ROBINSON & COLE LLP

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

ORIGINAL

September 26, 2008

Michael Perrone
Siting Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Cellco Partnership d/b/a Verizon Wireless**
Exempt Modification Approval

Dear Mr. Perrone:

Enclosed you will find a structural letter confirming that the Verizon Wireless antenna installation was completed in accordance with the requirements of the Structural Analysis submitted as a part of the referenced exempt modification filings. The attached letter relates specifically to the following Siting Council filing.

1. EM-VER-049-071109
Enfield 4 – Town Farm Road, Enfield, CT

If you have any questions regarding any of these materials, please do not hesitate to contact me or Rachel Mayo.

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Sandy M. Carter
Brian Ragozzine
Mark Gauger

AMERICAN TOWER™
CORPORATION

August 14, 2008

Re: Enfd – Enfield, CT – ATC Number: 302489

To Whom it May Concern,

The purpose of this letter is to certify that the structural modifications described in ATC drawing package 40071639 (Rev 1, dated 5/20/08) have been completed and the Close Out documentation and pictures supplied by the contractor have been reviewed by ATC Engineering. The completed modifications have brought the referenced tower into compliance with TIA/EIA-222 Rev F and IBC 2003. The tower has been analyzed (ATC analysis 40071828, dated 11/28/07) to include all existing antennas and lines in addition to the proposed Verizon antennas and lines at 130'.

If you have any questions or require additional information, please feel free to call.

Jason M. Seaverson, PE
Engineering Manager

8/15/08

Raphael I. Mohamed, PE
Engineering Manager

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

December 11, 2007

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-049-071109** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at Town Farm Road, Enfield, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on November 29, 2007, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the condition that the modifications specified in the structural analysis report dated February 20, 2007 be performed prior to the antenna installation and that a signed letter from a Professional Engineer be submitted to the Council to certify that these modifications have been properly completed.

The proposed modifications are to be implemented as specified here and in your notice dated November 9, 2007, and additional information dated November 14, 2007, 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,

Daniel F. Caruso
Chairman

DFC/MP/laf

c: The Honorable Patrick L. Tallarita, Mayor, Town of Enfield
Jose Giner, Director of Planning and Community Development, Town of Enfield
Spectrasite

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

November 15, 2007

The Honorable Patrick L. Tallarita
Mayor
Town of Enfield
820 Enfield Street
Enfield, CT 06082

RE: **EM-VER-049-071109** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at Town Farm Road, Enfield, Connecticut.

Dear Mayor Tallarita:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for November 29, 2007, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the Council by November 28, 2007.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps / m.p.

S. Derek Phelps
Executive Director

SDP/cm

Enclosure: Notice of Intent

c: Jose Giner, Director of Planning and Community Development, Town of Enfield

ROBINSON & COLE LLP

KENNETH C. BALDWIN

280 Trumbull Street
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Main (860) 275-8200
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Direct (860) 275-8345

November 14, 2007

Via Electronic Mail and U.S. Mail

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification**
Town Farm Road, Enfield, Connecticut

Dear Mr. Phelps:

On November 9, 2007, Cellco Partnership d/b/a Verizon Wireless ("Cellco") submitted a Notice of Exempt Modification for the above-referenced facility. The filing indicates that Cellco plans to install a propane-fueled generator in its equipment shelter and includes a 1,000 gallon propane tank on the project plans. Cellco has decided to modify its proposal and install a diesel-fueled generator at this site.

Enclosed you will find a revised site plan (Sheet S-1) removing the propane tank from the cell site compound area.

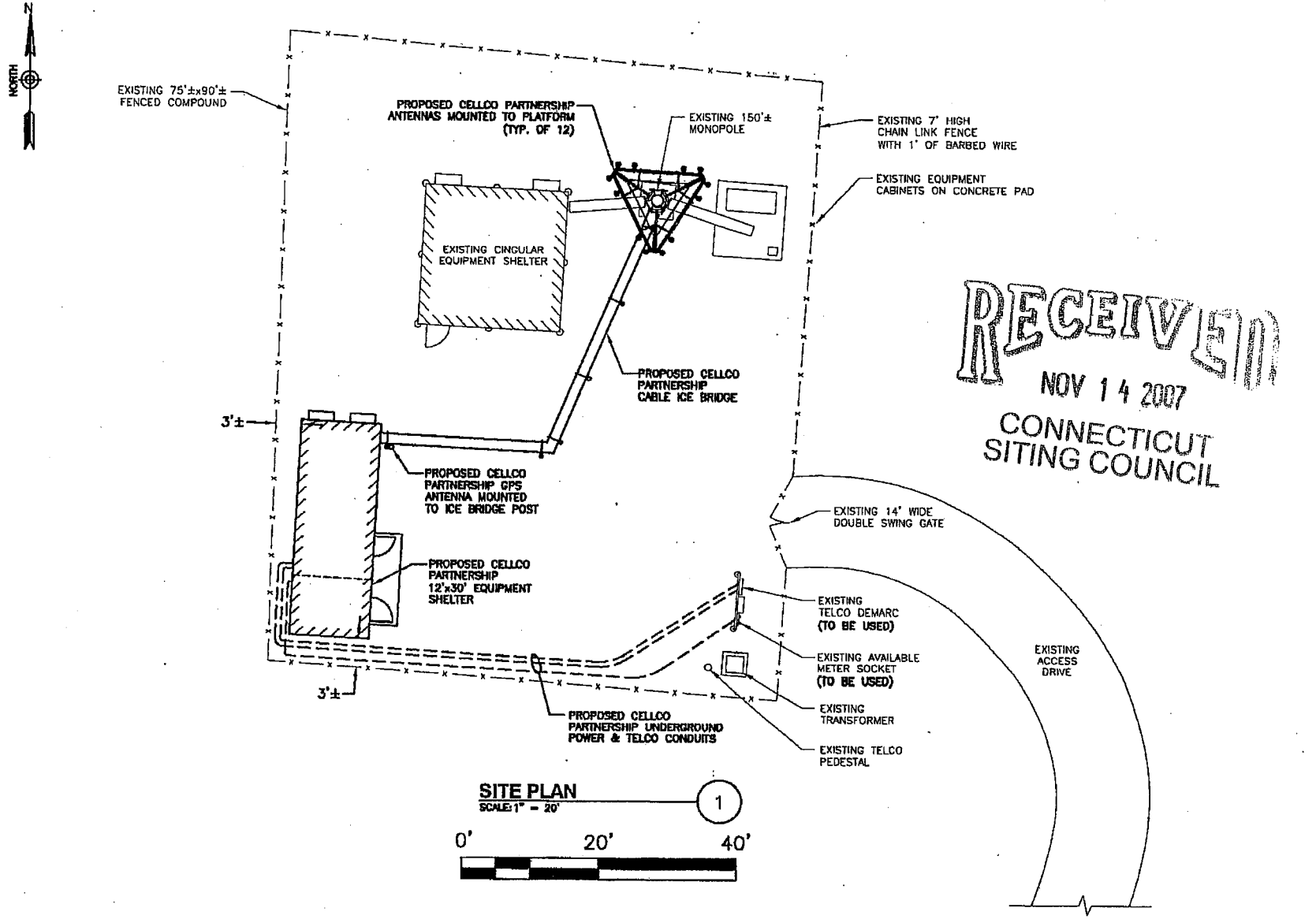
If you have any questions please contact me.

Sincerely,

Kenneth C. Baldwin

Enclosure
Copy to:
Matthew W. Coppler, Enfield Town Manager
Sandy M. Carter
Michelle Kababik

HART1-1433948-1



NO.	DATE	BY	DESCRIPTION
0	11/14/07	CMS	FINAL SITING COUNCIL
B	11/07/07	CMS	REVISED SITING COUNCIL
A	11/06/07	JAA	PRELIMINARY SITING COUNCIL

Dewberry
Dewberry-Goodkind, Inc.
59 ELM STREET
SUITE 101
NEW HAVEN, CT 06510
203.776.2277 PHONE
203.776.8286 FAX

SCALE: AS SHOWN
DESIGNED BY: JAA
DATE: 11/06/07
DGI PROJECT NO. 50003167

PARTIAL SITE PLAN

Cellco Partnership
d.b.a. verizon wireless

SITE NAME: ENFIELD 4
TOWN FARM ROAD
ENFIELD, CT 06082

PROJECT NO.: 2007218917
LOCATION CODE: 177996

SHEET NO. S - 1

ROBINSON & COLE LLP

KENNETH C. BALDWIN

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kbaldwin@rc.com
Direct (860) 275-8345

EM-VER-049-071109

November 9, 2007

Via Hand Delivery

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification**
Town Farm Road
Enfield, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install antennas on the existing 150-foot self-supporting monopole tower owned by American Tower Corporation off Town Farm Road in Enfield, Connecticut. Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Matthew W. Coppler, Enfield Town Manager, and American Tower Corporation, the owner of the tower. The Town of Enfield is the owner of the property on which the tower is located.

The facility consists of a 150-foot self-supporting monopole tower capable of supporting multiple carriers within a fenced compound off Town Farm Road in Enfield. The tower is currently shared by AT&T with antennas located at the 150-foot level on the tower and T-Mobile with antennas located at the 140-foot level on the tower. Cellco intends to install twelve (12) panel-type antennas (six cellular and six PCS) at the 130-foot level on the tower and place a 12' x 30' equipment shelter on the ground near the base of the tower within the existing fenced compound. Cellco also intends to install a 1000 gallon propane tank within the fenced compound. Attached behind Tab 1 are Project Plans for the proposed Cellco facility.

The planned modifications to the Enfield facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modification will not increase the overall height of the existing tower. Cellco's antennas will be mounted with their centerline at the 130-foot level on the 150-foot tower.

2. The proposed installation of a 12' x 30' equipment shelter will not require an extension of the fenced compound or lease area.

3. The proposed installation will not increase the noise levels at the facility by six decibels or more.

4. The operation of the antennas will not increase radio frequency (RF) power density levels at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. The worst-case RF power density calculations for existing and Cellco antennas would be 16.71% of the FCC standard. A cumulative power density calculations table is included behind Tab 2.

Included behind Tab 3, is a Structural Analysis and Reinforcement Plans confirming that the tower, once reinforced, can support the existing and Cellco antennas and associated equipment.

For the foregoing reasons, Cellco respectfully submits that the proposed antenna installation at the facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Attachments
Copy to:
Matthew W. Coppler, Enfield Town Manager
Sandy M. Carter
Michelle Kababik

Cellco Partnership

d.b.a. verizon wireless

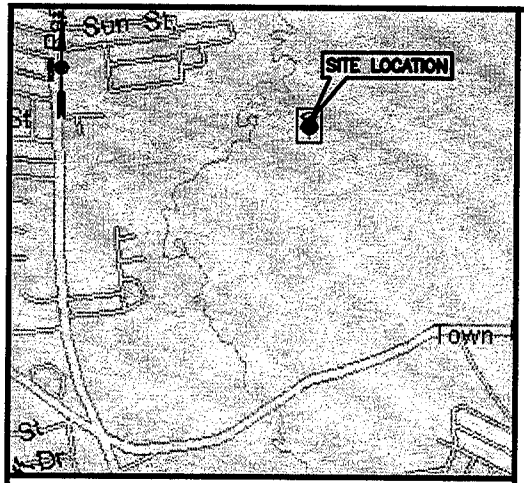
ENFIELD 4

TOWN FARM ROAD
ENFIELD, CT 06082

NOTE:
THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

STRUCTURAL NOTE:
NEW CONSTRUCTION REPRESENTED ON THESE PLANS IS PROPOSED PREDICATED ON THE REQUIREMENT THAT A STRUCTURAL ANALYSIS BE PERFORMED BY A LICENSED CONNECTICUT PROFESSIONAL STRUCTURAL ENGINEER AND CERTIFICATION IS GIVEN BY THE ENGINEER THAT THE EXISTING TOWER AND ALL EXISTING AND PROPOSED ANTENNAS AND APPURTENANCES SUPPORTED BY THE TOWER AND ANY REQUIRED IMPROVEMENTS AND REINFORCEMENTS HAVE SUFFICIENT STRUCTURAL CAPACITY AND COMPLY WITH THE CONNECTICUT BUILDING CODE AND ALL APPLICABLE EIA/TIA CRITERIA. NO WORK PROPOSED HEREON SHALL BE PROGRESSED WITHOUT CONFIRMATION OF THIS CERTIFICATION.

DIRECTIONS (FROM HARTFORD, CT):
HEAD SOUTH ON MAIN ST TOWARD WELLS ST. TURN LEFT ON SHELDON STREET. TAKE LEFT RAMP ONTO WHITEHEAD HIGHWAY TOWARD WHITEHEAD HIGHWAY EAST. TAKE THE SPRINGFIELD/BRADLEY INTERNATIONAL AIRPORT LEFT EXIT ONTO I-91 NORTH. TAKE EXIT 46/KING STREET. TURN LEFT ON KING STREET (US-5). TURN LEFT ON WEYMOUTH ROAD. TURN LEFT ON SIMON ROAD. TURN RIGHT ON WEYMOUTH SCHOOL ROAD. BEAR RIGHT ON POST OFFICE ROAD. CONTINUE ON TOWN FARM ROAD. ARRIVE AT TOWN FARM ROAD.



LOCATION MAP
ENFIELD, CT

5,280 0 5,280

1"=5,280'±

PROJECT SUMMARY

SITE NAME:	ENFIELD 4
SITE ADDRESS:	TOWN FARM ROAD ENFIELD, CT 06082
PROPERTY OWNER:	N/F: TOWN OF ENFIELD, CT 820 ENFIELD STREET ENFIELD, CT 06082
TOWER OWNER:	AMERICAN TOWER, INC. P.O. BOX 723597 ATLANTA, GA 31139 PHONE: (617) 375-7500 FAX: (617) 375-7575
APPLICANT:	CELLCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
CONTACT PERSON:	SANDY CARTER CELLCO PARTNERSHIP (860) 803-8219
COORDINATES:	LATITUDE: 41°-57'-56.7" N LONGITUDE: 72°-33'-09.4" W COORDINATES PROVIDED BY HAND HELD GPS

SHEET INDEX

SHEET NO.	DESCRIPTION
T-1	TITLE SHEET
S-1	PARTIAL SITE PLAN
S-2	MONOPOLE ELEVATION

NOTE:

DRAWINGS FOR SITING COUNCIL ONLY. NOT TO BE USED FOR CONSTRUCTION.

NO.	DATE	BY	DESCRIPTION
B	11/07/07	CMS	REVISED SITING COUNCIL
A	11/06/07	JAA	PRELIMINARY SITING COUNCIL

Dewberry
Dewberry-Goodkind, Inc.
59 ELM STREET
SUITE 101
NEW HAVEN, CT 06510
203.776.2277 PHONE
203.776.2288 FAX

SCALE: AS SHOWN
DESIGNED BY: JAA
DATE: 11/06/07
DGI PROJECT NO. 50003167

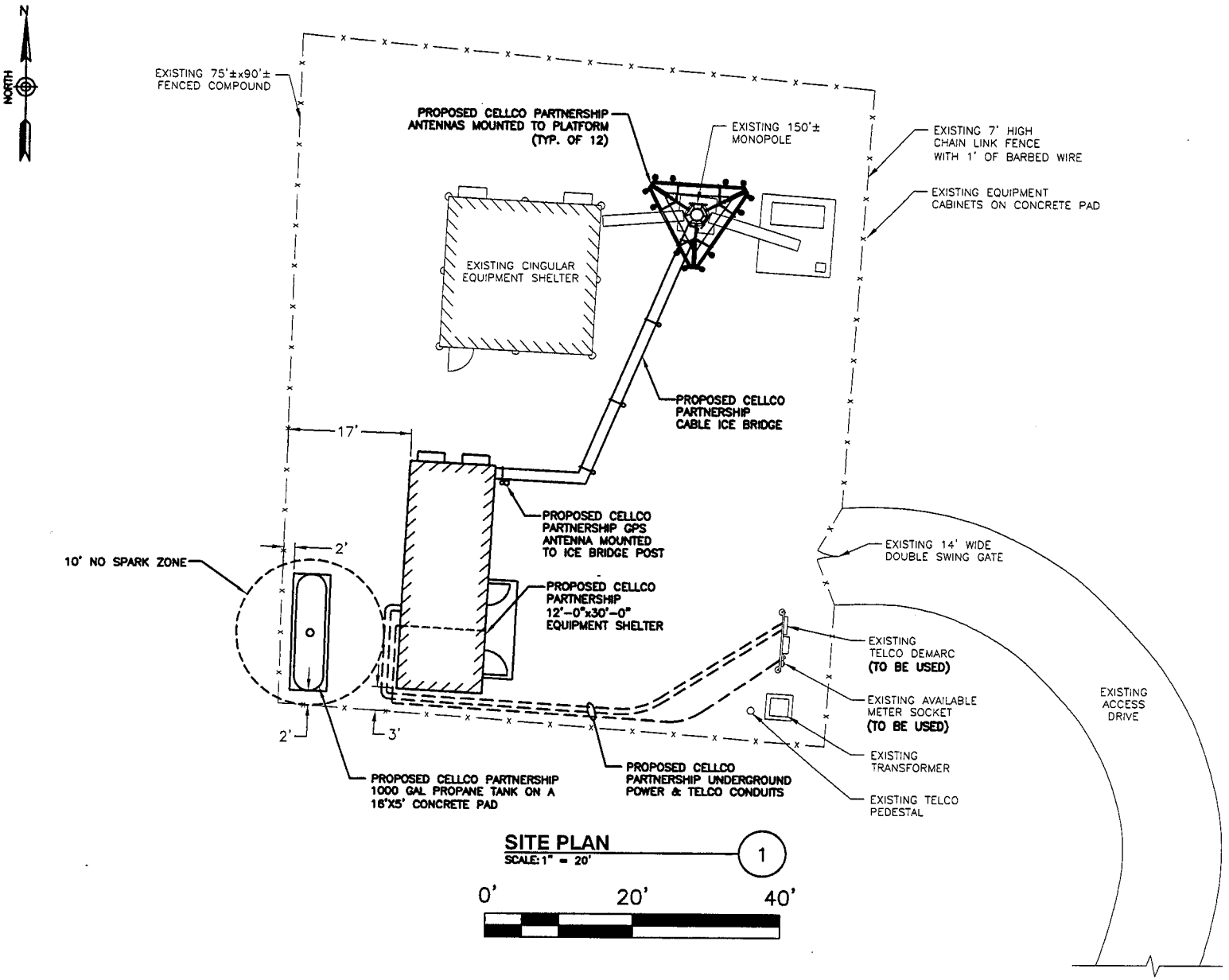
TITLE SHEET

Cellco Partnership
d.b.a. verizon wireless

SITE NAME: ENFIELD 4
TOWN FARM ROAD
ENFIELD, CT 06082

PROJECT NO.: 2007218917
LOCATION CODE: 177996

SHEET NO. T - 1



NO.	DATE	BY	DESCRIPTION
B	11/07/07	CMS	REVISED SITING COUNCIL
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Dewberry-Goodkind, Inc.
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NEW HAVEN, CT 06510
203.776.2277 PHONE
203.776.2288 FAX

SCALE: AS SHOWN
DESIGNED BY: JAA
DATE: 11/06/07
DGI PROJECT NO. 50003167

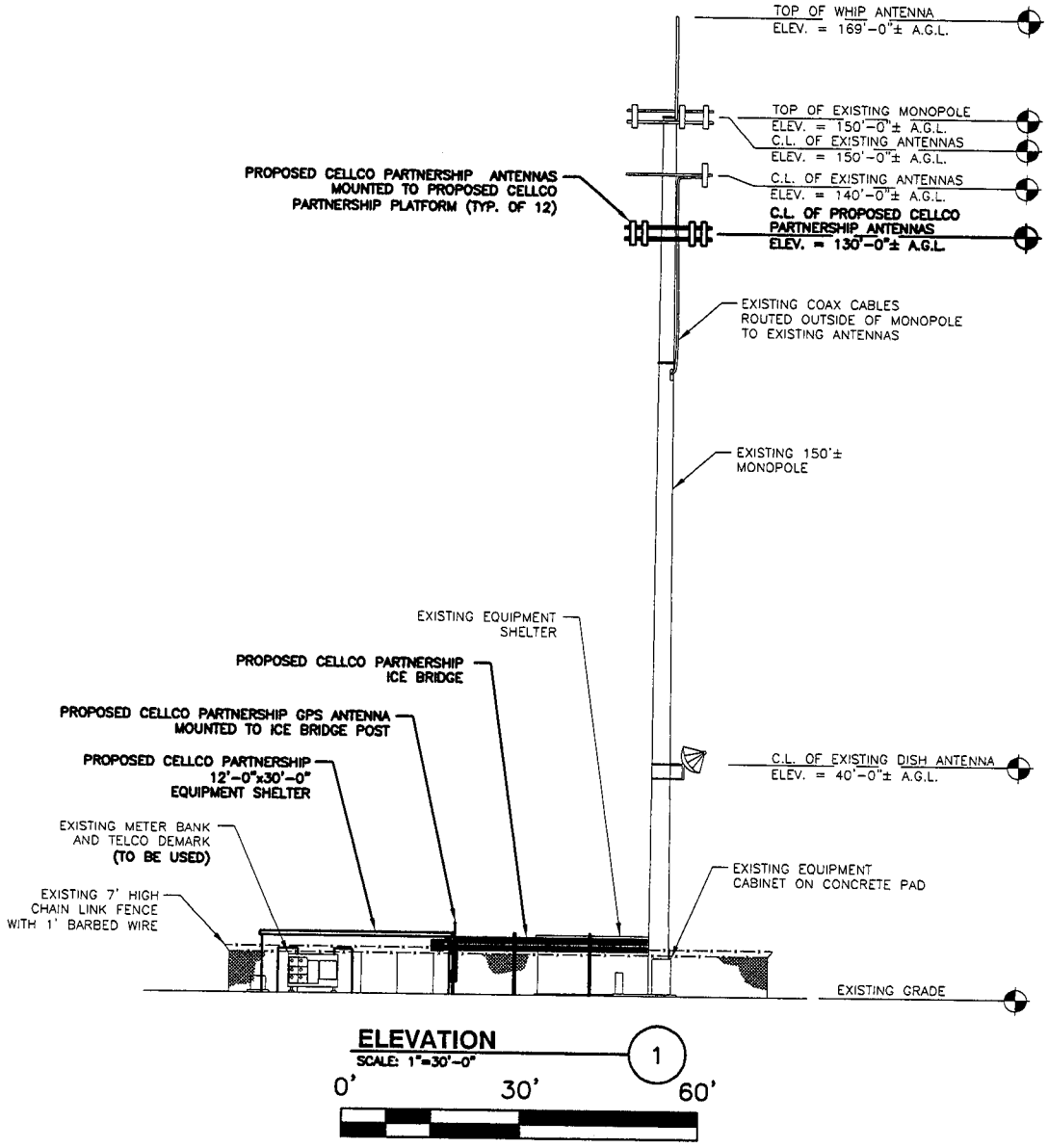
PARTIAL SITE PLAN

Cellco Partnership
d.b.a. verizon wireless

SITE NAME: ENFIELD 4
TOWN FARM ROAD
ENFIELD, CT 06082

PROJECT NO.: 2007218917
LOCATION CODE: 177996

SHEET NO. S - 1



ELEVATION (1)
SCALE: 1"=30'-0"

0' 30' 60'

NOTES:

1. HEIGHTS SHOWN ARE TAKEN FROM STRUCTURAL ANALYSIS DATED 2/20/07 BY AMERICAN TOWER CORP.

NO.	DATE	BY	DESCRIPTION
B	11/07/07	CMS	REVISED SITING COUNCIL
A	11/06/07	JAA	PRELIMINARY SITING COUNCIL

Dewberry
Dewberry-Goodkind, Inc.
59 ELM STREET
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NEW HAVEN, CT 06510
203.776.2277 PHONE
203.776.2288 FAX

SCALE: AS SHOWN
DESIGNED BY: JAA
DATE: 11/06/07
DGI PROJECT NO. 50003167

TOWER ELEVATION

Cellco Partnership
d.b.a. verizon wireless

SITE NAME: ENFIELD 4
TOWN FARM ROAD
ENFIELD, CT 06082

PROJECT NO.: 2007218917
LOCATION CODE: 177996

SHEET NO. S - 2

	General	Power	Density					
Site Name: Enfield 4								
Tower Height: Verizon @ 130Ft.								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
* Cingular	16	100	154	0.0243	880	0.5867	4.13%	
* Cingular	2	296	154	0.0090	880	0.5867	1.53%	
* Cingular	2	427	154	0.0129	1930	1.0000	1.29%	
*SNET	0	0	161	0.0216	930.9	0.6206	3.48%	
*T-Mobile	8	243	140	0.0357	1935	1.0000	3.57%	
Verizon	**9**	**200**	**130**	**0.0383**	**880**	**0.5830**	**6.57%**	
Verizon PCS	**3**	**485**	**130**	**0.0310**	**1900**	**1.0000**	**3.10%**	
								16.71%
* Source: Siting Council								

AMERICAN TOWER™
CORPORATION

Structural Analysis Report

Structure	:	**150 ft ITT Meyer Monopole**
ATC Site Name	:	**Enfd – Enfield, CT**
ATC Site Number	:	**302489**
Proposed Carrier	:	**Verizon Wireless**
Carrier Site Name	:	**Enfield 4**
Carrier Site Number	:	**2007218917**
County	:	**Hartford**
Eng. Number	:	**40071621**
Date	:	**February 20, 2007**
Usage	:	**142.1% (pole shafts), 155% (Anchor Bolts)**

Submitted by:
Hanming You, P.E.
Senior Design Engineer

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

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

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 150 ft ITT Meyer Monopole located at Enfd - Enfield, CT. Hartford County (ATC site # 302489). The tower was originally designed and manufactured by ITT Meyer (Drawing # Type "B").

Analysis

The existing 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:	80.0 mph (Equivalent to a 100 mph 3-second gust wind speed per International Building Code 2000)
Radial Ice:	0.50" w/ reduced wind
Code:	TIA/EIA-222 Rev F

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
150.0	1	Decibel DB809-Y	Platform w/ Handrails	(1) 1-5/8	USA Mobility
	9	Swedcom ALP 110 11		(9) 7/8	
140.0	6	EMS RR90-17-02D	Low Profile Platform	(12) 1-5/8	T-Mobile
40.0	1	Channal Master 4' Dish	Dish Mount	(1) RG6	USA Mobility

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
130.0	6	Antel LPA-185080/12CF	Low Profile Platform	(6) 7/8	Verizon
	6	Antel LPA-80080/6CF		(6) 7/8	

All transmission lines are assumed running inside of pole shafts.

Results

The existing 150 ft ITT Meyer Monopole with the existing and the proposed antennas is not structurally acceptable per TIA/EIA-222 Rev F standards. The maximum structure usage is: 142.1 % (pole shafts) and 155% (anchor bolts).

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)	1,197.00	2,196.63	183.5
Shear (kips)	13.10	20.73	158.2

The structure base reactions resulting from this analysis do exceed the ones shown on the original structural drawings. Soil report for the tower site is not available for the investigations of the capacity of the existing foundation. According to the original foundation design drawing (a mat foundation), the existing foundation was found to be inadequate in the overturning moment resistance based on a soil unit weight of 100 lbs per cu. ft. A further investigation of the adequacy of the existing foundation will be performed when the soil report becomes available.

Modifications

We recommend the following tower modifications:

- Reinforce the overstressed pole shaft by welding steel channels or by other means. The splices between the pole sections will also need reinforcements.
- Reinforcing the existing base plate and adding new anchor bolts may be required.
- Reinforcing the existing foundation may be required.

The final design and details for the required modifications will be a separate scope of work under a subsequent project.

Conclusion

The existing monopole structure FAILED to support the existing and proposed antennas as described in this report. However, if the monopole structure is adequately reinforced, the monopole and its

foundations 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:

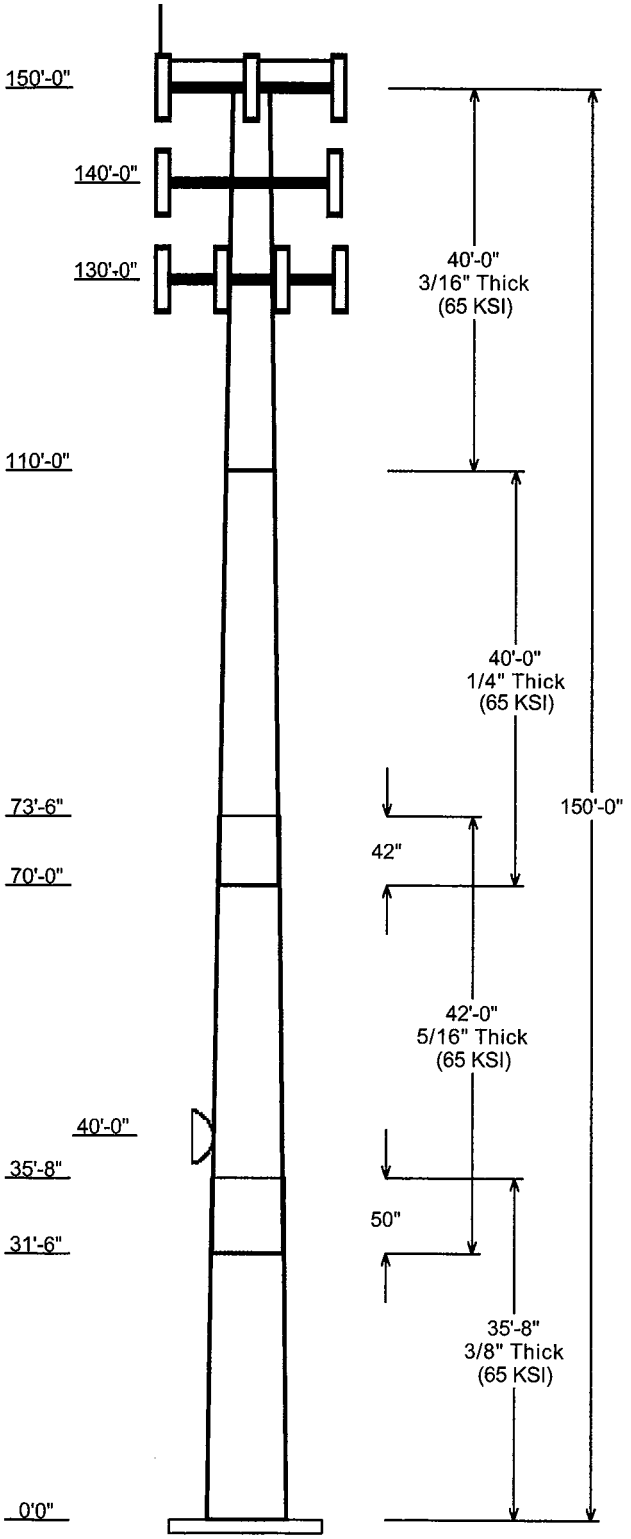
-- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.

-- 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.



Job Information

Pole :	302489
Code:	TIA/EIA-222 Rev F
Description :	150' ITT Meyer Type "B" Monopole
Client :	Verizon Wireless
Location :	Enfd - Enfield
Shape :	12 Sides
Base Elev (ft):	0.00
Height :	150.00 (ft)
Taper:	0.156700(in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	35.667	31.79	37.38	0.375		0.000	0.156700	65
2	42.000	26.48	33.06	0.313	Slip Joint	50.000	0.156700	65
3	40.000	21.26	27.53	0.250	Slip Joint	42.000	0.156700	65
4	40.000	15.00	21.26	0.188	Butt Joint	0.000	0.156700	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	159.710	1	Decibel DB809-Y
150.000	150.000	9	Swedcom ALP 110 11
150.000	153.000	1	Platform w/ Handrails
140.000	140.000	6	EMS RR90-17-02D
140.000	140.000	1	Low Profile Platform
130.000	130.000	6	Antel LPA-185080/12CF
130.000	130.000	6	Antel LPA-80080/6CF
130.000	130.000	1	Low Profile Platform
40.000	40.000	1	Channal Master 4' Dish

Load Cases

No Ice	80.00 mph Wind with No Ice
Ice	69.28 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

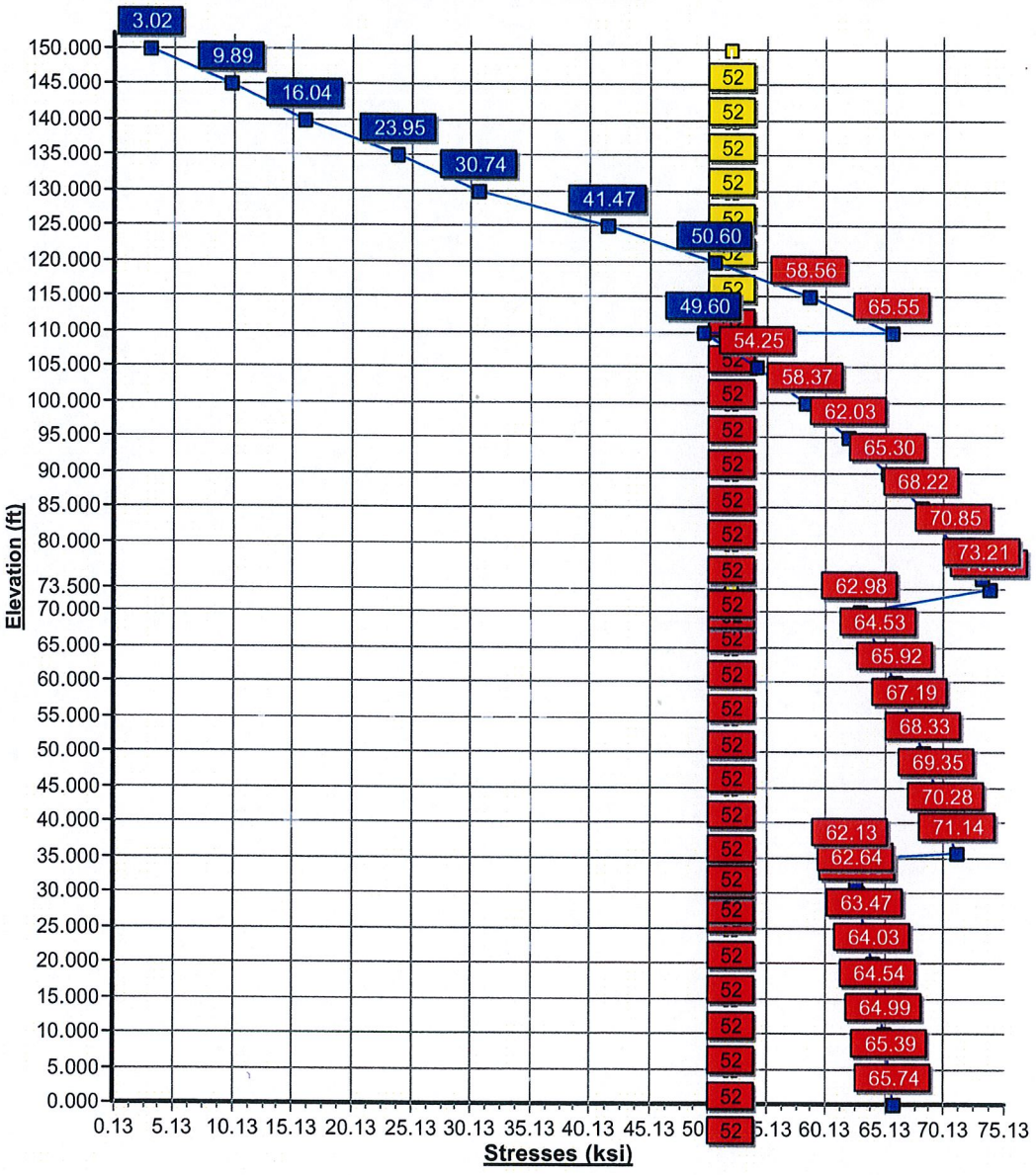
Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	2196.63	20.73	18.72
Ice	1911.91	17.08	24.12
Twist/Sway	863.74	8.10	18.78

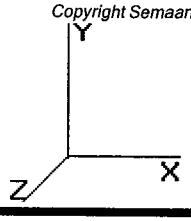
Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
Twist/Sway	40.00	5.337	1.298

Load Case : No Ice
Max Stress 142.1% at 73.5ft



Pole :	302489	Code: TIA/EIA-222 Rev F	
Location :	Enfd - Enfield		
Height :	150.0 (ft)		
Shape :	12 Sides		
Base Dia :	37.38 (in)		
Top Dia :	15.00 (in)		
Taper :	0.156700 (in/ft)	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 Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1	35.667	0.3750	65		0.00	5,014	37.38	0.000	44.68	7810.1	24.57	99.68	31.79	35.66	37.93	4778.9	20.57	84.78	0.15670
2	42.000	0.3125	65	Slip Joint	50.00	4,237	33.06	31.50	32.96	4514.2	26.21	105.8	26.48	73.50	26.34	2303.3	20.57	84.76	0.15670
3	40.000	0.2500	65	Slip Joint	42.00	2,646	27.53	70.00	21.97	2087.4	27.37	110.1	21.26	110.0	16.92	954.0	20.65	85.07	0.15670
4	40.000	0.1875	65	Butt Joint	0.00	1,475	21.26	110.0	12.73	721.9	28.25	113.4	15.00	150.0	8.94	250.5	19.29	80.00	0.15670
				Shaft Weight		13,372													

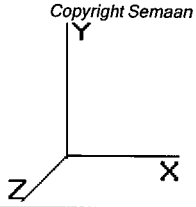
Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
150.0	Decibel DB809-Y	1	24.00	5.830	1.00	66.00	7.800	1.00	0.000	9.710
150.0	Swedcom ALP 110 11	9	25.00	5.760	0.86	63.00	6.390	0.86	0.000	0.000
150.0	Platform w/ Handrails	1	1800.00	35.000	1.00	2500.00	45.000	1.00	0.000	3.000
140.0	EMS RR90-17-02D	6	15.50	4.356	0.67	37.92	4.988	0.67	0.000	0.000
140.0	Low Profile Platform	1	1200.00	16.000	1.00	1800.00	18.000	1.00	0.000	0.000
130.0	Antel LPA-185080/12CF	6	40.50	4.300	1.00	66.99	5.100	1.00	0.000	0.000
130.0	Antel LPA-80080/6CF	6	24.00	7.340	1.00	87.32	8.430	1.00	0.000	0.000
130.0	Low Profile Platform	1	1500.00	18.000	1.00	1950.00	22.000	1.00	0.000	0.000
40.00	Channal Master 4' Dish	1	188.00	20.910	1.00	277.00	21.790	1.00	0.000	0.000
	Totals	32	5417.00			8313.36			Number of Loadings :	9

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



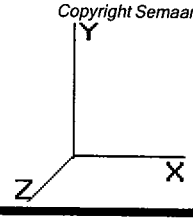
Segment Properties (Max Len : 5 ft)

Seg 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		0.3750	37.380	44.684	7,810.1	24.57	99.68	65	52	0.0
5.00		0.3750	36.597	43.737	7,324.4	24.01	97.59	65	52	752.2
10.00		0.3750	35.813	42.791	6,859.3	23.45	95.50	65	52	736.1
15.00		0.3750	35.029	41.845	6,414.3	22.89	93.41	65	52	720.0
20.00		0.3750	34.246	40.899	5,989.0	22.33	91.32	65	52	703.9
25.00		0.3750	33.462	39.953	5,583.0	21.77	89.23	65	52	687.8
30.00		0.3750	32.679	39.007	5,195.7	21.21	87.14	65	52	671.7
31.50	Bot - Section 2	0.3750	32.444	38.723	5,083.1	21.04	86.52	65	52	198.4
35.00		0.3750	31.895	38.061	4,826.7	20.65	85.05	65	52	846.4
35.67	Top - Section 1	0.3125	32.416	32.304	4.249.6	25.65	103.73	65	52	159.7
40.00		0.3125	31.737	31.621	3,985.6	25.07	101.56	65	52	471.3
45.00		0.3125	30.953	30.833	3,694.9	24.40	99.05	65	52	531.3
50.00		0.3125	30.170	30.044	3,418.6	23.73	96.54	65	52	517.9
55.00		0.3125	29.386	29.256	3,156.5	23.05	94.04	65	52	504.5
60.00		0.3125	28.603	28.467	2,908.1	22.38	91.53	65	52	491.0
65.00		0.3125	27.819	27.679	2,673.1	21.71	89.02	65	52	477.6
70.00	Bot - Section 3	0.3125	27.036	26.890	2.451.1	21.04	86.52	65	52	464.2
73.50	Top - Section 2	0.2500	26.987	21.524	1,964.0	26.78	107.95	65	52	575.9
75.00		0.2500	26.752	21.335	1,912.7	26.53	107.01	65	52	109.4
80.00		0.2500	25.969	20.704	1,748.0	25.69	103.88	65	52	357.6
85.00		0.2500	25.185	20.073	1,593.1	24.85	100.74	65	52	346.9
90.00		0.2500	24.402	19.442	1.447.6	24.01	97.61	65	52	336.2
95.00		0.2500	23.618	18.812	1.311.2	23.17	94.47	65	52	325.4
100.0		0.2500	22.835	18.181	1.183.7	22.33	91.34	65	52	314.7
105.0		0.2500	22.051	17.550	1,064.7	21.49	88.21	65	52	304.0
110.0	Top - Section 3	0.2500	21.268	16.919	954.0	20.65	85.07	65	52	293.3
110.0	Bot - Section 4	0.1875	21.268	12.727	721.9	28.25	113.43	65	52	
115.0		0.1875	20.484	12.254	644.4	27.13	109.25	65	52	212.5
120.0		0.1875	19.701	11.781	572.6	26.01	105.07	65	52	204.5
125.0		0.1875	18.917	11.308	506.4	24.89	100.89	65	52	196.4
130.0		0.1875	18.134	10.835	445.4	23.77	96.71	65	52	188.4
135.0		0.1875	17.350	10.362	389.6	22.65	92.54	65	52	180.3
140.0		0.1875	16.567	9.889	338.6	21.53	88.36	65	52	172.3
145.0		0.1875	15.783	9.416	292.3	20.41	84.18	65	52	164.2
150.0		0.1875	15.000	8.943	250.5	19.29	80.00	65	52	156.2
										13,372.1

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

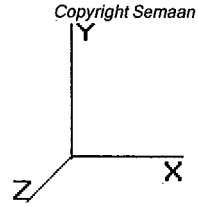


Load Case: No Ice — 80.00 mph Wind with No Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00 16.384	27.68	249.20	1.030	0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00 16.384	27.68	243.97	1.030	0.00	5.00	15.412	15.87	439.5	0.0	752.2
10.00		0.00	1.00 16.384	27.68	238.75	1.030	0.00	5.00	15.085	15.54	430.2	0.0	736.1
15.00		0.00	1.00 16.384	27.68	233.53	1.030	0.00	5.00	14.759	15.20	420.9	0.0	720.0
20.00		0.00	1.00 16.384	27.68	228.30	1.030	0.00	5.00	14.432	14.87	411.6	0.0	703.9
25.00		0.00	1.00 16.384	27.68	223.08	1.030	0.00	5.00	14.106	14.53	402.3	0.0	687.8
30.00		0.00	1.00 16.384	27.68	217.86	1.030	0.00	5.00	13.779	14.19	393.0	0.0	671.7
31.50	Bot - Section 2	0.00	1.00 16.384	27.68	216.29	1.030	0.00	1.50	4.071	4.19	116.1	0.0	198.4
35.00		0.00	1.01 16.662	28.15	214.43	1.030	0.00	3.50	9.564	9.85	277.4	0.0	846.4
35.67	Top - Section 1	0.00	1.02 16.752	28.31	214.30	1.030	0.00	0.67	1.805	1.86	52.6	0.0	159.7
40.00	Appertunance(s)	0.00	1.05 17.310	29.25	217.47	1.030	0.00	4.33	11.582	11.93	349.0	0.0	471.3
45.00		0.00	1.09 17.902	30.25	215.70	1.030	0.00	5.00	13.061	13.45	407.0	0.0	531.3
50.00		0.00	1.12 18.449	31.17	213.43	1.030	0.00	5.00	12.734	13.12	408.9	0.0	517.9
55.00		0.00	1.15 18.959	32.04	210.74	1.030	0.00	5.00	12.408	12.78	409.5	0.0	504.5
60.00		0.00	1.18 19.436	32.84	207.68	1.030	0.00	5.00	12.081	12.44	408.7	0.0	491.0
65.00		0.00	1.21 19.885	33.60	204.32	1.030	0.00	5.00	11.755	12.11	406.9	0.0	477.6
70.00	Bot - Section 3	0.00	1.24 20.311	34.32	200.68	1.030	0.00	5.00	11.429	11.77	404.1	0.0	464.2
73.50	Top - Section 2	0.00	1.25 20.596	34.80	197.98	1.030	0.00	3.50	7.951	8.19	285.1	0.0	575.9
75.00		0.00	1.26 20.715	35.00	200.54	1.030	0.00	1.50	3.358	3.46	121.1	0.0	109.4
80.00		0.00	1.28 21.101	35.66	196.47	1.030	0.00	5.00	10.984	11.31	403.4	0.0	357.6
85.00		0.00	1.31 21.469	36.28	192.20	1.030	0.00	5.00	10.657	10.98	398.3	0.0	346.9
90.00		0.00	1.33 21.823	36.88	187.75	1.030	0.00	5.00	10.331	10.64	392.4	0.0	336.2
95.00		0.00	1.35 22.163	37.45	183.13	1.030	0.00	5.00	10.004	10.30	386.0	0.0	325.4
100.0		0.00	1.37 22.490	38.00	178.35	1.030	0.00	5.00	9.678	9.97	378.9	0.0	314.7
105.0		0.00	1.39 22.806	38.54	173.44	1.030	0.00	5.00	9.351	9.63	371.2	0.0	304.0
110.0	Top - Section 3	0.00	1.41 23.111	39.05	168.39	1.030	0.00	5.00	9.025	9.30	363.1	0.0	293.3
115.0		0.00	1.42 23.406	39.55	163.22	1.030	0.00	5.00	8.698	8.96	354.4	0.0	212.5
120.0		0.00	1.44 23.692	40.04	157.94	1.030	0.00	5.00	8.372	8.62	345.3	0.0	204.5
125.0		0.00	1.46 23.970	40.51	152.54	1.030	0.00	5.00	8.046	8.29	335.7	0.0	196.4
130.0	Appertunance(s)	0.00	1.48 24.241	40.96	147.04	1.030	0.00	5.00	7.719	7.95	325.7	0.0	188.4
135.0		0.00	1.49 24.503	41.41	141.45	1.030	0.00	5.00	7.393	7.61	315.3	0.0	180.3
140.0	Appertunance(s)	0.00	1.51 24.759	41.84	135.77	1.030	0.00	5.00	7.066	7.28	304.5	0.0	172.3
145.0		0.00	1.52 25.009	42.26	130.00	1.030	0.00	5.00	6.740	6.94	293.4	0.0	164.2
150.0	Appertunance(s)	0.00	1.54 25.252	42.67	124.14	1.030	0.00	5.00	6.413	6.61	281.9	0.0	156.2
					Totals:			150.00			11,393.4	0.0	13,372.1



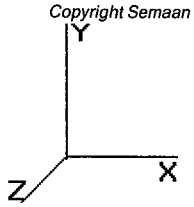
Load Case: No Ice — 80.00 mph Wind with No Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (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)
40.00	Channal Master 4' Di	1	17.310	29.253	1.00	20.91	0.000	0.000	611.69	0.00	0.00	188.00
130.0	Antel LPA-185080/12C	6	24.241	40.967	1.00	25.80	0.000	0.000	1,056.94	0.00	0.00	243.00
130.0	Antel LPA-80080/6CF	6	24.241	40.967	1.00	44.04	0.000	0.000	1,804.17	0.00	0.00	144.00
130.0	Low Profile Platform	1	24.241	40.967	1.00	18.00	0.000	0.000	737.40	0.00	0.00	1,500.00
140.0	EMS RR90-17-02D	6	24.759	41.843	0.67	17.51	0.000	0.000	732.72	0.00	0.00	93.00
140.0	Low Profile Platform	1	24.759	41.843	1.00	16.00	0.000	0.000	669.49	0.00	0.00	1,200.00
150.0	Decibel DB809-Y	1	25.709	43.448	1.00	5.83	0.000	9.710	253.30	0.00	2,459.56	24.00
150.0	Swedcom ALP 110 11	9	25.252	42.676	0.86	44.58	0.000	0.000	1,902.61	0.00	0.00	225.00
150.0	Platform w/ Handrail	1	25.395	42.918	1.00	35.00	0.000	3.000	1,502.14	0.00	4,506.43	1,800.00
									9,270.45			5,417.00

Pole :	302489	Code: TIA/EIA-222 Rev F	
Location :	Enfd - Enfield		
Height :	150.0 (ft)		
Shape :	12 Sides		
Base Dia :	37.38 (in)		
Top Dia :	15.00 (in)		
Taper :	0.156700 (in/ft)	Base Elev : 0.000 (ft)	



Load Case: No Ice — 80.00 mph Wind with No Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

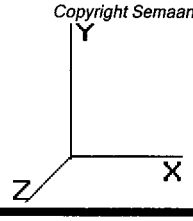
Applied Segment Forces Summary

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	439.54	752.19	0.00	0.00
10.00	430.23	736.10	0.00	0.00
15.00	420.92	720.00	0.00	0.00
20.00	411.61	703.90	0.00	0.00
25.00	402.30	687.81	0.00	0.00
30.00	392.99	671.71	0.00	0.00
31.50	116.11	198.42	0.00	0.00
35.00	277.39	846.43	0.00	0.00
35.67	52.62	159.68	0.00	0.00
40.00	960.67	659.26	0.00	0.00
45.00	407.00	531.29	0.00	0.00
50.00	408.95	517.87	0.00	0.00
55.00	409.47	504.46	0.00	0.00
60.00	408.73	491.05	0.00	0.00
65.00	406.88	477.63	0.00	0.00
70.00	404.07	464.25	0.00	0.00
73.50	285.07	575.94	0.00	0.00
75.00	121.09	109.35	0.00	0.00
80.00	403.43	357.62	0.00	0.00
85.00	398.28	346.89	0.00	0.00
90.00	392.44	336.16	0.00	0.00
95.00	385.95	325.42	0.00	0.00
100.0	378.87	314.69	0.00	0.00
105.0	371.23	303.96	0.00	0.00
110.0	363.09	293.25	0.00	0.00
115.0	354.38	212.50	0.00	0.00
120.0	345.27	204.47	0.00	0.00
125.0	335.70	196.42	0.00	0.00
130.0	3,924.21	2,075.37	0.00	0.00
135.0	315.32	180.32	0.00	0.00
140.0	1,706.75	1,465.28	0.00	0.00
145.0	293.40	164.23	0.00	0.00
150.0	3,939.96	2,205.18	0.00	6,965.98
Totals:	20,663.88	18,789.11	0.00	6,965.98

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice

80.00 mph Wind with No Ice

29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

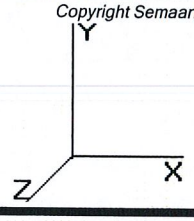
Calculated Shaft Forces and Deflections

Seg 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	-20.728	-18.717	0.000	0.000	0.000	-2,196.625	0.000	0.000	0.000	0.000
5.00	-20.409	-17.827	0.000	0.000	0.000	-2,092.987	-0.208	0.000	0.208	-0.391
10.00	-20.090	-16.955	0.000	0.000	0.000	-1,990.944	-0.828	0.000	0.828	-0.787
15.00	-19.771	-16.103	0.000	0.000	0.000	-1,890.496	-1.867	0.000	1.867	-1.190
20.00	-19.452	-15.270	0.000	0.000	0.000	-1,791.643	-3.331	0.000	3.331	-1.598
25.00	-19.134	-14.457	0.000	0.000	0.000	-1,694.382	-5.225	0.000	5.225	-2.012
30.00	-18.781	-13.712	0.000	0.000	0.000	-1,598.712	-7.555	0.000	7.555	-2.432
31.50	-18.707	-13.448	0.000	0.000	0.000	-1,570.534	-8.340	0.000	8.340	-2.562
35.00	-18.430	-12.558	0.000	0.000	0.000	-1,505.065	-10.329	0.000	10.329	-2.863
35.67	-18.416	-12.331	0.000	0.000	0.000	-1,492.773	-10.733	0.000	10.733	-2.922
40.00	-17.509	-11.593	0.000	0.000	0.000	-1,412.977	-13.557	0.000	13.557	-3.297
45.00	-17.165	-10.941	0.000	0.000	0.000	-1,325.432	-17.267	0.000	17.267	-3.785
50.00	-16.810	-10.308	0.000	0.000	0.000	-1,239.611	-21.492	0.000	21.492	-4.279
55.00	-16.447	-9.694	0.000	0.000	0.000	-1,155.562	-26.234	0.000	26.234	-4.777
60.00	-16.078	-9.100	0.000	0.000	0.000	-1,073.326	-31.499	0.000	31.499	-5.280
65.00	-15.703	-8.525	0.000	0.000	0.000	-992.939	-37.289	0.000	37.289	-5.785
70.00	-15.313	-7.991	0.000	0.000	0.000	-914.421	-43.607	0.000	43.607	-6.293
73.50	-14.998	-7.383	0.000	0.000	0.000	-860.827	-48.345	0.000	48.345	-6.653
75.00	-14.913	-7.190	0.000	0.000	0.000	-838.335	-50.455	0.000	50.455	-6.811
80.00	-14.539	-6.735	0.000	0.000	0.000	-763.771	-57.888	0.000	57.888	-7.406
85.00	-14.163	-6.299	0.000	0.000	0.000	-691.077	-65.937	0.000	65.937	-7.998
90.00	-13.787	-5.883	0.000	0.000	0.000	-620.261	-74.597	0.000	74.597	-8.584
95.00	-13.411	-5.489	0.000	0.000	0.000	-551.328	-83.859	0.000	83.859	-9.159
100.0	-13.035	-5.115	0.000	0.000	0.000	-484.276	-93.709	0.000	93.709	-9.721
105.0	-12.661	-4.763	0.000	0.000	0.000	-419.101	-104.130	0.000	104.130	-10.264
110.0	-12.290	-4.433	0.000	0.000	0.000	-355.790	-115.099	0.000	115.099	-10.782
115.0	-11.942	-4.181	0.000	0.000	0.000	-294.344	-126.582	0.000	126.582	-11.266
120.0	-11.601	-3.939	0.000	0.000	0.000	-234.637	-138.619	0.000	138.619	-11.850
125.0	-11.262	-3.726	0.000	0.000	0.000	-176.635	-151.218	0.000	151.218	-12.361
130.0	-6.996	-2.511	0.000	0.000	0.000	-120.326	-164.293	0.000	164.293	-12.778
135.0	-6.660	-2.372	0.000	0.000	0.000	-85.347	-177.743	0.000	177.743	-13.107
140.0	-4.668	-1.320	0.000	0.000	0.000	-52.045	-191.489	0.000	191.489	-13.357
145.0	-4.348	-1.218	0.000	0.000	0.000	-28.704	-205.448	0.000	205.448	-13.527
150.0	-3.940	0.000	0.000	0.000	0.000	-6.966	-219.537	0.000	219.537	-13.614

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice — 80.00 mph Wind with No Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

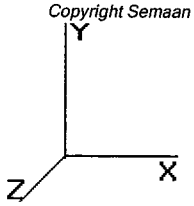
Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.42	0.94	0.00	0.00	0.00	65.31	65.74	52.0	0.0	1.264
5.00	0.41	0.95	0.00	0.00	0.00	64.96	65.39	52.0	0.0	1.258
10.00	0.40	0.95	0.00	0.00	0.00	64.57	64.99	52.0	0.0	1.250
15.00	0.38	0.96	0.00	0.00	0.00	64.13	64.54	52.0	0.0	1.241
20.00	0.37	0.97	0.00	0.00	0.00	63.64	64.03	52.0	0.0	1.232
25.00	0.36	0.97	0.00	0.00	0.00	63.08	63.47	52.0	0.0	1.221
30.00	0.35	0.98	0.00	0.00	0.00	62.46	62.83	52.0	0.0	1.208
31.50	0.35	0.98	0.00	0.00	0.00	62.27	62.64	52.0	0.0	1.205
35.00	0.33	0.98	0.00	0.00	0.00	61.78	62.13	52.0	0.0	1.195
35.67	0.38	1.16	0.00	0.00	0.00	70.73	71.14	52.0	0.0	1.368
40.00	0.37	1.13	0.00	0.00	0.00	69.89	70.28	52.0	0.0	1.352
45.00	0.35	1.13	0.00	0.00	0.00	68.97	69.35	52.0	0.0	1.334
50.00	0.34	1.14	0.00	0.00	0.00	67.95	68.33	52.0	0.0	1.314
55.00	0.33	1.14	0.00	0.00	0.00	66.83	67.19	52.0	0.0	1.292
60.00	0.32	1.15	0.00	0.00	0.00	65.57	65.92	52.0	0.0	1.268
65.00	0.31	1.15	0.00	0.00	0.00	64.19	64.53	52.0	0.0	1.241
70.00	0.30	1.16	0.00	0.00	0.00	62.65	62.98	52.0	0.0	1.211
73.50	0.34	1.42	0.00	0.00	0.00	73.48	73.86	52.0	0.0	1.421
75.00	0.34	1.42	0.00	0.00	0.00	72.84	73.21	52.0	0.0	1.408
80.00	0.33	1.43	0.00	0.00	0.00	70.48	70.85	52.0	0.0	1.363
85.00	0.31	1.43	0.00	0.00	0.00	67.87	68.22	52.0	0.0	1.312
90.00	0.30	1.44	0.00	0.00	0.00	64.95	65.30	52.0	0.0	1.256
95.00	0.29	1.45	0.00	0.00	0.00	61.69	62.03	52.0	0.0	1.193
100.00	0.28	1.46	0.00	0.00	0.00	58.03	58.37	52.0	0.0	1.123
105.00	0.27	1.47	0.00	0.00	0.00	53.92	54.25	52.0	0.0	1.043
110.00	0.26	1.48	0.00	0.00	0.00	49.27	49.60	52.0	0.0	0.954
110.00	0.35	1.96	0.00	0.00	0.00	65.11	65.55	52.0	0.0	1.261
115.00	0.34	1.98	0.00	0.00	0.00	58.12	58.56	52.0	0.0	1.126
120.00	0.33	2.00	0.00	0.00	0.00	50.15	50.60	52.0	0.0	0.973
125.00	0.33	2.02	0.00	0.00	0.00	40.99	41.47	52.0	0.0	0.798
130.00	0.23	1.31	0.00	0.00	0.00	30.43	30.74	52.0	0.0	0.591
135.00	0.23	1.31	0.00	0.00	0.00	23.61	23.95	52.0	0.0	0.461
140.00	0.13	0.96	0.00	0.00	0.00	15.82	16.04	52.0	0.0	0.308
145.00	0.13	0.94	0.00	0.00	0.00	9.63	9.89	52.0	0.0	0.190
150.00	0.00	0.90	0.00	0.00	0.00	2.59	3.02	52.0	0.0	0.058

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

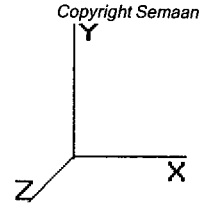


Load Case: Ice — 69.28 mph Wind with Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	12.287	20.76	215.80	1.030	0.50	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	12.287	20.76	211.28	1.030	0.50	5.00	15.828	16.30	338.5	116.1	868.3
10.00		0.00	1.00	12.287	20.76	206.76	1.030	0.50	5.00	15.502	15.97	331.6	113.7	849.8
15.00		0.00	1.00	12.287	20.76	202.23	1.030	0.50	5.00	15.176	15.63	324.6	111.2	831.2
20.00		0.00	1.00	12.287	20.76	197.71	1.030	0.50	5.00	14.849	15.29	317.6	108.8	812.7
25.00		0.00	1.00	12.287	20.76	193.19	1.030	0.50	5.00	14.523	14.96	310.6	106.3	794.1
30.00		0.00	1.00	12.287	20.76	188.66	1.030	0.50	5.00	14.196	14.62	303.6	103.9	775.6
31.50	Bot - Section 2	0.00	1.00	12.287	20.76	187.30	1.030	0.50	1.50	4.196	4.32	89.7	30.9	229.4
35.00		0.00	1.01	12.496	21.11	185.69	1.030	0.50	3.50	9.856	10.15	214.4	72.4	918.8
35.67	Top - Section 1	0.00	1.02	12.563	21.23	185.58	1.030	0.50	0.67	1.860	1.92	40.7	13.7	173.4
40.00	Appertunance(s)	0.00	1.05	12.982	21.93	188.33	1.030	0.50	4.33	11.943	12.30	269.9	87.5	558.7
45.00		0.00	1.09	13.426	22.69	186.80	1.030	0.50	5.00	13.477	13.88	315.0	98.5	629.8
50.00		0.00	1.12	13.836	23.38	184.83	1.030	0.50	5.00	13.151	13.55	316.7	96.0	613.9
55.00		0.00	1.15	14.218	24.02	182.50	1.030	0.50	5.00	12.824	13.21	317.4	93.6	598.0
60.00		0.00	1.18	14.576	24.63	179.85	1.030	0.50	5.00	12.498	12.87	317.1	91.1	582.2
65.00		0.00	1.21	14.913	25.20	176.94	1.030	0.50	5.00	12.171	12.54	316.0	88.7	566.3
70.00	Bot - Section 3	0.00	1.24	15.232	25.74	173.78	1.030	0.50	5.00	11.846	12.20	314.1	86.2	550.5
73.50	Top - Section 2	0.00	1.25	15.446	26.10	171.45	1.030	0.50	3.50	8.243	8.49	221.6	60.2	636.2
75.00		0.00	1.26	15.536	26.25	173.67	1.030	0.50	1.50	3.483	3.59	94.2	25.6	134.9
80.00		0.00	1.28	15.825	26.74	170.14	1.030	0.50	5.00	11.400	11.74	314.0	82.9	440.5
85.00		0.00	1.31	16.101	27.21	166.44	1.030	0.50	5.00	11.074	11.41	310.4	80.4	427.3
90.00		0.00	1.33	16.366	27.65	162.59	1.030	0.50	5.00	10.747	11.07	306.2	78.0	414.1
95.00		0.00	1.35	16.621	28.09	158.59	1.030	0.50	5.00	10.421	10.73	301.5	75.5	400.9
100.0		0.00	1.37	16.866	28.50	154.45	1.030	0.50	5.00	10.094	10.40	296.4	73.1	387.7
105.0		0.00	1.39	17.103	28.90	150.20	1.030	0.50	5.00	9.768	10.06	290.8	70.6	374.6
110.0	Top - Section 3	0.00	1.41	17.332	29.29	145.83	1.030	0.50	5.00	9.442	9.73	284.9	68.2	361.4
115.0		0.00	1.42	17.554	29.66	141.35	1.030	0.50	5.00	9.114	9.39	278.5	65.7	278.2
120.0		0.00	1.44	17.768	30.02	136.77	1.030	0.50	5.00	8.789	9.05	271.8	63.2	267.7
125.0		0.00	1.46	17.977	30.38	132.10	1.030	0.50	5.00	8.462	8.72	264.8	60.8	257.2
130.0	Appertunance(s)	0.00	1.48	18.179	30.72	127.34	1.030	0.50	5.00	8.136	8.38	257.5	58.3	246.7
135.0		0.00	1.49	18.376	31.05	122.50	1.030	0.50	5.00	7.809	8.04	249.8	55.9	236.2
140.0	Appertunance(s)	0.00	1.51	18.568	31.38	117.57	1.030	0.50	5.00	7.483	7.71	241.9	53.4	225.7
145.0		0.00	1.52	18.755	31.69	112.58	1.030	0.50	5.00	7.156	7.37	233.6	51.0	215.2
150.0	Appertunance(s)	0.00	1.54	18.938	32.00	107.51	1.030	0.50	5.00	6.830	7.03	225.2	48.5	204.7
							Totals:		150.00			8,880.4	2,489.7	15,861.9



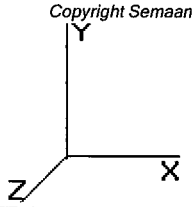
Load Case: Ice — 69.28 mph Wind with Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (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)
40.00	Channal Master 4' Di	1	12.982	21.939	1.00	21.79	0.000	0.000	478.04	0.00	0.00	277.00
130.0	Antel LPA-185080/12C	6	18.179	30.723	1.00	30.60	0.000	0.000	940.13	0.00	0.00	401.92
130.0	Antel LPA-80080/6CF	6	18.179	30.723	1.00	50.58	0.000	0.000	1,553.97	0.00	0.00	523.93
130.0	Low Profile Platform	1	18.179	30.723	1.00	22.00	0.000	0.000	675.91	0.00	0.00	1,950.00
140.0	EMS RR90-17-02D	6	18.568	31.381	0.67	20.05	0.000	0.000	629.24	0.00	0.00	227.51
140.0	Low Profile Platform	1	18.568	31.381	1.00	18.00	0.000	0.000	564.85	0.00	0.00	1,800.00
150.0	Decibel DB809-Y	1	19.280	32.584	1.00	7.80	0.000	9.710	254.16	0.00	2,467.85	66.00
150.0	Swedcom ALP 110 11	9	18.938	32.005	0.86	49.46	0.000	0.000	1,582.94	0.00	0.00	567.00
150.0	Platform w/ Handrail	1	19.045	32.187	1.00	45.00	0.000	3.000	1,448.41	0.00	4,345.23	2,500.00
									8,127.64			8,313.36

Pole :	302489	Code: TIA/EIA-222 Rev F	
Location :	Enfd - Enfield		
Height :	150.0 (ft)		
Shape :	12 Sides		
Base Dia :	37.38 (in)		
Top Dia :	15.00 (in)		
Taper :	0.156700 (in/ft)	Base Elev : 0.000 (ft)	

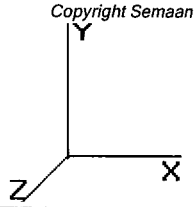


Load Case: Ice — 69.28 mph Wind with Ice — 29 Iterations

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	338.55	868.33	0.00	0.00
10.00	331.56	849.78	0.00	0.00
15.00	324.58	831.23	0.00	0.00
20.00	317.60	812.68	0.00	0.00
25.00	310.62	794.13	0.00	0.00
30.00	303.63	775.58	0.00	0.00
31.50	89.75	229.37	0.00	0.00
35.00	214.38	918.78	0.00	0.00
35.67	40.68	173.43	0.00	0.00
40.00	747.93	835.72	0.00	0.00
45.00	314.97	629.75	0.00	0.00
50.00	316.73	613.89	0.00	0.00
55.00	317.39	598.02	0.00	0.00
60.00	317.10	582.16	0.00	0.00
65.00	315.96	566.29	0.00	0.00
70.00	314.09	550.46	0.00	0.00
73.50	221.63	636.18	0.00	0.00
75.00	94.19	134.94	0.00	0.00
80.00	314.03	440.48	0.00	0.00
85.00	310.37	427.30	0.00	0.00
90.00	306.18	414.11	0.00	0.00
95.00	301.50	400.93	0.00	0.00
100.0	296.37	387.75	0.00	0.00
105.0	290.81	374.56	0.00	0.00
110.0	284.87	361.40	0.00	0.00
115.0	278.50	278.19	0.00	0.00
120.0	271.83	267.71	0.00	0.00
125.0	264.80	257.21	0.00	0.00
130.0	3,427.46	3,122.56	0.00	0.00
135.0	249.80	236.21	0.00	0.00
140.0	1,435.94	2,253.21	0.00	0.00
145.0	233.64	215.20	0.00	0.00
150.0	3,510.65	3,337.70	0.00	6,813.08
Totals:	17,008.08	24,175.21	0.00	6,813.08



Load Case: Ice — 69.28 mph Wind with Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

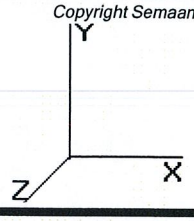
Calculated Shaft Forces and Deflections

Seg 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	-17.080	-24.124	0.000	0.000	0.000	-1,911.908	0.000	0.000	0.000	0.000
5.00	-16.878	-23.156	0.000	0.000	0.000	-1,826.509	-0.181	0.000	0.181	-0.340
10.00	-16.675	-22.207	0.000	0.000	0.000	-1,742.121	-0.722	0.000	0.722	-0.687
15.00	-16.470	-21.279	0.000	0.000	0.000	-1,658.749	-1.629	0.000	1.629	-1.040
20.00	-16.264	-20.371	0.000	0.000	0.000	-1,576.401	-2.909	0.000	2.909	-1.398
25.00	-16.057	-19.483	0.000	0.000	0.000	-1,495.082	-4.567	0.000	4.567	-1.763
30.00	-15.806	-18.652	0.000	0.000	0.000	-1,414.798	-6.611	0.000	6.611	-2.134
31.50	-15.769	-18.374	0.000	0.000	0.000	-1,391.084	-7.300	0.000	7.300	-2.249
35.00	-15.565	-17.422	0.000	0.000	0.000	-1,335.898	-9.048	0.000	9.048	-2.516
35.67	-15.575	-17.197	0.000	0.000	0.000	-1,325.517	-9.403	0.000	9.403	-2.569
40.00	-14.898	-16.299	0.000	0.000	0.000	-1,258.031	-11.887	0.000	11.887	-2.902
45.00	-14.669	-15.575	0.000	0.000	0.000	-1,183.542	-15.156	0.000	15.156	-3.337
50.00	-14.431	-14.871	0.000	0.000	0.000	-1,110.198	-18.884	0.000	18.884	-3.779
55.00	-14.184	-14.185	0.000	0.000	0.000	-1,038.047	-23.077	0.000	23.077	-4.226
60.00	-13.930	-13.520	0.000	0.000	0.000	-967.129	-27.739	0.000	27.739	-4.678
65.00	-13.670	-12.874	0.000	0.000	0.000	-897.480	-32.875	0.000	32.875	-5.134
70.00	-13.390	-12.264	0.000	0.000	0.000	-829.125	-38.489	0.000	38.489	-5.593
73.50	-13.153	-11.599	0.000	0.000	0.000	-782.261	-42.704	0.000	42.704	-5.921
75.00	-13.115	-11.396	0.000	0.000	0.000	-762.535	-44.583	0.000	44.583	-6.064
80.00	-12.858	-10.871	0.000	0.000	0.000	-696.963	-51.211	0.000	51.211	-6.606
85.00	-12.596	-10.366	0.000	0.000	0.000	-632.676	-58.402	0.000	58.402	-7.147
90.00	-12.332	-9.881	0.000	0.000	0.000	-569.695	-66.153	0.000	66.153	-7.684
95.00	-12.064	-9.415	0.000	0.000	0.000	-508.038	-74.458	0.000	74.458	-8.214
100.0	-11.795	-8.971	0.000	0.000	0.000	-447.716	-83.307	0.000	83.307	-8.732
105.0	-11.523	-8.548	0.000	0.000	0.000	-388.744	-92.685	0.000	92.685	-9.235
110.0	-11.249	-8.147	0.000	0.000	0.000	-331.128	-102.572	0.000	102.572	-9.716
115.0	-10.996	-7.825	0.000	0.000	0.000	-274.887	-112.939	0.000	112.939	-10.167
120.0	-10.748	-7.515	0.000	0.000	0.000	-219.909	-123.826	0.000	123.826	-10.714
125.0	-10.495	-7.232	0.000	0.000	0.000	-166.171	-135.242	0.000	135.242	-11.193
130.0	-6.547	-4.810	0.000	0.000	0.000	-113.699	-147.107	0.000	147.107	-11.586
135.0	-6.276	-4.599	0.000	0.000	0.000	-80.967	-159.328	0.000	159.328	-11.897
140.0	-4.412	-2.679	0.000	0.000	0.000	-49.586	-171.832	0.000	171.832	-12.136
145.0	-4.143	-2.510	0.000	0.000	0.000	-27.529	-184.538	0.000	184.538	-12.297
150.0	-3.511	0.000	0.000	0.000	0.000	-6.813	-197.370	0.000	197.370	-12.381

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 69.28 mph Wind with Ice — 29 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

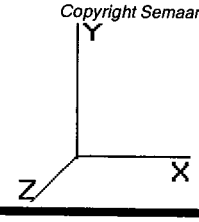
Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.54	0.78	0.00	0.00	0.00	56.84	57.40	52.0	0.0	1.104
5.00	0.53	0.78	0.00	0.00	0.00	56.69	57.23	52.0	0.0	1.101
10.00	0.52	0.79	0.00	0.00	0.00	56.50	57.04	52.0	0.0	1.097
15.00	0.51	0.80	0.00	0.00	0.00	56.27	56.79	52.0	0.0	1.092
20.00	0.50	0.81	0.00	0.00	0.00	55.99	56.51	52.0	0.0	1.087
25.00	0.49	0.82	0.00	0.00	0.00	55.66	56.17	52.0	0.0	1.080
30.00	0.48	0.82	0.00	0.00	0.00	55.27	55.77	52.0	0.0	1.073
31.50	0.47	0.83	0.00	0.00	0.00	55.15	55.65	52.0	0.0	1.070
35.00	0.46	0.83	0.00	0.00	0.00	54.84	55.31	52.0	0.0	1.064
35.67	0.53	0.98	0.00	0.00	0.00	62.81	63.36	52.0	0.0	1.219
40.00	0.52	0.96	0.00	0.00	0.00	62.23	62.76	52.0	0.0	1.207
45.00	0.51	0.97	0.00	0.00	0.00	61.59	62.12	52.0	0.0	1.195
50.00	0.49	0.98	0.00	0.00	0.00	60.86	61.38	52.0	0.0	1.180
55.00	0.48	0.99	0.00	0.00	0.00	60.03	60.54	52.0	0.0	1.164
60.00	0.47	0.99	0.00	0.00	0.00	59.09	59.59	52.0	0.0	1.146
65.00	0.47	1.00	0.00	0.00	0.00	58.02	58.51	52.0	0.0	1.125
70.00	0.46	1.01	0.00	0.00	0.00	56.81	57.29	52.0	0.0	1.102
73.50	0.54	1.24	0.00	0.00	0.00	66.77	67.34	52.0	0.0	1.295
75.00	0.53	1.25	0.00	0.00	0.00	66.25	66.82	52.0	0.0	1.285
80.00	0.53	1.26	0.00	0.00	0.00	64.32	64.88	52.0	0.0	1.248
85.00	0.52	1.28	0.00	0.00	0.00	62.13	62.69	52.0	0.0	1.206
90.00	0.51	1.29	0.00	0.00	0.00	59.65	60.20	52.0	0.0	1.158
95.00	0.50	1.30	0.00	0.00	0.00	56.84	57.39	52.0	0.0	1.104
100.00	0.49	1.32	0.00	0.00	0.00	53.65	54.19	52.0	0.0	1.042
105.00	0.49	1.33	0.00	0.00	0.00	50.01	50.55	52.0	0.0	0.972
110.00	0.48	1.35	0.00	0.00	0.00	45.85	46.39	52.0	0.0	0.892
110.00	0.64	1.80	0.00	0.00	0.00	60.60	61.32	52.0	0.0	1.179
115.00	0.64	1.82	0.00	0.00	0.00	54.28	55.01	52.0	0.0	1.058
120.00	0.64	1.85	0.00	0.00	0.00	47.00	47.75	52.0	0.0	0.918
125.00	0.64	1.89	0.00	0.00	0.00	38.56	39.34	52.0	0.0	0.757
130.00	0.44	1.23	0.00	0.00	0.00	28.75	29.27	52.0	0.0	0.563
135.00	0.44	1.23	0.00	0.00	0.00	22.40	22.94	52.0	0.0	0.441
140.00	0.27	0.91	0.00	0.00	0.00	15.07	15.42	52.0	0.0	0.297
145.00	0.27	0.89	0.00	0.00	0.00	9.23	9.62	52.0	0.0	0.185
150.00	0.00	0.80	0.00	0.00	0.00	2.53	2.89	52.0	0.0	0.056

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

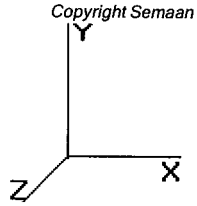


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 28 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	6.400	10.81	155.75	1.030	0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	6.400	10.81	152.48	1.030	0.00	5.00	15.412	15.87	171.7	0.0	752.2
10.00		0.00	1.00	6.400	10.81	149.22	1.030	0.00	5.00	15.085	15.54	168.1	0.0	736.1
15.00		0.00	1.00	6.400	10.81	145.95	1.030	0.00	5.00	14.759	15.20	164.4	0.0	720.0
20.00		0.00	1.00	6.400	10.81	142.69	1.030	0.00	5.00	14.432	14.87	160.8	0.0	703.9
25.00		0.00	1.00	6.400	10.81	139.42	1.030	0.00	5.00	14.106	14.53	157.1	0.0	687.8
30.00		0.00	1.00	6.400	10.81	136.16	1.030	0.00	5.00	13.779	14.19	153.5	0.0	671.7
31.50	Bot - Section 2	0.00	1.00	6.400	10.81	135.18	1.030	0.00	1.50	4.071	4.19	45.4	0.0	198.4
35.00		0.00	1.01	6.509	10.99	134.02	1.030	0.00	3.50	9.564	9.85	108.4	0.0	846.4
35.67	Top - Section 1	0.00	1.02	6.544	11.05	133.94	1.030	0.00	0.67	1.805	1.86	20.6	0.0	159.7
40.00	Appertunance(s)	0.00	1.05	6.762	11.42	135.92	1.030	0.00	4.33	11.582	11.93	136.3	0.0	471.3
45.00		0.00	1.09	6.993	11.81	134.81	1.030	0.00	5.00	13.061	13.45	159.0	0.0	531.3
50.00		0.00	1.12	7.207	12.17	133.39	1.030	0.00	5.00	12.734	13.12	159.7	0.0	517.9
55.00		0.00	1.15	7.406	12.51	131.71	1.030	0.00	5.00	12.408	12.78	159.9	0.0	504.5
60.00		0.00	1.18	7.592	12.83	129.80	1.030	0.00	5.00	12.081	12.44	159.7	0.0	491.0
65.00		0.00	1.21	7.768	13.12	127.70	1.030	0.00	5.00	11.755	12.11	158.9	0.0	477.6
70.00	Bot - Section 3	0.00	1.24	7.934	13.40	125.42	1.030	0.00	5.00	11.429	11.77	157.8	0.0	464.2
73.50	Top - Section 2	0.00	1.25	8.045	13.59	123.74	1.030	0.00	3.50	7.951	8.19	111.4	0.0	575.9
75.00		0.00	1.26	8.092	13.67	125.34	1.030	0.00	1.50	3.358	3.46	47.3	0.0	109.4
80.00		0.00	1.28	8.242	13.93	122.79	1.030	0.00	5.00	10.984	11.31	157.6	0.0	357.6
85.00		0.00	1.31	8.387	14.17	120.12	1.030	0.00	5.00	10.657	10.98	155.6	0.0	346.9
90.00		0.00	1.33	8.525	14.40	117.34	1.030	0.00	5.00	10.331	10.64	153.3	0.0	336.2
95.00		0.00	1.35	8.657	14.63	114.45	1.030	0.00	5.00	10.004	10.30	150.8	0.0	325.4
100.0		0.00	1.37	8.785	14.84	111.47	1.030	0.00	5.00	9.678	9.97	148.0	0.0	314.7
105.0		0.00	1.39	8.908	15.05	108.40	1.030	0.00	5.00	9.351	9.63	145.0	0.0	304.0
110.0	Top - Section 3	0.00	1.41	9.028	15.25	105.24	1.030	0.00	5.00	9.025	9.30	141.8	0.0	293.3
115.0		0.00	1.42	9.143	15.45	102.01	1.030	0.00	5.00	8.698	8.96	138.4	0.0	212.5
120.0		0.00	1.44	9.255	15.64	98.713	1.030	0.00	5.00	8.372	8.62	134.9	0.0	204.5
125.0		0.00	1.46	9.363	15.82	95.341	1.030	0.00	5.00	8.046	8.29	131.1	0.0	196.4
130.0	Appertunance(s)	0.00	1.48	9.469	16.00	91.906	1.030	0.00	5.00	7.719	7.95	127.2	0.0	188.4
135.0		0.00	1.49	9.572	16.17	88.410	1.030	0.00	5.00	7.393	7.61	123.2	0.0	180.3
140.0	Appertunance(s)	0.00	1.51	9.672	16.34	84.858	1.030	0.00	5.00	7.066	7.28	119.0	0.0	172.3
145.0		0.00	1.52	9.769	16.51	81.251	1.030	0.00	5.00	6.740	6.94	114.6	0.0	164.2
150.0	Appertunance(s)	0.00	1.54	9.864	16.67	77.592	1.030	0.00	5.00	6.413	6.61	110.1	0.0	156.2
							Totals:		150.00			4,450.6	0.0	13,372.1

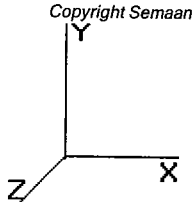


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 28 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (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)
40.00	Channal Master 4' Di	1	6.762	11.427	1.00	20.91	0.000	0.000	238.94	0.00	0.00	188.00
130.0	Antel LPA-185080/12C	6	9.469	16.003	1.00	25.80	0.000	0.000	412.87	0.00	0.00	243.00
130.0	Antel LPA-80080/6CF	6	9.469	16.003	1.00	44.04	0.000	0.000	704.75	0.00	0.00	144.00
130.0	Low Profile Platform	1	9.469	16.003	1.00	18.00	0.000	0.000	288.05	0.00	0.00	1,500.00
140.0	EMS RR90-17-02D	6	9.672	16.345	0.67	17.51	0.000	0.000	286.22	0.00	0.00	93.00
140.0	Low Profile Platform	1	9.672	16.345	1.00	16.00	0.000	0.000	261.52	0.00	0.00	1,200.00
150.0	Decibel DB809-Y	1	10.043	16.972	1.00	5.83	0.000	9.710	98.95	0.00	960.76	24.00
150.0	Swedcom ALP 110 11	9	9.864	16.670	0.86	44.58	0.000	0.000	743.21	0.00	0.00	225.00
150.0	Platform w/ Handrail	1	9.920	16.765	1.00	35.00	0.000	3.000	586.77	0.00	1,760.32	1,800.00
									3,621.27			5,417.00



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 28 Iterations

Gust Response Factor: 1.69
Dead Load Factor: 1.00
Wind Load Factor: 1.00

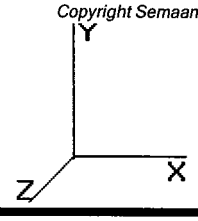
Applied Segment Forces Summary

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	171.69	752.19	0.00	0.00
10.00	168.06	736.10	0.00	0.00
15.00	164.42	720.00	0.00	0.00
20.00	160.78	703.90	0.00	0.00
25.00	157.15	687.81	0.00	0.00
30.00	153.51	671.71	0.00	0.00
31.50	45.35	198.42	0.00	0.00
35.00	108.36	846.43	0.00	0.00
35.67	20.56	159.68	0.00	0.00
40.00	375.26	659.26	0.00	0.00
45.00	158.98	531.29	0.00	0.00
50.00	159.75	517.87	0.00	0.00
55.00	159.95	504.46	0.00	0.00
60.00	159.66	491.05	0.00	0.00
65.00	158.94	477.63	0.00	0.00
70.00	157.84	464.25	0.00	0.00
73.50	111.35	575.94	0.00	0.00
75.00	47.30	109.35	0.00	0.00
80.00	157.59	357.62	0.00	0.00
85.00	155.58	346.89	0.00	0.00
90.00	153.30	336.16	0.00	0.00
95.00	150.76	325.42	0.00	0.00
100.0	148.00	314.69	0.00	0.00
105.0	145.01	303.96	0.00	0.00
110.0	141.83	293.25	0.00	0.00
115.0	138.43	212.50	0.00	0.00
120.0	134.87	204.47	0.00	0.00
125.0	131.13	196.42	0.00	0.00
130.0	1,532.90	2,075.37	0.00	0.00
135.0	123.17	180.32	0.00	0.00
140.0	666.70	1,465.28	0.00	0.00
145.0	114.61	164.23	0.00	0.00
150.0	1,539.04	2,205.18	0.00	2,721.09
Totals:	8,071.83	18,789.11	0.00	2,721.09

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 28 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

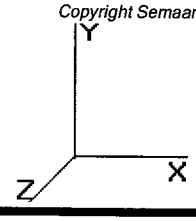
Calculated Shaft Forces and Deflections

Seg 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	-8.097	-18.778	0.000	0.000	0.000	-863.735	0.000	0.000	0.000	0.000
5.00	-7.973	-18.005	0.000	0.000	0.000	-823.253	-0.082	0.000	0.082	-0.154
10.00	-7.849	-17.248	0.000	0.000	0.000	-783.390	-0.326	0.000	0.326	-0.310
15.00	-7.726	-16.507	0.000	0.000	0.000	-744.146	-0.734	0.000	0.734	-0.468
20.00	-7.603	-15.784	0.000	0.000	0.000	-705.518	-1.310	0.000	1.310	-0.629
25.00	-7.480	-15.076	0.000	0.000	0.000	-667.505	-2.056	0.000	2.056	-0.792
30.00	-7.344	-14.393	0.000	0.000	0.000	-630.104	-2.973	0.000	2.973	-0.957
31.50	-7.316	-14.185	0.000	0.000	0.000	-619.086	-3.282	0.000	3.282	-1.008
35.00	-7.208	-13.332	0.000	0.000	0.000	-593.483	-4.066	0.000	4.066	-1.127
35.67	-7.204	-13.162	0.000	0.000	0.000	-588.675	-4.225	0.000	4.225	-1.150
40.00	-6.852	-12.490	0.000	0.000	0.000	-557.459	-5.337	0.000	5.337	-1.298
45.00	-6.721	-11.940	0.000	0.000	0.000	-523.197	-6.799	0.000	6.799	-1.491
50.00	-6.586	-11.405	0.000	0.000	0.000	-489.593	-8.465	0.000	8.465	-1.686
55.00	-6.448	-10.883	0.000	0.000	0.000	-456.664	-10.335	0.000	10.335	-1.883
60.00	-6.308	-10.376	0.000	0.000	0.000	-424.424	-12.413	0.000	12.413	-2.082
65.00	-6.165	-9.883	0.000	0.000	0.000	-392.887	-14.699	0.000	14.699	-2.281
70.00	-6.016	-9.408	0.000	0.000	0.000	-362.059	-17.195	0.000	17.195	-2.482
73.50	-5.895	-8.827	0.000	0.000	0.000	-341.003	-19.068	0.000	19.068	-2.625
75.00	-5.866	-8.705	0.000	0.000	0.000	-332.162	-19.902	0.000	19.902	-2.687
80.00	-5.725	-8.332	0.000	0.000	0.000	-302.833	-22.842	0.000	22.842	-2.924
85.00	-5.584	-7.971	0.000	0.000	0.000	-274.208	-26.028	0.000	26.028	-3.158
90.00	-5.443	-7.622	0.000	0.000	0.000	-246.288	-29.458	0.000	29.458	-3.391
95.00	-5.301	-7.286	0.000	0.000	0.000	-219.076	-33.130	0.000	33.130	-3.619
100.0	-5.160	-6.962	0.000	0.000	0.000	-192.572	-37.038	0.000	37.038	-3.843
105.0	-5.018	-6.650	0.000	0.000	0.000	-166.775	-41.176	0.000	41.176	-4.059
110.0	-4.878	-6.351	0.000	0.000	0.000	-141.681	-45.534	0.000	45.534	-4.265
115.0	-4.747	-6.132	0.000	0.000	0.000	-117.293	-50.101	0.000	50.101	-4.458
120.0	-4.619	-5.921	0.000	0.000	0.000	-93.559	-54.892	0.000	54.892	-4.691
125.0	-4.490	-5.722	0.000	0.000	0.000	-70.466	-59.911	0.000	59.911	-4.894
130.0	-2.793	-3.780	0.000	0.000	0.000	-48.016	-65.124	0.000	65.124	-5.061
135.0	-2.661	-3.606	0.000	0.000	0.000	-34.053	-70.490	0.000	70.490	-5.192
140.0	-1.866	-2.206	0.000	0.000	0.000	-20.748	-75.977	0.000	75.977	-5.292
145.0	-1.739	-2.051	0.000	0.000	0.000	-11.416	-81.550	0.000	81.550	-5.359
150.0	-1.539	0.000	0.000	0.000	0.000	-2.721	-87.176	0.000	87.176	-5.394

Pole : 302489
Location : Enfd - Enfield
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 37.38 (in)
Top Dia : 15.00 (in)
Taper : 0.156700 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

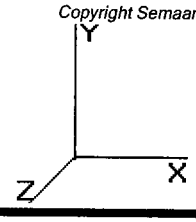


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 28 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.42	0.37	0.00	0.00	0.00	25.68	26.11	52.0	0.0	0.502
5.00	0.41	0.37	0.00	0.00	0.00	25.55	25.97	52.0	0.0	0.499
10.00	0.40	0.37	0.00	0.00	0.00	25.41	25.82	52.0	0.0	0.497
15.00	0.39	0.38	0.00	0.00	0.00	25.24	25.65	52.0	0.0	0.493
20.00	0.39	0.38	0.00	0.00	0.00	25.06	25.45	52.0	0.0	0.490
25.00	0.38	0.38	0.00	0.00	0.00	24.85	25.24	52.0	0.0	0.485
30.00	0.37	0.38	0.00	0.00	0.00	24.62	25.00	52.0	0.0	0.481
31.50	0.37	0.38	0.00	0.00	0.00	24.55	24.92	52.0	0.0	0.479
35.00	0.35	0.38	0.00	0.00	0.00	24.36	24.72	52.0	0.0	0.475
35.67	0.41	0.45	0.00	0.00	0.00	27.89	28.31	52.0	0.0	0.545
40.00	0.40	0.44	0.00	0.00	0.00	27.57	27.98	52.0	0.0	0.538
45.00	0.39	0.44	0.00	0.00	0.00	27.23	27.62	52.0	0.0	0.531
50.00	0.38	0.45	0.00	0.00	0.00	26.84	27.23	52.0	0.0	0.524
55.00	0.37	0.45	0.00	0.00	0.00	26.41	26.79	52.0	0.0	0.515
60.00	0.36	0.45	0.00	0.00	0.00	25.93	26.31	52.0	0.0	0.506
65.00	0.36	0.45	0.00	0.00	0.00	25.40	25.77	52.0	0.0	0.496
70.00	0.35	0.45	0.00	0.00	0.00	24.81	25.17	52.0	0.0	0.484
73.50	0.41	0.56	0.00	0.00	0.00	29.11	29.53	52.0	0.0	0.568
75.00	0.41	0.56	0.00	0.00	0.00	28.86	29.28	52.0	0.0	0.563
80.00	0.40	0.56	0.00	0.00	0.00	27.95	28.37	52.0	0.0	0.546
85.00	0.40	0.57	0.00	0.00	0.00	26.93	27.34	52.0	0.0	0.526
90.00	0.39	0.57	0.00	0.00	0.00	25.79	26.20	52.0	0.0	0.504
95.00	0.39	0.57	0.00	0.00	0.00	24.51	24.92	52.0	0.0	0.479
100.00	0.38	0.58	0.00	0.00	0.00	23.08	23.48	52.0	0.0	0.452
105.00	0.38	0.58	0.00	0.00	0.00	21.46	21.86	52.0	0.0	0.420
110.00	0.38	0.59	0.00	0.00	0.00	19.62	20.02	52.0	0.0	0.385
110.00	0.50	0.78	0.00	0.00	0.00	25.93	26.46	52.0	0.0	0.509
115.00	0.50	0.79	0.00	0.00	0.00	23.16	23.70	52.0	0.0	0.456
120.00	0.50	0.80	0.00	0.00	0.00	20.00	20.54	52.0	0.0	0.395
125.00	0.51	0.81	0.00	0.00	0.00	16.35	16.92	52.0	0.0	0.325
130.00	0.35	0.52	0.00	0.00	0.00	12.14	12.52	52.0	0.0	0.241
135.00	0.35	0.52	0.00	0.00	0.00	9.42	9.81	52.0	0.0	0.189
140.00	0.22	0.38	0.00	0.00	0.00	6.30	6.56	52.0	0.0	0.126
145.00	0.22	0.38	0.00	0.00	0.00	3.83	4.10	52.0	0.0	0.079
150.00	0.00	0.35	0.00	0.00	0.00	1.01	1.18	52.0	0.0	0.023



Analysis Summary

	Reactions						Max Stresses			
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	20.7	0.00	18.72	0.00	0.00	2196.63	73.86	52.0	73.50	1.421
Ice	17.1	0.00	24.12	0.00	0.00	1911.91	67.34	52.0	73.50	1.295
Twist/Sway	8.1	0.00	18.78	0.00	0.00	863.74	29.53	52.0	73.50	0.568

REINFORCEMENT PLAN

AMERICAN TOWER CORPORATION

8505 FREEPORT PARKWAY
SUITE 135
IRVING, TX 75063
PHONE: (972) 999-8900 / FAX: (972) 999-8940

302489 - ENFD - ENFIELD, CT

PROJECT DESCRIPTION:

"THE MODIFICATIONS PRESENTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER 40071624 DATED APRIL 25, 2007. SATISFACTORY COMPLETION OF THE WORK INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED."

AS-BUILT SIGN-OFF

DESCRIPTION	SIGNATURE	DATE
CONTRACTOR NAME		
CONTRACTOR REPRESENTATIVE (PRINT NAME)		
CONTRACTOR REPRESENTATIVE (SIGNATURE)		
REDEVELOPMENT P.M. (PRINT NAME)		
REDEVELOPMENT P.M. (SIGNATURE)		

PROJECT SUMMARY

CUSTOMER: VERIZON WIRELESS

SITE NUMBER: 302489

SITE NAME: ENFD - ENFIELD, CT

SITE ADDRESS: 820 ENFIELD STREET
ENFIELD, CT 06082

PROPERTY OWNER: AMERICAN TOWER CORPORATION

ATC JOB NUMBER: 40071636

DATE: 8/2/07

REVISION: 1

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the state of Connecticut.

DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE	REVISION
BOM	BILL OF MATERIALS (1 PAGE)	1
IGN	NOTES AND SPECIFICATIONS	0
A-1	MONOPOLE ELEVATION VIEW	1
A-2	SECTIONS AND DETAILS	0
A-3	FOUNDATION MODIFICATION DETAILS	1
A-4	REBAR LIST AND NOTES	1

FABRICATION DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE	REVISION
F-1	MPTB20-10E, MPB20-0E AND MPUB20-1 DETAILS	0
F-2	MPSB20-1 AND MPUB20-1 DETAILS	0

AMERICAN TOWER
CORPORATION
8505 FREEPORT PARKWAY
SUITE 135
IRVING, TX 75063
PHONE: (972) 999-8900 / FAX: (972) 999-8940

PROJECT SUMMARY

CUSTOMER	SITE NUMBER	SITE NAME	ATC JOB NUMBER	SITE ADDRESS	DATE	DRAWING NUMBER	REVISION
VERIZON WIRELESS	302489	ENFD - ENFIELD, CT	40071636	820 ENFIELD STREET ENFIELD, CT 06082	7/5/07	BOM	1

BILL OF MATERIALS

QUANTITY REQUIRED	QUANTITY SHIPPED	PART NUMBER	DESCRIPTION	LENGTH	DRAWING NUMBER	WEIGHT (lbs)	COMMENTS
			DYWIDAG REINFORCEMENT				
4		–	#20 ALL THREAD BAR	13'-0 1/8"	A-1	869	GALVANIZED
16		–	#20 ALL THREAD BAR	30'-0"	A-1	8016	GALVANIZED
16		–	#20/#20 COUPLER	–	A-2		GALVANIZED
32		–	#20 HEAVY HEX NUT	–	A-2		GALVANIZED
4		MPTB20-10E	L 6 X 3 1/2 TERMINATION BRACKET	3'-0 1/8"	F-1	141	GALVANIZED
188		MPB20-0E	L 6 X 3 1/2 BAR BRACKET	12"	F-1	2200	GALVANIZED
			HARDWARE				
416		MPUB20-1	5/8" X 2 1/2" X 5" U-BOLT ASSEMBLY	–	F-1, F-2		(2) HHN-FTW-LKW GALVANIZED
400		–	LINDAPTER M16 (5/8") HOLLO BOLTS	–	F-1		
			STEP-BOLTS BRACKET ASSEMBLY				
91 (SEE COMMENT)		MPSB20-1	STEP-BOLT BRACKET	–	F-3		GALVANIZED (VERIFY QUANTITY REQUIRED IN FIELD PRIOR TO SUBMITTING BID)
91 (SEE COMMENT)		–	STEP-BOLTS	–	–		GALVANIZED (VERIFY QUANTITY REQUIRED IN FIELD PRIOR TO SUBMITTING BID)
91 (SEE COMMENT)		MPUB20-1	5/8" X 2 1/2" X 5" U-BOLT ASSEMBLY	–	F-1, F-2		(2) HHN-FTW-LKW GALVANIZED (VERIFY QUANTITY REQUIRED IN FIELD PRIOR TO SUBMITTING BID)
			REBARS				
46		–	#6 REBAR, GRADE 60	17'-0"	A-3, A-4	1175.0	
40		–	#6 REBAR, GRADE 60	19'-6"	A-3, A-4	1172.0	
39		–	#3 REBAR, GRADE 40	4'-0"	A-3, A-4	59.0	

TOTAL WEIGHT: 13632.0

NOTES AND SPECIFICATIONS

GENERAL:

1. THE MODIFICATIONS OUTLINED IN THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE EIA/TIA REV. F CODE.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS PRIOR TO FABRICATION. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR THE PROPER FIT AND CLEARANCE IN THE FIELD. CONTACT NATIONAL STRUCTURAL ENGINEERING IF ANY DISCREPANCIES EXIST.
3. REFERENCE THE AMERICAN TOWER ENGINEERING ANALYSIS FOR THIS SITE DATED 04/25/2007 FOR THE PROPOSED AND EXISTING LOADS CONSIDERED. THIS DRAWING IS NOT VALID IF LOADS OTHER THAN THOSE CONSIDERED IN THE ANALYSIS ARE ADDED TO OR REMOVED FROM THE STRUCTURE UNLESS APPROVED IN WRITING BYATC..
4. THE PROPOSED LOADS SHALL NOT BE ADDED TO THE STRUCTURE UNTIL ALL MODIFICATIONS ARE MADE AND APPROVED BY THE WELDING INSPECTOR.
5. THIS DRAWING DOES NOT INDICATE THE METHOD OF CONSTRUCTION THE CONTRACTOR SHALL SUPERVISE AND DETECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, TECHNIQUES, SEQUENCES AND PROCEDURES.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ON-SITE SAFETY ASSOCIATED WITH THE WORK TO BE PERFORMED. ALL SAFETY REQUIREMENTS AS DICTATED BY OSHA AND THE LOCAL JURISDICTION'S SHALL BE FOLLOWED.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ITS OWN PERSONNEL AS WELL AS THE PUBLIC AFFECTED BY THE WORK IN THE VICINITY OF THE JOB SITE.
8. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE PROTECTION OF THE PROPERTY IN THE VICINITY OF THE JOB SITE. THE CONTRACTOR SHALL USE THE PRECAUTIONARY MEANS NECESSARY FOR ADEQUATE PROTECTION.

STEEL CONSTRUCTION:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION, NINTH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
2. ALL PLATE STEEL SHALL CONFORM TO A572-50 UNLESS NOTED OTHERWISE. ALL CHANNELS C8 AND LARGER SHALL CONFORM TO A572 GRADE 50. ALL CHANNELS C6 AND SMALLER SHALL CONFORM TO A572 GRADE 65.
3. SHOP DRAWINGS SHALL BE SUBMITTED TO ATC FOR APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS SHALL INCLUDE ALL FABRICATED STEEL ASSEMBLIES INCLUDING MONOPOLE/TOWER EXTENSIONS
4. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 AND AS FOLLOWS, UNLESS OTHERWISE NOTED.
   A. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION AND WELDING TO THE GREATEST EXTENT POSSIBLE
   B. ALL DINGS, SCRAPES, MARS AND WELDS IN THE GALVANIZED AREA SHALL BE COATED WITH A ZINC-RICH PAINT, APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
   C. IF THE STRUCTURE WAS ORIGINALLY PAINTED, AFTER ZINC-RICH PAINT IS DRY, OVERCOAT WITH AN APPROPRIATE PAINT WITH THE SAME COLOR AS THE EXISTING.
5. DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON DRAWINGS.
6. CONNECTIONS SHALL BE CONSTRUCTED AS FOLLOWS:
   A. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES.
   B. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
   C. THE WELDER(S) SHOULD BE QUALIFIED FOR THE METHODS AND POSITIONS TO BE USED AND SHOULD HAVE EXPERIENCE WELDING GALVANIZED MATERIALS.
   D. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC MANUAL OF STEEL CONSTRUCTION, NINTH EDITION.
   E. ALL EXISTING GALVANIZING IN WELD AREAS SHALL GROUND OFF PRIOR TO WELDING.
   F. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRATE OR MAGNETIC PARTICLE (100% IF REJECTABLE DEFECTS ARE FOUND) TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1 REPAIR ALL WELDS AS NECESSARY.
   G. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
7. ALL BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
8. ALL LINDAPTOR HOLLOBOLTS SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMENDATIONS.

ANCHOR INSTALLATION IN CONCRETE:

1. CONTRACTOR SHALL VERIFY THAT DRILLING CLEARANCE IS ADEQUATE PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IF A CLEARANCE PROBLEM EXISTS.
2. THE NEW ANCHOR BOLTS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION PROCEDURE.
3. USE COMPRESSED AIR TO BLOW ANY REMAINING DEBRIS OUT OF THE NEWLY DRILLED HOLES.
4. EPOXY THE NEW ANCHOR BOLTS IN PLACE PER THE MANUFACTURER'S INSTRUCTIONS.

CONTINUOUS STRUCTURE INSPECTION AND MAINTENANCE:

CONTINUOUS ANNUAL INSPECTION OF THE STRUCTURE AND THE ADDED REINFORCING SHALL BE IMPLEMENTED BY THE OWNER. ANY FUTURE CORROSION OR OTHER DETERIORATION OF THE STRUCTURE OR ITS REINFORCING WILL REDUCE ITS CAPACITY TO WITHSTAND THE REQUIRED LOADS. ANY DEFECTS SHALL BE REPAIRED TO ENSURE THE STRUCTURAL INTEGRITY FOR THE LIFE OF THE STRUCTURE.

AMERICAN TOWER
STRUCTURAL ENGINEERING
8505 FREEPORT PARKWAY
SUITE 135
IRVING, TX 75063
(972) 999-8900 Tel.
(972) 999-8940 Fax

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	CAB	5/31/07
1	REVISED FND. MODS	CAB	8/2/07
2			
3			
4			
5			

SITE NUMBER:
302489
SITE NAME:
ENFD – ENFIELD, CT
SITE ADDRESS:
820 ENFIELD STREET
ENFIELD, CT 06082

DRAWN BY:	CAB
CHECKED BY:	RK
DATE DRAWN:	5/29/07
ATC JOB NO:	40071636

SHEET TITLE:
NOTES AND SPECIFICATIONS

SHEET NUMBER:	REV.
IGN	

AMERICAN TOWER
STRUCTURAL ENGINEERING
8505 FREEPORT PARKWAY
SUITE 135
IRVING, TX 75063
(972) 999-8940 TEL
(972) 999-8941 FAX

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CAB	5/31/07
2	REVISED PER MOD'S	CAB	6/2/07
3			
4			
5			

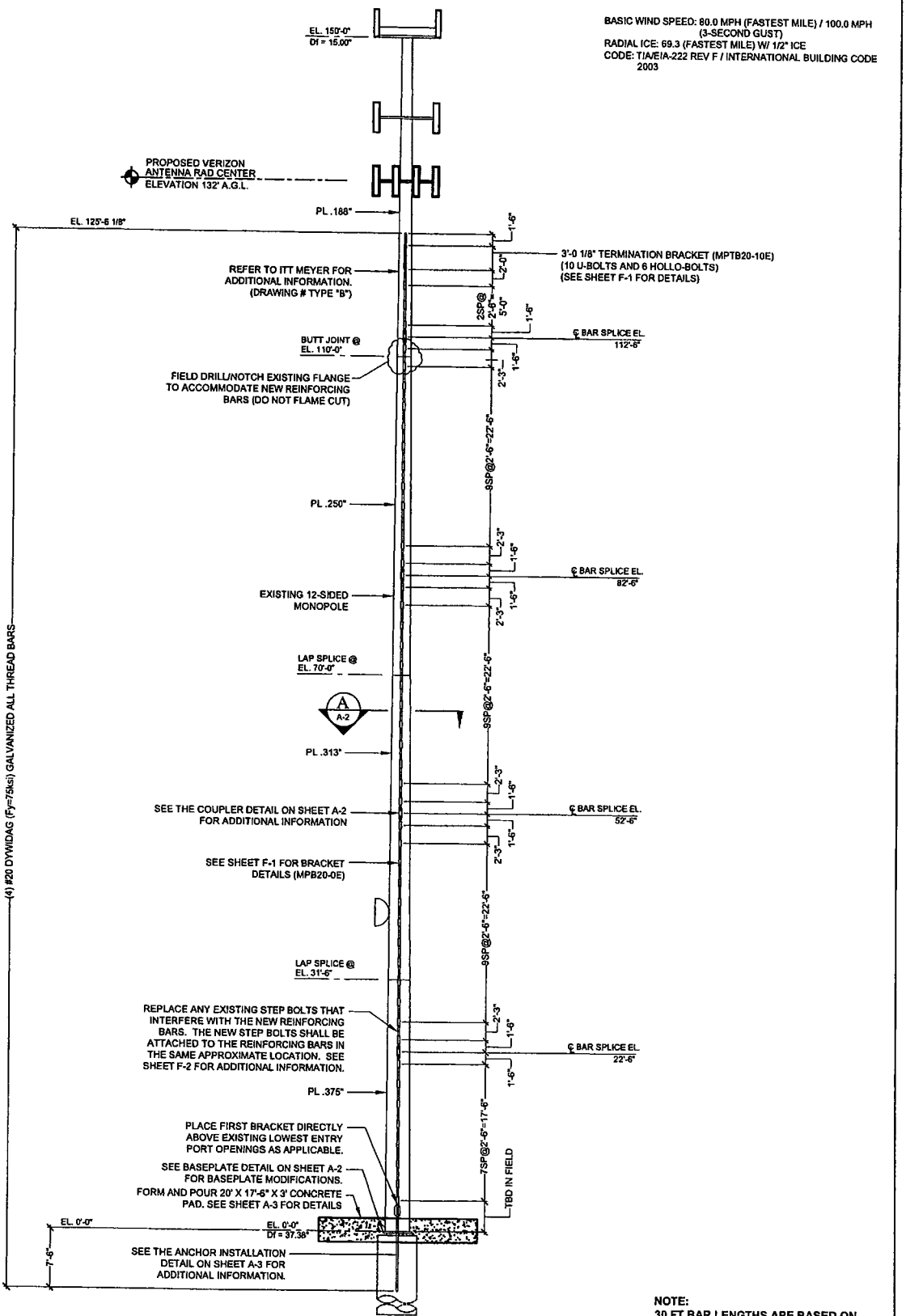
SITE NUMBER: 302489
SITE NAME: ENFD - ENFIELD, CT
SITE ADDRESS: 820 ENFIELD STREET ENFIELD, CT 06082

DRAWN BY:	CAB
CHECKED BY:	RK
DATE DRAWN:	5/29/07
ATC JOB NO.:	40071636

SHEET TITLE: MONOPOLE ELEVATION VIEW

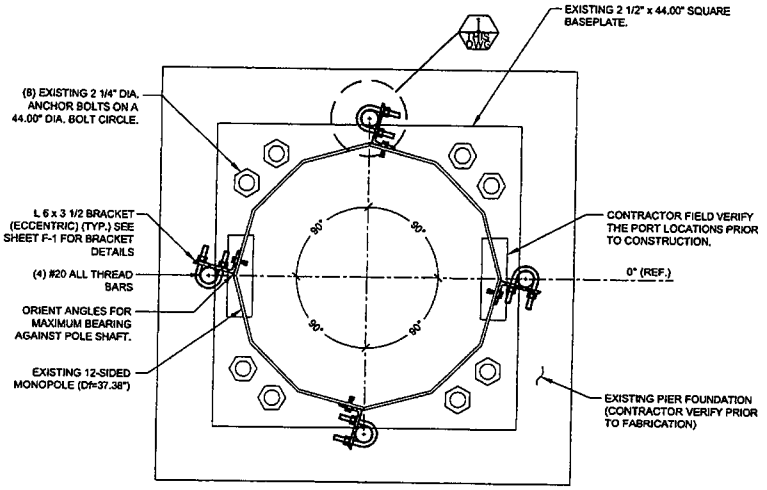
SHEET NUMBER: A-1 REV. # 1

BASIC WIND SPEED: 80.0 MPH (FASTEST MILE) / 100.0 MPH (3-SECOND GUST)
RADIAL ICE: 69.3 (FASTEST MILE) W/ 1/2" ICE
CODE: TIA/EIA-222 REV F / INTERNATIONAL BUILDING CODE 2003

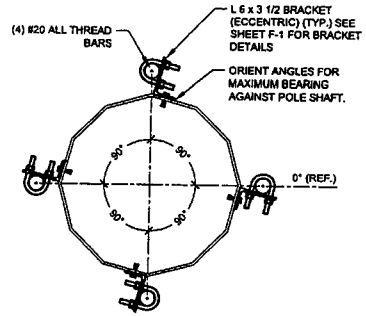


MONOPOLE ELEVATION
NOT TO SCALE

NOTE:
30 FT BAR LENGTHS ARE BASED ON 60 FT MILL LENGTHS CUT IN HALF.



BASEPLATE DETAIL
NOT TO SCALE



A / A-1 SECTION
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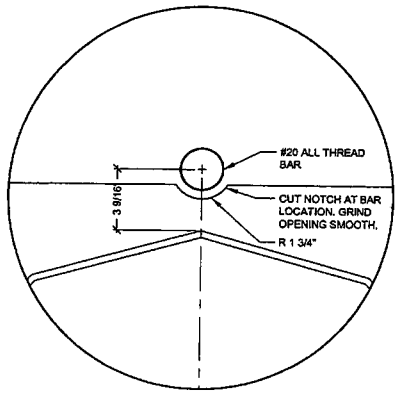

1 / THIS DWG DETAIL
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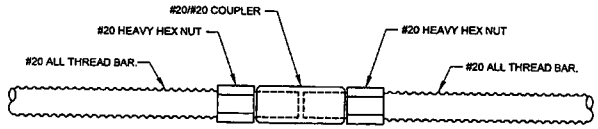


COUPLER DETAIL
NOT TO SCALE

AMERICAN TOWER
STRUCTURAL ENGINEERING
8505 FREEPORT PARKWAY
SUITE 135
IRVING, TX 75063
(972) 999-8900 Tel.
(972) 999-8940 Fax

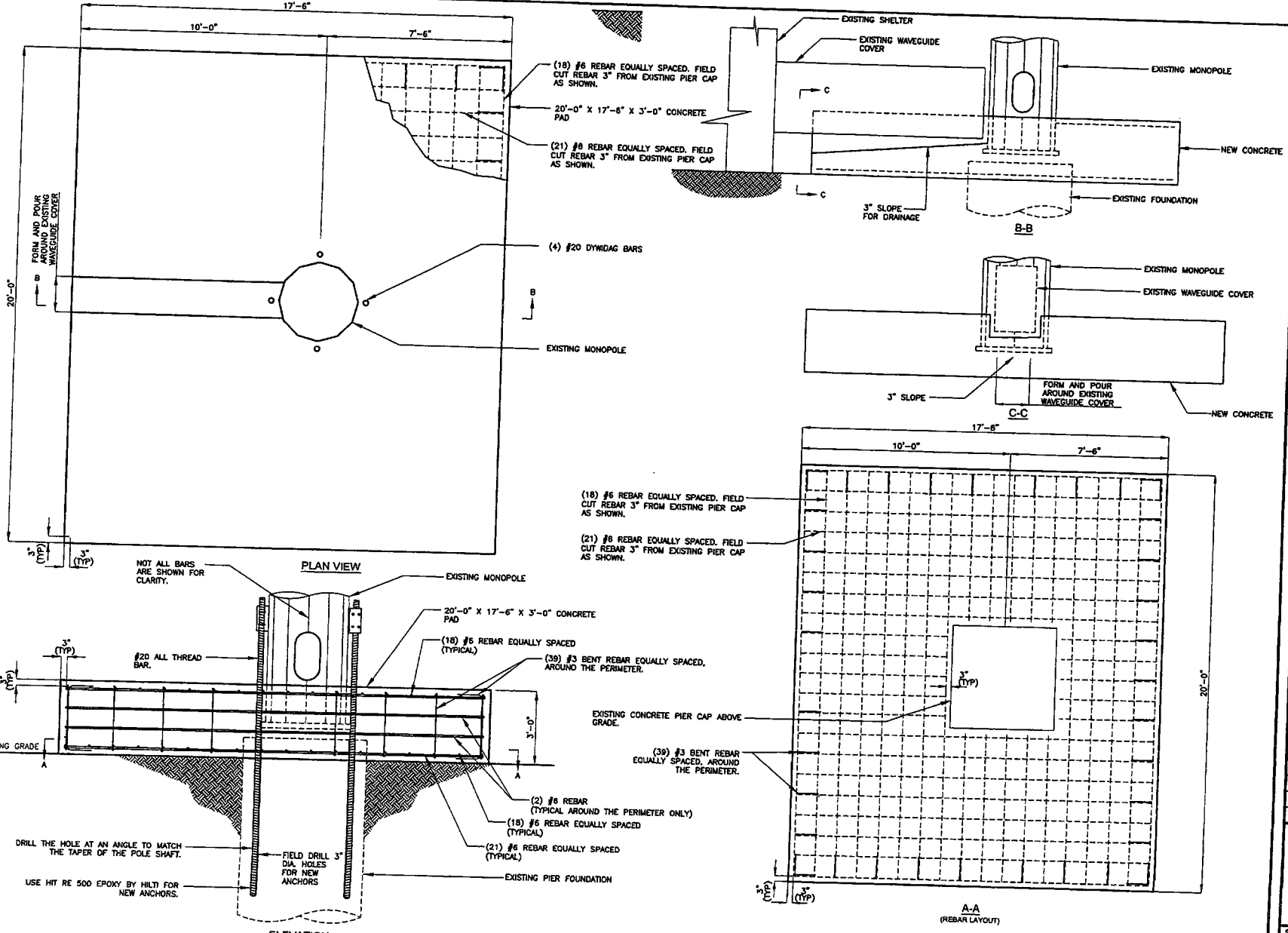
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	CAB	5/31/07
1	REVISED FND. MODS	CAB	8/2/07

SITE NUMBER:
302489
SITE NAME:
ENFD – ENFIELD, CT
SITE ADDRESS:
820 ENFIELD STREET
ENFIELD, CT 06082

DRAWN BY:	CAB
CHECKED BY:	RK
DATE DRAWN:	5/29/07
ATC JOB NO:	40071636

SHEET TITLE:
SECTIONS AND DETAILS

SHEET NUMBER: A–2
REV. 0



CONCRETE VOLUME: 37.77 CUBIC YARDS TOTAL

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ATC JOB NO:	40071636

SHEET TITLE:
FOUNDATION MODIFICATION DETAILS

SHEET NUMBER:	REV. #
A-3	1

QTY REQ'D.	BAR SIZE	TOTAL LENGTH OF BAR	TOTAL WEIGHT	TYPE	DIMENSION	BENDING DIAGRAM
46	#6	17'-0"	1175.0 #	STRAIGHT	A= 17'-0"	A
40	#6	19'-6"	1172.0 #		A= 19'-6"	
39	#3	4'-0"	59.0 #	BENT	A= 2'-6"	A, B
					B= 1'-0"	

STANDARD REBAR SIZES & WEIGHTS

BAR NO	LBS PER FT.	DIA. INCHES	GRADE
3	.3755	.375	40
4	.6676	.500	
5	1.043	.625	
6	1.502	.750	60
7	2.045	.875	
8	2.670	1.000	
9	3.400	1.128	
10	4.303	1.270	

SPECIAL NOTES

STANDARD REBAR HOOK LENGTHS

	90° HOOK	135° HOOKS
	5"	8"
	7"	10"
	9"	–
	10"	–
	1'-0"	–
	1'-2"	–
	1'-4"	–
	1'-5"	–

GENERAL FOUNDATION CONSTRUCTION NOTES

1. COLD CONSTRUCTION JOINTS TO BE THOROUGHLY CLEANED WETTED PRIOR TO SECOND POUR.
2. ALL REBAR (HORIZONTAL & VERTICAL) SHALL BE SECURELY WIRE TIED TO PREVENT DISPLACEMENT DURING POURING OF CONCRETE.
3. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
4. REINFORCED CONCRETE CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ACI STANDARDS 318.
5. MINIMUM CONCRETE COVER OVER REBAR IS 3".
6. BACKFILL SHALL BE SELECTED MATERIAL, WELL COMPACTED IN LAYERS NOT EXCEEDING 12".
7. BACKFILL SHALL BE PLACED SO AS TO PREVENT ACCUMULATION OF WATER AROUND THE FOUNDATION. REINFORCING MATERIAL SHALL BE IN ACCORDANCE WITH ASTM SPECIFICATION A615-85. ALL REBAR TO BE GRADE 60 (UNLESS NOTED).
8. FOUNDATION DESIGN IS BASED ON THE SOILS REPORT PROVIDED BY MARTIN-BROWN & ASSOCIATES, INC WITH MB&A PROJECT # 011107, DATED JULY 16, 2001.

FOUNDATION AND ANCHOR TOLERANCES

ALL TOWERS

1. VERTICAL EMBEDMENTS OUT OF PLUMB: 1.0 DEGREE.
2. DRILLED FOUNDATION OUT OF PLUMB: 1.0 DEGREE.
3. DEPTH OF FOUNDATION: PLUS 3" (76mm) OR MINUS 0".
4. PROJECTIONS OF EMBEDMENTS: PLUS OR MINUS 1/4" (6mm).
5. CONCRETE DIMENSIONS: PLUS OR MINUS 1" (25mm).
6. REINFORCING STEEL PLACEMENT: PLUS OR MINUS 1/2" INCLUDING CONCRETE COVER.

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	CAB	5/31/07
1	REVISED FND. MODS	CAB	8/2/07
2			
3			
4			
5			

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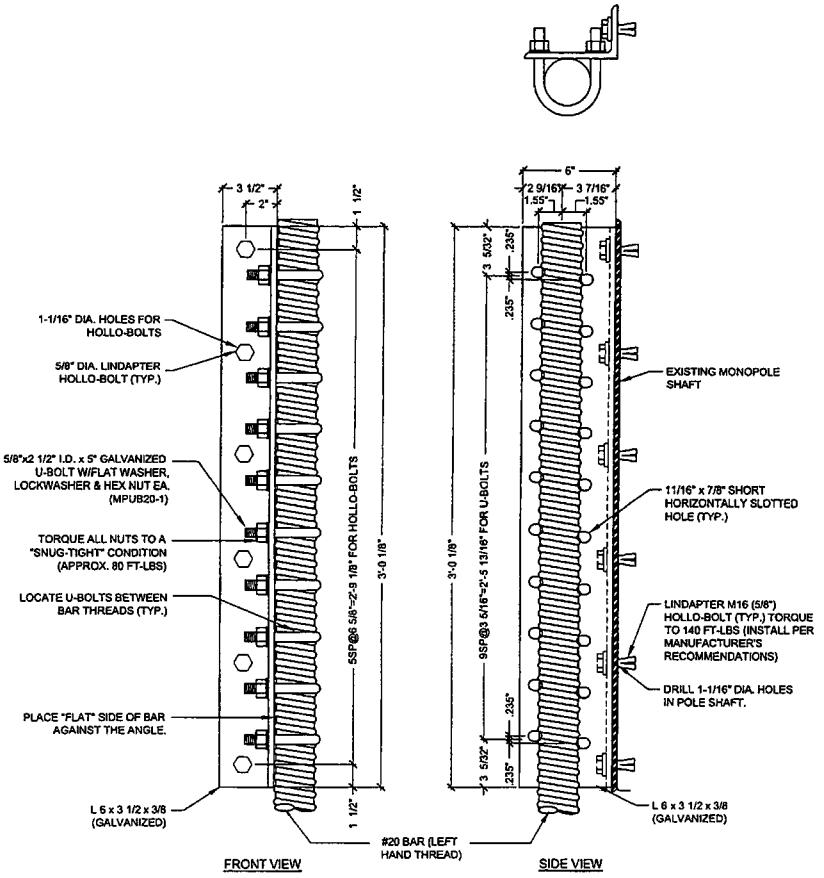
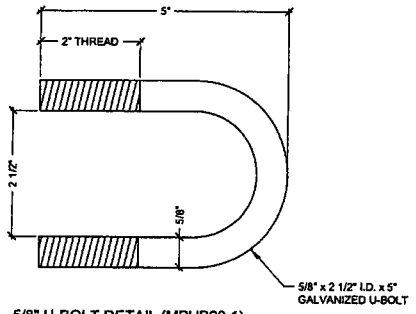
DRAWN BY:	CAB
CHECKED BY:	RK
DATE DRAWN:	5/29/07
ATC JOB NO:	40071636

SHEET TITLE:
REBAR LIST AND NOTES

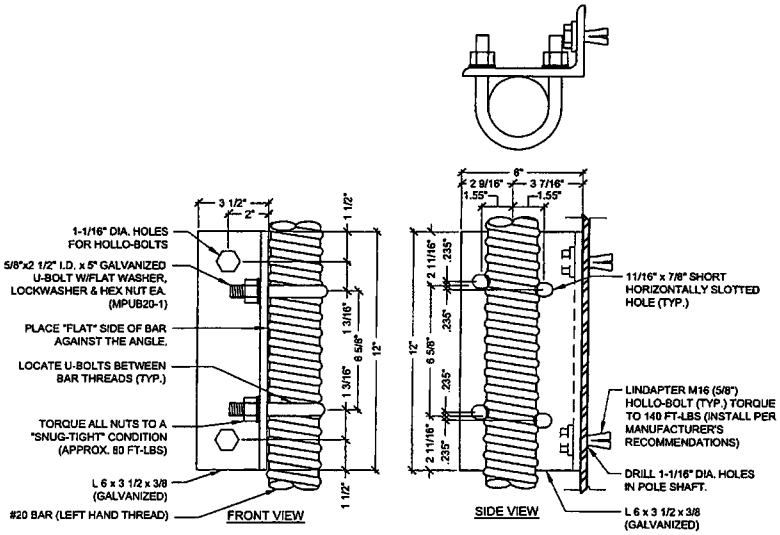
SHEET NUMBER:	REV. #
A-4	1



#20 BAR TERMINATION BRACKET DETAIL (MPTB20-10E) (ECCENTRIC)
NOT TO SCALE



5/8" U-BOLT DETAIL (MPUB20-1)
NOT TO SCALE



#20 BAR BRACKET DETAIL (MPB20-0E) (ECCENTRIC)
NOT TO SCALE

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3			
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820 ENFIELD STREET
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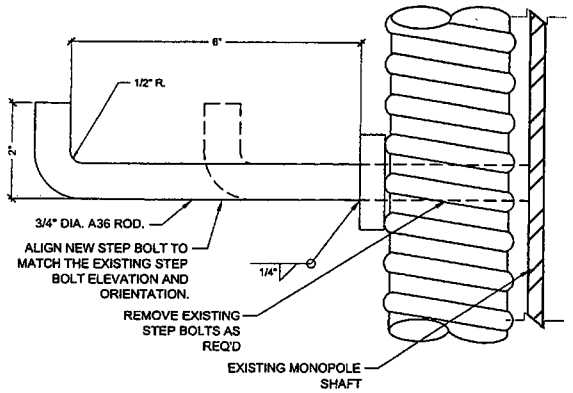
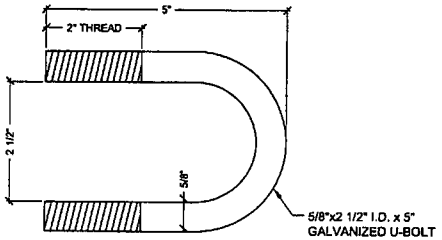
DRAWN BY:	CAB
CHECKED BY:	RK
DATE DRAWN:	5/29/07
ATC JOB NO:	40071636

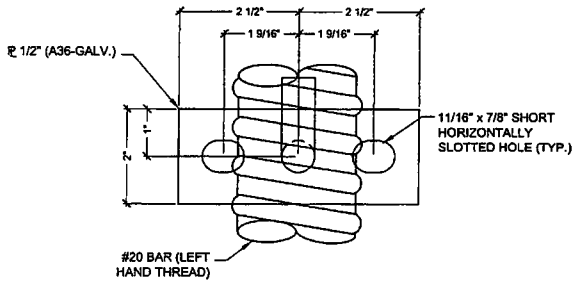
SHEET TITLE:
MPTB20-10E, MPB20-0E AND MPUB20-1 DETAILS

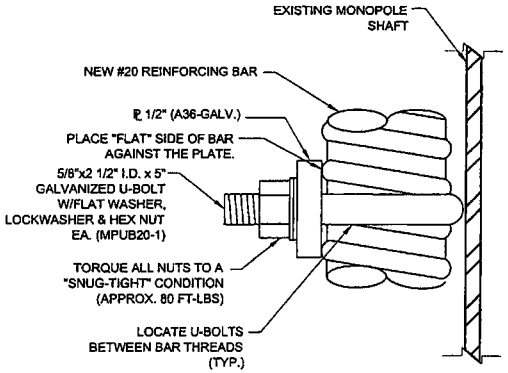
SHEET NUMBER: F-1
REV. 1





5/8" U-BOLT DETAIL (MPUB20-1)
NOT TO SCALE





#20 BAR STEP BOLT BRACKET DETAIL (MPSB20-1)
NOT TO SCALE

AMERICAN TOWER
STRUCTURAL ENGINEERING
8505 FREEPORT PARKWAY
SUITE 135
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ENFIELD, CT 06082

DRAWN BY:	CAB
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DATE DRAWN:	5/29/07
ATC JOB NO:	40071636

SHEET TITLE:
MPSB20-1 AND MPUB20-1 DETAILS

SHEET NUMBER: F-2
REV. 1

ROBINSON & COLE LLP

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

November 14, 2007

Via Electronic Mail and U.S. Mail

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification**
Town Farm Road, Enfield, Connecticut

Dear Mr. Phelps:

On November 9, 2007, Cellco Partnership d/b/a Verizon Wireless ("Cellco") submitted a Notice of Exempt Modification for the above-referenced facility. The filing indicates that Cellco plans to install a propane-fueled generator in its equipment shelter and includes a 1,000 gallon propane tank on the project plans. Cellco has decided to modify its proposal and install a diesel-fueled generator at this site.

Enclosed you will find a revised site plan (Sheet S-1) removing the propane tank from the cell site compound area.

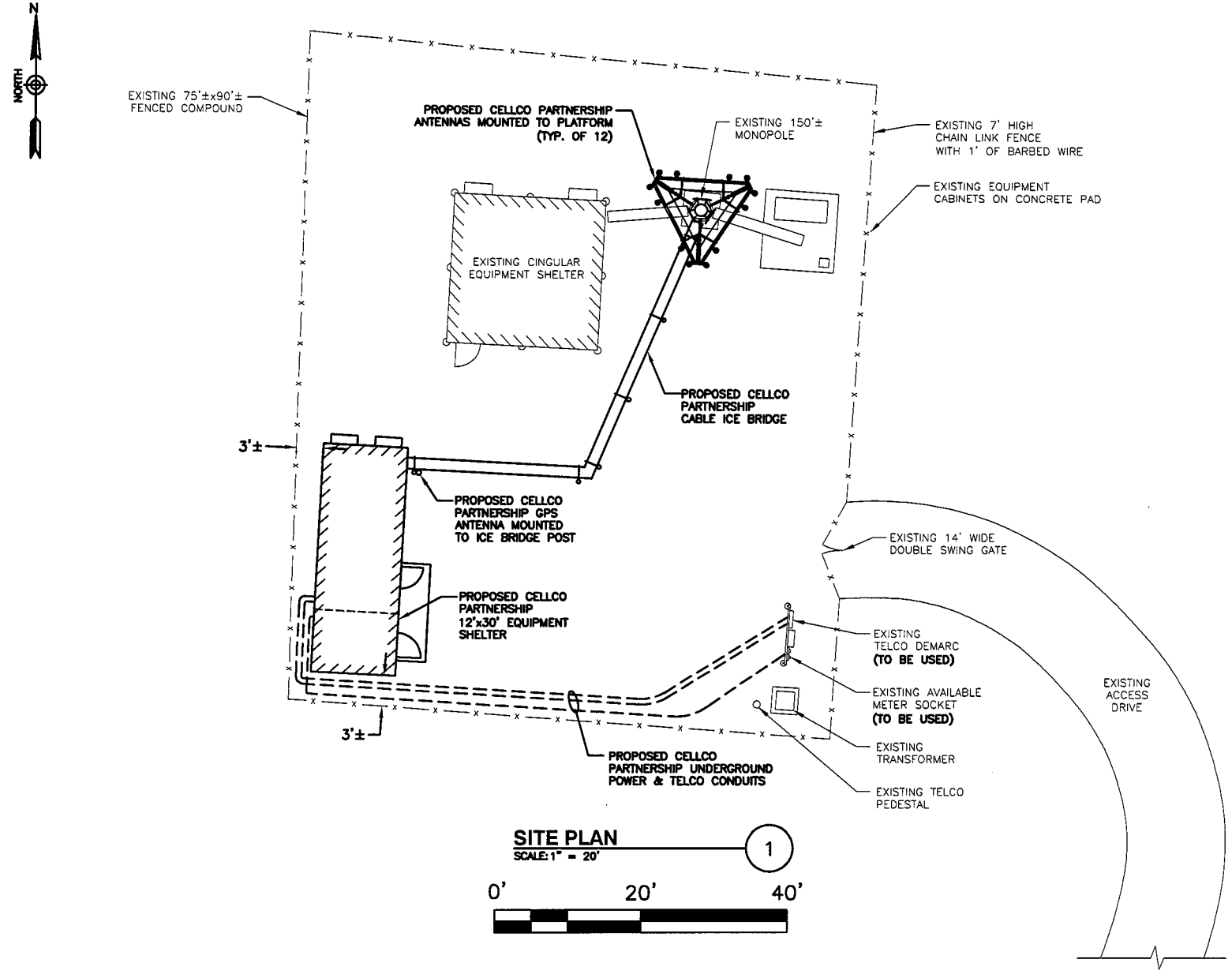
If you have any questions please contact me.

Sincerely,

Kenneth C. Baldwin

Enclosure
Copy to:
Matthew W. Coppler, Enfield Town Manager
Sandy M. Carter
Michelle Kababik

HART1-1433948-1



NO.	DATE	BY	DESCRIPTION
0	11/14/07	CMS	FINAL SITING COUNCIL
B	11/07/07	CMS	REVISED SITING COUNCIL
A	11/06/07	JAA	PRELIMINARY SITING COUNCIL

Dewberry
Dewberry-Goodkind, Inc.
59 ELM STREET
SUITE 101
NEW HAVEN, CT 06510
203.776.2277 PHONE
203.776.2288 FAX

SCALE: AS SHOWN
DESIGNED BY: JAA
DATE: 11/06/07
DGI PROJECT NO. 50003167

PARTIAL SITE PLAN

Cellco Partnership
d.b.a. verizon wireless

SITE NAME: ENFIELD 4
TOWN FARM ROAD
ENFIELD, CT 06082

PROJECT NO.: 2007218917
LOCATION CODE: 177996

SHEET NO. S - 1