

TOWN OF DAVIE TOWN COUNCIL AGENDA REPORT

TO: Mayor and Councilmembers

FROM/PHONE: Gary Shimun, Town Administrator / 797-1030

PREPARED BY: Phillip R. Holste, CFM, Program Manager / 797-1041

SUBJECT: Resolution

AFFECTED DISTRICT: 3

TITLE OF AGENDA ITEM: A RESOLUTION OF THE TOWN OF DAVIE, FLORIDA, AUTHORIZING THE MAYOR TO EXECUTE A LEASE AMENDMENT TO AN EXISTING LEASE AGREEMENT BETWEEN THE TOWN OF DAVIE AND AMERICAN TOWER CONCERNING THE MONOPOLE TELECOMMUNICATIONS TOWER LOCATED AT 3600 FLAMINGO ROAD; AND PROVIDING FOR AN EFFECTIVE DATE.

REPORT IN BRIEF:

PREVIOUS ACTIONS: R97-205 (Original Lease Agreement), R97-405 (Lease Assignment), R2001-126 (First Amendment), R2001-332 (Second Amendment). At the January 3, 2007 Council meeting, Council tabled the item to January 17, 2007. Staff requested a tabling to address maintenance issues at the site. At the January 17, 2007 Council meeting, this item was tabled to February 21, 2007. Staff requested a tabling because this item was scheduled to be discussed at a January 31 workshop which was subsequently cancelled.

CONCURRENCES: Not applicable

FISCAL IMPACT: Yes

Has request been budgeted? n/a

If yes, expected cost: \$

Account Name:

If no, amount needed: \$

What account will funds be appropriated from:

Additional Comments: The Town will receive 50% of co-location revenue.

RECOMMENDATION(S): Staff recommends tabling the item to the second Council meeting in March (March 22)

Attachment(s): Resolution, Third amendment to lease agreement

RESOLUTION _____

A RESOLUTION OF THE TOWN OF DAVIE, FLORIDA AUTHORIZING THE MAYOR TO EXECUTE A LEASE AMENDMENT TO AN EXISTING LEASE AGREEMENT BETWEEN THE TOWN OF DAVIE AND AMERICAN TOWER CONCERNING THE MONOPOLE TELECOMMUNICATIONS TOWER LOCATED 3600 S. FLAMINGO ROAD; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, LESSOR and OMNIPOINT entered into that certain Lease Agreement (“Agreement” dated November 19, 1997, which by this reference is incorporated herein and made a part hereof, whereby LESSOR leased to OMNIPOINT that certain real property in Broward County, Florida, located at 3600 S. Flamingo Road, Davie, FL, more specifically described in and substantially shown as outlined on Exhibit “A” attached hereto and made a part hereof (“Property”); and

WHEREAS, LESSOR and TENANT previously amended the Agreement pursuant to the First Amendment to the Lease Agreement dated December 5, 2000 to allow for four (4) carriers on the tower; and

WHEREAS, LESSOR and TENANT previously amended the Agreement pursuant to the Second Amendment to the Lease Agreement dated December 4, 2001 to lease an additional 778 square feet of ground space and approve a sublease between American Tower and Verizon; and

WHEREAS, American Tower has requested an amendment to the lease to allow five (5) carriers on the tower and an additional 110’ 4” of ground space; and

WHEREAS, an engineer licensed in the State of Florida has certified that the existing tower has sufficient loading capacity for the additional antenna; and

WHEREAS, there is sufficient loading capacity on the tower, and the addition of a fifth antenna is consistent with the goal of collocation on towers to reduce the number of towers.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF DAVIE, FLORIDA.

SECTION 1. That the recitals set forth above are true and correct and are made a part of this resolution.

SECTION 2. The Town Council of the Town of Davie hereby approves the aforementioned amendment and authorizes the Mayor to execute the proposed third amendment, a copy of which is attached as Exhibit “A”, on behalf of the Town.

SECTION 3. This resolution shall take effect immediately upon its passage and adoption.

PASSED AND ADOPTED THIS _____ DAY OF _____, 2007.

MAYOR/COUNCILMEMBER

ATTEST:

TOWN CLERK

APPROVED THIS _____ DAY OF _____, 2007

**THIRD AMENDMENT TO
LEASE**

THIS THIRD AMENDMENT TO LEASE ("Third Amendment") is entered into on the _____ day of _____, 2007, by and between **Town of Davie**, a municipal corporation of the State of Florida (hereinafter referred to as "Lessor") and **Unisite/Omnipoint FL Tower Venture, LLC.**, a Delaware corporation, its successors and/or assigns (hereinafter referred to as "Lessee").

WITNESSETH:

WHEREAS, Lessor and Omnipoint Communications DEF Operations, Inc. predecessor-in-interest to Lessee, executed and entered into that certain Lease Agreement dated November 19, 1997, as amended by that certain First Amendment to Lease Agreement dated October 11, 2000, and further by that certain Second Amendment to Lease Agreement dated December 4, 2001 (collectively, the "Lease"), for the purpose of installing, operating and maintaining a communications facility and other improvements on the Site (as described in Exhibit A attached hereto and incorporated by reference herein); and

WHEREAS, Lessor and Lessee desire to amend certain provisions in the Lease.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained in this Third Amendment, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties, Lessor and Lessee hereby agree and contract as follows:

1. Lessor hereby leases to Lessee an additional 110'4" square feet contiguous to the leased area as set forth on Exhibit B attached hereto and incorporated by reference herein. Lessor agrees to cooperate with Lessee as necessary to obtain appropriate zoning, permitting and government approvals. This shall include, but is not limited to, additional uses of Lessor's property as needed to meet any jurisdictional fall zone and other tower related stipulations. If Lessee ceases use of this additional ground space, said space shall revert back to Lessor. Lessee shall have a period of six (6) months to place another wireless carrier within this space prior to the space reverting back to the use of Lessor. Upon the end of said six (6) month period, Lessor shall notify Lessee in writing that it intends to resume use of this area. Any consideration due to Lessor as a result of lease of this space shall cease as of the effective termination date of any tenant agreement applicable to use of said space.
2. Pursuant to the terms of the Lease, as consideration for use of the additional ground space comprised of 110'4" square feet contiguous to the leased area, Lessee shall pay to Lessor fifty percent (50%) of the gross receipts derived from adding additional tenants to the tower site by utilizing this area. Additionally, Lessee hereby agrees to provide to Lessor, upon request, copies of any tenant agreements for the telecommunications facility as they are directly related to their proportionate share of the revenue received by Lessee. Lessee hereby acknowledges that Lessor (specifically the Town Council) is to have final approval with regard to any collocation agreement between Unisite/Omnipoint FL Tower Venture, LLC and any other future carrier and this Third Amendment is contingent upon such approval by the Davie Town Council. If at any such time Lessee's use of the

additional area shall cease, any revenue due to Lessor shall cease as of the effective date Lessee is no longer receiving rents derived from the use of said space.

3. Pursuant to Paragraph 7 and Paragraph 17 of the Lease, Lessor hereby consents to the addition of another wireless carrier to the tower, Metro PCS, and Lessee hereby affirms that as of the date of this Third Amendment Metro PCS's proposed rental rate is to be Two Thousand Four Hundred and No/Dollars (\$2400.00) per month, of which fifty percent (50%) of the receipt of would benefit Lessor upon the commencement of Metro PCS's sublease taking effect at the Site. If at any time during the term of this Lease Metro PCS's shall cease its tenancy, any revenue due to the Lessor shall be reduced proportionately.
4. The Notice language contained in Paragraph 18 is deleted in its entirety and replaced with: "**Notices.** All notices must be in writing and shall be valid upon receipt when delivered by hand, by nationally recognized courier service, signed receipt requested, or by First Class United States mail, certified, return receipt requested, addressed as follows:

Lessor: _____

Lessee: American Tower
10 Presidential Way
Woburn, MA 01801
Attn: Land Management

With a copy to: American Tower
116 Huntington Ave.
Boston, MA 02116
Attn: Legal

The parties may substitute recipient's names and addresses by giving at least thirty (30) days notice. Rejection or refusal to accept delivery of any notice, or the inability to deliver any notice because of a changed address of which no notice was given, shall be deemed to be receipt of any such notice."

5. Lessor grants to Lessee the right to install and maintain during the Term of this Lease identifying signs or other types of signs required by any governmental authority on or along any access road to the Site, including, if necessary, signs visible from the nearest public street, at locations where an access road diverges, or if an obstruction obscures visibility of the Site and Improvements. Lessee agrees to minimize the size of such signs as reasonably required for readability and compliance with regulations or directives of any governmental authority.
6. Lessor hereby acknowledges receipt, review and acceptance of the structural analysis of the telecommunications facility a copy of which is attached hereto as Exhibit C.
7. Lessee hereby agrees to comply with the current landscaping code of the Town of Davie and to install a proper landscaping buffer around the compound. Lessee additionally agrees to comply with all current zoning requirements.

8. Lessee hereby agrees to make best efforts to ensure that future collocations on the tower will be flush-mounted and they will have their own generator on-site and a contract for fuel delivery in the event of a disaster.
9. Lessor represents and warrants that as of the date of this execution, there are no uncured defaults under the terms of the Lease and that the Lease is in full force and effect.
10. All other terms of the Lease except as may be amended herein, or as may be in conflict with the provisions of this Third Amendment, shall be deemed incorporated into this Third Amendment.
11. Except as amended herein, all terms, conditions, provisions, covenants and agreements contained in the Lease are hereby ratified and confirmed in their entirety. The terms used herein and not otherwise defined in this Third Amendment shall have the same meaning as set forth in the Lease.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals on the day first above written.

LESSOR:

WITNESSES:

Town of Davie

By:
Its:

Print Name:

Print Name:

LESSEE:

Unisite/Omnipoint FL Tower Venture, LLC
By: Unisite, LLC, its manager

Jason D. Hirsch
Director, Land Management

Print Name:

Print Name:

ACKNOWLEDGEMENT

LESSOR:

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ (date) by _____ (name and title of officer) of _____, a _____ (state) corporation, on behalf of the corporation. He/she is personally known to me or has produced _____ (type of identification) as identification.

Notary Public

Printed Name: _____

My Commission Expires:

Commission # _____

LESSEE:

COMMONWEALTH OF MASSACHUSETTS)

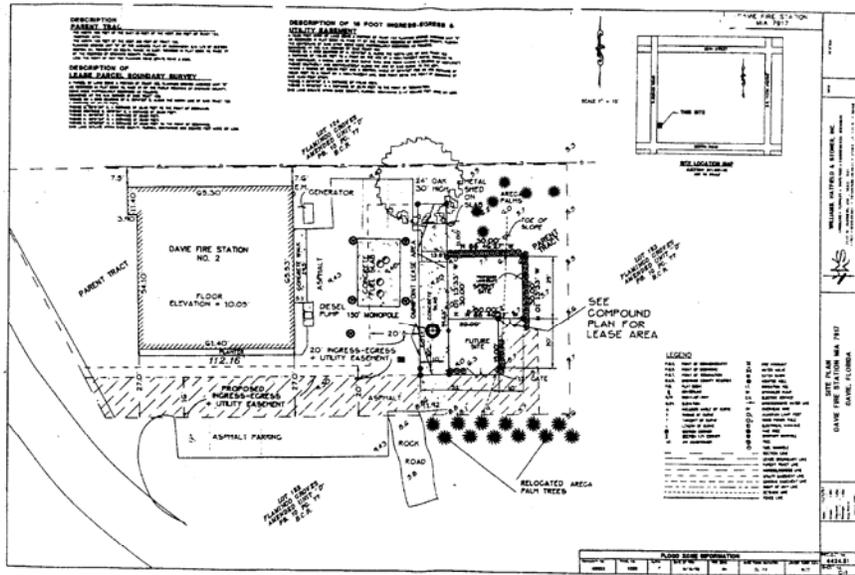
) ss:

COUNTY OF MIDDLESEX)

Then personally appeared the said, Jason D. Hirsch of Unisite/Omnipoint FL Tower Venture, LLC. as aforesaid, signer and sealer of the foregoing instrument, and acknowledged the same to be his/her free act and deed as Director, Land Management of Unisite/Omnipoint FL Tower Venture, LLC. and the free act and deed of said limited liability company, before me.

Notary Public
My Commission Expires:

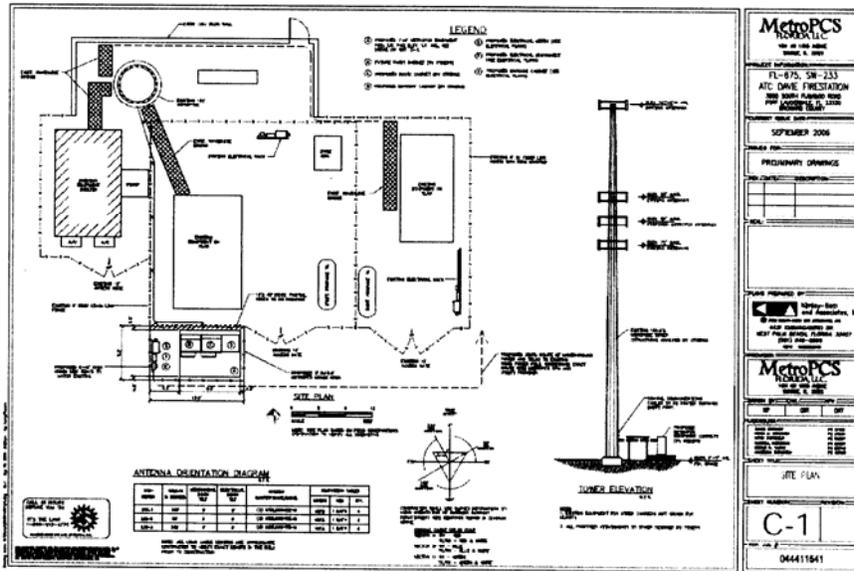
EXHIBIT A



Third Amendment to Lease Agreement

Davie Fire Station, FL Site #91535

EXHIBIT B



Third Amendment to Lease Agreement

Davie Fire Station, FL Site #91535

PASSED



AMERICAN TOWER™
CORPORATION

Structural Analysis Report

Structure : 138 ft Summit Monopole
ATC Site Name : Davie Fire Station, FL
ATC Site Number : 91535
Proposed Carrier : Metro PCS
Carrier Site Name : ATC Davie Fire Station
Carrier Site Number : FL675SW233
County : Broward
Eng. Number : 26884221R1
Date : December 6, 2006
Usage : 73.8% (Shaft)

Submitted by:
Ram Kodali, P.E.
Project Engineer

American Tower Engineering Services
8505 Freeport Parkway
Suite 135
Irving, TX 75063
Phone: 972-999-8900

Reviewed by:
Jaime Reyes, P.E.
Director of Engineering

12/6/06



AMERICAN TOWER™
CORPORATION

Structural Analysis Report

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Reviewed by:
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Director of Engineering

American Tower Engineering Services
8505 Freeport Parkway
Suite 135
Irving, TX 75063
Phone: 972-999-8900

Third Amendment to Lease Agreement

Davie Fire Station, FL Site #91535

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 138 ft Summit Monopole located at Davie Fire Station, Broward County, FL (ATC site #91535). The tower was originally designed and manufactured by Summit (Job #2972 dated November 7, 1997). The original design profile is attached for additional information.

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition. A 5% overstress is allowed in the existing structural members to account for program variances.

Basic Wind Speed: 120 mph (Fastest Mile) / 140 mph (3-Second Gust) per FBC 2004 Code

Radial Ice: No Ice

Code: TIA/EIA-222-F

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
138.0	12	Celwave AP189015	Platform w/ Handrails	(24) 1 5/8	T-Mobile
	3	TTA		N/A	
120.0	6	Scala AP17-1900/090DT2	Low Profile Platform	(6) 1 5/8	Sprint
110.0	6	Scala AP17-1900/090DT2	(3) T-Arm	(6) 1 5/8	Verizon
95.0	9	Decibel DB848H90	Low Profile Platform	(9) 1 5/8	Nextel

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
85.0	6	Decibel DB950F65VTZE-M	(3) T-Arm	(12) 1 5/8	Metro PCS

Install proposed coax inside monopole.

Results

The existing 138 ft Summit Monopole with the existing and the proposed antennas is structurally acceptable per TIA/EIA-222-F. The maximum structure usage is: 73.8% (Shaft).

Additional exit and/or entry ports may be required to accommodate the running of the proposed lines to the proposed antennas. These additional ports may not be installed without installation drawings providing the location, size and welding requirements of each port.

To ensure compliance with all conditions of this structural analysis, port installation drawings shall be provided by American Tower's Engineering Department under a subsequent project.

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	4,365.00	4,698.08	107.6
Shear (kips)	46.50	50.94	109.5

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Conclusion

Based on the analysis results, the structure meets the requirements per TIA/EIA-222-F standards. The tower and foundation can support the existing and proposed antennas with the TX line distribution as described in this report.

If you have any questions or require additional information, please call (972) 999-8900.

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

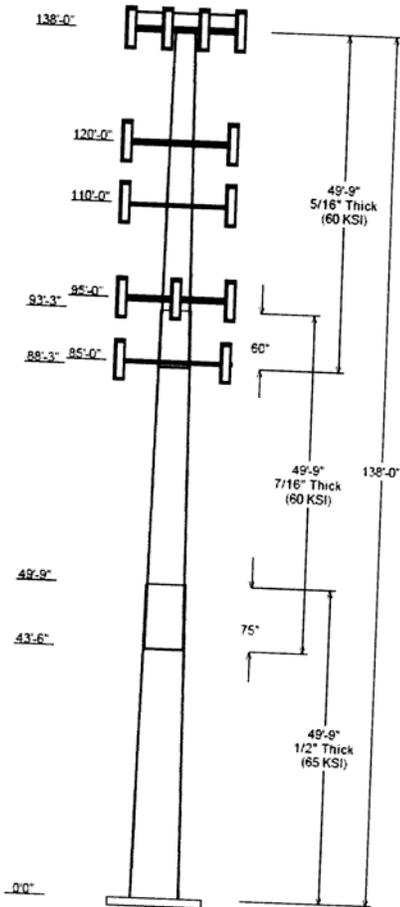
- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Engineering Services and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an un-corroded condition and have not deteriorated; and we, therefore, assume that their capacity has not significantly changed from the "as new" condition.

All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/EIA-222.

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

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Job Information			
Pole:	91535	Code:	TIA/EIA-222 Rev F
Description:	138 ft Summit Monopole		
Client:	Metro PCS		
Location:	Davie Fire Station, FL		
Shape:	18 Sides	Base Elev (ft):	0.00
Height:	138.00 (ft)	Taper:	0.28000(in/ft)

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Taper (in/ft) [ksi]
		Top	Bottom				
1	49.750	48.21	62.14	0.500		0.000	0.280000 65
2	49.750	36.90	50.83	0.438	Slip Joint	75.000	0.280000 60
3	49.750	25.00	38.93	0.313	Slip Joint	60.000	0.280000 60

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	
138.000	138.000	1	Platform w/ Handrails	
138.000	138.000	3	TTA	
138.000	138.000	12	Celwave AP189015	
120.000	120.000	1	Low Profile Platform	
120.000	120.000	6	Scala AP17-1900/090DT2	
110.000	110.000	3	T-Arm	
110.000	110.000	6	Scala AP17-1900/090DT2	
95.000	95.000	1	Low Profile Platform	
95.000	95.000	9	Decibel DB848H90	
85.000	85.000	3	T-Arm	
85.000	85.000	6	Decibel DB950F65VTZE-M	

Linear Appurtenance				
Elev (ft) From	To	Description	Exposed To Wind	
0.000	85.000	1 5/8" Coax	No	
0.000	95.000	1 5/8" Coax	No	
0.000	110.0	1 5/8" Coax	No	
0.000	120.0	1 5/8" Coax	No	
0.000	138.0	1 5/8" Coax	No	

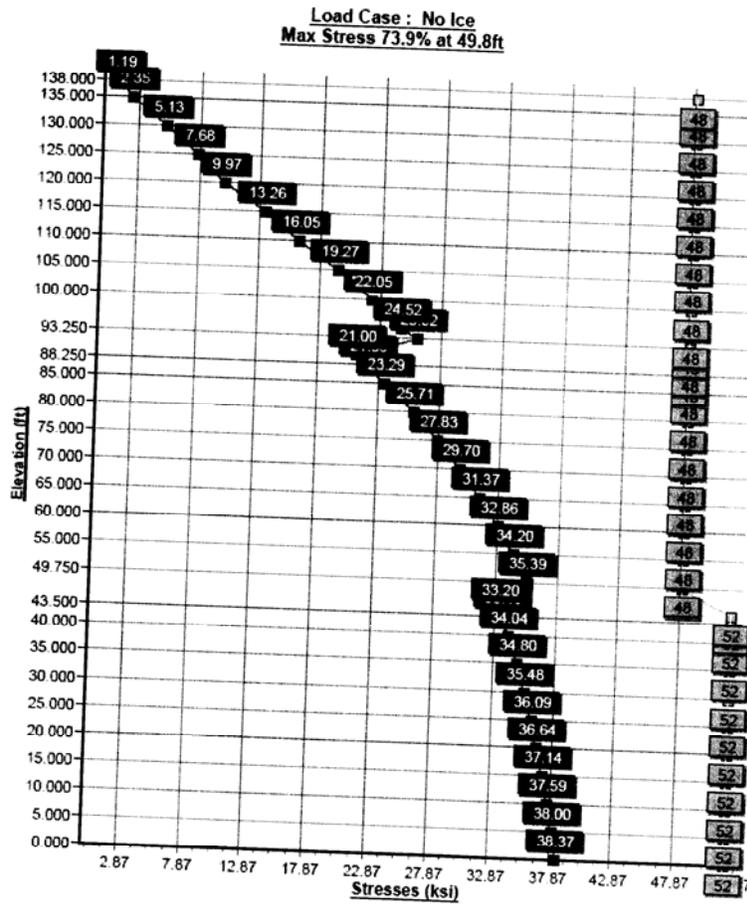
Load Cases		
No Ice	120.00 mph Wind with No Ice	
Twist/Sway	50.00 mph Wind with No Ice	

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	4698.08	50.94	43.68
Twist/Sway	816.02	8.84	43.74

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
Twist/Sway	0.00	0.000	0.000

Third Amendment to Lease Agreement

Davie Fire Station, FL Site #91535



Third Amendment to Lease Agreement

Davie Fire Station, FL Site #91535

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)

Shaft Section Properties

Sect Num	Length (ft)	Thick (in)	Fv (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom				Top				Taper (in/ft)				
							Dia (in)	Flew (ft)	Area (sqin)	Ix (in^4)	Wt Ratio	Dia (in)	Flew (ft)	Area (sqin)		Ix (in^4)	Wt Ratio		
1	49.750	0.5000	85		0.00	14,888	62.14	0.000	97.82	46957.0	20.50	124.2	48.21	49.75	75.71	21774.1	15.59	96.42	0.28000
2	49.750	0.4375	60	Slip Joint	75.00	10,210	50.83	43.50	69.98	22456.7	19.08	116.1	36.90	93.25	50.64	8508.2	13.46	84.35	0.28000
3	49.750	0.3125	60	Slip Joint	60.00	5,315	38.93	88.25	38.30	7216.8	20.56	124.6	25.00	138.0	24.49	1885.5	12.70	80.00	0.28000
Shaft Weight						30,213													

Discrete Appurtenance Properties

Attach Flew (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	Vart Ecc (ft)
			Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
138.0	Platform w/ Handrails	1	2500.00	36.000	1.00	3250.00	48.000	1.00	0.000	0.000
138.0	TTA	3	10.00	0.650	0.50	25.00	0.790	0.50	0.000	0.000
138.0	Celwave AP189015	12	14.00	5.830	0.69	40.00	6.500	0.69	0.000	0.000
120.0	Low Profile Platform	1	1500.00	30.000	1.00	1950.00	40.500	1.00	0.000	0.000
120.0	Scala AP17-1900/090DT2	6	11.70	4.120	0.76	31.06	4.700	1.00	0.000	0.000
110.0	T-Arm	3	333.00	6.000	1.00	433.00	8.100	1.00	0.000	0.000
110.0	Scala AP17-1900/090DT2	6	11.70	4.120	0.74	31.06	4.700	0.74	0.000	0.000
95.00	Low Profile Platform	1	1500.00	30.000	1.00	1950.00	40.500	1.00	0.000	0.000
95.00	Decibel DB848H90	9	28.00	7.200	1.00	68.00	8.040	1.00	0.000	0.000
85.00	T-Arm	3	333.00	6.000	1.00	433.00	8.100	1.00	0.000	0.000
85.00	Decibel DB950F65VT7F-M	6	9.50	4.000	0.85	26.00	5.550	0.85	0.000	0.000
Totals		51	8145.40			11443.75				

Number of Loadings : 11

Linear Appurtenance Properties

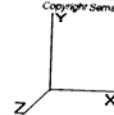
Elev From (ft)	Elev To (ft)	Description	No Ice		Ice		Exposed To Wind
			Weight (lb/ft)	CaAa (sf/ft)	Weight (lb/ft)	CaAa (sf/ft)	
0.00	138.00	(24) 1 5/8" Coax	19.68	0.00	0.00	0.00	N
0.00	120.00	(6) 1 5/8" Coax	4.92	0.00	0.00	0.00	N
0.00	110.00	(6) 1 5/8" Coax	4.92	0.00	0.00	0.00	N
0.00	95.00	(9) 1 5/8" Coax	7.38	0.00	0.00	0.00	N
0.00	85.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N
Total Weight			5,384.94 (lb)		0.00 (lb)		

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

Code: TIA/EIA-222 Rev F

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Base Elev : 0.000 (ft)



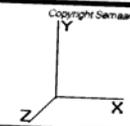
Segment Properties (Max Len : 5 ft)

Sea Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.5000	62.140	97.819	46.957.0	20.50	124.28	65	52	0.0
5.00		0.5000	60.740	95.597	43.829.6	20.01	121.48	65	52	1,645.4
10.00		0.5000	59.340	93.376	40.844.2	19.52	118.68	65	52	1,607.6
15.00		0.5000	57.940	91.154	37.907.5	19.02	115.88	65	52	1,569.8
20.00		0.5000	56.540	88.932	35.286.3	18.53	113.08	65	52	1,532.0
25.00		0.5000	55.140	86.710	32.707.3	18.03	110.28	65	52	1,494.2
30.00		0.5000	53.740	84.489	30.257.0	17.54	107.48	65	52	1,456.4
35.00		0.5000	52.340	82.267	27.932.3	17.05	104.68	65	52	1,418.6
40.00		0.5000	50.940	80.045	25.729.8	16.55	101.88	65	52	1,380.8
43.50	Bot - Section 2	0.5000	49.540	78.490	24.759.1	16.21	99.92	65	52	944.1
45.00		0.5000	49.540	78.490	24.759.1	16.21	99.92	65	52	944.1
49.75	Top - Section 1	0.4375	49.085	67.551	20.197.7	18.37	112.19	60	48	754.6
50.00		0.4375	49.015	67.453	20.110.6	18.34	112.03	60	48	2,347.6
55.00		0.4375	47.615	65.509	18.421.5	17.78	108.83	60	48	57.4
60.00		0.4375	46.215	63.565	16.829.7	17.22	105.63	60	48	1,131.1
65.00		0.4375	44.815	61.621	15.332.3	16.65	102.43	60	48	1,098.0
70.00		0.4375	43.415	59.677	13.926.5	16.09	99.23	60	48	1,065.0
75.00		0.4375	42.015	57.733	12.609.4	15.52	96.03	60	48	1,031.9
80.00		0.4375	40.615	55.789	11.378.1	14.96	92.83	60	48	998.8
85.00		0.4375	39.215	53.845	10.229.6	14.39	89.63	60	48	965.7
88.25	Bot - Section 3	0.4375	38.305	52.582	9.526.2	14.03	87.55	60	48	932.7
90.00		0.4375	37.815	51.901	9.161.1	13.81	86.43	60	48	588.5
93.75	Top - Section 2	0.3125	37.530	36.914	6.460.0	19.77	120.10	60	48	537.7
95.00		0.3125	37.040	36.428	6.208.2	19.40	118.53	60	48	980.2
100.0		0.3125	35.640	35.039	5.525.0	18.70	114.05	60	48	218.4
105.0		0.3125	34.240	33.651	4.893.8	17.91	109.57	60	48	608.0
110.0		0.3125	32.840	32.262	4.312.6	17.12	105.09	60	48	584.3
115.0		0.3125	31.440	30.873	3.779.4	16.33	100.61	60	48	560.7
120.0		0.3125	30.040	29.485	3.292.0	15.54	96.13	60	48	537.1
125.0		0.3125	28.640	28.098	2.848.5	14.75	91.65	60	48	513.5
130.0		0.3125	27.240	26.708	2.446.7	13.96	87.17	60	48	489.9
135.0		0.3125	25.840	25.319	2.084.6	13.17	82.69	60	48	466.2
138.0		0.3125	25.000	24.486	1.885.5	12.70	80.00	60	48	442.6
										254.2
										30,212.7

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

Code: TIA/EIA-222 Rev F
 Base Elev : 0.000 (ft)

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Load Case: No Ice 120.00 mph Wind with No Ice 19 Iterations
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Flw (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
85.00	T-Arm	3	48.306	81.638	1.000	18.00	0.000	0.000	1,469.48	0.00	0.00	999.00
85.00	Decibel	6	48.306	81.638	0.850	20.40	0.000	0.000	1,665.41	0.00	0.00	57.00
95.00	Low Profile Platform	1	49.866	84.274	1.000	30.00	0.000	0.000	2,528.21	0.00	0.00	1,500.00
95.00	Decibel DB848H90	9	49.866	84.274	1.000	64.80	0.000	0.000	5,460.93	0.00	0.00	252.00
110.0	T-Arm	3	51.999	87.879	1.000	18.00	0.000	0.000	1,581.81	0.00	0.00	999.00
110.0	Scala AP17-1900/090D	6	51.999	87.879	0.740	18.29	0.000	0.000	1,607.51	0.00	0.00	70.20
120.0	Low Profile Platform	1	53.308	90.091	1.000	30.00	0.000	0.000	2,702.72	0.00	0.00	1,500.00
120.0	Scala AP17-1900/090D	6	53.308	90.091	0.760	18.79	0.000	0.000	1,692.55	0.00	0.00	70.20
138.0	Platform w/ Handrail	1	55.480	93.761	1.000	36.00	0.000	0.000	3,375.39	0.00	0.00	30.00
138.0	TTA	3	55.480	93.761	0.500	0.97	0.000	0.000	91.42	0.00	0.00	168.00
138.0	Celwave AP189015	12	55.480	93.761	0.690	48.27	0.000	0.000	4,526.07	0.00	0.00	168.00
									26,701.50			8,145.40

Third Amendment to Lease Agreement

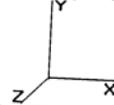
Davie Fire Station, FL Site #91535

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: No Ice 120.00 mph Wind with No Ice 19 Iterations
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

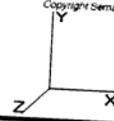
Sea Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-50.939	-43.679	0.000	0.000	0.000	-4.698.083	0.000	0.000	0.000	0.000
5.00	-50.802	-41.680	0.000	0.000	0.000	-4.443.382	-0.075	0.000	0.075	-0.138
10.00	-49.080	-39.722	0.000	0.000	0.000	-4.193.388	-0.297	0.000	0.297	-0.279
15.00	-47.283	-37.805	0.000	0.000	0.000	-3.947.993	-0.666	0.000	0.666	-0.420
20.00	-46.408	-35.929	0.000	0.000	0.000	-3.707.130	-1.184	0.000	1.184	-0.564
25.00	-45.549	-34.094	0.000	0.000	0.000	-3.470.719	-1.853	0.000	1.853	-0.708
30.00	-44.691	-32.300	0.000	0.000	0.000	-3.238.682	-2.674	0.000	2.674	-0.854
35.00	-43.804	-30.548	0.000	0.000	0.000	-3.010.939	-3.649	0.000	3.649	-1.001
40.00	-43.172	-28.855	0.000	0.000	0.000	-2.787.487	-4.778	0.000	4.778	-1.149
45.00	-42.918	-27.705	0.000	0.000	0.000	-2.634.175	-5.660	0.000	5.660	-1.254
49.75	-41.991	-26.816	0.000	0.000	0.000	-2.569.418	-6.062	0.000	6.062	-1.300
50.00	-41.978	-24.084	0.000	0.000	0.000	-2.365.560	-7.428	0.000	7.428	-1.441
55.00	-41.062	-22.632	0.000	0.000	0.000	-2.355.062	-7.503	0.000	7.503	-1.448
60.00	-40.142	-21.210	0.000	0.000	0.000	-2.145.173	-9.107	0.000	9.107	-1.607
65.00	-39.222	-19.845	0.000	0.000	0.000	-1.970.866	-10.877	0.000	10.877	-1.765
70.00	-38.304	-18.512	0.000	0.000	0.000	-1.738.158	-12.810	0.000	12.810	-1.921
75.00	-37.391	-17.220	0.000	0.000	0.000	-1.543.050	-14.905	0.000	14.905	-2.073
80.00	-36.485	-15.970	0.000	0.000	0.000	-1.351.530	-17.157	0.000	17.157	-2.221
85.00	-32.403	-13.859	0.000	0.000	0.000	-1.164.576	-19.561	0.000	19.561	-2.363
88.25	-31.823	-13.141	0.000	0.000	0.000	-982.154	-22.109	0.000	22.109	-2.497
90.00	-31.506	-12.519	0.000	0.000	0.000	-876.846	-23.839	0.000	23.839	-2.581
93.25	-30.906	-11.415	0.000	0.000	0.000	-821.155	-24.783	0.000	24.783	-2.625
95.00	-22.547	-9.740	0.000	0.000	0.000	-718.763	-26.608	0.000	26.608	-2.703
100.0	-21.691	-8.976	0.000	0.000	0.000	-664.678	-27.607	0.000	27.607	-2.743
105.0	-20.851	-8.244	0.000	0.000	0.000	-551.942	-30.556	0.000	30.556	-2.883
110.0	-16.786	-6.651	0.000	0.000	0.000	-443.489	-33.646	0.000	33.646	-3.011
115.0	-15.985	-6.010	0.000	0.000	0.000	-339.235	-36.862	0.000	36.862	-3.125
120.0	-10.778	-4.087	0.000	0.000	0.000	-255.305	-40.188	0.000	40.188	-3.223
125.0	-9.974	-3.532	0.000	0.000	0.000	-175.379	-43.609	0.000	43.609	-3.304
130.0	-9.246	-3.004	0.000	0.000	0.000	-121.740	-47.104	0.000	47.104	-3.368
135.0	-8.546	-2.502	0.000	0.000	0.000	-71.870	-50.657	0.000	50.657	-3.416
138.0	-8.380	0.000	0.000	0.000	0.000	-25.638	-54.251	0.000	54.251	-3.445
						0.000	-56.417	0.000	56.417	-3.450

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: No Ice
 120.00 mph Wind with No Ice
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00
 19 Iterations

Calculated Stresses

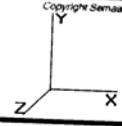
Seq Elev (ft)	Applied Stresses				Applied Stresses			Allowable Stress (Fb) (ksi)	Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)		
0.00	0.45	1.05	0.00	0.00	0.00	37.88	38.37	52.0	0.0
5.00	0.44	1.05	0.00	0.00	0.00	37.52	38.00	52.0	0.0
10.00	0.43	1.06	0.00	0.00	0.00	37.12	37.59	52.0	0.0
15.00	0.41	1.07	0.00	0.00	0.00	36.68	37.14	52.0	0.0
20.00	0.40	1.07	0.00	0.00	0.00	36.19	36.64	52.0	0.0
25.00	0.39	1.08	0.00	0.00	0.00	35.65	36.09	52.0	0.0
30.00	0.38	1.09	0.00	0.00	0.00	35.05	35.48	52.0	0.0
35.00	0.37	1.09	0.00	0.00	0.00	34.37	34.80	52.0	0.0
40.00	0.36	1.10	0.00	0.00	0.00	33.62	34.04	52.0	0.0
43.50	0.35	1.11	0.00	0.00	0.00	33.05	33.46	52.0	0.0
45.00	0.34	1.11	0.00	0.00	0.00	32.80	33.20	52.0	0.0
49.75	0.36	1.25	0.00	0.00	0.00	35.03	35.45	48.0	0.0
50.00	0.36	1.25	0.00	0.00	0.00	34.97	35.39	48.0	0.0
55.00	0.35	1.26	0.00	0.00	0.00	33.78	34.20	48.0	0.0
60.00	0.33	1.27	0.00	0.00	0.00	32.45	32.86	48.0	0.0
65.00	0.32	1.28	0.00	0.00	0.00	30.97	31.37	48.0	0.0
70.00	0.31	1.29	0.00	0.00	0.00	29.31	29.70	48.0	0.0
75.00	0.30	1.31	0.00	0.00	0.00	27.44	27.83	48.0	0.0
80.00	0.29	1.32	0.00	0.00	0.00	25.33	25.71	48.0	0.0
85.00	0.28	1.21	0.00	0.00	0.00	22.94	23.29	48.0	0.0
88.25	0.25	1.22	0.00	0.00	0.00	21.48	21.83	48.0	0.0
90.00	0.24	1.22	0.00	0.00	0.00	20.65	21.00	48.0	0.0
93.25	0.21	1.25	0.00	0.00	0.00	25.44	25.92	48.0	0.0
95.00	0.27	1.25	0.00	0.00	0.00	24.16	24.52	48.0	0.0
100.00	0.26	1.25	0.00	0.00	0.00	21.69	22.05	48.0	0.0
105.00	0.24	1.05	0.00	0.00	0.00	18.90	19.27	48.0	0.0
110.00	0.21	1.04	0.00	0.00	0.00	15.74	16.05	48.0	0.0
115.00	0.19	0.73	0.00	0.00	0.00	12.94	13.26	48.0	0.0
120.00	0.14	0.72	0.00	0.00	0.00	9.75	9.97	48.0	0.0
125.00	0.13	0.70	0.00	0.00	0.00	7.46	7.68	48.0	0.0
130.00	0.11	0.68	0.00	0.00	0.00	4.88	5.13	48.0	0.0
135.00	0.10	0.69	0.00	0.00	0.00	1.94	2.35	48.0	0.0
138.00	0.00	0.69	0.00	0.00	0.00	0.00	1.19	48.0	0.0

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: Twist/Sway 50.00 mph Wind with No Ice 18 Iterations
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

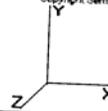
Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	az (psf)	azGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CIAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	6.400	10.81	258.91	0.650	0.00	0.00	0.00	0.0	0.0	0.0
5.00		0.00	1.00	6.400	10.81	253.08	0.650	0.00	5.00	25.600	16.76	180.0	1.645.4
10.00		0.00	1.00	6.400	10.81	247.25	0.650	0.00	5.00	25.017	16.76	175.9	1.607.6
15.00		0.00	1.00	6.400	10.81	241.41	0.650	0.00	5.00	24.433	15.88	171.8	1.569.8
20.00		0.00	1.00	6.400	10.81	235.58	0.650	0.00	5.00	23.850	15.50	167.7	1.532.0
25.00		0.00	1.00	6.400	10.81	229.75	0.650	0.00	5.00	23.267	15.12	163.6	1.494.2
30.00		0.00	1.01	6.509	10.99	223.91	0.650	0.00	5.00	22.683	14.74	159.5	1.456.4
35.00		0.00	1.05	6.762	11.42	218.16	0.650	0.00	5.00	22.100	14.36	158.0	1.418.6
40.00		0.00	1.08	6.926	11.70	216.54	0.650	0.00	5.00	21.517	13.99	159.8	1.380.8
43.50	Rot - Section 2	0.00	1.09	6.993	11.81	215.76	0.650	0.00	3.50	14.715	9.56	111.9	944.1
45.00		0.00	1.12	7.196	12.16	213.00	0.650	0.00	1.50	6.328	4.11	48.6	754.6
49.75	Top - Section 1	0.00	1.12	7.207	12.17	216.71	0.650	0.00	4.75	19.693	12.80	155.7	2,347.6
50.00		0.00	1.15	7.406	12.51	213.41	0.650	0.00	0.25	1.022	0.66	8.1	57.4
55.00		0.00	1.18	7.592	12.83	208.73	0.650	0.00	5.00	20.131	13.09	163.8	1,131.1
60.00		0.00	1.24	7.834	13.12	205.71	0.650	0.00	5.00	19.548	12.71	163.0	1,098.0
65.00		0.00	1.26	8.092	13.67	196.84	0.650	0.00	5.00	18.965	12.33	161.8	1,065.0
70.00		0.00	1.28	8.242	13.93	192.05	0.650	0.00	5.00	18.381	11.95	160.2	1,031.9
75.00		0.00	1.31	8.387	14.17	187.04	0.650	0.00	5.00	17.798	11.57	158.2	998.8
80.00	Apertunance(s)	0.00	1.32	8.477	14.32	183.68	0.650	0.00	5.00	17.215	11.19	155.9	965.7
85.00		0.00	1.33	8.525	14.40	181.84	0.650	0.00	5.00	16.631	10.81	153.2	932.7
88.25	Bot - Section 3	0.00	1.33	8.525	14.40	181.84	0.650	0.00	3.25	10.497	6.82	97.8	588.5
90.00		0.00	1.34	8.611	14.55	178.37	0.650	0.00	1.75	5.642	3.67	52.8	537.7
93.25	Top - Section 2	0.00	1.35	8.657	14.63	179.49	0.650	0.00	3.25	10.288	6.69	97.3	880.2
95.00	Apertunance(s)	0.00	1.37	8.785	14.84	173.98	0.650	0.00	1.75	5.437	3.53	51.7	218.4
100.00		0.00	1.39	8.908	15.05	168.31	0.650	0.00	5.00	15.142	9.84	146.1	608.0
105.00	Apertunance(s)	0.00	1.41	9.028	15.25	162.51	0.650	0.00	5.00	14.558	9.46	142.5	584.3
110.00		0.00	1.42	9.143	15.45	156.57	0.650	0.00	5.00	13.975	9.08	138.6	560.7
115.00	Apertunance(s)	0.00	1.44	9.255	15.64	150.51	0.650	0.00	5.00	13.392	8.70	134.5	537.1
120.00		0.00	1.46	9.363	15.82	144.34	0.650	0.00	5.00	12.808	8.33	130.2	513.5
125.00		0.00	1.48	9.469	16.00	138.05	0.650	0.00	5.00	12.225	7.95	125.7	489.8
130.00		0.00	1.49	9.572	16.17	131.66	0.650	0.00	5.00	11.642	7.57	121.1	466.2
135.00	Apertunance(s)	0.00	1.50	9.632	16.27	127.78	0.650	0.00	3.00	6.355	4.13	67.2	442.6
138.00													254.2
Totals:								138.00			4,198.5	0.0	30,212.7

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev : 0.000 (ft)

Load Case: Twist/Sway 50.00 mph Wind with No Ice 18 Iterations
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Filev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CAaA (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
85.00	T-Arm	3	8.387	14.173	1.000	18.00	0.000	0.000	255.12	0.00	0.00	999.00
85.00	Decibel	6	8.387	14.173	0.850	20.40	0.000	0.000	289.13	0.00	0.00	57.00
95.00	Low Profile Platform	1	8.657	14.631	1.000	30.00	0.000	0.000	438.93	0.00	0.00	1,500.00
95.00	Decibel DB848H90	9	8.657	14.631	1.000	64.80	0.000	0.000	948.08	0.00	0.00	252.00
110.0	T-Arm	3	9.028	15.257	1.000	18.00	0.000	0.000	274.62	0.00	0.00	999.00
110.0	Scala AP17-1900/090D	6	9.028	15.257	0.740	18.29	0.000	0.000	279.08	0.00	0.00	70.20
120.0	Low Profile Platform	1	9.255	15.641	1.000	30.00	0.000	0.000	469.22	0.00	0.00	1,500.00
120.0	Scala AP17-1900/090D	6	9.255	15.641	0.760	18.79	0.000	0.000	293.85	0.00	0.00	2,500.00
138.0	Platform w/ Handrail	1	9.632	16.278	1.000	36.00	0.000	0.000	15.87	0.00	0.00	30.00
138.0	TTA	3	9.632	16.278	0.500	0.97	0.000	0.000	785.78	0.00	0.00	168.00
138.0	Celwave AP189015	12	9.632	16.278	0.690	48.27	0.000	0.000	4,635.68	0.00	0.00	8,145.40

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev : 0.000 (ft)

Load Case: Twist/Sway 50.00 mph Wind with No Ice 18 Iterations
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	179.98	1,879.08	0.00	0.00
10.00	175.88	1,841.28	0.00	0.00
15.00	171.78	1,803.48	0.00	0.00
20.00	167.67	1,765.68	0.00	0.00
25.00	163.57	1,727.88	0.00	0.00
30.00	159.47	1,690.08	0.00	0.00
35.00	158.01	1,652.28	0.00	0.00
40.00	158.82	1,614.48	0.00	0.00
43.50	111.95	1,107.65	0.00	0.00
45.00	48.61	824.74	0.00	0.00
49.75	155.68	2,569.59	0.00	0.00
50.00	8.09	69.11	0.00	0.00
55.00	163.77	1,364.81	0.00	0.00
60.00	163.03	1,331.73	0.00	0.00
64.00	161.83	1,298.66	0.00	0.00
70.00	160.20	1,265.58	0.00	0.00
75.00	158.20	1,232.51	0.00	0.00
80.00	155.87	1,199.43	0.00	0.00
85.00	697.47	2,222.36	0.00	0.00
88.25	97.75	708.41	0.00	0.00
90.00	52.83	602.30	0.00	0.00
93.25	97.32	1,100.14	0.00	0.00
95.00	1,438.71	2,034.94	0.00	0.00
100.0	146.12	755.56	0.00	0.00
105.0	142.47	731.94	0.00	0.00
110.0	692.29	1,777.51	0.00	0.00
115.0	134.50	660.09	0.00	0.00
120.0	893.28	2,206.66	0.00	0.00
125.0	125.74	588.24	0.00	0.00
130.0	121.09	564.61	0.00	0.00
135.0	116.27	540.99	0.00	0.00
138.0	1,454.89	3,011.25	0.00	0.00
Totals:	8,834.13	43,743.06	0.00	0.00

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev: 0.000 (ft)

Load Case: Twist/Sway 50.00 mph Wind with No Ice 18 Iterations
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

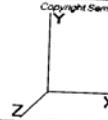
Sea Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-8.843	-43.741	0.000	0.000	0.000	-816.018	0.000	0.000	0.000	0.000
5.00	-8.881	-41.858	0.000	0.000	0.000	-771.807	-0.013	0.000	0.013	-0.024
10.00	-8.521	-40.014	0.000	0.000	0.000	-728.400	-0.052	0.000	0.052	-0.048
15.00	-8.383	-38.207	0.000	0.000	0.000	-685.797	-0.116	0.000	0.116	-0.073
20.00	-8.209	-36.438	0.000	0.000	0.000	-643.980	-0.206	0.000	0.206	-0.098
25.00	-8.057	-34.707	0.000	0.000	0.000	-602.935	-0.322	0.000	0.322	-0.123
30.00	-7.909	-33.013	0.000	0.000	0.000	-562.649	-0.464	0.000	0.464	-0.148
35.00	-7.760	-31.358	0.000	0.000	0.000	-523.106	-0.634	0.000	0.634	-0.174
40.00	-7.606	-29.741	0.000	0.000	0.000	-484.306	-0.830	0.000	0.830	-0.200
43.50	-7.497	-28.632	0.000	0.000	0.000	-457.685	-0.983	0.000	0.983	-0.218
45.00	-7.453	-27.806	0.000	0.000	0.000	-446.440	-1.053	0.000	1.053	-0.226
49.75	-7.292	-25.235	0.000	0.000	0.000	-411.039	-1.290	0.000	1.290	-0.250
50.00	-7.290	-25.164	0.000	0.000	0.000	-409.216	-1.303	0.000	1.303	-0.252
55.00	-7.132	-22.482	0.000	0.000	0.000	-372.765	-1.582	0.000	1.582	-0.279
60.00	-6.972	-21.162	0.000	0.000	0.000	-337.408	-1.890	0.000	1.890	-0.307
65.00	-6.813	-19.894	0.000	0.000	0.000	-302.246	-2.226	0.000	2.226	-0.334
70.00	-6.654	-18.660	0.000	0.000	0.000	-268.181	-2.580	0.000	2.580	-0.360
75.00	-6.496	-17.459	0.000	0.000	0.000	-234.909	-2.981	0.000	2.981	-0.386
80.00	-6.340	-15.240	0.000	0.000	0.000	-202.427	-3.399	0.000	3.399	-0.411
85.00	-5.631	-14.531	0.000	0.000	0.000	-170.730	-3.842	0.000	3.842	-0.434
88.25	-5.475	-13.928	0.000	0.000	0.000	-152.431	-4.142	0.000	4.142	-0.448
90.00	-5.371	-12.828	0.000	0.000	0.000	-142.753	-4.308	0.000	4.308	-0.456
93.25	-3.919	-10.804	0.000	0.000	0.000	-124.958	-4.624	0.000	4.624	-0.470
95.00	-3.770	-10.048	0.000	0.000	0.000	-115.559	-4.797	0.000	4.797	-0.477
100.0	-3.625	-9.316	0.000	0.000	0.000	-95.964	-5.310	0.000	5.310	-0.501
105.0	-2.918	-7.544	0.000	0.000	0.000	-77.112	-5.847	0.000	5.847	-0.523
110.0	-2.780	-6.885	0.000	0.000	0.000	-58.988	-6.406	0.000	6.406	-0.543
120.0	-1.865	-4.686	0.000	0.000	0.000	-44.396	-6.984	0.000	6.984	-0.560
125.0	-1.734	-4.099	0.000	0.000	0.000	-30.488	-7.579	0.000	7.579	-0.574
130.0	-1.608	-3.536	0.000	0.000	0.000	-21.171	-8.187	0.000	8.187	-0.585
135.0	-1.486	-2.996	0.000	0.000	0.000	-12.499	-8.805	0.000	8.805	-0.594
138.0	-1.455	0.000	0.000	0.000	0.000	-4.459	-9.430	0.000	9.430	-0.599
						0.000	-9.806	0.000	9.806	-0.600

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev : 0.000 (ft)



Load Case: Twist/Sway 50.00 mph Wind with No Ice 18 Iterations
 Gust Response Factor : 1.69
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Calculated Stresses

Seq Elev (ft)	Applied Stresses						Combined (ksi)	Allowable Stress (Fb) (ksi)	Stress Ratio	
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)				
0.00	0.45	0.18	0.00	0.00	0.00	0.00	7.03	52.0	0.0	0.135
5.00	0.44	0.18	0.00	0.00	0.00	6.58	6.96	52.0	0.0	0.134
10.00	0.43	0.18	0.00	0.00	0.00	6.52	6.88	52.0	0.0	0.132
15.00	0.42	0.18	0.00	0.00	0.00	6.45	6.80	52.0	0.0	0.131
20.00	0.41	0.19	0.00	0.00	0.00	6.37	6.70	52.0	0.0	0.129
25.00	0.40	0.19	0.00	0.00	0.00	6.29	6.60	52.0	0.0	0.127
30.00	0.39	0.19	0.00	0.00	0.00	6.19	6.49	52.0	0.0	0.125
35.00	0.38	0.19	0.00	0.00	0.00	6.09	6.36	52.0	0.0	0.122
40.00	0.37	0.19	0.00	0.00	0.00	5.97	6.22	52.0	0.0	0.120
43.50	0.36	0.19	0.00	0.00	0.00	5.84	6.12	52.0	0.0	0.118
45.00	0.36	0.19	0.00	0.00	0.00	5.74	6.06	52.0	0.0	0.117
49.75	0.37	0.22	0.00	0.00	0.00	5.70	6.09	48.0	0.0	0.135
50.00	0.37	0.22	0.00	0.00	0.00	6.09	6.47	48.0	0.0	0.135
55.00	0.36	0.22	0.00	0.00	0.00	6.08	6.46	48.0	0.0	0.135
60.00	0.35	0.22	0.00	0.00	0.00	5.87	6.25	48.0	0.0	0.130
65.00	0.34	0.22	0.00	0.00	0.00	5.64	6.01	48.0	0.0	0.125
70.00	0.33	0.22	0.00	0.00	0.00	5.38	5.74	48.0	0.0	0.120
75.00	0.32	0.23	0.00	0.00	0.00	5.02	5.44	48.0	0.0	0.113
80.00	0.31	0.23	0.00	0.00	0.00	4.77	5.11	48.0	0.0	0.106
85.00	0.28	0.21	0.00	0.00	0.00	4.40	4.73	48.0	0.0	0.099
88.25	0.28	0.21	0.00	0.00	0.00	3.99	4.29	48.0	0.0	0.089
90.00	0.27	0.21	0.00	0.00	0.00	3.73	4.03	48.0	0.0	0.084
93.25	0.35	0.29	0.00	0.00	0.00	3.59	3.88	48.0	0.0	0.081
95.00	0.30	0.22	0.00	0.00	0.00	4.42	4.80	48.0	0.0	0.100
100.00	0.29	0.22	0.00	0.00	0.00	4.20	4.51	48.0	0.0	0.094
105.00	0.28	0.22	0.00	0.00	0.00	3.77	4.08	48.0	0.0	0.085
110.00	0.23	0.18	0.00	0.00	0.00	3.29	3.58	48.0	0.0	0.075
115.00	0.22	0.18	0.00	0.00	0.00	2.74	2.99	48.0	0.0	0.062
120.00	0.16	0.13	0.00	0.00	0.00	2.25	2.49	48.0	0.0	0.052
125.00	0.15	0.12	0.00	0.00	0.00	1.70	1.87	48.0	0.0	0.039
130.00	0.13	0.12	0.00	0.00	0.00	1.30	1.46	48.0	0.0	0.030
135.00	0.12	0.12	0.00	0.00	0.00	0.85	1.00	48.0	0.0	0.021
138.00	0.00	0.12	0.00	0.00	0.00	0.34	0.50	48.0	0.0	0.010
						0.00	0.21	48.0	0.0	0.004

Pole : 91535
 Location : Davie Fire Station, FL
 Height : 138.0 (ft)
 Shape : 18 Sides
 Base Dia : 62.14 (in)
 Top Dia : 25.00 (in)
 Taper : 0.280000 (in/ft)

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Base Elev : 0.000 (ft)

Analysis Summary

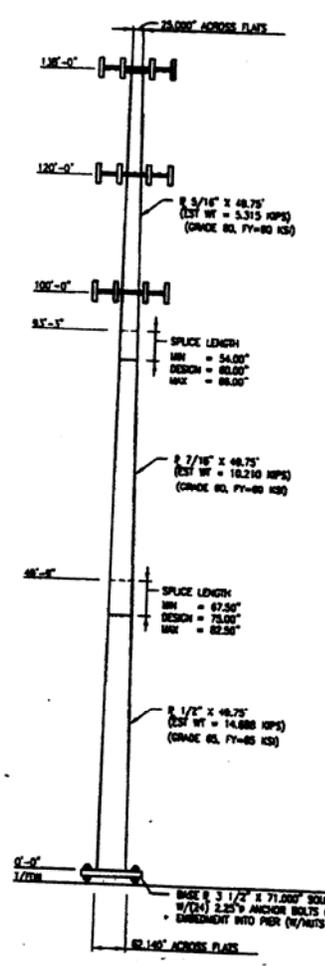
Load Case	Shear		Reactions			Moment MZ (ft.kips)	Combined Stress (ksi)	Max Stresses		
	FX (kips)	FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)			Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	50.9	0.00	43.68	0.00	0.00	4698.08	38.37	52.0	0.00	0.738
Twist/Sway	8.8	0.00	43.74	0.00	0.00	816.02	7.03	52.0	0.00	0.135

SUMMIT MANUFACTURING INC.

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 (614) 221-6679 Fax: (614) 221-0166 www.JFweb.com



JOB DATA	
Page 1 of 1	Job No. 29287-717
By KJS	Design No. SUMMIT JOB #2972
Ch'd By KJS	Date 11-07-1997
Name 100-FT POLE	Rev. No. Rev. Date
Site DADE & BROWARD COUNTIES, FL. 6F81042E	
Owner OMNIPONT	
Ref. No.	
Design SEE LOAD CASES (BELOW)	

NOT BE RESPONSIBLE UNDER LOCAL CODE REQUIREMENTS, THIS DESIGN DOES NOT INCORPORATE A ONE (1/3) INCREASE IN ALLOWABLE STRESS.

LOAD CASES	
CASE 1	115 MPH / 110 MPH WITH 1/2" ICE
CASE 2	110 MPH WIND SOUTH FLORIDA BUILDING CODE
CASE 3	150 MPH WINDS ASCE 7-95

MONOPOLE HAS BEEN DESIGNED TO MEET THE MINIMUM WIND VELOCITY REQUIREMENTS OF EACH OF THE THREE DESIGN STANDARDS LISTED ABOVE. REFER TO PAGE ONE OF THE CALCULATIONS FOR A COMPARISON OF THE THREE DESIGN STANDARDS.

POLE SPECIFICATIONS	
Pole Shape Type	TAPERED POLYGON
Top	0.250000 W/FIT
Shaft Steel	ASTM A507 GRADE 60 & GRADE 65
Base Pl. Steel	ASTM A572 GRADE 50 (50 KSI)
Anchor Bolts	2 1/4" x 8" LONG #18 ASTM A615 GRADE 75

ANTENNA LIST		
No.	Elev.	Description
1-12	138.00	5/8" LIGHTING ROD
-	138.00	(12) DAPA 58008 PCS PANEL
-	138.00	14" LOW PROFILE PLATFORM
13-24	120.00	(12) DAPA 58008 PCS PANEL
-	120.00	14" LOW PROFILE PLATFORM (CLAMP ON)
25-36	100.00	(12) DAPA 58008 PCS PANEL
-	100.00	14" LOW PROFILE PLATFORM (CLAMP ON)

STEP BOLTS FULL HEIGHT.
 ANTENNA FEED LINES RUN INSIDE OF POLE.

Paul Allen 11-7-97

Elevation	115 MPH WIND		50 MPH WIND	
	Lateral Deflection (inches)	Rotation (away) (degrees)	Lateral Deflection (inches)	Rotation (away) (degrees)
TOP	57.9	3.582	10.7	0.687

SHAFT SECTION DATA					
Shaft Section	Section Length (feet)	Plate Thickness (in.)	Lap Splice (in.)	Diameter Across Flats (inches)	
				@ Top	@ Bottom
1	49.75	0.3125		25.000	38.930
2	49.75	0.4375	60.00	36.905	50.835
3	49.75	0.5000	75.00	48.210	62.140

UNFACTORED BASE REACTIONS
 MOMENT = 4365 ft-lbs
 SHEAR = 48.5 kips
 AXIAL = 35 kips

Third Amendment to Lease Agreement

Davie Fire Station, FL Site #91535