



Structural Analysis Report

Structure : 190 ft Self Support Tower
ATC Asset Name : Unity Village MO 2
ATC Asset Number : 306035
Engineering Number : 14861224_C3_03
Proposed Carrier : AT&T MOBILITY
Carrier Site Name : UNITY VILLAGE
Carrier Site Number : WSKSL0042322
Site Location : 1097 NW Black Twig Ln
Lees Summit, MO 64081-1905
38.9336° N, 94.4175° W
County : Jackson
Date : August 28, 2024
Max Usage : 65%
Analysis Result : Pass



COA: 2015011232



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 190 ft Self Support tower to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower:	Allied Tower Drawing #B-16226, dated December 13, 1991
Foundation:	Allied Tower Drawing #B-16327, dated February 6, 1992
Geotechnical:	Geotechnology Job #J029737.02, dated May 19, 2017

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	109 mph (3-second gust)
Basic Wind Speed w/ Ice:	40 mph (3-second gust) w/ 1.50" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2018 IBC
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	$S_s = 0.10$, $S_i = 0.07$
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact Engineering@americantower.com. Please include the American Tower asset name, asset number, and engineering number in the subject line for any questions.

Structure Usages

Structural Component	Usage	Control	Location	Result
Leg	65.0%	Member X	Section 2	Pass
Diagonal	37.3%	Block Shear	Section 8	Pass
Horizontal	0.4%	Block Shear	Section 10	Pass
Bolt	56.0%	-	Section 4	Pass
Serviceability Usage	8.3%	Rotation	Elevation 160 ft	Pass
Foundation	56.4%	Down	Base	Pass
Foundation	55.2%	Moment	Base	Pass
Foundation	56.1%	Shear	Base	Pass
Foundation	52.2%	Uplift	Base	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Self Support Base (Global)	4,435.5	58.8	-	43.1
Self Support Base (Local)	-	320.9	273.1	26.0

**Reactions shown are maximum overall and not limited by Load Case*

Foundation usages were calculated by comparing the maximum reactions from this analysis to the reactions from the original design drawings, factored by 1.35 per ANSI/TIA-222-H, Section 15.6.2

AT&T MOBILITY Final Loading

Elev (ft)	Qty	Equipment	Lines
162.0	1	Andrew Microwaves UHX6-105	(1) EW37
158.2	1	Raycap DC6-48-60-18-8F ("Squid")	-
151.0	1	Raycap DC6-48-60-18-8F	(2) 0.39" (10mm) Fiber Trunk (1) 0.40" (10.3mm) Fiber (6) 0.76" (19.2mm) 8 AWG 6 (12) 1 5/8" Coax (1) 3/8" (0.38" - 9.5mm) RET Control Cable
	1	Raycap DC9-48-60-24-8C-EV (Enclosure)	
	3	Ericsson AIR 6472 B77G B77M (92.6lbs)	
	3	Ericsson Radio 4471 B30	
	3	Ericsson Radio 4490HP 44B5 44B12A C (68.3lbs)	
	3	Ericsson Radio 4494 44B14 20B29 M01	
	3	Ericsson Radio 4890HP 48B2/B25 48B66 M01 (68.3lbs)	
	6	Commscope NNH4-65C-R6-V4	

Install proposed lines stacked on top of existing AT&T MOBILITY coax.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
182.0	1	Raycap RDIDC-9181-PF-48	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604		
	3	Fujitsu TA08025-B605		
	3	JMA Wireless MX08FRO665-21		
	3	Samsung AT1K04		
180.0	3	Light Sector Frame	-	-
172.0	1	RFS DB-C1-12C-24AB-0Z	(2) 1 1/4" (1.25" - 31.8mm) Fiber (1) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Andrew LNX-6515DS-A1M		
	3	Ericsson 8843 Rev 2		
	3	Ericsson AIR 6449 B77D/ C-Band		
	3	Ericsson Radio 4449 - B13&B5		
	6	Commscope NHH-65C-R2B		
171.0	3	Light Sector Frame	-	VERIZON
151.0	3	Sector Frame	-	-
120.0	2	Commscope HELIAX FiberFeed 12 RRU Pendant Connect	(5) 1 5/8" Coax (2) 1.46" (37.1mm) Hybrid (6) 7/8" Coax	T-MOBILE
	3	Andrew TMBX-6517-A1M		
	3	Commscope FFHH-65C-R3		
	3	Light Sector Frame		
	3	Nokia AEHC		
	3	Nokia AHFIG 70.55 lbs		
	3	Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA		

(If table breaks across pages, please see previous page for data in merged cells)



Standard Conditions

All engineering services performed by ATC Tower Services LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts, and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services LLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

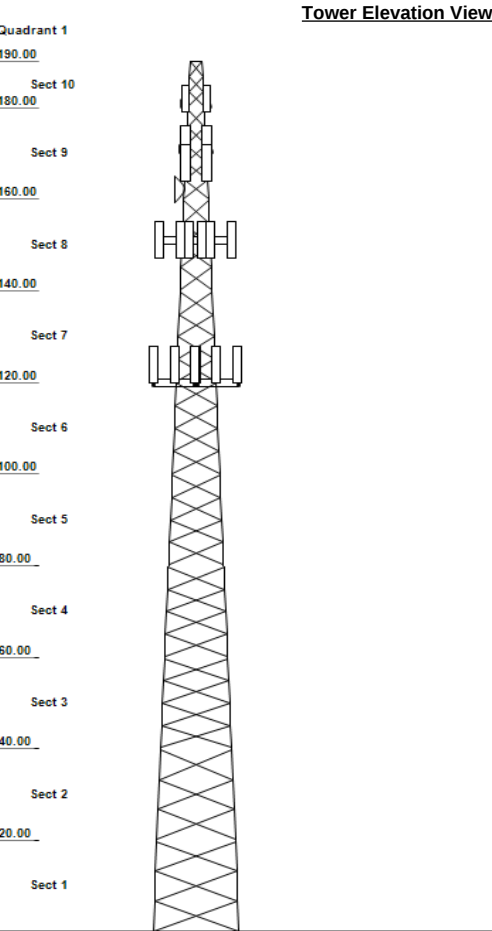
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ASSET: Unity Village MO 2, 306035
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224

ANALYSIS PARAMETERS			
Design Wind:	109 mph	Ice Wind:	40 mph w/ 1.50" ice
Risk Category:	II	Exposure:	C
Topo Factor:	Method 1	Topo Feature:	
Structure Height:	190 ft	Base Elevation:	0 ft
Base Width:	17.00 ft	Top Width:	2.75 ft
Service Wind:	60 mph	S _s :	0.099
		S _i :	0.068
		Topo Category:	1
		Shape:	Triangle

TOWER SECTION PROPERTIES			
Section	Leg Members	Diagonal Members	Horizontal Members
1	SOL 50 ksi 4 1/2" SOLID	SAE 36 ksi 3.5X3.5X0.375	
2	SOL 50 ksi 4 1/4" SOLID	SAE 36 ksi 3.5X3.5X0.3125	
3	SOL 50 ksi 4" SOLID	SAE 36 ksi 3X3X0.375	
4	SOL 50 ksi 3 3/4" SOLID	SAE 36 ksi 3X3X0.25	
5	SOL 50 ksi 3 1/2" SOLID	SAE 36 ksi 2.5X2.5X0.3125	
6	SOL 50 ksi 3 1/4" SOLID	SAE 36 ksi 2.5X2.5X0.25	
7	SOL 50 ksi 3" SOLID	SAE 36 ksi 2.5X2.5X0.1875	
8	SOL 50 ksi 2 1/2" SOLID	SAE 36 ksi 2X2X0.1875	
9	SOL 50 ksi 1 3/4" SOLID	SAE 36 ksi 1.5X1.5X0.1875	
10	SOL 50 ksi 1 1/2" SOLID	SAE 36 ksi 1.5X1.5X0.1875	SAE 36 ksi 1.5X1.5X0.1875



DISCRETE APPURTENANCE		LINEAR APPURTENANCE	
Elev (ft)	Description	Elev (ft)	Description
182.0	(3) Fujitsu TA08025-B605	182.0	(1) 1.75" (44.5mm) Hybrid
182.0	(3) JMA Wireless MX08FRO665-21	180.0	(1) Waveguide
182.0	(3) Fujitsu TA08025-B604	180.0	(1) Climbing Ladder
182.0	(3) Samsung AT1K04	180.0	(1) Waveguide
182.0	(1) Raycap RDIDC-9181-PF-48	172.0	(1) 1 5/8" Hybriflex
180.0	(3) Generic Flat Light Sector Frame	172.0	(2) 1 1/4" (1.25"- 31.8mm) Fiber
172.0	(3) Ericsson Radio 4449 - B13&B5	162.0	(1) EW37
172.0	(6) Commscope NHH-65C-R2B	151.0	(12) 1 5/8" Coax
172.0	(3) Ericsson AIR 6449 B77D/ C-Band	151.0	(2) 0.39" (10mm) Fiber Trunk
172.0	(1) RFS DB-C1-12C-24AB-0Z	151.0	(1) 3/8" (0.38"- 9.5mm) RET Cont
172.0	(3) Ericsson 8843 Rev 2	151.0	(6) 0.76" (19.2mm) 8 AWG 6
172.0	(3) Andrew LNX-6515DS-A1M	151.0	(1) Waveguide
171.0	(3) Flat Light Sector Frame	151.0	(1) 0.40" (10.3mm) Fiber
162.0	(1) Andrew Microwaves UHX6-105	120.0	(5) 1 5/8" Coax
158.2	(1) Raycap DC6-48-60-18-8F ("Squid")	120.0	(2) 1.46" (37.1mm) Hybrid
151.0	(1) Raycap DC9-48-60-24-8C-EV (Enclos	120.0	(6) 7/8" Coax
151.0	(3) Generic Round Sector Frame	120.0	(1) Waveguide
151.0	(6) Commscope NNH4-65C-R6-V4		
151.0	(3) Ericsson Radio 4490HP 44B5 44B12A		
151.0	(1) Raycap DC6-48-60-18-8F		
151.0	(3) Ericsson Radio 4494 44B14 20B29 M0		
151.0	(3) Ericsson AIR 6472 B77G B77M (92.6I		
151.0	(3) Ericsson Radio 4890HP 48B2/B25 48		
151.0	(3) Ericsson Radio 4471 B30		
120.0	(2) Commscope HELIAX FiberFeed 12 R		
120.0	(3) Nokia AEHC		
120.0	(3) Nokia AHFIG 70.55 lbs		
120.0	(3) Commscope FFHH-65C-R3		
120.0	(3) Andrew TMBX-6517-A1M		
120.0	(3) Flat Light Sector Frame		
120.0	(3) Nokia AirScale Dual RRR 4T4R B12/7		

GLOBAL BASE REACTIONS		
	DL+WL	DL+WL+IL
Moment (k-ft):	4,435.50	1,251.46
Axial (k):	58.75	138.73
Shear (k):	43.10	12.67

INDIVIDUAL BASE REACTIONS	
Comp (k):	320.86
Uplift (k):	273.06
Shear (k):	26.00

ANALYSIS PARAMETERS			
Location:	Jackson County, MO	Height:	190 ft
Type and Shape:	Self Support, Triangle	Base Elevation:	0.00 ft
Manufacturer:	Undetermined	Bottom Face Width:	17.00 ft
Kd	0.85	Top Face Width:	2.75 ft
Ke:	0.97	Anchor Bolt Detail Type:	c
ICE & WIND PARAMETERS			
Exposure Category:	C	Design Wind Speed Without Ice:	109 mph
Risk Category:	II	Design Wind Speed with Ice:	40 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.50 in
Crest Height:	0 ft	HMSL:	983 ft

SEISMIC PARAMETERS			
Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	0.95
T _L (sec):	12	P:	1.3
S _{ds} :	0.106	S _{d1} :	0.109
S _s :	0.099	S ₁ :	0.068
F _a :	1.600	F _v :	2.400
		C _s :	0.035
		C _{s, Max} :	0.038
		C _{s, Min} :	0.030

LOAD CASES	
1.2D + 1.0W Normal	1.2D + 1.0W Normal - 109 mph Wind with No Ice
1.2D + 1.0W 60°	1.2D + 1.0W 60° - 109 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90° - 109 mph Wind with No Ice
1.2D + 1.0W 120°	1.2D + 1.0W 120° - 109 mph Wind with No Ice
1.2D + 1.0W 180°	1.2D + 1.0W 180° - 109 mph Wind with No Ice
1.2D + 1.0W 210°	1.2D + 1.0W 210° - 109 mph Wind with No Ice
1.2D + 1.0W 240°	1.2D + 1.0W 240° - 109 mph Wind with No Ice
1.2D + 1.0W 300°	1.2D + 1.0W 300° - 109 mph Wind with No Ice
1.2D + 1.0W 330°	1.2D + 1.0W 330° - 109 mph Wind with No Ice
0.9D + 1.0W Normal	0.9D + 1.0W Normal - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 60°	0.9D + 1.0W 60° - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 90°	0.9D + 1.0W 90° - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 120°	0.9D + 1.0W 120° - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 180°	0.9D + 1.0W 180° - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 210°	0.9D + 1.0W 210° - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 240°	0.9D + 1.0W 240° - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 300°	0.9D + 1.0W 300° - 109 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 330°	0.9D + 1.0W 330° - 109 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 60°	1.2D + 1.0Di + 1.0Wi 60° - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 120°	1.2D + 1.0Di + 1.0Wi 120° - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 180°	1.2D + 1.0Di + 1.0Wi 180° - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 210°	1.2D + 1.0Di + 1.0Wi 210° - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 240°	1.2D + 1.0Di + 1.0Wi 240° - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 300°	1.2D + 1.0Di + 1.0Wi 300° - 40 mph Wind with 1.5" Radial Ice
1.2D + 1.0Di + 1.0Wi 330°	1.2D + 1.0Di + 1.0Wi 330° - 40 mph Wind with 1.5" Radial Ice

LOAD CASES	
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh Normal - Seismic
1.2D + 1.0Ev + 1.0Eh 60°	1.2D + 1.0Ev + 1.0Eh 60° - Seismic
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90° - Seismic
1.2D + 1.0Ev + 1.0Eh 120°	1.2D + 1.0Ev + 1.0Eh 120° - Seismic
1.2D + 1.0Ev + 1.0Eh 180°	1.2D + 1.0Ev + 1.0Eh 180° - Seismic
1.2D + 1.0Ev + 1.0Eh 210°	1.2D + 1.0Ev + 1.0Eh 210° - Seismic
1.2D + 1.0Ev + 1.0Eh 240°	1.2D + 1.0Ev + 1.0Eh 240° - Seismic
1.2D + 1.0Ev + 1.0Eh 300°	1.2D + 1.0Ev + 1.0Eh 300° - Seismic
1.2D + 1.0Ev + 1.0Eh 330°	1.2D + 1.0Ev + 1.0Eh 330° - Seismic
0.9D - 1.0Ev + 1.0Eh Normal	0.9D - 1.0Ev + 1.0Eh Normal - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 60°	0.9D - 1.0Ev + 1.0Eh 60° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 90°	0.9D - 1.0Ev + 1.0Eh 90° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 120°	0.9D - 1.0Ev + 1.0Eh 120° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 180°	0.9D - 1.0Ev + 1.0Eh 180° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 210°	0.9D - 1.0Ev + 1.0Eh 210° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 240°	0.9D - 1.0Ev + 1.0Eh 240° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 300°	0.9D - 1.0Ev + 1.0Eh 300° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 330°	0.9D - 1.0Ev + 1.0Eh 330° - Seismic (Reduced DL)
1.0D + 1.0W Service Normal	1.0D + 1.0W Service Normal - 60 mph Wind with No Ice
1.0D + 1.0W Service 60°	1.0D + 1.0W Service 60° - 60 mph Wind with No Ice
1.0D + 1.0W Service 90°	1.0D + 1.0W Service 90° - 60 mph Wind with No Ice
1.0D + 1.0W Service 120°	1.0D + 1.0W Service 120° - 60 mph Wind with No Ice
1.0D + 1.0W Service 180°	1.0D + 1.0W Service 180° - 60 mph Wind with No Ice
1.0D + 1.0W Service 210°	1.0D + 1.0W Service 210° - 60 mph Wind with No Ice
1.0D + 1.0W Service 240°	1.0D + 1.0W Service 240° - 60 mph Wind with No Ice
1.0D + 1.0W Service 300°	1.0D + 1.0W Service 300° - 60 mph Wind with No Ice
1.0D + 1.0W Service 330°	1.0D + 1.0W Service 330° - 60 mph Wind with No Ice

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

TOWER LOADING - DISCRETE APPURTENANCE

Discrete Appurtenance Properties for LC: **1.2D + 1.0W**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
182.0	Samsung AT1K04	3	32	1.3	1.4	9.6	6.9	0.80	0.50	0.0	0.00	35.82	49	115
182.0	Raycap RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	1.00	0.0	0.00	35.82	45	26
182.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	35.82	72	270
182.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	35.82	72	230
182.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	35.82	584	232
180.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	35.74	918	1440
172.0	Ericsson Radio 4449 - B13&B5	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.00	35.40	60	252
172.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	0.0	0.00	35.40	60	270
172.0	Ericsson AIR 6449 B77D/ C-Band	3	82	4.0	2.5	15.9	10.6	0.80	0.70	0.0	0.00	35.40	204	294
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.00	35.40	98	38
172.0	Commscope NHH-65C-R2B	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.00	35.40	1151	372
172.0	Andrew LNX-6515DS-A1M	3	50	11.4	8.0	11.9	7.1	0.80	0.70	-0.6	345.77	35.37	576	179
171.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	35.35	811	1440
162.0	Andrew Microwaves UHX6-105	1	281	35.7	6.0	72.0	0.0	1.00	1.00	1.0	1,061.09	35.00	1061	337
158.2	Raycap DC6-48-60-18-8F ("Squid	1	19	1.5	2.0	11.0	11.0	0.80	1.00	0.0	0.00	34.78	35	23
151.0	Ericsson Radio 4471 B30	3	29	1.2	1.2	10.3	5.1	0.80	0.50	0.0	0.00	34.44	43	103
151.0	Raycap DC6-48-60-18-8F	1	20	1.3	2.0	9.7	9.7	0.80	1.00	0.0	0.00	34.44	30	24
151.0	Ericsson Radio 4494 44B14 20B2	3	57	2.2	1.5	15.1	5.6	0.80	0.67	0.0	0.00	34.44	104	206
151.0	Ericsson Radio 4890HP 48B2/B25	3	68	2.2	1.5	15.1	6.9	0.80	0.67	0.0	0.00	34.44	104	246
151.0	Ericsson Radio 4490HP 44B5 44B	3	68	2.2	1.5	15.1	6.8	0.80	0.67	0.0	0.00	34.44	104	246
151.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	1.00	0.0	0.00	34.44	63	22
151.0	Ericsson AIR 6472 B77G B77M (9	3	93	4.9	3.0	16.1	7.5	0.80	0.65	0.0	0.00	34.44	223	333
151.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	34.44	711	1080
151.0	Commscope NHH4-65C-R6-V4	6	94	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	34.44	1535	675
120.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.80	0.50	0.0	0.00	32.81	21	48
120.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.80	0.67	3.6	360.33	33.02	100	302
120.0	Nokia AHFIG 70.55 lbs	3	71	2.8	2.3	12.1	5.2	0.80	0.67	0.0	0.00	32.81	124	254
120.0	Andrew TMBX-6517-A1M	3	20	6.0	7.0	6.5	3.3	0.80	0.77	0.4	123.99	32.83	310	71
120.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.80	0.62	0.0	0.00	32.81	284	373
120.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	32.81	753	1440
120.0	Commscope FFHH-65C-R3	3	126	21.1	8.0	25.2	9.3	0.80	0.63	1.5	1,340.58	32.90	894	453
Totals		86	9,496	688.5									11,195	11,395

Discrete Appurtenance Properties for LC: **0.9D + 1.0W**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
182.0	Samsung AT1K04	3	32	1.3	1.4	9.6	6.9	0.80	0.50	0.0	0.00	35.82	49	86
182.0	Raycap RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	1.00	0.0	0.00	35.82	45	20
182.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	35.82	72	202
182.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	35.82	72	173
182.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	35.82	584	174
180.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	35.74	918	1080
172.0	Ericsson Radio 4449 - B13&B5	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.00	35.40	60	189
172.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	0.0	0.00	35.40	60	202
172.0	Ericsson AIR 6449 B77D/ C-Band	3	82	4.0	2.5	15.9	10.6	0.80	0.70	0.0	0.00	35.40	204	220
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.00	35.40	98	29
172.0	Commscope NHH-65C-R2B	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.00	35.40	1151	279
172.0	Andrew LNX-6515DS-A1M	3	50	11.4	8.0	11.9	7.1	0.80	0.70	-0.6	345.77	35.37	576	134
171.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	35.35	811	1080
162.0	Andrew Microwaves UHX6-105	1	281	35.7	6.0	72.0	0.0	1.00	1.00	1.0	1,061.09	35.00	1061	253
158.2	Raycap DC6-48-60-18-8F ("Squid	1	19	1.5	2.0	11.0	11.0	0.80	1.00	0.0	0.00	34.78	35	17
151.0	Ericsson Radio 4471 B30	3	29	1.2	1.2	10.3	5.1	0.80	0.50	0.0	0.00	34.44	43	77
151.0	Raycap DC6-48-60-18-8F	1	20	1.3	2.0	9.7	9.7	0.80	1.00	0.0	0.00	34.44	30	18
151.0	Ericsson Radio 4494 44B14 20B2	3	57	2.2	1.5	15.1	5.6	0.80	0.67	0.0	0.00	34.44	104	155
151.0	Ericsson Radio 4890HP 48B2/B25	3	68	2.2	1.5	15.1	6.9	0.80	0.67	0.0	0.00	34.44	104	184
151.0	Ericsson Radio 4490HP 44B5 44B	3	68	2.2	1.5	15.1	6.8	0.80	0.67	0.0	0.00	34.44	104	184
151.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	1.00	0.0	0.00	34.44	63	17
151.0	Ericsson AIR 6472 B77G B77M (9	3	93	4.9	3.0	16.1	7.5	0.80	0.65	0.0	0.00	34.44	223	250
151.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	34.44	711	810
151.0	Commscope NHH4-65C-R6-V4	6	94	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	34.44	1535	506
120.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.80	0.50	0.0	0.00	32.81	21	36
120.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.80	0.67	3.6	360.33	33.02	100	226
120.0	Nokia AHFIG 70.55 lbs	3	71	2.8	2.3	12.1	5.2	0.80	0.67	0.0	0.00	32.81	124	191
120.0	Andrew TMBX-6517-A1M	3	20	6.0	7.0	6.5	3.3	0.80	0.77	0.4	123.99	32.83	310	53
120.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.80	0.62	0.0	0.00	32.81	284	280
120.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	32.81	753	1080
120.0	Commscope FFHH-65C-R3	3	126	21.1	8.0	25.2	9.3	0.80	0.63	1.5	1,340.58	32.90	894	339
Totals		86	9,496	688.5									11,195	8,546

Discrete Appurtenance Properties for LC: **1.2D + 1.0Di + 1.0Wi**

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
182.0	Samsung AT1K04	3	75	2.2	1.4	9.6	6.9	0.80	0.50	0.0	0.00	4.82	11	246

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
182.0	Raycap RDIDC-9181-PF-48	1	80	2.8	1.3	14.0	8.0	0.80	1.00	0.0	0.00	4.82	9	84
182.0	Fujitsu TA08025-B605	3	139	2.9	1.3	15.0	9.1	0.80	0.50	0.0	0.00	4.82	14	462
182.0	Fujitsu TA08025-B604	3	124	2.9	1.3	15.0	7.9	0.80	0.50	0.0	0.00	4.82	14	409
182.0	JMA Wireless MX08FRO665-21	3	328	15.4	6.0	20.0	8.0	0.80	0.64	0.0	0.00	4.82	97	1021
180.0	Generic Flat Light Sector Fram	3	705	33.2	0.0	0.0	0.0	0.75	0.75	0.0	0.00	4.81	229	2356
172.0	Ericsson Radio 4449 - B13&B5	3	127	2.5	1.3	13.2	9.3	0.80	0.50	0.0	0.00	4.77	12	423
172.0	Ericsson 8843 Rev 2	3	138	2.5	1.3	13.2	11.1	0.80	0.50	0.0	0.00	4.77	12	459
172.0	Ericsson AIR 6449 B77D/ C-Band	3	200	5.4	2.5	15.9	10.6	0.80	0.70	0.0	0.00	4.77	37	648
172.0	RFS DB-C1-12C-24AB-0Z	1	161	5.4	2.5	16.5	12.6	0.80	1.00	0.0	0.00	4.77	18	167
172.0	Commscope NHH-65C-R2B	6	283	14.7	8.0	11.9	7.1	0.80	0.70	0.0	0.00	4.77	200	1763
172.0	Andrew LNX-6515DS-A1M	3	282	14.7	8.0	11.9	7.1	0.80	0.70	-0.6	59.99	4.76	100	877
171.0	Flat Light Sector Frame	3	705	33.2	0.0	0.0	0.0	0.75	0.67	0.0	0.00	4.76	203	2356
162.0	Andrew Microwaves UHX6-105	1	1000	39.2	6.0	72.0	0.0	1.00	1.00	1.0	157.04	4.71	157	1056
158.2	Raycap DC6-48-60-18-8F ("Squid	1	81	2.2	2.0	11.0	11.0	0.80	1.00	0.0	0.00	4.68	7	85
151.0	Ericsson Radio 4471 B30	3	63	2.0	1.2	10.3	5.1	0.80	0.50	0.0	0.00	4.64	9	205
151.0	Raycap DC6-48-60-18-8F	1	73	1.9	2.0	9.7	9.7	0.80	1.00	0.0	0.00	4.64	6	77
151.0	Ericsson Radio 4494 44B14 20B2	3	112	3.2	1.5	15.1	5.6	0.80	0.67	0.0	0.00	4.64	20	372
151.0	Ericsson Radio 4890HP 48B2/B25	3	128	3.2	1.5	15.1	6.9	0.80	0.67	0.0	0.00	4.64	20	426
151.0	Ericsson Radio 4490HP 44B5 44B	3	128	3.2	1.5	15.1	6.8	0.80	0.67	0.0	0.00	4.64	20	424
151.0	Raycap DC9-48-60-24-8C-EV (Enc	1	102	3.8	2.2	12.4	9.7	0.80	1.00	0.0	0.00	4.64	12	106
151.0	Ericsson AIR 6472 B77G B77M (9	3	211	6.4	3.0	16.1	7.5	0.80	0.65	0.0	0.00	4.64	40	687
151.0	Generic Round Sector Frame	3	669	31.0	0.0	0.0	0.0	0.75	0.75	0.0	0.00	4.64	206	2186
151.0	Commscope NNH4-65C-R6-V4	6	422	20.8	8.0	19.6	7.8	0.80	0.64	0.0	0.00	4.64	251	2644
120.0	Commscope HELIAX FiberFeed 12	2	48	1.6	1.4	6.7	4.7	0.80	0.50	0.0	0.00	4.42	5	104
120.0	Nokia AirScale Dual RRH 4T4R B	3	146	3.2	1.8	12.1	7.4	0.80	0.67	3.6	70.13	4.45	19	487
120.0	Nokia AHFIG 70.55 lbs	3	134	3.9	2.3	12.1	5.2	0.80	0.67	0.0	0.00	4.42	24	445
120.0	Andrew TMBX-6517-A1M	3	122	8.6	7.0	6.5	3.3	0.80	0.77	0.4	24.00	4.42	60	379
120.0	Nokia AEHC	3	254	8.6	3.2	21.5	8.1	0.80	0.62	0.0	0.00	4.42	48	824
120.0	Flat Light Sector Frame	3	692	32.6	0.0	0.0	0.0	0.75	0.67	0.0	0.00	4.42	184	2317
120.0	Commscope FFHH-65C-R3	3	529	24.8	8.0	25.2	9.3	0.80	0.63	1.5	211.45	4.43	141	1662
Totals		86	23,859	1007.5									2186	25,758

Discrete Appurtenance Properties for LC: 1.0D + 1.0W Service

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
182.0	Samsung AT1K04	3	32	1.3	1.4	9.6	6.9	0.80	0.50	0.0	0.00	10.85	15	96
182.0	Raycap RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	1.00	0.0	0.00	10.85	14	22
182.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	10.85	22	225
182.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	10.85	22	192
182.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	10.85	177	194
180.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	10.83	278	1200
172.0	Ericsson Radio 4449 - B13&B5	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.00	10.72	18	210
172.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	0.0	0.00	10.72	18	225
172.0	Ericsson AIR 6449 B77D/ C-Band	3	82	4.0	2.5	15.9	10.6	0.80	0.70	0.0	0.00	10.72	62	245
172.0	RFS DB-C1-12C-24AB-0Z	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.00	10.72	30	32
172.0	Commscope NHH-65C-R2B	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.00	10.72	349	310
172.0	Andrew LNX-6515DS-A1M	3	50	11.4	8.0	11.9	7.1	0.80	0.70	-0.6	104.77	10.72	175	149
171.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	10.71	246	1200
162.0	Andrew Microwaves UHX6-105	1	281	35.7	6.0	72.0	0.0	1.00	1.00	1.0	321.52	10.60	322	281
158.2	Raycap DC6-48-60-18-8F ("Squid	1	19	1.5	2.0	11.0	11.0	0.80	1.00	0.0	0.00	10.54	11	19
151.0	Ericsson Radio 4471 B30	3	29	1.2	1.2	10.3	5.1	0.80	0.50	0.0	0.00	10.43	13	86
151.0	Raycap DC6-48-60-18-8F	1	20	1.3	2.0	9.7	9.7	0.80	1.00	0.0	0.00	10.43	9	20
151.0	Ericsson Radio 4494 44B14 20B2	3	57	2.2	1.5	15.1	5.6	0.80	0.67	0.0	0.00	10.43	31	172
151.0	Ericsson Radio 4890HP 48B2/B25	3	68	2.2	1.5	15.1	6.9	0.80	0.67	0.0	0.00	10.43	31	205
151.0	Ericsson Radio 4490HP 44B5 44B	3	68	2.2	1.5	15.1	6.8	0.80	0.67	0.0	0.00	10.43	31	205
151.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	1.00	0.0	0.00	10.43	19	18
151.0	Ericsson AIR 6472 B77G B77M (9	3	93	4.9	3.0	16.1	7.5	0.80	0.65	0.0	0.00	10.43	68	278
151.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	10.43	216	900
151.0	Commscope NNH4-65C-R6-V4	6	94	17.1	8.0	19.6	7.8	0.80	0.64	0.0	0.00	10.43	465	562
120.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.80	0.50	0.0	0.00	9.94	6	40
120.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.80	0.67	3.6	109.18	10.00	30	251
120.0	Nokia AHFIG 70.55 lbs	3	71	2.8	2.3	12.1	5.2	0.80	0.67	0.0	0.00	9.94	38	212
120.0	Andrew TMBX-6517-A1M	3	20	6.0	7.0	6.5	3.3	0.80	0.77	0.4	37.57	9.95	94	59
120.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.80	0.62	0.0	0.00	9.94	86	311
120.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	9.94	228	1200
120.0	Commscope FFHH-65C-R3	3	126	21.1	8.0	25.2	9.3	0.80	0.63	1.5	406.20	9.97	271	377
Totals		86	9,496	688.5									3,392	9,496

TOWER LOADING - LINEAR APPURTENANCE

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In Wind	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient. Factor	K _a Override
5.0	162.0	EW37	1	2.90	0.84	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	151.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	151.0	1 5/8" Coax	12	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	151.0	3/8" (0.38"- 9.5mm) RET Contro	1	0.38	0.23	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	151.0	0.76" (19.2mm) 8 AWG 6	6	0.76	0.53	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	151.0	0.39" (10mm) Fiber Trunk	2	0.39	0.06	100	2	Individual	0.00	N	1.00	1.00	0.00
5.0	120.0	1 5/8" Coax	5	1.98	0.82	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	120.0	Waveguide	1	2.00	6.00	100	3	Individual	0.00	N	1.00	1.00	0.00
5.0	120.0	7/8" Coax	6	1.09	0.33	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	182.0	1.75" (44.5mm) Hybrid	1	1.75	2.72	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	180.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	180.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	180.0	Climbing Ladder	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	172.0	1 5/8" Hybriflex	1	1.98	1.30	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	172.0	1 1/4" (1.25"- 31.8mm) Fiber	2	1.25	1.05	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	151.0	0.40" (10.3mm) Fiber	1	0.40	0.09	100	2	Individual	0.00	N	1.00	1.00	0.10
0.0	120.0	1.46" (37.1mm) Hybrid	2	1.46	1.70	100	3	Individual	0.00	N	1.00	1.00	0.00

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

SECTION FORCES

1.2D + 1.0W Normal

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	416	0	406	6	413
9	170	35.31	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1512	0	865	530	1395
8	150	34.39	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	2590	0	1173	1305	2478
7	130	33.37	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	3572	0	1537	1770	3308
6	110	32.22	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	4662	0	1706	2455	4161
5	90	30.88	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	5432	0	1840	2353	4194
4	70	29.29	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	5941	0	2189	2232	4421
3	50	27.29	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	7447	0	2258	2079	4337
2	30	24.51	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	7423	0	2089	1867	3956
1	10	21.21	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	37.87	107.03	0.00	8358	0	1929	1316	3245
Totals														47,355	0			31,909

1.2D + 1.0W 60°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	416	0	348	6	355
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1512	0	747	530	1278
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	2590	0	1015	1305	2320
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	3572	0	1318	1770	3088
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	4662	0	1458	2455	3913
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	5432	0	1570	2353	3923
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	5941	0	1849	2232	4081
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	7447	0	1903	2079	3983
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	7423	0	1765	1867	3633
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.01	90.46	0.00	8358	0	1631	1316	2947
Totals														47,355	0			29,520

1.2D + 1.0W 90°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	416	0	363	6	369
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1512	0	777	530	1307
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	2590	0	1054	1305	2360
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	3572	0	1373	1770	3143
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	4662	0	1520	2455	3975
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	5432	0	1637	2353	3990
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	5941	0	1934	2232	4166
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	7447	0	1992	2079	4071
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	7423	0	1846	1867	3714
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.51	94.70	0.00	8358	0	1707	1316	3023
Totals														47,355	0			30,119

1.2D + 1.0W 120°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	416	0	406	6	413
9	170	35.31	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1512	0	865	530	1395
8	150	34.39	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	2590	0	1173	1305	2478
7	130	33.37	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	3572	0	1537	1770	3308
6	110	32.22	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	4662	0	1706	2455	4161
5	90	30.88	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	5432	0	1840	2353	4194
4	70	29.29	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	5941	0	2189	2232	4421
3	50	27.29	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	7447	0	2258	2079	4337
2	30	24.51	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	7423	0	2089	1867	3956
1	10	21.21	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.00	107.41	0.00	8358	0	1936	1316	3252
Totals														47,355	0			31,915

1.2D + 1.0W 180°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	416	0	348	6	355
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1512	0	747	530	1278
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	2590	0	1015	1305	2320
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	3572	0	1318	1770	3088
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	4662	0	1458	2455	3913
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	5432	0	1570	2353	3923
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	5941	0	1849	2232	4081
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	7447	0	1903	2079	3983
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	7423	0	1765	1867	3633

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

SECTION FORCES

1.2D + 1.0W 180°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.01	90.46	0.00	8358	0	1631	1316	2947
Totals														47,355	0			29,520

1.2D + 1.0W 210°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	416	0	363	6	369
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1512	0	777	530	1307
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	2590	0	1054	1305	2360
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	3572	0	1373	1770	3143
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	4662	0	1520	2455	3975
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	5432	0	1637	2353	3990
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	5941	0	1934	2232	4166
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	7447	0	1992	2079	4071
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	7423	0	1846	1867	3714
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.51	94.70	0.00	8358	0	1707	1316	3023
Totals														47,355	0			30,119

1.2D + 1.0W 240°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	416	0	406	6	413
9	170	35.31	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1512	0	865	530	1395
8	150	34.39	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	2590	0	1173	1305	2478
7	130	33.37	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	3572	0	1537	1770	3308
6	110	32.22	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	4662	0	1706	2455	4161
5	90	30.88	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	5432	0	1840	2353	4194
4	70	29.29	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	5941	0	2189	2232	4421
3	50	27.29	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	7447	0	2258	2079	4337
2	30	24.51	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	7423	0	2089	1867	3956
1	10	21.21	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.00	107.41	0.00	8358	0	1936	1316	3252
Totals														47,355	0			31,915

1.2D + 1.0W 300°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	416	0	348	6	355
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1512	0	747	530	1278
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	2590	0	1015	1305	2320
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	3572	0	1318	1770	3088
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	4662	0	1458	2455	3913
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	5432	0	1570	2353	3923
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	5941	0	1849	2232	4081
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	7447	0	1903	2079	3983
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	7423	0	1765	1867	3633
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.01	90.46	0.00	8358	0	1631	1316	2947
Totals														47,355	0			29,520

1.2D + 1.0W 330°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	416	0	363	6	369
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1512	0	777	530	1307
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	2590	0	1054	1305	2360
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	3572	0	1373	1770	3143
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	4662	0	1520	2455	3975
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	5432	0	1637	2353	3990
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	5941	0	1934	2232	4166
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	7447	0	1992	2079	4071
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	7423	0	1846	1867	3714
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.51	94.70	0.00	8358	0	1707	1316	3023
Totals														47,355	0			30,119

0.9D + 1.0W Normal

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	312	0	406	6	413

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

SECTION FORCES

0.9D + 1.0W Normal

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
9	170	35.31	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1134	0	865	530	1395
8	150	34.39	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	1942	0	1173	1305	2478
7	130	33.37	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	2679	0	1537	1770	3308
6	110	32.22	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	3497	0	1706	2455	4161
5	90	30.88	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	4074	0	1840	2353	4194
4	70	29.29	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	4456	0	2189	2232	4421
3	50	27.29	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	5585	0	2258	2079	4337
2	30	24.51	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	5568	0	2089	1867	3956
1	10	21.21	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.00	107.41	0.00	6268	0	1936	1316	3252
Totals														35,516	0			31,915

0.9D + 1.0W 60°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	312	0	348	6	355
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1134	0	747	530	1278
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	1942	0	1015	1305	2320
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	2679	0	1318	1770	3088
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	3497	0	1458	2455	3913
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	4074	0	1570	2353	3923
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	4456	0	1849	2232	4081
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	5585	0	1903	2079	3983
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	5568	0	1765	1867	3633
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.01	90.46	0.00	6268	0	1631	1316	2947
Totals														35,516	0			29,520

0.9D + 1.0W 90°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	312	0	363	6	369
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1134	0	777	530	1307
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	1942	0	1054	1305	2360
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	2679	0	1373	1770	3143
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	3497	0	1520	2455	3975
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	4074	0	1637	2353	3990
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	4456	0	1934	2232	4166
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	5585	0	1992	2079	4071
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	5568	0	1846	1867	3714
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.51	94.70	0.00	6268	0	1707	1316	3023
Totals														35,516	0			30,119

0.9D + 1.0W 120°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	312	0	406	6	413
9	170	35.31	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1134	0	865	530	1395
8	150	34.39	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	1942	0	1173	1305	2478
7	130	33.37	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	2679	0	1537	1770	3308
6	110	32.22	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	3497	0	1706	2455	4161
5	90	30.88	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	4074	0	1840	2353	4194
4	70	29.29	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	4456	0	2189	2232	4421
3	50	27.29	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	5585	0	2258	2079	4337
2	30	24.51	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	5568	0	2089	1867	3956
1	10	21.21	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.00	107.41	0.00	6268	0	1936	1316	3252
Totals														35,516	0			31,915

0.9D + 1.0W 180°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	312	0	348	6	355
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1134	0	747	530	1278
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	1942	0	1015	1305	2320
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	2679	0	1318	1770	3088
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	3497	0	1458	2455	3913
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	4074	0	1570	2353	3923
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	4456	0	1849	2232	4081
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	5585	0	1903	2079	3983
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	5568	0	1765	1867	3633
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.01	90.46	0.00	6268	0	1631	1316	2947

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

SECTION FORCES

0.9D + 1.0W 180°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
Totals														35,516	0			29,520

0.9D + 1.0W 210°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	312	0	363	6	369
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1134	0	777	530	1307
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	1942	0	1054	1305	2360
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	2679	0	1373	1770	3143
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	3497	0	1520	2455	3975
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	4074	0	1637	2353	3990
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	4456	0	1934	2232	4166
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	5585	0	1992	2079	4071
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	5568	0	1846	1867	3714
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.51	94.70	0.00	6268	0	1707	1316	3023
Totals														35,516	0			30,119

0.9D + 1.0W 240°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	312	0	406	6	413
9	170	35.31	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1134	0	865	530	1395
8	150	34.39	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	1942	0	1173	1305	2478
7	130	33.37	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	2679	0	1537	1770	3308
6	110	32.22	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	3497	0	1706	2455	4161
5	90	30.88	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	4074	0	1840	2353	4194
4	70	29.29	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	4456	0	2189	2232	4421
3	50	27.29	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	5585	0	2258	2079	4337
2	30	24.51	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	5568	0	2089	1867	3956
1	10	21.21	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.00	107.41	0.00	6268	0	1936	1316	3252
Totals														35,516	0			31,915

0.9D + 1.0W 300°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	312	0	348	6	355
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1134	0	747	530	1278
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	1942	0	1015	1305	2320
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	2679	0	1318	1770	3088
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	3497	0	1458	2455	3913
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	4074	0	1570	2353	3923
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	4456	0	1849	2232	4081
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	5585	0	1903	2079	3983
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	5568	0	1765	1867	3633
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.01	90.46	0.00	6268	0	1631	1316	2947
Totals														35,516	0			29,520

0.9D + 1.0W 330°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	35.94	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	312	0	363	6	369
9	170	35.31	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1134	0	777	530	1307
8	150	34.39	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	1942	0	1054	1305	2360
7	130	33.37	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	2679	0	1373	1770	3143
6	110	32.22	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	3497	0	1520	2455	3975
5	90	30.88	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	4074	0	1637	2353	3990
4	70	29.29	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	4456	0	1934	2232	4166
3	50	27.29	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	5585	0	1992	2079	4071
2	30	24.51	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	5568	0	1846	1867	3714
1	10	21.21	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.51	94.70	0.00	6268	0	1707	1316	3023
Totals														35,516	0			30,119

1.2D + 1.0Di + 1.0Wi Normal

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	1.00	1.00	1.8	16.36	29.63	14.79	1239	822	122	2	124
9	170	4.75	7.039	34.646	28.81	0.444	1.98	1.00	1.00	1.8	29.78	59.06	28.81	4018	2505	239	192	430

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

SECTION FORCES

1.2D + 1.0Di + 1.0Wi Normal

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	150	4.63	9.782	37.543	29.20	0.379	2.11	1.00	1.00	1.7	33.33	70.26	29.20	7475	4885	277	562	838
7	130	4.49	14.152	41.541	31.53	0.358	2.15	1.00	1.00	1.7	39.86	85.87	31.53	10273	6701	328	798	1126
6	110	4.34	16.346	44.876	34.03	0.329	2.22	1.00	1.00	1.7	43.65	96.98	34.03	13381	8718	358	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	1.00	1.00	1.7	47.19	107.55	36.17	14194	8762	380	1109	1490
4	70	3.94	24.821	50.736	38.22	0.306	2.28	1.00	1.00	1.6	55.31	126.07	38.22	15081	9139	423	1034	1457
3	50	3.68	27.573	53.218	39.87	0.292	2.32	1.00	1.00	1.6	59.31	137.49	39.87	16503	9056	429	958	1388
2	30	3.30	27.591	48.046	33.87	0.246	2.45	1.00	1.00	1.5	55.65	136.27	33.87	15803	8380	382	876	1259
1	10	2.86	29.974	47.197	32.18	0.229	2.50	1.00	1.00	1.3	57.36	143.50	32.18	15009	6651	348	581	929

** = Section Force Exceeds Solidity Ratio Criteria

Totals 112,975 65,620 10,482

1.2D + 1.0Di + 1.0Wi 60°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	0.80	1.00	1.8	15.64	28.32	14.79	1239	822	117	2	118
9	170	4.75	7.039	34.646	28.81	0.444	1.98	0.80	1.00	1.8	28.37	56.27	28.81	4018	2505	227	192	419
8	150	4.63	9.782	37.543	29.20	0.379	2.11	0.80	1.00	1.7	31.37	66.14	29.20	7475	4885	260	562	822
7	130	4.49	14.152	41.541	31.53	0.358	2.15	0.80	1.00	1.7	37.03	79.77	31.53	10273	6701	305	798	1102
6	110	4.34	16.346	44.876	34.03	0.329	2.22	0.80	1.00	1.7	40.38	89.72	34.03	13381	8718	331	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	0.80	1.00	1.7	43.50	99.15	36.17	14194	8762	351	1109	1460
4	70	3.94	24.821	50.736	38.22	0.306	2.28	0.80	1.00	1.6	50.35	114.75	38.22	15081	9139	385	1034	1419
3	50	3.68	27.573	53.218	39.87	0.292	2.32	0.80	1.00	1.6	53.80	124.71	39.87	16503	9056	390	958	1348
2	30	3.30	27.591	48.046	33.87	0.246	2.45	0.80	1.00	1.5	50.14	122.76	33.87	15803	8380	344	876	1221
1	10	2.86	29.974	47.197	32.18	0.229	2.50	0.80	1.00	1.3	51.36	128.50	32.18	15009	6651	312	581	893

** = Section Force Exceeds Solidity Ratio Criteria

Totals 112,975 65,620 10,244

1.2D + 1.0Di + 1.0Wi 90°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	0.85	1.00	1.8	15.82	28.65	14.79	1239	822	118	2	120
9	170	4.75	7.039	34.646	28.81	0.444	1.98	0.85	1.00	1.8	28.73	56.97	28.81	4018	2505	230	192	422
8	150	4.63	9.782	37.543	29.20	0.379	2.11	0.85	1.00	1.7	31.86	67.17	29.20	7475	4885	264	562	826
7	130	4.49	14.152	41.541	31.53	0.358	2.15	0.85	1.00	1.7	37.74	81.30	31.53	10273	6701	311	798	1108
6	110	4.34	16.346	44.876	34.03	0.329	2.22	0.85	1.00	1.7	41.20	91.54	34.03	13381	8718	338	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	0.85	1.00	1.7	44.42	101.25	36.17	14194	8762	358	1109	1467
4	70	3.94	24.821	50.736	38.22	0.306	2.28	0.85	1.00	1.6	51.59	117.58	38.22	15081	9139	394	1034	1429
3	50	3.68	27.573	53.218	39.87	0.292	2.32	0.85	1.00	1.6	55.18	127.90	39.87	16503	9056	400	958	1358
2	30	3.30	27.591	48.046	33.87	0.246	2.45	0.85	1.00	1.5	51.52	126.14	33.87	15803	8380	354	876	1230
1	10	2.86	29.974	47.197	32.18	0.229	2.50	0.85	1.00	1.3	52.86	132.25	32.18	15009	6651	321	581	902

** = Section Force Exceeds Solidity Ratio Criteria

Totals 112,975 65,620 10,303

1.2D + 1.0Di + 1.0Wi 120°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	1.00	1.00	1.8	16.36	29.63	14.79	1239	822	122	2	124
9	170	4.75	7.039	34.646	28.81	0.444	1.98	1.00	1.00	1.8	29.78	59.06	28.81	4018	2505	239	192	430
8	150	4.63	9.782	37.543	29.20	0.379	2.11	1.00	1.00	1.7	33.33	70.26	29.20	7475	4885	277	562	838
7	130	4.49	14.152	41.541	31.53	0.358	2.15	1.00	1.00	1.7	39.86	85.87	31.53	10273	6701	328	798	1126
6	110	4.34	16.346	44.876	34.03	0.329	2.22	1.00	1.00	1.7	43.65	96.98	34.03	13381	8718	358	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	1.00	1.00	1.7	47.19	107.55	36.17	14194	8762	380	1109	1490
4	70	3.94	24.821	50.736	38.22	0.306	2.28	1.00	1.00	1.6	55.31	126.07	38.22	15081	9139	423	1034	1457
3	50	3.68	27.573	53.218	39.87	0.292	2.32	1.00	1.00	1.6	59.31	137.49	39.87	16503	9056	429	958	1388
2	30	3.30	27.591	48.046	33.87	0.246	2.45	1.00	1.00	1.5	55.65	136.27	33.87	15803	8380	382	876	1259
1	10	2.86	29.974	47.197	32.18	0.229	2.50	1.00	1.00	1.3	57.36	143.50	32.18	15009	6651	348	581	929

** = Section Force Exceeds Solidity Ratio Criteria

Totals 112,975 65,620 10,482

1.2D + 1.0Di + 1.0Wi 180°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	0.80	1.00	1.8	15.64	28.32	14.79	1239	822	117	2	118
9	170	4.75	7.039	34.646	28.81	0.444	1.98	0.80	1.00	1.8	28.37	56.27	28.81	4018	2505	227	192	419
8	150	4.63	9.782	37.543	29.20	0.379	2.11	0.80	1.00	1.7	31.37	66.14	29.20	7475	4885	260	562	822
7	130	4.49	14.152	41.541	31.53	0.358	2.15	0.80	1.00	1.7	37.03	79.77	31.53	10273	6701	305	798	1102
6	110	4.34	16.346	44.876	34.03	0.329	2.22	0.80	1.00	1.7	40.38	89.72	34.03	13381	8718	331	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	0.80	1.00	1.7	43.50	99.15	36.17	14194	8762	351	1109	1460
4	70	3.94	24.821	50.736	38.22	0.306	2.28	0.80	1.00	1.6	50.35	114.75	38.22	15081	9139	385	1034	1419
3	50	3.68	27.573	53.218	39.87	0.292	2.32	0.80	1.00	1.6	53.80	124.71	39.87	16503	9056	390	958	1348
2	30	3.30	27.591	48.046	33.87	0.246	2.45	0.80	1.00	1.5	50.14	122.76	33.87	15803	8380	344	876	1221
1	10	2.86	29.974	47.197	32.18	0.229	2.50	0.80	1.00	1.3	51.36	128.50	32.18	15009	6651	312	581	893

** = Section Force Exceeds Solidity Ratio Criteria

Totals 112,975 65,620 10,244

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 210°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	0.85	1.00	1.8	15.82	28.65	14.79	1239	822	118	2	120
9	170	4.75	7.039	34.646	28.81	0.444	1.98	0.85	1.00	1.8	28.73	56.97	28.81	4018	2505	230	192	422
8	150	4.63	9.782	37.543	29.20	0.379	2.11	0.85	1.00	1.7	31.86	67.17	29.20	7475	4885	264	562	826
7	130	4.49	14.152	41.541	31.53	0.358	2.15	0.85	1.00	1.7	37.74	81.30	31.53	10273	6701	311	798	1108
6	110	4.34	16.346	44.876	34.03	0.329	2.22	0.85	1.00	1.7	41.20	91.54	34.03	13381	8718	338	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	0.85	1.00	1.7	44.42	101.25	36.17	14194	8762	358	1109	1467
4	70	3.94	24.821	50.736	38.22	0.306	2.28	0.85	1.00	1.6	51.59	117.58	38.22	15081	9139	394	1034	1429
3	50	3.68	27.573	53.218	39.87	0.292	2.32	0.85	1.00	1.6	55.18	127.90	39.87	16503	9056	400	958	1358
2	30	3.30	27.591	48.046	33.87	0.246	2.45	0.85	1.00	1.5	51.52	126.14	33.87	15803	8380	354	876	1230
1	10	2.86	29.974	47.197	32.18	0.229	2.50	0.85	1.00	1.3	52.86	132.25	32.18	15009	6651	321	581	902
** = Section Force Exceeds Solidity Ratio Criteria																		
Totals														112,975	65,620			10,303

1.2D + 1.0Di + 1.0Wi 240°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	1.00	1.00	1.8	16.36	29.63	14.79	1239	822	122	2	124
9	170	4.75	7.039	34.646	28.81	0.444	1.98	1.00	1.00	1.8	29.78	59.06	28.81	4018	2505	239	192	430
8	150	4.63	9.782	37.543	29.20	0.379	2.11	1.00	1.00	1.7	33.33	70.26	29.20	7475	4885	277	562	838
7	130	4.49	14.152	41.541	31.53	0.358	2.15	1.00	1.00	1.7	39.86	85.87	31.53	10273	6701	328	798	1126
6	110	4.34	16.346	44.876	34.03	0.329	2.22	1.00	1.00	1.7	43.65	96.98	34.03	13381	8718	358	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	1.00	1.00	1.7	47.19	107.55	36.17	14194	8762	380	1109	1490
4	70	3.94	24.821	50.736	38.22	0.306	2.28	1.00	1.00	1.6	55.31	126.07	38.22	15081	9139	423	1034	1457
3	50	3.68	27.573	53.218	39.87	0.292	2.32	1.00	1.00	1.6	59.31	137.49	39.87	16503	9056	429	958	1388
2	30	3.30	27.591	48.046	33.87	0.246	2.45	1.00	1.00	1.5	55.65	136.27	33.87	15803	8380	382	876	1259
1	10	2.86	29.974	47.197	32.18	0.229	2.50	1.00	1.00	1.3	57.36	143.50	32.18	15009	6651	348	581	929
** = Section Force Exceeds Solidity Ratio Criteria																		
Totals														112,975	65,620			10,482

1.2D + 1.0Di + 1.0Wi 300°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	0.80	1.00	1.8	15.64	28.32	14.79	1239	822	117	2	118
9	170	4.75	7.039	34.646	28.81	0.444	1.98	0.80	1.00	1.8	28.37	56.27	28.81	4018	2505	227	192	419
8	150	4.63	9.782	37.543	29.20	0.379	2.11	0.80	1.00	1.7	31.37	66.14	29.20	7475	4885	260	562	822
7	130	4.49	14.152	41.541	31.53	0.358	2.15	0.80	1.00	1.7	37.03	79.77	31.53	10273	6701	305	798	1102
6	110	4.34	16.346	44.876	34.03	0.329	2.22	0.80	1.00	1.7	40.38	89.72	34.03	13381	8718	331	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	0.80	1.00	1.7	43.50	99.15	36.17	14194	8762	351	1109	1460
4	70	3.94	24.821	50.736	38.22	0.306	2.28	0.80	1.00	1.6	50.35	114.75	38.22	15081	9139	385	1034	1419
3	50	3.68	27.573	53.218	39.87	0.292	2.32	0.80	1.00	1.6	53.80	124.71	39.87	16503	9056	390	958	1348
2	30	3.30	27.591	48.046	33.87	0.246	2.45	0.80	1.00	1.5	50.14	122.76	33.87	15803	8380	344	876	1221
1	10	2.86	29.974	47.197	32.18	0.229	2.50	0.80	1.00	1.3	51.36	128.50	32.18	15009	6651	312	581	893
** = Section Force Exceeds Solidity Ratio Criteria																		
Totals														112,975	65,620			10,244

1.2D + 1.0Di + 1.0Wi 330°

Gust Response Factor (Gh): 0.85

40 mph Wind with 1.5" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	4.84	3.614	17.297	14.79	0.589	1.81	0.85	1.00	1.8	15.82	28.65	14.79	1239	822	118	2	120
9	170	4.75	7.039	34.646	28.81	0.444	1.98	0.85	1.00	1.8	28.73	56.97	28.81	4018	2505	230	192	422
8	150	4.63	9.782	37.543	29.20	0.379	2.11	0.85	1.00	1.7	31.86	67.17	29.20	7475	4885	264	562	826
7	130	4.49	14.152	41.541	31.53	0.358	2.15	0.85	1.00	1.7	37.74	81.30	31.53	10273	6701	311	798	1108
6	110	4.34	16.346	44.876	34.03	0.329	2.22	0.85	1.00	1.7	41.20	91.54	34.03	13381	8718	338	1141	1441
5	90	4.16	18.435	47.845	36.17	0.306	2.28	0.85	1.00	1.7	44.42	101.25	36.17	14194	8762	358	1109	1467
4	70	3.94	24.821	50.736	38.22	0.306	2.28	0.85	1.00	1.6	51.59	117.58	38.22	15081	9139	394	1034	1429
3	50	3.68	27.573	53.218	39.87	0.292	2.32	0.85	1.00	1.6	55.18	127.90	39.87	16503	9056	400	958	1358
2	30	3.30	27.591	48.046	33.87	0.246	2.45	0.85	1.00	1.5	51.52	126.14	33.87	15803	8380	354	876	1230
1	10	2.86	29.974	47.197	32.18	0.229	2.50	0.85	1.00	1.3	52.86	132.25	32.18	15009	6651	321	581	902
** = Section Force Exceeds Solidity Ratio Criteria																		
Totals														112,975	65,620			10,303

1.0D + 1.0W Service Normal

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _i	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	347	0	123	2	125
9	170	10.70	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1260	0	262	161	423
8	150	10.42	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	2158	0	355	396	751
7	130	10.11	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	2977	0	466	536	1002
6	110	9.76	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	3885	0	517	744	1261
5	90	9.36	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	4527	0	558	713	1271
4	70	8.88	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	4951	0	663	676	1340
3	50	8.27	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	6206	0	684	630	1314

SECTION FORCES																		
1.0D + 1.0W Service Normal						Gust Response Factor (Gh):			0.85									
60 mph Wind with No Ice						Wind Importance Factor (Iw):			1.00									
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
2	30	7.43	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	6186	0	633	566	1199
1	10	6.43	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.48	108.74	0.00	6965	0	594	399	993
** = Section Force Exceeds Solidity Ratio Criteria														Totals	39,462	0		9,678

1.0D + 1.0W Service 60°						Gust Response Factor (Gh):			0.85									
60 mph Wind with No Ice						Wind Importance Factor (Iw):			1.00									
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	347	0	106	2	107
9	170	10.70	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1260	0	226	161	387
8	150	10.42	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	2158	0	308	396	703
7	130	10.11	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	2977	0	399	536	936
6	110	9.76	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	3885	0	442	744	1186
5	90	9.36	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	4527	0	476	713	1189
4	70	8.88	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	4951	0	560	676	1237
3	50	8.27	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	6206	0	577	630	1207
2	30	7.43	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	6186	0	535	566	1101
1	10	6.43	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.48	91.80	0.00	6965	0	501	399	900
** = Section Force Exceeds Solidity Ratio Criteria														Totals	39,462	0		8,952

1.0D + 1.0W Service 90°						Gust Response Factor (Gh):			0.85									
60 mph Wind with No Ice						Wind Importance Factor (Iw):			1.00									
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	347	0	110	2	112
9	170	10.70	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1260	0	235	161	396
8	150	10.42	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	2158	0	319	396	715
7	130	10.11	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	2977	0	416	536	952
6	110	9.76	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	3885	0	461	744	1204
5	90	9.36	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	4527	0	496	713	1209
4	70	8.88	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	4951	0	586	676	1262
3	50	8.27	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	6206	0	604	630	1234
2	30	7.43	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	6186	0	559	566	1125
1	10	6.43	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.98	96.04	0.00	6965	0	525	399	923
** = Section Force Exceeds Solidity Ratio Criteria														Totals	39,462	0		9,133

1.0D + 1.0W Service 120°						Gust Response Factor (Gh):			0.85									
60 mph Wind with No Ice						Wind Importance Factor (Iw):			1.00									
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	347	0	123	2	125
9	170	10.70	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1260	0	262	161	423
8	150	10.42	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	2158	0	355	396	751
7	130	10.11	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	2977	0	466	536	1002
6	110	9.76	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	3885	0	517	744	1261
5	90	9.36	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	4527	0	558	713	1271
4	70	8.88	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	4951	0	663	676	1340
3	50	8.27	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	6206	0	684	630	1314
2	30	7.43	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	6186	0	633	566	1199
1	10	6.43	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.48	108.74	0.00	6965	0	594	399	993
** = Section Force Exceeds Solidity Ratio Criteria														Totals	39,462	0		9,678

1.0D + 1.0W Service 180°						Gust Response Factor (Gh):			0.85									
60 mph Wind with No Ice						Wind Importance Factor (Iw):			1.00									
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	347	0	106	2	107
9	170	10.70	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1260	0	226	161	387
8	150	10.42	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	2158	0	308	396	703
7	130	10.11	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	2977	0	399	536	936
6	110	9.76	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	3885	0	442	744	1186
5	90	9.36	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	4527	0	476	713	1189
4	70	8.88	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	4951	0	560	676	1237
3	50	8.27	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	6206	0	577	630	1207
2	30	7.43	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	6186	0	535	566	1101
1	10	6.43	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.48	91.80	0.00	6965	0	501	399	900
** = Section Force Exceeds Solidity Ratio Criteria														Totals	39,462	0		8,952

1.0D + 1.0W Service 210°						Gust Response Factor (Gh):			0.85									
60 mph Wind with No Ice						Wind Importance Factor (Iw):			1.00									
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

SECTION FORCES

1.0D + 1.0W Service 210°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	347	0	110	2	112
9	170	10.70	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1260	0	235	161	396
8	150	10.42	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	2158	0	319	396	715
7	130	10.11	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	2977	0	416	536	952
6	110	9.76	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	3885	0	461	744	1204
5	90	9.36	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	4527	0	496	713	1209
4	70	8.88	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	4951	0	586	676	1262
3	50	8.27	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	6206	0	604	630	1234
2	30	7.43	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	6186	0	559	566	1125
1	10	6.43	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.98	96.04	0.00	6965	0	525	399	923

** = Section Force Exceeds Solidity Ratio Criteria

Totals 39,462 0 9,133

1.0D + 1.0W Service 240°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	1.00	1.00	0.0	5.05	13.30	0.00	347	0	123	2	125
9	170	10.70	7.039	5.839	0.00	0.146	2.78	1.00	1.00	0.0	10.35	28.82	0.00	1260	0	262	161	423
8	150	10.42	9.782	8.341	0.00	0.152	2.76	1.00	1.00	0.0	14.52	40.13	0.00	2158	0	355	396	751
7	130	10.11	14.152	10.009	0.00	0.161	2.73	1.00	1.00	0.0	19.84	54.20	0.00	2977	0	466	536	1002
6	110	9.76	16.346	10.844	0.00	0.151	2.77	1.00	1.00	0.0	22.50	62.31	0.00	3885	0	517	744	1261
5	90	9.36	18.435	11.678	0.00	0.143	2.80	1.00	1.00	0.0	25.05	70.11	0.00	4527	0	558	713	1271
4	70	8.88	24.821	12.512	0.00	0.155	2.75	1.00	1.00	0.0	31.93	87.94	0.00	4951	0	663	676	1340
3	50	8.27	27.573	13.346	0.00	0.151	2.77	1.00	1.00	0.0	35.15	97.33	0.00	6206	0	684	630	1314
2	30	7.43	27.591	14.180	0.00	0.138	2.82	1.00	1.00	0.0	35.62	100.28	0.00	6186	0	633	566	1199
1	10	6.43	29.974	15.014	0.00	0.135	2.83	1.00	1.00	0.0	38.48	108.74	0.00	6965	0	594	399	993

** = Section Force Exceeds Solidity Ratio Criteria

Totals 39,462 0 9,678

1.0D + 1.0W Service 300°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	0.80	1.00	0.0	4.32	11.40	0.00	347	0	106	2	107
9	170	10.70	7.039	5.839	0.00	0.146	2.78	0.80	1.00	0.0	8.94	24.90	0.00	1260	0	226	161	387
8	150	10.42	9.782	8.341	0.00	0.152	2.76	0.80	1.00	0.0	12.56	34.72	0.00	2158	0	308	396	703
7	130	10.11	14.152	10.009	0.00	0.161	2.73	0.80	1.00	0.0	17.01	46.47	0.00	2977	0	399	536	936
6	110	9.76	16.346	10.844	0.00	0.151	2.77	0.80	1.00	0.0	19.23	53.25	0.00	3885	0	442	744	1186
5	90	9.36	18.435	11.678	0.00	0.143	2.80	0.80	1.00	0.0	21.37	59.79	0.00	4527	0	476	713	1189
4	70	8.88	24.821	12.512	0.00	0.155	2.75	0.80	1.00	0.0	26.96	74.26	0.00	4951	0	560	676	1237
3	50	8.27	27.573	13.346	0.00	0.151	2.77	0.80	1.00	0.0	29.63	82.06	0.00	6206	0	577	630	1207
2	30	7.43	27.591	14.180	0.00	0.138	2.82	0.80	1.00	0.0	30.10	84.75	0.00	6186	0	535	566	1101
1	10	6.43	29.974	15.014	0.00	0.135	2.83	0.80	1.00	0.0	32.48	91.80	0.00	6965	0	501	399	900

** = Section Force Exceeds Solidity Ratio Criteria

Totals 39,462 0 8,952

1.0D + 1.0W Service 330°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	185	10.89	3.614	2.502	0.00	0.188	2.64	0.85	1.00	0.0	4.50	11.88	0.00	347	0	110	2	112
9	170	10.70	7.039	5.839	0.00	0.146	2.78	0.85	1.00	0.0	9.29	25.88	0.00	1260	0	235	161	396
8	150	10.42	9.782	8.341	0.00	0.152	2.76	0.85	1.00	0.0	13.05	36.07	0.00	2158	0	319	396	715
7	130	10.11	14.152	10.009	0.00	0.161	2.73	0.85	1.00	0.0	17.72	48.40	0.00	2977	0	416	536	952
6	110	9.76	16.346	10.844	0.00	0.151	2.77	0.85	1.00	0.0	20.05	55.52	0.00	3885	0	461	744	1204
5	90	9.36	18.435	11.678	0.00	0.143	2.80	0.85	1.00	0.0	22.29	62.37	0.00	4527	0	496	713	1209
4	70	8.88	24.821	12.512	0.00	0.155	2.75	0.85	1.00	0.0	28.21	77.68	0.00	4951	0	586	676	1262
3	50	8.27	27.573	13.346	0.00	0.151	2.77	0.85	1.00	0.0	31.01	85.88	0.00	6206	0	604	630	1234
2	30	7.43	27.591	14.180	0.00	0.138	2.82	0.85	1.00	0.0	31.48	88.63	0.00	6186	0	559	566	1125
1	10	6.43	29.974	15.014	0.00	0.135	2.83	0.85	1.00	0.0	33.98	96.04	0.00	6965	0	525	399	923

** = Section Force Exceeds Solidity Ratio Criteria

Totals 39,462 0 9,133

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

EQUIVALENT LATERAL FORCE METHOD

Spectral Response Acceleration for Short Period (S_s):	0.10
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.07
Long-Period Transition Period (T_L - Seconds):	12
Importance Factor (I_e):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.11
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.11
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s :	0.04
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.95
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.23
Total Unfactored Dead Load:	48.96 k
Seismic Base Shear (E):	2.24 k

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	185.00	347	208,058	0.017	38	305
9	170.00	1,260	681,619	0.056	126	1,108
8	150.00	2,158	1,001,210	0.082	185	1,897
7	130.00	2,977	1,158,860	0.095	214	2,616
6	110.00	3,885	1,232,588	0.101	227	3,415
5	90.00	4,527	1,122,962	0.092	207	3,978
4	70.00	4,951	902,741	0.074	166	4,351
3	50.00	6,206	749,217	0.062	138	5,454
2	30.00	6,186	399,375	0.033	74	5,437
1	10.00	6,965	117,014	0.010	22	6,121
Samsung AT1K04	182.00	96	56,443	0.005	10	84
Raycap RDIDC-9181-PF-48	182.00	22	12,876	0.001	2	19
Fujitsu TA08025-B605	182.00	225	132,288	0.011	24	198
Fujitsu TA08025-B604	182.00	192	112,709	0.009	21	168
JMA Wireless MX08FRO665-21	182.00	194	113,767	0.009	21	170
Generic Flat Light Sector Frame	180.00	1,200	696,046	0.057	128	1,055
Ericsson Radio 4449 - B13&B5	172.00	210	115,208	0.010	21	185
Ericsson 8843 Rev 2	172.00	225	123,437	0.010	23	198
Ericsson AIR 6449 B77D/ C-Band	172.00	245	134,300	0.011	25	215
RFS DB-C1-12C-24AB-OZ	172.00	32	17,556	0.001	3	28
Commscope NHH-65C-R2B	172.00	310	169,850	0.014	31	272
Andrew LNX-6515DS-A1M	172.00	149	81,962	0.007	15	131
Flat Light Sector Frame	171.00	1,200	653,645	0.054	120	1,055
Andrew Microwaves UHX6-105	162.00	281	143,250	0.012	26	247
Raycap DC6-48-60-18-8F ("Squid")	158.20	19	9,359	0.001	2	17
Ericsson Radio 4471 B30	151.00	86	40,269	0.003	7	76
Raycap DC6-48-60-18-8F	151.00	20	9,354	0.001	2	18
Ericsson Radio 4494 44B14 20B29 M01	151.00	172	80,398	0.007	15	151
Ericsson Radio 4890HP 48B2/B25 48B66 M01 (68.3lbs)	151.00	205	95,832	0.008	18	180
Ericsson Radio 4490HP 44B5 44B12A C (68.3lbs)	151.00	205	95,832	0.008	18	180
Raycap DC9-48-60-24-8C-EV (Enclosure)	151.00	18	8,652	0.001	2	16
Ericsson AIR 6472 B77G B77M (92.6lbs)	151.00	278	129,928	0.011	24	244
Generic Round Sector Frame	151.00	900	420,932	0.035	78	791
Commscope NNH4-65C-R6-V4	151.00	562	262,942	0.022	48	494
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	120.00	40	14,117	0.001	3	35
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	120.00	251	88,726	0.007	16	221
Nokia AHFIG 70.55 lbs	120.00	212	74,750	0.006	14	186
Andrew TMBX-6517-A1M	120.00	59	20,964	0.002	4	52
Nokia AEHC	120.00	311	109,690	0.009	20	273
Flat Light Sector Frame	120.00	1,200	423,514	0.035	78	1,055
Commscope FFHH-65C-R3	120.00	377	133,089	0.011	25	331

Totals

48,958

12,155,329

1.000

2,240

43,028

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
10	185.00	347	208,058	0.017	38	424
9	170.00	1,260	681,619	0.056	126	1,539
8	150.00	2,158	1,001,210	0.082	185	2,635
7	130.00	2,977	1,158,860	0.095	214	3,635
6	110.00	3,885	1,232,588	0.101	227	4,745
5	90.00	4,527	1,122,962	0.092	207	5,527
4	70.00	4,951	902,741	0.074	166	6,046
3	50.00	6,206	749,217	0.062	138	7,578
2	30.00	6,186	399,375	0.033	74	7,554
1	10.00	6,965	117,014	0.010	22	8,505
Samsung AT1K04	182.00	96	56,443	0.005	10	117
Raycap RDIDC-9181-PF-48	182.00	22	12,876	0.001	2	27
Fujitsu TA08025-B605	182.00	225	132,288	0.011	24	275
Fujitsu TA08025-B604	182.00	192	112,709	0.009	21	234
JMA Wireless MX08FRO665-21	182.00	194	113,767	0.009	21	236
Generic Flat Light Sector Frame	180.00	1,200	696,046	0.057	128	1,465
Ericsson Radio 4449 - B13&B5	172.00	210	115,208	0.010	21	256
Ericsson 8843 Rev 2	172.00	225	123,437	0.010	23	275
Ericsson AIR 6449 B77D/ C-Band	172.00	245	134,300	0.011	25	299
RFS DB-C1-12C-24AB-OZ	172.00	32	17,556	0.001	3	39
Commscope NHH-65C-R2B	172.00	310	169,850	0.014	31	378
Andrew LNX-6515DS-A1M	172.00	149	81,962	0.007	15	182
Flat Light Sector Frame	171.00	1,200	653,645	0.054	120	1,465
Andrew Microwaves UHX6-105	162.00	281	143,250	0.012	26	343
Raycap DC6-48-60-18-8F ("Squid")	158.20	19	9,359	0.001	2	23
Ericsson Radio 4471 B30	151.00	86	40,269	0.003	7	105
Raycap DC6-48-60-18-8F	151.00	20	9,354	0.001	2	24
Ericsson Radio 4494 44B14 20B29 M01	151.00	172	80,398	0.007	15	210
Ericsson Radio 4890HP 48B2/B25 48B66 M01 (68.3lbs)	151.00	205	95,832	0.008	18	250
Ericsson Radio 4490HP 44B5 44B12A C (68.3lbs)	151.00	205	95,832	0.008	18	250
Raycap DC9-48-60-24-8C-EV (Enclosure)	151.00	18	8,652	0.001	2	23
Ericsson AIR 6472 B77G B77M (92.6lbs)	151.00	278	129,928	0.011	24	339
Generic Round Sector Frame	151.00	900	420,932	0.035	78	1,099
Commscope NNH4-65C-R6-V4	151.00	562	262,942	0.022	48	687
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	120.00	40	14,117	0.001	3	49
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	120.00	251	88,726	0.007	16	307
Nokia AHFIG 70.55 lbs	120.00	212	74,750	0.006	14	259
Andrew TMBX-6517-A1M	120.00	59	20,964	0.002	4	73
Nokia AEHC	120.00	311	109,690	0.009	20	380
Flat Light Sector Frame	120.00	1,200	423,514	0.035	78	1,465
Commscope FFHH-65C-R3	120.00	377	133,089	0.011	25	460
Totals		48,958	12,155,329	1.000	2,240	59,783

CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H

PROJECT: 14861224_C3_03

FORCE/STRESS SUMMARY

Section 1 – 0.0' to 20.00'

	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls	
Member Compression				X	Y	Z	KL/R								
L SOL - 4 1/2" SOLID	-314.80	1.2D + 1.0W N	6.506	100	100	100	69.40	50.00	503.25	0.00	0.00	0	0	62.6	Member X
D SAE - 3.5X3.5X0.375	-8.51	1.2D + 1.0W 210°	17.051	50	50	50	148.92	36.00	32.01	27.61	52.20	2	1	30.8	Bolt Shear
							Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)						
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)		ΦR _{nv} (kip)	ΦR _n (kip)		# Bolt	# Hole	Use %		Controls	
L SOL - 4 1/2" SOLID	274.15	0.9D + 1.0W 180°	50.0	65	715.68		0.00	0.00		0	0	38.3		Member	
D SAE - 3.5X3.5X0.375	8.30	0.9D + 1.0W 210°	36.0	58	72.50		27.61	41.76	34.87	2	1	30.1		Bolt Shear	
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	274.19	0.9D + 1.0W 180°	843.15	10.7	6	2" F1554 GD 55									
Bot Compression	321.26	1.2D + 1.0W N	824.41	0.4	0										

Section 2 – 20.0' to 40.00'

	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	# Bolt	# Hole	Use %	Controls
Member Compression				X	Y	Z	KL/R							
L SOL - 4 1/4" SOLID	-279.75	1.2D + 1.0W N	6.506	100	100	100	73.48	50.00	430.15	0.00	0	0	65	Member X
D SAE - 3.5X3.5X0.3125	-8.19	1.2D + 1.0W 330°	15.675	50	50	50	136.30	36.00	32.20	27.61	43.50	2	1	29.6 Bolt Shear
							Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls	
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)									
L SOL - 4 1/4" SOLID	245.61	0.9D + 1.0W 180°	50.0	65	638.37		0.00	0.00		0	0	38.5	Member	
D SAE - 3.5X3.5X0.3125	7.96	0.9D + 1.0W 210°	36.0	58	61.18		27.61	34.80	29.06	2	1	28.9	Bolt Shear	
Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts		Bolt Type							
Bot Tension	245.31	0.9D + 1.0W 180°	523.32	46.9	6		1.25" A325							

Section 3 – 40.0' to 60.00'

			Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	# Bolt	# Hole	Use %	Controls	
Member Compression						X	Y	Z	KL/R								
L SOL - 4" SOLID			-244.20	1.2D + 1.0W N	4.88	100	100	100	58.56	50.00	440.08	0.00	0.00	0	0	55.5	Member X
D SAE - 3X3X0.375			-7.38	1.2D + 1.0W 210°	14.635	50	50	50	149.59	36.00	26.99	27.61	52.20	2	1	27.4	Member Z
			Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)		Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls		
Member Tension																	
L SOL - 4" SOLID			215.03	0.9D + 1.0W 180°	50.0	65	565.47		0.00	0.00		0	0	38	Member		
D SAE - 3X3X0.375			7.35	1.2D + 1.0W 330°	36.0	58	60.43		27.61	41.76	30.79	2	1	26.6	Bolt Shear		
Max Splice Forces			Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Nom Bolts	Bolt Type									
Bot Tension			214.70	0.9D + 1.0W 180°	523.32	41	6	1.25" A325									

FORCE/STRESS SUMMARY

Section 4 – 60.0' to 80.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls	
	X			Y	Z	ΦRnv			ΦRn						
						(kip)			(kip)						
L SOL - 3 3/4" SOLID	-206.55	1.2D + 1.0W N	4.88	100	100	100	62.46	50.00	373.68	0.00	0.00	0	0	55.3	Member X
D SAE - 3X3X0.25	-6.72	1.2D + 1.0W 330°	13.23	50	50	50	134.09	36.00	22.92	27.61	34.80	2	1	29.3	Member Z
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls			
	L SOL - 3 3/4" SOLID		183.59	0.9D + 1.0W 180°	50.0	65	497.02	0.00	0.00	0	0	36.9	Member		
			D SAE - 3X3X0.25	6.66	1.2D + 1.0W 210°	36.0	58	41.37	27.61	27.84	20.53	2	1	32.5	Blk Shear
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	183.31	0.9D + 1.0W 180°	327.10	56	6	1 A325									

Section 5 – 80.0' to 100.00'

										Shear	Bear	#	#	Use	
Member Compression	P _u (kip)	Load Case	Len (ft)	Bracing %			F' _y (ksi)	Φ _c P _n (kip)	ΦR _{nv} (kip)	ΦR _n (kip)	Bolt	Hole	%	Controls	
	X		Y	Z	KL/R										
L SOL - 3 1/2" SOLID	-168.93	1.2D + 1.0W N	4.88	100	100	100	66.92	50.00	312.05	0.00	0.00	0	0	54.1	Member X
D SAE - 2.5X2.5X0.3125	-6.14	1.2D + 1.0W 210°	11.849	50	50	50	145.39	36.00	19.77	17.67	34.80	2	1	34.7	Bolt Shear
Member Tension	P _u (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
L SOL - 3 1/2" SOLID	151.21	0.9D + 1.0W 180°	50.0	65	432.94	0.00	0.00		0	0	34.9	Member			
D SAE - 2.5X2.5X0.3125	6.11	1.2D + 1.0W 210°	36.0	58	41.90	17.67	27.73	21.75	2	1	34.6	Bolt Shear			
Max Splice Forces	P _u (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	151.00	0.9D + 1.0W 180°	327.10	46.2	6	1 A325									

Section 6 – 100.0' to 120.00'

										Shear	Bear	#	#	Use	
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Φc Pn (kip)	ΦRnv (kip)	ΦRn (kip)	Bolt	Hole	%	Controls	
L SOL - 3 1/4" SOLID	-130.98	1.2D + 1.0W N	5.005	100	100	100	73.92	50.00	250.37	0.00	0	0	52.3	Member X	
D SAE - 2.5X2.5X0.25	-5.79	1.2D + 1.0W 210°	10.571	50	50	50	129.18	36.00	20.41	17.67	2	1	32.8	Bolt Shear	
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls			
L SOL - 3 1/4" SOLID	113.00	0.9D + 1.0W 180°	50.0	65	373.32	0.00	0.00		0	0	30.3	Member			
D SAE - 2.5X2.5X0.25	5.73	1.2D + 1.0W 330°	36.0	58	34.24	17.67	22.18	17.40	2	1	33	Blk Shear			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	117.75	0.9D + 1.0W 180°	218.07	54	4	1 A325									

Section 7 – 120.0' to 140.00'

Member Compression	P _u (kip)	Load Case	Len (ft)	Bracing %			F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls	
	X			Y	Z	KL/R			Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L SOL - 3" SOLID	-90.05	1.2D + 1.0W N	4.88	100	100	100	78.07	50.00	203.71	0.00	0.00	0	0	44.2	Member X
D SAE - 2.5X2.5X0.1875	-4.53	1.2D + 1.0W 330°	8.289	50	50	50	105.35	36.00	21.14	17.67	20.88	2	1	25.6	Bolt Shear
Member Tension	P _u (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
L SOL - 3" SOLID	82.21	0.9D + 1.0W 180°	50.0	65	318.10	0.00	0.00		0	0	25.8	Member			
D SAE - 2.5X2.5X0.1875	4.46	1.2D + 1.0W 210°	36.0	58	25.99	17.67	16.64	13.05	2	1	34.2	Blk Shear			
Max Splice Forces	P _u (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	80.66	0.9D + 1.0W 180°	218.07	37	4	1 A325									

FORCE/STRESS SUMMARY

Section 8 – 140.0' to 160.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls	
	ΦR _{nv} (kip)			ΦR _n (kip)	X	Y			Z	KL/R					
L SOL - 2 1/2" SOLID	-55.65	1.2D + 1.0W N	4.88	100	100	100	93.69	50.00	116.30	0.00	0.00	0	0	47.9	Member X
D SAE - 2X2X0.1875	-4.10	1.2D + 1.0W 210°	7.966	50	50	50	121.31	36.00	13.83	17.67	20.88	2	1	29.7	Member Z
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φ _t P _n (kip)														
L SOL - 2 1/2" SOLID	51.11	0.9D + 1.0W 180°	50.0	65	220.95	0.00	0.00		0	0	23.1	Member			
D SAE - 2X2X0.1875	4.10	1.2D + 1.0W 210°	36.0	58	19.89	17.67	16.64	11.01	2	1	37.3	Blk Shear			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	50.98	0.9D + 1.0W 180°	120.41	42.3	4	0.75" A325									

Section 9 – 160.0' to 180.00'

Member Compression			Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls	
L SOL - 1 3/4" SOLID			-22.71	1.2D + 1.0W 120°	3.904	100	Y	Z	107.07	50.00	46.81	0.00	0	0	48.5	Member X	
D SAE - 1.5X1.5X0.1875			-2.29	1.2D + 1.0W 330°	6.214	50	50	50	127.24	36.00	9.37	17.67	20.88	2	1	24.4	Member Z
Member Tension			Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)		Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls		
L SOL - 1 3/4" SOLID			20.78	0.9D + 1.0W 180°	50.0	65	108.24		0.00	0.00		0	0	19.2	Member		
D SAE - 1.5X1.5X0.1875			2.35	0.9D + 1.0W 210°	36.0	58	13.85		17.67	16.64	8.97	2	1	26.2	Blk Shear		
Max Splice Forces			Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension			20.68	0.9D + 1.0W 180°	120.41	17.2	4	0.75" A325									

Section 10 – 180.0' to 190.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls	
	X			Y	Z	KL/R			ΦR _{nv} (kip)	ΦR _n (kip)					
L SOL - 1 1/2" SOLID	-1.27	1.2D + 1.0Di + 1.0Wi N	3.253	100	100	100	104.10	50.00	36.01	0.00	0.00	0	0	3.5	Member X
H SAE - 1.5X1.5X0.1875	-0.03	0.9D + 1.0W N	2.752	100	100	100	116.35	36.00	10.96	17.67	20.88	2	1	0.3	Member Z
D SAE - 1.5X1.5X0.1875	-0.67	1.2D + 1.0W 120°	4.676	50	50	50	101.81	36.00	12.86	17.67	20.88	2	1	5.2	Member Z
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls		
	Φ _t P _n (kip)							Φ _t P _n (kip)							
L SOL - 1 1/2" SOLID	1.31	0.9D + 1.0W 60°	50.0	65	79.52	0.00	0.00			0	0	1.7	Member		
H SAE - 1.5X1.5X0.1875	0.04	1.2D + 1.0W 180°	36.0	58	13.85	17.67	16.64	8.97		2	1	0.4	Blk Shear		
D SAE - 1.5X1.5X0.1875	0.62	0.9D + 1.0W 60°	36.0	58	13.85	17.67	16.64	8.97		2	1	6.9	Blk Shear		
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	0.92	0.9D + 1.0W 60°	120.41	0.8	4	0.75" A325									

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	120.00	0.1684	-0.0496	0.1818	0.1885
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	150.00	0.265	-0.0621	0.2132	0.2221
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	159.75	0.3006	-0.0672	0.2871	0.2918
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	160.25	0.3031	-0.0674	0.3030	0.3051
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	171.95	0.349	-0.0537	0.2259	0.2322
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	180.00	0.3813	-0.0524	0.2837	0.2885
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	183.50	0.3954	-0.0528	0.2232	0.2241
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	120.00	0.1665	-0.0465	0.1730	0.1791
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	150.00	0.2622	-0.0582	0.2102	0.2181
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	159.75	0.2974	-0.0634	0.2751	0.2823
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	160.25	0.2996	-0.0637	0.2780	0.2852
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	171.95	0.345	-0.0513	0.2361	0.2417
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	180.00	0.3771	0.0511	0.2893	0.2937
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	183.50	0.3911	-0.0504	0.2179	0.2218
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	120.00	0.1732	0.0529	0.1790	0.1832
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	150.00	0.2722	0.0658	0.2166	0.2219
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	159.75	0.3085	0.0723	0.2866	0.2913
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	160.25	0.3109	0.0726	0.2902	0.2949
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	171.95	0.3578	0.0594	0.2432	0.2467
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	180.00	0.3909	0.0597	0.2993	0.3021
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	183.50	0.4054	0.0582	0.2257	0.2308
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	120.00	0.1683	-0.0418	0.1814	0.1862
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	150.00	0.2649	-0.0515	0.2123	0.2185
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	159.75	0.3005	-0.0552	0.2860	0.2913
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	160.25	0.303	-0.0553	0.3002	0.3052
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	171.95	0.3488	-0.0439	0.2249	0.2291
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	180.00	0.3811	-0.0424	0.2835	0.2867
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	183.50	0.3952	-0.0430	0.2231	0.2241
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	120.00	0.1668	0.0363	0.1861	0.1861
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	150.00	0.2626	0.0451	0.2122	0.2139
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	159.75	0.2979	0.0480	0.2980	0.298
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	160.25	0.3005	0.0481	0.3196	0.3196
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	171.95	0.3458	0.0378	0.2169	0.2185
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	180.00	0.3779	0.0361	0.2876	0.2876
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	183.50	0.3919	0.0373	0.2197	0.2228
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	120.00	0.1732	-0.0529	0.1790	0.1832
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	150.00	0.2722	-0.0658	0.2166	0.2219
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	159.75	0.3085	-0.0723	0.2866	0.2913
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	160.25	0.3109	-0.0726	0.2902	0.2949
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	171.95	0.3578	-0.0594	0.2432	0.2467
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	180.00	0.3909	-0.0597	0.2993	0.3021
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	183.50	0.4054	-0.0582	0.2257	0.2308
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	120.00	0.1681	-0.0567	0.1666	0.169
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	150.00	0.2646	-0.0702	0.2091	0.2144
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	159.75	0.3	-0.0771	0.2619	0.2648
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	160.25	0.3021	-0.0774	0.2565	0.2594
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	171.95	0.348	-0.0634	0.2426	0.2461
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	180.00	0.3803	-0.0638	0.2827	0.2845
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	183.50	0.3943	-0.0621	0.2189	0.2276
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	120.00	0.1665	0.0465	0.1730	0.1791
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	150.00	0.2622	0.0582	0.2102	0.2181
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	159.75	0.2974	0.0634	0.2751	0.2823
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	160.25	0.2996	0.0637	0.2780	0.2852
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	171.95	0.345	0.0513	0.2361	0.2417
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	180.00	0.3771	-0.0511	0.2893	0.2937
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	183.50	0.3911	0.0504	0.2179	0.2218
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	120.00	0.1735	0.0366	0.1925	0.1925
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	150.00	0.2727	0.0456	0.2189	0.2214
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	159.75	0.3092	0.0488	0.3102	0.3102

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	160.25	0.3119	0.0489	0.3328	0.3328
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	171.95	0.3589	0.0385	0.2242	0.2269
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	180.00	0.392	0.0368	0.2978	0.2978
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	183.50	0.4065	0.0379	0.2278	0.231
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	120.00	0.0381	-0.0017	0.0417	0.0417
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	150.00	0.0613	-0.0022	0.0519	0.0519
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	159.75	0.0701	-0.0027	0.0703	0.0703
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	160.25	0.0707	-0.0027	0.0719	0.0719
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	171.95	0.082	-0.0025	0.0577	0.0577
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	180.00	0.0902	-0.0028	0.0713	0.0713
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	183.50	0.0938	-0.0024	0.0558	0.0559
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	120.00	0.0381	0.0015	0.0423	0.0423
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	150.00	0.0613	0.0019	0.0523	0.0523
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	159.75	0.0701	-0.0024	0.0728	0.0728
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	160.25	0.0707	-0.0024	0.0746	0.0746
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	171.95	0.082	0.0021	0.0577	0.0577
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	180.00	0.0902	0.0024	0.0731	0.0731
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	183.50	0.0938	0.0021	0.0555	0.0556
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	120.00	0.0381	0.0015	0.0422	0.0422
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	150.00	0.0613	0.0019	0.0521	0.0521
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	159.75	0.0701	0.0023	0.0721	0.0721
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	160.25	0.0707	-0.0024	0.0747	0.0747
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	171.95	0.082	0.0021	0.0579	0.0579
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	180.00	0.0902	0.0024	0.0714	0.0714
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	183.50	0.0938	0.0021	0.0554	0.0554
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	120.00	0.0381	-0.0017	0.0417	0.0417
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	150.00	0.0613	-0.0022	0.0519	0.0519
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	159.75	0.0701	-0.0027	0.0703	0.0703
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	160.25	0.0707	-0.0027	0.0719	0.0719
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	171.95	0.082	-0.0025	0.0577	0.0577
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	180.00	0.0902	-0.0028	0.0713	0.0713
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	183.50	0.0938	-0.0024	0.0558	0.0559
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	120.00	0.0381	0.0015	0.0423	0.0423
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	150.00	0.0613	0.0019	0.0523	0.0523
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	159.75	0.0701	0.0023	0.0728	0.0728
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	160.25	0.0707	0.0023	0.0746	0.0746
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	171.95	0.082	0.0021	0.0577	0.0577
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	180.00	0.0902	0.0024	0.0732	0.0732
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	183.50	0.0938	0.0021	0.0555	0.0556
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	120.00	0.0381	0.0015	0.0422	0.0422
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	150.00	0.0613	0.0019	0.0521	0.0521
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	159.75	0.0701	0.0023	0.0721	0.0721
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	160.25	0.0707	0.0024	0.0747	0.0747
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	171.95	0.082	0.0021	0.0579	0.0579
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	180.00	0.0902	0.0024	0.0714	0.0714
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	183.50	0.0938	0.0021	0.0554	0.0554
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	120.00	0.0381	-0.0017	0.0417	0.0417
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	150.00	0.0613	-0.0022	0.0519	0.0519
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	159.75	0.0701	-0.0027	0.0703	0.0703
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	160.25	0.0707	-0.0027	0.0719	0.0719
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	171.95	0.082	-0.0025	0.0577	0.0577
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	180.00	0.0902	-0.0028	0.0713	0.0713
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	183.50	0.0938	-0.0024	0.0558	0.0559
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	120.00	0.0381	0.0015	0.0423	0.0423
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	150.00	0.0613	0.0019	0.0523	0.0523
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	159.75	0.0701	0.0024	0.0728	0.0728
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	160.25	0.0707	0.0024	0.0746	0.0746
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	171.95	0.082	0.0021	0.0577	0.0577
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	180.00	0.0902	0.0024	0.0731	0.0731

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	183.50	0.0938	0.0021	0.0555	0.0556
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	120.00	0.0381	0.0015	0.0422	0.0422
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	150.00	0.0613	0.0019	0.0521	0.0521
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	159.75	0.0701	0.0023	0.0721	0.0721
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	160.25	0.0707	0.0023	0.0748	0.0748
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	171.95	0.082	0.0021	0.0579	0.0579
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	180.00	0.0902	0.0024	0.0714	0.0714
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	183.50	0.0938	0.0021	0.0554	0.0554
1.2D + 1.0Ev + 1.0Eh 330° Seismic	120.00	0.0382	-0.0017	0.0418	0.0418
1.2D + 1.0Ev + 1.0Eh 330° Seismic	150.00	0.0614	-0.0022	0.0520	0.052
1.2D + 1.0Ev + 1.0Eh 330° Seismic	159.75	0.0703	-0.0027	0.0706	0.0706
1.2D + 1.0Ev + 1.0Eh 330° Seismic	160.25	0.0709	-0.0027	0.0721	0.0722
1.2D + 1.0Ev + 1.0Eh 330° Seismic	171.95	0.0822	-0.0025	0.0579	0.0579
1.2D + 1.0Ev + 1.0Eh 330° Seismic	180.00	0.0904	-0.0028	0.0718	0.0718
1.2D + 1.0Ev + 1.0Eh 330° Seismic	183.50	0.094	-0.0024	0.0560	0.056
1.2D + 1.0Ev + 1.0Eh 300° Seismic	120.00	0.0381	0.0015	0.0425	0.0425
1.2D + 1.0Ev + 1.0Eh 300° Seismic	150.00	0.0614	0.0019	0.0525	0.0525
1.2D + 1.0Ev + 1.0Eh 300° Seismic	159.75	0.0703	-0.0024	0.0731	0.0731
1.2D + 1.0Ev + 1.0Eh 300° Seismic	160.25	0.0708	0.0024	0.0748	0.0748
1.2D + 1.0Ev + 1.0Eh 300° Seismic	171.95	0.0822	-0.0022	0.0578	0.0578
1.2D + 1.0Ev + 1.0Eh 300° Seismic	180.00	0.0904	0.0024	0.0737	0.0737
1.2D + 1.0Ev + 1.0Eh 300° Seismic	183.50	0.094	0.0021	0.0557	0.0558
1.2D + 1.0Ev + 1.0Eh 240° Seismic	120.00	0.0382	0.0015	0.0422	0.0422
1.2D + 1.0Ev + 1.0Eh 240° Seismic	150.00	0.0614	0.0019	0.0522	0.0522
1.2D + 1.0Ev + 1.0Eh 240° Seismic	159.75	0.0702	0.0023	0.0721	0.0721
1.2D + 1.0Ev + 1.0Eh 240° Seismic	160.25	0.0709	-0.0024	0.0749	0.0749
1.2D + 1.0Ev + 1.0Eh 240° Seismic	171.95	0.0822	-0.0022	0.0581	0.0581
1.2D + 1.0Ev + 1.0Eh 240° Seismic	180.00	0.0904	0.0024	0.0712	0.0712
1.2D + 1.0Ev + 1.0Eh 240° Seismic	183.50	0.094	0.0021	0.0555	0.0555
1.2D + 1.0Ev + 1.0Eh 210° Seismic	120.00	0.0382	-0.0017	0.0418	0.0418
1.2D + 1.0Ev + 1.0Eh 210° Seismic	150.00	0.0614	-0.0022	0.0520	0.052
1.2D + 1.0Ev + 1.0Eh 210° Seismic	159.75	0.0703	-0.0027	0.0706	0.0706
1.2D + 1.0Ev + 1.0Eh 210° Seismic	160.25	0.0709	-0.0027	0.0721	0.0721
1.2D + 1.0Ev + 1.0Eh 210° Seismic	171.95	0.0822	-0.0025	0.0579	0.0579
1.2D + 1.0Ev + 1.0Eh 210° Seismic	180.00	0.0904	-0.0028	0.0718	0.0718
1.2D + 1.0Ev + 1.0Eh 210° Seismic	183.50	0.094	-0.0024	0.0560	0.056
1.2D + 1.0Ev + 1.0Eh 180° Seismic	120.00	0.0381	0.0015	0.0425	0.0425
1.2D + 1.0Ev + 1.0Eh 180° Seismic	150.00	0.0614	0.0019	0.0525	0.0525
1.2D + 1.0Ev + 1.0Eh 180° Seismic	159.75	0.0703	0.0023	0.0731	0.0731
1.2D + 1.0Ev + 1.0Eh 180° Seismic	160.25	0.0708	0.0023	0.0748	0.0748
1.2D + 1.0Ev + 1.0Eh 180° Seismic	171.95	0.0822	0.0021	0.0578	0.0578
1.2D + 1.0Ev + 1.0Eh 180° Seismic	180.00	0.0904	0.0024	0.0737	0.0737
1.2D + 1.0Ev + 1.0Eh 180° Seismic	183.50	0.094	0.0021	0.0557	0.0558
1.2D + 1.0Ev + 1.0Eh 120° Seismic	120.00	0.0382	0.0015	0.0422	0.0422
1.2D + 1.0Ev + 1.0Eh 120° Seismic	150.00	0.0614	0.0019	0.0522	0.0522
1.2D + 1.0Ev + 1.0Eh 120° Seismic	159.75	0.0702	0.0023	0.0721	0.0721
1.2D + 1.0Ev + 1.0Eh 120° Seismic	160.25	0.0709	0.0024	0.0749	0.0749
1.2D + 1.0Ev + 1.0Eh 120° Seismic	171.95	0.0822	0.0022	0.0581	0.0581
1.2D + 1.0Ev + 1.0Eh 120° Seismic	180.00	0.0904	0.0024	0.0712	0.0712
1.2D + 1.0Ev + 1.0Eh 120° Seismic	183.50	0.094	0.0021	0.0555	0.0555
1.2D + 1.0Ev + 1.0Eh 90° Seismic	120.00	0.0382	-0.0017	0.0418	0.0418
1.2D + 1.0Ev + 1.0Eh 90° Seismic	150.00	0.0614	-0.0022	0.0520	0.052
1.2D + 1.0Ev + 1.0Eh 90° Seismic	159.75	0.0703	-0.0027	0.0706	0.0706
1.2D + 1.0Ev + 1.0Eh 90° Seismic	160.25	0.0709	-0.0027	0.0721	0.0721
1.2D + 1.0Ev + 1.0Eh 90° Seismic	171.95	0.0822	-0.0025	0.0579	0.0579
1.2D + 1.0Ev + 1.0Eh 90° Seismic	180.00	0.0904	-0.0028	0.0718	0.0718
1.2D + 1.0Ev + 1.0Eh 90° Seismic	183.50	0.094	-0.0024	0.0560	0.056
1.2D + 1.0Ev + 1.0Eh 60° Seismic	120.00	0.0381	0.0015	0.0425	0.0425
1.2D + 1.0Ev + 1.0Eh 60° Seismic	150.00	0.0614	0.0019	0.0525	0.0525

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 60° Seismic	159.75	0.0703	0.0024	0.0731	0.0731
1.2D + 1.0Ev + 1.0Eh 60° Seismic	160.25	0.0708	0.0024	0.0748	0.0748
1.2D + 1.0Ev + 1.0Eh 60° Seismic	171.95	0.0822	0.0022	0.0578	0.0578
1.2D + 1.0Ev + 1.0Eh 60° Seismic	180.00	0.0904	0.0024	0.0737	0.0737
1.2D + 1.0Ev + 1.0Eh 60° Seismic	183.50	0.094	0.0021	0.0557	0.0558
1.2D + 1.0Ev + 1.0Eh Normal Seismic	120.00	0.0382	0.0015	0.0422	0.0422
1.2D + 1.0Ev + 1.0Eh Normal Seismic	150.00	0.0614	0.0019	0.0522	0.0522
1.2D + 1.0Ev + 1.0Eh Normal Seismic	159.75	0.0702	0.0023	0.0721	0.0721
1.2D + 1.0Ev + 1.0Eh Normal Seismic	160.25	0.0709	0.0023	0.0750	0.075
1.2D + 1.0Ev + 1.0Eh Normal Seismic	171.95	0.0822	0.0021	0.0581	0.0581
1.2D + 1.0Ev + 1.0Eh Normal Seismic	180.00	0.0904	0.0024	0.0712	0.0712
1.2D + 1.0Ev + 1.0Eh Normal Seismic	183.50	0.094	0.0021	0.0555	0.0555
1.2D + 1.0Di + 1.0Wi 330° 40 mph Wind with 1.5" Radial Ice	120.00	0.1564	-0.0238	0.1613	0.1631
1.2D + 1.0Di + 1.0Wi 330° 40 mph Wind with 1.5" Radial Ice	150.00	0.2415	-0.0288	0.1858	0.188
1.2D + 1.0Di + 1.0Wi 330° 40 mph Wind with 1.5" Radial Ice	159.75	0.2725	-0.0306	0.2404	0.2411
1.2D + 1.0Di + 1.0Wi 330° 40 mph Wind with 1.5" Radial Ice	160.25	0.2746	-0.0306	0.2508	0.2515
1.2D + 1.0Di + 1.0Wi 330° 40 mph Wind with 1.5" Radial Ice	171.95	0.3141	-0.0224	0.1974	0.1986
1.2D + 1.0Di + 1.0Wi 330° 40 mph Wind with 1.5" Radial Ice	180.00	0.3421	-0.0212	0.2409	0.2417
1.2D + 1.0Di + 1.0Wi 330° 40 mph Wind with 1.5" Radial Ice	183.50	0.3544	-0.0216	0.1935	0.1935
1.2D + 1.0Di + 1.0Wi 300° 40 mph Wind with 1.5" Radial Ice	120.00	0.1559	0.0260	0.1578	0.1595
1.2D + 1.0Di + 1.0Wi 300° 40 mph Wind with 1.5" Radial Ice	150.00	0.2406	0.0309	0.1850	0.1872
1.2D + 1.0Di + 1.0Wi 300° 40 mph Wind with 1.5" Radial Ice	159.75	0.2713	0.0337	0.2350	0.2369
1.2D + 1.0Di + 1.0Wi 300° 40 mph Wind with 1.5" Radial Ice	160.25	0.2734	0.0338	0.2376	0.2395
1.2D + 1.0Di + 1.0Wi 300° 40 mph Wind with 1.5" Radial Ice	171.95	0.3126	0.0266	0.2040	0.2053
1.2D + 1.0Di + 1.0Wi 300° 40 mph Wind with 1.5" Radial Ice	180.00	0.3405	0.0269	0.2462	0.2472
1.2D + 1.0Di + 1.0Wi 300° 40 mph Wind with 1.5" Radial Ice	183.50	0.3529	0.0256	0.1902	0.191
1.2D + 1.0Di + 1.0Wi 240° 40 mph Wind with 1.5" Radial Ice	120.00	0.1574	0.0291	0.1584	0.1597
1.2D + 1.0Di + 1.0Wi 240° 40 mph Wind with 1.5" Radial Ice	150.00	0.2431	0.0349	0.1846	0.1862
1.2D + 1.0Di + 1.0Wi 240° 40 mph Wind with 1.5" Radial Ice	159.75	0.2742	0.0380	0.2412	0.2426
1.2D + 1.0Di + 1.0Wi 240° 40 mph Wind with 1.5" Radial Ice	160.25	0.2761	0.0381	0.2461	0.2474
1.2D + 1.0Di + 1.0Wi 240° 40 mph Wind with 1.5" Radial Ice	171.95	0.316	0.0298	0.2041	0.205
1.2D + 1.0Di + 1.0Wi 240° 40 mph Wind with 1.5" Radial Ice	180.00	0.3442	0.0299	0.2500	0.2507
1.2D + 1.0Di + 1.0Wi 240° 40 mph Wind with 1.5" Radial Ice	183.50	0.3564	0.0287	0.1925	0.1936
1.2D + 1.0Di + 1.0Wi 210° 40 mph Wind with 1.5" Radial Ice	120.00	0.1562	-0.0202	0.1605	0.1614
1.2D + 1.0Di + 1.0Wi 210° 40 mph Wind with 1.5" Radial Ice	150.00	0.2411	-0.0241	0.1842	0.1853
1.2D + 1.0Di + 1.0Wi 210° 40 mph Wind with 1.5" Radial Ice	159.75	0.2719	-0.0254	0.2392	0.2405
1.2D + 1.0Di + 1.0Wi 210° 40 mph Wind with 1.5" Radial Ice	160.25	0.274	-0.0254	0.2487	0.25
1.2D + 1.0Di + 1.0Wi 210° 40 mph Wind with 1.5" Radial Ice	171.95	0.3133	-0.0183	0.1954	0.1962
1.2D + 1.0Di + 1.0Wi 210° 40 mph Wind with 1.5" Radial Ice	180.00	0.3412	0.0178	0.2410	0.2416
1.2D + 1.0Di + 1.0Wi 210° 40 mph Wind with 1.5" Radial Ice	183.50	0.3535	-0.0175	0.1920	0.192
1.2D + 1.0Di + 1.0Wi 180° 40 mph Wind with 1.5" Radial Ice	120.00	0.1559	0.0161	0.1650	0.165
1.2D + 1.0Di + 1.0Wi 180° 40 mph Wind with 1.5" Radial Ice	150.00	0.2405	0.0193	0.1855	0.1855
1.2D + 1.0Di + 1.0Wi 180° 40 mph Wind with 1.5" Radial Ice	159.75	0.2712	0.0199	0.2459	0.2459
1.2D + 1.0Di + 1.0Wi 180° 40 mph Wind with 1.5" Radial Ice	160.25	0.2734	0.0199	0.2578	0.2578
1.2D + 1.0Di + 1.0Wi 180° 40 mph Wind with 1.5" Radial Ice	171.95	0.3124	0.0135	0.1923	0.1923
1.2D + 1.0Di + 1.0Wi 180° 40 mph Wind with 1.5" Radial Ice	180.00	0.3403	0.0120	0.2446	0.2446
1.2D + 1.0Di + 1.0Wi 180° 40 mph Wind with 1.5" Radial Ice	183.50	0.3525	0.0129	0.1897	0.1901
1.2D + 1.0Di + 1.0Wi 120° 40 mph Wind with 1.5" Radial Ice	120.00	0.1574	-0.0291	0.1584	0.1597
1.2D + 1.0Di + 1.0Wi 120° 40 mph Wind with 1.5" Radial Ice	150.00	0.2431	-0.0349	0.1846	0.1862
1.2D + 1.0Di + 1.0Wi 120° 40 mph Wind with 1.5" Radial Ice	159.75	0.2742	-0.0380	0.2412	0.2426
1.2D + 1.0Di + 1.0Wi 120° 40 mph Wind with 1.5" Radial Ice	160.25	0.2761	-0.0381	0.2461	0.2474
1.2D + 1.0Di + 1.0Wi 120° 40 mph Wind with 1.5" Radial Ice	171.95	0.316	-0.0298	0.2041	0.205
1.2D + 1.0Di + 1.0Wi 120° 40 mph Wind with 1.5" Radial Ice	180.00	0.3442	-0.0299	0.2500	0.2507
1.2D + 1.0Di + 1.0Wi 120° 40 mph Wind with 1.5" Radial Ice	183.50	0.3564	-0.0287	0.1925	0.1936
1.2D + 1.0Di + 1.0Wi 90° 40 mph Wind with 1.5" Radial Ice	120.00	0.1562	-0.0320	0.1529	0.1537
1.2D + 1.0Di + 1.0Wi 90° 40 mph Wind with 1.5" Radial Ice	150.00	0.241	-0.0383	0.1834	0.1844
1.2D + 1.0Di + 1.0Wi 90° 40 mph Wind with 1.5" Radial Ice	159.75	0.2718	-0.0417	0.2277	0.2287
1.2D + 1.0Di + 1.0Wi 90° 40 mph Wind with 1.5" Radial Ice	160.25	0.2738	-0.0418	0.2279	0.2288
1.2D + 1.0Di + 1.0Wi 90° 40 mph Wind with 1.5" Radial Ice	171.95	0.3131	-0.0331	0.2067	0.2074

ASSET: 306035, Unity Village MO 2

CODE: ANSI/TIA-222-H

CUSTOMER: AT&T MOBILITY

PROJECT: 14861224_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 90° 40 mph Wind with 1.5" Radial Ice	180.00	0.3411	-0.0334	0.2410	0.2415
1.2D + 1.0Di + 1.0Wi 90° 40 mph Wind with 1.5" Radial Ice	183.50	0.3534	-0.0320	0.1907	0.1934
1.2D + 1.0Di + 1.0Wi 60° 40 mph Wind with 1.5" Radial Ice	120.00	0.1559	-0.0260	0.1578	0.1595
1.2D + 1.0Di + 1.0Wi 60° 40 mph Wind with 1.5" Radial Ice	150.00	0.2406	-0.0309	0.1850	0.1872
1.2D + 1.0Di + 1.0Wi 60° 40 mph Wind with 1.5" Radial Ice	159.75	0.2713	-0.0337	0.2350	0.2369
1.2D + 1.0Di + 1.0Wi 60° 40 mph Wind with 1.5" Radial Ice	160.25	0.2734	-0.0338	0.2376	0.2395
1.2D + 1.0Di + 1.0Wi 60° 40 mph Wind with 1.5" Radial Ice	171.95	0.3126	-0.0266	0.2040	0.2053
1.2D + 1.0Di + 1.0Wi 60° 40 mph Wind with 1.5" Radial Ice	180.00	0.3405	-0.0269	0.2462	0.2472
1.2D + 1.0Di + 1.0Wi 60° 40 mph Wind with 1.5" Radial Ice	183.50	0.3529	-0.0256	0.1902	0.191
1.2D + 1.0Di + 1.0Wi Normal 40 mph Wind with 1.5" Radial Ice	120.00	0.1577	0.0164	0.1661	0.1661
1.2D + 1.0Di + 1.0Wi Normal 40 mph Wind with 1.5" Radial Ice	150.00	0.2437	0.0198	0.1862	0.1864
1.2D + 1.0Di + 1.0Wi Normal 40 mph Wind with 1.5" Radial Ice	159.75	0.275	0.0206	0.2535	0.2535
1.2D + 1.0Di + 1.0Wi Normal 40 mph Wind with 1.5" Radial Ice	160.25	0.277	0.0206	0.2678	0.2678
1.2D + 1.0Di + 1.0Wi Normal 40 mph Wind with 1.5" Radial Ice	171.95	0.3171	0.0143	0.1941	0.1944
1.2D + 1.0Di + 1.0Wi Normal 40 mph Wind with 1.5" Radial Ice	180.00	0.3455	0.0129	0.2496	0.2496
1.2D + 1.0Di + 1.0Wi Normal 40 mph Wind with 1.5" Radial Ice	183.50	0.3577	0.0137	0.1947	0.1952
0.9D + 1.0W 330° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5554	-0.1936	0.5993	0.6298
0.9D + 1.0W 330° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8739	-0.2457	0.7025	0.7442
0.9D + 1.0W 330° 109 mph Wind with No Ice (Reduced DL)	159.75	0.9912	-0.2681	0.9491	0.9726
0.9D + 1.0W 330° 109 mph Wind with No Ice (Reduced DL)	160.25	0.9995	-0.2692	1.0011	1.0168
0.9D + 1.0W 330° 109 mph Wind with No Ice (Reduced DL)	171.95	1.1507	-0.2177	0.7449	0.7761
0.9D + 1.0W 330° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2571	-0.2143	0.9353	0.9596
0.9D + 1.0W 330° 109 mph Wind with No Ice (Reduced DL)	183.50	1.3036	-0.2158	0.7342	0.7501
0.9D + 1.0W 300° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5492	-0.1827	0.5697	0.5982
0.9D + 1.0W 300° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8646	-0.2318	0.6918	0.7296
0.9D + 1.0W 300° 109 mph Wind with No Ice (Reduced DL)	159.75	0.9807	-0.2539	0.9056	0.9405
0.9D + 1.0W 300° 109 mph Wind with No Ice (Reduced DL)	160.25	0.9884	-0.2549	0.9156	0.9504
0.9D + 1.0W 300° 109 mph Wind with No Ice (Reduced DL)	171.95	1.1377	-0.2083	0.7780	0.8054
0.9D + 1.0W 300° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2435	-0.2059	0.9532	0.9751
0.9D + 1.0W 300° 109 mph Wind with No Ice (Reduced DL)	183.50	1.2896	-0.2060	0.7174	0.7299
0.9D + 1.0W 240° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5713	0.2037	0.5913	0.5995
0.9D + 1.0W 240° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8976	0.2562	0.7159	0.7384
0.9D + 1.0W 240° 109 mph Wind with No Ice (Reduced DL)	159.75	1.0176	0.2817	0.9469	0.9554
0.9D + 1.0W 240° 109 mph Wind with No Ice (Reduced DL)	160.25	1.0252	0.2828	0.9584	0.9669
0.9D + 1.0W 240° 109 mph Wind with No Ice (Reduced DL)	171.95	1.18	0.2341	0.8024	0.8202
0.9D + 1.0W 240° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2893	0.2346	0.9875	0.9929
0.9D + 1.0W 240° 109 mph Wind with No Ice (Reduced DL)	183.50	1.3369	0.2308	0.7455	0.7703
0.9D + 1.0W 210° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5553	0.1328	0.5986	0.6087
0.9D + 1.0W 210° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8738	0.1682	0.7009	0.7143
0.9D + 1.0W 210° 109 mph Wind with No Ice (Reduced DL)	159.75	0.9911	0.1848	0.9446	0.9548
0.9D + 1.0W 210° 109 mph Wind with No Ice (Reduced DL)	160.25	0.9994	0.1855	0.9907	1.0031
0.9D + 1.0W 210° 109 mph Wind with No Ice (Reduced DL)	171.95	1.1504	0.1533	0.7414	0.7522
0.9D + 1.0W 210° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2569	0.1529	0.9348	0.9411
0.9D + 1.0W 210° 109 mph Wind with No Ice (Reduced DL)	183.50	1.3035	0.1510	0.7378	0.7447
0.9D + 1.0W 180° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5501	0.1191	0.6127	0.6127
0.9D + 1.0W 180° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8661	0.1474	0.6983	0.7062
0.9D + 1.0W 180° 109 mph Wind with No Ice (Reduced DL)	159.75	0.9825	0.1559	0.9794	0.9794
0.9D + 1.0W 180° 109 mph Wind with No Ice (Reduced DL)	160.25	0.9913	0.1561	1.0511	1.0511
0.9D + 1.0W 180° 109 mph Wind with No Ice (Reduced DL)	171.95	1.1407	0.1248	0.7149	0.721
0.9D + 1.0W 180° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2465	0.1193	0.9476	0.9476
0.9D + 1.0W 180° 109 mph Wind with No Ice (Reduced DL)	183.50	1.2928	0.1239	0.7252	0.7357
0.9D + 1.0W 120° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5713	-0.2037	0.5913	0.5995
0.9D + 1.0W 120° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8976	-0.2562	0.7159	0.7384
0.9D + 1.0W 120° 109 mph Wind with No Ice (Reduced DL)	159.75	1.0176	-0.2817	0.9469	0.9554
0.9D + 1.0W 120° 109 mph Wind with No Ice (Reduced DL)	160.25	1.0252	-0.2828	0.9584	0.9669
0.9D + 1.0W 120° 109 mph Wind with No Ice (Reduced DL)	171.95	1.18	-0.2341	0.8024	0.8202
0.9D + 1.0W 120° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2893	-0.2346	0.9875	0.9929
0.9D + 1.0W 120° 109 mph Wind with No Ice (Reduced DL)	183.50	1.3369	-0.2308	0.7455	0.7703
0.9D + 1.0W 90° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5545	-0.1887	0.5491	0.557

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.0W 90° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8725	-0.2341	0.6890	0.7079
0.9D + 1.0W 90° 109 mph Wind with No Ice (Reduced DL)	159.75	0.9894	-0.2573	0.8642	0.8733
0.9D + 1.0W 90° 109 mph Wind with No Ice (Reduced DL)	160.25	0.9963	-0.2583	0.8457	0.8551
0.9D + 1.0W 90° 109 mph Wind with No Ice (Reduced DL)	171.95	1.1477	-0.2139	0.7993	0.8127
0.9D + 1.0W 90° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2541	-0.2162	0.9325	0.9384
0.9D + 1.0W 90° 109 mph Wind with No Ice (Reduced DL)	183.50	1.3003	-0.2111	0.7216	0.7519
0.9D + 1.0W 60° 109 mph Wind with No Ice (Reduced DL)	120.00	0.5492	0.1827	0.5697	0.5982
0.9D + 1.0W 60° 109 mph Wind with No Ice (Reduced DL)	150.00	0.8646	0.2318	0.6918	0.7296
0.9D + 1.0W 60° 109 mph Wind with No Ice (Reduced DL)	159.75	0.9807	0.2539	0.9056	0.9405
0.9D + 1.0W 60° 109 mph Wind with No Ice (Reduced DL)	160.25	0.9884	0.2549	0.9156	0.9504
0.9D + 1.0W 60° 109 mph Wind with No Ice (Reduced DL)	171.95	1.1377	0.2083	0.7780	0.8054
0.9D + 1.0W 60° 109 mph Wind with No Ice (Reduced DL)	180.00	1.2435	0.2059	0.9532	0.9751
0.9D + 1.0W 60° 109 mph Wind with No Ice (Reduced DL)	183.50	1.2896	0.2060	0.7174	0.7299
0.9D + 1.0W Normal 109 mph Wind with No Ice (Reduced DL)	120.00	0.5721	0.1239	0.6359	0.6359
0.9D + 1.0W Normal 109 mph Wind with No Ice (Reduced DL)	150.00	0.8993	0.1556	0.7231	0.7301
0.9D + 1.0W Normal 109 mph Wind with No Ice (Reduced DL)	159.75	1.0197	0.1675	1.0264	1.0264
0.9D + 1.0W Normal 109 mph Wind with No Ice (Reduced DL)	160.25	1.0283	0.1681	1.1007	1.1007
0.9D + 1.0W Normal 109 mph Wind with No Ice (Reduced DL)	171.95	1.1832	0.1343	0.7393	0.7491
0.9D + 1.0W Normal 109 mph Wind with No Ice (Reduced DL)	180.00	1.2926	0.1303	0.9824	0.9824
0.9D + 1.0W Normal 109 mph Wind with No Ice (Reduced DL)	183.50	1.3401	0.1335	0.7508	0.7626
1.2D + 1.0W 330° 109 mph Wind with No Ice	120.00	0.5564	-0.1937	0.6007	0.6311
1.2D + 1.0W 330° 109 mph Wind with No Ice	150.00	0.8757	-0.2458	0.7043	0.746
1.2D + 1.0W 330° 109 mph Wind with No Ice	159.75	0.9933	-0.2682	0.9521	0.975
1.2D + 1.0W 330° 109 mph Wind with No Ice	160.25	1.0016	-0.2693	1.0043	1.0192
1.2D + 1.0W 330° 109 mph Wind with No Ice	171.95	1.1532	-0.2178	0.7470	0.7781
1.2D + 1.0W 330° 109 mph Wind with No Ice	180.00	1.26	-0.2144	0.9382	0.9624
1.2D + 1.0W 330° 109 mph Wind with No Ice	183.50	1.3065	-0.2158	0.7361	0.7519
1.2D + 1.0W 300° 109 mph Wind with No Ice	120.00	0.5503	-0.1828	0.5710	0.5996
1.2D + 1.0W 300° 109 mph Wind with No Ice	150.00	0.8664	-0.2319	0.6937	0.7314
1.2D + 1.0W 300° 109 mph Wind with No Ice	159.75	0.9828	-0.2540	0.9080	0.9429
1.2D + 1.0W 300° 109 mph Wind with No Ice	160.25	0.9905	-0.2551	0.9180	0.9528
1.2D + 1.0W 300° 109 mph Wind with No Ice	171.95	1.1402	-0.2084	0.7801	0.8074
1.2D + 1.0W 300° 109 mph Wind with No Ice	180.00	1.2462	-0.2061	0.9561	0.978
1.2D + 1.0W 300° 109 mph Wind with No Ice	183.50	1.2925	-0.2061	0.7192	0.7317
1.2D + 1.0W 240° 109 mph Wind with No Ice	120.00	0.5724	0.2038	0.5926	0.6008
1.2D + 1.0W 240° 109 mph Wind with No Ice	150.00	0.8995	0.2564	0.7175	0.7401
1.2D + 1.0W 240° 109 mph Wind with No Ice	159.75	1.0198	0.2819	0.9500	0.9585
1.2D + 1.0W 240° 109 mph Wind with No Ice	160.25	1.0273	0.2830	0.9617	0.9701
1.2D + 1.0W 240° 109 mph Wind with No Ice	171.95	1.1826	0.2342	0.8043	0.8222
1.2D + 1.0W 240° 109 mph Wind with No Ice	180.00	1.2921	0.2347	0.9906	0.9959
1.2D + 1.0W 240° 109 mph Wind with No Ice	183.50	1.3399	0.2309	0.7474	0.7722
1.2D + 1.0W 210° 109 mph Wind with No Ice	120.00	0.5563	0.1329	0.5999	0.6099
1.2D + 1.0W 210° 109 mph Wind with No Ice	150.00	0.8756	0.1683	0.7025	0.7161
1.2D + 1.0W 210° 109 mph Wind with No Ice	159.75	0.9932	0.1850	0.9475	0.9576
1.2D + 1.0W 210° 109 mph Wind with No Ice	160.25	1.0015	0.1857	0.9937	1.0055
1.2D + 1.0W 210° 109 mph Wind with No Ice	171.95	1.1529	0.1534	0.7433	0.7542
1.2D + 1.0W 210° 109 mph Wind with No Ice	180.00	1.2596	0.1530	0.9376	0.9439
1.2D + 1.0W 210° 109 mph Wind with No Ice	183.50	1.3064	0.1512	0.7396	0.7465
1.2D + 1.0W 180° 109 mph Wind with No Ice	120.00	0.5511	0.1190	0.6140	0.614
1.2D + 1.0W 180° 109 mph Wind with No Ice	150.00	0.8679	0.1473	0.7001	0.7077
1.2D + 1.0W 180° 109 mph Wind with No Ice	159.75	0.9846	0.1558	0.9819	0.9819
1.2D + 1.0W 180° 109 mph Wind with No Ice	160.25	0.9934	0.1559	1.0536	1.0536
1.2D + 1.0W 180° 109 mph Wind with No Ice	171.95	1.1432	0.1246	0.7169	0.7228
1.2D + 1.0W 180° 109 mph Wind with No Ice	180.00	1.2492	0.1191	0.9505	0.9505
1.2D + 1.0W 180° 109 mph Wind with No Ice	183.50	1.2956	0.1238	0.7269	0.7374
1.2D + 1.0W 120° 109 mph Wind with No Ice	120.00	0.5724	-0.2038	0.5926	0.6008
1.2D + 1.0W 120° 109 mph Wind with No Ice	150.00	0.8995	-0.2564	0.7175	0.7401
1.2D + 1.0W 120° 109 mph Wind with No Ice	159.75	1.0198	-0.2819	0.9500	0.9585
1.2D + 1.0W 120° 109 mph Wind with No Ice	160.25	1.0273	-0.2830	0.9617	0.9701

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 120° 109 mph Wind with No Ice	171.95	1.1826	-0.2342	0.8043	0.8222
1.2D + 1.0W 120° 109 mph Wind with No Ice	180.00	1.2921	-0.2347	0.9906	0.9959
1.2D + 1.0W 120° 109 mph Wind with No Ice	183.50	1.3399	-0.2309	0.7474	0.7722
1.2D + 1.0W 90° 109 mph Wind with No Ice	120.00	0.5556	-0.1887	0.5503	0.5584
1.2D + 1.0W 90° 109 mph Wind with No Ice	150.00	0.8743	-0.2342	0.6907	0.7095
1.2D + 1.0W 90° 109 mph Wind with No Ice	159.75	0.9915	-0.2574	0.8670	0.8761
1.2D + 1.0W 90° 109 mph Wind with No Ice	160.25	0.9984	-0.2584	0.8488	0.8581
1.2D + 1.0W 90° 109 mph Wind with No Ice	171.95	1.1502	-0.2140	0.8014	0.8146
1.2D + 1.0W 90° 109 mph Wind with No Ice	180.00	1.2569	-0.2162	0.9353	0.9412
1.2D + 1.0W 90° 109 mph Wind with No Ice	183.50	1.3032	-0.2111	0.7235	0.7537
1.2D + 1.0W 60° 109 mph Wind with No Ice	120.00	0.5503	0.1828	0.5710	0.5996
1.2D + 1.0W 60° 109 mph Wind with No Ice	150.00	0.8664	0.2319	0.6937	0.7314
1.2D + 1.0W 60° 109 mph Wind with No Ice	159.75	0.9828	0.2540	0.9080	0.9429
1.2D + 1.0W 60° 109 mph Wind with No Ice	160.25	0.9905	0.2551	0.9180	0.9528
1.2D + 1.0W 60° 109 mph Wind with No Ice	171.95	1.1402	0.2084	0.7801	0.8074
1.2D + 1.0W 60° 109 mph Wind with No Ice	180.00	1.2462	0.2061	0.9561	0.978
1.2D + 1.0W 60° 109 mph Wind with No Ice	183.50	1.2925	0.2061	0.7192	0.7317
1.2D + 1.0W Normal 109 mph Wind with No Ice	120.00	0.5732	0.1239	0.6373	0.6373
1.2D + 1.0W Normal 109 mph Wind with No Ice	150.00	0.9011	0.1556	0.7248	0.7319
1.2D + 1.0W Normal 109 mph Wind with No Ice	159.75	1.0218	0.1674	1.0296	1.0296
1.2D + 1.0W Normal 109 mph Wind with No Ice	160.25	1.0305	0.1680	1.1042	1.1042
1.2D + 1.0W Normal 109 mph Wind with No Ice	171.95	1.1858	0.1342	0.7413	0.7511
1.2D + 1.0W Normal 109 mph Wind with No Ice	180.00	1.2955	0.1302	0.9855	0.9855
1.2D + 1.0W Normal 109 mph Wind with No Ice	183.50	1.3431	0.1335	0.7527	0.7645

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0W Normal	9.82	0.00	0	1	0.00	320.86	-26.00
	9.81	0.00	120	1a	8.63	-131.05	-8.55
	9.81	0.00	240	1b	-8.63	-131.05	-8.55
1.2D + 1.0W 60°	9.82	0.00	0	1	-2.85	163.67	-12.77
	9.81	0.00	120	1a	-12.47	163.40	3.93
	9.81	0.00	240	1b	-19.93	-268.32	-11.51
1.2D + 1.0W 90°	9.82	0.00	0	1	-3.38	19.59	-0.86
	9.81	0.00	120	1a	-19.67	271.67	9.45
	9.81	0.00	240	1b	-18.26	-232.51	-8.59
1.2D + 1.0W 120°	9.82	0.00	0	1	-3.11	-131.04	11.75
	9.81	0.00	120	1a	-22.51	320.59	13.00
	9.81	0.00	240	1b	-11.72	-130.79	-3.20
1.2D + 1.0W 180°	9.82	0.00	0	1	0.00	-268.57	23.03
	9.81	0.00	120	1a	-9.64	163.66	8.84
	9.81	0.00	240	1b	9.64	163.66	8.84
1.2D + 1.0W 210°	9.82	0.00	0	1	1.71	-232.80	20.12
	9.81	0.00	120	1a	0.93	19.73	3.34
	9.81	0.00	240	1b	18.02	271.82	12.32
1.2D + 1.0W 240°	9.82	0.00	0	1	3.11	-131.04	11.75
	9.81	0.00	120	1a	11.72	-130.79	-3.20
	9.81	0.00	240	1b	22.51	320.59	13.00
1.2D + 1.0W 300°	9.82	0.00	0	1	2.85	163.67	-12.77
	9.81	0.00	120	1a	19.93	-268.32	-11.51
	9.81	0.00	240	1b	12.47	163.40	3.93
1.2D + 1.0W 330°	9.82	0.00	0	1	1.67	271.98	-21.77
	9.81	0.00	120	1a	16.56	-232.66	-11.53
	9.81	0.00	240	1b	2.42	19.43	-2.48
0.9D + 1.0W Normal	9.82	0.00	0	1	0.00	315.54	-25.77
	9.81	0.00	120	1a	8.82	-135.74	-8.67
	9.81	0.00	240	1b	-8.82	-135.74	-8.67
0.9D + 1.0W 60°	9.82	0.00	0	1	-2.86	158.57	-12.54
	9.81	0.00	120	1a	-12.28	158.30	3.81
	9.81	0.00	240	1b	-20.13	-272.81	-11.63
0.9D + 1.0W 90°	9.82	0.00	0	1	-3.38	14.70	-0.63
	9.81	0.00	120	1a	-19.48	266.42	9.33
	9.81	0.00	240	1b	-18.45	-237.05	-8.70
0.9D + 1.0W 120°	9.82	0.00	0	1	-3.11	-135.73	11.98
	9.81	0.00	120	1a	-22.31	315.27	12.89
	9.81	0.00	240	1b	-11.91	-135.48	-3.31
0.9D + 1.0W 180°	9.82	0.00	0	1	0.00	-273.06	23.25
	9.81	0.00	120	1a	-9.44	158.56	8.73
	9.81	0.00	240	1b	9.44	158.56	8.73
0.9D + 1.0W 210°	9.82	0.00	0	1	1.71	-237.34	20.34
	9.81	0.00	120	1a	1.13	14.84	3.23
	9.81	0.00	240	1b	17.81	266.57	12.21
0.9D + 1.0W 240°	9.82	0.00	0	1	3.11	-135.73	11.98
	9.81	0.00	120	1a	11.91	-135.48	-3.31
	9.81	0.00	240	1b	22.31	315.27	12.89
0.9D + 1.0W 300°	9.82	0.00	0	1	2.86	158.57	-12.54
	9.81	0.00	120	1a	20.13	-272.81	-11.63
	9.81	0.00	240	1b	12.28	158.30	3.81
0.9D + 1.0W 330°	9.82	0.00	0	1	1.67	266.73	-21.54
	9.81	0.00	120	1a	16.76	-237.20	-11.64
	9.81	0.00	240	1b	2.23	14.54	-2.60
1.2D + 1.0Di + 1.0Wi Normal	9.82	0.00	0	1	0.00	131.25	-6.73
	9.81	0.00	120	1a	3.30	3.74	-2.97
	9.81	0.00	240	1b	-3.30	3.74	-2.97
1.2D + 1.0Di + 1.0Wi 60°	9.82	0.00	0	1	-0.90	88.16	-2.97
	9.81	0.00	120	1a	-3.02	88.07	0.71

ASSET: 306035, Unity Village MO 2
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
PROJECT: 14861224_C3_03

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Di + 1.0Wi 90°	9.81	0.00	240	1b	-6.84	-37.50	-3.95
	9.82	0.00	0	1	-1.05	46.28	0.65
	9.81	0.00	120	1a	-5.15	118.98	2.38
1.2D + 1.0Di + 1.0Wi 120°	9.81	0.00	240	1b	-6.29	-26.53	-3.03
	9.82	0.00	0	1	-0.93	3.80	4.34
	9.81	0.00	120	1a	-5.82	131.15	3.36
1.2D + 1.0Di + 1.0Wi 180°	9.81	0.00	240	1b	-4.22	3.78	-1.37
	9.82	0.00	0	1	0.00	-37.48	7.91
	9.81	0.00	120	1a	-2.13	88.11	2.26
1.2D + 1.0Di + 1.0Wi 210°	9.81	0.00	240	1b	2.13	88.11	2.26
	9.82	0.00	0	1	0.53	-26.52	6.96
	9.81	0.00	120	1a	1.08	46.25	0.58
1.2D + 1.0Di + 1.0Wi 240°	9.81	0.00	240	1b	4.63	119.00	3.28
	9.82	0.00	0	1	0.93	3.80	4.34
	9.81	0.00	120	1a	4.22	3.78	-1.37
1.2D + 1.0Di + 1.0Wi 300°	9.81	0.00	240	1b	5.82	131.15	3.36
	9.82	0.00	0	1	0.90	88.16	-2.97
	9.81	0.00	120	1a	6.84	-37.50	-3.95
1.2D + 1.0Di + 1.0Wi 330°	9.81	0.00	240	1b	3.02	88.07	0.71
	9.82	0.00	0	1	0.52	119.08	-5.65
	9.81	0.00	120	1a	5.77	-26.55	-3.93
1.2D + 1.0Ev + 1.0Eh Normal	9.81	0.00	240	1b	-0.04	46.20	-1.23
	9.82	0.00	0	1	0.00	38.22	-2.25
	9.81	0.00	120	1a	-0.28	10.07	0.04
1.2D + 1.0Ev + 1.0Eh 60°	9.81	0.00	240	1b	0.28	10.07	0.04
	9.82	0.00	0	1	-0.11	28.84	-1.59
	9.81	0.00	120	1a	-1.43	28.84	0.70
1.2D + 1.0Ev + 1.0Eh 90°	9.81	0.00	240	1b	-0.35	0.69	-0.20
	9.82	0.00	0	1	-0.13	19.46	-0.93
	9.81	0.00	120	1a	-1.83	35.71	0.98
1.2D + 1.0Ev + 1.0Eh 120°	9.81	0.00	240	1b	-0.22	3.20	-0.06
	9.82	0.00	0	1	-0.11	10.07	-0.26
	9.81	0.00	120	1a	-1.95	38.22	1.13
1.2D + 1.0Ev + 1.0Eh 180°	9.81	0.00	240	1b	0.17	10.07	0.23
	9.82	0.00	0	1	0.00	0.69	0.40
	9.81	0.00	120	1a	-1.32	28.84	0.89
1.2D + 1.0Ev + 1.0Eh 210°	9.81	0.00	240	1b	1.32	28.84	0.89
	9.82	0.00	0	1	0.06	3.20	0.22
	9.81	0.00	120	1a	-0.74	19.46	0.57
1.2D + 1.0Ev + 1.0Eh 240°	9.81	0.00	240	1b	1.77	35.71	1.09
	9.82	0.00	0	1	0.11	10.07	-0.26
	9.81	0.00	120	1a	-0.17	10.07	0.23
1.2D + 1.0Ev + 1.0Eh 300°	9.81	0.00	240	1b	1.95	38.22	1.13
	9.82	0.00	0	1	0.11	28.84	-1.59
	9.81	0.00	120	1a	0.35	0.69	-0.20
1.2D + 1.0Ev + 1.0Eh 330°	9.81	0.00	240	1b	1.43	28.84	0.70
	9.82	0.00	0	1	0.06	35.71	-2.08
	9.81	0.00	120	1a	0.16	3.20	-0.17
0.9D - 1.0Ev + 1.0Eh Normal	9.81	0.00	240	1b	0.87	19.46	0.35
	9.82	0.00	0	1	0.00	32.74	-1.99
	9.81	0.00	120	1a	-0.06	4.63	-0.09
0.9D - 1.0Ev + 1.0Eh 60°	9.81	0.00	240	1b	0.06	4.63	-0.09
	9.82	0.00	0	1	-0.11	23.37	-1.33
	9.81	0.00	120	1a	-1.21	23.37	0.57
0.9D - 1.0Ev + 1.0Eh 90°	9.81	0.00	240	1b	-0.57	-4.73	-0.33
	9.82	0.00	0	1	-0.13	14.00	-0.67
	9.81	0.00	120	1a	-1.60	30.23	0.85
0.9D - 1.0Ev + 1.0Eh 120°	9.81	0.00	240	1b	-0.45	-2.22	-0.19
	9.82	0.00	0	1	-0.11	4.63	0.00

DETAILED REACTIONS							
Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
0.9D - 1.0Ev + 1.0Eh 180°	9.81	0.00	120	1a	-1.73	32.74	1.00
	9.81	0.00	240	1b	-0.05	4.63	0.10
	9.82	0.00	0	1	0.00	-4.73	0.66
	9.81	0.00	120	1a	-1.10	23.37	0.76
	9.81	0.00	240	1b	1.10	23.37	0.76
0.9D - 1.0Ev + 1.0Eh 210°	9.82	0.00	0	1	0.06	-2.22	0.48
	9.81	0.00	120	1a	-0.51	14.00	0.44
	9.81	0.00	240	1b	1.54	30.23	0.96
0.9D - 1.0Ev + 1.0Eh 240°	9.82	0.00	0	1	0.11	4.63	0.00
	9.81	0.00	120	1a	0.05	4.63	0.10
	9.81	0.00	240	1b	1.73	32.74	1.00
0.9D - 1.0Ev + 1.0Eh 300°	9.82	0.00	0	1	0.11	23.37	-1.33
	9.81	0.00	120	1a	0.57	-4.73	-0.33
	9.81	0.00	240	1b	1.21	23.37	0.57
0.9D - 1.0Ev + 1.0Eh 330°	9.82	0.00	0	1	0.06	30.23	-1.82
	9.81	0.00	120	1a	0.38	-2.22	-0.30
	9.81	0.00	240	1b	0.64	14.00	0.22
1.0D + 1.0W Service Normal	9.82	0.00	0	1	0.00	107.53	-8.39
	9.81	0.00	120	1a	2.19	-29.29	-2.34
	9.81	0.00	240	1b	-2.19	-29.29	-2.34
1.0D + 1.0W Service 60°	9.82	0.00	0	1	-0.87	59.94	-4.37
	9.81	0.00	120	1a	-4.21	59.86	1.43
	9.81	0.00	240	1b	-5.61	-70.84	-3.24
1.0D + 1.0W Service 90°	9.82	0.00	0	1	-1.03	16.33	-0.75
	9.81	0.00	120	1a	-6.40	92.63	3.11
	9.81	0.00	240	1b	-5.10	-60.00	-2.36
1.0D + 1.0W Service 120°	9.82	0.00	0	1	-0.94	-29.28	3.07
	9.81	0.00	120	1a	-7.26	107.44	4.19
	9.81	0.00	240	1b	-3.12	-29.21	-0.72
1.0D + 1.0W Service 180°	9.82	0.00	0	1	0.00	-70.91	6.48
	9.81	0.00	120	1a	-3.35	59.93	2.93
	9.81	0.00	240	1b	3.35	59.93	2.93
1.0D + 1.0W Service 210°	9.82	0.00	0	1	0.51	-60.08	5.60
	9.81	0.00	120	1a	-0.14	16.36	1.26
	9.81	0.00	240	1b	5.89	92.68	3.99
1.0D + 1.0W Service 240°	9.82	0.00	0	1	0.94	-29.28	3.07
	9.81	0.00	120	1a	3.12	-29.21	-0.72
	9.81	0.00	240	1b	7.26	107.44	4.19
1.0D + 1.0W Service 300°	9.82	0.00	0	1	0.87	59.94	-4.37
	9.81	0.00	120	1a	5.61	-70.84	-3.24
	9.81	0.00	240	1b	4.21	59.86	1.43
1.0D + 1.0W Service 330°	9.82	0.00	0	1	0.51	92.74	-7.10
	9.81	0.00	120	1a	4.59	-60.05	-3.24
	9.81	0.00	240	1b	1.16	16.27	-0.51

MAXIMUM REACTIONS SUMMARY					
Individual		Global (DL+WL+IL)		Global (DL+WL)	
Max Uplift:	273.06 (kip)	Moment Ice:	1251.46 (kip-ft)	Moment:	4435.50 (kip-ft)
Max Down:	320.86 (kip)	Total Down Ice:	138.73 (kip)	Total Down:	58.75 (kip)
Max Shear:	26 (kip)	Total Shear Ice:	12.67 (kip)	Total Shear:	43.1 (kip)
1.2D + 1.0W Normal					