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
Web Site: www.state.ct.us/csc/index.htm

December 23, 2003

Michele G. Briggs
Manager of Real Estate
Southwestern Bell Mobile Systems, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-086-031209** - Southwestern Bell Mobile Systems, LLC notice of intent to modify an existing telecommunications facility located at 557 Route 82, Montville, Connecticut.

Dear Ms. Briggs:

At a public meeting held on December 22, 2003, 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.

The proposed modifications are to be implemented as specified here and in your notice dated December 8, 2003. 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

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: Honorable Howard R. Beetham, Jr., Mayor, Town of Montville
Marcia Vlaun, Town Planner, Town of Montville
Thomas J. Regan, Brown Rudnick Berlack Israels LLP
Sandy M. Carter, Verizon Wireless
Christopher B. Fisher, Esq., Cuddy & Feder LLP

STATE OF CONNECTICUT

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Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
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Web Site: www.ct.gov/csc

December 10, 2003

Honorable Howard R. Beetham, Jr.
Mayor
Town of Montville
Town Hall
310 Norwich New London Turnpike
Uncasville, CT 06382

RE: **EM-CING-086-031209** - Southwestern Bell Mobile Systems, LLC notice of intent to modify an existing telecommunications facility located at 557 Route 82, Montville, Connecticut.

Dear Mayor Beetham:

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 December 22, 2003 at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/amb

Enclosure: Notice of Intent

c: Marcia Vlaun, Town Planner, Town of Montville

EM-CING-086-031209

Southwestern Bell Mobile Systems, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7700
Fax: (860) 513-7190

Michele G. Briggs
Manager of Real Estate

December 8, 2003

Ms. Pam Katz, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: **Notice of Exempt Modification – Existing Sprint Telecommunications Tower Facility at 557 Route 82, Montville, Connecticut**

Dear Chairman Katz:

Southwestern Bell Mobile Systems, LLC ("SBMS") intends to install telecommunications antennas and associated equipment at an existing multicarrier telecommunications tower off Route 82 in Montville, Connecticut.

The Sprint Montville facility is located at 557 Route 82, approximately ¼ mile east of Route 163. Tower coordinates (NAD 83) are N 41° 30' 13.3" and W 72° 11' 31.6". The facility is owned and operated by Sprint Sites USA ("Sprint"), with offices at 535 E. Crescent Avenue, Ramsey, NJ 07446. Sprint leases the land from Carolyn Besade of Montville.

Please accept this letter as notification to the Council, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the Mayor of Montville.

SBMS, the local component of the nationwide Cingular Wireless network, is licensed by the Federal Communications Commission ("FCC") to provide cellular mobile telephone service in the New London Connecticut Metropolitan Statistical Area, which includes the area to be served by SBMS' proposed installation. The public need for cellular service has been predetermined by the FCC.

Sprint has agreed to plans put forth by SBMS pursuant to mutually acceptable terms and conditions and has also authorized SBMS to obtain necessary government approvals. Attached to this Notice are a site location map, a proposed site plan, the proposed tower profile, and a structural analysis report that shows the tower is structurally capable of supporting the proposed SBMS telecommunications equipment.

The Sprint facility was approved by local zoning authorities on December 9, 1999. Because

zoning approval pre-dated the Covello decision concerning Council and Town jurisdiction for tower siting, the tower is legally zoned. The tower came under Council jurisdiction with Verizon's application to co-locate in TS-VER-086-010328, which was approved on April 12, 2001.

The Route 82 facility consists of a 180-foot monopole within a roughly 35' x 50' rectangular compound surrounded by 6-ft high chain link fence topped with barbed wire. Sprint operates panel antennas at the top of the monopole and equipment cabinets mounted on a concrete pad. Verizon operates panel antennas at the 170' level and houses its equipment in a 12' x 30' shelter at the rear of the compound. AT&T operates panel antennas at the 160' level of the tower and has its equipment on a concrete pad.

As shown on the attached drawings and as further described below, SBMS proposes to install up to twelve CSS DUO4-8670 panel antennas, approximately 48 inches in height, with the center of radiation approximately 150 feet above ground level. Associated equipment to be installed on the tower are up to six ADC Co. dual-band tower top amplifiers ("TTA's"; small metal boxes approximately 26 pounds apiece) immediately behind the antennas, and up to three very small (5 pounds apiece) CSS dual-band "combiners." SBMS also proposes to place a 12' x 20' prefabricated concrete equipment building near the base of the tower.

The existing fenced compound is too small to accommodate Cingular's equipment building. Therefore, we propose to expand the compound by fencing an additional 18' x 36' on the west side of the compound. (See attached plan drawing.) All work will be done within Sprint's existing 75' x 75' lease area. No trees will be disturbed.

With the "GSM-only" configuration, SBMS will broadcast up to:

- 2 channels, 296 Watts ERP, 880 – 894 MHz; and
- 2 channels, 427 Watts ERP, 1930 – 1935 MHz.

Statutory Considerations

The changes to the Montville tower facility do not constitute a modification as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2) because they will not result in any substantial adverse environmental effect.

1. The height of the overall structure will be unaffected.

2. The proposed changes will not affect the property boundaries. Although the fenced compound will be expanded, all new construction will take place on property leased by Sprint.

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

4. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base, to or above the standard adopted by the State of Connecticut and the FCC. The "worst-case" exposure calculation in accordance with FCC OET Bulletin No. 65 (1997) for a point of interest at the base of the tower in relation to the operation of the currently proposed antenna array is as follows:

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density† (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Sprint *	180	1975	12	250	0.0333	1.0000	3.33
Verizon *	170	890	30	250	0.0933	0.5933	15.73
AT&T *	160	D: 1945 E: 1985	12	250	0.0421	1.0000	4.21
Cingular GSM	150	880 - 894	2	296	0.0095	0.5867	1.61
Cingular GSM	150	1930 - 1935	2	427	0.0136	1.0000	1.36
Total							**26.25%**

* Power density parameters taken from AT&T's application to the Council in EM-AT&T-086-030108.

† Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 (i.e., the square of 1.6) as described in FCC OET Bulletin No. 65.

As the table demonstrates, the cumulative "worst-case" exposure would be approximately 26% of the ANSI/IEEE standard, as calculated for mixed frequency sites. Total power density levels resulting from SBMS' use of the tower facility would thus be within applicable standards.

For the foregoing reasons, SBMS respectfully submits that proposed changes to implement expanded shared use at the Montville site constitute an exempt modification under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7700 with questions concerning this application. Thank you for your consideration in this matter.

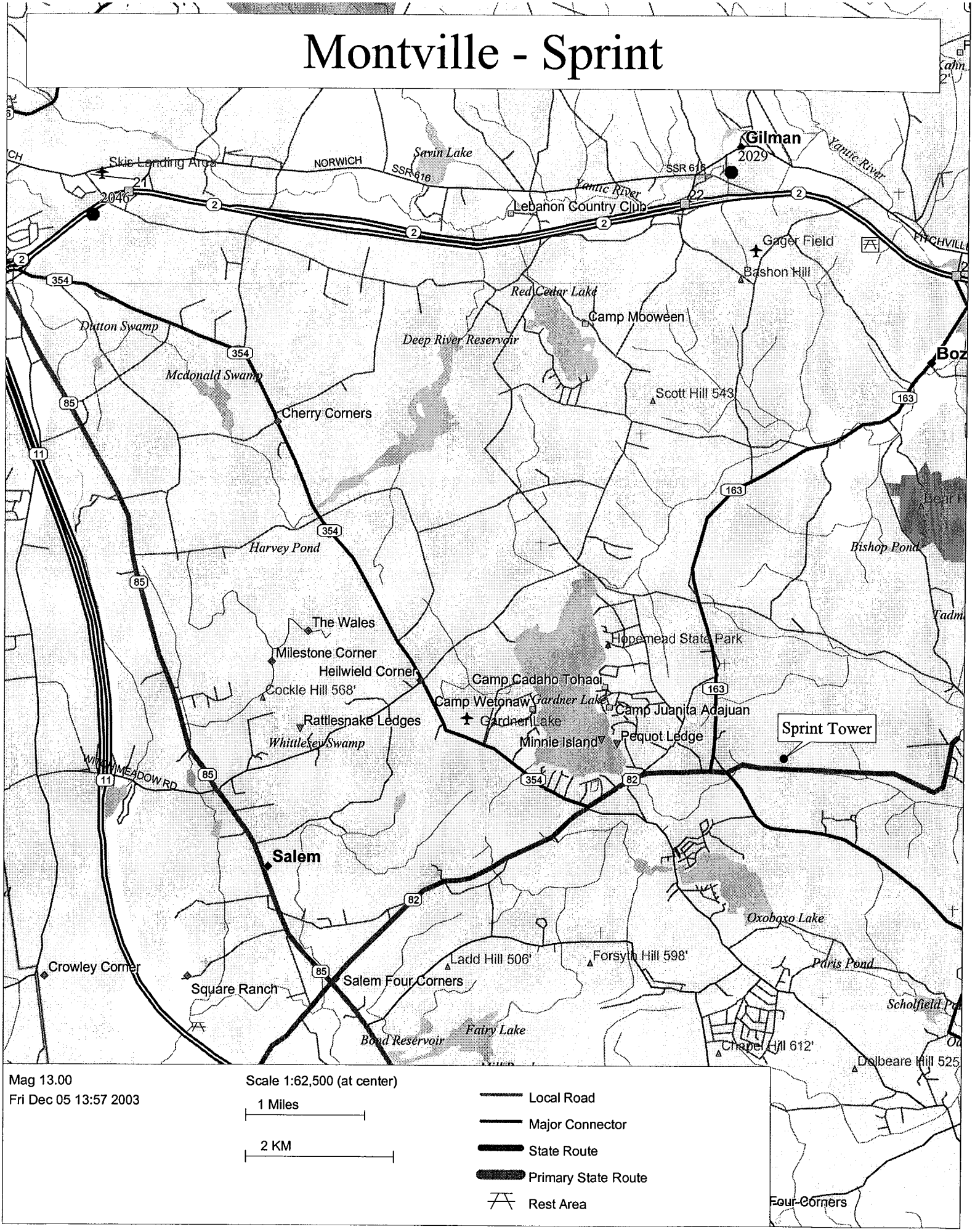
Respectfully yours,

Michele G. Briggs
Manager of Real Estate

Enclosures

cc: Honorable Howard R. Beetham, Jr., Mayor, Town of Montville

Montville - Sprint



Mag 13.00
Fri Dec 05 13:57 2003

Scale 1:62,500 (at center)

1 Miles

2 KM

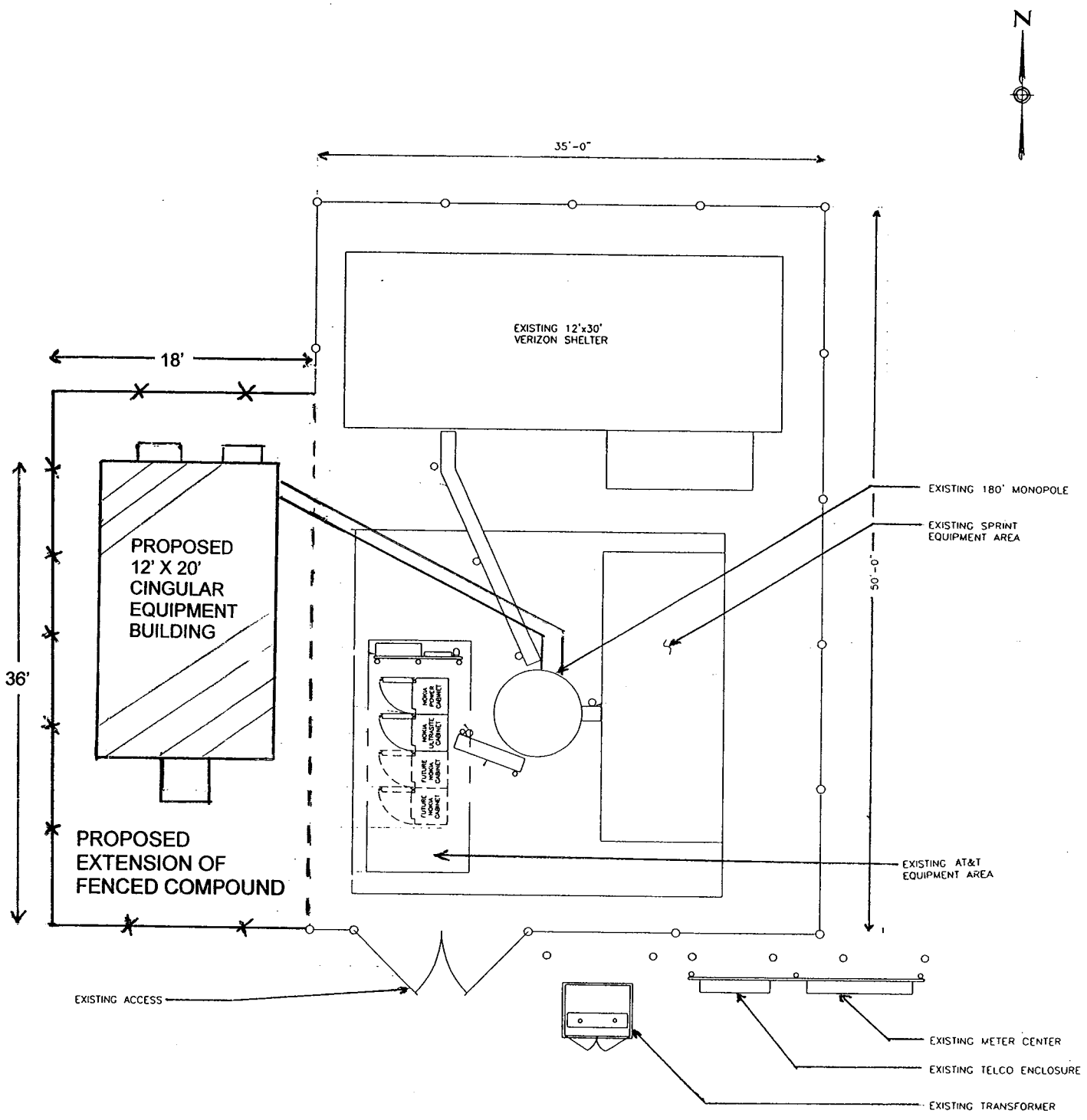
Local Road

Major Connector

State Route

Primary State Route

Rest Area



1 / SC-1 COMPOUND PLAN
SCALE: 1" = 10'-0"

0 10 20

ISSUED FOR SITING COUNCIL

LATITUDE:	41.505628 (NAD 83)
LONGITUDE:	72.197497 (NAD 83)

SBC Southwestern Bell

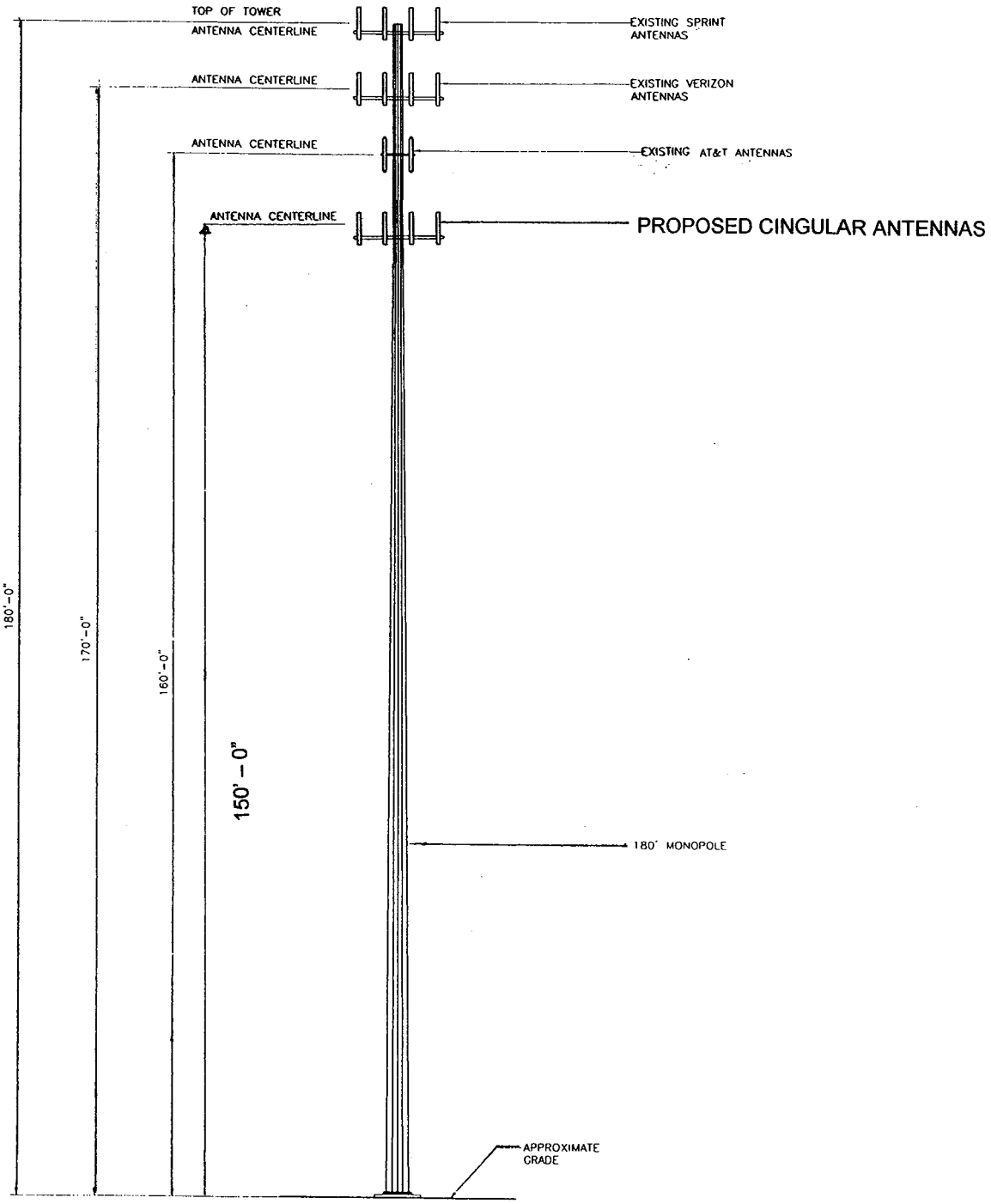
cingular WIRELESS

DRAWING TITLE: COMPOUND PLAN

PROJECT INFORMATION:
MONTVILLE EAST
557 ROUTE 82
MONTVILLE, CONNECTICUT 06353

PROPERTY OWNER:
SPRINT SITES USA
535 EAST CRESCENT AVENUE
RAMSEY, NEW JERSEY 07446

REVISION NO.	DRAWN BY: SLL
DATE ISSUED: 12-03	CHECKED BY:
SCALE: AS NOTED	APPROVED BY:
	SHEET NO. 1 OF 2



1 / SC-2 TOWER ELEVATION

SCALE: 1" = 25'-0"

0 25 50

LATITUDE: 41.505628 (NAD 83)
LONGITUDE: 72.197497 (NAD 83)

SBC Southwestern Bell

cingular WIRELESS

DRAWING TITLE:
TOWER ELEVATION

PROJECT INFORMATION:
MONTVILLE EAST
557 ROUTE 82
MONTVILLE, CONNECTICUT 06353

PROPERTY OWNER:
SPRINT SITES USA
535 EAST CRESCENT AVENUE
RAMSEY, NEW JERSEY 07446

REVISION NO.	DRAWN BY: SLL
DATE ISSUED: 12-03	CHECKED BY:
SCALE: AS NOTED	APPROVED BY:
	SHEET NO.

ENGINEERED
ENDEAVORS
INCORPORATED
The Experienced Point of View

November 11, 2003

Reference: Structural Analysis of a 180' Monopole
Site Name: CT33XC061
Site Location: Montville, CT
EEI Job Number: 6063
EEI Drawing #: GS51874

Table of Contents

Executive Summary

The monopole and foundation are adequate to carry the proposed loads and new configuration presented herein.

Introduction

The monopole was analyzed under the proposed loading presented by Russ Van Oudenaren of Sprint Sites on the Tower Loading Form.

Structure Type: Monopole - 18 Poly-Sided
Manufacturer: Engineered Endeavors, Inc.

EEI used an "in-house" program to analyze the multi-sided pole structure. The

CELLPOLE is a geometrically nonlinear program for tubular steel structures employing the finite element method (FEM) to perform the calculations. This program performs a non-linear geometric analysis to account for secondary moments caused by structural deflections due to anticipated loading. The program has been verified against closed form solutions and full-scale load tests, both providing excellent results.

Analysis Criteria

The objective of this analysis is to determine if the monopole can structurally support the desired configuration and meet the requirements of the:

1. EIA/TIA 222-F Code
2. *Manual of Steel Construction ASD Ninth Edition* American Institute of Steel Construction
3. American Concrete Institute's *Building Code Requirements for Structural Concrete* (ACI 318-95)
4. American Society of Civil Engineers (A.S.C.E.) *Design of Steel Transmission Pole Structures*

Monopole Loading

For further information on the structural loading, refer to the *EEI* analysis cover sheet and calculations. All mounts are assumed to be EEI's standard mounting systems, unless noted otherwise. All transmission lines are assumed running inside of the pole shaft.

Monopole Results

This monopole is structurally adequate to support the desired antennas and ancillary equipment. The maximum bending stress in the shaft (48.6 *ksi*) occurs at the upper middle splice elevation, 90 *ft*, on the structure. The allowable strength at this point is 48.7 *ksi*. Refer to Case 1 of the design calculations for the full design loading output. In addition, all other components of the structure are adequate to support the proposed loading, *e.g.*, the base plate and anchor bolts. Refer to Table I for a summary of the maximum capacity of the individual structural components.

Table I: Capacity Usage on Pole

Description	% of Capacity
Maximum Shaft	100
Base Plate	88
Anchor Bolts	85

Foundation Results

The original foundation design for this site was provided by EEI and is depicted in drawing 6063-Spread. Table II provides a comparison of foundation loads between the original design loading and the new base loads; the overturning moment is 5% greater than the original moment. For the spread footer under the new loads, the safety factor against overturning is 1.8, which is greater than the allowable of 1.5. As a result, the foundation is adequate. Assuming that the foundation has been installed exactly according to the above referenced design and is in excellent condition, it will be adequate to support the desired loading. It is noted that the strength of concrete varied from 3530 psi to 4270 psi from the original break tests.

Table II: Foundation Base Loads

	New Base Loads	Original Base Loads	% of Design
Moment - *ft-kips*	3347.0	3207.5	1.05
Shear – *kips*	26.0	25.5	1.02
Axial – *kips*	34.1	32.3	1.06

Conclusion

The **monopole and foundation are adequate** to handle the desired loading configuration, refer to the EEI cover sheet for the summary of the loading configuration. No hand holes exist at the 150 *ft*, (3) 6 x 12 hand holes of adequate strength and thickness can be installed at this elevation. The diameter at the 150 *ft* elevation is 24.3 inches.

Reference: *Structural Analysis of a 180' Monopole in Montville, CT*
Site Name: CT33XC061
EEI Job Number: 6063

It is the responsibility of Sprint Sites USA to verify that the monopole modeled and analyzed is the correct structure that exists. This report is intended for use with regard to this specific monopole discussed in general herein and any substantial changes in mounting or loading should be brought to EEI's attention so that we may determine how this may effect our conclusions.

11/13/03

STATE OF CONNECTICUT
MICHAEL R. MOORE

Michael R. Moore

Engineered Endeavors, Inc.

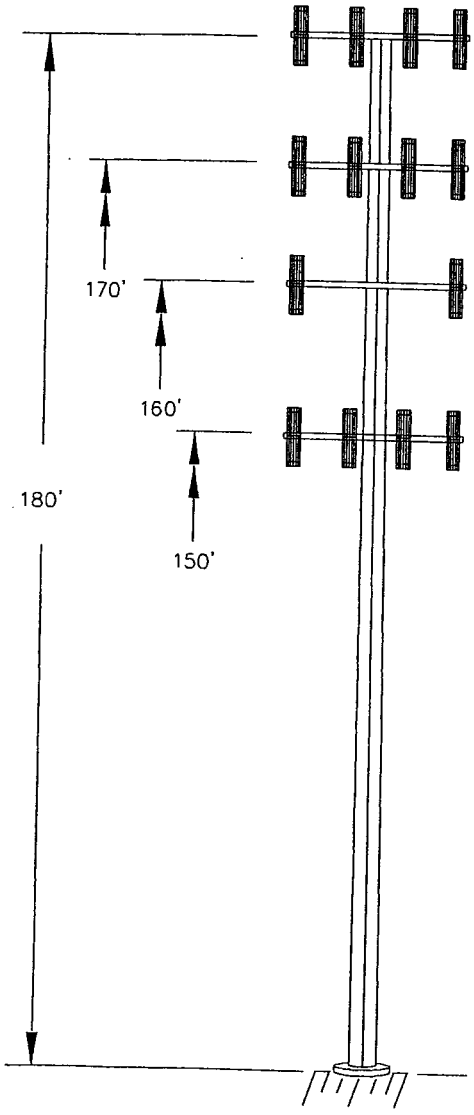
7610 Jenther Drive
Mentor, OH 44060
Phone (440) 918-1101 ♦ Fax (440) 918-1108

ENGINEERED ENDEAVORS INCORPORATED

Customer SPRINT SITES USA By MRM 11/11/03 Date

Structure 180' MONOPOLE Checked ____ 06063 Job/Quote No.

SITE LOCATION – MONTVILLE, NEW LONDON COUNTY, CT ANALYSIS
SITE NAME – CT33XC061



ANTENNA LOADING:

(12) DB980H90E–M PANEL ANTENNAS
LOW PROFILE PLATFORM @ 180' (SPRINT)

(12) DB844H90 PANEL ANTENNAS
LOW PROFILE PLATFORM @ 170' (VERIZON)

(6) ALLGON 7250 PANEL ANTENNAS
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STAND–OFF ARM @ 160' (AT&T)

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(6) ADC TMAs
(3) CSS COMBINERS
LOW PROFILE PLATFORM @ 150' (CINGULAR)

DESIGN NOTES:

DESIGNED IN ACCORDANCE WITH TIA/EIA 222–F
85 MPH BASIC WIND SPEED
1/2" RADIAL ICE

CASE 1 – 85 MPH BASIC WIND SPEED
CASE 2 – 75% OF 85 MPH WIND LOAD WITH 1/2" RADIAL ICE

NOTE: IT IS THE RESPONSIBILITY OF THE PURCHASER TO VERIFY THAT THE WIND LOADS AND DESIGN CRITERIA SPECIFIED MEET THE REQUIREMENTS OF ALL LOCAL BUILDING CODES

ENGINEERED ENDEAVORS, INC.
7610 Jenther Drive * Mentor, Ohio 44060
Telephone: (440) 918–1101 * Telefax: (440) 918–1108

Southwestern Bell Mobile Systems, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7700
Fax: (860) 513-7190

Michele G. Briggs
Manager of Real Estate

December 8, 2003

Honorable Howard R. Beetham, Jr.
Mayor, Town of Montville
Town Hall, 310 Norwich-New London Turnpike
Uncasville, Connecticut 06382

Re: Notice of Exempt Modification – Existing Sprint Telecommunications Tower Facility at 557 Route 82, Montville, Connecticut

Dear Mayor Beetham:

Southwestern Bell Mobile Systems, LLC ("SBMS") intends to install telecommunications antennas and associated equipment at an existing multicarrier telecommunications tower off Route 82 in Montville, Connecticut.

The facility is owned and operated by Sprint Sites USA ("Sprint"), with offices at 535 E. Crescent Avenue, Ramsey, NJ 07446. Sprint leases the land from Carolyn Besade of Montville, CT.

A Notice of Exempt Modification has been filed with the Connecticut Siting Council as required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73. Please accept this letter as notification to the Town of Montville under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The attached letter fully sets forth the SBMS proposal. However, if you have any questions or require any further information on the plans for the site or the Siting Council's procedures, please contact the undersigned or Mr. Derek Phelps, Executive Director of the Connecticut Siting Council, at (860) 827-2935.

Sincerely,

Michele G. Briggs

Michele G. Briggs
Manager of Real Estate

Enclosure

EM-CING-086-031209

EMERSON
Network Power

ENGINEERED
ENDEAVORS
INCORPORATED
The Experienced Point of View

ENGINEERED ENDEAVORS INCORPORATED

7610 Jenther Drive ■ Mentor, Ohio 44060
Telephone: (440) 918-1101 ■ Telefax: (440) 918-1108

Sprint PCS
Structural Analysis
180' Monopole
Site: BESADE/CT33XC061
EEI Job #: 06063-P01

ENGINEERED
ENDEAVORS
INCORPORATED
The Experienced Point of View

November 11, 2003

Reference: Structural Analysis of a 180' Monopole
Site Name: CT33XC061
Site Location: Montville, CT
EEI Job Number: 6063
EEI Drawing #: GS51874

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Site Name: CT33XC061
EEI Job Number: 6063

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Engineered Endeavors, Inc.

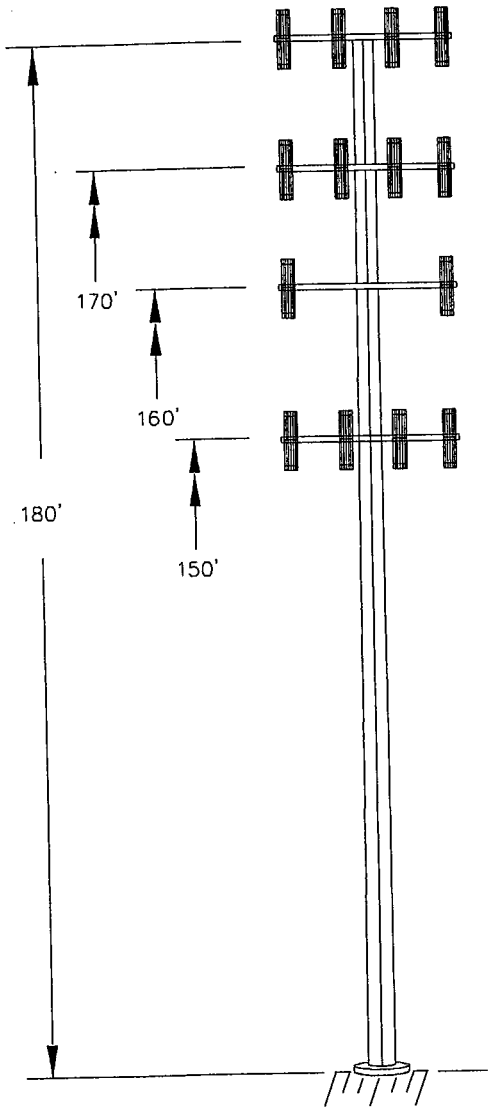
7610 Jenther Drive
Mentor, OH 44060
Phone (440) 918-1101 ♦ Fax (440) 918-1108

ENGINEERED ENDEAVORS INCORPORATED

Customer SPRINT SITES USA By MRM 11/11/03 Date

Structure 180' MONOPOLE Checked ____ 06063 Job/Quote No.

SITE LOCATION – MONTVILLE, NEW LONDON COUNTY, CT ANALYSIS
SITE NAME – CT33XC061



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85 MPH BASIC WIND SPEED
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Telephone: (440) 918-1101 * Telefax: (440) 918-1108

Engineered Endeavors Inc.

7610 Jenther Drive
Mentor, Ohio 44060
Tel (440) 918-1101 Fax (440) 918-1108

Communications Structure Nonlinear Analysis and Design Program

15:56:58 11-11-2003
Revision 1.3 - 2/07/00
Engineer: MRM

Customer **SPRINT SITES USA**
Job Name **06063**
Structure **180 MONOPOLE**
Location **MONTVILLE, CT**
Site **CT33XC061**

OD BOT	OD TOP	NUM. SIDES	THICK INCH	TAPER IN/FT	LENGTH FT	JOINT INCH	JOINT TYPE	YIELD KSI	WEIGHT LBS	JOINT HEIGHT
27.99	18.00	18	0.2500	0.213	47.00	48.00	SLIP	65.0	2851.	135.00
37.05	26.51	18	0.3125	0.213	49.58	62.00	SLIP	65.0	5202.	90.00
45.76	35.20	18	0.3750	0.213	49.71	75.00	SLIP	65.0	7976.	46.00
54.00	43.56	18	0.4375	0.213	49.13	0.00	BASEPL	65.0	11085.	0.00
			TOTAL TUBE WEIGHT				27114.	POUNDS		
			POLE SHAFT LENGTH				180.00	FEET		

E = 29600.0 KSI
UNIT WGT = 0.283 LBS/CU IN
AISC constants are used for stress reductions.
TUBE SECTIONS HAVE 18 SIDES AND ARE TREATED AS ROUND
Internal bend radius = 3 X T
Tube diameters are measured flat to flat.
Tube diameters are increased by 1.020 for wind across points.
Drag coefficients are increase by 1.300 for steps on the pole.
AISC Tube Shape Coefficient of 1.000 is applied.
REVISED DATA FILE NAME 6063180

APPURTENANCES

DESCRIPTION	NUM.	ELEV.	Kz	AREA < WITHOUT ICE	WGT	Ca >	AREA < WITH ICE	WGT	Ca >	FACTOR
DB 980H	12	180.	1.624	2.50	9.	2.0000	3.00	29.	2.0000	0.75
CLASSIC LOW PROFILE	1	180.	1.624	11.25	1500.	2.0000	14.10	2250.	2.0000	1.00
DB 844H	12	170.	1.597	2.85	10.	2.0000	3.25	20.	2.0000	0.75
CLASSIC LOW PROFILE	1	170.	1.597	11.25	1500.	2.0000	14.10	2250.	2.0000	1.00
7250.02	6	160.	1.570	2.68	15.	1.5000	3.16	23.	1.5000	0.87
CLASSIC LOW PROFILE	1	160.	1.570	11.25	1500.	2.0000	14.10	2250.	2.0000	1.00
DUO1417-8686	12	150.	1.541	4.67	21.	1.4000	5.10	42.	1.4000	0.85
LOW PROFILE PLATFORM	1	150.	1.541	7.50	1500.	2.0000	9.20	1750.	2.0000	1.00

LOAD CASE 1

BASIC LOADING

DEAD LOAD FACTOR 1.00 WIND PSF REDUCTION 1.00 RADIAL ICE 0.00 IN.

WIND VELOCITY 85 BOTTOM 18.65 PSF TOP 30.04 PSF
MAX BASE ROTATION 0.00 DEG

APPLIED APPURTENANCE FORCES

	ELEVATION FT	WEIGHT KIPS	WIND KIPS
DB 980H	180.00	0.102	2.284
CLASSIC LOW PROFILE PLATFORM	180.00	1.500	1.142
DB 844H	170.00	0.120	2.561
CLASSIC LOW PROFILE PLATFORM	170.00	1.500	1.123
7250.02	160.00	0.092	1.030
CLASSIC LOW PROFILE PLATFORM	160.00	1.500	1.104
DUO1417-8686	150.00	0.252	3.213
LOW PROFILE PLATFORM	150.00	1.500	0.723

TUBE PROPERTIES			MEMBER FORCES			STRESSES			STRESS	TOTAL	
ELEV FT	DIAM IN	WALL IN	SHEAR K	BENDING K-FT	AXIAL K	AXIAL KSI	BEND. KSI	ALLOW KSI	RATIOS	DEFL IN	TILT DEG
180.00	18.00	0.2500	3.89	0.00	1.31	0.09	0.00	51.99	0.00	158.1	8.36
170.00	20.13	0.2500	3.89	38.53	1.31	0.08	6.04	51.99	0.12	141.0	8.28
160.00	22.25	0.2500	8.34	121.06	2.86	0.17	15.46	51.99	0.30	124.2	8.04
150.00	24.38	0.2500	11.27	232.69	4.71	0.25	24.68	51.16	0.49	108.0	7.64
142.00	26.08	0.2500	15.95	359.25	6.53	0.32	33.24	50.19	0.67	95.8	7.22
135.00	27.56	0.2500	16.43	473.41	7.10	0.33	39.14	49.45	0.80	85.6	6.78
TYPE OF JOINT: SLIP JOINT											
135.00	26.94	0.3125	17.09	473.37	8.37	0.32	33.03	51.99	0.64	85.6	6.78
123.00	29.49	0.3125	17.09	677.13	8.37	0.29	39.31	51.65	0.77	69.6	6.08
112.00	31.83	0.3125	17.86	872.65	9.61	0.31	43.39	50.53	0.86	56.5	5.39
101.00	34.16	0.3125	18.62	1076.68	10.92	0.33	46.36	49.56	0.94	44.9	4.71
90.00	36.50	0.3125	19.38	1289.25	12.33	0.35	48.55	48.72	1.00	34.9	4.03
TYPE OF JOINT: SLIP JOINT											
90.00	35.75	0.3750	20.32	1289.26	14.92	0.36	42.42	51.49	0.83	34.9	4.03
76.00	38.72	0.3750	20.32	1573.12	14.92	0.33	44.00	50.33	0.88	24.2	3.28
66.00	40.85	0.3750	21.16	1784.38	16.93	0.36	44.79	49.61	0.91	17.9	2.76
56.00	42.97	0.3750	21.85	2002.65	18.72	0.37	45.35	48.95	0.93	12.6	2.27
46.00	45.10	0.3750	22.53	2227.80	20.60	0.39	45.75	48.36	0.95	8.4	1.79
TYPE OF JOINT: SLIP JOINT											
46.00	44.22	0.4375	23.32	2227.80	24.93	0.41	40.98	50.63	0.82	8.4	1.79
33.00	46.99	0.4375	23.32	2530.86	24.93	0.39	41.17	49.80	0.83	4.2	1.25
22.00	49.33	0.4375	24.05	2795.37	27.54	0.41	41.21	49.16	0.85	1.9	0.81
11.00	51.66	0.4375	24.72	3067.22	30.07	0.43	41.17	48.58	0.85	0.5	0.40
0.00	54.00	0.4375	25.85	3346.56	34.08	0.46	41.07	48.05	0.86	0.0	0.00

REACTION COMPONENTS (KIPS AND FT-KIPS)

TRANSVERSE SHEAR	VERTICAL FORCE	WIND SHEAR	MOMENT ABOUT TRANSVERSE	MOMENT ABOUT VERTICAL	MOMENT ABOUT WIND AXIS
0.000	34.078	-25.847	3346.559	0.000	0.000

LOAD CASE 2

BASIC LOADING PLUS ICE

DEAD LOAD FACTOR 1.00 WIND PSF REDUCTION 0.75 RADIAL ICE 0.50 IN.

WIND VELOCITY 85 BOTTOM 13.99 PSF TOP 22.53 PSF
MAX BASE ROTATION 0.00 DEG

APPLIED APPURTENANCE FORCES

	ELEVATION FT	WEIGHT KIPS	WIND KIPS
DB 980H	180.00	0.343	2.056
CLASSIC LOW PROFILE PLATFORM	180.00	2.250	1.073
DB 844H	170.00	0.240	2.191
CLASSIC LOW PROFILE PLATFORM	170.00	2.250	1.056
7250.02	160.00	0.139	0.911
CLASSIC LOW PROFILE PLATFORM	160.00	2.250	1.038
DUO1417-8686	150.00	0.504	2.634
LOW PROFILE PLATFORM	150.00	1.750	0.665

TUBE PROPERTIES			MEMBER FORCES			STRESSES			STRESS	TOTAL	
ELEV FT	DIAM IN	WALL IN	SHEAR K	BENDING K-FT	AXIAL K	AXIAL KSI	BEND. KSI	ALLOW KSI	RATIOS	DEFL IN	TILT DEG
180.00	18.00	0.2500	3.65	0.01	2.40	0.17	0.00	51.99	0.00	139.6	7.45
170.00	20.13	0.2500	3.65	36.25	2.40	0.15	5.68	51.99	0.11	124.3	7.37
160.00	22.25	0.2500	7.64	112.04	4.95	0.29	14.31	51.99	0.28	109.3	7.15
150.00	24.38	0.2500	10.33	214.59	7.66	0.40	22.76	51.16	0.45	94.9	6.78
142.00	26.08	0.2500	14.28	328.09	10.13	0.50	30.35	50.19	0.61	84.0	6.39
135.00	27.56	0.2500	14.63	429.92	10.69	0.50	35.54	49.45	0.73	75.0	5.99
			TYPE OF JOINT: SLIP JOINT								
135.00	26.94	0.3125	15.12	429.91	11.95	0.46	30.00	51.99	0.59	75.0	5.99
123.00	29.49	0.3125	15.12	610.40	11.95	0.42	35.43	51.65	0.69	60.9	5.35
112.00	31.83	0.3125	15.67	782.16	13.18	0.43	38.89	50.53	0.78	49.3	4.74
101.00	34.16	0.3125	16.22	960.04	14.46	0.44	41.34	49.56	0.84	39.1	4.12
90.00	36.50	0.3125	16.77	1144.06	15.84	0.45	43.08	48.72	0.89	30.4	3.52
			TYPE OF JOINT: SLIP JOINT								
90.00	35.75	0.3750	17.45	1144.06	18.40	0.44	37.64	51.49	0.74	30.4	3.52
76.00	38.72	0.3750	17.45	1387.92	18.40	0.41	38.82	50.33	0.78	21.0	2.86
66.00	40.85	0.3750	18.05	1568.24	20.37	0.43	39.36	49.61	0.80	15.5	2.40
56.00	42.97	0.3750	18.55	1753.60	22.12	0.44	39.71	48.95	0.82	10.9	1.97
46.00	45.10	0.3750	19.04	1943.92	24.55	0.47	39.92	48.36	0.83	7.2	1.55
			TYPE OF JOINT: SLIP JOINT								
46.00	44.22	0.4375	19.60	1943.93	28.08	0.47	35.76	50.63	0.71	7.2	1.55
33.00	46.99	0.4375	19.60	2198.67	28.08	0.44	35.77	49.80	0.73	3.7	1.08
22.00	49.33	0.4375	20.12	2419.97	30.69	0.46	35.67	49.16	0.73	1.6	0.70
11.00	51.66	0.4375	20.59	2646.46	33.23	0.47	35.52	48.58	0.74	0.4	0.34
0.00	54.00	0.4375	21.42	2878.24	37.23	0.51	35.32	48.05	0.74	0.0	0.00

REACTION COMPONENTS (KIPS AND FT-KIPS)

TRANSVERSE SHEAR	VERTICAL FORCE	WIND SHEAR	MOMENT ABOUT TRANSVERSE	MOMENT ABOUT VERTICAL	MOMENT ABOUT WIND AXIS
0.000	37.233	-21.416	2878.235	0.000	0.000

SUMMARY TABLE

ELEV	STRESS RATIO	AXIAL	BENDING	LOADING
180.00	0.01	1.31	0.0	1 BASIC LOADING
170.00	0.12	1.31	38.5	1 BASIC LOADING
160.00	0.30	2.86	121.1	1 BASIC LOADING
150.00	0.49	4.71	232.7	1 BASIC LOADING
142.00	0.67	6.53	359.2	1 BASIC LOADING
135.00	0.80	7.10	473.4	1 BASIC LOADING
123.00	0.77	8.37	677.1	1 BASIC LOADING
112.00	0.86	9.61	872.7	1 BASIC LOADING
101.00	0.94	10.92	1076.7	1 BASIC LOADING
90.00	1.00	12.33	1289.3	1 BASIC LOADING
76.00	0.88	14.92	1573.1	1 BASIC LOADING
66.00	0.91	16.93	1784.4	1 BASIC LOADING
56.00	0.93	18.72	2002.6	1 BASIC LOADING
46.00	0.95	20.60	2227.8	1 BASIC LOADING
33.00	0.83	24.93	2530.9	1 BASIC LOADING
22.00	0.85	27.54	2795.4	1 BASIC LOADING
11.00	0.85	30.07	3067.2	1 BASIC LOADING
0.00	0.86	34.08	3346.6	1 BASIC LOADING

MAXIMUM SUPPORT MOMENT K-FT	3346.56
CORRESPONDING AXIAL FORCE KIPS	34.08
CORRESPONDING SHEAR FORCE KIPS	25.85

BASE PLATE AT ELEVATION 0.00 FEET

TUBE DIAMETER	54.00	INCHES
DESIGN MOMENT	3346.6	KIP FT
DESIGN MOMENT IS	0.	DEGREES FROM THE WIND DIRECTION
BOLTS ARE ON THE KNUCKLES OF THE TUBE		
APPLIED AXIAL FORCE	34.1	KIPS
APPLIED SHEAR	25.85	KIPS

BOLT DATA

BOLT TYPE	A615 GR75	
BOLTS ARE EVENLY SPACED		
DIAMETER	2.250	INCHES
EFFECTIVE AREA	3.250	SQ IN
TOTAL LENGTH	6.0	FEET
End plates are required.		
MINIMUM EMBEDMENT	5.0	FEET
NUMBER OF BOLTS	16	
BOLT CIRCLE DIAMETER	63.00	INCHES
ALLOWABLE STRESS	60.0	KSI
APPLIED AXIAL STRESS	49.7	KSI
MAX BOLT FORCE	161.5	KIPS
BOLT BENDING STRESS	2.3	KSI
COMBINED BOLT STRESS	52.0	KSI
CLEARANCE UNDER PLATE	3.25	INCHES
BOLT WEIGHT	1353.6	POUNDS

PLATE DATA

DIAMETER OF PLATE	69.00	INCHES
MATERIAL	A572MOD60	
PROVIDED THICKNESS	2.000	INCHES
REQUIRED THICKNESS	1.872	INCHES
BOLT HOLE DIAMETER	2.625	INCHES
CENTER HOLE SIZE	44.00	INCHES
NET WEIGHT	1206.8	POUNDS
RAW STOCK WEIGHT	2694.7	POUNDS
SURFACE AREA	29.61	SQ FT
ALLOWABLE STRESS	54.00	KSI
MAX APPLIED STRESS	47.28	KSI

CONCRETE STRENGTH 3000. PSI

Base Plate - use 69.00 inch ROUND x 2.000 inch A572MOD60 with (16) 2.250 diameter x 6.00 foot caged A615 GR75 bolts on a 63.00 inch bolt circle. End plates are required.

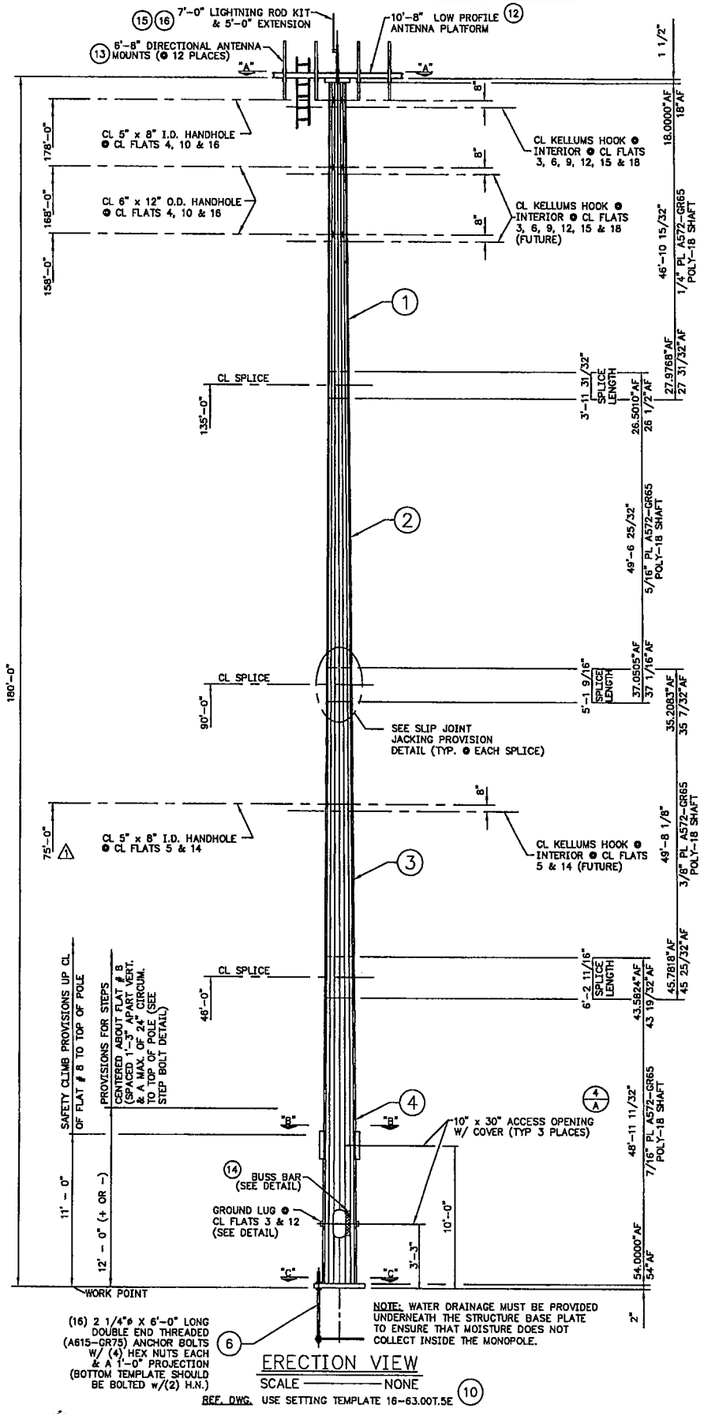
Reference: *Structural Analysis of a 180' Monopole in Montville, CT*
Site Name: CT33XC061
EEI Job Number: 6063

MONOPOLE

Drawing GS54572

Engineered Endeavors, Inc.

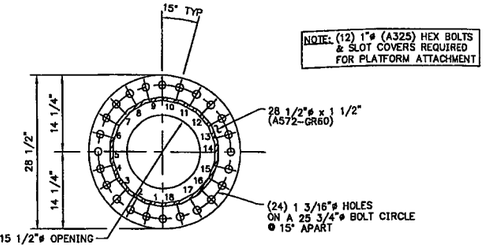
7610 Jenther Drive
Mentor, OH 44060
Phone (440) 918-1101 ♦ Fax (440) 918-1108



ERECTION VIEW

SCALE ——— NONE

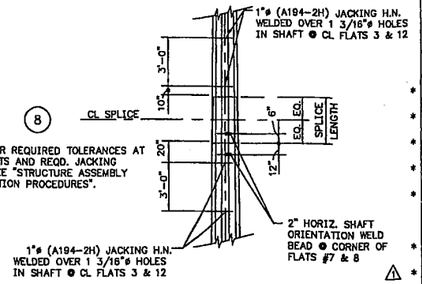
REF. DWG. USE SETTING TEMPLATE 16-63.00T.5E 10



NOTE: (12) 1"ø (A325) HEX BOLTS & SLOT COVERS REQUIRED FOR PLATFORM ATTACHMENT

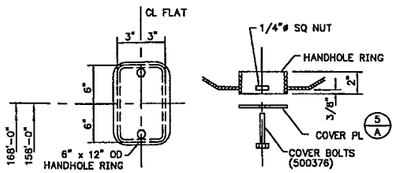
VIEW "A-A"

NOTE: PLATFORM REMOVED FOR CLARITY

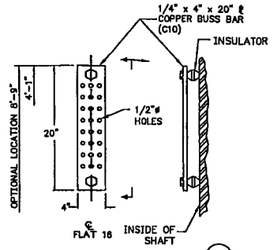


8 NOTE: FOR REQUIRED TOLERANCES AT SLIP JOINTS AND REQD. JACKING FORCES SEE "STRUCTURE ASSEMBLY AND ERECTION PROCEDURES".

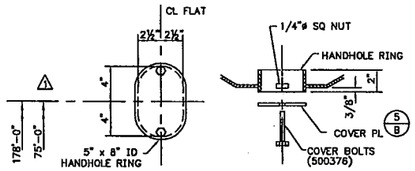
SLIP JOINT JACKING PROVISION DETAIL



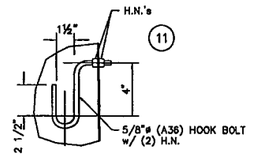
6" X 12" HANDHOLE DETAIL



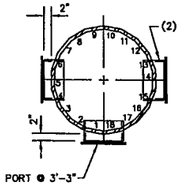
BUSS BAR DETAIL 14



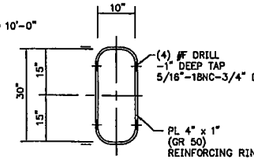
HANDHOLE DETAIL



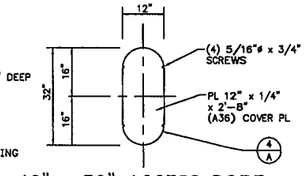
KELLUMS HOOK DETAIL



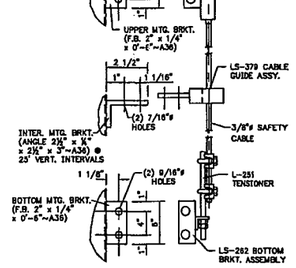
SECTION "B-B"



REIN. RING DETAIL @ 10" x 30" ACCESS OPENING

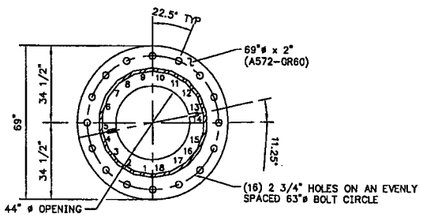


10" x 30" ACCESS PORT COVER PL DETAIL

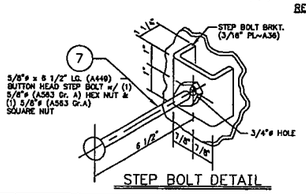


SAFETY CLIMB ATTACHMENT DETAILS

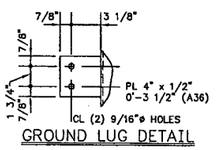
(LOCATED ALONG CL OF FLAT #8)



SECTION "C-C"



STEP BOLT DETAIL



GROUND LUG DETAIL

ASSEMBLY MARKING PROCEDURE

EACH INDIVIDUAL ASSEMBLY SHALL HAVE A METAL TAG WELDED TO IT WHICH WILL BE ENGRAVED WITH THE ASSEMBLY MARK NO. AS SHOWN IN THE MATERIAL BLOCK. (MINIMUM OF 5/8" HIGH LETTERS)

MATERIAL REQ'D. PER ASSEMBLY

	GALV. WT.	QTY.	ITEM	MK. NO.	DESCRIPTION
*	3306.65	1	1	GSC25570	SHAFT ASSY. (TOP SECTION)
*	5530.30	1	2	GSC25571	SHAFT ASSY. (UP. MID. SECTION)
*	8484.47	1	3	GSC25572	SHAFT ASSY. (LOW. MID. SECTION)
*	13307.03	1	4	GSC25573	SHAFT ASSY. (BOTTOM SECTION)
*	25.00	3	4 A	C12669	12" x 32" ACCESS PORT COVER PL w/ (4)BOLTS (500822) & (4)WASHERS (500234)
			5		HARDWARE AS FOLLOWS:
*	5.51	6	5 A	GS14842	6" x 12" HANDHOLE COVER PLATE w/ (2) BOLTS (500378)
*	2.64	5	5 B	P-10811	5" x 8" HANDHOLE COVER PLATE w/ (2) BOLTS (500376)
	101.46	16	6	AB060DE-4	2 1/4"ø x 6'-0" LG. (A615-GR75) ANCHOR BOLTS W/ (4) HEX NUTS (A194-GR2H), EACH
	1.08	143	7	S10006	5/8"ø X 6 1/2" LG. BUTTON HEAD STEP BOLT w/ (1) HEX & (1) SQUARE NUT EACH
		1	8		STRUCTURE ASSEMBLY AND ERECTION PROCEDURES
		1	9	DBI-180	180'-0" SAFETY CLIMB KIT
	158.31	2	10	16-63.00T.5E	SETTING TEMPLATE
	1.50	6	11	GS13625	5/8"ø KELLUMS HOOK ASSY.
	1235.15	1	12	K10008A	10'-8" LOW PROFILE PLATFORM
	32.63	12	13	K10009	6'-8" LOW PROFILE DIRECTIONAL ANTENNA MOUNT
	7.50	1	14	K10062	BUSS BAR KIT
	28.60	1	15	K10333	7'-0" LIGHTNING ROD KIT
	27.63	1	16	K10781	5'-0" LIGHTNING EXTENSION MOUNT FOR LOW PROFILE PLATFORM
		1	17		STRUCTURE IDENTIFICATION TAG

TOTAL GALV. STR. & ACCES. WT. 32,603.59#

TOTAL ANCHOR BOLT & TEMPLATE WT. 1,939.98#

GENERAL NOTES

1) ALL WELDS SHALL BE IN ACCORDANCE WITH A.W.S. D.1.1.
2) LONGITUDINAL SEAM WELDS IN FEMALE SECTION OF THE SLIP JOINT SHALL BE FULL PENETRATION WELDS.
3) FOR PROPER SHAFT ALIGNMENT, A 2" HORIZONTAL WELD BEAD AND A MARK NUMBER ARE POSITIONED ON EACH SHAFT AT EACH SPLICE. THE 2" HORIZONTAL WELD BEADS ARE ON MATCHING CORNERS. THE MARK NUMBER IS ON AN ADJACENT FLAT. THE HORIZONTAL WELD BEAD CORNERS SHALL BE ALIGNED TOP TO BOTTOM OF THE POLE. MATCH NUMBERS SHALL BE MATCHED FOR EACH SIDE.
4) FIELD ASSEMBLY NUTS (1" DIA) ARE LOCATED ON OPPOSING SECTION FLATS ABOVE AND BELOW SPLICES FOR JACKING SHAFTS TOGETHER.
5) THE BOTTOM OF THE UPPER SECTION SHALL BE TELESCOPED IN THE FIELD TO WITHIN 12" OF THE WELD ORIENTATION MARK ON THE LOWER SECTION.
6) A SLOT 1 1/2" x 4" IS REQUIRED AT THE TOP OF THE BOTTOM SECTION AND AT THE BOTTOM OF THE TOP SECTION FOR HANDLING DURING GALVANIZING.
7) GAP BETWEEN TOP OF FOOTING AND BOTTOM BASE PLATE SHALL BE FILLED WITH A NON-SHRINK GROUT.
8) POLES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
9) POLE TAPER = 0.2125 IN./FT.

DESIGN NOTES

DESIGNED IN ACCORDANCE WITH TIA/EIA 222-F
90 MPH BASIC WIND SPEED
1/2" RADIAL ICE
CASE I – 50 MPH OPERATIONAL WIND SPEED
ALLOWABLE ROTATION = 3.00° @ 180'
CASE II – 90 MPH BASIC WIND SPEED
CASE III – 75% OF 90 MPH WIND LOAD WITH 1/2" RADIAL ICE

DESIGNED IN COMPLIANCE WITH SPRINT TOWER SPECIFICATIONS SSEO 3.001.06.001 (11/18/98)

SITE: BESADE/CT33XC061
NEW LONDON COUNTY, CT

REV.	DESCRIPTION	DATE	DWN.	CHK.	APP.
2	COMPLETED DETAILING	12/27/99	R.V.H.		
1	ADDED HANDHOLES @ 75'	12/24/99	R.V.H.		

6063

ENGINEERED ENDEAVORS INCORPORATED
• 7610 Jenther Drive Mentor, Ohio 44060
• (440) 918-1101

180'-0" MONOPOLE
SPRINT PCS/NJ

DWN. R.V.H. DATE 11-23-99	PRELIM. APP. DATE	CHK. DATE	FINAL APP. DATE
SCALE NONE	SH. 1 OF 1		GS51874

Reference: *Structural Analysis of a 180' Monopole in Montville, CT*
T-Mobile Site Name: CT33XC061
EEI Job Number: 6063

Foundation Design & Analysis

Engineered Endeavors, Inc.

7610 Jenther Drive
Mentor, OH 44060
Phone (440) 918-1101 ♦ Fax (440) 918-1108

FOUNDATION DESIGN CALCULATIONS
FOR
SPREAD FOOTING FOUNDATION

ENGINEERED ENDEAVORS INC.
*7610 Jentner Drive * Mentor, Ohio 44060*
*Tel:(216)918-1101 * Fax:(216)918-1108*

11-Nov-03
05:14 PM

CUSTOMER	SPRINT PCS
STRUCTURE	180' MONOPOLE
EEI PROJECT	6063 REV.II
LOCATION	NEW LONDON CO., CT
SITE NAME	BESADE/CT33XC061

SERVICE LOADS AT BASE OF THE MONOPOLE

	Design Loading
Moment, kip-ft	3346.6
Shear, kips	25.9
Axial Load, kips	34.1

Anchor Bolts	Quantity	16.0
	Length, ft	6.0
	Circle Dia., in	63.0
	Projection, in	12.0
Foundation Parameters		
Pedestal Min. Width, in		81.00
Pedestal Projection, in		12.0
Found. Min Height, ft		5.5

	Height, ft	Width, ft
Footing	5.00	25.00
Pedestal	0.00	0.00

Soil Unit Wt., pcf	0.00
Concrete Unit Wt., pcf	150.00
Angle of friction	30.00

Foundation Weight, kips	468.75
Concrete, cub.yd.	115.74
Soil Weight, kips	0.00
Total Vertical Load, kips	502.85
Kern of Eccentricity, ft	4.17
Actual Eccentricity, ft	6.91
Overturning Moment, kip-ft	3476.10
Resisting Moment, kip-ft	6285.63
Allowable Gross Soil Pressure, ksf	0.0
Allowable Net Soil Pressure, ksf	12.0
Gross Soil Pressure, (Service Load), ksf	

H=	-1.00
B=	23.85

	(gross)	(net)
max q=	2.40	1.65
min q=	0.00	

Safety Factor	Sf=	1.81

ULTIMATE STRENGTH DESIGN OF FOOTING

CONCRETE, psi	3000
STEEL, KSI	60

SHEAR IN FOOTING

1. CASE I -DEAD LOAD, TWO-WAY SHEAR U= 1.4*D

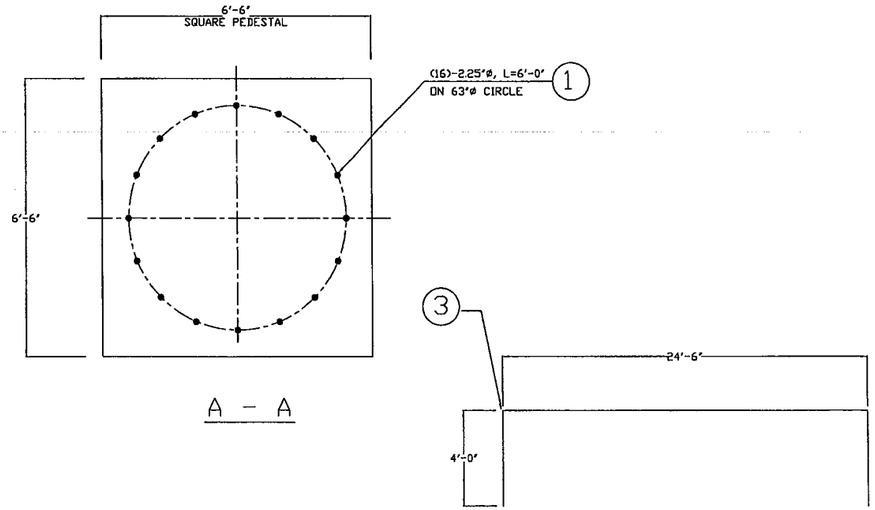
Ultimate Vertical Load, kips	703.99	
Ultimate Pressure, ksf	1.13	
Ultimate shear V, kips	**681.18**	
Design shear Vn, kips	**2172.14**	**O.K.**

2. CASE II - WIND LOAD, ONE-WAY SHEAR U=0.9*D+1.3*W

Ultimate Moment, kip-ft		4518.93	
Ultimate Vertical Load, kips		452.57	
Eccentricity, ft		9.99	
Ultimate Pressure, ksf	qult=	4.80	
Dist. from edge to critical sect., ft		8.00	
Pressure distance ft	c=	7.54	
Pressure @ critical section, ksf		0.00	
Ultimate Shear, kips		**452.57**	
Design Shear, kips		**1508.43**	**O.K.**

FLEXURE STRENGTH DESIGN

Ultimate Moment, kip-ft		Case I	2199.97		
		Case II	4518.93	q1=	0.00
Coefficient of Resistance		Rn=	68.9		
Reinforcement Ratio		r=	0.00116		
Min. Reinforcement Ratio		r min	0.00180		
Min. Steel Area, sq.in.		Al	29.16		
Type of Bars		#	8		
		Ab,in^2=	0.79		
BOTTOM	Min. Number of Bars		36.91		
	Actual Number of Bars		40.00		
	Actual Steel Area, sq.in.		31.60		
	Steel Ratio Actual	ra=	0.00195		
	Revised Coef. of Resist	Rn=	117.03		
	Design Moment, kip-ft		**7678.36**		
	Horizontal Spacing, in	shor=	7.54		
TOP	Min. Steel Area, sq.in		29.16		
	Min. Number of Bars		36.91		
	Actual Number of Bars		40.00		
	Top Steel Area, sq.in		31.60		
	Horizontal Spacing, in	shor=	7.54		



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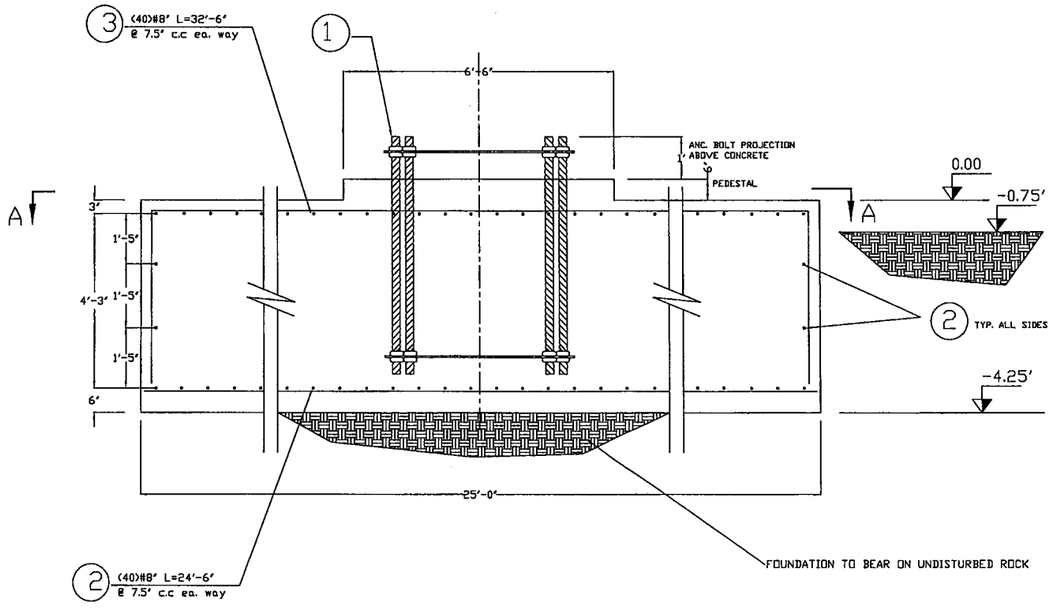

FOUNDATION LOADING

MOMENT, kip-ft	3207.5
SHEAR, kips	25.5
AXIAL, kips	32.3

MATERIAL LIST

ITEM	QTY.	LENGTH	DESCRIPTION
1	16	6'-0"	2.25"ø A.B. W/(4)H.H.N. A615-GR.75
2	88	24'-6"	#8 (ASTM A615-GR.60)
3	80	32'-6"	#8 (ASTM A615-GR.60)

CONCRETE (cub.yd.)	118.0	4000 psi

GENERAL NOTES:

1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT PROVIDED BY DR. CLARENCE WELTI, P.E., P.C. ON OCTOBER 29, 1999.
2. GEOTECHNICAL AND CONSTRUCTION INSPECTION IS REQUIRED. SOIL REPORT SHOULD BE CONSULTED PRIOR TO CONSTRUCTION.
3. CONCRETE MIX DESIGN AND CONSTRUCTION PROCEDURE SHALL BE IN COMPLIANCE WITH ACI 318-95. MINIMUM COMPRESSIVE STRENGTH SHALL BE 4000 PSI AT 28 DAYS.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A615-87, GR. 60. REINFORCEMENT SHALL BE ASSEMBLED USING STEEL WIRE. WELDING OF CROSSING BARS OR SPLICES IS NOT PERMITTED. MAINTAIN MINIMUM CONCRETE COVER OF 3 in.
5. REFER TO EEI DWG. NO. GS51874 FOR ANCHOR BOLTS, TEMPLATES AND BASE PLATE REQUIREMENTS.
6. FOUNDATION INSTALLER MUST VERIFY ANCHOR BOLT LENGTH, QUANTITY, AND PATTERN PRIOR TO INSTALLATION.
7. ANCHOR BOLT ORIENTATION REQUIRED PRIOR TO INSTALLATION.
8. TOWER GROUNDING BY OTHERS.
9. FOUNDATION IS DESIGNED IN ACCORDANCE WITH ACI 318-95 AND TIA/EIA-222F.
10. FOUNDATION CAN SUPPORT ADDITIONAL EQUIPMENT (POWER CABINETS) UP TO 10,000 LBS. POWER CABINETS SHALL BE PROPERLY ANCHORAGE TO THE FOUNDATION.

ENGINEERED ENDEAVORS INCORPORATED
7610 Jenther Drive
Mentor, Ohio 44060
(440)918-1101

SPRINT PCS
180 ft MONOPOLE
BESADE/CT33XC061 CELLULAR SITE
NEW LONDON CO., CT

	DESCRIPTION	DWN. BY	CHK. BY	DATE	PROJECT NO.
RELEASE		B.S.F.		11/23/99	6063
					DRAWING NO.
					6063-SPREAD

Monopole Loading Provided to EEI

Engineered Endeavors, Inc.

7610 Jenther Drive
Mentor, OH 44060
Phone (440) 918-1101 ♦ Fax (440) 918-1108

Sprint

Tower Loading Form

Site Reference Information:

Cascade #: CT33XC061

☐ % of Structural Capacity

Site Address: 557 Route 82, Montville, CT 06370

Lease Area 75x75

Structure Height: 180

Compound Size: 30x35

Tower Manufacturer: Engineered Endeavours

Structure Type: Monopole

Tower Contact #: 440-918-1101

File #: GS51874 6065

Original Design Load for Structure: ☐ 1 Carrier ☐ 2 Carrier ☒ 3 Carrier ☐ 4 Carrier ☐ ___Carrier

Prepared By: Russ Van Oudenaren

Sprint Antenna Information:

ACL	# of Ant.	Frequency	Model #	Type	Orientation	Mounting Type	# of Cables	Cable Size
180	12	* 1710-1990	DB980H90E-M	Panel	0-120-240	Platform	12	1-5/8"
	*	*		*		*	*	*
	*	*		*		*	*	*

Co-location Information:

Id	Carrier	ACL	# of Ant.	Frequency	TX Output	Model #	Antenna Type	Orientation	Mounting Type	# of Cables	Cable Size	Cable Loc.	Exis
1	Verizon	170	12	* 869-880	8 Watts	DB844H90	Panel	30-150-270	Platform	12	1-5/8"	Ins	☒
2	ATT	160	6	* 850 AND 1900	20 Watts	Allgon 7250	Panel	0-120-240	Stand-off arm	12	1-5/8"	Ins	☒
3	Cingular	150	12	* 850&1900	100 Watts	CSS 1417-8686	Panel	143-263-23	Platform	12	1-5/8"	Ins	☐
3	Cingular	150	6	*	*	ADC TMA's	*		*	*	*	*	☐
3	Cingular	150	3	*	*	CSS Combiners	*		*	*	*	*	☐
2	ATT	160	2	*	*	Nokia CS72993.07	*		*	*	*	*	☐
*	*		*	*	*		*		*	*	*	*	☐
*	*		*	*	*		*		*	*	*	*	☐
*	*		*	*	*		*		*	*	*	*	☐
*	*		*	*	*		*		*	*	*	*	☐

Contact Information:

Co Id	Contact Person	Phone Number	E-Mail Address
1	Sandy Carter	203-294-8519	alexandria.carter@verizonwireless.com