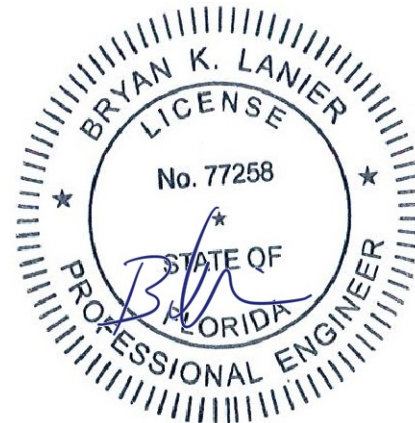




AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 250 ft Self Supported Tower
ATC Site Name : ELLISVILLE FL, FL
ATC Asset Number : 2544
Engineering Number : 13652487_C3_03
Proposed Carrier : SPRINT NEXTEL
Carrier Site Name : 9JK2337S
Carrier Site Number : 9JK2337S
Site Location : US Highway 41
Lake City, FL 32025-2245
30.002800,-82.599300
County : Columbia
Date : June 10, 2021
Max Usage : 47%
Result : Pass



Prepared By:
Jennifer Yu
Structural Engineer I

Reviewed By:

This item has been electronically signed and sealed by Bryan Lanier, PE on the Date and/or Time Stamp shown using a digital signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

cosign

COA: 9053



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 250 ft self supported tower to reflect the change in loading by SPRINT NEXTEL.

Supporting Documents

Tower Drawings	Paul J. Ford Job #331-99-02, dated March 30, 1999
Foundation Drawing	FWT Job #15831, dated September 2, 1998
Geotechnical Report	FTE Project #98-3445, dated June 3, 1998

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:	120 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	30 mph (3-Second Gust) w/ 1/4" radial ice concurrent
Code:	ANSI/TIA-222-H / 2018 IBC / 7th Ed. (2020) Florida Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	$S_s = 0.08$, $S_1 = 0.05$
Site Class:	D - Stiff Soil

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 contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
244.2	2	Aviat Networks ODU 600	Sector Frame	(2) 0.41" (10.3mm) LMR-400	VERIZON WIRELESS
240.0	1	Commscope VHLPX3-11W/A		(2) 1.58" (40.1mm) Hybrid	
234.3	1	Raycap RCMDC-6627-PF-48			
232.1	6	Ericsson Radio 8843			
	3	Ericsson Radio 4449			
	6	Commscope NHH-65C-R2B			
211.8	1	Radio Waves HP3-11	Leg	(3) 0.41" (10.3mm) LMR-400	NORTH FLORIDA BROADBAND AUTHORITY
211.1	1	Radio Waves HPD6-59			
210.6	3	Generic Radio/ODU			
210.5	1	Radio Waves HP2-11			

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
247.0	9	RFS ACU-A20-N	Sector Frame	(1) 0.41" (10.3mm) Fiber (3) 1 1/4" (1.25"- 31.8mm) Fiber	SPRINT NEXTEL
	3	Ericsson RRUS 31			
	6	Ericsson RRUS-11 800 MHz			
	3	Commscope DT465B-2XR			
	2	RFS APXV9ERR18-C-A20			
	1	RFS APXVERR18-C(57.0 lb)			
	3	Ericsson RRUS82 w/ Solarshield			

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
247.0	3	Ericsson Radio 4460 B25+B66	Sabre C10857001C sector frames	(3) 1.99" (50.7mm) Hybrid	SPRINT NEXTEL
	3	Ericsson Radio 4480 B71+B85A			
	3	Ericsson Air6449 B41			
	3	Commscope FFVV-65B-R3-V1			

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines in the place of the existing SPRINT NEXTEL lines.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	47%	Pass
Diagonals	42%	Pass
Horizontals	14%	Pass
Anchor Bolts	46%	Pass
Leg Bolts	35%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Uplift (Kips)	484.0	653.4	216.5	33%
Axial (Kips)	548.0	739.8	295.0	40%
Shear (Kips)	72.5	97.9	43.3	44%
* The design reactions are factored by 1.35 per ANSI/TIA-222-H, Sec. 15.6.2				

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
247.0	Ericsson Radio 4460 B25+B66	SPRINT NEXTEL	0.257	0.004	0.118
	Ericsson Radio 4480 B71+B85A				
	Ericsson Air6449 B41				
	Commscope FFVV-65B-R3-V1				
240.0	Commscope VHLPX3-11W/A	VERIZON WIRELESS	0.236		0.117
211.8	Radio Waves HP3-11	NORTH FLORIDA BROADB	0.178	0.007	0.106
211.1	Radio Waves HPD6-59				
210.5	Radio Waves HP2-11				

*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H



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.

Quadrant 1

250.00

Sect 14
240.00

Sect 13
220.00

Sect 12
200.00

Sect 11
190.00

Sect 10
180.00

Sect 9
160.00

Sect 8
140.00

Sect 7
120.00

Sect 6
100.00

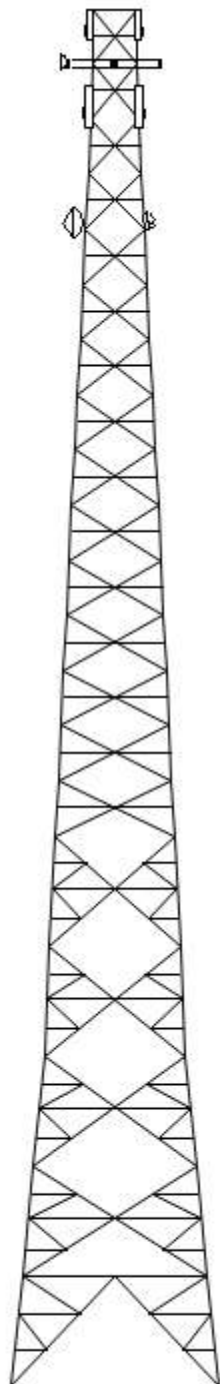
Sect 5
80.00

Sect 4
60.00

Sect 3
40.00

Sect 2
20.00

Sect 1



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Loads: 120 mph no ice
30 mph w/ 1/4" radial ice
Site Class: D Ss: 0.08 S1: 0.05
60 mph Serviceability

Job Information

Client : SPRINT NEXTEL

Tower : 2544

Location : ELLISVILLE FL, FL Base Width : 38.00 ft

Code : ANSI/TIA-222-H

Topo Method: Method 1

Top Width : 8.00 ft

Risk Cat : II

Topo: 1

Tower Ht : 250.00 ft

Exposure : C

Shape : Triangle

Sections Properties

Section	Leg Members	Diagonal Members	Horizontal Members
1	SOL 50 ksi 5" SOLID	DAE 36 ksi 4X4X0.25	DAE 36 ksi 3X3X0.1875
2 - 3	SOL 50 ksi 4 3/4" SOLID	DAE 36 ksi 3.5X3.5X0.25	
4	SOL 50 ksi 4 1/2" SOLID	DAE 36 ksi 3.5X3.5X0.25	
5	SOL 50 ksi 4 1/4" SOLID	DAE 36 ksi 3X3X0.25	
6	SOL 50 ksi 4" SOLID	DAE 36 ksi 3X3X0.25	
7	SOL 50 ksi 3 3/4" SOLID	DAE 36 ksi 3X3X0.1875	
8	SOL 50 ksi 3 1/2" SOLID	DAE 36 ksi 3X3X0.1875	
9	SOL 50 ksi 3 1/4" SOLID	DAE 36 ksi 2.5X2.5X0.1875	
10 - 11	SOL 50 ksi 2 3/4" SOLID	DAE 36 ksi 2.5X2.5X0.1875	
12	SOL 50 ksi 2 1/2" SOLID	DAE 36 ksi 2X2X0.1875	
13	SOL 50 ksi 2" SOLID	DAE 36 ksi 2X2X0.1875	
14	SOL 50 ksi 2" SOLID	DAE 36 ksi 2X2X0.1875	SAE 36 ksi 2X2X0.1875

Redundant Secondary Bracing

Section	Sub Diag 1	Sub Horiz 1	Sub Diag 2	Sub Horiz 2	Sub Diag 3	Sub Horiz 3
1	D2X2X0.1875	D2X2X0.1875	D2.5X2.5X0.1875	D2.5X2.5X0.1875	-	-
2 - 3	D2X2X0.1875	D2X2X0.1875	D2X2X0.1875	D3X3X0.1875	-	D2X2X0.1875
4	S3X3X0.1875	S3X3X0.1875	S3X3X0.1875	D2.5X2.5X0.1875	-	S3X3X0.1875
5	S3X3X0.1875	S2.5X2.5X0.1875	S3X3X0.1875	D2.5X2.5X0.1875	-	S2.5X2.5X0.18
6	-	S3.5x3.5x0.25	-	-	-	-
7 - 8	-	S3X3X0.1875	-	-	-	-
9 - 11	-	S2.5X2.5X0.1875	-	-	-	-
12 - 14	-	S2X2X0.1875	-	-	-	-

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
247.00	Panel	3	Commscope FFVV-65B-R3-V1
247.00	Panel	3	Ericsson Air6449 B41
247.00		3	Ericsson Radio 4480 B71+B85A
247.00		3	Ericsson Radio 4460 B25+B66
247.00	Other	3	Sabre C10857001C sector frames
244.20		2	Aviat Networks ODU 600
240.00	Mounting Frame	3	Round Sector Frame
240.00	Dish	1	Commscope VHLPX3-11W/A
234.30		1	Raycap RCMDC-6627-PF-48
232.10	Panel	6	Commscope NHH-65C-R2B
232.10		6	Ericsson Radio 8843
232.10		3	Ericsson Radio 4449
211.80	Dish	1	Radio Waves HP3-11
211.10	Dish	1	Radio Waves HPD6-59
210.60		3	Generic Radio/ODU
210.50	Dish	1	Radio Waves HP2-11

Linear Appurtenance

Elev (ft)	From	To	Qty	Description
0.00	0.00	250.00	1	Climbing Ladder
0.00	0.00	247.00	3	Wave Guide
0.00	0.00	247.00	3	1.99" (50.7mm) Hybri
0.00	0.00	240.00	2	0.41" (10.3mm) LMR-4
0.00	0.00	232.00	2	1.58" (40.1mm) Hybri
0.00	0.00	210.00	3	0.41" (10.3mm) LMR-4

Job Information			
Client : SPRINT NEXTEL			
Tower : 2544		Location : ELLISVILLE FL, FL Base Width : 38.00 ft	
Code : ANSI/TIA-222-H		Topo Method: Method 1	Top Width : 8.00 ft
Risk Cat : II		Topo: 1	Tower Ht : 250.00 ft
Exposure : C			Shape : Triangle

Global Base Foundation Design Loads			
Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	8,705.18	91.55	63.29
DL + WL + IL	643.05	104.40	4.66

Individual Base Foundation Design Loads		
Vertical (kip)	Uplift (kip)	Horizontal (kip)
295.04	216.54	43.29

Site Number: 2544

Code:

ANSI/TIA-222-H

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Analysis Parameters

Location:	Columbia County, FL	Height (ft):	250
Code:	ANSI/TIA-222-H	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	38.00
Tower Manufacturer:	FWT	Top Face Width (ft):	8.00
Tower Type:	Self Support	Anchor Bolt Detail Type	c
Kd:	0.85		
Ke:	1.00		

Ice & Wind Parameters

Exposure Category:	C	Design Windspeed Without Ice:	120 mph
Risk Category:	II	Design Windspeed With Ice:	30 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	1	Design Ice Thickness:	0.25 in
Crest Height:	0 ft	HMSL:	66.00 ft

Seismic Parameters

Analysis Method: Equivalent Lateral Force Method

Site Class: D - Stiff Soil

Period Based on Rayleigh Method (sec): 0.79

T_L (sec):	8	p:	1	C_S :	0.030
S_S :	0.082	S_1 :	0.049	C_S , Max:	0.033
F_a :	1.600	F_v :	2.400	C_S , Min:	0.030
S_{ds} :	0.087	S_{d1} :	0.078		

Load Cases

1.2D + 1.0W Normal - Pat 1	120 mph Normal with No Ice - Pattern 1
1.2D + 1.0W Normal - Pat 2	120 mph Normal with No Ice - Pattern 2
1.2D + 1.0W Normal - Pat 3	120 mph Normal with No Ice - Pattern 3
1.2D + 1.0W 60 deg - Pat 1	120 mph 60 degree with No Ice - Pattern 1
1.2D + 1.0W 60 deg - Pat 2	120 mph 60 degree with No Ice - Pattern 2
1.2D + 1.0W 60 deg - Pat 3	120 mph 60 degree with No Ice - Pattern 3
1.2D + 1.0W 90 deg - Pat 1	120 mph 90 degree with No Ice - Pattern 1
1.2D + 1.0W 90 deg - Pat 2	120 mph 90 degree with No Ice - Pattern 2
1.2D + 1.0W 90 deg - Pat 3	120 mph 90 degree with No Ice - Pattern 3
0.9D + 1.0W Normal	120 mph Normal with No Ice (Reduced DL)
0.9D + 1.0W 60 deg	120 mph 60 deg with No Ice (Reduced DL)
0.9D + 1.0W 90 deg	120 mph 90 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	30 mph Normal with 0.25 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	30 mph 60 deg with 0.25 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	30 mph 90 deg with 0.25 in Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic Normal
1.2D + 1.0Ev + 1.0Eh 60 deg	Seismic 60 deg
1.2D + 1.0Ev + 1.0Eh 90 deg	Seismic 90 deg

Site Number: 2544

Code:

ANSI/TIA-222-H

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Analysis Parameters

0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL) Normal
0.9D - 1.0Ev + 1.0Eh 60 deg	Seismic (Reduced DL) 60 deg
0.9D - 1.0Ev + 1.0Eh 90 deg	Seismic (Reduced DL) 90 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg

Site Number: 2544

Code:

ANSI/TIA-222-H

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Tower Loading**Discrete Appurtenance Properties** 1.2D + 1.0W

Elevation (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)
247.0	Ericsson Radio 4460	3	109	2.6	1.6	15.7	12.1	0.80	0.67	0.0	0.0	47.86	168	392
247.0	Ericsson Radio 4480	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.0	47.86	187	302
247.0	Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	47.86	349	374
247.0	Sabre C10857001C	3	462	13.6	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.86	935	1663
247.0	Commscope FFVV-	3	100	15.3	6.0	25.2	9.3	0.80	0.62	0.0	0.0	47.86	927	361
244.2	Aviat Networks ODU	2	11	0.9	0.9	10.4	4.9	0.80	0.50	0.0	0.0	47.74	29	26
240.0	Commscope	1	37	10.6	3.3	39.3	19.6	1.00	1.00	0.0	0.0	47.57	430	44
240.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.57	983	1080
234.3	Raycap RCMDC-	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.0	47.33	131	38
232.1	Ericsson Radio 4449	3	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	236	306
232.1	Ericsson Radio 8843	6	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	472	612
232.1	Commscope NHH-	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	47.24	1536	372
211.8	Radio Waves HP3-11	1	50	8.9	3.0	36.0	0.0	1.00	1.00	0.0	0.0	46.33	351	60
211.1	Radio Waves HPD6-	1	251	35.7	6.0	72.0	0.0	1.00	1.00	0.0	0.0	46.30	1404	301
210.6	Generic Radio/ODU	3	30	1.6	1.3	12.0	8.0	1.00	0.50	0.0	0.0	46.28	94	108
210.5	Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.0	46.27	156	32
Totals		43	5062	333.0									8388	6074

Discrete Appurtenance Properties 1.2D + 1.0W

Elevation (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)
247.0	Ericsson Radio 4460	3	109	2.6	1.6	15.7	12.1	0.80	0.67	0.0	0.0	47.86	168	392
247.0	Ericsson Radio 4480	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.0	47.86	187	302
247.0	Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	47.86	349	374
247.0	Sabre C10857001C	3	462	13.6	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.86	935	1663
247.0	Commscope FFVV-	3	100	15.3	6.0	25.2	9.3	0.80	0.62	0.0	0.0	47.86	927	361
244.2	Aviat Networks ODU	2	11	0.9	0.9	10.4	4.9	0.80	0.50	0.0	0.0	47.74	29	26
240.0	Commscope	1	37	10.6	3.3	39.3	19.6	1.00	1.00	0.0	0.0	47.57	430	44
240.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.57	983	1080
234.3	Raycap RCMDC-	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.0	47.33	131	38
232.1	Ericsson Radio 4449	3	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	236	306
232.1	Ericsson Radio 8843	6	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	472	612
232.1	Commscope NHH-	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	47.24	1536	372
211.8	Radio Waves HP3-11	1	50	8.9	3.0	36.0	0.0	1.00	1.00	0.0	0.0	46.33	351	60
211.1	Radio Waves HPD6-	1	251	35.7	6.0	72.0	0.0	1.00	1.00	0.0	0.0	46.30	1404	301
210.6	Generic Radio/ODU	3	30	1.6	1.3	12.0	8.0	1.00	0.50	0.0	0.0	46.28	94	108
210.5	Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.0	46.27	156	32
Totals		43	5062	333.0									8388	6074

Discrete Appurtenance Properties 1.2D + 1.0W

Elevation (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)
247.0	Ericsson Radio 4460	3	109	2.6	1.6	15.7	12.1	0.80	0.67	0.0	0.0	47.86	168	392
247.0	Ericsson Radio 4480	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.0	47.86	187	302
247.0	Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	47.86	349	374
247.0	Sabre C10857001C	3	462	13.6	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.86	935	1663
247.0	Commscope FFVV-	3	100	15.3	6.0	25.2	9.3	0.80	0.62	0.0	0.0	47.86	927	361
244.2	Aviat Networks ODU	2	11	0.9	0.9	10.4	4.9	0.80	0.50	0.0	0.0	47.74	29	26

Site Number: 2544

Code:

ANSI/TIA-222-H

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

6/10/2021 11:57:56 AM

Customer: SPRINT NEXTEL

Tower Loading

240.0 Commscope	1	37	10.6	3.3	39.3	19.6	1.00	1.00	0.0	0.0	47.57	430	44
240.0 Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.57	983	1080
234.3 Raycap RCMD-	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.0	47.33	131	38
232.1 Ericsson Radio 4449	3	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	236	306
232.1 Ericsson Radio 8843	6	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	472	612
232.1 Commscope NHH-	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	47.24	1536	372
211.8 Radio Waves HP3-11	1	50	8.9	3.0	36.0	0.0	1.00	1.00	0.0	0.0	46.33	351	60
211.1 Radio Waves HPD6-	1	251	35.7	6.0	72.0	0.0	1.00	1.00	0.0	0.0	46.30	1404	301
210.6 Generic Radio/ODU	3	30	1.6	1.3	12.0	8.0	1.00	0.50	0.0	0.0	46.28	94	108
210.5 Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.0	46.27	156	32
Totals	43	5062	333.0									8388	6074

Discrete Appurtenance Properties 0.9D + 1.0W

Elevation Description (ft)	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)
247.0 Ericsson Radio 4460	3	109	2.6	1.6	15.7	12.1	0.80	0.67	0.0	0.0	47.86	168	294
247.0 Ericsson Radio 4480	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.0	47.86	187	227
247.0 Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	47.86	349	281
247.0 Sabre C10857001C	3	462	13.6	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.86	935	1247
247.0 Commscope FFVV-	3	100	15.3	6.0	25.2	9.3	0.80	0.62	0.0	0.0	47.86	927	271
244.2 Aviat Networks ODU	2	11	0.9	0.9	10.4	4.9	0.80	0.50	0.0	0.0	47.74	29	20
240.0 Commscope	1	37	10.6	3.3	39.3	19.6	1.00	1.00	0.0	0.0	47.57	430	33
240.0 Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	47.57	983	810
234.3 Raycap RCMD-	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.0	47.33	131	29
232.1 Ericsson Radio 4449	3	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	236	230
232.1 Ericsson Radio 8843	6	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	47.24	472	459
232.1 Commscope NHH-	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	47.24	1536	279
211.8 Radio Waves HP3-11	1	50	8.9	3.0	36.0	0.0	1.00	1.00	0.0	0.0	46.33	351	45
211.1 Radio Waves HPD6-	1	251	35.7	6.0	72.0	0.0	1.00	1.00	0.0	0.0	46.30	1404	226
210.6 Generic Radio/ODU	3	30	1.6	1.3	12.0	8.0	1.00	0.50	0.0	0.0	46.28	94	81
210.5 Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.0	46.27	156	24
Totals	43	5062	333.0									8388	4555

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation Description (ft)	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)
247.0 Ericsson Radio 4460	3	125	2.7	1.6	15.7	12.1	0.80	0.67	0.0	0.0	2.99	11	439
247.0 Ericsson Radio 4480	3	97	3.0	1.8	15.7	7.5	0.80	0.67	0.0	0.0	2.99	12	342
247.0 Ericsson Air6449	3	128	6.0	2.8	20.6	8.6	0.80	0.63	0.0	0.0	2.99	23	446
247.0 Sabre C10857001C	3	518	15.3	0.0	0.0	0.0	0.75	0.75	0.0	0.0	2.99	66	1833
247.0 Commscope FFVV-	3	156	15.8	6.0	25.2	9.3	0.80	0.62	0.0	0.0	2.99	60	529
244.2 Aviat Networks ODU	2	16	1.0	0.9	10.4	4.9	0.80	0.50	0.0	0.0	2.98	2	36
240.0 Commscope	1	73	11.0	3.3	39.3	19.6	1.00	1.00	0.0	0.0	2.97	28	80
240.0 Round Sector Frame	3	364	17.3	0.0	0.0	0.0	0.75	0.75	0.0	0.0	2.97	74	1272
234.3 Raycap RCMD-	1	54	4.3	2.5	16.5	12.6	0.80	1.00	0.0	0.0	2.96	9	61
232.1 Ericsson Radio 4449	3	103	3.7	2.3	15.0	10.0	0.80	0.70	0.0	0.0	2.95	16	359
232.1 Ericsson Radio 8843	6	103	3.7	2.3	15.0	10.0	0.80	0.70	0.0	0.0	2.95	31	719
232.1 Commscope NHH-	6	91	12.0	8.0	11.9	7.1	0.80	0.70	0.0	0.0	2.95	101	611
211.8 Radio Waves HP3-11	1	81	9.2	3.0	36.0	0.0	1.00	1.00	0.0	0.0	2.90	23	91
211.1 Radio Waves HPD6-	1	373	36.3	6.0	72.0	0.0	1.00	1.00	0.0	0.0	2.89	89	424
210.6 Generic Radio/ODU	3	39	1.7	1.3	12.0	8.0	1.00	0.50	0.0	0.0	2.89	6	135
210.5 Radio Waves HP2-11	1	41	4.2	2.0	24.0	0.0	1.00	1.00	0.0	0.0	2.89	10	47

Site Number: 2544

Code:

ANSI/TIA-222-H

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Tower Loading

Totals 43 6410 357.8

561 7422

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (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)
247.0	Ericsson Radio 4460	3	109	2.6	1.6	15.7	12.1	0.80	0.67	0.0	0.0	11.96	42	327
247.0	Ericsson Radio 4480	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.0	11.96	47	252
247.0	Ericsson Air6449	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.0	11.96	87	312
247.0	Sabre C10857001C	3	462	13.6	0.0	0.0	0.0	0.75	0.75	0.0	0.0	11.96	234	1386
247.0	Commscope FFVV-	3	100	15.3	6.0	25.2	9.3	0.80	0.62	0.0	0.0	11.96	232	301
244.2	Aviat Networks ODU	2	11	0.9	0.9	10.4	4.9	0.80	0.50	0.0	0.0	11.94	7	22
240.0	Commscope	1	37	10.6	3.3	39.3	19.6	1.00	1.00	0.0	0.0	11.89	107	37
240.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	11.89	246	900
234.3	Raycap RCMD-	1	32	4.1	2.5	16.5	12.6	0.80	1.00	0.0	0.0	11.83	33	32
232.1	Ericsson Radio 4449	3	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	11.81	59	255
232.1	Ericsson Radio 8843	6	85	3.5	2.3	15.0	10.0	0.80	0.70	0.0	0.0	11.81	118	510
232.1	Commscope NHH-	6	52	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	11.81	384	310
211.8	Radio Waves HP3-11	1	50	8.9	3.0	36.0	0.0	1.00	1.00	0.0	0.0	11.58	88	50
211.1	Radio Waves HPD6-	1	251	35.7	6.0	72.0	0.0	1.00	1.00	0.0	0.0	11.58	351	251
210.6	Generic Radio/ODU	3	30	1.6	1.3	12.0	8.0	1.00	0.50	0.0	0.0	11.57	24	90
210.5	Radio Waves HP2-11	1	27	4.0	2.0	24.0	0.0	1.00	1.00	0.0	0.0	11.57	39	27
Totals		43	5062	333.0									2097	5062

Site Number: 2544

Code:

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	250.0	Climbing Ladder	1	2.00	6.90	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	247.0	1.99" (50.7mm)	3	1.99	1.90	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	247.0	Wave Guide	3	2.00	4.00	100	1,2,3	Individual	0.00	N	1.00	1.00	0.00
0.00	240.0	0.41" (10.3mm)	2	0.41	0.07	100	3	Individual	0.00	N	1.00	1.00	0.00
0.00	232.0	1.58" (40.1mm)	2	1.58	1.61	100	3	Individual	0.00	N	1.00	1.00	0.00
0.00	210.0	0.41" (10.3mm)	3	0.41	0.07	100	2	Individual	0.00	N	1.00	1.00	0.00

Site Number: 2544

Code:

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Equivalent Lateral Force Method

Spectral Response Acceleration for Short Period (S_g):	0.08
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05
Long-Period Transition Period (T_L - Seconds):	8
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}):	0.09
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.08
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s :	0.03
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.79
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	1.14
Total Unfactored Dead Load:	76.29 k
Seismic Base Shear (E):	2.29 k

LoadCase 1.2D + 1.0Ev + 1.0Eh**Seismic**

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
14	245.00	1,046	562,356	0.035	80	1,274
13	230.00	2,174	1,086,89	0.068	155	2,646
12	210.00	2,699	1,216,10	0.076	174	3,285
11	195.00	1,659	687,085	0.043	98	2,020
10	185.00	1,700	662,694	0.041	95	2,069
9	170.00	4,030	1,426,37	0.089	204	4,906
8	150.00	4,871	1,494,30	0.093	213	5,930
7	130.00	5,386	1,403,17	0.088	200	6,558
6	110.00	6,901	1,485,33	0.093	212	8,402
5	90.00	6,500	1,112,25	0.069	159	7,913
4	70.00	7,139	916,742	0.057	131	8,692
3	50.00	8,516	744,398	0.046	106	10,368
2	30.00	8,964	437,092	0.027	62	10,914
1	10.00	9,644	133,991	0.008	19	11,742
Ericsson Radio 4460 B25+B66	247.00	327	177,389	0.011	25	398
Ericsson Radio 4480 B71+B85A	247.00	252	136,704	0.009	20	307
Ericsson Air6449 B41	247.00	312	169,252	0.011	24	380
Sabre C10857001C sector frames	247.00	1,386	751,870	0.047	107	1,687
Commscope FFVV-65B-R3-V1	247.00	301	163,231	0.010	23	366
Aviat Networks ODU 600	244.20	22	11,780	0.001	2	27
Commscope VHLPX3-11W/A	240.00	37	19,423	0.001	3	45
Round Sector Frame	240.00	900	472,447	0.029	67	1,096
Raycap RCMDC-6627-PF-48	234.30	32	16,343	0.001	2	39
Ericsson Radio 4449	232.10	255	128,837	0.008	18	310

Site Number: 2544

Code:

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Equivalent Lateral Force Method

Ericsson Radio 8843	232.10	510	257,673	0.016	37	621
Commscope NHH-65C-R2B	232.10	310	156,423	0.010	22	377
Radio Waves HP3-11	211.80	50	22,753	0.001	3	61
Radio Waves HPD6-59	211.10	251	113,790	0.007	16	306
Generic Radio/ODU	210.60	90	40,691	0.003	6	110
Radio Waves HP2-11	210.50	27	12,201	0.001	2	33
		76,291	16,019,603	1.000	2,289	92,883

LoadCase 0.9D - 1.0Ev + 1.0Eh**Seismic (Reduced DL)**

Section	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
14	245.00	1,046	562,356	0.035	80	923
13	230.00	2,174	1,086,89	0.068	155	1,918
12	210.00	2,699	1,216,10	0.076	174	2,382
11	195.00	1,659	687,085	0.043	98	1,464
10	185.00	1,700	662,694	0.041	95	1,500
9	170.00	4,030	1,426,37	0.089	204	3,556
8	150.00	4,871	1,494,30	0.093	213	4,298
7	130.00	5,386	1,403,17	0.088	200	4,753
6	110.00	6,901	1,485,33	0.093	212	6,090
5	90.00	6,500	1,112,25	0.069	159	5,736
4	70.00	7,139	916,742	0.057	131	6,301
3	50.00	8,516	744,398	0.046	106	7,515
2	30.00	8,964	437,092	0.027	62	7,911
1	10.00	9,644	133,991	0.008	19	8,511
Ericsson Radio 4460 B25+B66	247.00	327	177,389	0.011	25	289
Ericsson Radio 4480 B71+B85A	247.00	252	136,704	0.009	20	222
Ericsson Air6449 B41	247.00	312	169,252	0.011	24	275
Sabre C10857001C sector frames	247.00	1,386	751,870	0.047	107	1,223
Commscope FFV-65B-R3-V1	247.00	301	163,231	0.010	23	266
Aviat Networks ODU 600	244.20	22	11,780	0.001	2	19
Commscope VHLPX3-11W/A	240.00	37	19,423	0.001	3	33
Round Sector Frame	240.00	900	472,447	0.029	67	794
Raycap RCMDC-6627-PF-48	234.30	32	16,343	0.001	2	28
Ericsson Radio 4449	232.10	255	128,837	0.008	18	225
Ericsson Radio 8843	232.10	510	257,673	0.016	37	450
Commscope NHH-65C-R2B	232.10	310	156,423	0.010	22	273
Radio Waves HP3-11	211.80	50	22,753	0.001	3	44
Radio Waves HPD6-59	211.10	251	113,790	0.007	16	222
Generic Radio/ODU	210.60	90	40,691	0.003	6	79
Radio Waves HP2-11	210.50	27	12,201	0.001	2	24
		76,291	16,019,602	1.000	2,289	67,327

Site Number: 2544

Code:

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Force/Stress Summary

Section: 1		1		Bot Elev (ft): 0.00				Height (ft): 20.000							
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	% Controls
LEG	SOL - 5" SOLID	-283.42	1.2D + 1.0W Normal	20.13	33	33	33	63.8	50.0	656.24	0	0	0.00	0.00	43 Member X
HORIZ	DAE - 3X3X0.1875	-6.26	1.2D + 1.0W Normal	17.00	50	50	25	113.1	36.0	46.93	4	2	79.52	62.64	13 Member Y
DIAG	DAE - 4X4X0.25	-8.58	1.2D + 1.0W 90 deg -	27.61	33	100	17	198.2	35.7	28.27	4	2	79.52	83.52	30 Member Y

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
		(kip)	Load Case		(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phiRn	%	
LEG	SOL - 5" SOLID	203.77	1.2D + 1.0W 60 deg -	50	65	883.58	0	0	0.00	0.00				23	Member
HORIZ	DAE - 3X3X0.1875	4.56	1.2D + 1.0W 60 deg -	36	58	61.18	4	2	79.52	50.24			33.44	13	Blk Shear
DIAG	DAE - 4X4X0.25	7.04	0.9D + 1.0W 90 deg	36	58	113.33	4	2	79.52	66.99			50.03	14	Blk Shear

Max Splice Forces		Pu			phiRnt	Use	Num	
		(kip)	Load Case		(kip)	%	Bolts	Bolt Type
Top Tension		209.93	0.9D + 1.0W 60 deg		0.00	0	0	
Top Compression		282.76	1.2D + 1.0W Normal -		0.00	0		
Bot Tension		219.65	0.9D + 1.0W 60 deg		847.65	7	6	2.25" A36
Bot Compression		296.73	1.2D + 1.0W Normal -		701.50	46		

Section: 2		2		Bot Elev (ft): 20.00				Height (ft): 20.000							
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	% Controls
LEG	SOL - 4 3/4" SOLID	-277.78	1.2D + 1.0W Normal	20.13	25	25	25	50.9	50.0	660.01	0	0	0.00	0.00	42 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 3.5X3.5X0.25	-5.39	1.2D + 1.0W 60 deg -	37.75	25	50	13	165.8	36.0	35.18	4	2	79.52	83.52	15 Member Y

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
		(kip)	Load Case		(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phiRn	%	
LEG	SOL - 4 3/4" SOLID	207.51	0.9D + 1.0W 60 deg	50	65	797.45	0	0	0.00	0.00				26	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00			0.00	0	
DIAG	DAE - 3.5X3.5X0.25	7.14	1.2D + 1.0W Normal	36	58	97.02	4	2	79.52	66.99			50.03	14	Blk Shear

Max Splice Forces		Pu			phiRnt	Use	Num	
		(kip)	Load Case		(kip)	%	Bolts	Bolt Type
Top Tension		200.80	0.9D + 1.0W 60 deg		0.00	0	0	
Top Compression		269.08	1.2D + 1.0W Normal -		0.00	0		
Bot Tension		209.93	0.9D + 1.0W 60 deg		623.64	34	6	1.375" A325
Bot Compression		0.00			0.00	0		

Site Number: 2544

Code:

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Force/Stress Summary

Section: 3		3		Bot Elev (ft): 40.00				Height (ft): 20.000								
		Pu	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Bolts	Num Holes	Shear		Bear phiRn	Use %	Controls
Max Compression Member		(kip)			X	Y	Z					phiRnv (kip)	phiRn (kip)			
LEG	SOL - 4 3/4" SOLID	-257.58	1.2D + 1.0W Normal	20.13	25	25	25	50.9	50.0	660.01	0	0	0.00	0.00	39	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3.5X3.5X0.25	-7.66	1.2D + 1.0W Normal	34.42	25	50	13	151.2	36.0	42.30	4	2	79.52	83.52	18	Member Y

		Pu	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
Max Tension Member		(kip)											
LEG	SOL - 4 3/4" SOLID	192.88	1.2D + 1.0W 60 deg -	50	65	797.45	0	0	0.00	0.00		24	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3.5X3.5X0.25	5.03	1.2D + 1.0W 60 deg -	36	58	97.02	4	2	79.52	66.99	50.03	10	Blk Shear

		Pu	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Max Splice Forces		(kip)					
Top Tension		194.54	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		255.28	1.2D + 1.0W Normal -	0.00	0		
Bot Tension		200.80	0.9D + 1.0W 60 deg	623.64	32	6	1.375" A325
Bot Compression		0.00		0.00	0		

Section: 4		4		Bot Elev (ft): 60.00				Height (ft): 20.000								
		Pu	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Bolts	Num Holes	Shear		Bear phiRn	Use %	Controls
Max Compression Member		(kip)			X	Y	Z					phiRnv (kip)	phiRn (kip)			
LEG	SOL - 4 1/2" SOLID	-235.30	1.2D + 1.0W Normal	20.03	25	25	25	53.4	50.0	580.89	0	0	0.00	0.00	40	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3.5X3.5X0.25	-12.41	1.2D + 1.0W Normal	32.02	25	50	13	140.6	36.0	48.91	2	2	54.12	48.72	25	Bolt Bear

		Pu	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
Max Tension Member		(kip)											
LEG	SOL - 4 1/2" SOLID	183.44	0.9D + 1.0W 60 deg	50	65	715.68	0	0	0.00	0.00		25	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3.5X3.5X0.25	11.69	1.2D + 1.0W 90 deg -	36	58	94.98	2	2	54.12	29.58	32.35	39	Bolt Bear

		Pu	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Max Splice Forces		(kip)					
Top Tension		170.76	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		221.45	1.2D + 1.0W Normal -	0.00	0		
Bot Tension		194.54	0.9D + 1.0W 60 deg	623.64	31	6	1.375" A325
Bot Compression		0.00		0.00	0		

Site Number: 2544

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Engineering Number: 13652487_C3_03

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Force/Stress Summary

Section: 5		5		Bot Elev (ft): 80.00				Height (ft): 20.000							
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Shear	Bear		
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	Use
LEG	SOL - 4 1/4" SOLID	-205.40	1.2D + 1.0W Normal	20.03	25	25	25	56.6	50.0	505.21	0	0	0.00	0.00	40 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 3X3X0.25	-11.35	1.2D + 1.0W 90 deg -	30.48	25	50	13	154.2	36.0	34.68	2	2	54.12	48.72	32 Member Y

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SOL - 4 1/4" SOLID		161.18	0.9D + 1.0W 60 deg	50	65	638.37	0	0	0.00	0.00		25	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG DAE - 3X3X0.25		11.35	1.2D + 1.0W 90 deg -	36	58	78.67	2	2	54.12	29.58	26.92	42	Blk Shear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		147.82	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		190.52	1.2D + 1.0W Normal -	0.00	0		
Bot Tension		170.76	0.9D + 1.0W 60 deg	523.32	33	6	1.25" A325
Bot Compression		0.00		0.00	0		

Section: 6		6		Bot Elev (ft): 100.0				Height (ft): 20.000								
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear phiRnv	Bear phiRn	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 4" SOLID	-181.36	1.2D + 1.0W Normal	10.02	50	50	50	60.1	50.0	434.22	0	0	0.00	0.00	41	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3X3X0.25	-8.64	1.2D + 1.0W Normal	23.71	50	50	25	157.9	36.0	33.08	2	2	39.76	41.76	26	Member Y

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG SOL - 4" SOLID		144.14	0.9D + 1.0W 60 deg	50	65	565.47	0	0	0.00	0.00		25	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG DAE - 3X3X0.25		8.34	1.2D + 1.0W 90 deg -	36	58	80.71	2	2	39.76	25.23	26.64	33	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		127.09	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		159.98	1.2D + 1.0W Normal -	0.00	0		
Bot Tension		147.82	0.9D + 1.0W 60 deg	523.32	28	6	1.25" A325
Bot Compression		0.00		0.00	0		

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Force/Stress Summary

Section: 7		7		Bot Elev (ft): 120.0				Height (ft): 20.000								
		Pu			Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 3 3/4" SOLID	-152.30	1.2D + 1.0W Normal	10.02	50	50	50	64.1	50.0	368.03	0	0	0.00	0.00	41	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3X3X0.1875	-7.68	1.2D + 1.0W 90 deg -	21.91	50	50	25	145.8	36.0	29.36	2	2	39.76	31.32	26	Member Y

		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk Shear		
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)		Bolts	Holes	phiRnv	phiRn	phit Pn	Use	Controls
										(kip)	(kip)	(kip)	%	
LEG	SOL - 3 3/4" SOLID	119.95	1.2D + 1.0W 60 deg -	50	65	497.02	0	0	0	0.00	0.00		24	Member
HORIZ		0.00		0	0	0.00	0	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3X3X0.1875	7.51	1.2D + 1.0W 90 deg -	36	58	61.18	2	2	2	39.76	18.92	19.98	39	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	105.80	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression	131.85	1.2D + 1.0W Normal -	0.00	0		
Bot Tension	127.09	0.9D + 1.0W 60 deg	412.17	31	6	1 1/8 A325
Bot Compression	0.00		0.00	0		

Section: 8		8		Bot Elev (ft): 140.0				Height (ft): 20.000								
		Pu			Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 3 1/2" SOLID	-124.64	1.2D + 1.0W Normal	10.02	50	50	50	68.7	50.0	306.64	0	0	0.00	0.00	40	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3X3X0.1875	-6.74	1.2D + 1.0W Normal	20.15	50	50	25	134.1	36.0	34.71	2	2	39.76	31.32	21	Bolt Bear

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	SOL - 3 1/2" SOLID	101.17	0.9D + 1.0W 60 deg	50	65	432.95	0	0	0	0.00	0.00		23	Member
HORIZ		0.00		0	0	0.00	0	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 3X3X0.1875	6.76	1.2D + 1.0W 90 deg -	36	58	61.18	2	2	2	39.76	18.92	19.98	35	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	84.66	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression	104.91	1.2D + 1.0W Normal -	0.00	0		
Bot Tension	105.80	0.9D + 1.0W 60 deg	327.10	32	6	1 A325
Bot Compression	0.00		0.00	0		

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Force/Stress Summary

Section: 9 9		Bot Elev (ft): 160.0		Height (ft): 20.000											
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member					X	Y	Z	KL/R							
LEG	SOL - 3 1/4" SOLID	-97.92	1.2D + 1.0W Normal	10.02	50	50	50	74.0	50.0	250.23	0	0	0.00	0.00	39 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 2.5X2.5X0.1875	-6.15	1.2D + 1.0W 90 deg -	18.44	50	50	25	145.9	36.0	24.19	2	2	27.61	26.10	25 Member Y

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	SOL - 3 1/4" SOLID	79.97	0.9D + 1.0W 60 deg	50	65	373.32	0	0	0.00	0.00		21	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 2.5X2.5X0.1875	6.04	1.2D + 1.0W 90 deg -	36	58	50.31	2	2	27.61	15.66	17.74	38	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		63.58	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		78.85	1.2D + 1.0W Normal -	0.00	0		
Bot Tension		84.66	0.9D + 1.0W 60 deg	249.34	34	6	0.875" A325
Bot Compression		0.00		0.00	0		

Section: 10 10		Bot Elev (ft): 180.0		Height (ft): 10.000											
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member					X	Y	Z	KL/R							
LEG	SOL - 2 3/4" SOLID	-71.88	1.2D + 1.0W Normal	10.02	50	50	50	87.4	50.0	152.86	0	0	0.00	0.00	47 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 2.5X2.5X0.1875	-5.52	1.2D + 1.0W Normal	16.80	50	50	25	132.9	36.0	29.16	2	2	27.61	26.10	21 Bolt Bear

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	SOL - 2 3/4" SOLID	57.23	1.2D + 1.0W 60 deg -	50	65	267.28	0	0	0.00	0.00		21	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG	DAE - 2.5X2.5X0.1875	5.55	1.2D + 1.0W 90 deg -	36	58	50.31	2	2	27.61	15.66	17.74	35	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		52.88	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression		65.93	1.2D + 1.0W Normal -	0.00	0		
Bot Tension		63.58	0.9D + 1.0W 60 deg	180.61	35	6	0.75" A325
Bot Compression		0.00		0.00	0		

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Force/Stress Summary

Section: 11 10			Bot Elev (ft): 190.0				Height (ft): 10.000									
			Pu		Len	Bracing %			F'y	Phic	Pn Num	Num	Shear phiRnv	Bear phiRn	Use	
Max Compression Member			(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	% Controls
LEG	SOL - 2 3/4" SOLID		-59.65	1.2D + 1.0W Normal	10.02	50	50	50	87.4	50.0	152.86	0	0	0.00	0.00	39 Member X
HORIZ			0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 2.5X2.5X0.1875		-5.42	1.2D + 1.0W 90 deg -	16.01	50	50	25	126.7	36.0	32.11	2	2	27.61	26.10	20 Bolt Bear
			Pu		Fy	Fu	Phit	Pn Num	Num		Shear phiRnv	Bear phiRn	Blk Shear phit	Pn	Use	
Max Tension Member			(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	(kip)		% Controls	
LEG	SOL - 2 3/4" SOLID		48.13	0.9D + 1.0W 60 deg	50	65	267.28	0	0		0.00	0.00			18 Member	
HORIZ			0.00		0	0	0.00	0	0		0.00	0.00		0.00	0	
DIAG	DAE - 2.5X2.5X0.1875		5.43	1.2D + 1.0W 90 deg -	36	58	50.31	2	2		27.61	15.66		17.74	34 Bolt Bear	
			Pu				phiRnt	Use	Num							
Max Splice Forces			(kip)	Load Case			(kip)	%	Bolts		Bolt Type					
Top Tension			41.82	0.9D + 1.0W 60 deg			0.00	0	0							
Top Compression			52.94	1.2D + 1.0W Normal -			0.00	0								
Bot Tension			52.88	0.9D + 1.0W 60 deg			180.61	29	6	0.75"	A325					
Bot Compression			0.00				0.00	0								

Section: 12 11			Bot Elev (ft): 200.0				Height (ft): 20.000									
			Pu		Len	Bracing %			F'y	Phic	Pn Num	Num	Shear phiRnv	Bear phiRn	Use	
Max Compression Member			(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	% Controls
LEG	SOL - 2 1/2" SOLID		-45.76	1.2D + 1.0W Normal	10.02	50	50	50	96.2	50.0	112.37	0	0	0.00	0.00	40 Member X
HORIZ			0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 2X2X0.1875		-5.34	1.2D + 1.0W 90 deg -	15.24	50	50	25	149.1	36.0	18.41	2	2	27.61	26.10	29 Member Y
			Pu		Fy	Fu	Phit	Pn Num	Num		Shear phiRnv	Bear phiRn	Blk Shear phit	Pn	Use	
Max Tension Member			(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	(kip)		% Controls	
LEG	SOL - 2 1/2" SOLID		36.28	0.9D + 1.0W 60 deg	50	65	220.95	0	0		0.00	0.00			16 Member	
HORIZ			0.00		0	0	0.00	0	0		0.00	0.00		0.00	0	
DIAG	DAE - 2X2X0.1875		5.22	1.2D + 1.0W 90 deg -	36	58	38.24	2	2		27.61	15.66		13.66	38 Blk Shear	
			Pu				phiRnt	Use	Num							
Max Splice Forces			(kip)	Load Case			(kip)	%	Bolts		Bolt Type					
Top Tension			20.90	0.9D + 1.0W 60 deg			0.00	0	0							
Top Compression			28.42	1.2D + 1.0W Normal -			0.00	0								
Bot Tension			41.82	0.9D + 1.0W 60 deg			120.41	35	4	0.75"	A325					
Bot Compression			0.00				0.00	0								

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Force/Stress Summary

Section: 13 12		Bot Elev (ft): 220.0				Height (ft): 20.000										
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear phiRnv	Bear phiRn	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2" SOLID	-22.21	1.2D + 1.0W Normal	10.02	50	50	50	120.2	50.0	49.12	0	0	0.00	0.00	45	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 2X2X0.1875	-4.32	1.2D + 1.0W 90 deg -	13.79	50	50	25	135.0	36.0	22.47	2	2	27.61	26.10	19	Member Y

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	(kip)	%	
LEG	SOL - 2" SOLID	16.06	0.9D + 1.0W 60 deg	50	65	141.37	0	0	0.00	0.00				11	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00			0.00	0	
DIAG	DAE - 2X2X0.1875	4.18	1.2D + 1.0W 90 deg -	36	58	38.24	2	2	27.61	15.66			13.66	30	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	3.68	0.9D + 1.0W 60 deg	0.00	0	0	
Top Compression	7.87	1.2D + 1.0W Normal -	0.00	0		
Bot Tension	20.90	0.9D + 1.0W 60 deg	120.41	17	4	0.75" A325
Bot Compression	0.00		0.00	0		

Section: 14 13		Bot Elev (ft): 240.0				Height (ft): 10.000										
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2" SOLID	-3.83	1.2D + 1.0W Normal	10.00	50	50	50	120.0	50.0	49.29	0	0	0.00	0.00	7	Member X
HORIZ	SAE - 2X2X0.1875	-0.49	0.9D + 1.0W 60 deg	8.000	100	100	100	243.7	36.0	3.45	1	1	13.81	13.05	14	Member Z
DIAG	DAE - 2X2X0.1875	-2.14	1.2D + 1.0W Normal	12.80	50	50	25	125.3	36.0	26.08	2	2	27.61	26.10	8	Member Y

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	(kip)	%	
LEG	SOL - 2" SOLID	1.66	0.9D + 1.0W 60 deg	50	65	141.37	0	0	0.00	0.00				1	Member
HORIZ	SAE - 2X2X0.1875	0.69	1.2D + 1.0W Normal	36	58	19.12	1	1	13.81	7.83			6.83	10	Blk Shear
DIAG	DAE - 2X2X0.1875	1.94	0.9D + 1.0W 90 deg	36	58	38.24	2	2	27.61	15.66			13.66	14	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0	0	
Top Compression	1.70	1.2D + 1.0Di + 1.0Wi	0.00	0		
Bot Tension	3.68	0.9D + 1.0W 60 deg	81.36	5	4	5/8 A325
Bot Compression	0.00		0.00	0		

Site Number: 2544

Code:

ANSI/TIA-222-H

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

6/10/2021 11:57:56 AM

Customer: SPRINT NEXTEL

Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.0W Normal - Pat 1	21.94	00.00	0	1	0.00	295.04	-43.29	
	21.94	00.00	120	1a	11.78	-101.74	-10.00	
	21.94	00.00	240	1b	-11.78	-101.74	-10.00	
1.2D + 1.0W Normal - Pat 2	21.94	00.00	0	1	0.00	213.07	-30.08	
	21.94	00.00	120	1a	6.65	-60.76	-5.62	
	21.94	00.00	240	1b	-6.65	-60.76	-5.62	
1.2D + 1.0W Normal - Pat 3	21.94	00.00	0	1	0.00	295.04	-43.29	
	21.94	00.00	120	1a	11.78	-101.75	-10.00	
	21.94	00.00	240	1b	-11.78	-101.75	-10.00	
1.2D + 1.0W 60 deg - Pat 1	21.94	00.00	0	1	-2.30	150.31	-21.73	
	21.94	00.00	120	1a	-19.97	150.31	8.87	
	21.94	00.00	240	1b	-26.46	-209.08	-15.28	
1.2D + 1.0W 60 deg - Pat 2	21.94	00.00	0	1	-1.27	114.26	-15.94	
	21.94	00.00	120	1a	-14.44	114.26	6.87	
	21.94	00.00	240	1b	-16.41	-136.98	-9.47	
1.2D + 1.0W 60 deg - Pat 3	21.94	00.00	0	1	-2.30	150.31	-21.73	
	21.94	00.00	120	1a	-19.97	150.31	8.87	
	21.94	00.00	240	1b	-26.46	-209.08	-15.28	
1.2D + 1.0W 90 deg - Pat 1	21.94	00.00	0	1	-2.80	30.52	-4.32	
	21.94	00.00	120	1a	-31.31	243.41	16.49	
	21.94	00.00	240	1b	-23.91	-182.38	-12.16	
1.2D + 1.0W 90 deg - Pat 2	21.94	00.00	0	1	-1.55	30.52	-4.32	
	21.94	00.00	120	1a	-22.03	178.90	11.83	
	21.94	00.00	240	1b	-14.58	-117.87	-7.51	
1.2D + 1.0W 90 deg - Pat 3	21.94	00.00	0	1	-2.80	30.52	-4.32	
	21.94	00.00	120	1a	-31.31	243.41	16.49	
	21.94	00.00	240	1b	-23.91	-182.38	-12.16	
0.9D + 1.0W Normal	21.94	00.00	0	1	0.00	287.22	-42.21	
	21.94	00.00	120	1a	12.71	-109.28	-10.54	
	21.94	00.00	240	1b	-12.71	-109.28	-10.54	
0.9D + 1.0W 60 deg	21.94	00.00	0	1	-2.30	142.60	-20.65	
	21.94	00.00	120	1a	-19.03	142.60	8.33	
	21.94	00.00	240	1b	-27.39	-216.54	-15.81	
0.9D + 1.0W 90 deg	21.94	00.00	0	1	-2.81	22.89	-3.25	
	21.94	00.00	120	1a	-30.37	235.63	15.94	
	21.94	00.00	240	1b	-24.84	-189.86	-12.70	
1.2D + 1.0Di + 1.0Wi Normal	21.94	00.00	0	1	0.00	54.34	-7.75	
	21.94	00.00	120	1a	-3.08	25.03	1.55	
	21.94	00.00	240	1b	3.08	25.03	1.55	
1.2D + 1.0Di + 1.0Wi 60 deg	21.94	00.00	0	1	-0.17	43.81	-6.19	
	21.94	00.00	120	1a	-5.45	43.81	2.94	
	21.94	00.00	240	1b	1.95	16.78	1.13	
1.2D + 1.0Di + 1.0Wi 90 deg	21.94	00.00	0	1	-0.21	34.80	-4.88	
	21.94	00.00	120	1a	-6.29	50.74	3.51	

Site Number: 2544

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

	21.94	00.00	240	1b	2.16	18.86	1.37
1.2D + 1.0Ev + 1.0Eh Normal M1	21.94	00.00	0	1	0.00	41.12	-5.84
	21.94	00.00	120	1a	-3.18	23.92	1.79
	21.94	00.00	240	1b	3.18	23.92	1.79
1.2D + 1.0Ev + 1.0Eh 60 deg M1	21.94	00.00	0	1	-0.04	35.39	-5.11
	21.94	00.00	120	1a	-4.45	35.39	2.52
	21.94	00.00	240	1b	2.52	18.19	1.46
1.2D + 1.0Ev + 1.0Eh 90 deg M1	21.94	00.00	0	1	-0.05	29.66	-4.38
	21.94	00.00	120	1a	-4.90	39.58	2.80
	21.94	00.00	240	1b	2.68	19.73	1.58
0.9D - 1.0Ev + 1.0Eh Normal M1	21.94	00.00	0	1	0.00	32.95	-4.64
	21.94	00.00	120	1a	-2.14	15.77	1.18
	21.94	00.00	240	1b	2.14	15.77	1.18
0.9D - 1.0Ev + 1.0Eh 60 deg M1	21.94	00.00	0	1	-0.04	27.22	-3.91
	21.94	00.00	120	1a	-3.40	27.22	1.92
	21.94	00.00	240	1b	1.48	10.04	0.86
0.9D - 1.0Ev + 1.0Eh 90 deg M1	21.94	00.00	0	1	-0.05	21.50	-3.17
	21.94	00.00	120	1a	-3.86	31.42	2.20
	21.94	00.00	240	1b	1.64	11.58	0.97
1.0D + 1.0W Service Normal	21.94	00.00	0	1	0.00	91.66	-13.39
	21.94	00.00	120	1a	0.78	-7.68	-1.26
	21.94	00.00	240	1b	-0.78	-7.68	-1.26
1.0D + 1.0W Service 60 deg	21.94	00.00	0	1	-0.59	55.38	-7.97
	21.94	00.00	120	1a	-7.19	55.38	3.47
	21.94	00.00	240	1b	-4.45	-34.47	-2.57
1.0D + 1.0W Service 90 deg	21.94	00.00	0	1	-0.71	25.43	-3.60
	21.94	00.00	120	1a	-10.05	78.74	5.39
	21.94	00.00	240	1b	-3.82	-27.88	-1.79

Max Uplift:	216.54(kip)	Moment Ice:	643.05 (kip-ft)	Moment:	8,705.18 (kip-ft)	1.2D + 1.0W Normal - Pat 3
Max Down:	295.04(kip)	Total Down Ice:	104.40 (kip)	Total Down:	91.55 (kip)	
Max Shear:	43.29 (kip)	Total Shear Ice:	4.66 (kip)	Total Shear:	63.29 (kip)	

Site Number: 2544

Code:

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Site Name: ELLISVILLE FL, FL

Engineering Number: 13652487_C3_03

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Customer: SPRINT NEXTEL

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
120 mph Normal with No Ice - Pattern 1	210.00	0.711	0.0254	0.4226	0.4226
120 mph Normal with No Ice - Pattern 1	230.00	0.865	0.0213	0.4613	0.4618
120 mph Normal with No Ice - Pattern 1	240.00	0.945	0.0180	0.4652	0.4655
120 mph Normal with No Ice - Pattern 1	250.00	1.027	0.0170	0.4713	0.4716
120 mph Normal with No Ice - Pattern 2	210.00	0.518	0.0186	0.3208	0.3208
120 mph Normal with No Ice - Pattern 2	230.00	0.635	0.0153	0.3554	0.3557
120 mph Normal with No Ice - Pattern 2	240.00	0.697	0.0122	0.3571	0.3571
120 mph Normal with No Ice - Pattern 2	250.00	0.760	0.0115	0.3642	0.3644
120 mph Normal with No Ice - Pattern 3	210.00	0.711	0.0254	0.4226	0.4226
120 mph Normal with No Ice - Pattern 3	230.00	0.865	0.0213	0.4613	0.4618
120 mph Normal with No Ice - Pattern 3	240.00	0.945	0.0180	0.4652	0.4655
120 mph Normal with No Ice - Pattern 3	250.00	1.027	0.0170	0.4713	0.4716
120 mph 60 degree with No Ice - Pattern 1	210.00	0.656	-0.0246	0.3932	0.3940
120 mph 60 degree with No Ice - Pattern 1	230.00	0.799	0.0202	0.4322	0.4327
120 mph 60 degree with No Ice - Pattern 1	240.00	0.875	0.0170	0.4376	0.4376
120 mph 60 degree with No Ice - Pattern 1	250.00	0.951	0.0159	0.4415	0.4418
120 mph 60 degree with No Ice - Pattern 2	210.00	0.485	0.0167	0.3038	0.3043
120 mph 60 degree with No Ice - Pattern 2	230.00	0.596	0.0133	0.3381	0.3384
120 mph 60 degree with No Ice - Pattern 2	240.00	0.654	0.0102	0.3419	0.3419
120 mph 60 degree with No Ice - Pattern 2	250.00	0.714	0.0095	0.3463	0.3464
120 mph 60 degree with No Ice - Pattern 3	210.00	0.656	-0.0246	0.3932	0.3940
120 mph 60 degree with No Ice - Pattern 3	230.00	0.799	0.0202	0.4322	0.4327
120 mph 60 degree with No Ice - Pattern 3	240.00	0.875	0.0170	0.4376	0.4376
120 mph 60 degree with No Ice - Pattern 3	250.00	0.951	0.0159	0.4415	0.4418
120 mph 90 degree with No Ice - Pattern 1	210.00	0.670	-0.0283	0.4009	0.4011
120 mph 90 degree with No Ice - Pattern 1	230.00	0.816	-0.0235	0.4413	0.4419
120 mph 90 degree with No Ice - Pattern 1	240.00	0.892	-0.0197	0.4441	0.4442
120 mph 90 degree with No Ice - Pattern 1	250.00	0.970	-0.0186	0.4505	0.4508
120 mph 90 degree with No Ice - Pattern 2	210.00	0.493	-0.0207	0.3081	0.3088
120 mph 90 degree with No Ice - Pattern 2	230.00	0.606	-0.0168	0.3448	0.3452
120 mph 90 degree with No Ice - Pattern 2	240.00	0.665	-0.0133	0.3453	0.3454
120 mph 90 degree with No Ice - Pattern 2	250.00	0.726	-0.0125	0.3531	0.3533
120 mph 90 degree with No Ice - Pattern 3	210.00	0.670	-0.0283	0.4009	0.4011
120 mph 90 degree with No Ice - Pattern 3	230.00	0.816	-0.0235	0.4413	0.4419
120 mph 90 degree with No Ice - Pattern 3	240.00	0.892	-0.0197	0.4441	0.4442
120 mph 90 degree with No Ice - Pattern 3	250.00	0.970	-0.0186	0.4505	0.4508
120 mph Normal with No Ice (Reduced DL)	210.00	0.710	0.0254	0.4219	0.4219
120 mph Normal with No Ice (Reduced DL)	230.00	0.864	0.0212	0.4607	0.4612
120 mph Normal with No Ice (Reduced DL)	240.00	0.944	0.0179	0.4643	0.4647
120 mph Normal with No Ice (Reduced DL)	250.00	1.026	0.0169	0.4706	0.4710
120 mph 60 deg with No Ice (Reduced DL)	210.00	0.655	-0.0245	0.3927	0.3934
120 mph 60 deg with No Ice (Reduced DL)	230.00	0.798	0.0201	0.4316	0.4321
120 mph 60 deg with No Ice (Reduced DL)	240.00	0.874	0.0169	0.4366	0.4366
120 mph 60 deg with No Ice (Reduced DL)	250.00	0.950	0.0158	0.4409	0.4412
120 mph 90 deg with No Ice (Reduced DL)	210.00	0.669	-0.0282	0.4002	0.4005
120 mph 90 deg with No Ice (Reduced DL)	230.00	0.815	-0.0234	0.4407	0.4414
120 mph 90 deg with No Ice (Reduced DL)	240.00	0.891	-0.0196	0.4432	0.4433
120 mph 90 deg with No Ice (Reduced DL)	250.00	0.969	-0.0185	0.4499	0.4503
30 mph Normal with 0.25 in Radial Ice	210.00	0.053	0.0016	0.0316	0.0316
30 mph Normal with 0.25 in Radial Ice	230.00	0.064	0.0013	0.0339	0.0339
30 mph Normal with 0.25 in Radial Ice	240.00	0.070	0.0010	0.0349	0.0349
30 mph Normal with 0.25 in Radial Ice	250.00	0.076	0.0009	0.0342	0.0342
30 mph 60 deg with 0.25 in Radial Ice	210.00	0.050	0.0015	0.0295	0.0296
30 mph 60 deg with 0.25 in Radial Ice	230.00	0.060	0.0012	0.0322	0.0322
30 mph 60 deg with 0.25 in Radial Ice	240.00	0.066	0.0010	0.0339	0.0339

Site Number: 2544

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Site Name: ELLISVILLE FL, FL

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Customer: SPRINT NEXTEL

30 mph 60 deg with 0.25 in Radial Ice	250.00	0.072	0.0009	0.0325	0.0326
30 mph 90 deg with 0.25 in Radial Ice	210.00	0.051	-0.0017	0.0302	0.0303
30 mph 90 deg with 0.25 in Radial Ice	230.00	0.061	-0.0014	0.0326	0.0326
30 mph 90 deg with 0.25 in Radial Ice	240.00	0.067	-0.0011	0.0341	0.0341
30 mph 90 deg with 0.25 in Radial Ice	250.00	0.073	-0.0010	0.0330	0.0330
Seismic Normal M1	210.00	0.034	0.0011	0.0218	0.0218
Seismic Normal M1	230.00	0.042	0.0009	0.0240	0.0240
Seismic Normal M1	240.00	0.046	0.0008	0.0251	0.0251
Seismic Normal M1	250.00	0.050	0.0008	0.0245	0.0245
Seismic 60 deg M1	210.00	0.034	0.0011	0.0214	0.0214
Seismic 60 deg M1	230.00	0.042	0.0009	0.0237	0.0237
Seismic 60 deg M1	240.00	0.046	0.0008	0.0255	0.0255
Seismic 60 deg M1	250.00	0.050	0.0008	0.0243	0.0243
Seismic 90 deg M1	210.00	0.034	-0.0012	0.0217	0.0217
Seismic 90 deg M1	230.00	0.042	-0.0011	0.0239	0.0240
Seismic 90 deg M1	240.00	0.046	-0.0010	0.0254	0.0254
Seismic 90 deg M1	250.00	0.050	-0.0009	0.0245	0.0245
Seismic (Reduced DL) Normal M1	210.00	0.034	0.0011	0.0216	0.0216
Seismic (Reduced DL) Normal M1	230.00	0.042	0.0009	0.0238	0.0238
Seismic (Reduced DL) Normal M1	240.00	0.046	0.0008	0.0248	0.0248
Seismic (Reduced DL) Normal M1	250.00	0.050	0.0007	0.0244	0.0244
Seismic (Reduced DL) 60 deg M1	210.00	0.034	0.0011	0.0213	0.0213
Seismic (Reduced DL) 60 deg M1	230.00	0.042	0.0009	0.0236	0.0236
Seismic (Reduced DL) 60 deg M1	240.00	0.046	0.0008	0.0250	0.0250
Seismic (Reduced DL) 60 deg M1	250.00	0.050	0.0008	0.0242	0.0242
Seismic (Reduced DL) 90 deg M1	210.00	0.034	-0.0012	0.0215	0.0215
Seismic (Reduced DL) 90 deg M1	230.00	0.042	-0.0011	0.0238	0.0238
Seismic (Reduced DL) 90 deg M1	240.00	0.046	-0.0010	0.0250	0.0250
Seismic (Reduced DL) 90 deg M1	250.00	0.050	-0.0009	0.0244	0.0244
Serviceability - 60 mph Wind Normal	210.00	0.178	0.0060	0.1059	0.1059
Serviceability - 60 mph Wind Normal	230.00	0.216	0.0049	0.1151	0.1152
Serviceability - 60 mph Wind Normal	240.00	0.236	0.0041	0.1166	0.1167
Serviceability - 60 mph Wind Normal	250.00	0.257	0.0038	0.1176	0.1177
Serviceability - 60 mph Wind 60 deg	210.00	0.164	0.0052	0.0982	0.0984
Serviceability - 60 mph Wind 60 deg	230.00	0.199	0.0042	0.1079	0.1079
Serviceability - 60 mph Wind 60 deg	240.00	0.218	0.0034	0.1098	0.1098
Serviceability - 60 mph Wind 60 deg	250.00	0.237	0.0031	0.1100	0.1100
Serviceability - 60 mph Wind 90 deg	210.00	0.167	-0.0066	0.1004	0.1005
Serviceability - 60 mph Wind 90 deg	230.00	0.204	-0.0054	0.1103	0.1104
Serviceability - 60 mph Wind 90 deg	240.00	0.223	-0.0044	0.1116	0.1116
Serviceability - 60 mph Wind 90 deg	250.00	0.242	-0.0041	0.1125	0.1126

Maximum Reactions Summary

Anchor Group	Vertical (kip)				Horizontal (kip)		Moment (kip-ft)	
	DL+WL	DL+WL+IL	UpLift	Shear	DL+WL	DL+WL+IL	DL+WL	DL+WL+IL
Base	91.55	104.40	295.04	43.29	63.29	4.66	8705.18	643.05