / Cromwell CT Cromwell CT Verizon Wireless 160 West Cromwell, Connecticut 06416 Middlesex County 41.605992° -72.670381°

Latitude: Longitude:

Structure Information

Tower Type: Mount Type: Monopole 10.63-Ft T-Frame

FUZE ID # 17123796

Analysis Results

T-Frame: 60.6% Pass*

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

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

Report Prepared By: Prasanna Dhakal



Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS, Site ID: 602576, dated November 25, 2020
Mount Mapping Report	RKS Design & Engineering LLC, Site ID: SBA: CT46122, dated January 16, 2021
Previous Post-Mod Antenna Mount Analysis	Maser Consulting Connecticut, Project #: 20777624, dated February 25, 2021
Antenna Mount Post-Modification Inspection Report	Maser Consulting Connecticut, Project #: 20777624, dated March 28, 2022
Final Loading Configuration	Filter Add Scope Provided by Verizon Wireless

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC),	Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), Vult: lce Wind Speed (3-sec. Gust): Design Ice Thickness: Risk Category: Exposure Category: Topographic Category: Topographic Feature Considered: Topographic Method: Ground Elevation Factor, Ke:	120 mph 50 mph 1.00 in II C 1 N/A N/A 0.995
Seismic Parameters:	Ss: S1:	0.207 g 0.056 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): Maintenance Load, Lv: Maintenance Load, Lm:	30 mph 250 lbs. 500 lbs.
Analysis Software:	RISA-3D (V17)	

Mount Structural Analysis Report (3) 10.63-Ft T-Frame

Final Loading Configuration:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
(19		2	KAelus	KA-6030	Added
		3	Samsung	MT6407-77a	
		3	Commscope	CBC78T-DS-43-2X	
		3	Samsung	B2/B66A RRH-BR049	
65.88	67.00	3	Samsung	B5/B13 RRH-BR04C	Retained
05.00	0,100	6	Andrew	JAHH-65B-R3B	Ketaineo
		4	Andrew	DB846F65ZAXY	
	2		Decibel	DB846H80E-SX	
		2	Raycap	RRFDC-3315-PF-48	

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

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

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

Standard Conditions:

- All engineering services are performed on the basis that the information provided to Colliers Engineering & Design CT, P.C. and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design CT, P.C. to verify deviation will not adversely impact the analysis.
- 2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

- For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
- 4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

- 6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design CT, P.C. is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
- 7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate
 - HSS (Rectangular)
 - o Pipe
 - o Threaded Rod
 - o Bolts

ASTM A36 (Gr. 36) ASTM 500 (Gr. B-46) ASTM A53 (Gr. B-35) F1554 (Gr. 36) ASTM A325

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	52.9%	Pass
Mount Pipe	55.8%	Pass
Standoff Horizontal	43.8%	Pass
Mod Face Horizontal	54.3%	Pass
Mod Standoff Horizontal	51.3%	Pass
Mount Connection (Bolt)	30.5%	Pass
Mount Connection (Plate)	60.6%	Pass

Structure Rating - (Controlling Utilization of all Components)	60.6%	
----------------------------------------------------------------	-------	--

BASELINE mount weight per SBA agreement: 2273.90 lbs

Increase in mount weight due to Verizon loading change per SBA agreement: No Change

The weights listed above include 3 sectors.

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

Ice	Mount Pipe	s Excluded	Mount Pipe	pes Included		
Thickness (In)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)		
0	11.5	3.4	20.1	12.0		
0.5	15.1	4.7	27.3	17.0		
1	18.5	5.7	34.3	21.6		

Notes:

- (EPA)a values listed above may be used in the absence of more precise information

- (EPA)a values in the table above include 1 sector.

- Ka factors included in (EPA)a calculations

Requirements:

The existing mounts are **SUFFICIENT** for the final loading configuration shown in attachment 2 and do not require modifications. Additional requirements are noted below.

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

Attachments:

- 1. Contractor Required Post Installation Inspection (PMI) Report Deliverables
- 2. Antenna Placement Diagrams
- 3. Mount Photos
- 4. Mount Mapping Report (for reference only)
- 5. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

Passing Mount Analysis requires a PMI due to a modification in loading. Electronic pdf version of this can be downloaded at <u>https://pmi.vzwsmart.com</u>. For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000245641 SMART Project #: 10207050 Fuze Project ID: 17123796

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

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

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built mount drawings" showing contractor's name, contact information, preparer's signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: https://pmi.vzwsmart.com

Photo Requirements:

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

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

• The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.

□ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

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

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

Issue:

Response:

Special Instruction Confirmation:

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

 \Box All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.

□ The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

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

Comments:

Contractor certifie	es that the cli	nbing facility / safety climb was not damaged prior to starting work:
□ Yes	🗆 No	

Contractor certifies no new damage created during the current installation:

🗆 Yes 🛛 🗆 No

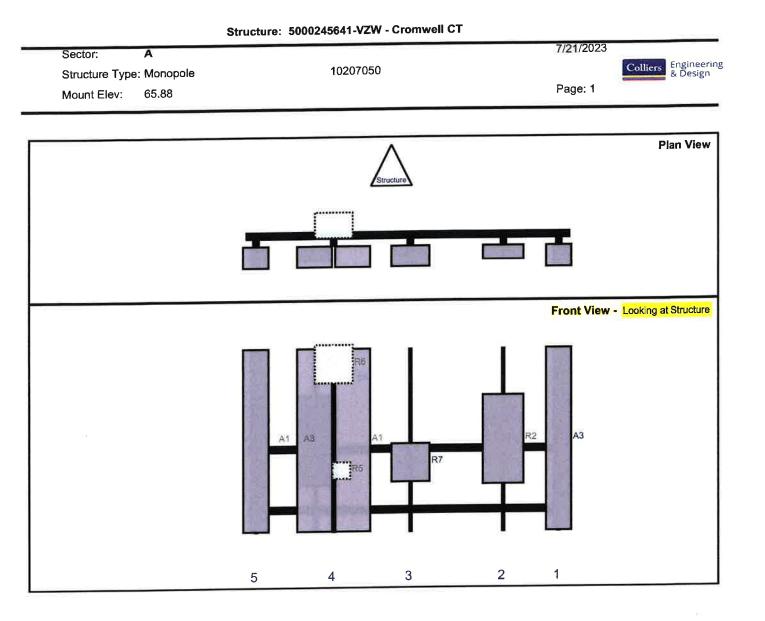
Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

□ Safety Climb in Good Condition

□ Safety Climb Damaged

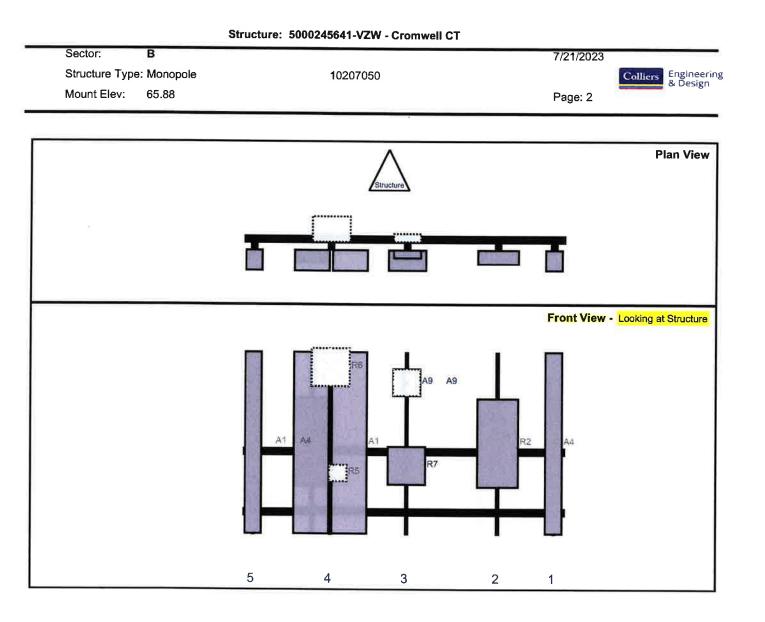
Certifying Individual:

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



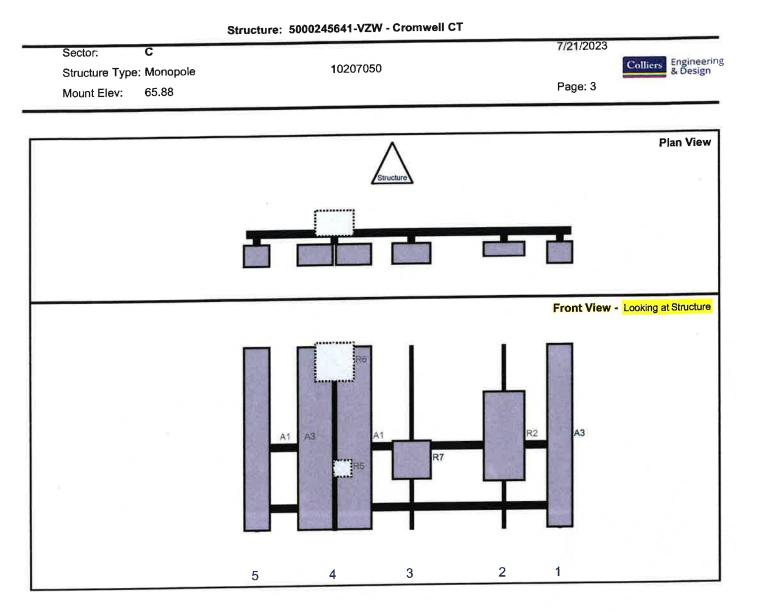
		Height	Width	H Dist	Pipe	Pipe	Ant	C. Ant	Ant		
Ref#	Model	(in)	(in)	Frm L.	#	Pos V	Pos	Frm T.	H Off	Status	Validation
A3	DB846F65ZAXY	72	10	123	1	а	Front	36	0	Retained	02/28/2022
R2	MT6407-77A	35.1	16.1	101	2	а	Front	36	0	Retained	02/28/2022
R7	B5/B13 RRH-BR04C	15	15	64.75	3	а	Front	45	0	Retained	02/28/2022
A1	JAHH-65B-R3B	72	13.8	34.5	4	а	Front	36	7.5	Retained	02/28/2022
A1	JAHH-65B-R3B	72	13.8	34.5	4	b	Front	36	-7.5	Retained	02/28/2022
R5	CBC78T-DS-43-2X	6.4	6.9	34.5	4	а	Behind	48	3	Retained	02/28/2022
R6	B2/B66A RRH-BR049	15	15	34.5	4	8	Behind	6	0	Retained	02/28/2022
A3	DB846F65ZAXY	72	10	4	5	а	Front	36	0	Retained	02/28/2022
OVP	RRFDC-3315-PF-48	29.5	16.5	200	Memb	er				Retained	02/28/2022

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		Height	Width	H Dist	Pipe	Pipe	Ant	C. Ant	Ant		
Ref#	Model	(in)	(in)	Fm L.	#	Pos V	Pos	Frm T.	H Off	Status	Validation
A4	DB846H80E-SX	72	6.5	123	1	а	Front	36	0	Retained	02/28/2022
R2	MT6407-77A	35.1	16.1	101	2	а	Front	36	0	Retained	02/28/2022
R7	B5/B13 RRH-BR04C	15	15	64.75	3	а	Front	45	0	Retained	02/28/2022
A9	KA-6030	10.6	10.9	64.75	3	а	Front	12	0	Added	
A9	KA-6030	10.6	10.9	64.75	3	b	Behind	12	0	Added	
A1	JAHH-65B-R3B	72	13.8	34.5	4	а	Front	36	7.5	Retained	02/28/2022
A1	JAHH-65B-R3B	72	13.8	34.5	4	b	Front	36	-7.5	Retained	02/28/2022
R5	CBC78T-DS-43-2X	6.4	6.9	34.5	4	а	Behind	48	3	Retained	02/28/2022
R6	B2/B66A RRH-BR049	15	15	34.5	4	8	Behind	6	0	Retained	02/28/2022
A4	DB846H80E-SX	72	6.5	4	5	а	Front	36	0	Retained	02/28/2022

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		Height	Width	H Dist	Pipe	Pipe	Ant	C. Ant	Ant		
Ref#	Model	(in)	(in)	Frm L.	#	Pos V	Pos	Frm T	H Off	Status	Validation
A3	DB846F65ZAXY	72	10	123	1	а	Front	36	0	Retained	02/28/2022
R2	MT6407-77A	35.1	16.1	101	2	a	Front	36	0	Retained	02/28/2022
R7	B5/B13 RRH-BR04C	15	15	64.75	3	а	Front	45	0	Retained	02/28/2022
A1	JAHH-65B-R3B	72	13.8	34.5	4	а	Front	36	7.5	Retained	02/28/2022
AI	JAHH-65B-R3B	72	13.8	34.5	4	b	Front	36	-7.5	Retained	02/28/2022
R5	CBC78T-DS-43-2X	6.4	6.9	34.5	4	a	Behind	48	3	Retained	02/28/2022
_	the second s	15	15	34.5	4	а	Behind	6	0	Retained	02/28/2022
		72	10	4	5	a	Front	36	0	Retained	02/28/2022
R6 A3	B2/B66A RRH-BR049 DB846F65ZAXY			(dittain	LINE A		-				

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				-	-		-	-		V3.0	Updaliet on 8-31	FCC #					
		Ante	nna Mount Ma	pping	Form (PATEN	T PEN	DING)	Contraction of the	i nin		1273764					
	-	SBA					Mapping I	Date:			1/16/						
MASER	Tower Owner: Site Name:		MWELL CT				Tower Ty			Monopole UNIKNOWN 64.33 54d for. Reproduction, transmission, publica SSE A 10.48, OSHA, FCC, FAA and other safe a] Vertical Offset Dimension Offset Dimension C2, C2							
THE COLLEGE DE LES DE L	Site Number or ID:	SBA:CT46			_		Tower He										
	Mapping Contractor:		GN & ENGINEERINF LL				Mount Ele	aidia anataton	or it was intended for Re	enroduction.	transmission,	publication,					
This antenna mapping form is the property	of TES and under PATENT PENDING. The forma	ion contained I	herein is considered confide	intial in na	ture and is t	o be used only tractor and th	e work shall	be complia	nt with ANSI/ASSE A 10.4	48, OSHA, FC	C, FAA and oth	er safety					
modification or disclosure by any method is	prohibited except by express written permission	n of TES. All me	eans and methods are the r	lance with	OSHA regul	rements.				-							
requirements that may apply. TES is not wa	prohibited except by express written permission mantying the usability of the safety climb as it n	inst på assesser	prior to each ove in comp														
			(Mount Pip	e Configurat	tion and Ge	ometries	[Unit = Inches]		M. Newl	-					
					Verbcal	Horizontal						Horizonta					
		Sector /	Mount Pipe Size & L	ength	Offset	Offset "C1,	Sector / Position	N	Aount Pipe Size & Leng	gth		Offset "C					
		Pasition		-	Dimension	C2, C3, etc."	Position										
		Al	PIPE 2.375"Øx0.15"x72	5" LONG	63.50	4.50	C1	PIPE 2.375	"Øx0.15"x72.5" LONG	;	63.50	4,50					
		A2	PIPE 2.375"Øx0.15"x72		63.50	26.50	C2		"Øx0.15"x72.5" LONG		63.50	26,50					
		A3	PIPE 2.375"Øx0.15"x72		63.50	62.75	C3		"Øx0.15"x72.5" LONG		63.50	62.75					
		A4	PIPE 2.375"Øx0.15"x72		63.50	93.00	C4		"Øx0.15"x72.5" LONG		63.50	93.00 123.50					
		AS	PIPE 2.375"Øx0.15"x72	5" LONG	63.50	123.50	C5	PIPE 2.375	"Øx0.15"x72.5" LONG	5	63.50	123.50					
		A6					C6										
Please insert the sketches	s of the antenna mount from the	B1	PIPE 2.375"Øx0.15"x72	5" LONG	63.50	4.50	D1				-						
"Sketches" tab with dir	mensions and members here.	B2	PIPE 2.375"Øx0.15"x72	5" LONG	63.50	26.50	D2 D3										
		B3	PIPE 2 375"Øx0.15"x72		63.50 63.50	62.75 93.00	D3	-									
		84	PIPE 2.375"Øx0.15"x72 PIPE 2.375"Øx0.15"x72		63.50	123.50	05										
		85					D6		Sec. 1								
		86	Distance between bo	ttom rail	and mour	t CL elevati	on (dim d	. Unit is ir	nches. See 'Mount Ele	ev Ref' tab	for details.						
		-	Distance	a from to	in of botto	m support r	all to lowe	est tip of a	nt./eqpt. of Carrier a	above. (N/P	11>10111:	6					
			Distance	from to	p of bottor	n support ra	sil to highe	st tip of a	nt./eqpt. of Carrier b	below. (N/A	(if > 10 ft.) :						
		-			Please ent	er addition:	al infomati	on or con	ments below.								
		-								_							
				100	10												
					100			_				26.11					
		Tower Fac	e Width at Mount Elev.	ft.]:	-	Tower Leg	Size or Pole	Shaft Diar	meter at Mount Elev. ((n.).	_	1 20.11					
SECTOR 8-	SECTOR C		Enter antenn	a model.	If not labe	led, enter "	Unknown	ke i	Mountin [Units are incl	ng Location hes and de		Photos antenn					
FACE B																	
LEC B	a la c	nts. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center- line (Ft.)	Vertical Distances"b _{1a} , b _{2a} , b ₃₄ , b ₁₅ ," (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)						
LEG B	and the c	Ants. Items				-	Size and	Center- line (Ft.)	Distances"b _{1a} , b _{2a} ,	Offset "h" (Use "-" if	Azimuth						
LEG B		Ants. Items				(in.)	Size and Qty	Center- line (Ft.)	Distances"b _{1a} , b _{2a} , b ₃₄ , b ₁₄ ," (Inches)	Offset "h" (Use "-" if Ant. is behind)	Azimuth (Degrees)	Numb					
		Antia	Known			-	Size and Qty	Center- line (Ft.)	Distances"b _{1a} , b _{2a} ,	Offset "h" (Use "-" if Ant. is	Azimuth	Numb					
		Ant _{1a}		(in.)	(in.)	(in.)	Size and Qty	Center- line (Ft.)	Distances"b _{1a} , b _{2a} , b ₃₄ , b ₁₄ ," (Inches)	Offset "h" (Use "-" if Ant. is behind)	Azimuth (Degrees)	Numb(
1		Ant _{1a} Ant _{1b}	Known UNKNOWN-PANEL	(in.) 12.75	(in.)	(in.)	Size and Qty	Center- line (Ft.)	Distances"b _{1a} , b _{2a} , b ₃₄ , b ₁₄ ," (Inches)	Offset "h" (Use "-" if Ant. is behind)	Azimuth (Degrees)	Numb 244					
		Ant ₁₀ Ant ₁₁ Ant ₁₂ Ant ₁₂	Known UNKNOWN-PANEL B4 RRH2x60-4R	(in.) 12.75 10.63	(in.) 6.50 5.75	(in.) 70.25 36.60	Size and Qty	Center- line (Ft.) 67.0383	Distances"b _{1a} , b _{2a} , b _{3a} , b _{1b} , " (Inches) 31.00	Offset "h" (Use "-" if Ant. is behind) 16.75	Azimuth (Degrees)	Numb					
1		Ant ₁₀ Ant ₁₀ Ant ₁₂ Ant ₂₀	Known UNKNOWN-PANEL	(in.) 12.75	(in.) 6.50	(in.) 70.25	Size and Qty	Center- line (Ft.) 67.0383 67.2675	Distances"b _{1a} , b _{2a} , b _{3a} , b _{1b} , " (Inches) 31.00 28.25	Offset "h" (Use "-" if Ant. is behind) 16.75 -14.00	Azimuth (Degrees) 0.00	Numb 244 244					
1		Ant _{1b} Ant _{1b} Ant _{1c} Ant _{2a} Ant _{2b}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B	(in.) 12.75 10.63 11.90	(in.) 6.50 5.75 7.10	(in.) 70.25 36.60 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383	Distances"b1a, b2a, b3a, b1b" (inches) 31.00 28.25 31.00	Offset "h" (Use "-" if Ant. is behind) 16.75 -14.00 7.75	Azimuth (Degrees) 0.00	Numbe 244 244 244					
1		Ant _{1b} Ant _{1b} Ant _{1c} Ant _{2a} Ant _{2b} Ant _{2c} Ant _{3a}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30	(in.) 12.75 10.63 11.90 12.00	(in.) 6.50 5.75 7.10 9.00	(in.) 70.25 36.60 72.00 21.60	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.0383 67.8925	Distances"b12, b22, b33, b13, "(Inches) 31.00 28.25 31.00 20.75	Offset "h" (Use "-" If Ant.is behind) 16.75 -14.00 7.75 -15.50	Azimuth (Degrees) 0.00 0.00	Number 244					
1		Ant _{1b} Ant _{1b} Ant _{1c} Ant _{2a} Ant _{2b}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B	(in.) 12.75 10.63 11.90	(in.) 6.50 5.75 7.10	(in.) 70.25 36.60 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383	Distances"b1a, b2a, b3a, b1b" (inches) 31.00 28.25 31.00	Offset "h" (Use "-" if Ant. is behind) 16.75 -14.00 7.75	Azimuth (Degrees) 0.00	Number 244 244 244 244 244					
1		Ant _{1b} Ant _{1b} Ant _{1c} Ant _{2a} Ant _{2b} Ant _{2c} Ant _{3a}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30	(in.) 12.75 10.63 11.90 12.00	(in.) 6.50 5.75 7.10 9.00	(in.) 70.25 36.60 72.00 21.60	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383	Distances" b _{1x} , b _{2y} , b _{3x} , b _{1b} ," (Inches) 31.00 28.25 31.00 20.75 31.00	Offset "h" (Use "-" if Ant is behind) 16.75 -14.00 7.75 -15.50 7.75	Azimuth (Degrees) 0.00 0.00	Number 244 244 244 244 246 246					
		Ant _{1a} Ant _{1b} Ant _{1b} Ant _{1c} Ant _{2a} Ant _{2b} Ant _{2c} Ant _{3a}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30	(in.) 12.75 10.63 11.90 12.00	(in.) 6.50 5.75 7.10 9.00	(in.) 70.25 36.60 72.00 21.60	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.0383 67.8925	Distances" b _{1x} , b _{2y} , b _{3x} , b _{1b} ," (Inches) 31.00 28.25 31.00 20.75 31.00 25.50	Offset "h" (Use "." If Ant is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25	Azimuth (Degrees) 0.00 0.00 0.00	Number 244 244 244 246 246 246					
SECTOR A LE	Artis	Ant ₁₀ Ant ₁₀ Ant ₂₀ Ant ₂₀ Ant ₂₀ Ant ₂₀ Ant ₃₀ Ant ₃₀	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30	(in.) 12.75 10.63 11.90 12.00 11.90	(in.) 6.50 5.75 7.10 9.00 7.10	(in.) 70.25 36.60 72.00 21.60 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383	Distances" b _{1x} , b _{2y} , b _{3x} , b _{1b} ," (Inches) 31.00 28.25 31.00 20.75 31.00	Offset "h" (Use "-" if Ant is behind) 16.75 -14.00 7.75 -15.50 7.75	Azimuth (Degrees) 0.00 0.00	Number 244 244 244 246 246 246					
SECTOR A LE	Artis	Ant ₁₄ Ant ₁₄ Ant ₁₂ Ant ₂₄ Ant ₂₆ Ant ₂₆ Ant ₃₆ Ant ₃₆ Ant ₃₆ Ant ₃₆	Known UNKNOWN-PANEL 84 RRH2x60-4R 5BNHH-1D65B 813 RRH4x30 5BNHH-1D65B	(in.) 12.75 10.63 11.90 12.00 11.90 12.00	(in.) 6.50 5.75 7.10 9.00 7.10 7.20	(in.) 70.25 36.60 72.00 21.60 72.00 21.20	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967	Distances" b _{1x} , b _{2y} , b _{3x} , b _{1b} ," (Inches) 31.00 28.25 31.00 20.75 31.00 25.50	Offset "h" (Use "." If Ant is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25	Azimuth (Degrees) 0.00 0.00 0.00	Number 244 244 244 246 246 246					
SECTOR A LE	Artis	Anti _{ka} Anti _b Anti _c Anti _c Anti _c Anti _c Anti _c Anti _c Anti _c Anti _c Anti _c Anti _c	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30	(in.) 12.75 10.63 11.90 12.00 11.90 12.00	(in.) 6.50 5.75 7.10 9.00 7.10 7.20	(in.) 70.25 36.60 72.00 21.60 72.00 21.20	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967	Distances" b _{1x} , b _{2y} , b _{3x} , b _{1b} " (Inches) 31.00 28.25 31.00 20.75 31.00 25.50	Offset "h" (Use "." If Ant is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25	Azimuth (Degrees) 0.00 0.00 0.00	Numbe 244 244 244 246 246 246					
SECTOR A LE	Artis	Antisa Antisa Antis Antis Antis Antis Antis Antis Antis Antis Antis	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances"b1x, b2x, b3x, b1b" (inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75	Azimuth (Degrees) 0.00 0.00 0.00	Numbe					
SECTOR A LE	Artis	Ant _{sa} Ant _{sb} Ant _{sb}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30	(in.) 12.75 10.63 11.90 12.00 11.90 12.00	(in.) 6.50 5.75 7.10 9.00 7.10 7.20	(in.) 70.25 36.60 72.00 21.60 72.00 21.20	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.8925 67.0383	Distances" b _{1x} , b _{2y} , b _{3x} , b _{1b} " (Inches) 31.00 28.25 31.00 20.75 31.00 25.50	Offset "h" (Use "." If Ant is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25	Azimuth (Degrees) 0.00 0.00 0.00	Numbe					
SECTOR A LE	Artis	Antisa Antisa Antis Antis Antis Antis Antis Antis Antis Antis Antis	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances"b1x, b2x, b3x, b1b" (inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75	Azimuth (Degrees) 0.00 0.00 0.00	Numbe 244 244 244 246 246 246 246 246 246					
SECTOR A LE	Ants a Ante Ante	Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise An	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B UNKNOWN-PANEL	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances"b1x, b2x, b3x, b1b" (inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75	Azimuth (Degrees) 0.00 0.00 0.00	Numbe 244 244 244 246 246 246 246 246 246					
SECTOR A LE	Artis	Ant _{as} Ant _{as} Ant _{ab} Ant _{ab} Ant _{ab} Ant _{ab} Ant _{ab} Ant _{ab} Ant _{ab} Ant _{ac} Ant _{ab} Ant _{ac} Ant _{ab} Ant _{ac}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90 12.75	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10 6.50	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00 72.00 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances" b1x, b22, b3x, b1b" (Inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75 -16.75	Azimuth (Degrees) 0.00 0.00 0.00	Numbe 244 244 244 246 246 246 246 246 246					
SECTOR A LE	Ants a Ante Ante	Ant _{sa} Ant _{sa} Ant _{sb} Ant _{sc} Ant _{sb} Ant _{sb} Ant _{sb} Ant _{sb} Ant _{sb}	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B UNKNOWN-PANEL UNKNOWN-PANEL RRFDC-3315-PF-48	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90 12.75	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10 6.50	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00 72.00 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances" b1x, b22, b3x, b1b" (Inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75 -16.75	Azimuth (Degrees) 0.00 0.00 0.00	Numbe 244 244 244 246 246 246 246 246 246					
SECTOR A	Ants a Ante Ante	Ant ₁₂ Ant ₁₂ Ant ₂₄ Ant ₂₅ Ant ₂₆ Ant ₂₆ Ant ₂₆ Ant ₂₆ Ant ₃₆ Ant ₃₆	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B UNKNOWN-PANEL UNKNOWN-PANEL RRFDC-3315-PF-48	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90 12.75	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10 6.50	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00 72.00 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances" b1x, b22, b3x, b1b" (Inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75 -16.75	Azimuth (Degrees) 0.00 0.00 0.00	Photo Numbe 244 244 244 246 246 246 246 246 246 246					
SECTOR A	Ants a Ante Ante	Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antise Antion Antise Antion Antise Antion Antise Antion Antise Antion Antise Antion Antise Antion Antise Antion Antise Antion Antise Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion Antion An	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B UNKNOWN-PANEL UNKNOWN-PANEL RRFDC-3315-PF-48	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90 12.75	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10 6.50	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00 72.00 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances" b1x, b22, b3x, b1b" (Inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75 -16.75	Azimuth (Degrees) 0.00 0.00 0.00	Numbe 244 244 244 246 246 246 246 246 246					
SECTOR A	Ants a Ante Ante	Ant ₁₂ Ant ₁₂ Ant ₂₄ Ant ₂₅ Ant ₂₆ Ant ₂₆ Ant ₂₆ Ant ₂₆ Ant ₃₆ Ant ₃₆	Known UNKNOWN-PANEL B4 RRH2x60-4R SBNHH-1D65B B13 RRH4x30 SBNHH-1D65B B25 RRH4x30 SBNHH-1D65B UNKNOWN-PANEL UNKNOWN-PANEL RRFDC-3315-PF-48	(in.) 12.75 10.63 11.90 12.00 11.90 12.00 11.90 12.75	(in.) 6.50 5.75 7.10 9.00 7.10 7.20 7.10 6.50	(in.) 70.25 36.60 72.00 21.60 72.00 21.20 72.00 72.00 72.00	Size and Qty	Center- line (Ft.) 67.0383 67.2675 67.0383 67.8925 67.0383 67.4967 67.0383	Distances" b1x, b22, b3x, b1b" (Inches) 31.00 28.25 31.00 20.75 31.00 25.50 31.00 31.00	Offset "h" (Use "s" if Ant.is behind) 16.75 -14.00 7.75 -15.50 7.75 -25.25 7.75 -16.75	Azimuth (Degrees) 0.00 0.00 0.00	Numbe 244 244 244 246 246 246 246 246 246					

1	nt Azimu for Each		ee)		lmuth (Degree) ch Sector	Ant _{1a}		-		r	Sector B	<u></u>		1	1	-
ector A:	0.00	De	Leg A		Deg	Ant	DR846F65ZAXY	10.75	6.50	70.05				-		
ector B:	120.00	_	-		and the second s	Antic	DR040F03ZAAT	12.75	6.50	70.25	-	67.0383	31.00	16.75	120.00	24
ector C:	240.00	-			Deg									-		
	240.00	-	-	-	Deg	Ant _{2a}	B4 RRH2x60-4R	10.63	5.75	36.60		67.2675	28.25	-14.00		24
ector D:	_	Deg	-		Deg	Ant _{2b}	SBNHH-1D658	11.90	7.10	72.00		66.955	32.00	14.00	120.00	24
	-		_	cility information		Ant _{2r}										1
cation:	0.00	Deg		N/A		Ant _{3a}	B13 RRH4x30	12.00	9.00	21.60		67.8925	20.75	-15.50		24
	Corr	osion Ty	pe:	N/A		Antsh	SBNHH-1D658	11.90	7.10	72.00		66.955	32.00	14.00	120.00	24
imbing -		Access:		Climbing path was	unobstructed	Antac		11.50	7.10	72.00		00.333	32.00	14.00	120.00	24
acility -		ondition		Good condition.							_			-		
		ononion	Called Max	Good condition.		Ant _{4a}	B25 RRH4x30	12.00	7.20	21,20	_	67.4967	25.50	-15.25		24
	3	a 111	110.	E.		Ant _{4b}	SBNHH-1D65B	11.90	7.10	72.00		66.955	32.00	14.00	120.00	24
E.	1	自己	100	1 1		Antac]				
		1111				Antse										
	-		44			Ant _{5b}	DR846F65ZAXY	12.75	6.50	70.25		66.5383	37.00	16.75	120.00	24
6.	1	511	118-	U. 17	2	Antsc									10000	-
		11	11			Ant on		-								-
1	i i	- il l	111-		Distance I ama to be state	Standoff	RRFDC-3315-PF-48	15.73	10.25	25.66			0.58	6.30		2
-		LE	111		PLANDER LAND IN THE MADE PLANDER MANUTA IN THE DESIGN OF ANY JOB TO PLANDER MENTS (NAME OF A 18 PT 1	Ant on								1		-
10		11	111			Standoff			-							
ರ	1	-	- aller	t)=t	1	Ant on			1.1.2.2							
	/	111	11		INSTRUCT FOR THE REAL PROPERTY OF ADDRESS TO	Tower										_
1	0	r III	1	y -37.51.10290		Ant on			-							
1	1	7111	1 Mr	1 1		Tower										_
		1				Act		r i			Sector C					_
3		-2	2 -			Ant					-					
L,	4 1		111	L L		Ant _{1b}	UNKNOWN-PANEL	9.50	8.00	72.50	-	66.6842	35.25	11.00	240.00	2
		6 ***	U.I.			Antic								l.		
1	1	7	- m	L.		Ant _{2e}	B4 RRH2x60-4R	10.63	5.75	36.60		67.2675	28.25	-14.00		2
		1		1		Ant _{2b}	SBNHH-1D65B	11.90	7.10	72.00		67.0383	31.00	7.75	240.00	25
11						Ant _{2c}			-							
4 1	474			in the second se		Anta	B13 RRH4x30	12.00	9.00	21.60		67.8925	20.75	-15.50		
10		7	-7	7 N W 1200	-	Ant _{3b}	SBNHH-1D65B	11.90	7.10	72.00					240.00	25
			1			Antac	5511111 10055	11.50	7.10	72.00	-	67.0383	31.00	7.75	240.00	25
-	e a				and the local anti-	-					-					
					Street the to be attend theory we to come while without we to come while No. 7	Ant _{4e}	B25 RRH4x30	12.00	7.20	21.20		67.4967	25.50	-15.25		25
9				>		Ant _{4b}	SBNHH-1D65B	11.90	7.10	72.00		67.0383	31.00	7.75	240.00	25
- 41	and the second			1	1	Ant _{ac}					_					
1.1	1	τ ¹	1	L.	FIND FOR THE WITH	Ant _{sa}									-	
LCTOM POWE WANT			/		WANT FOR THE COLUMN LARGE AND THE MARKED IN CO- MILLENT OF CAMERIC INCOM 1949 F - 10, 171	Ant _{5b}	UNKNOWN PANEL	9.50	8.00	72.50		66.6842	35.25	11.00	240.00	25
			1	E U LANC		Antsc										
m	1	7	T	I A		Ant on		_						-		
1 =	-		= 6			Standoff										
		1.1				Ant on						10				
L		5	74		n,	Standoff Ant on				_	_					_
		0	_			Tower										
						Ant on							1.5			_
						Tower										
						A				_	Sector D					
						Ant		-		_	_					
						Ant _{1b}					-					
						Ant _{1c}										
						Ant _{2a}										
						Ant _{2b}					-					
						Ant _{2c}										
						Ant _{3a}										
						Ant _{3b}				-		-				_
						Antac			-			-				
						Ant _{4a}								+ - 1		-
					-				- 0.4							-
						Ant _{4b}										_
					1	Ant _{4c}			_							
					1	Antsa										
					1	Ant _{5b}						-				
					ſ	Antsc										
					1	Ant on										_
					1	Standoff										
					ſ	Ant on					T					
						Standoff				_						_
						Ant an Tower										
						LOW BL								I		
					1	Anton					1100					
						Ant on Tower										
						Tower	ly and Structural Issue									

1	COAX: TOTAL (14): (6) FH 1-5/8, (2) 1.50"Ø, (6) FH 1-5/8 CUT COAX	
2		
з		
4		
5		
6		
7		
8		

Mapping Notes

1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.) 2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.

3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.

4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.

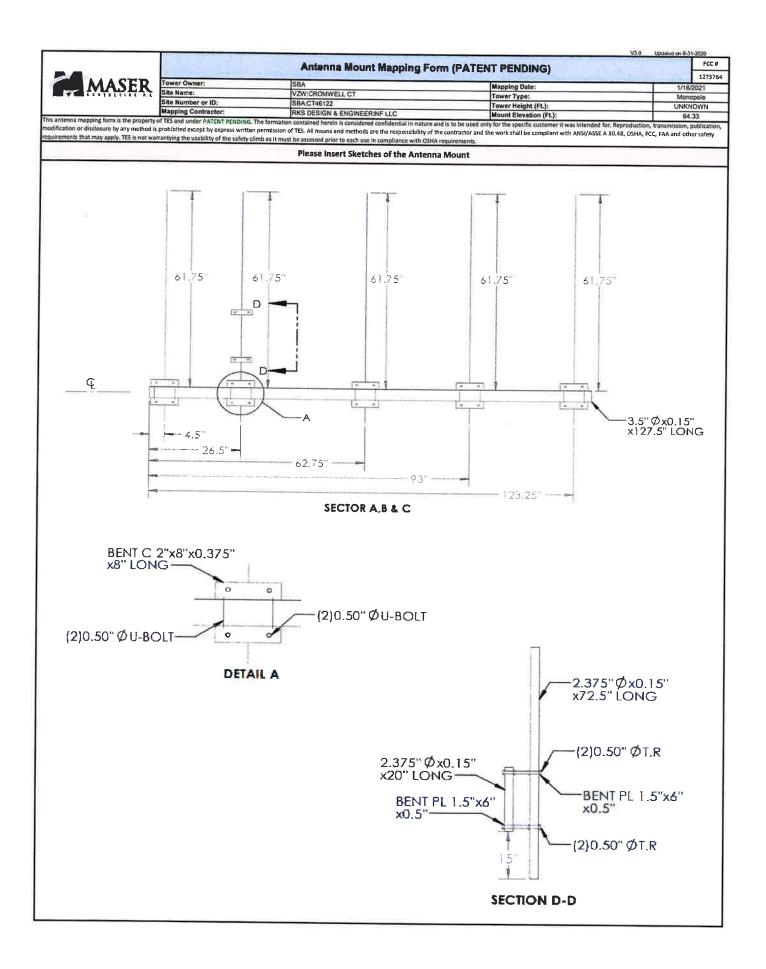
Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.

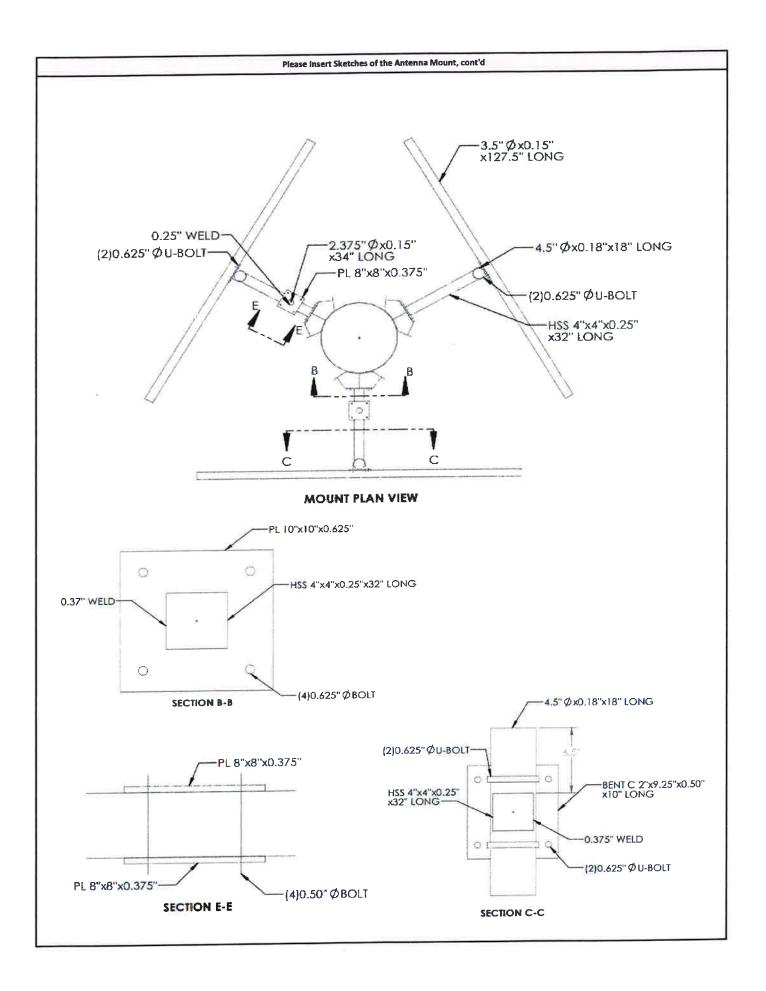
5. Please measure and report the size and length of all existing antenna mounting pipes. 7. Please measure and report the size and length of all existing antenna mounting pipes.

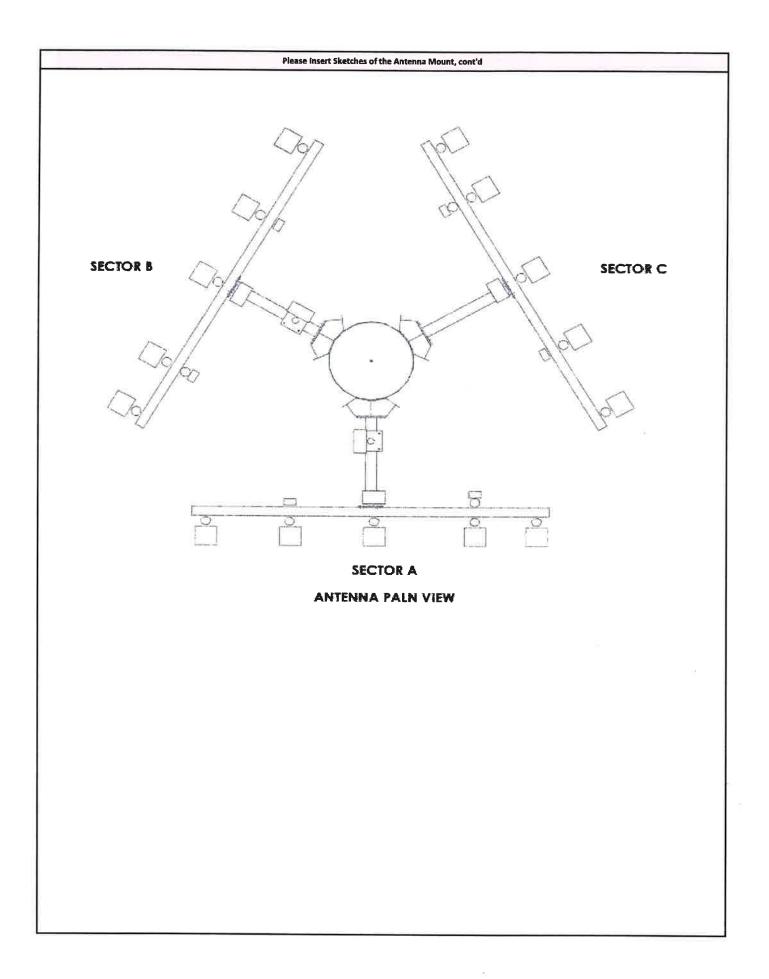
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions

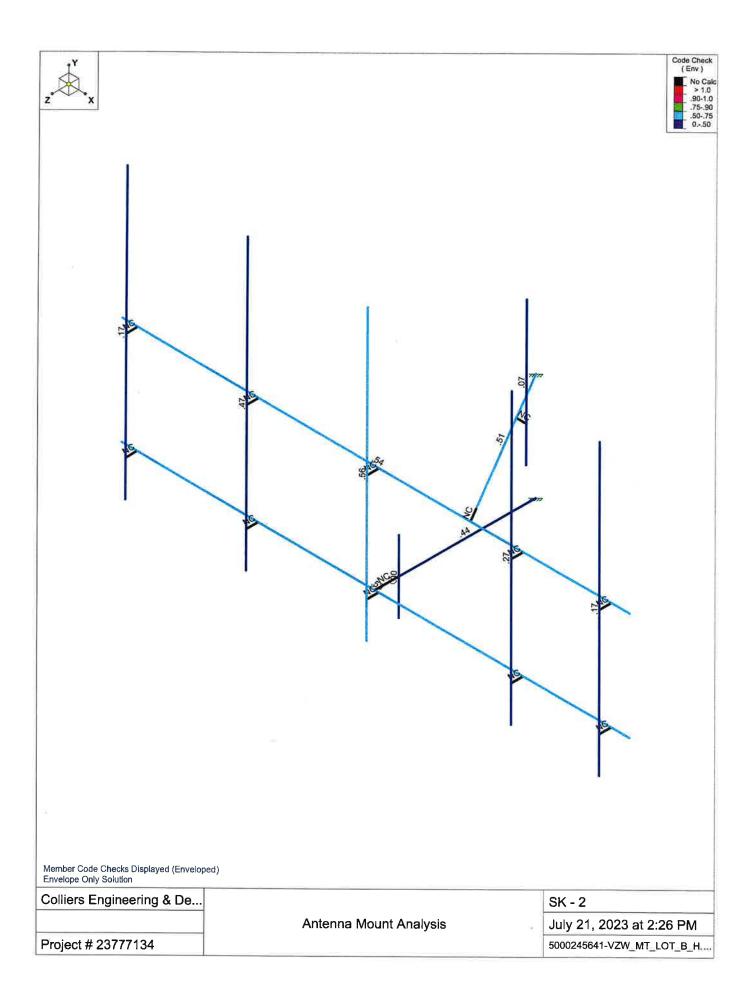
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

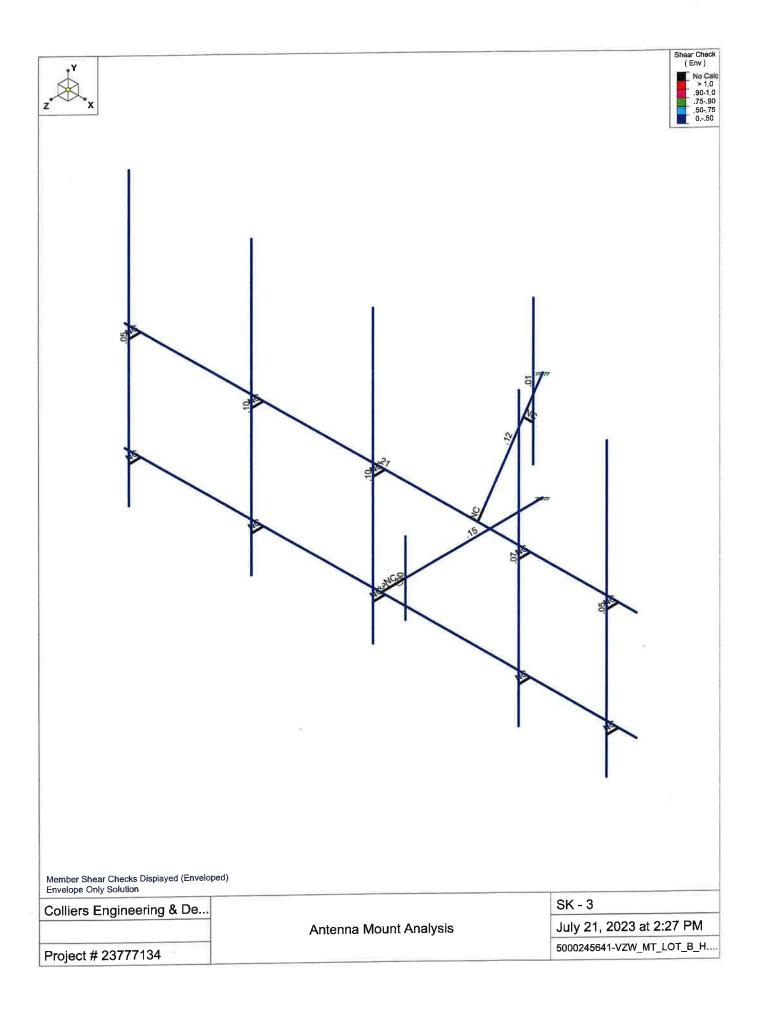






Envelope Only Solution		SK - 1
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Project # 23777134	Δ.	5000245641-VZW_MT_LOT_B_H







: Colliers Engineering & Design

Project # 23777134 Antenna Mount Analysis July 21, 2023 2:27 PM Checked By:____

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Basic Load Cases

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1	Antenna D	Category					Point	Distributed	Area(Member)	Suna.
	Antonna D	None	_				48			
	Antenna Di	None					48			
3	Antenna Wo (0 Deg)	None					48			
4	Antenna Wo (30 Deg)	None			_		48			
5	Antenna Wo (60 Deg)	None					48			
6	Antenna Wo (90 Deg)	None					48			
7	Antenna Wo (120 Deg)	None					48			
8	Antenna Wo (150 Deg)	None					48			
9	Antenna Wo (180 Deg)	None					48			
10	Antenna Wo (210 Deg)	None					48			
11	Antenna Wo (240 Deg)	None				1-1-1-1-1-1	48			
12	Antenna Wo (270 Deg)	None					48			
13	Antenna Wo (300 Deg)	None		1			48			
14	Antenna Wo (330 Deg)	None					48			
15	Antenna Wi (0 Deg)	None					48			
16	Antenna Wi (30 Deg)	None					48			
17	Antenna Wi (60 Deg)	None					48			
18	Antenna Wi (90 Deg)	None	_		1		48			
19	Antenna Wi (120 Deg)	None					48			
20	Antenna Wi (150 Deg)	None		1		_	48			<u> </u>
21	Antenna Wi (180 Deg)	None					48			
22	Antenna Wi (210 Deg)	None					48			
23	Antenna Wi (240 Deg)	None					48			
24	Antenna Wi (270 Deg)	None					48			
25	Antenna Wi (300 Deg)	None					48			
26	Antenna Wi (330 Deg)	None					48			
27	Antenna Wm (0 Deg)	None				_	48			
28	Antenna Wm (30 Deg)	None					40	the second second		
29	Antenna Wm (60 Deg)	None				_	40			
30	Antenna Wm (90 Deg)	None					48			
31	Antenna Wm (120 Deg)	None				-	48			_
32	Antenna Wm (150 Deg)	None								-
33	Antenna Wm (180 Deg)	None		-			48			
34	Antenna Wm (210 Deg)						48			
35	Antenna Wm (240 Deg)	None					48			-
36	Antenna Wm (270 Deg)	None	327 PC				48			
37	Antenna Wm (300 Deg)	None		_			48			
38	Antenna Wm (300 Deg)	None					48			
39	Structure D	None	-		-		48			
40	Structure Di	None		-1						
		None	_	-				11		
41	Structure Wo (0 Deg)	None						22		
42	Structure Wo (30 Deg)	None			_		-	22)
43	Structure Wo (60 Deg)	None						22		
44	Structure Wo (90 Deg)	None						22		
	Structure Wo (120 Deg)	None	_					22		
	Structure Wo (150 Deg)	None						22		1
	Structure Wo (180 Deg)	None						22		
	Structure Wo (210 Deg)	None				-	4040	22		
	Structure Wo (240 Deg)	None						22		
	Structure Wo (270 Deg)	None				-		22		
	Structure Wo (300 Deg)	None						22		
	Structure Wo (330 Deg)	None						22		
53	Structure Wi (0 Deg)	None						22		
54	Structure Wi (30 Deg)	None						22		
55	Structure Wi (60 Deg)	None						22		
56	Structure Wi (90 Deg)	None						22		

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Colliers Engineering & Design

Project # 23777134 Antenna Mount Analysis July 21, 2023 2:27 PM Checked By:____

Basic Load Cases (Continued)

	BLC Description	Category	X Gr	Y Gr	Z Gr	Joint	Point	Distributed	Area(Member)	Surfa
57	Structure Wi (120 Deg)	None						22		
58	Structure Wi (150 Deg)	None						22		
59	Structure Wi (180 Deg)	None						22		
60	Structure Wi (210 Deg)	None			2			22	-	
61	Structure Wi (240 Deg)	None				_		22		
62	Structure Wi (270 Deg)	None						22		
63	Structure Wi (300 Deg)	None					-	22		
64	Structure Wi (330 Deg)	None						22		
65	Structure Wm (0 Deg)	None						22		
66	Structure Wm (30 Deg)	None						22		
67	Structure Wm (60 Deg)	None						22		
68	Structure Wm (90 Deg)	None					_	22		
69	Structure Wm (120 Deg)	None						22		
70	Structure Wm (150 Deg)	None			1. A.			22		
71	Structure Wm (180 Deg)	None			La serie de			22		
72	Structure Wm (210 Deg)	None						22	1	
73	Structure Wm (240 Deg)	None						22		
74	Structure Wm (270 Deg)	None						22		
75	Structure Wm (300 Deg)	None						22		
76	Structure Wm (330 Deg)	None						22		
77	Lm1	None					1			
78	Lm2	None					1		and the second second second	
79	Lv1	None			_		1			
80	Lv2	None					1			
81	Antenna Ev	None					48		-	
82	Antenna Eh (0 Deg)	None			_		32			
83	Antenna Eh (90 Deg)	None					32			
84	Structure Ev	ELY		0442		1				
85	Structure Eh (0 Deg)	ELZ			1104	_				
86	Structure Eh (90 Deg)	ELX	.1104							

Load Combinations

	Description	S., F	DelSF	BLC	Fa	BLC	Fa	BLC	Fa.	. B	Fa.	. B	Fa.	. B	Fa	BLC	Fa	. B	. Fa	. B	. Fa	. B	. Fa
1	1.2D+1.0Wo (0 Deg)		Y	1	1.2	39	1.2	3	1	41	_							-	-	-		-	-
2	1.2D+1.0Wo (30 Deg)	Yes	Y	1	1.2		1.2	4	1	42			-		1.00			+	-	-	-	-	
3	1.2D+1.0Wo (60 Deg)	Yes	Y	1	1.2	spectrum and international	1.2	1000	1	43	1	+	-			+	+			+		1.5	
4	1.2D+1.0Wo (90 Deg)			1	1.2	-	1.2	6	1	44	1	-	-	-		+		+	-	1	-	-	1
5	1.2D+1.0Wo (120 De.			1	1.2		1.2		1	45		-	-			-		-	-		-	+	
6	1.2D+1.0Wo (150 De.			1	1.2	-	1.2		1	46	1			+	-	-		+		+-	-		
7	1.2D+1.0Wo (180 De.			1	1.2		1.2		1	47	1	-		+	+	+-	+	-		+		-	
8	1.2D+1.0Wo (210 De.			1	1.2		1.2	10	1	48		+		-	-			-	-	-		+	
9	1.2D+1.0Wo (240 De.			1	1.2	-	1.2	11	1	49				-		10		+		-	-	-	
10	1.2D+1.0Wo (270 De.			1	1.2	-		-	1	50	1	+		+	+	+		+				+ -	-
11	1.2D+1.0Wo (300 De.			1	1.2		1.2		1	51				+		-		-	+	+-		-	
12	1.2D+1.0Wo (330 De.			1	1.2		1.2		1	52	1	45	1	50	1	-	-			1		-	
13	1.2D + 1.0Di + 1.0Wi.			1	1.2	10000	1.2	_	1	40	-	15		53 54		-		C. C. C. C.	-	-	1		
14	1.2D + 1.0Di + 1.0Wi.			1	1.2	-	1.2		1	40	1	17	-	55		-	-	+		1	1-	1	
15	1.2D + 1.0Di + 1.0Wi.		Y	1	1.2	and the second second	1.2	1000		40	and the second second	+	+	56		10.00		+		1		1-	
16	1.2D + 1.0Di + 1.0Wi.		Y	1	1.2		1.2	2	1	40		18	-	57				+	-	-	1	-	
17	1.2D + 1.0Di + 1.0Wi.		Y	1	1.2		1.2	2	1	40	-	19 20		58		-	-	-	1-	1	-	-	
18	1.2D + 1.0Di + 1.0Wi.		Y	1	1.2		1.2	-		40	1	20	-		1	-			-	1		-	
19	1.2D + 1.0Di + 1.0Wi.		Y	11	1.2		1.2	2	1	40	1	22		60	-		1	1	1	17.		-	
20	1.2D + 1.0Di + 1.0Wi.		Y	- 1-	1.2		1.2	2	1	40	1	22		61				1		+-	t	1	1
21	1.2D + 1.0Di + 1.0Wi.		Y	1	1.2		1.2	2	1		1	23		62				-	-	-			
22	1.2D + 1.0Di + 1.0Wi.	Yes	Y	1	1.2	39	1.2	12	-	40		124		02			-	-				-	2000

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Project # 23777134 Antenna Mount Analysis July 21, 2023 2:27 PM Checked By:____

Load Combinations (Continued)

	Description SI	PDelSR	. BLC	Fa	BLC	Fa.	BLC	Fa.	B	Fa	в	Fa	в	Fa	BLC	Fa	в	Fa	в	Fa	B	Fa
23	1.2D + 1.0Di + 1.0WiYes	Y	1	1.2	39	1.2	2	1		1		1	63				1	T	1		1	- G
24	1.2D + 1.0Di + 1.0Wi Yes	Y	1	1.2		1.2		1		1		1		1				1			1	
25	1.2D + 1.5Lm1 + 1.0 Yes	Y	1	1.2		1.2			and the second se	-		1			1	1		1	1-	1		
26	1.2D + 1.5Lm1 + 1.0Yes	Y	1	1.2		1.2						1				-	+	1	-			
	1.2D + 1.5Lm1 + 1.0Yes		1	1.2		1.2		_			67		1 101	-					-			
	1.2D + 1.5Lm1 + 1.0 Yes		1	1.2		1.2		1.5			68		+	-		-	-	-	-	-	-	-
	1.2D + 1.5Lm1 + 1.0 Yes		1	1.2		1.2					69		1	-	1		-	-	-	1	-	
	1.2D + 1.5Lm1 + 1.0Yes		1	1.2		1.2					70		+				-	-			-	
	1.2D + 1.5Lm1 + 1.0 Yes		1	1.2		1.2					71		-	1		-	-	-	-	-		
	1.2D + 1.5Lm1 + 1.0Yes		1	1.2		1.2											-					
	1.2D + 1.5Lm1 + 1.0Yes		1								72		-	-			-	-	-			
	1.2D + 1.5Lm1 + 1.0Yes			1.2		1.2		1.5			73								-	-		
	1.2D + 1.5Lm1 + 1.0 Yes		1	1.2		1.2		1.5			74		-		-		-	-	-		_	_
	1.2D + 1.5Lm1 + 1.0 Yes		1	1.2		1.2	11	1.5	31	1	75						-					
	1.2D + 1.5Lm2 + 1.0 Yes		1	1.2	39	1.2	11	1.5	38	1	76	_	1				-	-		-	-	_
	1.2D + 1.5Lm2 + 1.0 Yes		+1-	1.2	39	1.2	78	1.5	21	1	65		-						-			1192
			1			1.2					66		-		-			-	-	-		
	1.2D + 1.5Lm2 + 1.0Yes		1	1.2		1.2					67		_			_	-					
	1.2D + 1.5Lm2 + 1.0Yes		1	1.2		1.2	78	1.5	30	1	68								<u>11 I</u>			
	1.2D + 1.5Lm2 + 1.0Yes		1	1.2		1.2					69				-			-				
	1.2D + 1.5Lm2 + 1.0Yes		1	1.2		1.2					70					1.1						
	1.2D + 1.5Lm2 + 1.0Yes		1			1.2					71											
	1.2D + 1.5Lm2 + 1.0Yes		1	1.2		1.2					72			_							_	-
	1.2D + 1.5Lm2 + 1.0Yes		1	1.2		1.2					73	1										
	1.2D + 1.5Lm2 + 1.0 Yes		1	1.2		1.2		1.5			74	1										
	1.2D + 1.5Lm2 + 1.0 Yes		1	1.2	39	1.2	78	1.5	37	1	75	1	0									
48	1.2D + 1.5Lm2 + 1.0 Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1 Yes	Y	1	1.2	39	1.2	79	1.5		1		1										
50	1.2D + 1.5Lv2 Yes	Y	1	1.2	39	1.2	80	1.5	l.								() 		1			
51	1.4D Yes		1		39																	
52	1.2D + 1.0Ev + 1.0E Yes	Y	1	1.2		1.2	81	1	E	1	82	1	83		ELZ	1	E					
	1.2D + 1.0Ev + 1.0E Yes		1	1.2		1.2		1	E	1					ELZ	.866	E	.5			-	1
54	1.2D + 1.0Ev + 1.0E Yes	Y	1	1.2		1.2		1	E		82				ELZ			.866				
55	1.2D + 1.0Ev + 1.0E Yes	Y	1			1.2		1	E	1	82		83		ELZ		E		-			
56	1.2D + 1.0Ev + 1.0E Yes	Y	1			1.2		1	E	1					ELZ			.866	1			
57	1.2D + 1.0Ev + 1.0E Yes	Y	1	1.2		1.2		-	E	1					ELZ					-		
	1.2D + 1.0Ev + 1.0E Yes		1	-		1.2		1	E	1		-1			ELZ			1.0	-		-	
	1.2D + 1.0Ev + 1.0E Yes		1	1.2		1.2		1	E	1					ELZ			5				
	1.2D + 1.0Ev + 1.0E Yes		1	1.2		1.2			E	1					ELZ				-		-	-
	1.2D + 1.0Ev + 1.0E Yes		1	1.2	39		81		E	1	82	0			ELZ			-1				
	100 105 105	Y	1	1.2				-	E	1		5			ELZ							_
	1.2D + 1.0Ev + 1.0E Yes		1	1.2	39		81	_	E	1					ELZ				-	_		-
	0.9D - 1.0Ev + 1.0Eh Yes		1	.9	39				E			1						5		_		-
	0.9D - 1.0Ev + 1.0Eh Yes		1		39	.9	81 81				02	866	00	E	ELZ							
	0.9D - 1.0Ev + 1.0EhYes		1						E	-	02	.000	00	.C.	ELZ	.000	E	C.	-	_		
		Y	1	.9		.9			E	-1	82	.5						.866		_		
1	0.9D - 1.0Ev + 1.0Eh. Yes	Transfer of the local division of the local	1	.9	39		81				82				ELZ		E					
			1	.9	39		81											.866				
		Y	1	.9	39										ELZ						_	
	0.9D - 1.0Ev + 1.0Eh. Yes		1	.9	39	.9	81				82				ELZ							
		Y	1	.9	39										ELZ					-		-
		Y	1	.9	39		81										E	8				
	0.9D - 1.0Ev + 1.0Eh. Yes		1	.9	39	.9	81				82				ELZ			-1				
	0.9D - 1.0Ev + 1.0Eh Yes		1	.9	39		81											8				
75	0.9D - 1.0Ev + 1.0Eh Yes	Y	1	.9	39	.9	81	-1	E	-1	82	.866	83	5	ELZ	.866	E	5				



Project # 23777134 Antenna Mount Analysis



Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap.
1	N2	-6.479167	.76	.25	0	
2	N3	4.145833	.76	.25	0	
3	N46A	3.770833	.76	.25	0	
4	N50	3.770833	.76	.5	0	
5	N52	3.770833	6.051667	.5	0	
6	N53	3.770833	0.01	.5	0	
7	N53A	-1.166667	.76	.25	0	
8	N54A	-1.166667	.76	-0.25	0	
9	N33A	-1,166667	1.51	-0.25	0	
10	N34A	-1.166667	.01	-0.25	0	
11	N35B	-1.166667	.76	-3.104167	0	
12	N12	1.9375	.76	.25	0	
13	N13	1.9375	.76	.5	0	
14	N14	1.9375	6.051667	.5		
14	N14	1.9375	0.01	.5	0	
16	N16	-1.083333	.76	.25	0	
17	N17	-1.083333	.76	.5	0	
17	N18	-1.083333	6.051667	.5	0	
18	N19	-1.083333	0.01	.5	0	
19	N20	-3.604167	.76	.25	0	
20	N20	-3.604167	.76	.5	0	
21	N21	-3.604167	6.051667	.5	0	
22	N23	-3.604167	0.01	.5	0	
23		-6.145833	.76	.25	0	
24	N24 N25	-6.145833	.76	.5	0	
25	N26	-6.145833	6.051667	.5	0	
26	N20	-6.145833	0.01	.5	0	
27	N31	-6.479167	3.01	.25	0	
28	N32	4.145833	3.01	.25	0	
29		3.770833	3.01	.25	0	
30	N33	3.770833	3.01	.5	0	
31	N34	1.9375	3.01	.25	0	
32	N35	1.9375	3.01	.5	0	
33	N36	-1.083333	3.01	.25	0	
34	N37	-1.083333	3.01	.5	0	
35	N38	-3.604167	3.01	.25	0	
36	N39		3.01	.5	0	
37	N40	-3.604167 -6.145833	3.01	.25	0	
38	N41		3.01	.5	Ő	
39	N42	-6.145833	3.01	-3.104167	Ő	
40	N44	-1.166667	3.01	.25	0	
41	N47	0.833333	3.01	-0.036014	0	
42	N48B	0.662791	3.01	-2.104167	0	
43	N49B	-0.570394	3.01	-2.104167	0	
44	N50A	-0.36206		-2.104167	0	
45	N51	-0.36206	2.26	-2.104167	0	
46	N52A	-0.36206	5.26	-2.104107	U	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List						J [in4]
4	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical			.627	1.25
1		PIPE 3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
2	Face Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr. B 46	Typical	3.37	7.8	7.8	12.8
3	Standoff Horizontal			Pipe	A53 Gr. B	Typical	2 96	6.82	6.82	13.6
4	Standoff Mount Pipe	PIPE 4.0	Column							5.69
5	Mod Face Horizontal	PIPE_3.0	Beam	Pipe	ADD GL D	Typical	2.01	2.00	2.00	0.00



Hot Rolled Steel Section Sets (Continued)

r	Label	Shape	Туре	Design List	Material	Desig	A [in2] Ivy [i	Izz [i	J [in4]
6	Mod Standoff Horizontal	HSS3X3X4	Beam	SquareTube	A500 Gr. B 46	Typical	2.44 3.02	3.02	5.08

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	11
4	A992	29000	11154	.3	.65	.49	50	1.1	65	11
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	14	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3
7	A500 Gr C Round	29000	11154	.3	.65	.49	46	1.5	62	1.2
8	A529 gr50	29000	11154	.3	.65	.49	50	1.5	65	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d.	. Section/Shape	Туре	Design List	Material	Design Ru
1	<u>M1</u>	N2	N3			Face Horizontal			A53 Gr. B	
2	M28	N46A	N50			RIGID	None	None	RIGID	Typical
3	MP1A	N52	N53			Mount Pipe	Column	the second se	A53 Gr. B	Typical
4	M31A	N53A	N54A			RIGID	None	None	RIGID	Typical
5	M17A	N34A	N33A			Standoff Mount Pi	Column		A53 Gr. B	
6	M18A	N54A	N35B			Standoff Horizontal	Beam	SquareTube		Typical
7	M7	N12	N13			RIGID	None	None	RIGID	Typical
8	MP2A	N14	N15			Mount Pipe	Column		A53 Gr. B	Typical
9	<u>M9</u>	N16	N17			RIGID	None	None	RIGID	Typical
10	MP3A	N18	N19			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
11	M11	N20	N21			RIGID	None	None	RIGID	Typical
12	MP4A	N22	N23			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
13	M13	N24	N25			RIGID	None	None	RIGID	Typical
14	MP5A	N26	N27			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
15	M17	N31	N32			Mod Face Horizon	Beam	Pipe	A53 Gr. B	Typical
16	M18	N33	N34			RIGID	None	None	RIGID	Typical
17	M19	N35	N36			RIGID	None	None	RIGID	Typical
18	M20	N37	N38			RIGID	None	None	RIGID	Typical
19	M21	N39	N40			RIGID	None	None	RIGID	Typical
20	M22	N41	N42			RIGID	None	None	RIGID	Typical
21	M24	N47	N48B			RIGID	None	None	RIGID	Typical
22	M25A	N48B	N44			Mod Standoff Hori		SquareTube		Typical
23	M26	N49B	N50A			RIGID	None	None	RIGID	Typical
24	OVP	N52A	N51	Subtraction		Mount Pipe	Column	Pipe	A53 Gr. B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti	Analysis	Inactive	Seismi
1	M1						Yes			maouve	None
2	M28						Yes	** NA **			None
3	MP1A						Yes	** NA **			None
4	M31A		000000				Yes	** NA **		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	None
5	M17A						Yes	** NA **			None
6	M18A						Yes	Default		6-61 - 64 - 64 - 64 - 64 - 64 - 64 - 64	None
7	M7						Yes	** NA **			None
8	MP2A			200			Yes	** NA **			None
9	M9	ļ				_	Yes	** NA **			None
10	МРЗА						Yes	** NA **			None

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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti	Analysis	Inactive	Seismi
4.4		Thelease	Untereduce				Yes	** NA **			None
11	M11				1. The second second		Yes	** NA **			None
12	MP4A						Yes	** NA **	+		None
13	M13							** NA **			None
14	MP5A						Yes				
15	M17						Yes	Default			None
16	M18		1				Yes	** NA **			None
							Yes	** NA **			None
17	M19						Yes	** NA **			None
18	M20				1		Yes	** NA **			None
19	M21										None
20	M22					1	Yes	** NA **			
21	M24						Yes	** NA **			None
41			1				Yes	Default			None
22	M25A						Yes	** NA **			None
23	M26						Yes	** NA **			None
24	OVP						res				

Member Point Loads (BLC 1 : Antenna D)

M	lember Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Y	-31.65	
2	MP4A	My	0158	1
3	MP4A	Mz	.0198	11
4	MP4A	Y	-31.65	5
5	MP4A	My	0158	5
6	MP4A	Mz	.0198	5
7	MP4A	Y	-31.65	1
8	MP4A	My	0158	1
9	MP4A	Mz	0198	1
10	MP4A	Y	-31.65	5
11	MP4A	My	0158	5
12	MP4A	Mz	0198	5
13	MP2A	Y	-43.55	2
14	MP2A	My	0218	2
15	MP2A	Mz	0	2
16	MP2A	Y	-43.55	4
17	MP2A	Mv	0218	4
18	MP2A	Mz	0	4
19	MP1A	Y	-8	.5
20	MP1A	My	004	.5
21	MP1A	Mz	0	.5
22	MP1A	Y	-8	5.5
23	MP1A	My	004	5.5
	MP1A	Mz	0	5.5
24	MP5A	Y	-8	.5
25	MP5A	My	004	.5
26	MP5A	Mz	0	.5
27	MP5A MP5A	Y	-8	5.5
28		My	004	5.5
29	MP5A	Mz	0	5.5
30	MP5A	Y	-10.4	4
31	MP4A	My	.0052	4
32	MP4A	Mz	.0026	4
33	MP4A	Y	-84.4	.5
34	MP4A		.0422	.5
35	MP4A	My	0	.5
36	MP4A	Mz Y	-70.3	3.75
37	MP3A		0352	3.75
38	MP3A	My	0352	0.10

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP3A	Mz	0	3.75
40	OVP	Y	-32	1.25
41	OVP	My	0	1.25
42	OVP	Mz	0	1.25
43	MP3A	Y	-17.6	1
44	MP3A	Mv	0073	1
45	MP3A	Mz	0	1
46	MP3A	Y	-17.6	1
47	MP3A	Mv	.0073	1
48	MP3A	Mz	0	

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	Y	-64.777	1
2	MP4A	My	0324	1
3	MP4A	Mz	.0405	1
4	MP4A	Y	-64.777	5
5	MP4A	My	0324	5
6	MP4A	Mz	.0405	5
7	MP4A	Y	-64.777	1
8	MP4A	My	0324	1
9	MP4A	Mz	0405	1
10	MP4A	Y	-64.777	5
11	MP4A	My	0324	5
12	MP4A	Mz	0405	5
13	MP2A	Y	-32.9368	2
14	MP2A	My	0165	2
15	MP2A	Mz	0	2
16	MP2A	Y	-32.9368	4
17	MP2A	My	0165	4
18	MP2A	Mz	0	4
19	MP1A	Y	-43.3811	.5
20	MP1A	My	0217	.5
21	MP1A	Mz	0	.5
22	MP1A	Y	-43.3811	5.5
23	MP1A	My	0217	5.5
24	MP1A	Mz	0	5.5
25	MP5A	Y	-43.3811	.5
26	MP5A	My	0217	.5
27	MP5A	Mz	0	.5
28	MP5A	Y	-43.3811	.0
29	MP5A	My	0217	5.5
30	MP5A	Mz	0217	5.5
31	MP4A	Y	-9.874	5.5
32	MP4A	My	.0049	4
33	MP4A	Mz		4
34	MP4A	Y	.0025	44
35	MP4A	My	-41.5132	.5
36	MP4A		.0208	.5
37	MP3A	Mz Y	0	.5
38	MP3A MP3A		-37.1571	3.75
39	MP3A MP3A	My	0186	3.75
40	OVP	Mz	0	3.75
40		<u>Y</u>	-81.0796	1.25
	OVP	My	0	1.25
42 43	OVP	Mz	0	1.25
43	MP3A	Y	6.6	1



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
44	MP3A	My	.0027	1
45	MP3A	Mz	0	1
46	MP3A	Y	6.6	1
47	MP3A	My	0027	1
48	MP3A	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X Z	0	1
2	MP4A	Z	-166.921	
3	MP4A	Mx	1043	1
4	MP4A	X	0	5
5	MP4A	Z	-166.921	5
6	MP4A	Mx	1043	5
7	MP4A	X	0	1
8	MP4A	Z	-166.921	11
9	MP4A	Mx	.1043	1
10	MP4A	X	0	5
11	MP4A	Z	-166.921	5
12	MP4A	Mx	.1043	5
13	MP2A	X	0	2
14	MP2A	Z	-71.826	2
15	MP2A	Mx	0	2
16	MP2A	X	0	4
17	MP2A	Z	-71.826	4
18	MP2A	Mx	0	4
19	MP1A	X	0	.5
20	MP1A	Z	-91.798	.5
21	MP1A	Mx	0	.5
22	MP1A	X	0	5.5
23	MP1A	Z	-91.798	5.5
23	MP1A	Mx	0	5.5
25	MP5A	X	Ō	.5
26	MP5A	Z	-91.798	.5
20	MP5A	Mx	0	.5
28	MP5A	X	0	5.5
28	MP5A	Z	-91.798	5.5
30	MP5A	Mx	0	5.5
30	MP4A	X	0	4
32	MP4A MP4A	Z	-13.662	4
32	MP4A MP4A	Mx	0034	4
	MP4A MP4A	X	0	.5
34 35	MP4A MP4A	Z	-56.888	.5
	MP4A MP4A	Mx	0	.5
36	MP3A	X	0	3.75
37		Ž	-56.447	3.75
38	MP3A MP3A	Mx	0	3.75
39		X	0	1.25
40	OVP	Z	-94.535	1.25
41	OVP	Mx	0	1.25
42	OVP	X	0	1
43	MP3A	Z	-34.905	1
44	MP3A	Mx	0	1
45	MP3A	X	0	1
46	MP3A	Z	-34.905	1
47	MP3A		0	1
48	MP3A	Mx	V	



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	76.299	1
2	MP4A	Z	-132.155	1
3	MP4A	Mx	1207	1
4	MP4A	X	76.299	5
5	MP4A	Z	-132.155	5
6	MP4A	Mx	1207	5
7	MP4A	X	76.299	1
8	MP4A	Z	-132.155	1
9	MP4A	Mx	.0444	1
10	MP4A	X	76.299	5
11	MP4A	Z	-132.155	5
12	MP4A	Mx	.0444	5
13	MP2A	X	30.027	2
14	MP2A	Z	-52.008	2
15	MP2A	Mx	015	2
16	MP2A	X	30.027	4
17	MP2A	Z	-52.008	4
18	MP2A	Mx	015	4
19	MP1A	X	47.861	.5
20	MP1A	Z	-82.897	.5
21	MP1A	Mx	0239	.5
22	MP1A	X	47.861	5.5
23	MP1A	Z	-82.897	5.5
24	MP1A	Mx	0239	5.5
25	MP5A	X	47.861	.5
26	MP5A	Z	-82.897	.5
27	MP5A	Mx	0239	.5
28	MP5A	X	47.861	.5
29	MP5A	Z	-82.897	
30	MP5A	Mx	0239	5.5
31	MP4A	X	6.305	5.5
32	MP4A	Z	-10.92	4
33	MP4A	Mx	.000422	
34	MP4A	X	26.104	4
35	MP4A	Z	-45.214	
36	MP4A	Mx	.0131	.5
37	MP3A	X	25.037	.5
38	MP3A	Z	-43.365	3.75
39	MP3A	Mx		3.75
40	OVP	X	0125 54.176	3.75
41	OVP	Z		1.25
42	OVP	Mx	-93.835	1.25
43	MP3A	X	0	1.25
43	MP3A MP3A	Z	14.413	1
45	MP3A		-24.964	1
45	MP3A MP3A	Mx	006	1
40	MP3A MP3A	X	14.413	1
47	MP3A MP3A	Z	-24.964	11
40	WIP3A	Mx	.006	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	MP4A	X	107.347	1
2	MP4A	Z	-61.977	1
3	MP4A	Mx	0924	1
4	MP4A	X	107.347	5
5	MP4A	Z	-61.977	5



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

Member	Label Direction	Magnitude[ib,k-ft]	Location[ft,%]
6 MP4	A Mx	0924	5
7 MP4		107.347	
8 MP4	A Z	-61.977	1
9 MP4		0149	11
10 MP4		107.347	5
11 MP4		-61.977	5
12 MP4		0149	5
13 MP2		31.617	2
14 MP2		-18.254	2
15 MP2		0158	2
16 MP2		31.617	4
17 MP2		-18.254	4
18 MP2	M	0158	4
19 MP1		89.694	.5
20 MP1		-51.785	.5
20 MP1		0448	.5
22 MP1		89.694	5.5
		-51.785	5.5
23 MP1 24 MP1		0448	5.5
		89.694	.5
		-51.785	.5
		0448	.5
		89.694	5.5
28 MP5		-51.785	5.5
29 MP5		0448	5.5
30 MP5		9.097	4
31 MP4		-5.252	4
32 MP4		.0032	4
33 MP4		37.109	.5
34 MP4		-21.425	.5
35 MP4		.0186	.5
36 MP4		32.327	3.75
37 MP3		-18.664	3.75
38 MP3		0162	3.75
39 MP3		99.818	1.25
40 OV		-57.63	1.25
41 OV		-57.65	1.25
42 OV		14.434	1
43 MP3			1
44 MP3		-8.333	1
45 MP3		006	1
46 MP3		14.434	1
47 MP3		-8.333	1
48 MP3	BA Mx	.006	

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	109.632	1
2	MP4A	Z	0	
2	MP4A	Mx	0548	1
1	MP4A	X	109.632	5
5	MP4A	Z	0	5
6	MP4A	Mx	0548	5
7	MP4A	X	109.632	1
8	MP4A	Z	0	
9	MP4A	Mx	0548	1
10	MP4A	X	109.632	5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP4A	Z	0	5
12	MP4A	Mx	0548	5
13	MP2A	X	24.736	2
14	MP2A	Z	0	2
15	MP2A	Mx	0124	2
16	MP2A	X	24,736	4
17	MP2A	Z	0	4
18	MP2A	Mx	0124	4
19	MP1A	X	107.494	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	0537	.5
22	MP1A	X	107,494	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	0537	5.5
25	MP5A	X	107.494	.5
26	MP5A	Z	0	.5
27	MP5A	Mx	0537	.5
28	MP5A	X	107.494	5.5
29	MP5A	Z	0	5.5
30	MP5A	Mx	0537	5.5
31	MP4A	X	9.453	4
32	MP4A	Z	0	
33	MP4A	Mx	.0047	4
34	MP4A	X	38.17	4
35	MP4A	Z	0	.5
36	MP4A	Mx	.0191	.5
37	MP3A	X	30.955	
38	MP3A	Z	0	3.75
39	MP3A	Mx	0155	3.75
40	OVP	X		3.75
41	OVP	Z	108.351	1.25
42	OVP	Mx	0	1.25
43	MP3A	X		1.25
44	MP3A	z	10.587	1
45	MP3A MP3A		0	1
46	MP3A	Mx	0044	1
40	MP3A MP3A	X 7	10.587	1
48		Z	0	1
40	MP3A	Mx	.0044	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	107.347	1
2	MP4A	Z	61.977	1
3	MP4A	Mx	0149	1
4	MP4A	X	107.347	5
5	MP4A	Z	61.977	5
6	MP4A	Mx	0149	5
7	MP4A	X	107.347	1
8	MP4A	Z	61.977	1
9	MP4A	Mx	0924	
10	MP4A	X	107.347	5
11	MP4A	Z	61.977	5
12	MP4A	Mx	0924	5
13	MP2A	X	31.617	2
14	MP2A	Z	18.254	2
15	MP2A	Mx	0158	2



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP2A	Х	31.617	4
17	MP2A	Z	18.254	4
18	MP2A	Mx	0158	4
19	MP1A	X	89.694	.5
20	MP1A	Z	51.785	.5
21	MP1A	Mx	0448	.5
22	MP1A	X	89.694	5.5
23	MP1A	Z	51.785	5.5
24	MP1A	Mx	0448	5.5
25	MP5A	X	89.694	.5
26	MP5A	Z	51.785	.5
20	MP5A	Mx	0448	.5
28	MP5A	X	89.694	5.5
29	MP5A	Z	51.785	5.5
30	MP5A	Mx	0448	5.5
31	MP4A	X	9.097	4
32	MP4A MP4A	Z	5.252	4
33	MP4A	Mx	.0059	4
34	MP4A MP4A	X	37.109	.5
35	MP4A MP4A	Z	21.425	.5
36	MP4A MP4A	Mx	.0186	.5
37	MP3A	X	32.327	3.75
38	MP3A	Z	18.664	3.75
	MP3A MP3A	Mx	0162	3.75
39	OVP	X	81.869	1.25
40	OVP	Z	47.267	1.25
41	OVP	Mx	0	1.25
42	MP3A	X	14.434	1
43		Z	8.333	1
44	MP3A	Mx	006	
45	MP3A	X	14.434	1
46	MP3A	Z	8.333	1
47 48	MP3A MP3A	Mx	.006	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	76.299	1
2	MP4A	Z	132.155	1
3	MP4A	Mx	.0444	11
4	MP4A	X	76.299	5
5	MP4A	Z	132.155	55
6	MP4A	Mx	.0444	5
7	MP4A	X	76.299	1
8	MP4A	Z	132.155	1
9	MP4A	Mx	1207	1
10	MP4A	X	76.299	5
11	MP4A	Z	132.155	5
12	MP4A	Mx	1207	5
13	MP2A	X	30.027	2
14	MP2A	Z	52.008	2
15	MP2A	Mx	015	2
16	MP2A	X	30.027	4
17	MP2A	Z	52.008	4
18	MP2A	Mx	015	4
19	MP1A	X	47.861	.5
20	MP1A	Z	82.897	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP1A	Mx	0239	.5
22	MP1A	X	47.861	5.5
23	MP1A	Z	82.897	5.5
24	MP1A	Mx	0239	5.5
25	MP5A	X	47.861	.5
26	MP5A	Z	82.897	.5
27	MP5A	Mx	0239	.5
28	MP5A	X	47.861	5.5
29	MP5A	Z	82.897	5.5
30	MP5A	Mx	0239	5.5
31	MP4A	X	6.305	4
32	MP4A	Z	10.92	4
33	MP4A	Mx	.0059	4
34	MP4A	X	26.104	.5
35	MP4A	Z	45.214	.5
36	MP4A	Mx	.0131	.5
37	MP3A	X	25.037	3.75
38	MP3A	Z	43.365	3.75
39	MP3A	Mx	0125	3.75
40	OVP	X	43.813	1.25
41	OVP	Z	75.887	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	14.413	1
44	MP3A	Z	24.964	1
45	MP3A	Mx	006	1
46	MP3A	X	14.413	1
47	MP3A	Z	24.964	1
48	MP3A	Mx	.006	1

<u>Member Point Loads (BLC 9 : Antenna Wo (180 Deg))</u>

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	166.921	1
3	MP4A	Mx	.1043	1
4	MP4A	X	0	5
5	MP4A	Z	166.921	5
6	MP4A	Mx	.1043	5
7	MP4A	X	0	1
8	MP4A	Z	166.921	1
9	MP4A	Mx	1043	1
10	MP4A	X	0	5
11	MP4A	Z	166.921	5
12	MP4A	Mx	1043	5
13	MP2A	X	0	2
14	MP2A	Z	71.826	2
15	MP2A	Mx	0	2
16	MP2A	X	0	4
17	MP2A	Z	71.826	4
18	MP2A	Mx	0	4
19	MP1A	X	0	.5
20	MP1A	Z	91.798	.5
21	MP1A	Mx	0	.5
22	MP1A	X	0	5.5
23	MP1A	Z	91.798	5.5
24	MP1A	Mx	0	5.5
25	MP5A	X	0	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP5A	Z	91.798	.5
27	MP5A	Mx	0	.5
28	MP5A	X	0	5.5
29	MP5A	Z	91.798	5.5
	MP5A	Mx	0	5.5
30	MP4A	X	0	4
31	MP4A MP4A	Z	13.662	4
32	MP4A MP4A	Mx	.0034	4
33	MP4A MP4A	X	0	.5
34	MP4A MP4A	Z	56.888	.5
35		Mx	0	.5
36	MP4A	X	0	3.75
37	MP3A	Z	56.447	3.75
38	MP3A	Mx	0	3.75
39	MP3A	X	0	1.25
40	OVP	^	94.535	1.25
41	OVP		0	1.25
42	OVP	Mx	0	1
43	MP3A	X	34.905	1
44	MP3A	Z	0	1
45	MP3A	Mx	0	
46	MP3A	X		1
47	MP3A	Z	34.905	
48	MP3A	Mx	0	

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-76.299	1
2	MP4A	Z	132.155	1
3	MP4A	Mx	.1207	1
4	MP4A	X	-76.299	5
5	MP4A	Z	132.155	5
6	MP4A	Mx	.1207	5
7	MP4A	X	-76.299	1
8	MP4A	Z	132.155	1
9	MP4A	Mx	0444	11
10	MP4A	X	-76.299	5
11	MP4A	Z	132.155	5
12	MP4A	Mx	0444	5
13	MP2A	X	-30.027	2
14	MP2A	Z	52.008	2
15	MP2A	Mx	.015	2
16	MP2A MP2A	X	-30.027	4
17	MP2A	Z	52.008	4
18	MP2A	Mx	.015	4
19	MP1A	X	-47.861	.5
20	MP1A MP1A	Z	82.897	.5
20	MP1A MP1A	Mx	.0239	.5
22	MP1A	X	-47.861	5.5
	MP1A MP1A	Z	82.897	5.5
23	MP1A MP1A	Mx	.0239	5.5
24	MP1A MP5A	X	-47.861	.5
25	MP5A MP5A	Z	82.897	.5
26		Mx	.0239	.5
27	MP5A MP5A	X	-47.861	5.5
28		ż ź	82.897	5.5
29 30	MP5A MP5A	Mx	.0239	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP4A	X	-6.305	4
32	MP4A	Z	10.92	4
33	MP4A	Mx	000422	4
34	MP4A	X	-26.104	.5
35	MP4A	Z	45.214	.5
36	MP4A	Mx	0131	.5
37	MP3A	X	-25.037	3.75
38	МРЗА	Z	43.365	3.75
39	MP3A	Mx	.0125	3.75
40	OVP	X	-54,176	1.25
41	OVP	Z	93.835	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	-14,413	1
44	MP3A	Z	24,964	1
45	MP3A	Mx	.006	1
46	МРЗА	X	-14.413	1
47	MP3A	Z	24.964	1
48	MP3A	Mx	006	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-107.347	1
2	MP4A	Z	61.977	1
3	MP4A	Mx	.0924	1
4	MP4A		-107.347	5
5	MP4A	Z	61.977	5
6	MP4A	Mx	.0924	5
7	MP4A	X	-107.347	1
8	MP4A	Z	61.977	1
9	MP4A	Mx	.0149	1
10	MP4A	X	-107.347	5
11	MP4A	Z	61.977	55
12	MP4A	Mx	.0149	5
13	MP2A	X	-31.617	2
14	MP2A	Z	18.254	2
15	MP2A	Mx	.0158	2
16	MP2A	X	-31.617	4
17	MP2A	Z	18.254	4
18	MP2A	Mx	.0158	4
19	MP1A	X	-89.694	.5
20	MP1A	Z	51.785	.5
21	MP1A	Mx	.0448	.5
22	MP1A	X	-89.694	5.5
23	MP1A	Z	51.785	5.5
24	MP1A	Mx	.0448	5.5
25	MP5A	X	-89.694	.5
26	MP5A	Z	51.785	.5
27	MP5A	Mx	.0448	.5
28	MP5A	X	-89.694	5.5
29	MP5A	Z	51.785	5.5
30	MP5A	Mx	.0448	5.5
31	MP4A	X	-9.097	4
32	MP4A	Z	5.252	4
33	MP4A	Mx	0032	4
34	MP4A	X	-37,109	.5
35	MP4A	Z	21.425	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
20	MP4A	Mx	0186	.5
36	MP3A	X	-32.327	3.75
37		7	18.664	3.75
38	MP3A	Mx	.0162	3.75
39	MP3A		-99.818	1.25
40	OVP	<u>X</u>	57.63	1.25
41	OVP		57.05	1.25
42	OVP	Mx	11.101	1
43	MP3A	<u> </u>	-14.434	1
44	MP3A	Z	8.333	1
45	MP3A	Mx	.006	
46	MP3A	Χ	-14.434	
47	MP3A	Z	8.333	1
48	MP3A	Mx	-,006	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-109.632	
2	MP4A	Z	0	
3	MP4A	Mx	.0548	1
4	MP4A	X	-109.632	5
5	MP4A	Z	0	5
6	MP4A	Mx	.0548	5
7	MP4A	X	-109.632	11
8	MP4A		0	and the second
9	MP4A	Mx	.0548	1
10	MP4A	X	-109.632	5
11	MP4A	Z	0	5
12	MP4A	Mx	.0548	55
13	MP2A	X	-24.736	2
14	MP2A	Z	0	2
15	MP2A	Mx	,0124	2
16	MP2A	X	-24.736	4
17	MP2A	Z	0	4
18	MP2A	Mx	.0124	4
19	MP1A	X	-107.494	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	.0537	.5
22	MP1A	X	-107.494	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	.0537	5.5
25	MP5A	X	-107.494	.5
26	MP5A	Z	0	.5
27	MP5A	Mx	.0537	.5
28	MP5A	X	-107.494	5.5
29	MP5A	Z	0	5.5
30	MP5A	Mx	.0537	5.5
31	MP4A	X	-9.453	4
32	MP4A	Z	0	4
33	MP4A	Mx	0047	4
34	MP4A	X	-38.17	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	0191	.5
37	MP3A	X	-30.955	3.75
38	MP3A	Z	0	3.75
39	MP3A	Mx	.0155	3.75
40	OVP	X	-108.351	1.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
41	OVP	Z	0	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	-10.587	1
44	MP3A	Z	0	1
45	MP3A	Mx	.0044	1
46	MP3A	X	-10.587	1
47	MP3A	Z	0	1
48	MP3A	Mx	0044	1

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

1	Member Label MP4A	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP4A MP4A	X	-107.347	
3	MP4A MP4A	Z	-61.977	1
		Mx	.0149	1
4	MP4A	<u> </u>	-107.347	5
5	MP4A	Z	-61.977	5
6	MP4A	Mx	.0149	5
	MP4A	<u> </u>	-107.347	1
8	MP4A	Z	-61.977	1
9	MP4A	Mx	.0924	1
10	MP4A	X	-107.347	5
11	MP4A	Z	-61.977	5
12	MP4A	Mx	.0924	5
13	MP2A	X	-31.617	2
14	MP2A	Z	-18.254	2
15	MP2A	Mx	.0158	2
16	MP2A	X	-31.617	4
17	MP2A	Z	-18.254	4
18	MP2A	Mx	.0158	4
19	MP1A	X	-89.694	.5
20	MP1A	Z	-51.785	.5
21	MP1A	Mx	.0448	.5
22	MP1A	X	-89.694	5.5
23	MP1A	Z	-51.785	5.5
24	MP1A	Mx	.0448	5.5
25	MP5A	X	-89.694	.5
26	MP5A	Z	-51.785	.5
27	MP5A	Mx	.0448	.5
28	MP5A	X	-89.694	5.5
29	MP5A	Z	-51.785	5.5
30	MP5A	Mx	.0448	5.5
31	MP4A	X	-9.097	4
32	MP4A	Z	-5.252	4
33	MP4A	Mx	0059	4
34	MP4A	X	-37.109	.5
35	MP4A	Z	-21.425	.5
36	MP4A	Mx	0186	.5
37	MP3A	X	-32.327	3.75
38	MP3A	Z	-18.664	3.75
39	MP3A	Mx	.0162	3.75
40	OVP	X	-81.869	1.25
41	OVP	Z	-47.267	1.25
42	OVP	Mx	-47.287	1.25
43	MP3A	X	-14.434	
44	MP3A	Z	-8.333	1
45	MP3A	Mx	.006	1



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

Momber Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
	X	-14.434	1
	7	-8.333	1
	Mx	006	1
	Member Label MP3A MP3A MP3A	MP3A X MP3A Z	Member Laber X -14.434 MP3A X -8.333 MP3A Z -8.006

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	MP4A	X	-76.299	
2	MP4A	Z	-132.155	1
3	MP4A	Mx	0444	5
4	MP4A	X	-76.299	5
5	MP4A	Z	-132.155	5
6	MP4A	Mx	0444	1
7	MP4A	X	-76.299	1
8	MP4A	Ζ	-132.155	
9	MP4A	Mx	.1207	5
10	MP4A	X	-76.299	5
11	MP4A	Ζ	-132.155	5
12	MP4A	Mx	.1207	2
13	MP2A	X	-30.027	2
14	MP2A	Ζ	-52.008	2
15	MP2A	Mx	.015	
16	MP2A	X	-30.027	4 4
17	MP2A	Z	-52.008	4
18	MP2A	Mx	.015	
19	MP1A	X	-47.861	.5
20	MP1A	Z	-82.897	.5
21	MP1A	Mx	.0239	.5
22	MP1A	X	-47.861	5.5
23	MP1A	Z	-82.897	5.5
24	MP1A	Mx	.0239	5.5
25	MP5A	X	-47.861	.5
26	MP5A	Ζ	-82.897	.5
27	MP5A	Mx	.0239	.5
28	MP5A	X	-47.861	5.5
29	MP5A	Z	-82.897	5.5
30	MP5A	Mx	.0239	5.5
31	MP4A	X	-6.305	4
32	MP4A	Z	-10.92	4
33	MP4A	Mx	0059	4
34	MP4A	X	-26.104	.5
35	MP4A	Z	-45.214	.5
36	MP4A	Mx	0131	.5
37	MP3A	X	-25.037	3.75
38	MP3A	Z	-43.365	3.75
39	MP3A	Mx	.0125	3.75
40	OVP	X	-43.813	1.25
40	OVP	Z	-75.887	1.25
41	OVP	Mx	0	1.25
	MP3A	X	-14.413	1
43	MP3A MP3A	Z	-24.964	1
44	MP3A MP3A	Mx	.006	11
45	MP3A MP3A	X	-14.413	1
46	MP3A MP3A	Z	-24.964	1
47 48	MP3A MP3A	Mx	006	1



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-31.56	1
3	MP4A	Mx	0197	1
4	MP4A	X	0	5
5	MP4A	Z	-31.56	5
6	MP4A	Mx	0197	5
7	MP4A	X	0	1
8	MP4A	Z	-31.56	1
9	MP4A	Mx	.0197	1
10	MP4A	X	0	5
11	MP4A	Z	-31.56	5
12	MP4A	Mx	.0197	5
13	MP2A	X	0	2
14	MP2A	Z	-16.755	2
15	MP2A	Mx	0	2
16	MP2A	X	0	4
17	MP2A	Z	-16.755	4
18	MP2A	Mx	0	4
19	MP1A	X	0	.5
20	MP1A	Z	-18.215	.5
21	MP1A	Mx	0	.5
22	MP1A	X	0	5.5
23	MP1A	Z	-18.215	5.5
24	MP1A	Mx	0	5.5
25	MP5A	X	0	.5
26	MP5A	Z	-18.215	.5
27	MP5A	Mx	0	.5
28	MP5A	X	0	5.5
29	MP5A	Z	-18.215	5.5
30	MP5A	Mx	0	
31	MP4A	X	0	<u>5.5</u> 4
32	MP4A	Z	-3.399	4 4
33	MP4A	Mx	00085	
34	MP4A	X	0	.5
35	MP4A	Z	-14.091	
36	MP4A	Mx	0	.5
37	MP3A	X	0	
38	MP3A	Z	-13.974	3.75
39	MP3A	Mx	-13.974	3.75
40	OVP	X	0	3.75
41	OVP	Z	-24.039	1.25
42	OVP	Mx	-24.039	1.25
43	MP3A	X	0	1.25
44	MP3A	Z	-7.633	1
45	MP3A	Mx		1
46	MP3A	X	0	
47	MP3A	Z	0	11
48			-7.633	1
48	MP3A	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	14.52	1
2	MP4A	Z	-25,149	4
3	MP4A	Mx	023	
4	MP4A	X	14.52	5
5	MP4A	Z	-25.149	5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP4A	Mx	023	5
7	MP4A	X	14.52	1
8	MP4A	Z	-25.149	1
9	MP4A	Mx	.0085	11
10	MP4A	X	14.52	5
11	MP4A	Z	-25.149	5
12	MP4A	Mx	.0085	5
13	MP2A	X	7.17	2
14	MP2A	Z	-12.419	2
15	MP2A	Mx	0036	2
16	MP2A	Χ	7.17	4
17	MP2A	Z	-12.419	4
18	MP2A	Mx	0036	4
19	MP1A	X	9.467	.5
20	MP1A	Z	-16.398	.5
20	MP1A	Mx	0047	.5
22	MP1A	X	9.467	5.5
23	MP1A	Z	-16.398	5.5
23	MP1A	Mx	0047	5.5
25	MP5A	X	9.467	.5
26	MP5A	Z	-16.398	.5
20	MP5A	Mx	0047	.5
28	MP5A	X	9.467	5.5
29	MP5A	Z	-16.398	5.5
30	MP5A	Mx	0047	5.5
31	MP4A	X	1.592	4
32	MP4A MP4A	ž	-2.758	4
33	MP4A MP4A	Mx	.000106	4
33	MP4A MP4A	X	6.506	.5
35	MP4A MP4A	Z	-11.269	.5
35	MP4A MP4A	Mx	.0033	.5
	MP3A	X	6.248	3.75
37 38	MP3A MP3A	Z	-10.822	3.75
38	MP3A	Mx	0031	3.75
40	OVP	X	13.597	1.25
	OVP	Z	-23.55	1.25
41	OVP	Mx	0	1.25
42	MP3A	X	3.216	1
43		Z	-5.571	1
44	MP3A	Mx	0013	1
45	MP3A	X	3.216	1
46	MP3A	Z	-5.571	1
47 48	MP3A MP3A	Mx	.0013	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	20.782	11
2	MP4A	Z	-11.998	1
2	MP4A	Mx	0179	·····
1	MP4A	X	20.782	5
5	MP4A	Z	-11.998	5
6	MP4A	Mx	0179	5
7	MP4A	X	20.782	1
8	MP4A	Z	-11.998	1
9	MP4A	Mx	0029	1
10	MP4A	X	20.782	5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP4A	Z	-11.998	5
12	MP4A	Mx	0029	5
13	MP2A	X	8.236	2
14	MP2A	Z	-4.755	2
15	MP2A	Mx	0041	2
16	MP2A	Х	8.236	4
17	MP2A	Z	-4,755	4
18	MP2A	Mx	0041	4
19	MP1A	X	17.644	.5
20	MP1A	Z	-10.187	.5
21	MP1A	Mx	0088	.5
22	MP1A	X	17.644	5.5
23	MP1A	Z	-10.187	5.5
24	MP1A	Mx	0088	5.5
25	MP5A	X	17.644	.5
26	MP5A	Z	-10.187	.5
27	MP5A	Mx	0088	.5
28	MP5A	X	17.644	5.5
29	MP5A	Z	-10.187	5.5
30	MP5A	Mx	0088	5.5
31	MP4A	X	2.386	4
32	MP4A	7	-1.377	4
33	MP4A	Mx	.000849	4
34	MP4A	X	9.4	.5
35	MP4A	Z	-5.427	.5
36	MP4A	Mx	.0047	.5
37	MP3A	X	8.264	3.75
38	MP3A	Z	-4.771	3.75
39	MP3A	Mx	0041	3.75
40	OVP	X	24.916	1.25
41	OVP	Z	-14.385	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	3.492	1.25
44	MP3A	Z	-2.016	1
45	MP3A	Mx	0015	1
46	MP3A	X	3.492	1
47	MP3A	Z	-2.016	1
48	MP3A	Mx	.0015	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	21.475	1
2	MP4A	Z	0	1
3	MP4A	Mx	0107	1
4	MP4A	X	21.475	5
5	MP4A	Z	0	5
6	MP4A	Mx	0107	5
7	MP4A	X	21.475	1
8	MP4A	Z	0	
9	MP4A	Mx	0107	
10	MP4A	X	21.475	5
11	MP4A	Z	0	5
12	MP4A	Mx	0107	5
13	MP2A	X	7.095	2
14	MP2A	Z	0	2
15	MP2A	Mx	0035	2



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

Me	mber Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
16	MP2A	X	7.095	4
17	MP2A	Z	0	4
18	MP2A	Mx	0035	4
19	MP1A	X	21.093	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	0105	.5
22	MP1A	X	21.093	5.5
23	MP1A	Z	0	5.5
	MP1A	Mx	0105	5.5
24 25	MP5A	X	21.093	.5
25	MP5A	Z	0	.5
26	MP5A	Mx	0105	.5
	MP5A	X	21.093	5.5
28	MP5A	Z	0	5.5
29 30	MP5A MP5A	Mx	0105	5.5
	MP4A	X	2.54	4
31 32	MP4A MP4A	Z	0	4
	MP4A MP4A	Mx	.0013	4
33	MP4A MP4A	X	9.775	.5
34	MP4A MP4A	- <u>X</u>	0	.5
35	MP4A MP4A	Mx	.0049	.5
36		X	8.066	3.75
37	MP3A MP3A	Z	0	3.75
38		Mx	004	3.75
39	MP3A OVP	X	27.194	1.25
40	OVP	Z	0	1.25
41		Mx	0	1.25
42	OVP	X	2.833	1
43	MP3A	<u>z</u>	0	1
44	MP3A		0012	1
45	MP3A	Mx	2.833	1
46	MP3A	Z	0	1
47	MP3A	and the second	.0012	
48	MP3A	Mx	.0012	

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	20.782	1
2	MP4A	Z	11.998	1
3	MP4A	Mx	0029	1
4	MP4A	X	20.782	5
5	MP4A	Z	11.998	5
6	MP4A	Mx	0029	5
7	MP4A	X	20.782	11
8	MP4A	Z	11.998	1
9	MP4A	Mx	0179	1
10	MP4A	X	20.782	5
11	MP4A	Z	11.998	5
12	MP4A	Mx	0179	5
13	MP2A	X	8.236	2
14	MP2A	Z	4.755	2
15	MP2A	Mx	0041	2
16	MP2A	X	8.236	4
17	MP2A	Z	4.755	4
18	MP2A	Mx	0041	4
19	MP1A	X	17.644	.5
20	MP1A	Z	10.187	.5



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

	Aember Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP1A	Mx	0088	.5
22	MP1A	Х	17.644	5.5
23	MP1A	Z	10.187	5.5
24	MP1A	Mx	0088	5.5
25	MP5A	X	17.644	.5
26	MP5A	Z	10.187	.5
27	MP5A	Mx	0088	.5
28	MP5A	X	17.644	5.5
29	MP5A	7	10.187	5.5
30	MP5A	Mx	0088	5.5
31	MP4A	X	2.386	4
32	MP4A	Z	1.377	4
33	MP4A	Mx	.0015	4
34	MP4A	X	9.4	.5
35	MP4A	Z	5.427	.5
36	MP4A	Mx	.0047	.5
37	MP3A	X	8.264	3.75
38	MP3A	Z	4.771	3.75
39	MP3A	Mx	0041	3.75
40	OVP	X	20.819	1.25
41	OVP	Z	12.02	1.25
42	OVP	Mx	0	1.25
43	МРЗА	X	3.492	1.25
44	MP3A	Z	2.016	1
45	MP3A	Mx	0015	
46	MP3A	X	3.492	1
47	MP3A	Z	2.016	
48	MP3A	Mx	.0015	
			.0015	

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	14.52	1
2	MP4A	Z	25.149	1
3	MP4A	Mx	.0085	1
4	MP4A	X	14.52	5
5	MP4A	Z	25.149	5
6	MP4A	Mx	.0085	5
7	MP4A	X	14.52	1
8	MP4A	Z	25.149	1
9	MP4A	Mx	023	1
10	MP4A	X	14.52	5
11	MP4A	Z	25.149	5
12	MP4A	Mx	023	5
13	MP2A	X	7.17	2
14	MP2A	Z	12.419	2
15	MP2A	Mx	0036	2
16	MP2A	X	7.17	4
17	MP2A	Z	12.419	4
18	MP2A	Mx	0036	4
19	MP1A	X	9.467	.5
20	MP1A	Z	16.398	.5
21	MP1A	Mx	0047	.5
22	MP1A	X	9.467	5.5
23	MP1A	Z	16.398	5.5
24	MP1A	Mx	0047	5.5
25	MP5A	X	9.467	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP5A	7	16.398	.5
	MP5A	Mx	0047	.5
27	MP5A	X	9.467	5.5
28	MP5A MP5A	Z	16.398	5.5
29		Mx	0047	5.5
30	MP5A	X	1.592	4
31	MP4A	Z	2.758	4
32	MP4A	Mx	.0015	4
33	MP4A		6.506	.5
34	MP4A	X 7	11.269	.5
35	MP4A		.0033	.5
36	MP4A	Mx		3.75
37	MP3A	<u>X</u>	6.248	3.75
38	MP3A	Z	10.822	3.75
39	MP3A	Mx	0031	
40	OVP	X	11.231	1.25
41	OVP	Z	19.453	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	3.216	1
44	MP3A	Z	5.571	
45	MP3A	Mx	0013	1
46	MP3A	X	3.216	1
47	MP3A	Z	5.571	1
48	MP3A	Mx	.0013	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	11
2	MP4A	Z	31.56	1
3	MP4A	Mx	.0197	11
4	MP4A	X	0	5
5	MP4A	Z	31.56	5
6	MP4A	Mx	.0197	5
7	MP4A	X	0	1
8	MP4A	Z	31.56	1
9	MP4A	Mx	0197	1
10	MP4A	X	0	5
11	MP4A	Z	31.56	5
12	MP4A	Mx	0197	5
13	MP2A	X	0	2
14	MP2A	Z	16.755	2
15	MP2A	Mx	0	2
16	MP2A	X	0	4
17	MP2A	Z	16.755	4
18	MP2A	Mx	0	4
19	MP1A	X	0	.5
	MP1A	Z	18.215	.5
20	MP1A MP1A	Mx	0	.5
21	MP1A MP1A	X	0	5.5
22		Z	18.215	5.5
23	MP1A	Mx	0	5.5
24	MP1A	X	0	.5
25	MP5A	ź	18.215	.5
26	MP5A	Mx	0	.5
27	MP5A	X	<u>0</u>	5.5
28	MP5A	- 2	18.215	5.5
29 30	MP5A MP5A	Mx	0	5.5
30	IVIF JA	1002		



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP4A	X	0	4
32	MP4A	Z	3.399	4
33	MP4A	Mx	.00085	4
34	MP4A	X	0	.5
35	MP4A	Z	14.091	.5
36	MP4A	Mx	0	.5
37	MP3A	X	0	3.75
38	MP3A	Z	13.974	3.75
39	MP3A	Mx	0	3.75
40	OVP	X	Ő	1.25
41	OVP	Z	24.039	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	0	1
44	MP3A	Z	7.633	1
45	MP3A	Mx	0	1
46	MP3A	X	0	
47	MP3A	Z	7.633	1
48	MP3A	Mx	0	1

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

Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
	X		1
MP4A	Z		1
MP4A	Mx		1
MP4A	X		5
MP4A	Z		5
MP4A	Mx		5
_MP4A	X		1
MP4A	Z		1
MP4A	Mx		1
MP4A	X		5
MP4A	Z		5
MP4A	Mx		5
MP2A			2
MP2A	Z		2
MP2A	Mx		2
MP2A			4
MP2A	7		4
MP2A			4
			.5
	7		.5
			.5
	X		5.5
	7		5.5
			5.5
			.5
	7		.5
			.5
			5.5
	7		5.5
			5.5
			4
	7		4
			4
			.5
	7		.5
	MP4A MP4A MP4A MP4A MP4A MP4A MP4A MP4A	MP4AXMP4AZMP4AMxMP4AXMP4AZMP4AXMP4AZMP4AXMP4AZMP4AXMP4AXMP4AXMP4AXMP4AXMP4AXMP4AXMP4AXMP4AXMP2AXMP2AXMP2AXMP2AXMP1AXMP1AXMP1AXMP5AZMP5AXMP5AZMP5AXMP4AXMP4AXMP4AXMP5AXMP5AXMP4AXMP4AXMP4AXMP4AXMP4AXMP4AXMP4AX	MP4A X -14.52 MP4A Z 25.149 MP4A Mx 023 MP4A X -14.52 MP4A X -14.52 MP4A Z 25.149 MP4A X -14.52 MP4A Z 25.149 MP4A X -14.52 MP4A X -0085 MP4A X -0085 MP2A Z 12.419 MP2A Z 12.419 MP2A Z 12.419 MP2A Z 12.419 MP2A Z 16.398 MP1A X -9.467 MP1A Z 16.398 MP1A Z 16.398 MP1A



<u>Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)</u>

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
00		Mx	0033	.5
36	MP4A		-6.248	3.75
37	MP3A	X		3.75
38	MP3A	L	10.822	3.75
39	MP3A	Mx	.0031	
40	OVP	X	-13.597	1.25
41	OVP	Z	23.55	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	-3,216	1
44	MP3A	Z	5.571	1
45	MP3A	Mx	.0013	11
46	MP3A	X	-3.216	1
40	MP3A	Z	5.571	1
48	MP3A	Mx	0013	1

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

Member Label MP4A MP4A MP4A MP4A MP4A MP4A MP4A MP4A	X Z Mx X Z	-20.782 11.998 .0179 -20.782	1 1 1 5
MP4A MP4A MP4A MP4A MP4A	Z Mx X Z	.0179 -20.782	1
MP4A MP4A MP4A MP4A	X Z	-20.782	
MP4A MP4A MP4A	Z		5
MP4A MP4A	Z		· · · · · · · · · · · · · · · · · · ·
MP4A		11.998	5
	Mx	.0179	5
	X	-20.782	1
	Z	11.998	1
	Mx		1
	X		5
	Ζ	11.998	5
	Mx		5
	X		2
	Z		2
			22
			4
	Z	4.755	4
			4
		-17.644	.5
		10.187	.5
		.0088	.5
		-17.644	5.5
	Z	10.187	5.5
		.0088	5.5
		-17.644	.5
	7	10.187	.5
		.0088	.5
		-17.644	5.5
	Z	10.187	5.5
		.0088	5.5
		-2.386	4
		1.377	4
		000849	4
		-9.4	.5
		5.427	.5
		0047	.5
			3.75
	7		3.75
			3.75
			1.25
	MP4A MP4A MP4A MP4A MP4A MP4A MP2A MP1A MP1A MP1A MP1A MP1A MP1A MP1A MP5A MP5A MP5A MP5A MP4A MP4A MP4A MP4A MP4A MP4A MP4A MP4A MP3A MP3A OVP	MI 4A Mx MP4A X MP4A Z MP4A Z MP4A Z MP4A X MP4A Z MP4A X MP2A X MP2A Z MP2A Z MP2A Z MP2A Z MP2A Z MP2A Z MP1A X MP5A X MP5A X MP5A X MP5A X MP5A X MP4A X MP4A X MP4A X MP4A X MP4A X	MP4A Mx .0029 MP4A X -20.782 MP4A Z 11.998 MP4A Z 11.998 MP4A Mx .0029 MP4A Mx .0029 MP2A X -8.236 MP2A Z 4.755 MP2A X -8.236 MP2A X -17.644 MP1A X -17.644 MP1A X -17.644 MP1A X -17.644 MP5A X -17.644 MP5A X -17.644 MP5A X -17.644 MP5A X -17.644 <td< td=""></td<>

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
41	OVP	Z	14.385	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	-3.492	1
44	MP3A	Z	2.016	1
45	MP3A	Mx	.0015	1
46	MP3A	X	-3.492	1
47	MP3A	Z	2.016	1
48	MP3A	Mx	0015	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Z	-21.475	1
2	MP4A		0	1
3	MP4A	Mx	.0107	1
4	MP4A	X	-21.475	5
5	MP4A	Ζ	0	5
6	MP4A	Mx	.0107	5
7	MP4A	X	-21.475	1
8	MP4A	Ζ	0	1
9	MP4A	Mx	.0107	1
10	MP4A	X	-21.475	5
11	MP4A	Z	0	5
12	MP4A	Mx	.0107	5
13	MP2A	X	-7.095	2
14	MP2A	Z	0	2
15	MP2A	Mx	.0035	2
16	MP2A	X	-7.095	4
17	MP2A	Z	0	4
18	MP2A	Mx	.0035	4
19	MP1A	X	-21.093	.5
20	MP1A	Z	0	.5
21	MP1A	Mx	.0105	.5
22	MP1A	X	-21.093	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	.0105	5.5
25	MP5A	X	-21.093	.5
26	MP5A	Z	0	.5
27	MP5A	Mx	.0105	.5
28	MP5A	X	-21.093	5.5
29	MP5A	Z	0	5.5
30	MP5A	Mx	.0105	5.5
31	MP4A	X	-2.54	5.5
32	MP4A	Z	0	4 4
33	MP4A	Mx	0013	
34	MP4A	X	-9.775	4
35	MP4A	Z	-9.775	.5
36	MP4A	Mx	0049	.5
37	MP3A	X		.5
38	MP3A	Z	-8.066	3.75
39	MP3A	Mx	0	3.75
40	OVP		.004	3.75
40	OVP	X	-27.194	1.25
42	OVP	Z	0	1.25
42 43		Mx	0	1.25
43	MP3A MP3A	X	-2.833	11
44		Z	0	1
43	MP3A	Mx	.0012	1



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
		X	-2.833	1
46	MP3A		0	1
47	MP3A	<u>∠</u>		
48	MP3A	Mx	0012	

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	MP4A	X	-20.782	1
2	MP4A	Z	-11.998	1
3	MP4A	Mx	.0029	5
4	MP4A	X	-20.782	5
5	MP4A	Z	-11.998	5
6	MP4A	Mx	.0029	1
7	MP4A	X	-20.782	1
8	MP4A	Z	-11.998	1
9	MP4A	Mx	.0179	5
10	MP4A	X	-20.782	5
11	MP4A	Z	-11.998	5
12	MP4A	Mx	.0179	2
13	MP2A	X	-8.236	2
14	MP2A	Z	-4.755	2
15	MP2A	Mx	.0041	4
16	MP2A	X	-8.236	4
17	MP2A	<u>Z</u>	-4.755	4
18	MP2A	Mx	.0041	.5
19	MP1A	X	-17.644	.5
20	MP1A	Z	-10.187	.5
21	MP1A	Mx	.0088	.5
22	MP1A	X	-17.644	5.5
23	MP1A	Ζ	-10.187	5.5
24	MP1A	Mx	.0088	
25	MP5A	X	-17.644	.5
26	MP5A	Z	-10.187	.5
27	MP5A	Mx	.0088	.5
28	MP5A	X	-17.644	5.5
29	MP5A	Z	-10.187	5.5
30	MP5A	Mx	.0088	5.5
31	MP4A	X	-2.386	4
32	MP4A	Z	-1.377	4
33	MP4A	Mx	0015	4
34	MP4A	X	-9.4	.5
35	MP4A	Z	-5.427	.5
36	MP4A	Mx	0047	.5
37	MP3A	X	-8.264	3.75
38	MP3A	Z	-4.771	3.75
39	MP3A	Mx	.0041	3.75
40	OVP	X	-20.819	1.25
40	OVP	Z	-12.02	1.25
42	OVP	Mx	0	1.25
42	MP3A	X	-3.492	1
43	MP3A	Z	-2.016	1
45	MP3A	Mx	.0015	11
45	MP3A	X	-3.492	1
40	MP3A	Z	-2.016	1
47	MP3A	Mx	0015	1



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	<u>X</u>	-14.52	1
2	MP4A	Z	-25.149	1
3	MP4A	Mx	0085	1
4	MP4A	X	-14.52	5
5	MP4A	Z	-25.149	5
6	MP4A	Mx	0085	5
7	MP4A	X	-14.52	1
8	MP4A	Z	-25.149	1
9	MP4A	Mx	.023	1
10	MP4A	X	-14.52	5
11	MP4A	Z	-25.149	5
12	MP4A	Mx	.023	5
13	MP2A	X	-7.17	2
14	MP2A	Z	-12.419	2
15	MP2A	Mx	.0036	2
16	MP2A	X	-7.17	4
17	MP2A	Z	-12.419	4
18	MP2A	Mx	.0036	4
19	MP1A	X	-9.467	.5
20	MP1A	Z	-16.398	.5
21	MP1A	Mx	.0047	.5
22	MP1A	X	-9.467	5.5
23	MP1A	Z	-16.398	5.5
24	MP1A	Mx	.0047	5.5
25	MP5A	X	-9.467	.5
26	MP5A	Z	-16.398	.5
27	MP5A	Mx	.0047	.5
28	MP5A	X	-9.467	5.5
29	MP5A	Z	-16.398	5.5
30	MP5A	Mx	.0047	5.5
31	MP4A	X	-1.592	4
32	MP4A	Z	-2.758	4
33	MP4A	Mx	0015	4
34	MP4A	X	-6.506	.5
35	MP4A	Z	-11.269	.5
36	MP4A	Mx	0033	.5
37	MP3A	X	-6.248	.0
38	MP3A	Z	-0.240	3.75
39	MP3A	Mx	.0031	3.75
10	OVP	X	-11.231	3.75
1	OVP	Z	-19.453	1.25
2	OVP	Mx		1.25
13	MP3A	X	-3.216	1.25
4	MP3A	Z		11
15	MP3A MP3A	Z	-5.571	1
16	MP3A MP3A			1
17	MP3A MP3A	Z	-3.216	1
8	MP3A	Mx	-5.571	1
	IVIT SM	IVIX	0013	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	-10.433	1
3	MP4A	Mx	0065	
4	MP4A	X	0	
5	MP4A	Z	-10.433	5



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

Member	Label Direction	Magnitude[lb,k-ft]	Location[ft.%]
6 MP4	1A Mx	0065	5
7 MP4		00	1
8 MP4	the later of the l	-10.433	1
9 MP4		.0065	1
10 MP4		0	5
11 MP4	1	-10.433	5
12 MP4		.0065	5
13 MP2	M. A	0	2
14 MP2		-4.489	2
15 MP2		0	2
16 MP2		0	4
17 MP2		-4.489	4
18 MP2		0	4
19 MP		0	.5
		-5.737	.5
20 MP 21 MP		0	.5
		0	5.5
		-5.737	5.5
		0	5.5
		0	.5
25 MP 26 MP		-5.737	.5
		0	.5
27 MP		Ő	5.5
28 MP		-5.737	- 5.5
29 MP		0	5.5
30 MP	0/ 1	0	4
31 MP	11 ×	854	4
32 MP		000213	4
33 MP		0	.5
34 MP		-3.556	.5
35 MP		-3,350	.5
36 MP		0	3.75
37 MP		-3.528	3.75
38 MP		-3.328	3.75
39 MP		0	1.25
40 OV		-5.908	1.25
41 OV			1.25
42 OV		0	1.25
43 MP		0	1
44 MP	3A Z	-2.182	1
45 MP	3A Mx	0	1
46 MP	3A X	0	1
47 MP	3A Z	-2.182	1
48 MP		0	

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
4	MP4A	X	4.769	1
$\frac{1}{2}$	MP4A MP4A	7	-8.26	1
2	MP4A MP4A	Mx	0075	1
3	MP4A MP4A	X	4.769	5
5	MP4A	Z	-8.26	5
6	MP4A	Mx	0075	5
7	MP4A	X	4.769	1
8	MP4A	Z	-8.26	1
9	MP4A	Mx	.0028	1
10	MP4A	X	4.769	5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP4A	Z	-8.26	5
12	MP4A	Mx	.0028	5
13	MP2A	X	1.877	2
14	MP2A	Z	-3.25	2
15	MP2A	Mx	000938	2
16	MP2A	X	1.877	4
17	MP2A	Z	-3.25	4
18	MP2A	Mx	000938	4
19	MP1A	X	2.991	.5
20	MP1A	Z	-5.181	.5
21	MP1A	Mx	0015	.5
22	MP1A	X	2.991	5.5
23	MP1A	Z	-5.181	
24	MP1A	Mx	0015	5.5
25	MP5A	X	2.991	5.5
26	MP5A	Z	-5.181	.5
27	MP5A	Mx	0015	.5
28	MP5A	X	2.991	.5
29	MP5A	Z		5.5
30	MP5A	Mx	-5.181	5.5
31	MP4A	X	0015	5.5
32	MP4A	Z	.394	4
33	MP4A	Mx	683	4
34	MP4A		2.6e-5	4
35	MP4A MP4A	Z	1.632	.5
36	MP4A MP4A		-2.826	.5
37	MP3A	Mx	.000816	.5
38		X	1.565	3.75
39	MP3A	Z	-2.71	3.75
40	OVP	Mx	000783	3.75
40		X Z	3,386	1.25
	OVP		-5.865	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	.901	1
44	MP3A	Z	-1.56	1
45	MP3A	Mx	000375	1
46	MP3A	X	.901	1
47	MP3A	Z	-1.56	1
48	MP3A	Mx	.000375	1

<u> Member Point Loads (BLC 29 : Antenna Wm (60 Deg))</u>

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6,709	1
2	MP4A	Z	-3.874	
3	MP4A	Mx	0058	1
4	MP4A	X	6,709	5
5	MP4A	Z	-3.874	5
6	MP4A	Mx	0058	5
7	MP4A	X	6.709	1
8	MP4A	Z	-3.874	1
9	MP4A	Mx	000933	1
10	MP4A	X	6.709	5
11	MP4A	Z	-3.874	5
12	MP4A	Mx	000933	5
13	MP2A	X	1.976	
14	MP2A	Z	-1.141	2
15	MP2A	Mx	000988	2



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
MP2A	X	1.976	4
	Z	-1.141	4
	Mx	000988	4
		5.606	.5
	Z	-3.237	.5
		0028	.5
		5.606	5.5
		-3.237	5.5
		0028	5.5
		5.606	.5
			.5
			.5
			5.5
	7		5.5
			5.5
			4
	7		4
			4
	X		.5
			.5
			.5
			3.75
	7		3.75
			3.75
			1.25
			1.25
			1.25
			1
	7		1
			1
			1
			1
	where the same and the		
	MP2A MP2A MP1A MP1A MP1A MP1A MP1A MP1A MP5A MP5A MP5A MP5A MP5A MP5A MP5A MP5	MP2A Z MP2A Mx MP1A X MP1A Z MP1A X MP1A Z MP1A X MP5A X MP5A Z MP5A X MP5A Z MP5A X MP5A X MP5A Z MP5A X MP4A X MP4A Z MP4A Z MP4A X MP3A X MP3A X OVP X	MP2A Z -1.141 MP2A Mx 000988 MP1A X 5.606 MP1A Z -3.237 MP1A Mx 0028 MP1A X 5.606 MP1A X 5.606 MP1A Z -3.237 MP1A X 5.606 MP5A Z -3.237 MP5A Z -3.237 MP5A Z -3.237 MP4A X .569 MP4A X 2.01 MP4A

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.852	1
2	MP4A	Z	0	11
3	MP4A	Mx	0034	1
4	MP4A	X	6.852	5
5	MP4A	Z	0	55
6	MP4A	Mx	0034	5
7	MP4A	X	6.852	1
8	MP4A	Z	0	1
9	MP4A	Mx	0034	11
10	MP4A	X	6.852	5
11	MP4A	Z	0	5
12	MP4A	Mx	0034	5
13	MP2A	X	1.546	2
14	MP2A	Z	0	2
15	MP2A	Mx	000773	2
16	MP2A	X	1.546	4
17	MP2A	Z	0	4
18	MP2A	Mx	000773	4
19	MP1A	X	6.718	.5
20	MP1A	Z	0	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
21	MP1A	Mx	0034	.5
22	MP1A	X	6.718	5.5
23	MP1A	Z	0	5.5
24	MP1A	Mx	0034	5.5
25	MP5A	X	6.718	.5
26	MP5A	Z	0	.5
27	MP5A	Mx	0034	.5
28	MP5A	X	6.718	5.5
29	MP5A	Z	0	5.5
30	MP5A	Mx	0034	5.5
31	MP4A	X	.591	4
32	MP4A	Z	0	4
33	MP4A	Mx	.000296	4
34	MP4A	X	2.386	.5
35	MP4A	Z	0	.5
36	MP4A	Mx	.0012	.5
37	MP3A	X	1.935	3.75
38	MP3A	Z	0	3.75
39	MP3A	Mx	000967	3.75
40	OVP	X	6.772	1.25
41	OVP	Z	0	1.25
42	OVP	Mx	0	
43	MP3A	X	.662	1.25
44	MP3A	Z	0	1
45	MP3A	Mx	000276	
46	MP3A	X	.662	
47	MP3A	Z	.002	1
48	MP3A	Mx	.000276	

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.709	1
2	MP4A	Z	3.874	1
3	MP4A	Mx	000933	1
4	MP4A	X	6.709	5
5	MP4A	Z	3.874	5
6	MP4A	Mx	000933	5
7	MP4A	X	6.709	1
8	MP4A	Z	3.874	1
9	MP4A	Mx	0058	1
10	MP4A	X	6.709	5
11	MP4A	Z	3.874	5
12	MP4A	Mx	0058	5
13	MP2A	X	1.976	2
14	MP2A	Z	1.141	2
15	MP2A	Mx	000988	2
16	MP2A	X	1.976	4
17	MP2A	Z	1.141	4
18	MP2A	Mx	000988	4
19	MP1A	X	5.606	.5
20	MP1A	Z	3.237	.5
21	MP1A	Mx	0028	.5
22	MP1A	X	5.606	5.5
23	MP1A	Z	3.237	5.5
24	MP1A	Mx	0028	5.5
25	MP5A	X	5.606	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP5A	7	3.237	.5
	MP5A	Mx	0028	.5
27		X	5.606	5.5
28	MP5A	Z	3.237	5.5
29	MP5A	Mx	0028	5.5
30	MP5A	X	.569	4
31	MP4A		.328	4
32	MP4A	Z	.000366	4
33	MP4A	Mx	2.319	.5
34	MP4A	<u> </u>		.5
35	MP4A	Z	1.339	.5
36	MP4A	Mx	.0012	
37	MP3A	X	2.02	3.75
38	MP3A	Z	1.166	3.75
39	MP3A	Mx	001	3.75
40	OVP	X	5.117	1.25
41	OVP	Z	2.954	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	.902	11
43	MP3A	Z	.521	
	MP3A	Mx	000376	1
45	MP3A MP3A	X	.902	1
46		7	.521	1
47 48	MP3A MP3A	Mx	.000376	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	4.769	1
2	MP4A	Z	8.26	
3	MP4A	Mx	.0028	1
4	MP4A	X	4.769	5
5	MP4A	Z	8.26	
6	MP4A	Mx	.0028	5
7	MP4A	X	4.769	1
8	MP4A	Z	8.26	1
9	MP4A	Mx	0075	11
10	MP4A	X	4.769	5
11	MP4A	Z	8.26	5
12	MP4A	Mx	0075	5
13	MP2A	X	1.877	2
14	MP2A	Z	3.25	2
14	MP2A	Mx	000938	2
16	MP2A	X	1.877	4
17	MP2A	Z	3.25	4
18	MP2A	Mx	000938	4
	MP1A	X	2.991	.5
19	MP1A	Z	5.181	.5
20	MP1A MP1A	Mx	0015	.5
21	MP1A MP1A	X	2.991	5.5
22	MP1A MP1A	Z	5.181	5.5
23	MP1A MP1A	Mx	0015	5.5
24		X	2.991	.5
25	MP5A	Z	5.181	.5
26	MP5A	Mx	0015	.5
27	MP5A	X	2.991	5.5
28	MP5A	Z	5.181	5.5
29 30	MP5A MP5A	Mx	0015	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP4A	X	.394	
32	MP4A	Z	.683	4
33	MP4A	Mx	.000368	4
34	MP4A	X	1.632	.5
35	MP4A	Z	2.826	.5
36	MP4A	Mx	.000816	.5
37	MP3A	X	1.565	3.75
38	MP3A	Z	2.71	3.75
39	MP3A	Mx	000783	3.75
40	OVP	X	2.738	1.25
41	OVP	Z	4.743	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	.901	1
44	MP3A	Z	1.56	
45	MP3A	Mx	000375	1
46	MP3A	X	.901	
47	MP3A	Z	1.56	
48	MP3A	Mx	.000375	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	1
2	MP4A	Z	10.433	1
3	MP4A	Mx	.0065	1
4	MP4A	X	0	5
5	MP4A	Z	10.433	5
6	MP4A	Mx	.0065	5
7	MP4A	X	0	1
8	MP4A	Z	10.433	1
9	MP4A	Mx	0065	1
10	MP4A	X	0	5
11	MP4A	Z	10.433	5
12	MP4A	Mx	0065	5
13	MP2A	X	0	2
14	MP2A	Z	4.489	2
15	MP2A	Mx	0	2
16	MP2A	X	0	4
17	MP2A	Z	4.489	4
18	MP2A	Mx	0	4
19	MP1A	X	0	.5
20	MP1A	Z	5.737	.5
21	MP1A	Mx	0	.5
22	MP1A	X	0	5.5
23	MP1A	Z	5.737	5.5
24	MP1A	Mx	0	5.5
25	MP5A	X	0	.5
26	MP5A	Z	5.737	.5
27	MP5A	Mx	0	.5
28	MP5A	X	0	5.5
29	MP5A	Z	5.737	5.5
30	MP5A	Mx	0	5.5
31	MP4A	X	0	4
32	MP4A	Z	.854	4
33	MP4A	Mx	.000213	4
34	MP4A	X	0	.5
35	MP4A	Z	3.556	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP4A	Mx	0	.5
37	MP3A	X	0	3.75
38	MP3A	Z	3.528	3.75
39	MP3A	Mx	0	3.75
40	OVP	X	0	1.25
41	OVP	Z	5.908	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	0	1
44	MP3A	Z	2.182	1
45	MP3A	Mx	0	11
46	MP3A	X	0	
47	MP3A	Z	2.182	1
48	MP3A	Mx	0	11

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-4.769	1
2	MP4A	Z	8.26	1
3	MP4A	Mx	.0075	1
4	MP4A	X	-4.769	5
5	MP4A	Z	8.26	5
6	MP4A	Mx	.0075	5
7	MP4A	X	-4.769	1
8	MP4A	Z	8.26	1
9	MP4A	Mx	0028	11
10	MP4A	X	-4.769	5
11	MP4A	Z	8.26	55
12	MP4A	Mx	0028	5
13	MP2A	X	-1.877	2
14	MP2A	Z	3.25	2
15	MP2A	Mx	.000938	2
16	MP2A	X	-1.877	4
17	MP2A	Z	3.25	4
18	MP2A	Mx	.000938	4
19	MP1A	X	-2.991	.5
20	MP1A	Z	5.181	.5
21	MP1A	Mx	.0015	.5
22	MP1A	X	-2.991	5.5
23	MP1A	Z	5.181	5.5
24	MP1A	Mx	.0015	5.5
25	MP5A	X	-2.991	.5
26	MP5A	Z	5.181	.5
27	MP5A	Mx	.0015	.5
28	MP5A	X	-2.991	5.5
29	MP5A	Z	5.181	5.5
30	MP5A	Mx	.0015	5.5
31	MP4A	X	394	4
32	MP4A	Z	.683	4
33	MP4A	Mx	-2.6e-5	44
34	MP4A	X	-1.632	.5
35	MP4A	Z	2.826	.5
36	MP4A	Mx	000816	.5
37	MP3A	X	-1.565	3.75
38	MP3A	Z	2.71	3.75
39	MP3A	Mx	.000783	3.75
40	OVP	X	-3.386	1.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
41	OVP	Z	5.865	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	901	1
44	MP3A	Z	1.56	1
45	MP3A	Mx	.000375	1
46	MP3A	X	901	1
47	MP3A	Z	1.56	1
48	MP3A	Mx	000375	1

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

1	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP4A MP4A	X	-6.709	1
3		Z	3.874	1
	MP4A	Mx	.0058	1
4	MP4A	X	-6.709	5
5	MP4A	Z	3.874	5
6	MP4A	Mx	.0058	5
7	MP4A	X	-6.709	1
8	MP4A	Z	3.874	1
9	MP4A	Mx	.000933	1
10	MP4A	X	-6.709	5
11	MP4A	Z	3.874	5
12	MP4A	Mx	.000933	5
13	MP2A	X	-1.976	2
14	MP2A	Z	1.141	2
15	MP2A	Mx	.000988	2
16	MP2A	X	-1.976	4
17	MP2A	Z	1.141	4
18	MP2A	Mx	.000988	4
19	MP1A	X	-5.606	.5
20	MP1A	Z	3.237	.5
21	MP1A	Mx	.0028	.5
22	MP1A	X	-5.606	5.5
23	MP1A	Z	3.237	5.5
24	MP1A	Mx	.0028	5.5
25	MP5A	X	-5.606	.5
26	MP5A	Z	3.237	.5
27	MP5A	Mx	.0028	.5
28	MP5A	X	-5.606	5.5
29	MP5A	Z	3.237	5.5
30	MP5A	Mx	.0028	5.5
31	MP4A	X	569	4
32	MP4A	Z	.328	4
33	MP4A	Mx	000202	4
34	MP4A	X	-2.319	.5
35	MP4A	Z	1.339	.5
36	MP4A	Mx	0012	.5
37	MP3A	X	-2.02	
38	MP3A	Z	1.166	3.75
39	MP3A	Mx	.001	3.75
40	OVP	X		3.75
41	OVP	Z	-6.239	1.25
42	OVP	Mx	3.602	1.25
42	MP3A		0	1.25
43	MP3A	X	902	
44	MP3A MP3A		.521	1
43 [IVIFSA	Mx	.000376	1



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

Memberlabel	Direction	Magnitude[lb,k-ft]	Location[ft,%]
	X	902	1
	7	.521	1
	Mx	000376	1
	Member Label MP3A MP3A MP3A	MP3A X MP3A Z	Member Lader Diritian MP3A X 902 MP3A Z .521 MP3A Z .002376

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

Member Label MP4A MP4A MP4A MP4A MP4A MP4A	X Z Mx X	-6.852 0 .0034	
MP4A MP4A MP4A MP4A	Mx	0034	
MP4A MP4A MP4A		0034	
MP4A MP4A	X	.0001	1
MP4A		-6.852	5
LAD 4 A	Z	0	5
MP4A	Mx	.0034	5
MP4A	X	-6.852	1
MP4A	Z	0	1
			1
	X		5
	Z		5
			5
	X		2
MP2A		0	2
	Mx	.000773	2
MP2A	X		4
	Z		4
MP2A	Mx		4
	X	-6.718	.5
	Z	0	.5
	Mx	.0034	.5
			5.5
	Z		5.5
	Mx		5.5
MP5A			.5
	Z	0	.5
			.5
		-6.718	5.5
MP5A		0	5.5
			5.5
	X	591	4
		0	4
		000296	4
MPAA		-2.386	.5
	7	0	.5
		0012	.5
		-1.935	3.75
		0	3.75
MD2A		.000967	3.75
			1.25
	7		1.25
		Ő	1.25
			11
	and the second sec		1
			1
			1
	7		1
	and the second s		1
	MP4A MP4A MP4A MP4A MP4A MP4A MP2A MP2A MP2A MP2A MP2A MP2A MP2A MP1A MP1A MP1A MP1A MP1A MP1A MP1A MP1	MP4A Mx MP4A X MP4A Z MP4A Mx MP2A X MP2A Z MP2A Z MP2A X MP1A X MP5A X MP5A X MP5A X MP5A X MP4A X MP4A X MP4A X MP3A X MP3A X MP3A X	MP 4A Mx 0034 MP4A X -6.852 MP4A Z 0 MP4A Mx .0034 MP4A Mx .0034 MP4A Mx .0034 MP2A X -1.546 MP2A X .1546 MP2A Z 0 MP1A X .6.718 MP1A Z 0 MP1A X .6.718 MP1A X .6.718 MP5A X .6.718 MP5A Z 0 MP5A X .6.718 MP5A Z 0 MP5A Z 0 MP5A Z 0 MP4A Z 0



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<u>Member Point Loads (BLC 37 : Antenna Wm (300 Deg))</u>

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X Z	-6.709	1
2	MP4A	Z	-3.874	
3	MP4A	Mx	.000933	1
4	MP4A	X	-6.709	5
5	MP4A	Z	-3.874	5
6	MP4A	Mx	.000933	5
7	MP4A	X	-6.709	1 I
8	MP4A	Z	-3.874	1
9	MP4A	Mx	.0058	1
10	MP4A	X	-6.709	5
11	MP4A	Z	-3.874	5
12	MP4A	Mx	.0058	<u>5</u> 5
13	MP2A	X	-1.976	2
14	MP2A	Z	-1.141	2
15	MP2A	Mx	.000988	2
16	MP2A	X	-1.976	4
17	MP2A	Z	-1.141	4
18	MP2A	Mx	.000988	4
19	MP1A	X	-5.606	.5
20	MP1A	Z	-3.237	.5
21	MP1A	Mx	.0028	.5
22	MP1A	X	-5.606	5.5
23	MP1A	Z	-3.237	5.5
24	MP1A	Mx	.0028	5.5
25	MP5A	X	-5.606	.5
26	MP5A	Z	-3.237	.5
27	MP5A	Mx	.0028	.5
28	MP5A	X	-5.606	5.5
29	MP5A	Z	-3.237	5.5
30	MP5A	Mx	.0028	5.5
31	MP4A	X	569	4
32	MP4A	Z	328	4
33	MP4A	Mx	000366	4
34	MP4A	X	-2.319	45
35	MP4A	Z	-1.339	
36	MP4A	Mx	-1.339	.5
37	MP3A	X	-2.02	.5
38	MP3A	Z	-2.02	3.75
39	MP3A	Mx	.001	3.75
40	OVP	X	-5,117	3.75
41	OVP	Z	-2.954	1.25
42	OVP	Mx		1.25
43	MP3A	X	0	1.25
44	MP3A MP3A	Z	902	11
45	MP3A	Mx	521	1
46	MP3A MP3A		.000376	1
47	MP3A	Z	902	1
48	MP3A MP3A		521	1
TU I	INF 3A	Mx	000376	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-4.769	1
2	MP4A	Z	-8.26	1
3	MP4A	Mx	0028	
4	MP4A	X	-4.769	5
5	MP4A	Z	-8.26	5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
6	MP4A	Mx	0028	5
7	MP4A	X	-4.769	1
8	MP4A	Z	-8.26	1
9	MP4A	Mx	.0075	1
10	MP4A	X	-4.769	5
11	MP4A	Z	-8.26	5
12	MP4A	Mx	.0075	5
13	MP2A	X	-1.877	2
14	MP2A	Z	-3,25	2
15	MP2A	Mx	.000938	2
16	MP2A	X	-1.877	4
17	MP2A	Z	-3.25	4
18	MP2A	Mx	.000938	4
19	MP1A	X	-2.991	.5
20	MP1A	Z	-5.181	.5
21	MP1A	Mx	.0015	.5
22	MP1A	X	-2.991	5.5
23	MP1A	Z	-5.181	5.5
24	MP1A	Mx	.0015	5.5
25	MP5A	X	-2.991	.5
26	MP5A	Z	-5.181	.5
27	MP5A	Mx	,0015	.5
28	MP5A	X	-2.991	5.5
29	MP5A	Z	-5.181	5.5
30	MP5A	Mx	.0015	5.5
31	MP4A	X	394	4
32	MP4A	Z	683	4
33	MP4A	Mx	000368	4
34	MP4A	X	-1.632	.5
35	MP4A	Z	-2.826	.5
36	MP4A	Mx	000816	.5
37	MP3A	X	-1.565	3.75
38	MP3A	Z	-2.71	3.75
39	MP3A	Mx	.000783	3.75
40	OVP	X	-2.738	1.25
41	OVP	Z	-4.743	1.25
42	OVP	Mx	0	1.25
43	MP3A	X	901	1
44	MP3A	Z	-1.56	1
45	MP3A	Mx	.000375	1
46	МРЗА	X	901	1
47	MP3A	Z	-1.56	1
48	MP3A	Mx	000375	1

Member Point Loads (BLC 77 : Lm1)

Member Label Direction Magnitude[lb,k-ft] 1 M11 Y -500	•
	0
(1 - 1) (1 - 1) (0 + 0.78 + 1.72)	
Member Loads (BLC 78 : Lm2) Member Label Direction Magnitude[lb,k-ft]	Location[ft,%]
Member Label Direction Magnitude[10,K-rt] M7 Y -500	0



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Member Point Loads (BLC 80 : Lv2)

 Member Label	Direction	Magnitude[lb,k-ft]	Location[ft %]
M1	Y	-250	%100

Member Point Loads (BLC 81 : Antenna Ev)

1	Member Label MP4A	Direction	Magnitude[lb,k-ft]	Location[ft,%]
		Y	-1.3977	1
2	MP4A	My	000699	1
3 4	MP4A	Mz	.000874	
	MP4A	Y	-1.3977	5
5	MP4A	My	000699	5
6	MP4A	Mz	.000874	5
7	MP4A	Y	-1.3977	
8	MP4A	My	000699	1
9	MP4A	Mz	000874	1
10	MP4A	Y	-1.3977	5
11	MP4A	Mγ	000699	5
12	MP4A	Mz	000874	5
13	MP2A	Y	-1.9232	2
14	MP2A	My	000962	2
15	MP2A	Mz	0	2
16	MP2A	Y	-1.9232	4
17	MP2A	My	000962	4
18	MP2A	Mz	0	4
19	MP1A	Y	3533	.5
20	MP1A	My	000177	.5
21	MP1A	Mz	0	.5
22	MP1A	Y	3533	5.5
23	MP1A	My	000177	5.5
24	MP1A	Mz	0	5.5
25	MP5A	Y	3533	.5
26	MP5A	My	000177	.5
27	MP5A	Mz	0	.5
28	MP5A	Y	3533	5.5
29	MP5A	My	000177	5.5
30	MP5A	Mz	0	5.5
31	MP4A	Y	4593	4
32	MP4A	Mv	.00023	4
33	MP4A	Mz	.000115	4
34	MP4A	Y	-3.7271	.5
35	MP4A	My	.0019	
36	MP4A	Mz	0	.5
37	MP3A	Y	-3.1044	.5
38	MP3A	My	0016	3.75
39	MP3A	Mz		3.75
40	OVP	Y	-1.4131	3.75
41	OVP	My		1.25
42	OVP	Mz	0	1.25
43	MP3A	Y	0	1.25
43	MP3A		7772	11
45	MP3A	<u>My</u>	000324	1
45	MP3A MP3A	Mz	0	1
40	MP3A MP3A	Y	7772	1
47	MP3A MP3A	My	.000324	1
40	IVIFSA	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	MP4A	Z	-3,4942	1

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<u>Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)</u>

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP4A	Mx	0022	1
3	MP4A	Z	-3.4942	5
4	MP4A	Mx	0022	5
5	MP4A	Z	-3.4942	11
6	MP4A	Mx	.0022	1
7	MP4A	Z	-3.4942	5
	MP4A	Mx	.0022	5
8	MP2A	Z	-4.8079	2
9	MP2A	Mx	0	2
10	MP2A	Z	-4.8079	4
11	MP2A MP2A	Mx	0	4
12		Z	8832	.5
13	MP1A	Mx	0	.5
14	MP1A	Z	8832	5.5
15	MP1A	Mx	0	5.5
16	MP1A	Z	8832	.5
17	MP5A		0	.5
18	MP5A	Mx	8832	5.5
19	MP5A	Z	0	5.5
20	MP5A	Mx	-1.1482	4
21	MP4A	Z		4
22	MP4A	Mx	000287	.5
23	MP4A	Z	-9.3178	.5
24	MP4A	Mx	0	3.75
25	MP3A	Z	-7.7611	3.75
26	MP3A	Mx	0	1.25
27	OVP	Z	-3.5328	1.25
28	OVP	Mx	0	1.20
29	MP3A	Z	-1.943	
30	MP3A	Mx	0	
31	MP3A	Z	-1.943	1
32	MP3A	Mx	0	11

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

	Nemberlahol	Direction	Magnitude[lb,k-ft]	Location[ft,%]
	Member Label	X	3.4942	1
1	MP4A	Mx	0017	1
2	MP4A	X	3.4942	5
3	MP4A		0017	5
4	MP4A	Mx	3.4942	1
5	MP4A	X		1
6	MP4A	Mx	0017	5
7	MP4A	X	3.4942	5
8	MP4A	Mx	0017	2
9	MP2A	X	4.8079	
10	MP2A	Mx	0024	2
11	MP2A	X	4.8079	4
12	MP2A	Mx	0024	4
13	MP1A	X	.8832	.5
14	MP1A	Mx	000442	.5
15	MP1A	X	.8832	5.5
16	MP1A	Mx	000442	5.5
17	MP5A	X	.8832	.5
	MP5A	Mx	000442	.5
18	MP5A	X	.8832	5.5
19		Mx	000442	5.5
20	MP5A	X	1.1482	4
21 22	MP4A MP4A	Mx	.000574	4



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP4A	X	9.3178	5
24	MP4A	Mx	.0047	
25	МРЗА	X	7.7611	3.75
26	MP3A	Mx	0039	3.75
27	OVP	X	3.5328	1.25
28	OVP	Mx	0	1.25
29	MP3A	X	1,943	1
30	MP3A	Mx	00081	1
31	MP3A	X	1.943	1
32	MP3A	Mx	.00081	1

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude.	End Magnitudell.	Start LocationIft	End Location[ft
1	M1	Y	-5.985	-5.985	0	%100
2	MP1A	Y	-4.5121	-4.5121	Ő	%100
3	M17A	Y	-7.2941	-7.2941	0	%100
4	M18A	Y	-8.8087	-8.8087	0	%100
5	MP2A	Y	-4.5121	-4.5121	0	%100
6	MP3A	Y	-4.5121	-4.5121	0	%100
7	MP4A	Y	-4.5121	-4.5121	0	%100
8	MP5A	Y	-4.5121	-4.5121	0	%100
9	M17	Y	-5.985	-5.985	0	%100
10	M25A	Y	-6.9572	-6.9572	0	%100
11	OVP	Y	-4.5121	-4.5121	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[l.	Start LocationIft	End Location Ift
_1	M1	X	0	0	0	%100
2	M1	Z	-12.7258	-12.7258	0	%100
3	MP1A	X	0	0	0	%100
4	MP1A	Z	-8.6354	-8.6354	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	-9.0642	-9.0642	Ö	%100
7	M18A	X	0	0.0042	Ö	%100
8	M18A	Z	0	Ŭ Ŭ	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-8.6354	-8.6354	0	%100
11	MP3A	X	0.0004	-0.0304	0	
12	MP3A	Z	-8.6354	-8.6354	0	%100
13	MP4A	<u>x</u>	0.0004	-0.0304		%100
14	MP4A	Z	-8.6354	9 6254	0	%100
15	MP5A	X	-0.0354	-8.6354		%100
16	MP5A	Z	0 0054	0 0054	0	%100
17	M17		-8.6354	-8.6354	0	%100
the second		X	00	0	0	%100
18	M17	Z	-12.7258	-12.7258	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	-2.4836	-2.4836	0	%100
21	OVP	X	0	0	0	%100
22	OVP	Z	-7.0615	-7.0615	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start LocationIft.	End Location[ft
1	M1	X	4.7722	4.7722	0	%100
2	M1	Z	-8.2657	-8.2657	0	%100



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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	.Start Location[ft.	End Location[ft
3	MP1A	X	4.3177	4.3177	0	%100
4	MP1A	Z	-7.4785	-7.4785	0	%100
5	M17A	X	4.5321	4.5321	0	%100
6	M17A	Z	-7.8498	-7.8498	0	%100
7	M18A	X	1,4095	1.4095	0	%100
	M18A	7	-2,4413	-2.4413	0	%100
8	MP2A	X	4.3177	4.3177	0	%100
9	MP2A MP2A	7	-7.4785	-7.4785	0	%100
10	MP3A	X	4.3177	4.3177	0	%100
11	MP3A MP3A	7	-7,4785	-7.4785	0	%100
12		X	4.3177	4.3177	0	%100
13	MP4A	Z	-7.4785	-7.4785	0	%100
14	MP4A	X	4.3177	4.3177	0	%100
15	MP5A	7	-7.4785	-7.4785	0	%100
16	MP5A	X	4.7722	4,7722	0	%100
17	M17	and the second sec	-8,2657	-8.2657	0	%100
18	M17	Z		3.6082	0	%100
19	M25A	X	3.6082		0	%100
20	M25A	Z	-6.2495	-6.2495	0	%100
21	OVP	X	3.5307	3.5307		and the second s
22	OVP	Z	-6.1154	-6.1154	0	%100

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

	Member Label	Direction	Start Magnitude	End Magnitude[].	.Start Location[ft,	.End Location[ft
1	Member Laber	X	2.7552	2.7552	0	%100
2	M1	Z	-1.5907	-1.5907	0	%100
3	MP1A	X	7.4785	7.4785	0	%100
4	MP1A	Z	-4.3177	-4.3177	0	%100
	M17A	X	7.8498	7.8498	0	%100
5	M17A	Z	-4.5321	-4.5321	0	%100
6	M18A	X	7.324	7.324	0	%100
1	M18A	Z	-4.2285	-4.2285	0	%100
8		X	7.4785	7.4785	0	%100
9	MP2A	Z	-4.3177	-4.3177	0	%100
10	MP2A	X	7,4785	7.4785	0	%100
11	MP3A	Z	-4.3177	-4.3177	0	%100
12	MP3A	X	7.4785	7.4785	0	%100
13	MP4A	Z	-4.3177	-4.3177	Ö	%100
14	MP4A	the second s	7.4785	7.4785	Ő	%100
15	MP5A	X	-4.3177	-4.3177	0	%100
16	MP5A	Z		2.7552	0	%100
17	M17	X	2.7552	-1.5907	0	%100
18	M17	Z	-1.5907			%100
19	M25A	<u> </u>	8.1989	8.1989	0	%100
20	M25A	Z	-4.7336	-4.7336	0	%100
21	OVP	X	6.1154	6.1154	0	the second
22	OVP	Z	-3.5307	-3.5307	0	%100

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

Memberlabel	Direction	Start Magnitude.	End Magnitude[].	.Start Location[ft,	End Location[ft
Member Laber	X	Ő	Õ	0	%100
N/1	7	0	0	0	%100
	X	8 6354	8.6354	0	%100
	7	0	0	0	%100
	X	9.0642	9.0642	0	%100
	7	0	0	0	%100
	X	11 2761	11,2761	0	%100
	Z	0	0	0	%100
	Member Label M1 M1 MP1A MP1A M17A M17A M18A M18A	Member LabelDirectionM1XM1ZMP1AXMP1AZM17AXM17AXM18AX	M1 X 0 M1 Z 0 M1 Z 0 MP1A X 8.6354 MP1A Z 0 M17A X 9.0642 M17A Z 0 M17A Z 0 M17A Z 0 M18A X 11.2761	M1 X 0 0 M1 Z 0 0 MP1A X 8.6354 8.6354 MP1A Z 0 0 MP1A Z 0 0 MP1A Z 0 0 M17A X 9.0642 9.0642 M17A Z 0 0 M17A Z 0 0 M18A X 11.2761 11.2761	Member Label Direction Start Magnitude End Magnitude[IStart Location[ft M1 X 0 0 0 M1 Z 0 0 0 M1 Z 0 0 0 M1 Z 0 0 0 MP1A X 8.6354 8.6354 0 MP1A Z 0 0 0 M17A X 9.0642 0 0 M17A Z 0 0 0

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

	Member Label	Direction	Start Magnitude.	End Magnitudell.	Start LocationIft.	End Location[ft
9	MP2A	X	8.6354	8.6354	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	8.6354	8.6354	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	8.6354	8.6354	0	%100
14	MP4A	Z	0	0	0	%100
15 _	MP5A	X	8.6354	8.6354	0	%100
16	MP5A	Z	0	0	0	%100
17	M17	X	0	0	0	%100
18	M17	Z	0	0	0	%100
19	M25A	X	6.9855	6.9855	0	%100
20	M25A	Z	0	0	0	%100
21	OVP	X	7.0615	7.0615	0	%100
22	OVP	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitudell.	Start LocationIft	End Location[ft
1	M1	X	2.7552	2.7552	0	%100
2	M1	Z	1.5907	1.5907	0	%100
3	MP1A	X	7,4785	7.4785	0	%100
4	MP1A	Z	4.3177	4.3177	0	%100
5	M17A	X	7.8498	7.8498	0	%100
6	M17A	Z	4.5321	4.5321	0	%100
7	M18A	X	7.324	7.324	0	%100
8	M18A	Z	4.2285	4.2285	0	%100
9	MP2A	X	7.4785	7.4785	0	%100
10	MP2A	Z	4.3177	4.3177	0	%100
11	МРЗА	X	7.4785	7.4785	0	%100
12	MP3A	Z	4.3177	4.3177	Ö	%100
13	MP4A	X	7,4785	7.4785	0	%100
14	MP4A	Z	4.3177	4.3177	0	%100
15	MP5A	X	7.4785	7.4785	0	%100
16	MP5A	Z	4.3177	4.3177	Ö	%100
17	M17	X	2.7552	2.7552	0	%100
18	M17	Z	1.5907	1.5907	0	%100
19	M25A	X	1.951	1.951	0	%100
20	M25A	Z	1.1264	1.1264	0	%100
21	OVP	<u>Z</u> X	6.1154	6.1154	0	the second se
22	OVP	Z	3.5307	3.5307	0	%100 %100

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

	Member Label	Direction	Start Magnitude.	.End Magnitudell.	Start LocationIft.	End Location[ft
1	M1	X	4.7722	4.7722	0	%100
2	M1	Z	8.2657	8.2657	0	%100
3	MP1A	X	4.3177	4.3177	0	%100
4	MP1A	Z	7.4785	7.4785	0	%100
5	M17A	X	4.5321	4.5321	0	%100
6	M17A	Z	7.8498	7.8498	0	%100
7	M18A	X	1,4095	1.4095	0	%100
8	M18A	Z	2.4413	2.4413	0	%100
9	MP2A	X	4.3177	4.3177	0	%100
10	MP2A	Z	7.4785	7.4785	0	%100
11	MP3A	X	4.3177	4.3177	0	%100
12	MP3A	Z	7.4785	7.4785	0	%100
13	MP4A	X	4.3177	4.3177	0	%100
14	MP4A	Z	7.4785	7.4785	0	%100



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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location[ft.	.End Location[ft
45	MP5A	X	4.3177	4.3177	0	%100
15	MP5A MP5A	7	7.4785	7.4785	0	%100
16		X	4.7722	4,7722	0	%100
11	M17 M17	7	8.2657	8.2657	0	%100
18		X	.000938	.000938	0	%100
19	M25A	7	.0016	.0016	0	%100
20	M25A	X	3.5307	3.5307	0	%100
21	OVP OVP	7	6,1154	6.1154	0	%100

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

incinia ci E	Member Label	Direction	Start Magnitude.	End Magnitude[l.	Start Location[ft.	End Location[ft
1	Member Laber	X	Ő	Ŭ Ŭ	0	%100
	M1	Z	12.7258	12.7258	0	%100
2	MP1A	X	0	0	0	%100
3	MP1A	Z	8.6354	8.6354	0	%100
4		x	0	0	0	%100
5	M17A	Z	9.0642	9.0642	0	%100
6	M17A	X	0	0	0	%100
7	M18A	Z	0	0	0	%100
8	M18A	X	0	- O	0	%100
9	MP2A	Z	8.6354	8.6354	0	%100
10	MP2A	X	0.0004	0	0	%100
11	MP3A	7	8.6354	8.6354	0	%100
12	MP3A	X	0	0.0004	Ō	%100
13	MP4A	Z	8.6354	8.6354	0	%100
14	MP4A		0.0304	0.0004	0	%100
15	MP5A	<u> </u>	0.6254	8.6354	0	%100
16	MP5A	Z	8.6354	0.0354	0	%100
17	M17	<u>X</u>	0		0	%100
18	M17	Z	12.7258	12.7258	0	%100
19	M25A	<u> </u>	0	0	0	%100
20	M25A	Z	2.4836	2.4836		%100
21	OVP	X	0	0	0	and the second se
22	OVP	Z	7.0615	7.0615	0	%100

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

nember 2	Member Label	Direction	Start Magnitude.	End Magnitude[l.	.Start Location[ft.	End Location[ft
1	Member Laber	X	-4.7722	-4.7722	0	%100
	M1	Z	8.2657	8.2657	0	%100
2	MP1A	X	-4.3177	-4.3177	0	%100
3	MP1A	Z	7.4785	7.4785	0	%100
4	MF1A M17A	X	-4.5321	-4.5321	0	%100
5	M17A	Z	7.8498	7.8498	0	%100
6	MIZA	X	-1,4095	-1,4095	0	%100
		Z	2,4413	2.4413	0	%100
8	M18A	X	-4.3177	-4.3177	0	%100
9	MP2A	Z	7.4785	7.4785	0	%100
10	MP2A	X	-4.3177	-4.3177	0	%100
11	MP3A	7	7.4785	7.4785	0	%100
12	MP3A		-4.3177	-4.3177	0	%100
13	MP4A	^	7.4785	7.4785	0	%100
14	MP4A		-4.3177	-4.3177	0	%100
15	MP5A	<u> </u>	7.4785	7.4785	0	%100
16	MP5A	Z		-4.7722	0	%100
17	<u>M17</u>	X	-4.7722		0	%100
18	M17	Z	8.2657	8.2657	0	%100
19	M25A	X	-3.6082	-3.6082		%100
20	M25A	Z	6.2495	6.2495	0	76100

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

	Member Label	Direction	Start Magnitude	End Magnitude[].	.Start LocationIft.	End Locationift
21	OVP	X	-3.5307	-3.5307	0	%100
22	OVP	Z	6.1154	6.1154	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start LocationIft	End LocationIft
1	M1	X	-2.7552	-2.7552	0	%100
2	M1	Z	1.5907	1.5907	0	%100
3	MP1A	X	-7.4785	-7.4785	0	%100
4	MP1A	Z	4.3177	4.3177	0	%100
5	M17A	X	-7,8498	-7.8498	0	%100
6	M17A	Z	4.5321	4.5321	0	%100
7	M18A	X	-7.324	-7.324	0	%100
8	M18A	Z	4.2285	4.2285	0	%100
9	MP2A	X	-7.4785	-7.4785	0	%100
10	MP2A	Z	4.3177	4.3177	0	%100
11	MP3A	X	-7.4785	-7,4785	0	%100
12	MP3A	Z	4.3177	4.3177	0	%100
13	MP4A	X	-7.4785	-7.4785	0	%100
14	MP4A	Z	4.3177	4.3177	0	%100
15	MP5A	X	-7.4785	-7.4785	0	%100
16	MP5A	Z	4.3177	4.3177	0	%100
17	M17	X	-2.7552	-2.7552	0	%100
18	M17	Z	1.5907	1.5907	0	2 - MA 2-29 Month 200
19	M25A	X	-8.1989	-8,1989		%100
20	M25A	Z			0	%100
21	OVP	<u>X</u>	4,7336	4.7336	0	%100
22	OVP	<u>Z</u>	-6.1154 3.5307	-6.1154 3.5307	0	<u>%100</u> %100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	Start LocationIff	End Location(ff
1	M1	X	0	0	0	%100
2	<u>M1</u>	Z	0	0	0	%100
3	MP1A	X	-8.6354	-8.6354	0	%100
4	MP1A	Z	0	0	0	%100
5	M17A	X	-9.0642	-9.0642	0	%100
6	M17A	Z	0	0	Ő	%100
7	M18A	X	-11.2761	-11.2761	0	%100
8	M18A	Z	0	0	0	%100
9	MP2A	X	-8.6354	-8.6354	0	%100
10	MP2A	Z	0.0001	0.0004	0	%100
11	MP3A	X	-8.6354	-8.6354	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-8.6354	-8.6354	0	%100
14	MP4A	Z	0.0004	0.0004	0	%100
15	MP5A	X	-8.6354	-8.6354	0	
16	MP5A	Z	0	-0.0334	0	%100
17	M17	X	0	0		%100
18	M17	Z	0	0	0	%100
19	M25A			0	0	%100
20		X 7	-6.9855	-6.9855	0	%100
21	M25A	<u>Z</u>	0	0	0	%100
	OVP	<u> </u>	-7.0615	-7.0615	0	%100
22	OVP	Z	0	0	0	%100

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

Member Label

Direction Start Magnitude...End Magnitude[I...Start Location[ft,...End Location[ft,...



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

	Member Label	Direction	Start Magnitude.	.End Magnitude[l.	Start Location[ft.	End Location[ft
1	Member Laber	X	-2.7552	-2.7552	0	%100
	M1	Z	-1.5907	-1.5907	0	<u>%100</u>
2	MP1A	X	-7.4785	-7.4785	0	%100
3	MP1A	Z	-4.3177	-4.3177	0	%100
4	MITA M17A	X	-7.8498	-7.8498	0	%100
5	M17A	7	-4.5321	-4.5321	0	%100
6		X	-7.324	-7.324	0	%100
1	M18A M18A	Z	-4.2285	-4.2285	0	%100
8		X	-7.4785	-7.4785	0	%100
9	MP2A	7	-4.3177	-4.3177	0	%100
10	MP2A	X	-7.4785	-7.4785	0	%100
11	MP3A	7	-4.3177	-4.3177	0	%100
12	MP3A	X	-7.4785	-7.4785	0	%100
13	MP4A	7	-4.3177	-4.3177	0	%100
14	MP4A	X	-7.4785	-7.4785	0	%100
15	MP5A	^ Z	-4.3177	-4.3177	0	%100
16	MP5A	X	-2.7552	-2.7552	0	%100
17	M17	Z	-1.5907	-1.5907	0	%100
18	M17		-1.951	-1.951	0	%100
19	M25A	X	-1,1264	-1.1264	0	%100
20	M25A	Z	-6.1154	-6.1154	0	%100
21 22	OVP OVP	X 7	-3.5307	-3.5307	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[l.	.Start Location[ft.	.End Location[ft
1	Member Laber	X	-4.7722	-4.7722	0	%100
	M1	Z	-8.2657	-8.2657	0	%100
2	MP1A	X	-4.3177	-4,3177	0	%100
3	MP1A	Z	-7.4785	-7,4785	0	%100
4		X	-4.5321	-4.5321	0	%100
5	M17A	Z	-7.8498	-7.8498	0	%100
6	M17A	X	-1.4095	-1,4095	0	%100
7	M18A		-2.4413	-2.4413	0	%100
8	M18A		-4.3177	-4.3177	0	%100
9	MP2A	<u>X</u>		-7.4785	0	%100
10	MP2A	<u>Z</u>	-7.4785	-4.3177	0	%100
11	MP3A	X	-4.3177		0	%100
12	MP3A	Z	-7.4785	-7.4785	the second s	%100
13	MP4A	X	-4.3177	-4.3177	0	
14	MP4A	Z	-7.4785	-7.4785	0	%100
15	MP5A	X	-4.3177	-4.3177	0	%100
16	MP5A	Z	-7.4785	-7.4785	0	%100
17	M17	X	-4.7722	-4.7722	0	%100
	M17	Z	-8.2657	-8.2657	0	%100
18	M25A	X	000938	000938	0	%100
19	M25A	Z	0016	0016	0	%100
20	OVP	X	-3.5307	-3.5307	0	%100
21	OVP	Z	-6.1154	-6.1154	0	%100

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

	Mambar Labol	Direction	Start Magnitude.	End Magnitude[l.	.Start Location[ft,	End Location[ft
	Member Label	X	0	0	0	%100
1	NI I	7	-3.5622	-3.5622	0	%100
2	M1	X	0	0	0	%100
3	MP1A		-2.852	-2.852	0	%100
4	MP1A	X	0	0	0	%100
5	M17A	7	-2.6729	-2.6729	0	%100
6	M17A	<u>L</u>	-2.0123	L MOTEO		

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

	Member Label	Direction	Start Magnitude.	End Magnitudell	Start Location[ft	End Location[ft
7	M18A	X	0	0	0	%100
8	M18A	Z	0	0	0	%100
9	MP2A	X	0	1 0	0	%100
10	MP2A	Z	-2.852	-2.852	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-2.852	-2.852	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-2.852	-2.852	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	-2.852	-2.852	0	%100
17	M17	X	0	0	0	%100
18	M17	Z	-3.5622	-3.5622	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	7532	7532	0	%100
21	OVP	X	0	0	0	%100
22	OVP	Z	-2.3733	-2.3733	Ö	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[l.	Start LocationIff	End Location(ft
1	M1	X	1.3358	1.3358	0	%100
2	M1	Z	-2.3137	-2.3137	0	%100
3	MP1A	X	1.426	1.426	0	%100
4	MP1A	Z	-2.4699	-2.4699	0	%100
5	M17A	X	1.3364	1.3364	0	%100
6	M17A	Z	-2.3148	-2.3148	0	%100
7	M18A	X	.3856	.3856	0	%100
8	M18A	Z	6678	6678	0	
9	MP2A	X	1.426	1,426	the second s	%100
10	MP2A	Z	-2.4699		0	%100
11	MP3A	X		-2.4699	0	%100
12	MP3A		1.426	1.426	0	%100
13		Z	-2.4699	-2.4699	0	%100
	MP4A	X	1.426	1.426	0	%100
14	MP4A	Z	-2.4699	-2.4699	0	%100
15	MP5A	X	1.426	1.426	0	%100
16	MP5A	Z	-2.4699	-2.4699	0	%100
17	M17	X	1.3358	1.3358	0	%100
18	M17	Z	-2.3137	-2.3137	Ő	%100
19	M25A	X	1.0942	1.0942	0	%100
20	M25A	Z	-1.8952	-1.8952	0	%100
21	OVP	X	1.1867	1.1867		and the second sec
22	OVP	Ż	-2.0553	-2.0553	0	%100 %100

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

	Member Label	Direction	Start Magnitude.	End Magnitudell	Start Location[ft	End Location[ft
1	M1	X	.7712	.7712	0	%100
2	M1	Z	4453	4453	0	%100
3	MP1A	X	2.4699	2.4699	0	%100
4	MP1A	Z	-1.426	-1.426	Ő	%100
5	M17A	X	2.3148	2.3148	Ő	%100
6	M17A	Z	-1.3364	-1.3364	Ö	%100
7	M18A	X	2.0035	2.0035	0	%100
8	M18A	Z	-1.1567	-1,1567	0	%100
9	MP2A	X	2.4699	2,4699	0	%100
10	MP2A	Z	-1.426	-1.426	0	%100
11	MP3A	X	2.4699	2.4699	0	%100
12	MP3A	Z	-1.426	-1.426	0	%100



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

	Member Label	Direction	Start Magnitude.	.End Magnitude[l.	.Start Location[ft.	End Location[ft
13	MP4A	X	2.4699	2.4699	0	%100
	MP4A	7	-1.426	-1.426	0	%100
14	MP5A	X	2.4699	2.4699	0	%100
15	MP5A	7	-1.426	-1.426	0	%100
16	MF3A M17	X	.7712	.7712	0	%100
17	M17	7	4453	4453	0	%100
18	M25A	X	2.4864	2,4864	0	%100
19		7	-1.4355	-1.4355	0	%100
20	M25A	X	2.0553	2.0553	0	%100
21 22	OVP	Z	-1.1867	-1.1867	Ō	%100

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

nember 2	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start Location[ft,	.End Location[ft
1	Member Laber	X	Ŏ	0	0	%100
2	M1	Z	0	0	0	%100
3	MP1A	X	2.852	2.852	0	%100
4	MP1A	Z	0	0	0	%100
5	M17A	X	2.6729	2.6729	0	%100
	M17A	Z	0	0	0	%100
6	M18A	X	3.0845	3.0845	0	%100
1	M18A	Z	0	0	0	%100
8	MP2A	X	2.852	2.852	0	%100
9	MP2A	Z	0	0	0	%100
10	MP3A	X	2.852	2.852	0	%100
11		Z	0	0	0	%100
12	MP3A	X	2.852	2.852	0	%100
13	MP4A	Z	0	0	0	%100
14	MP4A	X	2.852	2.852	0	%100
15	MP5A	Z	0	0	0	%100
16	MP5A	X	0	0	0	%100
17	M17	Z	0	0	Ö	%100
18	<u>M17</u>		2.1184	2.1184	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z		2.3733	0	%100
21	OVP OVP	X Z	2.3733 0	0	0	%100

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

member 2	Member Label	Direction	Start Magnitude.	End Magnitude[].	.Start Location[ft.	End Location[ft
4	Member Laber	X	.7712	.7712	0	%100
	M1	Z	.4453	.4453	0	%100
2	MP1A	X	2.4699	2.4699	0	%100
3 4	MP1A	Z	1.426	1.426	0	%100
5	M17A	X	2.3148	2.3148	0	%100
6	MITA	Z	1.3364	1.3364	0	%100
7	M18A	X	2.0035	2.0035	0	%100
8	M18A	Z	1.1567	1.1567	0	%100
9	MP2A	X	2.4699	2.4699	0	%100
10	MP2A	Z	1.426	1.426	0	%100
11	MP3A	X	2.4699	2.4699	0	%100
12	MP3A	Z	1.426	1.426	0	%100
13	MP4A	X	2.4699	2.4699	0	%100
14	MP4A	7	1.426	1.426	0	%100
15	MP5A	X	2.4699	2.4699	0	%100
16	MP5A	Z	1.426	1.426	0	%100
17	M17	X	.7712	.7712	0	%100
18	M17	Z	.4453	.4453	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start LocationIft	End LocationIft
19	M25A	X	.5916	.5916	0	%100
20	M25A	Z	.3416	.3416	0	%100
21	OVP	X	2.0553	2.0553	0	%100
22	OVP	Z	1.1867	1.1867	Ő	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[l.	Start LocationIff	End LocationIff
1	M1	X	1.3358	1.3358	0	%100
2	M1	Z	2.3137	2.3137	0	%100
3	MP1A	X	1.426	1.426	0	%100
4	MP1A	Z	2.4699	2.4699	0	%100
5	M17A	X	1.3364	1.3364	0	%100
6	M17A	Z	2.3148	2.3148	0	%100
7	M18A	X	.3856	.3856	0	%100
8	M18A	Z	.6678	.6678	0	%100
9	MP2A	X	1.426	1.426	0	%100
10	MP2A	Z	2.4699	2,4699	0	%100
11	MP3A	X	1.426	1.426	0	%100
12	MP3A	Z	2.4699	2.4699	0	%100
13	MP4A	X	1.426	1.426	0	%100
14	MP4A	Z	2.4699	2.4699	0	
15	MP5A	X	1.426	1.426	0	%100
16	MP5A	Ż				%100
17	M17		2.4699	2.4699	0	%100
			1.3358	1.3358	0	%100
18	<u>M17</u>	Z	2.3137	2.3137	0	%100
19	M25A	X	.000284	.000284	0	%100
20	M25A	Z	.000493	.000493	0	%100
21	OVP	X	1,1867	1.1867	0	%100
22	OVP	Z	2.0553	2.0553	Ő	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[].	Start LocationIft.	
1	M1	X	Ő	0	0	%100
2	M1	Z	3.5622	3.5622	0	%100
3	MP1A	X	0	0	0	%100
4	MP1A	Z	2.852	2.852	0	%100
5	M17A	X	0	0	0	%100
6	M17A	Z	2.6729	2.6729	0	%100
7	M18A	X	0	0 -	0	%100
8	M18A	Z	0	0	Ő	%100
9	MP2A	x	0	0	0	%100
10	MP2A	Z	2.852	2.852	Ö	%100
11	МРЗА	X	0	0	0	%100
12	MP3A	Z	2.852	2.852	Ő	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	2.852	2.852	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	2.852	2.852	Ö	%100
17	M17	X	0	0	0	%100
18	M17	Z	3.5622	3.5622	0	%100
19	M25A	X	0.0022	0	0	
20	M25A	Z	.7532		0	%100
21	OVP	X	0	.7532	0	%100
22	OVP	Z	2.3733	2.3733	0	%100 %100



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

	Member Label	Direction	Start Magnitude.	End Magnitude[l.	.Start Location[f	t End Location[ft
	Member Laber	X	-1.3358	-1.3358	0	%100
1	M1	Z	2.3137	2.3137	0	%100
2	MP1A	X	-1.426	-1.426	0	%100
3	MP1A	Z	2,4699	2.4699	0	%100
4		X	-1.3364	-1.3364	0	%100
5	M17A	Z	2.3148	2.3148	0	%100
6	M17A	X	3856	3856	0	%100
7	M18A	Z	.6678	.6678	0	%100
8	M18A	X	-1.426	-1.426	0	%100
9	MP2A	Z	2.4699	2,4699	0	%100
10	MP2A	X	-1.426	-1.426	0	%100
11	MP3A	and the second sec	2.4699	2.4699	0	%100
12	MP3A	Z		-1.426	0	%100
13	MP4A	X	-1.426	2,4699	0	%100
14	MP4A	Z	2.4699	-1.426	0	%100
15	MP5A	X	-1.426		0	%100
16	MP5A	Z	2.4699	2.4699	0	%100
17	M17	X	-1.3358	-1.3358	0	%100
18	M17	Z	2.3137	2.3137		%100
19	M25A	X	-1.0942	-1.0942	0	%100
20	M25A	Z	1.8952	1.8952	0	
21	OVP	X	-1.1867	-1.1867	0	%100
22	OVP	Z	2.0553	2.0553	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[]	.Start Location[ft	End Location[f
4	Member Laber	X	-,7712	7712	0	%100
1	M1	Z	.4453	.4453	0	%100
2	MP1A	X	-2.4699	-2.4699	0	%100
3	MP1A	Z	1.426	1.426	0	%100
4		X	-2.3148	-2.3148	0	%100
5	M17A	Z	1.3364	1.3364	0	%100
6	M17A	X	-2.0035	-2.0035	0	%100
7	M18A	Z	1.1567	1,1567	0	%100
8	M18A	X	-2.4699	-2.4699	0	%100
9	MP2A		1.426	1.426	0	%100
10	MP2A	Z		-2.4699	0	%100
11	<u>MP3A</u>	X	-2.4699	1.426	0	%100
12	MP3A	Z	1.426		0	%100
13	MP4A	X	-2.4699	-2.4699		%100
14	MP4A	Z	1.426	1.426	0	
15	MP5A	X	-2.4699	-2.4699	0	%100
16	MP5A	Z	1.426	1.426	0	%100
17	M17	X	7712	7712	0	%100
18	M17	Z	.4453	.4453	0	%100
	M25A	X	-2.4864	-2.4864	0	%100
19	M25A	Z	1.4355	1.4355	0	%100
20	OVP	<u> </u>	-2.0553	-2.0553	0	%100
21	OVP	Z	1.1867	1.1867	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[].	.Start Location[ft.	End Location[ft
	8.44	X	0	0	0	%100
1	M1	7	0	0	0	%100
2	MD1A	X	-2.852	-2.852	0	%100
3	MP1A	7	0	0	0	%100
4	MP1A		-2.6729	-2.6729	0	%100
5	M17A		0	0	0	%100
6	M17A		U			

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

	Member Label	Direction	Start Magnitude.	End Magnitude[]	Start LocationIft	End Location[ft
7	M18A	X	-3.0845	-3.0845	0	%100
8	M18A	Z	0	0	0	%100
9	MP2A	X	-2.852	-2.852	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-2.852	-2.852	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-2.852	-2.852	0	%100
14	MP4A	Z	0	0	0	%100
15	MP5A	X	-2.852	-2.852	0	%100
16	MP5A	Z	0	0	0	%100
17	M17	X	0	0	0	%100
18	M17	Z	0	n n	Ő	%100
19	M25A	X	-2.1184	-2.1184	0	%100
20	M25A	Z	0	0	0	%100
21	OVP	X	-2.3733	-2.3733	0	%100
22	OVP	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude	End Magnitude[]	Start Location(ft	End Location[ft
1	M1	X	7712	7712	0	%100
2	M1	Z	4453	4453	0	%100
3	MP1A	X	-2.4699	-2.4699	0	%100
4	MP1A	Z	-1.426	-1.426	0	%100
5	M17A	X	-2.3148	-2.3148	0	%100
6	M17A	Z	-1.3364	-1.3364	0	%100
7	M18A	X	-2.0035	-2.0035	0	%100
8	M18A	Z	-1.1567	-1.1567	0	%100
9	MP2A	X	-2.4699	-2,4699	0	%100
10	MP2A	Z	-1.426	-1.426	Ö	%100
11	MP3A	X	-2.4699	-2.4699	0	
12	MP3A	Z	-1.426	-1.426	0	%100
13	MP4A	X	-2.4699	-2.4699	0	%100
14	MP4A	Z	-1.426	-1.426		%100
15	MP5A	X		the second s	0	%100
16	MP5A	Z	-2.4699	-2.4699	0	%100
17	M17		-1.426	-1.426	0	%100
18		<u>X</u>	7712	7712	0	%100
	<u>M17</u>	Z	4453	4453	0	%100
19	M25A	X	5916	5916	0	%100
20	M25A	Z	3416	3416	0	%100
21	OVP	X	-2.0553	-2.0553	0	%100
22	OVP	Ζ	-1.1867	-1.1867	0	%100

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

·	Member Label	Direction	Start Magnitude.	End Magnitudell.	Start Location(ft	End Location[ft
1	<u>M1</u>	X	-1.3358	-1.3358	0	%100
2	M1	Z	-2.3137	-2.3137	0	%100
3	MP1A	X	-1.426	-1.426	0	%100
4	MP1A	Z	-2.4699	-2.4699	0	%100
5	M17A	X	-1.3364	-1.3364	0	%100
6	M17A	Z	-2.3148	-2.3148	Ō	%100
_7	M18A	X	3856	3856	0	%100
8	M18A	Z	6678	6678	0	%100
9	MP2A	X	-1.426	-1.426	0	%100
10	MP2A	Z	-2.4699	-2.4699	0	%100
11	MP3A	X	-1.426	-1.426	0	%100
12	MP3A	Z	-2.4699	-2.4699	0	%100

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

nember b		Direction	Start Magnitude.	.End Magnitude[l.	Start Location[ft.	.End Location[ft
	Member Label	X	-1.426	-1.426	0	%100
13	MP4A	7	-2.4699	-2.4699	0	%100
14	MP4A	4	and the second s	-1.426	0	%100
15	MP5A	X	-1.426	-2.4699	0	%100
16	MP5A	L	-2.4699		0	%100
17	M17	X	-1.3358	-1.3358	0	%100
18	M17	Z	-2.3137	-2.3137	0	
19	M25A	X	000284	000284	0	%100
20	M25A	Z	000493	000493	0	%100
	OVP	X	-1,1867	-1.1867	0	%100
21	OVP	7	-2.0553	-2.0553	0	%100
22	OVE					

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[l	Start Location[ft	End Location[f
1	Million Labor	- X	0	0	0	%100
	M1	Z	7954	7954	0	%100
2	MP1A	X	0	0	0	%100
3	MP1A	7	5397	5397	0	%100
4		X	0	0	0	%100
5	M17A	Z	5665	5665	0	%100
6	<u>M17A</u>	X	0	0	0	%100
7	M18A	Z	0	0	0	%100
8	M18A	X	0	0	0	%100
9	MP2A	Z	5397	5397	0	%100
10	MP2A	the second s	5551	0	0	%100
11	MP3A	X	5207	5397	0	%100
12	MP3A	- L	5397	5557	0	%100
13	MP4A	X	0	5207	0	%100
14	MP4A	Z	5397	5397	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	<u>Z</u>	5397	5397		%100
17	M17	X	0	0	0	%100
18	M17	Z	7954	7954	0	
19	M25A	X	0	0	0	%100
20	M25A	Z	1552	1552	0	%100
	OVP	X	0	0	0	%100
21 22	OVP	Z	4413	4413	0	%100

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

incliniber bi	Member Label	Direction	Start Magnitude	.End Magnitude[].	Start Location[ft,	End Location[ft
220		X	.2983	.2983	0	%100
1	<u>M1</u>	Z	5166	5166	0	%100
2	<u>M1</u>	X	.2699	.2699	0	%100
3	MP1A	7	4674	4674	0	%100
4	MP1A		.2833	.2833	0	%100
5	M17A	X	4906	-,4906	0	%100
6	M17A	Z		.0881	0	%100
7	M18A	X	.0881		0	%100
8	M18A	Z	- 1526	1526	0	%100
9	MP2A	X	.2699	.2699		%100
10	MP2A	Z	4674	4674	0	
11	MP3A	X	_2699	.2699	0	%100
12	MP3A	Z	4674	4674	0	%100
	MP4A	X	.2699	.2699	0	%100
13	MP4A	Z	4674	4674	0	%100
14		X	.2699	.2699	0	%100
15	MP5A	7	4674	4674	0	%100
16	MP5A	X	.2983	.2983	0	%100
17 18	M17 M17	Z	5166	5166	0	%100

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

	Member Label	Direction	Start Magnitude	End Magnitude[I	Start Location Iff	End Looption Iff
19	M25A	X	.2255	.2255		%100
20	M25A	Z	3906	3906	0	%100
21	OVP	X	.2207	.2207	0	%100
22	OVP	Z	3822	3822	0	%100

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

	Member Label	Direction	Start Magnitude	End Magnitudell	Start LocationIft	.End Location[ft,
1	M1	X	.1722	.1722		%100
2	M1	Z	0994	0994	0	%100
3	MP1A	X	.4674	.4674	0	%100
4	MP1A	Z	2699	2699	0	%100
5	M17A	X	.4906	.4906	0	%100
6	M17A	Z	2833	2833	0	
7	M18A	X	.4578	.4578	0	%100
8	M18A	Z		the second se	the second s	%100
9	MP2A		2643	2643	0	%100
10		X	.4674	.4674	0	%100
	<u>MP2A</u>	Z	2699	2699	0	%100
11	MP3A	X	.4674	.4674	0	%100
12	MP3A	Z	2699	2699	0	%100
13	MP4A	X	.4674	.4674	0	%100
14	MP4A	Z	2699	2699	Ő	%100
15	MP5A	X	.4674	.4674	0	%100
16	MP5A	Z	2699	2699	0	
17	M17	Ž	.1722			%100
18	M17		the second se	.1722	0	%100
19		Z	0994	0994	0	%100
	M25A	X	.5124	.5124	0	%100
20	M25A	Z	2959	2959	0	%100
21	OVP	X	.3822	.3822	0	%100
22	OVP	Z	2207	2207	Ö	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitudell	.Start Location[ft.	End LocationIff
1	M1	X	Ő	0	0	%100
2	M1	Z	0	0	0	%100
3	MP1A	X	.5397	.5397	Ŭ Ŭ	%100
4	MP1A	Z	0	0	Ő	%100
5	M17A	X	.5665	.5665	0	%100
6	M17A	Z	0	0	0	
7	M18A	X	.7048	.7048		%100
8	M18A	Z	0	0	0	%100
9	MP2A	X	and the second sec		0	%100
10	MP2A		.5397	.5397	0	%100
11		Z	0	0	0	%100
	MP3A	X	.5397	.5397	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	.5397	.5397	0	%100
14	MP4A	Z	0	0	0	%100
15	MP5A	X	.5397	.5397	0	
16	MP5A	Z	0	0	0	%100
17	M17	X	0			%100
18	M17		the second s	0	0	%100
		<u>Z</u>	0	0	0	%100
19	M25A	X	.4366	.4366	0	%100
20	M25A	Z	0	0	0	%100
21	OVP	X	:4413	.4413	0	%100
22	OVP	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude.	End Magnitude[I	Start Location[ft	End Location[ft
1	M1	X	.1722	.1722	0	%100
1	M1	Z	.0994	.0994	0	%100
2	MP1A	X	.4674	.4674	0	%100
3	MP1A	Z	.2699	.2699	0	%100
4	ME 1A M17A	X	.4906	.4906	0	%100
5	M17A	7	.2833	.2833	0	%100
6		X	.4578	.4578	0	%100
7	M18A	Z	.2643	.2643	0	%100
8	M18A	X	.4674	.4674	0	%100
9	MP2A	Z	.2699	.2699	0	%100
10	MP2A	X	.4674	.4674	0	%100
11	MP3A	<u></u>	.2699	.2699	Ö	%100
12	MP3A		the second se	.4674	0	%100
13	MP4A	X	.4674	.2699	0	%100
14	MP4A	Z	.2699		0	%100
15	MP5A	X	.4674	.4674		%100
16	MP5A	Z	.2699	.2699	0	%100
17	M17	X	.1722	.1722	0	
18	M17	Z	.0994	.0994	0	%100
19	M25A	X	.1219	,1219	0	%100
20	M25A	Z	.0704	.0704	0	%100
21	OVP	X	.3822	.3822	0	%100
22	OVP	Z	.2207	.2207	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I	Start Location[ft.	End Location[ft
1	Member Laber	X	.2983	.2983	0	%100
	M1	Z	.5166	.5166	0	%100
2	MP1A	X	.2699	.2699	0	%100
3 4	MP1A	Z	.4674	.4674	0	%100
5	M17A	X	.2833	.2833	0	%100
	M17A	Z	.4906	.4906	0	%100
6	M18A	X	.0881	.0881	0	%100
	M18A	Z	.1526	.1526	0	%100
8	MP2A	X	.2699	.2699	0	%100
9	MP2A	Z	.4674	.4674	0	%100
10	MP3A	X	.2699	.2699	0	%100
11	MP3A	Z	.4674	.4674	0	%100
12	MP4A	X	.2699	.2699	0	%100
13	MP4A MP4A	Z	.4674	.4674	0	%100
14		X	.2699	.2699	0	%100
15	MP5A	Z	.4674	.4674	0	%100
16	MP5A	X	.2983	.2983	0	%100
17	M17	Z	.5166	.5166	0	%100
18	M17	X	5.9e-5	5.9e-5	0	%100
19	M25A	Z	.000102	.000102	0	%100
20	M25A	the second s	.2207	.2207	0	%100
21	OVP	Z	.3822	.3822	Ö	%100
22	OVP	L	.3022	.0022		10100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[].	.Start Location[ft.	End Location[ft
		X	0	0	0	%100
1	M1	7	.7954	.7954	0	%100
2	M1	X	0	0	0	%100
3	MP1A	7	.5397	.5397	0	%100
4	MP1A	X	0	0	0	%100
5	M17A	7	.5665	.5665	0	%100
6	M17A	6	.0000			

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

	Member Label	Direction	Start Magnitude	End Magnitudell	Start LocationIft	.End Location[ft
7	M18A	X	0	0	0	%100
8	M18A	Z	0	0	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	.5397	.5397	Ö	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.5397	.5397	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	.5397	.5397	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	7	.5397	.5397	0	%100
17	M17	X	0	0	0	%100
18	M17	7	.7954	.7954	0	
19	M25A	X	0	.1354	0	%100
20	M25A	Z	.1552	.1552	0	%100
21	OVP	X	0	0	0	%100
22	OVP	Z	.4413	.4413	0	%100 %100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start Location fft	End LocationIft
	<u>M1</u>	X	2983	2983	0	%100
2	M1	Z	.5166	.5166	Ö	%100
3	MP1A	X	2699	2699	Ő	%100
4	MP1A	Z	.4674	.4674	Ő	%100
5	M17A	x	2833	2833	0	%100
6	M17A	<u>Z</u>	.4906	.4906	0	and the second s
7	M18A	X	0881	0881	0	%100
8	M18A	Z	.1526			%100
9	MP2A	<u>X</u>		.1526	0	%100
10	MP2A	^ Z	2699	2699	0	%100
11	MP3A		.4674	.4674	0	%100
12		<u> </u>	2699	2699	0	%100
13	MP3A	Z	.4674	.4674	0	%100
	<u>MP4A</u>	X	2699	2699	0	%100
14	MP4A	Z	.4674	.4674	0	%100
15	MP5A	X	2699	2699	0	%100
16	MP5A	Z	.4674	.4674	0	%100
17	M17	X	2983	2983	0	%100
18	M17	Z	.5166	.5166	0	%100
19	M25A	X	2255	2255	0	and the second sec
20	M25A	Ž	.3906	.3906	0	%100
21	OVP	<u>Z</u>				%100
22	OVP	Z	2207	2207 .3822	0	<u>%100</u> %100

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

· · · · · ·	Member Label	Direction	Start Magnitude.	End Magnitudell	Start Location[ft	End Location[ft
1	M1	X	1722	1722	0	%100
2	M1	Z	.0994	.0994	Ö	%100
3	MP1A	X	4674	4674	0	%100
4	MP1A	Z	.2699	.2699	0	%100
5	M17A	X	4906	4906	0	%100
6	M17A	Z	.2833	.2833	0	%100
7	M18A	X	4578	4578	0	%100
8	M18A	Z	.2643	.2643	0	%100
9	MP2A	X	4674	4674	0	%100
10	MP2A	Z	.2699	.2699	0	%100
11	MP3A	X	4674	4674	0	%100
12	MP3A	Z	.2699	.2699	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I	Start Location[ft	End Location[ft.
40	MP4A	X	4674	4674	0	%100
13	MP4A	7	.2699	.2699	0	%100
14		X	4674	4674	0	%100
15	MP5A	7	.2699	.2699	0	%100
16	MP5A	X	1722	1722	0	%100
17	M17	7	.0994	.0994	0	%100
18	M17	X	- 5124	5124	0	%100
19	M25A	7	.2959	.2959	0	%100
20	M25A		3822	3822	0	%100
21	OVP	7	.2207	.2207	Ő	%100
22	OVP			1000		

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

	Member Label	Direction	Start Magnitude.	End Magnitude[l	Start Location[ft	End Location[ft
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	<u>%100</u>
3	MP1A	X	5397	5397	0	%100
	MP1A	Z	0	0	0	%100
4	M17A	X	5665	5665	0	%100
5	M17A	Z	0	0	0	%100
6	M18A	X	7048	7048	0	%100
	M18A	Z	0	0	0	%100
8	MP2A	X	5397	5397	0	%100
9	MP2A	Z	0	0	0	%100
10		X	5397	5397	0	%100
11	MP3A	Z	0	0	0	%100
12	MP3A	X	5397	5397	0	%100
13	MP4A	Z	0	0	0	%100
14	MP4A	X	5397	5397	0	%100
15	MP5A	Z	0	0	0	%100
16	MP5A	X	0	0	0	%100
17	M17	X	0	0	Ö	%100
18	M17	and the second sec	4366	4366	0	%100
19	M25A	X	4300	0	0	%100
20	M25A	Z		4413	0	%100
21	OVP	X	4413	4415	0	%100
22	OVP	Z	0		0	70100

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

monno or D	Member Label	Direction	Start Magnitude.	.End Magnitude[l.	.Start Location[ft.	End Location[ft
4	Member Laber	X	1722	1722	0	%100
	M1	Z	0994	0994	0	%100
2	MP1A	X	4674	4674	0	%100
3	MP1A	Z	2699	2699	0	%100
4	META M17A	X	4906	4906	0	%100
5	MITA	Z	2833	2833	0	%100
6	M17A M18A	X	4578	4578	0	%100
	MIBA	Z	2643	2643	0	%100
8	MP2A	X	4674	4674	0	%100
9	MP2A MP2A	7	2699	2699	0	%100
10	MP3A	X	4674	4674	0	%100
11		Z	2699	2699	0	%100
12	MP3A	X	4674	4674	0	%100
13	MP4A	7	2699	2699	0	%100
14	MP4A	X	4674	4674	0	%100
15	MP5A	Z	2699	2699	0	%100
16	MP5A	X	1722	1722	0	%100
17 18	M17 M17	Z	0994	0994	Ő	%100

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Project # 23777134 Antenna Mount Analysis

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

	Member Label	Direction	Start Magnitude	End Magnitudell	Start Location fft	End Location[ft
19	M25A	X	1219	1219	0	%100
20	M25A	Z	0704	0704	Ő	%100
21	OVP	X	3822	3822	Ő	%100
22	OVP	Z	2207	2207	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitudell.	Start LocationIft	End Location[ft
1	M1	X	2983	- 2983	0	%100
2	M1	Z	5166	5166	0	%100
_3	MP1A	X	2699	2699	0	%100
_ 4	MP1A	Z	4674	4674	0	%100
5	M17A	X	2833	2833	0	%100
6	M17A	Z	4906	4906	0	%100
7	M18A	X	0881	0881	0	the second se
8	M18A	Z	1526	1526		%100
9	MP2A	X -	the second se	the second se	0	%100
10	MP2A	Z	2699	2699	0	%100
11	MP3A		4674	4674	0	%100
12		X	2699	2699	0	%100
	MP3A	Z	4674	4674	0	%100
13	MP4A	X	2699	2699	0	%100
14	MP4A	Z	4674	4674	0	%100
15	MP5A	X	2699	2699	0	%100
16	MP5A	Z	4674	4674	0	%100
17	M17	X	2983	2983	0	%100
18	M17	Z	5166	5166	0	
19	M25A	X	-5.9e-5			%100
20	M25A	Z		-5.9e-5	0	%100
21	OVP	the second se	000102	000102	0	%100
22		X	2207	2207	0	%100
11	OVP	Z	3822	3822	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksfl
			No Data 1		Distribution	Magintude[KSI]

Envelope Joint Reactions

	Joint	 X [lb]	LC	Y [Ib]	LC	Z [lb]	LC	MX [k-ft]	10	MY [k-ft]	ų	MZ [k-ft]	LC
1	N35B	 832.562	11	1505.488	20	1696.089	12	497	1	2.353	11	1.303	5
2		 -1027.675	5	446.155	2	-1185.981	6	-4.908	19	-2.899	5	-1.736	11
3	N44	 770.887	9	597.138	14	579.233	2	.285	12	3.168	11	1.056	40
4		 -581.292	3	-13.892	8	-1108.765	8	-1.519	42	-2.67	5	519	10
5	Totals:	 1478.851	10	1977.435	22	2045,161	1	1.070	1-	2.01			10
6	11- Jan	 -1478.846	4	702.168	67	-2045.229	7						

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

	Member	Shape	Code Check	Lo	LC	Shear Check	Lo	LC	phi*Pncphi*Pnt	[phi*Mn v	nhi*Mn	Cb	Ean
1	M1	PIPE_3.0	.529	5	12	.366	5	12	35631.1. 6520	5 5.749		1.727	H3-6
2	MP1A	PIPE_2.0	.167	3	10	.046	3		20741.5. 3213		1.872	1.557	H1
3	M17A	PIPE_4.0	.000	.75	6	.000	.75		92571.3. 9324		10.631		H1
4	M18A	HSS4X4X4	.438	2	6	.149	2 Z						
5	MP2A	PIPE_2.0	.273	5	12		5	21	20741.5 3213	1 1 872			H1
6	MP3A	PIPE_2.0	.558	5	12	the second s	3						H1
7	MP4A	PIPE_2.0	.473	3	1	.100	5		20741.5. 32130		1.872	2.330	H1
5 6 7	MP2A MP3A	PIPE_2.0 PIPE_2.0	.273	5 5	12	.066 .096	5 3	21 9	134841 13951 20741.5 32130 20741.5 32130 20741.5 32130) <u>1.872</u>) <u>1.872</u>	1.872 1.872	1.279 2.967 2.538	ł

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

	Member	Shape	Code Check	Lo	LC	Shear Check	Lo	LC	phi*Pncphi*Pnt [phi*Mn y	.phi*Mn	Cb	Egn
0	MP5A		.167	3	10	.046	3	10	20741.5. 32130	1.872	1.872	1.000	H1
0	1	PIPE 3.0		7	7	.206	7	1	35631.1. 65205	5.749	5.749	1.846	H1
9	M17		the second s	10	E	.120	3 z	à	91415.2. 101016	8.556	8.556	1,249	H1
10		HSS3X3X4		3	0		2.25	0	28843.4. 32130		1.872	1.879	H1
11	OVP	PIPE_2.0	.072	2.25	9	.014	2.23	9	20043.4.1 32 130	1.072	1.012	1.010	1

Client:	Verizon Wireless	Date: 7/21/2023
Site Name:	CROMWELL CT	•
MDG #:	5000245641	
Fuze ID #:	17123796	Page: 1
	Site Name: MDG #:	Site Name: CROMWELL CT MDG #: 5000245641

Version 1.01

I. Mount-to-Tower Connection Check (Mount Standoff)

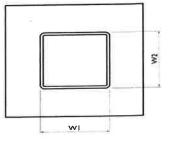
Custom Orientation Required	1	Yes]
1	2 Nodes labeled per Risa) N358	Yes Orientation (per graphic of typical platform) 0	180 ceg 0 deg
			270 deg
Tower Connection Bolt Check	5	Yes	- DX -
Bolt Orientation		Parailel	ds
Bolt Quantity per Reaction: d_x (in) (Delta X of typ. bolt cordy (in) (Delta Y of typ. bolt cond) Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt Required Shear Strength / bolt Tensile Capacity / bolt (kips): Shear Capacity / bolt (kips): Bolt Overall Utilization: Tower Connection Baseplate Conditional Conditiona	nfig. sketch) : olt (kips): lt (kips):	4 7 7 A325N 0.625 6.3 1.0 20.7 12.4 30.5% Yes	
Connecting Standoff Member Weld Stiffener Configuration:	Shape:	Rect Tube	
Plate Width, D _x (in): Plate Height, D _γ (in): W1(in): W2 (in): Member Thickness (in):		10 10 4 4 4	
Stiffener location a_1 (in): Stiffener location b_1 (in): Stiffener location a_2 (in):		0.25	
Stiffener location b ₂ (in): F _y (ksi, plate):		36	wi
Plate Thickness (in): Length of Yield Line, L _y (in):		0.625 7.75	
Bolt Eccentricity, e (in): M _u (kip-in): Phi*M _n (kip-in):		2.35	
Plate Bending Utilization:		24.52 60.6%	

V2W	Client:	Verizon Wireless	Date: 7/21/2023
1 23 1 1	Site Name:	CROMWELL CT	
SMART Tool [©]	MDG #:	5000245641	
Vendor	Fuze ID #:	17123796	Page: 2
			Version 1.01

Voi

Tower Connection Weld Checks
Weld Shape:
Weld Stiffener Configuration:
Weld Size (1/16 in):
W1 (in):
W2 (in):
Weld Total Length (in):
Z _x (in ³ /in):
Z _y (in ³ /in):
J _p (in⁴/in):
c _x (in)
c _y (in)
Required combined strength (kip/in):
Weld Capacity (kip/in):
Weld Utilization:

	res
F	tectangle
	None
A LOP LL C	6
	4
	4
	16.00
	21.33
	21.33
	85.33
	2.25
	2.25
	2.72
	8.35
	32.6%



V2W	Client:	Verizon Wireless	Date: 7/21/2023
	Site Name:	CROMWELL CT	
SMART Tool®	MDG #:	5000245641	
Vendor	Fuze ID #:	17123796	Page: 1
			Version 1.01

I. Mount-to-Tower Connection Check (New Standoff)

20

M_u (kip-in):

Phi*M_n (kip-in):

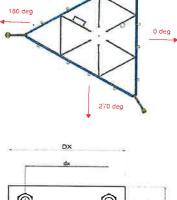
Plate Bending Utilization:

Nodes Orientation (per graphic of typical platform) N44 30 30 30 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Custom Orientation Required	1	Yes		
Iso asIso asI					
Tower Connection Bolt ChecksYesBolt OrientationBolt Quantity per Reaction: d_r (in) (Delta Y of typ. bolt config. sketch) :666678 Dol Diameter (in):Required Tensile Strength / bolt (kips):99991011121213141516171819191010111112131414151516171819191011111213141415151617181919111112131414151516171819191910111112131415151617181919191010111112131415	N44				
Tower Connection Bolt ChecksYesBolt OrientationBolt Quantity per Reaction: d_r (in) (Delta Y of typ. bolt config. sketch) :666678 Dol Diameter (in):Required Tensile Strength / bolt (kips):99991011121213141516171819191010111112131414151516171819191011111213141415151617181919111112131414151516171819191910111112131415151617181919191010111112131415					
Tower Connection Bolt ChecksYesBolt OrientationBolt Quantity per Reaction: d_r (in) (Delta Y of typ. bolt config. sketch) :666678 Dol Diameter (in):Required Tensile Strength / bolt (kips):99991011121213141516171819191010111112131414151516171819191011111213141415151617181919111112131414151516171819191910111112131415151617181919191010111112131415					
Tower Connection Bolt ChecksYesBolt OrientationBolt Quantity per Reaction: d_r (in) (Delta Y of typ. bolt config. sketch) :666678 Dol Diameter (in):Required Tensile Strength / bolt (kips):99991011121213141516171819191010111112131414151516171819191011111213141415151617181919111112131414151516171819191910111112131415151617181919191010111112131415				in the second	
Tower Connection Bolt ChecksYesBolt OrientationBolt Quantity per Reaction: d_r (in) (Delta Y of typ. bolt config. sketch) :666678 Dol Diameter (in):Required Tensile Strength / bolt (kips):99991011121213141516171819191010111112131414151516171819191011111213141415151617181919111112131414151516171819191910111112131415151617181919191010111112131415		_			
Tower Connection Bolt ChecksYesBolt OrientationBolt Quantity per Reaction: d_r (in) (Delta Y of typ. bolt config. sketch) :666678 Dol Diameter (in):Required Tensile Strength / bolt (kips):99991011121213141516171819191010111112131414151516171819191011111213141415151617181919111112131414151516171819191910111112131415151617181919191010111112131415			And the second		
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: 			and some state of the state of	180) deg
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75			the second s	4	
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75				0	\prec
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75					
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75					
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75					
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75					
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75					
Bolt OrientationParallelBolt Quantity per Reaction: d_v (in) (Delta X of typ. bolt config. sketch): d_v (in) (Delta Y of typ. bolt config. sketch): 6 6Bolt Type: Bolt Diameter (in): Required Tensile Strength / bolt (kips): Required Sthear Strength / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 0.1 Tensile Capacity / bolt (kips): 12.4 Bolt Overall Utilization:0.625Required Stiffener Configuration: Plate Height, D _v (in): 0.1 0.625 0.1 Connection Baseplate ChecksYesConnection Standoff Member Shape: No StiffenersRect Tube No StiffenersWeld Stiffener Configuration: $10:$ 0.25 0.25 W1(in): 0.25 3 Member Thickness (in): 0.1 0.25 Stiffener location a_1 (in): 0.25 3 Member Thickness (in): 0.1 0.75 Stiffener location b_2 (in): F_v (kis, plate): 50 Plate Thickness (in): 0.75 0.75		1			
Junc.Junc.Junc.Junc.Junc.Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto:Auto: <td< td=""><td>Tower Connection Bolt Checks</td><td>E</td><td>Yes</td><td>3-</td><td></td></td<>	Tower Connection Bolt Checks	E	Yes	3 -	
d_x (in) (Delta X of typ. bolt config. sketch):6 d_y (in) (Delta Y of typ. bolt config. sketch):6Bolt Type:A325NBolt Diameter (in):0.625Required Tensile Strength / bolt (kips):0.1Tensile Capacity / bolt (kips):0.1Tensile Capacity / bolt (kips):0.20.7Shear Capacity / bolt (kips):12.4Bolt Overall Utilization:21.4%Tower Connection Baseplate ChecksYesConnecting Standoff Member Shape:Rect TubeWeld Stiffener Configuration:No StiffenersPlate Width, D_x (in):8.25W1(in):3W2 (in):3W2 (in):3Stiffener location a_1 (in):0.25Stiffener location a_1 (in):50Plate Hight, D_y (in):50Plate Hickness (in):0.75Stiffener location a_2 (in):50Plate Thickness (in):50Plate Thickness (in):0.75	Bolt Orientation		Parallel		
d_x (in) (Delta X of typ. bolt config. sketch):6 d_y (in) (Delta Y of typ. bolt config. sketch):6Bolt Type:A325NBolt Diameter (in):0.625Required Tensile Strength / bolt (kips):0.1Tensile Capacity / bolt (kips):0.1Tensile Capacity / bolt (kips):0.20.7Shear Capacity / bolt (kips):12.4Bolt Overall Utilization:21.4%Tower Connection Baseplate ChecksYesConnecting Standoff Member Shape:Rect TubeWeld Stiffener Configuration:No StiffenersPlate Width, D_x (in):8.25W1(in):3W2 (in):3W2 (in):3Stiffener location a_1 (in):0.25Stiffener location a_1 (in):50Plate Hight, D_y (in):50Plate Hickness (in):0.75Stiffener location a_2 (in):50Plate Thickness (in):50Plate Thickness (in):0.75	Bolt Quantity por Pagetion	r			<u></u>
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Shear Capacity / bolt (kips):12.4Bolt Overall Utilization:12.4Bolt Overall Utilization:12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%12.4%	Tensile Capacity / bolt (kips):	-		L	
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Weld Stiffener Configuration:No StiffenersPlate Width, D_x (in):8.25Plate Height, D_y (in):8.25W1(in):3W2 (in):3Member Thickness (in):0.25Stiffener location a_1 (in):0.25Stiffener location b_1 (in):-Stiffener location b_2 (in):-Fy (ksi, plate):50Plate Thickness (in):0.75	Connecting Standoff Mambas Character				
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Stiffener location $b_1(in)$: Stiffener location $a_2(in)$: Stiffener location $b_2(in)$: Fy (ksi, plate): Plate Thickness (in): 0.75		-	0.25		
Stiffener location a_2 (in): Stiffener location b_2 (in): Fy (ksi, plate): Fy (ksi, plate): Stiffener location b_2 (in): 0.75		-			(L
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Fy (ksi, plate): 50 Plate Thickness (in): 0.75				3	
Plate Thickness (in): 0.75					
Plate Thickness (in): 0.75			50		
I an athen of Mandal the start of the					
6.69	Length of Yield Line, L _v (in):		6.69		
Bolt Eccentricity, e (in): 2.35	Bolt Eccentricity, e (in):	E			

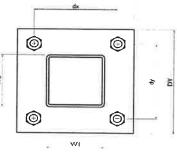
10.44

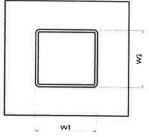
42.31

24.7%



90 deg

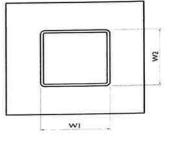




VzW	Client:	Verizon Wireless	Date: 7/21/2023
	Olt- Manage	CROMWELL CT	
SMART Tool®	MDG #:	5000245641	
Vendor	Fuze ID #:	17123796	Page: 2
	1 020 10 11.	KALINES FERRER AL	Version 1.01

Tower Connection Weld Checks	1.1
Weld Shape: Weld Stiffener Configuration:	
Weld Size (1/16 in): W1 (in):	
W2 (in): Weld Total Length (in):	
Z _x (in ³ /in):	
Z_{v} (in ³ /in):	
c _x (in) c _v (in)	
Required combined strength (kip/in):	
Weld Capacity (kip/in): Weld Utilization:	

	Yes	
	Rectangle	-
	None	
	5	
2	3	
-	3	
	12.00	_
	12.00	
	12.00	
	36.00	
	1.75	
	1.75	
	2.93	
	6.96	
	42.2%	





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

Structural Analysis Report

Existing 76 ft TransAmerican Monopole Customer Name: SBA Communications Corp Customer Site Number: CT46122-A Customer Site Name: Middletown North Carrier Name: Verizon (App#: 232674-3) Carrier Site ID / Name: 5000245641 / CROMWELL CT Site Location: 160 West Street Cromwell, Connecticut Middlesex County Latitude: 41.606000 Longitude: -72.670388



Analysis Result: Max Structural Usage: 66.1% [Pass] Max Foundation Usage: 48.2% [Pass] Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Tawfeeq Alajaj



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

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Existing 76 ft TransAmerican Monopole Customer Name: SBA Communications Corp Customer Site Number: CT46122-A Customer Site Name: Middletown North Carrier Name: Verizon (App#: 232674-3) Carrier Site ID / Name: 5000245641 / CROMWELL CT Site Location: 160 West Street Cromwell, Connecticut Middlesex County Latitude: 41.606000 Longitude: -72.670388

<u>Analysis Result:</u> Max Structural Usage: 66.1% [Pass] Max Foundation Usage: 48.2% [Pass] Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By : Tawfeeq Alajaj

Introduction

The purpose of this report is to summarize the analysis results on the 76 ft TransAmerican 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	TransAmerican Power Products, Inc., Order #TP-8949 dated July 19, 2010			
Foundation Drawing	Vertical Solutions, Project #100264.02 dated February 23, 2010			
Geotechnical Report	Clarence Welti Association, Inc., Project Name: Transcend Wireless Tower dated			
	February 1, 2010			
Modification Drawings	N/A			
Mount Analysis	N/A			

Analysis Criteria

The feasibility analysis was performed in accordance with the requirements and stipulations of the TIA-222-H. 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:	119.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S _s = 0.205, S ₁ = 0.055

This structural analysis is based upon the tower being classified as a Risk Category 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.

ltems	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	3	3	RFS APXVAALL24-43-U-NA20			1
2		3	Ericsson Air 32 KRD901146- 1_B66A_B2A	(3) T-Arms		
3		3	Ericsson AIR6449 B41	w/ replaced new standoff, face	(6) 7/8"	
4	74.0	3	Commscope SDX1926Q-43	horizontal and new support rail	(4) 1 5/8" Fiber	T-Mobile
5		6	Andrew ATM200-A20	with end connection	<u>(</u> 6) 3/8" RET	
6		3	Ericsson 4449 B71 + B85	1		
7		3	Ericsson 4415 B25			
8		3	Ericsson 4415 B66A			
9		6	Commscope JAHH-65B-R3B			
10		3	Samsung Telecommunications VZS01			
11		4	Andrew DB846F65ZAXY	(3) T-Arms		
12		2	Decibel DB846H80E-SX w/Mount Pipe	(3) TBD VZWSMART-SFK4	(4.0) 4.5 (0) 5	
13	64.0	3	Commscope CBC78T-DS-43- 2X/E14F05P50	(Mount Reinforcement) (3) Commscope BSAMNT-SBS-2-	(18) 1 5/8" Coax (2) 1 5/8" Hybrid	Verizon
14		3	Samsung B2/B66A RRH-BR049	2 (side-by-side mounts)		
15		3	Samsung B5/B13 RRH-BR04C			
16		2	RFS DB-T1-6Z-8AB-0Z			
17		3	JMA Wireless MX08FRO665-21			
18	51.0	3	Fujitsu TA08025-B605	Commscope MC-K6MHDX-9-96		Dish
19	51.0	3	Fujitsu TA08025-B604	T-Arms		Wireless
20		1	Raycap RDIDC-9181-PF-48			

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.

ltems	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
9		6	Commscope JAHH-65B-R3B			
10	64.0 3 3 3 3 3	3	Samsung Telecommunications VZS01			
11		4	Andrew DB846F65ZAXY	(3) T-Arms		
12		2	Decibel DB846H80E-SX w/Mount Pipe	(3) TBD VZWSMART-SFK4		
13		3	Commscope CBC78T-DS-43- 2X/E14F05P50	(Mount Reinforcement) (3) Commscope BSAMNT-SBS-2-	(18) 1 5/8" Coax (2) 1 5/8" Hybrid	Verizon
14		3	Samsung B2/B66A RRH-BR049	2 (side-by-side mounts)		
15		3	Samsung B5/B13 RRH-BR04C			
16		2	RFS DB-T1-6Z-8AB-0Z			
17		2	Kaelus BSF0020F3V1-1 Filter			

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:	66.1%	65.5%	45.6%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	
Original Design Reactions	2800.0	52.0	
Analysis Reactions	1822.6	31.3	
Factored Reactions*	3780.0	70.2	
% of Design Reactions	48.2%	44.6%	

* Per section 15.6.2 of the TIA-222-H standard, factored reactions were obtained by multiplying a 1.35 factor to the original design reactions.

No foundation drawing is available for the analysis of the existing foundation. Since the reactions calculated from the current analysis are less than those indicated on the original structural design drawing, the foundations are assumed to be adequate to resist the reactions from the current analysis.

Service Load Condition (Rigidity):

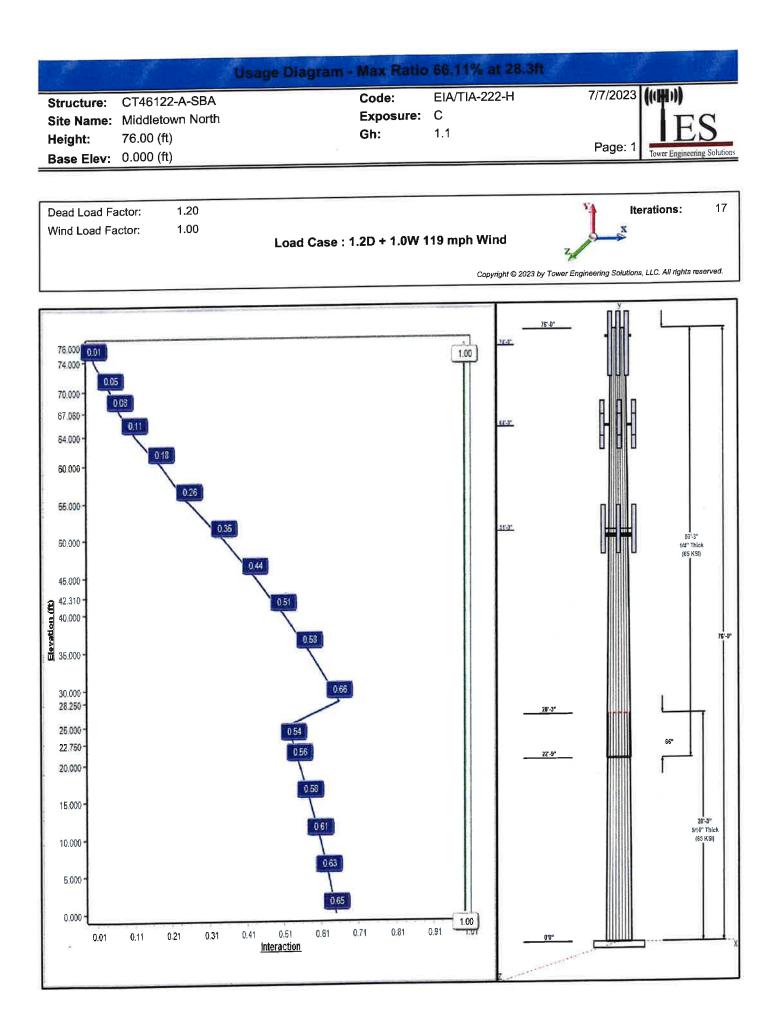
Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.5540 degrees under the operational wind speed as specified in the Analysis Criteria.

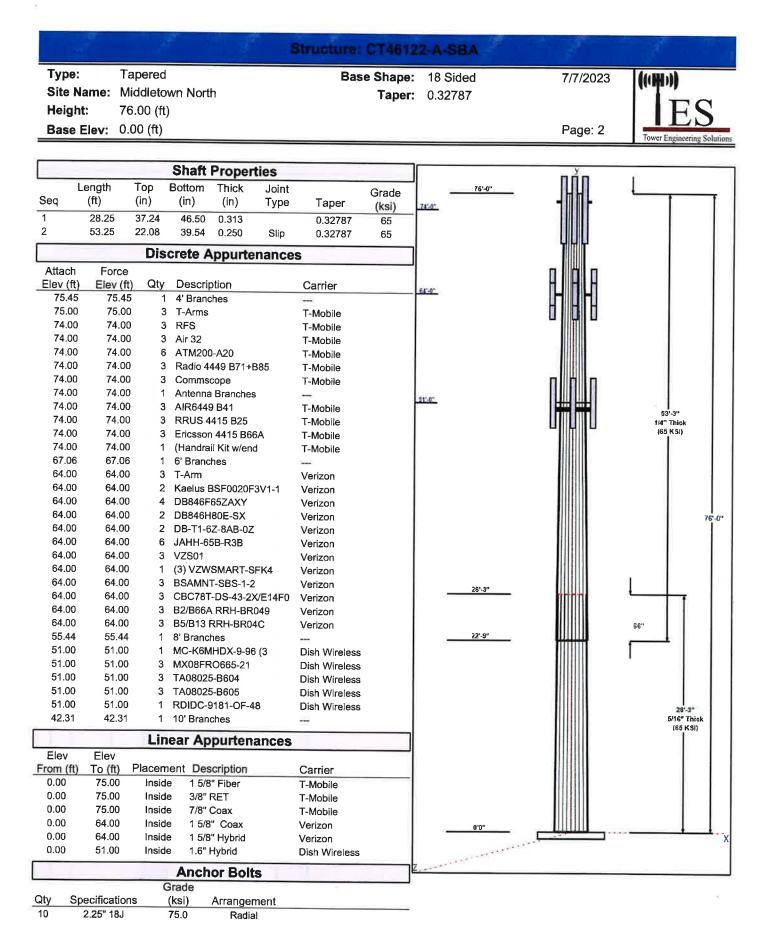
Conclusions

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

Standard Conditions

- 1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
- 2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
- 3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
- 4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
- 5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
- 6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.





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Structure: CT46122-A-SBA

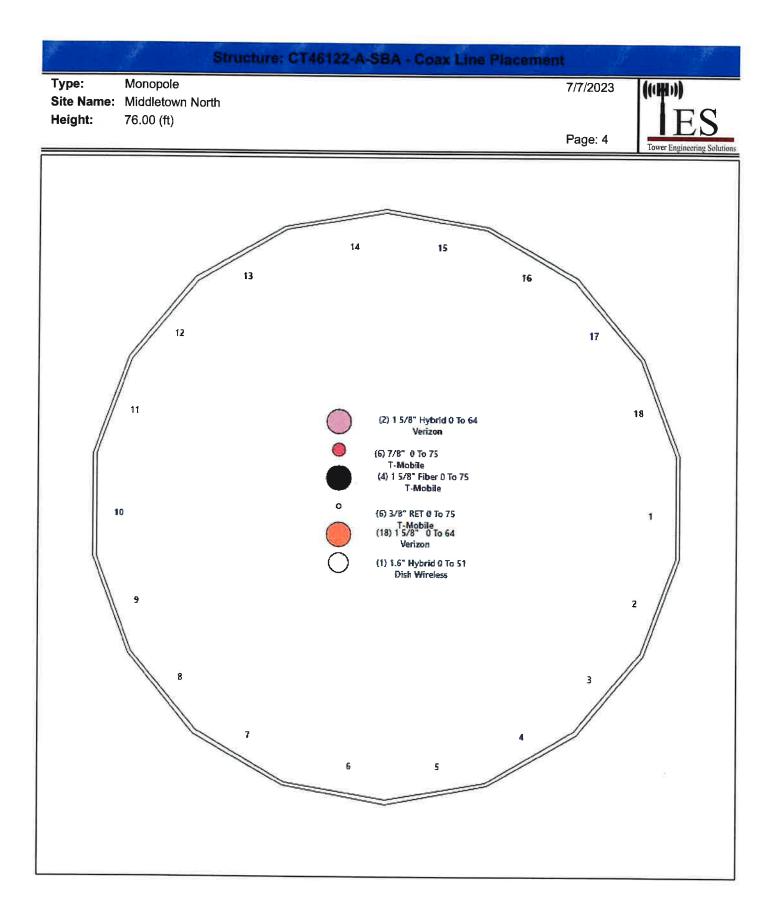
Type:TaperedSite Name:Middletown NorthHeight:76.00 (ft)Base Elev:0.00 (ft)

Base Shape: 18 Sided Taper: 0.32787 7/7/2023

Page: 3

(((THP))) ES Tower Engineering Solutions

		Base Pla	te		
Thickness (in)	Specifications (in)	Grade (ksi)	Geo	metry	
2.0000	60.0	60.0	Ro	und	
		Reaction	าร		
Load Case			ment -Kips)	Shear (Kips)	Axial (Kips)
	119 mph Wind	18	22.6	31.3	24.2
	19 mph Wind	18	16.6	31.3	18.2
	+ 1.0Wi 50 mph Wind	45	53.6	7.9	36.4
1.2D + 1.0Ev		5	3.5	0.9	25.2
0.9D + 1.0Ev		5	3.5	0.9	19 .1
1.0D + 1.0W 6		4	3.7	7.1	20.2



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			SI	haft Properties		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023
	Middletown North			Exposure:	С	(('III'))
Height:	76.00 (ft)			Crest Height:	0.00	IFS
Base Elev:				Site Class:	D - Stiff Soil	Tower Engineering Solution
Gh:	1.1	Topography:	1	Struct Class:	li -	Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)	
1	18	28,250	0.3125	65		0.00	3,962	
2	18	53.250	0.2500	65	Slip	66.00	4,394	
2					Total Sha	aft Weight:	8,356	

			Bo	ottom			-			ор			
Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	lx (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	lx (in^4)	W/t Ratio	D/t Ratio	Taper
		0.00	45.81	12347.18	24.83	148.80	37.24	28.25	36.62	6309.09	19.60	119.1	0.327865
1	46.50	0.00	40.01				00.00	76.00	17.32	1043.23	14.16	88.33	0.327865
2	39.54	<u>22.75</u>	31.18	6080.87	26.48	158.16	22.08	76.00	17.52	1043.25	14.10	00.00	

			4	oad Summary			
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	
Site Name:	Middletown North	1		Exposure:	С	((昭))	
Height:	76.00 (ft)			Crest Height:	0.00		a
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		S
Gh:	1.1	Topography:	1	Struct Class:	II	Page: 6	ing Solution
iscrete A	opurtenances						

Discrete Appurtenances

			No.Ice							5	
					No Ice			Ice			
No.	Elev (ft)	Description	Qty	Weight (Ib)	CaAa (sf)	CaAa Factor	Weight (Ib)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1		4' Branches	1	390.00	36.86	1.00	559,45	52.875	1.00	0.00	0.00
2		T-Arms	3	160.00	8.00	0.75	246.84	13.801	0.75	0.00	0.00
3	74.00	RFS APXVAALL24-43-U-NA20	3	128.00	20.24	0.70	375.22	21,404	0.70	0.00	0.00
4	74.00	Air 32 KRD901146-1_B66A_B2A	3	132.20	6.51	0.87	238.23	7.189	0.87	0.00	0.00
5	74.00	ATM200-A20	6	0.50	0.12	0.50	3.75	0.257	1.00	0.00	0.00
6	74.00	Radio 4449 B71+B85	3	71.00	1.97	0.67	104.16	2.310	0.67	0.00	0.00
7	74.00	Commscope SDX1926Q-43	3	7.00	0.72	0.67	15.91	1.113	0.67	0.00	0.00
8	74.00	Antenna Branches	1	96.00	22.43	1.00	137.63	32,157	1.00	0.00	0.00
9	74.00	AIR6449 B41	3	103.00	5.65	0.71	188.18	6.240	0.71	0.00	0.00
10	74.00	RRUS 4415 B25	3	46.00	1.64	0.67	71.53	1.960	0.67	0.00	0.00
11	74.00	Ericsson 4415 B66A	3	49.60	1.86	0.67	84.39	2,195	0.67	0.00	
12	74.00	(Handrail Kit w/end connection)	1	261.72	6.75	1.00	454.66	10.848	1.00	0.00	0.00
13		6' Branches	1	400.00	83.63	1.00	571.76	10.648	1.00		0.00
14	64.00	T-Am	3	320.00	8.00	0.75	456.77	19.540	0.75	0.00	0.00
15	64.00	Kaelus BSF0020F3V1-1 Filter	2	19.80	0.70	0.75	35.37	0.912		0.00	0.00
16		DB846F65ZAXY	4	21.00	7.05	0.80	132.84		0.80	0.00	0.00
17		DB846H80E-SX	2	16.00	5.01	1.12		7.776	0.93	0.00	0.00
18		DB-T1-6Z-8AB-0Z	2	44.00	3.30	0.67	105.02	5.721	1.12	0.00	0.00
19		JAHH-65B-R3B	6	63.30	3.30 9.11		126.03	5.321	0.67	0.00	0.00
20	64.00		3	87.10		0.83	195.06	9.916	0.83	0.00	0.00
21		(3) VZWSMART-SFK4	1	500.00	4.30	0.69	149.51	4.830	0.69	0.00	0.00
22		BSAMNT-SBS-1-2	3		16.50	0.75	863.28	26.373	0.75	0.00	0.00
23		CBC78T-DS-43-2X/E14F05P50	3	25.35	0.00	0.75	36.18	0.000	0.75	0.00	0.00
24		B2/B66A RRH-BR049	3	21.80	0.37	0.67	32.27	0.528	0.67	0.00	0.00
25		B5/B13 RRH-BR04C	3	84.40	1.64	0.67	118.34	1.956	0.67	0.00	0.00
26		8' Branches	-	70.30	2.22	0.67	105.75	2.599	0.67	0.00	0.00
27		MC-K6MHDX-9-96 (3 Sectors)	1	1638.00	150.70	1.00	2328.09	14.190	1.00	0.00	0.00
28		MX08FRO665-21	1	899.00	20.95	0.75	1424.84	36.705	0.75	0.00	0.00
20 29		TA08025-B604	3	64.50	12.49	0.74	238.58	13.367	0.74	0.00	0.00
29 30		TA08025-B604 TA08025-B605	3	63.90	1.96	0.67	94.20	2.296	0.67	0.00	0.00
30 31		RDIDC-9181-OF-48	3	75.00	1.96	0.67	106.30	2.296	0.67	0.00	0.00
31 32			1	21.90	2.01	1.00	53.77	2.350	1.00	0.00	0.00
52	42.31	10' Branches	1	540.00	54.43	1.00	761.44	76.750	1.00	0.00	0.00
		Totals:	82	9,900.47			17,399.22				

Linear Appurtenances

Bottom	Тор			2	
Elev. (ft)	Elev. (ft)	Description	Exposed Width	Exposed	
0.00	75.00	(4) 1 5/8" Fiber	0.00	Inside	_
0.00	75.00	(6) 3/8" RET	0.00	Inside	
0.00	75.00	(6) 7/8" Coax	0.00	Inside	
0.00	64.00	(18) 1 5/8" Coax	0.00	Inside	
0.00	64.00	(2) 1 5/8" Hybrid	0.00	Inside	
0.00	51.00	(1) 1.6" Hybrid	0.00	Inside	

		Star Star	Shaft S	Section Prope	orties		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	44 MIL 11
	Middletown North	I		Exposure:	С		de ma con
Height:	76.00 (ft)			Crest Height:	0.00		IFS
Base Elev:	. ,			Site Class:	D - Stiff Soil		
Gh:	1.1	Topography:	1	Struct Class:	11	Page: 7	Tower Engineering Solution

Increment Length: 5 (ft)

Elev		Thick	Dia (in)	Area (in^2)	lx (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (Ib)
(ft)	Description	(in) 0.3125	46,500	45.811	12347.2	24.83	148.80		523.0	0.0
0.00			46.500	44.185	11078.6	23.90	143.55		486.4	765.6
5.00		0.3125	44.001	44.103	9900.0	22.98	138.31	74.4		737.9
10.00		0.3125	43.221	42.009	8808.1	22.05	133.06		417.2	710.3
15.00		0.3125		40.933 39.307	7799.6	21.13	127.82		384.6	682.6
20.00		0.3125	39.943	-	7279.3	20.62	124.93		367.2	363.6
22.75	Bot - Section 2	0.3125	39.041	38.413	6871.2	20.02	124.55		353.3	527.7
25.00		0.3125	38.303	37.681	-	25.21	150.95	0.0	0.0	744.5
28.25	Top - Section 1	0.2500	37.738	29.746	5281.5	23.21	148.66		267.2	175.8
30.00		0.2500	37.164	29.290	5042.7	24.00	148.00		244.0	487.3
35.00		0.2500	35.525	27.989	4400.2		135.54		221.7	465.1
40.00		0.2500	33.885	26.689	3814.8	22.49	132.51		211.8	207.4
42.31		0.2500	33.128	26.088	3562.9	21.95	128.98		200.6	235.6
45.00		0.2500	32.246	25.388	3283.8	21.33			180.5	420.9
50.00		0.2500	30.607	24.087	2804.5	20.18	122.43 121.12		176.6	81.5
51.00		0.2500	30.279	23.827	2714.6	19.95			161.4	317.2
55.00		0.2500	28.967	22.786	2374.2	19.02	115.87			34.0
55.44		0.2500	28.823	22.672	2338.6	18.92	115.29	79.1		342.6
60.00		0.2500	27.328	21.486	1990.4	17.86	109.31		143.5	285.4
64.00		0.2500	26.017	20.445	1715.0	16.94	104.07	81.5		265.4 69.1
65.00		0.2500	25.689	20.185	1650.3	16.71	102.76		126.5	139.6
67.06		0.2500	25.013	19.649	1522.3	16.23	100.05	82.3		
70.00		0.2500	24.049	18.884	1351.4	15.55	96.20	82.5		192.7
74.00		0.2500	22.738	17.844	1140.1	14.63	90.95	82.5		250.0
75.00		0.2500	22.410	17.583	1090.9	14.40	89.64	82.5		60.3
75.45		0.2500	22.263	17.466	1069.3	14.29	89.05	82.5		26.8
76.00		0.2500	22.082	17.323	1043.2	14.16	88.33	82.5	93.1	32.6
10.00										8356.2

Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	
Site Name:	Middletown North	ו		Exposure:	С		(())
Height:	76.00 (ft)			Crest Height:	0.00		IDO
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		IES
Gh:	1.1	Topograph	i y: 1	Struct Class:	H	Page: 8	Tower Engineering Soluti
Load Case:	: 1.2D + 1.0W 119	mph Wind				¥ a	erations 1
Dea	d Load Factor	1.20				x	
	d Load Factor	1.00					

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Force X (Ib)	Load Ice (Ib)	Load (Ib)
0.00		1.00	0.85	29.135	32.05	430.67	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	29.135	32.05	415.49	0.730	0.000	5.00	19.327	14.11	452.2	0.0	918,7
10.00		1.00		29.135	32.05	400.31	0.730	0.000	5.00	18.634	13.60	435.9	0.0	885.5
15.00		1.00	0.85	29.135	32.05	385.12	0.730	0.000	5.00	17.940	13.10	419.7	0.0	852.3
20.00		1.00	0.90	30.914	34.00	381.06	0.730	0.000	5.00	17.246	12.59	428.1	0.0	819.1
	 Section 2 	1.00	0.93	31.764	34.94	377.55	0.730	0.000	2.75	9.190	6.71	234.4	0.0	436.4
25.00		1.00	0.95	32.400	35.64	374.11	0.730	0.000	2.25	7.458	5,44	194.0	0.0	633.3
	- Section 1	1.00	0.97	33.245	36.57	368.41	0.730	0.000	3.25	10.525	7.68	281.0	0.0	893.4
30.00		1.00	0.98	33.668	37.04	370.01	0.730	0.000	1.75	5,546	4.05	149.9	0.0	210.9
35.00		1.00	1.01	34.779	38.26	359.48	0.730	0.000	5.00	15.377	11.23	429,4	0.0	584.7
40.00		1.00	1.04	35.770	39.35	347.74	0.730	0.000	5.00	14.684	10.72	421.8	0.0	558.2
42.31 App	urtenance(s)	1.00	1.06	36.196	39.82	341.99	0.730	0.000	2.31	6.550	4.78	190.4	0.0	248.9
45.00		1.00	1.07	36.669	40.34	335.05	0.730	0.000	2.69	7.440	5.43	219.1	0.0	282.7
50.00		1.00	1.09	37.491	41.24	321.56	0.730	0.000	5.00	13.296	9.71	400.3	0.0	505.1
51.00 App	urtenance(s)	1.00	1.10	37.648	41.41	318.78	0.730	0.000	1.00	2.576	1.88	77.9	0.0	97.8
55.00		1.00	1.12	38.251	42.08	307.41	0.730	0.000	4.00	10.027	7.32	308.0	0.0	380.7
55.44 App	urtenance(s)	1.00	1.12	38.315	42.15	306.13	0.730	0.000	0.44	1.076	0.79	33.1	0.0	40.8
60.00	14	1.00	1.14	38.958	42.85	292.68	0.730	0.000	4.56	10.833	7.91	338.9	0.0	411.1
64.00 App	urtenance(s)	1.00	1.15	39.491	43.44	280.53	0.730	0.000	4.00	9.028	6.59	286.3	0.0	342.4
65.00		1.00	1.16	39.620	43.58	277.45	0.730	0.000	1.00	2.188	1.60	69.6	0.0	83.0
67.06 App	urtenance(s)	1.00	1.16	39.881	43.87	271.04	0.730	0.000	2.06	4.419	3.23	141.5	0.0	167.5
70.00		1.00	1.17	40.243	44.27	261.78	0.730	0.000	2.94	6.103	4.46	197.2	0.0	231.3
74.00 App	urtenance(s)	1.00	1.19	40.717	44.79	248.96	0.730	0.000	4.00	7.918	5.78	258.9	0.0	299.9
75.00 App	urtenance(s)	1.00	1.19	40.832	44.91	245.71	0.730	0.000	1.00	1.910	1.39	62.6	0.0	72.3
75.45 App	urtenance(s)	1.00	1.19	40.883	44.97	244.25	0.730	0.000	0.45	0.851	0.62	27.9	0.0	32.2
76.00		1.00	1.19	40.946	45.04	242.46	0.730	0.000	0.55	1.032	0.75	33.9	0.0	39.1
								Totals:	76.00			6,092.1		10,027.4

	ř.		and the second	Di	scret	e Appu	urten	ance l	Forces					
Str	ucture:	CT46122-A-SBA				Co	de:	Т	IA-222-⊦	1	7/7/	2023		
	e Name:					Ex	posure	e: C	>				(罪))	
						-		i ght: 0					IT	C
He	ght:	76.00 (ft)						-		oil				S
Bas	se Elev:	0.000 (ft)				_	e Clas) - Stiff S	011	-		ower Enginee	ring Solutions
Gh	:	1.1	Торо	graphy	: 1	Str	uct Cla	ass: I			Pa	ige: 9	ower Eligine	
Lo	ad Case	e: 1.2D + 1.0W 119	mph \	Nind							YA	Iter	ations	17
	De	ad Load Factor	1.20								-	X		
			1.00								Z			
	441		1.00						_	_	r.			
No	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (Ib)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (Ib-ft)	Mom Z (Ib-ft)
No.		Branches	1	40.883	44.972	1.00	1.00	36.86	468.00	0.000	0.000	1657.65	0.00	0.00
1 2	75.45 4 75.00 T		3		44.915	0.56	0.75	13.50	576.00	0.000	0.000	606.35	0.00	0.00
2		ntenna Branches	1		44.788	1.00	1.00	22.43	115.20	0.000	0.000	1004.60	0.00	0.00
4		IR6449 B41	3		44.788	0.57	0.80	9.63	370.80	0.000	0.000	431.20	0.00	0.00
5		RUS 4415 B25	3	40.717	44.788	0.54	0.80	2.64	165.60	0.000	0.000	118.11	0.00	0.00
6		ricsson 4415 B66A	3	40.717	44.788	0.54	0.80	2.99	178.56	0.000	0.000	133.96	0.00	0.00
7	74.00 (ŀ	Handrail Kit w/end	1	40.717	44.788	1.00	1.00	6.75	314.06	0.000	0.000	302.32	0.00	0.00
8	74.00 R		3	40.717	44.788	0.56	0.80	34.00	460.80	0.000	0.000	1522.94	0.00	0.00
9	74.00 A		3		44.788	0.70	0.80	13.59	475.92	0.000	0.000	608.80	0.00	0.00 0.00
10	74.00 A	TM200-A20	6	40.717	44.788	0.40	0.80	0.29	3.60	0.000	0.000	12.90	0.00 0.00	0.00
11	74.00 R	adio 4449 B71+B85	3	40.717	44.788	0.54	0.80	3.17	255.60	0.000	0.000	141.88	0.00	0.00
12	74.00 C	Commscope	3	40.717		0.54	0.80	1.16	25.20	0.000	0.000 0.000	51.85 3668.78	0.00	0.00
13	67.06 6	'Branches	1	39.881		1.00	1.00	83.63	480.00	0.000	0.000	155.07	0.00	0.00
14	64.00 B	5/B13 RRH-BR04C	3	39.491		0.54	0.80	3.57	253.08	0.000 0.000	0.000	114.56	0.00	0.00
15		2/B66A RRH-BR049	3	-	43.440	0.54	0.80	2.64	303.84 78.48	0.000	0.000	25.85	0.00	0.00
16		BC78T-DS-43-2X/E14F0			43.440	0.54	0.80 0.75	0.59 0.00	91.26	0.000	0.000	0.00	0.00	0.00
17		SAMNT-SBS-1-2	3		43.440	0.56 0.90	0.75	8.98	38.40	0.000	0.000	390.00	0.00	0.00
18		B846H80E-SX	2	39.491		0.90	0.80	13.50	1152.00	0.000	0.000	586.44	0.00	0.00
19	64.00 T		3	39.491	43.440	0.50	0.80	0.90	47.52	0.000	0.000	38.92	0.00	0.00
20		aelus BSF0020F3V1-1	2 4	39.491 39.491		0.74	0.80	20.98	100.80	0.000	0.000	911.41	0.00	0.00
21		B846F65ZAXY	4	39.491 39.491		0.56	0.75	9.28	600.00	0.000	0.000	403.18	0.00	0.00
22		3) VZWSMART-SFK4	2		43.440	0.54	0.80	3.54	105.60	0.000	0.000	153.67	0.00	0.00
23		B-T1-6Z-8AB-0Z	6		43.440	0.66	0.80	36.29	455.76	0.000	0.000	1576.62	0.00	0.00
24		AHH-65B-R3B	3		43.440	0.55	0.80	7.12	313.56	0.000	0.000	309.33	0.00	0.00
25 26	64.00 V	' Branches	1		42.147	1.00	1.00	150.70	1965.60	0.000	0.000	6351.48	0.00	0.00
26 27		IX08FRO665-21	3		41.412	0.59	0.80	22.18	232.20	0.000	0.000	918.62	0.00	0.00
27 28		AC-K6MHDX-9-96 (3	1		41.412	0.56	0.75	11.78	1078.80	0.000	0.000	488.02	0.00	0.00
20 29		RDIDC-9181-OF-48	1		41.412	0.80	0.80	1.61	26.28	0.000	0.000	66.59	0.00	0.00
29 30		A08025-B605	3		41.412	0.54	0.80	3.15	270.00	0.000	0.000	130.52	0.00	0.00
31		A08025-B604	3		41.412	0.54	0.80	3.15	230.04	0.000	0.000	130.52	0.00	0.00
32		0' Branches	1	36.196	39.815	1.00	1.00	54.43	648.00	0.000	0.000	2167.15	0.00	0.00

Totals: 11,880.56

25,179.28

Structure:	CT46122-A-SBA	A		Code:	TIA-222-H	7/7/2023	Late recent
Site Name:	Middletown Nort	h		Exposure:	С		(((明)))
Height:	76.00 (ft)			Crest Height:	0.00		TC
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		LES
Gh:	1.1	Topography:	1	Struct Class:	П	Page: 10	Tower Engineering Solution
	: 1.2D + 1.0W 11	•				×	terations 1
	ad Load Factor	1.20				X	
	nd Load Factor	1.00				Z	
Wir						6	
Wir Elev	Later FX (Forsion Mom MY MZ			

(ft)	Description	(ib)	(Ib)	(lb-ft)	™∠ (Ib-ft)
0.00		0.00	0.00	0.00	0.00
5.00		452.17	1097.50	0.00	0.00
10.00		435.94	1064.30	0.00	0.00
15.00		419.71	1031.11	0.00	0.00
20.00		428.12	997.91	0.00	0.00
22.75		234.40	534.70	0.00	0.00
25.00		194.04	713.76	0.00	0.00
28.25		280.97	1009.62	0.00	0.00
30.00		149.94	273.51	0.00	0.00
35.00		429.44	763.53	0.00	0.00
40.00		421.76	736.97	0.00	0.00
42.31	attachments	2357.51	979.51	0.00	0.00
45.00		219.08	378.90	0.00	0.00
50.00		400.29	683.86	0.00	0.00
51.00	(11) attachments	1812.14	1970.90	0.00	0.00
55.00		307.97	518.92	0.00	0.00
55.44	(1) attachments	6384.58	2021.64	0.00	0.00
60.00		338.90	568.70	0.00	0.00
64.00	(35) attachments	4951.33	4020.97	0.00	0.00
65.00		69.60	92.41	0.00	0.00
67.06	(1) attachments	3810.30	667.01	0.00	0.00
70.00		197.22	259.10	0.00	0.00
74.00	(29) attachments	4587.45	2703.11	0.00	0.00
75.00	(3) attachments	668.98	657.79	0.00	0.00
75.45	(1) attachments	1685.57	500.20	0.00	0.00
76.00		33.93	39.07	0.00	0.00
	Totals:	31,271.35	24,285.02	0.00	0.00

						Calc	ulated Fo	rces		.	1.14	<i>3</i> 7		
Struc Site N Heigh Base Gh:	Name: nt:		• •	orth	bography:	1	Code: Exposure: Crest Heig Site Class: Struct Clas	C ht: 0.0	-222-H 0 Stiff Soil			7/2023 age: 11	Tower Engineer	S.
Load	Dea	d Load	1.0W Facto		0					2	Ĭ	lte	erations	17
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	-24.23	-31.32	0.00	-1822.5	0.00	1822.58	2976.77	803.98	3080.93	2832.01	0.00	0.000	0.000	0.653
5.00	-23.02	-30.94	0.00	-1666.0	0.00	1666.01	2914.38	775.44	2866.11	2673.58	0.11	-0.201	0.000	0.633
10.00	-21.85	-30.58	0.00	-1511.3	0.00	1511.30	2848.80	746.90	2659.05	2516.58	0.43	-0.405	0.000	0.610
15.00	-20.71	-30.23	0.00	-1358.4	0.00	1358.40	2780.04	718.37	2459.75	2361.34	0.97	-0.611	0.000	0.584
20.00	-19.64	-29.84	0.00	-1207.2	0.00	1207.28	2708.10	689.83	2268.22	2208.17	1.72	-0.818	0.000	0.556
22.75	-19.05	-29.63	0.00	-1125.2	0.00	1125.22	2667.17	674.14	2166.19	2124.93	2.23	-0.935	0.000	0.539
25.00	-18.28	-29.46	0.00	-1058.5	0.00	1058.55	2632.97	661.30	2084.45	2057.41	2.69	-1.031	0.000	0.523
28.25	-17.22	-29.20	0.00	-962.79	0.00	962.79	1920.92	522.03	1623.69	1483.43	3.45	-1.167	0.000	0.661
30.00	-16.87	-29.09	0.00	-911.70	0.00	911.70	1904.07	514.04	1574.37	1447.76	3.89	-1.241	0.000	0.642
35.00	-16.00	-28.70	0.00	-766.27	0.00	766.27	1853.76	491.22	1437.64	1346.49	5.32	-1.478	0.000	0.581
40.00	-15.20	-28.30	0.00	-622.75	0.00	622.75	1800.28	468.39	1307.12	1246.45	6.99	-1.702	0.000	0.512
42.31	-14.25	-25.94	0.00	-557.37	0.00	557.37	1774.49	457.84	1248.92	1200.72	7.84	-1.804	0.000	0.475
45.00	-13.81	-25.75	0.00	-487.58	0.00	487.58	1743.61	445.56	1182.81	1147.94	8.89	-1.916	0.000	0.436
50.00	-13.09	-25.35	0.00	-358.84	0.00	358.84	1683.75	422.73	1064.71	1051.30	11.01	-2.100	0.000	0.353
51.00	-11.15		0.00	-333.49	0.00	333.49	1671.40	418.16	1041.84	1032.22	11.45		0.000	0.333
55.00	-10.62	-23.17	0.00	-239.57	0.00	239.57	1620.72	399.90	952.83	956.84	13.29	-2.255	0.000	0.260
55.44	-8.84	-16.72	0.00	-229.37	0.00	229.37	1615.02	397.89	943.28	948.65	13.50	-2.267	0.000	0.249
60.00	-8.26	-16.37	0.00	-153.15	0.00	153.15	1554.50	377.07	847.15	864.91	15.72	-2.373	0.000	0.184
64.00	-4.44	-11.25	0.00	-87.69	0.00	87.69	1499.23	358.81	767.08	793.39	17.75		0.000	0.114
65.00	-4.35	-11.18	0.00	-76.43	0.00	76.43	1485.09	354.25	747.68	775.81	18.26	-2.456	0.000	0.102
67.06	-3.84	-7.35	0.00	-53.40	0.00	53.40	1455.57	344.84	708.50	740.00	19.32		0.000	0.075
70.00	-3.59	-7.14	0.00	-31.80	0.00	31.80	1403.00	331.42	654.42	685.23	20.86	-2.502	0.000	0.049 0.006
74.00	-1.09	-2.44	0.00	-3.24	0.00	3.24	1325.69	313.15	584.28	611.42	22.96		0.000	
75.00	-0.46	-1.74	0.00	-0.80	0.00	0.80	1306.36	308.59	567.37	593.63	23.49	-2.518	0.000	0.002
75.45	-0.04	-0.04	0.00	-0.02	0.00	0.02	1297.66	306.53	559.84	585.71	23.73		0.000	0.000
76.00	0.00	-0.03	0.00	0.00	0.00	0.00	1287.03	304.02	550.71	576.10	24.02	-2.518	0.000	0.000

Wind Loading - Shaft														
Structure:		2-A-SBA			-	Co	de:		TIA-222-F		-	7/7/20	23	
Site Name:	Middleto	wn North	า			Ex	posur	e: (С				((1)	D))
Height:	76.00 (fi	t)				Cr	est He	iaht: (D.00					
Base Elev:	0.000 (fi	;)					e Clas	-	D - Stiff So	sil				EN
Gh:	1.1		Торо	graphy	<i>r</i> : 1			lass: I		20		Page:	12 Tower	Engineering Solut
Load Case: 0.9D + 1.0W 119 mph Wind 17														
Dead Load Factor 0.90														
Wi	nd Load F	actor	1.00								7	>		
											The second secon			
Elev (ft) De	scription	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	lce Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (Ib)	Dead Load Ice (Ib)	Tot Dead Load (Ib)
0.00		1.00	0.85	29.135	32.05	430.67	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	29.135	32.05	415.49	0.730	0.000	5.00		14.11	452.2	0.0	689.0
10.00		1.00	0.85	29.135	32.05	400.31	0.730	0.000	5.00	18.634	13.60	435.9	0.0	664.1
15.00		1.00	0.85	29.135	32.05	385.12	0.730	0.000	5.00	17.940	13.10	419.7	0.0	639.2
20.00		1.00	0.90	30.914	34.00	381.06	0.730	0.000	5.00	17.246	12.59	428.1	0.0	614.3
22.75 Bot - Sed	ction 2	1.00	0.93	31.764	34.94	377.55	0.730	0.000	2.75	9.190	6.71	234.4	0.0	327.3
25.00		1.00	0.95	32.400	35.64	374.11	0.730	0.000	2.25	7.458	5.44	194.0	0.0	475.0
28.25 Top - Se	ction 1	1.00	0.97	33.245	36.57	368.41	0.730	0.000	3.25	10.525	7.68	281.0	0.0	670.1
30.00		1.00		33.668	37.04	370.01	0.730	0.000	1.75	5.546	4.05	149.9	0.0	158.2
35.00		1.00	1.01	34.779	38.26	359.48	0.730	0.000	5.00	15.377	11.23	429.4	0.0	438.5
40.00		1.00	1.04	35.770	39.35	347.74	0.730	0.000	5.00	14.684	10.72	421.8	0.0	418.6
42.31 Appurter	ance(s)	1.00		36.196	39.82	341.99	0.730	0.000	2.31	6.550	4.78	190.4	0.0	186.7
45.00		1.00	1.07	36.669	40.34	335.05	0.730	0.000	2.69	7.440	5.43	219.1	0.0	212.0
50.00		4.00	4 00											

50.00

55.00

60.00

65.00

70.00

76.00

51.00 Appurtenance(s)

55.44 Appurtenance(s)

64.00 Appurtenance(s)

67.06 Appurtenance(s)

74.00 Appurtenance(s)

75.00 Appurtenance(s)

75.45 Appurtenance(s)

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

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1.00

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1.00

1.09 37.491

1.10 37.648

1.12 38.251

1.12 38.315

1.14 38.958

1.15 39.491

1.16 39.620

1.16 39.881

1.17 40.243

1.19 40.717

1.19 40.832

1.19 40.883

1.19 40.946

41.24

41.41

42.08

42.15

42.85

43.44

43.58

43.87

44.27

44.79

44.91

44.97

45.04

321.56

318.78

307.41

306.13

292.68

280.53

277.45

248.96

245.71

244.25

242.46

271.04 0.730

261.78 0.730

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Totals:

9.71

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7.32

0.79

7.91

6.59

1.60

3.23

4.46

5.78

1.39

0.62

0.75

5.00 13.296

4.00 10.027

4.56 10.833

2.576

1.076

9.028

2.188

4.419

6.103

7.918

1.910

0.851

1.032

1.00

0.44

4.00

1.00

2.06

2.94

4.00

1.00

0.45

0.55

76.00

400.3

77.9

308.0

33.1

338.9

286.3

69.6

141.5

197.2

258.9

62.6

27.9

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378.8

73.4

285.5

30.6

308.3

256.8

62.2

125.7

173.5

225.0

54.2

24.2

29.3

7,520.5

			-							- 15	- 100			
				Di	scret	e Appi	urten	ance F	orces					
Str	ucture:	CT46122-A-SBA				Co	de:		IA-222-⊢	l	7/7/	2023	(明))	
Site	e Name:	Middletown North				Ex	posure	e: C	;			1	T	
	ght:	76.00 (ft)				Сге	est Hei	ight: 0	.00				E	C
	-					Sit	e Clas	s: D	- Stiff S	oil				N)
Bas	se Elev:			_							Pac	e: 13	ower Enginee	ring Solutions
Gh:		1.1	Τορο	graphy	: 1	Str		ass:			Fay	6. 15		_
Lo	ad Case	e: 0.9D + 1.0W 119	mph \	Vind							YA		ations	17
	De	ad Load Factor	0.90								A	× A		
	Wi	nd Load Factor	1.00								2			
						Orient		Total	Dead	Horiz	Vert	Wind	Mom	Mom
	Elev		0.000	qz	qzGh	Factor	K.	CaAa	Load	Ecc (ft)	Ecc (ft)	FX (lb)	Y (Ib-ft)	Z (lb-ft)
No.	(ft)	Description	Qty	(psf)	(psf)	x Ka	Ka	(sf)	(Ib)			1657.65	0.00	0.00
1	75.45 4	' Branches	1	40.883	44.972	1.00	1.00	36.86	351.00	0.000	0.000 0.000	606.35	0.00	0.00
2	75.00 T	-Arms	3		44.915	0.56	0.75	13.50	432.00	0.000 0.000	0.000	1004.60	0.00	0.00
3		ntenna Branches	1		44.788	1.00	1.00	22.43	86.40 278.10	0.000	0.000	431.20	0.00	0.00
4	74.00 A	IR6449 B41	3	40.717		0.57	0.80	9.63 2.64	124.20	0.000	0.000	118.11	0.00	0.00
5		RUS 4415 B25	3	40.717		0.54	0.80 0.80	2.04 2.99	124.20	0.000	0.000	133.96	0.00	0.00
6		ricsson 4415 B66A	3	40.717		0.54	1.00	2.95 6.75	235.55	0.000	0.000	302.32	0.00	0.00
7		Handrail Kit w/end	1		44.788	1.00 0.56	0.80	34.00	345.60	0.000	0.000	1522.94	0.00	0.00
8	74.00 R		3	40.717		0.50	0.80	13.59	356.94	0.000	0.000	608.80	0.00	0.00
9	74.00 A		3 6	40.717	44.788	0.40	0.80	0.29	2.70	0.000	0.000	12.90	0.00	0.00
10		TM200-A20	3	40.717		0.54	0.80	3.17	191.70	0.000	0.000	141.88	0.00	0.00
11		adio 4449 B71+B85	3	40.717		0.54	0.80	1.16	18,90	0.000	0.000	51.85	0.00	0.00
12			1	39.881	43.869	1.00	1.00	83.63	360.00	0.000	0.000	3668.78	0.00	0.00
13		' Branches 5/B13 RRH-BR04C	3	39.491		0.54	0.80	3.57	189.81	0.000	0.000	155.07	0.00	0.00
14		2/B66A RRH-BR049	3	39.491		0.54	0.80	2.64	227.88	0.000	0.000	114.56	0.00	0.00
15 16		BC78T-DS-43-2X/E14F0		39.491		0.54	0.80	0.59	58.86	0.000	0.000	25.85	0.00	0.00
17		SAMNT-SBS-1-2	3	39.491		0.56	0.75	0.00	68.45	0.000	0.000	0.00	0.00	0.00
18)B846H80E-SX	2	39.491		0.90	0.80	8.98	28.80	0.000	0.000	390.00	0.00	0.00
19	64.00 T		3	39.491	43.440	0.56	0.75	13.50	864.00	0.000	0.000	586.44	0.00	0.00
20		aelus BSF0020F3V1-1	2	39.491	43.440	0.64	0.80	0.90	35.64	0.000	0.000	38.92	0.00	0.00
21		B846F65ZAXY	4	39.491	43.440	0.74	0.80	20.98	75.60	0.000	0.000	911.41	0.00	0.00
22		3) VZWSMART-SFK4	1	39.491	43.440	0.56	0.75	9.28	450.00	0.000	0.000	403.18	0.00	0.00 0.00
23)B-T1-6Z-8AB-0Z	2	39.491		0.54	0.80	3.54	79.20	0.000	0.000	153.67	0.00 0.00	0.00
24	64.00 J	AHH-65B-R3B	6		43.440	0.66	0.80	36.29	341.82	0.000	0.000	1576.62	0.00	0.00
25	64.00 V	/ZS01	3		43.440	0.55	0.80	7.12	235.17	0.000	0.000	309.33 6351.48	0.00	0.00
26	55.44 8	'Branches	1		42.147	1.00	1.00	150.70	1474.20	0.000	0.000 0.000	918.62	0.00	0.00
27		IX08FRO665-21	3		41.412		0.80	22.18	174.15	0.000	0.000	488.02	0.00	0.00
28		/IC-K6MHDX-9-96 (3	1		41.412		0.75	11.78	809.10	0.000 0.000	0.000	466.02 66.59	0.00	0.00
29	51.00 F	RDIDC-9181-OF-48	1		41.412	0.80	0.80	1.61	19.71 202.50	0.000	0.000	130.52	0.00	0.00
30		A08025-B605	3		41.412		0.80	3.15	202.50 172.53	0.000	0.000	130.52	0.00	0.00
31		A08025-B604	3		41.412		0.80	3.15	486.00	0.000	0.000	2167.15	0.00	0.00
32	42.31 1	0' Branches	1	36.196	39.815	1.00	1.00	54.43		0.000			0.00	
							Totals	i:	8,910.42		2	25,179.28		

Г., <i>К</i> .,			Total	Applied F	orce Sum	mary			
Structure:	CT46122-	A-SBA		Code	TIA	-222-H	7/7/202	3	
Site Name:	Middletow	n North		Expos	sure: C			(((明)))	
Height:	76.00 (ft)			Crest	Height: 0.0	00			(
Base Elev:	0.000 (ft)			Site C		Stiff Soil		IES)
Gh:	1.1	Тор	ography: 1	Struc	t Class: II		Page: 1	A Tower Engineering So	-
	e: 0.9D + 1. ad Load Fad	0W 119 mph	Wind				Y x	Iterations	_
De		0W 119 mph ctor 0.90	Wind				z z z z z z z z z z z z z z z z z z z		_
De: Wil Elev	ad Load Fa	0W 119 mph ctor 0.90	Wind	Torsion MY (lb-ft)	Moment MZ (Ib-ft)		z z		_
Dea Win Elev (ft) Dea 0.00	ad Load Fac nd Load Fac	0W 119 mph ctor 0.90 ctor 1.00 Lateral FX (-)	Axial FY (-)	Torsion MY	Moment MZ		z z z z z z z z z z z z z z z z z z z		17
De Win Elev (ft) Des	ad Load Fac nd Load Fac	0W 119 mph ctor 0.90 ctor 1.00 Lateral FX (-) (lb)	Axial FY (-) (Ib)	Torsion MY (lb-ft)	Moment MZ (Ib-ft)		Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z		_

Elev (ft)	Description	FX (-) (Ib)	FY (-) (lb)	MY (Ib-ft)	MZ (Ib-ft)	
0.00		0.00	0.00	0.00	0.00	
5.00		452.17	823.13	0.00	0.00	
10.00		435.94	798.23	0.00	0.00	
15.00		419.71	773.33	0.00	0.00	
20.00		428.12	748.43	0.00	0.00	
22.75		234.40	401.03	0.00	0.00	
25.00		194.04	535.32	0.00	0.00	
28.25		280.97	757.22	0.00	0.00	
30.00		149.94	205.13	0.00	0.00	
35.00		429.44	572.65	0.00	0.00	
40.00		421.76	552.73	0.00	0.00	
42.31	attachments	2357.51	734.63	0.00	0.00	
45.00		219.08	284.18	0.00	0.00	
50.00		400.29	512.89	0.00	0.00	
51.00	(11) attachments	1812.14	1478.18	0.00	0.00	
55.00		307.97	389.19	0.00	0.00	
55.44	attachments	6384.58	1516.23	0.00	0.00	
60.00		338.90	426.53	0.00	0.00	
64.00	(35) attachments	4951.33	3015.73	0.00	0.00	
65.00		69.60	69.31	0.00	0.00	
67.06	attachments	3810.30	500.26	0.00	0.00	
70.00		197.22	194.32	0.00	0.00	
74.00	(29) attachments	4587.45	2027.33	0.00	0.00	
75.00	(3) attachments	668.98	493.34	0.00	0.00	
75.45	(1) attachments	1685.57	375.15	0.00	0.00	
76.00		33.93	29.30	0.00	0.00	
	Totals:	31,271.35	18,213.76	0.00	0.00	

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						Calc	ulated Fo	rces						
	A	CT461	22-A-S	BA			Code:	TIA	-222-H		7/	7/2023	4.000 M	
Struc							Exposure:	С					((明))	
Site N	lame:		town N	οπη			Crest Heig		0				IT	C
Heigh	nt:	76.00	(ft)				_							5
Base	Elev:	0.000	(ft)				Site Class:	D -	Stiff Soil			1	Tower Engineer	ing Solutions
Gh:		1.1	. ,	Тог	ography:	1	Struct Clas	s: II			Pa	ige: 15	Tower Engineer	ing solutions
Gn.		1.1			- grepriji			_	_					
Load	Case:	0.9D +	- 1.0W	119 mpł	n Wind						¥1	ite	erations	17
											5	X		
			I Facto							2				
	Win	d Loac	Facto	r 1.0	U					1				
Seg Elev	Pu FY (-)	Vu FX (-)	Tu MY (-)	Mu MZ	Mu MX	Resultant Moment	phi Pn	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
(ft)	(kips)			(ft-kips)		(ft-kips)	(kips) 2976.77	803.98	3080.93	2832.01	0.00	0.000	0.000	0.649
0.00	-18.16	-31.30	0.00	-1816.5	0.00	1816.56 1660.04	2914.38	775.44	2866.11	2673.58	0.11	-0.200	0.000	0.628
5.00	-17.23	-30.91	0.00	-1660.0	0.00 0.00	1505.49	2848.80	746.90	2659.05	2516.58	0.43	-0.403	0.000	0.606
10.00	-16.32	-30.53	0.00	-1505.4 -1352.8	0.00	1352.84	2780.04	718.37	2459.75	2361.34	0.96	-0.609	0.000	0.580
15.00	-15.44	-30.16	0.00	-1352.0	0.00	1202.05	2708.10	689.83	2268.22	2208.17	1.72	-0.815	0.000	0.552
20.00	-14.62	-29.76 -29.55	0.00 0.00	-1202.0	0.00	1120.20	2667.17	674.14	2166.19	2124.93	2.22	-0.932	0.000	0.534
22.75	-14.16 -13.57	-29.35	0.00	-1053.7	0.00	1053.72	2632.97	661.30	2084.45	2057.41	2.68	-1.027	0.000	0.519
25.00 28.25	-13.37	-29.10	0.00	-958.26	0.00	958.26	1920.92	522.03	1623.69	1483.43	3.43	-1.163	0.000	0.656
28.25	-12.77	-28.98	0.00	-907.34	0.00	907.34	1904.07	514.04	1574.37	1447.76	3.87	-1.236	0.000	0.636
35.00	-12.49	-28.59	0.00	-762.44	0.00	762.44	1853.76	491.22	1437.64	1346.49	5.30	-1.472	0.000	0.576
40.00	-11.19	-28.18	0.00	-619.52	0.00	619.52	1800.28	468.39	1307.12	1246.45	6.96	-1.695	0.000	0.507 0.471
42.31	-10.48	-25.82	0.00	-554.42	0.00	554.42	1774.49	457.84	1248.92	1200.72	7.81	-1.796	0.000 0.000	0.471
45.00	-10.14	-25.62	0.00	-484.97	0.00	484.97	1743.61	445.56	1182.81	1147.94	8.86	-1.908	0.000	0.432
50.00	-9.59	-25.22	0.00	-356.88	0.00	356.88	1683.75	422.73	1064.71	1051.30	10.96	-2.090 -2.125	0.000	0.329
51.00	-8.15	-23.36	0.00	-331.66	0.00	331.66	1671.40	418.16	1041.84	1032.22 956.84	11.40 13.24	-2.125	0.000	0.257
55.00	-7.75	-23.05	0.00	-238.20	0.00	238.20	1620.72	399.90	952.83	956.84 948.65			0.000	0.246
55.44	-6.47	-16.62	0.00	-228.06	0.00	228.06	1615.02	397.89	943.28	946.65 864.91	15.66	-2.362	0.000	0.182
60.00	-6.03	-16.27	0.00	-152.29	0.00	152.29	1554.50	377.07	847.15 767.08	793.39	17.67	-2.431	0.000	0.113
64.00	-3.22	-11.20		-87.20	0.00	87.20	1499.23	358.81 354.25	747.68	795.89	18.18	-2.444	0.000	0.101
65.00	-3.15	-11.13		-76.00	0.00	76.00	1485.09 1455.57	354.25 344.84	708.50	740.00	19.24	-2.467	0.000	0.074
67.06	-2.81	2 -7.30	0.00	-53.08	0.00	53.08	1455.57 1403.00	331.42	654.42	685.23	20.77		0.000	0.048
70.00	-2.62	-7.10		-31.61	0.00	31.61 3.23		313.15	584.28	611.42			0.000	0.006
74.00	-0.79	-2.43		-3.23	0.00	3.23 0.80	1306.36	308.59	567.37	593.63	23.39		0.000	0.002
75.00	-0.33	-1.74		-0.80	0.00	0.80		306.53	559.84	585.71	23.62		0.000	0.000
75.45	-0.03	-0.04		-0.02	0.00	0.02		304.02	550.71	576.10	23.91	-2.506	0.000	0.000
76.00	0.00	-0.03	0.00	0.00	0.00	0.00	1201.00	0002						

					W	ind Lo	ading	- Sha	aft.	12.02	¥.		35		F
Structure: C	CT46122-	A-SBA				Co	de:	-	ΓIA-222-⊦	1		7/7/20	023	9	_
Site Name: N	liddletow	n Nortl	h			Ex	posur	e: (C				((H		
Height: 7	'6.00 (ft)						est He		0.00					το	
-	.000 (ft)						e Clas	•	D - Stiff Se	ail				HN	
			T							OII					<u></u>
<u> </u>	.1		ιοροί	graphy	: 1	Sti	ruct Cl	ass: I	1			Page:	16 lower	Engineering So	duti
	Load Fac		1.20 1.00								3	s s			
Elev (ft) Descri	iption	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	lce Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (Ib)	Dead Load Ice (Ib)	Tot Dead Load (Ib)	
0.00		1.00	0.85	5.144	5.66	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0	-
5.00		1.00	0.85	5.144	5.66	0.00	1.200	0.828	5.00	20.017	24.02	135.9	237.0	1155.7	
0.00		1.00	0.85	5.144	5.66	0.00	1.200	0.887	5.00	19.373	23.25	131.5	245.2	1130.7	
15.00		1.00	0.85	5.144	5.66	0.00	1.200	0.924	5.00	18.710	22.45	127.0	246.1	1098.4	
20.00		1.00	0.90	5.458	6.00	0.00	1.200	0.951	5.00	18.039	21.65	130.0	243.7	1062.8	
22.75 Bot - Section	12	1.00	0.93	5.608	6.17	0.00	1.200	0.963	2.75	9.631	11.56	71.3	132.8	569.2	
25.00		1.00	0.95	5.720	6.29	0.00	1.200	0.973	2 25	7 823	0 30	50 1	100.1	742.4	

Elev (ft) Descriptio	n Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	lce Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (Ib)	Dead Load Ice (Ib)	Dead Load (Ib)	
0.00	1.00	0.85	5.144	5.66	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0	
5.00	1.00	0.85	5.144	5.66	0.00	1.200	0.828	5.00	20.017	24.02	135.9	237.0	1155.7	
10.00	1.00	0.85	5.144	5.66	0.00	1.200	0.887	5.00	19.373	23.25	131.5	245.2	1130.7	
15.00	1.00	0.85	5.144	5.66	0.00	1.200	0.924	5.00	18,710	22.45	127.0	246.1	1098.4	
20.00	1.00	0.90	5.458	6.00	0.00	1.200	0.951	5.00	18.039	21.65	130.0	243.7	1062.8	
22.75 Bot - Section 2	1.00	0.93	5.608	6.17	0.00	1.200	0.963	2.75	9.631	11.56	71.3	132.8	569.2	
25.00	1.00	0.95	5.720	6.29	0.00	1.200	0.973	2.25	7.823	9.39	59.1	109.1	742.4	
28.25 Top - Section 1	1.00	0.97	5.869	6.46	0.00	1.200	0.985	3.25	11.058	13.27	85.7	155.2	1048.6	
30.00	1.00	0.98	5.944	6.54	0.00	1.200	0.991	1.75	5.835	7.00	45.8	82.9	293.8	
35.00	1.00	1.01	6.140	6.75	0.00	1.200	1.006	5.00	16.215	19.46	131.4	230.2	814.9	
40.00	1.00	1.04	6.315	6.95	0.00	1.200	1.019	5.00	15.533	18.64	129.5	222.9	781.1	
42.31 Appurtenance(s)	1.00	1.06	6.390	7.03	0.00	1.200	1.025	2.31	6.944	8.33	58.6	101.3	350.2	
45.00	1.00	1.07	6.474	7.12	0.00	1.200	1.032	2.69	7.903	9.48	67.5	115.7	398.4	
50.00	1.00	1.09	6.619	7.28	0.00	1.200	1.042	5.00	14.165	17.00	123.8	206.6	711.7	
51.00 Appurtenance(s)	1.00	1.10	6.646	7.31	0.00	1.200	1.044	1.00	2.750	3.30	24.1	41.0	138.8	
55.00	1.00	1.12	6.753	7.43	0.00	1.200	1.052	4.00	10.728	12.87	95.6	158.3	539.0	
55.44 Appurtenance(s)	1.00	1.12	6.764	7.44	0.00	1.200	1.053	0.44	1.153	1.38	10.3	17.3	58.2	×
60.00	1.00	1.14	6.878	7.57	0.00	1.200	1.062	4.56	11.640	13.97	105.7	172.2	583.3	
64.00 Appurtenance(s)	1.00	1.15	6.972	7.67	0.00	1.200	1.068	4.00	9.740	11.69	89.6	145.0	487.4	
65.00	1.00	1.16	6.995	7.69	0.00	1.200	1.070	1.00	2.366	2.84	21.8	35.9	118.8	
67.06 Appurtenance(s)	1.00	1.16	7.041	7.74	0.00	1.200	1.073	2.06	4.788	5.75	44.5	72.3	239.8	
70.00	1.00	1.17	7.105	7.81	0.00	1.200	1.078	2.94	6.631	7.96	62.2	99.8	331.1	
74.00 Appurtenance(s)	1.00	1.19	7.188	7.91	0.00	1.200	1.084	4.00	8.641	10.37	82.0	129.4	429.3	
75.00 Appurtenance(s)	1.00	1.19	7.208	7.93	0.00	1.200	1.086	1.00	2.091	2.51	19.9	31.9	104.3	
75.45 Appurtenance(s)	1.00	1.19	7.218	7.94	0.00	1.200	1.086	0.45	0.932	1.12	8.9	14.3	46.5	
76.00	1.00	1.19	7.229	7.95	0.00	1.200	1.087	0.55	1.132	1.36	10.8	17.3	56.4	
							Totals:	76.00			1,872.4		13,290.7	

	8			-				nce F	orces	and a	1	1		
Chre	ueture:	CT46122-A-SBA		Dis	scrett	Co			IA-222-H		7/7/2	2023	ANN AN	
	ucture:	-					osure	: C				10	(罪))	
Site	Name:	Middletown North											IT	C
Heig	ght:	76.00 (ft)						ght: 0					IH	5
Rac	e Elev:	0.000 (ft)				Site	e Class	s: D	- Stiff So	bil				ing Colutions
			Topor	raphy:	1	Str	uct Cla	iss: II			Page	ə: 17 👘	ower Enginee	ring Solutions
Gh:		1.1	Topoş	Jiapiiji		_								
Loa		: 1.2D + 1.0Di + 1.0) mph V	Vind						Ĭ)	lter	ations	16
	Dea		1.20								7			
	Wir	nd Load Factor	1.00								4			_
	Elev			qz	qzGh	Orient Factor		Total CaAa	Dead Load	Horiz Ecc	Vert Ecc (ft)	Wind FX (lb)	Mom Y (Ib-ft)	Mom Z (Ib-ft)
No.	(ft)	Description	Qty	(psf)	(psf)	х Ка	Ka	(sf)	(Ib)	(ft) 0,000	0.000	419.79	0.00	0.00
1	75.45 4'	Branches	1	7.218	7.939	1.00	1.00	52.88	298.55 716.53	0.000	0.000	184.67	0.00	0.00
2	75.00 T-/	Arms	3	7.208	7.929	0.56	0.75	23.29 32.16	252.83	0.000	0.000	254.26	0.00	0.00
3	74.00 An	tenna Branches	1	7.188	7.907	1.00	1.00 0.80	10.63	531.23	0.000	0.000	84.08	0.00	0.00
4	74.00 Al	R6449 B41	3	7.188	7.907	0.57	0.80	3.15	214.00	0.000	0.000	24.92	0.00	0.00
5		RUS 4415 B25	3	7.188	7.907	0.54 0.54	0.80	3.53	282.94	0.000	0.000	27.91	0.00	0.00
6		icsson 4415 B66A	3	7.188	7.907	1.00	1.00	10.85	768.72	0.000	0.000	85.77	0.00	0.00
7		andrail Kit w/end	1	7.188	7.907 7.907	0.56	0.80	35.96	1202.47	0.000	0.000	284.32	0.00	0.00
8	74.00 RF		3	7.188 7.188	7.907	0.70	0.80	15.01	794.02	0.000	0.000	118.69	0.00	0.00
9	74.00 Ai		3	7,188	7.907	0.80	0.80	1.23	14.13	0.000	0.000	9.76	0.00	0.00
10		FM200-A20	6 3	7.188	7.907	0.54	0.80	3.71	314.28	0.000	0.000	29.37	0.00	0.00
11		adio 4449 B71+B85	3	7.188	7.907	0.54	0.80	1.79	39.64	0.000	0.000	14.14	0.00	0.00
12		ommscope	1	7.041	7.745	1.00	1.00	119.54	1051.76	0.000	0.000	925.81	0.00	0.00
13		Branches	3	6.972	7.669	0.54	0.80	4.18	307.84	0.000	0.000	32.06	0.00	0.00
14		5/B13 RRH-BR04C	3	6.972	7.669	0.54	0.80	3.15	414.97	0.000	0.000	24.12		0.00
15		2/B66A RRH-BR049 BC78T-DS-43-2X/E14F0		6.972	7.669	0.54	0.80	0.85	109.90	0.000	0.000	6.52		0.00
16		SAMNT-SBS-1-2	3	6.972	7.669	0.56	0.75	0.00	120.31	0.000	0.000	0.00		0.00
17		B846H80E-SX	2	6.972	7.669	0.90	0.80	10.25	216.44	0.000	0.000	78.62		0.00
18	64.00 T-		3	6.972	7.669	0.56	0.75	20.71	1262.30	0.000	0.000	158.84	0.00	0.00
19 20		aelus BSF0020F3V1-1	2	6.972	7.669	0.64	0.80	1.17	78.66	0.000	0.000	8.95		0.00
20 21		B846F65ZAXY	4	6.972	7.669	0.74	0.80	23.14	548.17	0.000	0.000	177.47	0.00	0.00 0.00
22) VZWSMART-SFK4	1	6.972	7.669	0.56	0.75	14.83	813.28	0.000	0.000	113.77	0.00	0.00
22		B-T1-6Z-8AB-0Z	2	6.972	7.669	0.54	0.80	5.70	269.66	0.000	0.000	43.74		0.00
24		AHH-65B-R3B	6	6.972	7.669	0.66	0.80	39.50	1246.33	0.000	0.000	302.96	0.00 0.00	0.00
25	64.00 V		3	6.972	7.669	0.55	0.80	8.00	500.80	0.000	0.000	61.34 1593.70		0.00
26		Branches	1	6.764	7.441	1.00	1.00	214.19	4293.69	0.000	0.000 0.000	173.56		0.00
27		X08FRO665-21	3	6.646	7.311	0.59	0.80	23.74	552.85	0.000 0.000	0.000	150.95		0.00
28	51.00 M	IC-K6MHDX-9-96 (3	1	6.646	7.311	0.56	0.75	20.65	1503.64	0.000	0.000	130.95		0.00
29	51.00 R	DIDC-9181-OF-48	1	6.646	7.311	0.80	0.80	1.88	45.45	0.000	0.000	26.99		0.00
30		A08025-B605	3	6.646	7.311	0.54	0.80	3.69	326.11 284.64	0.000	0.000	26.99		0.00
31	51.00 T	A08025-B604	3	6.646	7.311	0.54	0.80	3.69 76.75	264.64 1409.44	0.000	0.000	539.48		0.00
32	40.04.44	0' Branches	1	6.390	7.029	1.00	1.00	10.15	1409.44	0.000	0.000			

18 C		То	tal App	lied Force S	ummary		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	
Site Name:	Middletown North	l		Exposure:	С		
Height:	76.00 (ft)			Crest Height:	0.00		Ing
Base Elev:	0.000 (ft)			-	D - Stiff Soil		ES
Gh:	1.1	Topography:	1	Struct Class:		Page: 18	Tower Engineering Solution

Iterations

J_x

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

Dead Load Factor1.20Wind Load Factor1.00

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (Ib-ft)	Moment MZ (Ib-ft)	
0.00		0.00	0.00	0.00	0.00	-
5.00		135.91	1334.51	0.00	0.00	
10.00		131.53	1309.54	0.00	0.00	
15.00		127.03	1277.20	0.00	0.00	
20.00		129.95	1241.58	0.00	0.00	
22.75		71.29	667.50	0.00	0.00	
25.00		59.07	822.81	0.00	0.00	
28.25		85.67	1164.86	0.00	0.00	
30.00		45.78	356.37	0.00	0.00	
35.00		131.42	993.71	0.00	0.00	
40.00		129.48	959.86	0.00	0.00	
42.31	attachments	598.05	1842.27	0.00	0.00	
45.00		67.53	494.58	0.00	0.00	
50.00		123.76	890.50	0.00	0.00	
51.00	(11) attachments	416.35	2887.26	0.00	0.00	
55.00		95.63	677.22	0.00	0.00	
55.44	(1) attachments	1604.00	4367.08	0.00	0.00	
60.00		105.68	740.85	0.00	0.00	
64.00	(35) attachments	1098.02	6514.34	0.00	0.00	
65.00		21.84	128.28	0.00	0.00	
67.06	(1) attachments	970.30	1311.03	0.00	0.00	
70.00		62.19	358.85	0.00	0.00	
74.00	(29) attachments	1015.22	4881.41	0.00	0.00	
75.00	(3) attachments	204.57	830.27	0.00	0.00	
75.45	(1) attachments	428.67	345.05	0.00	0.00	
76.00		10.80	56.41	0.00	0.00	
	Totals:	7,869.73	36,453.33	0.00	0.00	

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				-			1 . A.			100		de		# ·
						Calc	ulated Fo	rces						
Struc	turo:	CT461	22-A-S	BA			Code:	TIA	-222-H		7/	7/2023		
		• • • • •	town N				Exposure:	С					((明))	
	lame:			orun			Crest Heig		Ω				E	C
Heigh	nt:	76.00	(#)									I		
Base	Elev:	0.000	(ft)				Site Class	: D-	Stiff Soi				Tower Engineer	ring Solutions
Gh:		1.1		Τοι	oography	: 1	Struct Class	ss: II			Pa	age: 19	tower brighter	ing bonanoni
			_		_						1 22 25 4			40
Load	Case'	1 2D +	1 0Di	+ 1 0Wi	50 mph V	Vind					×4	lte	erations	16
LUau												X		
	Dea	d Load	I Facto							-				
	Win	d Load	l Facto	r 1.0	0						2			
					Mu	Resultant	phi	phi	phi	phi	Total	Rotation	Rotation	
Seg	Pu FY (-)	Vu FX (-)	Ти МҮ (-)	Mu MZ	MX	Moment	Pn	Vn	Tn	Mn	Deflect	Sway	Twist	Stress
Elev (ft)	(kips)	(kins)	(ft-kips)	(ft-kips)		(ft-kips)	(kips)	(kips)	(ft-kips)	(ft-kips)	(in)	(deg)	(deg)	Ratio
0.00	-36.45	-7.89	0.00	-453.59	0.00	453.59	2976.77	803.98	3080.93	2832.01	0.00	0.000	0.000	0.173
5.00	-35.11	-7.78	0.00	-414.17	0.00	414.17	2914.38	775.44	2866.11	2673.58	0.03	-0.050	0.000	0.167 0.161
10.00	-33.79	-7.68	0.00	-375.27	0.00	375.27	2848.80	746.90	2659.05	2516.58	0.11	-0.101	0.000	0.154
15.00	-32.51	-7.58	0.00	-336.89	0.00	336.89	2780.04	718.37	2459.75	2361.34	0.24	-0.152	0.000 0.000	0.134
20.00	-31.26	-7.46	0.00	-299.01	0.00	299.01	2708.10	689.83	2268.22	2208.17	0.43	-0.203 -0.232	0.000	0.147
22.75	-30.59	-7.40	0.00	-278.48	0.00	278.48	2667.17	674.14	2166.19	2124.93 2057.41	0.55 0.67	-0.232	0.000	0.139
25.00	-29.77	-7.36	0.00	-261.83	0.00	261.83	2632.97	661.30	2084.45	1483.43	0.86	-0.250	0.000	0.175
28.25	-28.60	-7.28	0.00	-237.92	0.00	237.92	1920.92	522.03	1623.69 1574.37	1463.43	0.80	-0.308	0.000	0.171
30.00	-28.24	-7.25	0.00	-225.18	0.00	225.18	1904.07	514.04 491.22	1574.57	1346.49	1.32	-0.366	0.000	0.155
35.00	-27.24	-7.14	0.00	-188.93	0.00	188.93	1853.76 1800.28	491.22	1307.12	1246.45	1.73	-0.422	0.000	0.138
40.00	-26.27	-7.02	0.00	-153.24	0.00	153.24	1774.49	457.84	1248.92	1240.40	1.95	-0.447	0.000	0.128
42.31	-24.43	-6.42	0.00	-137.02	0.00	137.02 119. 7 5	1743.61	445.56	1182.81	1147.94	2.21	-0.474	0.000	0.118
45.00	-23.93	-6.36	0.00	-119.75	0.00 0.00	87.92	1683.75	422.73	1064.71	1051.30	2.73	-0.519	0.000	0.098
50.00	-23.04	-6.24	0.00	-87.92	0.00	81.68	1671.40	418.16	1041.84	1032.22	2.84	-0.528	0.000	0.091
51.00	-20.16	-5.81	0.00	-81.68 -58.45	0.00	58.45	1620.72	399.90	952.83	956.84	3.29	-0.557	0.000	0.073
55.00	-19.48	-5.71	0.00 0.00	-56.45	0.00	55.93	1615.02	397.89	943.28	948.65	3.34	-0.560	0.000	0.068
55.44	-15.13	-4.07	0.00	-35.93	0.00	37.38	1554.50	377.07	847.15	864.91	3.89	-0.586	0.000	0.053
60.00	-14.39 -7.88	-3.96 -2.80	0.00	-21.54	0.00	21.54	1499.23	358.81	767.08	793.39	4.39	-0.603	0.000	0.032
64.00 65.00	-7.88	-2.80	0.00	-18.74	0.00	18.74	1485.09	354.25	747.68	775.81	4.52	-0.606	0.000	0.029
65.00 67.06	-7.75 -6.45	-2.77	0.00	-13.03	0.00	13.03	1455.57	344.84	708.50	740.00	4.78	-0.612	0.000	0.022
70.00	-6.09	-1.73	0.00	-7.76	0.00	7.76	1403.00	331.42	654.42	685.23	5.16	-0.617	0.000	0.016
70.00	-0.09	-0.66	0.00	-0.86	0.00	0.86	1325.69	313.15	584.28	611.42		-0.621	0.000	0.002
74.00	-0.40	-0.44	0.00	-0.21	0.00	0.21	1306.36	308.59	567.37	593.63	5.81	-0.621	0.000	0.001
75.45	-0.40	-0.01	0.00	-0.01	0.00	0.01	1297.66	306.53	559.84	585.71	5.87	-0.621	0.000	0.000
76.00	0.00	-0.01	0.00	0.00	0.00	0.00	1287.03	304.02	550.71	576.10	5.94	-0.621	0.000	0.000
. 5.60	0.00													

			Selsmic Se	gment F	orces (Facto	red)			
Stru	cture: CT46122-A-SB/	4		Code:		TIA-22	2-H	7/7/2023		
Site	Name: Middletown Nor	th		Expos		С		,,,,_0_0		
Heig	ht: 76.00 (ft)			-	Height:				1-	0
-	Elev: 0.000 (ft)			Site C	-	D - Stiff	0-11		1E	S
Gh:	1.1	Tone					2011		Tower Engineeri	
	1.1	Торс	graphy: 1	Struct	Class:		_	Page: 20	ower Englieern	ing Solutions
Loa	d Case: 1.2D + 1.0Ev +	1.0Eh						1 Iter	rations	15
G	ust Response Factor	1.10				Sds	0.22	x	Ss	0.20
	Dead Load Factor	1.20	Seismic Load	Factor	1.00	Sd1	0.09	Z	S1	0.06
	Wind Load Factor	0.00	Structure Freq	uency (f1)	0.81	SA	0.07	Seismic Importance	Factor	1.00
Тор					Vertical	Latera				1.00
Elev	Departmention		Wz	Hz	Ev	Fs				
(ft)	Description		(lb)	(lb)	(Ib)	(Ib)			R	: 1.50
0.00 5.00			0.00	0.00	0.00	0.0				
10.00			944.38	2.50	41.30	0.5				
15.00			916.72 889.06	7.50 12.50	40.09	2.5				
20.00			861.39	12.50	38.88 37.67	4.9				
22.75	Bot - Section 2		461.97	21.38	20.20	7.4 4.1				
25.00			608.21	23.88	26.60	7.0				
28.25	Top - Section 1		860.72	26.63	37.64	13.2	-			
30.00	·		238,35	29.13	10.42	2.5		8		
35.00			666.08	32.50	29.13	12.2				
40.00			643.94	37.50	28.16	14.2				
42.31	Appurtenance(s)		830.03	41.16	36.30	22.8				
45.00			331.79	43.66	14.51	7.0				
50.00			599.68	47.50	26.23	17.8				
51.00	Appurtenance(s)		1648.3	50.50	72.09	77.2				
55.00			455.47	53.00	19.92	14.2				
55.44	Appurtenance(s)		1687.2	55.22	73.79	90.1				
60.00			500.18	57.72	21.87	18.1				
64.00	Appurtenance(s)		3373.8	62.00	147.55	272.4				
65.00			78.58	64.50	3.44	1.6				
67.06	Appurtenance(s)		559.09	66.03	24.45	25.4	-			
70.00			220.55	68.53	9.65	7.4				
74.00	Appurtenance(s)		2258.9	72.00	98.79	193.1				
75.00	Appurtenance(s)		549.73	74.50	24.04	29.2				
75.45	Appurtenance(s)		416.83	75.22	18.23	20.3				
76.00			32.55	75.72	1.42	0.6				
		Totals:	20,633.7	-	902.4	867.		Total Wind:	31,271.	3
							-	i otar trind.	51,471.	

			ait.			Calcu	lated F	orces	2		1		7	
Struct Site N	lame:	Middle	22-A-S town N			E	Code: Exposure Crest Hei	: с	а-222-Н 0		7/*	7/2023		C
Heigh		76.00						-	Stiff Soil	1			IE	2
Base	Elev:	0.000	(ft)				Site Class		5011 301		De	201 21	Tower Engineer	ing Solutions
Gh:		1.1		Тор	ography	/:1 S	Struct Cla	ISS: II			F8	ge: 21		
Lood	Casar	1.20	+ 1 0Ev	/ + 1.0Eh							YA	lte	arations	15
								ç	6ds 0.2	22		X	Ss	0.20
Gι	ust Res									-	1		S1	0.06
	Dea	d Load	i Facto	r 1.20) Seism	ic Load Fact	or		6d1 0.0					
	Win	d Load	I Facto	r 0.00) Struct	ure Frequen	cy (f1)	0.81	SA 0.0	7 Seis	mic Imp	ortance	Factor	1.00
Seg Elev	Pu FY (-) (kips)	Vu FX (-)	Tu MY (-)	Mu MZ	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
(ft) 0.00	-25.19	-0.87	0.00	-53.52	0.00	53.52	2976.77	803.98	3080.93	2832.01		0.00	0.00	0.027 0.027
5.00	-24.05	-0.87	0.00	-49.18	0.00	49.18	2914.38	775.44	2866.11	2673.58		0.00 0.01	-0.01 -0.01	0.027
10.00	-22.94	-0.87	0.00	-44.83	0.00	44.83	2848.80	746.90	2659.05	2516.58 2361.34		0.07	-0.02	0.025
15.00	-21.87	-0.87	0.00	-40.48	0.00	40.48	2780.04	718.37	2459.75 2268.22	2301.34		0.05	-0.02	0.024
20.00	-20.84	-0.86	0.00	-36.15	0.00	36.15	2708.10 2667.17	689.83 674.14		2124.93		0.07	-0.03	0.024
22.75	-20.28	-0.86	0.00	-33.78	0.00	33.78	2632.97	661.30	2084.45	2057.41		0.08	-0.03	0.023
25.00	-19.54	-0.85	0.00	-31.85	0.00	31.85 29.09	1920.92	522.03	1623.69	1483.43		0.10	-0.03	0.029
28.25	-18.50	-0.84	0.00	-29.09	0.00 0.00	27.62	1904.07	514.04	1574.37	1447.76		0.12	-0.04	0.029
30.00	-18.21	-0.84	0.00 0.00	-27.62 -23.44	0.00	23.44	1853.76	491.22	1437.64	1346.49		0.16	-0.04	0.027
35.00	-17.42	-0.83	0.00	-23.44	0.00	19.30	1800.28	468.39	1307.12	1246.45		0.21	-0.05	0.025
40.00	-16.65	-0.81 -0.79	0.00	-17.43	0.00	17.43	1774.49	457.84	1248.92	1200.72		0.23	-0.05	0.023
42.31 45.00	-15.64 -15.24	-0.78	0.00	-15.30	0.00	15.30	1743.61	445.56	1182.81	1147.94		0.27	-0.06	0.022
45.00 50.00	-14.53	-0.77	0.00	-11.38	0.00	11.38	1683.75	422.73	1064.71	1051.30		0.33	-0.06	0.019
50.00 51.00	-12.49	-0.69		-10.62	0.00	10.62	1671.40	418.16	1041.84	1032.22		0.34	-0.06	0.018
55.00	-11.95	-0.67		-7.87	0.00	7.87	1620.72	399.90	952.83	956.84		0.40	-0.07	0.016 0.014
55.44	-9.86	-0.58		-7.57	0.00	7.57	1615.02	397.89	943.28	948.65		0.40	-0.07 -0.07	0.014
60.00	-9.27	-0.56		-4.92	0.00	4.92	1554.50	377.07	847.15	864.91		0.47 0.53	-0.07 -0.07	0.012
64.00	-5.10	-0.28	0.00	-2.68	0.00	2.68	1499.23	358.81	767.08	793.39		0.53	-0.07	0.007
65.00	-5.00	-0.28	0.00	-2.39	0.00	2.39	1485.09	354.25	747.68	775.81 740.00		0.55	-0.08	0.005
67.06	-4.31	-0.26	0.00	-1.81	0.00	1.81	1455.57	344.84	708.50	740.00 685.23		0.58	-0.08	0.000
70.00	-4.04	-0.25		-1.06	0.00	1.06	1403.00	331.42 313.15	654.42 584.28	611.42		0.69	-0.08	0.001
74.00	-1.24	-0.05		-0.06	0.00	0.06	1325.69	313.15	567.37	593.63		0.03	-0.08	0.000
75.00	-0.56	-0.02		-0.01	0.00	0.01	1306.36 1297.66	308.59	559.84	585.71		0.72	-0.08	0.000
75.45	-0.04	0.00		0.00	0.00	0.00	1297.00	306.53	559.64	576.10		0.73	-0.08	0.000
76.00	0.00	0.00	0.00	0.00	0.00	0.00	1207.03	304.UZ	000.11	070.10				

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Gust Response Factor 1.10 Sds 0.22 Ss 0.23 Dead Load Factor 0.90 Seismic Load Factor 1.00 Sd1 0.09 Seismic Importance Factor 1.00 Wind Load Factor 0.00 Structure Frequency (ft) 0.81 SA 0.07 Seismic Importance Factor 1.00 Top Elev Wind Load Factor 0.00 Structure Frequency (ft) 0.81 SA 0.07 Seismic Importance Factor 1.00 0.00 Description W/2 Hz Ev F F 0.00 0.00 0.00 0.00 0.07 R: 1.50 0.00 0.00 0.00 0.00 0.07 R: 1.50				Seismic Se	gment F	orces (Facto	red)			
Height: 76.00 (ft) Creat Height: 0.000 Base Elev: 0.000 (ft) Site Class: D - Stiff Soil Page: 22 The relations Site Class: D - Stiff Soil Coad Case: 0.9D + 1.0Ev + 1.0Ev Topography: 1 Struct Class: II Page: 22 The relations Struct Soil Gust Response Factor 1.10 Struct Class: II Page: 22 Struct Soil Struct Soil <th>Stru</th> <th>cture: CT46122-A-SBA</th> <th>4</th> <th></th> <th>Code:</th> <th></th> <th>TIA-22</th> <th>2-H</th> <th>7/7/2023</th> <th></th> <th></th>	Stru	cture: CT46122-A-SBA	4		Code:		TIA-22	2-H	7/7/2023		
Base Elev: 0.000 (ft) Site Class: D - Stiff Soil Page: 22 The second	Site	Name: Middletown Nort	h		Expos	ure:	С			(((開)))	
Base Elev: 0.000 (ft) Site Class: D - Stiff Soil Chail 1.1 Topography: 1 Struct Class: II Page: 22 There independent Solar Load Case: 0.9D + 1.0Ev + 1.0Eh Struct Class: II Page: 23 Ss 0.2 Dead Load Factor 0.90 Seismic Load Factor 1.00 Sd 0.02 Ss 0.2 Vind Load Factor 0.90 Structure Frequency (ft) 0.81 SA 0.07 Seismic Importance Factor 1.0 Top Vertical Lateral Fs Ket 1.5 R: 1.5 0.00 0.00 0.00 0.00 0.00 0.00 R: 1.5 0.00 0.00 0.00 0.00 0.00 0.00 0.00 R: 1.5 0.00 0.00 0.00 0.00 0.00 0.00 0.00 R: 1.5 0.00 0.00 0.00 0.00 0.00 0.00 0.00 R: 1.5 0.00 0.00 0.00 0.00 0.00 0.00	Heig	ht: 76.00 (ft)			Crest	Heiaht:	0.00				a
Gh: 1.1 Topography: 1 Struct Class: I Page: 22 Towe Engineering Solution Load Case: 0.9D + 1.0Ev + 1.0Eh struct Class: II Frage: 22 Struct Solution Struct Class: II Towe Engineering Solution Struct Class: II Towe Engineering Solution Struct Class: II Iterations Struct Class: Iterations Struct Class: Struct Class: Struct Class: Iterations Struct Class: Struct Class: Iterations Struct Class:	Base	Elev: 0.000 (ft)				•		Soil			5
Vertical Vertical Later outsol In Page. 12 Load Case: 0.9D + 1.0Ery 1.10 Sds 0.22 Ss 0.2 Dead Load Factor 0.90 Seismic Load Factor 1.00 Sd1 0.09 Seismic Intervence St 0.07 Wind Load Factor 0.90 Seismic Load Factor 1.00 Sd1 0.09 Seismic Importance Factor 1.00 Top Vertical Lateral Fs Intervence Fs Intervence Fs 1.00 Sd1 0.09 Seismic Importance Factor 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Seismic Importance Factor 1.00 0.00 0.00 0.00 0.00 0.00 0.00 Seismic Importance Factor 1.00 0.00 0.00 0.00 0.00 0.00 0.00 Seismic Importance Factor 1.00 0.00 0.00 0.00 0.00 0.00 Seismic Importance Factor 1.00		. ,	Topo	avanh				501		Tower Engineerin	Salutions
Gust Response Factor 1.10 Sds 0.22 Ss 0.2 Wind Load Factor 0.90 Seismic Load Factor 1.00 Sd1 0.09 Seismic Importance Factor 1.00 Top Elev 0.00 Structure Frequency (ff) 0.81 SA 0.07 Seismic Importance Factor 1.0 0.00 Description (lb) (lb) Vertical Fs F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F F <th></th> <th></th> <th>τοροί</th> <th>grapny: </th> <th>Struct</th> <th>Class:</th> <th></th> <th></th> <th>Page: 22</th> <th>Tower Eligineerin</th> <th>ing actinitions</th>			τοροί	grapny:	Struct	Class:			Page: 22	Tower Eligineerin	ing actinitions
Dead Load Factor 0.90 Seismic Load Factor 1.00 Sd1 0.02 S1 0.02 Wind Load Factor 0.00 Structure Frequency (f1) 0.81 SA 0.07 Seismic Importance Factor 1.00 Top Elev Wind Load Factor 0.00 Structure Frequency (f1) 0.81 SA 0.07 Seismic Importance Factor 1.00 0.00 Description (ib) (ib) (ib) (ib) K 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00			1.0Eh						×4	terations	15
Wind Load Factor 0.00 Structure Frequency (ff) 0.81 SA 0.07 Seismic Importance Factor 1.0 Top Elev Wz Hz Ev Fs 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.00 Description (b) (b) (b) (b) (b) (b) (b) (b) Fs 1.5 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	G	ust Response Factor	1.10				Sds	0.22	X	Ss	0.20
Wind Load Factor 0.00 Structure Frequency (ff) 0.81 SA 0.07 Seisnic Importance Factor 1.0 Top Elev Wz Hz Ev Fs Image: Seisnic Importance Factor 1.0 0.00 Description (lb)		Dead Load Factor	0.90	Seismic Load	Factor	1.00	Sd1	0.09	2	S1	0.06
Top Elev (H) VZ	_	Wind Load Factor	0.00	Structure Freq	uency (f1)	0.81	SA	0.07	Seismic Importance	e Factor	1.00
fft Description ith ith<						Vertical	Latera				
0.00 0.00 0.00 0.00 0.00 0.00 5.00 899.68 2.50 39.35 0.57 10.00 872.02 7.50 38.14 2.43 15.00 844.36 12.50 36.93 4.68 20.00 816.69 17.50 35.72 7.09 22.75 Bot - Section 2 437.39 21.38 19.13 3.97 25.00 588.09 23.88 25.72 6.92 38.30 32.84 3.397 25.00 588.09 22.71 29.13 9.74 2.41 35.00 621.38 32.50 27.17 11.38 35.00 621.38 32.50 27.17 11.38 40.00 599.24 37.50 2.62.1 13.17 42.31 Appurtenance(s) 809.38 41.16 35.40 22.55 50.00 54.98 47.50 24.27 16.38 51.00 Appurtenance(s) 1639.4 50.50 71		Description									
5.00 6.00 6.00 6.00 10.00 872.02 7.50 38.14 2.43 15.00 844.36 12.50 36.93 4.68 20.00 816.89 17.50 35.72 7.09 22.75 Bot - Section 2 437.39 21.38 19.13 3.97 25.00 588.09 23.88 25.72 6.92 28.25 Top - Section 1 831.67 26.63 36.37 12.90 30.00 222.71 29.13 9.74 2.41 35.00 621.38 32.50 27.17 11.38 40.00 599.24 37.50 26.21 13.17 42.31 Appurtenance(s) 899.38 41.16 35.40 22.55 50.00 564.98 47.50 24.27 16.38 51.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 163.4 55.22 73.62 91.79 60.00 76.22 64.50 3.33 1.65 67.00 76.22 64.50 3.33		Description								R	: 1.50
10.00 872.02 7.50 38.14 2.43 15.00 844.36 12.50 36.93 4.68 20.00 816.69 17.50 35.72 7.09 22.75Bot - Section 2 437.39 21.38 19.13 3.97 25.00 588.09 23.88 25.72 6.92 28.25Top - Section 1 831.67 26.63 36.37 12.90 30.00 222.71 29.13 9.74 2.41 35.00 621.38 32.50 27.17 11.38 40.00 559.24 37.50 26.21 13.17 42.31 Appurtenance(s) 809.38 41.16 35.40 22.55 51.00 $Appurtenance(s)$ 1639.4 50.50 71.70 78.34 55.00 420.91 53.00 18.41 13.03 55.44 Appurtenance(s) 1683.4 55.22 73.62 91.79 60.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 1683.4 55.22 73.62 91.79 66.00 76.22 64.50 3.33 1.65 70.00 213.60 68.53 9.34 7.33 74.00 2294.4 72.00 98.38 7.33 74.00 2294.4 72.00 98.38 7.33 75.00 $22.94.4$ 72.00 98.38 7.33 75.00 $22.94.4$ 72.50 23.94 23.74 75.75 14											
15.00 361.42 1.30 36.14 2.43 20.00 816.69 17.50 36.93 4.68 20.00 816.69 17.50 35.72 7.09 22.75Bot - Section 2 437.39 21.38 19.13 3.97 28.25Top - Section 1 831.67 26.63 36.7 12.90 30.00 222.71 29.13 9.74 2.41 35.00 621.38 32.50 27.17 11.38 40.00 599.24 37.50 26.21 13.17 42.31 Appurtenance(s) 809.38 41.16 35.40 22.55 45.00 307.74 43.66 13.46 6.51 50.00 554.98 47.50 24.27 16.38 51.00 Appurtenance(s) 1683.4 55.22 73.62 91.79 60.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.04 Appurtenance(s) 547.37 74.50 23.94 29.74 75.05 416.83 75.22 18.23 20.76 70.00 22.55 75.72 1.42 <											
20.00 816.69 17.50 35.72 7.09 22.75Bot - Section 2 437.39 21.38 19.13 3.97 25.00 588.09 23.88 25.72 6.92 28.25Top - Section 1 831.67 26.63 36.37 12.90 30.00 222.71 29.13 9.74 2.41 35.00 621.38 32.50 27.17 11.38 40.00 599.24 37.50 26.21 13.17 42.31 Appurtenance(s) 809.38 41.16 35.40 22.55 45.00 307.74 43.66 13.46 6.51 50.00 564.98 47.50 24.27 16.38 51.00 420.91 53.00 18.41 13.03 55.44 Appurtenance(s) 1683.4 55.22 71.70 78.34 60.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 3339.2 62.00 146.04 274.42 65.00 76.22 64.50 3.33 1.65 67.06 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.04 Appurtenance(s) 547.37 74.50 23.94 29.74 75.04 416.83 75.22 18.23 20.76 71.42 0.64											
22.75Bot - Section 2437.3921.3819.133.9725.00588.0923.8825.726.9228.25Top - Section 1831.6726.6336.3712.9030.00222.7129.139.742.4135.00621.3832.5027.1711.3840.00599.2437.5026.2113.1742.31Appurtenance(s)809.3841.1635.4022.5545.00307.7443.6613.466.5150.00564.9847.5024.2716.3851.00Appurtenance(s)1639.450.5071.7078.3455.00420.9153.0018.4113.0355.44Appurtenance(s)1683.455.2273.6291.7960.00460.7957.7220.1516.5864.00Appurtenance(s)3339.262.00146.04274.4265.0076.2264.503.331.6567.06Appurtenance(s)554.2266.0324.2425.6570.0076.2264.503.331.6570.00213.6068.539.347.3374.00Appurtenance(s)547.3774.5023.9429.7475.45Appurtenance(s)547.3775.21.420.6476.0076.5218.2320.7675.721.420.64	20.00										
25.00588.0923.8825.72 6.92 28.25Top - Section 1 831.67 26.63 36.37 12.90 30.00 222.71 29.13 9.74 2.41 35.00 621.38 32.50 27.17 11.38 40.00 599.24 37.50 26.21 13.17 42.31Appurtenance(s) 809.38 41.16 35.40 22.55 45.00 307.74 43.66 13.46 6.51 50.00 554.98 47.50 24.27 16.38 51.00Appurtenance(s) 1683.4 55.20 71.70 78.34 55.00 420.91 53.00 18.41 13.03 55.44Appurtenance(s) 1683.4 55.22 73.62 91.79 60.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 3339.2 62.00 146.04 274.42 65.00 76.22 64.53 9.34 7.33 74.00 Appurtenance(s) 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 2249.4 72.00 98.38 196.14 75.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 416.83 75.22 18.23 20.76 76.00 76.22 18.23 20.76 76.22 18.23 20.76 76.40 79.45 79.46 29.74 74.50 29.74	22.75	Bot - Section 2									
28.25 Top - Section 1 831.67 26.63 36.37 12.90 30.00 222.71 29.13 9.74 2.41 35.00 621.38 32.50 27.17 11.38 40.00 599.24 37.50 26.21 13.17 42.31 Appurtenance(s) 809.38 41.16 35.40 22.55 45.00 307.74 43.66 13.46 6.51 50.00 564.98 47.50 24.27 16.38 51.00 Appurtenance(s) 1639.4 50.50 71.70 78.34 55.00 420.91 53.00 18.41 13.03 35.44 Appurtenance(s) 1683.4 55.22 73.62 91.79 60.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 76.22 64.50 3.33 1.65 65.65 70.00 213.60 68.53 9.34 7.33 74.50 23.94 29.74 75.45 Appurtenance(25.00										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	28.25	Top - Section 1		831.67							
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	30.00			222.71	29.13	9,74					
42.31 Appurtenance(s) 809.38 41.16 35.40 22.55 45.00 307.74 43.66 13.46 6.51 50.00 554.98 47.50 24.27 16.38 51.00 Appurtenance(s) 1639.4 50.50 71.70 78.34 55.00 420.91 53.00 18.41 13.03 55.44 Appurtenance(s) 1683.4 55.22 73.62 91.79 60.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 3339.2 62.00 146.04 274.42 65.00 76.22 64.50 3.33 1.65 67.06 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 547.37 75.22 18.23 20.76 76.00 22.55 75.72 1.42 0.64	35.00			621.38	32.50	27.17					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				599.24	37.50	26.21	13.1	7			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Appurtenance(s)		809.38	41.16	35.40	22.5	5			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				307.74	43.66	13.46	6.5	1			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						24.27	16.3	8			
55.44 Appurtenance(s) 1683.4 55.22 73.62 91.79 60.00 460.79 57.72 20.15 16.58 64.00 Appurtenance(s) 3339.2 62.00 146.04 274.42 65.00 76.22 64.50 3.33 1.65 67.06 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 2249.4 72.00 98.38 196.14 75.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 416.83 75.22 18.23 20.76 76.00 32.55 75.72 1.42 0.64		Appurtenance(s)					78.3	4			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$								-			
64.00 Appurtenance(s) 3339.2 62.00 146.04 274.42 65.00 76.22 64.50 3.33 1.65 67.06 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 2249.4 72.00 98.38 196.14 75.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 416.83 75.22 18.23 20.76 76.00 20.99.24 72.00 98.34 20.76		Appunchance(s)									
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Appurtenance/s)									
67.06 Appurtenance(s) 554.22 66.03 24.24 25.65 70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 2249.4 72.00 98.38 196.14 75.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 32.55 75.72 1.42 0.64		Appartenance(s)									
70.00 213.60 68.53 9.34 7.33 74.00 Appurtenance(s) 2249.4 72.00 98.38 196.14 75.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 416.83 75.22 18.23 20.76 76.00 32.55 75.72 1.42 0.64		Appurtenance(s)						-			
74.00 Appurtenance(s) 2249.4 72.00 98.38 196.14 75.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 416.83 75.22 18.23 20.76 76.00 23.94 20.76 0.64								-			
75.00 Appurtenance(s) 547.37 74.50 23.94 29.74 75.45 Appurtenance(s) 416.83 75.22 18.23 20.76 76.00 32.55 75.72 1.42 0.64		Appurtenance(s)									
75.45 Appurtenance(s) 416.83 75.22 18.23 20.76 76.00 32.55 75.72 1.42 0.64	75.00					-					
76.00 <u>32.55</u> 75.72 <u>1.42</u> <u>0.64</u>	75.45										
	76.00										
Totals: 20,039.4 876.4 867.0 Total Wind: 31,271.3			Totals:	20,039.4		876.4		_	Total Wind:	24 274	-

1.	P* 19	a 1				Calc	ulated F	orces						
Struc Site N	ture: lame:		22-A-S				Code: Exposure		∖-222-H		7/	7/2023	(((H)))	
Heigh	nt:	76.00	(ft)				Crest Hei	ght: 0.0	00				IF	C
Base		0.000	• •				Site Class	s: D·	Stiff Soi	l –				2
Gh:	LIGV.	1.1	(14)	Топ	ography	<i>r</i> : 1	Struct Cla	ass: II			Pa	ige: 23	Tower Engineer	ing Solutions
Gn:		1.1			ographi			_		_				
Load	Case:	0.9D	+ 1.0Ev	/ + 1.0Eh							Y	ite	erations	15
	ust Res							5	Sds 0.2	22	-	X	Ss	0.20
		•				in Lond Eng	tor	1.00	Sd1 0.0	na	-		S1	0.06
	Dea	d Load	I Facto	r 0.90		ic Load Fac					~	4		1.00
	Win	d Load	I Facto	r 0.00	Struct	ure Freque	ncy (f1)	0.81	SA 0.0	J/ Seis	mic imp	portance		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)	Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-19.09	-0.87	0.00	-53.52	0.00	53.52	2976.77	803.98	3080.93	2832.01		0.00	0.00	0.025 0.025
5.00	-18.23	-0.87	0.00	-49.19	0.00	49.19	2914.38	775.44		2673.58		0.00	-0.01 -0.01	0.025
10.00	-17.39	-0.87	0.00	-44.84	0.00	44.84	2848.80	746.90		2516.58		0.01	-0.01	0.024
15.00	-16.58	-0.87	0.00	-40.50	0.00	40.50	2780.04	718.37	2459.75 2268.22	2361.34 2208.17		0.05	-0.02	0.020
20.00	-15.80	-0.86	0.00	-36.18	0.00	36.18	2708.10 2667.17	689.83 674.14		2124.93		0.03	-0.02	0.022
22.75	-15.38	-0.86	0.00	-33.81	0.00	33.81 31.89	2632.97	661.30		2057.41		0.08	-0.03	0.021
25.00	-14.82	-0.85	0.00	-31.89	0.00	29.13	1920.92	522.03		1483.43		0.10	-0.03	0.027
28.25	-14.02	-0.84	0.00	-29.13	0.00 0.00	29.13	1904.07	514.04		1447.76		0.12	-0.04	0.026
30.00	-13.81	-0.84	0.00	-27.66 -23.49	0.00	27.00	1853.76	491.22		1346.49		0.16	-0.04	0.025
35.00	-13.21	-0.83	0.00	-23.49 -19.36	0.00	19.36	1800.28	468.39	1307.12	1246.45		0.21	-0.05	0.023
40.00	-12.63	-0.81	0.00 0.00	-19.30	0.00	17.48	1774.49	457.84		1200.72		0.23	-0.05	0.021
42.31	-11.86	-0.79 -0.78	0.00	-17.40	0.00	15.36	1743.61	445.56	1182.81	1147.94		0.27	-0.06	0.020
45.00	-11.56	-0.78	0.00	-11.43	0.00	11.43	1683.75	422.73	1064.71	1051.30		0.33	-0.06	0.017
50.00	-11.02	-0.77	0.00	-10.67	0.00	10.67	1671.40	418.16	1041.84	1032.22		0.34	-0.06	0.016
51.00 55.00	-9.47 - 9 .07	-0.68	0.00	-7.91	0.00	7.91	1620.72	399.90	952.83	956.84		0.40	-0.07	0.014
	-9.07	-0.58	0.00	-7.62	0.00	7.62	1615.02	397.89	943.28	948.65		0.41	-0.07	0.013
55.44 60.00	-7.48	-0.57	0.00	-4.96	0.00	4.96	1554.50	377.07	847.15	864.91		0.47	-0.07	0.010
64.00	-7.03	-0.29	0.00	-2.70	0.00	2.70	1499.23	358.81	767.08	793.39		0.54	-0.07	0.006
65.00	-3.79	-0.29	0.00	-2.42	0.00	2.42	1485.09	354.25	747.68	∃ 775.81		0.55	-0.08	0.006
67.06	-3.79	-0.25	0.00	-1.83	0.00	1.83	1455.57	344.84	708.50	740.00		0.58	-0.08	0.005
70.00	-3.07	-0.25	0.00	-1.07	0.00	1.07	1403.00	331.42	654.42	685.23		0.63	-0.08	0.004
70.00	-0.94	-0.05	0.00	-0.06	0.00	0.06	1325.69	313.15	584.28	611.42		0.70	-0.08	0.001
75.00	-0.42	-0.02	0.00	-0.01	0.00	0.01	1306.36	308.59	567.37	593.63		0.71	-0.08	0.000
75.45	-0.03	0.00	0.00	0.00	0.00	0.00	1297.66	306.53	559.84	585.71		0.72	-0.08	0.000
76.00	0.00	0.00	0.00	0.00	0.00	0.00	1287.03	304.02	550.71	576.10		0.73	-0.08	0.000

<i>a</i>			1		W	ind Lo	ading) - Shi	ift -		2164		J.		Ť
Site Name: Height: Base Elev:		-	h	graphy	/: 1	Ex Cr Sit	e Clas	e: (eight: (D - Stiff So			7/7/20 Page:		Engincering Sol	lutio
	1.0D + d Load F d Load F	actor	mph W 1.00 1.00	ind							2	<u> </u>	Iteratio	ons	16
Elev (ft) Desc	ription	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	lce Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (Ib)	Tot Dead Load (Ib)	
0.00		1.00	0.85	6.627	7.29	217.15	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0	_
5.00		1.00	0.85	6.627	7.29	209.49	0.730	0.000	5.00	19.327	14.11	102.8	0.0	765.6	
10.00		1.00	0.85	6.627	7.29	201.84	0.730	0.000	5.00	18.634	13.60	99.2	0.0	737.9	
15.00		1.00	0.85	6.627	7.29	194.18	0.730	0.000	5.00	17.940	13.10	95.5	0.0	710.3	
20.00		1.00	0.90	7.032	7.73	192.13	0.730	0.000	5.00	17.246	12.59	97.4	0.0	682.6	
2.75 Bot - Section	on 2	1.00	0.93	7.225	7.95	190.36	0.730	0.000	2.75	9.190	6.71	53.3	0.0	363.6	
25.00		1.00	0.95	7.370	8.11	188.63	0.730	0.000	2.25	7.458	5.44	44.1	0.0	527.7	
28.25 Top - Secti	ion 1	1.00	0.97	7.562	8.32	185.75	0.730	0.000	3.25	10.525	7.68	63.9	0.0	744.5	
30.00		1.00	0.98	7.658	8.42	186.56	0.730	0.000	1.75	5.546	4.05	34.1	0.0	175.8	
35.00		1.00	1.01	7.911	8.70	181.25	0.730	0.000	5.00	15.377	11.23	97.7	0.0	487.3	
0.00		1.00	1.04	8.136	8.95	175.33	0.730	0.000	5.00	14.684	10.72	95.9	0.0	465.1	
2.31 Appurtenar	nce(s)	1.00	1.06	8.233	9.06	172.43	0.730	0.000	2.31	6.550	4.78	43.3	0.0	207.4	
5.00		1.00	1.07	8.341	9.17	168.93	0.730	0.000	2.69	7.440	5.43	49.8	0.0	235.6	
50.00		1.00	1.09	8.528	9.38	162.13	0.730	0.000	5.00	13.296	9.71	91.0	0.0	420.9	
51.00 Appurtenar	nce(s)	1.00	1.10	8.563	9.42	160.73	0.730	0.000	1.00	2.576	1.88	17.7	0.0	81.5	
55.00		1.00	1.12	8.701	9.57	155.00	0.730	0.000	4.00	10.027	7.32	70.1	0.0	317.2	
5.44 Appurtenar	ice(s)	1.00	1 1 2	8 715	0.50	15/ 25	0 730	0.000	0.44	1 070	0.70	75	~ ~ ~		

154.35 0.730

141.45 0.730

139.89 0.730

136.66 0.730

131.99 0.730

125.52 0.730

0.730

0.730

0.730

0.730

147.57

123.89

123.15

122.25

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

Totals:

0.44 1.076

4.56 10.833

9.028

2.188

4.419

6.103

7.918

1.910

0.851

1.032

4.00

1.00

2.06

2.94

4.00

1.00

0.45

0.55

76.00

0.79

7.91

6.59

1.60

3.23

4.46

5.78

1.39

0.62

0.75

7.5

77.1

65.1

15.8

32.2

44.9

58.9

14.2

6.4

7.7

1,385.7

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

34.0

342.6

285.4

69.1

139.6

192.7

250.0

60.3

26.8

32.6

8,356.2

55.44 Appurtenance(s)

64.00 Appurtenance(s)

67.06 Appurtenance(s)

74.00 Appurtenance(s)

75.00 Appurtenance(s)

75.45 Appurtenance(s)

60.00

65.00

70.00

76.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.12 8.715

1.14 8.861

1.15 8.983

9.012

9.071

9.154

9.261

9.288

9.299

9.314

1.16

1.16

1.17

1.19

1.19

1.19

1.19

9.59

9.75

9.88

9.91

9.98

10.07

10.19

10.22

10.23

10.24

	ſ.			Di	scret	e App	urten	ance l	Forces		1			
Str	ucture:	CT46122-A-SBA				Co	de:	T	IA-222-⊦	1	7/7/	2023		
		Middletown North				Ex	posure	e: C	;				(明))	
	e Name:						est He		.00				IT	C
Не	ight:	76.00 (ft)						•						5
Ba	se Elev:	0.000 (ft)				Sit	e Clas	s: L) - Stiff S	oll				in a Calution
Gh	:	1.1	Торо	graphy	: 1	Str	uct Cl	ass: II			Pag	je: 25 ¹	ower Enginee	ering Solutions
=											10.			
Lo	ad Case	: 1.0D + 1.0W 60 n	nph W	ind							1	iter	ations	16
	Dea	ad Load Factor	1.00								9	2		
	Wir	nd Load Factor	1.00								Z			
	Elev	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (Ib)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (Ib-ft)	Mom Z (Ib-ft)
No.	(ft)	Description	1	9.299	10.229	1.00	1.00	36.86	390.00	0.000	0.000	377.05	0.00	0.00
1		Branches	3	9.288		0.56	0.75	13.50	480.00	0.000	0.000	137.92	0.00	0.00
2	75.00 T-		1	9.261		1.00	1.00	22.43	96.00	0.000	0.000	228.51	0.00	0.00
3		ntenna Branches	3	9.261	10.187	0.57	0.80	9.63	309.00	0.000	0.000	98.08	0.00	0.00
4		R6449 B41 RUS 4415 B25	3	9.261		0.54	0.80	2.64	138.00	0.000	0.000	26.87	0.00	0.00
5 6		icsson 4415 B66A	3	9.261		0.54	0.80	2.99	148.80	0.000	0.000	30.47	0.00	0.00
7		andrail Kit w/end	1	9.261		1.00	1.00	6.75	261.72	0.000	0.000	68.77	0.00	0.00
8	74.00 (H		3	9.261	10.187	0.56	0.80	34.00	384.00	0.000	0.000	346.41	0.00	0.00
9	74.00 Ai		3	9.261	10.187	0.70	0.80	13.59	396.60	0.000	0.000	138.48	0.00	0.00
10		rm200-A20	6	9.261	10.187	0.40	0.80	0.29	3.00	0.000	0.000	2.93	0.00	0.00
11		adio 4449 B71+B85	3	9.261	10.187	0.54	0.80	3.17	213.00	0.000	0.000	32.27	0.00	0.00
12		ommscope	3	9.261	10.187	0.54	0.80	1.16	21.00	0.000	0.000	11.79	0.00	0.00
13		Branches	1	9.071	9.978	1.00	1.00	83.63	400.00	0.000	0.000	834.50	0.00	0.00
14		5/B13 RRH-BR04C	3	8.983	9.881	0.54	0.80	3.57	210.90	0.000	0.000	35.27	0.00	0.00
15	64.00 B2	2/B66A RRH-BR049	3	8.983	9.881	0.54	0.80	2.64	253.20	0.000	0.000	26.06	0.00	0.00
16		BC78T-DS-43-2X/E14F0	3	8.983	9.881	0.54	0.80	0.59	65.40	0.000	0.000	5.88	0.00	0.00
17	64.00 BS	SAMNT-SBS-1-2	3	8.983	9.881	0.56	0.75	0.00	76.05	0.000	0.000	0.00	0.00	0.00
18	64.00 DE	B846H80E-SX	2	8. 9 83	9.881	0.90	0.80	8.98	32.00	0.000	0.000	88.71	0.00	0.00 0.00
19	64.00 T-		3	8.983	9.881	0.56	0.75	13.50	960.00	0.000	0.000	133.39	0.00 0.00	0.00
20	64.00 Ka	aelus BSF0020F3V1-1	2	8.983	9.881	0.64	0.80	0,90	39.60	0.000	0.000	8.85 207.31	0.00	0.00
21	64.00 DE	B846F65ZAXY	4	8.983	9.881	0.74	0.80	20.98	84.00	0.000	0.000	207.31	0.00	0.00
22) VZWSMART-SFK4	1	8.983	9.881	0.56	0.75	9.28	500.00	0.000 0.000	0.000 0.000	34.95	0.00	0.00
23	64.00 DH	B-T1-6Z-8AB-0Z	2	8.983	9.881	0.54	0.80	3.54	88.00	0.000	0.000	358.62	0.00	0.00
24		HH-65B-R3B	6	8.983	9.881	0.66	0.80	36.29	379.80 261.30	0.000	0.000	70.36	0.00	0.00
25	64.00 VZ		3	8.983	9.881	0.55	0.80	7.12 150.70	261.30 1638.00	0.000	0.000	1444.70	0.00	0.00
26		Branches	1	8.715	9.587	1.00	1.00	22.18	193.50	0.000	0.000	208.95	0.00	0.00
27		X08FRO665-21	3	8.563	9.420	0.59	0.80 0.75	11.78	899.00	0.000	0.000	111.00		0.00
28		C-K6MHDX-9-96 (3	1	8.563	9.420	0.56 0.80	0.75	1.61	21.90	0.000	0.000	15.15	0.00	0.00
29		DIDC-9181-OF-48	1	8.563	9.420	0.80	0.80	3.15	21.90	0.000	0.000	29.69	0.00	0.00
30		A08025-B605	3	8.563 8.563	9.420 9.420		0.80	3.15	191.70	0.000	0.000	29.69	0.00	0.00
31		A08025-B604	3		9.420		1.00		540.00	0.000	0.000	492.94	0.00	0.00

1.00

Totals:

1.00

8.233

1

42.31 10' Branches

32

9.056

54.43

540.00

9,900.47

0.000

5

5,727.26

		-				
			Total	Applied F	orce Summary	
Structur	re: CT46122-	A-SBA		Code	: TIA-222-H	7/7/2023
Site Nar	ne: Middletow	n North		Expos	sure: C	(((#)))
Height:	76.00 (ft)			Crest	Height: 0.00	
Base El	ev: 0.000 (ft)			Site C	•	
Gh:	1.1	Tee				Page: 26 Tower Engineering S
GII.	1.1	10p	ography: 1	Struc	t Class: II	Page: 26
Load C	ase: 1.0D + 1.	0W 60 mph	Wind			1terations
	Dead Load Fa	ctor 1.00	ı			x
	Wind Load Fa					
		ctor 1.00)			24
		Lateral	Axial	Torsion	Moment	
Elev	Decoription	FX (-)	FY (-)	MY	MZ	
(ft)	Description	(lb)	(lb)	(lb-ft)	(lb-ft)	
0.00		0.00	0.00	0.00	0.00	
5.00 10.00		102.85	914.58	0.00	0.00	
15.00		99.16 95.47	886.92	0.00	0.00	
20,00		95.47 97.38	859.26 831.59	0.00 0.00	0.00 0.00	
22.75		53,32	445.58	0.00	0.00	
25.00		44.14	594.80	0.00	0.00	
28.25		63.91	841.35	0.00	0.00	
30.00		34.10	227.92	0.00	0.00	
35.00		97.68	636.28	0.00	0.00	
40.00		95.93	614.14	0.00	0.00	
42.31	(1) attachments	536.24	816.26	0.00	0.00	
45.00		49.83	315.75	0.00	0.00	
50.00	(4.4) 11 1	91.05	569.88	0.00	0.00	
51.00	(11) attachments	412.19	1642.42	0.00	0.00	
55.00 55.44	(1) attachments	70.05 1452.23	432.43	0.00	0.00	
60.00	() anaciments	77.09	1684.70 473.92	0.00 0.00	0.00	
	(35) attachments	1126.23	3350.81	0.00	0.00 0.00	
65.00	«»»	15.83	77.01	0.00	0.00	
67.06	(1) attachments	866.69	555.85	0.00	0.00	
70.00	5	44.86	215.91	0.00	0.00	
	(29) attachments	1043.46	2252.59	0.00	0.00	
75.00	(3) attachments	152.17	548.16	0.00	0.00	
75.45	(1) attachments	383.40	416.83	0.00	0.00	
76.00		7.72	32.55	0.00	0.00	
	Totalo	7 142 06	00 007 50	0.00		

0.00

0.00

Totals:

7,112.96

20,237.52

	1.111	1.00	- 00		100 M	1.30		L. BAY		-	They is	1	The second	8
						Calc	ulated Fo	rces						
Struc Site N Heigh	lame:	-	22-A-S town N				Code: Exposure: Crest Heig	С	222-Н 0		7/	7/2023		ç
-			. ,				Site Class:		Stiff Soil					^o
Base	Elev:	0.000	(π)		_				eun een		Da	ige: 27	Tower Engineer	ring Solutions
Gh:		1.1		Тор	oography:	1	Struct Clas	55: II			Гс	iye. 27		
Load	Dea	d Load	- 1.0W I Facto I Facto		0					z	J	ite S	erations	16
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-)	Ти МҮ (-)	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)	Twist (deg)	Stress Ratio
0.00	-20.23	-7.12	0.00	-413.74	0.00	413.74	2976.77	803.98	3080.93	2832.01	0.00	0.000	0.000	0.153
5.00	-19.31	-7.03	0.00	-378.14	0.00	378.14	2914.38	775.44	2866.11	2673.58	0.02	-0.046	0.000	0.148
10.00	-18.42	-6.95	0.00	-342.98	0.00	342.98	2848.80	746.90	2659.05	2516.58	0.10	-0.092	0.000	0.143
15.00	-17.56	-6.86	0.00	-308.24	0.00	308.24	2780.04	718.37	2459.75	2361.34	0.22	-0.139	0.000	0.137 0.130
20.00	-16.72	-6.78	0.00	-273.92	0.00	273.92	2708.10	689.83	2268.22	2208.17	0.39	-0.186	0.000	0.130
22.75	-16.27	-6.73	0.00	-255.28	0.00	255.28	2667.17	674.14	2166.19	2124.93	0.51	-0.212	0.000	0.120
25.00	-15.68	-6.69	0.00	-240.15	0.00	240.15	2632.97	661.30	2084.45	2057.41	0.61	-0.234	0.000 0.000	0.125
28.25	-14.83	-6.63	0.00	-218.41	0.00	218.41	1920.92	522.03	1623.69	1483.43	0.78	-0.265 -0.282	0.000	0.151
30.00	-14.60	-6.60	0.00	-206.81	0.00	206.81	1904.07	514.04	1574.37	1447.76	0.88		0.000	0.137
35.00	-13.96	-6.51	0.00	-173.81	0.00	173.81	1853.76	491.22	1437.64	1346.49	1.21	-0.335 -0.386	0.000	0.137
40.00	-13.34	-6.42	0.00	-141.24	0.00	141.24	1800.28	468.39	1307.12	1246.45	1.59	-0.386	0.000	0.113
42.31	-12.53	-5.88	0.00	-126.41	0.00	126.41	1774.49	457.84	1248.92	1200.72	1.78		0.000	0.104
45.00	-12.21	-5.84	0.00	-110.58	0.00	110.58	1743.61	445.56	1182.81	1147.94	2.02	-0.435 -0.476	0.000	0.085
50.00	-11.64	-5.75	0.00	-81.38	0.00	81.38	1683.75	422.73	1064.71	1051.30	2.50 2.60	-0.476	0.000	0.079
51.00	-9.99	-5.33	0.00	-75.63	0.00	75.63	1671.40	418.16	1041.84	1032.22		-0.464	0.000	0.063
55.00	-9.56	-5.26	0.00	-54.32	0.00	54.32	1620.72	399.90	952.83	956.84	3.02 3.06	-0.512	0.000	0.060
55.44	-7.89	-3.79	0.00	-52.01	0.00	52.01	1615.02	397.89	943.28	948.65		-0.538	0.000	0.045
60.00	-7.41	-3.71	0.00	-34.73	0.00	34.73	1554.50	377.07	847.15	864.91	3.57	-0.536	0.000	0.043
64.00	-4.07	-2.55	0.00	-19.89	0.00	19.89	1499.23	358.81	767.08	793.39	4.03 4.14	-0.554 -0.557	0.000	0.025
65.00	-4.00	-2.54	0.00	-17.33	0.00	17.33	1485.09	354.25	747.68	775.81		-0.557	0.000	0.025
67.06	-3.45	-1.67	0.00	-12.11	0.00	12.11	1455.57	344.84	708.50	740.00	4.39	-0.562 -0.568	0.000	0.013
70.00	-3.23	-1.62	0.00	-7.21	0.00	7.21	1403.00	331.42	654.42	685.23	4.73	-0.568 -0.571	0.000	0.002
74.00	-0.99	-0.55	0.00	-0.74	0.00	0.74	1325.69	313.15	584.28	611.42	5.21 5.33	-0.571	0.000	0.002
75.00	-0.45	-0.40	0.00	-0.18	0.00	0.18	1306.36	308.59	567.37	593.63	5.33 5.38	-0.571	0.000	0.000
75.45	-0.03	-0.01	0.00	0.00	0.00	0.00	1297.66	306.53	559.84	585.71	5.36 5.45	-0.571	0.000	0.000
76.00	0.00	-0.01	0.00	0.00	0.00	0.00	1287.03	304.02	550.71	576.10	5.45	-0.071	0.000	0.000

			Final A	nalysis Sum	mary		
Structure:	CT46122-A-SBA			Code:	TIA-222-H	7/7/2023	- Cale Internet
Site Name:	Middletown North	ו		Exposure:	С		((·HH >))
Height:	76.00 (ft)			Crest Height:	0.00		TC
Base Elev:	0.000 (ft)			Site Class:	D - Stiff Soil		IES.
Gh:	1.1	Topography:	1	Struct Class:	It	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 + 1.0W 119 mph Wind	31.3	0.00	24.23	0.00	0.00	1822.58
0.9D + 1.0W 119 mph Wind	31.3	0.00	18.16	0.00	0.00	1816.56
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.9	0.00	36.45	0.00	0.00	453.59
1.2D + 1.0Ev + 1.0Eh	0.9	0.00	25.19	0.00	0.00	53.52
0.9D + 1.0Ev + 1.0Eh	0.9	0.00	19.09	0.00	0.00	53.52
1.0D + 1.0W 60 mph Wind	7.1	0.00	20.23	0.00	0.00	413.74

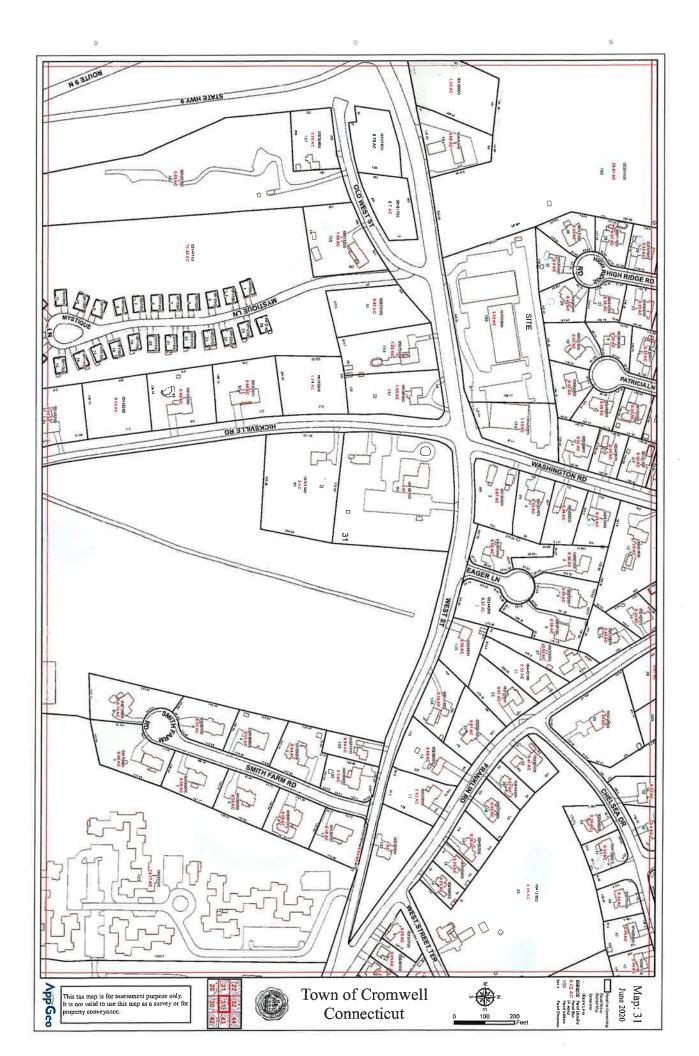
Max Stresses

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 + 1.0W 119 mph Wind	-17.22	-29.20	0.00	-962.79	0.00	-962.79	1920.92	522.03	1623.69	1483.43	28.25	0.661
0.9D + 1.0W 119 mph Wind	-12.77	-29.10	0.00	-958.26	0.00	-958.26	1920.92	522.03	1623.69	1483.43	28.25	0.656
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-28.60	-7.28	0.00	-237.92	0.00	-237.92	1920.92	522.03	1623.69	1483.43	28.25	0.175
1.2D + 1.0Ev + 1.0Eh	-18.50	-0.84	0.00	-29.09	0.00	-29.09	1920.92	522.03	1623.69	1483.43	28.25	0.029
0.9D + 1.0Ev + 1.0Eh	-14.02	-0.84	0.00	-29.13	0.00	-29.13	1920.92	522.03	1623.69	1483.43	28.25	0.027
1.0D + 1.0W 60 mph Wind	-14.83	-6.63	0.00	-218.41	0.00	-218.41	1920.92	522.03	1623.69	1483.43	28.25	0.155

			Base	Plate Summ	ary	
Structure:	CT46122-A-SB			Code:	TIA-222-H	7/7/2023
	Middletown North	I		Exposure:	С	de ala va
Height:	76.00 (ft)			Crest Height:	0.00	IFS
Base Elev:				Site Class:	D - Stiff Soil	Page: 29 Tower Engineering Solutions
Gh:	1.1	Topography:	1	Struct Class:	11	Page: 29 Tower Engineering Solutions

Reactions	5	Base Pla	ite	Anchor B	olts
Original Des		Yield (ksi):	60.00	Bolt Circle:	54.00
•	2800.00	Width (in):	60.00	Number Bolts:	10.00
Moment (kip-ft):	2000.00	Style:	Round	Bolt Type:	2.25" 18J
Axial (kip):	52.00	Polygon Sides:	0.00	Bolt Diameter (in):	2.25
Shear (kip):	52.00	Clip Length (in):	0.00	Yield (ksi):	75.00
Analysis (1.2D +	· 1.0W)	Cilh rendri (iii).		Ultimate (ksi):	100.00
Moment (kip-ft):	1822.58	Effective Len (in):	29.11	Arrangement:	Radial
Axial (kip):	24.23	Moment (kip-in):	616.61	Cluster Dist (in):	0.00
Shear (kip):	31.32	Allow Stress (ksi):	81.00	Start Angle (deg):	0.00
、 1 /		Applied Stress (ksi):	31.59		
		Stress Ratio:	0.39	Compress	
				Force (kip):	164.43
				Allowable (kip):	268.39
				Ratio:	0.61
				Tensior	ı
				Force (kip):	159.58
				Allowable (kip):	243.75
				Ratio:	0.65

ATTACHMENT 4



Parcel ID: 00033900	Location:	160 WEST S	TREET		Map-Lot	31-14A	Li	ast Revaluation	- October 1, 2017	5.2
Current Owner	Percent	Current V				(appr)				
160 WEST STREET LLC	100	Use Code	Land Val			Building Value	Outbuild			
	100	201		,800	0	2,122,400				Patriot
213 COURT STREET		TOTAL	241	,800	0	2,122,400	110,	,000 2,474,2	200 1,731,940	Properties Inc.
	6457									Property Factor
		Drevieus	Value In	formation						Census 5702
		Tax Yr	Land V	formation	Bidg Value		utbuildings	Total Value	Total Assessmen	Flood:
Previous Owner(s)		2018		1,800	2,122,400		110,000	2,474,200	1,731,940	'Topo:
160 WEST STREET LIMITED PARTN	1E	2018		1,800	2,122,400		110,000	2,474,200		
RSHIP		2017							1,731,940	Street: Paved
				6,290	1,635,220		43,320	2,034,830	1,424,390	iDev. Map
General Notes		2015		6,290	1,635,220		43,320	2,034,830	1,424,390	Dev. Map
IEDICAL OFFICE:		2014		6,290	1,635,220		43,320	2,034,830	1,424,390	Zaning Data
		2013	35	6,290	1,635,220		43,320	2,034,830	1,424,390	Zoning Data
		1								Desc. %
ldg #1 Middlæsex Home Care + Supplies INC, Family	Euro Core	Sales Inf	ormation							LB 100.00
	Eye Cale,	Grantee	ormation	Vol-Page	Type Sale	eDate Sa	lePrice S	ale Verlf Gen	eralNotes	-
eet First		160 WEST ST	TREETILC	896-268		7/2003	0 Other			-
		1		EDF 546-322		9/1993	0 Other			Utilities
ildg # 2 Wildwood Property management, Great Blue	Research,	100 11201 0			12121	0/1000	0			
										2 Public Water
Beacon Services of CT										
Beacon Services of CT		1.1								3 Public Sewer
Beacon Services of CT										
Beacon Services of CT										3 Public Sewer BAA
										3 Public Sewer
leacon Services of CT Activity Informa	tion					Building	g Permit In	formation		3 Public Sewer BAA
Activity Informa										3 Public Sewer BAA
Activity Informa Date Results	Visited By	Date	Permit #	Description	Amoun	t % Comp	Visit Date	CO Date	GeneralNotes	3 Public Sewer BAA
Activity Informa Date Results N 2/27/2017 Informal Review No Change	Visited By John Valente	08/15/2014	22787	Electric	90	t % Comp	Visit Date 09/11/2014	CO Date	Reception area	3 Public Sewer BAA
Activity Informa Date Results N 2/27/2017 Informal Review No Change No 9/11/2017 Change - Value Change Company	Visited By John Valente John Valente	08/15/2014 08/13/2014	22787 22776	Electric Other	90 4,80	t % Comp 0 100 0 100	Visit Date 09/11/2014 09/09/2014	CO Date 09/09/2014	Reception area Emrgncy repair to drywall	3 Public Sewer BAA
Date Results N V27/2017 Informal Review No Change No V11/2017 Change - Value Change Company No Change - Field Review	Visited By John Valente John Valente Dave Stannard	08/15/2014 08/13/2014 12/12/2011	22787 22776 20377	Electric Other Other	90 4,80 3,00	t % Comp 100 100 100 100 100 100	Visit Date 09/11/2014	CO Date 09/09/2014 09/11/2012	Reception area	3 Public Sewer BAA
Date Results N V27/2017 Informal Review No Change No V11/2017 Change - Value Change Company No Change - Field Review V11/2017 No Change - Field Review No Change - Field Review	Visited By John Valente John Valente	08/15/2014 08/13/2014 12/12/2011 11/16/2011	22787 22776 20377 20315	Electric Other	90 4,80	t % Comp 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014	CO Date 09/09/2014 09/11/2012	Reception area Emrgncy repair to drywall	3 Public Sewer BAA
Date Results N 2/27/2017 Informal Review No Change N 3/11/2017 Change - Value Change Company No Change - Field Review 5/18/2017 No Change - Field Review No 9/11/2014 Permit- Miscellaneous 9/11/2014	Visited By John Valente John Valente Dave Stannard AO	08/15/2014 08/13/2014 12/12/2011	22787 22776 20377	Electric Other Other	90 4,80 3,00 10,00	t % Comp 00 100 00 100 00 100 00 100 00 100	Visit Date 09/11/2014 09/09/2014 09/11/2012	CO Date 09/09/2014 09/11/2012 09/11/2012	Reception area Emrgncy repair to drywall Run gas line to new gener	3 Public Sewer BAA
Activity Informa Date Results N 2/27/2017 Informal Review No Change N 2/11/2017 Change - Value Change Company N 5/18/2017 No Change - Field Review N 9/11/2014 Permit- Miscellaneous 9/11/2014 9/11/2014 Permit- Drive By 9/09/2014	Visited By John Valente John Valente Dave Stannard AO MM	08/15/2014 08/13/2014 12/12/2011 11/16/2011	22787 22776 20377 20315	Electric Other Other Other	90 4,80 3,00 10,00	t % Comp 100 100 100 100 100 100 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014 09/11/2012 09/11/2012	CO Date 09/09/2014 09/11/2012 09/11/2012 09/11/2012	Reception area Emrgncy repair to drywall Run gas line to new gener New cell site for Metro P	3 Public Sewer BAA
Date Results N 2/27/2017 Informal Review No Change N 2/11/2017 Change - Value Change Company N 5/18/2017 No Change - Field Review N 9/11/2014 Permit- Miscellaneous 9 9/11/2014 Permit- Drive By 9 9/09/2014 Permit- Miscellaneous 9	Visited By John Valente John Valente Dave Stannard AO MM	08/15/2014 08/13/2014 12/12/2011 11/16/2011 09/28/2011	22787 22776 20377 20315 20183	Electric Other Other Other	90 4,80 3,00 10,00 2,85	% Comp 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014 09/11/2012 09/11/2012 09/11/2012	CO Date 09/09/2014 09/11/2012 09/11/2012 09/11/2012 01/12/2012	Reception area Emrgncy repair to drywall Run gas line to new gener New cell site for Metro P Undergrounf gas line	3 Public Sewer BAA
Date Resuits Date Resuits 2/27/2017 Informal Review No Change 9/11/2017 Change - Value Change Company 5/18/2017 No Change - Field Review 9/11/2014 Permilt- Miscellaneous 9/11/2014 Permilt- Miscellaneous 9/11/2014 Permilt- Miscellaneous 9/11/2014 Permilt- Miscellaneous 9/11/2012 Permilt- Miscellaneous	Visited By John Valente John Valente Dave Stannard AO MM AO AO AO	08/15/2014 08/13/2014 12/12/2011 11/16/2011 09/28/2011 09/19/2011	22787 22776 20377 20315 20183 20156	Electric Other Other Other Propane Tank	90 4,80 3,00 10,00 2,85 35,00 33,00	% Comp 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014 09/11/2012 09/11/2012 09/11/2012 09/11/2012 03/28/2006	CO Date 09/09/2014 09/11/2012 09/11/2012 09/11/2012 01/12/2012	Reception area Emrgncy repair to drywall Run gas line to new gener New cell site for Metro P Undergrounf gas line Inst of cell site antenna off & bth reno	3 Public Sewer BAA
Date Resuits N 2/27/2017 Informal Review No Change N 2/11/2017 Change - Value Change Company No Change - Field Review 9/11/2017 Permit- Miscellaneous 9/11/2014 9/11/2014 Permit- Miscellaneous 9/11/2014 9/11/2014 Permit- Miscellaneous 9/11/2014 9/11/2014 Permit- Init & Ext Inspect 9/11/2012 9/11/2012 Permit- Miscellaneous 9/11/2012	Visited By John Valente John Valente Dave Stannard AO MM AO AO	08/15/2014 08/13/2014 12/12/2011 11/16/2011 09/28/2011 09/19/2011 03/21/2006	22787 22776 20377 20315 20183 20156 15920	Electric Other Other Other Propane Tank Remodel	90 4,80 3,00 10,00 2,85 35,00 33,00	% Comp 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014 09/11/2012 09/11/2012 09/11/2012 09/11/2012	CO Date 09/09/2014 09/11/2012 09/11/2012 09/11/2012 01/12/2012	Reception area Emrgncy repair to drywall Run gas line to new gener New cell site for Metro P Undergrounf gas line Inst of cell site antenna	3 Public Sewer BAA
Date Resuits Date Resuits 2/27/2017 Informal Review No Change 9/11/2017 Change - Value Change Company 5/18/2017 No Change - Field Review 9/11/2014 Permilt- Miscellaneous 9/11/2014 Permilt- Miscellaneous 9/11/2014 Permilt- Miscellaneous 9/11/2014 Permilt- Miscellaneous 9/11/2012 Permilt- Miscellaneous	Visited By John Valente John Valente Dave Stannard AO MM AO AO AO AO	08/15/2014 08/13/2014 12/12/2011 11/16/2011 09/28/2011 09/19/2011 03/21/2006	22787 22776 20377 20315 20183 20156 15920	Electric Other Other Other Propane Tank Remodel	90 4,80 3,00 10,00 2,85 35,00 33,00	% Comp 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014 09/11/2012 09/11/2012 09/11/2012 09/11/2012 03/28/2006	CO Date 09/09/2014 09/11/2012 09/11/2012 09/11/2012 01/12/2012	Reception area Emrgncy repair to drywall Run gas line to new gener New cell site for Metro P Undergrounf gas line Inst of cell site antenna off & bth reno	3 Public Sewer BAA
Date Results V27/2017 Informal Review No Change V11/2017 Change - Value Change Company V31/2017 No Change - Value Change Company V31/2017 No Change - Field Review V11/2014 Permit- Miscellaneous V11/2014 Permit- Miscellaneous V11/2012 Permit - Int & Ext Inspect V11/2012 Permit- Int & Ext Inspect V11/2012 Permit- Miscellaneous V11/2012 Permit- Miscellaneous	Visited By John Valente John Valente Dave Stannard AO MM AO AO AO AO AO	08/15/2014 08/13/2014 12/12/2011 11/16/2011 09/28/2011 09/19/2011 03/21/2006	22787 22776 20377 20315 20183 20156 15920 15921	Electric Other Other Other Propane Tank Remodel	90 4,80 3,00 10,00 2,85 35,00 33,00	% Comp 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014 09/11/2012 09/11/2012 09/11/2012 09/11/2012 03/28/2006 03/28/2006 03/28/2006	CO Date 09/09/2014 09/11/2012 09/11/2012 09/11/2012 01/12/2012	Reception area Emrgncy repair to drywall Run gas line to new gener New cell site for Metro P Undergrounf gas line Inst of cell site antenna off & bth reno wire new area,rfd exstg m	3 Public Sewer BAA 17K
Date Results N 2/27/2017 Informal Review No Change N 2/27/2017 Informal Review No Change N 2/27/2017 Change - Value Change Company No Change - Value Change Company 3/14/2017 Change - Value Change Company No Change - Field Review 9/11/2014 Permit- Miscellaneous 9/11/2014 9/2014 Permit- Ini & Ext Inspect 9/11/2012 9/11/2012 Permit- Ini & Ext Inspect 9/11/2012 9/11/2012 Permit- Miscellaneous 9/11/2012	Visited By John Valente John Valente Dave Stannard AO MM AO AO AO AO AO AO	08/15/2014 08/13/2014 12/12/2011 11/16/2011 09/28/2011 09/19/2011 03/21/2006	22787 22776 20377 20315 20183 20156 15920 15921	Electric Other Other Propane Tank Remodel Electric	90 4,80 3,00 10,00 2,85 35,00 33,00	% Comp 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	Visit Date 09/11/2014 09/09/2014 09/11/2012 09/11/2012 09/11/2012 09/11/2012 09/11/2012 03/28/2006 03/28/2006 03/28/2006 03/28/2006 03/28/2006	CO Date 09/09/2014 09/11/2012 09/11/2012 09/11/2012 01/12/2012	Reception area Emrgncy repair to drywall Run gas line to new gener New cell site for Metro P Undergrounf gas line Inst of cell site antenna off & bth reno wire new area,rfd exstg m	3 Public Sewer BAA

ParcellD: 00033900	Location: 160 WEST STREET	Printed By: Shawna 04/06/2018 3:41	1:00PM
Bidg Seq 1 Of 2 Exterior Information Building Type: Office Bidg	Condo Information		
Story Ht: 1 Story	Style:		
Living Units: 0	Location:		
Foundation:	Tot Units:		
Prim. Ext. Wall; Brick/Masonr	General Information		
Sec. Ext. Wall:	Yeer Bit: 1985		
Roof Type: Fial	Grade: C		
Roof Cover: Asphalt Shin	Remodeled Yr;		
Avg. Wall Ht: 18.00	Rem. Kitchen Yr:		
Color:	Rem. Bath Yr:	180	
	Demonstration (V)		
Interior Information	Depreciation %		
Prime Wall: Drywall Sec. Wall:	Phys Cond Average 24.00 Func 0.00		
Floor Type: Carpel 50%	Func 0.00 Econ 5.00		
Sec. Floor: Vinyl 50 %	Spec 0.00		
Heat Fuel: Gas	OV 0.00		
Heat Type: Forced Air	Total %Dep: 27.80	FFL (13500)	
Sec. Ht Type:		(1993)	
	Calculation		
	Basic \$/SQ 120.00		
% Sprinkled: 0 Bsmt. Gar: 0	Replacement Cost 1,342,305		
Kitchens: 0 Add. Kit: 0	Depreciation 373,161		
Fireplaces: 0 Gas: 0	Depreciated Value 969,144		
Int. Condition: Typical	Final Total (Rearded) 969,100		
Room Count			
Total Rooms:	AND A STATE OF A STATE		
Bedrooms:	Contraction of the second s		
Bath Features			
Full Baths: 0	And a state of the		
Addi. Full Baths: 0			
Half Baths: 0	the second se		
Addi. Half Baths; 0	AND A MARK THE TANK AND A MARK THE PARTY AND A		
Full Bths Below: 0	Martin The Constant of the start of the second start		
Half Bths Below: 0			
Other Fixtures: 0			
Total Baths: 00			

	Extra Features / Yard Items (1st 10 Lines Displayed)										
Code	Description	Qty	Size	Cond.	Year	Unit Price	Dep%	UndepValue	Appraised Value	Assessment	
LT1	Light 1	1	6	AV	2002	1,000.00	13	7,200	6,300	4,410	
PAV1	Paving Asph.	1	38,400	AV	1985	3.00	25	138,240	103,700	72,590	
Total Sp	. Features:		Tota	al Yard Ite	ms	110,000	Total Apprais	sed: 110,000	Total Assessed Value	77,000	

Sub Area Detail							
Code	Desc.	Living	Gross Area				
FFL	First Floor	13,500	13,500				
Total		13,500	13,500				

75

ParcellD: 00033900	Location: 160 WEST STREET	Printed By: Si	hawna 04/06/2018 3:41:00PM
Bidg Seq 2 Of 2			
Exterior Information	Condo Information	75	
	Name:		
	Style:		
Living Units: 0 Foundation:	Location: Tot Units:		1
Prim. Ext. Wall: Brick/Masonr	General Information		
Sec. Ext. Wall:	Year Bit: 1985	FFL	
Roof Type: Flat	Grade: C	(13500)	
Roof Cover: Asphalt Shin	Remodeled Yr:		
Avg. Wall Ht: 18.00	Rem. Kitchen Yr:		
Color:	Rem. Bath Yr:		
Interior Information	Depreciation %		
Prime Wall: Drywall	Phys Cond Average 24.00 Func 0.00		
Sec. Wall: Floor Type: Carpet 50%	5.00		
	Spec 0.00 OV 0.00		
Heat Fuel: Gas			180
Heat Type: Forced Air	Total %Dep: 27.80		
Sec. Ht Type:	Calculation		
% A/C: 100	Basic \$/SQ 120.00		
% Sprinkled: 0	Replacement Cost 1,342,305		
Bsmt. Gar: 0	Depreclation 373,161		
Kitchens: 0 Add. Kit: 0	Depreciated Value 969,144		
Fireplaces: 0 Gas: 0	Final Total (Reunded) 969,100		
Int. Condition: Typical			
Room Count	2 AT THE REAL OF		
Total Rooms:	AND A DESCRIPTION OF A		
Bedrooms:			
Bath Features			
Full Baths: 0			
Addi. Full Baths: 0			
Half Baths: 0			
Addi. Half Baths: 0	The second se		
Full Bths Below: 0	States and the second states and the second states and the		
Half Bths Below: 0			
Other Fixtures: 0 Total Baths: 00			
	Extra Features / Yard Items (1st 10 Lines Displayed)		Sub Area Detail
Code Description Qty Size	Cond. Year Unit Price Dep% UndepValue Appraised Value Assessm	Code Desc.	Living Gross Area
Sour Description way Size	oona, rea onit rhoe bep/a ondepvalue Appraised Value Assessm	FFL First Floor	13,500 13,500
		Total	13,500 13,500

Total Sp. Features;

Total Yard Items

Total Appraised:

Total Assessed Value

Area المراجعة المراجعة المراجعة

ATTACHMENT 5

Verizon/Cromwell

UNITED STATES POSTAL SERVICE ®					ificate of Mail	ing — Firm	
Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here	6			
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	3 Postmaster, per (name of receiving	ing employee)	Postmark with Date of Receipt.				
USPS® Tracking Number Firm-specific Identifier	(Name, Street, C	Address ity, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift	
1,	Anthony Salvatore, Town of Cromwell 41 West Street Cromwell, CT 0641		-				
2.	Stuart Popper, Direc Town of Cromwell 41 West Street Cromwell, CT 0641	tor of Planning and Develo	pment	HOUSE STAR	in the second second		
3.	160 West Street, LL 162 West Street Cromwell, CT 0641	С		106 2 - 2023			
4.				USPS			
5.			-				
6.			-				

PS Form **3665**, January 2017 (Page <u>1</u> of <u>1</u>) PSN 7530-17-000-5549