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@po.state.ct.us
www.ct.gov/csc

June 25, 2004

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

RE: **EM-VER-151-040614** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at Farmdale Drive, Waterbury, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on June 23, 2004, 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 Council be notified in writing when the antennas are removed.

The proposed modifications are to be implemented as specified here and in your notice dated June 14, 2004. 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. 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,

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: Mayor Michael J. Jarjura, Mayor, City of Waterbury
Gil Grabeline, Zoning Enforcement Officer, City of Waterbury
Michele G. Briggs, Southwestern Bell Mobile Systems, LLC
Christopher B. Fisher, Esq., Cuddy & Feder LLP

ROBINSON & COLE

EM-VER-151-040614

KENNETH C. BALDWIN

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Direct (860) 275-8345

June 14, 2004

Via Hand Delivery

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

Re: **Notice of Exempt Modification**
Farmdale Drive
Waterbury, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install three (3) temporary flat-panel microwave antennas on an existing tower at Farmdale Drive in Waterbury, 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 the Waterbury Mayor, Michael J. Jarjura.

Cellco currently maintains twelve (12) panel antennas at the 129-foot level on the existing 150-foot tower. Cellco proposes to install three (3) temporary microwave panel antennas; one each at the 140-foot; 105-foot and 100-foot levels of the tower. (See Attachment 1- Antenna Specification Sheet). These temporary microwave antennas are needed to process calls between this site and Cellco's Plymouth W (42 South Street, Plymouth) facility until T-1 lines can be installed at the facility. Cellco expects to be in a position to remove the microwave antennas within 9 to 12 months.

The planned modifications to the Waterbury 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 140-foot; 105-foot; and 100-foot levels on the 150-foot tower.

2. The proposed installation of three (3) temporary flat-panel microwave antennas will not require an extension of the site boundaries.

3. The proposed modification 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 combined worst-case power density calculations for existing and proposed Cellco microwave antennas would be 27.96% of the FCC standard. (See Attachment 2).

Also included as Attachment 3 is a Structural Analysis Summary, prepared by SpectraSite, verifying that the tower can accommodate the existing and proposed antennas and related equipment.

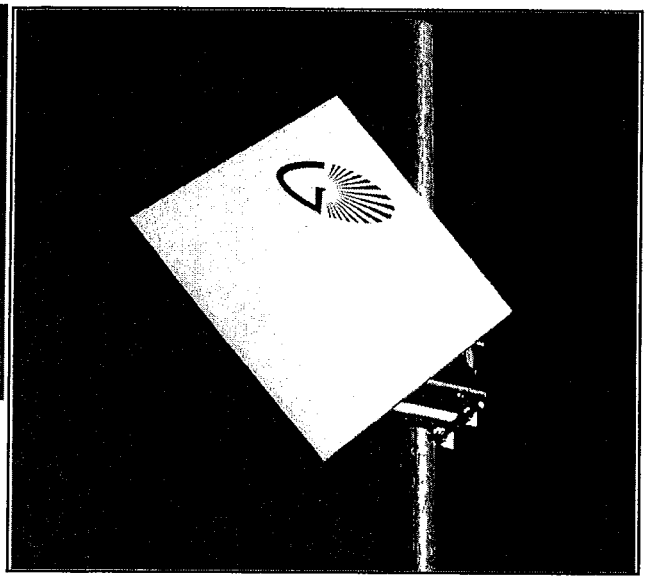
For the foregoing reasons, Cellco respectfully submits that the proposed antenna installation at the Waterbury facility tower constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Attachments
cc: Michael J. Jarjura, Waterbury Mayor
Sandy M. Carter

5.250 - 5.850 GHz



5 GHz Directional Flat Panel Antenna

Associated Equipment Information **Pages**

5 GHz - Spread Spectrum / NII Band Directional Flat Panel Antenna

(for Point-to-Point applications)

Facts & Features

- Gabriel Quality and Dependability.
- Lightweight and durable construction.
- Quick and easy installation.
- Antenna input is a Type N Female, 50 OHm .
  (Other types available on request.)
- Input connector positioned on back of antenna assembly.
- Antenna supplied with paintable rigid radome.
- All Gabriel antennas meet or exceed Standards EIA-195-C and EIA-222-F.
- Antenna accommodates +/-20° elevation adjustment. (specific installation limitations may apply)
- Mini-Mounts accommodate a 1.9 in. to 4.5 in. (48 to 114 mm) O.D. mast pipe. Quick-Align Mounts mount to a 2.375 in. (60 mm) O.D. mast pipe. An optional 1.9 in. (48 mm) to 4.5 in. (114 mm) Mast Clamp Kit is available on request for the Quick-Align Mount.
- *To adapt the Quick Align Mount for use on a 1.9 in. to 4.5 in. O.D. mast pipe order Mast Clamp Kit MCKQA-19-45*
- Special colors and / or logos available on request.
- Dual band models are available.

Electrical Specifications

Frequency GHz	Model Number	Size ft	Size (m)	Mount Type	Gain at Low	Gain at Mid dBi	Gain at High	Nominal Mid-Band Beamwidth degrees	XPD dB	F/B ratio dB	VSWR max.	(R.L. dB)
Diagonal - Directional Flat Panel - Plane Polarized												
5.250 - 5.850	DFPS.5-52**	0.5	(0.15)	MM	17.5	18.0	18.4	19.0	30	35	1.50	(14.0)
	DFPD1-52	1	(0.3)	MM	23.0	23.5	23.9	9.4	30	43	1.50	(14.0)
	DFPD1-52 (M1)	1	(0.3)	QAM	23.0	23.5	23.9	9.4	30	43	1.50	(14.0)
→	DFPD2-52	2	(0.6)	QAM	27.5	28.0	28.4	4.6	30	46	1.50	(14.0)

MM	=	Mini - Mount
QAM	=	Quick Align Mount

** Note:

The DFPS.5-52 antenna model is square in configuration.

NOTE:
Product information subject to change without notice.

P.O. Box 70, Scarborough, Maine 04070 U.S.A. Tel: 207-883-5161 Fax: 207-883-4469
email: sales@gabrielnet.com web: http://www.gabrielnet.com

C Squared Systems, LLC
13 Forest Drive
East Kingston, NH 03827
Phone 603-758-1013
E-mail:
kevin.mosher@csquaredsystems.com

Calculated Radio Frequency Emissions

Farmdale Drive, Waterbury, CT

Verizon Wireless

TABLE OF CONTENTS

1. Introduction

The purpose of this report is to investigate compliance with applicable federal, state and local EMF regulations for the 150-foot wireless telecommunications facility at Farmdale Drive in Waterbury, CT.

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are much more conservative (higher) than the actual signal levels will be from the finished installation.

The results will be listed as a percentage of current Maximum Permissible Exposure (% MPE) limits as listed in the FCC OET Bulletin 65 Edition 97-01. Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The number of $\mu W/cm^2$ emitted is called the power density. The general population exposure limit for the cellular band is about 580 $\mu W/cm^2$, and the general population exposure limit for the PCS band and above is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

2. Site Data

Carrier	Freq (MHz)	# of Channels per Sector	# of Sectors	Height of Antenna	Power per Channel (Watts ERP)
Arch Paging*	931.19	1	1	161'	1990
Cingular*	880	20	3	154'	250
AT&T*	1945	12	3	145'	250
Verizon	5250	1	1	140'	23.95
Verizon	860	9	3	128'	200
Verizon	1970	3	3	128'	200
Verizon	5250	1	1	105'	22.19
Verizon	5250	1	1	100'	23.55

* Parameters for Arch Paging, Cingular, and AT&T were obtained from a previous AT&T filing.

3. RF Exposure Prediction Methods

The FCC has established the following equation to estimate the power density in the far-field region.

$$\text{Power Density} = \left(\frac{4 \times EIRP}{4 \times \pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:
EIRP = Effective Isotropic Radiated Power
R = Radial distance = $\sqrt{\left(H^2 + V^2\right)}$
H = Horizontal distance from antenna
V = Vertical distance from bottom of antenna
Maximum Off beam loss is limited to 10 dB to insure a conservative results

4. FCC Guidelines for Evaluating RF Radiation Exposure Limits

The Federal Communications Commission (FCC) OET Bulletin 65, Edition 97-01 dated August 1997 outlines requirements for radio frequency exposure and provides guidelines for determining whether proposed or existing transmitting facilities, operations or devices comply with limits for radio frequency exposure. These requirements include limits for Maximum Permissible Exposure (MPE) for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

Radiation can be broadly broken into two groupings; ionizing and non-ionizing. Ionizing means that there is enough energy to cause electrons to be stripped from atoms "ionizing" the atom and changing its characteristics. Non-ionizing radiation means that there is not enough energy to create ions. It only causes vibrations or oscillations of the atoms, which results in heat but does not strip electrons from atoms. Non-ionizing radiation is usually absorbed as heat in the human body and its parts. Ionizing radiation occurs at frequencies exceeding 1,000,000,000 MHz. All PCS and Cellular providers operate within a much lower frequency band than those associated with ionizing.

Based on thorough scientific review of the studies and papers, various groups have developed exposure limits below which no health effects are known to occur. Two of the primary groups in the United States are the Institute of Electrical and Electronic Engineers (IEEE) and the National Council on Radiation Protection and Measurement (NCRP). As mentioned previously, the FCC limits are based on exposure limits recommended by these groups. The limits incorporate a safety factor of 50 for the general public populations. This means that the exposure limit set is at least 50 times below the level where any changes are noticeable. The impact of human exposure to levels equivalent to the limit set by the FCC is practically indistinguishable from the impact of normal ambient temperature variation, exposure to the sun, exercise, etc.

The attachments labeled Table 1 and Figure 1 are excerpts from OET Bulletin 65 and define the Maximum Exposure Limit. As shown in these excerpts, each frequency band has different exposure limits, requiring power density to be reported as a percent of Maximum Permissible Exposure (MPE) when dealing with carriers transmitting in different frequency bands.

5. Calculation Results

The calculated results indicate that radio frequency emissions expected from this installation are significantly less than the regulatory emission limits for public exposure. Specific maximum power densities and their percentage of the limits are listed below for each individual carrier.

Carrier Maximum Power Densities

Carrier	Calculated Maximum Power Density ($\mu W/cm^2$)*	MPE Limit ($\mu W/cm^2$)	Max % Limits
Arch Paging	27.6	621	4.45
Cingular	75.9	587	12.94
AT&T	51.4	1000	5.14
Verizon	0.5	1000	0.05
Verizon	39.6	573	3.96
Verizon	13.2	1000	1.32
Verizon	0.5	1000	0.05
Verizon	0.5	1000	0.05

* Results do not include attenuation due to antenna pattern and assume transmitters are at full power and pointed directly at the ground.

Cumulative Percent of Maximum Permissible Exposure

	Max % Limits
Cumulative	27.96

6. Conclusion

All of the calculations in this report were computed for the 150-foot wireless facility in Waterbury, CT. As can be seen from the above tables and attachments, the expected aggregate radio frequency emissions from the proposed installation are well below the regulatory emission limits for general public exposure, even under very conservative assumptions. The highest aggregate percent Maximum Permissible Exposure is 27.96 % of the FCC limits for the general public as outlined in FCC OET Bulletin 65 Edition 97-01.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations were computed in accordance with and using techniques in compliance with ANSI/IEEE Std. C95.3, ANSI/IEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.

Kevin Mosher
C Squared Systems

Date

References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. IEEE-SA Standards Board

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

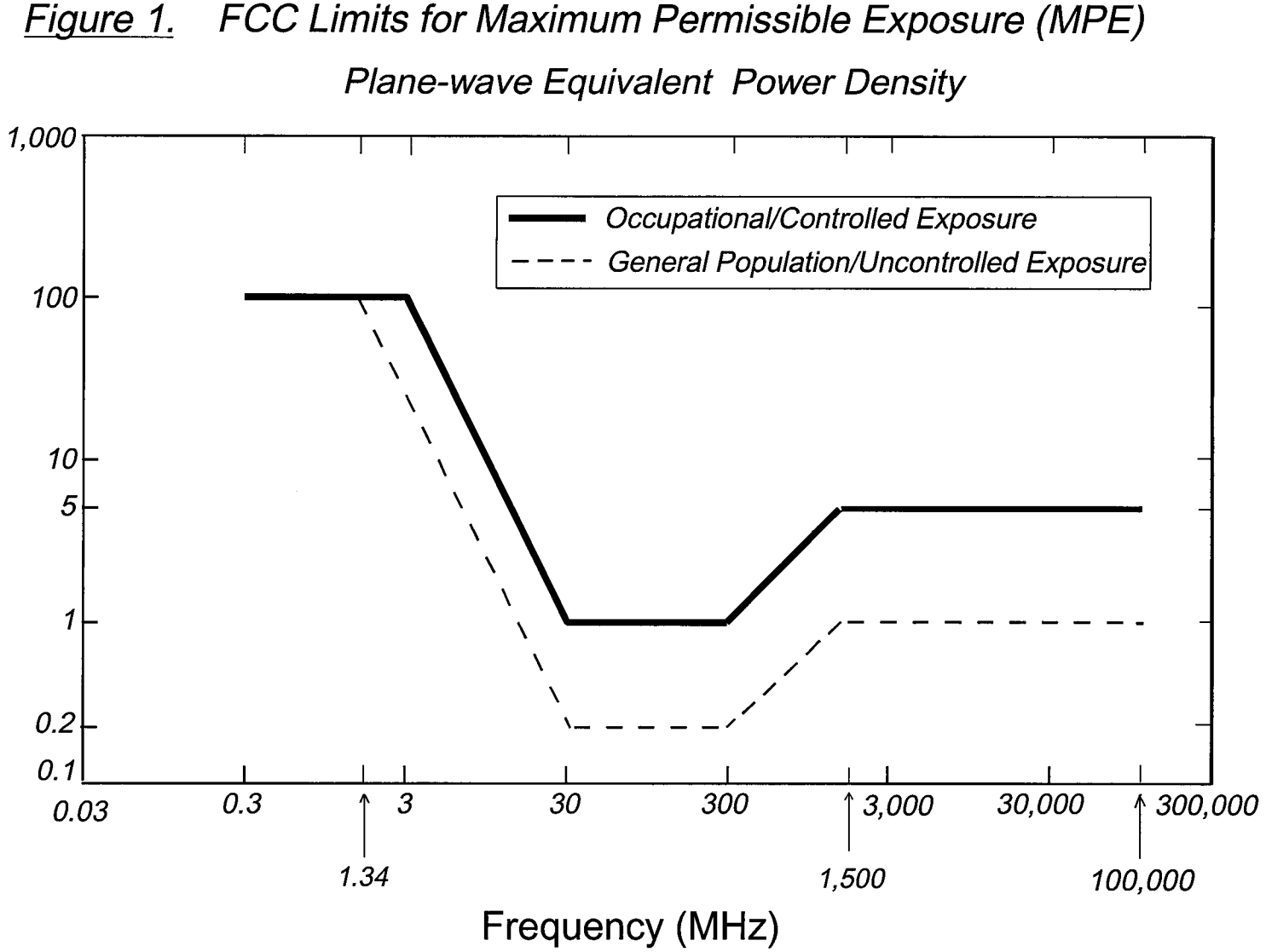
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

NOTE 1: ***Occupational/controlled*** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: ***General population/uncontrolled*** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

Figure 1. *FCC Limits for Maximum Permissible Exposure (MPE)*



SpectraSite

CT-0012
05/19/2004

Structural Analysis Summary	
Tower Site	**CT-0012 Waterbury**
Address	Farmdale Drive Waterbury, CT 06708
Tower Height & Type	**150.0 ft ITT Meyer Guyed Monopole**
Building Code	ANSI/TIA/EIA-222-F (1996) **85 mph (New Haven County) w/ ¾" radial ice** 1996 BOCA National Building Code **85 mph w/ ¾" radial ice**

Tower Information	
Tower Geometry	Tower Mapping completed by Smith Cullum, Acquisition Number CT-0012, dated 06/07/2001. Guy Design by AT&T, Drawing Number H847-596, dated 05/1994.
Foundation	Girard & Co. Engineers Drawing Number 38926, dated 07/10/1984. Anchor Design by AT&T, Drawing Number H847-596, dated 05/1994.

Results Summary*	
Tower Structure	***Adequate***
Guy Wires	***Adequate***
Splice Bolts	***Adequate***
Splice Plate	***Adequate***
Anchor Bolts	***Adequate***
Base Plate	***Adequate***
Base Foundation	***Adequate***
Anchors	***Adequate***

See following pages for detailed analysis results.

STATE OF CONNECTICUT
DOUGLAS K. PINEO
No. 21110
LICENSED
PROFESSIONAL ENGINEER

Douglas K. Pineo

MAY 20 2004

Analysis prepared by:
Bryan Lanier, E.I.
Project Engineer
Contact (919) 466-5777
with any questions.

Douglas K. Pineo, P.E.
Senior Design Engineer

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.

100 Regency Forest Drive, Suite 400 • Cary, NC 27511 • Tel 919.468.0112 • Fax 919.468.8522

1.0 Introduction

A structural analysis was performed on the above noted tower for the addition of proposed antennas as listed. The analysis consisted of applying the forces caused by the existing and proposed loads, and determining the resulting stresses in the structure and its foundation.

1.1 Existing and Proposed Antennas

ELEVATION *(Ft. A.G.L.)*	ANTENNA	CARRIER	COAX	I/O*	NOTES
161 158	(1) Decibel DB589T3Y (1) Generic Yagi on Platform w/ Handrails	Arch Paging	(1) 1-5/8" (1) 1/2"	I	Existing
154	(10) CSS DU04-8670 on Platform w/Handrails	Cingular	(10) 1-1/4"	I	Existing
145	**(6) Allgon 7250.03 on Low Profile Platform**	**AT&T**	**(12) 1-5/8"**	**I****	**Proposed**
140	**(1) Gabriel DFPD2-52 on Pipe Mount**	**Verizon**	**(1) 5/8"**	**O**	**Proposed**
129	(4) Allgon 7120.16.05 (4) Allgon 7130.14.05 (4) EMS RV90-11-00DAL2 on Platform w/Handrails	Verizon	(12) 7/8"	O	Existing
105	**(1) Gabriel DFPD2-52 on Pipe Mount**	**Verizon**	**(1) 5/8"**	**O**	**Proposed**
100	**(1) Gabriel DFPD2-52 on Pipe Mount**	**Verizon**	**(1) 5/8"**	**O**	**Proposed**

I/O denotes coax installed inside or outside of monopole respectively.
****New ports will be required at 142' to install coax inside monopole.***

2.0 Detailed Analysis Results

2.1 Monopole Member Stress Levels

ELEVATION *(Ft. A.G.L.)*	STRESS RATIO*
110 to 150	0.95
Splice Bolts	0.51
Splice Plates	0.61
71.5 to 110	0.87
33.6 to 71.5	0.12
0 to 33.6	0.12
Anchor Bolts	0.08
Base Plate	0.02

Maximum Stress Ratio: 1.00=Full Allowable

2.0 Detailed Analysis Results (Continued)

2.2 Guy Wire Stress Levels

ELEVATION *(Ft. A.G.L.)*	CURRENT ANALYSIS*
115	*1.03***

**Maximum Stress Ratio: 1.00=Full Allowable (Based on safety factor of 2.0).*
***Overstressed; Considered Acceptable.*

2.3 Foundation Stress Levels

BASE REACTIONS	MAXIMUM	RESULT*
Shear (*kips*)	4.7	*Adequate*
Moment (*kip-feet*)	169.9	*Adequate*
Compression (*kips*)	55.4	*Adequate*

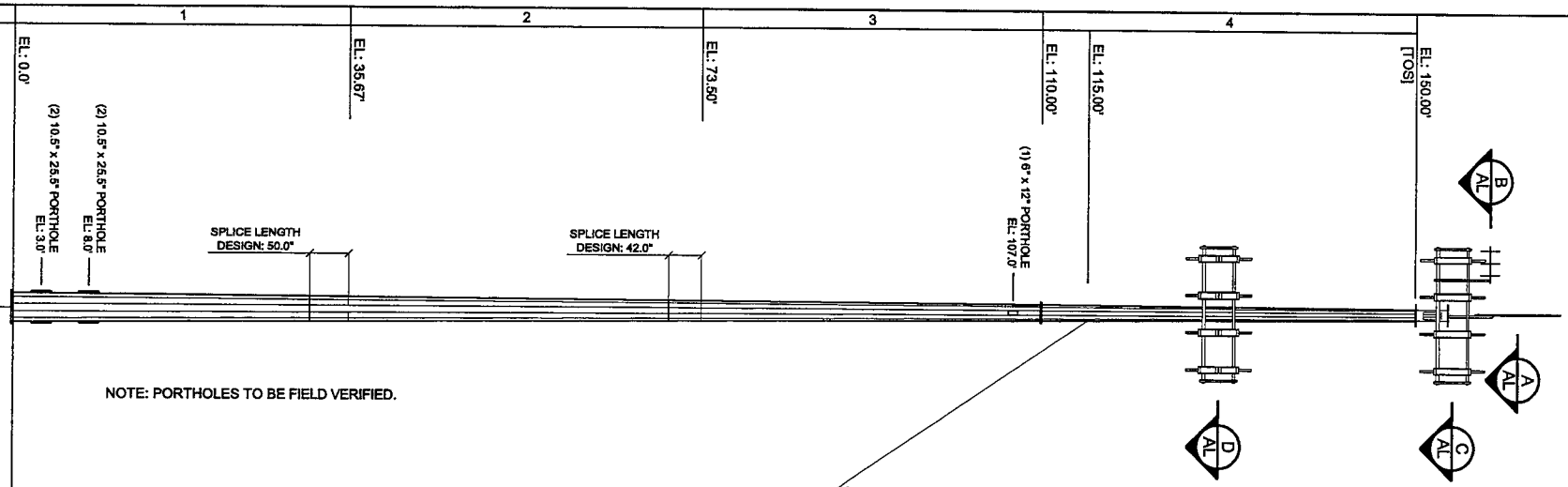
ANCHOR REACTIONS	MAXIMUM	RESULT*
Uplift (*kips*)	21.0	*Adequate*
Shear (*kips*)	21.1	*Adequate*

**Based on Foundation Analysis.*

3.0 Conclusions and Recommendations

1. The monopole, guy wires, splice bolts, splice plates, anchor bolts, base plate, foundation and anchors ***are structurally adequate*** to accommodate the existing and proposed antenna and transmission line loading used in this analysis.

2. Any future changes in loading must be reviewed by the SpectraSite Engineering Department.



NOTE: PORTHOLES TO BE FIELD VERIFIED.

NOMINAL GUY RADIUS: 115'

(1) 3/4"Ø EHS I.T. = 5.806'

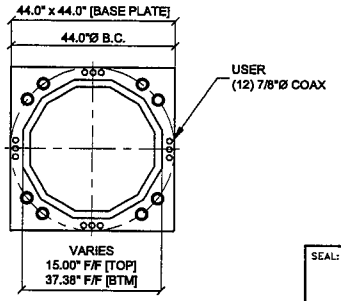
FLANGE SPECIFICATIONS								
ELEV (FT)	THICKNESS (IN)		DIAMETER (IN)	BOLT CIRCLE DIAMETER (IN)	GRADE (KSI)	BOLTS		
	TOP	BTM				NO.	DIA.	GRADE
110.0	1.0	1.0	28.5	25.75	60	12	1"	A325

POLE MATERIAL SPECIFICATIONS	
TAPER:	0.155 (IN/FT)
SHAFT STEEL:	ASTM A572, GR. 65
BASE PLATE STEEL:	SQUARE PL 2.5" x 44.0" x 44.0" ASTM A633, GR. E, 60 KSI
ANCHOR BOLTS:	(8) 2.25"Ø ASTM A615, GR. 75 44.0"Ø B.C.

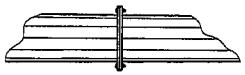
DESIGN SPECIFICATIONS	
CODE:	ANSI/TIA/EIA-222-F 1996 BOCA NATIONAL BUILDING CODE
WIND:	85 MPH [NEW HAVEN COUNTY EIA] 85 MPH [BOCA]
ICE:	3/4" RADIAL

SHAFT SPECIFICATIONS							
SHAFT SECTION	SECTION LENGTH (FT)	# SIDES	THICKNESS (IN)	GRADE (KSI)	OVERLAP (IN)	DIAMETER ACROSS FLATS (IN)	
						BOTTOM	TOP
1	35.67	12	0.375	65	50	37.38	31.85
2	42.00	12	0.313	65	42	33.10	26.55
3	40.00	12	0.250	65	0	27.61	21.25
4	40.00	12	0.188	65	0	21.25	15.00

TOWER IDENTIFICATION	
MANUFACTURER:	ITT MEYER
IDENTIFICATION No:	AT-8935; TYPE "B"



PLAN VIEW



TYPICAL FLANGE DETAIL

TYPICAL SPLICE DETAIL

ANTENNA INFORMATION								
NO.	ELEV	ANTENNA TYPE	ANT. DIMS. (LxWxD)	AZIMUTH	MOUNT	TX-LINE*	CUSTOMER	STATUS
A	161.0'	(1) DECIBEL DB589T3Y	9.2' x 1.5"Ø	40°	PIPE	(1) 1-5/8"	ARCH PAGING	E
B	158.0'	(1) GENERIC YAGI	4'	135°	PIPE	(1) 1/2"	ARCH PAGING	E
C	154.0'	(10) CSS DUO4-8670	48" x 14" x 9"	23°,140°,263°	PLATFORM W/ HANDRAILS	(10) 1-1/4"	CINGULAR	E
D	129.0'	(4) ALLGON 7120.16.05	52" x 7.9" x 11.4"	35°	PLATFORM W/ HANDRAILS	(4) 7/8"	USER	E
D	129.0'	(4) ALLGON 7130.14.05	26" x 11.4" x 11.4"	275°	PLATFORM W/ HANDRAILS	(4) 7/8"	USER	E
D	129.0'	(4) EMS RV90-11-00DAL2	48" x 12" x 7"	155°	PLATFORM W/ HANDRAILS	(4) 7/8"	USER	E

* COAX INSTALLED INSIDE MONOPOLE UNLESS NOTED IN PLAN VIEW

ANTENNA STATUS LEGEND	
STATUS	DEFINITION
A	ABANDON
E	EXISTING
F	FUTURE
I	INQUIRY
P	PROPOSED
R	RESERVED
T	TEMPORARY

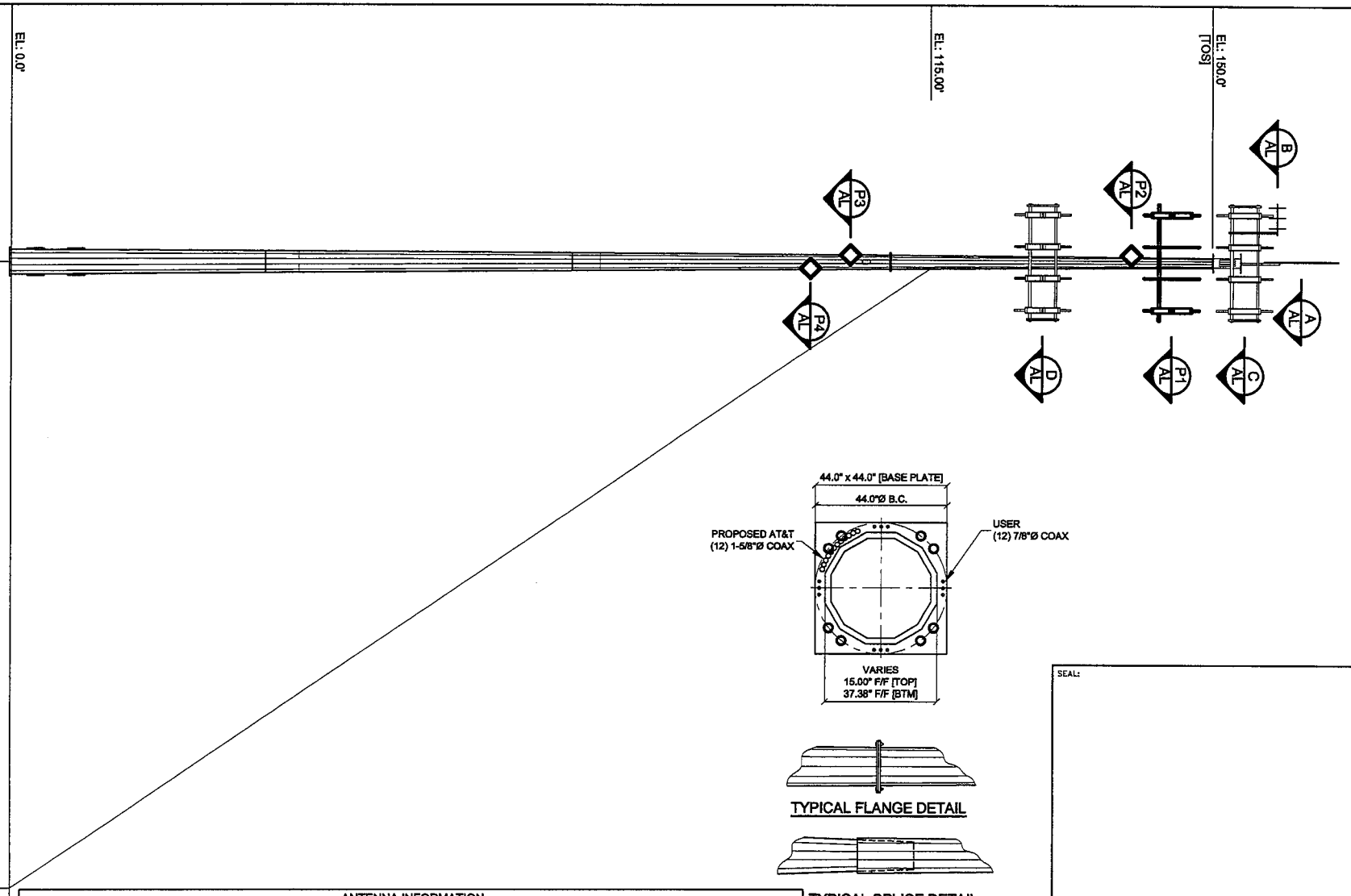
SEAL:

REV	DWN	CHK	DATE	DESCRIPTION
1	BKL	SY	09/17/03	UPDATED USER COAX

SpectraSite
400 REGENCY FOREST DRIVE
CARY, NORTH CAROLINA 27511
PHONE:(919)468-0112 / FAX:(919)463-8522

TITLE: DESIGN PROFILE
PROJECT: 150' ITT MEYER GUYED MONOPOLE
SITE: WATERBURY, CT

DATE:	DWN:	CHK:	SITE #:	DWG #:	REV:
09/05/03	KES	RIM	CT-0012	D1	1



TYPICAL FLANGE DETAIL

TYPICAL SPLICE DETAIL

ANTENNA INFORMATION

NO.	ELEV	ANTENNA TYPE	ANT. DIMS. (LxWxD)	AZIMUTH	MOUNT	TX-LINE*	CUSTOMER	STATUS
A	161.0'	(1) DECIBEL DB589T3Y	9.2' x 1.5'Ø	40°	PIPE	(1) 1-5/8"	ARCH PAGING	E
B	158.0'	(1) GENERIC YAGI	4'	135°	PIPE	(1) 1/2"	ARCH PAGING	E
C	154.0'	(10) CSS DUO4-8670	48" x 14" x 9"	23°,140°,263°	PLATFORM W/ HANDRAILS	(10) 1-1/4"	CINGULAR	E
P1	145.0'	(6) ALLGON 7250.03	61.3" x 8.3" x 2.2"	60°,160°,270°	LOW PROFILE PLATFORM	(12) 1-5/8"	AT&T	P
P2	140.0'	(1) GABRIEL DFPD2-52	24"	0°	PIPE	(1) 5/8"	USER	P
D	129.0'	(4) ALLGON 7120.16.05	52" x 7.9" x 11.4"	35°	PLATFORM W/ HANDRAILS	(4) 7/8"	USER	E
D	129.0'	(4) ALLGON 7130.14.05	26" x 11.4" x 11.4"	275°	PLATFORM W/ HANDRAILS	(4) 7/8"	USER	E
D	129.0'	(4) EMS RV90-11-00DAL2	48" x 12" x 7"	155°	PLATFORM W/ HANDRAILS	(4) 7/8"	USER	E
P3	105.0'	(1) GABRIEL DFPD2-52	24"	0°	PIPE	(1) 5/8"	USER	P
P4	100.0'	(1) GABRIEL DFPD2-52	24"	0°	PIPE	(1) 5/8"	USER	P

* COAX INSTALLED INSIDE MONOPOLE UNLESS NOTED IN PLAN VIEW

ANTENNA STATUS LEGEND	
STATUS	DEFINITION
A	ABANDON
E	EXISTING
F	FUTURE
I	INQUIRY
P	PROPOSED
R	RESERVED
T	TEMPORARY

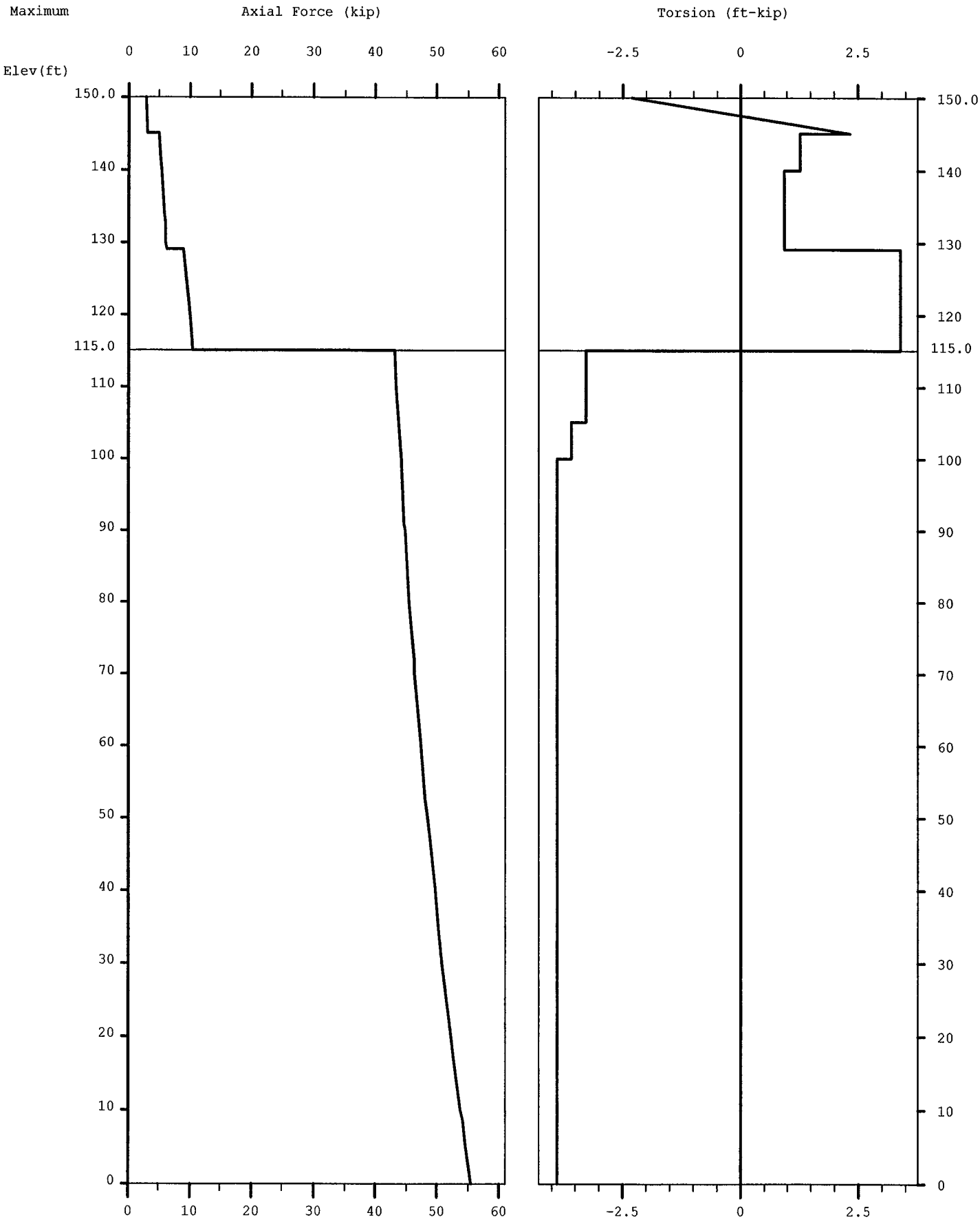
SEAL:

REV	DWN	CHK	DATE	DESCRIPTION
3	CGG	JRJ	05/18/04	PROPOSED USER PANELS

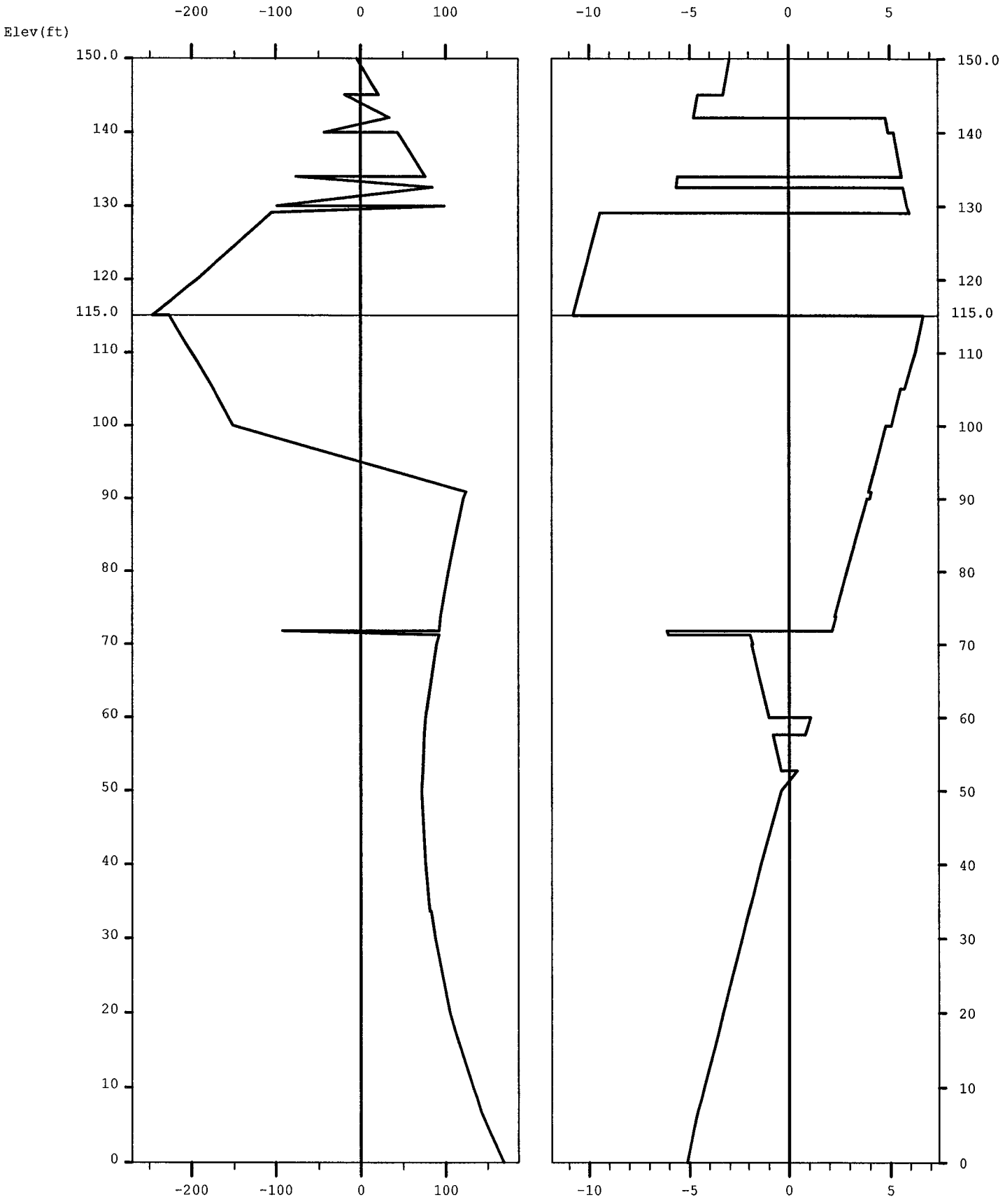
SpectraSite
400 REGENCY FOREST DRIVE
CARY, NORTH CAROLINA 27511
PHONE:(919)468-0112 / FAX:(919)468-8522

TITLE: TOWER PROFILE
PROJECT: 150' ITT MEYER GUYED MONOPOLE
SITE: WATERBURY, CT

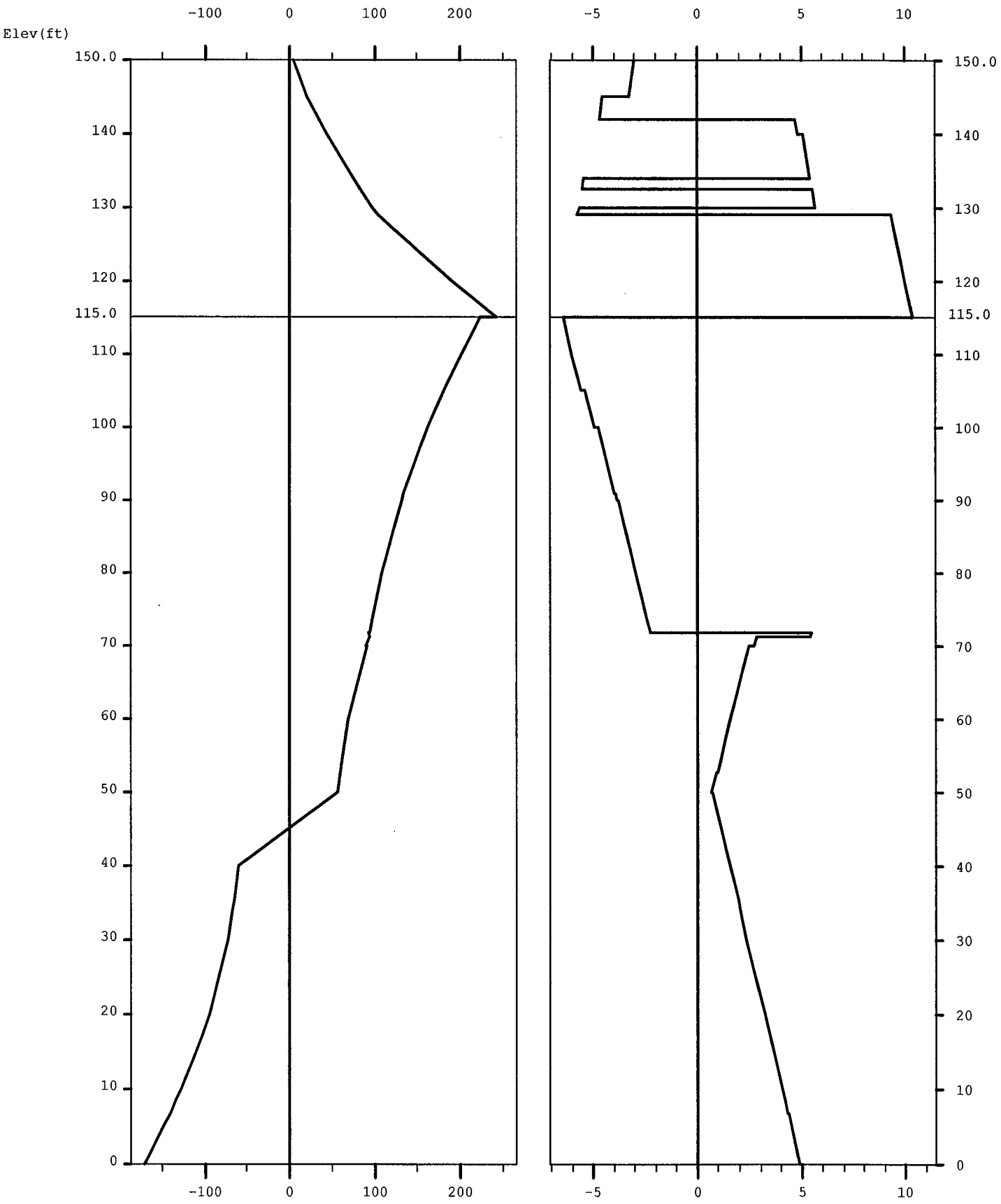
DATE:	DWN:	CHK:	SITE #:	DWG #:	REV:
09/05/03	KES	RIM	CT-0012	TP	3

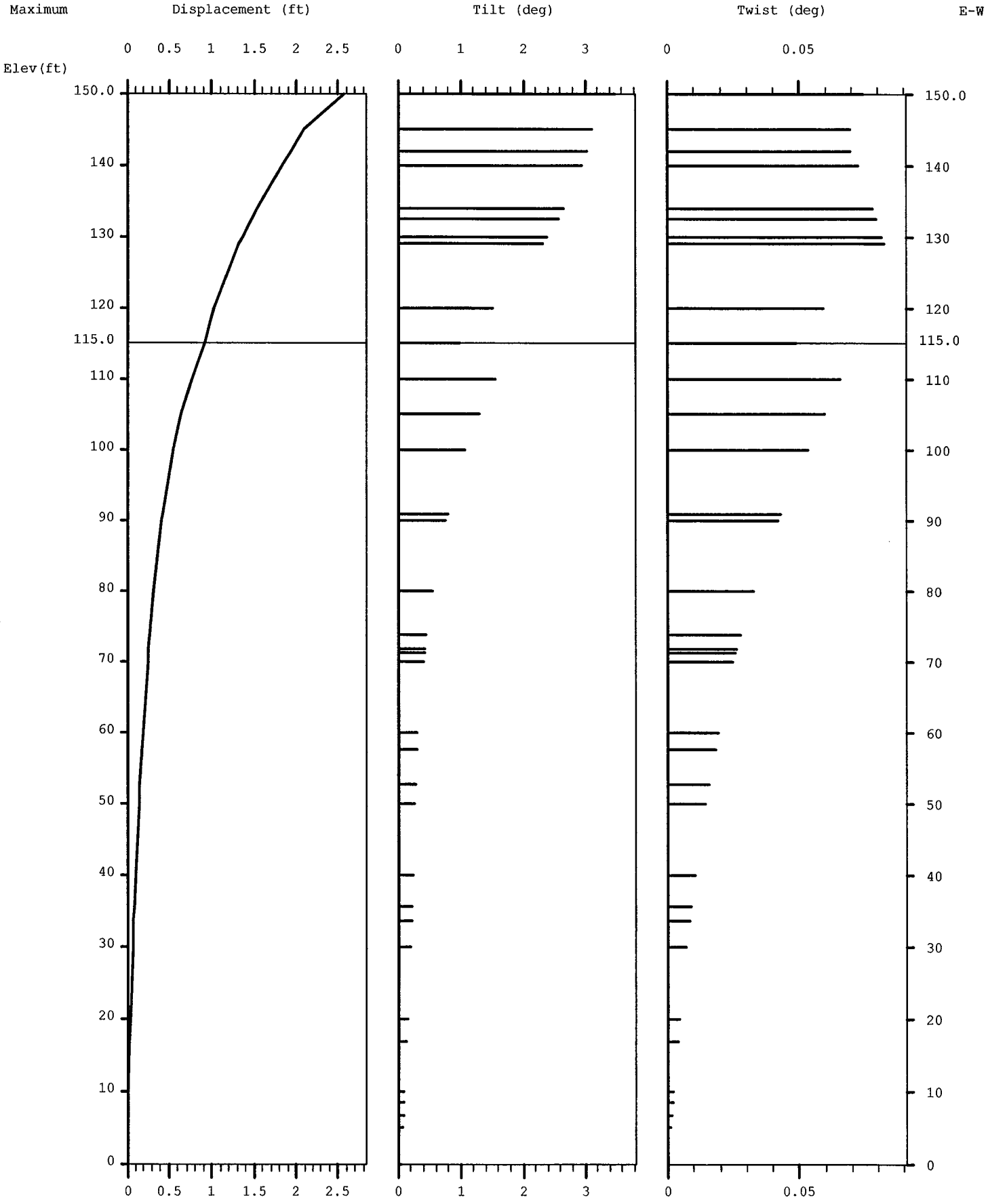

Maximum
Axial Force (kip)
Torsion (ft-kip)
Elev(ft)
0
10
20
30
40
50
60
-2.5
0
2.5
150.0
140
130
120
115.0
110
100
90
80
70
60
50
40
30
20
10
0

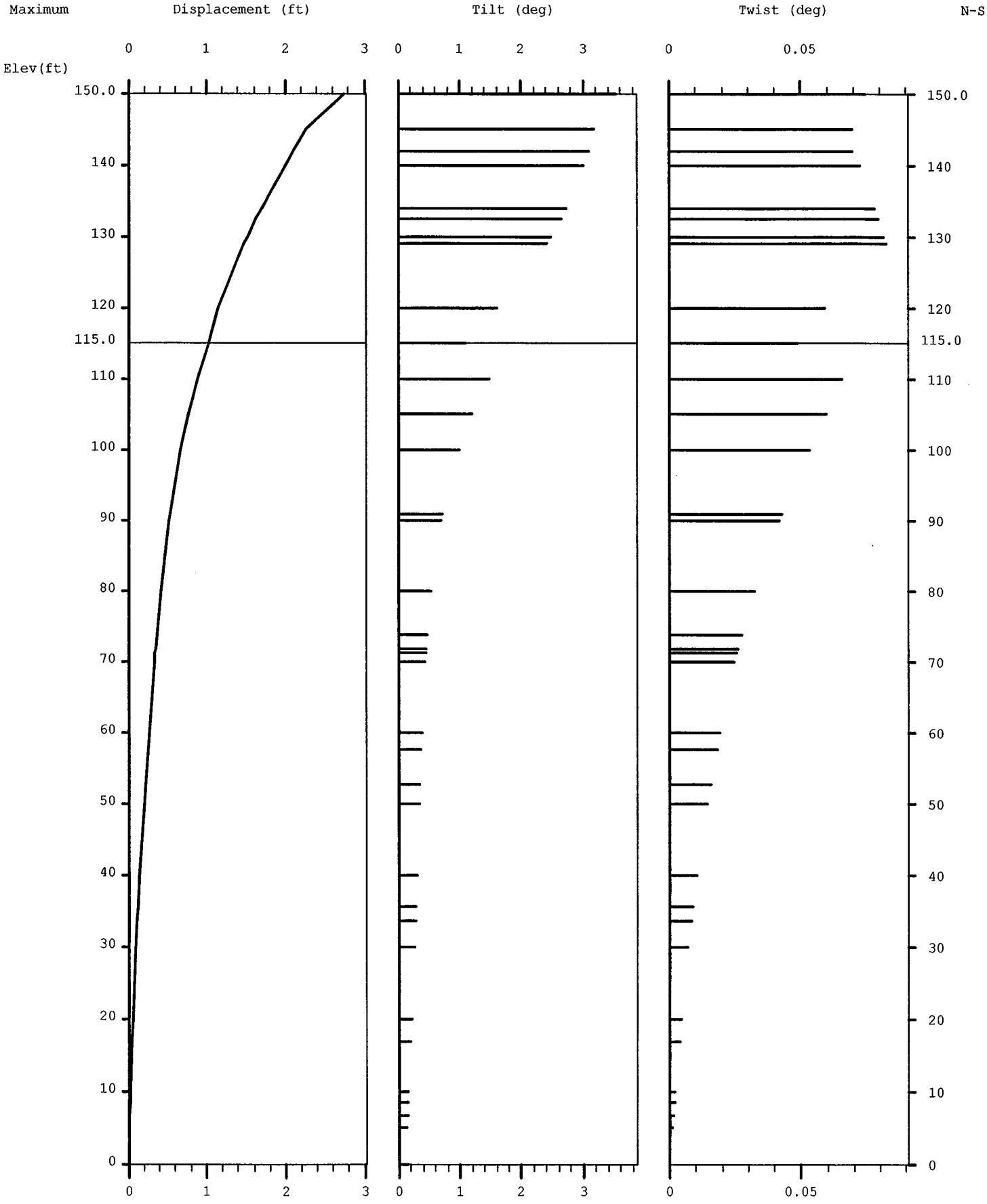
Maximum Mast Moment (ft-kip) Mast Shear (kip) E-W

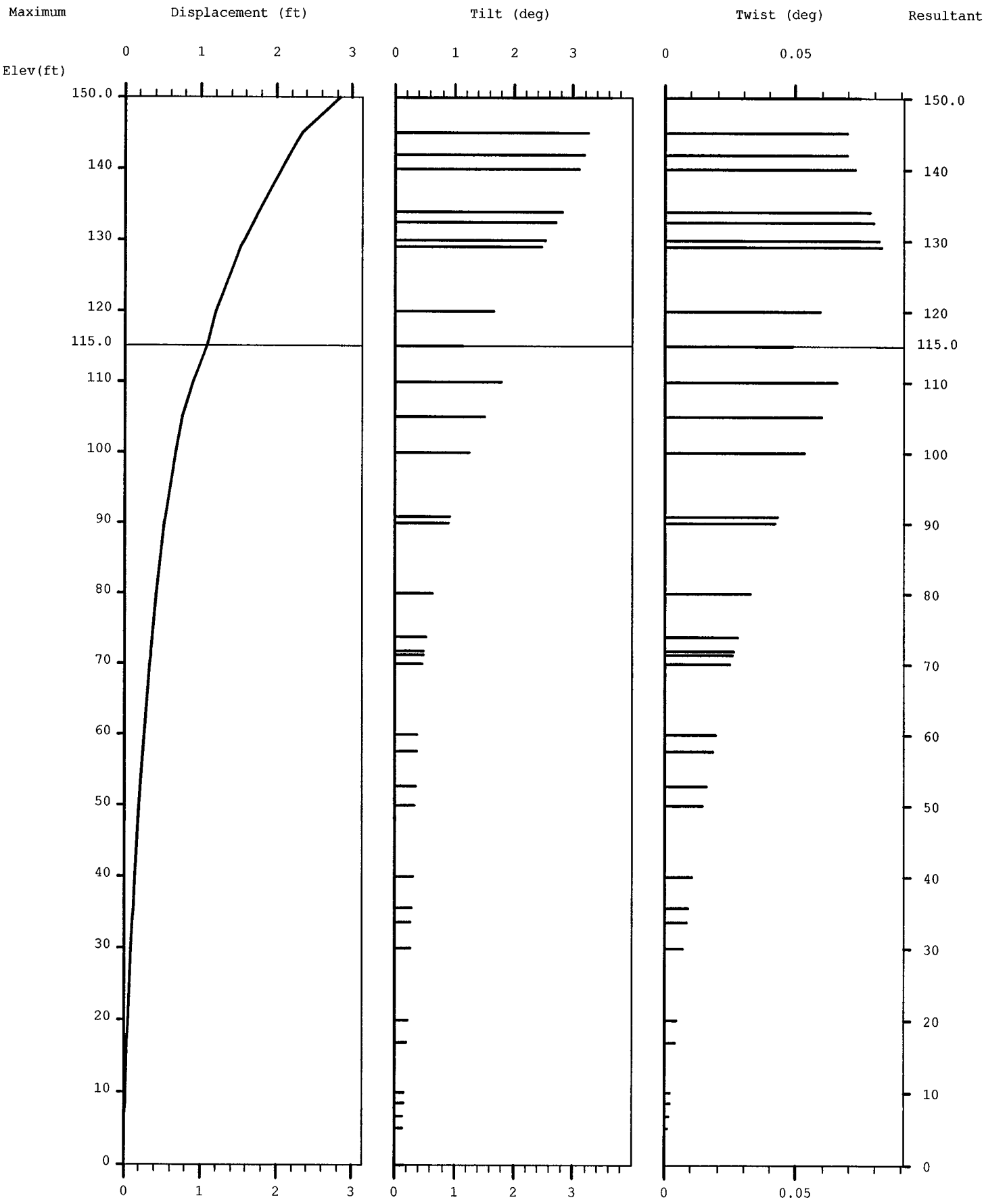


Maximum Mast Moment (ft-kip) Mast Shear (kip) N-S

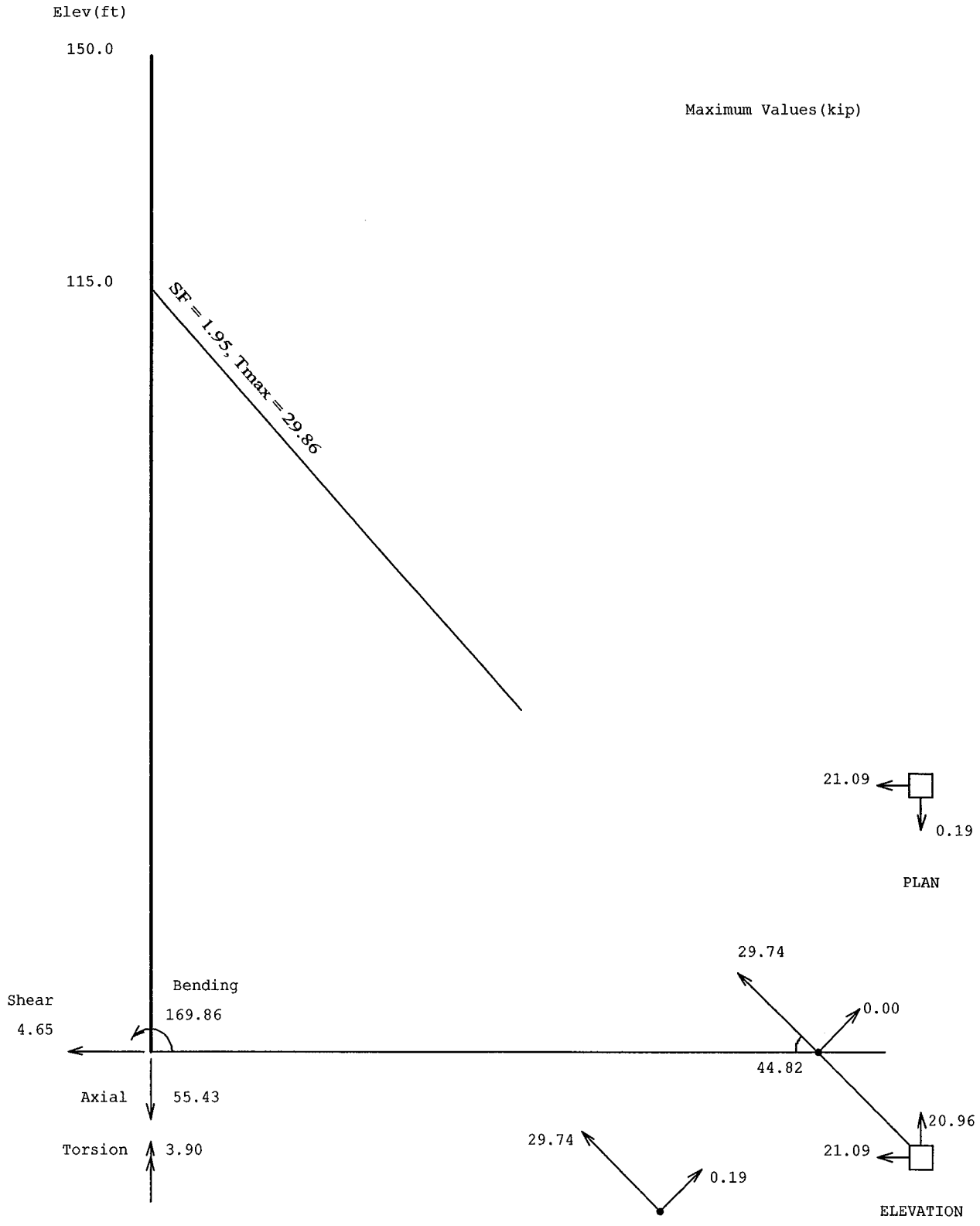


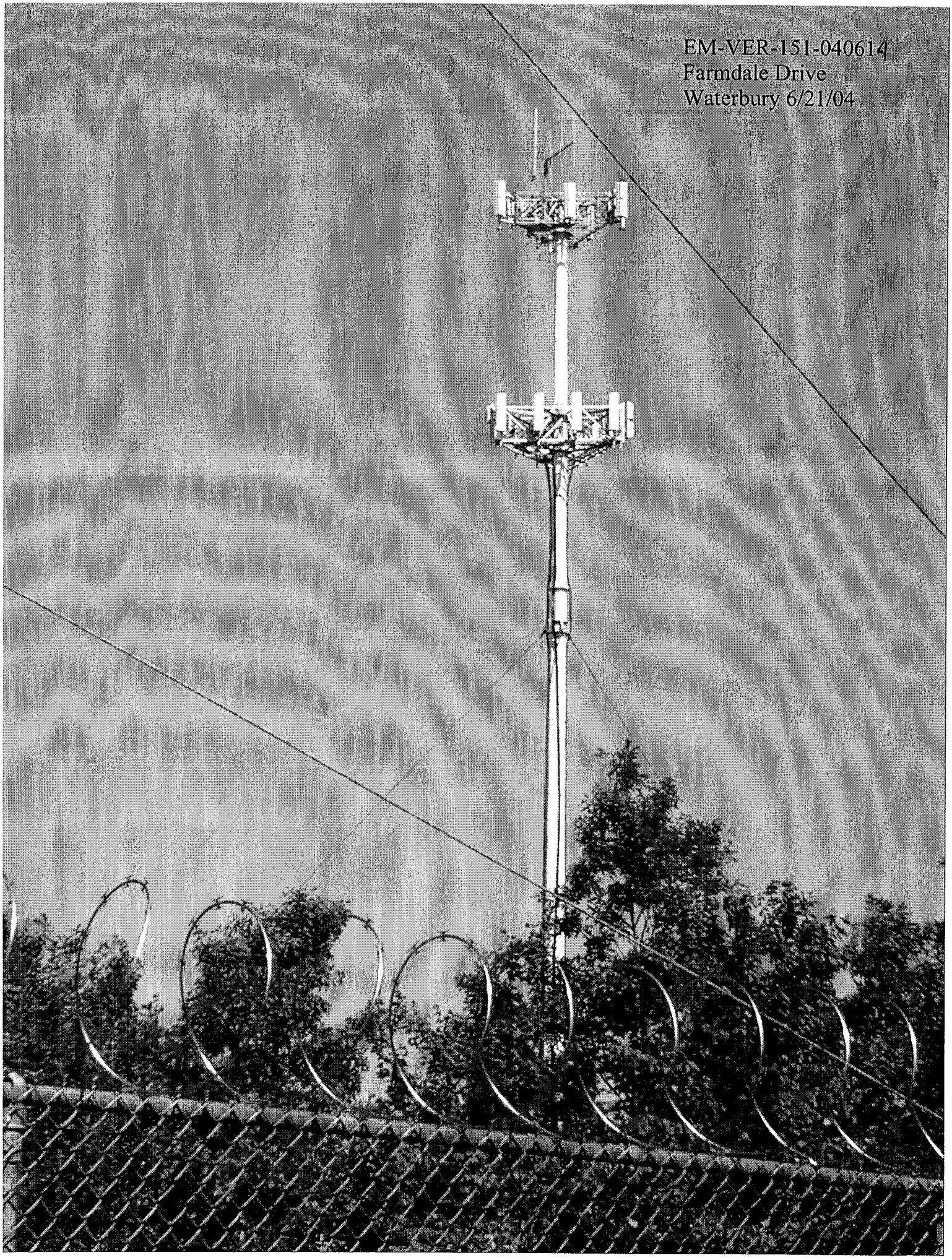

Maximum
Displacement (ft)
Tilt (deg)
Twist (deg)
E-W
Elev(ft)
0 0.5 1 1.5 2 2.5
0 1 2 3
0 0.05
150.0
140
130
120
115.0
110
100
90
80
70
60
50
40
30
20
10
0


Maximum
Displacement (ft)
Tilt (deg)
Twist (deg)
N-S
Elev(ft)
0 1 2 3
0 1 2 3
0 0.05
150.0
140
130
120
115.0
110
100
90
80
70
60
50
40
30
20
10
0


Maximum
Displacement (ft)
Tilt (deg)
Twist (deg)
Resultant
Elev(ft)
0 1 2 3
0 1 2 3
0 0.05
150.0
140
130
120
115.0
110
100
90
80
70
60
50
40
30
20
10
0

Guy Tensions, Anchor Loads and Base Loads

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Waterbury 6/21/04