STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

September 29, 2008

Steven Levine
Real Estate Consultant
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-077-080819** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 205 Spencer Street, Manchester, Connecticut.

Dear Mr. Levine:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated August 19, 2008, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/MP/jb

c: Scott A. Shanley, General Manager, Town of Manchester
Thomas R. O'Marra, Zoning Enforcement Officer, Town of Manchester
Hans Fiedler, T-Mobile

G:\EM\CINGULAR\Manchester\dc092908.DOC

EM-CING-077-080819

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

HAND DELIVERED

August 19, 2008

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing tele-communications facility located at 205 Spencer Street (owner, T-Mobile)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall

squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected. Modifications to the existing site include all or some of the following as necessary to bring the site into conformance with the plan:

- Replacement of existing panel antennas with new antennas or, installation of additional antennas of a size required to accommodate UMTS.
- Installation of small tower mount amplifiers ("TMA's") and/or diplexers to the platform on which the panel antennas are mounted to enhance signal reception.
- Installation of additional or larger coaxial cables as required.
- Installation of an additional equipment cabinet in existing shelters, or on existing or enlarged concrete pads.
- Radome enlargement for flagpole and "stick" structures to accommodate larger antennas and additional associated equipment.

None of these modifications will extend the height of the tower.

2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Steven L. Levine
Real Estate Consultant

Attachments

CINGULAR WIRELESS
Equipment Modification

205 Spencer Street, Manchester, CT
Site Number 5245
Former AT&T cell site
CSC Exempt Modifications 5/10/01, 10/23/02, and 7/26/07

Tower Owner/Manager: T-Mobile

Equipment configuration: Flagpole

Current and/or approved: Three Powerwave 7770 antennas @ 98 ft c.l.
Six TMA's @ 98 ft
Six runs 1 ¼ inch coax
Seven outdoor cabinets on existing concrete pad

Planned Modifications: The interior diameter of the existing flagpole is too narrow to accommodate the antenna configuration approved in July 2007.

To remedy this condition:
Remove 26-inch diameter radome from top 30 feet of flagpole
Replace radome at 115 to 125 ft with 29-inch diameter radome
Replace radome at 95 – 115 ft with 31-inch diameter radome

Power Density:

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 13.9 % of the standard adopted by the FCC. The proposed modifications to the radome will not affect power density.

Existing and Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Other Users *							5.93
Cingular GSM	98	1900 Band	3	427	0.0480	1.0000	4.80
Cingular UMTS	98	880 - 894	1	500	0.0187	0.5867	3.19
Total							13.9%

* Per CSC Records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (Fort Worth Towers, dated 6/24/08)

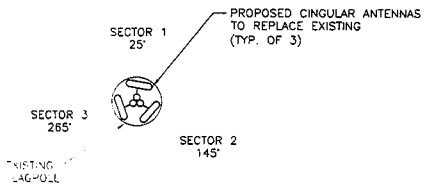
NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

NOTE:*
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

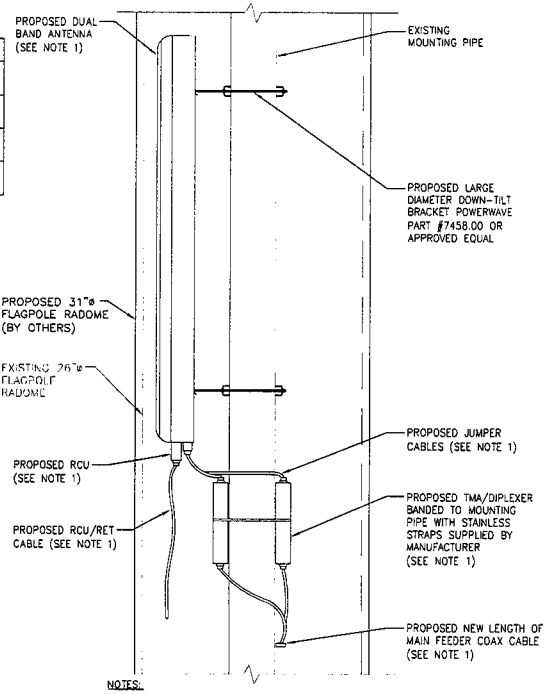
RF TABLE

SECTOR	SECTOR NAME	ANTENNA MAKE & MODEL	ANTENNA COUNT	AZIMUTH	RAD CENTER	MECHANICAL DOWNTILT	TMA COUNT	DIPLEXER COUNT
1	ALPHA	POWERWAVE 7770	1	25°	110'±	0*	0 EXIST. 2 PROP.	0 EXIST. 0 PROP.
2	BETA	POWERWAVE 7770	1	145°	110'±	0*	0 EXIST. 2 PROP.	0 EXIST. 0 PROP.
3	GAMMA	POWERWAVE 7770	1	265°	110'±	0*	0 EXIST. 2 PROP.	0 EXIST. 0 PROP.



PROPOSED ANTENNA PLAN VIEW

N.T.S.



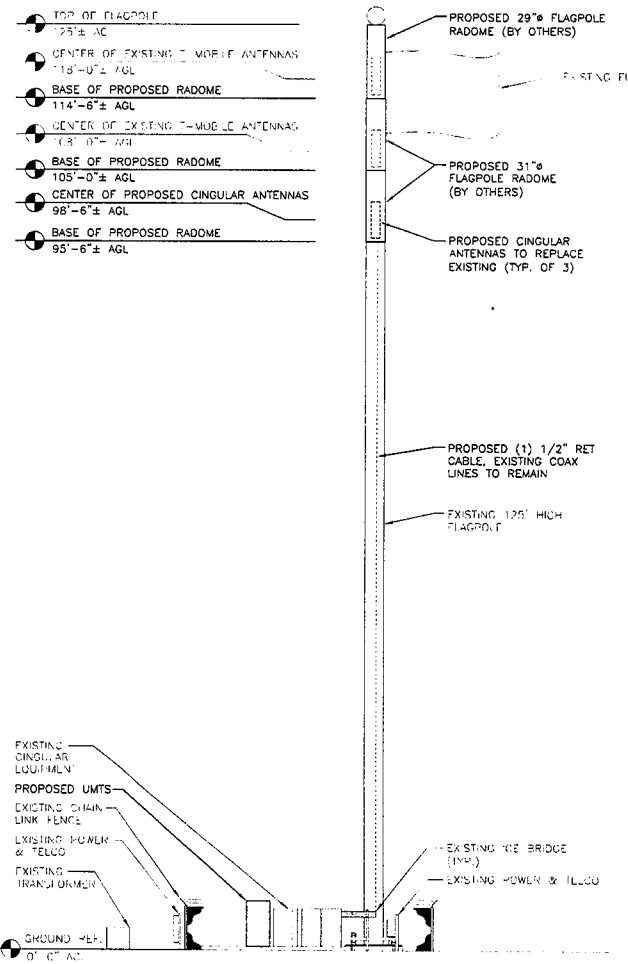
NOTES:

1. REFER TO RF CONFIG & SECTOR SCHEMATICS FOR QUANTITY REQUIRED PER SECTOR.

PROPOSED ANTENNA DETAIL

SCALE: 1-1/2"=1'-0

0 0"-4" 0'-8" 1'-4" 2'-0"



PROPOSED EAST ELEVATION

SCALE: 1/8"=1'-0"

0 4'-0" 8'-0" 16'-0" 24'-0"

Hudson Design Group LLC
[illegible]
TEL: (978) 557-5553
FAX (978) 336-5586

SAI communications
184 ROCKINGHAM ROAD, UNIT A
LONDONDERRY, NH 03053

SITE NUMBER: 5245
SITE NAME: MANCHESTER WEST
239 SPENCER STREET
MANCHERSTER, CT 06040
HARTFORD COUNTY

cingular WIRELESS
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
2	08/11/08	CONSTRUCTION FINAL	PG	DC	DPH
1	08/23/07	ISSUED FOR CONSTRUCTION	BT	DC	DPH
0	08/20/07	ISSUED FOR CONSTRUCTION	BK	DC	DPH

SCALE: NOT SHOWN | DESIGNED BY: BK | DRAWN BY: BK

Daniel P. Hamm

CINGULAR WIRELESS

ANTENNA LAYOUT AND ELEVATION
UMTS (OUTDOOR)

JOB NUMBER	DRAWING NUMBER	REV
5245.01	A-2	2

The new at&t Your world. Delivered. cingular raising the bar

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

August 19, 2008

Mr. Scott Shanley, General Manager
Town of Manchester
Town Hall, 41 Center Street
Manchester, CT 06045-0191

Re: Telecommunications Facility – 205 Spencer Street, Manchester, CT

Dear Mr. Shanley:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Cingular's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Cingular's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine
Real Estate Consultant

Enclosure

June 23, 2008

Mark Appleby
Site Acquisitions Inc
25 Nashua Road
Suite C1
Londonderry, NH 03052

Ref.: 125-ft Flag Pole at 5245 Manchester, Hartford County, CT
(Omnipoint Communications: CT-11-138F Manchester, Hartford County, CT)
Job # J080616001: Design # M08-0543

Dear Mark Appleby:

The above mentioned monopole was previously designed in 1998, under job no: 17252. It was designed for a basic wind speed of 80 mph no ice and 69 mph with 1/2" radial ice in accordance with the TIA/EIA-222-F Standard.

A structural analysis is performed using TSTower Program to investigate the adequacy of the existing 125-ft flag pole to support the proposed loading (see attached profile).

The program models the structure as a cantilevered beam subject to transverse (wind) and axial (dead weight) loads. Deflections and secondary moments are calculated and applied to the pole. In one case a basic wind speed of 80 mph and in the second case wind speeds of 69 mph wind with 1/2" ice in accordance with the TIA/EIA-222-F Standard.

The results of the analyses showed that the flag pole is adequate to support the proposed replacement of canister with 31"Ø at the bottom and 29"Ø at top. The ***Caisson Foundation*** designed by FWT (6' diameter, 15'-6" length, 14 #11 re-bars) is found to be capable to support the proposed loading.

Based on preceding results, the existing flag pole is adequate to retain an 80-mph basic design wind speed rating (or equivalent to 100-mph 3-second gust wind speed) while supporting the proposed loading.

If you have any questions or if we can be of further assistance, please do not hesitate to contact us.

Submitted by:

FWT, Inc.

Ta-Wen Lee, PhD, PE
Manager of Telecommunications Division

William Mills, PE
Director of Engineering

STATE OF CONNECTICUT · WILLIAM A. MILLS · No. 24981 · LICENSED PROFESSIONAL ENGINEER

6/24/08

P.O. BOX 8597
FORT WORTH, TX 76124-0597
P: (817) 255-3060
F: (817) 255-2957

5750 E. I-20
FORT WORTH, TX 76119-7034
TOLL FREE: 1-800-433-1816

STANDARD CONDITIONS FOR FURNISHING OF PROFESSIONAL ENGINEERING SERVICES ON EXISTING STRUCTURES BY FWT, INC.

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

- Information from fields and/or drawings in the possession of FWT, Inc. or generated by field inspections or measurements of the structure.

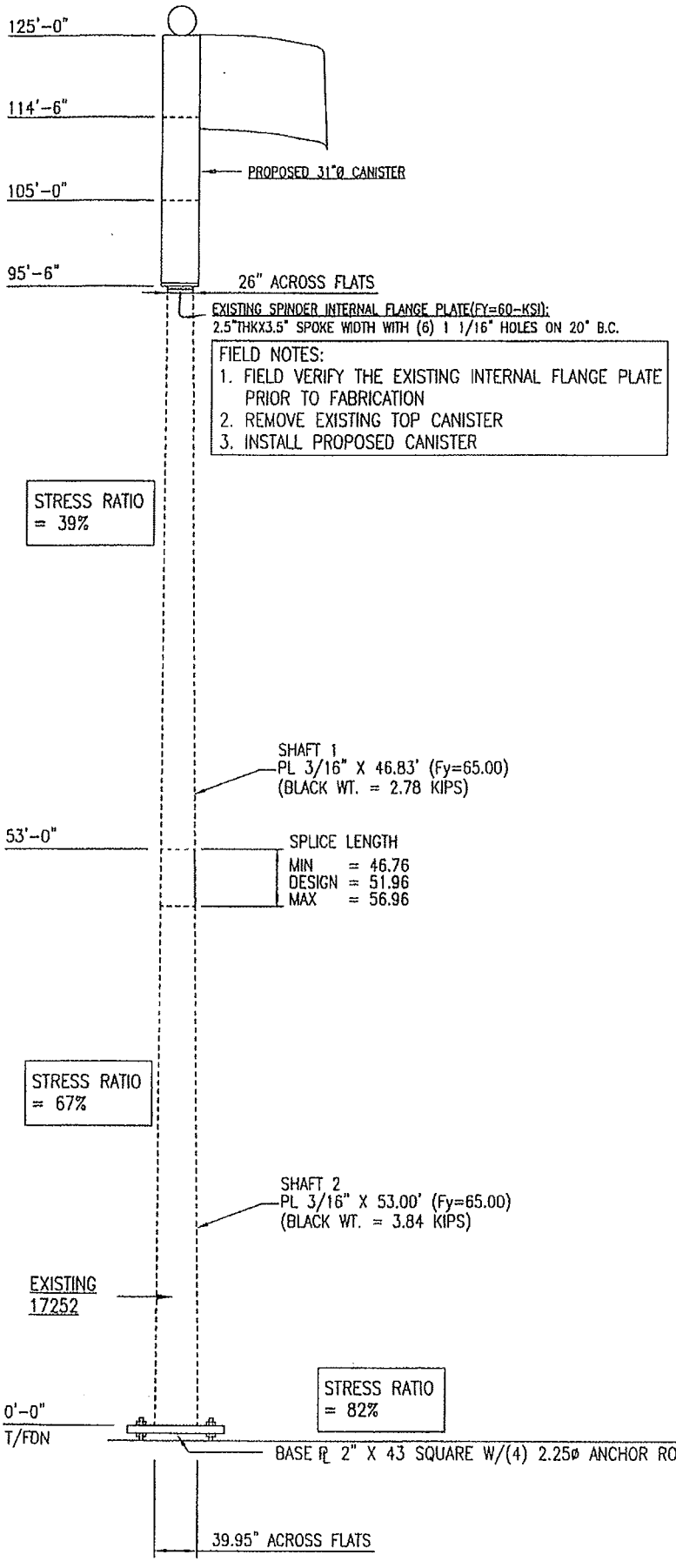
- It is the responsibility of the client to ensure that the information provided to FWT, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings 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/ASCE 10-90 & ANSI/TIA-222.

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

Customer Name: SITE ACQUISITIONS- INC
Site: 5245 MANCHESTER- HARTFORD COUNTY- CT

FWT
P.O. BOX 8597 FORT WORTH, TX 76124-0597
PHONE: (800) 433-1816 FAX: (817) 255-8656



JOB DATA			
Page	1 of 1	Job No.	J080616001
By	TW	Design No.	M08-0543
Chk'd By		Date	Jun 23 2008
		Rev. No. 0	Rev. Date
Pole	125-FT FLAG POLE		
Ref. No.	...ns_2008\08-0500\M08-0543\J080616001.out		
Design Standard	TIA/EIA-222-F-1996		

GENERAL DESIGN CONDITIONS	
1	Basic Wind Speed: 80.00(mph)
2	69.28(mph) with 0.50(in) radial ice
3	Operational Wind Speed: 50.00(mph)

POLE SPECIFICATIONS	
Pole Shape Type:	18-SIDED
Taper:	0.15000 IN/FT
** Shaft Steel:	ASTM A572 GRADE 65
** Base PL Steel:	ASTM A633 GR. E (60 KSI)
** Anchor Rods:	2 1/4"ø X 7'-0" LONG #18J ASTM A615 GRADE 75

** SHALL MEET CHARPY V-NOTCH TEST: 15 FT.LBS @ -20°F

ANTENNA LIST					
	No.	Elev.(FT)	Antenna	Mount Type	AZ (°)	COAX
P	1	126	(1) FLAG BALL ASY		0	
P	2	126	(1) FLAG 12'X18'		0	
P	3	120	(1) 29"Ø CANISTER		0	
P	4	110	(3) POWERWAVE 7770 (55"LX11"WX5"D) SHIELDED			(3)LDF7-50A
P	5	100	(1) 31"Ø CANISTER		0	

E=EXISTING; F=FUTURE; P=PROPOSED

Elevation	80 MPH WIND		50 MPH WIND	
	Lateral Deflection (Inches)	Rotation (sway) (degrees)	Lateral Deflection (Inches)	Rotation (sway) (degrees)
95'-6"	29.6	2.65	11.5	1.0

SHAFT SECTION DATA					
Shaft Section	Section Length (feet)	Plate Thickness (in.)	Lap Splice (in.)	Diameter Across Flats (inches) @ Top	@ Bottom
1	46.83	0.1875	51.96	26.00	33.02
2	53.00	0.1875		32.00	39.95

NOTE: DIMENSIONS SHOWN DO NOT INCLUDE GALVANIZING TOLERANCES

ANTENNA FEED LINES RUN INSIDE OF POLE

NOTE:
THIS TOWER ALSO MEETS 100 MPH 3-SECOND GUST WIND SPEED.

STATE OF CONNECTICUT
WILLIAM E. MILLS
No. 24981
LICENSED PROFESSIONAL ENGINEER

6/24/08

STRESS RATIO = 84%

UNFACTORED BASE REACTION

MOMENT:	593 FT-KIPS.
SHEAR:	8.2 KIPS
AXIAL:	8.9 KIPS

File: L:\Designs_2008\08-0500\M08-0543\J080616001.out
Contract: M08-0543:J080616001 Revision: 0
Project: 125-FT:MONOPOLE:2-SECTIONS:18-SIDED Site: 5245 Manchester- Hartford County-
Date and Time: 6/23/2008 3:47:33 PM Engineer: TW

Section A: PROJECT DATA

Project Title:	125-FT:MONOPOLE:2-SECTIONS:18-SIDED
Customer Name:	Site Acquisitions- Inc
Site:	5245 Manchester- Hartford County- CT
Contract No.:	M08-0543:J080616001
Revision:	0
Engineer:	TW
Date:	Jun 23 2008
Time:	03:47:08 PM
Project Notes:	Stress Analysis (#17252)

Design Standard: TIA/EIA-222-F-1996

GENERAL DESIGN CONDITIONS

Start Wind direction:	0.00 (Deg)
End Wind direction:	330.00 (Deg)
Increment wind direction:	30.00 (Deg)
Elevation above ground:	0.00(ft)
Gust Response Factor Gh:	1.69
Material Density:	490.1(lbs/ft^3)
Young's Modulus:	29000.0(ksi)
Poisson Ratio:	0.3
Weight Multiplier:	1.03
Allowable Stress Incr. Factor:	1.333
Increase allowable stress:	Yes

WIND ONLY CONDITIONS:

Basic Wind Speed:	80.00(mph)

WIND AND ICE CONDITIONS:

Basic Wind Speed:	80.00(mph)
Ice Thickness:	0.50(in)
Ice density:	56.19(lbs/ft^3)
Wind pressure reduction for iced conditions:	0.75

WIND ONLY SERVICEABILITY CONDITIONS:

Operational Wind Speed:	50.00(mph)

Analysis performed using: TowerSoft Finite Element Analysis Program

File: L:\Designs_2008\08-0500\M08-0543\J080616001.out
Contract: M08-0543:J080616001 Revision: 0
Project: 125-FT:MONOPOLE:2-SECTIONS:18-SIDED Site: 5245 Manchester- Hartford County-
Date and Time: 6/23/2008 3:47:33 PM Engineer: TW

Section B: STRUCTURE GEOMETRY

Total Height (ft)	Bottom Diameter (in)	Top Diameter (in)
95.50	39.95	26.00

Sect. No	Length (ft)	Overlap (ft)	Bot Dia. (in)	Top Dia. (in)	Thick. (in)	Sides	Joint Type	Yield Stress (ksi)	Mass (lbs)	Calculated Taper (in/ft)
1	53.00	4.33	39.95	32.00	0.1875	18-sided	Flange	65.0	3953.1	0.15000
2	46.83	0.00	33.02	26.00	0.1875	18-sided	Telescopic	65.0	2862.1	0.15000
Total Mass:									6815.2	

File: L:\Designs_2008\08-0500\M08-0543\J080616001.out
Contract: M08-0543:J080616001 Revision: 0
Project: 125-FT:MONOPOLE:2-SECTIONS:18-SIDED Site: 5245 Manchester- Hartford County-
Date and Time: 6/23/2008 3:47:33 PM Engineer: TW

Section C: ANTENNA DATA

Structure Azimuth from North: 0

ANTENNAS

Ant No.	Elev. (ft)	Antenna (#) Type	Ant. Azim.	Mount. Radius (ft)	Mount Type	Mount Azim.	Tx Line (#)Type	Mounting Pipe Size (in)	Mounting Pipe Length (ft) Full Shielded
1	126.00	(1) FLAG BALL ASY Vert. Offset 0.00 (ft)	0	0.00		0			
2	126.00	(1) FLAG 12'X18' Vert. Offset 0.00 (ft)	0	0.00		0			
3	123.00	(1) 32-INX5' CAN Vert. Offset 0.00 (ft)	0	0.00		0			
4	118.00	(1) 32-INX5' CAN Vert. Offset 0.00 (ft)	0	0.00		0			
5	113.00	(1) 32-INX5' CAN Vert. Offset 0.00 (ft)	0	0.00		0			
6	108.00	(1) 32-INX5' CAN Vert. Offset 0.00 (ft)	0	0.00		0			
7	103.00	(1) 32-INX5' CAN Vert. Offset 0.00 (ft)	0	0.00		0			
8	98.00	(1) 32-INX5' CAN Vert. Offset 0.00 (ft)	0	0.00		0			

ANTENNA AND MOUNT WIND AREAS AND WEIGHTS

Ant No.	Antenna/Mount	Frontal Bare Area (ft)^2	Lateral Bare Area (ft)^2	Frontal Iced Area (ft)^2	Lateral Iced Area (ft)^2	Weight Bare (lbs)	Weight Iced (lbs)	Frequency GHz	Allowable Signal Loss dB
1	FLAG BALL ASY	10.00	10.00	37.01	37.01	100.00	522.68	N/A	N/A
2	FLAG 12'X18'	8.08	8.08	8.08	8.08	50.00	150.00	N/A	N/A
3	32-INX5' CAN	9.33	9.33	9.79	9.79	322.00	451.57	N/A	N/A
4	32-INX5' CAN	9.33	9.33	9.79	9.79	322.00	451.57	N/A	N/A
5	32-INX5' CAN	9.33	9.33	9.79	9.79	322.00	451.57	N/A	N/A
6	32-INX5' CAN	9.33	9.33	9.79	9.79	322.00	451.57	N/A	N/A
7	32-INX5' CAN	9.33	9.33	9.79	9.79	322.00	451.57	N/A	N/A
8	32-INX5' CAN	9.33	9.33	9.79	9.79	322.00	451.57	N/A	N/A

File: L:\Designs_2008\08-0500\M08-0543\J080616001.out
Contract: M08-0543:J080616001
Project: 125-FT:MONOPOLE:2-SECTIONS:18-SIDED
Date and Time: 6/23/2008 3:47:33 PM

Revision: 0
Site: 5245 Manchester- Hartford County-
Engineer: TW

Section G: WIND LOAD DATA
Load Combination Wind Only

Wind Direction 0.00 (deg)

Pole Wind Data

Element	Top Elev. (ft)	Bot. Elev. (ft)	Top Diam. (in)	Bot. Diam. (in)	Top Kz	Top Press. (psf)	Bot. Kz	Bot. Press. (psf)
12	95.50	87.04	26.03	27.30	1.36	37.51	1.32	36.53
11	87.04	78.58	27.30	28.57	1.32	36.53	1.28	35.47
10	78.58	70.12	28.57	29.84	1.28	35.47	1.24	34.34
9	70.12	61.65	29.84	31.11	1.24	34.34	1.20	33.10
8	61.65	53.19	31.11	32.38	1.20	33.10	1.15	31.73
7	53.19	48.86	32.38	33.02	1.15	31.73	1.12	30.97
6	48.86	40.72	32.62	33.84	1.12	30.97	1.06	29.40
5	40.72	32.58	33.84	35.06	1.06	29.40	1.00	27.64
4	32.58	24.43	35.06	36.29	1.00	27.64	1.00	27.64
3	24.43	16.29	36.29	37.51	1.00	27.64	1.00	27.64
2	16.29	8.14	37.51	38.73	1.00	27.64	1.00	27.64
1	8.14	0.00	38.73	39.95	1.00	27.64	1.00	27.64

Projected and Wind Areas

Element	Pole Proj Area (ft^2)	Tx-Line Proj Area (ft^2)	Ladder Proj Area (ft^2)	Ra	Top Drag Factor	Bot Drag Factor
12	18.80	0.00	0.00	0.00	0.65	0.65
11	19.70	0.00	0.00	0.00	0.65	0.65
10	20.59	0.00	0.00	0.00	0.65	0.65
9	21.49	0.00	0.00	0.00	0.65	0.65
8	22.38	0.00	0.00	0.00	0.65	0.65
7	11.80	0.00	0.00	0.00	0.65	0.65
6	22.55	0.00	0.00	0.00	0.65	0.65
5	23.38	0.00	0.00	0.00	0.65	0.65
4	24.21	0.00	0.00	0.00	0.65	0.65
3	25.04	0.00	0.00	0.00	0.65	0.65
2	25.87	0.00	0.00	0.00	0.65	0.65
1	26.70	0.00	0.00	0.00	0.65	0.65

Load Combination Wind and Ice

Wind Direction 0.00 (deg)

Pole Wind Data

Element	Top Elev. (ft)	Bot. Elev. (ft)	Top Diam. (in)	Bot. Diam. (in)	Top Kz	Top Press. (psf)	Bot. Kz	Bot. Press. (psf)
12	95.50	87.04	26.03	27.30	1.36	28.13	1.32	27.39
11	87.04	78.58	27.30	28.57	1.32	27.39	1.28	26.60
10	78.58	70.12	28.57	29.84	1.28	26.60	1.24	25.75
9	70.12	61.65	29.84	31.11	1.24	25.75	1.20	24.82
8	61.65	53.19	31.11	32.38	1.20	24.82	1.15	23.80

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7	53.19	48.86	32.38	33.02	1.15	23.80	1.12	23.23
6	48.86	40.72	32.62	33.84	1.12	23.23	1.06	22.05
5	40.72	32.58	33.84	35.06	1.06	22.05	1.00	20.73
4	32.58	24.43	35.06	36.29	1.00	20.73	1.00	20.73
3	24.43	16.29	36.29	37.51	1.00	20.73	1.00	20.73
2	16.29	8.14	37.51	38.73	1.00	20.73	1.00	20.73
1	8.14	0.00	38.73	39.95	1.00	20.73	1.00	20.73

Projected and Wind Areas

Element	Pole Proj Area (ft^2)	Tx-Line Proj Area (ft^2)	Ladder Proj Area (ft^2)	Ra	Top Drag Factor	Bot Drag Factor
12	19.51	0.00	0.00	0.00	0.65	0.65
11	20.40	0.00	0.00	0.00	0.65	0.65
10	21.30	0.00	0.00	0.00	0.65	0.65
9	22.19	0.00	0.00	0.00	0.65	0.65
8	23.09	0.00	0.00	0.00	0.65	0.65
7	12.16	0.00	0.00	0.00	0.65	0.65
6	23.23	0.00	0.00	0.00	0.65	0.65
5	24.06	0.00	0.00	0.00	0.65	0.65
4	24.89	0.00	0.00	0.00	0.65	0.65
3	25.72	0.00	0.00	0.00	0.65	0.65
2	26.55	0.00	0.00	0.00	0.65	0.65
1	27.38	0.00	0.00	0.00	0.65	0.65

Load Combination Wind Only - Serviceability

Wind Direction 0.00 (deg)

Pole Wind Data

Element	Top Elev. (ft)	Bot. Elev. (ft)	Top Diam. (in)	Bot. Diam. (in)	Top Kz	Top Press. (psf)	Bot. Kz	Bot. Press. (psf)
12	95.50	87.04	26.03	27.30	1.36	14.65	1.32	14.27
11	87.04	78.58	27.30	28.57	1.32	14.27	1.28	13.86
10	78.58	70.12	28.57	29.84	1.28	13.86	1.24	13.41
9	70.12	61.65	29.84	31.11	1.24	13.41	1.20	12.93
8	61.65	53.19	31.11	32.38	1.20	12.93	1.15	12.40
7	53.19	48.86	32.38	33.02	1.15	12.40	1.12	12.10
6	48.86	40.72	32.62	33.84	1.12	12.10	1.06	11.48
5	40.72	32.58	33.84	35.06	1.06	11.48	1.00	10.80
4	32.58	24.43	35.06	36.29	1.00	10.80	1.00	10.80
3	24.43	16.29	36.29	37.51	1.00	10.80	1.00	10.80
2	16.29	8.14	37.51	38.73	1.00	10.80	1.00	10.80
1	8.14	0.00	38.73	39.95	1.00	10.80	1.00	10.80

Projected and Wind Areas

Element	Pole Proj Area (ft^2)	Tx-Line Proj Area (ft^2)	Ladder Proj Area (ft^2)	Ra	Top Drag Factor	Bot Drag Factor

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12	18.80	0.00	0.00	0.00	0.65	0.65
11	19.70	0.00	0.00	0.00	0.65	0.65
10	20.59	0.00	0.00	0.00	0.65	0.65
9	21.49	0.00	0.00	0.00	0.65	0.65
8	22.38	0.00	0.00	0.00	0.65	0.65
7	11.80	0.00	0.00	0.00	0.65	0.65
6	22.55	0.00	0.00	0.00	0.65	0.65
5	23.38	0.00	0.00	0.00	0.65	0.65
4	24.21	0.00	0.00	0.00	0.65	0.65
3	25.04	0.00	0.00	0.00	0.65	0.65
2	25.87	0.00	0.00	0.00	0.65	0.65
1	26.70	0.00	0.00	0.00	0.65	0.65

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Section H: STRUCTURE DISPLACEMENT DATA
Load Combination Max Envelope

Wind Direction Maximum displacements

Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (deg)	W-E Rot (deg)	Twist Rot (deg)
95.50	29.6	-29.5	-0.5	-2.65	-2.65	0.00
87.04	25.0	-25.0	-0.4	-2.51	-2.51	0.00
78.58	20.8	-20.7	-0.3	-2.34	-2.34	0.00
70.12	16.8	-16.8	-0.2	-2.15	-2.15	0.00
61.65	13.2	-13.2	-0.1	-1.93	-1.94	0.00
53.19	10.0	-10.0	-0.1	-1.71	-1.71	0.00
48.86	8.5	-8.5	-0.1	-1.60	-1.60	0.00
40.72	6.0	-6.0	0.0	-1.36	-1.36	0.00
32.58	3.9	-3.9	0.0	-1.10	-1.11	0.00
24.43	2.2	-2.2	0.0	-0.84	-0.84	0.00
16.29	1.0	-1.0	0.0	-0.57	-0.57	0.00
8.14	0.2	-0.2	0.0	-0.29	-0.29	0.00
0.00	0.0	0.0	0.0	0.00	0.00	0.00

Load Combination Wind Only

Wind Direction Maximum displacements

Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (deg)	W-E Rot (deg)	Twist Rot (deg)
95.50	29.4	-29.4	-0.4	-2.56	-2.57	0.00
87.04	25.0	-24.9	-0.4	-2.44	-2.45	0.00
78.58	20.8	-20.7	-0.3	-2.30	-2.30	0.00
70.12	16.8	-16.8	-0.2	-2.12	-2.12	0.00
61.65	13.2	-13.2	-0.1	-1.93	-1.93	0.00
53.19	10.0	-10.0	-0.1	-1.71	-1.71	0.00
48.86	8.5	-8.5	-0.1	-1.60	-1.60	0.00
40.72	6.0	-6.0	0.0	-1.36	-1.36	0.00
32.58	3.9	-3.9	0.0	-1.10	-1.11	0.00
24.43	2.2	-2.2	0.0	-0.84	-0.84	0.00
16.29	1.0	-1.0	0.0	-0.57	-0.57	0.00
8.14	0.2	-0.2	0.0	-0.29	-0.29	0.00
0.00	0.0	0.0	0.0	0.00	0.00	0.00

Load Combination Wind and Ice

Wind Direction Maximum displacements

Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (deg)	W-E Rot (deg)	Twist Rot (deg)
95.50	29.6	-29.5	-0.5	-2.65	-2.65	0.00
87.04	25.0	-25.0	-0.4	-2.51	-2.51	0.00
78.58	20.7	-20.7	-0.3	-2.34	-2.34	0.00
70.12	16.7	-16.7	-0.2	-2.15	-2.15	0.00
61.65	13.1	-13.1	-0.1	-1.93	-1.94	0.00
53.19	9.8	-9.8	-0.1	-1.71	-1.71	0.00
48.86	8.3	-8.3	-0.1	-1.59	-1.59	0.00
40.72	5.8	-5.8	0.0	-1.34	-1.34	0.00
32.58	3.8	-3.8	0.0	-1.08	-1.09	0.00
24.43	2.1	-2.1	0.0	-0.82	-0.82	0.00

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16.29	1.0	-1.0	0.0	-0.55	-0.55	0.00
8.14	0.2	-0.2	0.0	-0.28	-0.28	0.00
0.00	0.0	0.0	0.0	0.00	0.00	0.00

Load Combination Wind Only - Serviceability

Wind Direction Maximum displacements

Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (deg)	W-E Rot (deg)	Twist Rot (deg)
95.50	11.5	-11.5	-0.1	-1.00	-1.00	0.00
87.04	9.8	-9.7	-0.1	-0.95	-0.96	0.00
78.58	8.1	-8.1	0.0	-0.90	-0.90	0.00
70.12	6.6	-6.6	0.0	-0.83	-0.83	0.00
61.65	5.2	-5.2	0.0	-0.75	-0.75	0.00
53.19	3.9	-3.9	0.0	-0.67	-0.67	0.00
48.86	3.3	-3.3	0.0	-0.62	-0.62	0.00
40.72	2.3	-2.3	0.0	-0.53	-0.53	0.00
32.58	1.5	-1.5	0.0	-0.43	-0.43	0.00
24.43	0.9	-0.9	0.0	-0.33	-0.33	0.00
16.29	0.4	-0.4	0.0	-0.22	-0.22	0.00
8.14	0.1	-0.1	0.0	-0.11	-0.11	0.00
0.00	0.0	0.0	0.0	0.00	0.00	0.00

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Section K: POLE OUTPUT LOAD DATA
Load Combination Max Envelope
Wind Direction Maximum Loads

Elev. (ft)	Axial Ld. (kips)	Shear Ld. (kips)	Torque (kipsft)	Bend Mom. (kipsft)
95.50	3.60	3.43	0.56	68.02
87.04	3.60	3.43	0.88	96.95
87.04	4.22	3.80	0.83	96.95
78.58	4.22	3.80	1.16	129.01
78.58	4.87	4.19	1.09	129.01
70.12	4.87	4.19	1.42	164.21
70.12	5.55	4.67	1.32	164.21
61.65	5.55	4.67	1.65	202.53
61.65	6.26	5.14	1.51	202.53
53.19	6.26	5.14	1.83	243.96
53.19	6.82	5.50	1.71	243.96
48.86	6.82	5.50	1.87	266.33
48.86	7.53	5.84	1.69	266.33
40.72	7.53	5.84	1.96	310.49
40.72	8.43	6.27	1.71	310.49
32.58	8.43	6.27	1.97	357.29
32.58	9.22	6.69	1.68	357.29
24.43	9.22	6.69	1.90	409.07
24.43	10.03	7.11	1.55	409.07
16.29	10.03	7.11	1.72	467.07
16.29	10.87	7.54	1.30	467.07
8.14	10.87	7.54	1.41	528.34
8.14	11.73	7.97	0.93	528.34
0.00	11.73	7.97	0.96	593.18
Base	12.17	8.21	0.96	593.18

Load Combination Wind Only
Wind Direction Maximum Loads

Elev. (ft)	Axial Ld. (kips)	Shear Ld. (kips)	Torque (kipsft)	Bend Mom. (kipsft)
95.50	2.24	3.25	0.45	55.61
87.04	2.24	3.25	0.74	83.01
87.04	2.71	3.72	0.70	83.01
78.58	2.71	3.72	1.02	114.38
78.58	3.20	4.19	0.96	114.38
70.12	3.20	4.19	1.29	149.76
70.12	3.73	4.67	1.20	149.76
61.65	3.73	4.67	1.54	189.18
61.65	4.27	5.14	1.42	189.18
53.19	4.27	5.14	1.75	232.61
53.19	4.70	5.50	1.65	232.61
48.86	4.70	5.50	1.82	256.37
48.86	5.28	5.84	1.65	256.37
40.72	5.28	5.84	1.95	303.79
40.72	6.01	6.27	1.71	303.79
32.58	6.01	6.27	1.97	354.73
32.58	6.62	6.69	1.68	354.73
24.43	6.62	6.69	1.90	409.07
24.43	7.24	7.11	1.55	409.07

16.29	7.24	7.11	1.72	467.07
16.29	7.90	7.54	1.30	467.07
8.14	7.90	7.54	1.41	528.34
8.14	8.57	7.97	0.93	528.34
0.00	8.57	7.97	0.96	593.18
Base	8.90	8.21	0.96	593.18

Load Combination: Wind and Ice
Wind Direction: Maximum Loads

Elev. (ft)	Axial Ld. (kips)	Shear Ld. (kips)	Torque (kipsft)	Bend Mom. (kipsft)
95.50	3.60	3.43	0.56	68.02
87.04	3.60	3.43	0.88	96.95
87.04	4.22	3.80	0.83	96.95
78.58	4.22	3.80	1.16	129.01
78.58	4.87	4.18	1.09	129.01
70.12	4.87	4.18	1.42	164.21
70.12	5.55	4.55	1.32	164.21
61.65	5.55	4.55	1.65	202.53
61.65	6.26	4.91	1.51	202.53
53.19	6.26	4.91	1.83	243.96
53.19	6.82	5.19	1.71	243.96
48.86	6.82	5.19	1.87	266.33
48.86	7.53	5.45	1.69	266.33
40.72	7.53	5.45	1.96	310.49
40.72	8.43	5.77	1.71	310.49
32.58	8.43	5.77	1.95	357.29
32.58	9.22	6.08	1.66	357.29
24.43	9.22	6.08	1.85	406.63
24.43	10.03	6.39	1.51	406.63
16.29	10.03	6.39	1.66	458.71
16.29	10.87	6.70	1.26	458.71
8.14	10.87	6.70	1.35	513.14
8.14	11.73	7.01	0.89	513.14
0.00	11.73	7.01	0.92	570.16
Base	12.17	7.20	0.92	570.16

Load Combination: Wind Only - Serviceability
Wind Direction: Maximum Loads

Elev. (ft)	Axial Ld. (kips)	Shear Ld. (kips)	Torque (kipsft)	Bend Mom. (kipsft)
95.50	2.30	1.27	0.07	21.72
87.04	2.30	1.27	0.11	32.43
87.04	2.78	1.45	0.11	32.43
78.58	2.78	1.45	0.16	44.69
78.58	3.28	1.64	0.15	44.69
70.12	3.28	1.64	0.20	58.52
70.12	3.81	1.82	0.18	58.52
61.65	3.81	1.82	0.24	73.93
61.65	4.35	2.01	0.22	73.93
53.19	4.35	2.01	0.27	90.90
53.19	4.78	2.15	0.25	90.90

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48.86	4.78	2.15	0.28	100.18
48.86	5.35	2.28	0.25	100.18
40.72	5.35	2.28	0.30	118.71
40.72	6.08	2.45	0.26	118.71
32.58	6.08	2.45	0.30	138.61
32.58	6.67	2.61	0.26	138.61
24.43	6.67	2.61	0.29	159.84
24.43	7.29	2.78	0.24	159.84
16.29	7.29	2.78	0.26	182.50
16.29	7.92	2.94	0.20	182.50
8.14	7.92	2.94	0.22	206.43
8.14	8.58	3.11	0.14	206.43
0.00	8.58	3.11	0.15	231.76
Base	8.92	3.21	0.15	231.76

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Section L: STRENGTH ASSESSMENT DATA
Load Combination: Max Envelope
Wind Direction: Maximum

Elev. (ft)	Bending Stress (ksi)	Axial Stress (ksi)	Shear Stress (ksi)	Total Stress (ksi)	Allowable Stress (ksi)	Assess.
95.50	8.32	0.23	0.22	8.56	52.00	0.165
87.04	10.76	0.22	0.21	10.99	52.00	0.211
87.04	10.77	0.26	0.24	11.03	52.00	0.212
78.58	13.07	0.25	0.23	13.32	52.00	0.256
78.58	13.07	0.28	0.25	13.36	52.00	0.257
70.12	15.24	0.27	0.24	15.51	52.00	0.298
70.12	15.24	0.31	0.26	15.55	52.00	0.299
61.65	17.28	0.30	0.25	17.58	51.60	0.341
61.65	17.28	0.34	0.27	17.62	51.60	0.341
53.19	19.20	0.32	0.26	19.53	50.63	0.386
53.19	19.20	0.35	0.27	19.56	50.63	0.386
48.86	20.64	0.39	0.28	21.03	50.44	0.417
40.72	22.34	0.37	0.27	22.72	49.50	0.459
40.72	22.34	0.42	0.29	22.77	49.50	0.460
32.58	23.94	0.40	0.28	24.35	48.57	0.501
32.58	23.94	0.44	0.29	24.39	48.57	0.502
24.43	25.43	0.43	0.28	25.86	47.63	0.543
24.43	25.58	0.34	0.33	25.92	47.63	0.544
16.29	27.32	0.32	0.32	27.65	46.69	0.592
16.29	27.32	0.35	0.34	27.68	46.69	0.593
8.14	28.97	0.34	0.33	29.32	45.75	0.641
8.14	28.97	0.37	0.35	29.35	45.75	0.642
0.00	30.56	0.36	0.34	30.92	44.82	0.690

Load Combination: Wind Only
Wind Direction: Maximum

Elev. (ft)	Bending Stress (ksi)	Axial Stress (ksi)	Shear Stress (ksi)	Total Stress (ksi)	Allowable Stress (ksi)	Assess.
95.50	6.80	0.15	0.21	6.95	52.00	0.134
87.04	9.21	0.14	0.20	9.36	52.00	0.180
87.04	9.22	0.16	0.23	9.39	52.00	0.181
78.58	11.59	0.16	0.22	11.75	52.00	0.226
78.58	11.59	0.19	0.25	11.78	52.00	0.227
70.12	13.90	0.18	0.24	14.08	52.00	0.271
70.12	13.90	0.21	0.26	14.11	52.00	0.271
61.65	16.14	0.20	0.25	16.34	51.60	0.317
61.65	16.14	0.23	0.28	16.37	51.60	0.317
53.19	18.31	0.22	0.27	18.53	50.63	0.366
53.19	18.31	0.24	0.29	18.55	50.63	0.366
48.86	19.87	0.27	0.30	20.15	50.44	0.399
40.72	21.86	0.26	0.29	22.13	49.50	0.447
40.72	21.86	0.30	0.31	22.17	49.50	0.448
32.58	23.77	0.29	0.30	24.06	48.57	0.495
32.58	23.77	0.32	0.32	24.09	48.57	0.496
24.43	25.58	0.31	0.31	25.89	47.63	0.544
24.43	25.58	0.34	0.33	25.92	47.63	0.544
16.29	27.32	0.32	0.32	27.65	46.69	0.592

16.29	27.32	0.35	0.34	27.68	46.69	0.593
8.14	28.97	0.34	0.33	29.32	45.75	0.641
8.14	28.97	0.37	0.35	29.35	45.75	0.642
0.00	30.56	0.36	0.34	30.92	44.82	0.690

Load Combination: Wind and Ice
Wind Direction: Maximum

Elev. (ft)	Bending Stress (ksi)	Axial Stress (ksi)	Shear Stress (ksi)	Total Stress (ksi)	Allowable Stress (ksi)	Assess.
95.50	8.32	0.23	0.22	8.56	52.00	0.165
87.04	10.76	0.22	0.21	10.99	52.00	0.211
87.04	10.77	0.26	0.24	11.03	52.00	0.212
78.58	13.07	0.25	0.23	13.32	52.00	0.256
78.58	13.07	0.28	0.25	13.36	52.00	0.257
70.12	15.24	0.27	0.24	15.51	52.00	0.298
70.12	15.24	0.31	0.26	15.55	52.00	0.299
61.65	17.28	0.30	0.25	17.58	51.60	0.341
61.65	17.28	0.34	0.27	17.62	51.60	0.341
53.19	19.20	0.32	0.26	19.53	50.63	0.386
53.19	19.20	0.35	0.27	19.56	50.63	0.386
48.86	20.64	0.39	0.28	21.03	50.44	0.417
40.72	22.34	0.37	0.27	22.72	49.50	0.459
40.72	22.34	0.42	0.29	22.77	49.50	0.460
32.58	23.94	0.40	0.28	24.35	48.57	0.501
32.58	23.94	0.44	0.29	24.39	48.57	0.502
24.43	25.43	0.43	0.28	25.86	47.63	0.543
24.43	25.43	0.47	0.30	25.90	47.63	0.544
16.29	26.83	0.45	0.29	27.29	46.69	0.584
16.29	26.83	0.49	0.30	27.33	46.69	0.585
8.14	28.14	0.47	0.29	28.62	45.75	0.625
8.14	28.14	0.51	0.31	28.65	45.75	0.626
0.00	29.37	0.50	0.30	29.87	44.82	0.666

Load Combination: Wind Only - Serviceability
Wind Direction: Maximum

Elev. (ft)	Bending Stress (ksi)	Axial Stress (ksi)	Shear Stress (ksi)	Total Stress (ksi)	Allowable Stress (ksi)	Assess.
95.50	2.66	0.15	0.08	2.81	52.00	0.054
87.04	3.60	0.14	0.08	3.75	52.00	0.072
87.04	3.60	0.17	0.09	3.78	52.00	0.073
78.58	4.53	0.16	0.09	4.69	52.00	0.090
78.58	4.53	0.19	0.10	4.72	52.00	0.091
70.12	5.43	0.19	0.09	5.62	52.00	0.108
70.12	5.43	0.22	0.10	5.65	52.00	0.109
61.65	6.31	0.21	0.10	6.52	51.60	0.126
61.65	6.31	0.24	0.11	6.55	51.60	0.127
53.19	7.15	0.23	0.10	7.38	50.63	0.146
53.19	7.15	0.25	0.11	7.40	50.63	0.146
48.86	7.76	0.28	0.12	8.04	50.44	0.159
40.72	8.54	0.27	0.11	8.81	49.50	0.178

40.72	8.54	0.30	0.12	8.85	49.50	0.179
32.58	9.29	0.29	0.12	9.58	48.57	0.197
32.58	9.29	0.32	0.13	9.61	48.57	0.198
24.43	9.99	0.31	0.12	10.31	47.63	0.216
24.43	9.99	0.34	0.13	10.34	47.63	0.217
16.29	10.67	0.33	0.13	11.00	46.69	0.236
16.29	10.67	0.36	0.13	11.03	46.69	0.236
8.14	11.32	0.35	0.13	11.67	45.75	0.255
8.14	11.32	0.37	0.14	11.70	45.75	0.256
0.00	11.94	0.36	0.13	12.30	44.82	0.275

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Contract: M08-0543:J080616001 Revision: 0
Project: 125-FT:MONOPOLE:2-SECTIONS:18-SIDED Site: 5245 Manchester- Hartford County-
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Section M: SECTION PROPERTIES DATA

Elev. (ft)	Diam. (in)	Width (in)	Thick. (in)	W/t	Area (in^2)	S (in^3)
95.5	26.0	4.2	0.188	22.5	15.4	98.15
87.0	27.3	4.4	0.188	23.7	16.1	108.06
87.0	27.3	4.4	0.188	23.7	16.1	108.06
78.6	28.6	4.7	0.188	24.9	16.9	118.45
78.6	28.6	4.7	0.188	24.9	16.9	118.45
70.1	29.8	4.9	0.188	26.1	17.6	129.32
70.1	29.8	4.9	0.188	26.1	17.6	129.32
61.7	31.1	5.1	0.188	27.3	18.4	140.66
61.7	31.1	5.1	0.188	27.3	18.4	140.66
53.2	32.4	5.3	0.188	28.4	19.2	152.49
53.2	32.4	5.3	0.188	28.4	19.2	152.49
48.9	33.0	5.4	0.188	29.1	19.5	158.72
48.9	32.6	5.4	0.188	28.7	19.3	154.83
40.7	33.8	5.6	0.188	29.8	20.0	166.74
40.7	33.8	5.6	0.188	29.8	20.0	166.74
32.6	35.1	5.8	0.188	31.0	20.8	179.10
32.6	35.1	5.8	0.188	31.0	20.8	179.10
24.4	36.3	6.0	0.188	32.1	21.5	191.90
24.4	36.3	6.0	0.188	32.1	21.5	191.90
16.3	37.5	6.2	0.188	33.3	22.2	205.15
16.3	37.5	6.2	0.188	33.3	22.2	205.15
8.1	38.7	6.5	0.188	34.4	22.9	218.83
8.1	38.7	6.5	0.188	34.4	22.9	218.83
0.0	40.0	6.7	0.188	35.6	23.7	232.96

Note: w/t values marked with * (asterisk) indicate width to thickness exceeding maximum allowable values by standards.

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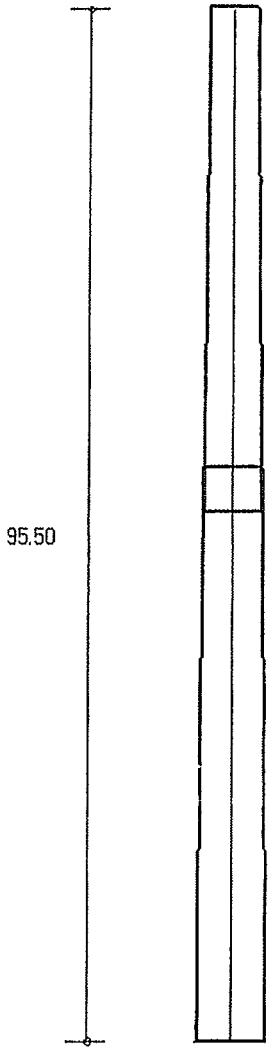
Contract: M08-0543:J080616001
Project: 125-FT:MONOPOLE:2-SECTIONS:18-SIDED
Date and Time: 6/23/2008 3:47:33 PM

Revision: 0
Site: 5245 Manchester- Hartford County-
Engineer: TW

DESIGN SPECIFICATION

Design Standard: TIA/EIA-222-F-1996
Basic Wind speed = 80.0 (mph)
Service Wind speed = 50.0 (mph)
Ice thickness = 0.50 (in)

Sct.	Length (ft)	Overlap (ft)	Top Dia. (in)	Bot Dia. (in)	Thick. (in)
1	53.00	4.33	32.00	39.95	0.1875
2	46.83	0.00	26.00	33.02	0.1875



MAXIMUM BASE REACTIONS

	Bare	Iced
Download (Kips)	8.9	12.2
Shear (Kips)	8.2	7.2
Moment (Kipsft)	593.2	570.2

BASE PLATE DETAILS

Maximum base reactions

Axial Load(Kips) = 8.90
Shear Load(Kips) = 8.21
Bending Moment(Kipsft) = 593.18
Torque(Kipsft) = 0.96

Anchor Rod Data

No of rods = 4
Grade = A615 Gr.75
Size = 2 1/4 in
Lar * (in) = 2.250
Shear Load(Kips) = 2.18
Axial Load(Kips) = 153.68
Shear Cap.(Kips) = 90.12
Axial Cap.(Kips) = 194.85
Assessment Ratio = 0.82
Allow. Stress Increase = 1.33

Plate Data

Thickness(in) = 2.000
Grade = A633 gr.60
Max. Stress(ksi) = 26.5
Allow. Stress(ksi) = 60.0
Assessment Ratio = 0.44
Allow. Stress Increase = 1.33

Plate Bottom above Concrete

* Lar = Length from top of concrete to bottom of anchor rod leveling nut.