



**Tower Engineering Solutions**

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1320 Greenway Drive, Suite 600, Irving, Texas 75038

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**Structural Analysis Report**

Existing 150 ft Valmont Monopole  
Customer Name: SBA Communications Corp  
Customer Site Number: CT04374-S  
Customer Site Name: Central Hebron  
Carrier Name: Dish Wireless (App#: 173176-2)  
Carrier Site ID / Name: BOBDL00120A / SBA - Wall Street  
Site Location: 66 Wall Street  
Hebron, Connecticut  
Tolland County  
Latitude: 41.664631  
Longitude: -72.361325



**Analysis Result:**

Max Structural Usage: 93.8% [Pass]  
Max Foundation Usage: 92.0% [Pass]  
Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By : Changzhi Zang



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## Introduction

The purpose of this report is to summarize the analysis results on the 150 ft Valmont 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

<b>Tower Drawings</b>	Valmont, Eng. File # A-117319, Dated 07/19/2000
<b>Foundation Drawing</b>	Valmont, Eng. File # A-117319, Dated 07/19/2000
<b>Geotechnical Report</b>	FDH, Project # 1201291EG1 Dated 02/14/2012
<b>Modification Drawings</b>	TES Job # 48686 R1 Dated 09/28/2018; PCI by TES Job # 55707 Dated 05/26/2019; TES Job # 118985 Dated 01/21/2022; PCI by TES Job # 127932 Dated 08/04/2022;

## Analysis Criteria

The comprehensive 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.

<b>Wind Speed Used in the Analysis:</b>	125.0 mph (3-Sec. Gust) (Ultimate wind speed)
<b>Wind Speed with Ice:</b>	50 mph (3-Sec. Gust) with 1" radial ice concurrent
<b>Service Load Wind Speed:</b>	60 mph + 0" Radial ice
<b>Standard/Codes:</b>	TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
<b>Exposure Category:</b>	C
<b>Risk Category:</b>	II
<b>Topographic Category:</b>	1
<b>Crest Height:</b>	0 ft
<b>Seismic Parameters:</b>	$S_S = 0.2, S_1 = 0.055$

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.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
3	135.0	3	Andrew - SBNHH-1D65A - Panel	Inside 36" Canister from 130ft. to 140ft.	(2) 1 5/8" Hybriflex (12) 7/8"	Verizon
4		6	RFS Celwave - FDL85002/1C-3L			
5		2	RFS Celwave - DB-T1-6Z-8AB-OZ			
6	127.0	3	Rosenberger D2WC-21 (2LB+4MB) (HEX) Panel	Inside 36" Canister from 120ft. to 130ft.	(12) 7/8" (3) 1.99" 6x24 Hybrid	T-Mobile Sprint
7		6	Commscope CBC426T-DS-43 Diplexers			
8		3	Andrew Smart Bias-T/ATSBT TOP-FM RET			
9	115.0	3	Powerwave - 7770 - Panel	Inside 36" Canister from 110ft. to 120ft	(6) 1 5/8"	AT&T
10		6	Powerwave - LGP21401 - TMA			
11	75.0	1	GPS	Direct	(1) 1/2"	T-Mobile Sprint

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	145.0	3	Commscope FFVV-65B-R3 Panel	Inside 36" Canister from 140ft. to 150ft.	(12) 1 5/8"	Dish Wireless
2		6	Commscope CDX623T-DS-T Diplexers			

All transmission lines are considered running inside of the pole shafts.

## **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	Flange
Max. Usage:	<b>93.8%</b>	<b>77.8%</b>	<b>50.8%</b>	<b>91.6%</b>
Pass/Fail	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

## **Foundations**

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	1024.5	11.2	24.4

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

## **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 2.1175 degrees under the operational wind speed as specified in the Analysis Criteria.

## **Conclusions**

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

## Standard Conditions

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

# Usage Diagram - Max Ratio 93.79% at 112.0ft

**Structure:** CT04374-S-SBA  
**Site Name:** Central Hebron  
**Height:** 150.00 (ft)  
**Base Elev:** 0.000 (ft)

**Code:** EIA/TIA-222-H  
**Exposure:** C  
**Gh:** 1.1

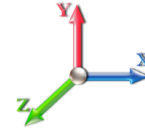
1/24/2023



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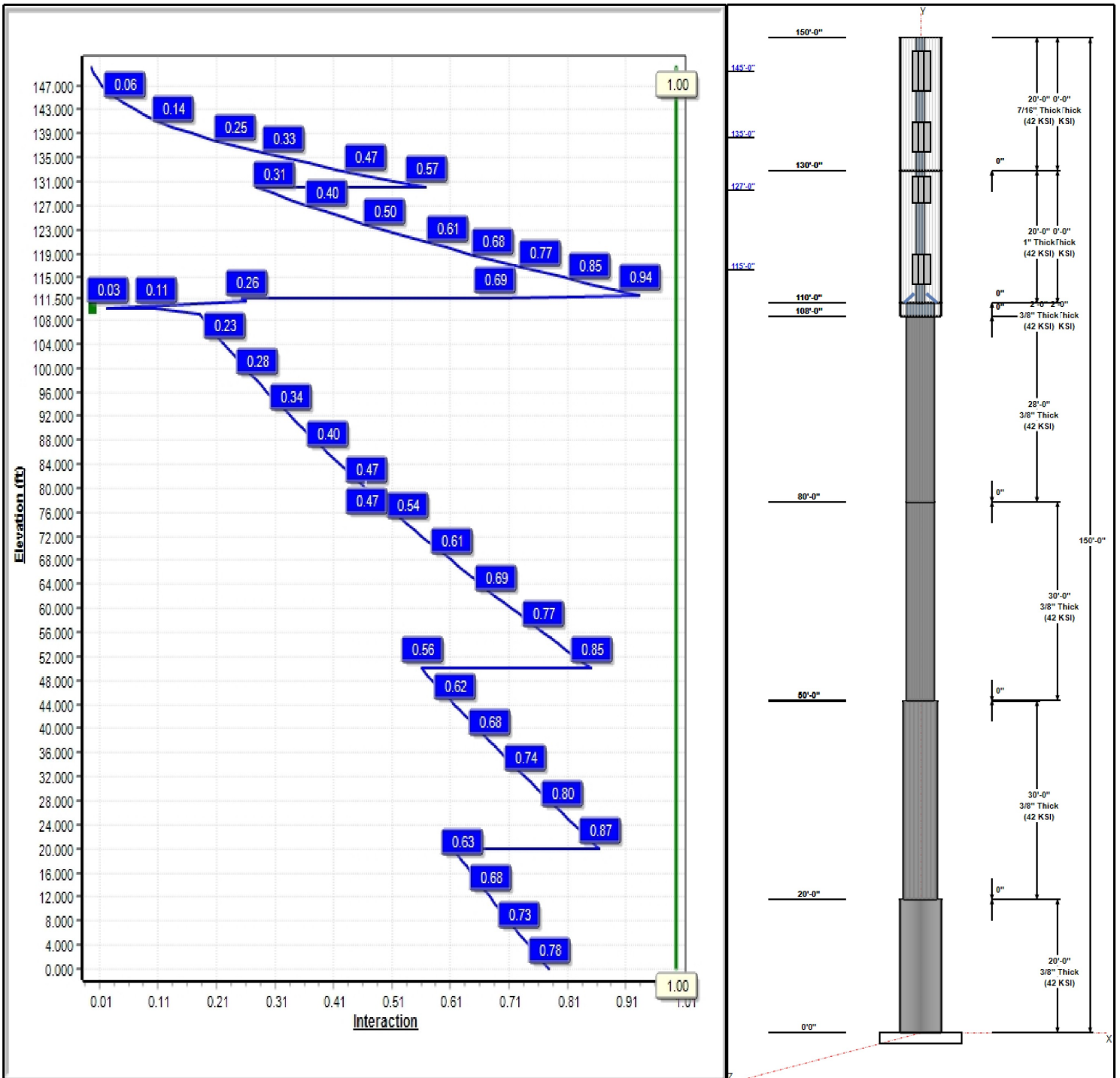
**Dead Load Factor:** 1.20  
**Wind Load Factor:** 1.00

**Load Case : 1.2D + 1.0W 125 mph Wind**



**Iterations:** 43

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## Structure: CT04374-S-SBA

**Type:** Custom  
**Site Name:** Central Hebron  
**Height:** 150.00 (ft)  
**Base Elev:** 0.00 (ft)

**Base Shape:** Round  
**Taper:** 0.00000

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### Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	20.00	36.00	36.00	0.375		0.00000	42
2	30.00	30.00	30.00	0.375	Butt	0.00000	42
3	30.00	24.00	24.00	0.375	Butt	0.00000	42
4	28.00	24.00	24.00	0.375	Butt	0.00000	42
5	2.00	24.00	24.00	0.375	Butt	0.00000	42
6	20.00	6.75	6.75	1.000	Butt	0.00000	42
7	20.00	6.63	6.63	0.432	Butt	0.00000	42

### Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
150.00	150.00	1	36" Canister Weight	
150.00	150.50	1	Truck Ball	
145.00	145.00	3	FFVV-65B-R3	Dish Wireless
145.00	145.00	6	CDX623T-DS	Dish Wireless
140.00	140.00	1	36" Canister Weight	
140.00	140.00	1	Flag	
135.00	135.00	3	SBNHH-1D65A	Verizon
135.00	135.00	6	FDL85002/1C-3L	Verizon
135.00	135.00	2	DB-T1-6Z-8AB-OZ	Verizon
135.00	135.00	1	Flush Mount	Verizon
130.00	130.00	1	36" Canister Weight	
127.00	127.00	3	D2WC-21 (2LB+4MB)	T-Mobile Sprint
127.00	127.00	6	CBC426T-DS-43	T-Mobile Sprint
127.00	127.00	3	ATSBT-TOP-FM	T-Mobile Sprint
127.00	127.00	1	Flush Mount	T-Mobile Sprint
120.00	120.00	1	36" Canister Weight	
115.00	115.00	3	7770.00	AT&T
115.00	115.00	6	LGP21401	AT&T
115.00	115.00	1	Flush Mount	AT&T
110.00	110.00	1	36" Canister Weight	
108.00	108.00	1	36" Canister Weight	
75.00	75.00	1	GPS	T-Mobile Sprint

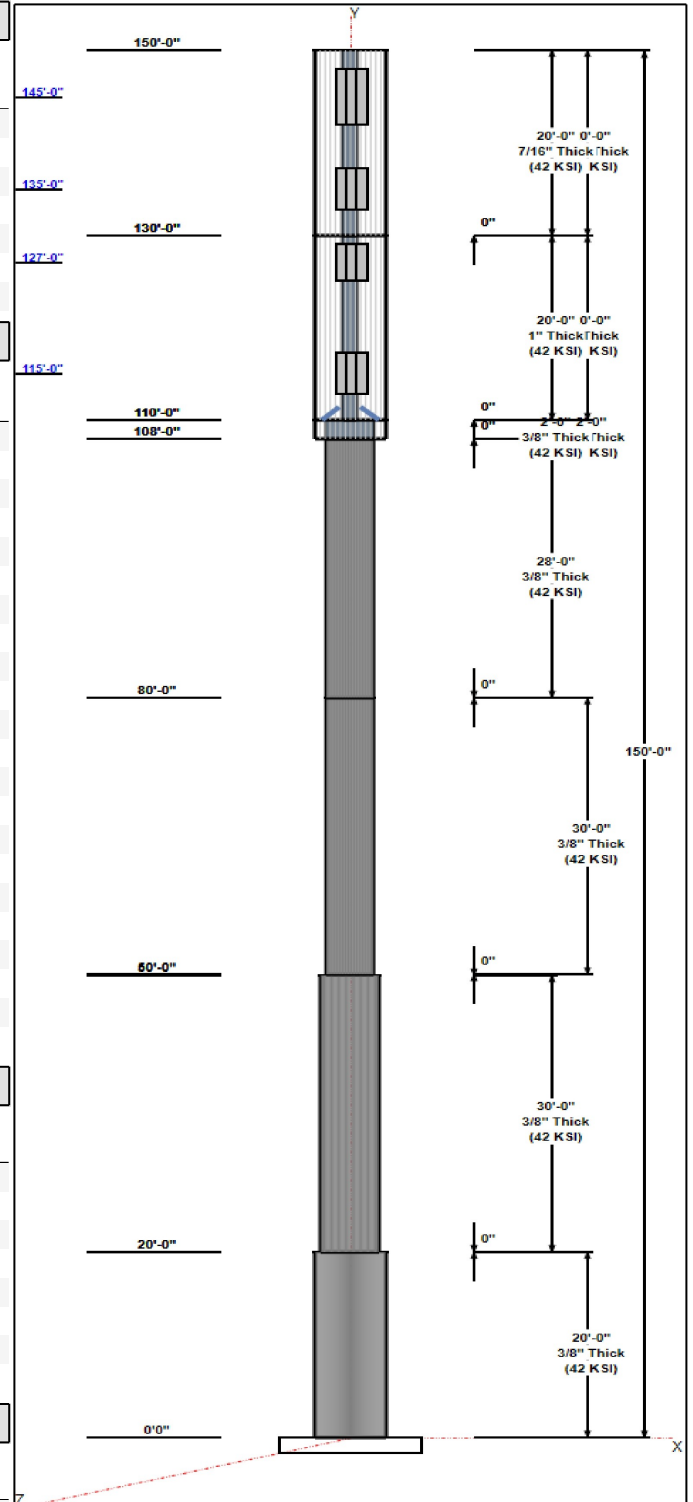
### Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	145.00	Inside	1 5/8" Coax	Dish Wireless
0.00	135.00	Inside	1 5/8" Hybrid	Verizon
0.00	135.00	Inside	7/8" Coax	Verizon
0.00	127.00	Inside	1.99" 6x24 Hybrid	T-Mobile Sprint
0.00	127.00	Inside	7/8" Coax	T-Mobile Sprint
0.00	115.00	Inside	1 5/8" Coax	AT&T
0.00	75.00	Inside	1/2" Coax	T-Mobile Sprint
17.00	23.00	Outside	1" Reinforcing plate	

### Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
28	1.0" F1554 105	105.0	Radial

### Base Plate





## Structure: CT04374-S-SBA

**Type:** Custom  
**Site Name:** Central Hebron  
**Height:** 150.00 (ft)  
**Base Elev:** 0.00 (ft)

**Base Shape:** Round  
**Taper:** 0.00000

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Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.2500	42.4	36.0	Round

### Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 125 mph Wind	1024.5	11.2	24.4
0.9D + 1.0W 125 mph Wind	1006.7	11.2	18.3
1.2D + 1.0Di + 1.0Wi 50 mph Wind	466.6	4.5	31.6
1.2D + 1.0Ev + 1.0Eh	33.3	0.3	25.3
0.9D + 1.0Ev + 1.0Eh	32.9	0.3	19.2
1.0D + 1.0W 60 mph Wind	209.0	2.3	20.4

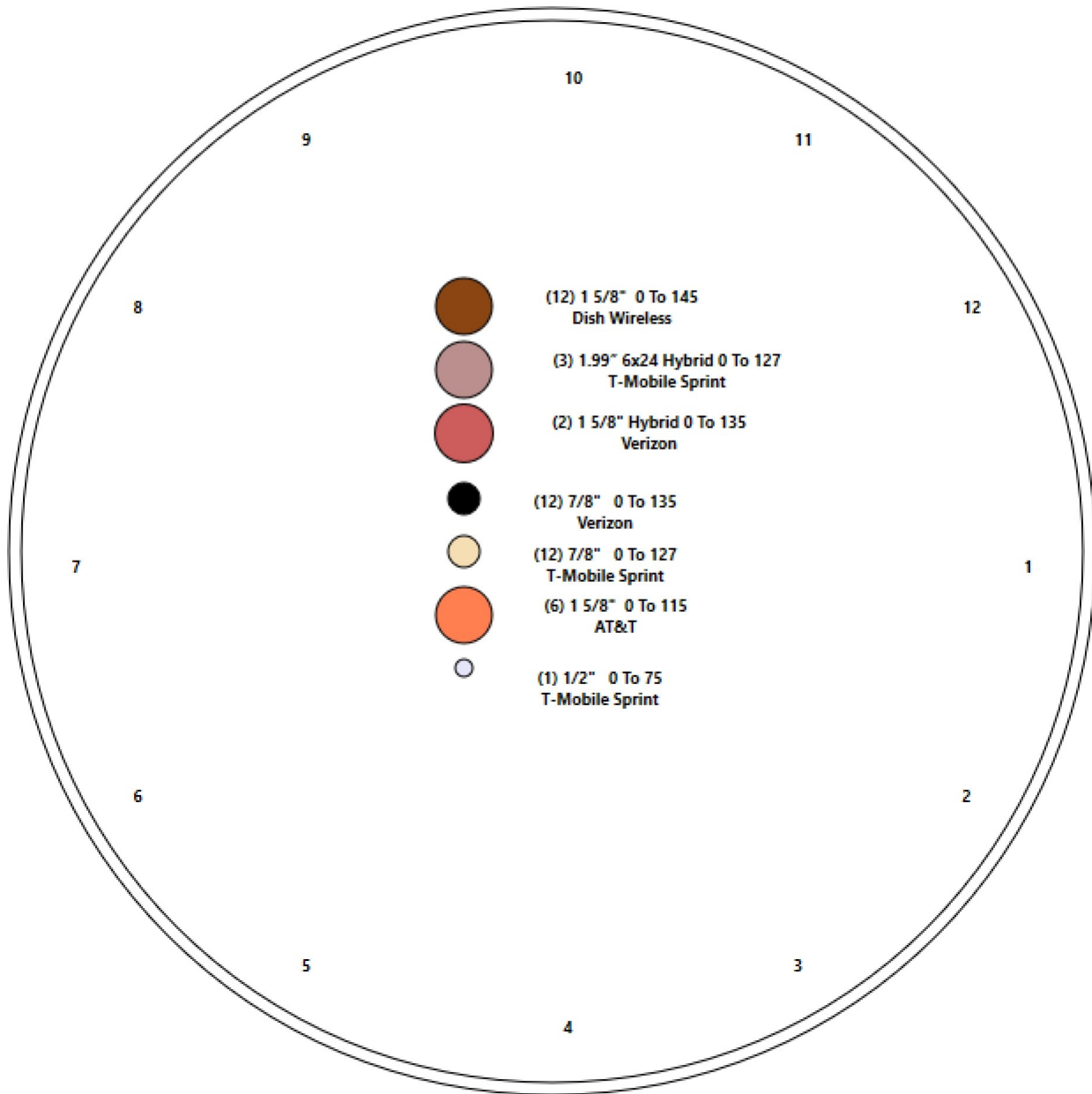
# Structure: CT04374-S-SBA - Coax Line Placement

**Type:** Monopole  
**Site Name:** Central Hebron  
**Height:** 150.00 (ft)

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## Shaft Properties

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	R	20.000	0.3750	42		0.00	2,856
2	R	30.000	0.3750	42	Flange	0.00	3,563
3	R	30.000	0.3750	42	Flange	0.00	2,841
4	R	28.000	0.3750	42	Flange	0.00	2,652
5	R	2.000	0.3750	42	Flange	0.00	189
6	R	20.000	1.0000	42	Flange	0.00	1,229
7	R	20.000	0.4320	42	Flange	0.00	572
<b>Total Shaft Weight:</b>							<b>13,903</b>

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper	Canister Diam (in)
1	36.00	0.00	41.97	6663.29	0.00	96.00	36.00	20.00	41.97	6663.29	0.00	96.00	0.000000	0.00
2	30.00	20.00	34.90	3831.77	0.00	80.00	30.00	50.00	34.90	3831.77	0.00	80.00	0.000000	0.00
3	24.00	50.00	27.83	1943.30	0.00	64.00	24.00	80.00	27.83	1943.30	0.00	64.00	0.000000	0.00
4	24.00	80.00	27.83	1943.30	0.00	64.00	24.00	108.00	27.83	1943.30	0.00	64.00	0.000000	0.00
5	24.00	108.0	27.83	1943.30	0.00	64.00	24.00	110.00	27.83	1943.30	0.00	64.00	0.000000	36.00
6	6.75	110.0	18.06	74.71	0.00	6.75	6.75	130.00	18.06	74.71	0.00	6.75	0.000000	36.00
7	6.63	130.0	8.40	40.33	0.00	15.34	6.63	150.00	8.40	40.33	0.00	15.34	0.000000	36.00

### Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	┌ Intermediate Connectors ┐	Spacing (in)	┌ Termination Connectors ┐	Spacing (in)	Lower Qty	Upper Qty
							Description		Description			
110.0	111.5	3	PLT 5"x3/4" STFNR	36	48	0.00	┌ ┐	0.00	┌ ┐			
							┌ ┐		┌ ┐			

## Load Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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### Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	150.00	36" Canister Weight	1	64.57	0.00	1.00	90.86	0.000	1.00	0.00	0.00
2	150.00	Truck Ball	1	5.00	1.41	1.00	5.23	1.476	1.00	0.00	0.50
3	145.00	FFVV-65B-R3	3	43.80	0.00	0.00	168.46	8.847	0.00	0.00	0.00
4	145.00	CDX623T-DS	6	10.10	0.00	0.00	21.76	0.554	0.00	0.00	0.00
5	140.00	36" Canister Weight	1	129.14	0.00	1.00	181.37	0.000	1.00	0.00	0.00
6	140.00	Flag	1	25.00	6.89	1.00	26.16	7.208	1.00	0.00	0.00
7	135.00	SBNHH-1D65A	3	33.50	0.00	0.00	130.89	6.577	0.00	0.00	0.00
8	135.00	FDL85002/1C-3L	6	7.00	0.00	0.00	14.94	0.000	0.00	0.00	0.00
9	135.00	DB-T1-6Z-8AB-OZ	2	18.90	0.00	0.00	108.06	5.363	0.00	0.00	0.00
10	135.00	Flush Mount	1	25.00	0.00	0.00	38.82	0.000	0.00	0.00	0.00
11	130.00	36" Canister Weight	1	129.14	0.00	1.00	180.98	0.000	1.00	0.00	0.00
12	127.00	D2WC-21 (2LB+4MB) (HEX)	3	30.90	0.00	0.00	116.53	5.697	0.00	0.00	0.00
13	127.00	CBC426T-DS-43	6	7.30	0.00	0.00	18.18	0.000	0.00	0.00	0.00
14	127.00	ATSBT-TOP-FM	3	1.80	0.00	0.00	5.63	0.000	0.00	0.00	0.00
15	127.00	Flush Mount	1	25.00	0.00	0.00	38.73	0.000	0.00	0.00	0.00
16	120.00	36" Canister Weight	1	129.14	0.00	1.00	180.57	0.000	1.00	0.00	0.00
17	115.00	7770.00	3	35.00	0.00	0.00	115.85	6.176	0.00	0.00	0.00
18	115.00	LGP21401	6	14.10	0.00	0.00	30.33	0.000	0.00	0.00	0.00
19	115.00	Flush Mount	1	25.00	0.00	0.00	38.60	0.000	0.00	0.00	0.00
20	110.00	36" Canister Weight	1	77.48	0.00	1.00	108.07	0.000	1.00	0.00	0.00
21	108.00	36" Canister Weight	1	12.91	0.00	1.00	13.49	0.000	1.00	0.00	0.00
22	75.00	GPS	1	10.00	1.00	1.00	28.24	1.443	1.00	0.00	0.00
<b>Totals:</b>			<b>53</b>	<b>1,361.18</b>			<b>3,270.57</b>				

### Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	145.00	(12) 1 5/8" Coax	0.00	Inside
0.00	135.00	(2) 1 5/8" Hybrid	0.00	Inside
0.00	135.00	(12) 7/8" Coax	0.00	Inside
0.00	127.00	(3) 1.99" 6x24 Hybrid	0.00	Inside
0.00	127.00	(12) 7/8" Coax	0.00	Inside
0.00	115.00	(6) 1 5/8" Coax	0.00	Inside
0.00	75.00	(1) 1/2" Coax	0.00	Inside
17.00	23.00	(1) 1" Reinforcing plate	1.00	Outside

## Shaft Section Properties

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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**Increment Length:** 1 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	0.0				
1.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
2.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
3.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
4.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
5.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
6.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
7.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
8.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
9.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
10.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
11.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
12.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
13.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
14.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
15.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
16.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
17.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
18.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
19.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
20.00	Top - Section 1	0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	142.8				
20.00	Bot - Section 2	0.3750	30.000	34.901	3831.8	0.00	96.00	42	42					
21.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
22.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
23.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
24.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
25.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
26.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
27.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
28.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
29.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
30.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
31.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
32.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
33.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
34.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
35.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
36.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
37.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
38.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
39.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
40.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
41.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
42.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
43.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
44.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
45.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
46.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
47.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
48.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				

Increment Length: 1 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in <sup>2</sup> )	Ixp (in <sup>4</sup> )	Iyp (in <sup>4</sup> )	Weight (lb)
49.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
50.00	Top - Section 2	0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	118.8				
50.00	Bot - Section 3	0.3750	24.000	27.833	1943.3	0.00	80.00	42	42					
51.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
52.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
53.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
54.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
55.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
56.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
57.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
58.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
59.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
60.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
61.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
62.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
63.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
64.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
65.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
66.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
67.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
68.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
69.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
70.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
71.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
72.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
73.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
74.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
75.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
76.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
77.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
78.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
79.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
80.00	Top - Section 3	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
80.00	Bot - Section 4	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42					
81.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
82.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
83.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
84.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
85.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
86.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
87.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
88.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
89.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
90.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
91.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
92.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
93.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
94.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
95.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
96.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
97.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
98.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
99.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
100.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
101.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
102.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
103.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
104.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
105.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
106.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				

Increment Length: 1 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
107.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
108.00	Top - Section 4	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
108.00	Bot - Section 5	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42					
109.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7				
110.00	Top - Section 5 RB1	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	94.7	11.25	1194.6	1194.6	38.3
110.00	Bot - Section 6	1.0000	6.750	18.064	74.7	0.00	24.00	42	42					
111.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5	11.25	206.1	206.1	38.3
111.50	RT1	1.0000	6.750	18.064	74.7	0.00	6.75	42	42	30.7	11.25	206.1	206.1	19.1
112.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	30.7				
113.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
114.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
115.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
116.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
117.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
118.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
119.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
120.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
121.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
122.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
123.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
124.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
125.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
126.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
127.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
128.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
129.00		1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
130.00	Top - Section 6	1.0000	6.750	18.064	74.7	0.00	6.75	42	42	61.5				
130.00	Bot - Section 7	0.4320	6.625	8.405	40.3	0.00	15.63	42	42					
131.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
132.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
133.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
134.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
135.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
136.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
137.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
138.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
139.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
140.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
141.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
142.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
143.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
144.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
145.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
146.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
147.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
148.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
149.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
150.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
<b>Total Weight</b>										<b>13902.9</b>				
											<b>95.7</b>			

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



**Load Case:** 1.2D + 1.0W 125 mph Wind

**Iterations** 43

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
2.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
3.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
4.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
5.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
6.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
7.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
8.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
9.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
10.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
11.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
12.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
13.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
14.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
15.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	171.4
16.00		1.00	0.86	32.018	35.22	344.22	0.600	0.000	1.00	3.000	1.80	63.4	0.0	171.4
17.00		1.00	0.87	32.429	35.67	346.43	0.600	0.000	1.00	3.000	1.80	64.2	0.0	171.4
18.00		1.00	0.88	32.822	36.10	348.52	0.600	0.000	1.00	3.000	1.80	65.0	0.0	171.4
19.00		1.00	0.89	33.198	36.52	350.50	0.600	0.000	1.00	3.000	1.80	65.7	0.0	171.4
20.00	Top - Section 1	1.00	0.90	33.558	36.91	352.40	0.600	0.000	1.00	3.000	1.80	66.4	0.0	171.4
21.00		1.00	0.91	33.905	37.30	295.18	0.600	0.000	1.00	2.500	1.50	55.9	0.0	142.5
22.00		1.00	0.92	34.238	37.66	296.63	0.600	0.000	1.00	2.500	1.50	56.5	0.0	142.5
23.00		1.00	0.93	34.560	38.02	298.02	0.600	0.000	1.00	2.500	1.50	57.0	0.0	142.5
24.00		1.00	0.94	34.871	38.36	299.36	0.600	0.000	1.00	2.500	1.50	57.5	0.0	142.5
25.00		1.00	0.95	35.172	38.69	300.65	0.600	0.000	1.00	2.500	1.50	58.0	0.0	142.5
26.00		1.00	0.95	35.464	39.01	301.89	0.600	0.000	1.00	2.500	1.50	58.5	0.0	142.5
27.00		1.00	0.96	35.747	39.32	303.09	0.600	0.000	1.00	2.500	1.50	59.0	0.0	142.5
28.00		1.00	0.97	36.022	39.62	304.26	0.600	0.000	1.00	2.500	1.50	59.4	0.0	142.5
29.00		1.00	0.98	36.289	39.92	305.38	0.600	0.000	1.00	2.500	1.50	59.9	0.0	142.5
30.00		1.00	0.98	36.549	40.20	306.47	0.600	0.000	1.00	2.500	1.50	60.3	0.0	142.5
31.00		1.00	0.99	36.802	40.48	307.53	0.600	0.000	1.00	2.500	1.50	60.7	0.0	142.5
32.00		1.00	1.00	37.049	40.75	308.56	0.600	0.000	1.00	2.500	1.50	61.1	0.0	142.5
33.00		1.00	1.00	37.289	41.02	309.56	0.600	0.000	1.00	2.500	1.50	61.5	0.0	142.5
34.00		1.00	1.01	37.524	41.28	310.54	0.600	0.000	1.00	2.500	1.50	61.9	0.0	142.5
35.00		1.00	1.01	37.754	41.53	311.49	0.600	0.000	1.00	2.500	1.50	62.3	0.0	142.5
36.00		1.00	1.02	37.979	41.78	312.41	0.600	0.000	1.00	2.500	1.50	62.7	0.0	142.5
37.00		1.00	1.03	38.198	42.02	313.31	0.600	0.000	1.00	2.500	1.50	63.0	0.0	142.5
38.00		1.00	1.03	38.413	42.25	314.20	0.600	0.000	1.00	2.500	1.50	63.4	0.0	142.5
39.00		1.00	1.04	38.624	42.49	315.06	0.600	0.000	1.00	2.500	1.50	63.7	0.0	142.5
40.00		1.00	1.04	38.831	42.71	315.90	0.600	0.000	1.00	2.500	1.50	64.1	0.0	142.5
41.00		1.00	1.05	39.033	42.94	316.72	0.600	0.000	1.00	2.500	1.50	64.4	0.0	142.5
42.00		1.00	1.05	39.231	43.15	317.52	0.600	0.000	1.00	2.500	1.50	64.7	0.0	142.5
43.00		1.00	1.06	39.426	43.37	318.31	0.600	0.000	1.00	2.500	1.50	65.1	0.0	142.5
44.00		1.00	1.06	39.618	43.58	319.08	0.600	0.000	1.00	2.500	1.50	65.4	0.0	142.5
45.00		1.00	1.07	39.805	43.79	319.84	0.600	0.000	1.00	2.500	1.50	65.7	0.0	142.5
46.00		1.00	1.07	39.990	43.99	320.58	0.600	0.000	1.00	2.500	1.50	66.0	0.0	142.5



## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



47.00	1.00	1.08	40.172	44.19	321.30	0.600	0.000	1.00	2.500	1.50	66.3	0.0	142.5	
48.00	1.00	1.08	40.350	44.38	322.02	0.600	0.000	1.00	2.500	1.50	66.6	0.0	142.5	
49.00	1.00	1.09	40.526	44.58	322.72	0.600	0.000	1.00	2.500	1.50	66.9	0.0	142.5	
50.00	Top - Section 2	1.00	1.09	40.698	44.77	323.40	0.600	0.000	1.00	2.500	1.50	67.2	0.0	142.5
51.00	1.00	1.10	40.868	44.96	259.26	0.600	0.000	1.00	2.000	1.20	53.9	0.0	113.6	
52.00	1.00	1.10	41.036	45.14	259.79	0.600	0.000	1.00	2.000	1.20	54.2	0.0	113.6	
53.00	1.00	1.11	41.201	45.32	260.32	0.600	0.000	1.00	2.000	1.20	54.4	0.0	113.6	
54.00	1.00	1.11	41.363	45.50	260.83	0.600	0.000	1.00	2.000	1.20	54.6	0.0	113.6	
55.00	1.00	1.12	41.523	45.68	261.33	0.600	0.000	1.00	2.000	1.20	54.8	0.0	113.6	
56.00	1.00	1.12	41.681	45.85	261.83	0.600	0.000	1.00	2.000	1.20	55.0	0.0	113.6	
57.00	1.00	1.12	41.837	46.02	262.32	0.600	0.000	1.00	2.000	1.20	55.2	0.0	113.6	
58.00	1.00	1.13	41.990	46.19	262.80	0.600	0.000	1.00	2.000	1.20	55.4	0.0	113.6	
59.00	1.00	1.13	42.141	46.36	263.27	0.600	0.000	1.00	2.000	1.20	55.6	0.0	113.6	
60.00	1.00	1.14	42.291	46.52	263.74	0.600	0.000	1.00	2.000	1.20	55.8	0.0	113.6	
61.00	1.00	1.14	42.438	46.68	264.20	0.600	0.000	1.00	2.000	1.20	56.0	0.0	113.6	
62.00	1.00	1.14	42.584	46.84	264.65	0.600	0.000	1.00	2.000	1.20	56.2	0.0	113.6	
63.00	1.00	1.15	42.727	47.00	265.09	0.600	0.000	1.00	2.000	1.20	56.4	0.0	113.6	
64.00	1.00	1.15	42.869	47.16	265.53	0.600	0.000	1.00	2.000	1.20	56.6	0.0	113.6	
65.00	1.00	1.16	43.009	47.31	265.97	0.600	0.000	1.00	2.000	1.20	56.8	0.0	113.6	
66.00	1.00	1.16	43.148	47.46	266.40	0.600	0.000	1.00	2.000	1.20	57.0	0.0	113.6	
67.00	1.00	1.16	43.285	47.61	266.82	0.600	0.000	1.00	2.000	1.20	57.1	0.0	113.6	
68.00	1.00	1.17	43.420	47.76	267.23	0.600	0.000	1.00	2.000	1.20	57.3	0.0	113.6	
69.00	1.00	1.17	43.554	47.91	267.65	0.600	0.000	1.00	2.000	1.20	57.5	0.0	113.6	
70.00	1.00	1.17	43.686	48.05	268.05	0.600	0.000	1.00	2.000	1.20	57.7	0.0	113.6	
71.00	1.00	1.18	43.816	48.20	268.45	0.600	0.000	1.00	2.000	1.20	57.8	0.0	113.6	
72.00	1.00	1.18	43.946	48.34	268.85	0.600	0.000	1.00	2.000	1.20	58.0	0.0	113.6	
73.00	1.00	1.18	44.073	48.48	269.24	0.600	0.000	1.00	2.000	1.20	58.2	0.0	113.6	
74.00	1.00	1.19	44.200	48.62	269.62	0.600	0.000	1.00	2.000	1.20	58.3	0.0	113.6	
75.00	Appurtenance(s)	1.00	1.19	44.325	48.76	270.01	0.600	0.000	1.00	2.000	1.20	58.5	0.0	113.6
76.00	1.00	1.19	44.449	48.89	270.38	0.600	0.000	1.00	2.000	1.20	58.7	0.0	113.6	
77.00	1.00	1.20	44.571	49.03	270.75	0.600	0.000	1.00	2.000	1.20	58.8	0.0	113.6	
78.00	1.00	1.20	44.692	49.16	271.12	0.600	0.000	1.00	2.000	1.20	59.0	0.0	113.6	
79.00	1.00	1.20	44.812	49.29	271.49	0.600	0.000	1.00	2.000	1.20	59.2	0.0	113.6	
80.00	Top - Section 3	1.00	1.21	44.931	49.42	271.85	0.600	0.000	1.00	2.000	1.20	59.3	0.0	113.6
81.00	1.00	1.21	45.049	49.55	272.20	0.600	0.000	1.00	2.000	1.20	59.5	0.0	113.6	
82.00	1.00	1.21	45.165	49.68	272.55	0.600	0.000	1.00	2.000	1.20	59.6	0.0	113.6	
83.00	1.00	1.22	45.281	49.81	272.90	0.600	0.000	1.00	2.000	1.20	59.8	0.0	113.6	
84.00	1.00	1.22	45.395	49.93	273.25	0.600	0.000	1.00	2.000	1.20	59.9	0.0	113.6	
85.00	1.00	1.22	45.508	50.06	273.59	0.600	0.000	1.00	2.000	1.20	60.1	0.0	113.6	
86.00	1.00	1.23	45.621	50.18	273.92	0.600	0.000	1.00	2.000	1.20	60.2	0.0	113.6	
87.00	1.00	1.23	45.732	50.30	274.26	0.600	0.000	1.00	2.000	1.20	60.4	0.0	113.6	
88.00	1.00	1.23	45.842	50.43	274.59	0.600	0.000	1.00	2.000	1.20	60.5	0.0	113.6	
89.00	1.00	1.23	45.951	50.55	274.91	0.600	0.000	1.00	2.000	1.20	60.7	0.0	113.6	
90.00	1.00	1.24	46.059	50.67	275.24	0.600	0.000	1.00	2.000	1.20	60.8	0.0	113.6	
91.00	1.00	1.24	46.167	50.78	275.56	0.600	0.000	1.00	2.000	1.20	60.9	0.0	113.6	
92.00	1.00	1.24	46.273	50.90	275.87	0.600	0.000	1.00	2.000	1.20	61.1	0.0	113.6	
93.00	1.00	1.25	46.378	51.02	276.19	0.600	0.000	1.00	2.000	1.20	61.2	0.0	113.6	
94.00	1.00	1.25	46.483	51.13	276.50	0.600	0.000	1.00	2.000	1.20	61.4	0.0	113.6	
95.00	1.00	1.25	46.587	51.25	276.81	0.600	0.000	1.00	2.000	1.20	61.5	0.0	113.6	
96.00	1.00	1.25	46.689	51.36	277.11	0.600	0.000	1.00	2.000	1.20	61.6	0.0	113.6	
97.00	1.00	1.26	46.791	51.47	277.42	0.600	0.000	1.00	2.000	1.20	61.8	0.0	113.6	
98.00	1.00	1.26	46.892	51.58	277.72	0.600	0.000	1.00	2.000	1.20	61.9	0.0	113.6	
99.00	1.00	1.26	46.993	51.69	278.01	0.600	0.000	1.00	2.000	1.20	62.0	0.0	113.6	
100.00	1.00	1.27	47.092	51.80	278.31	0.600	0.000	1.00	2.000	1.20	62.2	0.0	113.6	
101.00	1.00	1.27	47.191	51.91	278.60	0.600	0.000	1.00	2.000	1.20	62.3	0.0	113.6	
102.00	1.00	1.27	47.289	52.02	278.89	0.600	0.000	1.00	2.000	1.20	62.4	0.0	113.6	
103.00	1.00	1.27	47.386	52.12	279.17	0.600	0.000	1.00	2.000	1.20	62.5	0.0	113.6	

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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104.00	1.00	1.28	47.483	52.23	279.46	0.600	0.000	1.00	2.000	1.20	62.7	0.0	113.6
105.00	1.00	1.28	47.579	52.34	279.74	0.600	0.000	1.00	2.000	1.20	62.8	0.0	113.6
106.00	1.00	1.28	47.674	52.44	280.02	0.600	0.000	1.00	2.000	1.20	62.9	0.0	113.6
107.00	1.00	1.28	47.768	52.54	280.30	0.600	0.000	1.00	2.000	1.20	63.1	0.0	113.6
108.00 Top - Section 4	1.00	1.29	47.862	52.65	280.57	0.600	0.000	1.00	2.000	1.20	63.2	0.0	113.6
109.00	1.00	1.29	47.955	52.75	421.26	0.600	0.000	1.00	3.000	1.80	94.9	0.0	125.2
110.00 Top - Section 5 RB1	1.00	1.29	48.047	52.85	421.67	0.600	0.000	1.00	3.000	1.80	95.1	0.0	125.2
111.00	1.00	1.29	48.138	52.95	422.07	0.600	0.000	1.00	3.000	1.80	95.3	0.0	85.3
111.50 RT1	1.00	1.29	48.184	53.00	422.27	0.600	0.000	0.50	1.500	0.90	47.7	0.0	42.6
112.00	1.00	1.30	48.229	53.05	422.47	0.600	0.000	0.50	1.500	0.90	47.7	0.0	42.6
113.00	1.00	1.30	48.320	53.15	422.87	0.600	0.000	1.00	3.000	1.80	95.7	0.0	85.3
114.00	1.00	1.30	48.409	53.25	423.26	0.600	0.000	1.00	3.000	1.80	95.9	0.0	85.3
115.00 Appurtenance(s)	1.00	1.30	48.499	53.35	423.65	0.600	0.000	1.00	3.000	1.80	96.0	0.0	85.3
116.00	1.00	1.31	48.587	53.45	424.03	0.600	0.000	1.00	3.000	1.80	96.2	0.0	85.3
117.00	1.00	1.31	48.675	53.54	424.42	0.600	0.000	1.00	3.000	1.80	96.4	0.0	85.3
118.00	1.00	1.31	48.762	53.64	424.80	0.600	0.000	1.00	3.000	1.80	96.5	0.0	85.3
119.00	1.00	1.31	48.849	53.73	425.17	0.600	0.000	1.00	3.000	1.80	96.7	0.0	85.3
120.00 Appurtenance(s)	1.00	1.32	48.935	53.83	425.55	0.600	0.000	1.00	3.000	1.80	96.9	0.0	85.3
121.00	1.00	1.32	49.021	53.92	425.92	0.600	0.000	1.00	3.000	1.80	97.1	0.0	85.3
122.00	1.00	1.32	49.106	54.02	426.29	0.600	0.000	1.00	3.000	1.80	97.2	0.0	85.3
123.00	1.00	1.32	49.190	54.11	426.66	0.600	0.000	1.00	3.000	1.80	97.4	0.0	85.3
124.00	1.00	1.32	49.274	54.20	427.02	0.600	0.000	1.00	3.000	1.80	97.6	0.0	85.3
125.00	1.00	1.33	49.357	54.29	427.38	0.600	0.000	1.00	3.000	1.80	97.7	0.0	85.3
126.00	1.00	1.33	49.440	54.38	427.74	0.600	0.000	1.00	3.000	1.80	97.9	0.0	85.3
127.00 Appurtenance(s)	1.00	1.33	49.523	54.47	428.10	0.600	0.000	1.00	3.000	1.80	98.1	0.0	85.3
128.00	1.00	1.33	49.604	54.56	428.45	0.600	0.000	1.00	3.000	1.80	98.2	0.0	85.3
129.00	1.00	1.34	49.686	54.65	428.80	0.600	0.000	1.00	3.000	1.80	98.4	0.0	85.3
130.00 Top - Section 6	1.00	1.34	49.767	54.74	429.15	0.600	0.000	1.00	3.000	1.80	98.5	0.0	85.3
131.00	1.00	1.34	49.847	54.83	429.50	0.600	0.000	1.00	3.000	1.80	98.7	0.0	45.8
132.00	1.00	1.34	49.927	54.92	429.84	0.600	0.000	1.00	3.000	1.80	98.9	0.0	45.8
133.00	1.00	1.34	50.006	55.01	430.18	0.600	0.000	1.00	3.000	1.80	99.0	0.0	45.8
134.00	1.00	1.35	50.085	55.09	430.52	0.600	0.000	1.00	3.000	1.80	99.2	0.0	45.8
135.00 Appurtenance(s)	1.00	1.35	50.164	55.18	430.86	0.600	0.000	1.00	3.000	1.80	99.3	0.0	45.8
136.00	1.00	1.35	50.242	55.27	431.19	0.600	0.000	1.00	3.000	1.80	99.5	0.0	45.8
137.00	1.00	1.35	50.319	55.35	431.53	0.600	0.000	1.00	3.000	1.80	99.6	0.0	45.8
138.00	1.00	1.35	50.396	55.44	431.86	0.600	0.000	1.00	3.000	1.80	99.8	0.0	45.8
139.00	1.00	1.36	50.473	55.52	432.18	0.600	0.000	1.00	3.000	1.80	99.9	0.0	45.8
140.00 Appurtenance(s)	1.00	1.36	50.549	55.60	432.51	0.600	0.000	1.00	3.000	1.80	100.1	0.0	45.8
141.00	1.00	1.36	50.625	55.69	432.83	0.600	0.000	1.00	3.000	1.80	100.2	0.0	45.8
142.00	1.00	1.36	50.700	55.77	433.16	0.600	0.000	1.00	3.000	1.80	100.4	0.0	45.8
143.00	1.00	1.36	50.775	55.85	433.48	0.600	0.000	1.00	3.000	1.80	100.5	0.0	45.8
144.00	1.00	1.37	50.850	55.93	433.79	0.600	0.000	1.00	3.000	1.80	100.7	0.0	45.8
145.00 Appurtenance(s)	1.00	1.37	50.924	56.02	434.11	0.600	0.000	1.00	3.000	1.80	100.8	0.0	45.8
146.00	1.00	1.37	50.998	56.10	434.43	0.600	0.000	1.00	3.000	1.80	101.0	0.0	45.8
147.00	1.00	1.37	51.071	56.18	434.74	0.600	0.000	1.00	3.000	1.80	101.1	0.0	45.8
148.00	1.00	1.37	51.144	56.26	435.05	0.600	0.000	1.00	3.000	1.80	101.3	0.0	45.8
149.00	1.00	1.38	51.217	56.34	435.36	0.600	0.000	1.00	3.000	1.80	101.4	0.0	45.8
150.00 Appurtenance(s)	1.00	1.38	51.289	56.42	435.66	0.600	0.000	1.00	3.000	1.80	101.6	0.0	45.8
<b>Totals:</b>								<b>150.00</b>			<b>10,683.3</b>		<b>17,167.4</b>

## Discrete Appurtenance Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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**Load Case:** 1.2D + 1.0W 125 mph Wind

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



**Iterations** 43

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	150.00	Truck Ball	1	51.325	56.457	1.00	1.00	1.41	6.00	0.000	0.500	79.60	0.00	39.80
2	150.00	36" Canister Weight	1	51.289	56.418	1.00	1.00	0.00	77.48	0.000	0.000	0.00	0.00	0.00
3	145.00	CDX623T-DS	6	50.924	56.016	0.00	1.00	0.00	72.72	0.000	0.000	0.00	0.00	0.00
4	145.00	FFVV-65B-R3	3	50.924	56.016	0.00	1.00	0.00	157.68	0.000	0.000	0.00	0.00	0.00
5	140.00	36" Canister Weight	1	50.549	55.604	1.00	1.00	0.00	154.97	0.000	0.000	0.00	0.00	0.00
6	140.00	Flag	1	50.549	55.604	1.00	1.00	6.89	30.00	0.000	0.000	383.11	0.00	0.00
7	135.00	Flush Mount	1	50.164	55.180	0.00	1.00	0.00	30.00	0.000	0.000	0.00	0.00	0.00
8	135.00	DB-T1-6Z-8AB-0Z	2	50.164	55.180	0.00	1.00	0.00	45.36	0.000	0.000	0.00	0.00	0.00
9	135.00	FDL85002/1C-3L	6	50.164	55.180	0.00	1.00	0.00	50.40	0.000	0.000	0.00	0.00	0.00
10	135.00	SBNHH-1D65A	3	50.164	55.180	0.00	1.00	0.00	120.60	0.000	0.000	0.00	0.00	0.00
11	130.00	36" Canister Weight	1	49.767	54.743	1.00	1.00	0.00	154.97	0.000	0.000	0.00	0.00	0.00
12	127.00	Flush Mount	1	49.523	54.475	0.00	1.00	0.00	30.00	0.000	0.000	0.00	0.00	0.00
13	127.00	ATSBT-TOP-FM	3	49.523	54.475	0.00	1.00	0.00	6.48	0.000	0.000	0.00	0.00	0.00
14	127.00	CBC426T-DS-43	6	49.523	54.475	0.00	1.00	0.00	52.56	0.000	0.000	0.00	0.00	0.00
15	127.00	D2WC-21 (2LB+4MB)	3	49.523	54.475	0.00	1.00	0.00	111.24	0.000	0.000	0.00	0.00	0.00
16	120.00	36" Canister Weight	1	48.935	53.829	1.00	1.00	0.00	154.97	0.000	0.000	0.00	0.00	0.00
17	115.00	Flush Mount	1	48.499	53.348	0.00	1.00	0.00	30.00	0.000	0.000	0.00	0.00	0.00
18	115.00	LGP21401	6	48.499	53.348	0.00	1.00	0.00	101.52	0.000	0.000	0.00	0.00	0.00
19	115.00	7770.00	3	48.499	53.348	0.00	1.00	0.00	126.00	0.000	0.000	0.00	0.00	0.00
20	110.00	36" Canister Weight	1	48.047	52.851	1.00	1.00	0.00	92.98	0.000	0.000	0.00	0.00	0.00
21	108.00	36" Canister Weight	1	47.862	52.648	1.00	1.00	0.00	15.49	0.000	0.000	0.00	0.00	0.00
22	75.00	GPS	1	44.325	48.757	0.80	0.80	0.80	12.00	0.000	0.000	39.01	0.00	0.00
<b>Totals:</b>									<b>1,633.42</b>			<b>501.72</b>		

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

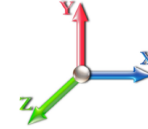


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**Load Case:** 1.2D + 1.0W 125 mph Wind

**Dead Load Factor** 1.20

**Wind Load Factor** 1.00



**Iterations** 43

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		62.62	213.88	0.00	0.00
2.00		62.62	213.88	0.00	0.00
3.00		62.62	213.88	0.00	0.00
4.00		62.62	213.88	0.00	0.00
5.00		62.62	213.88	0.00	0.00
6.00		62.62	213.88	0.00	0.00
7.00		62.62	213.88	0.00	0.00
8.00		62.62	213.88	0.00	0.00
9.00		62.62	213.88	0.00	0.00
10.00		62.62	213.88	0.00	0.00
11.00		62.62	213.88	0.00	0.00
12.00		62.62	213.88	0.00	0.00
13.00		62.62	213.88	0.00	0.00
14.00		62.62	213.88	0.00	0.00
15.00		62.62	213.88	0.00	0.00
16.00		63.40	213.88	0.00	0.00
17.00		64.21	213.88	0.00	0.00
18.00		64.99	213.88	0.00	0.00
19.00		65.73	213.88	0.00	0.00
20.00		66.45	213.88	0.00	0.00
21.00		55.94	185.02	0.00	0.00
22.00		56.49	185.02	0.00	0.00
23.00		57.02	185.02	0.00	0.00
24.00		57.54	185.02	0.00	0.00
25.00		58.03	185.02	0.00	0.00
26.00		58.52	185.02	0.00	0.00
27.00		58.98	185.02	0.00	0.00
28.00		59.44	185.02	0.00	0.00
29.00		59.88	185.02	0.00	0.00
30.00		60.31	185.02	0.00	0.00
31.00		60.72	185.02	0.00	0.00
32.00		61.13	185.02	0.00	0.00
33.00		61.53	185.02	0.00	0.00
34.00		61.92	185.02	0.00	0.00
35.00		62.29	185.02	0.00	0.00
36.00		62.66	185.02	0.00	0.00
37.00		63.03	185.02	0.00	0.00
38.00		63.38	185.02	0.00	0.00
39.00		63.73	185.02	0.00	0.00
40.00		64.07	185.02	0.00	0.00
41.00		64.40	185.02	0.00	0.00
42.00		64.73	185.02	0.00	0.00
43.00		65.05	185.02	0.00	0.00
44.00		65.37	185.02	0.00	0.00
45.00		65.68	185.02	0.00	0.00
46.00		65.98	185.02	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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47.00	66.28	185.02	0.00	0.00
48.00	66.58	185.02	0.00	0.00
49.00	66.87	185.02	0.00	0.00
50.00	67.15	185.02	0.00	0.00
51.00	53.95	156.15	0.00	0.00
52.00	54.17	156.15	0.00	0.00
53.00	54.38	156.15	0.00	0.00
54.00	54.60	156.15	0.00	0.00
55.00	54.81	156.15	0.00	0.00
56.00	55.02	156.15	0.00	0.00
57.00	55.22	156.15	0.00	0.00
58.00	55.43	156.15	0.00	0.00
59.00	55.63	156.15	0.00	0.00
60.00	55.82	156.15	0.00	0.00
61.00	56.02	156.15	0.00	0.00
62.00	56.21	156.15	0.00	0.00
63.00	56.40	156.15	0.00	0.00
64.00	56.59	156.15	0.00	0.00
65.00	56.77	156.15	0.00	0.00
66.00	56.96	156.15	0.00	0.00
67.00	57.14	156.15	0.00	0.00
68.00	57.31	156.15	0.00	0.00
69.00	57.49	156.15	0.00	0.00
70.00	57.67	156.15	0.00	0.00
71.00	57.84	156.15	0.00	0.00
72.00	58.01	156.15	0.00	0.00
73.00	58.18	156.15	0.00	0.00
74.00	58.34	156.15	0.00	0.00
75.00	(1) attachments	97.51	168.15	0.00
76.00		58.67	155.96	0.00
77.00		58.83	155.96	0.00
78.00		58.99	155.96	0.00
79.00		59.15	155.96	0.00
80.00		59.31	155.96	0.00
81.00		59.46	155.96	0.00
82.00		59.62	155.96	0.00
83.00		59.77	155.96	0.00
84.00		59.92	155.96	0.00
85.00		60.07	155.96	0.00
86.00		60.22	155.96	0.00
87.00		60.37	155.96	0.00
88.00		60.51	155.96	0.00
89.00		60.66	155.96	0.00
90.00		60.80	155.96	0.00
91.00		60.94	155.96	0.00
92.00		61.08	155.96	0.00
93.00		61.22	155.96	0.00
94.00		61.36	155.96	0.00
95.00		61.49	155.96	0.00
96.00		61.63	155.96	0.00
97.00		61.76	155.96	0.00
98.00		61.90	155.96	0.00
99.00		62.03	155.96	0.00
100.00		62.16	155.96	0.00
101.00		62.29	155.96	0.00
102.00		62.42	155.96	0.00
103.00		62.55	155.96	0.00

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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104.00	62.68	155.96	0.00	0.00
105.00	62.80	155.96	0.00	0.00
106.00	62.93	155.96	0.00	0.00
107.00	63.05	155.96	0.00	0.00
108.00	(1) attachments 63.18	171.45	0.00	0.00
109.00	94.95	167.48	0.00	0.00
110.00	(1) attachments 95.13	260.46	0.00	0.00
111.00	95.31	127.59	0.00	0.00
111.50	47.70	63.80	0.00	0.00
112.00	47.75	63.80	0.00	0.00
113.00	95.67	127.59	0.00	0.00
114.00	95.85	127.59	0.00	0.00
115.00	(10) attachments 96.03	385.11	0.00	0.00
116.00	96.20	120.54	0.00	0.00
117.00	96.38	120.54	0.00	0.00
118.00	96.55	120.54	0.00	0.00
119.00	96.72	120.54	0.00	0.00
120.00	(1) attachments 96.89	275.51	0.00	0.00
121.00	97.06	120.54	0.00	0.00
122.00	97.23	120.54	0.00	0.00
123.00	97.40	120.54	0.00	0.00
124.00	97.56	120.54	0.00	0.00
125.00	97.73	120.54	0.00	0.00
126.00	97.89	120.54	0.00	0.00
127.00	(13) attachments 98.05	320.82	0.00	0.00
128.00	98.22	109.81	0.00	0.00
129.00	98.38	109.81	0.00	0.00
130.00	(1) attachments 98.54	264.78	0.00	0.00
131.00	98.70	70.37	0.00	0.00
132.00	98.86	70.37	0.00	0.00
133.00	99.01	70.37	0.00	0.00
134.00	99.17	70.37	0.00	0.00
135.00	(12) attachments 99.32	316.73	0.00	0.00
136.00	99.48	60.82	0.00	0.00
137.00	99.63	60.82	0.00	0.00
138.00	99.78	60.82	0.00	0.00
139.00	99.94	60.82	0.00	0.00
140.00	(2) attachments 483.20	245.78	0.00	0.00
141.00	100.24	60.82	0.00	0.00
142.00	100.39	60.82	0.00	0.00
143.00	100.54	60.82	0.00	0.00
144.00	100.68	60.82	0.00	0.00
145.00	(9) attachments 100.83	291.22	0.00	0.00
146.00	100.98	45.84	0.00	0.00
147.00	101.12	45.84	0.00	0.00
148.00	101.27	45.84	0.00	0.00
149.00	101.41	45.84	0.00	0.00
150.00	(2) attachments 181.16	129.32	0.00	39.80
<b>Totals:</b>	<b>11,185.00</b>	<b>24,450.12</b>	<b>0.00</b>	<b>39.80</b>

## Linear Appurtenance Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

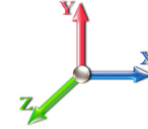


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**Load Case:** 1.2D + 1.0W 125 mph Wind

**Dead Load Factor** 1.20

**Wind Load Factor** 1.00



**Iterations** 43

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
18.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	32.822	0.00	0.00
19.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	33.198	0.00	0.00
20.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	33.558	0.00	0.00
21.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	33.905	0.00	0.00
22.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	34.238	0.00	0.00
23.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	34.560	0.00	0.00
<b>Totals:</b>											<b>0.0</b>	<b>0.0</b>

## Calculated Forces

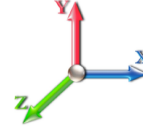
<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



**Load Case:** 1.2D + 1.0W 125 mph Wind

**Iterations** 43

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-24.45	-11.19	0.00	-1024.4	0.00	1024.47	1490.10	475.94	99948.2	1339.68	0.00	0.000	0.000	0.782
1.00	-24.22	-11.15	0.00	-1013.2	0.00	1013.27	1490.10	475.94	99948.2	1339.68	0.00	-0.044	0.000	0.773
2.00	-24.00	-11.10	0.00	-1002.1	0.00	1002.12	1490.10	475.94	99948.2	1339.68	0.02	-0.087	0.000	0.765
3.00	-23.78	-11.06	0.00	-991.02	0.00	991.02	1490.10	475.94	99948.2	1339.68	0.04	-0.129	0.000	0.756
4.00	-23.56	-11.01	0.00	-979.96	0.00	979.96	1490.10	475.94	99948.2	1339.68	0.07	-0.171	0.000	0.748
5.00	-23.34	-10.97	0.00	-968.95	0.00	968.95	1490.10	475.94	99948.2	1339.68	0.11	-0.213	0.000	0.739
6.00	-23.11	-10.92	0.00	-957.98	0.00	957.98	1490.10	475.94	99948.2	1339.68	0.16	-0.254	0.000	0.731
7.00	-22.89	-10.87	0.00	-947.06	0.00	947.06	1490.10	475.94	99948.2	1339.68	0.22	-0.295	0.000	0.723
8.00	-22.67	-10.82	0.00	-936.19	0.00	936.19	1490.10	475.94	99948.2	1339.68	0.29	-0.335	0.000	0.715
9.00	-22.45	-10.78	0.00	-925.37	0.00	925.37	1490.10	475.94	99948.2	1339.68	0.36	-0.375	0.000	0.706
10.00	-22.23	-10.73	0.00	-914.59	0.00	914.59	1490.10	475.94	99948.2	1339.68	0.44	-0.414	0.000	0.698
11.00	-22.01	-10.68	0.00	-903.86	0.00	903.86	1490.10	475.94	99948.2	1339.68	0.53	-0.453	0.000	0.690
12.00	-21.79	-10.63	0.00	-893.19	0.00	893.19	1490.10	475.94	99948.2	1339.68	0.63	-0.491	0.000	0.682
13.00	-21.57	-10.58	0.00	-882.56	0.00	882.56	1490.10	475.94	99948.2	1339.68	0.74	-0.529	0.000	0.674
14.00	-21.35	-10.53	0.00	-871.98	0.00	871.98	1490.10	475.94	99948.2	1339.68	0.86	-0.566	0.000	0.666
15.00	-21.13	-10.48	0.00	-861.46	0.00	861.46	1490.10	475.94	99948.2	1339.68	0.98	-0.603	0.000	0.658
16.00	-20.91	-10.42	0.00	-850.98	0.00	850.98	1490.10	475.94	99948.2	1339.68	1.11	-0.640	0.000	0.650
17.00	-20.69	-10.37	0.00	-840.56	0.00	840.56	1490.10	475.94	99948.2	1339.68	1.25	-0.676	0.000	0.642
18.00	-20.47	-10.31	0.00	-830.19	0.00	830.19	1490.10	475.94	99948.2	1339.68	1.39	-0.712	0.000	0.634
19.00	-20.25	-10.26	0.00	-819.88	0.00	819.88	1490.10	475.94	99948.2	1339.68	1.55	-0.747	0.000	0.626
20.00	-20.03	-10.20	0.00	-809.62	0.00	809.62	1490.10	475.94	99948.2	1339.68	1.71	-0.782	0.000	0.618
20.00	-20.03	-10.20	0.00	-809.62	0.00	809.62	1311.06	395.78	69116.5	948.43	1.71	-0.782	0.000	0.870
21.00	-19.84	-10.16	0.00	-799.42	0.00	799.42	1311.06	395.78	69116.5	948.43	1.87	-0.816	0.000	0.859
22.00	-19.64	-10.12	0.00	-789.26	0.00	789.26	1311.06	395.78	69116.5	948.43	2.05	-0.875	0.000	0.848
23.00	-19.45	-10.08	0.00	-779.14	0.00	779.14	1311.06	395.78	69116.5	948.43	2.24	-0.933	0.000	0.837
24.00	-19.26	-10.04	0.00	-769.06	0.00	769.06	1311.06	395.78	69116.5	948.43	2.44	-0.991	0.000	0.826
25.00	-19.06	-9.99	0.00	-759.03	0.00	759.03	1311.06	395.78	69116.5	948.43	2.66	-1.047	0.000	0.815
26.00	-18.87	-9.95	0.00	-749.03	0.00	749.03	1311.06	395.78	69116.5	948.43	2.88	-1.103	0.000	0.805
27.00	-18.68	-9.91	0.00	-739.08	0.00	739.08	1311.06	395.78	69116.5	948.43	3.12	-1.159	0.000	0.794
28.00	-18.48	-9.86	0.00	-729.17	0.00	729.17	1311.06	395.78	69116.5	948.43	3.37	-1.213	0.000	0.784
29.00	-18.29	-9.81	0.00	-719.31	0.00	719.31	1311.06	395.78	69116.5	948.43	3.63	-1.267	0.000	0.773
30.00	-18.10	-9.77	0.00	-709.50	0.00	709.50	1311.06	395.78	69116.5	948.43	3.90	-1.320	0.000	0.762
31.00	-17.91	-9.72	0.00	-699.73	0.00	699.73	1311.06	395.78	69116.5	948.43	4.18	-1.372	0.000	0.752
32.00	-17.71	-9.67	0.00	-690.02	0.00	690.02	1311.06	395.78	69116.5	948.43	4.47	-1.424	0.000	0.742
33.00	-17.52	-9.62	0.00	-680.35	0.00	680.35	1311.06	395.78	69116.5	948.43	4.78	-1.475	0.000	0.731
34.00	-17.33	-9.57	0.00	-670.73	0.00	670.73	1311.06	395.78	69116.5	948.43	5.09	-1.525	0.000	0.721
35.00	-17.14	-9.51	0.00	-661.17	0.00	661.17	1311.06	395.78	69116.5	948.43	5.42	-1.574	0.000	0.711
36.00	-16.95	-9.46	0.00	-651.65	0.00	651.65	1311.06	395.78	69116.5	948.43	5.75	-1.623	0.000	0.701
37.00	-16.76	-9.40	0.00	-642.20	0.00	642.20	1311.06	395.78	69116.5	948.43	6.10	-1.671	0.000	0.690
38.00	-16.57	-9.35	0.00	-632.79	0.00	632.79	1311.06	395.78	69116.5	948.43	6.45	-1.719	0.000	0.680
39.00	-16.37	-9.29	0.00	-623.44	0.00	623.44	1311.06	395.78	69116.5	948.43	6.82	-1.765	0.000	0.670
40.00	-16.18	-9.24	0.00	-614.15	0.00	614.15	1311.06	395.78	69116.5	948.43	7.19	-1.811	0.000	0.660
41.00	-15.99	-9.18	0.00	-604.91	0.00	604.91	1311.06	395.78	69116.5	948.43	7.57	-1.856	0.000	0.651
42.00	-15.80	-9.12	0.00	-595.73	0.00	595.73	1311.06	395.78	69116.5	948.43	7.97	-1.901	0.000	0.641
43.00	-15.62	-9.06	0.00	-586.61	0.00	586.61	1311.06	395.78	69116.5	948.43	8.37	-1.945	0.000	0.631
44.00	-15.43	-9.00	0.00	-577.55	0.00	577.55	1311.06	395.78	69116.5	948.43	8.78	-1.988	0.000	0.621
45.00	-15.24	-8.94	0.00	-568.55	0.00	568.55	1311.06	395.78	69116.5	948.43	9.20	-2.031	0.000	0.612
46.00	-15.05	-8.88	0.00	-559.61	0.00	559.61	1311.06	395.78	69116.5	948.43	9.63	-2.072	0.000	0.602



## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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47.00	-14.86	-8.82	0.00	-550.74	0.00	550.74	1311.06	395.78	69116.5	948.43	10.07	-2.114	0.000	0.593
48.00	-14.67	-8.75	0.00	-541.92	0.00	541.92	1311.06	395.78	69116.5	948.43	10.52	-2.154	0.000	0.583
49.00	-14.48	-8.69	0.00	-533.17	0.00	533.17	1311.06	395.78	69116.5	948.43	10.98	-2.194	0.000	0.574
50.00	-14.29	-8.62	0.00	-524.48	0.00	524.48	1311.06	395.78	69116.5	948.43	11.44	-2.233	0.000	0.564
50.00	-14.29	-8.62	0.00	-524.48	0.00	524.48	1052.07	315.62	43955.0	624.04	11.44	-2.233	0.000	0.855
51.00	-14.13	-8.58	0.00	-515.86	0.00	515.86	1052.07	315.62	43955.0	624.04	11.91	-2.272	0.000	0.841
52.00	-13.97	-8.54	0.00	-507.28	0.00	507.28	1052.07	315.62	43955.0	624.04	12.39	-2.347	0.000	0.827
53.00	-13.80	-8.49	0.00	-498.74	0.00	498.74	1052.07	315.62	43955.0	624.04	12.89	-2.421	0.000	0.813
54.00	-13.64	-8.45	0.00	-490.25	0.00	490.25	1052.07	315.62	43955.0	624.04	13.41	-2.493	0.000	0.799
55.00	-13.47	-8.40	0.00	-481.80	0.00	481.80	1052.07	315.62	43955.0	624.04	13.94	-2.564	0.000	0.786
56.00	-13.31	-8.36	0.00	-473.40	0.00	473.40	1052.07	315.62	43955.0	624.04	14.48	-2.634	0.000	0.772
57.00	-13.15	-8.31	0.00	-465.04	0.00	465.04	1052.07	315.62	43955.0	624.04	15.04	-2.703	0.000	0.758
58.00	-12.98	-8.26	0.00	-456.73	0.00	456.73	1052.07	315.62	43955.0	624.04	15.61	-2.770	0.000	0.745
59.00	-12.82	-8.21	0.00	-448.47	0.00	448.47	1052.07	315.62	43955.0	624.04	16.20	-2.836	0.000	0.732
60.00	-12.66	-8.17	0.00	-440.25	0.00	440.25	1052.07	315.62	43955.0	624.04	16.80	-2.902	0.000	0.718
61.00	-12.50	-8.12	0.00	-432.09	0.00	432.09	1052.07	315.62	43955.0	624.04	17.42	-2.965	0.000	0.705
62.00	-12.34	-8.06	0.00	-423.97	0.00	423.97	1052.07	315.62	43955.0	624.04	18.04	-3.028	0.000	0.692
63.00	-12.17	-8.01	0.00	-415.91	0.00	415.91	1052.07	315.62	43955.0	624.04	18.69	-3.090	0.000	0.679
64.00	-12.01	-7.96	0.00	-407.90	0.00	407.90	1052.07	315.62	43955.0	624.04	19.34	-3.150	0.000	0.666
65.00	-11.85	-7.91	0.00	-399.94	0.00	399.94	1052.07	315.62	43955.0	624.04	20.00	-3.209	0.000	0.653
66.00	-11.69	-7.85	0.00	-392.03	0.00	392.03	1052.07	315.62	43955.0	624.04	20.68	-3.267	0.000	0.640
67.00	-11.53	-7.80	0.00	-384.18	0.00	384.18	1052.07	315.62	43955.0	624.04	21.37	-3.324	0.000	0.627
68.00	-11.37	-7.74	0.00	-376.38	0.00	376.38	1052.07	315.62	43955.0	624.04	22.07	-3.379	0.000	0.615
69.00	-11.21	-7.69	0.00	-368.64	0.00	368.64	1052.07	315.62	43955.0	624.04	22.79	-3.434	0.000	0.602
70.00	-11.05	-7.63	0.00	-360.95	0.00	360.95	1052.07	315.62	43955.0	624.04	23.51	-3.487	0.000	0.590
71.00	-10.89	-7.57	0.00	-353.32	0.00	353.32	1052.07	315.62	43955.0	624.04	24.25	-3.540	0.000	0.577
72.00	-10.73	-7.51	0.00	-345.75	0.00	345.75	1052.07	315.62	43955.0	624.04	24.99	-3.591	0.000	0.565
73.00	-10.58	-7.46	0.00	-338.23	0.00	338.23	1052.07	315.62	43955.0	624.04	25.75	-3.641	0.000	0.553
74.00	-10.42	-7.40	0.00	-330.78	0.00	330.78	1052.07	315.62	43955.0	624.04	26.52	-3.690	0.000	0.541
75.00	-10.25	-7.30	0.00	-323.38	0.00	323.38	1052.07	315.62	43955.0	624.04	27.30	-3.738	0.000	0.528
76.00	-10.09	-7.24	0.00	-316.09	0.00	316.09	1052.07	315.62	43955.0	624.04	28.08	-3.785	0.000	0.517
77.00	-9.93	-7.17	0.00	-308.85	0.00	308.85	1052.07	315.62	43955.0	624.04	28.88	-3.830	0.000	0.505
78.00	-9.78	-7.11	0.00	-301.68	0.00	301.68	1052.07	315.62	43955.0	624.04	29.69	-3.875	0.000	0.493
79.00	-9.62	-7.05	0.00	-294.57	0.00	294.57	1052.07	315.62	43955.0	624.04	30.50	-3.919	0.000	0.482
80.00	-9.46	-6.99	0.00	-287.52	0.00	287.52	1052.07	315.62	43955.0	624.04	31.33	-3.961	0.000	0.470
80.00	-9.46	-6.99	0.00	-287.52	0.00	287.52	1052.07	315.62	43955.0	624.04	31.33	-3.961	0.000	0.470
81.00	-9.31	-6.92	0.00	-280.53	0.00	280.53	1052.07	315.62	43955.0	624.04	32.16	-4.003	0.000	0.459
82.00	-9.15	-6.86	0.00	-273.60	0.00	273.60	1052.07	315.62	43955.0	624.04	33.00	-4.043	0.000	0.448
83.00	-9.00	-6.80	0.00	-266.74	0.00	266.74	1052.07	315.62	43955.0	624.04	33.85	-4.083	0.000	0.436
84.00	-8.84	-6.73	0.00	-259.95	0.00	259.95	1052.07	315.62	43955.0	624.04	34.71	-4.122	0.000	0.425
85.00	-8.68	-6.66	0.00	-253.22	0.00	253.22	1052.07	315.62	43955.0	624.04	35.58	-4.159	0.000	0.414
86.00	-8.53	-6.60	0.00	-246.55	0.00	246.55	1052.07	315.62	43955.0	624.04	36.45	-4.196	0.000	0.404
87.00	-8.37	-6.53	0.00	-239.96	0.00	239.96	1052.07	315.62	43955.0	624.04	37.34	-4.231	0.000	0.393
88.00	-8.22	-6.47	0.00	-233.42	0.00	233.42	1052.07	315.62	43955.0	624.04	38.22	-4.266	0.000	0.382
89.00	-8.06	-6.40	0.00	-226.96	0.00	226.96	1052.07	315.62	43955.0	624.04	39.12	-4.300	0.000	0.372
90.00	-7.91	-6.33	0.00	-220.56	0.00	220.56	1052.07	315.62	43955.0	624.04	40.02	-4.332	0.000	0.361
91.00	-7.76	-6.26	0.00	-214.23	0.00	214.23	1052.07	315.62	43955.0	624.04	40.93	-4.364	0.000	0.351
92.00	-7.60	-6.19	0.00	-207.97	0.00	207.97	1052.07	315.62	43955.0	624.04	41.85	-4.395	0.000	0.341
93.00	-7.45	-6.12	0.00	-201.78	0.00	201.78	1052.07	315.62	43955.0	624.04	42.77	-4.425	0.000	0.331
94.00	-7.29	-6.05	0.00	-195.65	0.00	195.65	1052.07	315.62	43955.0	624.04	43.70	-4.454	0.000	0.321
95.00	-7.14	-5.98	0.00	-189.60	0.00	189.60	1052.07	315.62	43955.0	624.04	44.64	-4.482	0.000	0.311
96.00	-6.99	-5.91	0.00	-183.62	0.00	183.62	1052.07	315.62	43955.0	624.04	45.58	-4.510	0.000	0.301
97.00	-6.83	-5.84	0.00	-177.70	0.00	177.70	1052.07	315.62	43955.0	624.04	46.53	-4.536	0.000	0.292
98.00	-6.68	-5.77	0.00	-171.86	0.00	171.86	1052.07	315.62	43955.0	624.04	47.48	-4.562	0.000	0.282
99.00	-6.53	-5.70	0.00	-166.09	0.00	166.09	1052.07	315.62	43955.0	624.04	48.43	-4.587	0.000	0.273
100.00	-6.37	-5.63	0.00	-160.39	0.00	160.39	1052.07	315.62	43955.0	624.04	49.40	-4.610	0.000	0.263
101.00	-6.22	-5.56	0.00	-154.76	0.00	154.76	1052.07	315.62	43955.0	624.04	50.36	-4.633	0.000	0.254

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 20



102.00	-6.07	-5.48	0.00	-149.21	0.00	149.21	1052.07	315.62	43955.0	624.04	51.34	-4.656	0.000	0.245
103.00	-5.92	-5.41	0.00	-143.72	0.00	143.72	1052.07	315.62	43955.0	624.04	52.31	-4.677	0.000	0.236
104.00	-5.76	-5.34	0.00	-138.31	0.00	138.31	1052.07	315.62	43955.0	624.04	53.29	-4.698	0.000	0.227
105.00	-5.61	-5.26	0.00	-132.97	0.00	132.97	1052.07	315.62	43955.0	624.04	54.28	-4.718	0.000	0.219
106.00	-5.46	-5.19	0.00	-127.71	0.00	127.71	1052.07	315.62	43955.0	624.04	55.27	-4.737	0.000	0.210
107.00	-5.31	-5.12	0.00	-122.52	0.00	122.52	1052.07	315.62	43955.0	624.04	56.26	-4.755	0.000	0.202
108.00	-5.14	-5.04	0.00	-117.40	0.00	117.40	1052.07	315.62	43955.0	624.04	57.26	-4.773	0.000	0.193
108.00	-5.14	-5.04	0.00	-117.40	0.00	117.40	1052.07	315.62	43955.0	624.04	57.26	-4.773	0.000	0.193
109.00	-4.98	-4.93	0.00	-112.36	0.00	112.36	1052.07	315.62	43955.0	624.04	58.26	-4.789	0.000	0.185
110.00	-4.73	-4.82	0.00	-107.43	0.00	107.43	1052.07	315.62	43955.0	624.04	59.26	-4.806	0.000	0.110
110.00	-4.73	-4.82	0.00	-107.43	0.00	107.43	682.83	204.85	11780.8	105.20	59.26	-4.806	0.000	0.028
111.00	-4.61	-4.71	0.00	-102.61	0.00	102.61	682.83	204.85	11780.8	105.20	60.27	-4.815	0.000	0.264
111.50	-4.54	-4.67	0.00	-100.25	0.00	100.25	682.83	204.85	11780.8	105.20	60.77	-4.866	0.000	0.258
111.50	-4.54	-4.67	0.00	-100.25	0.00	100.25	682.83	204.85	11780.8	105.20	60.77	-4.866	0.000	0.689
112.00	-4.47	-4.63	0.00	-97.92	0.00	97.92	682.83	204.85	11780.8	105.20	61.29	-4.917	0.000	0.938
113.00	-4.32	-4.55	0.00	-93.29	0.00	93.29	682.83	204.85	11780.8	105.20	62.35	-5.281	0.000	0.894
114.00	-4.18	-4.47	0.00	-88.74	0.00	88.74	682.83	204.85	11780.8	105.20	63.49	-5.627	0.000	0.850
115.00	-3.78	-4.35	0.00	-84.28	0.00	84.28	682.83	204.85	11780.8	105.20	64.71	-5.957	0.000	0.807
116.00	-3.65	-4.26	0.00	-79.92	0.00	79.92	682.83	204.85	11780.8	105.20	65.98	-6.269	0.000	0.766
117.00	-3.52	-4.17	0.00	-75.66	0.00	75.66	682.83	204.85	11780.8	105.20	67.33	-6.566	0.000	0.725
118.00	-3.39	-4.08	0.00	-71.49	0.00	71.49	682.83	204.85	11780.8	105.20	68.73	-6.846	0.000	0.685
119.00	-3.26	-3.98	0.00	-67.41	0.00	67.41	682.83	204.85	11780.8	105.20	70.19	-7.110	0.000	0.646
120.00	-2.99	-3.86	0.00	-63.43	0.00	63.43	682.83	204.85	11780.8	105.20	71.70	-7.359	0.000	0.608
121.00	-2.86	-3.76	0.00	-59.56	0.00	59.56	682.83	204.85	11780.8	105.20	73.26	-7.593	0.000	0.571
122.00	-2.74	-3.66	0.00	-55.80	0.00	55.80	682.83	204.85	11780.8	105.20	74.87	-7.813	0.000	0.535
123.00	-2.63	-3.56	0.00	-52.13	0.00	52.13	682.83	204.85	11780.8	105.20	76.52	-8.019	0.000	0.500
124.00	-2.51	-3.45	0.00	-48.58	0.00	48.58	682.83	204.85	11780.8	105.20	78.21	-8.210	0.000	0.466
125.00	-2.39	-3.35	0.00	-45.12	0.00	45.12	682.83	204.85	11780.8	105.20	79.95	-8.389	0.000	0.433
126.00	-2.28	-3.24	0.00	-41.78	0.00	41.78	682.83	204.85	11780.8	105.20	81.72	-8.554	0.000	0.401
127.00	-1.97	-3.10	0.00	-38.54	0.00	38.54	682.83	204.85	11780.8	105.20	83.52	-8.707	0.000	0.369
128.00	-1.87	-2.99	0.00	-35.44	0.00	35.44	682.83	204.85	11780.8	105.20	85.35	-8.848	0.000	0.340
129.00	-1.77	-2.88	0.00	-32.46	0.00	32.46	682.83	204.85	11780.8	105.20	87.21	-8.977	0.000	0.311
130.00	-1.52	-2.74	0.00	-29.58	0.00	29.58	682.83	204.85	11780.8	105.20	89.09	-9.095	0.000	0.284
130.00	-1.52	-2.74	0.00	-29.58	0.00	29.58	317.71	95.31	3734.62	52.28	89.09	-9.095	0.000	0.571
131.00	-1.46	-2.64	0.00	-26.84	0.00	26.84	317.71	95.31	3734.62	52.28	91.00	-9.203	0.000	0.519
132.00	-1.40	-2.53	0.00	-24.20	0.00	24.20	317.71	95.31	3734.62	52.28	92.94	-9.383	0.000	0.468
133.00	-1.34	-2.43	0.00	-21.67	0.00	21.67	317.71	95.31	3734.62	52.28	94.91	-9.545	0.000	0.419
134.00	-1.28	-2.32	0.00	-19.24	0.00	19.24	317.71	95.31	3734.62	52.28	96.92	-9.689	0.000	0.373
135.00	-0.98	-2.17	0.00	-16.92	0.00	16.92	317.71	95.31	3734.62	52.28	98.95	-9.817	0.000	0.327
136.00	-0.93	-2.06	0.00	-14.75	0.00	14.75	317.71	95.31	3734.62	52.28	101.01	-9.928	0.000	0.286
137.00	-0.89	-1.96	0.00	-12.69	0.00	12.69	317.71	95.31	3734.62	52.28	103.09	-10.025	0.000	0.246
138.00	-0.84	-1.85	0.00	-10.73	0.00	10.73	317.71	95.31	3734.62	52.28	105.19	-10.108	0.000	0.208
139.00	-0.80	-1.74	0.00	-8.88	0.00	8.88	317.71	95.31	3734.62	52.28	107.30	-10.177	0.000	0.173
140.00	-0.64	-1.22	0.00	-7.14	0.00	7.14	317.71	95.31	3734.62	52.28	109.43	-10.233	0.000	0.139
141.00	-0.60	-1.11	0.00	-5.92	0.00	5.92	317.71	95.31	3734.62	52.28	111.56	-10.279	0.000	0.115
142.00	-0.55	-1.00	0.00	-4.81	0.00	4.81	317.71	95.31	3734.62	52.28	113.71	-10.317	0.000	0.094
143.00	-0.51	-0.89	0.00	-3.80	0.00	3.80	317.71	95.31	3734.62	52.28	115.86	-10.348	0.000	0.074
144.00	-0.47	-0.78	0.00	-2.91	0.00	2.91	317.71	95.31	3734.62	52.28	118.02	-10.371	0.000	0.057
145.00	-0.20	-0.63	0.00	-2.13	0.00	2.13	317.71	95.31	3734.62	52.28	120.18	-10.389	0.000	0.041
146.00	-0.17	-0.53	0.00	-1.49	0.00	1.49	317.71	95.31	3734.62	52.28	122.35	-10.402	0.000	0.029
147.00	-0.15	-0.42	0.00	-0.97	0.00	0.97	317.71	95.31	3734.62	52.28	124.52	-10.411	0.000	0.019
148.00	-0.12	-0.31	0.00	-0.55	0.00	0.55	317.71	95.31	3734.62	52.28	126.68	-10.416	0.000	0.011
149.00	-0.09	-0.20	0.00	-0.24	0.00	0.24	317.71	95.31	3734.62	52.28	128.85	-10.419	0.000	0.005
150.00	0.00	-0.18	0.00	-0.04	0.00	0.04	317.71	95.31	3734.62	52.28	131.02	-10.420	0.000	0.001

## Wind Loading - Shaft

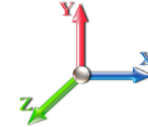
<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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**Load Case:** 0.9D + 1.0W 125 mph Wind

**Dead Load Factor** 0.90  
**Wind Load Factor** 1.00



**Iterations** 43

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
2.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
3.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
4.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
5.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
6.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
7.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
8.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
9.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
10.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
11.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
12.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
13.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
14.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
15.00		1.00	0.85	31.628	34.79	342.12	0.600	0.000	1.00	3.000	1.80	62.6	0.0	128.5
16.00		1.00	0.86	32.018	35.22	344.22	0.600	0.000	1.00	3.000	1.80	63.4	0.0	128.5
17.00		1.00	0.87	32.429	35.67	346.43	0.600	0.000	1.00	3.000	1.80	64.2	0.0	128.5
18.00		1.00	0.88	32.822	36.10	348.52	0.600	0.000	1.00	3.000	1.80	65.0	0.0	128.5
19.00		1.00	0.89	33.198	36.52	350.50	0.600	0.000	1.00	3.000	1.80	65.7	0.0	128.5
20.00	Top - Section 1	1.00	0.90	33.558	36.91	352.40	0.600	0.000	1.00	3.000	1.80	66.4	0.0	128.5
21.00		1.00	0.91	33.905	37.30	295.18	0.600	0.000	1.00	2.500	1.50	55.9	0.0	106.9
22.00		1.00	0.92	34.238	37.66	296.63	0.600	0.000	1.00	2.500	1.50	56.5	0.0	106.9
23.00		1.00	0.93	34.560	38.02	298.02	0.600	0.000	1.00	2.500	1.50	57.0	0.0	106.9
24.00		1.00	0.94	34.871	38.36	299.36	0.600	0.000	1.00	2.500	1.50	57.5	0.0	106.9
25.00		1.00	0.95	35.172	38.69	300.65	0.600	0.000	1.00	2.500	1.50	58.0	0.0	106.9
26.00		1.00	0.95	35.464	39.01	301.89	0.600	0.000	1.00	2.500	1.50	58.5	0.0	106.9
27.00		1.00	0.96	35.747	39.32	303.09	0.600	0.000	1.00	2.500	1.50	59.0	0.0	106.9
28.00		1.00	0.97	36.022	39.62	304.26	0.600	0.000	1.00	2.500	1.50	59.4	0.0	106.9
29.00		1.00	0.98	36.289	39.92	305.38	0.600	0.000	1.00	2.500	1.50	59.9	0.0	106.9
30.00		1.00	0.98	36.549	40.20	306.47	0.600	0.000	1.00	2.500	1.50	60.3	0.0	106.9
31.00		1.00	0.99	36.802	40.48	307.53	0.600	0.000	1.00	2.500	1.50	60.7	0.0	106.9
32.00		1.00	1.00	37.049	40.75	308.56	0.600	0.000	1.00	2.500	1.50	61.1	0.0	106.9
33.00		1.00	1.00	37.289	41.02	309.56	0.600	0.000	1.00	2.500	1.50	61.5	0.0	106.9
34.00		1.00	1.01	37.524	41.28	310.54	0.600	0.000	1.00	2.500	1.50	61.9	0.0	106.9
35.00		1.00	1.01	37.754	41.53	311.49	0.600	0.000	1.00	2.500	1.50	62.3	0.0	106.9
36.00		1.00	1.02	37.979	41.78	312.41	0.600	0.000	1.00	2.500	1.50	62.7	0.0	106.9
37.00		1.00	1.03	38.198	42.02	313.31	0.600	0.000	1.00	2.500	1.50	63.0	0.0	106.9
38.00		1.00	1.03	38.413	42.25	314.20	0.600	0.000	1.00	2.500	1.50	63.4	0.0	106.9
39.00		1.00	1.04	38.624	42.49	315.06	0.600	0.000	1.00	2.500	1.50	63.7	0.0	106.9
40.00		1.00	1.04	38.831	42.71	315.90	0.600	0.000	1.00	2.500	1.50	64.1	0.0	106.9
41.00		1.00	1.05	39.033	42.94	316.72	0.600	0.000	1.00	2.500	1.50	64.4	0.0	106.9
42.00		1.00	1.05	39.231	43.15	317.52	0.600	0.000	1.00	2.500	1.50	64.7	0.0	106.9
43.00		1.00	1.06	39.426	43.37	318.31	0.600	0.000	1.00	2.500	1.50	65.1	0.0	106.9
44.00		1.00	1.06	39.618	43.58	319.08	0.600	0.000	1.00	2.500	1.50	65.4	0.0	106.9
45.00		1.00	1.07	39.805	43.79	319.84	0.600	0.000	1.00	2.500	1.50	65.7	0.0	106.9
46.00		1.00	1.07	39.990	43.99	320.58	0.600	0.000	1.00	2.500	1.50	66.0	0.0	106.9

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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47.00	1.00	1.08	40.172	44.19	321.30	0.600	0.000	1.00	2.500	1.50	66.3	0.0	106.9	
48.00	1.00	1.08	40.350	44.38	322.02	0.600	0.000	1.00	2.500	1.50	66.6	0.0	106.9	
49.00	1.00	1.09	40.526	44.58	322.72	0.600	0.000	1.00	2.500	1.50	66.9	0.0	106.9	
50.00	Top - Section 2	1.00	1.09	40.698	44.77	323.40	0.600	0.000	1.00	2.500	1.50	67.2	0.0	106.9
51.00	1.00	1.10	40.868	44.96	259.26	0.600	0.000	1.00	2.000	1.20	53.9	0.0	85.2	
52.00	1.00	1.10	41.036	45.14	259.79	0.600	0.000	1.00	2.000	1.20	54.2	0.0	85.2	
53.00	1.00	1.11	41.201	45.32	260.32	0.600	0.000	1.00	2.000	1.20	54.4	0.0	85.2	
54.00	1.00	1.11	41.363	45.50	260.83	0.600	0.000	1.00	2.000	1.20	54.6	0.0	85.2	
55.00	1.00	1.12	41.523	45.68	261.33	0.600	0.000	1.00	2.000	1.20	54.8	0.0	85.2	
56.00	1.00	1.12	41.681	45.85	261.83	0.600	0.000	1.00	2.000	1.20	55.0	0.0	85.2	
57.00	1.00	1.12	41.837	46.02	262.32	0.600	0.000	1.00	2.000	1.20	55.2	0.0	85.2	
58.00	1.00	1.13	41.990	46.19	262.80	0.600	0.000	1.00	2.000	1.20	55.4	0.0	85.2	
59.00	1.00	1.13	42.141	46.36	263.27	0.600	0.000	1.00	2.000	1.20	55.6	0.0	85.2	
60.00	1.00	1.14	42.291	46.52	263.74	0.600	0.000	1.00	2.000	1.20	55.8	0.0	85.2	
61.00	1.00	1.14	42.438	46.68	264.20	0.600	0.000	1.00	2.000	1.20	56.0	0.0	85.2	
62.00	1.00	1.14	42.584	46.84	264.65	0.600	0.000	1.00	2.000	1.20	56.2	0.0	85.2	
63.00	1.00	1.15	42.727	47.00	265.09	0.600	0.000	1.00	2.000	1.20	56.4	0.0	85.2	
64.00	1.00	1.15	42.869	47.16	265.53	0.600	0.000	1.00	2.000	1.20	56.6	0.0	85.2	
65.00	1.00	1.16	43.009	47.31	265.97	0.600	0.000	1.00	2.000	1.20	56.8	0.0	85.2	
66.00	1.00	1.16	43.148	47.46	266.40	0.600	0.000	1.00	2.000	1.20	57.0	0.0	85.2	
67.00	1.00	1.16	43.285	47.61	266.82	0.600	0.000	1.00	2.000	1.20	57.1	0.0	85.2	
68.00	1.00	1.17	43.420	47.76	267.23	0.600	0.000	1.00	2.000	1.20	57.3	0.0	85.2	
69.00	1.00	1.17	43.554	47.91	267.65	0.600	0.000	1.00	2.000	1.20	57.5	0.0	85.2	
70.00	1.00	1.17	43.686	48.05	268.05	0.600	0.000	1.00	2.000	1.20	57.7	0.0	85.2	
71.00	1.00	1.18	43.816	48.20	268.45	0.600	0.000	1.00	2.000	1.20	57.8	0.0	85.2	
72.00	1.00	1.18	43.946	48.34	268.85	0.600	0.000	1.00	2.000	1.20	58.0	0.0	85.2	
73.00	1.00	1.18	44.073	48.48	269.24	0.600	0.000	1.00	2.000	1.20	58.2	0.0	85.2	
74.00	1.00	1.19	44.200	48.62	269.62	0.600	0.000	1.00	2.000	1.20	58.3	0.0	85.2	
75.00	Appurtenance(s)	1.00	1.19	44.325	48.76	270.01	0.600	0.000	1.00	2.000	1.20	58.5	0.0	85.2
76.00	1.00	1.19	44.449	48.89	270.38	0.600	0.000	1.00	2.000	1.20	58.7	0.0	85.2	
77.00	1.00	1.20	44.571	49.03	270.75	0.600	0.000	1.00	2.000	1.20	58.8	0.0	85.2	
78.00	1.00	1.20	44.692	49.16	271.12	0.600	0.000	1.00	2.000	1.20	59.0	0.0	85.2	
79.00	1.00	1.20	44.812	49.29	271.49	0.600	0.000	1.00	2.000	1.20	59.2	0.0	85.2	
80.00	Top - Section 3	1.00	1.21	44.931	49.42	271.85	0.600	0.000	1.00	2.000	1.20	59.3	0.0	85.2
81.00	1.00	1.21	45.049	49.55	272.20	0.600	0.000	1.00	2.000	1.20	59.5	0.0	85.2	
82.00	1.00	1.21	45.165	49.68	272.55	0.600	0.000	1.00	2.000	1.20	59.6	0.0	85.2	
83.00	1.00	1.22	45.281	49.81	272.90	0.600	0.000	1.00	2.000	1.20	59.8	0.0	85.2	
84.00	1.00	1.22	45.395	49.93	273.25	0.600	0.000	1.00	2.000	1.20	59.9	0.0	85.2	
85.00	1.00	1.22	45.508	50.06	273.59	0.600	0.000	1.00	2.000	1.20	60.1	0.0	85.2	
86.00	1.00	1.23	45.621	50.18	273.92	0.600	0.000	1.00	2.000	1.20	60.2	0.0	85.2	
87.00	1.00	1.23	45.732	50.30	274.26	0.600	0.000	1.00	2.000	1.20	60.4	0.0	85.2	
88.00	1.00	1.23	45.842	50.43	274.59	0.600	0.000	1.00	2.000	1.20	60.5	0.0	85.2	
89.00	1.00	1.23	45.951	50.55	274.91	0.600	0.000	1.00	2.000	1.20	60.7	0.0	85.2	
90.00	1.00	1.24	46.059	50.67	275.24	0.600	0.000	1.00	2.000	1.20	60.8	0.0	85.2	
91.00	1.00	1.24	46.167	50.78	275.56	0.600	0.000	1.00	2.000	1.20	60.9	0.0	85.2	
92.00	1.00	1.24	46.273	50.90	275.87	0.600	0.000	1.00	2.000	1.20	61.1	0.0	85.2	
93.00	1.00	1.25	46.378	51.02	276.19	0.600	0.000	1.00	2.000	1.20	61.2	0.0	85.2	
94.00	1.00	1.25	46.483	51.13	276.50	0.600	0.000	1.00	2.000	1.20	61.4	0.0	85.2	
95.00	1.00	1.25	46.587	51.25	276.81	0.600	0.000	1.00	2.000	1.20	61.5	0.0	85.2	
96.00	1.00	1.25	46.689	51.36	277.11	0.600	0.000	1.00	2.000	1.20	61.6	0.0	85.2	
97.00	1.00	1.26	46.791	51.47	277.42	0.600	0.000	1.00	2.000	1.20	61.8	0.0	85.2	
98.00	1.00	1.26	46.892	51.58	277.72	0.600	0.000	1.00	2.000	1.20	61.9	0.0	85.2	
99.00	1.00	1.26	46.993	51.69	278.01	0.600	0.000	1.00	2.000	1.20	62.0	0.0	85.2	
100.00	1.00	1.27	47.092	51.80	278.31	0.600	0.000	1.00	2.000	1.20	62.2	0.0	85.2	
101.00	1.00	1.27	47.191	51.91	278.60	0.600	0.000	1.00	2.000	1.20	62.3	0.0	85.2	
102.00	1.00	1.27	47.289	52.02	278.89	0.600	0.000	1.00	2.000	1.20	62.4	0.0	85.2	
103.00	1.00	1.27	47.386	52.12	279.17	0.600	0.000	1.00	2.000	1.20	62.5	0.0	85.2	

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 23



104.00	1.00	1.28	47.483	52.23	279.46	0.600	0.000	1.00	2.000	1.20	62.7	0.0	85.2
105.00	1.00	1.28	47.579	52.34	279.74	0.600	0.000	1.00	2.000	1.20	62.8	0.0	85.2
106.00	1.00	1.28	47.674	52.44	280.02	0.600	0.000	1.00	2.000	1.20	62.9	0.0	85.2
107.00	1.00	1.28	47.768	52.54	280.30	0.600	0.000	1.00	2.000	1.20	63.1	0.0	85.2
108.00 Top - Section 4	1.00	1.29	47.862	52.65	280.57	0.600	0.000	1.00	2.000	1.20	63.2	0.0	85.2
109.00	1.00	1.29	47.955	52.75	421.26	0.600	0.000	1.00	3.000	1.80	94.9	0.0	93.9
110.00 Top - Section 5 RB1	1.00	1.29	48.047	52.85	421.67	0.600	0.000	1.00	3.000	1.80	95.1	0.0	93.9
111.00	1.00	1.29	48.138	52.95	422.07	0.600	0.000	1.00	3.000	1.80	95.3	0.0	64.0
111.50 RT1	1.00	1.29	48.184	53.00	422.27	0.600	0.000	0.50	1.500	0.90	47.7	0.0	32.0
112.00	1.00	1.30	48.229	53.05	422.47	0.600	0.000	0.50	1.500	0.90	47.7	0.0	32.0
113.00	1.00	1.30	48.320	53.15	422.87	0.600	0.000	1.00	3.000	1.80	95.7	0.0	64.0
114.00	1.00	1.30	48.409	53.25	423.26	0.600	0.000	1.00	3.000	1.80	95.9	0.0	64.0
115.00 Appurtenance(s)	1.00	1.30	48.499	53.35	423.65	0.600	0.000	1.00	3.000	1.80	96.0	0.0	64.0
116.00	1.00	1.31	48.587	53.45	424.03	0.600	0.000	1.00	3.000	1.80	96.2	0.0	64.0
117.00	1.00	1.31	48.675	53.54	424.42	0.600	0.000	1.00	3.000	1.80	96.4	0.0	64.0
118.00	1.00	1.31	48.762	53.64	424.80	0.600	0.000	1.00	3.000	1.80	96.5	0.0	64.0
119.00	1.00	1.31	48.849	53.73	425.17	0.600	0.000	1.00	3.000	1.80	96.7	0.0	64.0
120.00 Appurtenance(s)	1.00	1.32	48.935	53.83	425.55	0.600	0.000	1.00	3.000	1.80	96.9	0.0	64.0
121.00	1.00	1.32	49.021	53.92	425.92	0.600	0.000	1.00	3.000	1.80	97.1	0.0	64.0
122.00	1.00	1.32	49.106	54.02	426.29	0.600	0.000	1.00	3.000	1.80	97.2	0.0	64.0
123.00	1.00	1.32	49.190	54.11	426.66	0.600	0.000	1.00	3.000	1.80	97.4	0.0	64.0
124.00	1.00	1.32	49.274	54.20	427.02	0.600	0.000	1.00	3.000	1.80	97.6	0.0	64.0
125.00	1.00	1.33	49.357	54.29	427.38	0.600	0.000	1.00	3.000	1.80	97.7	0.0	64.0
126.00	1.00	1.33	49.440	54.38	427.74	0.600	0.000	1.00	3.000	1.80	97.9	0.0	64.0
127.00 Appurtenance(s)	1.00	1.33	49.523	54.47	428.10	0.600	0.000	1.00	3.000	1.80	98.1	0.0	64.0
128.00	1.00	1.33	49.604	54.56	428.45	0.600	0.000	1.00	3.000	1.80	98.2	0.0	64.0
129.00	1.00	1.34	49.686	54.65	428.80	0.600	0.000	1.00	3.000	1.80	98.4	0.0	64.0
130.00 Top - Section 6	1.00	1.34	49.767	54.74	429.15	0.600	0.000	1.00	3.000	1.80	98.5	0.0	64.0
131.00	1.00	1.34	49.847	54.83	429.50	0.600	0.000	1.00	3.000	1.80	98.7	0.0	34.4
132.00	1.00	1.34	49.927	54.92	429.84	0.600	0.000	1.00	3.000	1.80	98.9	0.0	34.4
133.00	1.00	1.34	50.006	55.01	430.18	0.600	0.000	1.00	3.000	1.80	99.0	0.0	34.4
134.00	1.00	1.35	50.085	55.09	430.52	0.600	0.000	1.00	3.000	1.80	99.2	0.0	34.4
135.00 Appurtenance(s)	1.00	1.35	50.164	55.18	430.86	0.600	0.000	1.00	3.000	1.80	99.3	0.0	34.4
136.00	1.00	1.35	50.242	55.27	431.19	0.600	0.000	1.00	3.000	1.80	99.5	0.0	34.4
137.00	1.00	1.35	50.319	55.35	431.53	0.600	0.000	1.00	3.000	1.80	99.6	0.0	34.4
138.00	1.00	1.35	50.396	55.44	431.86	0.600	0.000	1.00	3.000	1.80	99.8	0.0	34.4
139.00	1.00	1.36	50.473	55.52	432.18	0.600	0.000	1.00	3.000	1.80	99.9	0.0	34.4
140.00 Appurtenance(s)	1.00	1.36	50.549	55.60	432.51	0.600	0.000	1.00	3.000	1.80	100.1	0.0	34.4
141.00	1.00	1.36	50.625	55.69	432.83	0.600	0.000	1.00	3.000	1.80	100.2	0.0	34.4
142.00	1.00	1.36	50.700	55.77	433.16	0.600	0.000	1.00	3.000	1.80	100.4	0.0	34.4
143.00	1.00	1.36	50.775	55.85	433.48	0.600	0.000	1.00	3.000	1.80	100.5	0.0	34.4
144.00	1.00	1.37	50.850	55.93	433.79	0.600	0.000	1.00	3.000	1.80	100.7	0.0	34.4
145.00 Appurtenance(s)	1.00	1.37	50.924	56.02	434.11	0.600	0.000	1.00	3.000	1.80	100.8	0.0	34.4
146.00	1.00	1.37	50.998	56.10	434.43	0.600	0.000	1.00	3.000	1.80	101.0	0.0	34.4
147.00	1.00	1.37	51.071	56.18	434.74	0.600	0.000	1.00	3.000	1.80	101.1	0.0	34.4
148.00	1.00	1.37	51.144	56.26	435.05	0.600	0.000	1.00	3.000	1.80	101.3	0.0	34.4
149.00	1.00	1.38	51.217	56.34	435.36	0.600	0.000	1.00	3.000	1.80	101.4	0.0	34.4
150.00 Appurtenance(s)	1.00	1.38	51.289	56.42	435.66	0.600	0.000	1.00	3.000	1.80	101.6	0.0	34.4
<b>Totals:</b>								<b>150.00</b>			<b>10,683.3</b>		<b>12,875.5</b>

## Discrete Appurtenance Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

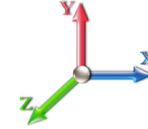


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**Load Case:** 0.9D + 1.0W 125 mph Wind

**Dead Load Factor** 0.90

**Wind Load Factor** 1.00



**Iterations** 43

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	150.00	Truck Ball	1	51.325	56.457	1.00	1.00	1.41	4.50	0.000	0.500	79.60	0.00	39.80
2	150.00	36" Canister Weight	1	51.289	56.418	1.00	1.00	0.00	58.11	0.000	0.000	0.00	0.00	0.00
3	145.00	CDX623T-DS	6	50.924	56.016	0.00	1.00	0.00	54.54	0.000	0.000	0.00	0.00	0.00
4	145.00	FFVV-65B-R3	3	50.924	56.016	0.00	1.00	0.00	118.26	0.000	0.000	0.00	0.00	0.00
5	140.00	36" Canister Weight	1	50.549	55.604	1.00	1.00	0.00	116.23	0.000	0.000	0.00	0.00	0.00
6	140.00	Flag	1	50.549	55.604	1.00	1.00	6.89	22.50	0.000	0.000	383.11	0.00	0.00
7	135.00	Flush Mount	1	50.164	55.180	0.00	1.00	0.00	22.50	0.000	0.000	0.00	0.00	0.00
8	135.00	DB-T1-6Z-8AB-0Z	2	50.164	55.180	0.00	1.00	0.00	34.02	0.000	0.000	0.00	0.00	0.00
9	135.00	FDL85002/1C-3L	6	50.164	55.180	0.00	1.00	0.00	37.80	0.000	0.000	0.00	0.00	0.00
10	135.00	SBNHH-1D65A	3	50.164	55.180	0.00	1.00	0.00	90.45	0.000	0.000	0.00	0.00	0.00
11	130.00	36" Canister Weight	1	49.767	54.743	1.00	1.00	0.00	116.23	0.000	0.000	0.00	0.00	0.00
12	127.00	Flush Mount	1	49.523	54.475	0.00	1.00	0.00	22.50	0.000	0.000	0.00	0.00	0.00
13	127.00	ATSBT-TOP-FM	3	49.523	54.475	0.00	1.00	0.00	4.86	0.000	0.000	0.00	0.00	0.00
14	127.00	CBC426T-DS-43	6	49.523	54.475	0.00	1.00	0.00	39.42	0.000	0.000	0.00	0.00	0.00
15	127.00	D2WC-21 (2LB+4MB)	3	49.523	54.475	0.00	1.00	0.00	83.43	0.000	0.000	0.00	0.00	0.00
16	120.00	36" Canister Weight	1	48.935	53.829	1.00	1.00	0.00	116.23	0.000	0.000	0.00	0.00	0.00
17	115.00	Flush Mount	1	48.499	53.348	0.00	1.00	0.00	22.50	0.000	0.000	0.00	0.00	0.00
18	115.00	LGP21401	6	48.499	53.348	0.00	1.00	0.00	76.14	0.000	0.000	0.00	0.00	0.00
19	115.00	7770.00	3	48.499	53.348	0.00	1.00	0.00	94.50	0.000	0.000	0.00	0.00	0.00
20	110.00	36" Canister Weight	1	48.047	52.851	1.00	1.00	0.00	69.73	0.000	0.000	0.00	0.00	0.00
21	108.00	36" Canister Weight	1	47.862	52.648	1.00	1.00	0.00	11.62	0.000	0.000	0.00	0.00	0.00
22	75.00	GPS	1	44.325	48.757	0.80	0.80	0.80	9.00	0.000	0.000	39.01	0.00	0.00
<b>Totals:</b>									<b>1,225.06</b>			<b>501.72</b>		

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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**Load Case:** 0.9D + 1.0W 125 mph Wind

**Dead Load Factor** 0.90  
**Wind Load Factor** 1.00



**Iterations** 43

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		62.62	160.41	0.00	0.00
2.00		62.62	160.41	0.00	0.00
3.00		62.62	160.41	0.00	0.00
4.00		62.62	160.41	0.00	0.00
5.00		62.62	160.41	0.00	0.00
6.00		62.62	160.41	0.00	0.00
7.00		62.62	160.41	0.00	0.00
8.00		62.62	160.41	0.00	0.00
9.00		62.62	160.41	0.00	0.00
10.00		62.62	160.41	0.00	0.00
11.00		62.62	160.41	0.00	0.00
12.00		62.62	160.41	0.00	0.00
13.00		62.62	160.41	0.00	0.00
14.00		62.62	160.41	0.00	0.00
15.00		62.62	160.41	0.00	0.00
16.00		63.40	160.41	0.00	0.00
17.00		64.21	160.41	0.00	0.00
18.00		64.99	160.41	0.00	0.00
19.00		65.73	160.41	0.00	0.00
20.00		66.45	160.41	0.00	0.00
21.00		55.94	138.76	0.00	0.00
22.00		56.49	138.76	0.00	0.00
23.00		57.02	138.76	0.00	0.00
24.00		57.54	138.76	0.00	0.00
25.00		58.03	138.76	0.00	0.00
26.00		58.52	138.76	0.00	0.00
27.00		58.98	138.76	0.00	0.00
28.00		59.44	138.76	0.00	0.00
29.00		59.88	138.76	0.00	0.00
30.00		60.31	138.76	0.00	0.00
31.00		60.72	138.76	0.00	0.00
32.00		61.13	138.76	0.00	0.00
33.00		61.53	138.76	0.00	0.00
34.00		61.92	138.76	0.00	0.00
35.00		62.29	138.76	0.00	0.00
36.00		62.66	138.76	0.00	0.00
37.00		63.03	138.76	0.00	0.00
38.00		63.38	138.76	0.00	0.00
39.00		63.73	138.76	0.00	0.00
40.00		64.07	138.76	0.00	0.00
41.00		64.40	138.76	0.00	0.00
42.00		64.73	138.76	0.00	0.00
43.00		65.05	138.76	0.00	0.00
44.00		65.37	138.76	0.00	0.00
45.00		65.68	138.76	0.00	0.00
46.00		65.98	138.76	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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47.00	66.28	138.76	0.00	0.00
48.00	66.58	138.76	0.00	0.00
49.00	66.87	138.76	0.00	0.00
50.00	67.15	138.76	0.00	0.00
51.00	53.95	117.12	0.00	0.00
52.00	54.17	117.12	0.00	0.00
53.00	54.38	117.12	0.00	0.00
54.00	54.60	117.12	0.00	0.00
55.00	54.81	117.12	0.00	0.00
56.00	55.02	117.12	0.00	0.00
57.00	55.22	117.12	0.00	0.00
58.00	55.43	117.12	0.00	0.00
59.00	55.63	117.12	0.00	0.00
60.00	55.82	117.12	0.00	0.00
61.00	56.02	117.12	0.00	0.00
62.00	56.21	117.12	0.00	0.00
63.00	56.40	117.12	0.00	0.00
64.00	56.59	117.12	0.00	0.00
65.00	56.77	117.12	0.00	0.00
66.00	56.96	117.12	0.00	0.00
67.00	57.14	117.12	0.00	0.00
68.00	57.31	117.12	0.00	0.00
69.00	57.49	117.12	0.00	0.00
70.00	57.67	117.12	0.00	0.00
71.00	57.84	117.12	0.00	0.00
72.00	58.01	117.12	0.00	0.00
73.00	58.18	117.12	0.00	0.00
74.00	58.34	117.12	0.00	0.00
75.00	(1) attachments	97.51	126.12	0.00
76.00		58.67	116.97	0.00
77.00		58.83	116.97	0.00
78.00		58.99	116.97	0.00
79.00		59.15	116.97	0.00
80.00		59.31	116.97	0.00
81.00		59.46	116.97	0.00
82.00		59.62	116.97	0.00
83.00		59.77	116.97	0.00
84.00		59.92	116.97	0.00
85.00		60.07	116.97	0.00
86.00		60.22	116.97	0.00
87.00		60.37	116.97	0.00
88.00		60.51	116.97	0.00
89.00		60.66	116.97	0.00
90.00		60.80	116.97	0.00
91.00		60.94	116.97	0.00
92.00		61.08	116.97	0.00
93.00		61.22	116.97	0.00
94.00		61.36	116.97	0.00
95.00		61.49	116.97	0.00
96.00		61.63	116.97	0.00
97.00		61.76	116.97	0.00
98.00		61.90	116.97	0.00
99.00		62.03	116.97	0.00
100.00		62.16	116.97	0.00
101.00		62.29	116.97	0.00
102.00		62.42	116.97	0.00
103.00		62.55	116.97	0.00



## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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104.00	62.68	116.97	0.00	0.00
105.00	62.80	116.97	0.00	0.00
106.00	62.93	116.97	0.00	0.00
107.00	63.05	116.97	0.00	0.00
108.00	(1) attachments 63.18	128.59	0.00	0.00
109.00	94.95	125.61	0.00	0.00
110.00	(1) attachments 95.13	195.34	0.00	0.00
111.00	95.31	95.70	0.00	0.00
111.50	47.70	47.85	0.00	0.00
112.00	47.75	47.85	0.00	0.00
113.00	95.67	95.70	0.00	0.00
114.00	95.85	95.70	0.00	0.00
115.00	(10) attachments 96.03	288.84	0.00	0.00
116.00	96.20	90.40	0.00	0.00
117.00	96.38	90.40	0.00	0.00
118.00	96.55	90.40	0.00	0.00
119.00	96.72	90.40	0.00	0.00
120.00	(1) attachments 96.89	206.63	0.00	0.00
121.00	97.06	90.40	0.00	0.00
122.00	97.23	90.40	0.00	0.00
123.00	97.40	90.40	0.00	0.00
124.00	97.56	90.40	0.00	0.00
125.00	97.73	90.40	0.00	0.00
126.00	97.89	90.40	0.00	0.00
127.00	(13) attachments 98.05	240.61	0.00	0.00
128.00	98.22	82.36	0.00	0.00
129.00	98.38	82.36	0.00	0.00
130.00	(1) attachments 98.54	198.58	0.00	0.00
131.00	98.70	52.78	0.00	0.00
132.00	98.86	52.78	0.00	0.00
133.00	99.01	52.78	0.00	0.00
134.00	99.17	52.78	0.00	0.00
135.00	(12) attachments 99.32	237.55	0.00	0.00
136.00	99.48	45.61	0.00	0.00
137.00	99.63	45.61	0.00	0.00
138.00	99.78	45.61	0.00	0.00
139.00	99.94	45.61	0.00	0.00
140.00	(2) attachments 483.20	184.34	0.00	0.00
141.00	100.24	45.61	0.00	0.00
142.00	100.39	45.61	0.00	0.00
143.00	100.54	45.61	0.00	0.00
144.00	100.68	45.61	0.00	0.00
145.00	(9) attachments 100.83	218.41	0.00	0.00
146.00	100.98	34.38	0.00	0.00
147.00	101.12	34.38	0.00	0.00
148.00	101.27	34.38	0.00	0.00
149.00	101.41	34.38	0.00	0.00
150.00	(2) attachments 181.16	96.99	0.00	39.80
<b>Totals:</b>	<b>11,185.00</b>	<b>18,337.59</b>	<b>0.00</b>	<b>39.80</b>

## Linear Appurtenance Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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**Load Case:** 0.9D + 1.0W 125 mph Wind

**Dead Load Factor** 0.90  
**Wind Load Factor** 1.00



**Iterations** 43

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
18.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	32.822	0.00	0.00
19.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	33.198	0.00	0.00
20.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	33.558	0.00	0.00
21.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	33.905	0.00	0.00
22.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	34.238	0.00	0.00
23.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	34.560	0.00	0.00
<b>Totals:</b>											<b>0.0</b>	<b>0.0</b>

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



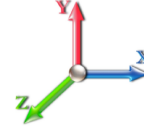
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**Load Case:** 0.9D + 1.0W 125 mph Wind

**Iterations** 43

**Dead Load Factor** 0.90

**Wind Load Factor** 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-18.33	-11.19	0.00	-1006.7	0.00	1006.74	1490.10	475.94	99948.2	1339.68	0.00	0.000	0.000	0.764
1.00	-18.16	-11.14	0.00	-995.55	0.00	995.55	1490.10	475.94	99948.2	1339.68	0.00	-0.043	0.000	0.756
2.00	-18.00	-11.09	0.00	-984.41	0.00	984.41	1490.10	475.94	99948.2	1339.68	0.02	-0.085	0.000	0.747
3.00	-17.83	-11.04	0.00	-973.31	0.00	973.31	1490.10	475.94	99948.2	1339.68	0.04	-0.127	0.000	0.739
4.00	-17.66	-10.99	0.00	-962.27	0.00	962.27	1490.10	475.94	99948.2	1339.68	0.07	-0.168	0.000	0.731
5.00	-17.49	-10.94	0.00	-951.28	0.00	951.28	1490.10	475.94	99948.2	1339.68	0.11	-0.209	0.000	0.722
6.00	-17.32	-10.89	0.00	-940.34	0.00	940.34	1490.10	475.94	99948.2	1339.68	0.16	-0.249	0.000	0.714
7.00	-17.16	-10.84	0.00	-929.45	0.00	929.45	1490.10	475.94	99948.2	1339.68	0.22	-0.289	0.000	0.706
8.00	-16.99	-10.79	0.00	-918.61	0.00	918.61	1490.10	475.94	99948.2	1339.68	0.28	-0.329	0.000	0.698
9.00	-16.82	-10.73	0.00	-907.82	0.00	907.82	1490.10	475.94	99948.2	1339.68	0.35	-0.368	0.000	0.689
10.00	-16.65	-10.68	0.00	-897.09	0.00	897.09	1490.10	475.94	99948.2	1339.68	0.44	-0.406	0.000	0.681
11.00	-16.49	-10.63	0.00	-886.40	0.00	886.40	1490.10	475.94	99948.2	1339.68	0.53	-0.444	0.000	0.673
12.00	-16.32	-10.58	0.00	-875.78	0.00	875.78	1490.10	475.94	99948.2	1339.68	0.62	-0.482	0.000	0.665
13.00	-16.15	-10.52	0.00	-865.20	0.00	865.20	1490.10	475.94	99948.2	1339.68	0.73	-0.519	0.000	0.657
14.00	-15.99	-10.47	0.00	-854.68	0.00	854.68	1490.10	475.94	99948.2	1339.68	0.84	-0.556	0.000	0.649
15.00	-15.82	-10.41	0.00	-844.21	0.00	844.21	1490.10	475.94	99948.2	1339.68	0.96	-0.592	0.000	0.641
16.00	-15.66	-10.36	0.00	-833.79	0.00	833.79	1490.10	475.94	99948.2	1339.68	1.09	-0.628	0.000	0.633
17.00	-15.49	-10.30	0.00	-823.44	0.00	823.44	1490.10	475.94	99948.2	1339.68	1.22	-0.663	0.000	0.626
18.00	-15.32	-10.24	0.00	-813.13	0.00	813.13	1490.10	475.94	99948.2	1339.68	1.37	-0.698	0.000	0.618
19.00	-15.16	-10.19	0.00	-802.89	0.00	802.89	1490.10	475.94	99948.2	1339.68	1.52	-0.733	0.000	0.610
20.00	-14.99	-10.13	0.00	-792.70	0.00	792.70	1490.10	475.94	99948.2	1339.68	1.67	-0.767	0.000	0.602
20.00	-14.99	-10.13	0.00	-792.70	0.00	792.70	1311.06	395.78	69116.5	948.43	1.67	-0.767	0.000	0.848
21.00	-14.85	-10.08	0.00	-782.58	0.00	782.58	1311.06	395.78	69116.5	948.43	1.84	-0.800	0.000	0.837
22.00	-14.70	-10.04	0.00	-772.50	0.00	772.50	1311.06	395.78	69116.5	948.43	2.01	-0.858	0.000	0.826
23.00	-14.55	-9.99	0.00	-762.46	0.00	762.46	1311.06	395.78	69116.5	948.43	2.20	-0.915	0.000	0.816
24.00	-14.40	-9.95	0.00	-752.47	0.00	752.47	1311.06	395.78	69116.5	948.43	2.40	-0.971	0.000	0.805
25.00	-14.26	-9.90	0.00	-742.52	0.00	742.52	1311.06	395.78	69116.5	948.43	2.61	-1.027	0.000	0.794
26.00	-14.11	-9.85	0.00	-732.62	0.00	732.62	1311.06	395.78	69116.5	948.43	2.83	-1.082	0.000	0.784
27.00	-13.96	-9.80	0.00	-722.77	0.00	722.77	1311.06	395.78	69116.5	948.43	3.06	-1.136	0.000	0.773
28.00	-13.82	-9.75	0.00	-712.97	0.00	712.97	1311.06	395.78	69116.5	948.43	3.30	-1.189	0.000	0.763
29.00	-13.67	-9.70	0.00	-703.21	0.00	703.21	1311.06	395.78	69116.5	948.43	3.56	-1.242	0.000	0.752
30.00	-13.52	-9.65	0.00	-693.51	0.00	693.51	1311.06	395.78	69116.5	948.43	3.82	-1.293	0.000	0.742
31.00	-13.38	-9.60	0.00	-683.86	0.00	683.86	1311.06	395.78	69116.5	948.43	4.10	-1.345	0.000	0.732
32.00	-13.23	-9.55	0.00	-674.26	0.00	674.26	1311.06	395.78	69116.5	948.43	4.39	-1.395	0.000	0.722
33.00	-13.09	-9.49	0.00	-664.71	0.00	664.71	1311.06	395.78	69116.5	948.43	4.68	-1.445	0.000	0.711
34.00	-12.94	-9.44	0.00	-655.22	0.00	655.22	1311.06	395.78	69116.5	948.43	4.99	-1.494	0.000	0.701
35.00	-12.80	-9.38	0.00	-645.78	0.00	645.78	1311.06	395.78	69116.5	948.43	5.31	-1.542	0.000	0.691
36.00	-12.65	-9.33	0.00	-636.40	0.00	636.40	1311.06	395.78	69116.5	948.43	5.64	-1.590	0.000	0.681
37.00	-12.51	-9.27	0.00	-627.07	0.00	627.07	1311.06	395.78	69116.5	948.43	5.98	-1.636	0.000	0.671
38.00	-12.36	-9.21	0.00	-617.80	0.00	617.80	1311.06	395.78	69116.5	948.43	6.32	-1.683	0.000	0.661
39.00	-12.22	-9.16	0.00	-608.58	0.00	608.58	1311.06	395.78	69116.5	948.43	6.68	-1.728	0.000	0.652
40.00	-12.07	-9.10	0.00	-599.43	0.00	599.43	1311.06	395.78	69116.5	948.43	7.05	-1.773	0.000	0.642
41.00	-11.93	-9.04	0.00	-590.33	0.00	590.33	1311.06	395.78	69116.5	948.43	7.42	-1.817	0.000	0.632
42.00	-11.79	-8.98	0.00	-581.29	0.00	581.29	1311.06	395.78	69116.5	948.43	7.81	-1.861	0.000	0.622
43.00	-11.64	-8.92	0.00	-572.32	0.00	572.32	1311.06	395.78	69116.5	948.43	8.20	-1.904	0.000	0.613
44.00	-11.50	-8.85	0.00	-563.40	0.00	563.40	1311.06	395.78	69116.5	948.43	8.61	-1.946	0.000	0.603
45.00	-11.36	-8.79	0.00	-554.55	0.00	554.55	1311.06	395.78	69116.5	948.43	9.02	-1.987	0.000	0.594
46.00	-11.22	-8.73	0.00	-545.76	0.00	545.76	1311.06	395.78	69116.5	948.43	9.44	-2.028	0.000	0.584

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 30



47.00	-11.07	-8.67	0.00	-537.03	0.00	537.03	1311.06	395.78	69116.5	948.43	9.87	-2.068	0.000	0.575
48.00	-10.93	-8.60	0.00	-528.36	0.00	528.36	1311.06	395.78	69116.5	948.43	10.31	-2.108	0.000	0.566
49.00	-10.79	-8.54	0.00	-519.76	0.00	519.76	1311.06	395.78	69116.5	948.43	10.75	-2.147	0.000	0.557
50.00	-10.65	-8.47	0.00	-511.22	0.00	511.22	1311.06	395.78	69116.5	948.43	11.21	-2.185	0.000	0.548
50.00	-10.65	-8.47	0.00	-511.22	0.00	511.22	1052.07	315.62	43955.0	624.04	11.21	-2.185	0.000	0.830
51.00	-10.53	-8.42	0.00	-502.75	0.00	502.75	1052.07	315.62	43955.0	624.04	11.67	-2.223	0.000	0.816
52.00	-10.40	-8.38	0.00	-494.33	0.00	494.33	1052.07	315.62	43955.0	624.04	12.14	-2.296	0.000	0.803
53.00	-10.27	-8.33	0.00	-485.95	0.00	485.95	1052.07	315.62	43955.0	624.04	12.63	-2.367	0.000	0.789
54.00	-10.15	-8.28	0.00	-477.62	0.00	477.62	1052.07	315.62	43955.0	624.04	13.13	-2.438	0.000	0.776
55.00	-10.03	-8.24	0.00	-469.34	0.00	469.34	1052.07	315.62	43955.0	624.04	13.65	-2.507	0.000	0.762
56.00	-9.90	-8.19	0.00	-461.10	0.00	461.10	1052.07	315.62	43955.0	624.04	14.18	-2.575	0.000	0.749
57.00	-9.78	-8.14	0.00	-452.91	0.00	452.91	1052.07	315.62	43955.0	624.04	14.73	-2.642	0.000	0.736
58.00	-9.65	-8.09	0.00	-444.77	0.00	444.77	1052.07	315.62	43955.0	624.04	15.29	-2.708	0.000	0.723
59.00	-9.53	-8.04	0.00	-436.68	0.00	436.68	1052.07	315.62	43955.0	624.04	15.86	-2.773	0.000	0.709
60.00	-9.41	-7.99	0.00	-428.65	0.00	428.65	1052.07	315.62	43955.0	624.04	16.45	-2.836	0.000	0.696
61.00	-9.28	-7.94	0.00	-420.66	0.00	420.66	1052.07	315.62	43955.0	624.04	17.05	-2.898	0.000	0.684
62.00	-9.16	-7.88	0.00	-412.72	0.00	412.72	1052.07	315.62	43955.0	624.04	17.66	-2.959	0.000	0.671
63.00	-9.04	-7.83	0.00	-404.84	0.00	404.84	1052.07	315.62	43955.0	624.04	18.29	-3.019	0.000	0.658
64.00	-8.92	-7.78	0.00	-397.01	0.00	397.01	1052.07	315.62	43955.0	624.04	18.93	-3.078	0.000	0.645
65.00	-8.80	-7.72	0.00	-389.24	0.00	389.24	1052.07	315.62	43955.0	624.04	19.58	-3.135	0.000	0.633
66.00	-8.68	-7.67	0.00	-381.51	0.00	381.51	1052.07	315.62	43955.0	624.04	20.24	-3.192	0.000	0.620
67.00	-8.55	-7.61	0.00	-373.85	0.00	373.85	1052.07	315.62	43955.0	624.04	20.92	-3.247	0.000	0.608
68.00	-8.43	-7.56	0.00	-366.24	0.00	366.24	1052.07	315.62	43955.0	624.04	21.60	-3.301	0.000	0.595
69.00	-8.31	-7.50	0.00	-358.68	0.00	358.68	1052.07	315.62	43955.0	624.04	22.30	-3.354	0.000	0.583
70.00	-8.19	-7.44	0.00	-351.18	0.00	351.18	1052.07	315.62	43955.0	624.04	23.01	-3.406	0.000	0.571
71.00	-8.07	-7.38	0.00	-343.74	0.00	343.74	1052.07	315.62	43955.0	624.04	23.72	-3.457	0.000	0.559
72.00	-7.95	-7.33	0.00	-336.35	0.00	336.35	1052.07	315.62	43955.0	624.04	24.45	-3.507	0.000	0.547
73.00	-7.83	-7.27	0.00	-329.03	0.00	329.03	1052.07	315.62	43955.0	624.04	25.19	-3.555	0.000	0.535
74.00	-7.72	-7.21	0.00	-321.76	0.00	321.76	1052.07	315.62	43955.0	624.04	25.94	-3.603	0.000	0.523
75.00	-7.59	-7.11	0.00	-314.55	0.00	314.55	1052.07	315.62	43955.0	624.04	26.70	-3.650	0.000	0.512
76.00	-7.47	-7.05	0.00	-307.44	0.00	307.44	1052.07	315.62	43955.0	624.04	27.47	-3.695	0.000	0.500
77.00	-7.35	-6.99	0.00	-300.40	0.00	300.40	1052.07	315.62	43955.0	624.04	28.25	-3.740	0.000	0.489
78.00	-7.23	-6.93	0.00	-293.41	0.00	293.41	1052.07	315.62	43955.0	624.04	29.04	-3.783	0.000	0.478
79.00	-7.12	-6.87	0.00	-286.48	0.00	286.48	1052.07	315.62	43955.0	624.04	29.83	-3.826	0.000	0.466
80.00	-7.00	-6.80	0.00	-279.62	0.00	279.62	1052.07	315.62	43955.0	624.04	30.64	-3.867	0.000	0.455
80.00	-7.00	-6.80	0.00	-279.62	0.00	279.62	1052.07	315.62	43955.0	624.04	30.64	-3.867	0.000	0.455
81.00	-6.88	-6.74	0.00	-272.81	0.00	272.81	1052.07	315.62	43955.0	624.04	31.45	-3.907	0.000	0.444
82.00	-6.76	-6.68	0.00	-266.07	0.00	266.07	1052.07	315.62	43955.0	624.04	32.27	-3.947	0.000	0.433
83.00	-6.65	-6.61	0.00	-259.39	0.00	259.39	1052.07	315.62	43955.0	624.04	33.10	-3.985	0.000	0.422
84.00	-6.53	-6.55	0.00	-252.78	0.00	252.78	1052.07	315.62	43955.0	624.04	33.94	-4.023	0.000	0.412
85.00	-6.41	-6.49	0.00	-246.23	0.00	246.23	1052.07	315.62	43955.0	624.04	34.79	-4.059	0.000	0.401
86.00	-6.30	-6.42	0.00	-239.74	0.00	239.74	1052.07	315.62	43955.0	624.04	35.64	-4.095	0.000	0.391
87.00	-6.18	-6.36	0.00	-233.32	0.00	233.32	1052.07	315.62	43955.0	624.04	36.50	-4.130	0.000	0.380
88.00	-6.07	-6.29	0.00	-226.96	0.00	226.96	1052.07	315.62	43955.0	624.04	37.37	-4.163	0.000	0.370
89.00	-5.95	-6.23	0.00	-220.67	0.00	220.67	1052.07	315.62	43955.0	624.04	38.24	-4.196	0.000	0.360
90.00	-5.84	-6.16	0.00	-214.44	0.00	214.44	1052.07	315.62	43955.0	624.04	39.13	-4.228	0.000	0.350
91.00	-5.72	-6.09	0.00	-208.28	0.00	208.28	1052.07	315.62	43955.0	624.04	40.01	-4.259	0.000	0.340
92.00	-5.60	-6.03	0.00	-202.19	0.00	202.19	1052.07	315.62	43955.0	624.04	40.91	-4.289	0.000	0.330
93.00	-5.49	-5.96	0.00	-196.16	0.00	196.16	1052.07	315.62	43955.0	624.04	41.81	-4.318	0.000	0.320
94.00	-5.37	-5.89	0.00	-190.20	0.00	190.20	1052.07	315.62	43955.0	624.04	42.72	-4.346	0.000	0.310
95.00	-5.26	-5.83	0.00	-184.31	0.00	184.31	1052.07	315.62	43955.0	624.04	43.63	-4.374	0.000	0.301
96.00	-5.15	-5.76	0.00	-178.48	0.00	178.48	1052.07	315.62	43955.0	624.04	44.55	-4.400	0.000	0.291
97.00	-5.03	-5.69	0.00	-172.72	0.00	172.72	1052.07	315.62	43955.0	624.04	45.47	-4.426	0.000	0.282
98.00	-4.92	-5.62	0.00	-167.04	0.00	167.04	1052.07	315.62	43955.0	624.04	46.40	-4.451	0.000	0.273
99.00	-4.80	-5.55	0.00	-161.42	0.00	161.42	1052.07	315.62	43955.0	624.04	47.33	-4.475	0.000	0.264
100.00	-4.69	-5.48	0.00	-155.86	0.00	155.86	1052.07	315.62	43955.0	624.04	48.27	-4.498	0.000	0.255
101.00	-4.57	-5.41	0.00	-150.38	0.00	150.38	1052.07	315.62	43955.0	624.04	49.22	-4.521	0.000	0.246

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
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102.00	-4.46	-5.34	0.00	-144.97	0.00	144.97	1052.07	315.62	43955.0	624.04	50.16	-4.542	0.000	0.237
103.00	-4.35	-5.27	0.00	-139.63	0.00	139.63	1052.07	315.62	43955.0	624.04	51.12	-4.563	0.000	0.228
104.00	-4.23	-5.20	0.00	-134.35	0.00	134.35	1052.07	315.62	43955.0	624.04	52.07	-4.583	0.000	0.220
105.00	-4.12	-5.13	0.00	-129.15	0.00	129.15	1052.07	315.62	43955.0	624.04	53.03	-4.602	0.000	0.211
106.00	-4.01	-5.06	0.00	-124.02	0.00	124.02	1052.07	315.62	43955.0	624.04	54.00	-4.621	0.000	0.203
107.00	-3.89	-4.99	0.00	-118.96	0.00	118.96	1052.07	315.62	43955.0	624.04	54.97	-4.639	0.000	0.195
108.00	-3.77	-4.92	0.00	-113.97	0.00	113.97	1052.07	315.62	43955.0	624.04	55.94	-4.656	0.000	0.186
108.00	-3.77	-4.92	0.00	-113.97	0.00	113.97	1052.07	315.62	43955.0	624.04	55.94	-4.656	0.000	0.186
109.00	-3.65	-4.81	0.00	-109.05	0.00	109.05	1052.07	315.62	43955.0	624.04	56.92	-4.672	0.000	0.178
110.00	-3.46	-4.70	0.00	-104.24	0.00	104.24	1052.07	315.62	43955.0	624.04	57.90	-4.688	0.000	0.106
110.00	-3.46	-4.70	0.00	-104.24	0.00	104.24	682.83	204.85	11780.8	105.20	57.90	-4.688	0.000	0.026
111.00	-3.37	-4.60	0.00	-99.54	0.00	99.54	682.83	204.85	11780.8	105.20	58.88	-4.697	0.000	0.255
111.50	-3.33	-4.55	0.00	-97.24	0.00	97.24	682.83	204.85	11780.8	105.20	59.37	-4.747	0.000	0.249
111.50	-3.33	-4.55	0.00	-97.24	0.00	97.24	682.83	204.85	11780.8	105.20	59.37	-4.747	0.000	0.667
112.00	-3.27	-4.51	0.00	-94.96	0.00	94.96	682.83	204.85	11780.8	105.20	59.87	-4.795	0.000	0.908
113.00	-3.15	-4.43	0.00	-90.44	0.00	90.44	682.83	204.85	11780.8	105.20	60.91	-5.148	0.000	0.865
114.00	-3.04	-4.34	0.00	-86.02	0.00	86.02	682.83	204.85	11780.8	105.20	62.02	-5.484	0.000	0.823
115.00	-2.74	-4.23	0.00	-81.67	0.00	81.67	682.83	204.85	11780.8	105.20	63.20	-5.804	0.000	0.781
116.00	-2.64	-4.14	0.00	-77.44	0.00	77.44	682.83	204.85	11780.8	105.20	64.45	-6.107	0.000	0.740
117.00	-2.54	-4.05	0.00	-73.30	0.00	73.30	682.83	204.85	11780.8	105.20	65.76	-6.394	0.000	0.701
118.00	-2.44	-3.95	0.00	-69.25	0.00	69.25	682.83	204.85	11780.8	105.20	67.12	-6.665	0.000	0.662
119.00	-2.35	-3.86	0.00	-65.29	0.00	65.29	682.83	204.85	11780.8	105.20	68.54	-6.921	0.000	0.624
120.00	-2.14	-3.74	0.00	-61.44	0.00	61.44	682.83	204.85	11780.8	105.20	70.01	-7.162	0.000	0.587
121.00	-2.05	-3.64	0.00	-57.69	0.00	57.69	682.83	204.85	11780.8	105.20	71.53	-7.389	0.000	0.552
122.00	-1.96	-3.54	0.00	-54.05	0.00	54.05	682.83	204.85	11780.8	105.20	73.10	-7.602	0.000	0.517
123.00	-1.87	-3.44	0.00	-50.50	0.00	50.50	682.83	204.85	11780.8	105.20	74.71	-7.801	0.000	0.483
124.00	-1.78	-3.34	0.00	-47.06	0.00	47.06	682.83	204.85	11780.8	105.20	76.36	-7.987	0.000	0.450
125.00	-1.70	-3.23	0.00	-43.72	0.00	43.72	682.83	204.85	11780.8	105.20	78.04	-8.160	0.000	0.418
126.00	-1.62	-3.13	0.00	-40.49	0.00	40.49	682.83	204.85	11780.8	105.20	79.76	-8.320	0.000	0.388
127.00	-1.38	-3.00	0.00	-37.36	0.00	37.36	682.83	204.85	11780.8	105.20	81.51	-8.468	0.000	0.357
128.00	-1.31	-2.89	0.00	-34.36	0.00	34.36	682.83	204.85	11780.8	105.20	83.29	-8.605	0.000	0.329
129.00	-1.24	-2.79	0.00	-31.47	0.00	31.47	682.83	204.85	11780.8	105.20	85.10	-8.730	0.000	0.301
130.00	-1.05	-2.66	0.00	-28.69	0.00	28.69	682.83	204.85	11780.8	105.20	86.94	-8.845	0.000	0.274
130.00	-1.05	-2.66	0.00	-28.69	0.00	28.69	317.71	95.31	3734.62	52.28	86.94	-8.845	0.000	0.553
131.00	-1.01	-2.56	0.00	-26.03	0.00	26.03	317.71	95.31	3734.62	52.28	88.79	-8.949	0.000	0.502
132.00	-0.97	-2.45	0.00	-23.47	0.00	23.47	317.71	95.31	3734.62	52.28	90.68	-9.124	0.000	0.453
133.00	-0.92	-2.35	0.00	-21.01	0.00	21.01	317.71	95.31	3734.62	52.28	92.60	-9.280	0.000	0.406
134.00	-0.88	-2.25	0.00	-18.66	0.00	18.66	317.71	95.31	3734.62	52.28	94.55	-9.420	0.000	0.360
135.00	-0.66	-2.11	0.00	-16.42	0.00	16.42	317.71	95.31	3734.62	52.28	96.53	-9.544	0.000	0.317
136.00	-0.63	-2.01	0.00	-14.31	0.00	14.31	317.71	95.31	3734.62	52.28	98.53	-9.653	0.000	0.276
137.00	-0.60	-1.90	0.00	-12.30	0.00	12.30	317.71	95.31	3734.62	52.28	100.55	-9.746	0.000	0.238
138.00	-0.57	-1.80	0.00	-10.40	0.00	10.40	317.71	95.31	3734.62	52.28	102.59	-9.827	0.000	0.201
139.00	-0.54	-1.69	0.00	-8.61	0.00	8.61	317.71	95.31	3734.62	52.28	104.64	-9.894	0.000	0.167
140.00	-0.44	-1.18	0.00	-6.92	0.00	6.92	317.71	95.31	3734.62	52.28	106.71	-9.948	0.000	0.134
141.00	-0.41	-1.08	0.00	-5.74	0.00	5.74	317.71	95.31	3734.62	52.28	108.79	-9.993	0.000	0.111
142.00	-0.38	-0.97	0.00	-4.66	0.00	4.66	317.71	95.31	3734.62	52.28	110.88	-10.030	0.000	0.090
143.00	-0.35	-0.86	0.00	-3.69	0.00	3.69	317.71	95.31	3734.62	52.28	112.97	-10.059	0.000	0.072
144.00	-0.33	-0.76	0.00	-2.83	0.00	2.83	317.71	95.31	3734.62	52.28	115.07	-10.082	0.000	0.055
145.00	-0.13	-0.62	0.00	-2.07	0.00	2.07	317.71	95.31	3734.62	52.28	117.17	-10.099	0.000	0.040
146.00	-0.11	-0.51	0.00	-1.46	0.00	1.46	317.71	95.31	3734.62	52.28	119.28	-10.112	0.000	0.028
147.00	-0.10	-0.41	0.00	-0.94	0.00	0.94	317.71	95.31	3734.62	52.28	121.38	-10.120	0.000	0.018
148.00	-0.08	-0.30	0.00	-0.54	0.00	0.54	317.71	95.31	3734.62	52.28	123.49	-10.126	0.000	0.011
149.00	-0.06	-0.20	0.00	-0.24	0.00	0.24	317.71	95.31	3734.62	52.28	125.60	-10.128	0.000	0.005
150.00	0.00	-0.18	0.00	-0.04	0.00	0.04	317.71	95.31	3734.62	52.28	127.71	-10.129	0.000	0.001

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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

**Iterations** 43

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.060	5.57	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.85	5.060	5.57	0.00	1.200	0.705	1.00	3.117	3.74	20.8	31.6	203.0
2.00		1.00	0.85	5.060	5.57	0.00	1.200	0.756	1.00	3.126	3.75	20.9	33.9	205.3
3.00		1.00	0.85	5.060	5.57	0.00	1.200	0.787	1.00	3.131	3.76	20.9	35.4	206.7
4.00		1.00	0.85	5.060	5.57	0.00	1.200	0.810	1.00	3.135	3.76	20.9	36.4	207.8
5.00		1.00	0.85	5.060	5.57	0.00	1.200	0.828	1.00	3.138	3.77	21.0	37.3	208.6
6.00		1.00	0.85	5.060	5.57	0.00	1.200	0.843	1.00	3.141	3.77	21.0	38.0	209.3
7.00		1.00	0.85	5.060	5.57	0.00	1.200	0.856	1.00	3.143	3.77	21.0	38.6	209.9
8.00		1.00	0.85	5.060	5.57	0.00	1.200	0.868	1.00	3.145	3.77	21.0	39.1	210.5
9.00		1.00	0.85	5.060	5.57	0.00	1.200	0.878	1.00	3.146	3.78	21.0	39.6	210.9
10.00		1.00	0.85	5.060	5.57	0.00	1.200	0.887	1.00	3.148	3.78	21.0	40.0	211.4
11.00		1.00	0.85	5.060	5.57	0.00	1.200	0.896	1.00	3.149	3.78	21.0	40.4	211.8
12.00		1.00	0.85	5.060	5.57	0.00	1.200	0.904	1.00	3.151	3.78	21.0	40.7	212.1
13.00		1.00	0.85	5.060	5.57	0.00	1.200	0.911	1.00	3.152	3.78	21.1	41.1	212.5
14.00		1.00	0.85	5.060	5.57	0.00	1.200	0.918	1.00	3.153	3.78	21.1	41.4	212.8
15.00		1.00	0.85	5.060	5.57	0.00	1.200	0.924	1.00	3.154	3.78	21.1	41.7	213.1
16.00		1.00	0.86	5.123	5.64	0.00	1.200	0.930	1.00	3.155	3.79	21.3	42.0	213.3
17.00		1.00	0.87	5.189	5.71	0.00	1.200	0.936	1.00	3.156	3.79	21.6	42.2	213.6
18.00		1.00	0.88	5.252	5.78	0.00	1.200	0.941	1.00	3.157	3.79	21.9	42.5	213.9
19.00		1.00	0.89	5.312	5.84	0.00	1.200	0.946	1.00	3.158	3.79	22.1	42.7	214.1
20.00	Top - Section 1	1.00	0.90	5.369	5.91	0.00	1.200	0.951	1.00	3.159	3.79	22.4	42.9	214.3
21.00		1.00	0.91	5.425	5.97	0.00	1.200	0.956	1.00	2.659	3.19	19.0	36.1	178.7
22.00		1.00	0.92	5.478	6.03	0.00	1.200	0.960	1.00	2.660	3.19	19.2	36.3	178.8
23.00		1.00	0.93	5.530	6.08	0.00	1.200	0.965	1.00	2.661	3.19	19.4	36.5	179.0
24.00		1.00	0.94	5.579	6.14	0.00	1.200	0.969	1.00	2.661	3.19	19.6	36.6	179.2
25.00		1.00	0.95	5.628	6.19	0.00	1.200	0.973	1.00	2.662	3.19	19.8	36.8	179.3
26.00		1.00	0.95	5.674	6.24	0.00	1.200	0.976	1.00	2.663	3.20	19.9	37.0	179.5
27.00		1.00	0.96	5.719	6.29	0.00	1.200	0.980	1.00	2.663	3.20	20.1	37.1	179.6
28.00		1.00	0.97	5.763	6.34	0.00	1.200	0.984	1.00	2.664	3.20	20.3	37.2	179.7
29.00		1.00	0.98	5.806	6.39	0.00	1.200	0.987	1.00	2.665	3.20	20.4	37.4	179.9
30.00		1.00	0.98	5.848	6.43	0.00	1.200	0.991	1.00	2.665	3.20	20.6	37.5	180.0
31.00		1.00	0.99	5.888	6.48	0.00	1.200	0.994	1.00	2.666	3.20	20.7	37.6	180.1
32.00		1.00	1.00	5.928	6.52	0.00	1.200	0.997	1.00	2.666	3.20	20.9	37.8	180.3
33.00		1.00	1.00	5.966	6.56	0.00	1.200	1.000	1.00	2.667	3.20	21.0	37.9	180.4
34.00		1.00	1.01	6.004	6.60	0.00	1.200	1.003	1.00	2.667	3.20	21.1	38.0	180.5
35.00		1.00	1.01	6.041	6.64	0.00	1.200	1.006	1.00	2.668	3.20	21.3	38.1	180.6
36.00		1.00	1.02	6.077	6.68	0.00	1.200	1.009	1.00	2.668	3.20	21.4	38.2	180.7
37.00		1.00	1.03	6.112	6.72	0.00	1.200	1.012	1.00	2.669	3.20	21.5	38.3	180.8
38.00		1.00	1.03	6.146	6.76	0.00	1.200	1.014	1.00	2.669	3.20	21.7	38.4	180.9
39.00		1.00	1.04	6.180	6.80	0.00	1.200	1.017	1.00	2.669	3.20	21.8	38.5	181.0
40.00		1.00	1.04	6.213	6.83	0.00	1.200	1.019	1.00	2.670	3.20	21.9	38.6	181.1
41.00		1.00	1.05	6.245	6.87	0.00	1.200	1.022	1.00	2.670	3.20	22.0	38.7	181.2
42.00		1.00	1.05	6.277	6.90	0.00	1.200	1.024	1.00	2.671	3.20	22.1	38.8	181.3
43.00		1.00	1.06	6.308	6.94	0.00	1.200	1.027	1.00	2.671	3.21	22.2	38.9	181.4
44.00		1.00	1.06	6.339	6.97	0.00	1.200	1.029	1.00	2.672	3.21	22.4	39.0	181.5
45.00		1.00	1.07	6.369	7.01	0.00	1.200	1.032	1.00	2.672	3.21	22.5	39.1	181.6
46.00		1.00	1.07	6.398	7.04	0.00	1.200	1.034	1.00	2.672	3.21	22.6	39.2	181.7

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



47.00	1.00	1.08	6.427	7.07	0.00	1.200	1.036	1.00	2.673	3.21	22.7	39.3	181.8
48.00	1.00	1.08	6.456	7.10	0.00	1.200	1.038	1.00	2.673	3.21	22.8	39.4	181.9
49.00	1.00	1.09	6.484	7.13	0.00	1.200	1.040	1.00	2.673	3.21	22.9	39.5	182.0
50.00 Top - Section 2	1.00	1.09	6.512	7.16	0.00	1.200	1.042	1.00	2.674	3.21	23.0	39.5	182.0
51.00	1.00	1.10	6.539	7.19	0.00	1.200	1.044	1.00	2.174	2.61	18.8	32.0	145.6
52.00	1.00	1.10	6.566	7.22	0.00	1.200	1.047	1.00	2.174	2.61	18.8	32.0	145.7
53.00	1.00	1.11	6.592	7.25	0.00	1.200	1.049	1.00	2.175	2.61	18.9	32.1	145.7
54.00	1.00	1.11	6.618	7.28	0.00	1.200	1.050	1.00	2.175	2.61	19.0	32.1	145.8
55.00	1.00	1.12	6.644	7.31	0.00	1.200	1.052	1.00	2.175	2.61	19.1	32.2	145.9
56.00	1.00	1.12	6.669	7.34	0.00	1.200	1.054	1.00	2.176	2.61	19.2	32.3	145.9
57.00	1.00	1.12	6.694	7.36	0.00	1.200	1.056	1.00	2.176	2.61	19.2	32.3	146.0
58.00	1.00	1.13	6.718	7.39	0.00	1.200	1.058	1.00	2.176	2.61	19.3	32.4	146.0
59.00	1.00	1.13	6.743	7.42	0.00	1.200	1.060	1.00	2.177	2.61	19.4	32.4	146.1
60.00	1.00	1.14	6.767	7.44	0.00	1.200	1.062	1.00	2.177	2.61	19.4	32.5	146.2
61.00	1.00	1.14	6.790	7.47	0.00	1.200	1.063	1.00	2.177	2.61	19.5	32.6	146.2
62.00	1.00	1.14	6.813	7.49	0.00	1.200	1.065	1.00	2.178	2.61	19.6	32.6	146.3
63.00	1.00	1.15	6.836	7.52	0.00	1.200	1.067	1.00	2.178	2.61	19.7	32.7	146.3
64.00	1.00	1.15	6.859	7.54	0.00	1.200	1.068	1.00	2.178	2.61	19.7	32.7	146.4
65.00	1.00	1.16	6.882	7.57	0.00	1.200	1.070	1.00	2.178	2.61	19.8	32.8	146.4
66.00	1.00	1.16	6.904	7.59	0.00	1.200	1.072	1.00	2.179	2.61	19.9	32.8	146.5
67.00	1.00	1.16	6.926	7.62	0.00	1.200	1.073	1.00	2.179	2.61	19.9	32.9	146.5
68.00	1.00	1.17	6.947	7.64	0.00	1.200	1.075	1.00	2.179	2.61	20.0	32.9	146.6
69.00	1.00	1.17	6.969	7.67	0.00	1.200	1.077	1.00	2.179	2.62	20.0	33.0	146.6
70.00	1.00	1.17	6.990	7.69	0.00	1.200	1.078	1.00	2.180	2.62	20.1	33.0	146.7
71.00	1.00	1.18	7.011	7.71	0.00	1.200	1.080	1.00	2.180	2.62	20.2	33.1	146.7
72.00	1.00	1.18	7.031	7.73	0.00	1.200	1.081	1.00	2.180	2.62	20.2	33.1	146.8
73.00	1.00	1.18	7.052	7.76	0.00	1.200	1.083	1.00	2.180	2.62	20.3	33.2	146.8
74.00	1.00	1.19	7.072	7.78	0.00	1.200	1.084	1.00	2.181	2.62	20.4	33.2	146.9
75.00 Appurtenance(s)	1.00	1.19	7.092	7.80	0.00	1.200	1.086	1.00	2.181	2.62	20.4	33.3	146.9
76.00	1.00	1.19	7.112	7.82	0.00	1.200	1.087	1.00	2.181	2.62	20.5	33.3	147.0
77.00	1.00	1.20	7.131	7.84	0.00	1.200	1.088	1.00	2.181	2.62	20.5	33.4	147.0
78.00	1.00	1.20	7.151	7.87	0.00	1.200	1.090	1.00	2.182	2.62	20.6	33.4	147.1
79.00	1.00	1.20	7.170	7.89	0.00	1.200	1.091	1.00	2.182	2.62	20.7	33.5	147.1
80.00 Top - Section 3	1.00	1.21	7.189	7.91	0.00	1.200	1.093	1.00	2.182	2.62	20.7	33.5	147.1
81.00	1.00	1.21	7.208	7.93	0.00	1.200	1.094	1.00	2.182	2.62	20.8	33.5	147.2
82.00	1.00	1.21	7.226	7.95	0.00	1.200	1.095	1.00	2.183	2.62	20.8	33.6	147.2
83.00	1.00	1.22	7.245	7.97	0.00	1.200	1.097	1.00	2.183	2.62	20.9	33.6	147.3
84.00	1.00	1.22	7.263	7.99	0.00	1.200	1.098	1.00	2.183	2.62	20.9	33.7	147.3
85.00	1.00	1.22	7.281	8.01	0.00	1.200	1.099	1.00	2.183	2.62	21.0	33.7	147.4
86.00	1.00	1.23	7.299	8.03	0.00	1.200	1.101	1.00	2.183	2.62	21.0	33.7	147.4
87.00	1.00	1.23	7.317	8.05	0.00	1.200	1.102	1.00	2.184	2.62	21.1	33.8	147.4
88.00	1.00	1.23	7.335	8.07	0.00	1.200	1.103	1.00	2.184	2.62	21.1	33.8	147.5
89.00	1.00	1.23	7.352	8.09	0.00	1.200	1.104	1.00	2.184	2.62	21.2	33.9	147.5
90.00	1.00	1.24	7.369	8.11	0.00	1.200	1.106	1.00	2.184	2.62	21.2	33.9	147.6
91.00	1.00	1.24	7.387	8.13	0.00	1.200	1.107	1.00	2.184	2.62	21.3	33.9	147.6
92.00	1.00	1.24	7.404	8.14	0.00	1.200	1.108	1.00	2.185	2.62	21.4	34.0	147.6
93.00	1.00	1.25	7.421	8.16	0.00	1.200	1.109	1.00	2.185	2.62	21.4	34.0	147.7
94.00	1.00	1.25	7.437	8.18	0.00	1.200	1.110	1.00	2.185	2.62	21.5	34.1	147.7
95.00	1.00	1.25	7.454	8.20	0.00	1.200	1.112	1.00	2.185	2.62	21.5	34.1	147.8
96.00	1.00	1.25	7.470	8.22	0.00	1.200	1.113	1.00	2.185	2.62	21.6	34.1	147.8
97.00	1.00	1.26	7.487	8.24	0.00	1.200	1.114	1.00	2.186	2.62	21.6	34.2	147.8
98.00	1.00	1.26	7.503	8.25	0.00	1.200	1.115	1.00	2.186	2.62	21.6	34.2	147.9
99.00	1.00	1.26	7.519	8.27	0.00	1.200	1.116	1.00	2.186	2.62	21.7	34.2	147.9
100.00	1.00	1.27	7.535	8.29	0.00	1.200	1.117	1.00	2.186	2.62	21.7	34.3	147.9
101.00	1.00	1.27	7.551	8.31	0.00	1.200	1.118	1.00	2.186	2.62	21.8	34.3	148.0
102.00	1.00	1.27	7.566	8.32	0.00	1.200	1.119	1.00	2.187	2.62	21.8	34.4	148.0
103.00	1.00	1.27	7.582	8.34	0.00	1.200	1.121	1.00	2.187	2.62	21.9	34.4	148.0

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 34



104.00	1.00	1.28	7.597	8.36	0.00	1.200	1.122	1.00	2.187	2.62	21.9	34.4	148.1
105.00	1.00	1.28	7.613	8.37	0.00	1.200	1.123	1.00	2.187	2.62	22.0	34.5	148.1
106.00	1.00	1.28	7.628	8.39	0.00	1.200	1.124	1.00	2.187	2.62	22.0	34.5	148.1
107.00	1.00	1.28	7.643	8.41	0.00	1.200	1.125	1.00	2.187	2.62	22.1	34.5	148.2
108.00 Top - Section 4	1.00	1.29	7.658	8.42	0.00	1.200	1.126	1.00	2.188	2.63	22.1	34.6	148.2
109.00	1.00	1.29	7.673	8.44	0.00	1.200	1.127	1.00	3.000	3.60	30.4	84.3	209.5
110.00 Top - Section 5 RB1	1.00	1.29	7.687	8.46	0.00	1.200	1.128	1.00	3.000	3.60	30.4	84.3	209.5
111.00	1.00	1.29	7.702	8.47	0.00	1.200	1.129	1.00	3.000	3.60	30.5	84.3	209.5
111.50 RT1	1.00	1.29	7.709	8.48	0.00	1.200	1.129	0.50	1.500	1.80	15.3	30.3	72.9
112.00	1.00	1.30	7.717	8.49	0.00	1.200	1.130	0.50	1.500	1.80	15.3	30.3	72.9
113.00	1.00	1.30	7.731	8.50	0.00	1.200	1.131	1.00	3.000	3.60	30.6	60.6	145.9
114.00	1.00	1.30	7.746	8.52	0.00	1.200	1.132	1.00	3.000	3.60	30.7	60.6	145.9
115.00 Appurtenance(s)	1.00	1.30	7.760	8.54	0.00	1.200	1.133	1.00	3.000	3.60	30.7	60.6	145.9
116.00	1.00	1.31	7.774	8.55	0.00	1.200	1.134	1.00	3.000	3.60	30.8	60.6	145.9
117.00	1.00	1.31	7.788	8.57	0.00	1.200	1.135	1.00	3.000	3.60	30.8	60.6	145.9
118.00	1.00	1.31	7.802	8.58	0.00	1.200	1.136	1.00	3.000	3.60	30.9	60.6	145.9
119.00	1.00	1.31	7.816	8.60	0.00	1.200	1.137	1.00	3.000	3.60	31.0	60.6	145.9
120.00 Appurtenance(s)	1.00	1.32	7.830	8.61	0.00	1.200	1.138	1.00	3.000	3.60	31.0	60.7	145.9
121.00	1.00	1.32	7.843	8.63	0.00	1.200	1.139	1.00	3.000	3.60	31.1	60.7	145.9
122.00	1.00	1.32	7.857	8.64	0.00	1.200	1.140	1.00	3.000	3.60	31.1	60.7	146.0
123.00	1.00	1.32	7.870	8.66	0.00	1.200	1.141	1.00	3.000	3.60	31.2	60.7	146.0
124.00	1.00	1.32	7.884	8.67	0.00	1.200	1.142	1.00	3.000	3.60	31.2	60.7	146.0
125.00	1.00	1.33	7.897	8.69	0.00	1.200	1.142	1.00	3.000	3.60	31.3	60.7	146.0
126.00	1.00	1.33	7.910	8.70	0.00	1.200	1.143	1.00	3.000	3.60	31.3	60.7	146.0
127.00 Appurtenance(s)	1.00	1.33	7.924	8.72	0.00	1.200	1.144	1.00	3.000	3.60	31.4	60.7	146.0
128.00	1.00	1.33	7.937	8.73	0.00	1.200	1.145	1.00	3.000	3.60	31.4	60.7	146.0
129.00	1.00	1.34	7.950	8.74	0.00	1.200	1.146	1.00	3.000	3.60	31.5	60.7	146.0
130.00 Top - Section 6	1.00	1.34	7.963	8.76	0.00	1.200	1.147	1.00	3.000	3.60	31.5	60.8	146.0
131.00	1.00	1.34	7.976	8.77	0.00	1.200	1.148	1.00	3.000	3.60	31.6	60.6	106.4
132.00	1.00	1.34	7.988	8.79	0.00	1.200	1.149	1.00	3.000	3.60	31.6	60.6	106.4
133.00	1.00	1.34	8.001	8.80	0.00	1.200	1.150	1.00	3.000	3.60	31.7	60.6	106.4
134.00	1.00	1.35	8.014	8.81	0.00	1.200	1.150	1.00	3.000	3.60	31.7	60.6	106.5
135.00 Appurtenance(s)	1.00	1.35	8.026	8.83	0.00	1.200	1.151	1.00	3.000	3.60	31.8	60.6	106.5
136.00	1.00	1.35	8.039	8.84	0.00	1.200	1.152	1.00	3.000	3.60	31.8	60.6	106.5
137.00	1.00	1.35	8.051	8.86	0.00	1.200	1.153	1.00	3.000	3.60	31.9	60.6	106.5
138.00	1.00	1.35	8.063	8.87	0.00	1.200	1.154	1.00	3.000	3.60	31.9	60.7	106.5
139.00	1.00	1.36	8.076	8.88	0.00	1.200	1.155	1.00	3.000	3.60	32.0	60.7	106.5
140.00 Appurtenance(s)	1.00	1.36	8.088	8.90	0.00	1.200	1.155	1.00	3.000	3.60	32.0	60.7	106.5
141.00	1.00	1.36	8.100	8.91	0.00	1.200	1.156	1.00	3.000	3.60	32.1	60.7	106.5
142.00	1.00	1.36	8.112	8.92	0.00	1.200	1.157	1.00	3.000	3.60	32.1	60.7	106.5
143.00	1.00	1.36	8.124	8.94	0.00	1.200	1.158	1.00	3.000	3.60	32.2	60.7	106.5
144.00	1.00	1.37	8.136	8.95	0.00	1.200	1.159	1.00	3.000	3.60	32.2	60.7	106.5
145.00 Appurtenance(s)	1.00	1.37	8.148	8.96	0.00	1.200	1.160	1.00	3.000	3.60	32.3	60.7	106.6
146.00	1.00	1.37	8.160	8.98	0.00	1.200	1.160	1.00	3.000	3.60	32.3	60.7	106.6
147.00	1.00	1.37	8.171	8.99	0.00	1.200	1.161	1.00	3.000	3.60	32.4	60.7	106.6
148.00	1.00	1.37	8.183	9.00	0.00	1.200	1.162	1.00	3.000	3.60	32.4	60.7	106.6
149.00	1.00	1.38	8.195	9.01	0.00	1.200	1.163	1.00	3.000	3.60	32.5	60.8	106.6
150.00 Appurtenance(s)	1.00	1.38	8.206	9.03	0.00	1.200	1.163	1.00	3.000	3.60	32.5	60.8	106.6
								<b>Totals:</b>	<b>150.00</b>		<b>3,577.9</b>		<b>23,628.8</b>



## Discrete Appurtenance Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



**Iterations** 43

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	150.00	Truck Ball	1	8.212	9.033	1.00	1.00	1.48	0.30	0.000	0.500	13.33	0.00	6.66
2	150.00	36" Canister Weight	1	8.206	9.027	1.00	1.00	0.00	77.63	0.000	0.000	0.00	0.00	0.00
3	145.00	CDX623T-DS	6	8.148	8.963	0.00	1.00	3.32	142.66	0.000	0.000	29.77	0.00	0.00
4	145.00	FFVV-65B-R3	3	8.148	8.963	0.00	1.00	26.54	531.65	0.000	0.000	237.87	0.00	0.00
5	140.00	36" Canister Weight	1	8.088	8.897	1.00	1.00	0.00	336.33	0.000	0.000	0.00	0.00	0.00
6	140.00	Flag	1	8.088	8.897	1.00	1.00	7.21	1.53	0.000	0.000	64.13	0.00	0.00
7	135.00	Flush Mount	1	8.026	8.829	0.00	1.00	0.00	-381.18	0.000	0.000	0.00	0.00	0.00
8	135.00	DB-T1-6Z-8AB-0Z	2	8.026	8.829	0.00	1.00	10.73	223.68	0.000	0.000	94.70	0.00	0.00
9	135.00	FDL85002/1C-3L	6	8.026	8.829	0.00	1.00	0.00	77.66	0.000	0.000	0.00	0.00	0.00
10	135.00	SBNHH-1D65A	3	8.026	8.829	0.00	1.00	19.73	412.78	0.000	0.000	174.19	0.00	0.00
11	130.00	36" Canister Weight	1	7.963	8.759	1.00	1.00	0.00	335.95	0.000	0.000	0.00	0.00	0.00
12	127.00	Flush Mount	1	7.924	8.716	0.00	1.00	0.00	-381.27	0.000	0.000	0.00	0.00	0.00
13	127.00	ATSBT-TOP-FM	3	7.924	8.716	0.00	1.00	0.00	12.87	0.000	0.000	0.00	0.00	0.00
14	127.00	CBC426T-DS-43	6	7.924	8.716	0.00	1.00	0.00	117.86	0.000	0.000	0.00	0.00	0.00
15	127.00	D2WC-21 (2LB+4MB)	3	7.924	8.716	0.00	1.00	17.09	368.13	0.000	0.000	148.96	0.00	0.00
16	120.00	36" Canister Weight	1	7.830	8.613	1.00	1.00	0.00	335.54	0.000	0.000	0.00	0.00	0.00
17	115.00	Flush Mount	1	7.760	8.536	0.00	1.00	0.00	-381.40	0.000	0.000	0.00	0.00	0.00
18	115.00	LGP21401	6	7.760	8.536	0.00	1.00	0.00	156.30	0.000	0.000	0.00	0.00	0.00
19	115.00	7770.00	3	7.760	8.536	0.00	1.00	18.53	368.55	0.000	0.000	158.16	0.00	0.00
20	110.00	36" Canister Weight	1	7.687	8.456	1.00	1.00	0.00	22.09	0.000	0.000	0.00	0.00	0.00
21	108.00	36" Canister Weight	1	7.658	8.424	1.00	1.00	0.00	-111.31	0.000	0.000	0.00	0.00	0.00
22	75.00	GPS	1	7.092	7.801	0.80	0.80	1.15	22.24	0.000	0.000	9.01	0.00	0.00
<b>Totals:</b>									<b>2,288.57</b>			<b>930.10</b>		

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

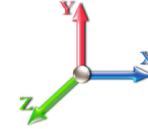


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**Load Case:** 1.2D + 1.0Di + 1.0Wi 50 mph Wind

**Dead Load Factor** 1.20

**Wind Load Factor** 1.00



**Iterations** 43

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		20.82	245.49	0.00	0.00
2.00		20.88	247.81	0.00	0.00
3.00		20.92	249.24	0.00	0.00
4.00		20.94	250.30	0.00	0.00
5.00		20.96	251.14	0.00	0.00
6.00		20.98	251.84	0.00	0.00
7.00		20.99	252.44	0.00	0.00
8.00		21.01	252.97	0.00	0.00
9.00		21.02	253.45	0.00	0.00
10.00		21.03	253.88	0.00	0.00
11.00		21.04	254.27	0.00	0.00
12.00		21.05	254.63	0.00	0.00
13.00		21.05	254.96	0.00	0.00
14.00		21.06	255.28	0.00	0.00
15.00		21.07	255.57	0.00	0.00
16.00		21.34	255.85	0.00	0.00
17.00		21.62	256.11	0.00	0.00
18.00		21.88	258.26	0.00	0.00
19.00		22.14	258.51	0.00	0.00
20.00		22.39	258.75	0.00	0.00
21.00		19.04	223.11	0.00	0.00
22.00		19.24	223.30	0.00	0.00
23.00		19.42	223.48	0.00	0.00
24.00		19.60	221.67	0.00	0.00
25.00		19.78	221.82	0.00	0.00
26.00		19.94	221.97	0.00	0.00
27.00		20.11	222.11	0.00	0.00
28.00		20.27	222.25	0.00	0.00
29.00		20.42	222.39	0.00	0.00
30.00		20.57	222.52	0.00	0.00
31.00		20.72	222.65	0.00	0.00
32.00		20.86	222.77	0.00	0.00
33.00		21.00	222.89	0.00	0.00
34.00		21.14	223.01	0.00	0.00
35.00		21.27	223.12	0.00	0.00
36.00		21.40	223.23	0.00	0.00
37.00		21.53	223.34	0.00	0.00
38.00		21.65	223.45	0.00	0.00
39.00		21.78	223.55	0.00	0.00
40.00		21.90	223.65	0.00	0.00
41.00		22.01	223.75	0.00	0.00
42.00		22.13	223.85	0.00	0.00
43.00		22.24	223.94	0.00	0.00
44.00		22.35	224.03	0.00	0.00
45.00		22.46	224.12	0.00	0.00
46.00		22.57	224.21	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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47.00	22.68	224.30	0.00	0.00
48.00	22.78	224.39	0.00	0.00
49.00	22.88	224.47	0.00	0.00
50.00	22.98	224.55	0.00	0.00
51.00	18.77	188.11	0.00	0.00
52.00	18.85	188.18	0.00	0.00
53.00	18.92	188.24	0.00	0.00
54.00	19.00	188.30	0.00	0.00
55.00	19.08	188.36	0.00	0.00
56.00	19.15	188.43	0.00	0.00
57.00	19.23	188.49	0.00	0.00
58.00	19.30	188.54	0.00	0.00
59.00	19.37	188.60	0.00	0.00
60.00	19.44	188.66	0.00	0.00
61.00	19.51	188.71	0.00	0.00
62.00	19.58	188.77	0.00	0.00
63.00	19.65	188.82	0.00	0.00
64.00	19.72	188.88	0.00	0.00
65.00	19.79	188.93	0.00	0.00
66.00	19.85	188.98	0.00	0.00
67.00	19.92	189.03	0.00	0.00
68.00	19.98	189.09	0.00	0.00
69.00	20.05	189.14	0.00	0.00
70.00	20.11	189.19	0.00	0.00
71.00	20.17	189.23	0.00	0.00
72.00	20.24	189.28	0.00	0.00
73.00	20.30	189.33	0.00	0.00
74.00	20.36	189.38	0.00	0.00
75.00	(1) attachments	211.66	0.00	0.00
76.00	20.48	189.28	0.00	0.00
77.00	20.53	189.32	0.00	0.00
78.00	20.59	189.37	0.00	0.00
79.00	20.65	189.41	0.00	0.00
80.00	20.71	189.46	0.00	0.00
81.00	20.76	189.50	0.00	0.00
82.00	20.82	189.54	0.00	0.00
83.00	20.87	189.59	0.00	0.00
84.00	20.93	189.63	0.00	0.00
85.00	20.98	189.67	0.00	0.00
86.00	21.04	189.71	0.00	0.00
87.00	21.09	189.75	0.00	0.00
88.00	21.14	189.79	0.00	0.00
89.00	21.20	189.83	0.00	0.00
90.00	21.25	189.87	0.00	0.00
91.00	21.30	189.91	0.00	0.00
92.00	21.35	189.95	0.00	0.00
93.00	21.40	189.99	0.00	0.00
94.00	21.45	190.03	0.00	0.00
95.00	21.50	190.06	0.00	0.00
96.00	21.55	190.10	0.00	0.00
97.00	21.60	190.14	0.00	0.00
98.00	21.65	190.17	0.00	0.00
99.00	21.70	190.21	0.00	0.00
100.00	21.74	190.25	0.00	0.00
101.00	21.79	190.28	0.00	0.00
102.00	21.84	190.32	0.00	0.00
103.00	21.89	190.35	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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104.00		21.93	190.39	0.00	0.00
105.00		21.98	190.42	0.00	0.00
106.00		22.02	190.46	0.00	0.00
107.00		22.07	190.49	0.00	0.00
108.00	(1) attachments	22.11	79.21	0.00	0.00
109.00		30.38	251.77	0.00	0.00
110.00	(1) attachments	30.44	273.89	0.00	0.00
111.00		30.50	188.15	0.00	0.00
111.50		15.26	94.08	0.00	0.00
112.00		15.28	94.08	0.00	0.00
113.00		30.62	188.17	0.00	0.00
114.00		30.67	188.18	0.00	0.00
115.00	(10) attachments	188.88	331.65	0.00	0.00
116.00		30.78	181.15	0.00	0.00
117.00		30.84	181.16	0.00	0.00
118.00		30.90	181.17	0.00	0.00
119.00		30.95	181.18	0.00	0.00
120.00	(1) attachments	31.01	516.73	0.00	0.00
121.00		31.06	181.20	0.00	0.00
122.00		31.11	181.21	0.00	0.00
123.00		31.17	181.22	0.00	0.00
124.00		31.22	181.23	0.00	0.00
125.00		31.27	181.24	0.00	0.00
126.00		31.33	181.25	0.00	0.00
127.00	(13) attachments	180.33	298.84	0.00	0.00
128.00		31.43	170.55	0.00	0.00
129.00		31.48	170.56	0.00	0.00
130.00	(1) attachments	31.53	506.51	0.00	0.00
131.00		31.58	130.96	0.00	0.00
132.00		31.63	130.97	0.00	0.00
133.00		31.68	130.98	0.00	0.00
134.00		31.73	130.99	0.00	0.00
135.00	(12) attachments	300.67	463.93	0.00	0.00
136.00		31.83	121.45	0.00	0.00
137.00		31.88	121.46	0.00	0.00
138.00		31.93	121.47	0.00	0.00
139.00		31.98	121.48	0.00	0.00
140.00	(2) attachments	96.16	459.36	0.00	0.00
141.00		32.08	121.50	0.00	0.00
142.00		32.12	121.51	0.00	0.00
143.00		32.17	121.52	0.00	0.00
144.00		32.22	121.52	0.00	0.00
145.00	(9) attachments	299.91	795.84	0.00	0.00
146.00		32.31	106.57	0.00	0.00
147.00		32.36	106.57	0.00	0.00
148.00		32.40	106.58	0.00	0.00
149.00		32.45	106.59	0.00	0.00
150.00	(2) attachments	45.83	184.53	0.00	6.66
	<b>Totals:</b>	<b>4,507.96</b>	<b>31,578.33</b>	<b>0.00</b>	<b>6.66</b>

## Linear Appurtenance Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



**Iterations** 43

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
18.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.24	0.00	0.028	0.000	5.252	0.00	1.90
19.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.24	0.00	0.028	0.000	5.312	0.00	1.91
20.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.24	0.00	0.028	0.000	5.369	0.00	1.93
21.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.24	0.00	0.033	0.000	5.425	0.00	1.94
22.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.24	0.00	0.033	0.000	5.478	0.00	1.96
23.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.24	0.00	0.033	0.000	5.530	0.00	1.97
<b>Totals:</b>											<b>0.0</b>	<b>11.6</b>

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
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**Load Case:** 1.2D + 1.0Di + 1.0Wi 50 mph Wind

**Iterations** 43

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-31.58	-4.51	0.00	-466.60	0.00	466.60	1490.10	475.94	99948.2	1339.68	0.00	0.000	0.000	0.370
1.00	-31.33	-4.50	0.00	-462.09	0.00	462.09	1490.10	475.94	99948.2	1339.68	0.00	-0.020	0.000	0.366
2.00	-31.08	-4.49	0.00	-457.59	0.00	457.59	1490.10	475.94	99948.2	1339.68	0.01	-0.039	0.000	0.363
3.00	-30.83	-4.48	0.00	-453.09	0.00	453.09	1490.10	475.94	99948.2	1339.68	0.02	-0.059	0.000	0.359
4.00	-30.58	-4.47	0.00	-448.61	0.00	448.61	1490.10	475.94	99948.2	1339.68	0.03	-0.078	0.000	0.355
5.00	-30.33	-4.46	0.00	-444.14	0.00	444.14	1490.10	475.94	99948.2	1339.68	0.05	-0.097	0.000	0.352
6.00	-30.07	-4.45	0.00	-439.68	0.00	439.68	1490.10	475.94	99948.2	1339.68	0.07	-0.116	0.000	0.348
7.00	-29.82	-4.44	0.00	-435.23	0.00	435.23	1490.10	475.94	99948.2	1339.68	0.10	-0.135	0.000	0.345
8.00	-29.56	-4.42	0.00	-430.80	0.00	430.80	1490.10	475.94	99948.2	1339.68	0.13	-0.153	0.000	0.341
9.00	-29.31	-4.41	0.00	-426.37	0.00	426.37	1490.10	475.94	99948.2	1339.68	0.16	-0.172	0.000	0.338
10.00	-29.05	-4.40	0.00	-421.96	0.00	421.96	1490.10	475.94	99948.2	1339.68	0.20	-0.190	0.000	0.335
11.00	-28.80	-4.39	0.00	-417.56	0.00	417.56	1490.10	475.94	99948.2	1339.68	0.24	-0.208	0.000	0.331
12.00	-28.54	-4.37	0.00	-413.18	0.00	413.18	1490.10	475.94	99948.2	1339.68	0.29	-0.225	0.000	0.328
13.00	-28.29	-4.36	0.00	-408.81	0.00	408.81	1490.10	475.94	99948.2	1339.68	0.34	-0.243	0.000	0.324
14.00	-28.03	-4.35	0.00	-404.45	0.00	404.45	1490.10	475.94	99948.2	1339.68	0.39	-0.260	0.000	0.321
15.00	-27.77	-4.33	0.00	-400.10	0.00	400.10	1490.10	475.94	99948.2	1339.68	0.45	-0.277	0.000	0.317
16.00	-27.52	-4.32	0.00	-395.77	0.00	395.77	1490.10	475.94	99948.2	1339.68	0.51	-0.294	0.000	0.314
17.00	-27.26	-4.30	0.00	-391.45	0.00	391.45	1490.10	475.94	99948.2	1339.68	0.57	-0.311	0.000	0.311
18.00	-27.00	-4.29	0.00	-387.15	0.00	387.15	1490.10	475.94	99948.2	1339.68	0.64	-0.328	0.000	0.307
19.00	-26.74	-4.27	0.00	-382.86	0.00	382.86	1490.10	475.94	99948.2	1339.68	0.71	-0.344	0.000	0.304
20.00	-26.48	-4.25	0.00	-378.59	0.00	378.59	1490.10	475.94	99948.2	1339.68	0.78	-0.361	0.000	0.300
20.00	-26.48	-4.25	0.00	-378.59	0.00	378.59	1311.06	395.78	69116.5	948.43	0.78	-0.361	0.000	0.419
21.00	-26.26	-4.24	0.00	-374.34	0.00	374.34	1311.06	395.78	69116.5	948.43	0.86	-0.377	0.000	0.415
22.00	-26.03	-4.24	0.00	-370.10	0.00	370.10	1311.06	395.78	69116.5	948.43	0.94	-0.404	0.000	0.410
23.00	-25.81	-4.23	0.00	-365.86	0.00	365.86	1311.06	395.78	69116.5	948.43	1.03	-0.432	0.000	0.406
24.00	-25.58	-4.22	0.00	-361.64	0.00	361.64	1311.06	395.78	69116.5	948.43	1.12	-0.459	0.000	0.401
25.00	-25.36	-4.21	0.00	-357.42	0.00	357.42	1311.06	395.78	69116.5	948.43	1.22	-0.485	0.000	0.396
26.00	-25.13	-4.20	0.00	-353.21	0.00	353.21	1311.06	395.78	69116.5	948.43	1.33	-0.512	0.000	0.392
27.00	-24.91	-4.19	0.00	-349.02	0.00	349.02	1311.06	395.78	69116.5	948.43	1.44	-0.538	0.000	0.387
28.00	-24.69	-4.17	0.00	-344.83	0.00	344.83	1311.06	395.78	69116.5	948.43	1.55	-0.563	0.000	0.383
29.00	-24.46	-4.16	0.00	-340.66	0.00	340.66	1311.06	395.78	69116.5	948.43	1.67	-0.589	0.000	0.378
30.00	-24.24	-4.15	0.00	-336.49	0.00	336.49	1311.06	395.78	69116.5	948.43	1.80	-0.614	0.000	0.373
31.00	-24.01	-4.14	0.00	-332.34	0.00	332.34	1311.06	395.78	69116.5	948.43	1.93	-0.639	0.000	0.369
32.00	-23.79	-4.12	0.00	-328.21	0.00	328.21	1311.06	395.78	69116.5	948.43	2.07	-0.663	0.000	0.364
33.00	-23.57	-4.11	0.00	-324.08	0.00	324.08	1311.06	395.78	69116.5	948.43	2.21	-0.688	0.000	0.360
34.00	-23.34	-4.10	0.00	-319.97	0.00	319.97	1311.06	395.78	69116.5	948.43	2.35	-0.712	0.000	0.355
35.00	-23.12	-4.08	0.00	-315.88	0.00	315.88	1311.06	395.78	69116.5	948.43	2.51	-0.735	0.000	0.351
36.00	-22.89	-4.07	0.00	-311.79	0.00	311.79	1311.06	395.78	69116.5	948.43	2.66	-0.758	0.000	0.346
37.00	-22.67	-4.05	0.00	-307.73	0.00	307.73	1311.06	395.78	69116.5	948.43	2.82	-0.781	0.000	0.342
38.00	-22.44	-4.04	0.00	-303.68	0.00	303.68	1311.06	395.78	69116.5	948.43	2.99	-0.804	0.000	0.337
39.00	-22.22	-4.02	0.00	-299.64	0.00	299.64	1311.06	395.78	69116.5	948.43	3.16	-0.827	0.000	0.333
40.00	-21.99	-4.00	0.00	-295.62	0.00	295.62	1311.06	395.78	69116.5	948.43	3.34	-0.849	0.000	0.329
41.00	-21.77	-3.98	0.00	-291.62	0.00	291.62	1311.06	395.78	69116.5	948.43	3.52	-0.870	0.000	0.324
42.00	-21.54	-3.97	0.00	-287.64	0.00	287.64	1311.06	395.78	69116.5	948.43	3.70	-0.892	0.000	0.320
43.00	-21.32	-3.95	0.00	-283.67	0.00	283.67	1311.06	395.78	69116.5	948.43	3.89	-0.913	0.000	0.315
44.00	-21.09	-3.93	0.00	-279.72	0.00	279.72	1311.06	395.78	69116.5	948.43	4.08	-0.934	0.000	0.311
45.00	-20.87	-3.91	0.00	-275.79	0.00	275.79	1311.06	395.78	69116.5	948.43	4.28	-0.955	0.000	0.307
46.00	-20.64	-3.89	0.00	-271.88	0.00	271.88	1311.06	395.78	69116.5	948.43	4.48	-0.975	0.000	0.302

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 41



47.00	-20.42	-3.87	0.00	-267.98	0.00	267.98	1311.06	395.78	69116.5	948.43	4.69	-0.995	0.000	0.298
48.00	-20.19	-3.85	0.00	-264.11	0.00	264.11	1311.06	395.78	69116.5	948.43	4.90	-1.015	0.000	0.294
49.00	-19.97	-3.83	0.00	-260.25	0.00	260.25	1311.06	395.78	69116.5	948.43	5.12	-1.034	0.000	0.290
50.00	-19.74	-3.81	0.00	-256.42	0.00	256.42	1311.06	395.78	69116.5	948.43	5.33	-1.053	0.000	0.286
50.00	-19.74	-3.81	0.00	-256.42	0.00	256.42	1052.07	315.62	43955.0	624.04	5.33	-1.053	0.000	0.430
51.00	-19.55	-3.80	0.00	-252.61	0.00	252.61	1052.07	315.62	43955.0	624.04	5.56	-1.072	0.000	0.424
52.00	-19.36	-3.79	0.00	-248.81	0.00	248.81	1052.07	315.62	43955.0	624.04	5.79	-1.109	0.000	0.417
53.00	-19.17	-3.78	0.00	-245.02	0.00	245.02	1052.07	315.62	43955.0	624.04	6.02	-1.145	0.000	0.411
54.00	-18.98	-3.77	0.00	-241.24	0.00	241.24	1052.07	315.62	43955.0	624.04	6.27	-1.181	0.000	0.405
55.00	-18.79	-3.76	0.00	-237.47	0.00	237.47	1052.07	315.62	43955.0	624.04	6.52	-1.216	0.000	0.399
56.00	-18.60	-3.75	0.00	-233.71	0.00	233.71	1052.07	315.62	43955.0	624.04	6.77	-1.250	0.000	0.392
57.00	-18.41	-3.73	0.00	-229.96	0.00	229.96	1052.07	315.62	43955.0	624.04	7.04	-1.284	0.000	0.386
58.00	-18.22	-3.72	0.00	-226.23	0.00	226.23	1052.07	315.62	43955.0	624.04	7.31	-1.318	0.000	0.380
59.00	-18.03	-3.71	0.00	-222.51	0.00	222.51	1052.07	315.62	43955.0	624.04	7.59	-1.351	0.000	0.374
60.00	-17.84	-3.69	0.00	-218.81	0.00	218.81	1052.07	315.62	43955.0	624.04	7.88	-1.383	0.000	0.368
61.00	-17.65	-3.68	0.00	-215.11	0.00	215.11	1052.07	315.62	43955.0	624.04	8.17	-1.415	0.000	0.362
62.00	-17.46	-3.66	0.00	-211.44	0.00	211.44	1052.07	315.62	43955.0	624.04	8.47	-1.446	0.000	0.356
63.00	-17.27	-3.65	0.00	-207.77	0.00	207.77	1052.07	315.62	43955.0	624.04	8.78	-1.476	0.000	0.349
64.00	-17.08	-3.63	0.00	-204.13	0.00	204.13	1052.07	315.62	43955.0	624.04	9.09	-1.507	0.000	0.343
65.00	-16.89	-3.62	0.00	-200.49	0.00	200.49	1052.07	315.62	43955.0	624.04	9.41	-1.536	0.000	0.337
66.00	-16.70	-3.60	0.00	-196.88	0.00	196.88	1052.07	315.62	43955.0	624.04	9.73	-1.565	0.000	0.331
67.00	-16.51	-3.58	0.00	-193.28	0.00	193.28	1052.07	315.62	43955.0	624.04	10.06	-1.594	0.000	0.326
68.00	-16.32	-3.56	0.00	-189.70	0.00	189.70	1052.07	315.62	43955.0	624.04	10.40	-1.622	0.000	0.320
69.00	-16.13	-3.55	0.00	-186.13	0.00	186.13	1052.07	315.62	43955.0	624.04	10.74	-1.649	0.000	0.314
70.00	-15.94	-3.53	0.00	-182.59	0.00	182.59	1052.07	315.62	43955.0	624.04	11.09	-1.676	0.000	0.308
71.00	-15.75	-3.51	0.00	-179.06	0.00	179.06	1052.07	315.62	43955.0	624.04	11.45	-1.703	0.000	0.302
72.00	-15.56	-3.49	0.00	-175.55	0.00	175.55	1052.07	315.62	43955.0	624.04	11.81	-1.729	0.000	0.296
73.00	-15.37	-3.47	0.00	-172.06	0.00	172.06	1052.07	315.62	43955.0	624.04	12.17	-1.754	0.000	0.290
74.00	-15.18	-3.45	0.00	-168.58	0.00	168.58	1052.07	315.62	43955.0	624.04	12.54	-1.779	0.000	0.285
75.00	-14.97	-3.42	0.00	-165.13	0.00	165.13	1052.07	315.62	43955.0	624.04	12.92	-1.804	0.000	0.279
76.00	-14.78	-3.40	0.00	-161.71	0.00	161.71	1052.07	315.62	43955.0	624.04	13.30	-1.828	0.000	0.273
77.00	-14.59	-3.38	0.00	-158.31	0.00	158.31	1052.07	315.62	43955.0	624.04	13.68	-1.851	0.000	0.268
78.00	-14.40	-3.36	0.00	-154.92	0.00	154.92	1052.07	315.62	43955.0	624.04	14.07	-1.874	0.000	0.262
79.00	-14.21	-3.34	0.00	-151.56	0.00	151.56	1052.07	315.62	43955.0	624.04	14.47	-1.896	0.000	0.256
80.00	-14.02	-3.32	0.00	-148.22	0.00	148.22	1052.07	315.62	43955.0	624.04	14.87	-1.918	0.000	0.251
80.00	-14.02	-3.32	0.00	-148.22	0.00	148.22	1052.07	315.62	43955.0	624.04	14.87	-1.918	0.000	0.251
81.00	-13.83	-3.30	0.00	-144.91	0.00	144.91	1052.07	315.62	43955.0	624.04	15.27	-1.940	0.000	0.245
82.00	-13.64	-3.27	0.00	-141.61	0.00	141.61	1052.07	315.62	43955.0	624.04	15.68	-1.961	0.000	0.240
83.00	-13.45	-3.25	0.00	-138.34	0.00	138.34	1052.07	315.62	43955.0	624.04	16.09	-1.981	0.000	0.235
84.00	-13.26	-3.23	0.00	-135.09	0.00	135.09	1052.07	315.62	43955.0	624.04	16.51	-2.001	0.000	0.229
85.00	-13.07	-3.20	0.00	-131.86	0.00	131.86	1052.07	315.62	43955.0	624.04	16.93	-2.021	0.000	0.224
86.00	-12.88	-3.18	0.00	-128.65	0.00	128.65	1052.07	315.62	43955.0	624.04	17.35	-2.040	0.000	0.219
87.00	-12.69	-3.16	0.00	-125.47	0.00	125.47	1052.07	315.62	43955.0	624.04	17.78	-2.058	0.000	0.213
88.00	-12.50	-3.13	0.00	-122.32	0.00	122.32	1052.07	315.62	43955.0	624.04	18.22	-2.077	0.000	0.208
89.00	-12.31	-3.11	0.00	-119.18	0.00	119.18	1052.07	315.62	43955.0	624.04	18.65	-2.094	0.000	0.203
90.00	-12.12	-3.08	0.00	-116.07	0.00	116.07	1052.07	315.62	43955.0	624.04	19.09	-2.112	0.000	0.198
91.00	-11.93	-3.06	0.00	-112.99	0.00	112.99	1052.07	315.62	43955.0	624.04	19.54	-2.128	0.000	0.192
92.00	-11.74	-3.03	0.00	-109.93	0.00	109.93	1052.07	315.62	43955.0	624.04	19.99	-2.145	0.000	0.187
93.00	-11.55	-3.01	0.00	-106.90	0.00	106.90	1052.07	315.62	43955.0	624.04	20.44	-2.160	0.000	0.182
94.00	-11.36	-2.98	0.00	-103.89	0.00	103.89	1052.07	315.62	43955.0	624.04	20.89	-2.176	0.000	0.177
95.00	-11.17	-2.96	0.00	-100.90	0.00	100.90	1052.07	315.62	43955.0	624.04	21.35	-2.191	0.000	0.172
96.00	-10.98	-2.93	0.00	-97.95	0.00	97.95	1052.07	315.62	43955.0	624.04	21.81	-2.205	0.000	0.167
97.00	-10.79	-2.91	0.00	-95.02	0.00	95.02	1052.07	315.62	43955.0	624.04	22.27	-2.220	0.000	0.163
98.00	-10.60	-2.88	0.00	-92.11	0.00	92.11	1052.07	315.62	43955.0	624.04	22.74	-2.233	0.000	0.158
99.00	-10.41	-2.85	0.00	-89.23	0.00	89.23	1052.07	315.62	43955.0	624.04	23.21	-2.247	0.000	0.153
100.00	-10.22	-2.82	0.00	-86.38	0.00	86.38	1052.07	315.62	43955.0	624.04	23.68	-2.259	0.000	0.148
101.00	-10.03	-2.80	0.00	-83.56	0.00	83.56	1052.07	315.62	43955.0	624.04	24.15	-2.272	0.000	0.144

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 42



102.00	-9.84	-2.77	0.00	-80.76	0.00	80.76	1052.07	315.62	43955.0	624.04	24.63	-2.284	0.000	0.139
103.00	-9.65	-2.74	0.00	-77.99	0.00	77.99	1052.07	315.62	43955.0	624.04	25.11	-2.296	0.000	0.134
104.00	-9.46	-2.72	0.00	-75.25	0.00	75.25	1052.07	315.62	43955.0	624.04	25.59	-2.307	0.000	0.130
105.00	-9.27	-2.69	0.00	-72.53	0.00	72.53	1052.07	315.62	43955.0	624.04	26.08	-2.318	0.000	0.125
106.00	-9.08	-2.66	0.00	-69.84	0.00	69.84	1052.07	315.62	43955.0	624.04	26.56	-2.328	0.000	0.121
107.00	-8.89	-2.63	0.00	-67.18	0.00	67.18	1052.07	315.62	43955.0	624.04	27.05	-2.338	0.000	0.116
108.00	-8.81	-2.61	0.00	-64.55	0.00	64.55	1052.07	315.62	43955.0	624.04	27.54	-2.348	0.000	0.112
108.00	-8.81	-2.61	0.00	-64.55	0.00	64.55	1052.07	315.62	43955.0	624.04	27.54	-2.348	0.000	0.112
109.00	-8.56	-2.57	0.00	-61.95	0.00	61.95	1052.07	315.62	43955.0	624.04	28.03	-2.357	0.000	0.107
110.00	-8.29	-2.53	0.00	-59.38	0.00	59.38	1052.07	315.62	43955.0	624.04	28.53	-2.366	0.000	0.065
110.00	-8.29	-2.53	0.00	-59.38	0.00	59.38	682.83	204.85	11780.8	105.20	28.53	-2.366	0.000	0.019
111.00	-8.10	-2.49	0.00	-56.85	0.00	56.85	682.83	204.85	11780.8	105.20	29.02	-2.371	0.000	0.151
111.50	-8.01	-2.48	0.00	-55.61	0.00	55.61	682.83	204.85	11780.8	105.20	29.27	-2.400	0.000	0.148
111.50	-8.01	-2.48	0.00	-55.61	0.00	55.61	682.83	204.85	11780.8	105.20	29.27	-2.400	0.000	0.387
112.00	-7.91	-2.47	0.00	-54.37	0.00	54.37	682.83	204.85	11780.8	105.20	29.53	-2.427	0.000	0.529
113.00	-7.71	-2.46	0.00	-51.90	0.00	51.90	682.83	204.85	11780.8	105.20	30.06	-2.630	0.000	0.505
114.00	-7.52	-2.45	0.00	-49.44	0.00	49.44	682.83	204.85	11780.8	105.20	30.63	-2.823	0.000	0.481
115.00	-7.19	-2.26	0.00	-46.99	0.00	46.99	682.83	204.85	11780.8	105.20	31.24	-3.006	0.000	0.457
116.00	-7.00	-2.24	0.00	-44.73	0.00	44.73	682.83	204.85	11780.8	105.20	31.89	-3.181	0.000	0.436
117.00	-6.82	-2.22	0.00	-42.49	0.00	42.49	682.83	204.85	11780.8	105.20	32.57	-3.347	0.000	0.414
118.00	-6.63	-2.20	0.00	-40.26	0.00	40.26	682.83	204.85	11780.8	105.20	33.29	-3.504	0.000	0.393
119.00	-6.45	-2.17	0.00	-38.07	0.00	38.07	682.83	204.85	11780.8	105.20	34.04	-3.654	0.000	0.371
120.00	-5.93	-2.12	0.00	-35.90	0.00	35.90	682.83	204.85	11780.8	105.20	34.82	-3.794	0.000	0.350
121.00	-5.75	-2.09	0.00	-33.78	0.00	33.78	682.83	204.85	11780.8	105.20	35.62	-3.927	0.000	0.330
122.00	-5.56	-2.06	0.00	-31.69	0.00	31.69	682.83	204.85	11780.8	105.20	36.46	-4.052	0.000	0.309
123.00	-5.38	-2.03	0.00	-29.63	0.00	29.63	682.83	204.85	11780.8	105.20	37.32	-4.168	0.000	0.290
124.00	-5.20	-1.99	0.00	-27.60	0.00	27.60	682.83	204.85	11780.8	105.20	38.20	-4.277	0.000	0.270
125.00	-5.02	-1.95	0.00	-25.61	0.00	25.61	682.83	204.85	11780.8	105.20	39.11	-4.379	0.000	0.251
126.00	-4.84	-1.92	0.00	-23.66	0.00	23.66	682.83	204.85	11780.8	105.20	40.04	-4.473	0.000	0.232
127.00	-4.55	-1.72	0.00	-21.74	0.00	21.74	682.83	204.85	11780.8	105.20	40.98	-4.559	0.000	0.213
128.00	-4.38	-1.68	0.00	-20.02	0.00	20.02	682.83	204.85	11780.8	105.20	41.94	-4.639	0.000	0.197
129.00	-4.21	-1.64	0.00	-18.34	0.00	18.34	682.83	204.85	11780.8	105.20	42.92	-4.712	0.000	0.181
130.00	-3.71	-1.57	0.00	-16.70	0.00	16.70	682.83	204.85	11780.8	105.20	43.91	-4.778	0.000	0.164
130.00	-3.71	-1.57	0.00	-16.70	0.00	16.70	317.71	95.31	3734.62	52.28	43.91	-4.778	0.000	0.331
131.00	-3.58	-1.53	0.00	-15.13	0.00	15.13	317.71	95.31	3734.62	52.28	44.92	-4.839	0.000	0.301
132.00	-3.45	-1.50	0.00	-13.60	0.00	13.60	317.71	95.31	3734.62	52.28	45.94	-4.940	0.000	0.271
133.00	-3.32	-1.46	0.00	-12.10	0.00	12.10	317.71	95.31	3734.62	52.28	46.99	-5.031	0.000	0.242
134.00	-3.19	-1.42	0.00	-10.64	0.00	10.64	317.71	95.31	3734.62	52.28	48.05	-5.111	0.000	0.214
135.00	-2.75	-1.08	0.00	-9.22	0.00	9.22	317.71	95.31	3734.62	52.28	49.12	-5.181	0.000	0.185
136.00	-2.63	-1.04	0.00	-8.14	0.00	8.14	317.71	95.31	3734.62	52.28	50.21	-5.242	0.000	0.164
137.00	-2.51	-1.00	0.00	-7.10	0.00	7.10	317.71	95.31	3734.62	52.28	51.32	-5.296	0.000	0.144
138.00	-2.39	-0.96	0.00	-6.10	0.00	6.10	317.71	95.31	3734.62	52.28	52.43	-5.343	0.000	0.124
139.00	-2.28	-0.92	0.00	-5.14	0.00	5.14	317.71	95.31	3734.62	52.28	53.55	-5.382	0.000	0.106
140.00	-1.83	-0.78	0.00	-4.22	0.00	4.22	317.71	95.31	3734.62	52.28	54.68	-5.415	0.000	0.087
141.00	-1.71	-0.74	0.00	-3.44	0.00	3.44	317.71	95.31	3734.62	52.28	55.82	-5.442	0.000	0.071
142.00	-1.59	-0.69	0.00	-2.70	0.00	2.70	317.71	95.31	3734.62	52.28	56.96	-5.464	0.000	0.057
143.00	-1.47	-0.65	0.00	-2.01	0.00	2.01	317.71	95.31	3734.62	52.28	58.10	-5.481	0.000	0.043
144.00	-1.35	-0.61	0.00	-1.36	0.00	1.36	317.71	95.31	3734.62	52.28	59.25	-5.492	0.000	0.030
145.00	-0.59	-0.23	0.00	-0.75	0.00	0.75	317.71	95.31	3734.62	52.28	60.40	-5.500	0.000	0.016
146.00	-0.49	-0.19	0.00	-0.51	0.00	0.51	317.71	95.31	3734.62	52.28	61.55	-5.504	0.000	0.011
147.00	-0.39	-0.15	0.00	-0.32	0.00	0.32	317.71	95.31	3734.62	52.28	62.70	-5.507	0.000	0.007
148.00	-0.28	-0.11	0.00	-0.18	0.00	0.18	317.71	95.31	3734.62	52.28	63.85	-5.509	0.000	0.004
149.00	-0.18	-0.06	0.00	-0.07	0.00	0.07	317.71	95.31	3734.62	52.28	65.00	-5.510	0.000	0.002
150.00	0.00	-0.05	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	66.16	-5.510	0.000	0.000



## Seismic Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



<b>Load Case:</b> 1.2D + 1.0Ev + 1.0Eh				<b>Iterations</b> 37
<b>Gust Response Factor</b>	1.10	<b>Sds</b>	0.21	<b>Ss</b> 0.20
<b>Dead Load Factor</b>	1.20	<b>Seismic Load Factor</b>	1.00	<b>S1</b> 0.06
<b>Wind Load Factor</b>	0.00	<b>Structure Frequency (f1)</b>	0.32	<b>SA</b> 0.03
				<b>Seismic Importance Factor</b> 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
1.00		185.32	0.50	7.91	0.00	
2.00		185.32	1.50	7.91	0.00	
3.00		185.32	2.50	7.91	0.00	
4.00		185.32	3.50	7.91	0.01	
5.00		185.32	4.50	7.91	0.01	
6.00		185.32	5.50	7.91	0.02	
7.00		185.32	6.50	7.91	0.02	
8.00		185.32	7.50	7.91	0.03	
9.00		185.32	8.50	7.91	0.04	
10.00		185.32	9.50	7.91	0.05	
11.00		185.32	10.50	7.91	0.06	
12.00		185.32	11.50	7.91	0.07	
13.00		185.32	12.50	7.91	0.08	
14.00		185.32	13.50	7.91	0.10	
15.00		185.32	14.50	7.91	0.11	
16.00		185.32	15.50	7.91	0.13	
17.00		185.32	16.50	7.91	0.14	
18.00		185.32	17.50	7.91	0.16	
19.00		185.32	18.50	7.91	0.18	
20.00	Top - Section 1	185.32	19.50	7.91	0.20	
21.00		161.26	20.50	6.88	0.17	
22.00		161.26	21.50	6.88	0.18	
23.00		161.26	22.50	6.88	0.20	
24.00		161.26	23.50	6.88	0.22	
25.00		161.26	24.50	6.88	0.24	
26.00		161.26	25.50	6.88	0.26	
27.00		161.26	26.50	6.88	0.28	
28.00		161.26	27.50	6.88	0.30	
29.00		161.26	28.50	6.88	0.32	
30.00		161.26	29.50	6.88	0.35	
31.00		161.26	30.50	6.88	0.37	
32.00		161.26	31.50	6.88	0.40	
33.00		161.26	32.50	6.88	0.42	
34.00		161.26	33.50	6.88	0.45	
35.00		161.26	34.50	6.88	0.47	
36.00		161.26	35.50	6.88	0.50	
37.00		161.26	36.50	6.88	0.53	
38.00		161.26	37.50	6.88	0.56	
39.00		161.26	38.50	6.88	0.59	
40.00		161.26	39.50	6.88	0.62	
41.00		161.26	40.50	6.88	0.65	
42.00		161.26	41.50	6.88	0.69	
43.00		161.26	42.50	6.88	0.72	
44.00		161.26	43.50	6.88	0.75	
45.00		161.26	44.50	6.88	0.79	

## Seismic Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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46.00		161.26	45.50	6.88	0.83
47.00		161.26	46.50	6.88	0.86
48.00		161.26	47.50	6.88	0.90
49.00		161.26	48.50	6.88	0.94
50.00	Top - Section 2	161.26	49.50	6.88	0.98
51.00		137.21	50.50	5.85	0.74
52.00		137.21	51.50	5.85	0.77
53.00		137.21	52.50	5.85	0.80
54.00		137.21	53.50	5.85	0.83
55.00		137.21	54.50	5.85	0.86
56.00		137.21	55.50	5.85	0.89
57.00		137.21	56.50	5.85	0.92
58.00		137.21	57.50	5.85	0.95
59.00		137.21	58.50	5.85	0.99
60.00		137.21	59.50	5.85	1.02
61.00		137.21	60.50	5.85	1.06
62.00		137.21	61.50	5.85	1.09
63.00		137.21	62.50	5.85	1.13
64.00		137.21	63.50	5.85	1.16
65.00		137.21	64.50	5.85	1.20
66.00		137.21	65.50	5.85	1.24
67.00		137.21	66.50	5.85	1.28
68.00		137.21	67.50	5.85	1.32
69.00		137.21	68.50	5.85	1.35
70.00		137.21	69.50	5.85	1.39
71.00		137.21	70.50	5.85	1.43
72.00		137.21	71.50	5.85	1.48
73.00		137.21	72.50	5.85	1.52
74.00		137.21	73.50	5.85	1.56
75.00	Appurtenance(s)	147.21	74.50	6.28	1.84
76.00		137.02	75.50	5.85	1.64
77.00		137.02	76.50	5.85	1.68
78.00		137.02	77.50	5.85	1.73
79.00		137.02	78.50	5.85	1.77
80.00	Top - Section 3	137.02	79.50	5.85	1.82
81.00		137.02	80.50	5.85	1.87
82.00		137.02	81.50	5.85	1.91
83.00		137.02	82.50	5.85	1.96
84.00		137.02	83.50	5.85	2.01
85.00		137.02	84.50	5.85	2.06
86.00		137.02	85.50	5.85	2.10
87.00		137.02	86.50	5.85	2.15
88.00		137.02	87.50	5.85	2.20
89.00		137.02	88.50	5.85	2.25
90.00		137.02	89.50	5.85	2.31
91.00		137.02	90.50	5.85	2.36
92.00		137.02	91.50	5.85	2.41
93.00		137.02	92.50	5.85	2.46
94.00		137.02	93.50	5.85	2.52
95.00		137.02	94.50	5.85	2.57
96.00		137.02	95.50	5.85	2.63
97.00		137.02	96.50	5.85	2.68
98.00		137.02	97.50	5.85	2.74
99.00		137.02	98.50	5.85	2.79
100.00		137.02	99.50	5.85	2.85
101.00		137.02	100.50	5.85	2.91
102.00		137.02	101.50	5.85	2.97

## Seismic Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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103.00		137.02	102.50	5.85	3.02
104.00		137.02	103.50	5.85	3.08
105.00		137.02	104.50	5.85	3.14
106.00		137.02	105.50	5.85	3.20
107.00		137.02	106.50	5.85	3.26
108.00	Top - Section 4	149.93	107.50	6.40	3.98
109.00		137.02	108.50	5.85	3.39
110.00	Top - Section 5 RB1	214.50	109.50	9.15	8.46
111.00		103.78	110.50	4.43	2.02
111.50	RT1	51.89	111.25	2.21	0.51
112.00		51.89	111.75	2.21	0.52
113.00		103.78	112.50	4.43	2.09
114.00		103.78	113.50	4.43	2.13
115.00	Appurtenance(s)	318.38	114.50	13.58	20.37
116.00		96.72	115.50	4.13	1.91
117.00		96.72	116.50	4.13	1.95
118.00		96.72	117.50	4.13	1.98
119.00		96.72	118.50	4.13	2.01
120.00	Appurtenance(s)	225.86	119.50	9.64	11.17
121.00		96.72	120.50	4.13	2.08
122.00		96.72	121.50	4.13	2.12
123.00		96.72	122.50	4.13	2.15
124.00		96.72	123.50	4.13	2.19
125.00		96.72	124.50	4.13	2.22
126.00		96.72	125.50	4.13	2.26
127.00	Appurtenance(s)	263.62	126.50	11.25	17.05
128.00		86.00	127.50	3.67	1.84
129.00		86.00	128.50	3.67	1.87
130.00	Top - Section 6	215.14	129.50	9.18	11.90
131.00		53.13	130.50	2.27	0.74
132.00		53.13	131.50	2.27	0.75
133.00		53.13	132.50	2.27	0.76
134.00		53.13	133.50	2.27	0.77
135.00	Appurtenance(s)	258.43	134.50	11.03	18.52
136.00		43.58	135.50	1.86	0.53
137.00		43.58	136.50	1.86	0.54
138.00		43.58	137.50	1.86	0.55
139.00		43.58	138.50	1.86	0.56
140.00	Appurtenance(s)	197.72	139.50	8.44	11.66
141.00		43.58	140.50	1.86	0.57
142.00		43.58	141.50	1.86	0.58
143.00		43.58	142.50	1.86	0.59
144.00		43.58	143.50	1.86	0.60
145.00	Appurtenance(s)	235.58	144.50	10.05	17.77
146.00		28.60	145.50	1.22	0.27
147.00		28.60	146.50	1.22	0.27
148.00		28.60	147.50	1.22	0.27
149.00		28.60	148.50	1.22	0.28
150.00	Appurtenance(s)	98.17	149.50	4.19	3.30
<b>Totals:</b>		<b>20,913.5</b>	<b>892.3</b>	<b>290.9</b>	
					<b>Total Wind: 11,185.0</b>

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



<b>Load Case:</b> 1.2D + 1.0Ev + 1.0Eh										<b>Iterations</b> 37
<b>Gust Response Factor</b> 1.10					<b>Sds</b> 0.21					<b>Ss</b> 0.20
<b>Dead Load Factor</b> 1.20			<b>Seismic Load Factor</b> 1.00			<b>Sd1</b> 0.09				<b>S1</b> 0.06
<b>Wind Load Factor</b> 0.00		<b>Structure Frequency (f1)</b> 0.32		<b>SA</b> 0.03		<b>Seismic Importance Factor</b> 1.00				



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-25.34	-0.29	0.00	-33.25	0.00	33.25	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.042
1.00	-25.12	-0.29	0.00	-32.96	0.00	32.96	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.041
2.00	-24.90	-0.29	0.00	-32.67	0.00	32.67	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.041
3.00	-24.68	-0.29	0.00	-32.38	0.00	32.38	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.041
4.00	-24.46	-0.29	0.00	-32.09	0.00	32.09	1490.10	475.94	99948.2	1339.68	0.00	-0.01	0.00	0.040
5.00	-24.23	-0.29	0.00	-31.80	0.00	31.80	1490.10	475.94	99948.2	1339.68	0.00	-0.01	0.00	0.040
6.00	-24.01	-0.29	0.00	-31.50	0.00	31.50	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.040
7.00	-23.79	-0.29	0.00	-31.21	0.00	31.21	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.039
8.00	-23.57	-0.29	0.00	-30.91	0.00	30.91	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.039
9.00	-23.35	-0.29	0.00	-30.62	0.00	30.62	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.039
10.00	-23.12	-0.30	0.00	-30.33	0.00	30.33	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.038
11.00	-22.90	-0.30	0.00	-30.03	0.00	30.03	1490.10	475.94	99948.2	1339.68	0.02	-0.01	0.00	0.038
12.00	-22.68	-0.30	0.00	-29.73	0.00	29.73	1490.10	475.94	99948.2	1339.68	0.02	-0.02	0.00	0.037
13.00	-22.46	-0.30	0.00	-29.44	0.00	29.44	1490.10	475.94	99948.2	1339.68	0.02	-0.02	0.00	0.037
14.00	-22.24	-0.30	0.00	-29.14	0.00	29.14	1490.10	475.94	99948.2	1339.68	0.03	-0.02	0.00	0.037
15.00	-22.02	-0.30	0.00	-28.84	0.00	28.84	1490.10	475.94	99948.2	1339.68	0.03	-0.02	0.00	0.036
16.00	-21.79	-0.30	0.00	-28.55	0.00	28.55	1490.10	475.94	99948.2	1339.68	0.04	-0.02	0.00	0.036
17.00	-21.57	-0.30	0.00	-28.25	0.00	28.25	1490.10	475.94	99948.2	1339.68	0.04	-0.02	0.00	0.036
18.00	-21.35	-0.30	0.00	-27.95	0.00	27.95	1490.10	475.94	99948.2	1339.68	0.05	-0.02	0.00	0.035
19.00	-21.13	-0.30	0.00	-27.65	0.00	27.65	1490.10	475.94	99948.2	1339.68	0.05	-0.02	0.00	0.035
20.00	-20.91	-0.30	0.00	-27.36	0.00	27.36	1490.10	475.94	99948.2	1339.68	0.06	-0.03	0.00	0.034
20.00	-20.91	-0.30	0.00	-27.36	0.00	27.36	1311.06	395.78	69116.5	948.43	0.06	-0.03	0.00	0.045
21.00	-20.71	-0.30	0.00	-27.06	0.00	27.06	1311.06	395.78	69116.5	948.43	0.06	-0.03	0.00	0.044
22.00	-20.52	-0.30	0.00	-26.76	0.00	26.76	1311.06	395.78	69116.5	948.43	0.07	-0.03	0.00	0.044
23.00	-20.33	-0.30	0.00	-26.46	0.00	26.46	1311.06	395.78	69116.5	948.43	0.07	-0.03	0.00	0.043
24.00	-20.14	-0.30	0.00	-26.16	0.00	26.16	1311.06	395.78	69116.5	948.43	0.08	-0.03	0.00	0.043
25.00	-19.95	-0.30	0.00	-25.86	0.00	25.86	1311.06	395.78	69116.5	948.43	0.09	-0.03	0.00	0.042
26.00	-19.76	-0.30	0.00	-25.56	0.00	25.56	1311.06	395.78	69116.5	948.43	0.10	-0.04	0.00	0.042
27.00	-19.56	-0.30	0.00	-25.26	0.00	25.26	1311.06	395.78	69116.5	948.43	0.10	-0.04	0.00	0.042
28.00	-19.37	-0.30	0.00	-24.96	0.00	24.96	1311.06	395.78	69116.5	948.43	0.11	-0.04	0.00	0.041
29.00	-19.18	-0.30	0.00	-24.66	0.00	24.66	1311.06	395.78	69116.5	948.43	0.12	-0.04	0.00	0.041
30.00	-18.99	-0.30	0.00	-24.36	0.00	24.36	1311.06	395.78	69116.5	948.43	0.13	-0.04	0.00	0.040
31.00	-18.80	-0.30	0.00	-24.06	0.00	24.06	1311.06	395.78	69116.5	948.43	0.14	-0.05	0.00	0.040
32.00	-18.60	-0.30	0.00	-23.76	0.00	23.76	1311.06	395.78	69116.5	948.43	0.15	-0.05	0.00	0.039
33.00	-18.41	-0.30	0.00	-23.46	0.00	23.46	1311.06	395.78	69116.5	948.43	0.16	-0.05	0.00	0.039
34.00	-18.22	-0.30	0.00	-23.16	0.00	23.16	1311.06	395.78	69116.5	948.43	0.17	-0.05	0.00	0.038
35.00	-18.03	-0.30	0.00	-22.86	0.00	22.86	1311.06	395.78	69116.5	948.43	0.18	-0.05	0.00	0.038
36.00	-17.84	-0.30	0.00	-22.56	0.00	22.56	1311.06	395.78	69116.5	948.43	0.19	-0.05	0.00	0.037
37.00	-17.64	-0.30	0.00	-22.26	0.00	22.26	1311.06	395.78	69116.5	948.43	0.20	-0.06	0.00	0.037
38.00	-17.45	-0.30	0.00	-21.96	0.00	21.96	1311.06	395.78	69116.5	948.43	0.22	-0.06	0.00	0.036
39.00	-17.26	-0.30	0.00	-21.66	0.00	21.66	1311.06	395.78	69116.5	948.43	0.23	-0.06	0.00	0.036
40.00	-17.07	-0.30	0.00	-21.36	0.00	21.36	1311.06	395.78	69116.5	948.43	0.24	-0.06	0.00	0.036
41.00	-16.88	-0.30	0.00	-21.06	0.00	21.06	1311.06	395.78	69116.5	948.43	0.25	-0.06	0.00	0.035
42.00	-16.68	-0.30	0.00	-20.76	0.00	20.76	1311.06	395.78	69116.5	948.43	0.27	-0.06	0.00	0.035
43.00	-16.49	-0.30	0.00	-20.46	0.00	20.46	1311.06	395.78	69116.5	948.43	0.28	-0.07	0.00	0.034
44.00	-16.30	-0.30	0.00	-20.16	0.00	20.16	1311.06	395.78	69116.5	948.43	0.29	-0.07	0.00	0.034
45.00	-16.11	-0.30	0.00	-19.86	0.00	19.86	1311.06	395.78	69116.5	948.43	0.31	-0.07	0.00	0.033

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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46.00	-15.92	-0.30	0.00	-19.57	0.00	19.57	1311.06	395.78	69116.5	948.43	0.32	-0.07	0.033
47.00	-15.73	-0.30	0.00	-19.27	0.00	19.27	1311.06	395.78	69116.5	948.43	0.34	-0.07	0.032
48.00	-15.53	-0.29	0.00	-18.97	0.00	18.97	1311.06	395.78	69116.5	948.43	0.35	-0.07	0.032
49.00	-15.34	-0.29	0.00	-18.68	0.00	18.68	1311.06	395.78	69116.5	948.43	0.37	-0.07	0.031
50.00	-15.15	-0.29	0.00	-18.38	0.00	18.38	1311.06	395.78	69116.5	948.43	0.38	-0.08	0.031
50.00	-15.15	-0.29	0.00	-18.38	0.00	18.38	1052.07	315.62	43955.0	624.04	0.38	-0.08	0.044
51.00	-14.99	-0.29	0.00	-18.09	0.00	18.09	1052.07	315.62	43955.0	624.04	0.40	-0.08	0.043
52.00	-14.83	-0.29	0.00	-17.80	0.00	17.80	1052.07	315.62	43955.0	624.04	0.42	-0.08	0.043
53.00	-14.66	-0.29	0.00	-17.51	0.00	17.51	1052.07	315.62	43955.0	624.04	0.43	-0.08	0.042
54.00	-14.50	-0.29	0.00	-17.21	0.00	17.21	1052.07	315.62	43955.0	624.04	0.45	-0.09	0.041
55.00	-14.34	-0.29	0.00	-16.92	0.00	16.92	1052.07	315.62	43955.0	624.04	0.47	-0.09	0.041
56.00	-14.18	-0.29	0.00	-16.63	0.00	16.63	1052.07	315.62	43955.0	624.04	0.49	-0.09	0.040
57.00	-14.02	-0.29	0.00	-16.34	0.00	16.34	1052.07	315.62	43955.0	624.04	0.51	-0.09	0.040
58.00	-13.85	-0.29	0.00	-16.05	0.00	16.05	1052.07	315.62	43955.0	624.04	0.53	-0.09	0.039
59.00	-13.69	-0.29	0.00	-15.76	0.00	15.76	1052.07	315.62	43955.0	624.04	0.55	-0.10	0.038
60.00	-13.53	-0.29	0.00	-15.47	0.00	15.47	1052.07	315.62	43955.0	624.04	0.57	-0.10	0.038
61.00	-13.37	-0.29	0.00	-15.19	0.00	15.19	1052.07	315.62	43955.0	624.04	0.59	-0.10	0.037
62.00	-13.21	-0.29	0.00	-14.90	0.00	14.90	1052.07	315.62	43955.0	624.04	0.61	-0.10	0.036
63.00	-13.04	-0.29	0.00	-14.61	0.00	14.61	1052.07	315.62	43955.0	624.04	0.63	-0.11	0.036
64.00	-12.88	-0.28	0.00	-14.33	0.00	14.33	1052.07	315.62	43955.0	624.04	0.65	-0.11	0.035
65.00	-12.72	-0.28	0.00	-14.04	0.00	14.04	1052.07	315.62	43955.0	624.04	0.68	-0.11	0.035
66.00	-12.56	-0.28	0.00	-13.76	0.00	13.76	1052.07	315.62	43955.0	624.04	0.70	-0.11	0.034
67.00	-12.40	-0.28	0.00	-13.48	0.00	13.48	1052.07	315.62	43955.0	624.04	0.72	-0.11	0.033
68.00	-12.23	-0.28	0.00	-13.20	0.00	13.20	1052.07	315.62	43955.0	624.04	0.75	-0.12	0.033
69.00	-12.07	-0.28	0.00	-12.92	0.00	12.92	1052.07	315.62	43955.0	624.04	0.77	-0.12	0.032
70.00	-11.91	-0.28	0.00	-12.64	0.00	12.64	1052.07	315.62	43955.0	624.04	0.80	-0.12	0.032
71.00	-11.75	-0.28	0.00	-12.36	0.00	12.36	1052.07	315.62	43955.0	624.04	0.82	-0.12	0.031
72.00	-11.59	-0.27	0.00	-12.09	0.00	12.09	1052.07	315.62	43955.0	624.04	0.85	-0.12	0.030
73.00	-11.42	-0.27	0.00	-11.81	0.00	11.81	1052.07	315.62	43955.0	624.04	0.88	-0.13	0.030
74.00	-11.26	-0.27	0.00	-11.54	0.00	11.54	1052.07	315.62	43955.0	624.04	0.90	-0.13	0.029
75.00	-11.09	-0.27	0.00	-11.27	0.00	11.27	1052.07	315.62	43955.0	624.04	0.93	-0.13	0.029
76.00	-10.92	-0.27	0.00	-11.00	0.00	11.00	1052.07	315.62	43955.0	624.04	0.96	-0.13	0.028
77.00	-10.76	-0.27	0.00	-10.73	0.00	10.73	1052.07	315.62	43955.0	624.04	0.98	-0.13	0.027
78.00	-10.60	-0.26	0.00	-10.46	0.00	10.46	1052.07	315.62	43955.0	624.04	1.01	-0.13	0.027
79.00	-10.44	-0.26	0.00	-10.20	0.00	10.20	1052.07	315.62	43955.0	624.04	1.04	-0.14	0.026
80.00	-10.28	-0.26	0.00	-9.94	0.00	9.94	1052.07	315.62	43955.0	624.04	1.07	-0.14	0.026
80.00	-10.28	-0.26	0.00	-9.94	0.00	9.94	1052.07	315.62	43955.0	624.04	1.07	-0.14	0.026
81.00	-10.12	-0.26	0.00	-9.68	0.00	9.68	1052.07	315.62	43955.0	624.04	1.10	-0.14	0.025
82.00	-9.95	-0.26	0.00	-9.42	0.00	9.42	1052.07	315.62	43955.0	624.04	1.13	-0.14	0.025
83.00	-9.79	-0.25	0.00	-9.16	0.00	9.16	1052.07	315.62	43955.0	624.04	1.15	-0.14	0.024
84.00	-9.63	-0.25	0.00	-8.91	0.00	8.91	1052.07	315.62	43955.0	624.04	1.18	-0.14	0.023
85.00	-9.47	-0.25	0.00	-8.66	0.00	8.66	1052.07	315.62	43955.0	624.04	1.21	-0.14	0.023
86.00	-9.31	-0.25	0.00	-8.41	0.00	8.41	1052.07	315.62	43955.0	624.04	1.24	-0.14	0.022
87.00	-9.14	-0.24	0.00	-8.16	0.00	8.16	1052.07	315.62	43955.0	624.04	1.27	-0.15	0.022
88.00	-8.98	-0.24	0.00	-7.92	0.00	7.92	1052.07	315.62	43955.0	624.04	1.31	-0.15	0.021
89.00	-8.82	-0.24	0.00	-7.67	0.00	7.67	1052.07	315.62	43955.0	624.04	1.34	-0.15	0.021
90.00	-8.66	-0.24	0.00	-7.43	0.00	7.43	1052.07	315.62	43955.0	624.04	1.37	-0.15	0.020
91.00	-8.50	-0.23	0.00	-7.20	0.00	7.20	1052.07	315.62	43955.0	624.04	1.40	-0.15	0.020
92.00	-8.34	-0.23	0.00	-6.96	0.00	6.96	1052.07	315.62	43955.0	624.04	1.43	-0.15	0.019
93.00	-8.17	-0.23	0.00	-6.73	0.00	6.73	1052.07	315.62	43955.0	624.04	1.46	-0.15	0.019
94.00	-8.01	-0.23	0.00	-6.50	0.00	6.50	1052.07	315.62	43955.0	624.04	1.49	-0.15	0.018
95.00	-7.85	-0.22	0.00	-6.27	0.00	6.27	1052.07	315.62	43955.0	624.04	1.53	-0.15	0.018
96.00	-7.69	-0.22	0.00	-6.05	0.00	6.05	1052.07	315.62	43955.0	624.04	1.56	-0.16	0.017
97.00	-7.53	-0.22	0.00	-5.83	0.00	5.83	1052.07	315.62	43955.0	624.04	1.59	-0.16	0.016
98.00	-7.36	-0.21	0.00	-5.61	0.00	5.61	1052.07	315.62	43955.0	624.04	1.62	-0.16	0.016
99.00	-7.20	-0.21	0.00	-5.40	0.00	5.40	1052.07	315.62	43955.0	624.04	1.66	-0.16	0.015
100.00	-7.04	-0.21	0.00	-5.19	0.00	5.19	1052.07	315.62	43955.0	624.04	1.69	-0.16	0.015

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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101.00	-6.88	-0.21	0.00	-4.98	0.00	4.98	1052.07	315.62	43955.0	624.04	1.72	-0.16	0.015
102.00	-6.72	-0.20	0.00	-4.77	0.00	4.77	1052.07	315.62	43955.0	624.04	1.76	-0.16	0.014
103.00	-6.56	-0.20	0.00	-4.57	0.00	4.57	1052.07	315.62	43955.0	624.04	1.79	-0.16	0.014
104.00	-6.39	-0.19	0.00	-4.37	0.00	4.37	1052.07	315.62	43955.0	624.04	1.82	-0.16	0.013
105.00	-6.23	-0.19	0.00	-4.18	0.00	4.18	1052.07	315.62	43955.0	624.04	1.86	-0.16	0.013
106.00	-6.07	-0.19	0.00	-3.99	0.00	3.99	1052.07	315.62	43955.0	624.04	1.89	-0.16	0.012
107.00	-5.91	-0.18	0.00	-3.80	0.00	3.80	1052.07	315.62	43955.0	624.04	1.93	-0.16	0.012
108.00	-5.73	-0.18	0.00	-3.61	0.00	3.61	1052.07	315.62	43955.0	624.04	1.96	-0.16	0.011
108.00	-5.73	-0.18	0.00	-3.61	0.00	3.61	1052.07	315.62	43955.0	624.04	1.96	-0.16	0.011
109.00	-5.56	-0.18	0.00	-3.43	0.00	3.43	1052.07	315.62	43955.0	624.04	1.99	-0.16	0.011
110.00	-5.29	-0.17	0.00	-3.26	0.00	3.26	1052.07	315.62	43955.0	624.04	2.03	-0.16	0.007
110.00	-5.29	-0.17	0.00	-3.26	0.00	3.26	682.83	204.85	11780.8	105.20	2.03	-0.16	0.004
111.00	-5.16	-0.16	0.00	-3.09	0.00	3.09	682.83	204.85	11780.8	105.20	2.06	-0.16	0.012
111.50	-5.09	-0.16	0.00	-3.01	0.00	3.01	682.83	204.85	11780.8	105.20	2.08	-0.17	0.012
111.50	-5.09	-0.16	0.00	-3.01	0.00	3.01	682.83	204.85	11780.8	105.20	2.08	-0.17	0.025
112.00	-5.02	-0.16	0.00	-2.93	0.00	2.93	682.83	204.85	11780.8	105.20	2.10	-0.17	0.035
113.00	-4.89	-0.16	0.00	-2.76	0.00	2.76	682.83	204.85	11780.8	105.20	2.13	-0.18	0.033
114.00	-4.76	-0.16	0.00	-2.60	0.00	2.60	682.83	204.85	11780.8	105.20	2.17	-0.19	0.032
115.00	-4.36	-0.14	0.00	-2.44	0.00	2.44	682.83	204.85	11780.8	105.20	2.21	-0.20	0.030
116.00	-4.24	-0.14	0.00	-2.30	0.00	2.30	682.83	204.85	11780.8	105.20	2.26	-0.21	0.028
117.00	-4.11	-0.14	0.00	-2.16	0.00	2.16	682.83	204.85	11780.8	105.20	2.30	-0.22	0.027
118.00	-3.99	-0.13	0.00	-2.03	0.00	2.03	682.83	204.85	11780.8	105.20	2.35	-0.22	0.025
119.00	-3.86	-0.13	0.00	-1.89	0.00	1.89	682.83	204.85	11780.8	105.20	2.39	-0.23	0.024
120.00	-3.58	-0.12	0.00	-1.76	0.00	1.76	682.83	204.85	11780.8	105.20	2.44	-0.24	0.022
121.00	-3.45	-0.12	0.00	-1.64	0.00	1.64	682.83	204.85	11780.8	105.20	2.49	-0.24	0.021
122.00	-3.33	-0.12	0.00	-1.52	0.00	1.52	682.83	204.85	11780.8	105.20	2.55	-0.25	0.019
123.00	-3.20	-0.11	0.00	-1.41	0.00	1.41	682.83	204.85	11780.8	105.20	2.60	-0.26	0.018
124.00	-3.08	-0.11	0.00	-1.30	0.00	1.30	682.83	204.85	11780.8	105.20	2.65	-0.26	0.017
125.00	-2.95	-0.11	0.00	-1.19	0.00	1.19	682.83	204.85	11780.8	105.20	2.71	-0.27	0.016
126.00	-2.83	-0.11	0.00	-1.08	0.00	1.08	682.83	204.85	11780.8	105.20	2.76	-0.27	0.014
127.00	-2.50	-0.09	0.00	-0.97	0.00	0.97	682.83	204.85	11780.8	105.20	2.82	-0.27	0.013
128.00	-2.38	-0.08	0.00	-0.88	0.00	0.88	682.83	204.85	11780.8	105.20	2.88	-0.28	0.012
129.00	-2.27	-0.08	0.00	-0.80	0.00	0.80	682.83	204.85	11780.8	105.20	2.94	-0.28	0.011
130.00	-2.00	-0.07	0.00	-0.72	0.00	0.72	682.83	204.85	11780.8	105.20	3.00	-0.28	0.010
130.00	-2.00	-0.07	0.00	-0.72	0.00	0.72	317.71	95.31	3734.62	52.28	3.00	-0.28	0.020
131.00	-1.92	-0.07	0.00	-0.65	0.00	0.65	317.71	95.31	3734.62	52.28	3.06	-0.29	0.018
132.00	-1.85	-0.07	0.00	-0.58	0.00	0.58	317.71	95.31	3734.62	52.28	3.12	-0.29	0.017
133.00	-1.78	-0.07	0.00	-0.51	0.00	0.51	317.71	95.31	3734.62	52.28	3.18	-0.30	0.015
134.00	-1.71	-0.07	0.00	-0.45	0.00	0.45	317.71	95.31	3734.62	52.28	3.24	-0.30	0.014
135.00	-1.38	-0.05	0.00	-0.38	0.00	0.38	317.71	95.31	3734.62	52.28	3.30	-0.30	0.012
136.00	-1.32	-0.04	0.00	-0.33	0.00	0.33	317.71	95.31	3734.62	52.28	3.37	-0.30	0.011
137.00	-1.25	-0.04	0.00	-0.29	0.00	0.29	317.71	95.31	3734.62	52.28	3.43	-0.31	0.009
138.00	-1.19	-0.04	0.00	-0.25	0.00	0.25	317.71	95.31	3734.62	52.28	3.50	-0.31	0.008
139.00	-1.13	-0.04	0.00	-0.20	0.00	0.20	317.71	95.31	3734.62	52.28	3.56	-0.31	0.007
140.00	-0.87	-0.03	0.00	-0.16	0.00	0.16	317.71	95.31	3734.62	52.28	3.63	-0.31	0.006
141.00	-0.81	-0.03	0.00	-0.13	0.00	0.13	317.71	95.31	3734.62	52.28	3.69	-0.31	0.005
142.00	-0.75	-0.03	0.00	-0.10	0.00	0.10	317.71	95.31	3734.62	52.28	3.76	-0.31	0.004
143.00	-0.69	-0.03	0.00	-0.08	0.00	0.08	317.71	95.31	3734.62	52.28	3.82	-0.31	0.004
144.00	-0.62	-0.03	0.00	-0.05	0.00	0.05	317.71	95.31	3734.62	52.28	3.89	-0.31	0.003
145.00	-0.32	-0.01	0.00	-0.03	0.00	0.03	317.71	95.31	3734.62	52.28	3.95	-0.31	0.001
146.00	-0.27	-0.01	0.00	-0.02	0.00	0.02	317.71	95.31	3734.62	52.28	4.02	-0.31	0.001
147.00	-0.23	-0.01	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	4.08	-0.31	0.001
148.00	-0.18	0.00	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	4.15	-0.31	0.001
149.00	-0.13	0.00	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	4.22	-0.31	0.000
150.00	0.00	0.00	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	4.28	-0.31	0.000

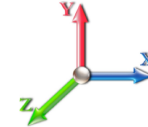
## Seismic Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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<b>Load Case:</b> 0.9D + 1.0Ev + 1.0Eh				<b>Iterations</b> 36
<b>Gust Response Factor</b>	1.10	<b>Sds</b>	0.21	<b>Ss</b> 0.20
<b>Dead Load Factor</b>	0.90	<b>Seismic Load Factor</b>	1.00	<b>S1</b> 0.06
<b>Wind Load Factor</b>	0.00	<b>Structure Frequency (f1)</b>	0.32	<b>SA</b> 0.03
				<b>Seismic Importance Factor</b> 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
1.00		174.69	0.50	7.45	0.00	
2.00		174.69	1.50	7.45	0.00	
3.00		174.69	2.50	7.45	0.00	
4.00		174.69	3.50	7.45	0.01	
5.00		174.69	4.50	7.45	0.01	
6.00		174.69	5.50	7.45	0.02	
7.00		174.69	6.50	7.45	0.02	
8.00		174.69	7.50	7.45	0.03	
9.00		174.69	8.50	7.45	0.04	
10.00		174.69	9.50	7.45	0.05	
11.00		174.69	10.50	7.45	0.06	
12.00		174.69	11.50	7.45	0.07	
13.00		174.69	12.50	7.45	0.08	
14.00		174.69	13.50	7.45	0.10	
15.00		174.69	14.50	7.45	0.11	
16.00		174.69	15.50	7.45	0.13	
17.00		174.69	16.50	7.45	0.14	
18.00		174.69	17.50	7.45	0.16	
19.00		174.69	18.50	7.45	0.18	
20.00	Top - Section 1	174.69	19.50	7.45	0.20	
21.00		150.64	20.50	6.43	0.16	
22.00		150.64	21.50	6.43	0.18	
23.00		150.64	22.50	6.43	0.20	
24.00		150.64	23.50	6.43	0.22	
25.00		150.64	24.50	6.43	0.24	
26.00		150.64	25.50	6.43	0.25	
27.00		150.64	26.50	6.43	0.28	
28.00		150.64	27.50	6.43	0.30	
29.00		150.64	28.50	6.43	0.32	
30.00		150.64	29.50	6.43	0.34	
31.00		150.64	30.50	6.43	0.36	
32.00		150.64	31.50	6.43	0.39	
33.00		150.64	32.50	6.43	0.41	
34.00		150.64	33.50	6.43	0.44	
35.00		150.64	34.50	6.43	0.47	
36.00		150.64	35.50	6.43	0.49	
37.00		150.64	36.50	6.43	0.52	
38.00		150.64	37.50	6.43	0.55	
39.00		150.64	38.50	6.43	0.58	
40.00		150.64	39.50	6.43	0.61	
41.00		150.64	40.50	6.43	0.64	
42.00		150.64	41.50	6.43	0.67	
43.00		150.64	42.50	6.43	0.71	
44.00		150.64	43.50	6.43	0.74	
45.00		150.64	44.50	6.43	0.78	

## Seismic Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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46.00		150.64	45.50	6.43	0.81
47.00		150.64	46.50	6.43	0.85
48.00		150.64	47.50	6.43	0.88
49.00		150.64	48.50	6.43	0.92
50.00	Top - Section 2	150.64	49.50	6.43	0.96
51.00		126.59	50.50	5.40	0.71
52.00		126.59	51.50	5.40	0.73
53.00		126.59	52.50	5.40	0.76
54.00		126.59	53.50	5.40	0.79
55.00		126.59	54.50	5.40	0.82
56.00		126.59	55.50	5.40	0.85
57.00		126.59	56.50	5.40	0.88
58.00		126.59	57.50	5.40	0.91
59.00		126.59	58.50	5.40	0.95
60.00		126.59	59.50	5.40	0.98
61.00		126.59	60.50	5.40	1.01
62.00		126.59	61.50	5.40	1.05
63.00		126.59	62.50	5.40	1.08
64.00		126.59	63.50	5.40	1.12
65.00		126.59	64.50	5.40	1.15
66.00		126.59	65.50	5.40	1.19
67.00		126.59	66.50	5.40	1.22
68.00		126.59	67.50	5.40	1.26
69.00		126.59	68.50	5.40	1.30
70.00		126.59	69.50	5.40	1.34
71.00		126.59	70.50	5.40	1.37
72.00		126.59	71.50	5.40	1.41
73.00		126.59	72.50	5.40	1.45
74.00		126.59	73.50	5.40	1.49
75.00	Appurtenance(s)	136.59	74.50	5.83	1.79
76.00		126.44	75.50	5.39	1.57
77.00		126.44	76.50	5.39	1.61
78.00		126.44	77.50	5.39	1.66
79.00		126.44	78.50	5.39	1.70
80.00	Top - Section 3	126.44	79.50	5.39	1.74
81.00		126.44	80.50	5.39	1.79
82.00		126.44	81.50	5.39	1.83
83.00		126.44	82.50	5.39	1.88
84.00		126.44	83.50	5.39	1.92
85.00		126.44	84.50	5.39	1.97
86.00		126.44	85.50	5.39	2.02
87.00		126.44	86.50	5.39	2.06
88.00		126.44	87.50	5.39	2.11
89.00		126.44	88.50	5.39	2.16
90.00		126.44	89.50	5.39	2.21
91.00		126.44	90.50	5.39	2.26
92.00		126.44	91.50	5.39	2.31
93.00		126.44	92.50	5.39	2.36
94.00		126.44	93.50	5.39	2.41
95.00		126.44	94.50	5.39	2.46
96.00		126.44	95.50	5.39	2.52
97.00		126.44	96.50	5.39	2.57
98.00		126.44	97.50	5.39	2.62
99.00		126.44	98.50	5.39	2.68
100.00		126.44	99.50	5.39	2.73
101.00		126.44	100.50	5.39	2.79
102.00		126.44	101.50	5.39	2.84



## Seismic Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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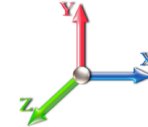
103.00		126.44	102.50	5.39	2.90
104.00		126.44	103.50	5.39	2.96
105.00		126.44	104.50	5.39	3.01
106.00		126.44	105.50	5.39	3.07
107.00		126.44	106.50	5.39	3.13
108.00	Top - Section 4	139.35	107.50	5.95	3.87
109.00		126.44	108.50	5.39	3.25
110.00	Top - Section 5 RB1	203.92	109.50	8.70	8.61
111.00		93.20	110.50	3.98	1.83
111.50	RT1	46.60	111.25	1.99	0.46
112.00		46.60	111.75	1.99	0.47
113.00		93.20	112.50	3.98	1.90
114.00		93.20	113.50	3.98	1.93
115.00	Appurtenance(s)	307.80	114.50	13.13	21.44
116.00		87.91	115.50	3.75	1.78
117.00		87.91	116.50	3.75	1.81
118.00		87.91	117.50	3.75	1.84
119.00		87.91	118.50	3.75	1.87
120.00	Appurtenance(s)	217.05	119.50	9.26	11.61
121.00		87.91	120.50	3.75	1.94
122.00		87.91	121.50	3.75	1.97
123.00		87.91	122.50	3.75	2.00
124.00		87.91	123.50	3.75	2.03
125.00		87.91	124.50	3.75	2.07
126.00		87.91	125.50	3.75	2.10
127.00	Appurtenance(s)	254.81	126.50	10.87	17.93
128.00		79.86	127.50	3.41	1.79
129.00		79.86	128.50	3.41	1.82
130.00	Top - Section 6	209.00	129.50	8.92	12.64
131.00		47.00	130.50	2.01	0.65
132.00		47.00	131.50	2.01	0.66
133.00		47.00	132.50	2.01	0.67
134.00		47.00	133.50	2.01	0.68
135.00	Appurtenance(s)	252.30	134.50	10.76	19.87
136.00		39.83	135.50	1.70	0.50
137.00		39.83	136.50	1.70	0.51
138.00		39.83	137.50	1.70	0.52
139.00		39.83	138.50	1.70	0.53
140.00	Appurtenance(s)	193.97	139.50	8.28	12.64
141.00		39.83	140.50	1.70	0.54
142.00		39.83	141.50	1.70	0.55
143.00		39.83	142.50	1.70	0.56
144.00		39.83	143.50	1.70	0.56
145.00	Appurtenance(s)	231.83	144.50	9.89	19.37
146.00		28.60	145.50	1.22	0.30
147.00		28.60	146.50	1.22	0.30
148.00		28.60	147.50	1.22	0.31
149.00		28.60	148.50	1.22	0.31
150.00	Appurtenance(s)	98.17	149.50	4.19	3.72
<b>Totals:</b>		<b>19,501.1</b>	<b>832.0</b>	<b>290.9</b>	
					<b>Total Wind: 11,185.0</b>

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



<b>Load Case:</b> 0.9D + 1.0Ev + 1.0Eh										<b>Iterations</b> 36
<b>Gust Response Factor</b> 1.10					<b>Sds</b> 0.21					<b>Ss</b> 0.20
<b>Dead Load Factor</b> 0.90			<b>Seismic Load Factor</b> 1.00			<b>Sd1</b> 0.09			<b>S1</b> 0.06	
<b>Wind Load Factor</b> 0.00		<b>Structure Frequency (f1)</b> 0.32		<b>SA</b> 0.03		<b>Seismic Importance Factor</b> 1.00				



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-19.17	-0.29	0.00	-32.87	0.00	32.87	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.037
1.00	-19.00	-0.29	0.00	-32.58	0.00	32.58	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.037
2.00	-18.83	-0.29	0.00	-32.29	0.00	32.29	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.037
3.00	-18.67	-0.29	0.00	-32.00	0.00	32.00	1490.10	475.94	99948.2	1339.68	0.00	0.00	0.00	0.036
4.00	-18.50	-0.29	0.00	-31.71	0.00	31.71	1490.10	475.94	99948.2	1339.68	0.00	-0.01	0.00	0.036
5.00	-18.33	-0.29	0.00	-31.42	0.00	31.42	1490.10	475.94	99948.2	1339.68	0.00	-0.01	0.00	0.036
6.00	-18.16	-0.29	0.00	-31.13	0.00	31.13	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.035
7.00	-17.99	-0.29	0.00	-30.84	0.00	30.84	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.035
8.00	-17.83	-0.29	0.00	-30.55	0.00	30.55	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.035
9.00	-17.66	-0.29	0.00	-30.25	0.00	30.25	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.034
10.00	-17.49	-0.29	0.00	-29.96	0.00	29.96	1490.10	475.94	99948.2	1339.68	0.01	-0.01	0.00	0.034
11.00	-17.32	-0.29	0.00	-29.67	0.00	29.67	1490.10	475.94	99948.2	1339.68	0.02	-0.01	0.00	0.034
12.00	-17.16	-0.29	0.00	-29.37	0.00	29.37	1490.10	475.94	99948.2	1339.68	0.02	-0.02	0.00	0.033
13.00	-16.99	-0.29	0.00	-29.08	0.00	29.08	1490.10	475.94	99948.2	1339.68	0.02	-0.02	0.00	0.033
14.00	-16.82	-0.29	0.00	-28.79	0.00	28.79	1490.10	475.94	99948.2	1339.68	0.03	-0.02	0.00	0.033
15.00	-16.65	-0.29	0.00	-28.49	0.00	28.49	1490.10	475.94	99948.2	1339.68	0.03	-0.02	0.00	0.032
16.00	-16.48	-0.29	0.00	-28.20	0.00	28.20	1490.10	475.94	99948.2	1339.68	0.04	-0.02	0.00	0.032
17.00	-16.32	-0.29	0.00	-27.90	0.00	27.90	1490.10	475.94	99948.2	1339.68	0.04	-0.02	0.00	0.032
18.00	-16.15	-0.29	0.00	-27.61	0.00	27.61	1490.10	475.94	99948.2	1339.68	0.05	-0.02	0.00	0.031
19.00	-15.98	-0.30	0.00	-27.31	0.00	27.31	1490.10	475.94	99948.2	1339.68	0.05	-0.02	0.00	0.031
20.00	-15.81	-0.30	0.00	-27.02	0.00	27.02	1490.10	475.94	99948.2	1339.68	0.06	-0.03	0.00	0.031
20.00	-15.81	-0.30	0.00	-27.02	0.00	27.02	1311.06	395.78	69116.5	948.43	0.06	-0.03	0.00	0.041
21.00	-15.67	-0.30	0.00	-26.72	0.00	26.72	1311.06	395.78	69116.5	948.43	0.06	-0.03	0.00	0.040
22.00	-15.52	-0.30	0.00	-26.43	0.00	26.43	1311.06	395.78	69116.5	948.43	0.07	-0.03	0.00	0.040
23.00	-15.38	-0.30	0.00	-26.13	0.00	26.13	1311.06	395.78	69116.5	948.43	0.07	-0.03	0.00	0.039
24.00	-15.23	-0.30	0.00	-25.84	0.00	25.84	1311.06	395.78	69116.5	948.43	0.08	-0.03	0.00	0.039
25.00	-15.09	-0.30	0.00	-25.54	0.00	25.54	1311.06	395.78	69116.5	948.43	0.09	-0.03	0.00	0.038
26.00	-14.94	-0.30	0.00	-25.24	0.00	25.24	1311.06	395.78	69116.5	948.43	0.09	-0.04	0.00	0.038
27.00	-14.80	-0.30	0.00	-24.95	0.00	24.95	1311.06	395.78	69116.5	948.43	0.10	-0.04	0.00	0.038
28.00	-14.65	-0.30	0.00	-24.65	0.00	24.65	1311.06	395.78	69116.5	948.43	0.11	-0.04	0.00	0.037
29.00	-14.51	-0.30	0.00	-24.35	0.00	24.35	1311.06	395.78	69116.5	948.43	0.12	-0.04	0.00	0.037
30.00	-14.36	-0.30	0.00	-24.06	0.00	24.06	1311.06	395.78	69116.5	948.43	0.13	-0.04	0.00	0.036
31.00	-14.22	-0.30	0.00	-23.76	0.00	23.76	1311.06	395.78	69116.5	948.43	0.14	-0.05	0.00	0.036
32.00	-14.07	-0.30	0.00	-23.46	0.00	23.46	1311.06	395.78	69116.5	948.43	0.15	-0.05	0.00	0.035
33.00	-13.92	-0.30	0.00	-23.17	0.00	23.17	1311.06	395.78	69116.5	948.43	0.16	-0.05	0.00	0.035
34.00	-13.78	-0.30	0.00	-22.87	0.00	22.87	1311.06	395.78	69116.5	948.43	0.17	-0.05	0.00	0.035
35.00	-13.63	-0.30	0.00	-22.58	0.00	22.58	1311.06	395.78	69116.5	948.43	0.18	-0.05	0.00	0.034
36.00	-13.49	-0.30	0.00	-22.28	0.00	22.28	1311.06	395.78	69116.5	948.43	0.19	-0.05	0.00	0.034
37.00	-13.34	-0.30	0.00	-21.98	0.00	21.98	1311.06	395.78	69116.5	948.43	0.20	-0.06	0.00	0.033
38.00	-13.20	-0.30	0.00	-21.69	0.00	21.69	1311.06	395.78	69116.5	948.43	0.21	-0.06	0.00	0.033
39.00	-13.05	-0.29	0.00	-21.39	0.00	21.39	1311.06	395.78	69116.5	948.43	0.22	-0.06	0.00	0.033
40.00	-12.91	-0.29	0.00	-21.10	0.00	21.10	1311.06	395.78	69116.5	948.43	0.24	-0.06	0.00	0.032
41.00	-12.76	-0.29	0.00	-20.80	0.00	20.80	1311.06	395.78	69116.5	948.43	0.25	-0.06	0.00	0.032
42.00	-12.62	-0.29	0.00	-20.51	0.00	20.51	1311.06	395.78	69116.5	948.43	0.26	-0.06	0.00	0.031
43.00	-12.47	-0.29	0.00	-20.22	0.00	20.22	1311.06	395.78	69116.5	948.43	0.28	-0.07	0.00	0.031
44.00	-12.33	-0.29	0.00	-19.92	0.00	19.92	1311.06	395.78	69116.5	948.43	0.29	-0.07	0.00	0.030
45.00	-12.18	-0.29	0.00	-19.63	0.00	19.63	1311.06	395.78	69116.5	948.43	0.30	-0.07	0.00	0.030

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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46.00	-12.04	-0.29	0.00	-19.34	0.00	19.34	1311.06	395.78	69116.5	948.43	0.32	-0.07	0.030
47.00	-11.89	-0.29	0.00	-19.05	0.00	19.05	1311.06	395.78	69116.5	948.43	0.33	-0.07	0.029
48.00	-11.75	-0.29	0.00	-18.76	0.00	18.76	1311.06	395.78	69116.5	948.43	0.35	-0.07	0.029
49.00	-11.60	-0.29	0.00	-18.47	0.00	18.47	1311.06	395.78	69116.5	948.43	0.36	-0.07	0.028
50.00	-11.46	-0.29	0.00	-18.18	0.00	18.18	1311.06	395.78	69116.5	948.43	0.38	-0.08	0.028
50.00	-11.46	-0.29	0.00	-18.18	0.00	18.18	1052.07	315.62	43955.0	624.04	0.38	-0.08	0.040
51.00	-11.33	-0.29	0.00	-17.89	0.00	17.89	1052.07	315.62	43955.0	624.04	0.40	-0.08	0.039
52.00	-11.21	-0.29	0.00	-17.61	0.00	17.61	1052.07	315.62	43955.0	624.04	0.41	-0.08	0.039
53.00	-11.09	-0.29	0.00	-17.32	0.00	17.32	1052.07	315.62	43955.0	624.04	0.43	-0.08	0.038
54.00	-10.97	-0.29	0.00	-17.03	0.00	17.03	1052.07	315.62	43955.0	624.04	0.45	-0.08	0.038
55.00	-10.84	-0.29	0.00	-16.75	0.00	16.75	1052.07	315.62	43955.0	624.04	0.46	-0.09	0.037
56.00	-10.72	-0.28	0.00	-16.46	0.00	16.46	1052.07	315.62	43955.0	624.04	0.48	-0.09	0.037
57.00	-10.60	-0.28	0.00	-16.18	0.00	16.18	1052.07	315.62	43955.0	624.04	0.50	-0.09	0.036
58.00	-10.48	-0.28	0.00	-15.89	0.00	15.89	1052.07	315.62	43955.0	624.04	0.52	-0.09	0.035
59.00	-10.35	-0.28	0.00	-15.61	0.00	15.61	1052.07	315.62	43955.0	624.04	0.54	-0.10	0.035
60.00	-10.23	-0.28	0.00	-15.33	0.00	15.33	1052.07	315.62	43955.0	624.04	0.56	-0.10	0.034
61.00	-10.11	-0.28	0.00	-15.04	0.00	15.04	1052.07	315.62	43955.0	624.04	0.58	-0.10	0.034
62.00	-9.99	-0.28	0.00	-14.76	0.00	14.76	1052.07	315.62	43955.0	624.04	0.60	-0.10	0.033
63.00	-9.86	-0.28	0.00	-14.48	0.00	14.48	1052.07	315.62	43955.0	624.04	0.62	-0.10	0.033
64.00	-9.74	-0.28	0.00	-14.20	0.00	14.20	1052.07	315.62	43955.0	624.04	0.65	-0.11	0.032
65.00	-9.62	-0.28	0.00	-13.93	0.00	13.93	1052.07	315.62	43955.0	624.04	0.67	-0.11	0.031
66.00	-9.50	-0.28	0.00	-13.65	0.00	13.65	1052.07	315.62	43955.0	624.04	0.69	-0.11	0.031
67.00	-9.37	-0.28	0.00	-13.37	0.00	13.37	1052.07	315.62	43955.0	624.04	0.72	-0.11	0.030
68.00	-9.25	-0.27	0.00	-13.10	0.00	13.10	1052.07	315.62	43955.0	624.04	0.74	-0.11	0.030
69.00	-9.13	-0.27	0.00	-12.82	0.00	12.82	1052.07	315.62	43955.0	624.04	0.76	-0.12	0.029
70.00	-9.01	-0.27	0.00	-12.55	0.00	12.55	1052.07	315.62	43955.0	624.04	0.79	-0.12	0.029
71.00	-8.88	-0.27	0.00	-12.28	0.00	12.28	1052.07	315.62	43955.0	624.04	0.81	-0.12	0.028
72.00	-8.76	-0.27	0.00	-12.01	0.00	12.01	1052.07	315.62	43955.0	624.04	0.84	-0.12	0.028
73.00	-8.64	-0.27	0.00	-11.74	0.00	11.74	1052.07	315.62	43955.0	624.04	0.86	-0.12	0.027
74.00	-8.52	-0.27	0.00	-11.47	0.00	11.47	1052.07	315.62	43955.0	624.04	0.89	-0.13	0.026
75.00	-8.38	-0.26	0.00	-11.21	0.00	11.21	1052.07	315.62	43955.0	624.04	0.92	-0.13	0.026
76.00	-8.26	-0.26	0.00	-10.94	0.00	10.94	1052.07	315.62	43955.0	624.04	0.94	-0.13	0.025
77.00	-8.14	-0.26	0.00	-10.68	0.00	10.68	1052.07	315.62	43955.0	624.04	0.97	-0.13	0.025
78.00	-8.02	-0.26	0.00	-10.42	0.00	10.42	1052.07	315.62	43955.0	624.04	1.00	-0.13	0.024
79.00	-7.89	-0.26	0.00	-10.16	0.00	10.16	1052.07	315.62	43955.0	624.04	1.03	-0.13	0.024
80.00	-7.77	-0.26	0.00	-9.90	0.00	9.90	1052.07	315.62	43955.0	624.04	1.05	-0.14	0.023
80.00	-7.77	-0.26	0.00	-9.90	0.00	9.90	1052.07	315.62	43955.0	624.04	1.05	-0.14	0.023
81.00	-7.65	-0.25	0.00	-9.65	0.00	9.65	1052.07	315.62	43955.0	624.04	1.08	-0.14	0.023
82.00	-7.53	-0.25	0.00	-9.40	0.00	9.40	1052.07	315.62	43955.0	624.04	1.11	-0.14	0.022
83.00	-7.40	-0.25	0.00	-9.14	0.00	9.14	1052.07	315.62	43955.0	624.04	1.14	-0.14	0.022
84.00	-7.28	-0.25	0.00	-8.89	0.00	8.89	1052.07	315.62	43955.0	624.04	1.17	-0.14	0.021
85.00	-7.16	-0.25	0.00	-8.65	0.00	8.65	1052.07	315.62	43955.0	624.04	1.20	-0.14	0.021
86.00	-7.04	-0.24	0.00	-8.40	0.00	8.40	1052.07	315.62	43955.0	624.04	1.23	-0.14	0.020
87.00	-6.92	-0.24	0.00	-8.16	0.00	8.16	1052.07	315.62	43955.0	624.04	1.26	-0.14	0.020
88.00	-6.79	-0.24	0.00	-7.92	0.00	7.92	1052.07	315.62	43955.0	624.04	1.29	-0.15	0.019
89.00	-6.67	-0.24	0.00	-7.68	0.00	7.68	1052.07	315.62	43955.0	624.04	1.32	-0.15	0.019
90.00	-6.55	-0.23	0.00	-7.44	0.00	7.44	1052.07	315.62	43955.0	624.04	1.35	-0.15	0.018
91.00	-6.43	-0.23	0.00	-7.21	0.00	7.21	1052.07	315.62	43955.0	624.04	1.38	-0.15	0.018
92.00	-6.30	-0.23	0.00	-6.98	0.00	6.98	1052.07	315.62	43955.0	624.04	1.41	-0.15	0.017
93.00	-6.18	-0.23	0.00	-6.75	0.00	6.75	1052.07	315.62	43955.0	624.04	1.45	-0.15	0.017
94.00	-6.06	-0.22	0.00	-6.52	0.00	6.52	1052.07	315.62	43955.0	624.04	1.48	-0.15	0.016
95.00	-5.94	-0.22	0.00	-6.30	0.00	6.30	1052.07	315.62	43955.0	624.04	1.51	-0.15	0.016
96.00	-5.81	-0.22	0.00	-6.08	0.00	6.08	1052.07	315.62	43955.0	624.04	1.54	-0.15	0.015
97.00	-5.69	-0.22	0.00	-5.86	0.00	5.86	1052.07	315.62	43955.0	624.04	1.57	-0.15	0.015
98.00	-5.57	-0.21	0.00	-5.64	0.00	5.64	1052.07	315.62	43955.0	624.04	1.61	-0.16	0.014
99.00	-5.45	-0.21	0.00	-5.43	0.00	5.43	1052.07	315.62	43955.0	624.04	1.64	-0.16	0.014
100.00	-5.32	-0.21	0.00	-5.22	0.00	5.22	1052.07	315.62	43955.0	624.04	1.67	-0.16	0.013

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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101.00	-5.20	-0.20	0.00	-5.01	0.00	5.01	1052.07	315.62	43955.0	624.04	1.70	-0.16	0.013
102.00	-5.08	-0.20	0.00	-4.81	0.00	4.81	1052.07	315.62	43955.0	624.04	1.74	-0.16	0.013
103.00	-4.96	-0.20	0.00	-4.61	0.00	4.61	1052.07	315.62	43955.0	624.04	1.77	-0.16	0.012
104.00	-4.84	-0.19	0.00	-4.41	0.00	4.41	1052.07	315.62	43955.0	624.04	1.80	-0.16	0.012
105.00	-4.71	-0.19	0.00	-4.22	0.00	4.22	1052.07	315.62	43955.0	624.04	1.84	-0.16	0.011
106.00	-4.59	-0.19	0.00	-4.03	0.00	4.03	1052.07	315.62	43955.0	624.04	1.87	-0.16	0.011
107.00	-4.47	-0.18	0.00	-3.84	0.00	3.84	1052.07	315.62	43955.0	624.04	1.91	-0.16	0.010
108.00	-4.33	-0.18	0.00	-3.65	0.00	3.65	1052.07	315.62	43955.0	624.04	1.94	-0.16	0.010
108.00	-4.33	-0.18	0.00	-3.65	0.00	3.65	1052.07	315.62	43955.0	624.04	1.94	-0.16	0.010
109.00	-4.20	-0.18	0.00	-3.47	0.00	3.47	1052.07	315.62	43955.0	624.04	1.97	-0.16	0.010
110.00	-4.00	-0.17	0.00	-3.30	0.00	3.30	1052.07	315.62	43955.0	624.04	2.01	-0.16	0.006
110.00	-4.00	-0.17	0.00	-3.30	0.00	3.30	682.83	204.85	11780.8	105.20	2.01	-0.16	0.003
111.00	-3.90	-0.17	0.00	-3.13	0.00	3.13	682.83	204.85	11780.8	105.20	2.04	-0.16	0.011
111.50	-3.85	-0.16	0.00	-3.05	0.00	3.05	682.83	204.85	11780.8	105.20	2.06	-0.17	0.011
111.50	-3.85	-0.16	0.00	-3.05	0.00	3.05	682.83	204.85	11780.8	105.20	2.06	-0.17	0.024
112.00	-3.80	-0.16	0.00	-2.97	0.00	2.97	682.83	204.85	11780.8	105.20	2.08	-0.17	0.034
113.00	-3.70	-0.16	0.00	-2.80	0.00	2.80	682.83	204.85	11780.8	105.20	2.11	-0.18	0.032
114.00	-3.60	-0.16	0.00	-2.64	0.00	2.64	682.83	204.85	11780.8	105.20	2.15	-0.19	0.030
115.00	-3.30	-0.14	0.00	-2.48	0.00	2.48	682.83	204.85	11780.8	105.20	2.19	-0.20	0.028
116.00	-3.20	-0.14	0.00	-2.34	0.00	2.34	682.83	204.85	11780.8	105.20	2.23	-0.21	0.027
117.00	-3.11	-0.14	0.00	-2.20	0.00	2.20	682.83	204.85	11780.8	105.20	2.28	-0.22	0.025
118.00	-3.02	-0.13	0.00	-2.06	0.00	2.06	682.83	204.85	11780.8	105.20	2.32	-0.22	0.024
119.00	-2.92	-0.13	0.00	-1.93	0.00	1.93	682.83	204.85	11780.8	105.20	2.37	-0.23	0.023
120.00	-2.71	-0.12	0.00	-1.79	0.00	1.79	682.83	204.85	11780.8	105.20	2.42	-0.24	0.021
121.00	-2.61	-0.12	0.00	-1.67	0.00	1.67	682.83	204.85	11780.8	105.20	2.47	-0.24	0.020
122.00	-2.52	-0.12	0.00	-1.56	0.00	1.56	682.83	204.85	11780.8	105.20	2.52	-0.25	0.018
123.00	-2.42	-0.11	0.00	-1.44	0.00	1.44	682.83	204.85	11780.8	105.20	2.58	-0.26	0.017
124.00	-2.33	-0.11	0.00	-1.32	0.00	1.32	682.83	204.85	11780.8	105.20	2.63	-0.26	0.016
125.00	-2.23	-0.11	0.00	-1.21	0.00	1.21	682.83	204.85	11780.8	105.20	2.69	-0.27	0.015
126.00	-2.14	-0.11	0.00	-1.10	0.00	1.10	682.83	204.85	11780.8	105.20	2.74	-0.27	0.014
127.00	-1.89	-0.09	0.00	-1.00	0.00	1.00	682.83	204.85	11780.8	105.20	2.80	-0.28	0.012
128.00	-1.80	-0.09	0.00	-0.91	0.00	0.91	682.83	204.85	11780.8	105.20	2.86	-0.28	0.011
129.00	-1.72	-0.08	0.00	-0.82	0.00	0.82	682.83	204.85	11780.8	105.20	2.92	-0.28	0.010
130.00	-1.51	-0.07	0.00	-0.74	0.00	0.74	682.83	204.85	11780.8	105.20	2.98	-0.29	0.009
130.00	-1.51	-0.07	0.00	-0.74	0.00	0.74	317.71	95.31	3734.62	52.28	2.98	-0.29	0.019
131.00	-1.46	-0.07	0.00	-0.67	0.00	0.67	317.71	95.31	3734.62	52.28	3.04	-0.29	0.017
132.00	-1.40	-0.07	0.00	-0.60	0.00	0.60	317.71	95.31	3734.62	52.28	3.10	-0.29	0.016
133.00	-1.35	-0.07	0.00	-0.53	0.00	0.53	317.71	95.31	3734.62	52.28	3.16	-0.30	0.014
134.00	-1.29	-0.07	0.00	-0.46	0.00	0.46	317.71	95.31	3734.62	52.28	3.22	-0.30	0.013
135.00	-1.04	-0.05	0.00	-0.39	0.00	0.39	317.71	95.31	3734.62	52.28	3.28	-0.30	0.011
136.00	-1.00	-0.05	0.00	-0.35	0.00	0.35	317.71	95.31	3734.62	52.28	3.35	-0.31	0.010
137.00	-0.95	-0.04	0.00	-0.30	0.00	0.30	317.71	95.31	3734.62	52.28	3.41	-0.31	0.009
138.00	-0.90	-0.04	0.00	-0.25	0.00	0.25	317.71	95.31	3734.62	52.28	3.48	-0.31	0.008
139.00	-0.85	-0.04	0.00	-0.21	0.00	0.21	317.71	95.31	3734.62	52.28	3.54	-0.31	0.007
140.00	-0.66	-0.03	0.00	-0.17	0.00	0.17	317.71	95.31	3734.62	52.28	3.61	-0.31	0.005
141.00	-0.61	-0.03	0.00	-0.14	0.00	0.14	317.71	95.31	3734.62	52.28	3.67	-0.31	0.005
142.00	-0.57	-0.03	0.00	-0.11	0.00	0.11	317.71	95.31	3734.62	52.28	3.74	-0.31	0.004
143.00	-0.52	-0.03	0.00	-0.08	0.00	0.08	317.71	95.31	3734.62	52.28	3.80	-0.31	0.003
144.00	-0.47	-0.03	0.00	-0.05	0.00	0.05	317.71	95.31	3734.62	52.28	3.87	-0.32	0.002
145.00	-0.24	-0.01	0.00	-0.03	0.00	0.03	317.71	95.31	3734.62	52.28	3.94	-0.32	0.001
146.00	-0.21	-0.01	0.00	-0.02	0.00	0.02	317.71	95.31	3734.62	52.28	4.00	-0.32	0.001
147.00	-0.17	-0.01	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	4.07	-0.32	0.001
148.00	-0.14	0.00	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	4.13	-0.32	0.001
149.00	-0.10	0.00	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	4.20	-0.32	0.000
150.00	0.00	0.00	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	4.27	-0.32	0.000

## Wind Loading - Shaft

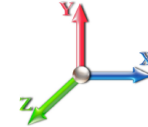
<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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**Load Case:** 1.0D + 1.0W 60 mph Wind

**Dead Load Factor** 1.00  
**Wind Load Factor** 1.00



**Iterations** 40

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
2.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
3.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
4.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
5.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
6.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
7.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
8.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
9.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
10.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
11.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
12.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
13.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
14.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
15.00		1.00	0.85	6.520	7.17	164.22	0.600	0.000	1.00	3.000	1.80	12.9	0.0	142.8
16.00		1.00	0.86	6.600	7.26	165.23	0.600	0.000	1.00	3.000	1.80	13.1	0.0	142.8
17.00		1.00	0.87	6.685	7.35	166.28	0.600	0.000	1.00	3.000	1.80	13.2	0.0	142.8
18.00		1.00	0.88	6.766	7.44	167.29	0.600	0.000	1.00	3.000	1.80	13.4	0.0	142.8
19.00		1.00	0.89	6.844	7.53	168.24	0.600	0.000	1.00	3.000	1.80	13.6	0.0	142.8
20.00	Top - Section 1	1.00	0.90	6.918	7.61	169.15	0.600	0.000	1.00	3.000	1.80	13.7	0.0	142.8
21.00		1.00	0.91	6.989	7.69	141.69	0.600	0.000	1.00	2.500	1.50	11.5	0.0	118.8
22.00		1.00	0.92	7.058	7.76	142.38	0.600	0.000	1.00	2.500	1.50	11.6	0.0	118.8
23.00		1.00	0.93	7.125	7.84	143.05	0.600	0.000	1.00	2.500	1.50	11.8	0.0	118.8
24.00		1.00	0.94	7.189	7.91	143.69	0.600	0.000	1.00	2.500	1.50	11.9	0.0	118.8
25.00		1.00	0.95	7.251	7.98	144.31	0.600	0.000	1.00	2.500	1.50	12.0	0.0	118.8
26.00		1.00	0.95	7.311	8.04	144.91	0.600	0.000	1.00	2.500	1.50	12.1	0.0	118.8
27.00		1.00	0.96	7.369	8.11	145.48	0.600	0.000	1.00	2.500	1.50	12.2	0.0	118.8
28.00		1.00	0.97	7.426	8.17	146.04	0.600	0.000	1.00	2.500	1.50	12.3	0.0	118.8
29.00		1.00	0.98	7.481	8.23	146.58	0.600	0.000	1.00	2.500	1.50	12.3	0.0	118.8
30.00		1.00	0.98	7.534	8.29	147.11	0.600	0.000	1.00	2.500	1.50	12.4	0.0	118.8
31.00		1.00	0.99	7.587	8.35	147.62	0.600	0.000	1.00	2.500	1.50	12.5	0.0	118.8
32.00		1.00	1.00	7.637	8.40	148.11	0.600	0.000	1.00	2.500	1.50	12.6	0.0	118.8
33.00		1.00	1.00	7.687	8.46	148.59	0.600	0.000	1.00	2.500	1.50	12.7	0.0	118.8
34.00		1.00	1.01	7.736	8.51	149.06	0.600	0.000	1.00	2.500	1.50	12.8	0.0	118.8
35.00		1.00	1.01	7.783	8.56	149.51	0.600	0.000	1.00	2.500	1.50	12.8	0.0	118.8
36.00		1.00	1.02	7.829	8.61	149.96	0.600	0.000	1.00	2.500	1.50	12.9	0.0	118.8
37.00		1.00	1.03	7.875	8.66	150.39	0.600	0.000	1.00	2.500	1.50	13.0	0.0	118.8
38.00		1.00	1.03	7.919	8.71	150.81	0.600	0.000	1.00	2.500	1.50	13.1	0.0	118.8
39.00		1.00	1.04	7.962	8.76	151.23	0.600	0.000	1.00	2.500	1.50	13.1	0.0	118.8
40.00		1.00	1.04	8.005	8.81	151.63	0.600	0.000	1.00	2.500	1.50	13.2	0.0	118.8
41.00		1.00	1.05	8.047	8.85	152.02	0.600	0.000	1.00	2.500	1.50	13.3	0.0	118.8
42.00		1.00	1.05	8.087	8.90	152.41	0.600	0.000	1.00	2.500	1.50	13.3	0.0	118.8
43.00		1.00	1.06	8.128	8.94	152.79	0.600	0.000	1.00	2.500	1.50	13.4	0.0	118.8
44.00		1.00	1.06	8.167	8.98	153.16	0.600	0.000	1.00	2.500	1.50	13.5	0.0	118.8
45.00		1.00	1.07	8.206	9.03	153.52	0.600	0.000	1.00	2.500	1.50	13.5	0.0	118.8
46.00		1.00	1.07	8.244	9.07	153.88	0.600	0.000	1.00	2.500	1.50	13.6	0.0	118.8

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



47.00	1.00	1.08	8.281	9.11	154.23	0.600	0.000	1.00	2.500	1.50	13.7	0.0	118.8	
48.00	1.00	1.08	8.318	9.15	154.57	0.600	0.000	1.00	2.500	1.50	13.7	0.0	118.8	
49.00	1.00	1.09	8.354	9.19	154.90	0.600	0.000	1.00	2.500	1.50	13.8	0.0	118.8	
50.00	Top - Section 2	1.00	1.09	8.390	9.23	155.23	0.600	0.000	1.00	2.500	1.50	13.8	0.0	118.8
51.00	1.00	1.10	8.425	9.27	124.45	0.600	0.000	1.00	2.000	1.20	11.1	0.0	94.7	
52.00	1.00	1.10	8.459	9.31	124.70	0.600	0.000	1.00	2.000	1.20	11.2	0.0	94.7	
53.00	1.00	1.11	8.493	9.34	124.95	0.600	0.000	1.00	2.000	1.20	11.2	0.0	94.7	
54.00	1.00	1.11	8.527	9.38	125.20	0.600	0.000	1.00	2.000	1.20	11.3	0.0	94.7	
55.00	1.00	1.12	8.560	9.42	125.44	0.600	0.000	1.00	2.000	1.20	11.3	0.0	94.7	
56.00	1.00	1.12	8.592	9.45	125.68	0.600	0.000	1.00	2.000	1.20	11.3	0.0	94.7	
57.00	1.00	1.12	8.624	9.49	125.91	0.600	0.000	1.00	2.000	1.20	11.4	0.0	94.7	
58.00	1.00	1.13	8.656	9.52	126.14	0.600	0.000	1.00	2.000	1.20	11.4	0.0	94.7	
59.00	1.00	1.13	8.687	9.56	126.37	0.600	0.000	1.00	2.000	1.20	11.5	0.0	94.7	
60.00	1.00	1.14	8.718	9.59	126.59	0.600	0.000	1.00	2.000	1.20	11.5	0.0	94.7	
61.00	1.00	1.14	8.749	9.62	126.81	0.600	0.000	1.00	2.000	1.20	11.5	0.0	94.7	
62.00	1.00	1.14	8.779	9.66	127.03	0.600	0.000	1.00	2.000	1.20	11.6	0.0	94.7	
63.00	1.00	1.15	8.808	9.69	127.25	0.600	0.000	1.00	2.000	1.20	11.6	0.0	94.7	
64.00	1.00	1.15	8.837	9.72	127.46	0.600	0.000	1.00	2.000	1.20	11.7	0.0	94.7	
65.00	1.00	1.16	8.866	9.75	127.66	0.600	0.000	1.00	2.000	1.20	11.7	0.0	94.7	
66.00	1.00	1.16	8.895	9.78	127.87	0.600	0.000	1.00	2.000	1.20	11.7	0.0	94.7	
67.00	1.00	1.16	8.923	9.82	128.07	0.600	0.000	1.00	2.000	1.20	11.8	0.0	94.7	
68.00	1.00	1.17	8.951	9.85	128.27	0.600	0.000	1.00	2.000	1.20	11.8	0.0	94.7	
69.00	1.00	1.17	8.978	9.88	128.47	0.600	0.000	1.00	2.000	1.20	11.9	0.0	94.7	
70.00	1.00	1.17	9.006	9.91	128.66	0.600	0.000	1.00	2.000	1.20	11.9	0.0	94.7	
71.00	1.00	1.18	9.033	9.94	128.86	0.600	0.000	1.00	2.000	1.20	11.9	0.0	94.7	
72.00	1.00	1.18	9.059	9.97	129.05	0.600	0.000	1.00	2.000	1.20	12.0	0.0	94.7	
73.00	1.00	1.18	9.086	9.99	129.23	0.600	0.000	1.00	2.000	1.20	12.0	0.0	94.7	
74.00	1.00	1.19	9.112	10.02	129.42	0.600	0.000	1.00	2.000	1.20	12.0	0.0	94.7	
75.00	Appurtenance(s)	1.00	1.19	9.137	10.05	129.60	0.600	0.000	1.00	2.000	1.20	12.1	0.0	94.7
76.00	1.00	1.19	9.163	10.08	129.78	0.600	0.000	1.00	2.000	1.20	12.1	0.0	94.7	
77.00	1.00	1.20	9.188	10.11	129.96	0.600	0.000	1.00	2.000	1.20	12.1	0.0	94.7	
78.00	1.00	1.20	9.213	10.13	130.14	0.600	0.000	1.00	2.000	1.20	12.2	0.0	94.7	
79.00	1.00	1.20	9.238	10.16	130.31	0.600	0.000	1.00	2.000	1.20	12.2	0.0	94.7	
80.00	Top - Section 3	1.00	1.21	9.262	10.19	130.49	0.600	0.000	1.00	2.000	1.20	12.2	0.0	94.7
81.00	1.00	1.21	9.287	10.22	130.66	0.600	0.000	1.00	2.000	1.20	12.3	0.0	94.7	
82.00	1.00	1.21	9.311	10.24	130.83	0.600	0.000	1.00	2.000	1.20	12.3	0.0	94.7	
83.00	1.00	1.22	9.335	10.27	130.99	0.600	0.000	1.00	2.000	1.20	12.3	0.0	94.7	
84.00	1.00	1.22	9.358	10.29	131.16	0.600	0.000	1.00	2.000	1.20	12.4	0.0	94.7	
85.00	1.00	1.22	9.381	10.32	131.32	0.600	0.000	1.00	2.000	1.20	12.4	0.0	94.7	
86.00	1.00	1.23	9.405	10.35	131.48	0.600	0.000	1.00	2.000	1.20	12.4	0.0	94.7	
87.00	1.00	1.23	9.427	10.37	131.64	0.600	0.000	1.00	2.000	1.20	12.4	0.0	94.7	
88.00	1.00	1.23	9.450	10.40	131.80	0.600	0.000	1.00	2.000	1.20	12.5	0.0	94.7	
89.00	1.00	1.23	9.473	10.42	131.96	0.600	0.000	1.00	2.000	1.20	12.5	0.0	94.7	
90.00	1.00	1.24	9.495	10.44	132.11	0.600	0.000	1.00	2.000	1.20	12.5	0.0	94.7	
91.00	1.00	1.24	9.517	10.47	132.27	0.600	0.000	1.00	2.000	1.20	12.6	0.0	94.7	
92.00	1.00	1.24	9.539	10.49	132.42	0.600	0.000	1.00	2.000	1.20	12.6	0.0	94.7	
93.00	1.00	1.25	9.561	10.52	132.57	0.600	0.000	1.00	2.000	1.20	12.6	0.0	94.7	
94.00	1.00	1.25	9.582	10.54	132.72	0.600	0.000	1.00	2.000	1.20	12.6	0.0	94.7	
95.00	1.00	1.25	9.604	10.56	132.87	0.600	0.000	1.00	2.000	1.20	12.7	0.0	94.7	
96.00	1.00	1.25	9.625	10.59	133.01	0.600	0.000	1.00	2.000	1.20	12.7	0.0	94.7	
97.00	1.00	1.26	9.646	10.61	133.16	0.600	0.000	1.00	2.000	1.20	12.7	0.0	94.7	
98.00	1.00	1.26	9.667	10.63	133.30	0.600	0.000	1.00	2.000	1.20	12.8	0.0	94.7	
99.00	1.00	1.26	9.687	10.66	133.45	0.600	0.000	1.00	2.000	1.20	12.8	0.0	94.7	
100.00	1.00	1.27	9.708	10.68	133.59	0.600	0.000	1.00	2.000	1.20	12.8	0.0	94.7	
101.00	1.00	1.27	9.728	10.70	133.73	0.600	0.000	1.00	2.000	1.20	12.8	0.0	94.7	
102.00	1.00	1.27	9.749	10.72	133.87	0.600	0.000	1.00	2.000	1.20	12.9	0.0	94.7	
103.00	1.00	1.27	9.769	10.75	134.00	0.600	0.000	1.00	2.000	1.20	12.9	0.0	94.7	

## Wind Loading - Shaft

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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104.00	1.00	1.28	9.788	10.77	134.14	0.600	0.000	1.00	2.000	1.20	12.9	0.0	94.7
105.00	1.00	1.28	9.808	10.79	134.27	0.600	0.000	1.00	2.000	1.20	12.9	0.0	94.7
106.00	1.00	1.28	9.828	10.81	134.41	0.600	0.000	1.00	2.000	1.20	13.0	0.0	94.7
107.00	1.00	1.28	9.847	10.83	134.54	0.600	0.000	1.00	2.000	1.20	13.0	0.0	94.7
108.00 Top - Section 4	1.00	1.29	9.867	10.85	134.67	0.600	0.000	1.00	2.000	1.20	13.0	0.0	94.7
109.00	1.00	1.29	9.886	10.87	202.21	0.600	0.000	1.00	3.000	1.80	19.6	0.0	104.3
110.00 Top - Section 5 RB1	1.00	1.29	9.905	10.90	202.40	0.600	0.000	1.00	3.000	1.80	19.6	0.0	104.3
111.00	1.00	1.29	9.924	10.92	202.59	0.600	0.000	1.00	3.000	1.80	19.6	0.0	71.1
111.50 RT1	1.00	1.29	9.933	10.93	202.69	0.600	0.000	0.50	1.500	0.90	9.8	0.0	35.5
112.00	1.00	1.30	9.942	10.94	202.79	0.600	0.000	0.50	1.500	0.90	9.8	0.0	35.5
113.00	1.00	1.30	9.961	10.96	202.98	0.600	0.000	1.00	3.000	1.80	19.7	0.0	71.1
114.00	1.00	1.30	9.979	10.98	203.16	0.600	0.000	1.00	3.000	1.80	19.8	0.0	71.1
115.00 Appurtenance(s)	1.00	1.30	9.998	11.00	203.35	0.600	0.000	1.00	3.000	1.80	19.8	0.0	71.1
116.00	1.00	1.31	10.016	11.02	203.54	0.600	0.000	1.00	3.000	1.80	19.8	0.0	71.1
117.00	1.00	1.31	10.034	11.04	203.72	0.600	0.000	1.00	3.000	1.80	19.9	0.0	71.1
118.00	1.00	1.31	10.052	11.06	203.90	0.600	0.000	1.00	3.000	1.80	19.9	0.0	71.1
119.00	1.00	1.31	10.070	11.08	204.08	0.600	0.000	1.00	3.000	1.80	19.9	0.0	71.1
120.00 Appurtenance(s)	1.00	1.32	10.088	11.10	204.26	0.600	0.000	1.00	3.000	1.80	20.0	0.0	71.1
121.00	1.00	1.32	10.105	11.12	204.44	0.600	0.000	1.00	3.000	1.80	20.0	0.0	71.1
122.00	1.00	1.32	10.123	11.14	204.62	0.600	0.000	1.00	3.000	1.80	20.0	0.0	71.1
123.00	1.00	1.32	10.140	11.15	204.80	0.600	0.000	1.00	3.000	1.80	20.1	0.0	71.1
124.00	1.00	1.32	10.158	11.17	204.97	0.600	0.000	1.00	3.000	1.80	20.1	0.0	71.1
125.00	1.00	1.33	10.175	11.19	205.14	0.600	0.000	1.00	3.000	1.80	20.1	0.0	71.1
126.00	1.00	1.33	10.192	11.21	205.32	0.600	0.000	1.00	3.000	1.80	20.2	0.0	71.1
127.00 Appurtenance(s)	1.00	1.33	10.209	11.23	205.49	0.600	0.000	1.00	3.000	1.80	20.2	0.0	71.1
128.00	1.00	1.33	10.226	11.25	205.66	0.600	0.000	1.00	3.000	1.80	20.2	0.0	71.1
129.00	1.00	1.34	10.243	11.27	205.82	0.600	0.000	1.00	3.000	1.80	20.3	0.0	71.1
130.00 Top - Section 6	1.00	1.34	10.259	11.29	205.99	0.600	0.000	1.00	3.000	1.80	20.3	0.0	71.1
131.00	1.00	1.34	10.276	11.30	206.16	0.600	0.000	1.00	3.000	1.80	20.3	0.0	38.2
132.00	1.00	1.34	10.292	11.32	206.32	0.600	0.000	1.00	3.000	1.80	20.4	0.0	38.2
133.00	1.00	1.34	10.309	11.34	206.49	0.600	0.000	1.00	3.000	1.80	20.4	0.0	38.2
134.00	1.00	1.35	10.325	11.36	206.65	0.600	0.000	1.00	3.000	1.80	20.4	0.0	38.2
135.00 Appurtenance(s)	1.00	1.35	10.341	11.38	206.81	0.600	0.000	1.00	3.000	1.80	20.5	0.0	38.2
136.00	1.00	1.35	10.357	11.39	206.97	0.600	0.000	1.00	3.000	1.80	20.5	0.0	38.2
137.00	1.00	1.35	10.373	11.41	207.13	0.600	0.000	1.00	3.000	1.80	20.5	0.0	38.2
138.00	1.00	1.35	10.389	11.43	207.29	0.600	0.000	1.00	3.000	1.80	20.6	0.0	38.2
139.00	1.00	1.36	10.405	11.45	207.45	0.600	0.000	1.00	3.000	1.80	20.6	0.0	38.2
140.00 Appurtenance(s)	1.00	1.36	10.421	11.46	207.60	0.600	0.000	1.00	3.000	1.80	20.6	0.0	38.2
141.00	1.00	1.36	10.436	11.48	207.76	0.600	0.000	1.00	3.000	1.80	20.7	0.0	38.2
142.00	1.00	1.36	10.452	11.50	207.92	0.600	0.000	1.00	3.000	1.80	20.7	0.0	38.2
143.00	1.00	1.36	10.467	11.51	208.07	0.600	0.000	1.00	3.000	1.80	20.7	0.0	38.2
144.00	1.00	1.37	10.483	11.53	208.22	0.600	0.000	1.00	3.000	1.80	20.8	0.0	38.2
145.00 Appurtenance(s)	1.00	1.37	10.498	11.55	208.37	0.600	0.000	1.00	3.000	1.80	20.8	0.0	38.2
146.00	1.00	1.37	10.513	11.56	208.52	0.600	0.000	1.00	3.000	1.80	20.8	0.0	38.2
147.00	1.00	1.37	10.528	11.58	208.67	0.600	0.000	1.00	3.000	1.80	20.8	0.0	38.2
148.00	1.00	1.37	10.543	11.60	208.82	0.600	0.000	1.00	3.000	1.80	20.9	0.0	38.2
149.00	1.00	1.38	10.558	11.61	208.97	0.600	0.000	1.00	3.000	1.80	20.9	0.0	38.2
150.00 Appurtenance(s)	1.00	1.38	10.573	11.63	209.12	0.600	0.000	1.00	3.000	1.80	20.9	0.0	38.2
<b>Totals:</b>								<b>150.00</b>			<b>2,202.3</b>		<b>14,306.1</b>

## Discrete Appurtenance Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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<b>Load Case:</b> 1.0D + 1.0W 60 mph Wind	<b>Iterations</b> 40
<b>Dead Load Factor</b> 1.00	
<b>Wind Load Factor</b> 1.00	

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	150.00	Truck Ball	1	10.580	11.638	1.00	1.00	1.41	5.00	0.000	0.500	16.41	0.00	8.21	
2	150.00	36" Canister Weight	1	10.573	11.630	1.00	1.00	0.00	64.57	0.000	0.000	0.00	0.00	0.00	
3	145.00	CDX623T-DS	6	10.498	11.548	0.00	1.00	0.00	60.60	0.000	0.000	0.00	0.00	0.00	
4	145.00	FFVV-65B-R3	3	10.498	11.548	0.00	1.00	0.00	131.40	0.000	0.000	0.00	0.00	0.00	
5	140.00	36" Canister Weight	1	10.421	11.463	1.00	1.00	0.00	129.14	0.000	0.000	0.00	0.00	0.00	
6	140.00	Flag	1	10.421	11.463	1.00	1.00	6.89	25.00	0.000	0.000	78.98	0.00	0.00	
7	135.00	Flush Mount	1	10.341	11.375	0.00	1.00	0.00	25.00	0.000	0.000	0.00	0.00	0.00	
8	135.00	DB-T1-6Z-8AB-OZ	2	10.341	11.375	0.00	1.00	0.00	37.80	0.000	0.000	0.00	0.00	0.00	
9	135.00	FDL85002/1C-3L	6	10.341	11.375	0.00	1.00	0.00	42.00	0.000	0.000	0.00	0.00	0.00	
10	135.00	SBNHH-1D65A	3	10.341	11.375	0.00	1.00	0.00	100.50	0.000	0.000	0.00	0.00	0.00	
11	130.00	36" Canister Weight	1	10.259	11.285	1.00	1.00	0.00	129.14	0.000	0.000	0.00	0.00	0.00	
12	127.00	Flush Mount	1	10.209	11.230	0.00	1.00	0.00	25.00	0.000	0.000	0.00	0.00	0.00	
13	127.00	ATSBT-TOP-FM	3	10.209	11.230	0.00	1.00	0.00	5.40	0.000	0.000	0.00	0.00	0.00	
14	127.00	CBC426T-DS-43	6	10.209	11.230	0.00	1.00	0.00	43.80	0.000	0.000	0.00	0.00	0.00	
15	127.00	D2WC-21 (2LB+4MB)	3	10.209	11.230	0.00	1.00	0.00	92.70	0.000	0.000	0.00	0.00	0.00	
16	120.00	36" Canister Weight	1	10.088	11.097	1.00	1.00	0.00	129.14	0.000	0.000	0.00	0.00	0.00	
17	115.00	Flush Mount	1	9.998	10.998	0.00	1.00	0.00	25.00	0.000	0.000	0.00	0.00	0.00	
18	115.00	LGP21401	6	9.998	10.998	0.00	1.00	0.00	84.60	0.000	0.000	0.00	0.00	0.00	
19	115.00	7770.00	3	9.998	10.998	0.00	1.00	0.00	105.00	0.000	0.000	0.00	0.00	0.00	
20	110.00	36" Canister Weight	1	9.905	10.895	1.00	1.00	0.00	77.48	0.000	0.000	0.00	0.00	0.00	
21	108.00	36" Canister Weight	1	9.867	10.853	1.00	1.00	0.00	12.91	0.000	0.000	0.00	0.00	0.00	
22	75.00	GPS	1	9.137	10.051	0.80	0.80	0.80	10.00	0.000	0.000	8.04	0.00	0.00	
<b>Totals:</b>									<b>1,361.18</b>						<b>103.43</b>



## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

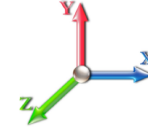


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**Load Case:** 1.0D + 1.0W 60 mph Wind

**Dead Load Factor** 1.00

**Wind Load Factor** 1.00



**Iterations** 40

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		12.91	178.23	0.00	0.00
2.00		12.91	178.23	0.00	0.00
3.00		12.91	178.23	0.00	0.00
4.00		12.91	178.23	0.00	0.00
5.00		12.91	178.23	0.00	0.00
6.00		12.91	178.23	0.00	0.00
7.00		12.91	178.23	0.00	0.00
8.00		12.91	178.23	0.00	0.00
9.00		12.91	178.23	0.00	0.00
10.00		12.91	178.23	0.00	0.00
11.00		12.91	178.23	0.00	0.00
12.00		12.91	178.23	0.00	0.00
13.00		12.91	178.23	0.00	0.00
14.00		12.91	178.23	0.00	0.00
15.00		12.91	178.23	0.00	0.00
16.00		13.07	178.23	0.00	0.00
17.00		13.24	178.23	0.00	0.00
18.00		13.40	178.23	0.00	0.00
19.00		13.55	178.23	0.00	0.00
20.00		13.70	178.23	0.00	0.00
21.00		11.53	154.18	0.00	0.00
22.00		11.65	154.18	0.00	0.00
23.00		11.76	154.18	0.00	0.00
24.00		11.86	154.18	0.00	0.00
25.00		11.96	154.18	0.00	0.00
26.00		12.06	154.18	0.00	0.00
27.00		12.16	154.18	0.00	0.00
28.00		12.25	154.18	0.00	0.00
29.00		12.34	154.18	0.00	0.00
30.00		12.43	154.18	0.00	0.00
31.00		12.52	154.18	0.00	0.00
32.00		12.60	154.18	0.00	0.00
33.00		12.68	154.18	0.00	0.00
34.00		12.76	154.18	0.00	0.00
35.00		12.84	154.18	0.00	0.00
36.00		12.92	154.18	0.00	0.00
37.00		12.99	154.18	0.00	0.00
38.00		13.07	154.18	0.00	0.00
39.00		13.14	154.18	0.00	0.00
40.00		13.21	154.18	0.00	0.00
41.00		13.28	154.18	0.00	0.00
42.00		13.34	154.18	0.00	0.00
43.00		13.41	154.18	0.00	0.00
44.00		13.48	154.18	0.00	0.00
45.00		13.54	154.18	0.00	0.00
46.00		13.60	154.18	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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47.00	13.66	154.18	0.00	0.00
48.00	13.72	154.18	0.00	0.00
49.00	13.78	154.18	0.00	0.00
50.00	13.84	154.18	0.00	0.00
51.00	11.12	130.13	0.00	0.00
52.00	11.17	130.13	0.00	0.00
53.00	11.21	130.13	0.00	0.00
54.00	11.26	130.13	0.00	0.00
55.00	11.30	130.13	0.00	0.00
56.00	11.34	130.13	0.00	0.00
57.00	11.38	130.13	0.00	0.00
58.00	11.43	130.13	0.00	0.00
59.00	11.47	130.13	0.00	0.00
60.00	11.51	130.13	0.00	0.00
61.00	11.55	130.13	0.00	0.00
62.00	11.59	130.13	0.00	0.00
63.00	11.63	130.13	0.00	0.00
64.00	11.67	130.13	0.00	0.00
65.00	11.70	130.13	0.00	0.00
66.00	11.74	130.13	0.00	0.00
67.00	11.78	130.13	0.00	0.00
68.00	11.82	130.13	0.00	0.00
69.00	11.85	130.13	0.00	0.00
70.00	11.89	130.13	0.00	0.00
71.00	11.92	130.13	0.00	0.00
72.00	11.96	130.13	0.00	0.00
73.00	11.99	130.13	0.00	0.00
74.00	12.03	130.13	0.00	0.00
75.00	(1) attachments	20.10	140.13	0.00
76.00		12.10	129.97	0.00
77.00		12.13	129.97	0.00
78.00		12.16	129.97	0.00
79.00		12.19	129.97	0.00
80.00		12.23	129.97	0.00
81.00		12.26	129.97	0.00
82.00		12.29	129.97	0.00
83.00		12.32	129.97	0.00
84.00		12.35	129.97	0.00
85.00		12.38	129.97	0.00
86.00		12.41	129.97	0.00
87.00		12.44	129.97	0.00
88.00		12.47	129.97	0.00
89.00		12.50	129.97	0.00
90.00		12.53	129.97	0.00
91.00		12.56	129.97	0.00
92.00		12.59	129.97	0.00
93.00		12.62	129.97	0.00
94.00		12.65	129.97	0.00
95.00		12.68	129.97	0.00
96.00		12.70	129.97	0.00
97.00		12.73	129.97	0.00
98.00		12.76	129.97	0.00
99.00		12.79	129.97	0.00
100.00		12.81	129.97	0.00
101.00		12.84	129.97	0.00
102.00		12.87	129.97	0.00
103.00		12.89	129.97	0.00

## Total Applied Force Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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104.00		12.92	129.97	0.00	0.00
105.00		12.95	129.97	0.00	0.00
106.00		12.97	129.97	0.00	0.00
107.00		13.00	129.97	0.00	0.00
108.00	(1) attachments	13.02	142.88	0.00	0.00
109.00		19.57	139.57	0.00	0.00
110.00	(1) attachments	19.61	217.05	0.00	0.00
111.00		19.65	106.33	0.00	0.00
111.50		9.83	53.16	0.00	0.00
112.00		9.84	53.16	0.00	0.00
113.00		19.72	106.33	0.00	0.00
114.00		19.76	106.33	0.00	0.00
115.00	(10) attachments	19.80	320.93	0.00	0.00
116.00		19.83	100.45	0.00	0.00
117.00		19.87	100.45	0.00	0.00
118.00		19.90	100.45	0.00	0.00
119.00		19.94	100.45	0.00	0.00
120.00	(1) attachments	19.97	229.59	0.00	0.00
121.00		20.01	100.45	0.00	0.00
122.00		20.04	100.45	0.00	0.00
123.00		20.08	100.45	0.00	0.00
124.00		20.11	100.45	0.00	0.00
125.00		20.15	100.45	0.00	0.00
126.00		20.18	100.45	0.00	0.00
127.00	(13) attachments	20.21	267.35	0.00	0.00
128.00		20.25	91.51	0.00	0.00
129.00		20.28	91.51	0.00	0.00
130.00	(1) attachments	20.31	220.65	0.00	0.00
131.00		20.35	58.64	0.00	0.00
132.00		20.38	58.64	0.00	0.00
133.00		20.41	58.64	0.00	0.00
134.00		20.44	58.64	0.00	0.00
135.00	(12) attachments	20.48	263.94	0.00	0.00
136.00		20.51	50.68	0.00	0.00
137.00		20.54	50.68	0.00	0.00
138.00		20.57	50.68	0.00	0.00
139.00		20.60	50.68	0.00	0.00
140.00	(2) attachments	99.61	204.82	0.00	0.00
141.00		20.66	50.68	0.00	0.00
142.00		20.69	50.68	0.00	0.00
143.00		20.73	50.68	0.00	0.00
144.00		20.76	50.68	0.00	0.00
145.00	(9) attachments	20.79	242.68	0.00	0.00
146.00		20.82	38.20	0.00	0.00
147.00		20.85	38.20	0.00	0.00
148.00		20.88	38.20	0.00	0.00
149.00		20.91	38.20	0.00	0.00
150.00	(2) attachments	37.34	107.77	0.00	8.21
<b>Totals:</b>		<b>2,305.76</b>	<b>20,375.10</b>	<b>0.00</b>	<b>8.21</b>

## Linear Appurtenance Segment Forces (Factored)

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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**Load Case:** 1.0D + 1.0W 60 mph Wind

**Dead Load Factor** 1.00  
**Wind Load Factor** 1.00



**Iterations** 40

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
18.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	6.766	0.00	0.00
19.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	6.844	0.00	0.00
20.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.028	0.000	6.918	0.00	0.00
21.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	6.989	0.00	0.00
22.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	7.058	0.00	0.00
23.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.033	0.000	7.125	0.00	0.00
<b>Totals:</b>											<b>0.0</b>	<b>0.0</b>

## Calculated Forces

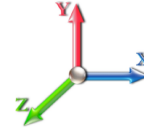
<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



**Load Case:** 1.0D + 1.0W 60 mph Wind

**Iterations** 40

**Dead Load Factor** 1.00  
**Wind Load Factor** 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-20.37	-2.31	0.00	-209.03	0.00	209.03	1490.10	475.94	99948.2	1339.68	0.00	0.000	0.000	0.170
1.00	-20.20	-2.30	0.00	-206.72	0.00	206.72	1490.10	475.94	99948.2	1339.68	0.00	-0.009	0.000	0.168
2.00	-20.02	-2.29	0.00	-204.42	0.00	204.42	1490.10	475.94	99948.2	1339.68	0.00	-0.018	0.000	0.166
3.00	-19.84	-2.28	0.00	-202.14	0.00	202.14	1490.10	475.94	99948.2	1339.68	0.01	-0.026	0.000	0.164
4.00	-19.66	-2.27	0.00	-199.86	0.00	199.86	1490.10	475.94	99948.2	1339.68	0.01	-0.035	0.000	0.162
5.00	-19.48	-2.26	0.00	-197.59	0.00	197.59	1490.10	475.94	99948.2	1339.68	0.02	-0.043	0.000	0.161
6.00	-19.30	-2.25	0.00	-195.34	0.00	195.34	1490.10	475.94	99948.2	1339.68	0.03	-0.052	0.000	0.159
7.00	-19.13	-2.24	0.00	-193.09	0.00	193.09	1490.10	475.94	99948.2	1339.68	0.04	-0.060	0.000	0.157
8.00	-18.95	-2.23	0.00	-190.86	0.00	190.86	1490.10	475.94	99948.2	1339.68	0.06	-0.068	0.000	0.155
9.00	-18.77	-2.21	0.00	-188.63	0.00	188.63	1490.10	475.94	99948.2	1339.68	0.07	-0.076	0.000	0.153
10.00	-18.59	-2.20	0.00	-186.42	0.00	186.42	1490.10	475.94	99948.2	1339.68	0.09	-0.084	0.000	0.152
11.00	-18.41	-2.19	0.00	-184.21	0.00	184.21	1490.10	475.94	99948.2	1339.68	0.11	-0.092	0.000	0.150
12.00	-18.23	-2.18	0.00	-182.02	0.00	182.02	1490.10	475.94	99948.2	1339.68	0.13	-0.100	0.000	0.148
13.00	-18.05	-2.17	0.00	-179.84	0.00	179.84	1490.10	475.94	99948.2	1339.68	0.15	-0.108	0.000	0.146
14.00	-17.88	-2.16	0.00	-177.66	0.00	177.66	1490.10	475.94	99948.2	1339.68	0.17	-0.115	0.000	0.145
15.00	-17.70	-2.15	0.00	-175.50	0.00	175.50	1490.10	475.94	99948.2	1339.68	0.20	-0.123	0.000	0.143
16.00	-17.52	-2.14	0.00	-173.35	0.00	173.35	1490.10	475.94	99948.2	1339.68	0.23	-0.130	0.000	0.141
17.00	-17.34	-2.13	0.00	-171.21	0.00	171.21	1490.10	475.94	99948.2	1339.68	0.25	-0.138	0.000	0.139
18.00	-17.16	-2.12	0.00	-169.09	0.00	169.09	1490.10	475.94	99948.2	1339.68	0.28	-0.145	0.000	0.138
19.00	-16.98	-2.10	0.00	-166.97	0.00	166.97	1490.10	475.94	99948.2	1339.68	0.32	-0.152	0.000	0.136
20.00	-16.80	-2.09	0.00	-164.87	0.00	164.87	1490.10	475.94	99948.2	1339.68	0.35	-0.159	0.000	0.134
20.00	-16.80	-2.09	0.00	-164.87	0.00	164.87	1311.06	395.78	69116.5	948.43	0.35	-0.159	0.000	0.187
21.00	-16.65	-2.08	0.00	-162.77	0.00	162.77	1311.06	395.78	69116.5	948.43	0.38	-0.166	0.000	0.184
22.00	-16.50	-2.07	0.00	-160.69	0.00	160.69	1311.06	395.78	69116.5	948.43	0.42	-0.178	0.000	0.182
23.00	-16.34	-2.07	0.00	-158.62	0.00	158.62	1311.06	395.78	69116.5	948.43	0.46	-0.190	0.000	0.180
24.00	-16.19	-2.06	0.00	-156.55	0.00	156.55	1311.06	395.78	69116.5	948.43	0.50	-0.202	0.000	0.177
25.00	-16.03	-2.05	0.00	-154.50	0.00	154.50	1311.06	395.78	69116.5	948.43	0.54	-0.213	0.000	0.175
26.00	-15.88	-2.04	0.00	-152.45	0.00	152.45	1311.06	395.78	69116.5	948.43	0.59	-0.225	0.000	0.173
27.00	-15.72	-2.03	0.00	-150.41	0.00	150.41	1311.06	395.78	69116.5	948.43	0.64	-0.236	0.000	0.171
28.00	-15.57	-2.02	0.00	-148.38	0.00	148.38	1311.06	395.78	69116.5	948.43	0.69	-0.247	0.000	0.168
29.00	-15.41	-2.01	0.00	-146.37	0.00	146.37	1311.06	395.78	69116.5	948.43	0.74	-0.258	0.000	0.166
30.00	-15.26	-2.00	0.00	-144.36	0.00	144.36	1311.06	395.78	69116.5	948.43	0.79	-0.269	0.000	0.164
31.00	-15.10	-1.99	0.00	-142.36	0.00	142.36	1311.06	395.78	69116.5	948.43	0.85	-0.280	0.000	0.162
32.00	-14.95	-1.98	0.00	-140.38	0.00	140.38	1311.06	395.78	69116.5	948.43	0.91	-0.290	0.000	0.159
33.00	-14.80	-1.97	0.00	-138.40	0.00	138.40	1311.06	395.78	69116.5	948.43	0.97	-0.300	0.000	0.157
34.00	-14.64	-1.95	0.00	-136.43	0.00	136.43	1311.06	395.78	69116.5	948.43	1.04	-0.311	0.000	0.155
35.00	-14.49	-1.94	0.00	-134.48	0.00	134.48	1311.06	395.78	69116.5	948.43	1.10	-0.321	0.000	0.153
36.00	-14.33	-1.93	0.00	-132.54	0.00	132.54	1311.06	395.78	69116.5	948.43	1.17	-0.331	0.000	0.151
37.00	-14.18	-1.92	0.00	-130.61	0.00	130.61	1311.06	395.78	69116.5	948.43	1.24	-0.340	0.000	0.149
38.00	-14.02	-1.91	0.00	-128.69	0.00	128.69	1311.06	395.78	69116.5	948.43	1.31	-0.350	0.000	0.146
39.00	-13.87	-1.90	0.00	-126.78	0.00	126.78	1311.06	395.78	69116.5	948.43	1.39	-0.359	0.000	0.144
40.00	-13.71	-1.88	0.00	-124.88	0.00	124.88	1311.06	395.78	69116.5	948.43	1.47	-0.369	0.000	0.142
41.00	-13.56	-1.87	0.00	-123.00	0.00	123.00	1311.06	395.78	69116.5	948.43	1.54	-0.378	0.000	0.140
42.00	-13.41	-1.86	0.00	-121.12	0.00	121.12	1311.06	395.78	69116.5	948.43	1.62	-0.387	0.000	0.138
43.00	-13.25	-1.85	0.00	-119.26	0.00	119.26	1311.06	395.78	69116.5	948.43	1.71	-0.396	0.000	0.136
44.00	-13.10	-1.84	0.00	-117.41	0.00	117.41	1311.06	395.78	69116.5	948.43	1.79	-0.405	0.000	0.134
45.00	-12.94	-1.82	0.00	-115.58	0.00	115.58	1311.06	395.78	69116.5	948.43	1.88	-0.413	0.000	0.132
46.00	-12.79	-1.81	0.00	-113.76	0.00	113.76	1311.06	395.78	69116.5	948.43	1.96	-0.422	0.000	0.130

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	<b>1/24/2023</b>
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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47.00	-12.63	-1.80	0.00	-111.95	0.00	111.95	1311.06	395.78	69116.5	948.43	2.05	-0.430	0.000	0.128
48.00	-12.48	-1.78	0.00	-110.15	0.00	110.15	1311.06	395.78	69116.5	948.43	2.14	-0.439	0.000	0.126
49.00	-12.33	-1.77	0.00	-108.37	0.00	108.37	1311.06	395.78	69116.5	948.43	2.24	-0.447	0.000	0.124
50.00	-12.17	-1.76	0.00	-106.59	0.00	106.59	1311.06	395.78	69116.5	948.43	2.33	-0.455	0.000	0.122
50.00	-12.17	-1.76	0.00	-106.59	0.00	106.59	1052.07	315.62	43955.0	624.04	2.33	-0.455	0.000	0.182
51.00	-12.04	-1.75	0.00	-104.84	0.00	104.84	1052.07	315.62	43955.0	624.04	2.43	-0.463	0.000	0.179
52.00	-11.91	-1.74	0.00	-103.09	0.00	103.09	1052.07	315.62	43955.0	624.04	2.52	-0.478	0.000	0.177
53.00	-11.78	-1.73	0.00	-101.35	0.00	101.35	1052.07	315.62	43955.0	624.04	2.63	-0.493	0.000	0.174
54.00	-11.65	-1.72	0.00	-99.62	0.00	99.62	1052.07	315.62	43955.0	624.04	2.73	-0.507	0.000	0.171
55.00	-11.52	-1.71	0.00	-97.90	0.00	97.90	1052.07	315.62	43955.0	624.04	2.84	-0.522	0.000	0.168
56.00	-11.39	-1.70	0.00	-96.19	0.00	96.19	1052.07	315.62	43955.0	624.04	2.95	-0.536	0.000	0.165
57.00	-11.26	-1.69	0.00	-94.49	0.00	94.49	1052.07	315.62	43955.0	624.04	3.06	-0.550	0.000	0.162
58.00	-11.13	-1.68	0.00	-92.80	0.00	92.80	1052.07	315.62	43955.0	624.04	3.18	-0.564	0.000	0.159
59.00	-11.00	-1.67	0.00	-91.12	0.00	91.12	1052.07	315.62	43955.0	624.04	3.30	-0.577	0.000	0.157
60.00	-10.87	-1.66	0.00	-89.45	0.00	89.45	1052.07	315.62	43955.0	624.04	3.42	-0.590	0.000	0.154
61.00	-10.74	-1.65	0.00	-87.79	0.00	87.79	1052.07	315.62	43955.0	624.04	3.55	-0.603	0.000	0.151
62.00	-10.61	-1.64	0.00	-86.14	0.00	86.14	1052.07	315.62	43955.0	624.04	3.68	-0.616	0.000	0.148
63.00	-10.48	-1.63	0.00	-84.50	0.00	84.50	1052.07	315.62	43955.0	624.04	3.81	-0.629	0.000	0.145
64.00	-10.35	-1.62	0.00	-82.88	0.00	82.88	1052.07	315.62	43955.0	624.04	3.94	-0.641	0.000	0.143
65.00	-10.22	-1.61	0.00	-81.26	0.00	81.26	1052.07	315.62	43955.0	624.04	4.07	-0.653	0.000	0.140
66.00	-10.09	-1.59	0.00	-79.65	0.00	79.65	1052.07	315.62	43955.0	624.04	4.21	-0.665	0.000	0.137
67.00	-9.95	-1.58	0.00	-78.06	0.00	78.06	1052.07	315.62	43955.0	624.04	4.35	-0.676	0.000	0.135
68.00	-9.82	-1.57	0.00	-76.47	0.00	76.47	1052.07	315.62	43955.0	624.04	4.50	-0.688	0.000	0.132
69.00	-9.69	-1.56	0.00	-74.90	0.00	74.90	1052.07	315.62	43955.0	624.04	4.64	-0.699	0.000	0.129
70.00	-9.56	-1.55	0.00	-73.34	0.00	73.34	1052.07	315.62	43955.0	624.04	4.79	-0.709	0.000	0.127
71.00	-9.43	-1.54	0.00	-71.79	0.00	71.79	1052.07	315.62	43955.0	624.04	4.94	-0.720	0.000	0.124
72.00	-9.30	-1.53	0.00	-70.26	0.00	70.26	1052.07	315.62	43955.0	624.04	5.09	-0.730	0.000	0.121
73.00	-9.17	-1.51	0.00	-68.73	0.00	68.73	1052.07	315.62	43955.0	624.04	5.24	-0.741	0.000	0.119
74.00	-9.04	-1.50	0.00	-67.22	0.00	67.22	1052.07	315.62	43955.0	624.04	5.40	-0.751	0.000	0.116
75.00	-8.90	-1.48	0.00	-65.72	0.00	65.72	1052.07	315.62	43955.0	624.04	5.56	-0.760	0.000	0.114
76.00	-8.77	-1.47	0.00	-64.24	0.00	64.24	1052.07	315.62	43955.0	624.04	5.72	-0.770	0.000	0.111
77.00	-8.64	-1.46	0.00	-62.77	0.00	62.77	1052.07	315.62	43955.0	624.04	5.88	-0.779	0.000	0.109
78.00	-8.51	-1.44	0.00	-61.31	0.00	61.31	1052.07	315.62	43955.0	624.04	6.05	-0.788	0.000	0.106
79.00	-8.38	-1.43	0.00	-59.87	0.00	59.87	1052.07	315.62	43955.0	624.04	6.21	-0.797	0.000	0.104
80.00	-8.25	-1.42	0.00	-58.44	0.00	58.44	1052.07	315.62	43955.0	624.04	6.38	-0.806	0.000	0.102
80.00	-8.25	-1.42	0.00	-58.44	0.00	58.44	1052.07	315.62	43955.0	624.04	6.38	-0.806	0.000	0.102
81.00	-8.12	-1.40	0.00	-57.02	0.00	57.02	1052.07	315.62	43955.0	624.04	6.55	-0.814	0.000	0.099
82.00	-7.99	-1.39	0.00	-55.62	0.00	55.62	1052.07	315.62	43955.0	624.04	6.72	-0.822	0.000	0.097
83.00	-7.86	-1.38	0.00	-54.23	0.00	54.23	1052.07	315.62	43955.0	624.04	6.89	-0.830	0.000	0.094
84.00	-7.73	-1.37	0.00	-52.85	0.00	52.85	1052.07	315.62	43955.0	624.04	7.07	-0.838	0.000	0.092
85.00	-7.60	-1.35	0.00	-51.48	0.00	51.48	1052.07	315.62	43955.0	624.04	7.24	-0.846	0.000	0.090
86.00	-7.47	-1.34	0.00	-50.13	0.00	50.13	1052.07	315.62	43955.0	624.04	7.42	-0.853	0.000	0.087
87.00	-7.34	-1.33	0.00	-48.79	0.00	48.79	1052.07	315.62	43955.0	624.04	7.60	-0.861	0.000	0.085
88.00	-7.21	-1.31	0.00	-47.47	0.00	47.47	1052.07	315.62	43955.0	624.04	7.78	-0.868	0.000	0.083
89.00	-7.08	-1.30	0.00	-46.15	0.00	46.15	1052.07	315.62	43955.0	624.04	7.97	-0.875	0.000	0.081
90.00	-6.95	-1.28	0.00	-44.86	0.00	44.86	1052.07	315.62	43955.0	624.04	8.15	-0.881	0.000	0.079
91.00	-6.82	-1.27	0.00	-43.57	0.00	43.57	1052.07	315.62	43955.0	624.04	8.33	-0.888	0.000	0.076
92.00	-6.69	-1.26	0.00	-42.30	0.00	42.30	1052.07	315.62	43955.0	624.04	8.52	-0.894	0.000	0.074
93.00	-6.56	-1.24	0.00	-41.05	0.00	41.05	1052.07	315.62	43955.0	624.04	8.71	-0.900	0.000	0.072
94.00	-6.43	-1.23	0.00	-39.80	0.00	39.80	1052.07	315.62	43955.0	624.04	8.90	-0.906	0.000	0.070
95.00	-6.30	-1.21	0.00	-38.57	0.00	38.57	1052.07	315.62	43955.0	624.04	9.09	-0.912	0.000	0.068
96.00	-6.17	-1.20	0.00	-37.36	0.00	37.36	1052.07	315.62	43955.0	624.04	9.28	-0.917	0.000	0.066
97.00	-6.04	-1.19	0.00	-36.16	0.00	36.16	1052.07	315.62	43955.0	624.04	9.47	-0.923	0.000	0.064
98.00	-5.91	-1.17	0.00	-34.97	0.00	34.97	1052.07	315.62	43955.0	624.04	9.67	-0.928	0.000	0.062
99.00	-5.78	-1.16	0.00	-33.80	0.00	33.80	1052.07	315.62	43955.0	624.04	9.86	-0.933	0.000	0.060
100.00	-5.65	-1.14	0.00	-32.65	0.00	32.65	1052.07	315.62	43955.0	624.04	10.06	-0.938	0.000	0.058
101.00	-5.52	-1.13	0.00	-31.50	0.00	31.50	1052.07	315.62	43955.0	624.04	10.25	-0.942	0.000	0.056

## Calculated Forces

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 65



102.00	-5.39	-1.11	0.00	-30.37	0.00	30.37	1052.07	315.62	43955.0	624.04	10.45	-0.947	0.000	0.054
103.00	-5.27	-1.10	0.00	-29.26	0.00	29.26	1052.07	315.62	43955.0	624.04	10.65	-0.951	0.000	0.052
104.00	-5.14	-1.08	0.00	-28.16	0.00	28.16	1052.07	315.62	43955.0	624.04	10.85	-0.956	0.000	0.050
105.00	-5.01	-1.07	0.00	-27.08	0.00	27.08	1052.07	315.62	43955.0	624.04	11.05	-0.960	0.000	0.048
106.00	-4.88	-1.05	0.00	-26.01	0.00	26.01	1052.07	315.62	43955.0	624.04	11.25	-0.963	0.000	0.046
107.00	-4.75	-1.04	0.00	-24.95	0.00	24.95	1052.07	315.62	43955.0	624.04	11.46	-0.967	0.000	0.045
108.00	-4.60	-1.02	0.00	-23.91	0.00	23.91	1052.07	315.62	43955.0	624.04	11.66	-0.971	0.000	0.043
108.00	-4.60	-1.02	0.00	-23.91	0.00	23.91	1052.07	315.62	43955.0	624.04	11.66	-0.971	0.000	0.043
109.00	-4.46	-1.00	0.00	-22.89	0.00	22.89	1052.07	315.62	43955.0	624.04	11.86	-0.974	0.000	0.041
110.00	-4.25	-0.98	0.00	-21.88	0.00	21.88	1052.07	315.62	43955.0	624.04	12.07	-0.977	0.000	0.025
110.00	-4.25	-0.98	0.00	-21.88	0.00	21.88	682.83	204.85	11780.8	105.20	12.07	-0.977	0.000	0.008
111.00	-4.14	-0.96	0.00	-20.90	0.00	20.90	682.83	204.85	11780.8	105.20	12.27	-0.979	0.000	0.057
111.50	-4.09	-0.95	0.00	-20.42	0.00	20.42	682.83	204.85	11780.8	105.20	12.37	-0.990	0.000	0.055
111.50	-4.09	-0.95	0.00	-20.42	0.00	20.42	682.83	204.85	11780.8	105.20	12.37	-0.990	0.000	0.143
112.00	-4.03	-0.94	0.00	-19.95	0.00	19.95	682.83	204.85	11780.8	105.20	12.48	-1.000	0.000	0.196
113.00	-3.93	-0.92	0.00	-19.01	0.00	19.01	682.83	204.85	11780.8	105.20	12.70	-1.074	0.000	0.186
114.00	-3.82	-0.91	0.00	-18.08	0.00	18.08	682.83	204.85	11780.8	105.20	12.93	-1.145	0.000	0.178
115.00	-3.50	-0.89	0.00	-17.18	0.00	17.18	682.83	204.85	11780.8	105.20	13.18	-1.212	0.000	0.168
116.00	-3.40	-0.87	0.00	-16.29	0.00	16.29	682.83	204.85	11780.8	105.20	13.44	-1.276	0.000	0.160
117.00	-3.30	-0.85	0.00	-15.43	0.00	15.43	682.83	204.85	11780.8	105.20	13.71	-1.336	0.000	0.151
118.00	-3.20	-0.83	0.00	-14.58	0.00	14.58	682.83	204.85	11780.8	105.20	14.00	-1.393	0.000	0.143
119.00	-3.10	-0.81	0.00	-13.75	0.00	13.75	682.83	204.85	11780.8	105.20	14.29	-1.447	0.000	0.135
120.00	-2.87	-0.79	0.00	-12.94	0.00	12.94	682.83	204.85	11780.8	105.20	14.60	-1.498	0.000	0.127
121.00	-2.77	-0.77	0.00	-12.15	0.00	12.15	682.83	204.85	11780.8	105.20	14.92	-1.546	0.000	0.120
122.00	-2.66	-0.74	0.00	-11.39	0.00	11.39	682.83	204.85	11780.8	105.20	15.25	-1.591	0.000	0.112
123.00	-2.56	-0.72	0.00	-10.64	0.00	10.64	682.83	204.85	11780.8	105.20	15.59	-1.633	0.000	0.105
124.00	-2.46	-0.70	0.00	-9.92	0.00	9.92	682.83	204.85	11780.8	105.20	15.93	-1.672	0.000	0.098
125.00	-2.36	-0.68	0.00	-9.22	0.00	9.22	682.83	204.85	11780.8	105.20	16.29	-1.708	0.000	0.091
126.00	-2.26	-0.66	0.00	-8.54	0.00	8.54	682.83	204.85	11780.8	105.20	16.65	-1.742	0.000	0.084
127.00	-2.00	-0.63	0.00	-7.88	0.00	7.88	682.83	204.85	11780.8	105.20	17.02	-1.773	0.000	0.078
128.00	-1.91	-0.61	0.00	-7.25	0.00	7.25	682.83	204.85	11780.8	105.20	17.39	-1.802	0.000	0.072
129.00	-1.81	-0.59	0.00	-6.64	0.00	6.64	682.83	204.85	11780.8	105.20	17.77	-1.828	0.000	0.066
130.00	-1.59	-0.56	0.00	-6.05	0.00	6.05	682.83	204.85	11780.8	105.20	18.16	-1.853	0.000	0.060
130.00	-1.59	-0.56	0.00	-6.05	0.00	6.05	317.71	95.31	3734.62	52.28	18.16	-1.853	0.000	0.121
131.00	-1.54	-0.54	0.00	-5.49	0.00	5.49	317.71	95.31	3734.62	52.28	18.55	-1.875	0.000	0.110
132.00	-1.48	-0.52	0.00	-4.95	0.00	4.95	317.71	95.31	3734.62	52.28	18.94	-1.911	0.000	0.099
133.00	-1.42	-0.50	0.00	-4.44	0.00	4.44	317.71	95.31	3734.62	52.28	19.35	-1.945	0.000	0.089
134.00	-1.36	-0.47	0.00	-3.94	0.00	3.94	317.71	95.31	3734.62	52.28	19.76	-1.974	0.000	0.080
135.00	-1.10	-0.44	0.00	-3.47	0.00	3.47	317.71	95.31	3734.62	52.28	20.17	-2.000	0.000	0.070
136.00	-1.05	-0.42	0.00	-3.02	0.00	3.02	317.71	95.31	3734.62	52.28	20.59	-2.023	0.000	0.061
137.00	-1.00	-0.40	0.00	-2.60	0.00	2.60	317.71	95.31	3734.62	52.28	21.02	-2.043	0.000	0.053
138.00	-0.95	-0.38	0.00	-2.20	0.00	2.20	317.71	95.31	3734.62	52.28	21.45	-2.060	0.000	0.045
139.00	-0.90	-0.36	0.00	-1.82	0.00	1.82	317.71	95.31	3734.62	52.28	21.88	-2.074	0.000	0.038
140.00	-0.70	-0.25	0.00	-1.46	0.00	1.46	317.71	95.31	3734.62	52.28	22.32	-2.086	0.000	0.030
141.00	-0.65	-0.23	0.00	-1.21	0.00	1.21	317.71	95.31	3734.62	52.28	22.76	-2.095	0.000	0.025
142.00	-0.60	-0.20	0.00	-0.98	0.00	0.98	317.71	95.31	3734.62	52.28	23.20	-2.103	0.000	0.021
143.00	-0.55	-0.18	0.00	-0.78	0.00	0.78	317.71	95.31	3734.62	52.28	23.64	-2.109	0.000	0.017
144.00	-0.50	-0.16	0.00	-0.60	0.00	0.60	317.71	95.31	3734.62	52.28	24.08	-2.114	0.000	0.013
145.00	-0.26	-0.13	0.00	-0.44	0.00	0.44	317.71	95.31	3734.62	52.28	24.52	-2.118	0.000	0.009
146.00	-0.22	-0.11	0.00	-0.31	0.00	0.31	317.71	95.31	3734.62	52.28	24.97	-2.120	0.000	0.007
147.00	-0.18	-0.09	0.00	-0.20	0.00	0.20	317.71	95.31	3734.62	52.28	25.41	-2.122	0.000	0.004
148.00	-0.14	-0.06	0.00	-0.11	0.00	0.11	317.71	95.31	3734.62	52.28	25.85	-2.123	0.000	0.003
149.00	-0.11	-0.04	0.00	-0.05	0.00	0.05	317.71	95.31	3734.62	52.28	26.30	-2.124	0.000	0.001
150.00	0.00	-0.04	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	26.74	-2.124	0.000	0.000

## Final Analysis Summary

<b>Structure:</b> CT04374-S-SBA	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



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### 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 125 mph Wind	11.2	0.00	24.45	0.00	0.00	1024.47
0.9D + 1.0W 125 mph Wind	11.2	0.00	18.33	0.00	0.00	1006.74
1.2D + 1.0Di + 1.0Wi 50 mph Wind	4.5	0.00	31.58	0.00	0.00	466.60
1.2D + 1.0Ev + 1.0Eh	0.3	0.00	25.34	0.00	0.00	33.25
0.9D + 1.0Ev + 1.0Eh	0.3	0.00	19.17	0.00	0.00	32.87
1.0D + 1.0W 60 mph Wind	2.3	0.00	20.37	0.00	0.00	209.03

### 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 125 mph Wind	-4.47	-4.63	0.00	-97.92	0.00	-97.92	682.83	204.85	11780.8	105.20	112.00	0.938
0.9D + 1.0W 125 mph Wind	-3.27	-4.51	0.00	-94.96	0.00	-94.96	682.83	204.85	11780.8	105.20	112.00	0.908
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-7.91	-2.47	0.00	-54.37	0.00	-54.37	682.83	204.85	11780.8	105.20	112.00	0.529
1.2D + 1.0Ev + 1.0Eh	-20.91	-0.30	0.00	-27.36	0.00	-27.36	1490.10	475.94	99948.2	1339.68	20.00	0.045
0.9D + 1.0Ev + 1.0Eh	-15.81	-0.30	0.00	-27.02	0.00	-27.02	1490.10	475.94	99948.2	1339.68	20.00	0.041
1.0D + 1.0W 60 mph Wind	-4.03	-0.94	0.00	-19.95	0.00	-19.95	682.83	204.85	11780.8	105.20	112.00	0.196

### Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
			VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
110.0	111.5	(3) PLT-5"x3/4" STFNR	369.8	0.00	25.3	22.3	25.3	1	0	94.4	25.3	4	0	96.59	121.5	121.50	0.795



## Base Plate Summary

<b>Structure:</b> CT04374-S-SB	<b>Code:</b> TIA-222-H	1/24/2023
<b>Site Name:</b> Central Hebron	<b>Exposure:</b> C	
<b>Height:</b> 150.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
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Reactions	Base Plate	Anchor Bolts
Original Design	<b>Yield (ksi):</b> 36.00	<b>Bolt Circle:</b> 39.00
<b>Moment (kip-ft):</b> 666.50	<b>Width (in):</b> 42.38	<b>Number Bolts:</b> 28.00
<b>Axial (kip):</b> 16.50	<b>Style:</b> Round	<b>Bolt Type:</b> 1.0" F1554 105
<b>Shear (kip):</b> 8.00	<b>Polygon Sides:</b> 0.00	<b>Bolt Diameter (in):</b> 1.00
Analysis (1.2D + 1.0W)	<b>Clip Length (in):</b> 0.00	<b>Yield (ksi):</b> 105.00
<b>Moment (kip-ft):</b> 1024.47	<b>Effective Len (in):</b> 10.71	<b>Ultimate (ksi):</b> 125.00
<b>Axial (kip):</b> 24.45	<b>Moment (kip-in):</b> 68.86	<b>Arrangement:</b> Radial
<b>Shear (kip):</b> 11.19	<b>Allow Stress (ksi):</b> 48.60	<b>Cluster Dist (in):</b> 0.00
	<b>Applied Stress (ksi):</b> 24.79	<b>Start Angle (deg):</b> 0.00
	<b>Stress Ratio:</b> 0.51	<b>Compression</b>
		<b>Force (kip):</b> 45.90
		<b>Allowable (kip):</b> 74.22
		<b>Ratio:</b> 0.62
		<b>Tension</b>
		<b>Force (kip):</b> 44.16
		<b>Allowable (kip):</b> 56.78
		<b>Ratio:</b> 0.78



# Monopole Mat Foundation Design

Date

1/24/2023

<b>Customer Name:</b>	Dish Wireless	<b>TIA Standard:</b>	TIA-222-H
<b>Site Name:</b>		<b>Structure Height (Ft.):</b>	150
<b>Site Number:</b>	CT04374-S-SBA	<b>Engineer Name:</b>	C. Zang
<b>Engr. Number:</b>	138001	<b>Engineer Login ID:</b>	

**Foundation Info Obtained from:**

Drawings/Calculations
Monopole
Analysis

**Structure Type:**

**Analysis or Design?**

**Base Reactions (Factored):**

Axial Load (Kips):	24.4	Shear Force (Kips):	11.2
Uplift Force (Kips):	0.0	Moment (Kips-ft):	1024.5
Allowable overstress %:	5.0%		

**Foundation Geometries:**

		Mods required -Yes/No ?:	Yes
Diameter of Pier (ft.):	4.5	Depth of Base BG (ft.):	4.5
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	2.00
Length of Pad (ft.):	14.5	Width of Pad (ft.):	14.5
Add Concrete Width & Length (ft.)	6.8	Add Concrete Thick. (ft)	2
Final Length of pad (ft)	14.5	Final width of pad (ft):	14.5

**Material Properties and Rebar Info:**

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	15	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	6	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf

Rebar at the bottom of the concrete pad:

Qty. of Rebar in Pad (L):	15	Qty. of Rebar in Pad (W):	15
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Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	15	Qty. of Rebar in Pad (W):	15
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Apply 1.35 factor for e/w Per G: 1.35

**Soil Design Parameters:**

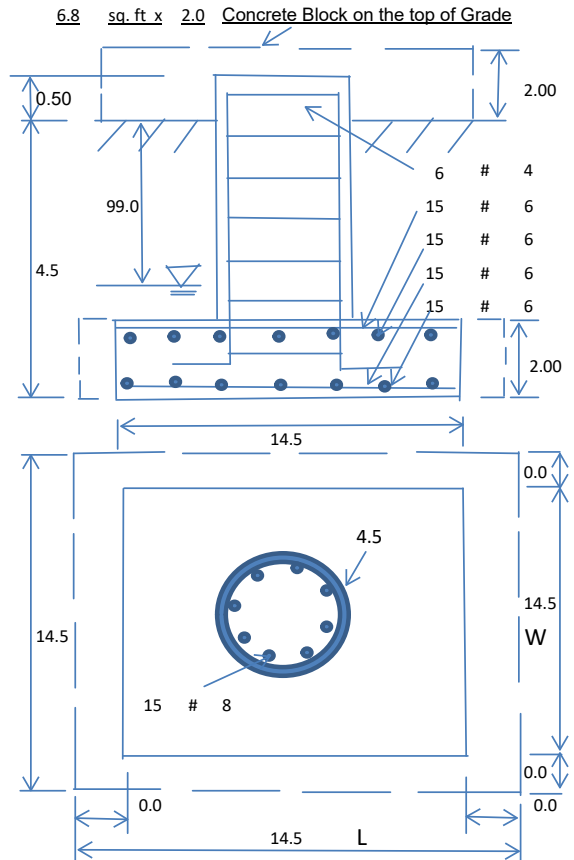
Soil Unit Weight (pcf):	130.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	30000	Ultimate Skin Friction:	200	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	Yes	Reduction factor on the maximum soil bearing pressure:	1.00			

**Foundation Analysis and Design:**

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	485.86	Total Dry Soil Weight (Kips):	63.16
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	63.16	Weight from the Concrete Block at Top (K):	12.68
Total Dry Concrete Volume (cu. Ft.):	552.74	Total Dry Concrete Weight (Kips):	82.91
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	82.91	Total Vertical Load on Base (Kips):	170.47

**Check Soil Capacities:**

Calculated Maxium Net Soil Pressure under the base (psf):	4636	<	Allowable Factored Soil Bearing (psf):	22500	0.21	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	1130.0	>	Design Factored Momont (kips-ft):	1043	0.92	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.08					OK!



**Check the capacities of Reinforcing Concrete:**

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00

Load/  
Capacity  
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	1204.2	>	Design Factored Moment (Mu, Kips-F	1058.1	0.88 OK!
Calculated Shear Capacity (Kips):	303.7	>	Design Factored Shear (Kips):	11.2	0.04 OK!
Calculated Tension Capacity (Tn, Kips):	639.9	>	Design Factored Tension (Tu Kips):	0.0	0.00 OK!
Calculated Compression Capacity (Pn, Kips):	4028.2	>	Design Factored Axial Load (Pu Kips):	24.4	0.01 OK!
Moment & Axial Strength Combination:	0.88	OK!	Check Tie Spacing (Design/Required):	1	OK!
Pier Reinforcement Ratio:	0.005		Reinforcement Ratio is satisfied per ACI		

**(2).Concrete Pad:**

One-Way Design Shear Capacity (L-Direction, Kips):	340.5	>	One-Way Factored Shear (L-D. Kips):	106.3	0.31 OK!
One-Way Design Shear Capacity (W-Direction, Kips):	340.5	>	One-Way Factored Shear (W-D., Kips)	106.3	0.31 OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	295.1	>	One-Way Factored Shear (C-C, Kips):	108.0	0.37 OK!
Lower Steel Pad Reinforcement Ratio (L-Direct. ):	0.0018	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0018	
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	602.6	>	Moment at Bottom ( L-Dir. K-Ft):	306.4	0.51 OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	602.6	>	Moment at Bottom ( W-Dir. K-Ft):	306.4	0.51 OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	848.3	>	Moment at Bottom ( C-C Dir. K-Ft):	433.3	0.51 OK!
Upper Steel Pad Reinforcement Ratio (L-Direct. ):	0.0018	OK!	Upper Steel Reinf. Ratio (W-Dir. ):	0.0018	
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	602.6	>	Moment at the top ( L-Dir K-Ft):	125.5	0.21 OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	602.6	>	Moment at the top (W-Dir K-Ft):	125.5	0.21 OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	848.3	>	Moment at the top (C-C Dir. K-Ft):	118.3	0.14 OK!

**(3).Check Punching Shear Capacity due to Moment in the Pier:**

Moment transferred by punching shear:	409.8	k-ft.	Max. factored shear stress $v_{u,CD}$ :	3.5	Psi
Max. factored shear stress $v_{u,AB}$ :	11.4	Psi	Factored shear Strength $\phi v_n$ :	189.7	Psi
Max. factored shear stress $v_u$ :	11.4	Psi	Check Usage of Punching Shear Capacity:	0.06	OK!

**(4).Check Bending Capacity of the Pad Within the Effective Slab Width:**

Overturning moment to be transferred by flexure:	307.4	k-ft.	Effective Width for resisting OT moment:	10.5	ft.
Calculated number of Rebar in Effective width:	11		Actual number of Rebar in Effective width:	11	
Steel Pad Moment Capacity ( L-Direc. Kips-ft):	441.8	k-ft.	Check Usage of the Flexure Capacity:	0.70	OK!