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

May 2, 2006

Marie R. Burbank
Sprint/Nextel Communications, Inc.
208 Gilead Road
Andover, CT 06232

RE: **EM-NEXTEL-094-060407** - Sprint Nextel Communication, Inc. notice of intent to modify an existing telecommunications facility located at 2111 Berlin Turnpike, Newington, Connecticut.

Dear Ms. Burbank:

At a public meeting held on April 27, 2006, 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 structural analysis report's recommendations, install one antenna per cross arm and perform a soils investigation to determine the adequacy of the foundation, are implemented.

The proposed modifications are to be implemented as specified here and in your notice dated April 7, 2006, 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,

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: The Honorable Rodney Burt Mortensen, Mayor, Town of Newington
Edmund Meehan, Town Planner, Town of Newington
Christine Farrell, T-Mobile
Christopher B. Fisher, Esq., Cuddy & Feder LLP
Michelle G. Briggs, Cingular Wireless PCS, LLC

208 Gilead Road, Andover, Ct 06232

April 24, 2004

Pamela B. Katz, P.E.
Chairperson
Connecticut Siting Council
10 Franklin square
New Britain Connecticut 06051

Re: Notice of Exempt Modification – Corrected application letter
Address: 2111 Berlin Turnpike, Newington, Connecticut

Dear Ms. Katz:

Attached is a revised cover letter and RF density report referring to the above modification. The corrections include correcting the height of the tower to 170 ft, and the size of the equipment shelter to 11'6" x 26'6". The RF density report lists the centerline of the antennas at 140 ft accompanied with appropriate calculations.

Respectfully submitted for

SPRINT/NEXTEL COMMUNICATIONS, INC.

Marie R Burbank

By: Marie R. Burbank
Agent

Attachments
Cc: Rodney B. Mortensen, Mayor of Newington.
Att: construction drawings
Rf calculations
Shelter information
Antenna information

208 Gilead Road, Andover, Ct 06232

April 24, 2004

Pamela B. Katz, P.E.
Chairperson
Connecticut Siting Council
10 Franklin square
New Britain Connecticut 06051

Re: Notice of Exempt Modification
Address: 2111 Berlin Turnpike, Newington, Connecticut

Dear Ms. Katz:

Please be advised that Sprint Nextel Communication, Inc. proposes to modify an existing site at 2111 Berlin Turnpike, Newington. The modifications will add 3 panel antennas (one per sector) to the already existing 9 panel antennas located at the 140 ft level centerline above ground level; install a diesel generator; and replace the existing equipment shelter.

Discussion:

The existing facility consists of a 170 ft, guyed lattice tower. The coordinates at the site are latitude: 41'41'40.8'N and 72'42'34.0".

Nextel plans to update the existing antenna cluster by adding 3 panel antennas, one to each of the existing 3 sectors resulting in four antennas per sector, constituting a total of twelve (12) panel-type antennas (DB844H90E-XY). The 60kw, class 1 diesel generator will be installed on a 6' x 12' concrete pad at the location noted in attached Exhibit A. The existing 10' x 20' equipment shelter will be replaced with a 11'6" x 26'6" equipment shelter. The smaller existing shelter will remain on site while the transfer to the larger equipment shed is taking place.

The planned modification to the 2111 Berlin Turnpike site is within the activities explicitly provided for in R.C.S.A. 16-50j-72(b)(2).

1. The proposed modification will not increase the height of the tower and will not extend the boundaries of the existing compound area. The enclosed tower drawings (exhibit A) confirm that the planned changes will not increase the overall height of the tower or change the dimensions of the compound.

2. The installation of Nextel equipment, as reflected on the attached site plan, will not require an extension of the site boundaries. The equipment will be located entirely within the existing compound.

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

4. The operation of the additional antennas will not increase the total radio frequency power density, measured at the site boundary, to a level at or above the applicable standard. The "worst-case- RF power density calculations, for a point at the site boundary, are attached hereto as Exhibit B. Nextel has based its calculations regarding other carriers on information obtained from the Connecticut Siting Council files.

For the foregoing reasons, Nextel respectfully submits that the proposed modifications listed above at the 2111 Berlin Turnpike facility constitute an exempt modification under R.C.S.A. 16-50j-72(b)(2).

Respectfully submitted for

SPRINT/NEXTEL COMMUNICATIONS, INC.

Marie R. Burbank

By: Marie R. Burbank
Agent

Attachments
Cc: Rodney B. Mortensen, Mayor of Newington.
Att: construction drawings
Rf calculations
Shelter information
Amtenna information

Newington, CT0746 (Berlin Tpke.) - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 140' AGL

Note: Power densities are in mW/ cm²

Transmitters:	Frequency in MHz	CT Standard mW/ cm²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
T-Mobile (from prior file) cumulative power density	1935	1.0000	8	394.89	164'	0.0184	6.1770%
Town of Wethersfield (from T-Mobile file included in cumulative %)					160'		
Town of Wethersfield (from T-Mobile file included in cumulative %)					189'		
Town of Wethersfield (from T-Mobile file included in cumulative %)					100'		
Cingular (from T-Mobile file included in cumulative %)					118'		
Nextel Digital ESMR**	**851**	**0.5673**	**12**	**100**	**134**	**0.024018712**	**4.2336%**

** lowest Nextel antenna centerline is 140' adjusted to 134' per OET 65 Bulltian for 8' average head height.

Total % of CT Standard **10.4106%**

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
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www.ct.gov/csc

April 10, 2006

The Honorable Rodney Burt Mortensen
Mayor
Town of Newington
131 Cedar Street
Newington, CT 06111

RE: **EM-NEXTEL-094-060407** – Sprint Nextel Communication, Inc. notice of intent to modify an existing telecommunications facility located at 2111 Berlin Turnpike, Newington, Connecticut.

Dear Mayor Mortensen:

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 Thursday, April 27, 2006 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 April 24, 2006.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/ap

Enclosure: Notice of Intent

c: Edmund Meehan, Town Planner, Town of Newington
Marian Amodeo, Acting Town Manager, Town of Newington

ORIGINAL

208 Gilead Road, Andover, Ct 06232

April 7, 2004

EM-NEXTEL-094-060407

Pamela B. Katz, P.E.
Chairperson
Connecticut Siting Council
10 Franklin square
New Britain Connecticut 06051

Re: Notice of Exempt Modification
Address: 2111 Berlin Turnpike, Newington, Connecticut

Dear Ms. Katz:

Please be advised that Sprint Nextel Communication, Inc. proposes to modify an existing site at 2111 Berlin Turnpike, Newington. The modifications will add 3 panel antennas to the already existing 9 panel antennas located at the 152 ft level centerline above ground level; install a diesel generator; and replace the existing equipment shelter.

Discussion:

The existing facility consists of a 180 ft, guyed lattice tower. The coordinates at the site are latitude: 41'41'40.8'N and 72'42'34.0".

Nextel plans to update the existing antenna cluster by adding 3 panel antennas, one to each of the existing 3 sectors resulting in four antennas per sector, constituting a total of twelve (12) panel-type antennas (DB844H90E-XY). The 60kw, class 1 diesel generator will be installed on a 6' x 12' concrete pad at the location noted in attached Exhibit A. The existing 10' x 20' equipment shelter will be replaced with a 12 x 20 equipment shelter. The smaller existing shelter will remain on site while the transfer to the larger equipment shed is taking place.

The planned modification to the 2111 Berlin Turnpike site is within the activities explicitly provided for in R.C.S.A. 16-50j-72(b)(2).

1. The proposed modification will not increase the height of the tower and will not extend the boundaries of the existing compound area. The enclosed tower drawings (exhibit A) confirm that the planned changes will not increase the overall height of the tower or change the dimensions of the compound.

2. The installation of Nextel equipment, as reflected on the attached site plan, will not require an extension of the site boundaries. The equipment will be located entirely within the existing compound.

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

4. The operation of the additional antennas will not increase the total radio frequency power density, measured at the site boundary, to a level at or above the applicable standard. The "worst-case- RF power density calculations, for a point at the site boundary, are attached hereto as Exhibit B. Nextel has based its calculations regarding other carriers on information obtained from the Connecticut Siting Council files.

For the foregoing reasons, Nextel respectfully submits that the proposed modifications listed above at the 2111 Berlin Turnpike facility constitute an exempt modification under R.C.S.A. 16-50j-72(b)(2).

Respectfully submitted for

SPRINT/NEXTEL COMMUNICATIONS, INC.

By: Marie R. Burbank
Agent

Attachments
Cc: Rodney B. Mortensen, Mayor of Newington.
Att: construction drawings
Rf calculations
Shelter information
Amtenna information

Exhibit B

Newington, CT0746 (Berlin Tpke.) - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 152' AGL

Note: Power densities are in mW/ cm²

Transmitters:	Frequency in MHz	CT Standard mW/ cm²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
T-Mobile (from prior file) cumulative power density	1935	1.0000	8	394.89	170	0.0184	6.1770%
Town of Wethersfield (from T-Mobile file included in cumulative %)					180'		
Town of Wethersfield (from T-Mobile file included in cumulative %)					189'		
Town of Wethersfield (from T-Mobile file included in cumulative %)					100'		
Cingular (from T-Mobile file included in cumulative %)					142		
Nextel Digital ESMR**	**851**	**0.5673**	**12**	**100**	**146**	**0.020232689**	**3.5663%**

** lowest Nextel antenna centerline is 152' adjusted to 146' per OET 65 Bulliten for 6' average head height.

Total % of CT Standard **9.7433%**

DB844H90E-XY

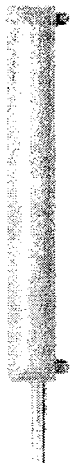
Directed Dipole Antenna

DECIBEL®
Base Station Antennas

- Excellent azimuth roll-off, 15-20% reduction in cell to cell overlap
- Superior front to back ratio
- Low profile, low wind load for easy zoning
- Outstanding field record, with thousands of units deployed, world wide

ELECTRICAL

Frequency (MHz) :	806 - 896	870 - 960
Polarization :	Vertical	Vertical
Gain (dBd/dBi) :	12/14.1	12.4/14.5
Azimuth BW (Deg.):	90	90
Elevation BW (Deg.):	15	15
Beam Tilt (Deg.):	0	0
USLS* (dB) :	>15	>15
Front-To-Back Ratio* (dB) :	40	40
VSWR :	<1.35:1	<1.35:1
Max. Input Power (Watts) :	500	500
Impedance (Ohms) :	50	50
Lightning Protection :	DC Ground	DC Ground



MECHANICAL

Weight :	6.3 kg (14 lb)
Dimensions (LxWxD) :	1,219 x 165 x 203 mm (48 x 6.5 x 8 in)
Max. Wind Area :	0.10 m² (1.1 ft²)
Max. Wind Load (@ 100 mph) :	262.4 N (59 lbf)
Max. Wind Speed :	241 km/h (150 mph)
Hardware Material :	Galvanized Steel
Connector Type :	7-16 DIN - Female (1, Back)
Color :	Light Gray
Standard Mounting Hardware :	DB380
Standard Downtilt Mounting Hardware :	DB5083

Andrew Corporation
2601 Telecom Parkway
Richardson, Texas U.S.A 75082-3521
Tel: 214.631.0310

Fax: 214.631.4706
Toll Free Tel: 1.800.676.5342
Fax: 1.800.229.4706
www.andrew.com

* - Indicates Typical

7/1/2005

dbtech@andrew.com

Precast Structure

A. Structure Engineering

- Drawings: Detailed engineering and shop drawings provided for all precast in this Scope of Work. The structural drawings will be stamped by a professional engineer.
- Certification: Oldcastle will certify the design by a structural engineer registered in the state of Connecticut.

B. Material List

QTY	DESCRIPTION
1	RCS11526-95 Concrete Equipment Shelter with Exposed Aggregate Exterior Finish Features Steel Reinforced Lightweight Concrete Walls, Roof and Floor Virtually Maintenance Free Exposed Aggregate Exterior with Exclusive Step Joint Design Two Hour Fire Rating per the UBC (4" Solid Concrete Walls) Bullet Resistant Certified to UL-752 HPR Rating (30.06 Rifle Fire) Approximate Finished Weight: 79,000 LBS. "10 YEAR" STRUCTURAL WARRANTY Exterior Dimensions:11'-6" Wide by 26' Long by 10'-5" High Interior Dimensions: 10'-6" Wide by 25' Long by 9'-2" High with Interior Finish
	Structural and Architectural Details
1	Cable Entry Plate, 4" Dia. 4 x 4 Configured, 16 Ports w/ Caps (Microflect #B1447)
4	Future Waveguide Blockout with Cover Plates
1	Steel Exterior Door, 3'0" x 7'0" & Frame (Located on Short Wall) Includes: Trilogy T3 Combination Lockset, 2" Drip Cap, Security Hinges (NRP) Door Stop, Magnetic Weatherstriping, Aluminum Threshold with the Door Painted Cocoa
1	Lock Guard (Pick Plate)
1	Door Canopy, 8" Deep x 44" Long
1	Door Closure, Hydraulic (Norton)
1	R-11 Insulated Walls & Ceiling with White Paneling and Trim
1	Floor Tile with Vinyl Baseboard Trim
	Electrical
2	ASCO 7000L 4 2 200 F 5 X C with Options 18B and 18G 40 Breaker Positions (Functions: Distribution Panel, ATS)
2	Surge Arrestor (AC Data B82XJR) Item Master #12560
1	2" Power Entry Elbow with 360 Degree Rotation,
10	Interior Fluorescent Lights, Two 4' 40W Bulbs (Sylvania FO32/730)
8	Duplex Receptacles, Each on Separate 20A Circuit
1	60 Watt Incandescent Exterior Light with Motion Detector All conduit shall be surface mounted EMT W/3-pc box conn. for secondary grd. path.
1	2 Hour Timer for Interior Lights
1	Exterior GFI Receptacle
12	Rectifier Circuits, 30A with Flexible Conduit Drop From J-Box or Wireway
1	Emergency Light with Exit Sign

	Grounding
1	Halo Ground System, #2 AWG Green Insulated stranded Copper Wire
1	Metalic Grounding, Ground all Metalic Items as Listed in Section 6.6 of RFPExhibit 1 6.4
2	Ground Drop, #2 Solid Tinned Copper Cad Welded to the MGB
1	Ground All Splices and Tees on Cable Ladder
2	Master Ground Bar, Harger #GBIT14420J2-7
1	Telco Ground Bar, 2"x6"
	HVAC
2	Bard Wall Mount Air Conditioners 5-Ton, 208/230 VAC, Single Phase w/5KW Heat Strip & Economizers. Includes: Low Ambiant Control, Adjustable Time Delay & Circuit Breaker (Std. End location) Warranty Program (One Year Parts & Labor) Item Master #16702
1	Lead Lag Controller (7 Day Controller and Automatic Thermostat)
	Cable Ladder
60	Cable Ladder (Lin Ft), 18" Wide Gold Chromate w/ Ceiling and Wall Support Brackets
	Security
1	Alarm Punch Block 66M1-50, Anixter #005815 with Cover
1	Back Board for Punch Blocks, Anixter #894098
1	(50) Bridging Clips, Anixter #106681
1	Smoke Detector with Auxiliary Contacts to Shut Down HVAC Units
1	High Temperature Alarm, SPDT Thermostat 110F to 30F Range
1	Low Temperature Alarm, SPDT Thermostat 30F to 110F Range
1	Open Door Alarm (Magnetic)
1	Power Failure Alarm, with Relay
1	Surge Arrestor Alarms
2	Air Conditioner Alarms
1	Telco Board 4' x 4' with (1) 4" & (1) 3/4" PVC Entry
1	Fire Extinguisher, Carbon Dioxide 20 LB
1	Documentation Pouch
1	Fold Down Table
	Special
1	Tie Down Kit (4 Angles), Installed by Others
1	Connecticut State Certification

Vertical Resources Group, Inc.

October 31, 2005

Christopher K. Daddi, P.E.
Project Manager
Dewberry
59 Elm Street
Suite 101
New Haven, CT 06510-2047

SUBJECT: Structural Analysis
Existing 170' Guyed Tower
Newington, CT
Site ID: CT0746
Our File : 20-294

Dear Mr. Daddi,

We have completed the analysis of the existing 170' guyed tower in Newington, CT and are pleased to submit our report for your attention.

The tower analysis was undertaken on behalf of a Dewberry purchase order number CKD-09262005 dated October 26, 2005.

We trust the analysis and recommendations presented in this report will meet your requirements. However, please do not hesitate to contact us if you have any queries, or require any further information regarding this study.

Yours very truly,

Miguel Nobre,Eng.

Preface

At the request of Nextel, we have analyzed the existing 170' Guyed tower, located in Newington, CT for the proposed antenna and tx-line loading.

The existing structure is a 170' ROHN 80 guyed tower with a 41" nominal face width from elev. 5' to 170' with a 5' tapered base. The tower is comprised of pipe legs with horizontal and diagonal tubes assembled on 15' and 20' sections each comprised of five 58" 'D' or 'X' shaped panels. The tower is supported at four guy levels with two torsion resistors.

The present tower is not painted or lit, it's also not registered with the FCC and was initially installed in the winter of 1996.

Documents Examined

Tower profile	• Tower Survey results provided per site visit by VRG.
Member details	• Tower Survey results provided per site visit by VRG.
Existing and proposed Antenna loading	• Tower Survey results provided per site visit by VRG & Chris Daddi dated 10-5-05 for proposed antenna loading.

Design Parameters

Design Standard:	TIA/EIA – 222 – F, ASCE 7-98, BOCA National Building Code 2003, AISC ASD 9th Edition, ACI 318-99.
Ref. Wind Velocity	80 Mph (Hartford County)
Radial ice:	1/2"ϕ
Wind Loading Conditions	1 - 80 mph with no ice 2 - 69.3 mph with 1/2"ϕ radial ice
Importance factor	1.0
Allowable Stress Increase	4/3 (ASD 9TH Edition Section A5.2)

Design Assumptions

The present report assumes the following information:

1- Pipe leg material is considered as being of ASTM A36 mod 50, 50 Ksi.

2- Proposed panel antennas will be installed on existing antenna frames and coaxial cables on existing Nextel cable ladder.

In the event that any of these assumptions are incorrect we will need to be notified immediately in order to revise the results and recommendation herein.

Existing and Proposed Antenna Loading

The following existing and proposed antenna loading is per loading specifications provided by Chris Daddi dated 10-5-05.

ANTENNA	ELEVATION	ORIENTATION	TX-LINE	CARRIER	NOTE
(1) 10' whip	170' (base)	120°	(1) 7/8"ø	---	Mounted to a 4' cross arm
(1) 10' whip	170' (base)	240°	(1) 1 5/8"ø	---	Mounted to a 4' cross arm
(1) 5' panel	170' (cent)	0°	(1) 1 5/8"ø	---	Leg mounted pipe mount
(1) 4' dish	168' (cent)	120°	(1) 1 5/8"ø	---	Mounted to tower leg.
(6) 5' x 1' panels	164' (cent)	0°,120°,240°	(16) 1-5/8"ø	T-Mobile	Mounted to existing 12' section frames
(9) DB844, 4' panels	140' (cent)	0°,120°,240°	(9) 1-1/4"ø	Nextel	Mounted to existing 12' section frames
(9) CSS, 5' panels	118' (cent)	0°,120°,240°	(9) 7/8"ø	Verizon	Mounted to existing 12' section frames
(3) DB844, 4' panels	**140' (cent)**	**0°,120°,240°**	**(3) 1-1/4"ø**	**Nextel**	**Mounted to existing 12' section frames**

All elevations are measured from ground level. Antennas listed in bold are proposed under this analysis.

Ancillary Loading

APPURTENANCE	ELEVATION	ORIENTATION	NOTE
Climbing Ladder	0 – 170'	---	Rohn Lock Safety device
Torsion resistors	130',150'	---	Existing

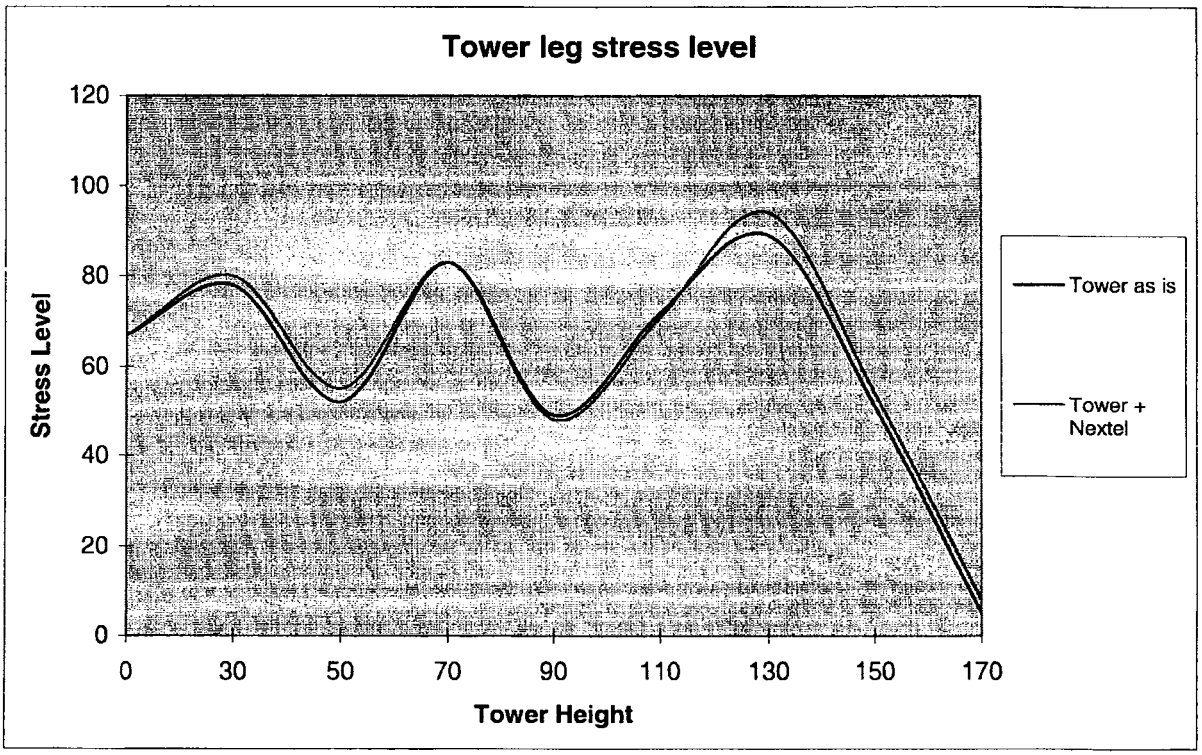
Analysis Method

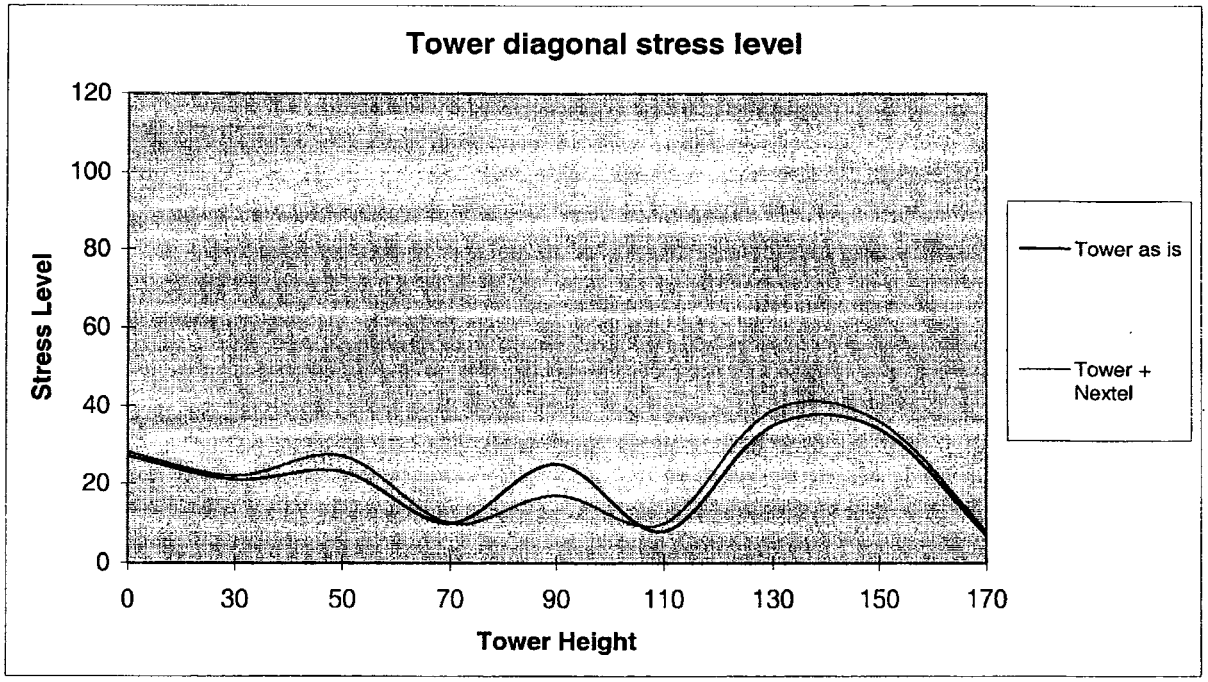
The existing tower was analyzed using a comprehensive computer program titled "GUYMAST". The analysis of a guyed mast is based on elastic analysis of a beam column and non-linear behaviour of individual guy sets, which provide horizontal restraint to the mast. The final solution is established on the basis of horizontal deflection compatibility between mast and guys, satisfied when corresponding guy and mast deflections agree within 0.01 feet. Mast deflections and reduction of rotation stiffness due to axial loads are considered in calculation of mast forces and stability

Section 15.1 of TIA/EIA-222-F stipulates that when there is a change in antennas, transmission lines, appurtenances, in operational requirements, an increase in wind or ice loading a structural analysis as per the latest version of the code is required.

The tower is assumed to be in good, undamaged and non-corroded condition. The analysis allowed a 5 percent over-stress due to design variance. The tower legs are of 50 Ksi ASTM A36 steel, as for the bracing and horizontals they are of 42 ksi steel. The present analysis is in accordance with TIA/EIA Standard 222-F.

Results





Vertical Resources Group, Inc.
420 Boston Turnpike, Suite 408 - Shrewsbury, MA 01545
P: 508-981-9590 F: 508-519-8939

Results

Listed are the elevations at which the maximum stress levels occur for the stated element types.

Tower as is

Elevation (ft)	Legs	Diagonals	Horizontals
170	5% capacity	7% capacity	---
150	51% capacity	34% capacity	---
130	89% capacity	35% capacity	---
110	72% capacity	8% capacity	---
90	49% capacity	15% capacity	---
70	83% capacity	10% capacity	---
50	52% capacity	23% capacity	---
30	78% capacity	21% capacity	---
0	67% capacity	27% capacity	---

Tower as is with proposed panel antennas

Elevation (ft)	Legs	Diagonals	Horizontals
170	8% capacity	8% capacity	---
150	54% capacity	36% capacity	---
130	94% capacity	39% capacity	---
110	71% capacity	10% capacity	---
90	48% capacity	17% capacity	---
70	83% capacity	10% capacity	---
50	55% capacity	27% capacity	---
30	80% capacity	22% capacity	---
0	67% capacity	28% capacity	---

Tower as is

Guy wire size & type	Elevation	Stress Level
3-1/2" Ø EHS 1x7	50'	65% capacity
3-1/2" Ø EHS 1x7	90'	63% capacity
6-5/8" Ø EHS 1x7	130'	51% capacity
6-1/2" Ø EHS 1x7	150'	57% capacity

Tower as is with proposed panel antennas

Guy wire size & type	Elevation	Stress Level
3-1/2" Ø EHS 1x7	50'	66% capacity
3-1/2" Ø EHS 1x7	90'	63% capacity
6-5/8" Ø EHS 1x7	130'	52% capacity
6-1/2" Ø EHS 1x7	150'	59% capacity

Foundations

(as is)

Base Loads:		Anchor loads:	
Down Load	98.1 kips	Horizontal	35.8 kips
Shear	1.5 kips	Vertical	36.6 kips
		Axial	51.2 kips

(as is with proposed panel antennas)

Base Loads:		Anchor loads:	Outer
Down Load	100.7 kips	Horizontal	36.0 kips
Shear	1.6 kips	Vertical	36.7 kips
		Axial	51.5 kips

Anchor Shaft Stresses:

Anchor:

1 - 1.75"ø Solid Rods = 75% capacity *Acceptable*

Since foundation designs and geotechnical reports stating the in situ soil conditions were not available, the structural adequacy of existing foundations could not be verified.

Conclusion

Based on the aforementioned results it is consistent to confirm that the existing tower in its present configuration and under the proposed loading is in conformance with the requirements of TIA/EIA-222-F for a reference wind velocity of 80 mph with ½"ø radial ice.

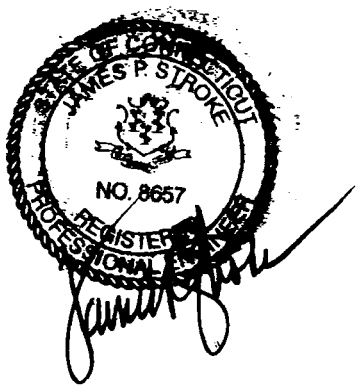
Recommendations

To install the proposed Netxel three (3) DB844 panel antennas along with its associated transmission lines the following recommendations should be implemented:

1- Install proposed three panels on existing antenna cross arms one per arm and proposed coaxial cables on existing Nextel waveguide ladder.

2- We recommend the foundation type and size be determined and a comprehensive soils investigation be performed so as to adequately establish the structural adequacy of the existing foundations.

Yours very truly,



Miguel Nobre,P.Eng

APPENDIX 'A'

STANDARD ENGINEERING CONDITIONS

STANDARD CONDITIONS FOR FURNISHING OF PROFESSIONAL SERVICES ON EXISTING STRUCTURES

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, its foundations, the soil conditions, the antenna and feed line loading on the structure and its components, or other relevant information.

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

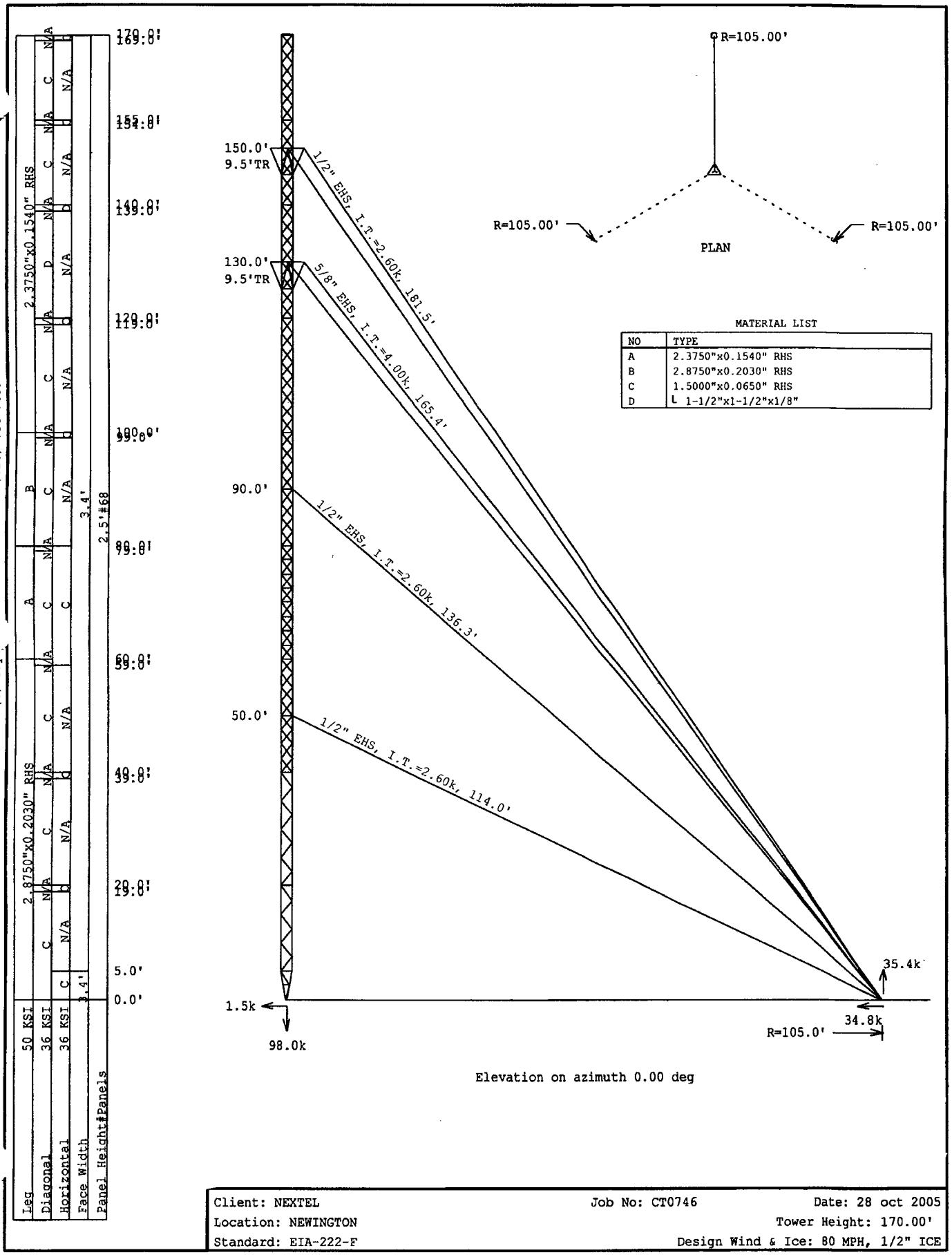
It is the responsibility of the client to ensure that the information provided to Vertical Resources Group Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance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

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

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

APPENDIX 'B'

Analysis Results Tower as is



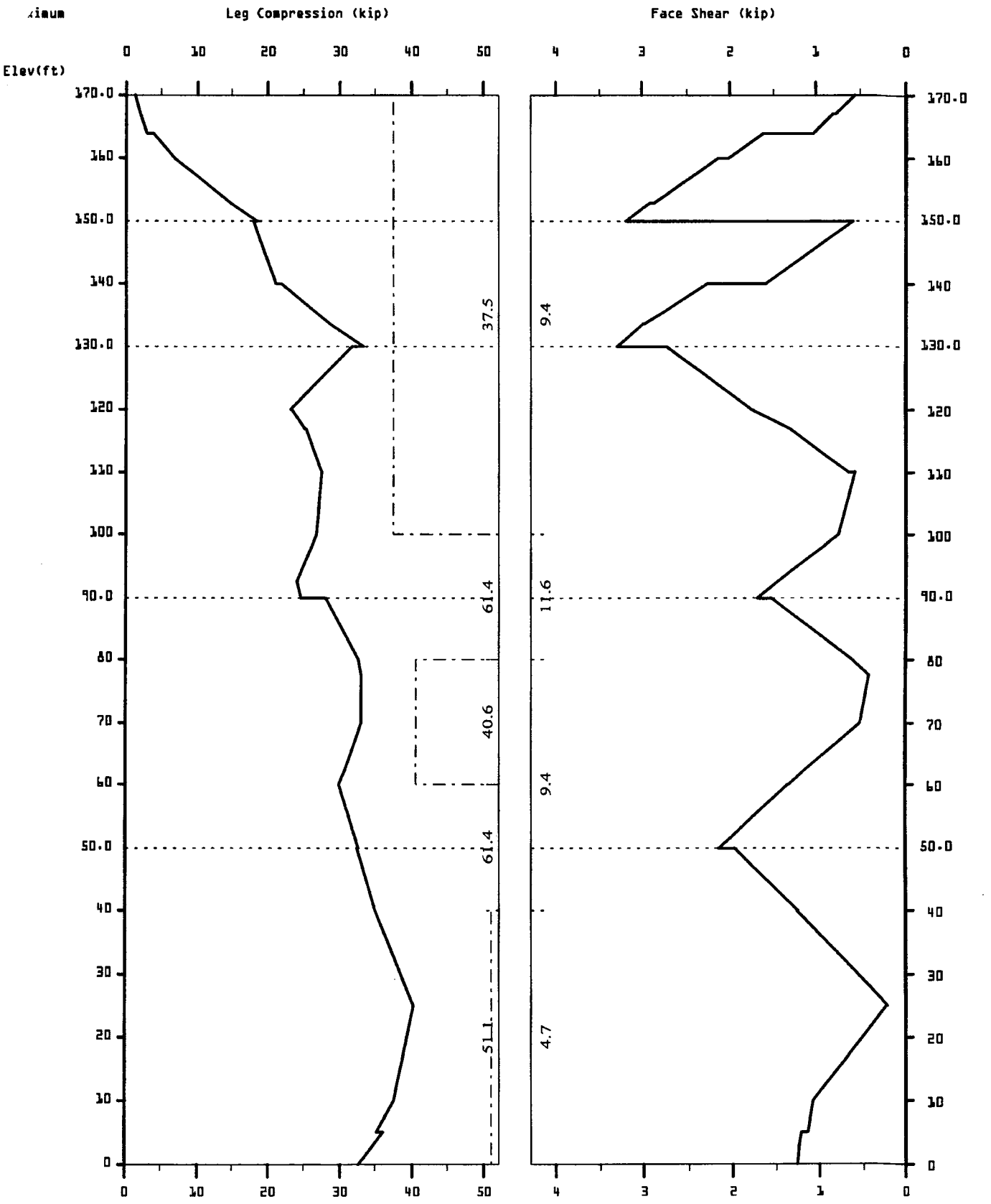
Elevation on azimuth 0.00 deg

DRAWMAST Version 1.2 (c) Guym .nc. 1997 Phone:(416) 736-7453

Client: NEXTEL | Job No: CT0746 | Date: 28 oct 2005
Location: NEWINGTON | Tower Height: 170.00'
Standard: EIA-222-F | Design Wind & Ice: 80 MPH, 1/2" ICE

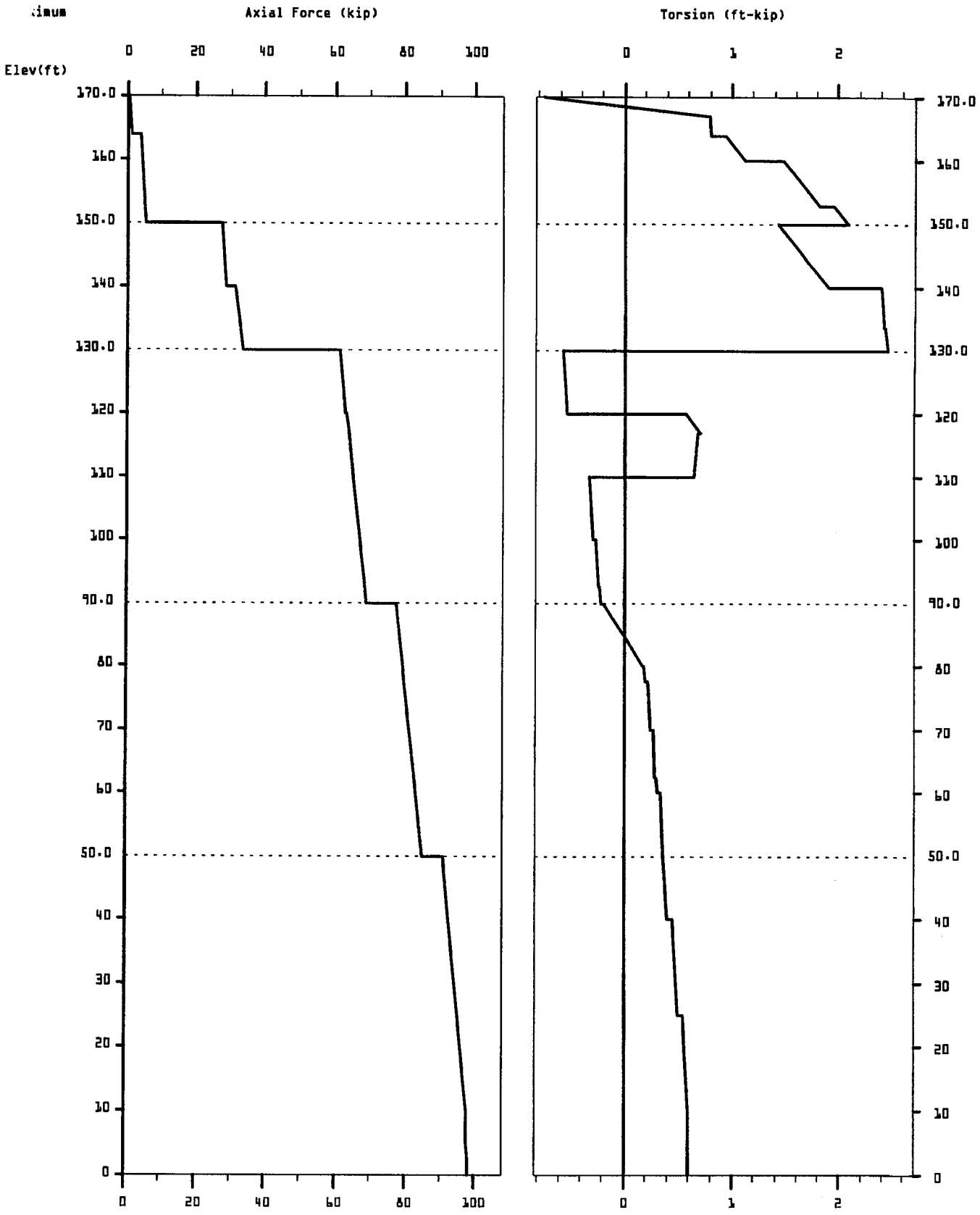
GUYPLOT Ver 4.0 (c) Guymast Inc. 1997 Phone:(416) 736-7453 28 oct 2005
20:03:44

170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) as is



170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) s is

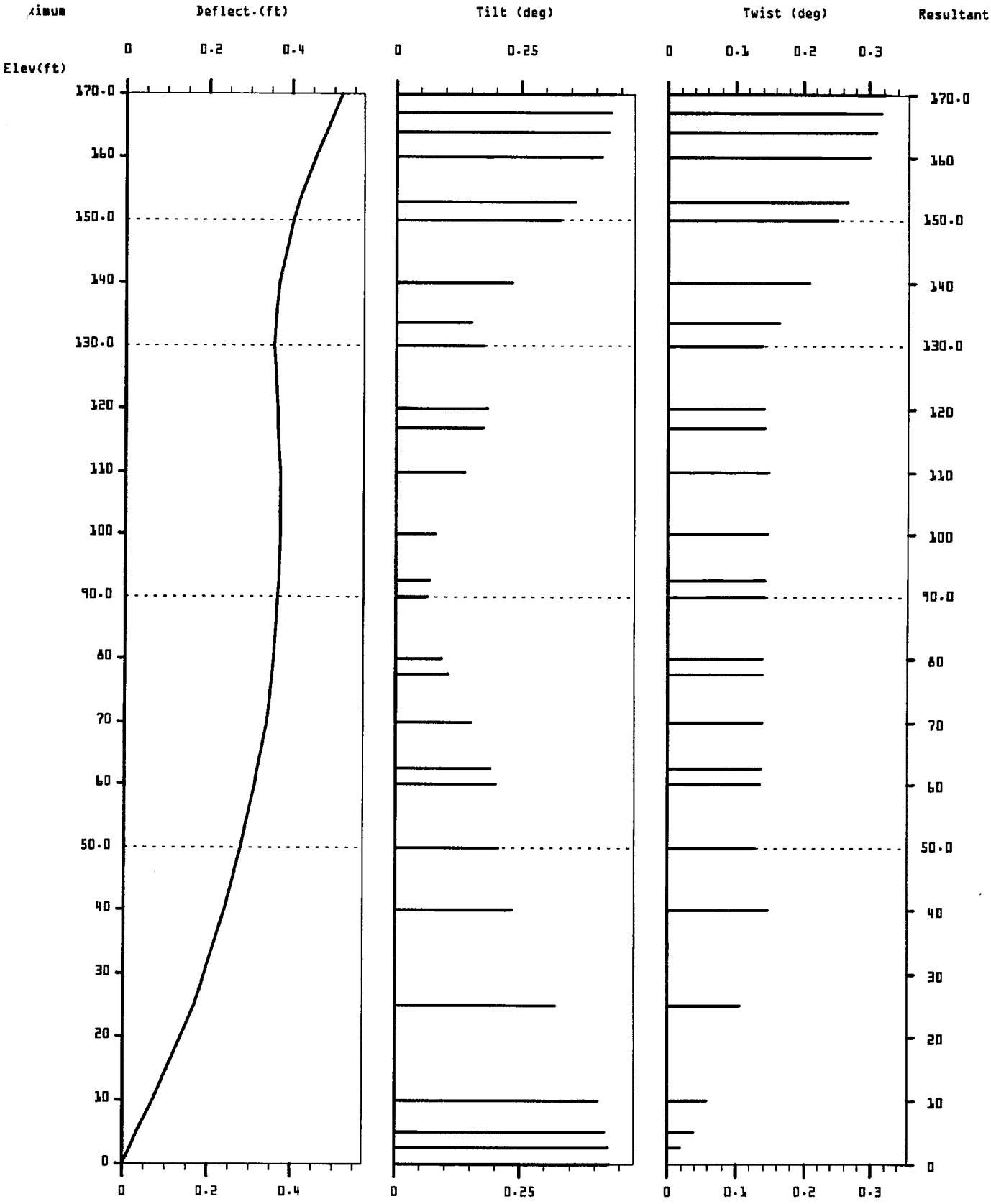
imum



GUYPLOT Ver 4.0 (c) Guymast Inc. 1997 Phone:(416) 736-7453

28 oct 2005
20:03:44

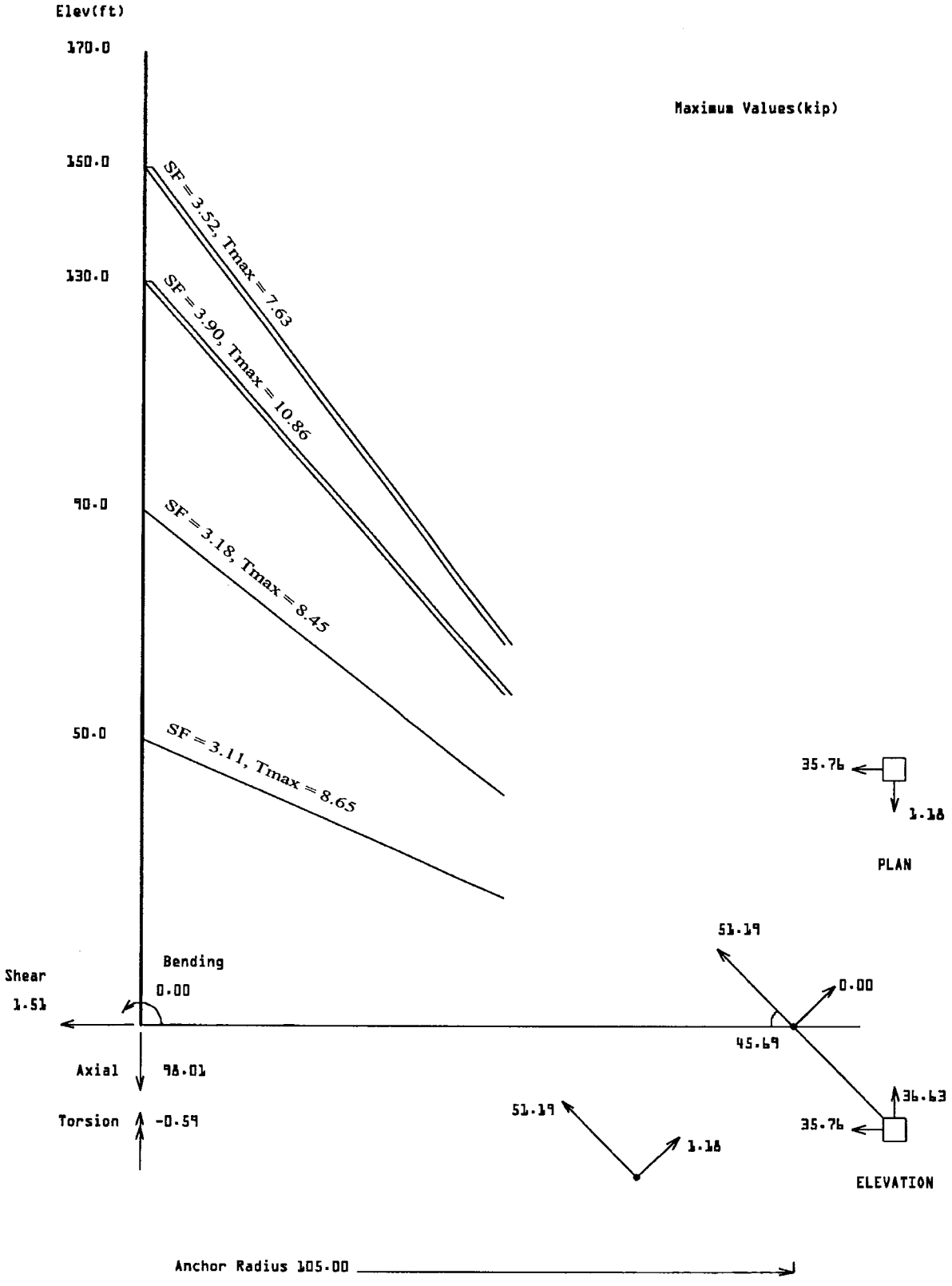
170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) as is



Project: c:\struct\40-294a.gym

170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) as is

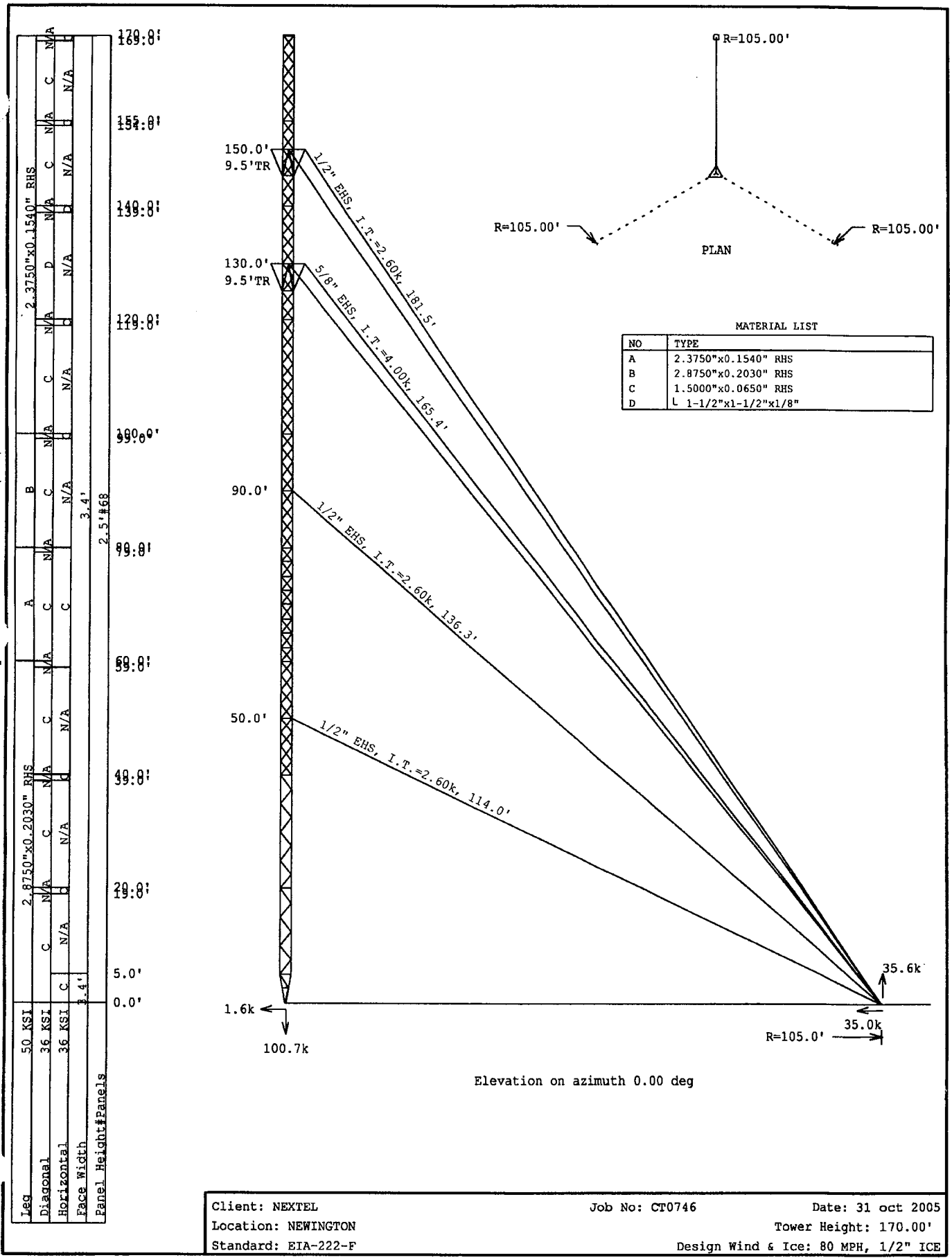
Guy Tensions, Anchor Loads and Base Loads



APPENDIX 'C'

Analysis Results Tower With

Proposed Nextel Panel Antennas



Elevation on azimuth 0.00 deg

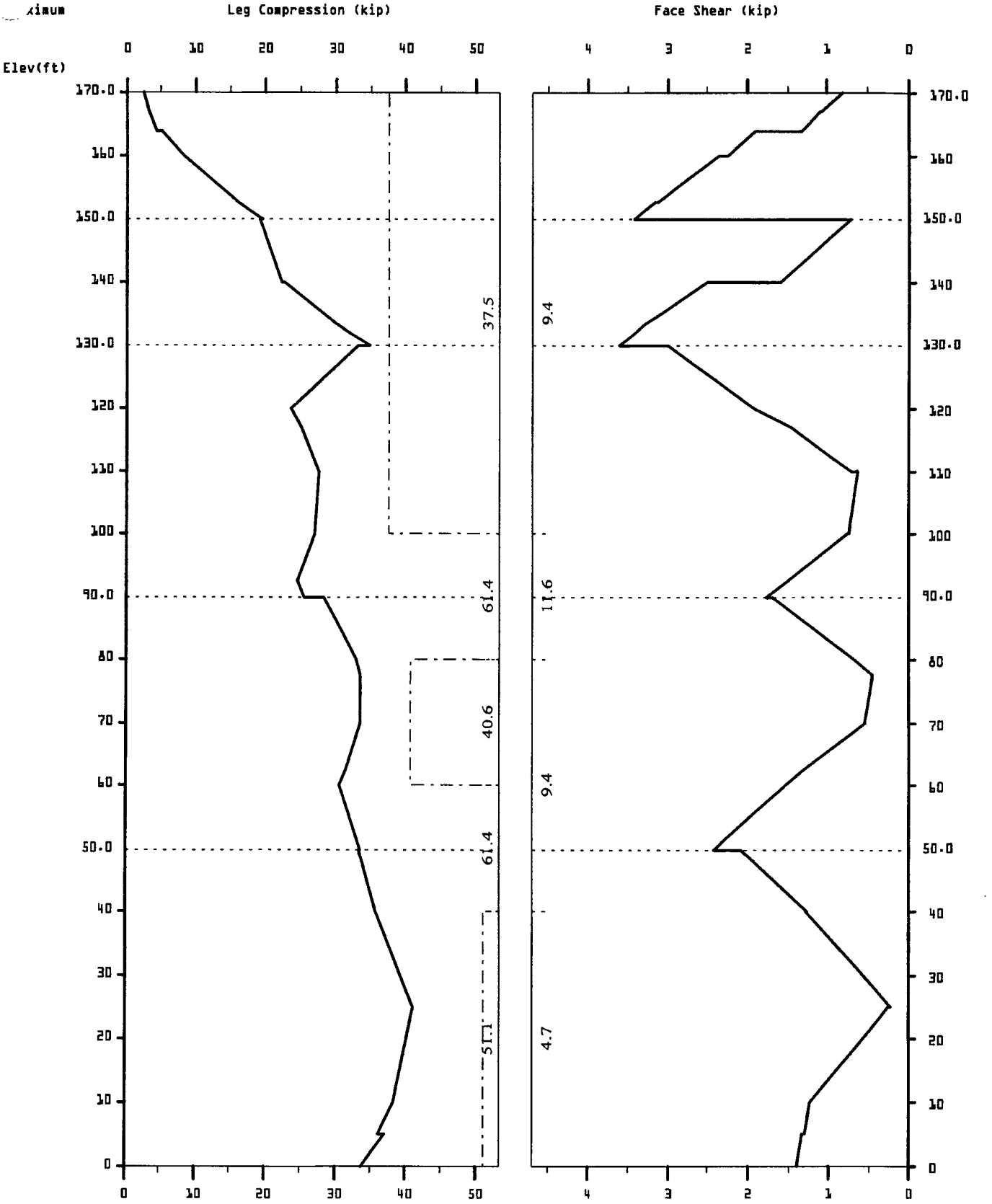
DRAWMAST Version 1.2 (c) Guym Inc. 1997 Phone:(416) 736-7453

Client: NEXTEL	Job No: CT0746	Date: 31 oct 2005
Location: NEWINGTON		Tower Height: 170.00'
Standard: EIA-222-F		Design Wind & Ice: 80 MPH, 1/2" ICE

GUYPLOT Ver 4.0 (c) Guymast Inc. 1997 Phone:(416) 736-7453

31 oct 2005
9:18:25

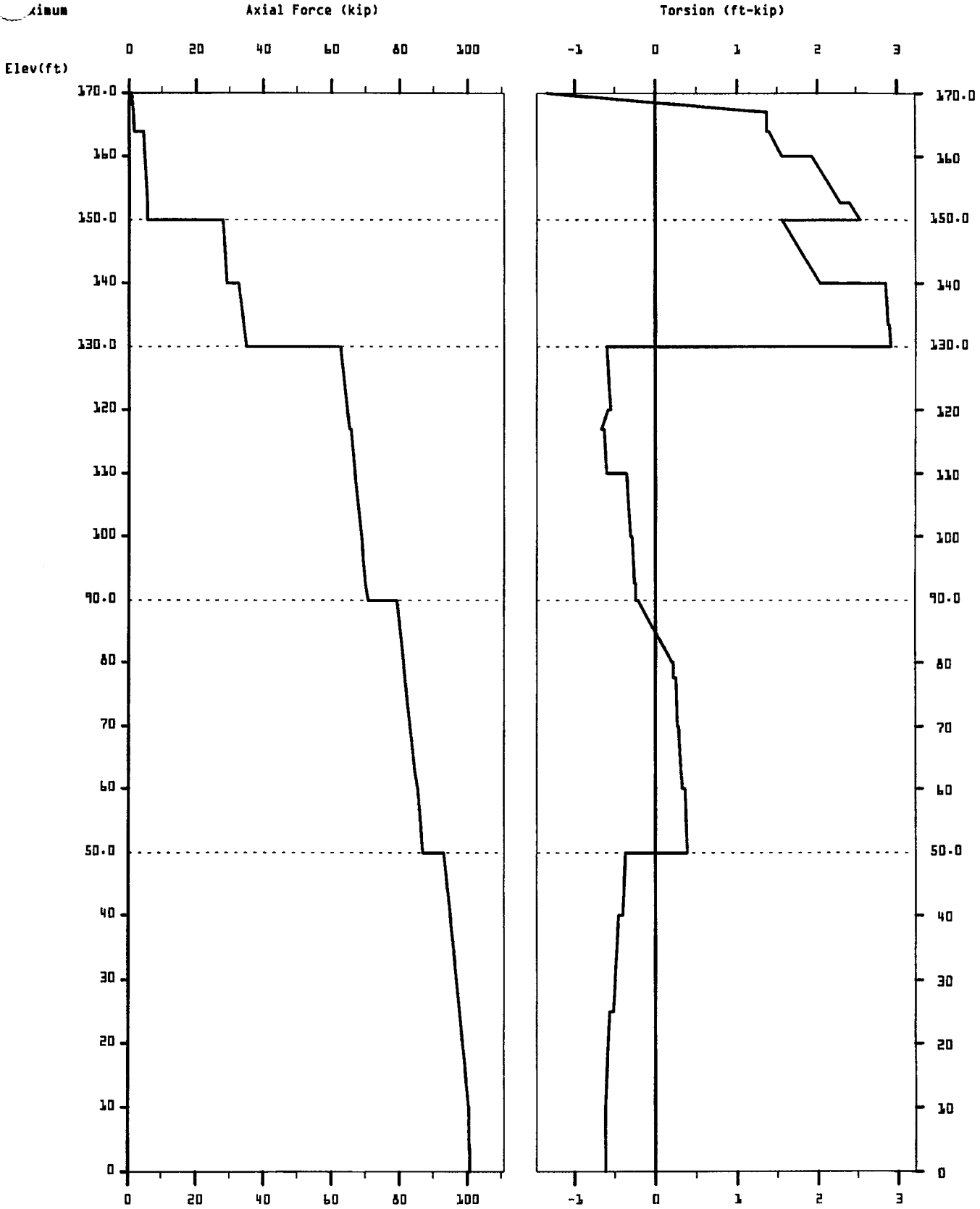
170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) c/w 3-Nextel antennas



Project: c:\struct\40-294b.gym

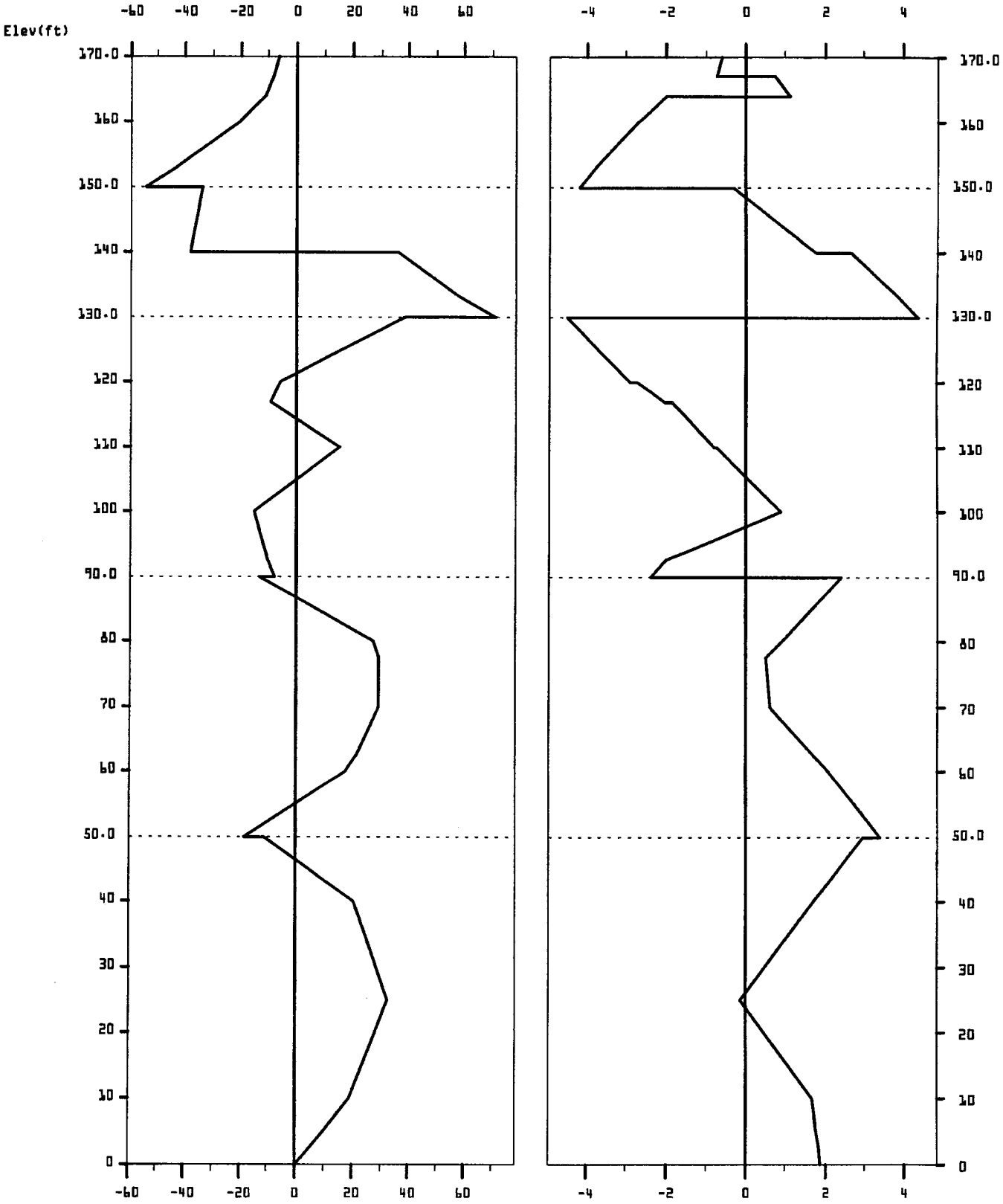
170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) c/w 3-Nextel antennas

Maximum

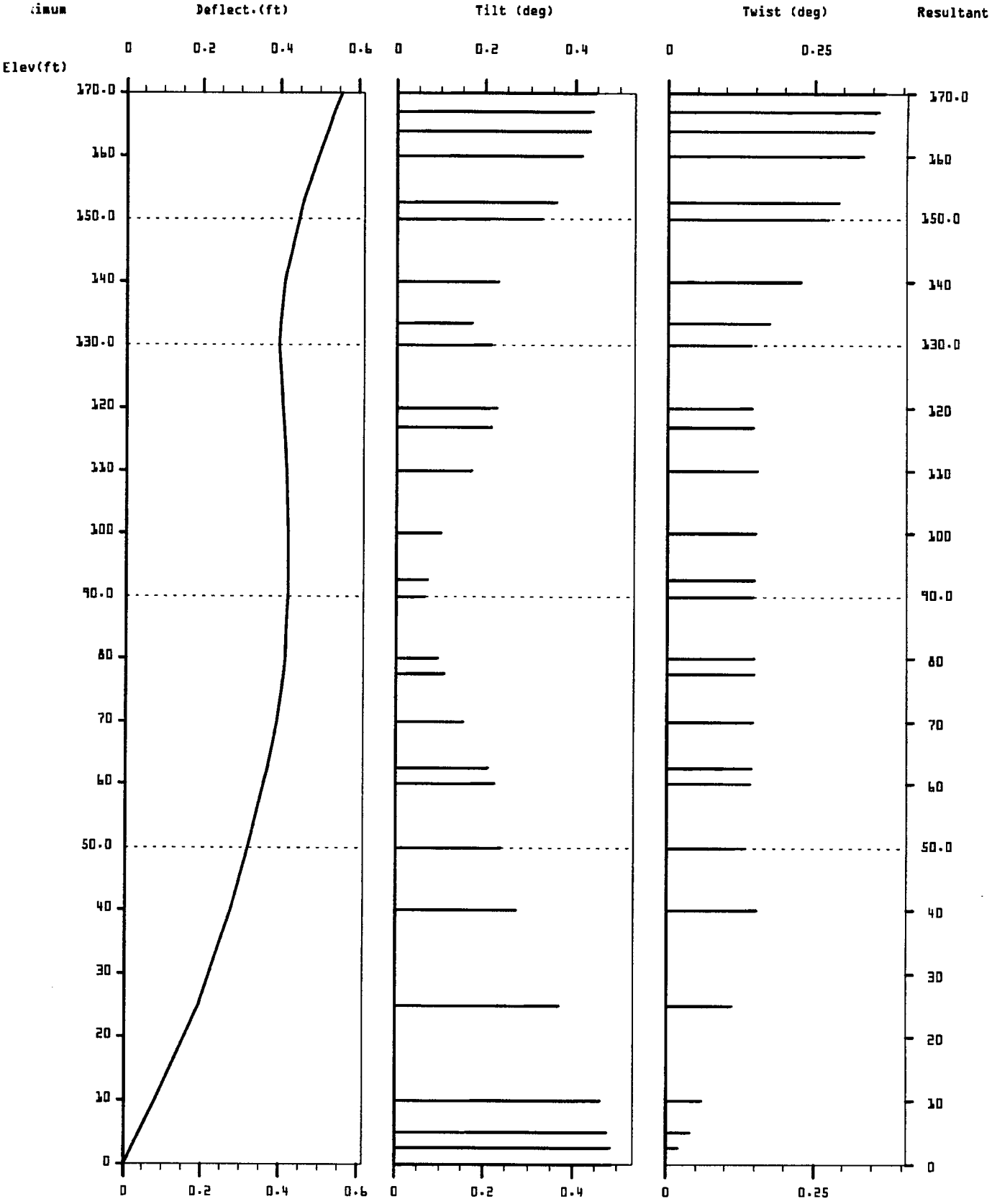


170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) c/w 3-Nextel antennas

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

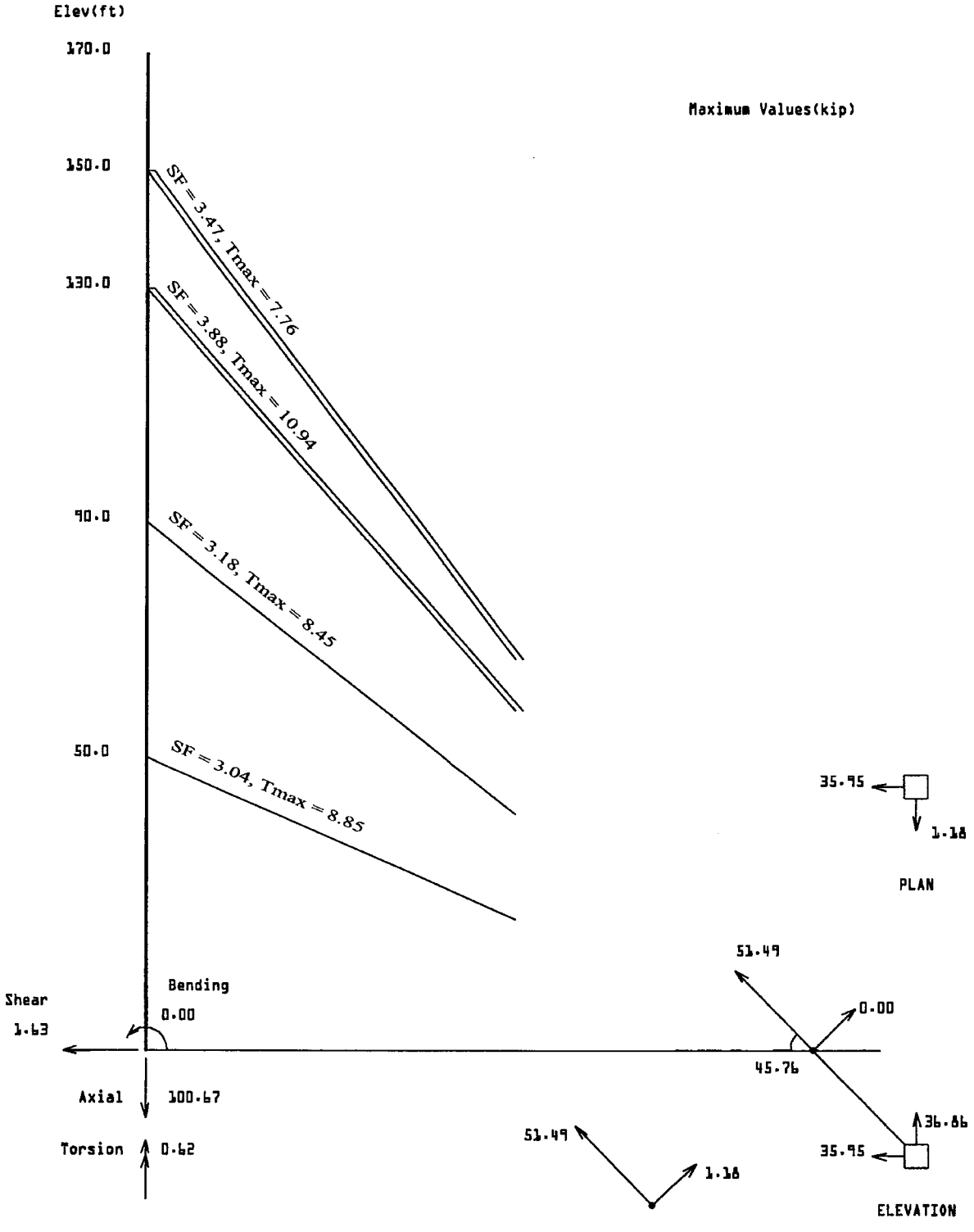


170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) c/w 3-Nextel antennas



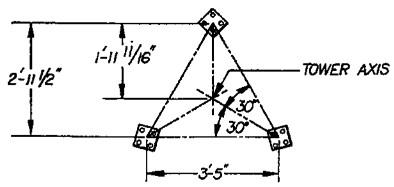
170' TOWER @ Newington,CT (80 MPH, 1/2 ICE) c/w 3-Nextel antennas

Guy Tensions, Anchor Loads and Base Loads

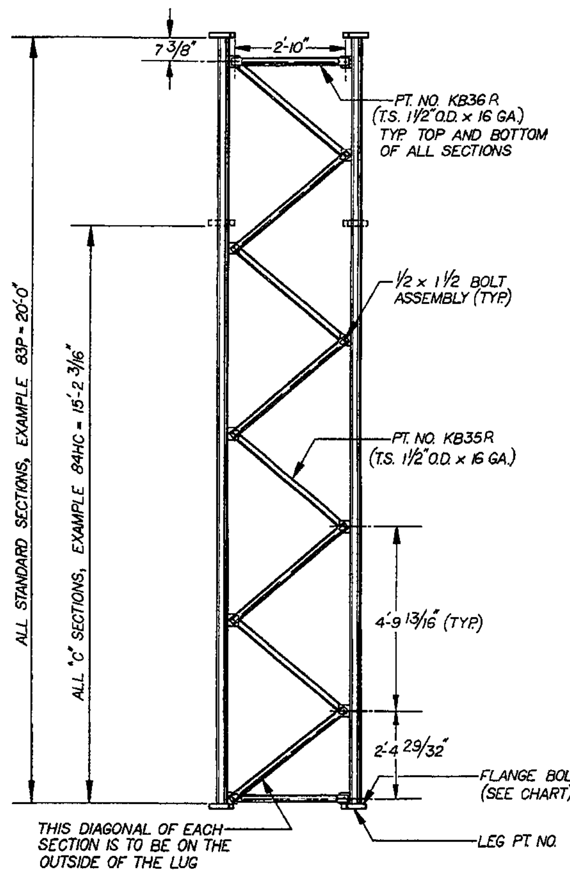


APPENDIX 'D'

Reference Documents



PLAN VIEW



ELEVATION VIEW

TOWER SECTION SCHEDULE

SECTION PT. NO. **	LEGS			FLANGE BOLTS		STEP BOLTS		BRACES		BRACE BOLTS	
	PIPE SIZE	PT. NO.	QTY.	SIZE PT. NO.	QTY.	PT. NO.	QTY.	PT. NO.	QTY.	SIZE PT. NO.	QTY.
83P	2" STD.	KL56	3	3/4x2 1/2 210049GA	12			KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
83PS	2" STD.	KL56 KL56S	2 1	3/4x2 1/2 210049GA	12	5/8 STEP	16	KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
83PH	2" X-STR.	KL57	3	3/4x2 1/2 210049GA	12			KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
83PHS	2" X-STR.	KL57 KL57S	2 1	3/4x2 1/2 210049GA	12	5/8 STEP	16	KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
84	2 1/2" STD.	KL60	3	3/4x2 1/2 210049GA	12			KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
84S	2 1/2" STD.	KL60 KL60S	2 1	3/4x2 1/2 210049GA	12	5/8 STEP	16	KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
84H	2 1/2" X-STR.	KL61	3	3/4x2 1/2 210049GA	12			KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
84HS	2 1/2" X-STR.	KL61 KL61S	2 1	3/4x2 1/2 210049GA	12	5/8 STEP	16	KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
84HC	2 1/2" X-STR.	KL159	3	3/4x2 1/2 210049GA	12			KB35R KB36R	18 6	1/2 x 1 1/2 210018GA	27
84HCS	2 1/2" X-STR.	KL159 KL159S	2 1	3/4x2 1/2 210049GA	12	5/8 STEP	12	KB35R KB36R	18 6	1/2 x 1 1/2 210018GA	27
85	3" STD.	KL64	3	7/8x3 1/2 210063GA	12			KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
85S	3" STD.	KL64 KL64S	2 1	7/8x3 1/2 210063GA	12	5/8 STEP	16	KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
85H	3" X-STR.	KL65	3	7/8x3 1/2 210063GA	12			KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
85HS	3" X-STR.	KL65 KL65S	2 1	7/8x3 1/2 210063GA	12	5/8 STEP	16	KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
85HC	3" X-STR.	KL163	3	7/8x3 1/2 210063GA	12			KB35R KB36R	18 6	1/2 x 1 1/2 210018GA	27
85HCS	3" X-STR.	KL163 KL163S	2 1	7/8x3 1/2 210063GA	12	5/8 STEP	12	KB35R KB36R	18 6	1/2 x 1 1/2 210018GA	27
* 845H	2 1/2" X-STR.	KL68	3	7/8x3 1/2 210063GA	12			KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33
* 845HS	2 1/2" X-STR.	KL68 KL68S	2 1	7/8x3 1/2 210063GA	12	5/8 STEP	16	KB35R KB36R	24 6	1/2 x 1 1/2 210018GA	33

* TRANSITION SECTION WITH 7" FLANGE PLATES AT THE BOTTOM AND 6" FLANGE PLATES AT THE TOP. 7" FLANGE PLATES MUST BE BETWEEN NO. 85 SECTIONS AND ALL OTHER SECTIONS.

** SECTION PART NUMBERS ENDING WITH AN "S" INDICATE THAT THE SECTIONS WILL HAVE STEP BOLTS ON ONE LEG FOR CLIMBING.

GENERAL NOTES:

1. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
2. FOR LEG FABRICATION, SEE DRAWINGS NUMBERED: C760013, C760014A, C760015, C760016, C760017, C760018, C760019, AND C760020.
3. FOR BRACE FABRICATION, SEE DRAWING NUMBER B660719.
4. FABRICATION DRAWINGS ARE FOR SHOP USE ONLY.

No.	Revision Description	Date	By
R5	REVISED TOWER SECTION SCHEDULE	11-29-90	WEB
R4	REVISED TOWER SECTION SCHEDULE	1-31-90	WEB
R3	REDRAWN	12-8-81	AJG

ROHN

Title: MODEL NO. 80 TOWER STANDARD SECTIONS

Scale: NONE

Drawn by: AJG 12-8-81

Checked by: GPW 12-22-81

Approved by Engineering: TS 12-22-81

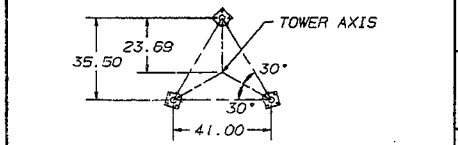
Approved by Production:

Approved by Sales: GR 12-22-81

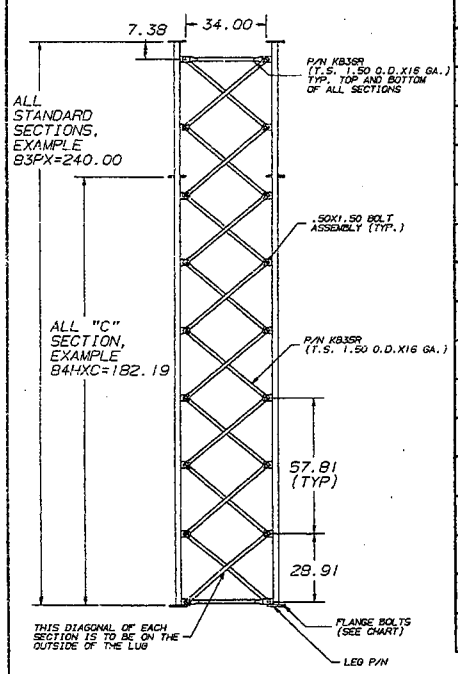
Unless otherwise specified, dimensions are given in inches. Tolerances: Decimals ±, Fractions ±, Angles ±. Material, Finish, Weight

File Number

Drawing Number: C681228 R5



PLAN VIEW



ELEVATION VIEW

TOWER SECTION SCHEDULE

SECTION P/N**	LEGS			FLANGE BOLTS		STEP BOLTS		BRACES		BRACE BOLTS	
	PIPE SIZE	P/N	QTY.	SIZE P/N	QTY.	P/N	QTY.	P/N	QTY.	SIZE P/N	QTY.
83PX	2.00 STD.	KL58	3	.75X2.50 210049GA	12			KB35R KB36R	48 6	.50X1.50 210018GA	54
83PXS	2.00 STD.	KL58 KL58S	2 1	.75X2.50 210049GA	12	.63 STEP	16	KB35R KB36R	48 6	.50X1.50 210018GA	54
83PHX	2.00 EH	KL59	3	.75X2.50 210049GA	12			KB35R KB36R	48 6	.50X1.50 210018GA	54
83PHXS	2.00 EH	KL59 KL59S	2 1	.75X2.50 210049GA	12	.63 STEP	16	KB35R KB36R	48 6	.50X1.50 210018GA	54
84X	2.50 STD.	KL62	3	.75X2.50 210049GA	12			KB35R KB36R	48 6	.50X1.50 210018GA	54
84XS	2.50 STD.	KL62 KL62S	2 1	.75X2.50 210049GA	12	.63STEP	16	KB35R KB36R	48 6	.50X1.50 210018GA	54
84HX	2.50 EH	KL63	3	.75X2.50 210049GA	12			KB35R KB36R	48 6	.50X1.50 210018GA	54
84HXS	2.50 EH	KL63 KL63S	2 1	.75X2.50 210049GA	12	.63 STEP	16	KB35R KB36R	48 6	.50X1.50 210018GA	54
84HXC	2.50 EH	KL161	3	.75X2.50 210049GA	12			KB35R KB36R	36 6	.50X1.50 210018GA	42
84HXCS	2.50 EH	KL161 KL161S	2 1	.75X2.50 210049GA	12	.63 STEP	12	KB35R KB36R	36 6	.50X1.50 210018GA	42
85X	3.00 STD.	KL66	3	.88X3.50 210063GA	12			KB35R KB36R	48 6	.50X1.50 210018GA	54
85XS	3.00 STD.	KL66 KL66S	2 1	.88X3.50 210063GA	12	.63 STEP	16	KB35R KB36R	48 6	.50X1.50 210018GA	54
85HX	3.00 EH	KL67	3	.88X3.50 210063GA	12			KB35R KB36R	48 6	.50X1.50 210018GA	54
85HXS	3.00 EH	KL67 KL67S	2 1	.88X3.50 210063GA	12	.63 STEP	16	KB35R KB36R	48 6	.50X1.50 210018GA	54
85HXC	3.00 EH	KL165	3	.88X3.50 210063GA	12			KB35R KB36R	36 6	.50X1.50 210018GA	42
85HXCS	3.00 EH	KL165 KL165S	2 1	.88X3.50 210063GA	12	.63 STEP	12	KB35R KB36R	36 6	.50X1.50 210018GA	42
*845HX	2.50 EH	KL69	3	.88X3.50 210063GA	12			KB35R KB36R	48 6	.50X1.50 210018GA	54
*845HXS	2.50 EH	KL69 KL69S	2 1	.88X3.50 210063GA	12	.63 STEP	16	KB35R KB36R	48 6	.50X1.50 210018GA	54

* TRANSITION SECTION WITH 7" FLANGE PLATES AT THE BOTTOM AND 6" FLANGE PLATES AT THE TOP. 7" FLANGE PLATES MUST BE BETWEEN NO. 85 SECTIONS AND ALL OTHER SECTIONS.

** SECTION PART NUMBERS ENDING WITH AN "S" INDICATE THAT THE SECTIONS WILL HAVE STEP BOLTS ON ONE LEG FOR CLIMBING.

GENERAL NOTES:

1. PAL NUTS ARE PROVIDED FOR ALL TOWER BOLTS.
2. FOR LEG FABRICATION, SEE DRAWINGS NUMBERED: C760013, C760014A, C760015, C760016, C760017, C760018, C760019, AND C760020.
3. FOR BRACE FABRICATION, SEE DRAWING NUMBER B660719.
4. FABRICATION DRAWINGS ARE FOR SHOP USE ONLY.

No.	Revision Description	Date	Rev By	Ckd By	Appd By
R6	REDRAW	3/17/98	SDP	ACS	TS

ROHN

	By	Date
Scale: NONE		
Drawn:	RKB	12/17/81
Checked:	GPW	12/22/81
App. Eng.:	TS	12/22/81
Parent File:		

MODEL NO. 80 TOWER CROSS-BRACED SECTIONS

ENG. FILE:

DWG. NO.: C681229 REV. 6

SHEET 1 OF 1

Exhibit A

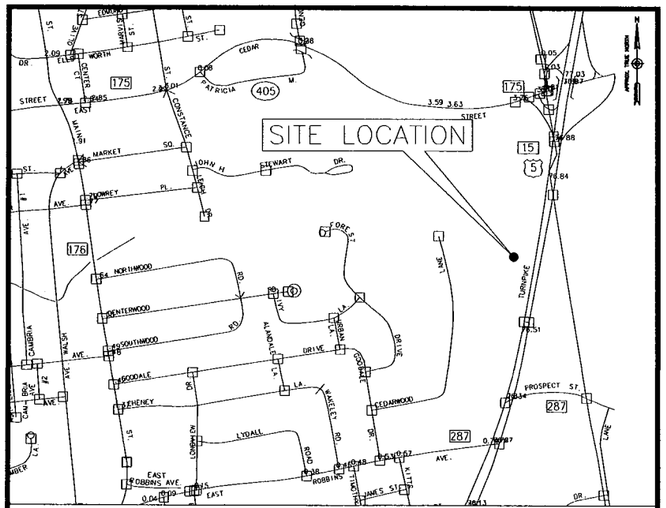
NEXTEL

RECEIVED
APR 07 2006
CONNECTICUT
SITING COUNCIL

NEXTEL COMMUNICATIONS

NEWINGTON CT-0746

2111 BERLIN TURNPIKE
NEWINGTON, CT 06111



LOCUS MAP SCALE: N.T.S.

DIRECTIONS FROM ROCKY HILL, CT:

MERGE ONTO I-91 N TOWARD HARTFORD. MERGE ONTO US-5 S/CT-15 S VIA EXIT 28 TOWARD WETHERSFIELD/NEWINGTON. THE SITE IS APPROXIMATELY 4.0 MILES DOWN THE ROAD.

SITE NUMBER:
CT-0746

SITE NAME:
NEWINGTON

SITE ADDRESS:
2111 BERLIN TURNPIKE
NEWINGTON, CT 06111

APPLICANT:
NEXTEL COMMUNICATIONS
OF THE MID ATLANTIC, INC.
9 CROSBY DRIVE
BEDFORD, MA 01730

CONTACTS:
NEXTEL: 781-276-3900
DEWBERRY: CHRIS DADDI: 203-776-2277

APPROXIMATE COORDINATES:
LATITUDE: 41°-41'-40.8" N (NAD83)
LONGITUDE: 72°-42'-34.0" W (NAD83)
COORDINATES TAKEN FROM CT SITING COUNCIL TELECOMMUNICATIONS DATABASE.

PROJECT SUMMARY

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.

A.D.A. COMPLIANCE:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

STRUCTURAL NOTE:

1. STRUCTURAL ANALYSIS DONE BY OTHERS.
2. THE ANTENNA MOUNTING FRAME AND COAXIAL CABLE ROUTING SHOWN IN THESE PLANS IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN DETAILS FOR ANTENNA MOUNTING FRAME AND COAXIAL CABLE ROUTING, DETAILS FOR ATTACHING THE FRAME AND COAXIAL CABLES TO THE TOWER, AND CERTIFICATION THAT THE LOADS IMPOSED BY THE PROPOSED DESIGN ALONG WITH THE EXISTING LOADS ON THE TOWER ARE WITHIN THE STRUCTURAL CAPACITY OF THE TOWER SHALL BE AS SPECIFIED IN THE STRUCTRUAL REPORT ENTITLED "STRUCTURAL ANALYSIS, EXISTING 170' GUYED TOWER IN NEWINGTON, CT" DATED OCTOBER 26, 2005, PERFORMED BY VERTICAL RESOURCES GROUP, INC. AND IN ACCORDANCE WITH CONNECTICUT BUILDING CODE AND EIA/TIA STANDARDS, AND PROVIDED UNDER SEPARATE COVER.
3. CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT ANY AND ALL IMPROVEMENTS AND REINFORCEMENTS REQUIRED BY THE STRUCTURAL ANALYSIS CERTIFICATION ARE PROPERLY INSTALLED PRIOR TO THE ADDITION OF ANTENNAS, SUPPORT AND APPURTENANCES PROPOSED ON THESE DRAWINGS.

OWNER	DATE
NEXTEL R.F. ENGINEER	DATE
NEXTEL CONSTRUCTION	DATE
NEXTEL SITE ACQUISITION	DATE
NEXTEL FIELD OPERATIONS	DATE
NATIONAL GRID WIRELESS	DATE
SITE ACQUISITION AGENT	DATE
CONSTRUCTION FIELD SUPERVISOR	DATE

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES OR MODIFICATIONS THEY MAY IMPOSE.

APPROVALS

THE PROJECT CONSISTS OF THE INSTALLATION OF A 4TH ANTENNA IN EACH OF 3 SECTORS AND THE INSTALLATION OF THE APPROPRIATE CABLES TO OPERATE THE ANTENNAS. A 60 KW DIESEL GENERATOR WILL BE INSTALLED. AN EXISTING 11'-6"x20'-0" EQUIPMENT SHELTER @ GRADE WILL BE REMOVED AND REPLACED WITH AN 11'-6"x26'-6" EQUIPMENT SHELTER.

PROJECT DESCRIPTION

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
C-1	GENERAL NOTES
C-2	SITE PLAN & ELEVATION
C-3	CONSTRUCTION DETAILS
C-4	CONSTRUCTION DETAILS II
E-1	ONE LINE DIAGRAMS & NOTES
E-2	ALARM, WIRING & GENERATOR
E-3	GROUND PAN DETAILS
E-4	GROUNDING SCHEMATICS & NOTES
E-5	GROUNDING DETAILS

HALF SIZE PRINT
THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE.

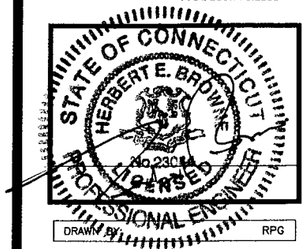
NEXTEL
NEXTEL COMMUNICATIONS OF THE MID ATLANTIC, INC.
9 CROSBY DRIVE
BEDFORD, MA 01730
PHONE: (781) 276-3900
FAX: (781) 276-3915

nationalgrid
Wireless
80 CENTRAL STREET
BOXBOROUGH, MA 01719

NEWINGTON
SITE NO.: CT-0746

CONSTRUCTION DRAWINGS		
1	02/22/06	FINAL CONST.
0	02/03/06	FINAL CONST.
A	01/09/06	PRELIM. CONST.

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



DRAWN BY:	RPG
REVIEWED BY:	FDK
CHECKED BY:	CKD
DGI NUMBER:	4206-07

SITE NUMBER
CT-0746

SITE ADDRESS
2111 BERLIN TPKE.
NEWINGTON, CT
06111

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

OUTDOOR ELECTRICAL GENERAL NOTES

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION.
2. THESE PLANS ARE DIAGRAMMATIC ONLY, AND NOT TO BE SCALED.
3. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC. FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, AND NBFU.
5. ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
6. ELECTRICAL CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL ELECTRICAL CODES AND O.S.H.A.
7. ELECTRICAL CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS, AND PAY ALL REQUIRED FEES.
8. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN ONE YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL, OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION AT THE EXPENSE OF THE CONTRACTOR.
9. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
10. PROVIDE THE OWNER WITH ONE SET OF COMPLETE ELECTRICAL "AS BUILT" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS AND CIRCUITS, WITHIN 10 WORKING DAYS OF PROJECT COMPLETION.
11. ALL BROCHURES, OPERATION MANUALS, CATALOGS, SHOP DRAWINGS, ETC, SHALL BE TURNED OVER TO PROJECT MANAGER AT JOB COMPLETION.
12. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
13. ALL CONDUCTORS SHALL BE COPPER.
14. MAINTAIN AN 8' CLEARANCE FROM THE TOP OF GRADE TO THE TOP OF THE PROPOSED CABLE BRIDGE.
14. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
15. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
16. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
17. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC. IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND REBARS WILL NOT BE DRILLED INTO, CUT, OR DAMAGED UNDER ANY CIRCUMSTANCES.
18. LOCATION OF TENDONS AND RE-BARS ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY, OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING STEEL TENDONS.
19. ALL EXISTING UNDERGROUND LINES ON SITE TO BE LOCATED PRIOR TO CONSTRUCTION.
20. SHELTER IS PRE-WIRED AND TESTED AT FACTORY. COORDINATE FINAL POWER CONNECTION WITH LOCAL INSPECTOR.
21. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND/OR CATALOG CUT-SHEETS ON ALL NON-SPECIFIED ORIGINAL MATERIALS AND EQUIPMENT.
22. UPON COMPLETION OF WORK, CONDUCT CONTINUITY SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TEST WITH WRITTEN REPORT SUBMITTED TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL.
23. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
24. ALL EXTERIOR WALL PENETRATIONS SHALL BE SILICONE SEALED.
25. ALL DOWNLEADS #2 TINNED COPPER TO BE PROTECTED BY 1/2" P.V.C. PIPE AND SECURED TO SHELTER OR TOWER.
26. COMPRESSION FITTINGS TO BE USED ON ALL "EMT" CONDUITS (NO SETSCREWS).
27. ALL #6 STRANDED COPPER WITH GREEN INSULATION TO BE ATTACHED WITH CRIMPED DOUBLE LUG BOLTED ATTACHED WITH CAD PLATED BOLTS AND STAR WASHERS TYPICAL AND NO-OX GREASE.
28. COORDINATE ALL METER WORK WITH METER BANK OWNER AND LOCAL UTILITY COMPANY.

GENERAL NOTES

1. CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL CODES AND O.S.H.A.
2. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
3. DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
4. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
5. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
6. BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
7. DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
8. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
9. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
10. REPAIR ANY DAMAGE DURING CONSTRUCTION TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CONSTRUCTION MANAGER.
11. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
12. PAINT ALL NEWLY INSTALLED EQUIPMENT TO MATCH EXISTING PER LAND LORD SPECIFICATIONS.
13. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, AND SEQUENCES.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
2. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A36 UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE GALVANIZED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
3. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
4. CONNECTIONS:
   A. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1 WHERE FILLET WELD SIZES ARE NOT SHOWN. PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION" 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
   B. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS (SIZE AS NOTED) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
   C. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.

CONCRETE NOTES

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. MIX DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6 % AIR ENTRAINED (±1.5 %) WITH A MAXIMUM 4" SLUMP, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. MAXIMUM AGGREGATE SIZE SHALL BE 1".
5. THE FOLLOWING MATERIALS SHALL BE USED:

PORTLAND CEMENT:	ASTM C 150, TYPE 1
REINFORCEMENT:	ASTM A 185
NORMAL WEIGHT AGGREGATE :	ASTM C 33
WATER :	DRINKABLE
ADMIXTURES :	NON-CHLORIDE CONTAINING

6. REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315.
7. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS B' AND ALL HOOKS SHALL BE STANDARD, UNO.
8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST EARTH.....3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER.....2 IN.
   #5 AND SMALLER & WWF.....1 1/2 IN.
9. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
10. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURERS WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
11. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI 301.
12. DO NOT WELD OR TACKWELD REINFORCING STEEL.
13. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
14. LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT.
15. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
16. PLACE CONCRETE IN A UNIFORM MANNER TO PREVENT THE FORMATION OF COLD JOINTS AND OTHER PLANES OF WEAKNESS. VIBRATE THE CONCRETE TO FULLY EMBED REINFORCING. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE THROUGH CHUTES OR FORMWORK.
17. DO NOT PLACE CONCRETE IN WATER, ICE OR ON FROZEN GROUND.
18. DO NOT ALLOW CONCRETE OR SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 14 DAYS AFTER PLACEMENT.
19. FOR COLD-WEATHER AND HOT-WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
20. CONCRETE SHALL BE RUBBED TO A ROUGH GROUT FINISH. PADS SHALL BE SEALED BY STEEL TROWEL.
21. FOUNDATION BASED UPON EQUIPMENT SHELTER BEING A OLDCASTLE RCS SHELTER SYSTEM, 11'-6"x 20'-6" PRECAST CONCRETE SHELTER. WEIGHT WITHOUT EQUIPMENT 62,000 LBS.
22. FOUNDATION TO BE PLACED IN SUITABLE SOIL WITH A MINIMUM ALLOWABLE DESIGN BEARING CAPACITY OF 3650 P.S.F. AT A DESIGN DEPTH OF 3'-6" BELOW GRADE. IF SITE CONDITIONS VARY FROM THOSE STATED ABOVE CONTRACTOR TO NOTIFY THE CONSTRUCTION MANAGER AND THE ENGINEER.
23. MAXIMUM PERMISSIBLE VARIATION OF PIER LOCATION SHALL BE 1". CONCRETE PIER VARIANCE FROM PLUMB SHALL NOT EXCEED 3/4".
24. TOPS OF CONCRETE PIERS SHALL BE WITHIN 0.02 FEET OF ELEVATION SPECIFIED. SHIM, AS REQUIRED, TO LEVEL THE SHELTER.
25. REMOVE ALL ORGANIC MATERIAL PRIOR TO PLACEMENT OF STONE. IF FILLING IS REQUIRED, BACKFILL AND COMPACT WITH WELL-DRAINING GRAVEL.

HALF SIZE PRINT
THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE.

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NEWINGTON
SITE NO.: CT-0746

CONSTRUCTION DRAWINGS		
1	02/22/06	FINAL CONST.
0	02/03/06	FINAL CONST.
A	01/09/06	PRELIM. CONST.

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STATE OF CONNECTICUT
HERBERT E. BROWNE III
No. 23044
LICENSED
PROFESSIONAL ENGINEER

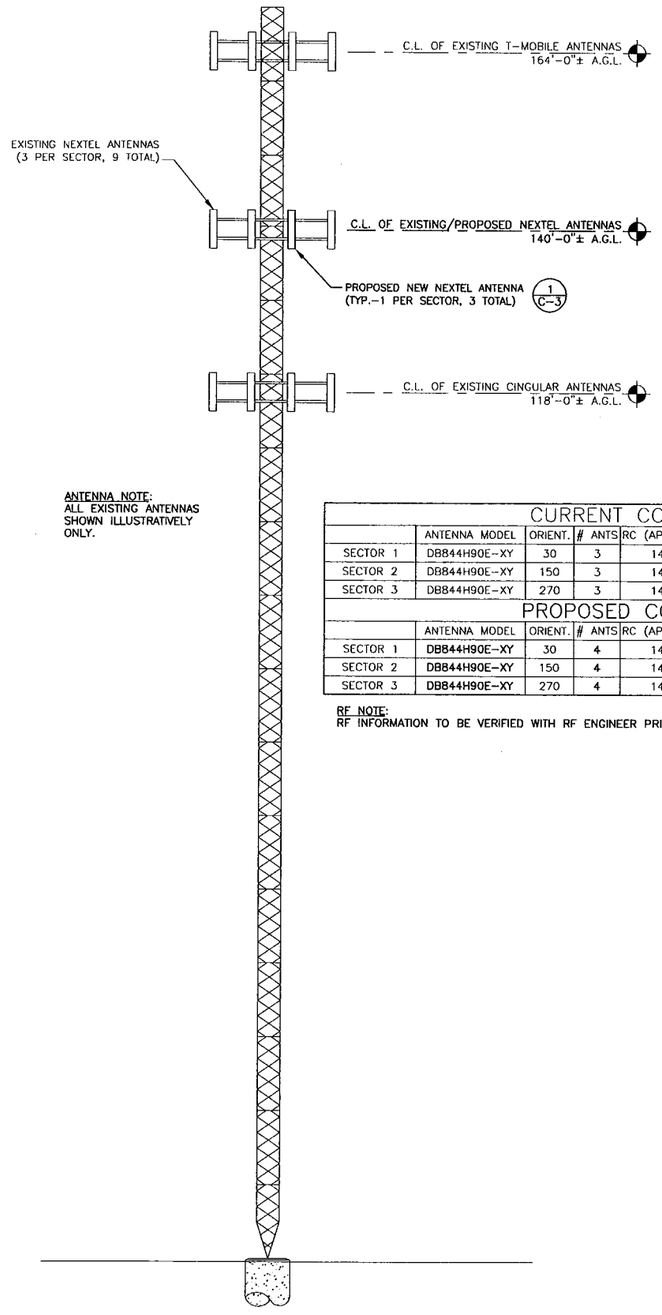
DRAWN BY:	RPG
REVIEWED BY:	FDK
CHECKED BY:	CKD
DGI NUMBER:	4206-07

SITE NUMBER
CT-0746

SITE ADDRESS
2111 BERLIN TPKE.
NEWINGTON, CT
06111

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
C-1



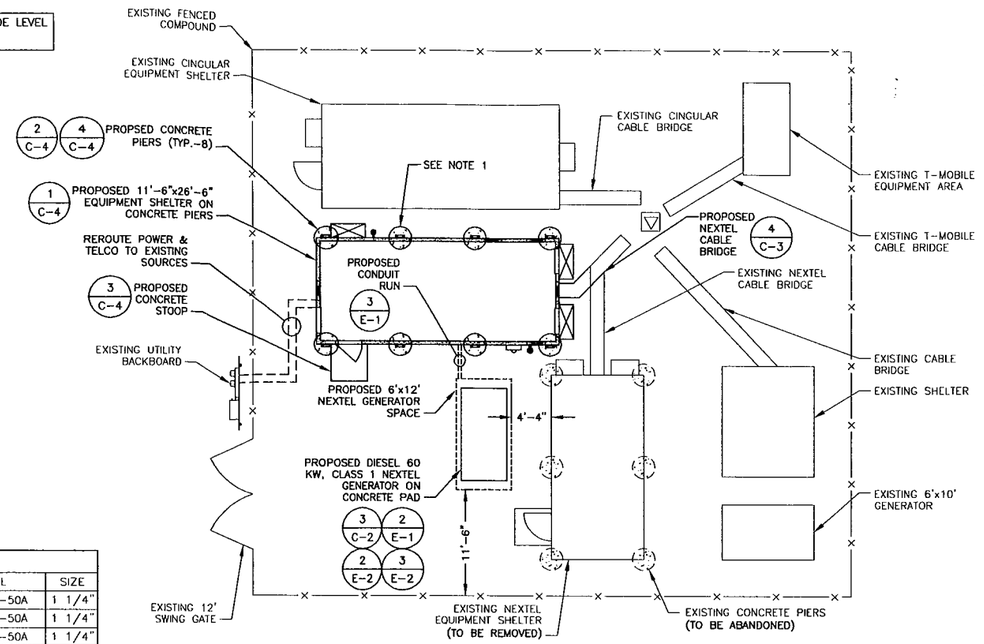
ANTENNA NOTE:
ALL EXISTING ANTENNAS SHOWN ILLUSTRATIVELY ONLY.

ELEVATION
SCALE: 1/10"=1'-0"
1

A.G.L. = ABOVE GRADE LEVEL
C.L. = CENTERLINE

CURRENT CONFIGURATION									
	ANTENNA MODEL	ORIENT.	# ANTS	RC (APPROX.)	MDT	EDT	COAX MANF.	MODEL	SIZE
SECTOR 1	DB844H90E-XY	30	3	140	9	0	ANDREW	LDF6-50A	1 1/4"
SECTOR 2	DB844H90E-XY	150	3	140	6	0	ANDREW	LDF6-50A	1 1/4"
SECTOR 3	DB844H90E-XY	270	3	140	6	0	ANDREW	LDF6-50A	1 1/4"
PROPOSED CONFIGURATION									
	ANTENNA MODEL	ORIENT.	# ANTS	RC (APPROX.)	MDT	EDT	COAX MANF.	MODEL	SIZE
SECTOR 1	DB844H90E-XY	30	4	140	9	0	ANDREW	LDF6-50A	1 1/4"
SECTOR 2	DB844H90E-XY	150	4	140	6	0	ANDREW	LDF6-50A	1 1/4"
SECTOR 3	DB844H90E-XY	270	4	140	6	0	ANDREW	LDF6-50A	1 1/4"

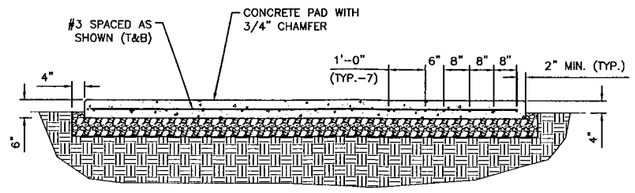
RF NOTE:
RF INFORMATION TO BE VERIFIED WITH RF ENGINEER PRIOR TO INSTALLATION.



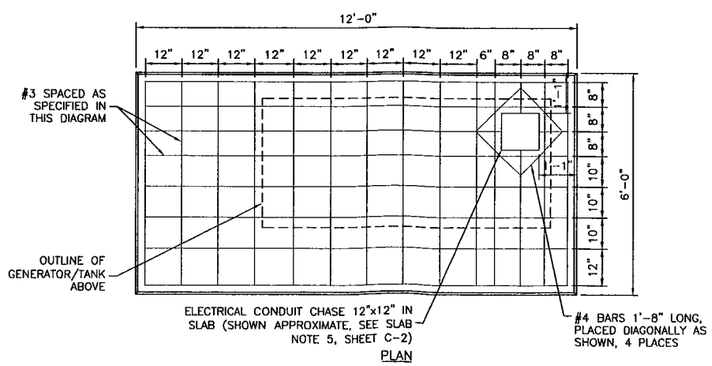
1 C-1

SITE PLAN
SCALE: 1/8"=1'-0"
2
0' 4' 8' 16'

NOTE:
1. SHELTER TO BE ANCHORED TO FOUNDATION IN ACCORDANCE WITH SHELTER DRAWINGS.
2. ALL INFORMATION SHOWN IS AS PROVIDED BY NATIONAL GRID WIRELESS.
3. ALL SALVAGEABLE EQUIPMENT & MATERIALS ARE TO BE REUSED WHEN APPLICABLE OR TURNED OVER TO NEXTEL C.M.



SECTION



PLAN

CONCRETE PAD PLAN
SCALE: 1/2"=1'-0"
3

SLAB NOTES
1. USE FLEXIBLE CONDUIT CONNECTIONS TO ALLOW FOR SLAB MOVEMENT.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE ACI-318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
3. REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
4. FASTEN GENERATOR TO SLAB ACCORDING TO MANUFACTURERS SPECIFICATIONS.
5. 12"x12" ELECTRICAL CONDUIT CHASE IN SLAB IS SHOWN APPROXIMATE ONLY. ACTUAL SIZE, LOCATION AND ORIENTATION SHALL BE CONFIRMED WITH ACTUAL GENERATOR BEING USED PRIOR TO CONSTRUCTION OF SLAB.
6. PRIOR TO SLAB INSTALLATION, GENERAL CONTRACTOR SHALL CONFIRM LAYOUT WITH EXACT GENERATOR TO BE USED.

GENERATOR NOTES
1. WORK SHALL COMPLY WITH LATEST EDITION OF NEC AND LOCAL CODES.
2. CONTRACTOR SHALL CONTACT DIG SAFE, OR SIMILAR ORGANIZATION, 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, TO LOCATE UNDERGROUND UTILITIES.
3. CONTRACTOR TO COORDINATE CONSTRUCTION WITH GENERATOR MANUFACTURES SPECIFICATIONS AND REQUIREMENTS.
4. USE GALVANIZED HILTI EXPANSION ANCHORS OR, APPROVED EQUAL, FOR EQUIPMENT ANCHORAGE.
5. VERIFY THE SIZE OF THE EMERGENCY GENERATOR WITH THE SUPPLIER.
6. FOR SIZE AND LOCATION OF ANCHORS AND OTHER EQUIPMENT, SEE EQUIPMENT VENDOR DRAWINGS.

HALF SIZE PRINT
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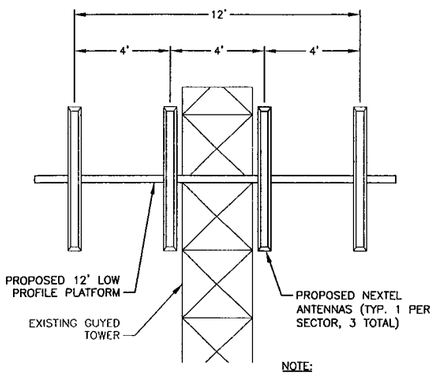
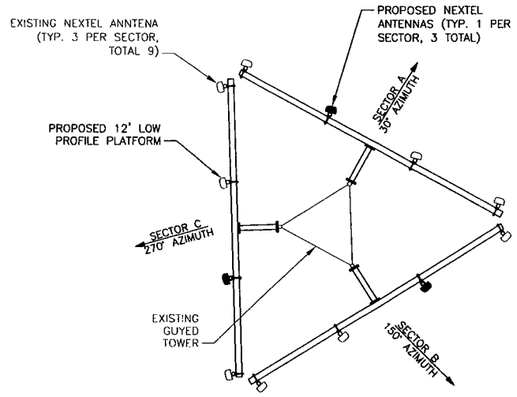
STATE OF CONNECTICUT
HERBERT E. BROWNE
No. 23014
LICENSED
PROFESSIONAL ENGINEER

DRAWN BY: RPG
REVIEWED BY: FDK
CHECKED BY: CKD
DGI NUMBER: 4206-07
SITE NUMBER
CT-0746
SITE ADDRESS
2111 BERLIN TPKE.
NEWINGTON, CT
06111
SHEET TITLE
SITE PLAN & ELEVATION
SHEET NUMBER
C-2



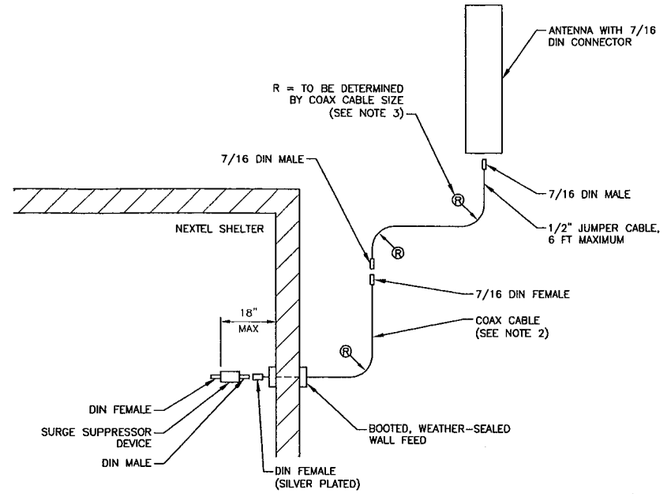


NOTE:

1. FINAL ANTENNA TYPES AND ORIENTATIONS TO BE VERIFIED WITH RF ENGINEERING PRIOR TO CONSTUCTION.
2. VERIFY PLATFORM ORIENTATION WITH C.M. PRIOR TO CONSTUCTION.
3. EXISTING T-FRAMES SHALL BE MEASURED TO DETERMINE IF THEY CAN ACCOMMODATE THE REQUIRED ANTENNA SPACING. IF THE EXISTING T-FRAMES ARE NOT LARGE ENOUGH, CONTRACTOR SHALL REPLACE THEM AND ALL ASSOCIATED MOUNTS AND HARDWARE WITH NEW 12' T-FRAMES, MOUNTING PIPES, TIE BACKS, TOWER MOUNTS, AND ALL ASSOCIATED EQUIPMENT. REPLACEMENT T-FRAMES AND HARDWARE MUST BE AS SPECIFIED BY THE TOWER MANUFACTURER AND APPROVED BY THE STRUCTURAL ENGINEER LISTED IN THE STRUCTURAL NOTES ON SHEET T-1. (IT IS EXPECTED THAT REPLACEMENT T-FRAMES SHALL BE SIMILAR TO VALMONT 860116). WRITTEN APPROVAL FROM STRUCTURAL ENGINEER MUST BE PROVIDED TO NEXTEL CONSTRUCTION MANAGER PRIOR TO INSTALLATION.

TYPICAL ANTENNA MOUNTING CONFIGURATION (1)

SCALE: N.T.S.

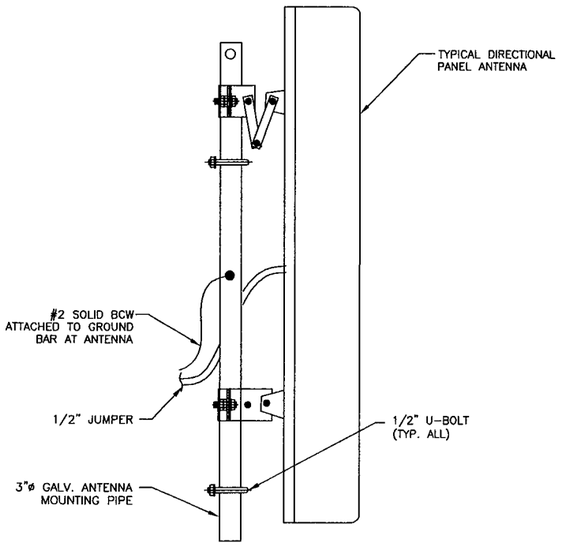


NOTES:

1. COAX CABLE SIZE WILL BE DETERMINED BY RF ENGINEER. REFER TO RF SCHEDULE FOR CABLE SIZE, MANUFACTURER, AND COLOR-CODING.
2. COLOR-CODE COAXIAL CABLE:
   - AT TOP, JUST ABOVE GROUND KIT, 2" WIDE TO BE VISIBLE FROM THE GROUND.
   - AT BOTTOM, JUST OUTSIDE COAX PORT.
   - INSIDE NEXTEL EQUIPMENT ROOM/ENCLOSURE.
   - AT ALL WALL/FLOOR PENETRATIONS.
3. RADIUS 'R' SHALL BE EQUAL TO OR GREATER THAN MANUFACTURER'S RECOMMENDATION.

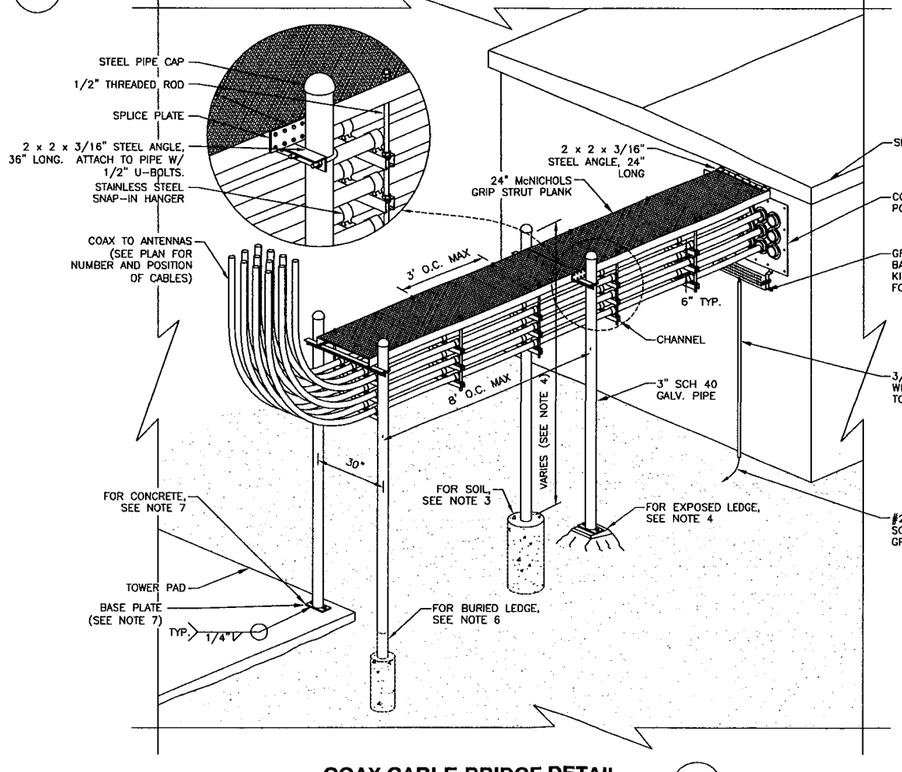
TYPICAL ANTENNA SCHEMATIC (2)

SCALE: N.T.S.



TYPICAL ANTENNA CONNECTION (3)

SCALE: N.T.S.



COAX CABLE BRIDGE DETAIL (4)

SCALE: N.T.S.

WAVEGUIDE BRIDGE NOTES

1. POSITION BRIDGE ASSEMBLY SO THAT WAVEGUIDE ENTER SHELTER AT WAVEGUIDE PORT CENTERLINE. HEIGHT ABOVE GROUND MAY VARY ACCORDING TO SHELTER AND SITE LAYOUT.
2. COAX SHALL BE SLOPED 1/8" TO THE FOOT, AWAY FROM SHELTER.
3. FOR SOIL, USE 12" DIAM. 3'-6" DEEP PIER FILLED WITH 3000 PSI CONCRETE. INSTALL TOP OF PIER FLUSH WITH PROPOSED GRADE, AND PROVIDE CROWN FOR DRAINAGE.
4. FOR EXPOSED LEDGE, PROVIDE GROUT LEVELING PAD. INSTALL (2) 5/8" EXPANSION ANCHORS, 6" LONG.
5. FOR CONCRETE, FASTEN BASEPLATE W/ (2) 5/8" EXPANSION ANCHORS, 6" LONG.
6. FOR BURIED LEDGE AT LESS THAN 3'-6" BELOW FINISH GRADE, CORE 8" DIAM. HOLE INTO LEDGE 18" DEEP. FILL AROUND PIPE WITH NON-SHRINK GROUT. USE COAL TAR ON BURIED LENGTH OF PIPE, AND BACKFILL TO FINISH GRADE.
7. FOR POSTS ON CONCRETE OR EXPOSED LEDGE, PROVIDE 4" x 8" x 3/8" BASEPLATE WITH (2) 11/16" HOLES 6" O.C.

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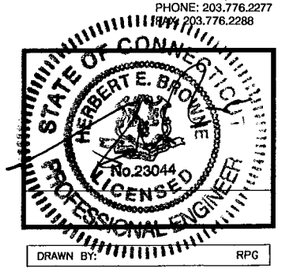
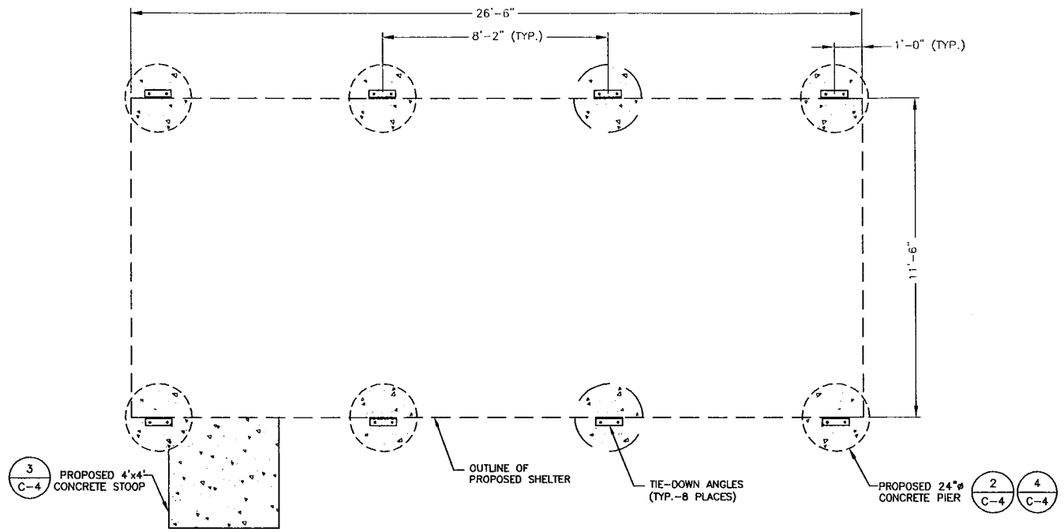


DRAWN BY:	RPG
REVIEWED BY:	FDK
CHECKED BY:	CKD
DGI NUMBER:	4206-07
SITE NUMBER	
CT-0746	
SITE ADDRESS	
2111 BERLIN TPKE. NEWINGTON, CT 06111	
SHEET TITLE	
CONSTRUCTION DETAILS	
SHEET NUMBER	
C-3	



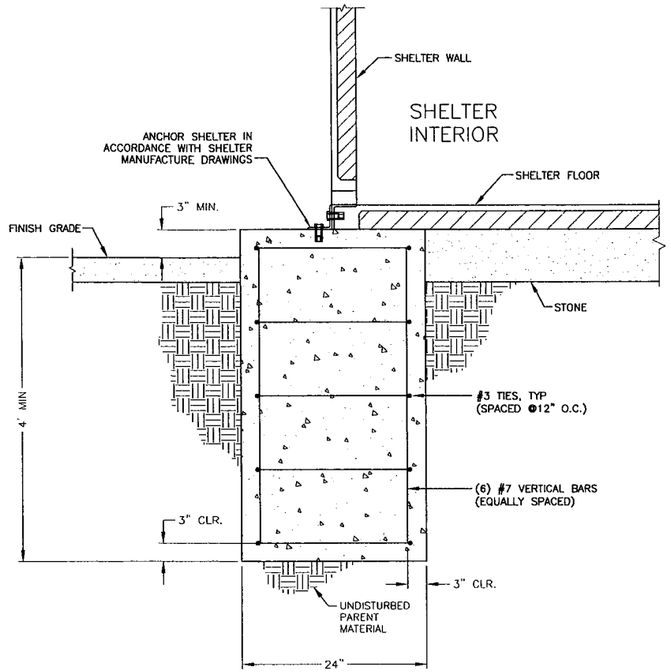
PIER FOUNDATION PLAN 1

SCALE: 3/8"=1'-0"

0' 2' 4' 6'

NOTE:

1. SHELTER TO BE ANCHORED TO FOUNDATION IN ACCORDANCE WITH SHELTER DRAWINGS.

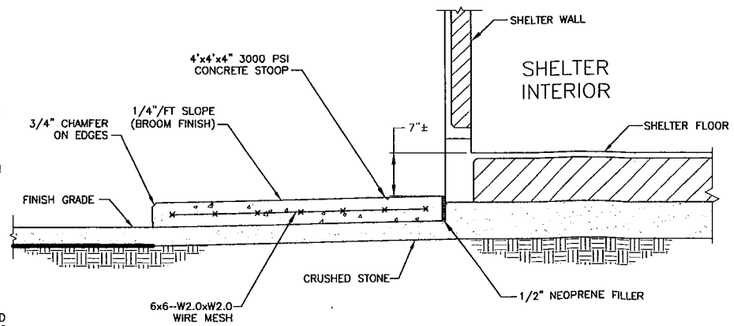


PIER FOUNDATION IN SOIL 2

SCALE: N.T.S.

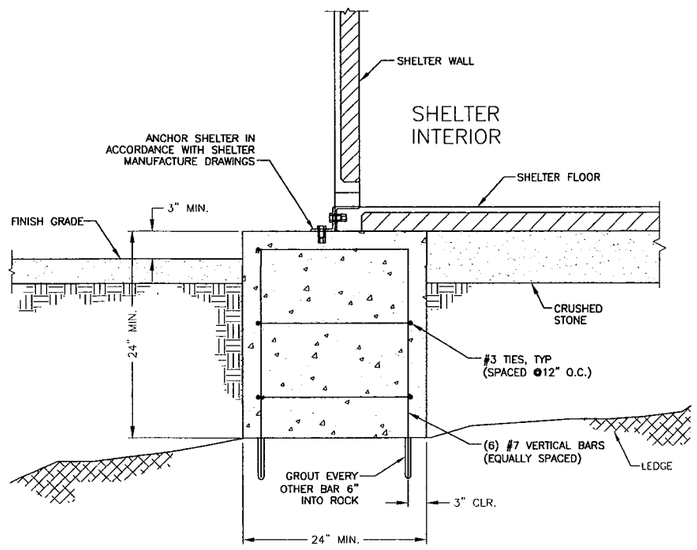
CONCRETE NOTES:

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. MIX DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6 % AIR ENTRAINED (±1.5%) WITH A MAXIMUM 4" SLUMP, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. MAXIMUM AGGREGATE SIZE SHALL BE 1".
5. THE FOLLOWING MATERIALS SHALL BE USED:
   PORTLAND CEMENT: ASTM C 150, TYPE 1
   REINFORCEMENT: ASTM A 185
   NORMAL WEIGHT AGGREGATE : ASTM C 33
   WATER : DRINKABLE
   ADMIXTURES : NON-CHLORIDE CONTAINING
6. REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315.
7. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS B' AND ALL HOOKS SHALL BE STANDARD, UNO.
8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST EARTH.....3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER.....2 IN.
   #5 AND SMALLER & WWF.....1 1/2 IN.
9. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
10. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURERS WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
11. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI 301.
12. DO NOT WELD OR TACKWELD REINFORCING STEEL.
13. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
14. LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT.
15. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
16. PLACE CONCRETE IN A UNIFORM MANNER TO PREVENT THE FORMATION OF COLD JOINTS AND OTHER PLANES OF WEAKNESS. VIBRATE THE CONCRETE TO FULLY EMBED REINFORCING. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE THROUGH CHUTES OR FORMWORK.
17. DO NOT PLACE CONCRETE IN WATER, ICE OR ON FROZEN GROUND.
18. DO NOT ALLOW CONCRETE OR SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 14 DAYS AFTER PLACEMENT.
19. FOR COLD-WEATHER AND HOT-WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
20. CONCRETE SHALL BE RUBBED TO A ROUGH GROUT FINISH. PADS SHALL BE SEALED BY STEEL TROWEL.
21. FOUNDATION BASED UPON EQUIPMENT SHELTER BEING AN OLD CASTLE RCS SHELTER SYSTEM, 11'-6"x 26'-6"x10'-0" HIGH PREFABRICATED SHELTER.
22. FOUNDATION TO BE PLACED IN SUITABLE SOIL WITH A MINIMUM ALLOWABLE DESIGN BEARING CAPACITY OF 3650 P.S.F. AT A DESIGN DEPTH OF 4'-0" BELOW GRADE. IF SITE CONDITIONS VARY FROM THOSE STATED ABOVE CONTRACTOR TO NOTIFY THE CONSTRUCTION MANAGER AND THE ENGINEER.
23. MAXIMUM PERMISSIBLE VARIATION OF PIER LOCATION SHALL BE 1". CONCRETE PIER VARIANCE FROM PLUMB SHALL NOT EXCEED 3/4".
24. TOPS OF CONCRETE PIERS SHALL BE WITHIN 0.02 FEET OF ELEVATION SPECIFIED. SHIM, AS REQUIRED, TO LEVEL THE SHELTER.
25. REMOVE ALL ORGANIC MATERIAL PRIOR TO PLACEMENT OF STONE. IF FILLING IS REQUIRED, BACKFILL AND COMPACT WITH WELL-DRAINING GRAVEL.
26. IF SOUND ROCK IS ENCOUNTERED AT LESS THAN THE SPECIFIED FOUNDATION DEPTH, USE ALTERNATIVE FOUNDATION, SEE DETAIL 3.



CONCRETE STOOP SECTION 3

SCALE: N.T.S.



BEDROCK CONDITION 4

SCALE: N.T.S.

HALF SIZE PRINT
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CONSTRUCTION DRAWINGS		
1	02/22/06	FINAL CONST.
0	02/03/06	FINAL CONST.
A	01/09/06	PRELIM. CONST.

Dewberry

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STATE OF CONNECTICUT
HERBERT E. BROWNE
No.23044
LICENSED
PROFESSIONAL ENGINEER

DRAWN BY:	JIM
REVIEWED BY:	RMB
CHECKED BY:	CKD
DGI NUMBER:	4206-07
SITE NUMBER	

CT-0746

SITE ADDRESS

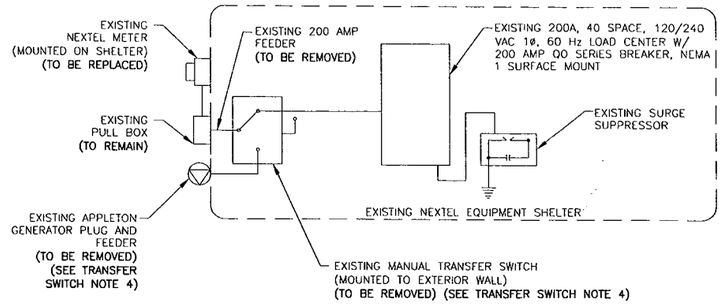
2111 BERLIN TPKE.
NEWINGTON, CT
06111

SHEET TITLE

CONSTRUCTION DETAILS II

SHEET NUMBER

C-4



NOTE:
THIS ONE-LINE DIAGRAM IS TYPICAL. ACTUAL CONDITIONS MUST BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION. ANY DEVIATION FROM TYPICAL CONFIGURATION SHOWN, SHALL BE REPORTED TO ENGINEER PRIOR TO INSTALLATION.

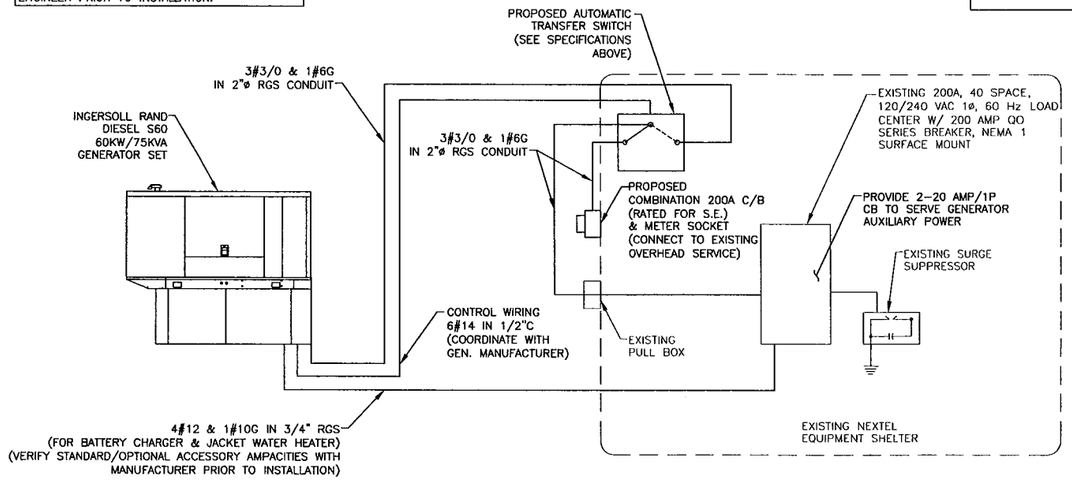
TYPICAL EXISTING ONE-LINE DIAGRAM

SCALE: N.T.S.

1

TRANSFER SWITCH NOTES:

1. PROVIDE 200AMP, 120/140V, SINGLE PHASE, 2 POLE AUTOMATIC TRANSFER (A.T.S.) SWITCH WITH FULL MICROPROCESSOR CONTROL, FULL CURRENT-RATED NEUTRAL BAR, AND TWO (2) SETS OF AUXILIARY CONTACTS FOR CUSTOMER (NEXTEL) USE.
2. CONTRACTOR SHALL VERIFY A.T.S. MAKE, MODEL, AND ALL SPECIFICATIONS WITH NEXTEL CM AND INGERSOLL RAND PRIOR TO COMMENCEMENT OF THE WORK.
3. COORDINATE THE LOCATION OF THE A.T.S. OUTSIDE THE NEXTEL SHELTER WITH NEXTEL CM. MEET ALL NEC CODES.
4. EXISTING MANUAL TRANSFER SWITCH & APPLETON PLUG SHALL BE SALVAGED AND TURNED OVER TO THE NEXTEL CM UPON REMOVAL.
5. SEAL ALL UN-USED WALL PENETRATIONS.

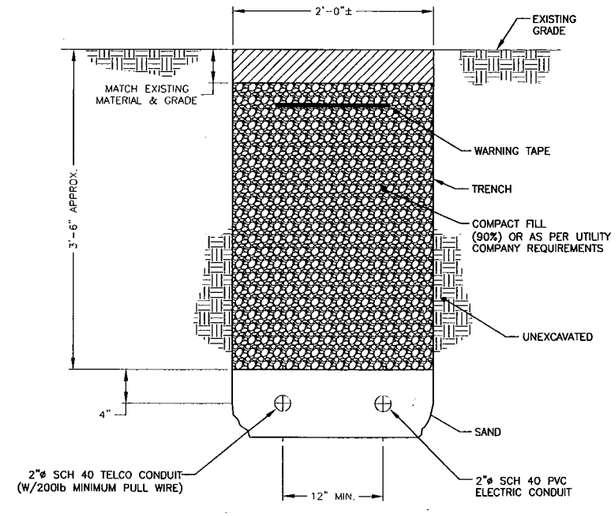


PROPOSED ONE-LINE DIAGRAM

SCALE: N.T.S.

2

NOTE:
PROPOSED CONFIGURATION IS AS PROVIDED BY NATIONAL GRID WIRELESS. FINAL INSTALLATION MUST BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND BE APPROVED BY GENERATOR MANUFACTURER.



NOTES:
1. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
2. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. CONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
3. CONTRACTOR SHALL HAND DIG U/G TRENCHING IN AREAS AROUND EXISTING UTILITIES.

JOINT SERVICE TRENCH BURIED CONDUIT (ELECTRIC/TELEPHONE)

SCALE: N.T.S.

3

GENERAL ELECTRIC NOTES:

1. ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH LATEST NATIONAL ELECTRICAL CODES, OSHA REQUIREMENTS & LOCAL CODES, LAWS & ORDINANCES. PROVIDE ALL COMPONENTS & WIRING SIZES AS REQUIRED TO MEET THE MEC.
2. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
3. SUBCONTRACTOR SHALL PERFORM ALL VERIFICATION, OBSERVATIONS, TEST, AND EXAMINATION OF WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
4. THE PLANS ARE DIAGRAMMATIC ONLY. FOLLOW AS CLOSELY AS POSSIBLE.
5. SUBCONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, INSTALLATION, PERMITS AND LICENSES. SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS AND SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
6. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIAL SHALL MEET WITH THE APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NFPA AND UL.
7. SUBCONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, AND LOCAL CODES AND OHSA AND M.E.C.
8. SUBCONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.
9. COMPLETED JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10. PROVIDE CONSTRUCTION MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
11. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO THE OWNER AT JOB COMPLETION.
12. ALL MATERIALS SHALL BE UL LISTED.
13. POWER WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS. CONDUCTORS #10 & SMALLER SHALL BE SOLID COPPER, CONDUCTORS #8 AND LARGER SHALL BE STRANDED.
14. ALL CONDUCTORS SHALL BE THWN.
15. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANEL BOARD, PULL BOX, JUNCTION BOX, SWITCH BOX, ETC.
16. GROUNDING CONDUCTORS SHALL BE STRANDED COPPER AND SIZED AS SHOWN ON DRAWINGS.
17. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND NATIONAL ELECTRICAL CODE.
18. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE ENGINEER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO NEXTEL ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
19. CONDUIT
    A. RIGID CONDUIT SHALL BE THREADED UL LABELED GALVANIZED ZINC COATED INTERIOR AND EXTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. UL LABELED ZINC COATED EMT W/ COMPRESSION COUPLINGS CAN BE USED ONLY WHEN INSTALLED IN PROTECTED, DRY AREAS.
    B. FLEXIBLE LIQUID TIGHT CONDUIT SHALL HAVE UL LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. ALL CONDUIT SHALL HAVE FULL SIZE EQUIPMENT GROUND WIRE.
    C. CONDUIT RUNS SHALL BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO THE CEILING, FLOOR, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE OWNER PRIOR TO INSTALLATION. NO HORIZONTAL CONDUITS SHALL BE BELOW 7'-6" A.F.F. NO BX, MC, OR ROMEX CABLE IS PERMITTED.
20. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
21. ALL CONDUIT INSTALLED MAY BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
22. ALL CONDUIT ONLY (C.O.) INSTALLATIONS SHALL HAVE A 1/4" PULL WIRE OR ROPE.
23. MOUNTING HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
24. PATCH, REPAIR, AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK TO MATCH EXISTING SURROUNDINGS.
25. PENETRATIONS IN FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH APPLICABLE CODES.
26. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT SCREWED ON ENGRAVED LAMINATED LABELS WITH WHITE LETTERING AND BLACK FIELD, NO ADHESIVES ALLOWED.
27. COORDINATE THE INSTALLATION OF THE NEXTEL ELECTRICAL SERVICE WITH BUILDING OWNER.
28. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, INSULATION RESISTANCE, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

HALF SIZE PRINT
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SITE NO.: CT-0746

CONSTRUCTION DRAWINGS		
1	02/22/06	FINAL CONST.
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STATE OF CONNECTICUT
CHRISTOPHER KEITH DADDEZIO
No. 22672
LICENSED PROFESSIONAL ENGINEER

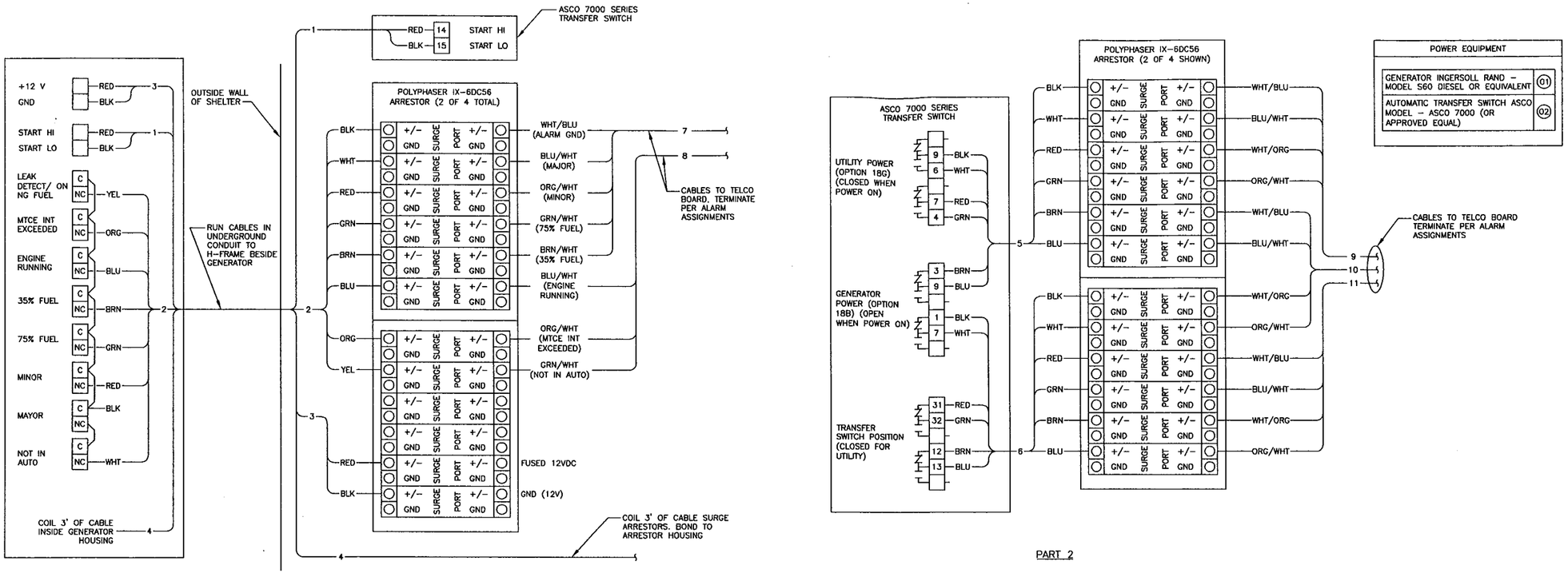
DRAWN BY:	RPG
REVIEWED BY:	FDK
CHECKED BY:	CKD
DGI NUMBER:	4206-07

SITE NUMBER
CT-0746

SITE ADDRESS
2111 BERLIN TPKE.
NEWINGTON, CT
06111

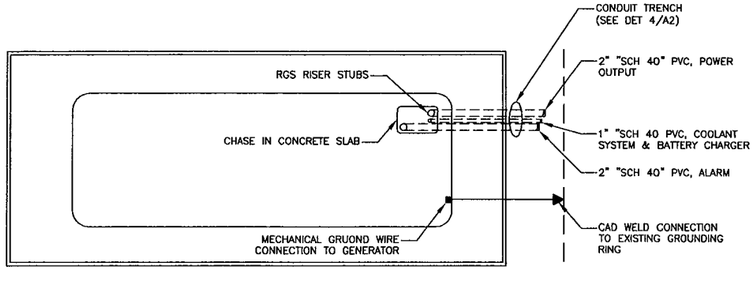
SHEET TITLE
ONE LINE DIAGRAMS & NOTES

SHEET NUMBER
E-1



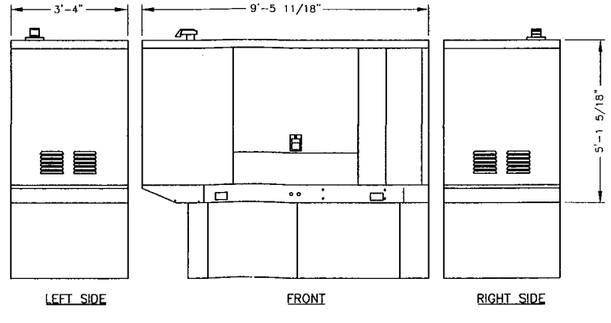
ALARM AND CONTROL WIRING (1)

SCALE: N.T.S.



GENERATOR ELECTRICAL CONNECTIONS (2)

SCALE: N.T.S.



NOTE:
MAINTAIN 3' CLEAR AROUND ALL SERVICEABLE SIDES.

TYPICAL DIESEL S60 GENERATOR DETAIL (3 / E-2)

SCALE: N.T.S.

HALF SIZE PRINT
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0	02/03/06	FINAL CONST.
A	01/09/06	PRELIM. CONST.

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STATE OF CONNECTICUT
CHRISTOPHER KEITH DADDIO
No. 22673
LICENSED PROFESSIONAL ENGINEER

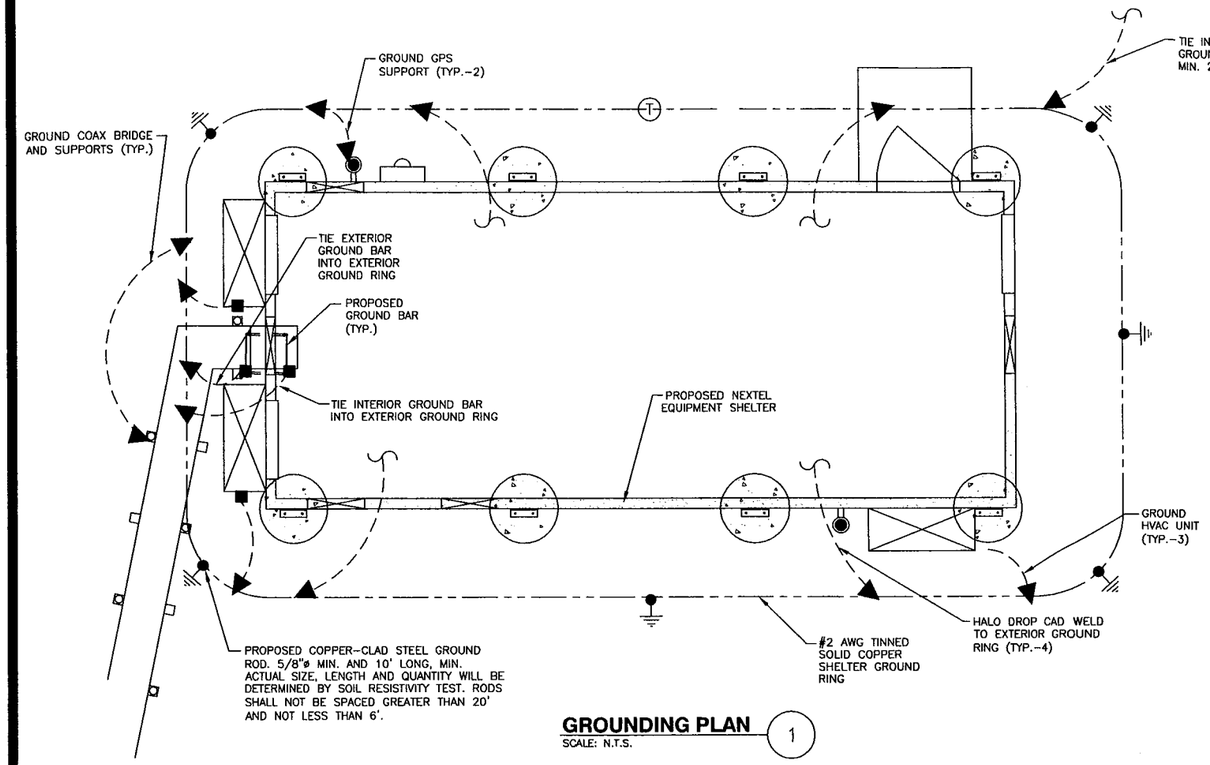
DRAWN BY:	RPG
REVIEWED BY:	CKD
CHECKED BY:	CKD
DGI NUMBER:	4206-07

SITE NUMBER
CT-0746

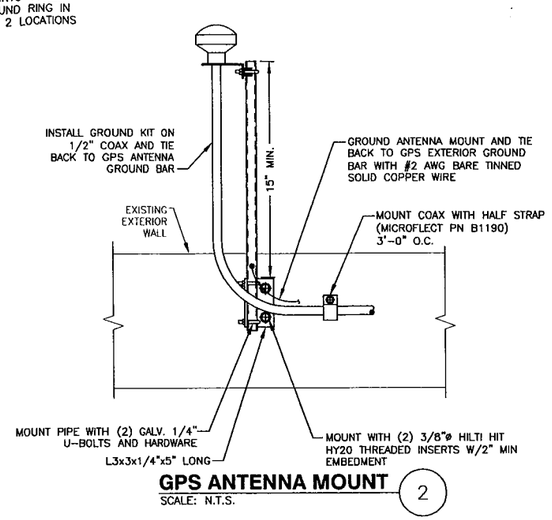
SITE ADDRESS
2111 BERLIN TPKE.
NEWINGTON, CT
06111

SHEET TITLE
ALARM AND WIRING & GENERATOR

SHEET NUMBER
E-2

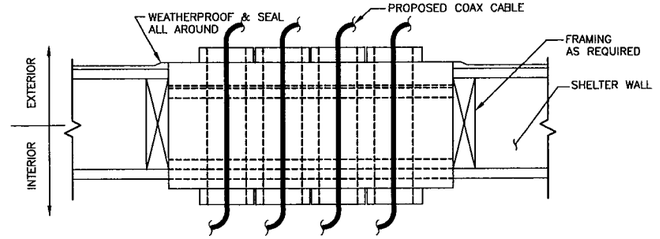


GROUNDING PLAN
SCALE: N.T.S. (1)

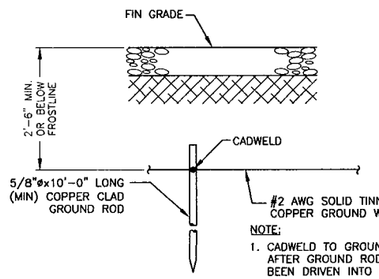


GPS ANTENNA MOUNT
SCALE: N.T.S. (2)

GROUNDING LEGEND	
SYMBOL	DESCRIPTION
▶	EXOTHERMIC WELD
■	MECHANICAL CONNECTION
	GROUND CONDUCTOR
	GROUND ROD
	ELECTROLYTIC GROUND ROD
T	TESTING WELL

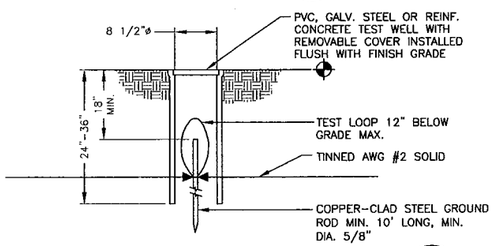


WALL SECTION A-A

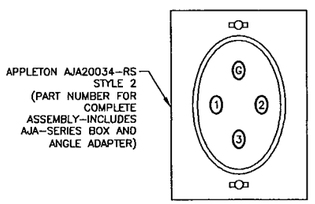


NOTE:
1. CADWELD TO GROUND RING AFTER GROUND ROD HAS BEEN DRIVEN INTO PLACE.
2. FROST LINE TO BE VERIFIED.

GROUND ROD
SCALE: N.T.S. (3)



GROUND SYSTEM TESTING WELL
SCALE: N.T.S. (4)



GENERATOR RECEPTACLE, VIEWED FROM OUTSIDE OF SHELTER (LOOKING INTO SLEEVE CONTACTS THAT CORD SET WILL MATE WITH). CABLES EXIT FROM REAR AND CONNECT TO TRANSFER SWITCH.

NOTE:
GENERATOR PLUG IS TO BE PROVIDED AND INSTALLED BY SHELTER MANUFACTURER. SCHEMATIC IS FOR REFERENCE ONLY.

NOTES:

1 "RS" SUFFIX SPECIFIES "REVERSE SERVICE". THIS MUST BE SPECIFIED FOR BOTH BOX RECEPTACLE AND MATING PLUG FOR GENERATOR CORD SET.

2. IF THE APPROPRIATE MOUNTING BOX AND ANGLE ADAPTER ARE ALREADY INSTALLED, THE BOX RECEPTACLE MAY BE ORDERED SEPARATELY AND INSTALLED IN THE FIELD. BOX RECEPTACLE PART NUMBER: APPLETON ADR20034-RS STYLE 2.

3. WIRING FOR SINGLE-PHASE 120/240 VOLT SERVICE IS AS FOLLOWS:

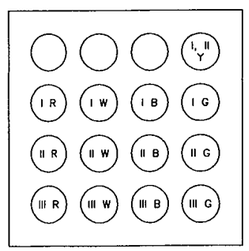
PIN G - GROUND PIN (TOP OF CONNECTOR, NEAR INDEX PIN) - GREEN CONDUCTOR
PIN 1 - RED CONDUCTOR, HOT LEG
PIN 2 - BLACK CONDUCTOR, HOT LEG
PIN 3 - WHITE CONDUCTOR, NEUTRAL

4. CELL SITE RECEPTACLE MOUNTING BOX AND ANGLE ADAPTER IS INTERCHANGEABLE WITH CROUSE-HINDS PARTS LISTED.

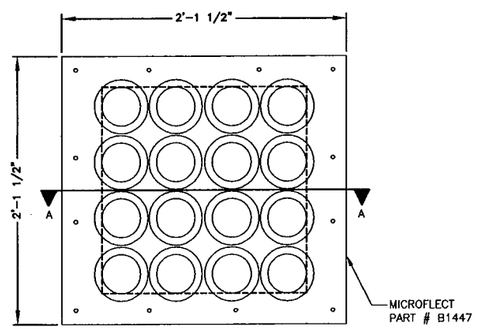
APPLETON:	CROUSE-HINDS
AJA520:	AJ58
AJA620:	AJ68
AJA720:	AJ78

GENERATOR PLUG DETAIL (NORTHEAST STANDARD WIRING CONFIGURATION)
SCALE: N.T.S. (5)

COAX PORT ASSIGNMENTS
(VIEWED FROM INSIDE EQUIPMENT ROOM/SHELTER)



COLOR KEY
R - RED
W - WHITE
B - BLUE
G - GREEN
Y - YELLOW (GPS)



NOTES:
1. ALL SPARE PORTS ARE TO CAPPED AND WEATHER SEALED.
2. COAX PORT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS

MICROFLECT PORT DETAIL
SCALE: N.T.S. (6)

HALF SIZE PRINT
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CHECKED BY:	CKD
DGI NUMBER:	4206-07
SITE NUMBER	

CT-0746

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NEWINGTON, CT
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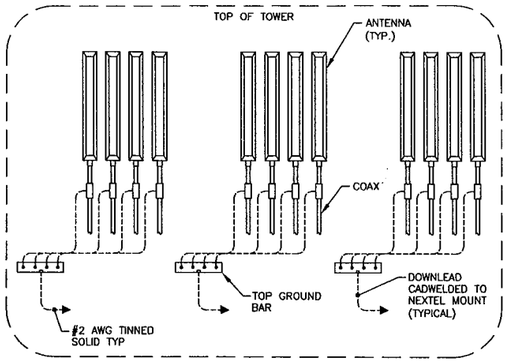
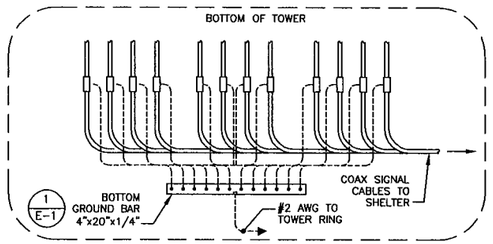
SHEET TITLE

GROUNDING PLAN & DETAILS

SHEET NUMBER

E-3



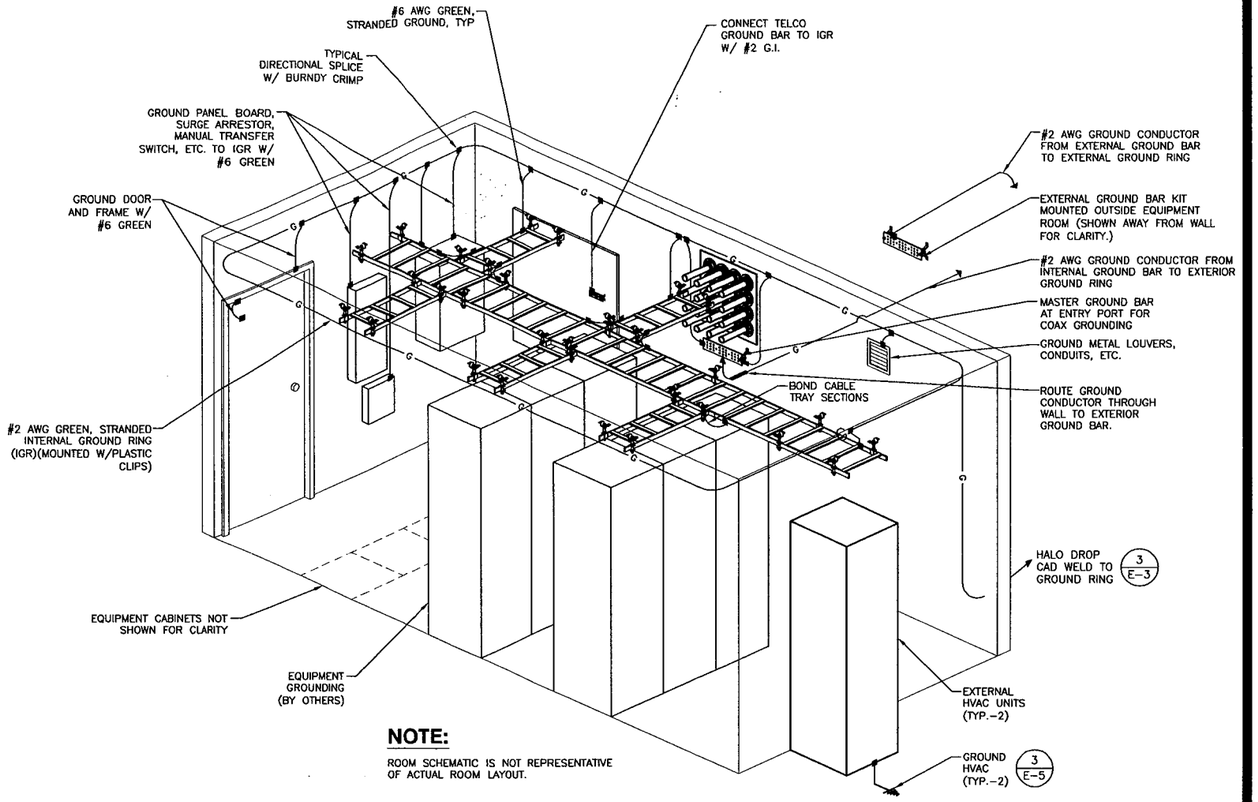


NOTE:

1. NO INSULATORS ON AGBS @ TOP OF TOWER.

GROUNDING SCHEMATIC (1)

SCALE: N.T.S.

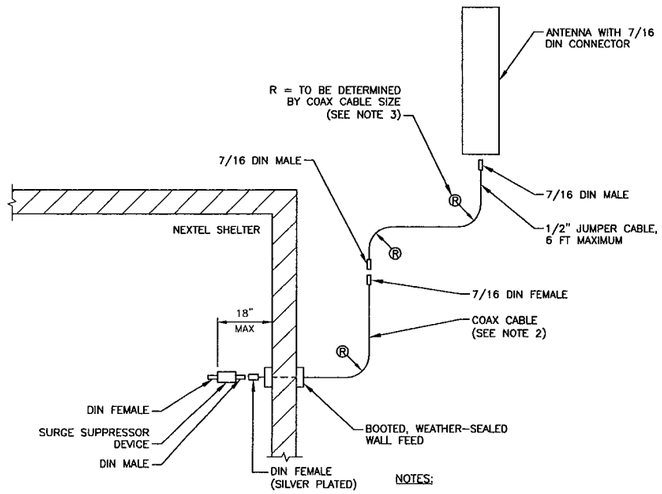


NOTE:

ROOM SCHEMATIC IS NOT REPRESENTATIVE OF ACTUAL ROOM LAYOUT.

TYPICAL NEXTEL EQUIPMENT ROOM GROUNDING SCHEMATIC (2)

SCALE: N.T.S.



NOTES:

1. COAX CABLE SIZE WILL BE DETERMINED BY RF ENGINEER. REFER TO RF SCHEDULE FOR CABLE SIZE, MANUFACTURER, AND COLOR-CODING.
2. COLOR-CODE COAXIAL CABLE:
   - AT TOP, JUST ABOVE GROUND KIT, 2" WIDE TO BE VISIBLE FROM THE GROUND.
   - AT BOTTOM, JUST OUTSIDE COAX PORT.
   - INSIDE NEXTEL EQUIPMENT ROOM/ENCLOSURE.
   - AT ALL WALL/FLOOR PENETRATIONS.
3. RADIUS 'R' SHALL BE EQUAL TO OR GREATER THAN MANUFACTURER'S RECOMMENDATION.

TYPICAL ANTENNA SCHEMATIC (3)

SCALE: N.T.S.

EXTERIOR GROUNDING GENERAL NOTES:

1. ALL DOWN CONDUCTORS AND GROUND RING CONDUCTOR SHALL BE #2 AWG,SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE AT A MINIMUM DEPTH BELOW GRADE OF 18 INCHES OR TO LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNLESS OTHERWISE NOTED.
2. GROUND RODS SHALL BE 5/8" DIAMETER COPPER CLAD STEEL, HARGER, T&B, ERICO, OR EQUIVALENT. TOP OF ROD SHALL BE A MINIMUM OF 18" BELOW GRADE. IF LEDGE IS ENCOUNTERED, INSTALL GROUND ROD AT AN ANGLE. ELECTRICAL METER GROUND ROD EXCEPTED.
3. WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
4. GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6" ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND RING.
5. INSTALL GROUNDING KITS AT ANTENNA CENTERLINE, AND TOWER EXIT POINTS. GROUND COAX LINES. EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN TOWER, AND TIE INTO GROUNDING SYSTEM.
6. ALL GROUNDING WORK SHALL COMPLY WITH NEXTEL CONSTRUCTION CONTRACT AND MOTOROLA (R-56) STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT.
7. ALL GROUNDING CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE INSTALLED IN 3/4" SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC WITH GALVANIZED "C" CLAMPS.
8. CONTRACTOR SHALL HAND-DIG IN AREAS AROUND EXISTING UTILITIES.
9. NOTIFY CONSTRUCTION ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
10. GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.

INTERIOR GROUNDING GENERAL NOTES:

1. GROUND SHALL COMPLY WITH NEC ART. 250.
2. GROUND CONDUCTORS SHALL BE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR INDOOR USE.
3. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
4. ROUTE GROUNDING CONNECTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NOT BE BENT AT RIGHT ANGLE. ALWAYS MAKE 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY.
5. CONNECTIONS TO GROUND BAR SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
6. TEST COMPLETED GROUND SYSTEM AND RECORD RESISTANCE VALUES FOR PROJECT CLOSE-OUT DOCUMENTATION. GROUND RESISTANCE SHALL NOT EXCEED 5 OHMS.

HALF SIZE PRINT

THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE.

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STATE OF CONNECTICUT
CHRISTOPHER KEITH DADDIO
No. 22673
REGISTERED PROFESSIONAL ENGINEER

DRAWN BY:	JIM
REVIEWED BY:	NOB
CHECKED BY:	CKD
DGI NUMBER:	4206-07

SITE NUMBER

CT-0746

SITE ADDRESS

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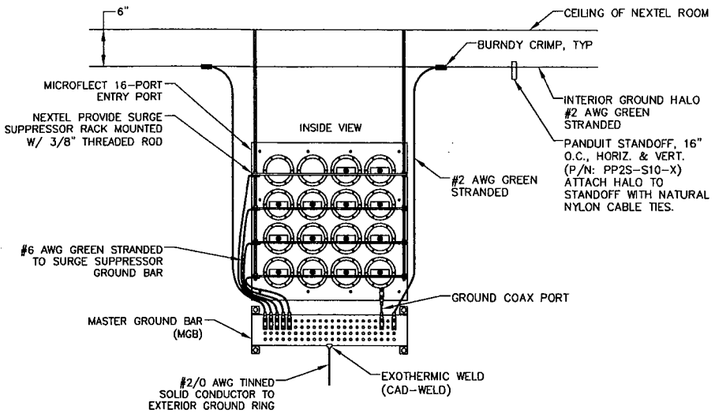
SHEET TITLE

GROUNDING SCHEMATICS & NOTES

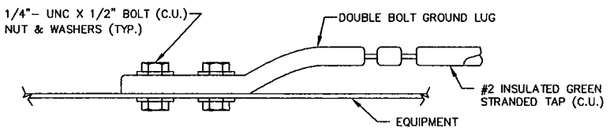
SHEET NUMBER

E-4



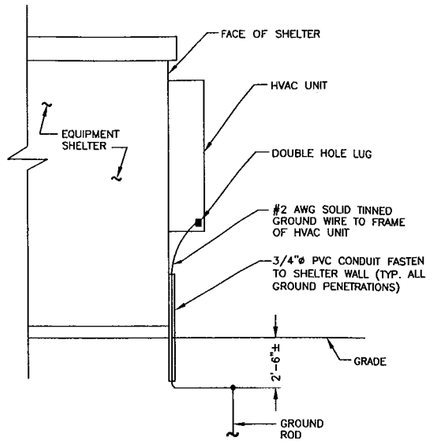
POLYPHASER GROUNDING DETAIL 1

SCALE: N.T.S.



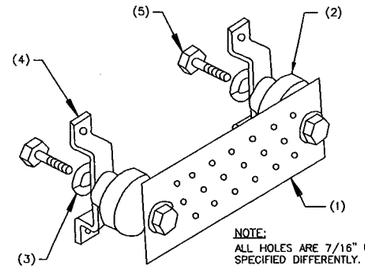
CONNECTION TO EQUIPMENT DETAIL 2

SCALE: N.T.S.



HVAC UNIT GROUND 3

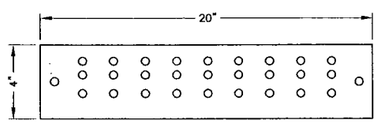
SCALE: N.T.S.



NOTE:
ALL HOLES ARE 7/16" UNLESS SPECIFIED DIFFERENTLY.

LEGEND

1. COPPER GROUND BAR, 1/4"x4"x20", GBIT 14420 J 2-7. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. STANDOFF INSULATORS, HARGER LIGHTNING PROTECTION, INC. CAT. NO. 5263-A8.
3. 1/2" LOCKWASHERS, HARGER CO. CAT. NO. LWBS.
4. WALL MOUNTING STAINLESS STEEL, MOUNTING BRACKET, HARGER CAT NO. WBKT-1.
5. 1/2-13 x 1" HEX HEAD CAP SCREW, HARGER, CAT NO. CS88S.



THE GROUND BAR IS 1/4" THICK, 4" WIDE, 20" LONG. IT HAS A HOLE PATTERN "J" WITH A NO. 2 AWG SOLID TINNED TAIL.

GBIT 14420 J 2-7

STYLE SIZE HOLE PATTERN TAIL

STYLE: GBIT - GROUND BAR WITH WALL MOUNTING BRACKETS, INSULATORS AND A 25' EXOTHERMICALLY WELDED TAIL.

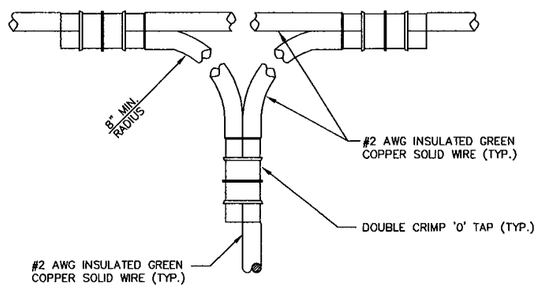
SIZE: THICKNESS, WIDTH, LENGTH IN INCHES.

HOLE PATTERN: HOLE PATTERN CENTERS MATCH NEMA DOUBLE LUG CONFIGURATION. SEE ISOMETRIC.

TAIL: SPECIFY AMERICAN WIRE GAUGE (AWG) SIZE AND STRANDING REQUIRED. 25' LENGTH IS STANDARD UNLESS OTHERWISE REQUESTED.

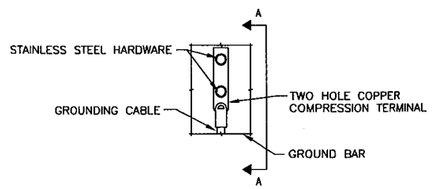
GROUND BAR DETAIL 4

SCALE: N.T.S.

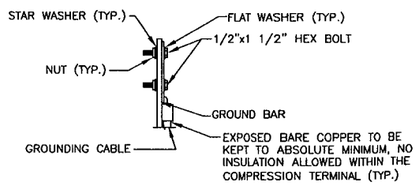


CONNECTION TO GROUND HALO DETAIL 5

SCALE: N.T.S.



ELEVATION

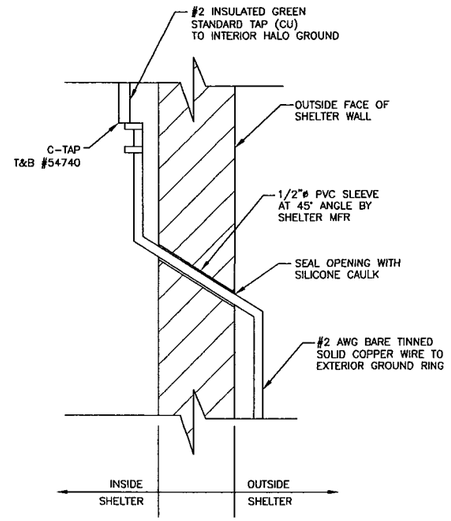


SECTION 'A-A'

NOTES:
1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL 6

SCALE: N.T.S.



WALL GROUND PENETRATION 7

SCALE: N.T.S.

HALF SIZE PRINT
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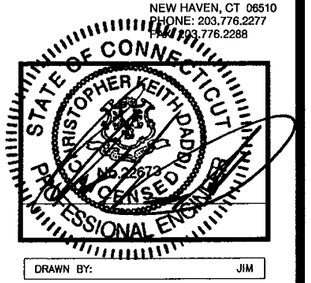

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DGI NUMBER:	4206-07
SITE NUMBER	

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SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

E-5