



MOUNT & GLOBAL STABILITY ANALYSIS REPORT
WIRELESS EQUIPMENT MODIFICATION
70.0'± AGL. EXIST. CONCRETE STAVE SILO
SWANTON, VERMONT



Prepared for
Verizon Wireless

Verizon Site Ref.
Swanton South SC1 VT

Site Address: 54 Woods Road, Swanton, Vermont 05488

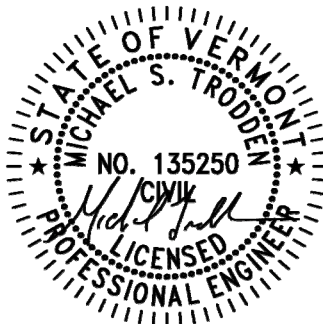
FUZE ID: 16994520

MDG Location ID: 5000028398

Project Type: Equipment Modification

APT Filing No. VT141_15890

Rev. 0 ~ December 17, 2025



MOUNT & GLOBAL STABILITY ANALYSIS REPORT
WIRELESS EQUIPMENT MODIFICATION
70'± AGL EXIST. CONCRETE STAVE SILO
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EXECUTIVE SUMMARY:

All-Points Technology Corporation, P.C. (APT) prepared a mount and global stability analysis of an existing host 70'± decommissioned silo structure to support a proposed Verizon wireless communication equipment modification.

Details of the proposed antenna and appurtenance configuration are included within the table on the following page. Reference can be made to the Construction Drawings prepared by DuBois & King (D&K) dated 12/17/2025.

Our mount and global stability analysis indicates that the existing mount assemblies and host structure **meet** the requirements of the ANSI/TIA-222-H standard and 2025 Vermont Fire & Building Safety Code and International Building Code 2021 (IBC 2021).

The mount and global stability usages are summarized in the table below:

Component/Member	Usage (%)
Mount Connection	59%
Mount Member	14%
Loading Scenario	Usage (%)
Gravity - Bearing	68%
Lateral - Sliding	21%
Lateral - Overturning	58%

INTRODUCTION:

A mount and global stability analysis has been prepared by APT for the purpose of a proposed Verizon Wireless equipment modification at the above-mentioned host decommissioned silo structure located at 54 Woods Road in Swanton, Vermont.

The following information was utilized in the preparation of this analysis and design report:

- Foundation mapping and images conducted by others on 11/25/25.
- RFDS detailing Verizon's proposed equipment installation, dated 09/26/25.
- Structural Analysis Report prepared by APT (APT Proj. No VT141_15880), marked Rev 0, dated 02/22/17.

The existing host structure consists of a 70'± AGL concrete stove silo (50' concrete stove silo, previously installed 10' concrete stove silo extension and 10'± dome roof) centered on a concrete foundation. The mount and global stability analyses were conducted utilizing the following inventory (proposed equipment changes shown in **bold** text). Should the equipment/dimensions listed below differ from actual field conditions, APT should be contacted to review the discrepancies.

Carrier	Antenna and Appurtenance Make/Model	Elevation ¹	Status ²	Mount Type	Feed-Line ⁴
Verizon	(1) Samsung MT6413-77A antenna w/ integrated RRH	62'±	P	Pos. 1 proposed P2.5" std. galv. pipe mast thru-bolted to existing silo	(1) 3x6 hybrid (1) 6x12 hybrid
	(2) CommScope NHHSS-65B-R2BT4 panel antennas			Pos. 2 exist. Flush mounted galv. pipe mast	
	(1) Samsung 4T8R AWS/PCS (RF4801d-25A) RRH (1) Samsung 700/850 4T4R (RF4461d-13A) RRH (1) NGOVP3			Pos. 3 exist. Flush mounted galv. pipe mast. Add (1) new SitePro1 RRU Swivel Mount kit (P/N RRUDSM)	
	(1) Raycap RVZDC-3315-PF-48 (6OVP)	-	ERL		

Notes:

1. Elevations are measured above ground level (AGL).
2. ETR = Existing to Remain; *ERL: Existing to be Relocated*; P = Proposed, R = Existing to be Removed.
3. Two (2) Andrew SBNHH-1D65B antennas & one (1) ALU B13 RRH 4x30 RRH to be removed.
4. Contractor to remove all un-used coaxial cables.

STRUCTURAL ANALYSIS:

Mount Analysis Criteria

The mount analysis has been prepared in accordance with the American Institute of Steel Construction (AISC) Manual of Steel Construction, ANSI/TIA-222-H "Structural Standard for Antenna Supporting Structures, Antennas and Small Wind Turbine Support Structures and the 2021 International Building Code (IBC), as amended by the 2025 Vermont Fire & Building Safety Code utilizing the following criteria:

- 107 mph (3-second gust) basic design wind speed
- 40 mph (3-second gust) wind speed w/ 2.00" ice thickness
- Risk Category: II
- Exposure Category: C
- Topographic Category 1

Silo Global Stability Analysis Criteria

The silo global stability analysis has been prepared in accordance with the 2021 International Building Code (IBC) as amended by the 2025 Vermont Fire & Building Safety Code utilizing the following criteria:

- 107 mph (3-second gust) basic design wind speed
- Risk Category: II
- Exposure Category: C
- Topographic Category 1

ANALYSIS RESULTS:

Antenna Mounts:

The analysis of the antenna mount assembly was conducted in accordance with the criteria outlined herein with the aforementioned proposed equipment loading. The following table summarizes the results of the analysis:

Component/Member	Usage (%)
Mount Connection	59%
Mount Member	14%

Silo Global Stability:

A global stability analysis of the subject host silo structure was conducted in accordance with the criteria outlined herein with the aforementioned proposed equipment loading. The following table summarized the results of the analysis:

Loading Scenario	% Increase	Usage
Gravity - Bearing	21% ¹	68%
Lateral - Sliding	34% ²	21%
Lateral - Overturning	67% ²	58%

Notes:

1. Per IEBC Section 807.4, structural evaluation is not required if the current/proposed gravity loading does not exceed 5% of the host structure lateral loading without any alterations and/or other installation.
2. Per IEBC Section 807.5, structural evaluation is not required if the current/proposed lateral loading does not exceed 10% of the host structure lateral loading without any alterations and/or other installation.

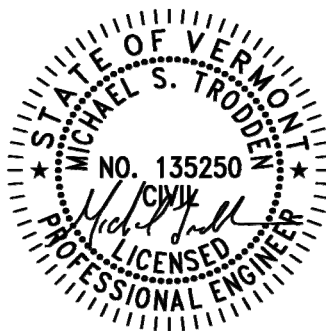
CONCLUSIONS:

In conclusion, our mount and global stability analyses indicate that the existing Verizon mount assemblies and host structure meet the requirements of the ANSI-TIA-222-H standard and IBC 2021 as amended by the 2025 Vermont Fire & Building Safety Code and with Verizon's proposed equipment modification.

Sincerely,
All-Points Technology, P.C



Michael S. Trodden, PE
Senior Structural Engineer



LIMITATIONS:

This report is based on the following:

1. Existing silo is composed of solid concrete staves.
2. Tower/structure is properly installed and maintained.
3. With the exception of the anchor bolts, all members are in a non-deteriorated condition.
4. All required members are in place.
5. All bolts are in place and are properly tightened.
6. Tower/structure is in plumb condition.
7. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
8. Mount Assembly material yield stress values as follows:
Pipes: ASTM A53 Gr. B (35 KSI)
Angle: ASTM A36 (36 KSI)

APT Engineering (APT) is not responsible for any modifications completed prior to or hereafter which APT is not or was not directly involved. Modifications include but are not limited to:

1. Replacing or reinforcing bracing members.
2. Reinforcing members in any manner.
3. Installing antenna mounts.
4. Extending tower/structure.

APT hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon the information contained and set forth herein. If you are aware of any information which is contrary to that which is contained herein, or you are aware of any defects arising from the original design, material, fabrication, and erection deficiencies, you should disregard this report and immediately contact APT. APT disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Appendix A

Design Criteria

ASCE Hazards Report

Address:

54 Woods Hill Rd
Swanton, Vermont
05488

Standard:

ASCE/SEI 7-16

Risk Category: II**Soil Class:**

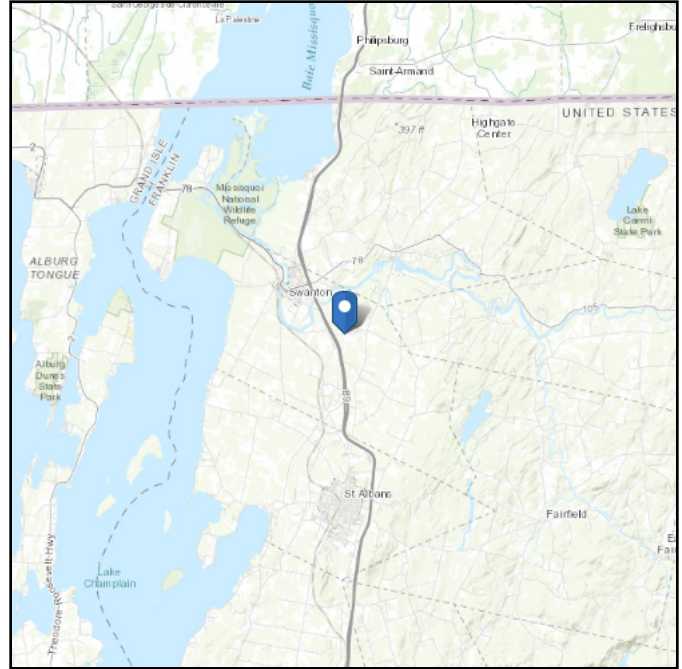
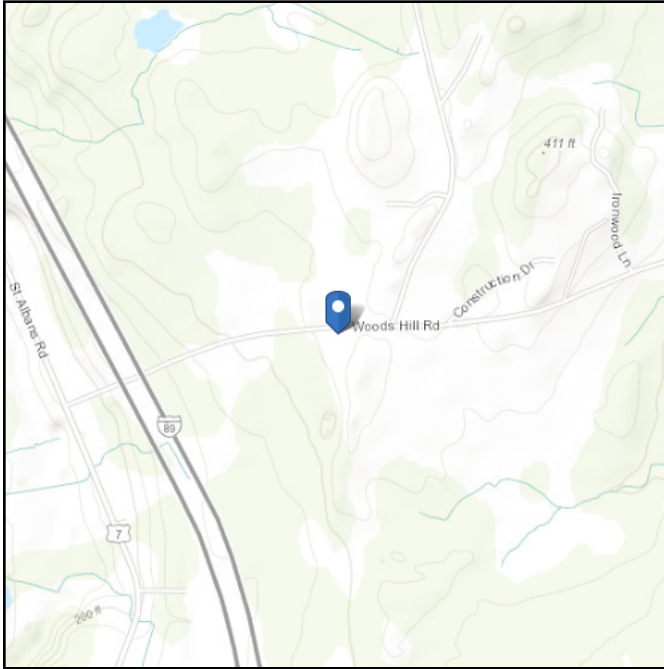
D - Default (see
Section 11.4.3)

Latitude:

44.896632

Longitude: -73.083105**Elevation:**

328.1810445011369 ft
(NAVD 88)



Wind

Results:

Wind Speed	107 Vmph
10-year MRI	73 Vmph
25-year MRI	80 Vmph
50-year MRI	84 Vmph
100-year MRI	89 Vmph

Data Source:

ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed:

Wed Dec 17 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 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Ice

Results:

Ice Thickness: 2.00 in.

Concurrent Temperature: -5 F

Gust Speed 40 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Wed Dec 17 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 with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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.

Appendix B

Mount Analysis



Project ID: VT141_15890
 Site Name: Swanton South SC1 VT
 Date: 12/17/2025

(Based on ANSI/TIA-222-H)

<u>Site Name:</u>	Swanton South SC1 VT
<u>Site Address:</u>	54 Woods Road Swanton, VT 05488
<u>Site County:</u>	Franklin

Design Criteria

Risk Category =	II	Sect. 2.2 & Table 2-1
Exposure Category =	C	Section 2.6.5
Ultimate Design Wind Speed, V =	107 mph	Fig. B-2 & ASCE 7-16 Fig. 26.5-1B
Design Wind Speed with Ice, V _i =	40 mph	Fig. B-9
Design Ice Thickness, t _i =	2.00 in	Fig. B-9
Importance Factor, I =	1.00	Table 2-3

Wind Pressure Analysis:

$$q_z = 0.00256 K_z K_{zt} K_s K_e K_d V^2$$

Section 2.6.11.6

K_z :

See Next Sheet

	z _g =	900	Table 2-4
	α =	9.5	Table 2-4
	K _{zmin} =	0.85	Table 2-4
<u>K_{zt}</u> :	K _{zt} =	1.00	Section 2.6.6
<u>K_s</u> :	K _s =	1.00	Section 2.6.7
<u>K_e</u> :	K _e =	0.99	Section 2.6.8
	Elevation =	328.18 ft, +/-	
<u>K_d</u> :	K _d =	0.95	Section 16.6

$$q_z' = 27.52 \text{ psf}$$

$$q_{zi}' = 3.85 \text{ psf}$$

$$F = q_z G_h (EPA)_A = q_z G_h K_a [(EPA)_N \cos^2(\Theta) + (EPA)_T \sin^2(\Theta)]$$

Section 2.6.11.2

$$G_h = 1.00$$

Section 16.6

$$K_a = 0.90$$

Section 16.6



Project ID: VT141_15890
Site Name: Swanton South SC1 VT
Date: 12/17/2025

(Based on ANSI/TIA-222-H)

Design Criteria: (From Previous Sheet)

$q_z' = 27.52$ psf
 $q_{hi}' = 3.85$ psf
 $t_i = 2.00$ in

$G_H = 1.00$ Section 16.6
 $K_a = 0.90$ Section 16.6

$z_g = 900$ Table 2-4
 $\alpha = 9.5$ Table 2-4
 $K_{zmin} = 0.85$ Table 2-4

$I = 1.00$ Table 2-3
 $K_{zt} = 1.00$ Section 2.6.6

Description	Elev. z, ft	K_z	q_z , psf	Dimensions				Flat Panel Front Coefficient				Flat Panel Side Coefficient				Front Wind		
				Height, in	Width, in	Depth, in	Wght., lbs	Area, ft ²	Aspect Ratio	Ca	$C_g A_g$	Area, ft ²	Aspect Ratio	Ca	$C_g A_g$	Force, lbs	Force, lbs	Weight, lbs
NHSS-65B-R2BT4	60.0	1.137	31.27	72.0	11.9	7.1	64.6	5.95	6.048	1.36	8.07	3.548	10.136	1.50	5.339	228.0	151.0	64.6
MT6413-77A	60.0	1.137	31.27	28.9	15.8	5.5	57.3	3.17	1.829	1.20	3.81	1.104	5.255	1.32	1.460	108.0	42.0	57.3
B2/B66A RRH (RF4801d-25A)	60.0	1.137	31.27	21.8	17.3	7.2	87.9	2.62	1.260	1.20	3.14	1.090	3.028	1.22	1.334	89.0	38.0	87.9
B5/B13 RRH (RF4461d-13A)	60.0	1.137	31.27	15.0	15.0	10.2	79.1	1.55	1.000	1.20	1.87	1.063	1.462	1.20	1.275	53.0	36.0	79.1
NGOVP3	60.0	1.137	31.27	20.4	9.7	5.4	15.9	1.37	2.117	1.20	1.64	0.770	3.762	1.26	0.968	47.0	28.0	15.9
60VP	60.0	1.137	31.27	29.5	16.5	12.6	32.0	3.38	1.788	1.20	4.06	2.581	2.341	1.20	3.098	115.0	88.0	32.0

Description	z, ft	K_z	q_z , psf	Dimensions with Ice				Flat Panel Front Coefficient				Flat Panel Side Coefficient				Front Wind		
				Ice Thick., t_{ic} , in	Height, in	Dc, in	Ice Wght., lbs	Area, ft ²	Aspect Ratio	Ca	$C_g A_g$	Area, ft ²	Aspect Ratio	Ca	$C_g A_g$	Force, lbs	Force, lbs	Weight, lbs
NHSS-65B-R2BT4	60.0	1.137	4.370	2.12	76.22	13.86	263.3	8.55	5.50	0.77	6.552	6.005	5.50	0.77	4.604	26.0	19.0	327.9
MT6413-77A	60.0	1.137	4.370	2.12	33.15	16.73	135.1	4.61	1.98	0.70	3.230	2.243	1.98	0.70	1.570	13.0	7.0	192.4
B2/B66A RRH (RF4801d-25A)	60.0	1.137	4.370	2.12	26.05	18.74	117.5	3.90	1.39	0.70	2.728	2.070	1.39	0.70	1.449	11.0	6.0	205.4
B5/B13 RRH (RF4461d-13A)	60.0	1.137	4.370	2.12	19.21	18.12	84.1	2.56	1.06	0.70	1.793	1.931	1.06	0.70	1.352	8.0	6.0	163.2
NGOVP3	60.0	1.137	4.370	2.12	24.68	11.07	70.4	2.38	2.23	0.70	1.667	1.658	2.23	0.70	1.161	7.0	5.0	86.3
60VP	60.0	1.137	4.370	2.12	33.75	20.76	166.9	4.86	1.63	0.70	3.403	3.948	1.63	0.70	2.764	14.0	11.0	198.9



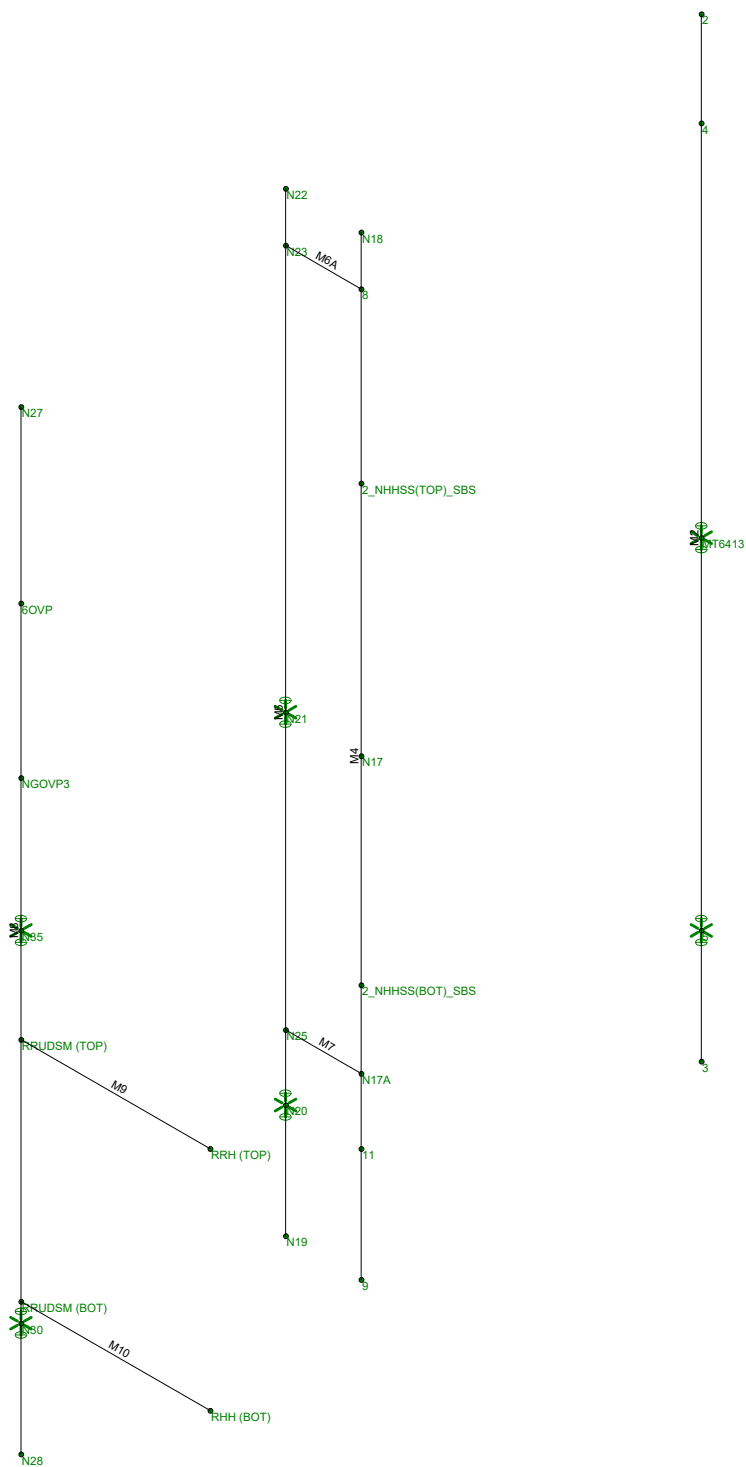
Project ID: VT141_15890
Site Name: Swanton South SC1 VT
Date: 12/17/2025

(Based on ANSI/TIA-222-H)

Design Criteria: (From Previous Sheet)

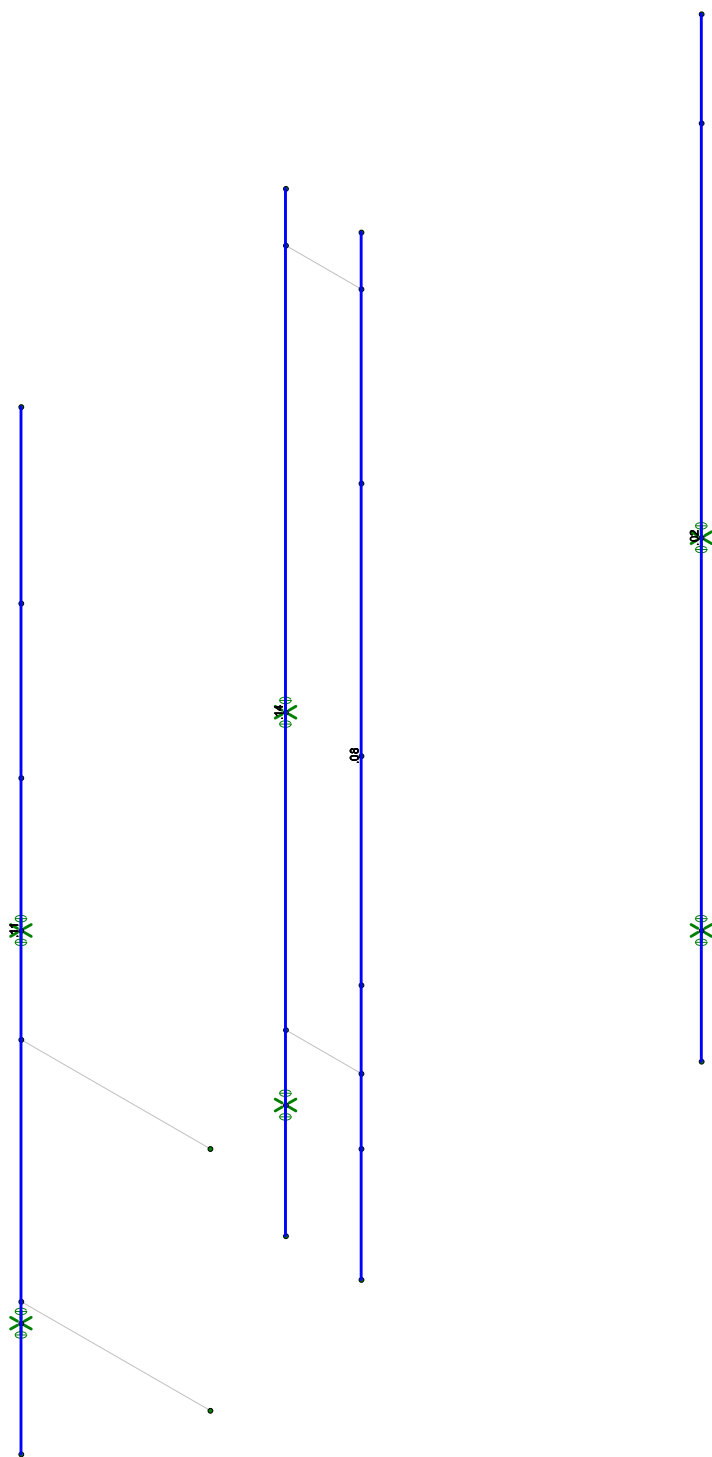
$q_z' = 27.52$ psf	$G_h = 1.00$ Section 16.6	$z_g = 900$ Table 2-4	$I = 1.00$ Table 2-3
$q_{zt}' = 3.85$ psf	$K_a = 0.90$ Section 16.6	$\alpha = 9.5$ Table 2-4	$K_{zt} = 1.00$ Section 2.6.6
$t_i = 2.00$ in			

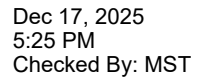
Description	Elev. z, ft	K _z	Ice Thick.,			Dimensions					Loading, No Ice			With Ice				
			q _z , psf	t _{iz} , in	q _{zi} , psf	Width or		Thickness,		Weight, lbs/ft	Flat or Round	Ca	Wind, lbs/ft	Width or		Weight, lbs/ft	Ca	Wind, lbs/ft
						Dia, in	Depth, in	-	r _s					Dia, in	Dc, in			
2.5" STD	60.0	1.137	31.27	2.12	4.37	2.875	2.875	-	-	5.79	ROUND	1.20	8.09	7.12	2.88	12.97	1.20	2.80
2.0" STD	60.0	1.137	31.27	2.12	4.37	2.375	2.375	-	-	3.65	ROUND	1.20	6.68	6.62	2.38	11.67	1.20	2.60
RRUDSM	60.0	1.137	31.27	2.12	4.37	4.000	2.250	0.188	0.11		HSS	1.37	12.83	8.25	4.59	17.41	1.20	3.24

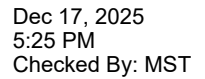




Code Check (Env)	
No Calc	> 1.0
> 1.0	.90-1.0
.90-1.0	.75-90
.75-90	.50-75
.50-75	0-.50



Page 1



Joint Deflections (Continued)

LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
43	31	N19	.003	0	0	0	2.772e-4
44	31	N20	0	0	0	0	2.801e-4
45	31	N21	0	0	0	0	3.733e-4
46	31	N22	-.042	0	0	0	3.352e-4
47	31	N23	-.04	0	0	0	3.35e-4
48	31	N25	-.002	0	0	0	2.717e-4
49	31	6OVP	-.056	0	0	0	2.253e-3
50	31	N27	-.097	0	0	0	2.263e-3
51	31	N28	-.009	0	0	0	-7.213e-4
52	31	NGOVP3	-.022	0	0	0	1.935e-3
53	31	N30	0	0	0	0	-7.185e-4
54	31	RRUDSM (TOP)	.007	0	0	0	2.371e-4
55	31	RRUDSM (BOT)	.001	0	0	0	-7.197e-4
56	31	RRH (TOP)	.007	.005	0	0	2.371e-4
57	31	RHH (BOT)	.001	-.014	0	0	-7.197e-4
58	31	N35	0	0	0	0	1.073e-3
59	32	MT6413	0	0	3.734e-5	0	1.12e-4
60	32	2	-.011	0	.004	9.278e-5	2.783e-4
61	32	3	0	0	-1.809e-5	0	-5.427e-5
62	32	4	-.009	0	.003	9.227e-5	2.768e-4
63	32	5	0	0	-1.722e-5	0	-5.167e-5
64	32	2_NHHSS(TOP)_SBS	-.026	.001	.007	1.542e-4	-7.581e-5
65	32	8	-.029	.002	.01	2.051e-4	-9.067e-5
66	32	9	.002	.001	0	1.184e-5	-3.065e-5
67	32	11	0	.001	0	1.255e-5	-3.065e-5
68	32	2_NHHSS(BOT)_SBS	-.004	.001	0	6.78e-5	-3.741e-5
69	32	N17	-.015	.001	.003	1.331e-4	-5.494e-5
70	32	N17A	-.001	.001	0	1.463e-5	-3.065e-5
71	32	N18	-.03	.002	.011	2.051e-4	-9.067e-5
72	32	N19	.002	0	0	1.093e-5	0
73	32	N20	0	0	0	1.165e-5	0
74	32	N21	0	0	0	8.e-5	0
75	32	N22	-.03	0	.01	2.051e-4	-9.067e-5
76	32	N23	-.029	0	.009	2.051e-4	-9.067e-5
77	32	N25	-.001	0	0	1.463e-5	-3.065e-5
78	32	6OVP	-.043	0	.013	5.291e-4	0
79	32	N27	-.074	0	.023	5.316e-4	0
80	32	N28	-.007	0	.001	-1.067e-4	0
81	32	NGOVP3	-.017	0	.005	4.496e-4	0
82	32	N30	0	0	0	-1.059e-4	0
83	32	RRUDSM (TOP)	.005	0	-.001	6.151e-5	-2.692e-5
84	32	RRUDSM (BOT)	.001	0	0	-1.05e-4	-8.459e-6
85	32	RRH (TOP)	.005	.003	0	6.151e-5	-2.692e-5
86	32	RHH (BOT)	.001	-.012	0	-1.05e-4	-8.459e-6
87	32	N35	0	0	0	2.342e-4	0
88	33	MT6413	0	0	0	1.12e-4	0
89	33	2	-.004	0	.011	2.783e-4	0
90	33	3	0	0	0	-5.427e-5	0
91	33	4	-.003	0	.009	2.768e-4	0
92	33	5	0	0	0	-5.167e-5	0
93	33	2_NHHSS(TOP)_SBS	-.007	0	.02	4.623e-4	-2.275e-4
94	33	8	-.007	0	.029	6.149e-4	-2.721e-4
95	33	9	0	0	0	3.549e-5	-9.19e-5
96	33	11	0	0	0	3.763e-5	-9.19e-5
97	33	2_NHHSS(BOT)_SBS	0	0	.002	2.033e-4	-1.122e-4
98	33	N17	-.004	0	.009	3.992e-4	-1.648e-4
99	33	N17A	0	0	0	4.387e-5	-9.19e-5

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
100	33	N18	-.007	0	.032	6.151e-4	-2.721e-4	-1.63e-5
101	33	N19	0	0	0	3.278e-5	0	-4.183e-6
102	33	N20	0	0	0	3.493e-5	0	-3.468e-6
103	33	N21	0	0	0	2.399e-4	0	1.185e-4
104	33	N22	-.007	0	.03	6.151e-4	-2.721e-4	-1.63e-5
105	33	N23	-.007	0	.027	6.149e-4	-2.721e-4	-1.636e-5
106	33	N25	0	0	0	4.387e-5	-9.19e-5	-2.624e-5
107	33	60VP	-.017	0	.039	1.587e-3	0	6.501e-4
108	33	N27	-.028	0	.068	1.595e-3	0	6.525e-4
109	33	N28	-.005	0	.004	-3.2e-4	0	-3.874e-4
110	33	NGOVP3	-.007	0	.015	1.349e-3	0	5.705e-4
111	33	N30	0	0	0	-3.178e-4	0	-3.867e-4
112	33	RRUDSM (TOP)	.002	0	-.004	1.845e-4	-8.075e-5	4.398e-5
113	33	RRUDSM (BOT)	0	0	0	-3.151e-4	-2.538e-5	-3.911e-4
114	33	RRH (TOP)	.002	0	-.003	1.845e-4	-8.075e-5	4.398e-5
115	33	RHH (BOT)	0	-.008	0	-3.151e-4	-2.538e-5	-3.911e-4
116	33	N35	0	0	0	7.025e-4	0	3.55e-4
117	34	MT6413	0	0	0	1.494e-4	0	0
118	34	2	0	0	.015	3.711e-4	0	0
119	34	3	0	0	0	-7.235e-5	0	0
120	34	4	0	0	.011	3.691e-4	0	0
121	34	5	0	0	0	-6.889e-5	0	0
122	34	2_NHHSS(TOP)_SBS	.002	-.001	.026	6.163e-4	-3.034e-4	-3.131e-5
123	34	8	.004	-.001	.039	8.197e-4	-3.629e-4	-1.334e-4
124	34	9	-.002	-.001	0	4.731e-5	-1.225e-4	-1.255e-4
125	34	11	0	-.001	0	5.016e-5	-1.225e-4	-1.255e-4
126	34	2_NHHSS(BOT)_SBS	.001	-.001	.003	2.71e-4	-1.496e-4	-7.265e-5
127	34	N17	.002	-.001	.012	5.322e-4	-2.198e-4	7.913e-7
128	34	N17A	0	-.001	.001	5.848e-5	-1.225e-4	-1.255e-4
129	34	N18	.004	-.001	.043	8.199e-4	-3.629e-4	-1.334e-4
130	34	N19	-.001	0	0	4.369e-5	0	-9.792e-5
131	34	N20	0	0	0	4.655e-5	0	-9.792e-5
132	34	N21	0	0	0	3.198e-4	0	3.363e-5
133	34	N22	.004	0	.04	8.199e-4	-3.629e-4	-1.334e-4
134	34	N23	.004	0	.036	8.197e-4	-3.629e-4	-1.334e-4
135	34	N25	0	0	0	5.848e-5	-1.225e-4	-1.255e-4
136	34	60VP	-.003	0	.052	2.117e-3	0	1.158e-4
137	34	N27	-.006	0	.091	2.126e-3	0	1.158e-4
138	34	N28	-.003	0	.005	-4.266e-4	0	-2.762e-4
139	34	NGOVP3	-.002	0	.02	1.798e-3	0	1.157e-4
140	34	N30	0	0	0	-4.237e-4	0	-2.762e-4
141	34	RRUDSM (TOP)	0	0	-.006	2.461e-4	-1.077e-4	-2.039e-5
142	34	RRUDSM (BOT)	0	0	0	-4.201e-4	-3.384e-5	-2.816e-4
143	34	RRH (TOP)	0	0	-.003	2.461e-4	-1.077e-4	-2.039e-5
144	34	RHH (BOT)	0	-.006	0	-4.201e-4	-3.384e-5	-2.816e-4
145	34	N35	0	0	0	9.367e-4	0	1.157e-4
146	35	MT6413	0	0	0	1.12e-4	0	-3.734e-5
147	35	2	.004	0	.011	2.783e-4	0	-9.278e-5
148	35	3	0	0	0	-5.427e-5	0	1.809e-5
149	35	4	.003	0	.009	2.768e-4	0	-9.227e-5
150	35	5	0	0	0	-5.167e-5	0	1.722e-5
151	35	2_NHHSS(TOP)_SBS	.012	-.002	.02	4.621e-4	-2.276e-4	-1.198e-4
152	35	8	.014	-.002	.029	6.146e-4	-2.722e-4	-2.503e-4
153	35	9	-.003	-.002	0	3.547e-5	-9.185e-5	-2.219e-4
154	35	11	0	-.002	0	3.761e-5	-9.185e-5	-2.226e-4
155	35	2_NHHSS(BOT)_SBS	.003	-.002	.002	2.032e-4	-1.122e-4	-2.429e-4
156	35	N17	.008	-.002	.009	3.991e-4	-1.649e-4	-1.881e-4

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
157	35	N17A	.001	-.002	0	4.385e-5	-9.185e-5	-2.247e-4
158	35	N18	.016	-.002	.032	6.148e-4	-2.722e-4	-2.504e-4
159	35	N19	-.002	0	0	3.276e-5	0	-1.916e-4
160	35	N20	0	0	0	3.49e-5	0	-1.923e-4
161	35	N21	0	0	0	2.398e-4	0	-5.125e-5
162	35	N22	.016	0	.03	6.148e-4	-2.722e-4	-2.504e-4
163	35	N23	.014	0	.027	6.146e-4	-2.722e-4	-2.503e-4
164	35	N25	.001	0	0	4.385e-5	-9.185e-5	-2.247e-4
165	35	60VP	.01	0	.039	1.587e-3	0	-4.186e-4
166	35	N27	.017	0	.068	1.595e-3	0	-4.21e-4
167	35	N28	-.002	0	.004	-3.2e-4	0	-1.649e-4
168	35	NGOVP3	.003	0	.015	1.349e-3	0	-3.39e-4
169	35	N30	0	0	0	-3.178e-4	0	-1.656e-4
170	35	RRUDSM (TOP)	0	0	-.004	1.845e-4	-8.074e-5	-8.475e-5
171	35	RRUDSM (BOT)	0	0	0	-3.151e-4	-2.538e-5	-1.721e-4
172	35	RRH (TOP)	0	-.002	-.003	1.845e-4	-8.074e-5	-8.475e-5
173	35	RHH (BOT)	0	-.003	0	-3.151e-4	-2.538e-5	-1.721e-4
174	35	N35	0	0	0	7.025e-4	0	-1.237e-4
175	36	MT6413	0	0	0	3.734e-5	0	-1.12e-4
176	36	2	.011	0	.004	9.278e-5	0	-2.783e-4
177	36	3	0	0	0	-1.809e-5	0	5.427e-5
178	36	4	.009	0	.003	9.227e-5	0	-2.768e-4
179	36	5	0	0	0	-1.722e-5	0	5.167e-5
180	36	2_NHHSS(TOP)_SBS	.031	-.004	.007	1.54e-4	-7.588e-5	-2.966e-4
181	36	8	.036	-.004	.01	2.048e-4	-9.077e-5	-4.84e-4
182	36	9	-.005	-.003	0	1.182e-5	-3.06e-5	-4.145e-4
183	36	11	0	-.003	0	1.253e-5	-3.06e-5	-4.167e-4
184	36	2_NHHSS(BOT)_SBS	.007	-.003	0	6.771e-5	-3.738e-5	-5.832e-4
185	36	N17	.02	-.004	.003	1.33e-4	-5.495e-5	-5.659e-4
186	36	N17A	.003	-.003	0	1.461e-5	-3.06e-5	-4.229e-4
187	36	N18	.039	-.004	.011	2.048e-4	-9.077e-5	-4.842e-4
188	36	N19	-.005	0	0	1.091e-5	0	-3.789e-4
189	36	N20	0	0	0	1.163e-5	0	-3.811e-4
190	36	N21	0	0	0	7.99e-5	0	-2.209e-4
191	36	N22	.039	0	.01	2.048e-4	-9.077e-5	-4.842e-4
192	36	N23	.036	0	.009	2.048e-4	-9.077e-5	-4.84e-4
193	36	N25	.003	0	0	1.461e-5	-3.06e-5	-4.229e-4
194	36	60VP	.036	0	.013	5.291e-4	0	-1.487e-3
195	36	N27	.063	0	.023	5.316e-4	0	-1.494e-3
196	36	N28	0	0	.001	-1.067e-4	0	5.762e-5
197	36	NGOVP3	.014	0	.005	4.496e-4	0	-1.248e-3
198	36	N30	0	0	0	-1.059e-4	0	5.548e-5
199	36	RRUDSM (TOP)	-.003	0	-.001	6.151e-5	-2.691e-5	-2.135e-4
200	36	RRUDSM (BOT)	0	0	0	-1.05e-4	-8.459e-6	4.685e-5
201	36	RRH (TOP)	-.003	-.004	0	6.151e-5	-2.691e-5	-2.135e-4
202	36	RHH (BOT)	0	0	0	-1.05e-4	-8.459e-6	4.685e-5
203	36	N35	0	0	0	2.342e-4	0	-6.023e-4
204	37	MT6413	0	0	0	0	0	-1.494e-4
205	37	2	.015	0	0	0	0	-3.711e-4
206	37	3	0	0	0	0	0	7.235e-5
207	37	4	.011	0	0	0	0	-3.691e-4
208	37	5	0	0	0	0	0	6.889e-5
209	37	2_NHHSS(TOP)_SBS	.04	-.005	0	0	0	-3.849e-4
210	37	8	.047	-.005	0	0	0	-6.008e-4
211	37	9	-.006	-.004	0	0	0	-5.108e-4
212	37	11	0	-.004	0	0	0	-5.137e-4
213	37	2_NHHSS(BOT)_SBS	.009	-.004	0	0	0	-7.533e-4

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
214	37	N17	.025	-.004	0	0	0	-7.548e-4
215	37	N17A	.003	-.004	0	0	0	-5.22e-4
216	37	N18	.05	-.005	0	0	0	-6.011e-4
217	37	N19	-.006	0	0	0	0	-4.725e-4
218	37	N20	0	0	0	0	0	-4.754e-4
219	37	N21	0	0	0	0	0	-3.057e-4
220	37	N22	.05	0	0	0	0	-6.011e-4
221	37	N23	.047	0	0	0	0	-6.008e-4
222	37	N25	.003	0	0	0	0	-5.22e-4
223	37	6OVP	.049	0	0	0	0	-2.021e-3
224	37	N27	.086	0	0	0	0	-2.031e-3
225	37	N28	.002	0	0	0	0	1.689e-4
226	37	NGOVP3	.019	0	0	0	0	-1.703e-3
227	37	N30	0	0	0	0	0	1.66e-4
228	37	RRUDSM (TOP)	-.005	0	0	0	0	-2.778e-4
229	37	RRUDSM (BOT)	0	0	0	0	0	1.563e-4
230	37	RRH (TOP)	-.005	-.006	0	0	0	-2.778e-4
231	37	RHH (BOT)	0	.003	0	0	0	1.563e-4
232	37	N35	0	0	0	0	0	-8.417e-4
233	38	MT6413	0	0	0	-3.734e-5	0	-1.12e-4
234	38	2	.011	0	-.004	-9.278e-5	0	-2.783e-4
235	38	3	0	0	0	1.809e-5	0	5.427e-5
236	38	4	.009	0	-.003	-9.227e-5	0	-2.768e-4
237	38	5	0	0	0	1.722e-5	0	5.167e-5
238	38	2_NHHSS(TOP)_SBS	.031	-.004	-.007	-1.54e-4	7.588e-5	-2.966e-4
239	38	8	.036	-.004	-.01	-2.048e-4	9.077e-5	-4.84e-4
240	38	9	-.005	-.003	0	-1.182e-5	3.06e-5	-4.145e-4
241	38	11	0	-.003	0	-1.253e-5	3.06e-5	-4.167e-4
242	38	2_NHHSS(BOT)_SBS	.007	-.003	0	-6.771e-5	3.738e-5	-5.832e-4
243	38	N17	.02	-.004	-.003	-1.33e-4	5.495e-5	-5.659e-4
244	38	N17A	.003	-.003	0	-1.461e-5	3.06e-5	-4.229e-4
245	38	N18	.039	-.004	-.011	-2.048e-4	9.077e-5	-4.842e-4
246	38	N19	-.005	0	0	-1.091e-5	0	-3.789e-4
247	38	N20	0	0	0	-1.163e-5	0	-3.811e-4
248	38	N21	0	0	0	-7.99e-5	0	-2.209e-4
249	38	N22	.039	0	-.01	-2.048e-4	9.077e-5	-4.842e-4
250	38	N23	.036	0	-.009	-2.048e-4	9.077e-5	-4.84e-4
251	38	N25	.003	0	0	-1.461e-5	3.06e-5	-4.229e-4
252	38	6OVP	.036	0	-.013	-5.291e-4	0	-1.487e-3
253	38	N27	.063	0	-.023	-5.316e-4	0	-1.494e-3
254	38	N28	0	0	-.001	1.067e-4	0	5.762e-5
255	38	NGOVP3	.014	0	-.005	-4.496e-4	0	-1.248e-3
256	38	N30	0	0	0	1.059e-4	0	5.548e-5
257	38	RRUDSM (TOP)	-.003	0	.001	-6.151e-5	2.691e-5	-2.135e-4
258	38	RRUDSM (BOT)	0	0	0	1.05e-4	8.459e-6	4.685e-5
259	38	RRH (TOP)	-.003	-.004	0	-6.151e-5	2.691e-5	-2.135e-4
260	38	RHH (BOT)	0	0	0	1.05e-4	8.459e-6	4.685e-5
261	38	N35	0	0	0	-2.342e-4	0	-6.023e-4
262	39	MT6413	0	0	0	-1.12e-4	0	-3.734e-5
263	39	2	.004	0	-.011	-2.783e-4	0	-9.278e-5
264	39	3	0	0	0	5.427e-5	0	1.809e-5
265	39	4	.003	0	-.009	-2.768e-4	0	-9.227e-5
266	39	5	0	0	0	5.167e-5	0	1.722e-5
267	39	2_NHHSS(TOP)_SBS	.012	-.002	-.02	-4.621e-4	2.276e-4	-1.198e-4
268	39	8	.014	-.002	-.029	-6.146e-4	2.722e-4	-2.503e-4
269	39	9	-.003	-.002	0	-3.547e-5	9.185e-5	-2.219e-4
270	39	11	0	-.002	0	-3.761e-5	9.185e-5	-2.226e-4

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
271	39	2_NHHSS(BOT)_SBS	.003	-.002	-.002	-2.032e-4	1.122e-4	-2.429e-4
272	39	N17	.008	-.002	-.009	-3.991e-4	1.649e-4	-1.881e-4
273	39	N17A	.001	-.002	0	-4.385e-5	9.185e-5	-2.247e-4
274	39	N18	.016	-.002	-.032	-6.148e-4	2.722e-4	-2.504e-4
275	39	N19	-.002	0	0	-3.276e-5	0	-1.916e-4
276	39	N20	0	0	0	-3.49e-5	0	-1.923e-4
277	39	N21	0	0	0	-2.398e-4	0	-5.125e-5
278	39	N22	.016	0	-.03	-6.148e-4	2.722e-4	-2.504e-4
279	39	N23	.014	0	-.027	-6.146e-4	2.722e-4	-2.503e-4
280	39	N25	.001	0	0	-4.385e-5	9.185e-5	-2.247e-4
281	39	6OVP	.01	0	-.039	-1.587e-3	0	-4.186e-4
282	39	N27	.017	0	-.068	-1.595e-3	0	-4.21e-4
283	39	N28	-.002	0	-.004	3.2e-4	0	-1.649e-4
284	39	NGOVP3	.003	0	-.015	-1.349e-3	0	-3.39e-4
285	39	N30	0	0	0	3.178e-4	0	-1.656e-4
286	39	RRUDSM (TOP)	0	0	.004	-1.845e-4	8.074e-5	-8.475e-5
287	39	RRUDSM (BOT)	0	0	0	3.151e-4	2.538e-5	-1.721e-4
288	39	RRH (TOP)	0	-.002	.003	-1.845e-4	8.074e-5	-8.475e-5
289	39	RHH (BOT)	0	-.003	0	3.151e-4	2.538e-5	-1.721e-4
290	39	N35	0	0	0	-7.025e-4	0	-1.237e-4
291	40	MT6413	0	0	0	-1.494e-4	0	0
292	40	2	0	0	-.015	-3.711e-4	0	0
293	40	3	0	0	0	7.235e-5	0	0
294	40	4	0	0	-.011	-3.691e-4	0	0
295	40	5	0	0	0	6.889e-5	0	0
296	40	2_NHHSS(TOP)_SBS	.002	-.001	-.026	-6.163e-4	3.034e-4	-3.131e-5
297	40	8	.004	-.001	-.039	-8.197e-4	3.629e-4	-1.334e-4
298	40	9	-.002	-.001	0	-4.731e-5	1.225e-4	-1.255e-4
299	40	11	0	-.001	0	-5.016e-5	1.225e-4	-1.255e-4
300	40	2_NHHSS(BOT)_SBS	.001	-.001	-.003	-2.71e-4	1.496e-4	-7.265e-5
301	40	N17	.002	-.001	-.012	-5.322e-4	2.198e-4	7.913e-7
302	40	N17A	0	-.001	-.001	-5.848e-5	1.225e-4	-1.255e-4
303	40	N18	.004	-.001	-.043	-8.199e-4	3.629e-4	-1.334e-4
304	40	N19	-.001	0	0	-4.369e-5	0	-9.792e-5
305	40	N20	0	0	0	-4.655e-5	0	-9.792e-5
306	40	N21	0	0	0	-3.198e-4	0	3.363e-5
307	40	N22	.004	0	-.04	-8.199e-4	3.629e-4	-1.334e-4
308	40	N23	.004	0	-.036	-8.197e-4	3.629e-4	-1.334e-4
309	40	N25	0	0	0	-5.848e-5	1.225e-4	-1.255e-4
310	40	6OVP	-.003	0	-.052	-2.117e-3	0	1.158e-4
311	40	N27	-.006	0	-.091	-2.126e-3	0	1.158e-4
312	40	N28	-.003	0	-.005	4.266e-4	0	-2.762e-4
313	40	NGOVP3	-.002	0	-.02	-1.798e-3	0	1.157e-4
314	40	N30	0	0	0	4.237e-4	0	-2.762e-4
315	40	RRUDSM (TOP)	0	0	.006	-2.461e-4	1.077e-4	-2.039e-5
316	40	RRUDSM (BOT)	0	0	0	4.201e-4	3.384e-5	-2.816e-4
317	40	RRH (TOP)	0	0	.003	-2.461e-4	1.077e-4	-2.039e-5
318	40	RHH (BOT)	0	-.006	0	4.201e-4	3.384e-5	-2.816e-4
319	40	N35	0	0	0	-9.367e-4	0	1.157e-4
320	41	MT6413	0	0	0	-1.12e-4	0	3.734e-5
321	41	2	-.004	0	-.011	-2.783e-4	0	9.278e-5
322	41	3	0	0	0	5.427e-5	0	-1.809e-5
323	41	4	-.003	0	-.009	-2.768e-4	0	9.227e-5
324	41	5	0	0	0	5.167e-5	0	-1.722e-5
325	41	2_NHHSS(TOP)_SBS	-.007	0	-.02	-4.623e-4	2.275e-4	5.726e-5
326	41	8	-.007	0	-.029	-6.149e-4	2.721e-4	-1.636e-5
327	41	9	0	0	0	-3.549e-5	9.19e-5	-2.903e-5

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
328	41	11	0	0	0	-3.763e-5	9.19e-5	-2.832e-5
329	41	2 NHHSS(BOT) SBS	0	0	-.002	-2.033e-4	1.122e-4	9.759e-5
330	41	N17	-.004	0	-.009	-3.992e-4	1.648e-4	1.898e-4
331	41	N17A	0	0	0	-4.387e-5	9.19e-5	-2.624e-5
332	41	N18	-.007	0	-.032	-6.151e-4	2.721e-4	-1.63e-5
333	41	N19	0	0	0	-3.278e-5	0	-4.183e-6
334	41	N20	0	0	0	-3.493e-5	0	-3.468e-6
335	41	N21	0	0	0	-2.399e-4	0	1.185e-4
336	41	N22	-.007	0	-.03	-6.151e-4	2.721e-4	-1.63e-5
337	41	N23	-.007	0	-.027	-6.149e-4	2.721e-4	-1.636e-5
338	41	N25	0	0	0	-4.387e-5	9.19e-5	-2.624e-5
339	41	6OVP	-.017	0	-.039	-1.587e-3	0	6.501e-4
340	41	N27	-.028	0	-.068	-1.595e-3	0	6.525e-4
341	41	N28	-.005	0	-.004	3.2e-4	0	-3.874e-4
342	41	NGOVP3	-.007	0	-.015	-1.349e-3	0	5.705e-4
343	41	N30	0	0	0	3.178e-4	0	-3.867e-4
344	41	RRUDSM (TOP)	.002	0	.004	-1.845e-4	8.075e-5	4.398e-5
345	41	RRUDSM (BOT)	0	0	0	3.151e-4	2.538e-5	-3.911e-4
346	41	RRH (TOP)	.002	0	.003	-1.845e-4	8.075e-5	4.398e-5
347	41	RHH (BOT)	0	-.008	0	3.151e-4	2.538e-5	-3.911e-4
348	41	N35	0	0	0	-7.025e-4	0	3.55e-4
349	42	MT6413	0	0	0	-3.734e-5	0	1.12e-4
350	42	2	-.011	0	-.004	-9.278e-5	0	2.783e-4
351	42	3	0	0	0	1.809e-5	0	-5.427e-5
352	42	4	-.009	0	-.003	-9.227e-5	0	2.768e-4
353	42	5	0	0	0	1.722e-5	0	-5.167e-5
354	42	2_NHHSS(TOP)_SBS	-.026	.001	-.007	-1.542e-4	7.581e-5	2.346e-4
355	42	8	-.029	.002	-.01	-2.051e-4	9.067e-5	2.178e-4
356	42	9	.002	.001	0	-1.184e-5	3.065e-5	1.64e-4
357	42	11	0	.001	0	-1.255e-5	3.065e-5	1.661e-4
358	42	2_NHHSS(BOT)_SBS	-.004	.001	0	-6.78e-5	3.741e-5	4.382e-4
359	42	N17	-.015	.001	-.003	-1.331e-4	5.494e-5	5.678e-4
360	42	N17A	-.001	.001	0	-1.463e-5	3.065e-5	1.723e-4
361	42	N18	-.03	.002	-.011	-2.051e-4	9.067e-5	2.18e-4
362	42	N19	.002	0	0	-1.093e-5	0	1.834e-4
363	42	N20	0	0	0	-1.165e-5	0	1.855e-4
364	42	N21	0	0	0	-8.e-5	0	2.884e-4
365	42	N22	-.03	0	-.01	-2.051e-4	9.067e-5	2.18e-4
366	42	N23	-.029	0	-.009	-2.051e-4	9.067e-5	2.178e-4
367	42	N25	-.001	0	0	-1.463e-5	3.065e-5	1.723e-4
368	42	6OVP	-.043	0	-.013	-5.291e-4	0	1.719e-3
369	42	N27	-.074	0	-.023	-5.316e-4	0	1.726e-3
370	42	N28	-.007	0	-.001	1.067e-4	0	-6.1e-4
371	42	NGOVP3	-.017	0	-.005	-4.496e-4	0	1.48e-3
372	42	N30	0	0	0	1.059e-4	0	-6.079e-4
373	42	RRUDSM (TOP)	.005	0	.001	-6.151e-5	2.692e-5	1.727e-4
374	42	RRUDSM (BOT)	.001	0	0	1.05e-4	8.459e-6	-6.101e-4
375	42	RRH (TOP)	.005	.003	0	-6.151e-5	2.692e-5	1.727e-4
376	42	RHH (BOT)	.001	-.012	0	1.05e-4	8.459e-6	-6.101e-4
377	42	N35	0	0	0	-2.342e-4	0	8.337e-4
378	44	MT6413	0	0	0	0	0	6.035e-5
379	44	2	-.006	0	0	0	0	1.5e-4
380	44	3	0	0	0	0	0	-2.923e-5
381	44	4	-.005	0	0	0	0	1.491e-4
382	44	5	0	0	0	0	0	-2.784e-5
383	44	2_NHHSS(TOP)_SBS	0	-.003	0	0	0	-4.046e-5
384	44	8	.004	-.003	0	0	0	-3.804e-4

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
385	44	9	-.005	-.003	0	0	0	-3.708e-4
386	44	11	0	-.003	0	0	0	-3.696e-4
387	44	2 NHHSS(BOT) SBS	.004	-.003	0	0	0	-1.309e-4
388	44	N17	.003	-.003	0	0	0	1.402e-4
389	44	N17A	.002	-.003	0	0	0	-3.658e-4
390	44	N18	.006	-.003	0	0	0	-3.803e-4
391	44	N19	-.003	0	0	0	0	-2.765e-4
392	44	N20	0	0	0	0	0	-2.752e-4
393	44	N21	0	0	0	0	0	1.816e-4
394	44	N22	.006	0	0	0	0	-3.803e-4
395	44	N23	.004	0	0	0	0	-3.804e-4
396	44	N25	.002	0	0	0	0	-3.658e-4
397	44	6OVP	-.016	0	0	0	0	6.147e-4
398	44	N27	-.027	0	0	0	0	6.191e-4
399	44	N28	-.007	0	0	0	0	-5.871e-4
400	44	NGOVP3	-.007	0	0	0	0	5.518e-4
401	44	N30	0	0	0	0	0	-5.858e-4
402	44	RRUDSM (TOP)	.003	0	0	0	0	9.3e-6
403	44	RRUDSM (BOT)	.001	0	0	0	0	-5.947e-4
404	44	RRH (TOP)	.003	0	0	0	0	9.3e-6
405	44	RHH (BOT)	.001	-.012	0	0	0	-5.947e-4
406	44	N35	0	0	0	0	0	3.89e-4
407	45	MT6413	0	0	0	1.509e-5	0	4.526e-5
408	45	2	-.005	0	.002	3.749e-5	0	1.125e-4
409	45	3	0	0	0	-7.308e-6	0	-2.193e-5
410	45	4	-.003	0	.001	3.729e-5	0	1.119e-4
411	45	5	0	0	0	-6.959e-6	0	-2.088e-5
412	45	2_NHHSS(TOP)_SBS	.002	-.003	.002	4.383e-5	-1.682e-5	-5.783e-5
413	45	8	.006	-.003	.003	5.759e-5	-2.004e-5	-4.016e-4
414	45	9	-.005	-.003	0	9.512e-7	-7.029e-6	-3.872e-4
415	45	11	0	-.003	0	1.276e-6	-7.029e-6	-3.862e-4
416	45	2_NHHSS(BOT)_SBS	.004	-.003	0	1.641e-5	-8.495e-6	-1.613e-4
417	45	N17	.004	-.003	0	3.534e-5	-1.23e-5	1.057e-4
418	45	N17A	.002	-.003	0	2.22e-6	-7.029e-6	-3.834e-4
419	45	N18	.008	-.003	.003	5.762e-5	-2.004e-5	-4.015e-4
420	45	N19	-.004	0	0	8.09e-7	0	-2.925e-4
421	45	N20	0	0	0	1.134e-6	0	-2.915e-4
422	45	N21	0	0	0	2.269e-5	0	1.653e-4
423	45	N22	.008	0	.003	5.762e-5	-2.004e-5	-4.015e-4
424	45	N23	.006	0	.002	5.759e-5	-2.004e-5	-4.016e-4
425	45	N25	.002	0	0	2.22e-6	-7.029e-6	-3.834e-4
426	45	6OVP	-.014	0	.002	9.881e-5	0	5.141e-4
427	45	N27	-.023	0	.004	9.991e-5	0	5.174e-4
428	45	N28	-.007	0	0	-1.899e-5	0	-5.666e-4
429	45	NGOVP3	-.006	0	0	8.312e-5	0	4.669e-4
430	45	N30	0	0	0	-1.867e-5	0	-5.656e-4
431	45	RRUDSM (TOP)	.002	0	0	1.064e-5	-5.658e-6	-2.313e-6
432	45	RRUDSM (BOT)	.001	0	0	-1.844e-5	-1.778e-6	-5.747e-4
433	45	RRH (TOP)	.002	0	0	1.064e-5	-5.658e-6	-2.313e-6
434	45	RHH (BOT)	.001	-.012	0	-1.844e-5	-1.778e-6	-5.747e-4
435	45	N35	0	0	0	4.254e-5	0	3.447e-4
436	46	MT6413	0	0	0	4.526e-5	0	1.509e-5
437	46	2	-.002	0	.005	1.125e-4	0	3.749e-5
438	46	3	0	0	0	-2.193e-5	0	-7.308e-6
439	46	4	-.001	0	.003	1.119e-4	0	3.729e-5
440	46	5	0	0	0	-2.088e-5	0	-6.959e-6
441	46	2_NHHSS(TOP)_SBS	.006	-.004	.005	1.315e-4	-5.047e-5	-9.256e-5

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
442	46	8	.01	-.004	.008	1.728e-4	-6.014e-5	-4.441e-4
443	46	9	-.006	-.003	0	2.852e-6	-2.109e-5	-4.198e-4
444	46	11	0	-.003	0	3.826e-6	-2.109e-5	-4.195e-4
445	46	2_NHHSS(BOT)_SBS	.005	-.004	0	4.922e-5	-2.548e-5	-2.223e-4
446	46	N17	.006	-.004	.002	1.06e-4	-3.689e-5	3.668e-5
447	46	N17A	.002	-.003	0	6.657e-6	-2.109e-5	-4.185e-4
448	46	N18	.013	-.004	.009	1.728e-4	-6.014e-5	-4.44e-4
449	46	N19	-.004	0	0	2.426e-6	0	-3.244e-4
450	46	N20	0	0	0	3.4e-6	0	-3.241e-4
451	46	N21	0	0	0	6.806e-5	0	1.327e-4
452	46	N22	.013	0	.008	1.728e-4	-6.014e-5	-4.44e-4
453	46	N23	.01	0	.007	1.728e-4	-6.014e-5	-4.441e-4
454	46	N25	.002	0	0	6.657e-6	-2.109e-5	-4.185e-4
455	46	60VP	-.009	0	.007	2.964e-4	0	3.129e-4
456	46	N27	-.014	0	.013	2.997e-4	0	3.14e-4
457	46	N28	-.006	0	0	-5.697e-5	0	-5.254e-4
458	46	NGOVP3	-.004	0	.003	2.494e-4	0	2.971e-4
459	46	N30	0	0	0	-5.6e-5	0	-5.251e-4
460	46	RRUDSM (TOP)	.002	0	0	3.193e-5	-1.697e-5	-2.554e-5
461	46	RRUDSM (BOT)	.001	0	0	-5.533e-5	-5.335e-6	-5.348e-4
462	46	RRH (TOP)	.002	0	0	3.193e-5	-1.697e-5	-2.554e-5
463	46	RRH (BOT)	.001	-.011	0	-5.533e-5	-5.335e-6	-5.348e-4
464	46	N35	0	0	0	1.276e-4	0	2.561e-4
465	47	MT6413	0	0	0	6.035e-5	0	0
466	47	2	0	0	.006	1.5e-4	0	0
467	47	3	0	0	0	-2.923e-5	0	0
468	47	4	0	0	.005	1.491e-4	0	0
469	47	5	0	0	0	-2.784e-5	0	0
470	47	2_NHHSS(TOP)_SBS	.008	-.004	.007	1.753e-4	-6.73e-5	-1.099e-4
471	47	8	.012	-.004	.01	2.303e-4	-8.019e-5	-4.653e-4
472	47	9	-.006	-.004	0	3.802e-6	-2.811e-5	-4.361e-4
473	47	11	0	-.004	0	5.101e-6	-2.811e-5	-4.361e-4
474	47	2_NHHSS(BOT)_SBS	.005	-.004	0	6.563e-5	-3.398e-5	-2.528e-4
475	47	N17	.007	-.004	.003	1.413e-4	-4.919e-5	2.179e-6
476	47	N17A	.002	-.004	0	8.875e-6	-2.811e-5	-4.361e-4
477	47	N18	.015	-.004	.012	2.304e-4	-8.019e-5	-4.653e-4
478	47	N19	-.004	0	0	3.233e-6	0	-3.403e-4
479	47	N20	0	0	0	4.532e-6	0	-3.403e-4
480	47	N21	0	0	0	9.075e-5	0	1.164e-4
481	47	N22	.015	0	.011	2.304e-4	-8.019e-5	-4.653e-4
482	47	N23	.012	0	.01	2.303e-4	-8.019e-5	-4.653e-4
483	47	N25	.002	0	0	8.875e-6	-2.811e-5	-4.361e-4
484	47	60VP	-.006	0	.01	3.952e-4	0	2.124e-4
485	47	N27	-.01	0	.017	3.996e-4	0	2.124e-4
486	47	N28	-.006	0	0	-7.596e-5	0	-5.049e-4
487	47	NGOVP3	-.003	0	.004	3.325e-4	0	2.122e-4
488	47	N30	0	0	0	-7.466e-5	0	-5.049e-4
489	47	RRUDSM (TOP)	.001	0	0	4.257e-5	-2.263e-5	-3.715e-5
490	47	RRUDSM (BOT)	0	0	0	-7.377e-5	-7.113e-6	-5.148e-4
491	47	RRH (TOP)	.001	0	0	4.257e-5	-2.263e-5	-3.715e-5
492	47	RRH (BOT)	0	-.01	0	-7.377e-5	-7.113e-6	-5.148e-4
493	47	N35	0	0	0	1.702e-4	0	2.118e-4
494	48	MT6413	0	0	0	4.526e-5	0	-1.509e-5
495	48	2	.002	0	.005	1.125e-4	0	-3.749e-5
496	48	3	0	0	0	-2.193e-5	0	7.308e-6
497	48	4	.001	0	.003	1.119e-4	0	-3.729e-5
498	48	5	0	0	0	-2.088e-5	0	6.959e-6

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
499	48	2_NHHSS(TOP)_SBS	.009	-.004	.005	1.315e-4	-5.048e-5	-1.273e-4
500	48	8	.014	-.004	.008	1.727e-4	-6.015e-5	-4.865e-4
501	48	9	-.006	-.004	0	2.851e-6	-2.108e-5	-4.524e-4
502	48	11	0	-.004	0	3.825e-6	-2.108e-5	-4.527e-4
503	48	2_NHHSS(BOT)_SBS	.006	-.004	0	4.922e-5	-2.548e-5	-2.832e-4
504	48	N17	.008	-.004	.002	1.06e-4	-3.689e-5	-3.232e-5
505	48	N17A	.003	-.004	0	6.656e-6	-2.108e-5	-4.537e-4
506	48	N18	.017	-.004	.009	1.728e-4	-6.015e-5	-4.865e-4
507	48	N19	-.004	0	0	2.424e-6	0	-3.563e-4
508	48	N20	0	0	0	3.398e-6	0	-3.566e-4
509	48	N21	0	0	0	6.806e-5	0	1.002e-4
510	48	N22	.017	0	.008	1.728e-4	-6.015e-5	-4.865e-4
511	48	N23	.014	0	.007	1.727e-4	-6.015e-5	-4.865e-4
512	48	N25	.003	0	0	6.656e-6	-2.108e-5	-4.537e-4
513	48	6OVP	-.004	0	.007	2.964e-4	0	1.118e-4
514	48	N27	-.006	0	.013	2.997e-4	0	1.107e-4
515	48	N28	-.006	0	0	-5.697e-5	0	-4.843e-4
516	48	NGOVP3	-.002	0	.003	2.494e-4	0	1.273e-4
517	48	N30	0	0	0	-5.6e-5	0	-4.846e-4
518	48	RRUDSM (TOP)	.001	0	0	3.193e-5	-1.697e-5	-4.876e-5
519	48	RRUDSM (BOT)	0	0	0	-5.533e-5	-5.335e-6	-4.948e-4
520	48	RRH (TOP)	.001	-.001	0	3.193e-5	-1.697e-5	-4.876e-5
521	48	RHH (BOT)	0	-.01	0	-5.533e-5	-5.335e-6	-4.948e-4
522	48	N35	0	0	0	1.276e-4	0	1.675e-4
523	49	MT6413	0	0	0	1.509e-5	0	-4.526e-5
524	49	2	.005	0	.002	3.749e-5	0	-1.125e-4
525	49	3	0	0	0	-7.308e-6	0	2.193e-5
526	49	4	.003	0	.001	3.729e-5	0	-1.119e-4
527	49	5	0	0	0	-6.959e-6	0	2.088e-5
528	49	2_NHHSS(TOP)_SBS	.013	-.004	.002	4.382e-5	-1.683e-5	-1.62e-4
529	49	8	.018	-.004	.003	5.757e-5	-2.005e-5	-5.289e-4
530	49	9	-.006	-.004	0	9.498e-7	-7.027e-6	-4.85e-4
531	49	11	0	-.004	0	1.274e-6	-7.027e-6	-4.86e-4
532	49	2_NHHSS(BOT)_SBS	.006	-.004	0	1.64e-5	-8.494e-6	-3.442e-4
533	49	N17	.01	-.004	0	3.533e-5	-1.23e-5	-1.013e-4
534	49	N17A	.003	-.004	0	2.218e-6	-7.027e-6	-4.888e-4
535	49	N18	.021	-.004	.003	5.76e-5	-2.005e-5	-5.29e-4
536	49	N19	-.005	0	0	8.076e-7	0	-3.882e-4
537	49	N20	0	0	0	1.132e-6	0	-3.891e-4
538	49	N21	0	0	0	2.268e-5	0	6.756e-5
539	49	N22	.021	0	.003	5.76e-5	-2.005e-5	-5.29e-4
540	49	N23	.018	0	.002	5.757e-5	-2.005e-5	-5.289e-4
541	49	N25	.003	0	0	2.218e-6	-7.027e-6	-4.888e-4
542	49	6OVP	.001	0	.002	9.881e-5	0	-8.936e-5
543	49	N27	.003	0	.004	9.991e-5	0	-9.266e-5
544	49	N28	-.005	0	0	-1.899e-5	0	-4.432e-4
545	49	NGOVP3	0	0	0	8.312e-5	0	-4.248e-5
546	49	N30	0	0	0	-1.867e-5	0	-4.442e-4
547	49	RRUDSM (TOP)	0	0	0	1.064e-5	-5.658e-6	-7.198e-5
548	49	RRUDSM (BOT)	0	0	0	-1.844e-5	-1.778e-6	-4.549e-4
549	49	RRH (TOP)	0	-.001	0	1.064e-5	-5.658e-6	-7.198e-5
550	49	RHH (BOT)	0	-.009	0	-1.844e-5	-1.778e-6	-4.549e-4
551	49	N35	0	0	0	4.254e-5	0	7.885e-5
552	50	MT6413	0	0	0	0	0	-6.035e-5
553	50	2	.006	0	0	0	0	-1.5e-4
554	50	3	0	0	0	0	0	2.923e-5
555	50	4	.005	0	0	0	0	-1.491e-4

Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
556	50	5	0	0	0	0	0	2.784e-5
557	50	2 NHHSS(TOP) SBS	.015	-.005	0	0	0	-1.794e-4
558	50	8	.02	-.005	0	0	0	-5.502e-4
559	50	9	-.007	-.004	0	0	0	-5.013e-4
560	50	11	0	-.004	0	0	0	-5.026e-4
561	50	2 NHHSS(BOT) SBS	.007	-.004	0	0	0	-3.746e-4
562	50	N17	.011	-.004	0	0	0	-1.358e-4
563	50	N17A	.003	-.004	0	0	0	-5.064e-4
564	50	N18	.023	-.005	0	0	0	-5.503e-4
565	50	N19	-.005	0	0	0	0	-4.041e-4
566	50	N20	0	0	0	0	0	-4.054e-4
567	50	N21	0	0	0	0	0	5.127e-5
568	50	N22	.023	0	0	0	0	-5.503e-4
569	50	N23	.02	0	0	0	0	-5.502e-4
570	50	N25	.003	0	0	0	0	-5.064e-4
571	50	6OVP	.004	0	0	0	0	-1.899e-4
572	50	N27	.007	0	0	0	0	-1.943e-4
573	50	N28	-.005	0	0	0	0	-4.226e-4
574	50	NGOVP3	0	0	0	0	0	-1.274e-4
575	50	N30	0	0	0	0	0	-4.239e-4
576	50	RRUDSM (TOP)	0	0	0	0	0	-8.36e-5
577	50	RRUDSM (BOT)	0	0	0	0	0	-4.349e-4
578	50	RRH (TOP)	0	-.002	0	0	0	-8.36e-5
579	50	RHH (BOT)	0	-.009	0	0	0	-4.349e-4
580	50	N35	0	0	0	0	0	3.454e-5
581	51	MT6413	0	0	0	-1.509e-5	0	-4.526e-5
582	51	2	.005	0	-.002	-3.749e-5	0	-1.125e-4
583	51	3	0	0	0	7.308e-6	0	2.193e-5
584	51	4	.003	0	-.001	-3.729e-5	0	-1.119e-4
585	51	5	0	0	0	6.959e-6	0	2.088e-5
586	51	2_NHHSS(TOP)_SBS	.013	-.004	-.002	-4.382e-5	1.683e-5	-1.62e-4
587	51	8	.018	-.004	-.003	-5.757e-5	2.005e-5	-5.289e-4
588	51	9	-.006	-.004	0	-9.498e-7	7.027e-6	-4.85e-4
589	51	11	0	-.004	0	-1.274e-6	7.027e-6	-4.86e-4
590	51	2_NHHSS(BOT)_SBS	.006	-.004	0	-1.64e-5	8.494e-6	-3.442e-4
591	51	N17	.01	-.004	0	-3.533e-5	1.23e-5	-1.013e-4
592	51	N17A	.003	-.004	0	-2.218e-6	7.027e-6	-4.888e-4
593	51	N18	.021	-.004	-.003	-5.76e-5	2.005e-5	-5.29e-4
594	51	N19	-.005	0	0	-8.076e-7	0	-3.882e-4
595	51	N20	0	0	0	-1.132e-6	0	-3.891e-4
596	51	N21	0	0	0	-2.268e-5	0	6.756e-5
597	51	N22	.021	0	-.003	-5.76e-5	2.005e-5	-5.29e-4
598	51	N23	.018	0	-.002	-5.757e-5	2.005e-5	-5.289e-4
599	51	N25	.003	0	0	-2.218e-6	7.027e-6	-4.888e-4
600	51	6OVP	.001	0	-.002	-9.881e-5	0	-8.936e-5
601	51	N27	.003	0	-.004	-9.991e-5	0	-9.266e-5
602	51	N28	-.005	0	0	1.899e-5	0	-4.432e-4
603	51	NGOVP3	0	0	0	-8.312e-5	0	-4.248e-5
604	51	N30	0	0	0	1.867e-5	0	-4.442e-4
605	51	RRUDSM (TOP)	0	0	0	-1.064e-5	5.658e-6	-7.198e-5
606	51	RRUDSM (BOT)	0	0	0	1.844e-5	1.778e-6	-4.549e-4
607	51	RRH (TOP)	0	-.001	0	-1.064e-5	5.658e-6	-7.198e-5
608	51	RHH (BOT)	0	-.009	0	1.844e-5	1.778e-6	-4.549e-4
609	51	N35	0	0	0	-4.254e-5	0	7.885e-5
610	52	MT6413	0	0	0	-4.526e-5	0	-1.509e-5
611	52	2	.002	0	-.005	-1.125e-4	0	-3.749e-5
612	52	3	0	0	0	2.193e-5	0	7.308e-6

Joint Deflections (Continued)

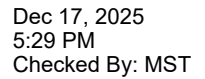
	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
613	52	4	.001	0	-.003	-1.119e-4	0	-3.729e-5
614	52	5	0	0	0	2.088e-5	0	6.959e-6
615	52	2 NHHSS(TOP) SBS	.009	-.004	-.005	-1.315e-4	5.048e-5	-1.273e-4
616	52	8	.014	-.004	-.008	-1.727e-4	6.015e-5	-4.865e-4
617	52	9	-.006	-.004	0	-2.851e-6	2.108e-5	-4.524e-4
618	52	11	0	-.004	0	-3.825e-6	2.108e-5	-4.527e-4
619	52	2 NHHSS(BOT) SBS	.006	-.004	0	-4.922e-5	2.548e-5	-2.832e-4
620	52	N17	.008	-.004	-.002	-1.06e-4	3.689e-5	-3.232e-5
621	52	N17A	.003	-.004	0	-6.656e-6	2.108e-5	-4.537e-4
622	52	N18	.017	-.004	-.009	-1.728e-4	6.015e-5	-4.865e-4
623	52	N19	-.004	0	0	-2.424e-6	0	-3.563e-4
624	52	N20	0	0	0	-3.398e-6	0	-3.566e-4
625	52	N21	0	0	0	-6.806e-5	0	1.002e-4
626	52	N22	.017	0	-.008	-1.728e-4	6.015e-5	-4.865e-4
627	52	N23	.014	0	-.007	-1.727e-4	6.015e-5	-4.865e-4
628	52	N25	.003	0	0	-6.656e-6	2.108e-5	-4.537e-4
629	52	6OVP	-.004	0	-.007	-2.964e-4	0	1.118e-4
630	52	N27	-.006	0	-.013	-2.997e-4	0	1.107e-4
631	52	N28	-.006	0	0	5.697e-5	0	-4.843e-4
632	52	NGOVP3	-.002	0	-.003	-2.494e-4	0	1.273e-4
633	52	N30	0	0	0	5.6e-5	0	-4.846e-4
634	52	RRUDSM (TOP)	.001	0	0	-3.193e-5	1.697e-5	-4.876e-5
635	52	RRUDSM (BOT)	0	0	0	5.533e-5	5.335e-6	-4.948e-4
636	52	RRH (TOP)	.001	-.001	0	-3.193e-5	1.697e-5	-4.876e-5
637	52	RHH (BOT)	0	-.01	0	5.533e-5	5.335e-6	-4.948e-4
638	52	N35	0	0	0	-1.276e-4	0	1.675e-4
639	53	MT6413	0	0	0	-6.035e-5	0	0
640	53	2	0	0	-.006	-1.5e-4	0	0
641	53	3	0	0	0	2.923e-5	0	0
642	53	4	0	0	-.005	-1.491e-4	0	0
643	53	5	0	0	0	2.784e-5	0	0
644	53	2_NHHSS(TOP)_SBS	.008	-.004	-.007	-1.753e-4	6.73e-5	-1.099e-4
645	53	8	.012	-.004	-.01	-2.303e-4	8.019e-5	-4.653e-4
646	53	9	-.006	-.004	0	-3.802e-6	2.811e-5	-4.361e-4
647	53	11	0	-.004	0	-5.101e-6	2.811e-5	-4.361e-4
648	53	2_NHHSS(BOT)_SBS	.005	-.004	0	-6.563e-5	3.398e-5	-2.528e-4
649	53	N17	.007	-.004	-.003	-1.413e-4	4.919e-5	2.179e-6
650	53	N17A	.002	-.004	0	-8.875e-6	2.811e-5	-4.361e-4
651	53	N18	.015	-.004	-.012	-2.304e-4	8.019e-5	-4.653e-4
652	53	N19	-.004	0	0	-3.233e-6	0	-3.403e-4
653	53	N20	0	0	0	-4.532e-6	0	-3.403e-4
654	53	N21	0	0	0	-9.075e-5	0	1.164e-4
655	53	N22	.015	0	-.011	-2.304e-4	8.019e-5	-4.653e-4
656	53	N23	.012	0	-.01	-2.303e-4	8.019e-5	-4.653e-4
657	53	N25	.002	0	0	-8.875e-6	2.811e-5	-4.361e-4
658	53	6OVP	-.006	0	-.01	-3.952e-4	0	2.124e-4
659	53	N27	-.01	0	-.017	-3.996e-4	0	2.124e-4
660	53	N28	-.006	0	0	7.596e-5	0	-5.049e-4
661	53	NGOVP3	-.003	0	-.004	-3.325e-4	0	2.122e-4
662	53	N30	0	0	0	7.466e-5	0	-5.049e-4
663	53	RRUDSM (TOP)	.001	0	0	-4.257e-5	2.263e-5	-3.715e-5
664	53	RRUDSM (BOT)	0	0	0	7.377e-5	7.113e-6	-5.148e-4
665	53	RRH (TOP)	.001	0	0	-4.257e-5	2.263e-5	-3.715e-5
666	53	RHH (BOT)	0	-.01	0	7.377e-5	7.113e-6	-5.148e-4
667	53	N35	0	0	0	-1.702e-4	0	2.118e-4
668	54	MT6413	0	0	0	-4.526e-5	0	1.509e-5
669	54	2	-.002	0	-.005	-1.125e-4	0	3.749e-5

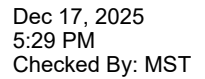
Joint Deflections (Continued)

	LC	Joint Label	X [in]	Y [in]	Z [in]	X Rotation [rad]	Y Rotation [rad]	Z Rotation [rad]
670	54	3	0	0	0	2.193e-5	0	-7.308e-6
671	54	4	-0.001	0	-0.003	-1.119e-4	0	3.729e-5
672	54	5	0	0	0	2.088e-5	0	-6.959e-6
673	54	2 NHHSS(TOP) SBS	.006	-.004	-.005	-1.315e-4	5.047e-5	-9.256e-5
674	54	8	.01	-.004	-.008	-1.728e-4	6.014e-5	-4.441e-4
675	54	9	-.006	-.003	0	-2.852e-6	2.109e-5	-4.198e-4
676	54	11	0	-.003	0	-3.826e-6	2.109e-5	-4.195e-4
677	54	2 NHHSS(BOT) SBS	.005	-.004	0	-4.922e-5	2.548e-5	-2.223e-4
678	54	N17	.006	-.004	-.002	-1.06e-4	3.689e-5	3.668e-5
679	54	N17A	.002	-.003	0	-6.657e-6	2.109e-5	-4.185e-4
680	54	N18	.013	-.004	-.009	-1.728e-4	6.014e-5	-4.44e-4
681	54	N19	-.004	0	0	-2.426e-6	0	-3.244e-4
682	54	N20	0	0	0	-3.4e-6	0	-3.241e-4
683	54	N21	0	0	0	-6.806e-5	0	1.327e-4
684	54	N22	.013	0	-.008	-1.728e-4	6.014e-5	-4.44e-4
685	54	N23	.01	0	-.007	-1.728e-4	6.014e-5	-4.441e-4
686	54	N25	.002	0	0	-6.657e-6	2.109e-5	-4.185e-4
687	54	60VP	-.009	0	-.007	-2.964e-4	0	3.129e-4
688	54	N27	-.014	0	-.013	-2.997e-4	0	3.14e-4
689	54	N28	-.006	0	0	5.697e-5	0	-5.254e-4
690	54	NGOVP3	-.004	0	-.003	-2.494e-4	0	2.971e-4
691	54	N30	0	0	0	5.6e-5	0	-5.251e-4
692	54	RRUDSM (TOP)	.002	0	0	-3.193e-5	1.697e-5	-2.554e-5
693	54	RRUDSM (BOT)	.001	0	0	5.533e-5	5.335e-6	-5.348e-4
694	54	RRH (TOP)	.002	0	0	-3.193e-5	1.697e-5	-2.554e-5
695	54	RHH (BOT)	.001	-.011	0	5.533e-5	5.335e-6	-5.348e-4
696	54	N35	0	0	0	-1.276e-4	0	2.561e-4
697	55	MT6413	0	0	0	-1.509e-5	0	4.526e-5
698	55	2	-.005	0	-.002	-3.749e-5	0	1.125e-4
699	55	3	0	0	0	7.308e-6	0	-2.193e-5
700	55	4	-.003	0	-.001	-3.729e-5	0	1.119e-4
701	55	5	0	0	0	6.959e-6	0	-2.088e-5
702	55	2_NHHSS(TOP)_SBS	.002	-.003	-.002	-4.383e-5	1.682e-5	-5.783e-5
703	55	8	.006	-.003	-.003	-5.759e-5	2.004e-5	-4.016e-4
704	55	9	-.005	-.003	0	-9.512e-7	7.029e-6	-3.872e-4
705	55	11	0	-.003	0	-1.276e-6	7.029e-6	-3.862e-4
706	55	2_NHHSS(BOT)_SBS	.004	-.003	0	-1.641e-5	8.495e-6	-1.613e-4
707	55	N17	.004	-.003	0	-3.534e-5	1.23e-5	1.057e-4
708	55	N17A	.002	-.003	0	-2.22e-6	7.029e-6	-3.834e-4
709	55	N18	.008	-.003	-.003	-5.762e-5	2.004e-5	-4.015e-4
710	55	N19	-.004	0	0	-8.09e-7	0	-2.925e-4
711	55	N20	0	0	0	-1.134e-6	0	-2.915e-4
712	55	N21	0	0	0	-2.269e-5	0	1.653e-4
713	55	N22	.008	0	-.003	-5.762e-5	2.004e-5	-4.015e-4
714	55	N23	.006	0	-.002	-5.759e-5	2.004e-5	-4.016e-4
715	55	N25	.002	0	0	-2.22e-6	7.029e-6	-3.834e-4
716	55	60VP	-.014	0	-.002	-9.881e-5	0	5.141e-4
717	55	N27	-.023	0	-.004	-9.991e-5	0	5.174e-4
718	55	N28	-.007	0	0	1.899e-5	0	-5.666e-4
719	55	NGOVP3	-.006	0	0	-8.312e-5	0	4.669e-4
720	55	N30	0	0	0	1.867e-5	0	-5.656e-4
721	55	RRUDSM (TOP)	.002	0	0	-1.064e-5	5.658e-6	-2.313e-6
722	55	RRUDSM (BOT)	.001	0	0	1.844e-5	1.778e-6	-5.747e-4
723	55	RRH (TOP)	.002	0	0	-1.064e-5	5.658e-6	-2.313e-6
724	55	RHH (BOT)	.001	-.012	0	1.844e-5	1.778e-6	-5.747e-4
725	55	N35	0	0	0	-4.254e-5	0	3.447e-4

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N21	max	314.125	31	305.921	44	159.839	40	0	55	34.084	34	0	55
2		min	-391.963	37	-53.325	37	-159.839	34	0	30	-34.084	40	0	30
3	N35	max	122.381	31	423.21	44	220.133	40	0	55	28.92	34	0	55
4		min	-305.403	37	151.265	37	-220.133	34	0	30	-28.92	40	0	30
5	N30	max	172.626	50	243.225	50	33.429	34	0	55	45.446	34	0	55
6		min	48.283	31	127.094	31	-33.429	40	0	30	-45.446	40	0	30
7	N20	max	137.586	50	473.25	50	5.111	34	0	55	47.691	34	0	55
8		min	23.603	31	-10.844	31	-5.111	40	0	30	-47.691	40	0	30
9	MT6413	max	103.637	31	233.443	55	64.037	40	0	55	0	55	0	55
10		min	-103.637	37	88.938	30	-64.037	34	0	30	0	30	0	30
11	5	max	.005	50	37.078	55	.005	47	0	55	0	55	0	55
12		min	-.005	44	14.381	30	-.005	53	0	30	0	30	0	30
13	Totals:	max	612.024	31	1657.518	50	405.464	40						
14		min	-612.024	37	602.917	31	-405.464	34						







Project ID: VT141_15890
Site Name: Swanton South SC1 VT
Date: 12/17/2025

Existing Anchors

Assume (2) 1/2" DIA. HILTI HIT HAS Rods with Hilti Hit HY270 adhesive anchor with screen tubes & a minimum embedment of 2" from the face of the hollow stave.

$$T_{\text{allow}} = 390 \text{ lbs}$$

$$V_{\text{allow}} = 670 \text{ lbs}$$

$$T_{\text{allow}} = 390 \text{ lbs}$$

$$V_{\text{allow}} = 670 \text{ lbs}$$

(With reductions applied, if any)

Per RISA Analysis, Max loading occurs at: N21, LC37

$$T_{\text{max}} = 392 \text{ lbs}$$

$$V_{\text{max}} = 111 \text{ lbs}$$

Interaction:

$$\frac{392}{780} + \frac{111}{1340} = 0.59 < 1.0 \text{ OK}$$

Therefore, the anchors are adequate to support the proposed loading.



Project ID: VT141_15890
Site Name: Swanton South SC1 VT
Date: 12/17/2025

Proposed Mount Connection

Use (2) 1/2" dia. Threaded Rod w/ L3x3 backing angle

$T_{allow} =$	2277	lbs	<i>Based upon an assumed compressive strength masonry of $f'm = 1000$ psi</i>
$V_{allow} =$	1872	lbs	
# of Anchors =	2.0		

Per RISA Analysis, Max loading occurs at: NMT6413, LC3

$T_{max} =$	173	lbs
$V_{max} =$	62	lbs

Interaction:

$$\frac{173}{4554} + \frac{62}{3744} = 0.05 < 1.0 \text{ OK}$$

Therefore, the anchors are adequate to support the proposed loading.

Appendix C

Silo Global Analysis



Project ID: VT141_15890
Site Name: Swanton South SC1 VT
Date: 12/17/2025

(Based on ASCE 7-16)

Site Name:	Swanton South SC1 VT
Site Address:	54 West Road Swanton, VT 05488
Site County:	Franklin

Design Criteria

Basic Wind Speed, $V = 107$ mph

Type of Structure = Silo

Structure Height = 70.0 ft, +/- (Top of Existing Dome Roof)

Risk Category = II Table 2-1

Exposure Category = C Section 2.6.5

$K_z =$ See next page Section 29.3.1

$K_{zt} = 1.00$ Section 26.8.2

$K_d = 0.85$ Table 26.6-1 Carrier Components

$K_d = 1.00$ Table 26.6-1 Silo

$K_e = 0.99$ Table 26.9-1

Elevation = 327.00 ft, +/-

$q_z' = 24.62$ psf Carrier Components

$q_z' = 28.96$ psf Silo



Project ID: VT141_15890
 Site Name: Swanton South SC1 VT
 Date: 12/17/2025

(Based on ASCE 7-16)

Design Criteria: (From Previous Sheet)

$q_z' = 24.62$ psf

$G_h = 0.85$ Section 26.9

Description	#	Elev. z, ft	K_z	R or S?	P_{wr} psf	Dimensions			Force Coeff., C_f		Wind Force EA, lbs		Imposed Carrier Loading f, lbs m, K-FT	
						Height, in	Width, in	Depth, in	Front	Side	Front	Side		
Verizon:														
MT6413-77A	1.0	62.0	1.144	S	23.95	28.9	15.8	5.5	1.31	1.37	99.8	36.2	99.8	6186.1
NHHSS-65B-R2BT4	2.0	62.0	1.144	S	23.95	72.0	11.9	7.1	1.38	1.50	196.4	128.2	392.8	24351.9
RF4801d-25A RRH	1.0	62.0	1.144	S	23.95	21.8	17.3	7.2	1.30	1.33	81.8	34.8	81.8	5072.5
RF4461d-13A RRH	1.0	62.0	1.144	S	23.95	15.0	15.0	10.2	1.30	1.31	48.4	33.3	48.4	3000.1
OVP	1.0	62.0	1.144	S	23.95	29.5	15.6	10.3	1.31	1.33	100.6	67.0	100.6	6239.5
NGOVP3	1.0	62.0	1.144	S	23.95	20.4	9.7	5.4	1.32	1.35	43.2	24.8	43.2	2676.6
2.5" STD PIPE (8'L)	1.0	62.0	1.144	R	23.95	96.0	2.9	2.9	1.20	1.20	55.1	55.1	55.1	3415.2
2.0" STD PIPE (8'L)	3.0	62.0	1.144	R	23.95	96.0	2.4	2.4	1.20	1.20	45.5	45.5	136.5	8463.8
													958.2	59.4
8'x2' Antenna	3.0	53.0	1.107	S	23.17	96.0	24.0	9.0	1.35	1.52	500.5	211.6	567.7	30088.6
6' x 8" Antenna	3.0	53.0	1.107	S	23.17	72.0	11.9	7.1	1.38	1.50	190.0	124.1	281.1	14898.2
RRU	3.0	53.0	1.107	S	23.17	16.0	12.0	10.0	1.31	1.31	40.3	33.7	70.8	3750.3
TMA	3.0	53.0	1.107	S	23.17	9.0	5.0	3.0	1.31	1.33	9.5	5.8	13.4	712.6
2.0" STD PIPE (10'L)	6.0	53.0	1.107	R	23.17	120.0	2.4	2.4	1.20	1.20	55.0	55.0	275.2	14583.8
													1208.2	64.0

Totals (incl. 0.90 shielding factor) = 3899.4 111206.4

OVERALL GRAVITY LOAD COMPARISON CHECK

Description	#	Dimensions				Total Weight, lbs
		Height, in	Width, in	Depth, in	Wght., lbs EA	
<u>Verizon:</u>						
MT6413-77A	1.0	28.9	15.8	5.5	57.3	57.3
NHHSS-65B-R2BT4	2.0	72.0	19.6	7.8	64.6	129.3
RF4801d-25A RRH	1.0	21.8	17.3	7.2	87.9	87.9
RF4461d-13A RRH	1.0	15.0	15.0	10.2	79.1	79.1
OVP	1.0	29.5	16.5	12.6	32.0	32.0
NGOVP3	1.0	20.4	9.7	5.4	15.9	15.9
Mounting Bracket	6.0				20.0	120.0
RRUDSM	1.0				39.4	39.4
		Length, in				Wght., lbs/ft
2.0" STD PIPE (8'L)	3.0	96.0	2.4	2.4	3.7	87.8
2.5" STD PIPE (8'L)	1.0	96.0	2.9	2.9	5.8	46.3
Cable Ladder w/ (2) Cables	1.0	50.0	12.0	3.0	8.0	400.0
<u>T-Mobile</u>						
8'x2' Antenna	3.0	96.0	24.0	9.0	135.0	405.0
6' x 8" Antenna	3.0	72.0	11.9	7.1	50.0	150.0
RRU	3.0	16.0	12.0	10.0	80.0	240.0
TMA	3.0	9.0	5.0	3.0	25.0	75.0
		Length, in				Wght., lbs/ft
2.0" STD PIPE (10'L)	6.0	120.0	2.4	2.4	3.7	219.6
Chimney Straps	3.0				950.0	2850.0
Cable Tray w/ Cables	1.0	40.0	12.0	3.0	12.0	480.0

Total = 5514.64 lbs

EXISTING SILO WEIGHT:

Circumference = 65.00 ft
Block Height = 50.25 ft
Extension Height = 10.00 ft

	<u>h, in</u>	<u>w, in</u>	<u>t, in</u>	<u># Staves per</u>			<u>Weight, lbs</u>	
				<u>Ring</u>	<u>Type</u>	<u>EA</u>	<u>per Ring</u>	<u>Total</u>
Existing Staves =	30.0	10.0	4.00	78.0	HOLLOW	73.5	5513.0	110812
Prev. Extension =	30.0	10.0	4.00	78.0	HOLLOW	73.5	5513.0	22052
							Roof	350.0 lbs
							Total =	133213.8 lbs

Gravity Comparison = 20.7% >5%, See Below

*Proposed loading exceeds allowable 5% increase in gravity loading, therefore, further evaluation required.
(See next page).*

OVERALL LATERAL LOAD COMPARISON CHECK

Design Criteria: (From Previous Sheet)

$q_z' = 24.62$ psf Carrier Components
 $q_z' = 28.96$ psf Silo
 $G_h = 0.85$ Section 26.9

Description	Elev. z, ft	K_z	q_z , psf	Cf	Dimensions			Wind Load, lbs
					Dia., ft	H/f, ft	Area, ft ²	
Original (No Carriers)								
Silo	25.1	0.946	27.4	0.63	20.69	50.25	1039.68	15259.3
Silo Roof	54.4	1.113	32.2	0.50	0.00	9.75	158.44	2171.4
Proposed Loading								
Silo w/ 10' Extension	30.1	0.983	28.5	0.63	20.69	60.25	1246.58	19008.6
T-Mobile Mounts	53.0	1.107	27.3	0.86	20.69	10.00	206.90	1120.6
VZW Mounts	62.0	1.144						958.2
Silo Extension Dome Roof	64.4	1.154	33.4	0.50	0.00	9.75	158.44	2249.9

Global Loading Comparison

Description	WL, kips	Moment Arm, ft	Moment, kips-ft
Silo	15.26	25.1	383.39
Silo Roof	2.17	54.4	118.10
TOTAL	17.4		501.5
Silo w/ 10' Extension	19.01	30.1	572.63
T-Mobile Mounts	1.12	53.0	59.39
VZW Mounts	0.96	62.0	59.41
Silo Extension Dome Roof	2.25	64.4	144.87
TOTAL	23.3		836.3
% Increase	34%	>10%	67% >10%

Overall lateral loading from carrier equipment exceeds the allowable 10% increase; therefore, check existing host silo against sliding and overturning.

Sliding & Overturning Stability Check

Silo Diameter = 20.69 ft
 Silo Weight = 133.21 kips
 Carrier Weight = 5.51 kips
 Sliding Resistance = 66.59 kips (0.8 friction coefficient x 0.6 DL)
 OTM Resistance = 861.09 kip-ft (0.6 DL)

Total Applied Shear (ASD) = 14.0 kips Sliding Usage = 0.21 < 1.0, OK
 Total Applied OTM (ASD) = 501.8 kip-ft Overturning Usage = 0.58 < 1.0, OK

Note: Applied Shear and Overturning Moment multiplied by 0.6 for ASD analysis.

Bearing Pressure Check at Base of Foundation

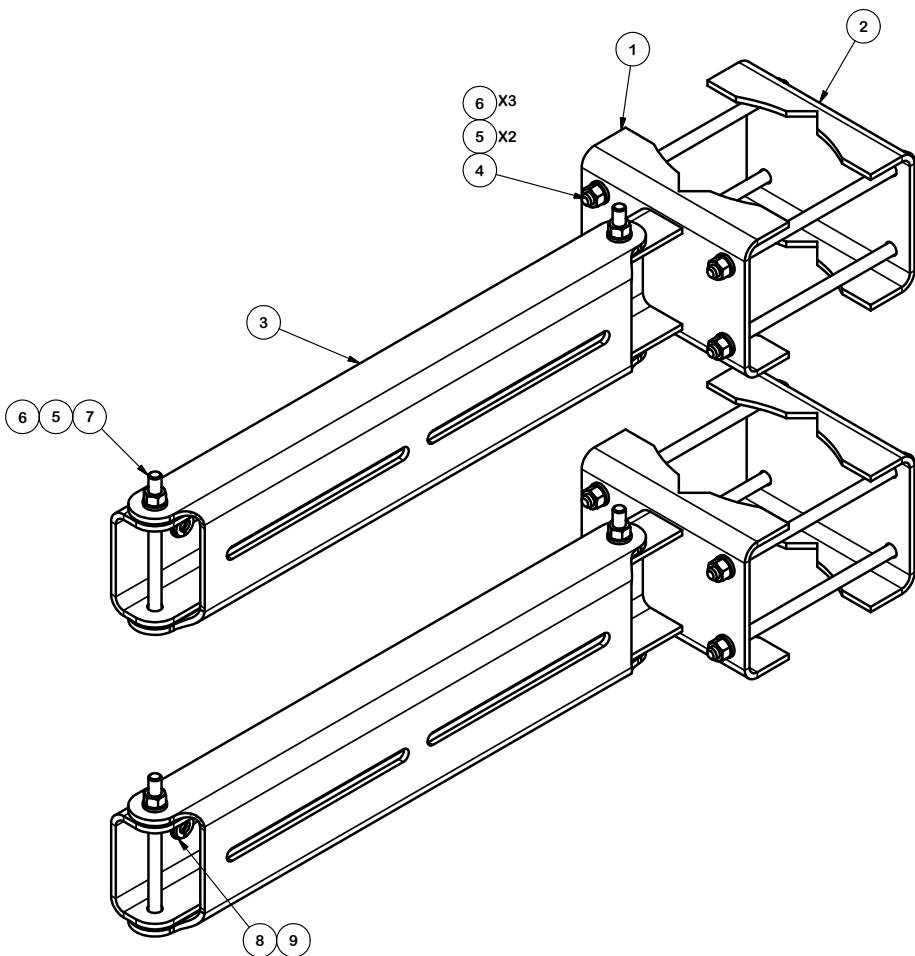
Silo Diameter = 20.69 ft
 Mat Foundation Above Grade = 0.50 ft
 Mat Foundation Thickness = 3.17 ft << Per previous foundation exploratory by others
 Mat Foundation Diameter = 22.36 ft << Per previous foundation exploratory by others

Silo Weight w/ Carriers = 138.73 kips
 Net Mat Foundation Weight = 81.78 kips << Assumes 100 pcf for exist. soil density
Total Weight = 220.51 kips

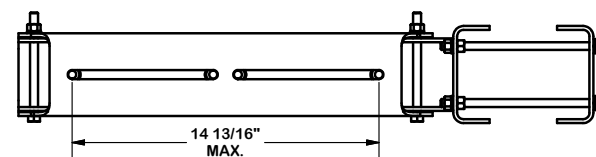
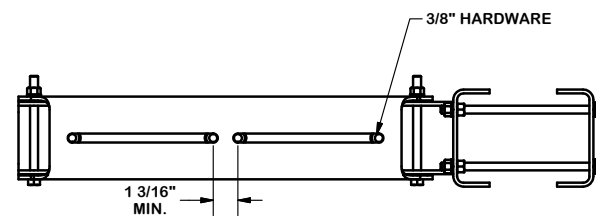
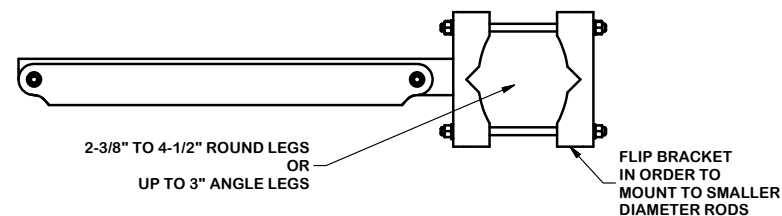
Allowable Bearing Pressure = 1500.0 psf Assumed (Based 2021 IBC Table 1806.2)
 Bearing Pressure at base of footing = 1019.2 psf 0.68 < 1.0, OK

Appendix D

References



PARTS LIST					
ITEM	QTY	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	MOUNTING ARM		8.99	17.97
2	2	CLAMP PLATE		2.35	4.69
3	2	SWIVEL MOUNT		6.65	13.30
4	8	3/8"-16 UNC X 8" GALV. THREADED ROD		0.25	2.00
5	20	3/8" GALV LOCK WASHER		0.01	0.13
6	28	3/8"-16 UNC GALV HEX NUT		0.02	0.52
7	4	3/8" X 5" GALV BOLT		0.18	0.71
8	8	3/8" SS FLAT WASHER		0.01	0.06
9	8	3/8" SS LOCK WASHER		0.01	0.05
TOTAL WT. #					39.43



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.060"$)

PROPRIETARY NOTE:
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DESCRIPTION

RRU
 DUAL SWIVEL MOUNT

CPD NO.	DRAWN BY	ENG. APPROVAL
81	CEK 1/12/2015	BMC 2/3/2015
SUB	DRAWING USAGE	CHECKED BY
01	SHOP	



Engineering
 Support Team:
 1-888-753-7446

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

PART NO.	RRUDSM
DWG. NO.	RRUDSM