

Date: **August 19, 2025**

 **FL COA# 31011**
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation:	Verizon Wireless Co-Locate
	Site Number: 5000257123
	Site Name: Lake City West - A
Crown Castle Designation:	BU Number: 809328
	Site Name: Lake City W J-FL-012-058
	JDE Job Number: 2152761
	Work Order Number: 2415946
	Order Number: 709770 Rev. 0
Engineering Firm Designation:	TEP Project Number: 54343.1142037
Site Data:	555 Hackney Lane, Lake City, Columbia County, FL 32055
	Latitude 30° 10' 56.44", Longitude -82° 39' 38.01"
	250 Foot - Self-Supporting Tower

TEP is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

Sufficient Capacity

This analysis utilizes an ultimate 3-second gust wind speed of 119 mph as required by the 2023 Florida Building Code, 8th Edition. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

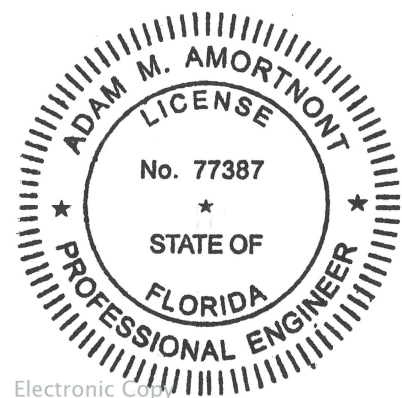
Structural analysis prepared by: AS / TEPI

Respectfully submitted by:

Adam M. Amortnont, P.E.

This item has been digitally signed and sealed by Adam M. Amortnont, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



Electronic Copy

08/19/2025

TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

Table 2 - Other Considered Equipment

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Table 5 - Tower Component Stresses vs. Capacity

4.1) Recommendations

5) APPENDIX A

tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This is a 250-ft self-supporting tower designed by Rohn.

2) ANALYSIS CRITERIA

TIA-222 Revision: TIA-222-H
Risk Category: II
Wind Speed: 119 mph
Exposure Category: C
Topographic Factor: 1.0
Service Wind Speed: 60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
231.0	231.0	3	Commscope	NNSS-65C-HG-R2B_20241102 w/ Mount Pipe	3	2
		3	Ericsson	AIR 3283 B25 B66 w/ Mount Pipe		
		3	Ericsson	AIR 6419 w/ Mount Pipe		
		3	Ericsson	RADIO 4490HP 44B5 44B13 C		
		3	Raycap	RVZDC-6627-PF-48_CCIV2		
		3	Site Pro 1	VFA12-HD Sector Mounts		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
250.0	250.0	3	Ericsson	AIR6449 B41_T-MOBILE w/ Mount Pipe	9	1-5/8
		3	Commscope	FFVV-65C-R3-V1_TMO w/ Mount Pipe		
		3	Ericsson	Radio 4480_TMOV2		
		3	Ericsson	RADIO 4460 B2/B25 B66_TMO		
		1	Tower Mounts	Sector Mount [SM 505-3]		
220.0	220.0	6	Commscope	NNH4-65B-R6H4 w/ Mount Pipe	3 6	3/8 7/8
		3	Ericsson	AIR 6419 B77G_CCIV2 w/ Mount Pipe		
		3	Ericsson	AIR 6449 B77D w/ Mount Pipe		
		3	Ericsson	4490 B5/B12		
		3	Ericsson	RADIO 4478 B14		
		3	Ericsson	RADIO 4890HP B2/B25 B66		
		3	Ericsson	RRUS 4415 B30		
		3	Raycap	DC9-48-60-24-8C-EV_CCIV2		
		3	Sabre	C10841002C Sector Mount		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	121904	CCISites
Tower Foundation Drawings	121914	CCISites
Tower Manufacturer Drawings	13075	CCISites

3.1) Analysis Method

tnxTower (version 8.3.1.2), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 Standard.

3.2) Assumptions

- 1) The tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2, and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. TEP should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (k)	ϕP_{allow} (k)	% Capacity	Pass / Fail
T1	250 - 240	Leg	ROHN 2.5 STD	1	-4.06	60.05	6.8	Pass
T2	240 - 220	Leg	ROHN 3 STD	28	-19.72	74.53	26.5	Pass
T3	220 - 200	Leg	ROHN 4 X-STR	69	-57.58	168.03	34.3	Pass
T4	200 - 180	Leg	ROHN 5 EH	108	-93.27	251.35	37.1	Pass
T5	180 - 160	Leg	ROHN 6 EH	147	-121.66	360.24	33.8	Pass
T6	160 - 140	Leg	ROHN 8 EHS	186	-143.44	405.67	35.4	Pass
T7	140 - 120	Leg	ROHN 8 EHS	213	-167.37	405.62	41.3	Pass
T8	120 - 100	Leg	ROHN 8 X-STR	240	-190.12	530.71	35.8 36.0 (b)	Pass
T9	100 - 80	Leg	ROHN 8 X-STR	267	-212.21	530.66	40.0	Pass
T10	80 - 60	Leg	ROHN 10 EH	294	-234.40	701.99	33.4	Pass
T11	60 - 40	Leg	ROHN 10 X-STR	321	-244.00	701.99	34.8	Pass
T12	40 - 20	Leg	ROHN 10 X-STR	354	-266.33	701.99	37.9	Pass
T13	20 - 0	Leg	ROHN 10 EH	387	-289.72	701.99	41.3	Pass
T1	250 - 240	Diagonal	ROHN 2 STD	14	-2.27	25.36	9.0	Pass
T2	240 - 220	Diagonal	ROHN 2 STD	38	-6.64	18.63	35.6	Pass
T3	220 - 200	Diagonal	ROHN 2 EH	77	-10.64	24.62	43.2	Pass
T4	200 - 180	Diagonal	ROHN 2 EH	116	-7.29	21.21	34.4	Pass
T5	180 - 160	Diagonal	ROHN 2 EH	155	-7.03	18.08	38.9	Pass
T6	160 - 140	Diagonal	ROHN 2.5 X-STR	194	-8.83	22.15	39.9	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (k)	ϕP_{allow} (k)	% Capacity	Pass / Fail
T7	140 - 120	Diagonal	ROHN 3 STD	221	-8.29	30.29	27.4	Pass
T8	120 - 100	Diagonal	ROHN 3 STD	248	-8.72	26.47	33.0	Pass
T9	100 - 80	Diagonal	ROHN 3 STD	275	-8.71	22.99	37.9	Pass
T10	80 - 60	Diagonal	ROHN 3 STD	302	-9.92	20.50	48.4	Pass
T11	60 - 40	Diagonal	ROHN 3 STD	339	-15.67	33.46	46.8	Pass
T12	40 - 20	Diagonal	ROHN 3 STD	372	-16.02	31.53	50.8	Pass
T13	20 - 0	Diagonal	ROHN 3 STD	405	-15.67	29.67	52.8	Pass
T1	250 - 240	Horizontal	ROHN 1.5 STD	13	1.47	22.34	6.6	Pass
T2	240 - 220	Horizontal	ROHN 1.5 STD	37	3.59	22.34	16.1	Pass
T3	220 - 200	Horizontal	ROHN 1.5 STD	76	5.80	22.34	26.0	Pass
T4	200 - 180	Horizontal	ROHN 1.5 STD	115	-4.52	20.11	22.5	Pass
T5	180 - 160	Horizontal	ROHN 2 STD	154	-4.79	28.49	16.8	Pass
T6	160 - 140	Horizontal	ROHN 2 STD	193	-5.33	23.86	22.3	Pass
T7	140 - 120	Horizontal	ROHN 2 STD	220	-5.49	17.78	30.9	Pass
T8	120 - 100	Horizontal	ROHN 2.5 STD	247	-6.09	30.40	20.0	Pass
T9	100 - 80	Horizontal	ROHN 2.5 STD	274	-6.37	23.33	27.3	Pass
T10	80 - 60	Horizontal	ROHN 2.5 STD	301	-7.35	18.74	39.2	Pass
T11	60 - 40	Horizontal	ROHN 3 STD	338	-8.17	33.29	24.5	Pass
T12	40 - 20	Horizontal	ROHN 3 STD	371	-8.79	27.40	32.1	Pass
T13	20 - 0	Horizontal	ROHN 3 STD	404	-9.38	22.94	40.9	Pass
T1	250 - 240	Top Girt	ROHN 1.5 STD	6	-1.30	23.77	5.5	Pass
T11	60 - 40	Redund Horz 1 Bracing	ROHN 1.5 STD	334	-4.23	14.74	28.7 29.7 (b)	Pass
T12	40 - 20	Redund Horz 1 Bracing	ROHN 1.5 STD	367	-4.62	12.04	38.4	Pass
T13	20 - 0	Redund Horz 1 Bracing	ROHN 1.5 STD	400	-5.03	10.03	50.1	Pass
T11	60 - 40	Redund Diag 1 Bracing	ROHN 1.5 STD	335	-3.85	4.53	85.1	Pass
T12	40 - 20	Redund Diag 1 Bracing	ROHN 2.25 TUBE	368	-3.93	6.43	61.2	Pass
T13	20 - 0	Redund Diag 1 Bracing	ROHN 2.25 TUBE	401	-4.04	5.99	67.5	Pass
T11	60 - 40	Redund Hip 1 Bracing	ROHN 1.5 STD	345	-0.02	12.73	0.2	Pass
T12	40 - 20	Redund Hip 1 Bracing	ROHN 1.5 STD	378	-0.02	10.54	0.2	Pass
T13	20 - 0	Redund Hip 1 Bracing	ROHN 1.5 STD	411	-0.02	8.88	0.2	Pass
T11	60 - 40	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	348	-0.06	11.01	0.6	Pass
T12	40 - 20	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	381	-0.06	9.90	0.6	Pass
T13	20 - 0	Redund Hip Diagonal 1 Bracing	ROHN 3 STD	414	-0.07	17.59	0.4	Pass
T1	250 - 240	Inner Bracing	L2x2x1/8	18	-0.00	8.80	0.1	Pass
T2	240 - 220	Inner Bracing	L2x2x1/8	42	-0.00	8.65	0.1	Pass
T3	220 - 200	Inner Bracing	L2x2x1/8	79	-0.01	8.48	0.1	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (k)	ϕP_{allow} (k)	% Capacity	Pass / Fail
T4	200 - 180	Inner Bracing	L2x2x1/8	118	-0.00	6.27	0.1	Pass
T5	180 - 160	Inner Bracing	L2x2x1/8	158	-0.01	4.28	0.1	Pass
T6	160 - 140	Inner Bracing	L2x2x1/8	197	-0.01	3.24	0.2	Pass
T7	140 - 120	Inner Bracing	L2 1/2x2 1/2x3/16	225	-0.01	6.84	0.2	Pass
T8	120 - 100	Inner Bracing	L3x3x3/16	252	-0.01	9.02	0.2	Pass
T9	100 - 80	Inner Bracing	L3 1/2x3 1/2x1/4	279	-0.01	14.69	0.2	Pass
T10	80 - 60	Inner Bracing	L3 1/2x3 1/2x1/4	306	-0.01	11.72	0.2	Pass
T11	60 - 40	Inner Bracing	ROHN 3 STD	349	-0.01	30.98	0.2	Pass
T12	40 - 20	Inner Bracing	ROHN 3 STD	384	-0.01	25.66	0.2	Pass
T13	20 - 0	Inner Bracing	ROHN 3 STD	415	-0.01	21.61	0.3	Pass
							Summary	
						Leg (T13)	41.3	Pass
						Diagonal (T13)	52.8	Pass
						Horizontal (T13)	40.9	Pass
						Top Girt (T1)	5.5	Pass
						Redund Horz 1 Bracing (T13)	50.1	Pass
						Redund Diag 1 Bracing (T11)	85.1	Pass
						Redund Hip 1 Bracing (T13)	0.2	Pass
						Redund Hip Diagonal 1 Bracing (T12)	0.6	Pass
						Inner Bracing (T13)	0.3	Pass
						Bolt Checks	36.0	Pass
						RATING =	85.1	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	39.7	Pass
1,2,3	Base Foundation Structural [Design Reaction Comparison]	-	41.6	Pass
Structure Rating (max from all components) =				85.1%

Notes:

- 1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.
- 2) Rating per TIA-222-H Section 15.5
- 3) Foundation capacity determined by comparing analysis reactions to original design reactions. Design loads were multiplied by 1.35 for comparison as allowed by TIA-222-H, Section 15.6.2.

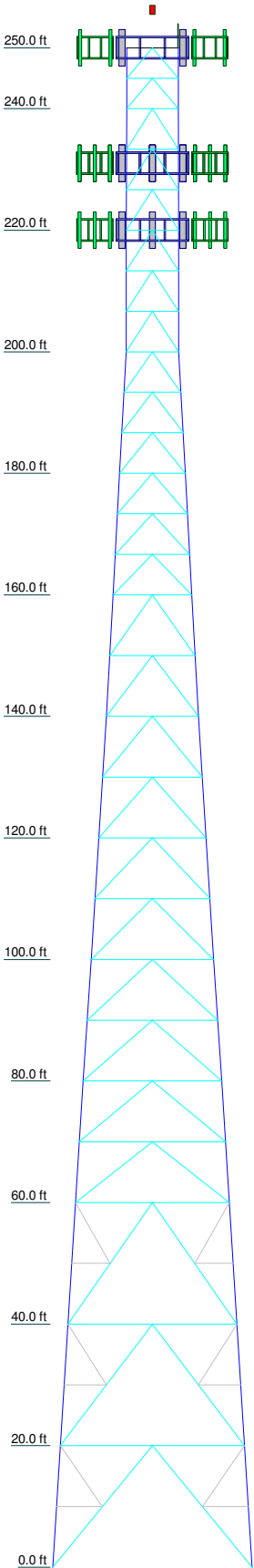
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	ROHN 10 EH	ROHN 10 X-STR	ROHN 10 EH	ROHN 10 EH	ROHN 8 X-STR	ROHN 8 EHS	A572-50	ROHN 2.5 X-STR	ROHN 2 EH	ROHN 2 STD	ROHN 4 X-STR	ROHN 3 STD	A
Leg Grade													
Diagonals													
Diagonal Grade													
Top Girts													
Horizontals													
Red. Horizontals													
Red. Diagonals													
Red. Hips													
Inner Bracing													
Face Width (ft)	32.8333	30.3333	27.8333	25.3333	L3 1/2x3 1/2x1/4	L3x3x3/16	L2 1/2x2 1/2x3/16	15.1771	10.7917	8.70833	L2x2x1/8	8.54167	8.5
# Panels @ (ft)		3 @ 20			10 @ 10					12 @ 6.66667		2 @ 5	
Weight (K)	52.7	6.6	6.3	6.2	6.3	5.3	3.9	3.7	3.2	2.4	2.0	1.3	0.7



ALL REACTIONS
ARE FACTORED

MAX. CORNER REACTIONS AT BASE:

DOWN: 311 K
SHEAR: 37 K

UPLIFT: -260 K
SHEAR: 32 K

AXIAL
93 K

SHEAR
59 K

MOMENT
8154 kip-ft

TORQUE 70 kip-ft
REACTIONS - 119 mph WIND

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	ROHN 2.5 STD	B	ROHN 1.5 STD

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower is located in Columbia County, Florida.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 119 mph basic wind in accordance with the TIA-222-H Standard.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0'
7. TOWER RATING: 85.1%

TEP

326 Tryon Road
Raleigh, NC 27603
Phone: (919) 661-6351
FAX: (919) 661-6350

Job: **Lake City W J-FL-012-058 (BU 809328)**

Project: **TEP No. 54343.1142037**

Client: Crown Castle	Drawn by: AAL	App'd:
Code: TIA-222-H	Date: 08/19/25	Scale: NTS
Path:		Dwg No. E-1

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 1 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Tower Input Data

The main tower is a 3x free standing tower with an overall height of 250' above the ground line.

The base of the tower is set at an elevation of 0' above the ground line.

The face width of the tower is 8'6" at the top and 32'10" at the base.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in Columbia County, Florida.

Tower base elevation above sea level: 166'.

Basic wind speed of 119 mph.

Risk Category II.

Exposure Category C.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0'.

Deflections calculated using a wind speed of 60 mph.

Pressures are calculated at each section.

Stress ratio used in tower member design is 1.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used: $K_{es}(F_w) = 0.95$.

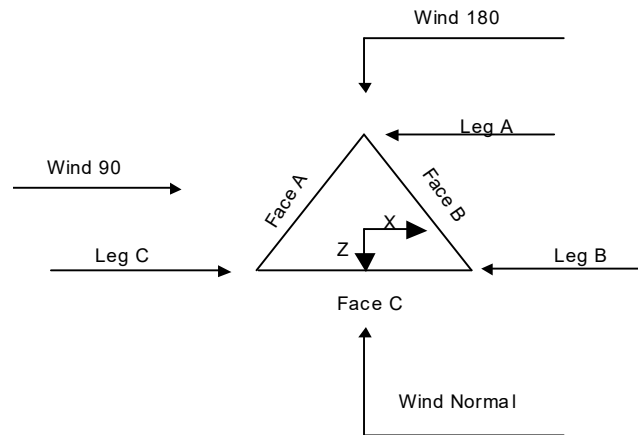
Maximum demand-capacity ratio is: 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 2 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	250'-240'			8'6"	1	10'
T2	240'-220'			8'6-15/32"	1	20'
T3	220'-200'			8'7-9/16"	1	20'
T4	200'-180'			8'8-17/32"	1	20'
T5	180'-160'			10'9-15/32"	1	20'
T6	160'-140'			12'11-5/32"	1	20'
T7	140'-120'			15'2-5/32"	1	20'
T8	120'-100'			17'8-5/32"	1	20'
T9	100'-80'			20'2-5/32"	1	20'
T10	80'-60'			22'9-31/32"	1	20'
T11	60'-40'			25'3-31/32"	1	20'
T12	40'-20'			27'9-31/32"	1	20'
T13	20'-0'			30'3-31/32"	1	20'

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	250'-240'	5'	K Brace Down	No	Yes	0.0000	0.0000
T2	240'-220'	6'8-1/32"	K Brace Down	No	Yes	0.0000	0.0000

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	3 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Tower Section</i>	<i>Tower Elevation</i>	<i>Diagonal Spacing</i>	<i>Bracing Type</i>	<i>Has K Brace End Panels</i>	<i>Has Horizontals</i>	<i>Top Girt Offset</i>	<i>Bottom Girt Offset</i>
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T3	220'-200'	6'8-1/32"	K Brace Down	No	Yes	0.0000	0.0000
T4	200'-180'	6'8-1/32"	K Brace Down	No	Yes	0.0000	0.0000
T5	180'-160'	6'8-1/32"	K Brace Down	No	Yes	0.0000	0.0000
T6	160'-140'	10'	K Brace Down	No	Yes	0.0000	0.0000
T7	140'-120'	10'	K Brace Down	No	Yes	0.0000	0.0000
T8	120'-100'	10'	K Brace Down	No	Yes	0.0000	0.0000
T9	100'-80'	10'	K Brace Down	No	Yes	0.0000	0.0000
T10	80'-60'	10'	K Brace Down	No	Yes	0.0000	0.0000
T11	60'-40'	20'	K1 Down	No	Yes	0.0000	0.0000
T12	40'-20'	20'	K1 Down	No	Yes	0.0000	0.0000
T13	20'-0'	20'	K1 Down	No	Yes	0.0000	0.0000

Tower Section Geometry (cont'd)

<i>Tower Elevation</i>	<i>Leg Type</i>	<i>Leg Size</i>	<i>Leg Grade</i>	<i>Diagonal Type</i>	<i>Diagonal Size</i>	<i>Diagonal Grade</i>
<i>ft</i>						
T1 250'-240'	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T2 240'-220'	Pipe	ROHN 3 STD	A572-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T3 220'-200'	Pipe	ROHN 4 X-STR	A572-50 (50 ksi)	Pipe	ROHN 2 EH	A572-50 (50 ksi)
T4 200'-180'	Pipe	ROHN 5 EH	A572-50 (50 ksi)	Pipe	ROHN 2 EH	A572-50 (50 ksi)
T5 180'-160'	Pipe	ROHN 6 EH	A572-50 (50 ksi)	Pipe	ROHN 2 EH	A572-50 (50 ksi)
T6 160'-140'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Pipe	ROHN 2.5 X-STR	A572-50 (50 ksi)
T7 140'-120'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T8 120'-100'	Pipe	ROHN 8 X-STR	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T9 100'-80'	Pipe	ROHN 8 X-STR	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T10 80'-60'	Pipe	ROHN 10 EH	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T11 60'-40'	Pipe	ROHN 10 X-STR	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T12 40'-20'	Pipe	ROHN 10 X-STR	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T13 20'-0'	Pipe	ROHN 10 EH	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation</i>	<i>No. of Mid Girts</i>	<i>Mid Girt Type</i>	<i>Mid Girt Size</i>	<i>Mid Girt Grade</i>	<i>Horizontal Type</i>	<i>Horizontal Size</i>	<i>Horizontal Grade</i>
<i>ft</i>							
T1 250'-240'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 1.5 STD	A572-50 (50 ksi)

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	4 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Tower Elevation</i> <i>ft</i>	<i>No. of Mid Girts</i>	<i>Mid Girt Type</i>	<i>Mid Girt Size</i>	<i>Mid Girt Grade</i>	<i>Horizontal Type</i>	<i>Horizontal Size</i>	<i>Horizontal Grade</i>
T2 240'-220'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 1.5 STD	A572-50 (50 ksi)
T3 220'-200'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 1.5 STD	A572-50 (50 ksi)
T4 200'-180'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 1.5 STD	A572-50 (50 ksi)
T5 180'-160'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T6 160'-140'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T7 140'-120'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T8 120'-100'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)
T9 100'-80'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)
T10 80'-60'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)
T11 60'-40'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T12 40'-20'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T13 20'-0'	None	Pipe		A618-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation</i> <i>ft</i>	<i>Secondary Horizontal Type</i>	<i>Secondary Horizontal Size</i>	<i>Secondary Horizontal Grade</i>	<i>Inner Bracing Type</i>	<i>Inner Bracing Size</i>	<i>Inner Bracing Grade</i>
T1 250'-240'	Pipe		A618-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T2 240'-220'	Pipe		A618-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T3 220'-200'	Pipe		A618-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T4 200'-180'	Pipe		A618-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T5 180'-160'	Pipe		A618-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T6 160'-140'	Pipe		A618-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T7 140'-120'	Pipe		A618-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T8 120'-100'	Pipe		A618-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T9 100'-80'	Pipe		A618-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T10 80'-60'	Pipe		A618-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T11 60'-40'	Pipe		A618-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T12 40'-20'	Pipe		A618-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	5 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Tower Elevation</i>	<i>Secondary Horizontal Type</i>	<i>Secondary Horizontal Size</i>	<i>Secondary Horizontal Grade</i>	<i>Inner Bracing Type</i>	<i>Inner Bracing Size</i>	<i>Inner Bracing Grade</i>
<i>ft</i>						
T13 20'-0'	Pipe		A618-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation</i>	<i>Redundant Bracing Grade</i>	<i>Redundant Type</i>	<i>Redundant Size</i>	<i>K Factor</i>
<i>ft</i>				
T11 60'-40'	A572-50 (50 ksi)	Horizontal (1)	Pipe	ROHN 1.5 STD
	A572-50 (50 ksi)	Diagonal (1)	Pipe	ROHN 1.5 STD
	A572-50 (50 ksi)	Hip (1)	Pipe	ROHN 1.5 STD
	A572-50 (50 ksi)	Hip Diagonal (1)	Pipe	ROHN 2.5 STD
T12 40'-20'	A572-50 (50 ksi)	Horizontal (1)	Pipe	ROHN 1.5 STD
	A572-50 (50 ksi)	Diagonal (1)	Pipe	ROHN 2.25 TUBE
	A572-50 (50 ksi)	Hip (1)	Pipe	ROHN 1.5 STD
	A572-50 (50 ksi)	Hip Diagonal (1)	Pipe	ROHN 2.5 STD
T13 20'-0'	A572-50 (50 ksi)	Horizontal (1)	Pipe	ROHN 1.5 STD
	A572-50 (50 ksi)	Diagonal (1)	Pipe	ROHN 2.25 TUBE
	A572-50 (50 ksi)	Hip (1)	Pipe	ROHN 1.5 STD
	A572-50 (50 ksi)	Hip Diagonal (1)	Pipe	ROHN 3 STD

Tower Section Geometry (cont'd)

<i>Tower Elevation</i>	<i>Gusset Area (per face)</i>	<i>Gusset Thickness</i>	<i>Gusset Grade</i>	<i>Adjust. Factor A_f</i>	<i>Adjust. Factor A_r</i>	<i>Weight Mult.</i>	<i>Double Angle Stitch Bolt Spacing Diagonals</i>	<i>Double Angle Stitch Bolt Spacing Horizontals</i>	<i>Double Angle Stitch Bolt Spacing Redundants</i>
<i>ft</i>	<i>ft²</i>	<i>in</i>					<i>in</i>	<i>in</i>	<i>in</i>
T1 250'-240'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T2 240'-220'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T3 220'-200'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T4 200'-180'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T5 180'-160'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T6 160'-140'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T7 140'-120'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T8 120'-100'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T9 100'-80'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T10 80'-60'	0.00	0.2500	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T11 60'-40'	0.00	0.3750	A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000
T12 40'-20'	0.00	0.3750	A36	1	1.03	1.05	36.0000	36.0000	36.0000

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Page
	Lake City W J-FL-012-058 (BU 809328)	6 of 45
	Project	Date
	TEP No. 54343.1142037	12:13:57 08/19/25
	Client	Designed by
	Crown Castle	AAL

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
T13 20'-0'	0.00	0.3750	(36 ksi) A36 (36 ksi)	1	1.03	1.05	36.0000	36.0000	36.0000

Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors ¹						
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace
				X Y	X Y	X Y	X Y	X Y	X Y	X Y
T1 250'-240'	Yes	Yes	1	1	1	1	1	1	1	1
T2 240'-220'	Yes	Yes	1	1	1	1	1	1	1	1
T3 220'-200'	Yes	Yes	1	1	1	1	1	1	1	1
T4 200'-180'	Yes	Yes	1	1	1	1	1	1	1	1
T5 180'-160'	Yes	Yes	1	1	1	1	1	1	1	1
T6 160'-140'	Yes	Yes	1	1	1	1	1	1	1	1
T7 140'-120'	Yes	Yes	1	1	1	1	1	1	1	1
T8 120'-100'	Yes	Yes	1	1	1	1	1	1	1	1
T9 100'-80'	Yes	Yes	1	1	1	1	1	1	1	1
T10 80'-60'	Yes	Yes	1	1	1	1	1	1	1	1
T11 60'-40'	Yes	Yes	1	1	1	1	1	1	1	1
T12 40'-20'	Yes	Yes	1	1	1	1	1	1	1	1
T13 20'-0'	Yes	Yes	1	1	1	1	1	1	1	1

¹Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 250'-240'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Page
	Lake City W J-FL-012-058 (BU 809328)	7 of 45
	Project	Date
	TEP No. 54343.1142037	12:13:57 08/19/25
	Client	Designed by
	Crown Castle	AAL

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T2 240'-220'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T3 220'-200'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T4 200'-180'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 180'-160'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 160'-140'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T7 140'-120'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T8 120'-100'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T9 100'-80'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 80'-60'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T11 60'-40'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T12 40'-20'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T13 20'-0'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 250'-240'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T2 240'-220'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T3 220'-200'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T4 200'-180'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)
T5 180'-160'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.0000	0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.0000	0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.0000	0.75 (4)	0.0000	0.75 (4)

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	8 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical	Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	Net Width Deduct in	U	Net Width Deduct in	U
T6 160'-140'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.75 (4)	0.0000	0.75 (4)
T7 140'-120'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.75 (4)	0.0000	0.75 (4)
T8 120'-100'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.75 (4)	0.0000	0.75 (4)
T9 100'-80'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.75 (4)	0.0000	0.75 (4)
T10 80'-60'	0.0000	1 (1)	0.0000	1 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.75 (4)	0.0000	0.75 (4)
T11 60'-40'	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.75 (4)	0.0000	0.75 (4)
T12 40'-20'	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)
	0.0000	0.75 (2)	0.0000	0.75 (2)							0.75 (2)	0.0000	0.75 (2)
	0.0000	0.75 (3)	0.0000	0.75 (3)							0.75 (3)	0.0000	0.75 (3)
	0.0000	0.75 (4)	0.0000	0.75 (4)							0.75 (4)	0.0000	0.75 (4)
T13 20'-0'	0.0000	0.75 (1)	0.0000	0.75 (1)	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.75 (1)	0.0000	0.75 (1)

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 10 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T2 240'-220'	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
T3 220'-200'	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
T4 200'-180'	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
T5 180'-160'	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T6 160'-140'	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
T7 140'-120'	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
T8 120'-100'	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	11 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T9 100'-80'	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
T10 80'-60'	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	0 (1)	0.6250	0 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	0 (1)	0.6250	0 (1)
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
	0.6250	0 (2)	0.6250	0 (2)							0.6250	0 (2)	0.6250	0 (2)
	A325N		A325N								A325N		A325N	
T11 60'-40'	0.6250	0 (3)	0.6250	0 (3)							0.6250	0 (3)	0.6250	0 (3)
	A325N		A325N								A325N		A325N	
	0.6250	0 (4)	0.6250	0 (4)							0.6250	0 (4)	0.6250	0 (4)
	A325N		A325N								A325N		A325N	
	0.6250	1 (1)	0.6250	1 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	1 (1)	0.6250	1 (1)
	A325X		A325X		A325N		A325N		A325N		A325X		A325X	
	0.6250	1 (2)	0.6250	1 (2)							0.6250	1 (2)	0.6250	1 (2)
	A325N		A325N								A325N		A325N	
T12 40'-20'	0.6250	1 (3)	0.6250	1 (3)							0.6250	1 (3)	0.6250	1 (3)
	A325N		A325N								A325N		A325N	
	0.6250	1 (4)	0.6250	1 (4)							0.6250	1 (4)	0.6250	1 (4)
	A325N		A325N								A325N		A325N	
	0.6250	1 (1)	0.6250	1 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	1 (1)	0.6250	1 (1)
	A325X		A325X		A325N		A325N		A325N		A325X		A325X	
	0.6250	1 (2)	0.6250	1 (2)							0.6250	1 (2)	0.6250	1 (2)
	A325N		A325N								A325N		A325N	
T13 20'-0'	0.6250	1 (3)	0.6250	1 (3)							0.6250	1 (3)	0.6250	1 (3)
	A325N		A325N								A325N		A325N	
	0.6250	1 (4)	0.6250	1 (4)							0.6250	1 (4)	0.6250	1 (4)
	A325N		A325N								A325N		A325N	
	0.6250	1 (1)	0.6250	1 (1)	0.6250	0	0.6250	0	0.6250	0	0.6250	1 (1)	0.6250	1 (1)
	A325X		A325X		A325N		A325N		A325N		A325X		A325X	
	0.6250	1 (2)	0.6250	1 (2)							0.6250	1 (2)	0.6250	1 (2)
	A325N		A325N								A325N		A325N	
	0.6250	1 (3)	0.6250	1 (3)							0.6250	1 (3)	0.6250	1 (3)
	A325N		A325N								A325N		A325N	
	0.6250	1 (4)	0.6250	1 (4)							0.6250	1 (4)	0.6250	1 (4)
	A325N		A325N								A325N		A325N	

Feed Line/Linear Appurtenances - Entered As Round Or Flat

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 13 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
T1	250'-240'	A	0.000	0.000	5.350	0.000	0.04
		B	0.000	0.000	0.350	0.000	0.00
		C	0.000	0.000	24.189	0.000	0.28
T2	240'-220'	A	0.000	0.000	10.700	0.000	0.09
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	62.478	0.000	0.71
T3	220'-200'	A	0.000	0.000	34.524	0.364	0.30
		B	0.000	0.000	0.700	0.364	0.02
		C	0.000	0.000	70.378	0.364	0.83
T4	200'-180'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T5	180'-160'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T6	160'-140'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T7	140'-120'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T8	120'-100'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T9	100'-80'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T10	80'-60'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T11	60'-40'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T12	40'-20'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84
T13	20'-0'	A	0.000	0.000	34.524	0.560	0.30
		B	0.000	0.000	10.700	0.560	0.11
		C	0.000	0.000	70.378	0.560	0.84

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
T1	250'-240'	-20.4790	8.4352	-20.4790	8.4352
T2	240'-220'	-14.8525	11.1123	-14.7680	11.0348
T3	220'-200'	-10.6139	1.6799	-10.3611	1.6345
T4	200'-180'	-8.4397	3.1375	-8.0451	2.9735
T5	180'-160'	-9.6277	3.4892	-8.9228	3.2063
T6	160'-140'	-10.6943	3.7978	-9.7371	3.4245
T7	140'-120'	-11.7925	4.1192	-10.7446	3.7194

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 14 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Section	Elevation	CP _X	CP _Z	CP _X Ice	CP _Z Ice
	ft	in	in	in	in
T8	120'-100'	-12.9451	4.4635	-11.8126	4.0388
T9	100'-80'	-14.2186	4.8552	-12.9694	4.3926
T10	80'-60'	-14.6676	4.9464	-13.2326	4.4254
T11	60'-40'	-16.5372	5.5645	-14.7865	4.9297
T12	40'-20'	-17.6047	5.8899	-15.7476	5.2217
T13	20'-0'	-18.7315	6.2383	-16.7504	5.5299

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T1	1	Safety Line 3/8	240.00 - 250.00	0.6000	0.6000
T1	2	Step Pegs (5/8" SR) 7-in. w/30" step	240.00 - 250.00	0.6000	0.6000
T1	3	Step Pegs (5/8" SR) 7-in. w/30" step	240.00 - 250.00	0.6000	0.6000
T1	4	Step Pegs (5/8" SR) 7-in. w/30" step	240.00 - 250.00	0.6000	0.6000
T1	11	Feed Line Ladder	240.00 - 250.00	0.6000	0.6000
T1	21	Feed Line Ladder	240.00 - 250.00	0.6000	0.6000
T1	22	HB158-21U6S24-xxM_TMO (1-5/8)	240.00 - 250.00	0.6000	0.6000
T1	25	1/2" Cable (Lights)	240.00 - 250.00	0.6000	0.6000
T2	1	Safety Line 3/8	220.00 - 240.00	0.6000	0.6000
T2	2	Step Pegs (5/8" SR) 7-in. w/30" step	220.00 - 240.00	0.6000	0.6000
T2	3	Step Pegs (5/8" SR) 7-in. w/30" step	220.00 - 240.00	0.6000	0.6000
T2	4	Step Pegs (5/8" SR) 7-in. w/30" step	220.00 - 240.00	0.6000	0.6000
T2	11	Feed Line Ladder	220.00 - 240.00	0.6000	0.6000
T2	18	Feed Line Ladder	220.00 - 235.00	0.6000	0.6000
T2	19	HFT2406-48SV3-XXX(2)	220.00 - 231.00	0.6000	0.6000
T2	21	Feed Line Ladder	220.00 - 240.00	0.6000	0.6000
T2	22	HB158-21U6S24-xxM_TMO (1-5/8)	220.00 - 240.00	0.6000	0.6000
T2	25	1/2" Cable (Lights)	220.00 - 240.00	0.6000	0.6000
T3	1	Safety Line 3/8	200.00 - 220.00	0.6000	0.6000
T3	2	Step Pegs (5/8" SR) 7-in. w/30" step	200.00 - 220.00	0.6000	0.6000
T3	3	Step Pegs (5/8" SR) 7-in. w/30" step	200.00 - 220.00	0.6000	0.6000
T3	4	Step Pegs (5/8" SR) 7-in. w/30" step	200.00 - 220.00	0.6000	0.6000

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 15 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T3	11	Feed Line Ladder	200.00 - 220.00	0.6000	0.6000
T3	12	Feed Line Ladder	200.00 - 220.00	0.6000	0.6000
T3	15	FB-L98B-235-XXX(3/8)	200.00 - 220.00	0.6000	0.6000
T3	16	WR-VG66ST-BRD(7/8)	200.00 - 220.00	0.6000	0.6000
T3	18	Feed Line Ladder	200.00 - 220.00	0.6000	0.6000
T3	19	HFT2406-48SV3-XXX(2)	200.00 - 220.00	0.6000	0.6000
T3	21	Feed Line Ladder	200.00 - 220.00	0.6000	0.6000
T3	22	HB158-21U6S24-xxM_TMO (1-5/8)	200.00 - 220.00	0.6000	0.6000
T3	25	1/2" Cable (Lights)	200.00 - 220.00	0.6000	0.6000
T4	1	Safety Line 3/8	180.00 - 200.00	0.6000	0.6000
T4	2	Step Pegs (5/8" SR) 7-in. w/30" step	180.00 - 200.00	0.6000	0.6000
T4	3	Step Pegs (5/8" SR) 7-in. w/30" step	180.00 - 200.00	0.6000	0.6000
T4	4	Step Pegs (5/8" SR) 7-in. w/30" step	180.00 - 200.00	0.6000	0.6000
T4	11	Feed Line Ladder	180.00 - 200.00	0.6000	0.6000
T4	12	Feed Line Ladder	180.00 - 200.00	0.6000	0.6000
T4	13	Feed Line Ladder	180.00 - 200.00	0.6000	0.6000
T4	15	FB-L98B-235-XXX(3/8)	180.00 - 200.00	0.6000	0.6000
T4	16	WR-VG66ST-BRD(7/8)	180.00 - 200.00	0.6000	0.6000
T4	18	Feed Line Ladder	180.00 - 200.00	0.6000	0.6000
T4	19	HFT2406-48SV3-XXX(2)	180.00 - 200.00	0.6000	0.6000
T4	21	Feed Line Ladder	180.00 - 200.00	0.6000	0.6000
T4	22	HB158-21U6S24-xxM_TMO (1-5/8)	180.00 - 200.00	0.6000	0.6000
T4	25	1/2" Cable (Lights)	180.00 - 200.00	0.6000	0.6000
T5	1	Safety Line 3/8	160.00 - 180.00	0.6000	0.6000
T5	2	Step Pegs (5/8" SR) 7-in. w/30" step	160.00 - 180.00	0.6000	0.6000
T5	3	Step Pegs (5/8" SR) 7-in. w/30" step	160.00 - 180.00	0.6000	0.6000
T5	4	Step Pegs (5/8" SR) 7-in. w/30" step	160.00 - 180.00	0.6000	0.6000
T5	11	Feed Line Ladder	160.00 - 180.00	0.6000	0.6000
T5	12	Feed Line Ladder	160.00 - 180.00	0.6000	0.6000
T5	13	Feed Line Ladder	160.00 - 180.00	0.6000	0.6000
T5	15	FB-L98B-235-XXX(3/8)	160.00 - 180.00	0.6000	0.6000

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 16 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T5	16	WR-VG66ST-BRD(7/8)	160.00 - 180.00	0.6000	0.6000
T5	18	Feed Line Ladder	160.00 - 180.00	0.6000	0.6000
T5	19	HFT2406-48SV3-XXX(2)	160.00 - 180.00	0.6000	0.6000
T5	21	Feed Line Ladder	160.00 - 180.00	0.6000	0.6000
T5	22	HB158-21U6S24-xxM TMO (1-5/8)	160.00 - 180.00	0.6000	0.6000
T5	25	1/2" Cable (Lights)	160.00 - 180.00	0.6000	0.6000
T6	1	Safety Line 3/8	140.00 - 160.00	0.6000	0.6000
T6	2	Step Pegs (5/8" SR) 7-in. w/30" step	140.00 - 160.00	0.6000	0.6000
T6	3	Step Pegs (5/8" SR) 7-in. w/30" step	140.00 - 160.00	0.6000	0.6000
T6	4	Step Pegs (5/8" SR) 7-in. w/30" step	140.00 - 160.00	0.6000	0.6000
T6	11	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T6	12	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T6	13	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T6	15	FB-L98B-235-XXX(3/8)	140.00 - 160.00	0.6000	0.6000
T6	16	WR-VG66ST-BRD(7/8)	140.00 - 160.00	0.6000	0.6000
T6	18	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T6	19	HFT2406-48SV3-XXX(2)	140.00 - 160.00	0.6000	0.6000
T6	21	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T6	22	HB158-21U6S24-xxM TMO (1-5/8)	140.00 - 160.00	0.6000	0.6000
T6	25	1/2" Cable (Lights)	140.00 - 160.00	0.6000	0.6000
T7	1	Safety Line 3/8	120.00 - 140.00	0.6000	0.6000
T7	2	Step Pegs (5/8" SR) 7-in. w/30" step	120.00 - 140.00	0.6000	0.6000
T7	3	Step Pegs (5/8" SR) 7-in. w/30" step	120.00 - 140.00	0.6000	0.6000
T7	4	Step Pegs (5/8" SR) 7-in. w/30" step	120.00 - 140.00	0.6000	0.6000
T7	11	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T7	12	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T7	13	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T7	15	FB-L98B-235-XXX(3/8)	120.00 - 140.00	0.6000	0.6000
T7	16	WR-VG66ST-BRD(7/8)	120.00 - 140.00	0.6000	0.6000
T7	18	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T7	19	HFT2406-48SV3-XXX(2)	120.00 - 140.00	0.6000	0.6000

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 17 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T7	21	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T7	22	HB158-21U6S24-xxM TMO (1-5/8)	120.00 - 140.00	0.6000	0.6000
T7	25	1/2" Cable (Lights)	120.00 - 140.00	0.6000	0.6000
T8	1	Safety Line 3/8	100.00 - 120.00	0.6000	0.6000
T8	2	Step Pegs (5/8" SR) 7-in. w/30" step	100.00 - 120.00	0.6000	0.6000
T8	3	Step Pegs (5/8" SR) 7-in. w/30" step	100.00 - 120.00	0.6000	0.6000
T8	4	Step Pegs (5/8" SR) 7-in. w/30" step	100.00 - 120.00	0.6000	0.6000
T8	11	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T8	12	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T8	13	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T8	15	FB-L98B-235-XXX(3/8)	100.00 - 120.00	0.6000	0.6000
T8	16	WR-VG66ST-BRD(7/8)	100.00 - 120.00	0.6000	0.6000
T8	18	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T8	19	HFT2406-48SV3-XXX(2)	100.00 - 120.00	0.6000	0.6000
T8	21	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T8	22	HB158-21U6S24-xxM TMO (1-5/8)	100.00 - 120.00	0.6000	0.6000
T8	25	1/2" Cable (Lights)	100.00 - 120.00	0.6000	0.6000
T9	1	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T9	2	Step Pegs (5/8" SR) 7-in. w/30" step	80.00 - 100.00	0.6000	0.6000
T9	3	Step Pegs (5/8" SR) 7-in. w/30" step	80.00 - 100.00	0.6000	0.6000
T9	4	Step Pegs (5/8" SR) 7-in. w/30" step	80.00 - 100.00	0.6000	0.6000
T9	11	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T9	12	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T9	13	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T9	15	FB-L98B-235-XXX(3/8)	80.00 - 100.00	0.6000	0.6000
T9	16	WR-VG66ST-BRD(7/8)	80.00 - 100.00	0.6000	0.6000
T9	18	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T9	19	HFT2406-48SV3-XXX(2)	80.00 - 100.00	0.6000	0.6000
T9	21	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T9	22	HB158-21U6S24-xxM TMO (1-5/8)	80.00 - 100.00	0.6000	0.6000
T9	25	1/2" Cable (Lights)	80.00 - 100.00	0.6000	0.6000
T10	1	Safety Line 3/8	60.00 - 80.00	0.6000	0.6000
T10	2	Step Pegs (5/8" SR) 7-in. w/30" step	60.00 - 80.00	0.6000	0.6000
T10	3	Step Pegs (5/8" SR) 7-in. w/30" step	60.00 - 80.00	0.6000	0.6000
T10	4	Step Pegs (5/8" SR) 7-in. w/30" step	60.00 - 80.00	0.6000	0.6000
T10	11	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T10	12	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T10	13	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 18 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T10	15	FB-L98B-235-XXX(3/8)	60.00 - 80.00	0.6000	0.6000
T10	16	WR-VG66ST-BRD(7/8)	60.00 - 80.00	0.6000	0.6000
T10	18	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T10	19	HFT2406-48SV3-XXX(2)	60.00 - 80.00	0.6000	0.6000
T10	21	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T10	22	HB158-21U6S24-xxM_TMO (1-5/8)	60.00 - 80.00	0.6000	0.6000
T10	25	1/2" Cable (Lights)	60.00 - 80.00	0.6000	0.6000
T11	1	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T11	2	Step Pegs (5/8" SR) 7-in. w/30" step	40.00 - 60.00	0.6000	0.6000
T11	3	Step Pegs (5/8" SR) 7-in. w/30" step	40.00 - 60.00	0.6000	0.6000
T11	4	Step Pegs (5/8" SR) 7-in. w/30" step	40.00 - 60.00	0.6000	0.6000
T11	11	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T11	12	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T11	13	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T11	15	FB-L98B-235-XXX(3/8)	40.00 - 60.00	0.6000	0.6000
T11	16	WR-VG66ST-BRD(7/8)	40.00 - 60.00	0.6000	0.6000
T11	18	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T11	19	HFT2406-48SV3-XXX(2)	40.00 - 60.00	0.6000	0.6000
T11	21	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T11	22	HB158-21U6S24-xxM_TMO (1-5/8)	40.00 - 60.00	0.6000	0.6000
T11	25	1/2" Cable (Lights)	40.00 - 60.00	0.6000	0.6000
T12	1	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T12	2	Step Pegs (5/8" SR) 7-in. w/30" step	20.00 - 40.00	0.6000	0.6000
T12	3	Step Pegs (5/8" SR) 7-in. w/30" step	20.00 - 40.00	0.6000	0.6000
T12	4	Step Pegs (5/8" SR) 7-in. w/30" step	20.00 - 40.00	0.6000	0.6000
T12	11	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T12	12	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T12	13	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T12	15	FB-L98B-235-XXX(3/8)	20.00 - 40.00	0.6000	0.6000
T12	16	WR-VG66ST-BRD(7/8)	20.00 - 40.00	0.6000	0.6000
T12	18	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T12	19	HFT2406-48SV3-XXX(2)	20.00 - 40.00	0.6000	0.6000
T12	21	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T12	22	HB158-21U6S24-xxM_TMO (1-5/8)	20.00 - 40.00	0.6000	0.6000
T12	25	1/2" Cable (Lights)	20.00 - 40.00	0.6000	0.6000
T13	1	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T13	2	Step Pegs (5/8" SR) 7-in. w/30" step	0.00 - 20.00	0.6000	0.6000
T13	3	Step Pegs (5/8" SR) 7-in. w/30" step	0.00 - 20.00	0.6000	0.6000
T13	4	Step Pegs (5/8" SR) 7-in. w/30" step	0.00 - 20.00	0.6000	0.6000
T13	11	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T13	12	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T13	13	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T13	15	FB-L98B-235-XXX(3/8)	0.00 - 20.00	0.6000	0.6000
T13	16	WR-VG66ST-BRD(7/8)	0.00 - 20.00	0.6000	0.6000
T13	18	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T13	19	HFT2406-48SV3-XXX(2)	0.00 - 20.00	0.6000	0.6000
T13	21	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T13	22	HB158-21U6S24-xxM_TMO (1-5/8)	0.00 - 20.00	0.6000	0.6000
T13	25	1/2" Cable (Lights)	0.00 - 20.00	0.6000	0.6000

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	19 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Discrete Tower Loads

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_AA_A Front ft²</i>	<i>C_AA_A Side ft²</i>	<i>Weight K</i>
5/8" x 4' Lightning Rod	B	From Leg	0.00 0' 2'	0.0000	250'	No Ice	0.25	0.25	0.00
15" Dia. x 15" Beacon	A	From Leg	0.00 0' 5'6"	0.0000	250'	No Ice	0.78	0.78	0.03
2.4" Dia x 7-ft Mount Pipe	A	From Leg	0.00 0' 4'6"	0.0000	250'	No Ice	1.68	1.68	0.03
2.4" Dia x 4-ft Mount Pipe	C	From Leg	0.00 0' 2'	0.0000	250'	No Ice	0.87	0.87	0.01
*** *** **250**									
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.00 0' 0'	0.0000	250'	No Ice	5.19	2.71	0.13
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.00 0' 0'	0.0000	250'	No Ice	5.19	2.71	0.13
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.00 0' 0'	0.0000	250'	No Ice	5.19	2.71	0.13
FFVV-65C-R3-V1_TMO w/ Mount Pipe	A	From Leg	4.00 0' 0'	0.0000	250'	No Ice	12.97	6.20	0.16
FFVV-65C-R3-V1_TMO w/ Mount Pipe	B	From Leg	4.00 0' 0'	0.0000	250'	No Ice	12.97	6.20	0.16
FFVV-65C-R3-V1_TMO w/ Mount Pipe	C	From Leg	4.00 0' 0'	0.0000	250'	No Ice	12.97	6.20	0.16
Radio 4480_TMOV2	A	From Leg	4.00 0' 0'	0.0000	250'	No Ice	2.88	1.40	0.08
Radio 4480_TMOV2	B	From Leg	4.00 0' 0'	0.0000	250'	No Ice	2.88	1.40	0.08
Radio 4480_TMOV2	C	From Leg	4.00 0' 0'	0.0000	250'	No Ice	2.88	1.40	0.08
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.00 0' 0'	0.0000	250'	No Ice	2.14	1.69	0.11
RADIO 4460 B2/B25 B66_TMO	B	From Leg	4.00 0'	0.0000	250'	No Ice	2.14	1.69	0.11

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job		Lake City W J-FL-012-058 (BU 809328)		Page		20 of 45	
	Project		TEP No. 54343.1142037		Date		12:13:57 08/19/25	
	Client		Crown Castle		Designed by		AAL	

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
RADIO 4460 B2/B25 B66_TMO	C	From Leg	0' 4.00 0' 0'	0.0000	250'	No Ice	2.14	1.69	0.11
Sector Mount [SM 505-3] 2.4" Dia x 4-ft Mount Pipe	C A	None From Leg	0' 4.00 0' 0'	0.0000 0.0000	250' 250'	No Ice No Ice	31.66 0.87	31.66 0.87	1.73 0.01
2.4" Dia x 4-ft Mount Pipe	B	From Leg	0' 4.00 0' 0'	0.0000	250'	No Ice	0.87	0.87	0.01
2.4" Dia x 4-ft Mount Pipe	C	From Leg	0' 4.00 0' 0'	0.0000	250'	No Ice	0.87	0.87	0.01
231									
NNSS-65C-HG-R2B_202411 02 w/ Mount Pipe	A	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	9.70	5.09	0.14
NNSS-65C-HG-R2B_202411 02 w/ Mount Pipe	B	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	9.70	5.09	0.14
NNSS-65C-HG-R2B_202411 02 w/ Mount Pipe	C	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	9.70	5.09	0.14
AIR 3283 B25 B66 w/ Mount Pipe	A	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	8.11	5.75	0.12
AIR 3283 B25 B66 w/ Mount Pipe	B	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	8.11	5.75	0.12
AIR 3283 B25 B66 w/ Mount Pipe	C	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	8.11	5.75	0.12
AIR 6419 w/ Mount Pipe	A	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	3.79	2.15	0.07
AIR 6419 w/ Mount Pipe	B	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	3.79	2.15	0.07
AIR 6419 w/ Mount Pipe	C	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	3.79	2.15	0.07
(2) RADIO 4490HP 44B5 44B13 C	A	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	2.22	0.99	0.07
RADIO 4490HP 44B5 44B13 C	B	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	2.22	0.99	0.07
RVZDC-6627-PF-48_CCIV2	A	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	4.06	3.10	0.03
RVZDC-6627-PF-48_CCIV2	B	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	4.06	3.10	0.03
RVZDC-6627-PF-48_CCIV2	C	From Leg	0' 4.00 0' 0'	0.0000	231'	No Ice	4.06	3.10	0.03

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	21 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
SitePro 1 VFA12-HD (1)	A	From Leg	2.00 0' 0'	0.0000	231'	No Ice	13.20	9.20	0.66
SitePro 1 VFA12-HD (1)	B	From Leg	2.00 0' 0'	0.0000	231'	No Ice	13.20	9.20	0.66
SitePro 1 VFA12-HD (1)	C	From Leg	2.00 0' 0'	0.0000	231'	No Ice	13.20	9.20	0.66
2.4" Dia. x 10-ft Mount Pipe	A	From Leg	4.00 0' 0'	0.0000	231'	No Ice	2.38	2.38	0.04
2.4" Dia. x 10-ft Mount Pipe	B	From Leg	4.00 0' 0'	0.0000	231'	No Ice	2.38	2.38	0.04
2.4" Dia. x 10-ft Mount Pipe	C	From Leg	4.00 0' 0'	0.0000	231'	No Ice	2.38	2.38	0.04
2.4" Dia x 4-ft Mount Pipe	A	From Leg	2.00 0' 0'	0.0000	231'	No Ice	0.87	0.87	0.01
2.4" Dia x 4-ft Mount Pipe	B	From Leg	2.00 0' 0'	0.0000	231'	No Ice	0.87	0.87	0.01
2.4" Dia x 4-ft Mount Pipe	C	From Leg	2.00 0' 0'	0.0000	231'	No Ice	0.87	0.87	0.01
220									
(2) NNH4-65B-R6H4 w/ Mount Pipe	A	From Leg	4.00 0' 0'	0.0000	220'	No Ice	7.55	4.23	0.12
(2) NNH4-65B-R6H4 w/ Mount Pipe	B	From Leg	4.00 0' 0'	0.0000	220'	No Ice	7.55	4.23	0.12
(2) NNH4-65B-R6H4 w/ Mount Pipe	C	From Leg	4.00 0' 0'	0.0000	220'	No Ice	7.55	4.23	0.12
AIR 6419 B77G_CCIV2 w/ Mount Pipe	A	From Leg	4.00 0' 0'	0.0000	220'	No Ice	4.48	2.82	0.08
AIR 6419 B77G_CCIV2 w/ Mount Pipe	B	From Leg	4.00 0' 0'	0.0000	220'	No Ice	4.48	2.82	0.08
AIR 6419 B77G_CCIV2 w/ Mount Pipe	C	From Leg	4.00 0' 0'	0.0000	220'	No Ice	4.48	2.82	0.08
AIR 6449 B77D w/ Mount Pipe	A	From Leg	4.00 0' 0'	0.0000	220'	No Ice	3.58	2.31	0.09
AIR 6449 B77D w/ Mount Pipe	B	From Leg	4.00 0' 0'	0.0000	220'	No Ice	3.58	2.31	0.09
AIR 6449 B77D w/ Mount Pipe	C	From Leg	4.00 0' 0'	0.0000	220'	No Ice	3.58	2.31	0.09
4490 B5/B12	A	From Leg	4.00 0'	0.0000	220'	No Ice	2.20	0.85	0.02

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	22 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
4490 B5/B12	B	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.20	0.85	0.02
4490 B5/B12	C	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.20	0.85	0.02
RADIO 4478 B14	A	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.02	1.25	0.06
RADIO 4478 B14	B	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.02	1.25	0.06
RADIO 4478 B14	C	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.02	1.25	0.06
RADIO 4890HP B2/B25 B66	A	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.20	1.01	0.07
RADIO 4890HP B2/B25 B66	B	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.20	1.01	0.07
RADIO 4890HP B2/B25 B66	C	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.20	1.01	0.07
RRUS 4415 B30	A	From Leg	0' 4.00 0'	0.0000	220'	No Ice	1.84	0.82	0.05
RRUS 4415 B30	B	From Leg	0' 4.00 0'	0.0000	220'	No Ice	1.84	0.82	0.05
RRUS 4415 B30	C	From Leg	0' 4.00 0'	0.0000	220'	No Ice	1.84	0.82	0.05
DC9-48-60-24-8C-EV_CCIV 2	A	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.74	2.74	0.02
DC9-48-60-24-8C-EV_CCIV 2	B	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.74	2.74	0.02
DC9-48-60-24-8C-EV_CCIV 2	C	From Leg	0' 4.00 0'	0.0000	220'	No Ice	2.74	2.74	0.02
Sector Mount [SM 502-3] **** ***	C	None	0'	0.0000	220'	No Ice	29.82	29.82	1.67
0.5" x 3' Detuner Supports	A	From Leg	0' 1.50 0'	0.0000	8'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	B	From Leg	0' 1.50 0'	0.0000	8'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	C	From Leg	0' 1.50 0'	0.0000	8'	No Ice	0.25	0.25	0.00
** 0.5" x 3' Detuner Supports	A	From Leg	0' 1.50	0.0000	40'	No Ice	0.25	0.25	0.00

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	23 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
0.5" x 3' Detuner Supports	B	From Leg	1.50 0' 0'	0.0000	40'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	C	From Leg	1.50 0' 0'	0.0000	40'	No Ice	0.25	0.25	0.00
**									
0.5" x 3' Detuner Supports	A	From Leg	1.50 0' 0'	0.0000	80'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	B	From Leg	1.50 0' 0'	0.0000	80'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	C	From Leg	1.50 0' 0'	0.0000	80'	No Ice	0.25	0.25	0.00
**									
0.5" x 3' Detuner Supports	A	From Leg	1.50 0' 0'	0.0000	100'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	B	From Leg	1.50 0' 0'	0.0000	100'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	C	From Leg	1.50 0' 0'	0.0000	100'	No Ice	0.25	0.25	0.00
**									
0.5" x 3' Detuner Supports	A	From Leg	1.50 0' 0'	0.0000	140'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	B	From Leg	1.50 0' 0'	0.0000	140'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	C	From Leg	1.50 0' 0'	0.0000	140'	No Ice	0.25	0.25	0.00
**									
0.5" x 3' Detuner Supports	A	From Leg	1.50 0' 0'	0.0000	180'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	B	From Leg	1.50 0' 0'	0.0000	180'	No Ice	0.25	0.25	0.00
0.5" x 3' Detuner Supports	C	From Leg	1.50 0' 0'	0.0000	180'	No Ice	0.25	0.25	0.00
**									
L2.5x2.5x1/4 x 5' (horizontal)	A	From Leg	1.50 0' 0'	0.0000	213'	No Ice	0.05	1.25	0.02
L2.5x2.5x1/4 x 5' (horizontal)	B	From Leg	1.50 0' 0'	0.0000	213'	No Ice	0.05	1.25	0.02
L2.5x2.5x1/4 x 5' (horizontal)	C	From Leg	1.50 0' 0'	0.0000	213'	No Ice	0.05	1.25	0.02

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	24 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert</i>	<i>Azimuth Adjustment</i>	<i>Placement</i>	<i>C_{AA} Front</i>	<i>C_{AA} Side</i>	<i>Weight</i>
			<i>ft</i>	<i>°</i>	<i>ft</i>	<i>ft²</i>	<i>ft²</i>	<i>K</i>
			<i>ft</i>					
			<i>ft</i>					
			0'					

Load Combinations

<i>Comb. No.</i>	<i>Description</i>
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	Dead+Wind 0 deg - Service
27	Dead+Wind 30 deg - Service
28	Dead+Wind 60 deg - Service
29	Dead+Wind 90 deg - Service
30	Dead+Wind 120 deg - Service
31	Dead+Wind 150 deg - Service
32	Dead+Wind 180 deg - Service
33	Dead+Wind 210 deg - Service
34	Dead+Wind 240 deg - Service
35	Dead+Wind 270 deg - Service
36	Dead+Wind 300 deg - Service
37	Dead+Wind 330 deg - Service

Maximum Member Forces

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	25 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	250 - 240	Leg	Max Tension	23	1.22	0.10	0.03
			Max. Compression	18	-4.06	-0.09	0.01
			Max. Mx	14	0.82	0.10	-0.04
			Max. My	2	-0.27	0.05	0.11
			Max. Vy	6	-1.09	0.00	0.00
			Max. Vx	12	-1.12	0.00	0.00
		Diagonal	Max Tension	5	2.20	0.00	0.00
			Max. Compression	4	-2.27	0.00	0.00
			Max. Mx	2	1.59	0.02	0.00
			Max. Vy	2	0.01	0.00	0.00
			Max Tension	4	1.47	-0.01	-0.00
			Max. Compression	5	-1.42	-0.01	-0.00
		Horizontal	Max. Mx	22	-0.04	-0.01	-0.00
			Max. My	14	-0.26	-0.01	-0.00
			Max. Vy	22	-0.01	-0.01	-0.00
			Max. Vx	14	-0.00	-0.01	-0.00
			Max Tension	15	1.29	0.00	0.00
			Max. Compression	2	-1.30	-0.01	-0.00
		Top Girt	Max. Mx	22	-0.62	-0.01	-0.00
			Max. My	10	0.63	-0.01	0.00
			Max. Vy	22	-0.01	-0.01	-0.00
			Max. Vx	2	-0.00	-0.01	0.00
			Max Tension	11	0.00	0.00	0.00
			Max. Compression	6	-0.00	0.00	0.00
		Inner Bracing	Max. Mx	2	-0.00	-0.00	0.00
			Max. Vy	2	0.00	0.00	0.00
			Max Tension	15	13.44	0.11	-0.05
			Max. Compression	18	-19.72	-0.11	0.02
			Max. Mx	14	7.18	1.12	-0.04
			Max. My	8	-1.80	-0.00	-1.12
T2	240 - 220	Leg	Max. Vy	14	-0.77	-0.65	-0.04
			Max. Vx	24	0.80	-0.00	0.68
			Max Tension	5	6.56	0.00	0.00
			Max. Compression	4	-6.64	0.00	0.00
			Max. Mx	2	4.76	0.02	0.00
			Max. Vy	2	-0.01	0.00	0.00
		Diagonal	Max Tension	16	3.59	0.00	0.00
			Max. Compression	5	-3.56	-0.01	-0.00
			Max. Mx	14	-0.80	-0.02	-0.01
			Max. My	14	-0.08	-0.02	-0.01
			Max. Vy	14	0.01	-0.02	-0.01
			Max. Vx	14	0.00	0.00	0.00
		Horizontal	Max Tension	3	0.00	0.00	0.00
			Max. Compression	14	-0.00	0.00	0.00
			Max. Mx	2	-0.00	-0.00	0.00
			Max. Vy	2	0.00	0.00	0.00
			Max Tension	15	47.38	-0.13	-0.02
			Max. Compression	2	-57.58	0.43	0.11
T3	220 - 200	Leg	Max. Mx	2	-57.58	0.43	0.11
			Max. My	12	-7.19	0.02	-0.43
			Max. Vy	6	-1.17	0.11	-0.02
			Max. Vx	24	1.21	0.00	-0.06
			Max Tension	5	10.55	0.00	0.00
			Max. Compression	4	-10.64	0.00	0.00
		Diagonal	Max. Mx	2	7.77	0.03	0.00
			Max. Vy	2	-0.01	0.00	0.00
			Max Tension	4	5.80	-0.01	-0.00
			Max. Compression	5	-5.76	-0.01	-0.00
			Max. Mx	14	0.36	-0.03	-0.01
			Max. My	14	0.36	-0.03	-0.01
			Max. Vx	14	0.01	-0.03	-0.01

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	26 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T4	200 - 180	Inner Bracing	Max. Vx	14	0.00	0.00	0.00
			Max Tension	3	0.01	0.00	0.00
			Max. Compression	14	-0.01	0.00	0.00
		Leg	Max. Mx	2	-0.00	-0.00	0.00
			Max. Vy	2	0.00	0.00	0.00
			Max Tension	15	80.86	-0.40	-0.03
			Max. Compression	2	-93.27	0.38	0.04
			Max. Mx	2	-72.74	0.43	0.11
			Max. My	12	-8.84	-0.01	-0.45
			Max. Vy	6	-0.07	-0.39	-0.03
		Diagonal	Max. Vx	24	-0.10	-0.01	0.45
			Max Tension	4	7.46	0.00	0.00
			Max. Compression	4	-7.56	0.00	0.00
		Horizontal	Max. Mx	2	4.90	0.04	0.00
			Max. Vy	2	-0.02	0.00	0.00
			Max Tension	15	4.64	0.00	0.00
			Max. Compression	2	-5.03	-0.02	-0.00
			Max. Mx	14	-0.87	-0.03	-0.01
			Max. My	2	0.48	0.00	0.01
			Max. Vy	14	-0.01	-0.03	-0.01
		Inner Bracing	Max. Vx	2	-0.00	0.00	0.01
			Max Tension	3	0.00	0.00	0.00
			Max. Compression	14	-0.01	0.00	0.00
T5	180 - 160	Leg	Max. Mx	2	-0.00	-0.01	0.00
			Max. Vy	2	0.01	0.00	0.00
			Max Tension	15	106.47	-0.41	-0.01
		Diagonal	Max. Compression	2	-121.66	1.15	0.08
			Max. Mx	14	104.18	-1.18	-0.09
			Max. My	12	-10.71	-0.01	-1.21
			Max. Vy	14	0.18	-1.18	-0.09
			Max. Vx	12	0.20	-0.01	-1.21
			Max Tension	5	7.05	0.00	0.00
			Max. Compression	4	-7.19	0.00	0.00
		Horizontal	Max. Mx	2	4.78	0.05	0.00
			Max. Vy	2	-0.02	0.00	0.00
			Max Tension	4	4.85	-0.02	-0.00
			Max. Compression	4	-4.79	-0.02	-0.00
			Max. Mx	14	-0.86	-0.04	-0.01
			Max. My	2	-0.35	-0.00	0.01
			Max. Vy	14	0.02	-0.04	-0.01
		Inner Bracing	Max. Vx	2	0.00	0.00	0.00
			Max Tension	3	0.00	0.00	0.00
			Max. Compression	14	-0.01	0.00	0.00
T6	160 - 140	Leg	Max. Mx	2	-0.00	-0.01	0.00
			Max. Vy	2	0.01	0.00	0.00
			Max Tension	15	125.52	-1.04	-0.04
		Diagonal	Max. Compression	2	-143.44	1.22	0.06
			Max. Mx	14	122.73	-1.24	-0.07
			Max. My	12	-11.02	-0.01	-1.21
			Max. Vy	6	0.14	-1.18	-0.03
			Max. Vx	24	0.16	-0.01	1.20
			Max Tension	5	8.61	0.00	0.00
			Max. Compression	4	-8.83	0.00	0.00
		Horizontal	Max. Mx	2	6.04	0.12	0.00
			Max. Vy	2	0.04	0.00	0.00
			Max Tension	15	5.30	0.00	0.00
			Max. Compression	2	-5.33	-0.04	-0.01
			Max. Mx	14	-1.13	-0.05	-0.01
			Max. My	2	-0.24	-0.01	0.01
			Max. Vy	14	0.02	-0.05	-0.01
			Max. Vx	2	0.00	-0.01	0.01

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	27 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T7	140 - 120	Inner Bracing	Max Tension	3	0.00	0.00	0.00
			Max. Compression	14	-0.01	0.00	0.00
		Leg	Max. Mx	2	-0.00	-0.01	0.00
			Max. Vy	2	-0.01	0.00	0.00
			Max Tension	15	146.11	-1.07	-0.04
			Max. Compression	2	-167.37	0.96	0.08
			Max. Mx	14	133.74	-1.24	-0.07
			Max. My	12	-13.12	-0.01	-1.20
			Max. Vy	6	-0.15	-1.18	-0.03
			Max. Vx	24	0.17	-0.01	1.20
		Diagonal	Max Tension	5	8.02	0.00	0.00
			Max. Compression	4	-8.29	0.00	0.00
			Max. Mx	2	5.62	0.14	0.00
		Horizontal	Max. Vy	2	-0.04	0.00	0.00
			Max Tension	15	5.47	0.00	0.00
			Max. Compression	2	-5.49	-0.05	-0.00
			Max. Mx	14	-1.16	-0.06	-0.01
			Max. My	2	-0.05	-0.02	0.01
			Max. Vy	14	-0.03	-0.06	-0.01
			Max. Vx	2	0.00	0.00	0.00
		Inner Bracing	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-0.01	0.00	0.00
T8	120 - 100	Leg	Max. Mx	2	-0.01	-0.03	0.00
			Max. Vy	2	0.02	0.00	0.00
			Max Tension	15	164.91	-1.02	-0.03
			Max. Compression	2	-190.12	1.07	0.04
			Max. Mx	14	160.96	-1.12	-0.05
			Max. My	12	-15.31	-0.03	-1.14
			Max. Vy	6	0.14	-1.07	-0.02
			Max. Vx	24	0.16	-0.03	1.14
		Diagonal	Max Tension	5	8.36	0.00	0.00
			Max. Compression	4	-8.72	0.00	0.00
			Max. Mx	2	5.95	0.17	0.00
		Horizontal	Max. Vy	2	-0.05	0.00	0.00
			Max Tension	14	6.12	0.00	0.00
			Max. Compression	3	-6.09	-0.08	-0.01
			Max. Mx	14	-1.18	-0.11	-0.01
			Max. My	2	-0.31	-0.05	0.01
			Max. Vy	14	-0.05	-0.11	-0.01
			Max. Vx	2	0.00	-0.05	0.01
		Inner Bracing	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-0.01	0.00	0.00
T9	100 - 80	Leg	Max. Mx	2	-0.01	-0.05	0.00
			Max. Vy	2	0.02	0.00	0.00
			Max Tension	15	182.69	-1.05	-0.04
			Max. Compression	2	-212.21	0.55	0.02
			Max. Mx	14	170.36	-1.12	-0.05
			Max. My	12	-17.93	-0.02	-1.09
			Max. Vy	6	-0.16	-1.01	-0.02
			Max. Vx	12	-0.16	-0.03	-1.04
		Diagonal	Max Tension	5	8.25	0.00	0.00
			Max. Compression	4	-8.71	0.00	0.00
			Max. Mx	2	5.86	0.21	0.00
		Horizontal	Max. Vy	2	-0.05	0.00	0.00
			Max Tension	14	6.46	0.00	0.00
			Max. Compression	3	-6.37	-0.09	-0.01
			Max. Mx	14	-1.17	-0.13	-0.01
			Max. My	2	-0.09	-0.07	0.01
			Max. Vy	14	-0.05	-0.13	-0.01
			Max. Vx	2	0.00	-0.07	0.01
		Inner Bracing	Max Tension	1	0.00	0.00	0.00

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Page
	Lake City W J-FL-012-058 (BU 809328)	28 of 45
	Project	Date
	TEP No. 54343.1142037	12:13:57 08/19/25
	Client	Designed by
	Crown Castle	AAL

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T10	80 - 60	Leg	Max. Compression	14	-0.01	0.00	0.00
			Max. Mx	2	-0.01	-0.10	0.00
			Max. Vy	2	0.04	0.00	0.00
			Max Tension	15	199.98	-2.18	0.02
			Max. Compression	2	-234.40	-2.59	0.29
			Max. Mx	2	-234.40	-2.59	0.29
			Max. My	12	-23.07	-0.85	-4.62
			Max. Vy	2	0.59	2.35	-0.04
			Max. Vx	24	-0.53	-0.85	4.62
		Diagonal	Max Tension	5	9.39	0.00	0.00
			Max. Compression	4	-9.92	0.00	0.00
			Max. Mx	2	6.91	0.24	0.00
		Horizontal	Max. Vy	2	-0.06	0.00	0.00
			Max Tension	4	7.73	-0.13	-0.00
			Max. Compression	5	-7.35	-0.10	-0.00
		Inner Bracing	Max. Mx	14	-0.65	-0.15	-0.01
			Max. My	14	-0.93	-0.14	-0.01
			Max. Vy	14	-0.06	-0.15	-0.01
			Max. Vx	14	0.00	-0.14	-0.01
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-0.01	0.00	0.00
			Max. Mx	2	-0.01	-0.13	0.00
			Max. Vy	2	0.04	0.00	0.00
T11	60 - 40	Leg	Max Tension	15	206.77	1.28	-0.30
			Max. Compression	2	-244.00	-7.51	0.66
			Max. Mx	2	-243.42	9.46	-0.59
			Max. My	24	-25.11	-1.67	6.55
			Max. Vy	2	1.78	9.46	-0.59
			Max. Vx	24	-1.14	-1.67	6.55
		Diagonal	Max Tension	15	14.43	-0.13	0.06
			Max. Compression	2	-15.67	0.00	0.00
			Max. Mx	14	10.09	-0.15	0.02
		Horizontal	Max. My	4	-14.36	-0.05	-0.07
			Max. Vy	14	-0.05	-0.15	0.02
			Max. Vx	4	-0.01	0.00	0.00
		Redund Horz 1 Bracing	Max Tension	15	8.11	0.00	0.00
			Max. Compression	2	-8.17	-0.23	-0.01
			Max. Mx	14	0.22	-0.25	-0.02
			Max. My	2	1.65	-0.15	0.02
			Max. Vy	14	0.08	-0.25	-0.02
			Max. Vx	2	0.00	-0.15	0.02
			Max Tension	14	2.29	0.00	0.00
			Max. Compression	3	-1.81	0.00	0.00
			Max. Mx	2	0.43	0.02	0.00
			Max. Vy	2	-0.01	0.00	0.00
		Redund Diag 1 Bracing	Max Tension	17	1.76	0.00	0.00
			Max. Compression	14	-1.99	0.00	0.00
			Max. Mx	2	-1.59	0.03	0.00
		Redund Hip 1 Bracing	Max. Vy	2	-0.01	0.00	0.00
			Max Tension	5	0.01	0.00	0.00
			Max. Compression	16	-0.02	0.00	0.00
		Redund Hip Diagonal 1 Bracing	Max. Mx	2	-0.02	0.02	0.00
			Max. Vy	2	-0.01	0.00	0.00
			Max Tension	10	0.06	0.00	0.00
			Max. Compression	22	-0.06	0.00	0.00
			Max. Mx	2	0.05	0.16	0.00
			Max. Vy	2	-0.04	0.00	0.00

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	29 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T12	40 - 20	Inner Bracing	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-0.01	0.00	0.00
			Max. Mx	2	-0.01	0.19	0.00
		Leg	Max. Vy	2	-0.06	0.00	0.00
			Max Tension	15	224.19	4.98	-0.64
			Max. Compression	2	-266.33	-7.63	0.64
			Max. Mx	2	-265.75	10.35	-0.60
			Max. My	24	-28.18	-1.73	6.71
			Max. Vy	2	1.87	10.35	-0.60
			Max. Vx	24	-1.15	-1.73	6.71
		Diagonal	Max Tension	15	14.64	-0.13	0.06
			Max. Compression	2	-16.02	0.00	0.00
			Max. Mx	14	10.17	-0.16	0.02
			Max. My	4	-15.51	-0.06	-0.07
			Max. Vy	14	-0.05	-0.16	0.02
			Max. Vx	4	-0.01	0.00	0.00
		Horizontal	Max Tension	15	8.64	0.00	0.00
			Max. Compression	2	-8.79	-0.26	-0.01
			Max. Mx	14	-1.86	-0.29	-0.02
			Max. My	2	1.78	-0.19	0.02
			Max. Vy	14	-0.09	-0.29	-0.02
			Max. Vx	2	0.00	0.00	0.00
		Redund Horz 1 Bracing	Max Tension	14	2.73	0.00	0.00
			Max. Compression	3	-2.13	0.00	0.00
			Max. Mx	2	0.47	0.02	0.00
		Redund Diag 1 Bracing	Max. Vy	2	-0.01	0.00	0.00
			Max Tension	17	1.95	0.00	0.00
			Max. Compression	14	-2.22	0.00	0.00
		Redund Hip 1 Bracing	Max. Mx	2	-1.83	0.03	0.00
			Max. Vy	2	-0.01	0.00	0.00
			Max Tension	5	0.01	0.00	0.00
			Max. Compression	16	-0.02	0.00	0.00
		Redund Hip Diagonal 1 Bracing	Max. Mx	2	-0.02	0.02	0.00
			Max. Vy	2	-0.01	0.00	0.00
			Max Tension	10	0.05	0.00	0.00
			Max. Compression	22	-0.06	0.00	0.00
T13	20 - 0	Inner Bracing	Max. Mx	2	0.05	0.18	0.00
			Max. Vy	2	-0.05	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
		Leg	Max. Compression	10	-0.01	0.00	0.00
			Max. Mx	2	-0.01	0.23	0.00
			Max. Vy	2	-0.07	0.00	0.00
			Max Tension	15	242.02	4.99	-0.62
			Max. Compression	2	-289.72	0.00	-0.00
			Max. Mx	2	-289.13	9.20	-0.57
			Max. My	24	-29.94	-1.73	6.71
			Max. Vy	2	-1.75	9.20	-0.57
			Max. Vx	24	1.11	-1.73	6.71
		Diagonal	Max Tension	5	14.41	-0.12	-0.01
			Max. Compression	2	-15.67	0.00	0.00
			Max. Mx	14	10.23	-0.18	0.01
			Max. My	4	-15.46	-0.08	-0.06
			Max. Vy	14	-0.05	-0.18	0.01
			Max. Vx	4	0.00	-0.08	-0.06
		Horizontal	Max Tension	15	9.19	0.00	0.00
			Max. Compression	2	-9.38	-0.30	-0.01
			Max. Mx	14	-2.09	-0.32	-0.02

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	30 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	2	1.99	-0.24	0.02
			Max. Vy	14	-0.09	-0.32	-0.02
			Max. Vx	2	-0.00	-0.24	0.02
		Redund Horz 1 Bracing	Max Tension	16	1.87	0.00	0.00
			Max. Compression	17	-1.49	0.00	0.00
			Max. Mx	2	0.16	0.02	0.00
			Max. Vy	2	-0.01	0.00	0.00
		Redund Diag 1 Bracing	Max Tension	16	1.37	0.00	0.00
			Max. Compression	16	-1.39	0.00	0.00
			Max. Mx	2	-1.18	0.04	0.00
			Max. Vy	2	-0.01	0.00	0.00
		Redund Hip 1 Bracing	Max Tension	5	0.01	0.00	0.00
			Max. Compression	16	-0.02	0.00	0.00
			Max. Mx	2	-0.02	0.02	0.00
			Max. Vy	2	-0.01	0.00	0.00
		Redund Hip Diagonal 1 Bracing	Max Tension	10	0.06	0.00	0.00
			Max. Compression	22	-0.07	0.00	0.00
			Max. Mx	2	0.06	0.27	0.00
			Max. Vy	2	-0.06	0.00	0.00
		Inner Bracing	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-0.01	0.00	0.00
			Max. Mx	2	-0.01	0.27	0.00
			Max. Vy	2	-0.07	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	297.94	30.11	-16.97
	Max. H _x	18	297.94	30.11	-16.97
	Max. H _z	5	-215.15	-21.92	15.60
	Min. Vert	7	-239.99	-25.95	14.59
	Min. H _x	7	-239.99	-25.95	14.59
	Min. H _z	16	273.09	26.08	-17.98
Leg B	Max. Vert	10	299.87	-30.75	-16.96
	Max. H _x	23	-245.95	26.63	14.65
	Max. H _z	25	-224.50	23.53	15.00
	Min. Vert	23	-245.95	26.63	14.65
	Min. H _x	10	299.87	-30.75	-16.96
	Min. H _z	12	278.42	-27.65	-17.30
Leg A	Max. Vert	2	311.45	-0.97	36.64
	Max. H _x	21	22.24	4.03	2.02
	Max. H _z	2	311.45	-0.97	36.64
	Min. Vert	15	-259.87	0.93	-31.96
	Min. H _x	8	29.35	-4.07	2.66
	Min. H _z	15	-259.87	0.93	-31.96

Tower Mast Reaction Summary

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 31 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	77.83	0.00	0.00	39.24	31.51	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	93.40	-0.02	-58.07	-7970.78	41.46	-53.74
0.9 Dead+1.0 Wind 0 deg - No Ice	70.05	-0.02	-58.07	-7982.55	32.01	-53.74
1.2 Dead+1.0 Wind 30 deg - No Ice	93.40	28.43	-49.31	-6783.95	-3897.67	-12.61
0.9 Dead+1.0 Wind 30 deg - No Ice	70.05	28.43	-49.31	-6795.73	-3907.12	-12.61
1.2 Dead+1.0 Wind 60 deg - No Ice	93.40	47.09	-27.21	-3721.18	-6481.73	19.80
0.9 Dead+1.0 Wind 60 deg - No Ice	70.05	47.09	-27.21	-3732.96	-6491.19	19.80
1.2 Dead+1.0 Wind 90 deg - No Ice	93.40	53.17	0.02	50.75	-7316.62	16.73
0.9 Dead+1.0 Wind 90 deg - No Ice	70.05	53.17	0.02	38.97	-7326.07	16.73
1.2 Dead+1.0 Wind 120 deg - No Ice	93.40	47.97	27.73	3878.73	-6584.17	37.23
0.9 Dead+1.0 Wind 120 deg - No Ice	70.05	47.97	27.73	3866.96	-6593.62	37.23
1.2 Dead+1.0 Wind 150 deg - No Ice	93.40	29.52	51.17	7091.39	-4025.00	70.06
0.9 Dead+1.0 Wind 150 deg - No Ice	70.05	29.52	51.17	7079.61	-4034.45	70.06
1.2 Dead+1.0 Wind 180 deg - No Ice	93.40	0.02	58.07	8064.97	34.16	53.74
0.9 Dead+1.0 Wind 180 deg - No Ice	70.05	0.02	58.07	8053.19	24.70	53.74
1.2 Dead+1.0 Wind 210 deg - No Ice	93.40	-28.43	49.31	6878.14	3973.28	12.61
0.9 Dead+1.0 Wind 210 deg - No Ice	70.05	-28.43	49.31	6866.37	3963.83	12.61
1.2 Dead+1.0 Wind 240 deg - No Ice	93.40	-47.09	27.21	3815.37	6557.35	-19.80
0.9 Dead+1.0 Wind 240 deg - No Ice	70.05	-47.09	27.21	3803.60	6547.90	-19.80
1.2 Dead+1.0 Wind 270 deg - No Ice	93.40	-53.17	-0.02	43.44	7392.24	-16.73
0.9 Dead+1.0 Wind 270 deg - No Ice	70.05	-53.17	-0.02	31.67	7382.79	-16.73
1.2 Dead+1.0 Wind 300 deg - No Ice	93.40	-47.97	-27.73	-3784.54	6659.79	-37.23
0.9 Dead+1.0 Wind 300 deg - No Ice	70.05	-47.97	-27.73	-3796.32	6650.34	-37.23
1.2 Dead+1.0 Wind 330 deg - No Ice	93.40	-29.52	-51.17	-6997.20	4100.62	-70.06
0.9 Dead+1.0 Wind 330 deg - No Ice	70.05	-29.52	-51.17	-7008.97	4091.16	-70.06
Dead+Wind 0 deg - Service	77.83	-0.00	-16.31	-2183.50	32.48	-14.38
Dead+Wind 30 deg - Service	77.83	7.99	-13.86	-1855.57	-1060.21	-3.38
Dead+Wind 60 deg - Service	77.83	13.27	-7.67	-1007.73	-1779.95	5.30
Dead+Wind 90 deg - Service	77.83	15.00	0.00	40.22	-2013.70	4.48
Dead+Wind 120 deg - Service	77.83	13.50	7.81	1103.17	-1807.36	9.96
Dead+Wind 150 deg - Service	77.83	8.29	14.36	1991.12	-1094.28	18.75
Dead+Wind 180 deg - Service	77.83	0.00	16.31	2261.99	30.53	14.38
Dead+Wind 210 deg - Service	77.83	-7.99	13.86	1934.06	1123.22	3.38
Dead+Wind 240 deg - Service	77.83	-13.27	7.67	1086.22	1842.96	-5.30
Dead+Wind 270 deg - Service	77.83	-15.00	-0.00	38.27	2076.72	-4.48
Dead+Wind 300 deg - Service	77.83	-13.50	-7.81	-1024.68	1870.37	-9.96

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	32 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead+Wind 330 deg - Service	77.83	-8.29	-14.36	-1912.63	1157.30	-18.75

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-77.83	0.00	0.00	77.83	0.00	0.000%
2	-0.02	-93.40	-58.07	0.02	93.40	58.07	0.000%
3	-0.02	-70.05	-58.07	0.02	70.05	58.07	0.000%
4	28.43	-93.40	-49.31	-28.43	93.40	49.31	0.000%
5	28.43	-70.05	-49.31	-28.43	70.05	49.31	0.000%
6	47.09	-93.40	-27.21	-47.09	93.40	27.21	0.000%
7	47.09	-70.05	-27.21	-47.09	70.05	27.21	0.000%
8	53.17	-93.40	0.02	-53.17	93.40	-0.02	0.000%
9	53.17	-70.05	0.02	-53.17	70.05	-0.02	0.000%
10	47.97	-93.40	27.73	-47.97	93.40	-27.73	0.000%
11	47.97	-70.05	27.73	-47.97	70.05	-27.73	0.000%
12	29.52	-93.40	51.17	-29.52	93.40	-51.17	0.000%
13	29.52	-70.05	51.17	-29.52	70.05	-51.17	0.000%
14	0.02	-93.40	58.07	-0.02	93.40	-58.07	0.000%
15	0.02	-70.05	58.07	-0.02	70.05	-58.07	0.000%
16	-28.43	-93.40	49.31	28.43	93.40	-49.31	0.000%
17	-28.43	-70.05	49.31	28.43	70.05	-49.31	0.000%
18	-47.09	-93.40	27.21	47.09	93.40	-27.21	0.000%
19	-47.09	-70.05	27.21	47.09	70.05	-27.21	0.000%
20	-53.17	-93.40	-0.02	53.17	93.40	0.02	0.000%
21	-53.17	-70.05	-0.02	53.17	70.05	0.02	0.000%
22	-47.97	-93.40	-27.73	47.97	93.40	27.73	0.000%
23	-47.97	-70.05	-27.73	47.97	70.05	27.73	0.000%
24	-29.52	-93.40	-51.17	29.52	93.40	51.17	0.000%
25	-29.52	-70.05	-51.17	29.52	70.05	51.17	0.000%
26	-0.00	-77.83	-16.31	0.00	77.83	16.31	0.000%
27	7.99	-77.83	-13.86	-7.99	77.83	13.86	0.000%
28	13.27	-77.83	-7.67	-13.27	77.83	7.67	0.000%
29	15.00	-77.83	0.00	-15.00	77.83	-0.00	0.000%
30	13.50	-77.83	7.81	-13.50	77.83	-7.81	0.000%
31	8.29	-77.83	14.36	-8.29	77.83	-14.36	0.000%
32	0.00	-77.83	16.31	-0.00	77.83	-16.31	0.000%
33	-7.99	-77.83	13.86	7.99	77.83	-13.86	0.000%
34	-13.27	-77.83	7.67	13.27	77.83	-7.67	0.000%
35	-15.00	-77.83	-0.00	15.00	77.83	0.00	0.000%
36	-13.50	-77.83	-7.81	13.50	77.83	7.81	0.000%
37	-8.29	-77.83	-14.36	8.29	77.83	14.36	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	250 - 240	4.354	32	0.1729	0.0635
T2	240 - 220	3.988	32	0.1720	0.0628
T3	220 - 200	3.267	32	0.1616	0.0562

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 33 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T4	200 - 180	2.600	31	0.1427	0.0471
T5	180 - 160	2.038	31	0.1193	0.0371
T6	160 - 140	1.563	31	0.1002	0.0296
T7	140 - 120	1.174	31	0.0828	0.0241
T8	120 - 100	0.858	31	0.0651	0.0194
T9	100 - 80	0.602	31	0.0519	0.0156
T10	80 - 60	0.399	31	0.0389	0.0122
T11	60 - 40	0.236	31	0.0290	0.0090
T12	40 - 20	0.118	37	0.0193	0.0057
T13	20 - 0	0.040	37	0.0097	0.0028

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
250'	5/8" x 4' Lightning Rod	32	4.354	0.1729	0.0635	772851
231'	NNSS-65C-HG-R2B_20241102 w/ Mount Pipe	32	3.660	0.1687	0.0605	191249
220'	(2) NNH4-65B-R6H4 w/ Mount Pipe	32	3.267	0.1616	0.0562	107695
213'	L2.5x2.5x1/4 x 5' (horizontal)	31	3.024	0.1558	0.0532	65192
180'	0.5" x 3' Detuner Supports	31	2.038	0.1193	0.0371	59537
140'	0.5" x 3' Detuner Supports	31	1.174	0.0828	0.0241	65546
100'	0.5" x 3' Detuner Supports	31	0.602	0.0519	0.0156	86163
80'	0.5" x 3' Detuner Supports	31	0.399	0.0389	0.0122	141009
40'	0.5" x 3' Detuner Supports	37	0.118	0.0193	0.0057	133379
8'	0.5" x 3' Detuner Supports	37	0.013	0.0039	0.0011	238271

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	250 - 240	15.822	12	0.6256	0.2370
T2	240 - 220	14.494	12	0.6230	0.2343
T3	220 - 200	11.872	12	0.5874	0.2097
T4	200 - 180	9.430	12	0.5190	0.1756
T5	180 - 160	7.376	12	0.4334	0.1384
T6	160 - 140	5.646	12	0.3637	0.1103
T7	140 - 120	4.231	12	0.3001	0.0899
T8	120 - 100	3.086	12	0.2356	0.0720
T9	100 - 80	2.162	12	0.1876	0.0581
T10	80 - 60	1.432	12	0.1404	0.0452
T11	60 - 40	0.844	12	0.1046	0.0332
T12	40 - 20	0.420	24	0.0697	0.0212
T13	20 - 0	0.139	24	0.0349	0.0103

Critical Deflections and Radius of Curvature - Design Wind

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	34 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load Comb.</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>			<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
250'	5/8" x 4' Lightning Rod	12	15.822	0.6256	0.2370	272432
231'	NNSS-65C-HG-R2B_20241102 w/ Mount Pipe	12	13.304	0.6120	0.2258	57916
220'	(2) NNH4-65B-R6H4 w/ Mount Pipe	12	11.872	0.5874	0.2097	30363
213'	L2.5x2.5x1/4 x 5' (horizontal)	12	10.984	0.5666	0.1983	18090
180'	0.5" x 3' Detuner Supports	12	7.376	0.4334	0.1384	16268
140'	0.5" x 3' Detuner Supports	12	4.231	0.3001	0.0899	17963
100'	0.5" x 3' Detuner Supports	12	2.162	0.1876	0.0581	23708
80'	0.5" x 3' Detuner Supports	12	1.432	0.1404	0.0452	38879
40'	0.5" x 3' Detuner Supports	24	0.420	0.0697	0.0212	36962
8'	0.5" x 3' Detuner Supports	24	0.046	0.0140	0.0041	66012

Bolt Design Data

<i>Section No.</i>	<i>Elevation</i>	<i>Component Type</i>	<i>Bolt Grade</i>	<i>Bolt Size</i>	<i>Number Of Bolts</i>	<i>Maximum Load per Bolt</i>	<i>Allowable Load per Bolt</i>	<i>Ratio Load Allowable</i>	<i>Allowable Ratio</i>	<i>Criteria</i>
	<i>ft</i>			<i>in</i>		<i>K</i>	<i>K</i>			
T1	250	Leg	A325X	0.7500	4	0.34	30.10	0.011	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	0.73	16.25	0.045	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	0.73	15.68	0.047	1.05	Gusset Bearing
T2	240	Leg	A325X	0.8750	4	3.36	41.56	0.081	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	2.19	16.25	0.135	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	1.80	15.68	0.115	1.05	Gusset Bearing
T3	220	Leg	A325X	1.0000	4	11.84	54.52	0.217	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	3.52	16.25	0.216	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	2.90	15.68	0.185	1.05	Gusset Bearing
T4	200	Leg	A325X	1.0000	6	13.48	54.52	0.247	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	2.49	16.25	0.153	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	2.32	15.68	0.148	1.05	Gusset Bearing
T5	180	Leg	A325X	1.0000	8	13.31	54.52	0.244	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	2.35	16.25	0.145	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	2.42	15.68	0.155	1.05	Gusset Bearing
T6	160	Leg	A325X	1.0000	8	15.69	54.52	0.288	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	2.87	16.25	0.177	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	2.65	15.68	0.169	1.05	Gusset Bearing
T7	140	Leg	A325X	1.0000	8	18.26	54.52	0.335	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	2.67	16.25	0.165	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	2.74	15.68	0.175	1.05	Gusset Bearing
T8	120	Leg	A325X	1.0000	8	20.61	54.52	0.378	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	2.79	16.25	0.171	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	3.06	15.68	0.195	1.05	Gusset Bearing
T9	100	Leg	A325X	1.0000	12	15.22	54.52	0.279	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	2.75	16.25	0.169	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	3.23	15.68	0.206	1.05	Gusset Bearing
T10	80	Leg	A325X	1.0000	12	16.67	54.52	0.306	1.05	Bolt Tension
		Diagonal	A325X	0.6250	3	3.13	16.25	0.193	1.05	Gusset Bearing
		Horizontal	A325X	0.6250	2	3.86	15.68	0.246	1.05	Gusset Bearing
T11	60	Leg	A325X	1.0000	12	17.18	54.52	0.315	1.05	Bolt Tension
		Diagonal	A325X	0.7500	3	5.22	24.85	0.210	1.05	Bolt Shear
		Horizontal	A325X	0.7500	2	4.08	24.85	0.164	1.05	Bolt Shear
		Redund Horiz 1 Bracing	A325X	0.6250	1	4.23	13.57	0.312	1.05	Member Bearing
		Redund Diag 1	A325X	0.6250	1	3.85	13.57	0.284	1.05	Member Bearing

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	35 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T12	40	Bracing								
		Redund Hip 1	A325X	0.6250	1	0.02	17.26	0.001	1.05	Bolt Shear
		Bracing								
		Redund Hip	A325X	0.6250	1	0.06	17.26	0.004	1.05	Bolt Shear
		Diagonal 1								
		Bracing								
		Leg	A325X	1.0000	12	18.63	54.52	0.342	1.05	Bolt Tension
		Diagonal	A325X	0.7500	3	5.34	24.85	0.215	1.05	Bolt Shear
		Horizontal	A325X	0.7500	2	4.40	24.85	0.177	1.05	Bolt Shear
		Redund Horz 1	A325X	0.6250	1	4.62	13.57	0.341	1.05	Member Bearing
T13	20	Bracing								
		Redund Diag 1	A325X	0.6250	1	3.93	11.70	0.336	1.05	Member Bearing
		Bracing								
		Redund Hip 1	A325X	0.6250	1	0.02	17.26	0.001	1.05	Bolt Shear
		Bracing								
		Redund Hip	A325X	0.6250	1	0.06	17.26	0.003	1.05	Bolt Shear
		Diagonal 1								
		Bracing								
		Diagonal	A325X	0.7500	3	5.22	24.85	0.210	1.05	Bolt Shear
		Horizontal	A325X	0.7500	2	4.69	24.85	0.189	1.05	Bolt Shear
		Redund Horz 1	A325X	0.6250	1	5.03	13.57	0.370	1.05	Member Bearing
		Bracing								
		Redund Diag 1	A325X	0.6250	1	4.04	11.70	0.345	1.05	Member Bearing
		Bracing								
		Redund Hip 1	A325X	0.6250	1	0.02	17.26	0.001	1.05	Bolt Shear
		Bracing								
		Redund Hip	A325X	0.6250	1	0.07	17.26	0.004	1.05	Bolt Shear
		Diagonal 1								
		Bracing								

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 2.5 STD	10'	5'	63.3 K=1.00	1.7040	-4.06	57.19	0.071 ¹
T2	240 - 220	ROHN 3 STD	20'	6'8-1/32'	68.8 K=1.00	2.2285	-19.72	70.98	0.278 ¹
T3	220 - 200	ROHN 4 X-STR	20'	6'8-1/32'	54.2 K=1.00	4.4074	-57.58	160.03	0.360 ¹
T4	200 - 180	ROHN 5 EH	20'15/32"	6'8-5/32'	43.6 K=1.00	6.1120	-93.27	239.38	0.390 ¹
T5	180 - 160	ROHN 6 EH	20'15/32"	6'8-5/32'	36.5 K=1.00	8.4049	-121.66	343.08	0.355 ¹
T6	160 - 140	ROHN 8 EHS	20'15/32"	10'1/4"	41.2 K=1.00	9.7193	-143.44	386.35	0.371 ¹
T7	140 - 120	ROHN 8 EHS	20'19/32"	10'3/8"	41.2 K=1.00	9.7193	-167.37	386.31	0.433 ¹
T8	120 - 100	ROHN 8 X-STR	20'19/32"	10'3/8"	41.8	12.7627	-190.12	505.43	0.376 ¹

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	36 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T9	100 - 80	ROHN 8 X-STR	20'23/32"	10'3/8"	K=1.00 41.8	12.7627	-212.21	505.39	0.420 ¹
T10	80 - 60	ROHN 10 EH	20'19/32"	10'3/8"	K=1.00 33.2	16.1007	-234.40	668.56	0.351 ¹
T11	60 - 40	ROHN 10 X-STR	20'19/32"	10'3/8"	K=1.00 33.2	16.1007	-244.00	668.56	0.365 ¹
T12	40 - 20	ROHN 10 X-STR	20'19/32"	10'3/8"	K=1.00 33.2	16.1007	-266.33	668.56	0.398 ¹
T13	20 - 0	ROHN 10 EH	20'19/32"	10'3/8"	K=1.00 33.2	16.1007	-289.72	668.56	0.433 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 2 STD	6'6-31/32"	6'4-11/16"	97.4 K=1.00	1.0745	-2.27	24.15	0.094 ¹
T2	240 - 220	ROHN 2 STD	7'11-9/32"	7'8-1/32"	117.0 K=1.00	1.0745	-6.64	17.75	0.374 ¹
T3	220 - 200	ROHN 2 EH	7'11-17/32"	7'7-7/16"	119.3 K=1.00	1.4773	-10.64	23.45	0.454 ¹
T4	200 - 180	ROHN 2 EH	8'6-31/32"	8'2-17/32"	128.5 K=1.00	1.4773	-7.29	20.20	0.361 ¹
T5	180 - 160	ROHN 2 EH	9'3-15/32"	8'10-11/16"	139.2 K=1.00	1.4773	-7.03	17.22	0.408 ¹
T6	160 - 140	ROHN 2.5 X-STR	12'6-23/32"	11'11-17/32"	155.4 K=1.00	2.2535	-8.83	21.09	0.419 ¹
T7	140 - 120	ROHN 3 STD	13'4-3/16"	12'9-23/32"	132.1 K=1.00	2.2285	-8.29	28.85	0.288 ¹
T8	120 - 100	ROHN 3 STD	14'2-17/32"	13'8-13/32"	141.3 K=1.00	2.2285	-8.72	25.21	0.346 ¹
T9	100 - 80	ROHN 3 STD	15'2-5/32"	14'8-13/32"	151.6 K=1.00	2.2285	-8.71	21.89	0.398 ¹
T10	80 - 60	ROHN 3 STD	16'1-11/16"	15'6-27/32"	160.6 K=1.00	2.2285	-9.92	19.52	0.508 ¹
T11	60 - 40	ROHN 3 STD	24'4-9/16"	12'2-9/32"	125.7 K=1.00	2.2285	-15.67	31.86	0.492 ¹
T12	40 - 20	ROHN 3 STD	25'1-5/16"	12'6-23/32"	129.5 K=1.00	2.2285	-16.02	30.03	0.534 ¹
T13	20 - 0	ROHN 3 STD	25'10-9/16"	12'11-9/32"	133.5 K=1.00	2.2285	-15.67	28.26	0.554 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Compression)

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	37 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 1.5 STD	8'6-1/4"	4'1-11/16"	79.8 K=1.00	0.7995	-1.42	22.58	0.063 ¹
T2	240 - 220	ROHN 1.5 STD	8'7-3/16"	4'1-13/16"	80.0 K=1.00	0.7995	-3.56	22.52	0.158 ¹
T3	220 - 200	ROHN 1.5 STD	8'8-5/32"	4'1-13/16"	80.0 K=1.00	0.7995	-5.76	22.52	0.256 ¹
T4	200 - 180	ROHN 1.5 STD	10'1-3/16"	4'9-27/32"	92.8 K=1.00	0.7995	-4.52	19.16	0.236 ¹
T5	180 - 160	ROHN 2 STD	12'2-5/8"	5'9-31/32"	88.9 K=1.00	1.0745	-4.79	27.13	0.177 ¹
T6	160 - 140	ROHN 2 STD	14'19/32"	6'8-1/32"	101.6 K=1.00	1.0745	-5.33	22.72	0.235 ¹
T7	140 - 120	ROHN 2 STD	16'5-5/32"	7'10-3/16"	119.7 K=1.00	1.0745	-5.49	16.93	0.324 ¹
T8	120 - 100	ROHN 2.5 STD	18'11-5/32"	9'1-3/16"	115.3 K=1.00	1.7040	-6.09	28.95	0.210 ¹
T9	100 - 80	ROHN 2.5 STD	21'6-1/8"	10'4-11/16"	131.6 K=1.00	1.7040	-6.37	22.21	0.287 ¹
T10	80 - 60	ROHN 2.5 STD	24'31/32"	11'7-3/32"	146.8 K=1.00	1.7040	-7.35	17.85	0.412 ¹
T11	60 - 40	ROHN 3 STD	25'3-31/32"	12'2-5/8"	126.0 K=1.00	2.2285	-8.17	31.70	0.258 ¹
T12	40 - 20	ROHN 3 STD	27'9-31/32"	13'5-5/8"	138.9 K=1.00	2.2285	-8.79	26.09	0.337 ¹
T13	20 - 0	ROHN 3 STD	30'3-31/32"	14'8-5/8"	151.8 K=1.00	2.2285	-9.38	21.85	0.430 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 1.5 STD	8'6"	4'1-9/16"	79.6 K=1.00	0.7995	-1.30	22.63	0.057 ¹

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T11	60 - 40	ROHN 1.5 STD	6'3-31/32"	5'10-11/16"	113.4 K=1.00	0.7995	-4.23	14.04	0.302 ¹
T12	40 - 20	ROHN 1.5 STD	6'11-17/32"	6'6-1/8"	125.5 K=1.00	0.7995	-4.62	11.47	0.403 ¹
T13	20 - 0	ROHN 1.5 STD	7'6-31/32"	7'1-11/16"	137.5 K=1.00	0.7995	-5.03	9.55	0.527 ¹

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	38 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

¹ $P_u / \phi P_n$ controls

Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
T11	60 - 40	ROHN 1.5 STD	11'6-1/4'	10'7-7/16"	204.7 K=1.00	0.7995	-3.85	4.31	0.893 ¹
T12	40 - 20	ROHN 2.25 TUBE	11'10-3/32"	11'1/8"	175.5 K=1.00	0.8345	-3.93	6.12	0.643 ¹
T13	20 - 0	ROHN 2.25 TUBE	12'2-9/32"	11'4-13/16"	181.8 K=1.00	0.8345	-4.04	5.70	0.709 ¹

¹ $P_u / \phi P_n$ controls

Redundant Hip (1) Design Data (Compression)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
T11	60 - 40	ROHN 1.5 STD	6'3-31/32"	6'3-31/32"	122.1 K=1.00	0.7995	-0.02	12.12	0.002 ¹
T12	40 - 20	ROHN 1.5 STD	6'11-17/32"	6'11-17/32"	134.1 K=1.00	0.7995	-0.02	10.04	0.002 ¹
T13	20 - 0	ROHN 1.5 STD	7'6-31/32"	7'6-31/32"	146.2 K=1.00	0.7995	-0.02	8.45	0.002 ¹

¹ $P_u / \phi P_n$ controls

Redundant Hip Diagonal (1) Design Data (Compression)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
T11	60 - 40	ROHN 2.5 STD	15'1-9/16"	15'1-9/16"	191.6 K=1.00	1.7040	-0.06	10.49	0.006 ¹
T12	40 - 20	ROHN 2.5 STD	15'11-13/32"	15'11-13/32"	202.1 K=1.00	1.7040	-0.06	9.43	0.006 ¹
T13	20 - 0	ROHN 3 STD	16'9-23/32"	16'9-23/32"	173.3 K=1.00	2.2285	-0.07	16.75	0.004 ¹

¹ $P_u / \phi P_n$ controls

Inner Bracing Design Data (Compression)

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	39 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	L2x2x1/8	4'3"	4'3"	128.3 K=1.00	0.4844	-0.00	8.42	0.000 ¹
T2	240 - 220	L2x2x1/8	4'3-19/3 2"	4'3-19/3 2"	129.8 K=1.00	0.4844	-0.00	8.23	0.000 ¹
T3	220 - 200	L2x2x1/8	4'4-3/32' ,	4'4-3/32' ,	131.0 K=1.00	0.4844	-0.01	8.08	0.001 ¹
T4	200 - 180	L2x2x1/8	4'4-3/16' ,	4'4-3/16' ,	131.4 K=1.00	0.4844	-0.01	8.03	0.001 ¹
T5	180 - 160	L2x2x1/8	6'1-5/16' ,	6'1-5/16' ,	184.4 K=1.00	0.4844	-0.01	4.08	0.001 ¹
T6	160 - 140	L2x2x1/8	7'3/8"	7'3/8"	212.1 K=1.00	0.4844	-0.01	3.08	0.002 ¹
T7	140 - 120	L2 1/2x2 1/2x3/16	8'2-17/3 2"	8'2-17/3 2"	199.2 K=1.00	0.9023	-0.01	6.51	0.001 ¹
T8	120 - 100	L3x3x3/16	9'5-17/3 2"	9'5-17/3 2"	190.5 K=1.00	1.0900	-0.01	8.59	0.001 ¹
T9	100 - 80	L3 1/2x3 1/2x1/4	10'9"	10'9"	185.9 K=1.00	1.6900	-0.01	13.99	0.001 ¹
T10	80 - 60	L3 1/2x3 1/2x1/4	12'15/32 "	12'15/32 "	208.2 K=1.00	1.6900	-0.01	11.16	0.001 ¹
T11	60 - 40	ROHN 3 STD	12'8-1/3 2"	12'8-1/3 2"	130.6 K=1.00	2.2285	-0.01	29.50	0.000 ¹
T12	40 - 20	ROHN 3 STD	13'11-1/ 32"	13'11-1/ 32"	143.5 K=1.00	2.2285	-0.01	24.44	0.001 ¹
T13	20 - 0	ROHN 3 STD	15'2-1/3 2"	15'2-1/3 2"	156.4 K=1.00	2.2285	-0.01	20.58	0.001 ¹

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 2.5 STD	10'	5'	63.3	1.7040	1.22	76.68	0.016 ¹
T2	240 - 220	ROHN 3 STD	20'	6'8-1/32' ,	68.8	2.2285	13.44	100.28	0.134 ¹
T3	220 - 200	ROHN 4 X-STR	20'	6'8-1/32' ,	54.2	4.4074	47.38	198.34	0.239 ¹
T4	200 - 180	ROHN 5 EH	20'15/32 "	6'8-5/32' ,	43.6	6.1120	80.86	275.04	0.294 ¹
T5	180 - 160	ROHN 6 EH	20'15/32 "	6'8-5/32' ,	36.5	8.4049	106.47	378.22	0.282 ¹
T6	160 - 140	ROHN 8 EHS	20'15/32 "	10'1/4"	41.2	9.7193	125.52	437.37	0.287 ¹
T7	140 - 120	ROHN 8 EHS	20'19/32 "	10'3/8"	41.2	9.7193	146.11	437.37	0.334 ¹
T8	120 - 100	ROHN 8 X-STR	20'19/32 "	10'3/8"	41.8	12.7627	164.91	574.32	0.287 ¹
T9	100 - 80	ROHN 8 X-STR	20'23/32 "	10'3/8"	41.8	12.7627	182.69	574.32	0.318 ¹
T10	80 - 60	ROHN 10 EH	20'19/32	10'3/8"	33.2	16.1007	199.98	724.53	0.276 ¹

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	40 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
T11	60 - 40	ROHN 10 X-STR	20'19/32"	10'3/8"	33.2	16.1007	206.76	724.53	0.285 ¹
T12	40 - 20	ROHN 10 X-STR	20'19/32"	10'3/8"	33.2	16.1007	224.19	724.53	0.309 ¹
T13	20 - 0	ROHN 10 EH	20'19/32"	10'3/8"	33.2	16.1007	242.02	724.53	0.334 ¹

¹ $P_u / \phi P_n$ controls

Diagonal Design Data (Tension)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 2 STD	6'6-31/32"	6'4-11/16"	97.4	0.6326	2.20	30.84	0.071 ¹
T2	240 - 220	ROHN 2 STD	7'11-9/32"	7'8-1/32"	117.0	0.6326	6.56	30.84	0.213 ¹
T3	220 - 200	ROHN 2 EH	7'11-17/32"	7'7-7/16"	119.3	0.8627	10.55	42.06	0.251 ¹
T4	200 - 180	ROHN 2 EH	8'1-29/32"	7'9-15/32"	122.0	0.8627	7.46	42.06	0.177 ¹
T5	180 - 160	ROHN 2 EH	9'15/32"	8'7-13/16"	135.4	0.8627	7.05	42.06	0.168 ¹
T6	160 - 140	ROHN 2.5 X-STR	12'6-23/32"	11'11-17/32"	155.4	1.3797	8.61	67.26	0.128 ¹
T7	140 - 120	ROHN 3 STD	13'4-3/16"	12'9-23/32"	132.1	1.4283	8.02	69.63	0.115 ¹
T8	120 - 100	ROHN 3 STD	14'2-17/32"	13'8-13/32"	141.3	1.4283	8.36	69.63	0.120 ¹
T9	100 - 80	ROHN 3 STD	15'2-5/32"	14'8-13/32"	151.6	1.4283	8.25	69.63	0.119 ¹
T10	80 - 60	ROHN 3 STD	16'1-11/16"	15'6-27/32"	160.6	1.4283	9.39	69.63	0.135 ¹
T11	60 - 40	ROHN 3 STD	24'4-9/16"	12'2-9/32"	125.7	1.3879	14.43	67.66	0.213 ¹
T12	40 - 20	ROHN 3 STD	25'1-5/16"	12'6-23/32"	129.5	1.3879	14.64	67.66	0.216 ¹
T13	20 - 0	ROHN 3 STD	25'10-9/16"	12'11-9/32"	133.5	1.3879	14.41	67.66	0.213 ¹

¹ $P_u / \phi P_n$ controls

Horizontal Design Data (Tension)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 1.5 STD	8'6-1/4"	4'1-11/16"	79.8	0.4365	1.47	21.28	0.069 ¹

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	41 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	240 - 220	ROHN 1.5 STD	8'7-3/16' '	4'1-13/16" '	80.0	0.4365	3.59	21.28	0.169 ¹
T3	220 - 200	ROHN 1.5 STD	8'8-5/32' '	4'1-13/16" '	80.0	0.4365	5.80	21.28	0.273 ¹
T4	200 - 180	ROHN 1.5 STD	8'8-17/32" '	4'1-7/16" '	79.5	0.4365	4.64	21.28	0.218 ¹
T5	180 - 160	ROHN 2 STD	12'2-5/8' '	5'9-31/32" '	88.9	0.6326	4.85	30.84	0.157 ¹
T6	160 - 140	ROHN 2 STD	14'19/32" '	6'8-1/32" '	101.6	0.6326	5.30	30.84	0.172 ¹
T7	140 - 120	ROHN 2 STD	16'5-5/32" '	7'10-3/16" '	119.7	0.6326	5.47	30.84	0.177 ¹
T8	120 - 100	ROHN 2.5 STD	18'11-5/32" '	9'1-3/16" '	115.3	1.0497	6.12	51.17	0.120 ¹
T9	100 - 80	ROHN 2.5 STD	21'6-1/8' '	10'4-11/16" '	131.6	1.0497	6.46	51.17	0.126 ¹
T10	80 - 60	ROHN 2.5 STD	24'31/32" '	11'7-3/32" '	146.8	1.0497	7.73	51.17	0.151 ¹
T11	60 - 40	ROHN 3 STD	25'3-31/32" '	12'2-5/8' '	126.0	1.3879	8.11	67.66	0.120 ¹
T12	40 - 20	ROHN 3 STD	27'9-31/32" '	13'5-5/8' '	138.9	1.3879	8.64	67.66	0.128 ¹
T13	20 - 0	ROHN 3 STD	30'3-31/32" '	14'8-5/8' '	151.8	1.3879	9.19	67.66	0.136 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	ROHN 1.5 STD	8'6" '	4'1-9/16" '	79.6	0.5996	1.29	29.23	0.044 ¹

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T11	60 - 40	ROHN 1.5 STD	6'3-31/32" '	5'10-11/16" '	113.4	0.4365	4.23	21.28	0.199 ¹
T12	40 - 20	ROHN 1.5 STD	6'11-17/32" '	6'6-1/8" '	125.5	0.4365	4.62	21.28	0.217 ¹
T13	20 - 0	ROHN 1.5 STD	7'6-31/32" '	7'1-11/16" '	137.5	0.4365	5.03	21.28	0.236 ¹

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	42 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

¹ $P_u / \phi P_n$ controls

Redundant Diagonal (1) Design Data (Tension)

Section No.	Elevation	Size	L	L _u	Kl/r	A	P _u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in ²	K	K	
T11	60 - 40	ROHN 1.5 STD	11'6-1/4'	10'7-7/16"	204.7	0.4365	3.85	21.28	0.181 ¹
T12	40 - 20	ROHN 2.25 TUBE	11'10-3/32"	11'1/8"	175.5	0.4852	3.93	23.66	0.166 ¹
T13	20 - 0	ROHN 2.25 TUBE	12'2-9/32"	11'4-13/16"	181.8	0.4852	4.04	23.66	0.171 ¹

¹ $P_u / \phi P_n$ controls

Redundant Hip (1) Design Data (Tension)

Section No.	Elevation	Size	L	L _u	Kl/r	A	P _u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in ²	K	K	
T11	60 - 40	ROHN 1.5 STD	6'3-31/32"	6'3-31/32"	122.1	0.4365	0.01	21.28	0.000 ¹
T12	40 - 20	ROHN 1.5 STD	6'11-17/32"	6'11-17/32"	134.1	0.4365	0.01	21.28	0.000 ¹
T13	20 - 0	ROHN 1.5 STD	7'6-31/32"	7'6-31/32"	146.2	0.4365	0.01	21.28	0.000 ¹

¹ $P_u / \phi P_n$ controls

Redundant Hip Diagonal (1) Design Data (Tension)

Section No.	Elevation	Size	L	L _u	Kl/r	A	P _u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in ²	K	K	
T11	60 - 40	ROHN 2.5 STD	15'1-9/16"	15'1-9/16"	191.6	1.0497	0.06	51.17	0.001 ¹
T12	40 - 20	ROHN 2.5 STD	15'11-13/32"	15'11-13/32"	202.1	1.0497	0.05	51.17	0.001 ¹
T13	20 - 0	ROHN 3 STD	16'9-23/32"	16'9-23/32"	173.3	1.4283	0.06	69.63	0.001 ¹

¹ $P_u / \phi P_n$ controls

Inner Bracing Design Data (Tension)

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	43 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	250 - 240	L2x2x1/8	4'3"	4'3"	81.4	0.4844	0.00	15.69	0.000 ¹
T2	240 - 220	L2x2x1/8	4'3-19/3 2"	4'3-19/3 2"	82.4	0.4844	0.00	15.69	0.000 ¹
T3	220 - 200	L2x2x1/8	4'4-3/32' 1	4'4-3/32' 1	83.2	0.4844	0.01	15.69	0.000 ¹
T4	200 - 180	L2x2x1/8	4'4-3/16' 1	4'4-3/16' 1	83.4	0.4844	0.00	15.69	0.000 ¹
T5	180 - 160	L2x2x1/8	5'4-13/1 6"	5'4-13/1 6"	103.4	0.4844	0.00	15.69	0.000 ¹
T6	160 - 140	L2x2x1/8	6'5-17/3 2"	6'5-17/3 2"	123.9	0.4844	0.00	15.69	0.000 ¹

¹ P_u / φP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	φP _{allow} K	% Capacity	Pass Fail
T1	250 - 240	Leg	ROHN 2.5 STD	1	-4.06	60.05	6.8	Pass
T2	240 - 220	Leg	ROHN 3 STD	28	-19.72	74.53	26.5	Pass
T3	220 - 200	Leg	ROHN 4 X-STR	69	-57.58	168.03	34.3	Pass
T4	200 - 180	Leg	ROHN 5 EH	108	-93.27	251.35	37.1	Pass
T5	180 - 160	Leg	ROHN 6 EH	147	-121.66	360.24	33.8	Pass
T6	160 - 140	Leg	ROHN 8 EHS	186	-143.44	405.67	35.4	Pass
T7	140 - 120	Leg	ROHN 8 EHS	213	-167.37	405.62	41.3	Pass
T8	120 - 100	Leg	ROHN 8 X-STR	240	-190.12	530.71	35.8	Pass
							36.0 (b)	
T9	100 - 80	Leg	ROHN 8 X-STR	267	-212.21	530.66	40.0	Pass
T10	80 - 60	Leg	ROHN 10 EH	294	-234.40	701.99	33.4	Pass
T11	60 - 40	Leg	ROHN 10 X-STR	321	-244.00	701.99	34.8	Pass
T12	40 - 20	Leg	ROHN 10 X-STR	354	-266.33	701.99	37.9	Pass
T13	20 - 0	Leg	ROHN 10 EH	387	-289.72	701.99	41.3	Pass
T1	250 - 240	Diagonal	ROHN 2 STD	14	-2.27	25.36	9.0	Pass
T2	240 - 220	Diagonal	ROHN 2 STD	38	-6.64	18.63	35.6	Pass
T3	220 - 200	Diagonal	ROHN 2 EH	77	-10.64	24.62	43.2	Pass
T4	200 - 180	Diagonal	ROHN 2 EH	116	-7.29	21.21	34.4	Pass
T5	180 - 160	Diagonal	ROHN 2 EH	155	-7.03	18.08	38.9	Pass
T6	160 - 140	Diagonal	ROHN 2.5 X-STR	194	-8.83	22.15	39.9	Pass
T7	140 - 120	Diagonal	ROHN 3 STD	221	-8.29	30.29	27.4	Pass
T8	120 - 100	Diagonal	ROHN 3 STD	248	-8.72	26.47	33.0	Pass
T9	100 - 80	Diagonal	ROHN 3 STD	275	-8.71	22.99	37.9	Pass
T10	80 - 60	Diagonal	ROHN 3 STD	302	-9.92	20.50	48.4	Pass
T11	60 - 40	Diagonal	ROHN 3 STD	339	-15.67	33.46	46.8	Pass
T12	40 - 20	Diagonal	ROHN 3 STD	372	-16.02	31.53	50.8	Pass
T13	20 - 0	Diagonal	ROHN 3 STD	405	-15.67	29.67	52.8	Pass
T1	250 - 240	Horizontal	ROHN 1.5 STD	13	1.47	22.34	6.6	Pass
T2	240 - 220	Horizontal	ROHN 1.5 STD	37	3.59	22.34	16.1	Pass
T3	220 - 200	Horizontal	ROHN 1.5 STD	76	5.80	22.34	26.0	Pass
T4	200 - 180	Horizontal	ROHN 1.5 STD	115	-4.52	20.11	22.5	Pass
T5	180 - 160	Horizontal	ROHN 2 STD	154	-4.79	28.49	16.8	Pass
T6	160 - 140	Horizontal	ROHN 2 STD	193	-5.33	23.86	22.3	Pass
T7	140 - 120	Horizontal	ROHN 2 STD	220	-5.49	17.78	30.9	Pass
T8	120 - 100	Horizontal	ROHN 2.5 STD	247	-6.09	30.40	20.0	Pass
T9	100 - 80	Horizontal	ROHN 2.5 STD	274	-6.37	23.33	27.3	Pass
T10	80 - 60	Horizontal	ROHN 2.5 STD	301	-7.35	18.74	39.2	Pass
T11	60 - 40	Horizontal	ROHN 3 STD	338	-8.17	33.29	24.5	Pass

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	Lake City W J-FL-012-058 (BU 809328)	Page	44 of 45
	Project	TEP No. 54343.1142037	Date	12:13:57 08/19/25
	Client	Crown Castle	Designed by	AAL

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T12	40 - 20	Horizontal	ROHN 3 STD	371	-8.79	27.40	32.1	Pass
T13	20 - 0	Horizontal	ROHN 3 STD	404	-9.38	22.94	40.9	Pass
T1	250 - 240	Top Girt	ROHN 1.5 STD	6	-1.30	23.77	5.5	Pass
T11	60 - 40	Redund Horz 1 Bracing	ROHN 1.5 STD	334	-4.23	14.74	28.7	Pass
							29.7 (b)	
T12	40 - 20	Redund Horz 1 Bracing	ROHN 1.5 STD	367	-4.62	12.04	38.4	Pass
T13	20 - 0	Redund Horz 1 Bracing	ROHN 1.5 STD	400	-5.03	10.03	50.1	Pass
T11	60 - 40	Redund Diag 1 Bracing	ROHN 1.5 STD	335	-3.85	4.53	85.1	Pass
T12	40 - 20	Redund Diag 1 Bracing	ROHN 2.25 TUBE	368	-3.93	6.43	61.2	Pass
T13	20 - 0	Redund Diag 1 Bracing	ROHN 2.25 TUBE	401	-4.04	5.99	67.5	Pass
T11	60 - 40	Redund Hip 1 Bracing	ROHN 1.5 STD	345	-0.02	12.73	0.2	Pass
T12	40 - 20	Redund Hip 1 Bracing	ROHN 1.5 STD	378	-0.02	10.54	0.2	Pass
T13	20 - 0	Redund Hip 1 Bracing	ROHN 1.5 STD	411	-0.02	8.88	0.2	Pass
T11	60 - 40	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	348	-0.06	11.01	0.6	Pass
T12	40 - 20	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	381	-0.06	9.90	0.6	Pass
T13	20 - 0	Redund Hip Diagonal 1 Bracing	ROHN 3 STD	414	-0.07	17.59	0.4	Pass
T1	250 - 240	Inner Bracing	L2x2x1/8	18	-0.00	8.80	0.1	Pass
T2	240 - 220	Inner Bracing	L2x2x1/8	42	-0.00	8.65	0.1	Pass
T3	220 - 200	Inner Bracing	L2x2x1/8	79	-0.01	8.48	0.1	Pass
T4	200 - 180	Inner Bracing	L2x2x1/8	118	-0.00	6.27	0.1	Pass
T5	180 - 160	Inner Bracing	L2x2x1/8	158	-0.01	4.28	0.1	Pass
T6	160 - 140	Inner Bracing	L2x2x1/8	197	-0.01	3.24	0.2	Pass
T7	140 - 120	Inner Bracing	L2 1/2x2 1/2x3/16	225	-0.01	6.84	0.2	Pass
T8	120 - 100	Inner Bracing	L3x3x3/16	252	-0.01	9.02	0.2	Pass
T9	100 - 80	Inner Bracing	L3 1/2x3 1/2x1/4	279	-0.01	14.69	0.2	Pass
T10	80 - 60	Inner Bracing	L3 1/2x3 1/2x1/4	306	-0.01	11.72	0.2	Pass
T11	60 - 40	Inner Bracing	ROHN 3 STD	349	-0.01	30.98	0.2	Pass
T12	40 - 20	Inner Bracing	ROHN 3 STD	384	-0.01	25.66	0.2	Pass
T13	20 - 0	Inner Bracing	ROHN 3 STD	415	-0.01	21.61	0.3	Pass

Summary			
Leg (T13)	41.3		Pass
Diagonal (T13)	52.8		Pass
Horizontal (T13)	40.9		Pass
Top Girt (T1)	5.5		Pass
Redund Horz 1 Bracing (T13)	50.1		Pass
Redund Diag 1 Bracing (T11)	85.1		Pass
Redund Hip 1 Bracing (T13)	0.2		Pass
Redund Hip Diagonal 1	0.6		Pass

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job Lake City W J-FL-012-058 (BU 809328)	Page 45 of 45
	Project TEP No. 54343.1142037	Date 12:13:57 08/19/25
	Client Crown Castle	Designed by AAL

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
						Bracing (T12)		
						Inner	0.3	Pass
						Bracing (T13)		
						Bolt Checks	36.0	Pass
						RATING =	85.1	Pass

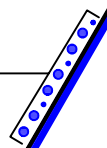
APPENDIX B

BASE LEVEL DRAWING



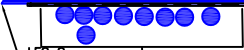
(OTHER CONSIDERED EQUIPMENT)
(3) 3/8" TO 220 FT LEVEL
(6) 7/8" TO 220 FT LEVEL

LEG A



SAFETY CLIMB

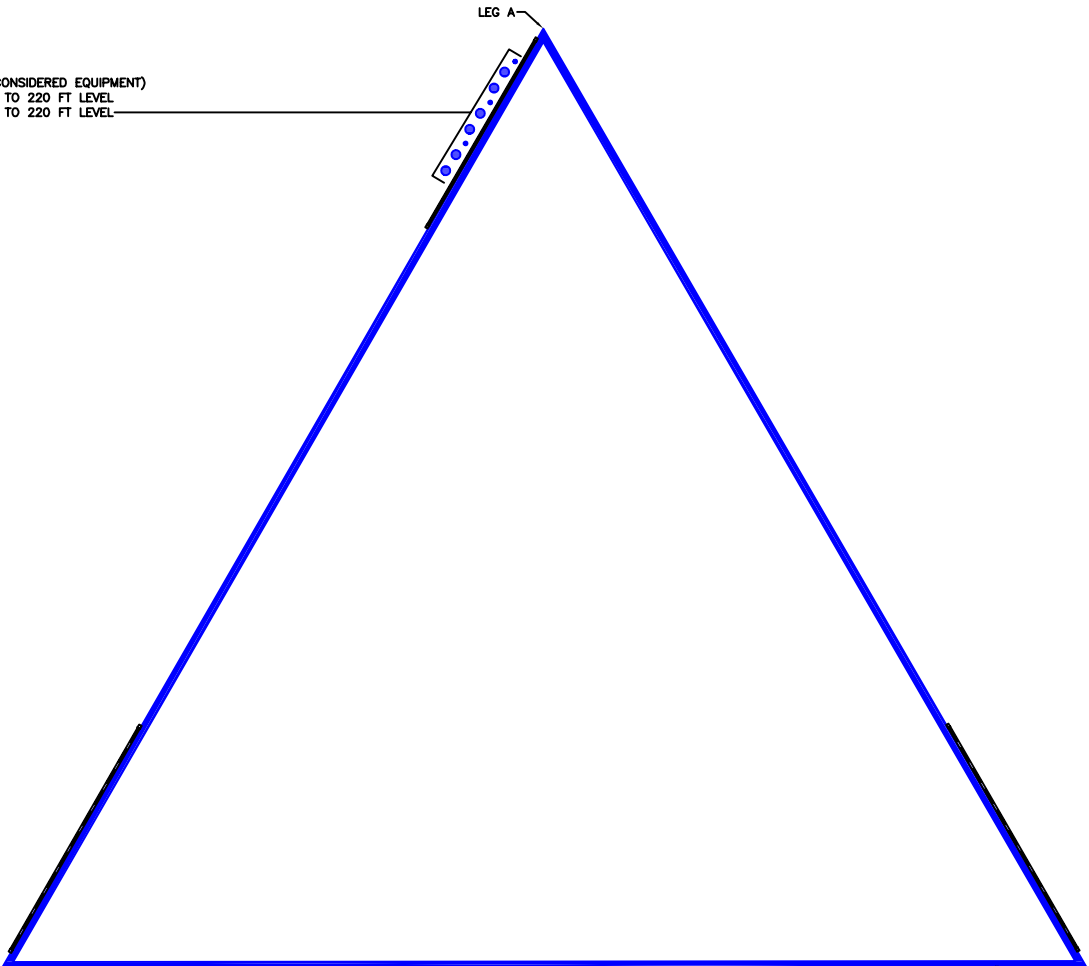
LEG C



LEG B

(PROPOSED EQUIPMENT CONFIGURATION)
(3) 2" TO 231 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(9) 1-5/8" TO 250 FT LEVEL



APPENDIX C

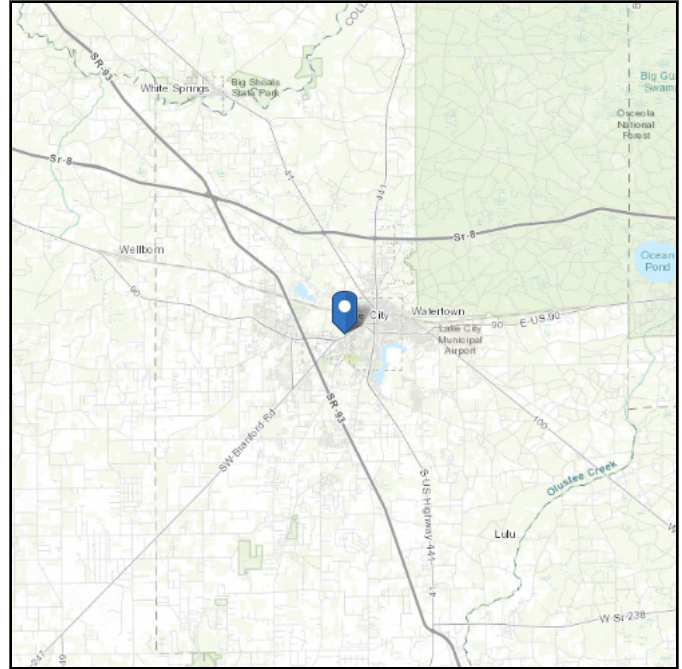
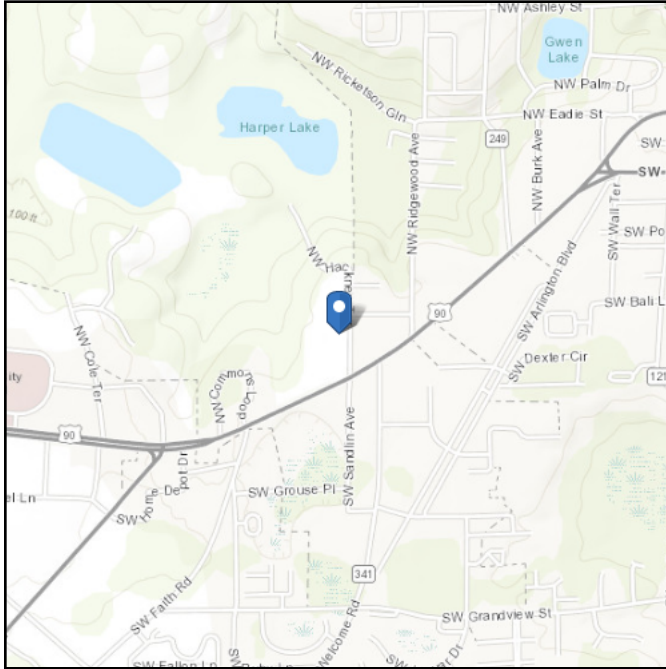
ADDITIONAL CALCULATIONS

ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-22
Risk Category: II
Soil Class: Default

Latitude: 30.182344
Longitude: -82.660558
Elevation: 166.37006676413068 ft (NAVD 88)



Wind

Results:

Wind Speed	119 Vmph
10-year MRI	75 Vmph
25-year MRI	83 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph
300-year MRI	109 Vmph
700-year MRI	119 Vmph
1,700-year MRI	128 Vmph
3,000-year MRI	133 Vmph
10,000-year MRI	143 Vmph
100,000-year MRI	153 Vmph
1,000,000-year MRI	167 Vmph

Data Source: ASCE/SEI 7-22, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Mon Aug 18 2025



Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-22 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years). Values for 10-year MRI, 25-year MRI, 50-year MRI and 100-year MRI are Service Level wind speeds, all other wind speeds are Ultimate wind speeds.

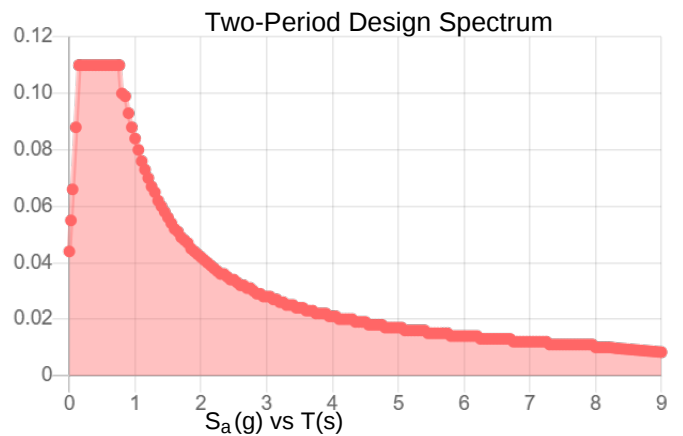
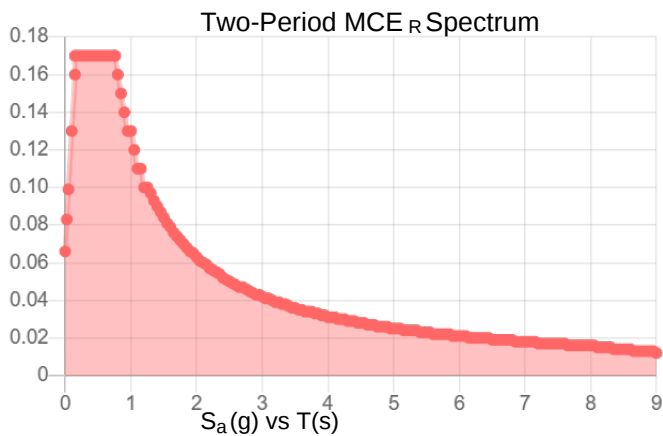
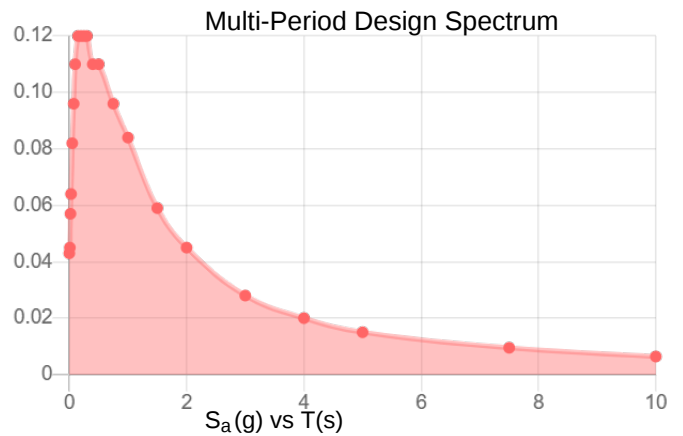
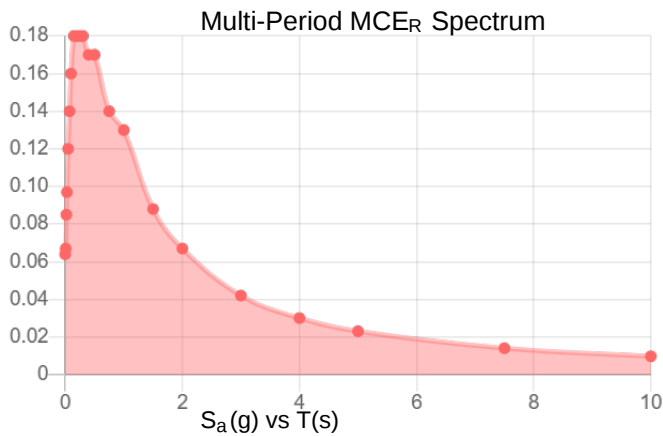
Site is in a hurricane-prone region as defined in ASCE/SEI 7-22 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: Default

Results:

PGA _M :	0.059	T _L :	8
S _{MS} :	0.17	S _S :	0.13
S _{M1} :	0.13	S ₁ :	0.059
S _{DS} :	0.11	V _{S30} :	260
S _{D1} :	0.084		

Seismic Design Category: B



MCE_R Vertical Response Spectrum
Vertical ground motion data has not yet been made available by USGS.

Design Vertical Response Spectrum
Vertical ground motion data has not yet been made available by USGS.

Data Accessed: Mon Aug 18 2025

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-22 and ASCE/SEI 7-22 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-22 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	N/A
Concurrent Temperature:	N/A
3-s Gust Speed	N/A

Data Source: Standard ASCE/SEI 7-22, Figs. 10-2 through 10-8

Date Accessed: Mon Aug 18 2025

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain for 250, 500, 1,000, and 1,400-year mean recurrence intervals along with concurrent 3-s gust speeds and concurrent air temperatures. The shading indicates special icing regions, with elevations above 2,100 ft (640 m) in the east, 6,000 ft (1829 m) in the west, and 1,600 ft (488 m) in Alaska, with sparse weather station data for determining design ice loads. In these regions, as well as in regions with complex terrain causing unusual icing conditions and regions where snow or in-cloud icing results in larger loads, the mapped values should be adjusted based on a combination of local historical records and experience, reanalysis data, and numerical weather prediction systems.

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE Hazard Tool.

Self Support Anchor Rod Capacity



Site Info		
BU #	809328	
Site Name	Lake City W J-FL-012-0	
Order #	709770 Rev. 0	

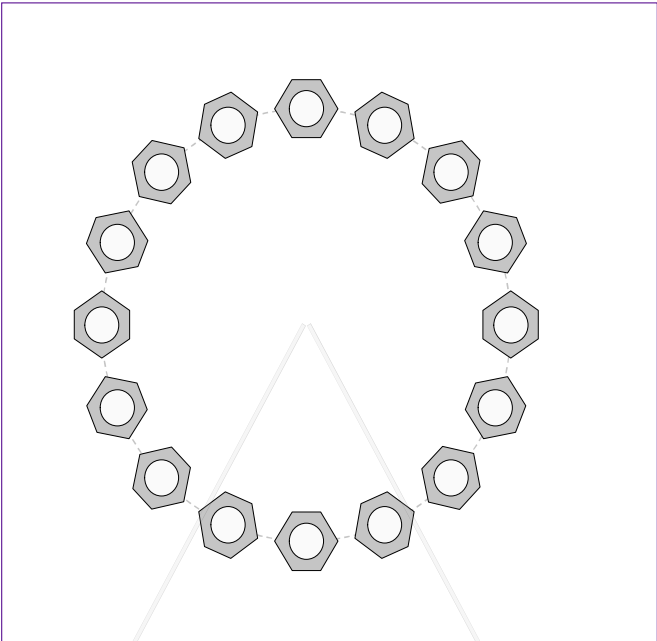
Analysis Considerations		
TIA-222 Revision	H	
Grout Considered:	No	
l_{ar} (in)	1.75	

Applied Loads		
	Comp.	Uplift
Axial Force (kips)	311.45	259.87
Shear Force (kips)	36.65	31.97

*TIA-222-H Section 15.5 Applied

Considered Eccentricity		
Leg Mod Eccentricity (in)	0.000	
Anchor Rod N.A Shift (in)	0.000	
Total Eccentricity (in)	0.000	

*Anchor Rod Eccentricity Applied



Connection Properties

Analysis Results

Anchor Rod Data	
(16) 1" ϕ bolts (A354-BC N; Fy=109 ksi, Fu=125 ksi)	
l_{ar} (in):	1.75

Anchor Rod Summary		(units of kips, kip-in)
$Pu_c = 19.47$	$\phi Pn_c = 77.05$	Stress Rating
$Vu = 2.29$	$\phi Vn = 34.67$	39.7%
$Mu = 2.61$	$\phi Mn = 16.35$	Pass



Lake City W J-FL-012-058 (BU 809328)

TEP #: 54343.1142037

Analysis: AS 8/19/2025

Check: TEPI 8/19/2025

Design Reaction Comparison Tool

Code Revisions: TIA-222-H

Tower Type: Self Support

Self-Support					
Reactions	Design	Design*1.35	Analysis	Capacity	Pass / Fail
Total Moment (kips.ft)	14733.8	19890.63	8154	39.0%	Pass
Total Shear (kips)	100.1	135.135	59	41.6%	Pass
Uplift/ Leg (kips)	490.4	662.04	260	37.4%	Pass
Compression/ Leg (kips)	553.5	747.225	311	39.6%	Pass

Note 1: Design loads were multiplied by 1.35 for comparison as allowed by TIA-222-H, Section 15.6.2.

Note 2: Rating per TIA-222-H, Section 15.5