STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
www.ct.gov/csc

June 9, 2005

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

RE: **EM-VER-085-085A-050513** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify existing telecommunications facilities located at 500 Moose Hill Road, Monroe and 1428 Monroe Turnpike, Monroe, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on June 8, 2005, the Connecticut Siting Council (Council) acknowledged your notice to modify these existing telecommunications facilities, 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 May 13, 2005, including the placement of all necessary equipment and shelters within the tower compounds. 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 existing facility sites that would not increase tower heights, extend the boundaries of the tower sites, increase noise levels at the tower site boundaries by six decibels, and increase the total radio frequencies electromagnetic radiation power densities measured at the tower site boundaries to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. These facilities have also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on these towers.

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 any of these facilities 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/jkl

c: The Honorable Andrew J. Nunn, First Selectman, Town of Monroe
Daniel A. Tuba, Planning Administrator, Town of Monroe
Optasite, Inc.
Christopher B. Fisher, Esq., Cuddy & Feder LLP
Christine Farrell, T-Mobile Inc.
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels LLP
Thomas F. Flynn, III, Nextel Communications Inc.

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www.ct.gov/csc

May 13, 2005

The Honorable Andrew J. Nunn
First Selectman
Town of Monroe
7 Fan Hill Road
Monroe, CT 06468-1800

RE: **EM-VER-085-085A-050513** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 500 Moose Hill Road, Monroe and 1428 Monroe Turnpike, Monroe, Connecticut.

Dear Mr. Nunn:

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 June 8, 2005 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 June 7, 2005.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jl

Enclosure: Notice of Intent

c: Daniel A. Tuba, Planning Administrator, Town of Monroe

ROBINSON & COLE LLP

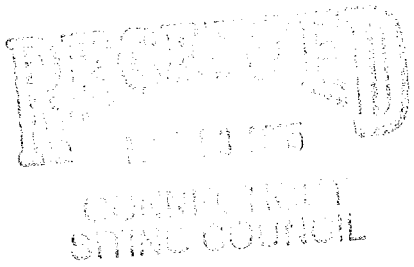
KENNETH C. BALDWIN

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

EM-VER-085-085A-050513

May 13, 2005

Via Hand Delivery



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

Re: **Notice of Exempt Modification**
500 Moose Hill Road, Monroe, Connecticut
1428 Monroe Turnpike, Monroe, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install antennas on each of the existing tower sites referenced above. Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Monroe First Selectman, Andrew J. Nunn.

Monroe Facility- 500 Moose Hill Road

The existing Moose Hill Road facility consists of a 150-foot self-supporting monopole tower capable of supporting multiple carriers within a fenced site compound. The tower is owned by Optasite, Inc. and is currently shared by Sprint at the 144-foot level; Cingular at the 136-foot level; AT&T at the 128-foot level; T-Mobile at the 120-foot level; and Nextel at the 107.5-foot level. Cellco proposes to install twelve (12) panel-type antennas at the 97.5-foot level on the tower and a 12' x 30' single-story equipment shelter near the base of the tower within the existing fenced compound. Attached behind Tab 1 are Project Plans; a general power density table for the Cellco antennas; and a structural analysis confirming that the existing tower can support the existing and proposed antennas.

Monroe Facility- 1428 Monroe Turnpike

The existing Monroe Turnpike facility consists of a 160-foot self-supporting monopole tower capable of supporting multiple carriers within a fenced site compound. The tower is owned by Optasite, Inc. and is currently shared by AT&T at the 160-foot level; Sprint at the 150-foot level; and T-Mobile at the 140-foot level. Cellco proposes to install twelve (12) panel-type antennas at the 130-foot level on the tower and a 12' x 30' single-story equipment shelter near the base of the tower within the existing fenced compound. Attached behind Tab 2 are Project Plans; a general power density table for the Cellco antennas; and a structural analysis confirming that the existing tower can support the existing and proposed antennas.

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

1. The proposed modification will not increase the overall height of the existing towers.

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

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

4. The operation of the antennas will not increase radio frequency (RF) power density levels at either facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard.

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

Sincerely,

Kenneth C. Baldwin

Attachments
cc: Andrew J. Nunn, Monroe First Selectman
Sandy M. Carter

Cellco Partnership

d.b.a. verizon wireless

MONROE EAST

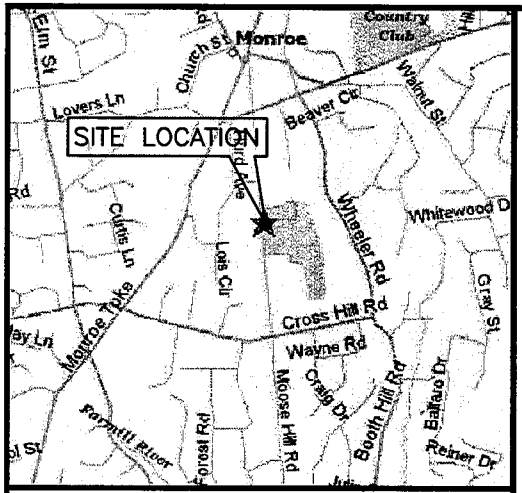
ST. JOHN'S CEMETERY
500 MOOSE HILL ROAD
MONROE, CONNECTICUT 06468

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

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

DIRECTIONS:

MERGE ONTO I-91 S VIA EXIT 86 TOWARD NEW HAVEN/N.Y. CITY. MERGE ONTO WILBUR CROSS PKWY VIA EXIT 17. MERGE ONTO 34 W VIA EXIT 58 TOWARD DERBY. TURN LEFT ONTO BRIDGE ST. TURN RIGHT ONTO HOWE AVE. TURN LEFT ONTO MOOSE HILL RD. END AT 500 MOOSE HILL RD, MONROE, CT.



LOCATION MAP
MONROE, CT

4000 0 4000

SCALE: 1" = 4,000'±

PROJECT SUMMARY

SITE NAME:	MONROE EAST
SITE ADDRESS:	500 MOOSE HILL ROAD MONROE, CONNECTICUT 06468
OWNER:	GREEK CATHOLIC CEMETERY ASSOCIATION, INC.
LESSEE:	CELLCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
APPLICANT:	CELLCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
CONTACT PERSON:	SANDY CARTER CELLCO PARTNERSHIOP (860) 803-8219
COORDINATES:	LATITUDE: 41°-19'-18" N (NAD 83) LONGITUDE: 73°-12'-05" W (NAD 83) COORDINATES PER RF ENGINEER

SHEET INDEX

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

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

NO.	DATE	BY	DESCRIPTION
A	03/11/05	JRF	PRELIMINARY SITING COUNCIL

Dewberry-Goodkind, Inc.
A Dewberry Company
59 Elm Street, Suite 101
New Haven, CT 06510
p. (203) 776-2277
f. (203) 776-2288
Engineers
Planners
Surveyors

SCALE: AS SHOWN
DESIGNED BY: CKD
DATE: 03/11/05

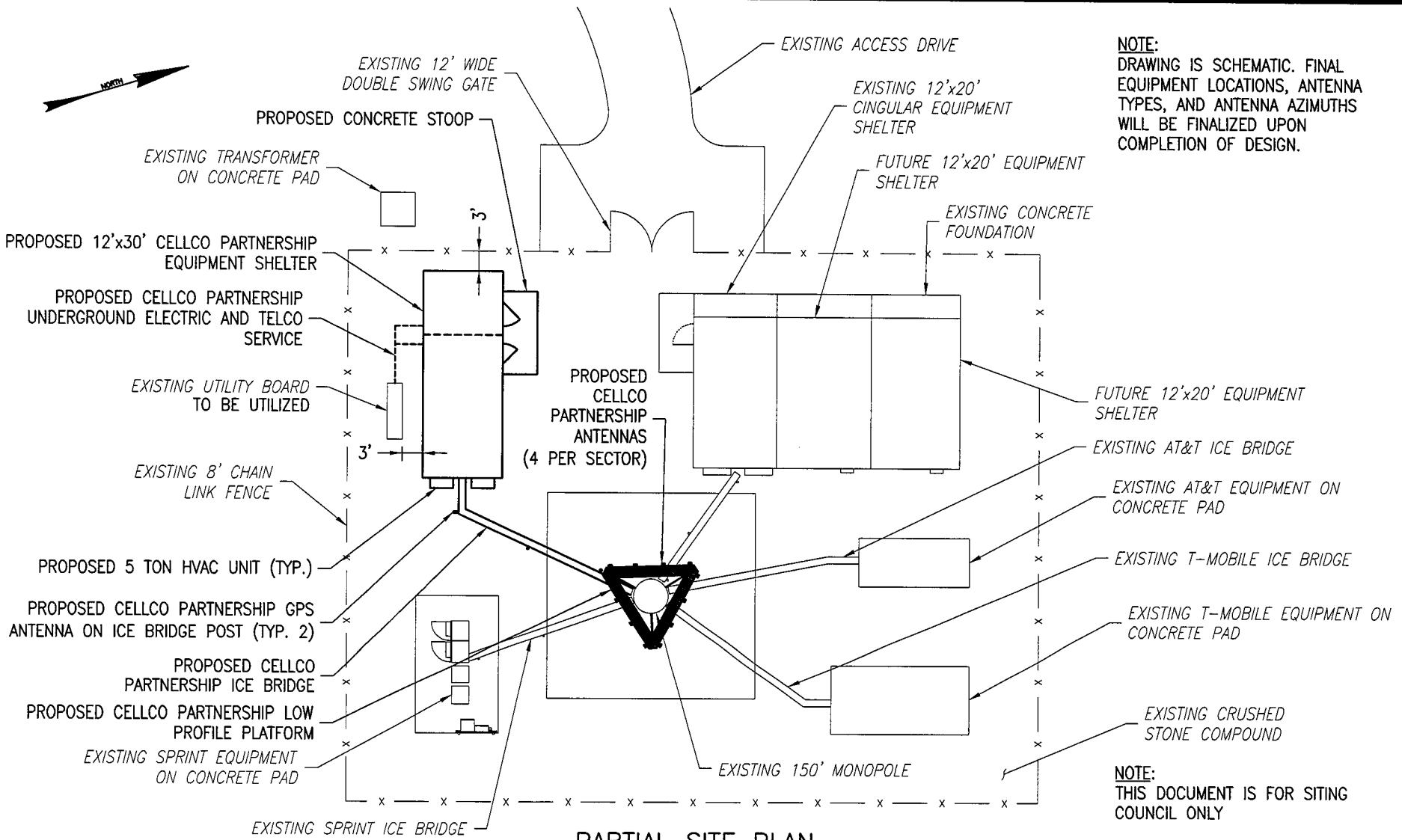
TITLE SHEET

Cellco Partnership
d.b.a. verizon wireless

SITE NAME: MONROE EAST
500 MOOSE HILL RD.
MONROE, CONNECTICUT 06468

PROJECT: 2000018219
LOCATION CODE: 118167

SHEET NO. T-1



NOTE:
DRAWING IS SCHEMATIC. FINAL EQUIPMENT LOCATIONS, ANTENNA TYPES, AND ANTENNA AZIMUTHS WILL BE FINALIZED UPON COMPLETION OF DESIGN.

NOTE:
THIS DOCUMENT IS FOR SITING COUNCIL ONLY

PARTIAL SITE PLAN

SCALE: 1"=20'

20' 0 10' 20'

NO.	DATE	BY	DESCRIPTION
A	03/11/05	JRF	PRELIMINARY SITING COUNCIL

Dewberry-Goodkind, Inc.
A Dewberry Company
59 Elm Street, Suite 101
New Haven, CT 06510
p. (203) 776-2277
f. (203) 776-2288
Engineers
Planners
Surveyors

SCALE: AS SHOWN
DESIGNED BY: CKD
DATE: 03/11/05

PARTIAL SITE PLAN

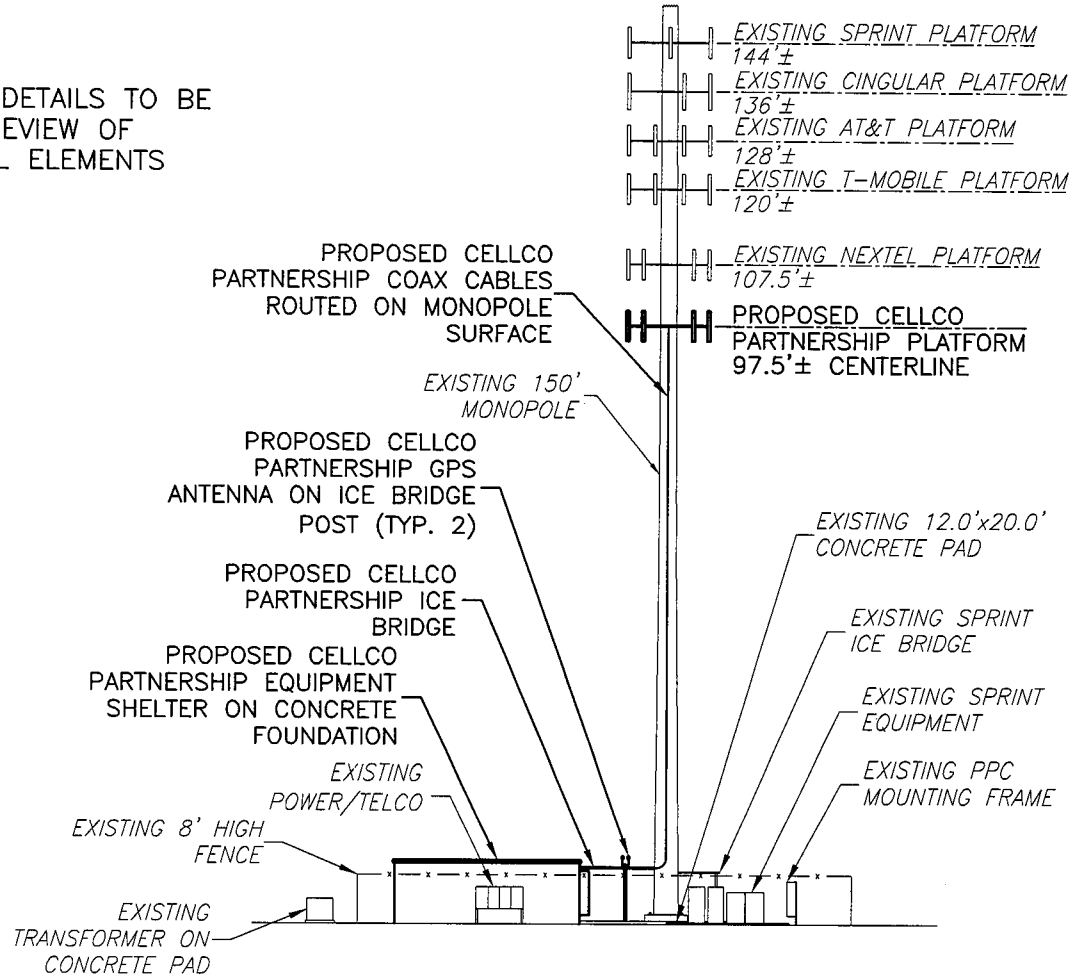
Cellco Partnership
d.b.a. verizon wireless

SITE NAME: MONROE EAST
500 MOOSE HILL RD.
MONROE, CONNECTICUT 06468

PROJECT: 2000018219
LOCATION CODE: 118167

SHEET NO. S-1

NOTE:
ANTENNA MOUNTING DETAILS TO BE DETERMINED UPON REVIEW OF EXISTING STRUCTURAL ELEMENTS



ELEVATION

SCALE: 1"=30'

30' 0 30' 60'

NO.	DATE	BY	DESCRIPTION
A	03/11/05	JRF	PRELIMINARY SITING COUNCIL

Dewberry-Goodkind, Inc.
A Dewberry Company
59 Elm Street, Suite 101
New Haven, CT 06510
p. (203) 776-2277
f. (203) 776-2288
Engineers
Planners
Surveyors

SCALE: AS SHOWN
DESIGNED BY: CKD
DATE: 03/11/05

MONOPOLE ELEVATION

Cellco Partnership
d.b.a. verizon wireless

SITE NAME: MONROE EAST
500 MOOSE HILL RD.
MONROE, CONNECTICUT 06468

PROJECT: 2000018219
LOCATION CODE: 118167

SHEET NO. S-2

General Power Density

Site Name: Monroe East, CT
Tower Height: 97.5

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
Verizon	880	9	200	1800	97.5	0.0681	0.56733	12.00%
Verizon	1900	3	215	645	97.5	0.0244	1	2.44%
Total Percentage of Maximum Permissible Exposure								14.44%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case scenario, maximum values used.

verizonwireless

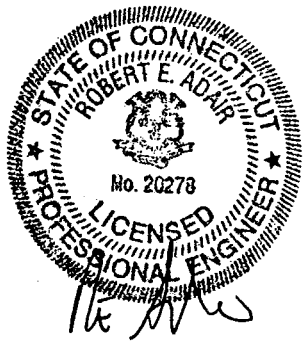
ALL-POINTS TECHNOLOGY CORPORATION, P.C.

STRUCTURAL ANALYSIS REPORT
149' MONOPOLE TOWER
ST. JOHN'S CEMETERY
MONROE, CONNECTICUT

Prepared for
Dewberry-Goodkind, Inc.

Verizon Site: Monroe East

February 25, 2005



APT Project #CT196100

☐ 3 SADDLEBROOK DRIVE • KILLINGWORTH, CONNECTICUT 06419 • PHONE: 860-663-1697 • FAX: 860-663-0935
☒ 150 OLD WESTSIDE ROAD • NORTH CONWAY, NEW HAMPSHIRE 03860 • PHONE/FAX: 603-356-5214

STRUCTURAL ANALYSIS REPORT
149' MONOPOLE TOWER
MONROE, CONNECTICUT
prepared for
Dewberry-Goodkind, Inc.

EXECUTIVE SUMMARY:

All-Points Technology Corporation, P.C. (APT) performed a structural analysis of this 149-foot monopole tower located at St. John's Cemetery in Monroe, Connecticut. The analysis was performed for additional antennas proposed by Verizon Wireless, and assumed Verizon's waveguide cables would be installed in a single layer banded to the outside of the pole.

Our analysis indicates the tower is capable of supporting the proposed antennas.

INTRODUCTION:

A structural analysis of this communications tower was performed by All-Points Technology Corporation, P.C. (APT) for Dewberry-Goodkind, Inc. The tower is located at St. John's Cemetery on 500 Moose Hill Road in Monroe, Connecticut. APT previously visited the tower site on December 8, 2004. Robert E. Adair, P.E. climbed the tower in its entirety to compile data necessary to perform the structural analysis.

The structure is a 149-foot galvanized steel, 18-sided tapered monopole manufactured by Sabre Communications Corporation. The analysis was conducted using the following antenna inventory (proposed antennas shown in **bold** text):

Antenna	Elev.	Mount	Coax.
Ground rod	149'	8' pipe extension	N.A.
4-bay dipole	149'	Banded to pole	7/8"
(12) DB948F85 panels[1]	144'	14' low-profile platform	(12) 1-5/8"
(12) DB846H80 panels[2]	136'	14' low-profile platform	(12) 1-5/8"
(12) ALP7250.02 panels[3]	128'	14' low-profile platform	(12) 1-5/8"
(12) RR90-17-02DP panels	120'	14' low-profile platform	(12) 1-5/8"
(12) DB844H90 panels	107.5'	14' low-profile platform	(12) 1-5/8"
(6) LPA-80090/4CF; (6) LPA-185080/8CF2	**97.5'**	**14' low-profile platform**	**(12) 1-5/8"**

[1] Six antennas currently installed; twelve used for analysis purposes.
[2] Nine antennas currently installed; twelve used for analysis purposes.
[3] Three antennas currently installed; twelve used for analysis purposes.

STRUCTURAL ANALYSIS:

Methodology:

The structural analysis was done in accordance with TIA/EIA-222-F (EIA), Structural Standards for Steel Antenna Towers and Antenna Supporting Structures; and the American Institute of Steel Construction (AISC), Manual of Steel Construction, Allowable Stress Design, Ninth Edition.

The analysis was conducted using a wind speed of 85 miles per hour and one-half inch of radial ice over the entire structure and all appurtenances. The TIA/EIA Standard requires a minimum of 85-mph wind load for Fairfield County, Connecticut.

A P-delta analysis using ERI Tower© software was used to calculate loads of the tower and all appurtenances, radial ice loads, and the resultant wind loading. The maximum bending moments and axial loads were used to calculate combined axial and bending stresses on each section of the monopole, which were compared to allowable stresses according to AISC and TIA/EIA.

EIA requires two loading conditions to be evaluated to determine the tower's capacity. The higher stresses resulting from the two cases is used to calculate the tower capacity:

- Case 1 = Wind Load (without ice) + Tower Dead Load (controls)
- Case 2 = **0.75** Wind Load (with ice) + Ice Load + Tower Dead Load

EIA permits a one-third increase in allowable stresses for towers less than 700-feet tall. Allowable stresses of tower members were increased by one-third in computing the load capacity values indicated herein.

ANALYSIS RESULTS:

Our analysis determined the tower will support the proposed antenna array. The following table summarizes the capacity of the tower based on combined axial and bending stresses:

Elevation	Capacity
129'-149'	14%
96'-129'	32%
47'-96'	47%
0'-47'	51%

The capability of the existing foundation to support the proposed antenna array was evaluated from Sabre foundation drawings. The foundation was found to be adequate to support the proposed antennas.

Base reactions imposed with the proposed antennas were calculated to be as follows:

Compression:	45.1 kips
Total Shear:	23.3 kips
Overturning Moment:	2112.8 ft-kips

CONCLUSIONS AND SUGGESTIONS:

As detailed above, our analysis indicates that the existing 149' Sabre monopole tower and foundation in Monroe, Connecticut are capable of supporting Verizon Wireless' proposed antenna array.

LIMITATIONS:

This report is based on the following:

1. Tower is properly installed and maintained.
2. All members are in new condition.
3. All bolts are in place and are properly tightened.
4. Tower is in plumb condition.

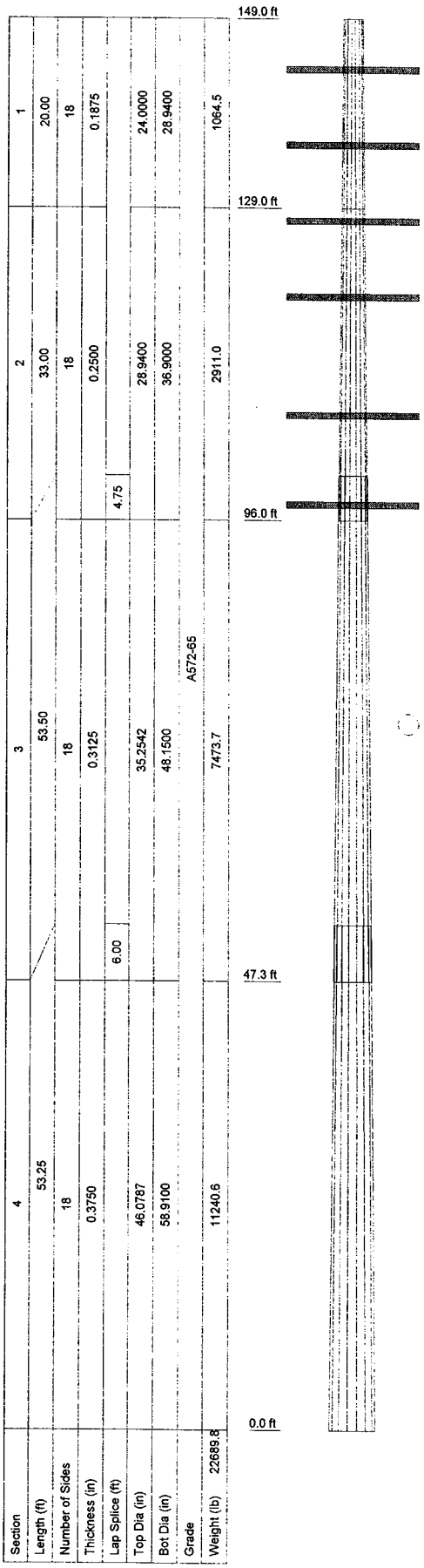
All-Points Technology Corporation, P.C. (APT) is not responsible for any modifications completed prior to or hereafter which APT is not or was not directly involved. Modifications include but are not limited to:

1. Adding or relocating antennas.
2. Installing antenna mounting gates or side arms.
3. Extending tower.

APT hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon the information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact APT. APT disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Appendix A

Tower Schematic



APPURTENANCES

TYPE	ELEVATION	TYPE	ELEVATION
4-bay dipole	149	14' low-profile platform	120
Generic Lightning Rod 4' copper	149	(4) RR90-17-02DP	120
(4) DB948F85E-M	144	(4) RR90-17-02DP	120
14' low-profile platform	144	(4) DB844H90-XY	107.5
(4) DB846H80E-SX	144	14' low-profile platform	107.5
(4) DB948F85E-M	144	(4) DB844H90-XY	107.5
(4) DB948F85E-M	144	(4) DB844H90-XY	107.5
14' low-profile platform	136	(2) LPA-80090/4CF	98
(4) DB846H80E-SX	136	(2) LPA-185080/8CFx2	98
(4) DB846H80E-SX	136	(2) LPA-185080/8CFx2	98
(4) 7250.02	128	(2) LPA-185080/8CFx2	98
14' low-profile platform	128	14' low-profile platform	98
(4) 7250.02	128	(2) LPA-80090/4CF	98
(4) 7250.02	128	(2) LPA-80090/4CF	98
(4) RR90-17-02DP	120		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
2. Tower is also designed for a 74 mph basic wind with 0.50 in ice.
3. Deflections are based upon a 50 mph wind.

All-Points Technology Corp.
150 Old Westside Road
North Conway, NH 03860
Phone: 603-496-5853
FAX: 603-356-5214

Job: ***130 Monopole with 20' extension***			
Project: ***CT196100 Monroe***			
Client: Dewberry	Drawn by: REA	App'd:	
Code: TIA/EIA-222-F	Date: 02/24/05	Scale: NTS	
Path: C:\My Documents\Jobs\CT196100 Monroe\CT196100 Monroe eri.eri		Dwg No. E-1	

Appendix B

Photographs

DEWBERRY
150' MONOPOLE TOWER
MONROE, CONNECTICUT

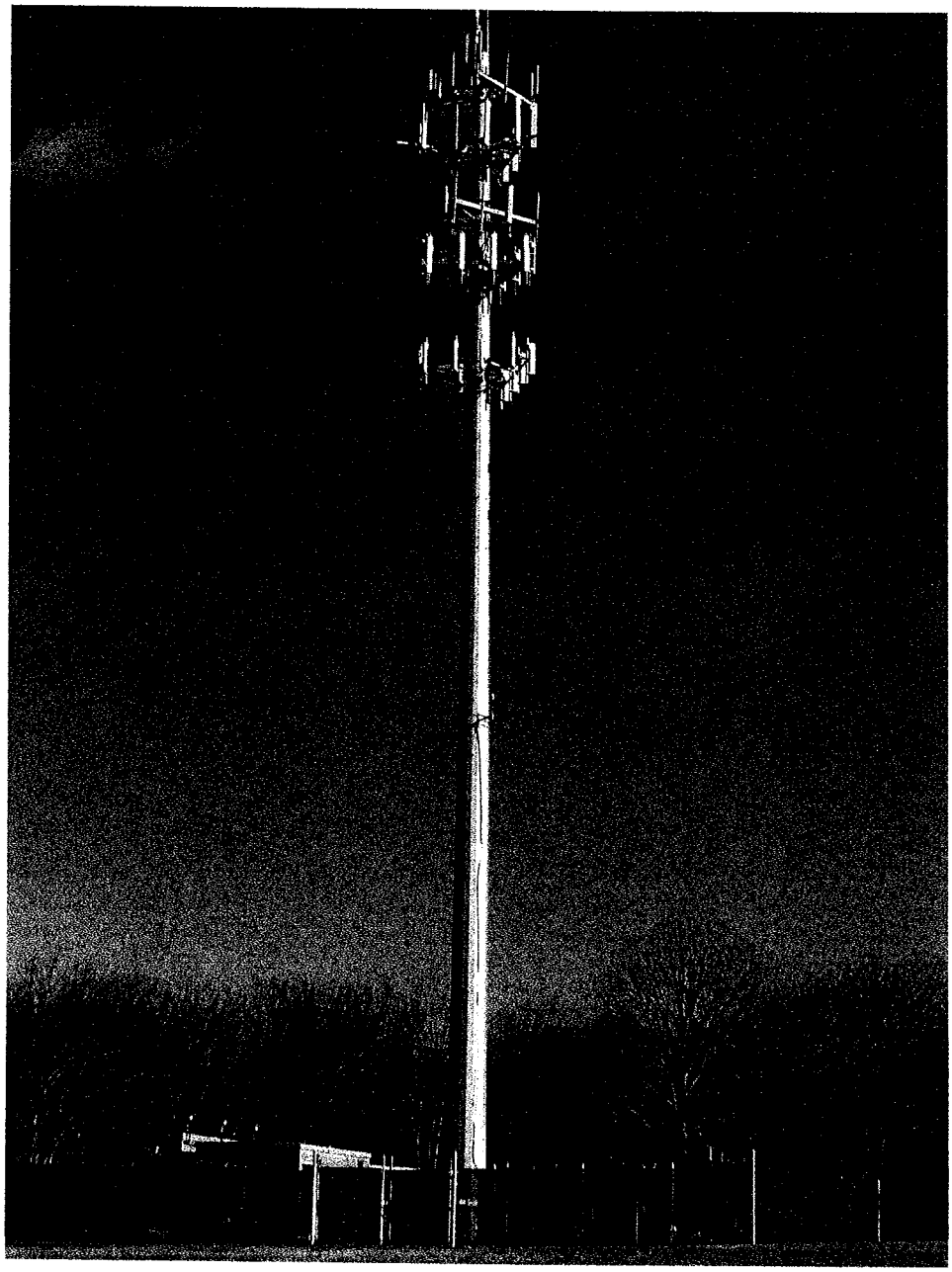


Photo showing overview of 150' monopole tower located at 500 Moose Hill Road in Monroe, Connecticut.

Photos taken by All-Points Technology Corporation, P.C. on December 8, 2004

DEWBERRY
150' MONOPOLE TOWER
MONROE, CONNECTICUT

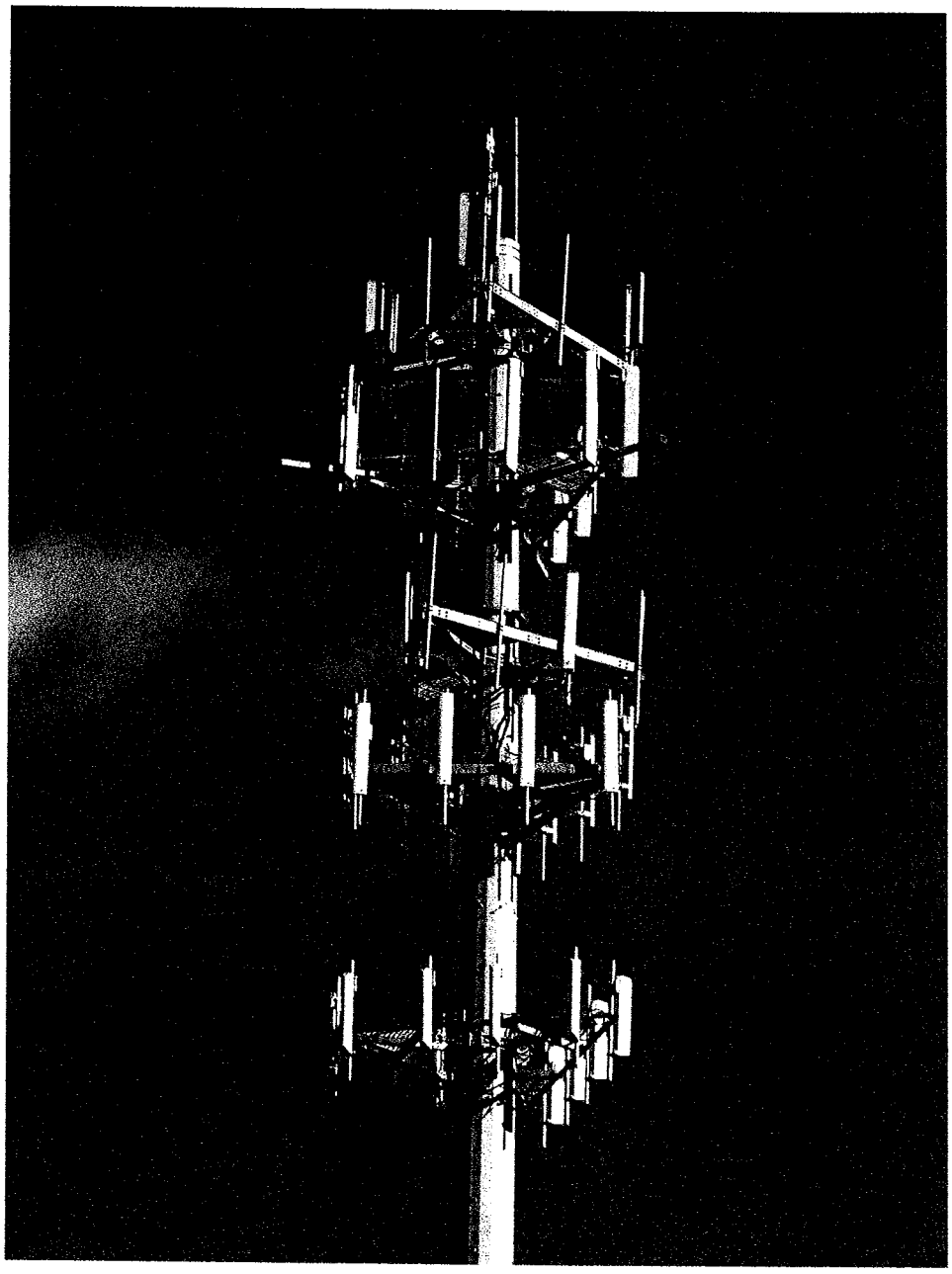


Photo showing existing antennas.

Photos taken by All-Points Technology Corporation, P.C. on December 8, 2004

Appendix C

Calculations

ERITower

All-Points Technology Corp.
150 Old Westside Road
North Conway, NH 03860
Phone: 603-496-5853
FAX: 603-356-5214

Job	Page
130 Monopole with 20' extension	1 of 4
Project	**Date**
CT196100 Monroe	16:36:42 02/24/05
Client	**Designed by**
Dewberry	REA

Tower Input Data

This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Basic wind speed of 85 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 74 mph is used in combination with ice.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.333.

Tapered Pole Section Geometry

Section	*Elevation* ft	*Section Length* ft	*Splice Length* ft	*Number of Sides*	*Top Diameter* in	*Bottom Diameter* in	*Wall Thickness* in	*Bend Radius* in	*Pole Grade*
L1	149.00-129.00	20.00	0.00	18	24.0000	28.9400	0.1875	0.7500	A572-65 (65 ksi)
L2	129.00-96.00	33.00	4.75	18	28.9400	36.9000	0.2500	1.0000	A572-65 (65 ksi)
L3	96.00-47.25	53.50	6.00	18	35.2542	48.1500	0.3125	1.2500	A572-65 (65 ksi)
L4	47.25-0.00	53.25		18	46.0787	58.9100	0.3750	1.5000	A572-65 (65 ksi)

Tapered Pole Properties

Section	*Tip Dia.* in	*Area* in^2	*I* in^4	*r* in	*C* in	*I/C* in^3	*J* in^4	*It/Q* in^2	*w* in	*w/t*
L1	24.3702	14.1714	1015.2211	8.4534	12.1920	83.2694	2031.7780	7.0871	3.8940	20.768
	29.3864	17.1113	1787.1972	10.2071	14.7015	121.5655	3576.7461	8.5573	4.7634	25.405
L2	29.3864	22.7655	2367.4239	10.1850	14.7015	161.0326	4737.9629	11.3849	4.6534	18.614
	37.4692	29.0818	4935.2177	13.0108	18.7452	263.2790	9876.9294	14.5437	6.0544	24.218
L3	36.9607	34.6578	5345.9889	12.4043	17.9092	298.5059	10699.0122	17.3322	5.6547	18.095
	48.8928	47.4488	13718.2850	16.9823	24.4602	560.8411	27454.6208	23.7289	7.9244	25.358
L4	48.2577	54.3989	14355.9210	16.2248	23.4080	613.2911	28730.7320	27.2046	7.4499	19.866
	59.8188	69.6713	30159.3869	20.7799	29.9263	1007.7894	60358.4583	34.8423	9.7082	25.888

Monopole Base Plate Data

Base Plate Data	
Base plate is square	√
Base plate is grouted	
Anchor bolt grade	A354-BC
Anchor bolt size	2.6250 in
Number of bolts	16
Embedment length	72.0000 in
f'_c	4 ksi
Grout space	2.0000 in
Base plate grade	A633-60
Base plate thickness	3.0000 in
Bolt circle diameter	66.0000 in

Base Plate Data	
Outer diameter	64.0000 in
Inner diameter	46.0000 in
Corner clipped	12.0000 in
Base plate type	Plain Plate

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
1 5/8	C	No	Inside Pole	144.00 - 6.00	12	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
1 5/8	C	No	Inside Pole	136.00 - 6.00	12	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
1 5/8	C	No	Inside Pole	128.00 - 6.00	12	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
1 5/8	C	No	Inside Pole	120.00 - 6.00	12	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
1 5/8	C	No	Inside Pole	108.00 - 6.00	12	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
1 5/8	C	No	CaAa (Out Of Face)	98.00 - 6.00	12	No Ice	0.20	1.04
						1/2" Ice	0.30	1.04

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(4) DB948F85E-M	A	From Face	4.00 0.00 0.00	0.0000	144.00	No Ice 1/2" Ice	1.92 2.22	3.26 3.62	8.50 27.57
(4) DB948F85E-M	B	From Face	4.00 0.00 0.00	0.0000	144.00	No Ice 1/2" Ice	1.92 2.22	3.26 3.62	8.50 27.57
(4) DB948F85E-M	C	From Face	4.00 0.00 0.00	0.0000	144.00	No Ice 1/2" Ice	1.92 2.22	3.26 3.62	8.50 27.57
14' low-profile platform	A	None		0.0000	144.00	No Ice 1/2" Ice	10.75 11.59	10.75 11.59	1100.00 1179.27
(4) DB846H80E-SX	A	From Face	4.00 0.00 0.00	0.0000	144.00	No Ice 1/2" Ice	5.09 5.55	6.06 6.52	15.00 54.52
(4) DB846H80E-SX	B	From Face	4.00 0.00 0.00	0.0000	136.00	No Ice 1/2" Ice	5.09 5.55	6.06 6.52	15.00 54.52
(4) DB846H80E-SX	C	From Face	4.00 0.00 0.00	0.0000	136.00	No Ice 1/2" Ice	5.09 5.55	6.06 6.52	15.00 54.52
14' low-profile platform	A	None		0.0000	136.00	No Ice 1/2" Ice	10.75 11.59	10.75 11.59	1100.00 1179.27
(4) 7250.02	A	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	4.00 4.39	1.87 2.33	15.40 35.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(4) 7250.02	B	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	4.00 4.39	1.87 2.33	15.40 35.03
(4) 7250.02	C	From Face	4.00 0.00 0.00	0.0000	128.00	No Ice 1/2" Ice	4.00 4.39	1.87 2.33	15.40 35.03
14' low-profile platform	A	None		0.0000	128.00	No Ice 1/2" Ice	10.75 11.59	10.75 11.59	1100.00 1179.27
(4) RR90-17-02DP	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	4.36 4.77	1.97 2.31	18.00 40.42
(4) RR90-17-02DP	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	4.36 4.77	1.97 2.31	18.00 40.42
(4) RR90-17-02DP	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	4.36 4.77	1.97 2.31	18.00 40.42
14' low-profile platform	A	None		0.0000	120.00	No Ice 1/2" Ice	10.75 11.59	10.75 11.59	1100.00 1179.27
(4) DB844H90-XY	A	From Leg	4.00 0.00 0.00	0.0000	107.50	No Ice 1/2" Ice	2.87 3.18	3.97 4.34	10.00 36.27
(4) DB844H90-XY	B	From Leg	4.00 0.00 0.00	0.0000	107.50	No Ice 1/2" Ice	2.87 3.18	3.97 4.34	10.00 36.27
(4) DB844H90-XY	C	From Leg	4.00 0.00 0.00	0.0000	107.50	No Ice 1/2" Ice	2.87 3.18	3.97 4.34	10.00 36.27
14' low-profile platform	A	None		0.0000	107.50	No Ice 1/2" Ice	10.75 11.59	10.75 11.59	1100.00 1179.27
(2) LPA-80090/4CF	A	From Leg	4.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice	2.62 2.92	4.31 4.68	11.00 37.51
(2) LPA-80090/4CF	B	From Leg	4.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice	2.62 2.92	4.31 4.68	11.00 37.51
(2) LPA-80090/4CF	C	From Leg	4.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice	2.62 2.92	4.31 4.68	11.00 37.51
(2) LPA-185080/8CFx2	A	From Leg	4.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice	2.09 2.39	2.79 3.09	7.00 25.04
(2) LPA-185080/8CFx2	B	From Leg	4.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice	2.09 2.39	2.79 3.09	7.00 25.04
(2) LPA-185080/8CFx2	C	From Leg	4.00 0.00 0.00	0.0000	98.00	No Ice 1/2" Ice	2.09 2.39	2.79 3.09	7.00 25.04
14' low-profile platform	A	None		0.0000	98.00	No Ice 1/2" Ice	10.75 11.59	10.75 11.59	1100.00 1179.27
4-bay dipole	C	None		0.0000	149.00	No Ice 1/2" Ice	2.00 3.03	2.00 3.03	10.00 25.00
Generic Lightning Rod 4' copper	C	From Face	0.00 0.00 8.00	0.0000	149.00	No Ice 1/2" Ice	0.50 1.00	0.50 1.00	0.00 0.00

ERITower

All-Points Technology Corp.
150 Old Westside Road
North Conway, NH 03860
Phone: 603-496-5853
FAX: 603-356-5214

Job	Page
130 Monopole with 20' extension	4 of 4
Project	**Date**
CT196100 Monroe	16:36:42 02/24/05
Client	**Designed by**
Dewberry	REA

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	149 - 129	44.075	2	2.3979	0.0000
L2	129 - 96	34.106	2	2.3317	0.0002
L3	100.75 - 47.25	21.246	2	1.9584	0.0001
L4	53.25 - 0	5.978	2	1.0238	0.0000

Base Plate Design Data

Plate Thickness in	Number of Anchor Bolts	Anchor Bolt Size in	Actual / Allowable Ratio Bolt Tension lb	Actual / Allowable Ratio Bolt Compression lb	Actual / Allowable Ratio Plate Stress ksi	Actual / Allowable Ratio Stiffener Stress ksi	Controlling Condition	Ratio
3.0000	16	2.6250	92919.51 273772.88 0.34	97783.44 454462.98 0.22	19.979 45.000 0.44		Plate	0.44 ✔

Pole Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	149 - 129 (1)	TP28.94x24x0.1875	0.044	0.141	0.000	0.185 ✔	1.333	H1-3 ✔
L2	129 - 96 (2)	TP36.9x28.94x0.25	0.053	0.371	0.000	0.425 ✔	1.333	H1-3 ✔
L3	96 - 47.25 (3)	TP48.15x35.2542x0.3125	0.039	0.591	0.000	0.630 ✔	1.333	H1-3 ✔
L4	47.25 - 0 (4)	TP58.91x46.0787x0.375	0.028	0.656	0.000	0.685 ✔	1.333	H1-3 ✔

Section Capacity Table

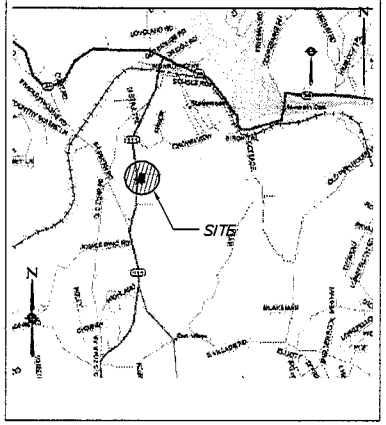
Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
L1	149 - 129	Pole	TP28.94x24x0.1875	1	-3633.25	111003.84	13.9	Pass
L2	129 - 96	Pole	TP36.9x28.94x0.25	2	-11175.00	278670.30	31.9	Pass
L3	96 - 47.25	Pole	TP48.15x35.2542x0.3125	3	-22863.10	777084.31	47.3	Pass
L4	47.25 - 0	Pole	TP58.91x46.0787x0.375	4	-38911.50	1828076.12	51.4	Pass
							Summary	
						Pole (L4)	51.4	Pass
						Base Plate	33.3	Pass
						RATING =	**51.4**	**Pass**

CELLCO PARTNERSHIP
DBA
verizon wireless

MONROE NORTHEAST

1428 MONROE TURNPIKE
MONROE, CONNECTICUT

VICINITY MAP — NO SCALE



PROJECT SUMMARY

SITE NAME:	MONROE NORTHEAST
SITE ADDRESS:	1428 MONROE TURNPIKE MONROE, CONNECTICUT
CONTACT PERSON	CELLCO PARTNERSHIP DBA VERIZON WIRELESS SANDY CARTER (203) 294-4515
JURISDICTION:	CONNECTICUT SITING COUNCIL
APPLICANT:	CELLCO PARTNERSHIP DBA VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
ARCHITECT:	URS CORPORATION A.E.S. 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067
M/E/P ENGINEER:	URS CORPORATION A.E.S. 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067
SURVEYOR:	URS CORPORATION A.E.S. 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067

LEGEND

SYMBOL	DESCRIPTION
	SECTION OR DETAIL NUMBER SHEET WHERE DETAIL/SECTION OCCURS
	ELEVATION NUMBER SHEET WHERE ELEVATION OCCURS

ABBREVIATIONS

MIN.	MINIMUM
V.I.F.	VERIFY IN FIELD
O.C.	ON CENTER
PSF	POUND/SQUARE FOOT
TYP.	TYPICAL
FT.	FEET
SQ.FT.	SQUARE FEET
N/A	NOT APPLICABLE

SHEET INDEX

CELLCO PARTNERSHIP
DBA
verizon wireless

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

A&E SEAL

PROJECT NO: 36930562

JOB NO: VZ1-137/F03

DRAWN BY: DBP

CHECKED BY:

ISSUED FOR

02-21-05	REVIEW
03-25-05	SITING COUNCIL

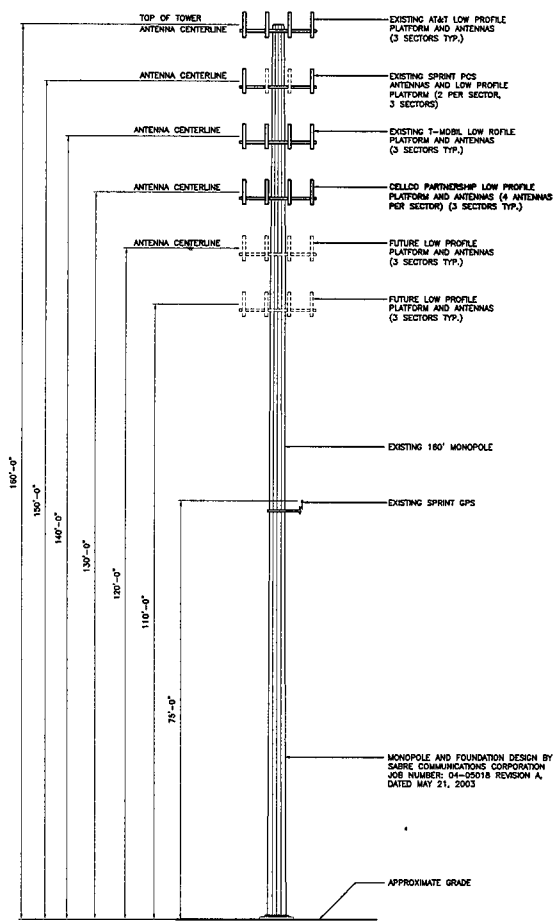
MONROE
NORTHEAST

1428 MONROE TURNPIKE
MONROE, CONNECTICUT 06468

SCALE: AS NOTED

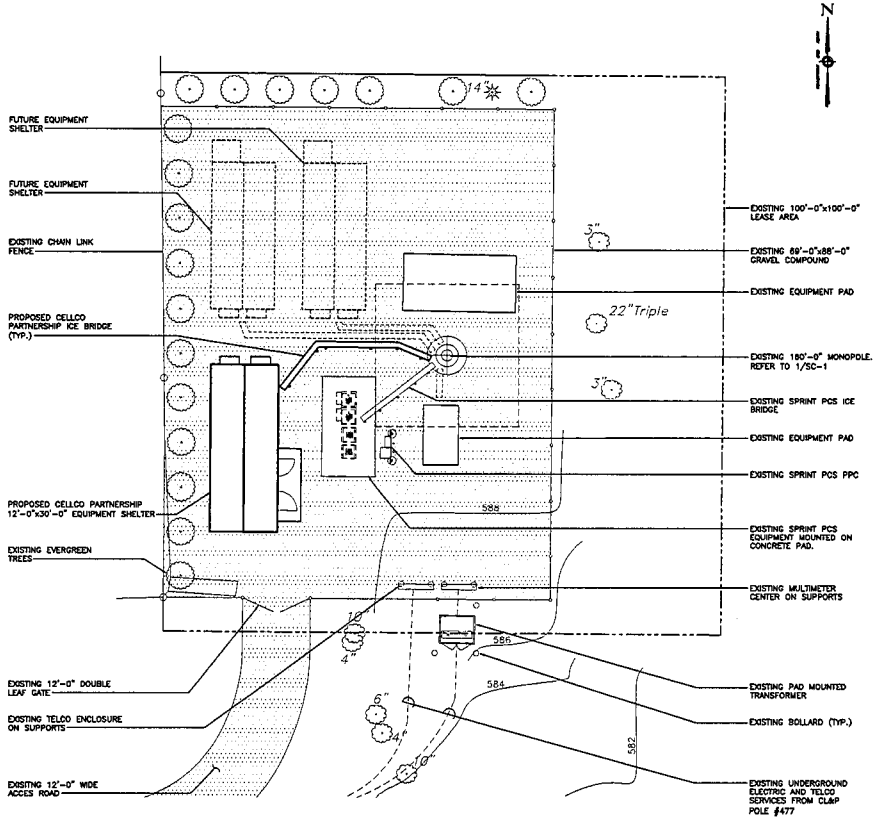
TITLE SHEET
GENERAL NOTES
AND LEGENDS

T-1



1 SC-1 TOWER ELEVATION
SCALE: 1" = 10'-0"

0 5' 10' 20'
SCALE: 1" = 10'



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

0 5' 10' 20'
SCALE: 1" = 10'

CELLCO PARTNERSHIP
DBA
verizon wireless

A&E FIRM
ORS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8582

A&E SEAL

PROJECT NO: 36930662

JOB NO: VZ1-137/F03

DRAWN BY: DBP

CHECKED BY:

ISSUED FOR	
02-21-05	REVIEW
03-25-05	SITING COUNCIL

MONROE
NORTHEAST

1428 MONROE TURNPIKE
MONROE, CONNECTICUT 06468

SCALE: AS NOTED

COMPOUND PLAN
AND
TOWER ELEVATION

SC-1

General Power Density

Site Name: Monroe Northeast, CT
Tower Height: 130 Ft

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
Verizon	880	9	200	1800	130	0.0383	0.56733	6.75%
Verizon	1900	3	215	645	130	0.0137	1	1.37%
Total Percentage of Maximum Permissible Exposure								8.12%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case scenario, maximum values used.

URS

March 22, 2005

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

Reference: **Existing Telecommunications Facility Modification**
Verizon Wireless
1428 Monroe Turnpike
Monroe, Connecticut
VZ1 137/36960662.00000

Dear Ms. Katz:

URS Corporation (URS) conducted a structural review of the existing 159' monopole at 1428 Monroe Turnpike, Monroe, Connecticut. The purpose of our review was to evaluate the effect of the proposed Verizon Wireless antenna addition on the existing monopole structure. The monopole structure design documents were prepared by Sabre Communications Corporation, job number 04-05018 approved May 22, 2003. The tower was designed to support six (6) telecommunication carriers between elevation 159' and 109'. The design considered nine (9) 4' x 1' x 8" panel antennas on a 10' low profile platform for the top carrier and twelve (12) 4' x 1' x 8" panel antennas on a 12' low profile platform for the other carriers. The tower currently supports AT&T antennas mounted on a low profile platform at the 159' elevation, Sprint PCS antennas mounted on a low profile platform at the 149' elevation, and T-Mobile antennas mounted on a low profile platform at the 139' elevation. The proposed Verizon Wireless addition considered in this review is as follows:

Antenna and Mount Modification	Carrier	Antenna Center Elevation
(6) Antel LPA185090/8CF_2 antennas and (6) Antel LPA80090/4CF antennas on low profile platform with (12) 1-5/8" coaxial cables inside the monopole.	Verizon Wireless	129' A.G.L.

The results of this review indicate the structure to be in compliance with the loading conditions and the material and member sizes for the monopole structure and its foundation. The monopole is considered feasible with the applicable TIA/EIA-222-F wind load classification specified and proposed Verizon Wireless and existing antenna loading. The structure and its foundation are in compliance with the BOCA 1996 and Connecticut State Building Code supplement 1999 including the latest amendments.

If you should have any questions, please call.

Sincerely,

URS Corporation AES

RICHARD A. SAMBOR No. 9367 REGISTERED PROFESSIONAL ENGINEER

Richard A. Sambor, P.E.
Manager Facilities Design

RAS/jek

cc: Mark Gauger - Verizon Wireless
Rachel A. Mayo - Robinson & Cole LLP
A. Abadjian, PM
Douglas Roberts, AIA - URS
Ignacio C. Artaiz, AIA
CF/Book

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