



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square  
New Britain, Connecticut 06051  
Phone: (860) 827-2935  
Fax: (860) 827-2950

September 20, 2000

Sandy M. Carter  
Bell Atlantic Mobile  
20 Alexander Drive  
P.O. Box 5029  
Wallingford, CT 06492

RE: **TS-BAM-042-000828** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 94 East High Street, East Hampton, Connecticut.

Dear Ms. Carter :

At a public meeting held Tuesday, September 19, 2000, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. 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 may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated August 28, 2000.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston  
Chairman

MAG/RKE/laf

c: Honorable Donald Markham, Chairman Town Council, Town of East Hampton  
Alan H. Bergren, Town Manager, Town of East Hampton  
Julie M. Cashin, Esq., Hurwitz & Sagarin LLC  
David Karpiak, Regional Manager, Sprint Sites USA

Verizon Wireless  
20 Alexander Drive  
Wallingford, Connecticut 06492

HAND DELIVERED

RECEIVED

AUG 28 2000

CONNECTICUT  
SITING COUNCIL

August 28, 2000

Mr. Mortimer A. Gelston, Chairman  
Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

Re: **Request by Cellco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of a Tower Facility located at 94 East High Street, Easthampton, Connecticut.**

Dear Chairman Gelston:

Pursuant to Connecticut General Statutes (C.G.S.) Sec. 16-50aa, Cellco Partnership d/b/a Verizon Wireless hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared use by Verizon Wireless of an existing tower located at 94 East High Street, Easthampton, Connecticut. The property is owned by Richard F. Wall and the tower is owned and managed by Sprint Sites USA. As shown on the attached drawing and as further described below, Verizon Wireless proposes to install antennas on the existing tower and to locate an equipment shelter at the base of the tower. Verizon Wireless requests that the Council finds that the proposed shared use of the tower facility satisfy the criteria stated in C.G.S. Sec. 16-50aa, and to issue an order approving the proposed shared use.

### Background

Verizon Wireless is licensed by the Federal Communications Commission to provide cellular telephone service in the Hartford County New England County Metropolitan Area (NECMA), which includes the area to be served by the proposed Easthampton installation.

The facility at 94 East High Street in Easthampton, consists of a an approximately 120 foot AGL monopole tower built by Sprint Sites USA and is located on a leased parcel. The monopole tower supports the antennas of Sprint Spectrum PCS, a wireless carrier that provides mobile communications service to the public pursuant to its FCC license. Verizon Wireless and Sprint Sites USA have agreed to the proposed shared use of this tower pursuant to mutually acceptable terms and conditions. Sprint Sites USA has authorized Verizon Wireless to apply for all necessary permits, approvals and authorizations which may be required for the proposed shared use of this facility.

Mr. Mortimer A. Gelston  
August 28, 2000  
Page 2

Verizon Wireless proposes to install twelve (12) Decibel Model DB844H90 antennas, approximately 48 inches in height, on a platform with their center of radiation at approximately 105' feet above ground level ("AGL"). Verizon Wireless will also install one (1) GPS antenna on the antenna platform. Equipment associated with these antennas, as well as a 40 KW diesel-fueled emergency stand-by generator, would be located in a new approximately 12-foot x 30-foot equipment building located at the base of the tower.

C.G.S. Sec. 16-50aa provides that, upon written request for approval of a proposed shared use, "if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the Council shall issue an order approving such shared use" (C.G.S. Sec. 16-50aa©(1).)

### **Discussion**

A. Technical Feasibility. The existing tower is structurally sound and capable of supporting the proposed Verizon Wireless antennas. The tower will not require any structural modification to support the proposed attachments. A copy of the structural design is attached to this application. Verizon Wireless engineers have determined that the proposed antenna installations present minimal potential for interference to or from existing radio transmissions from this location. In addition, the applicant is unaware of any occasion where its operations have caused interference with AM, FM or television reception. The proposed shared use of this tower therefore is technically feasible.

B. Legal Feasibility. Under C.G.S. Sec. 16-50aa, the Council has been authorized to issue an order approving the proposed shared use of an existing communications tower facility such as the facility at 94 East High Street. (C.G.S. Sec. 16-50aa©(1).) This authority complements the Council's prior existing authority under C.G.S. Sec. 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. C.G.S. Sec. 16-50x(a) directs the Council to "give consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities. Under the authority vested in the Council by C.G.S. Sec. 16-50aa, an order by the Council approving the shared use would permit the applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use would have a minimal Environmental effect, for the following reasons:

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. The addition of the proposed antennas would not increase the height of the tower, and would not extend the boundaries of the tower site, including the placement of the equipment building near the base of the existing tower.
2. The proposed installation would not increase the noise levels at the existing facility by six decibels or more. The only additional noise will occur during emergency use or periodic exercising of the generator.
3. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base to a level at or above the applicable standard. "Worst-case" exposure calculations for a point at the base of the tower in relation to operation of Verizon Wireless's and Sprint Spectrum PCS antenna arrays is as follows:

	<u>Applicable ANSI Stnd</u>	<u>Calculated "Worst-Case"</u>	<u>Percentage of Stnd</u>
Verizon Wireless	0.583 mW/cm <sup>2</sup>	0.0619 mW/cm <sup>2</sup>	10.62%
Sprint	1.000 mW/cm <sup>2</sup>	0.0349 mW/cm <sup>2</sup>	<u>3.49%</u>
		Total	14.11%

The collective "worst-case" exposure would be only 14.11% of the ANSI standard, as calculated for mixed frequency sites. Power density levels from shared use of the tower facility would thus be well below applicable ANSI standards.

4. The proposed installations would not require any water or sanitary facilities or generate discharges to water bodies. Operation of the emergency back-up generator will result in limited air emissions, pursuant to R.C.S.A. Section 22a-174-3, the generator will require the issuance of a permit from the Department of Environmental Protection Bureau of Air Management. After construction is complete, the proposed installation would not generate any traffic other than periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

D. Economic Feasibility. As previously mentioned, the tower owner and the applicant have entered into a mutual agreement to share use of the existing tower on terms agreeable to the parties, and the proposed tower sharing is thus economically feasible.

E. Public Safety Concerns. As stated above, the existing tower is structurally capable of supporting the proposed Verizon Wireless antennas. The Applicant is not aware of any other public safety concerns relative to the proposed tower sharing of the existing tower. In fact, the provision of new or improved cellular phone service in the Easthampton area, especially along the heavily traveled Route 66, Route 16, and the Town of Easthampton through shared use of the tower is expected to enhance the safety and welfare of area residents and travelers. The public safety benefits of wireless service are further illustrated by the decision of local authorities elsewhere in Connecticut to provide cellular phones to residents to improve local public safety and emergency communications. The proposed shared use of this facility would likewise improve public safety in the Easthampton area.

### Conclusion

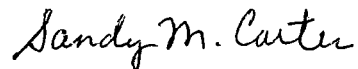
For the reasons discussed above, the proposed shared use of the existing telecommunications tower facility at 94 East High Street satisfies the criteria stated in C.G.S. Sec. 16-50aa, and advances the General Assembly's and the Council's goal of preventing the proliferation of towers in Connecticut. The Applicant therefore requests that the Council issue an order approving the proposed shared use.

Mr. Mortimer A. Gelston  
August 28, 2000  
Page 5

Thank you for your consideration of this matter.

Pursuant to Connecticut General Statutes Sec, 16-50v and Section 16-50v-1(a) of the Regulations of Connecticut State Agencies, Verizon Wireless has enclosed a check in the amount of \$500.00 for the required filing fee.

Respectfully yours,



Sandy M. Carter  
Manager – Regulatory  
Verizon Wireless

**Attachments**

cc: Alan Bergren, Town Manager  
Melissa Engel, Chairperson, Town Council

Network Dept.



Verizon Wireless  
20 Alexander Drive  
Wallingford, Connecticut 06492

August 28, 2000

Honorable Melissa Engel, Chairperson  
Easthampton Town Council  
Town Hall  
20 East High Street  
Easthampton, Connecticut 06424

Dear Ms. Engel:

This letter is to inform you that Cellco Partnership d/b/a Verizon Wireless plans to install antennas and associated equipment at the existing tower facility located at 94 East High Street, Easthampton, Connecticut. I am enclosing a copy of Verizon Wireless's tower sharing application to the Connecticut Siting Council.

The application fully sets forth the Company's proposal. However, if you have any questions or require further information on our plans or the Siting Council's procedures, please contact me at (203) 294-8519 or Mr. Joel Rinebold, Executive Director of the Connecticut Siting Council at (860) 827-2935.

Sincerely,

A handwritten signature in cursive script that reads "Sandy M. Carter".

Sandy M. Carter  
Manager – Regulatory  
Verizon Wireless

cc: Mr. Alan Bergren, Town Manager  
Enclosure

**Sprint Sites USA**

East Region - Northeast District Office  
535 East Crescent Avenue  
Ramsey, NJ 07430  
Mailstop NJRAMA0101

VIA FACSIMILE (203) 294-7424

August 15, 2000

Sandy M. Carter  
Manager - Regulatory  
Verizon Wireless  
20 Alexander Drive  
Wallingford, Connecticut 06492

RE: Sprint Site # CT03XC335-01  
20 Alexander Drive, Wallingford, Connecticut

Dear Ms. Carter:

I, David Karpiak, representing Sprint Spectrum L.P. (Sprint), authorize Verizon Wireless to act as applicant, representing Sprint before Connecticut Siting Counsel to obtain approval for an order required for governmental compliance. However, Verizon Wireless shall not be authorized to make any concessions or commitments to the Connecticut Siting Counsel that may affect the operations or future leasing opportunities of Sprint beyond what is shown on the construction drawing prepared by BL Companies, dated August 1, 2000, without obtaining prior approval and consent from Sprint.

Sincerely,

A handwritten signature in black ink, appearing to read "David Karpiak".

David Karpiak  
Regional Manager





**DB842H80N-XY, DB842H90N-XY dB DIRECTOR™ LOG PERIODIC ANTENNAS**  
**DB844H80N-XY, DB844H90N-XY 9-13 dBd GAIN, 40 dB F/B RATIO, 806-960 MHz**



Ideal for cellular and trunking/ESMR applications, these high quality log periodics are now available from Decibel in four new models with 80 or 90 degree horizontal apertures. They're compact, lightweight, and provide an **unmatched front-to-back ratio of 40 dB**.

- **Less Wind Loading** - They measure only 24 or 48 inches (610 or 1219 mm) tall, 8.5 inches deep (216 mm), and 6 inches wide (152 mm). They weigh only 5 or 10 pounds.
- **Downtilt** - Electrical downtilt is available on all 4-foot models, 6°, 8°, 11°, 13°, or for mechanical downtilt, order DB5083 bracket.
- **Null-Fill** - Four-foot models provide null-fill and upper lobe suppression.
- **Most Stringent IM Test** - Each antenna is tested for the absence of IM with 16 carriers at 500 watts of composite power.
- **Sturdy Construction** - Made in the U.S. of high-strength aluminum alloy backs, brass elements and UV resistant ABS plastic radomes. No rivets are used!
- **Lightning Resistant** - All metal parts are grounded.
- **Terminations and Mounts** - All models are available with N-Female or 7/16 DIN connectors. DB380 pipe mount is included.

Ordering information - See table for models to fit your requirements.

**UPS Shippable**

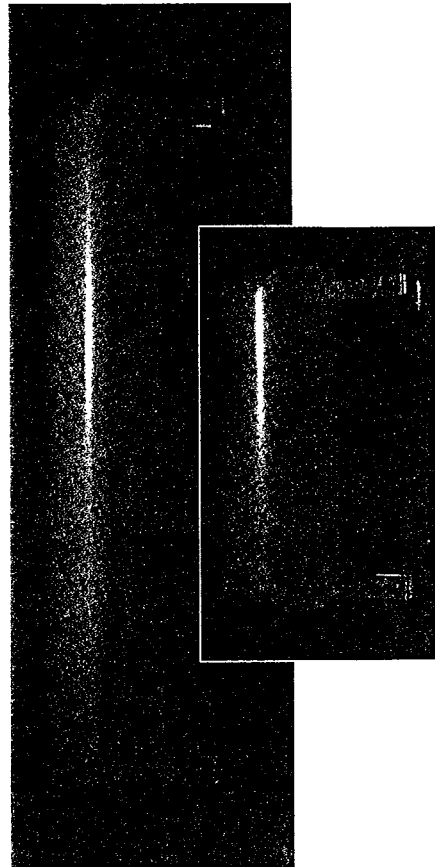
**Models Available**

Model*	DB842H80N-XY	DB844H80N-XY	DB842H90N-XY	DB844H90N-XY
Gain - dBd/dBi	10/12.1	13/15.1	9/11.1	12/14.1
F/B Ratio - dB	40	40	40	40
Horizontal beamwidth**	80°	80°	90°	90°
Vertical beamwidth**	30°	15°	30°	15°
Height - in. (mm)	24 (610)	48 (1219)	24 (610)	48 (1219)
Weight - lbs. (kg)	5 (2.3)	10 (4.6)	5 (2.3)	10 (4.6)
Shipping weight - lbs. (kg)	8 (3.6)	15 (6.8)	8 (3.6)	15 (6.8)

\* For 7/16 DIN connectors substitute "E" for "N" in the model numbers. Example: DB842H80E-XY.  
 \*\* 3 dB from maximum.

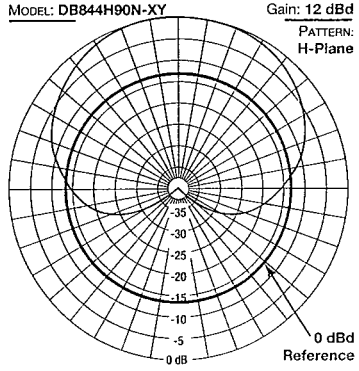
Side offset mounting bracket is included. For electrical downtilt of 6°, 8°, 11° or 13° add T6, T8, T11 or T13 before the "N" or "E" in any 4-foot model number. Example: DB844H80T6N-XY. Note: Electrical downtilt causes a gain loss of .05 dB, or, at the horizon, a reduction of 3, 6, 9 or 12 dB on downtilts of 6°, 8°, 11° or 13° respectively. For mechanical downtilt order DB5083 bracket.

**Base Station Antennas**

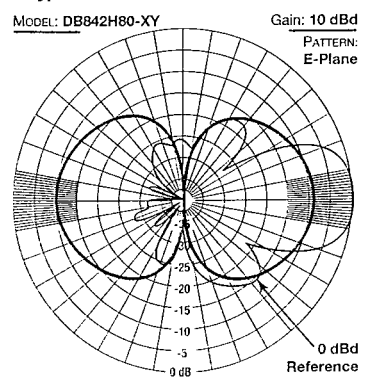


**4-Foot and 2-Foot dB DIRECTORS**

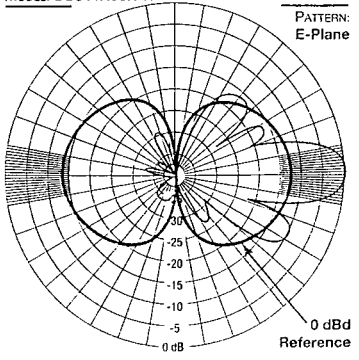
**Typical DB842H90N-XY, DB844H90N-XY Horizontal Pattern**



**Typical DB842H80-XY Vertical Pattern**



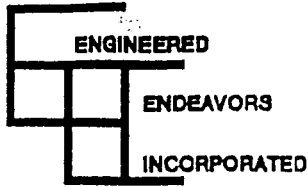
**Typical DB844H90N-XY Vertical Pattern**



Mechanical Data	
Width - in. (mm)	6 (152)
Depth - in. (mm)	8.5 (216)
Height	See table above
Maximum wind speed - mph (km/h)	125 (200)
Wind area - ft² (m²)	
24" (610 mm) antenna	1 (.093)
48" (1219 mm) antenna	2 (.186)
Wind load (at 100 mph/161 km/h) - lbf (N) kp	
24" (610 mm) antenna	40 (178) 18
48" (1219 mm) antenna	80 (356) 36
Radome	Gray ABS
Backplate	Passivated aluminum
Radiators	Brass
Mounting hardware	Galvanized steel
Weight	See table above

Electrical Data	
Frequency Range - MHz	806-960
Gain - dBd	See table above
Front-to-back ratio - dB	>40
Beamwidths	See table above
VSWR	<1.5:1
Null-fill and secondary lobe suppression	On 48" (1219 mm) models only
Maximum power input - watts	500
Nominal impedance - ohms	50
Lightning protection	All metal parts grounded
Termination	N-Female or 7/16 DIN



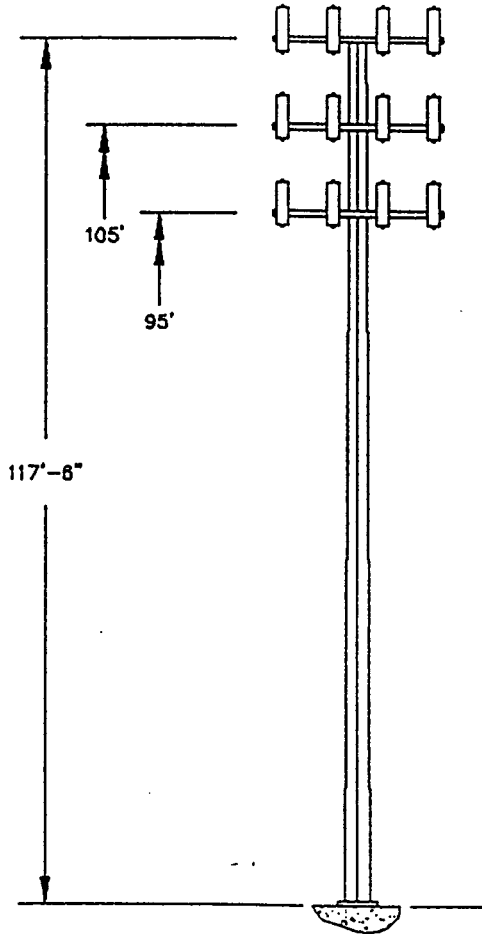


Customer SPRINT PCS By JAY PARR 5/28/99  
Structure 120' MONOPOLE Checked \_\_\_\_\_ Date 5069  
Job/Quote No. \_\_\_\_\_

SITE LOCATION: MIDDLESEX COUNTY, CT  
SITE NAME: EAST HAMPTON/CT03XC335

### ANTENNA LOADING:

- (12) DB 980 PANEL ANTENNAS AT 117'-6"
- LOW PROFILE PLATFORM AT 117'-6"
- (12) ALP 9212 PANEL ANTENNAS AT 105'
- LOW PROFILE PLATFORM AT 105'
- (12) ALP 9212 PANEL ANTENNAS AT 95'
- LOW PROFILE PLATFORM AT 95'



### DESIGN NOTES:

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

CASE I - 50 MPH OPERATIONAL WIND SPEED  
ALLOWABLE ROTATION - 3.00° AT 117'-6"

CASE II - 89.25 MPH BASIC WIND SPEED

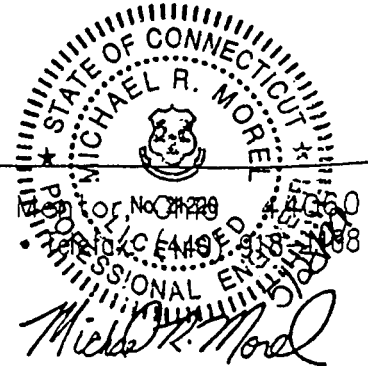
CASE III - 75% OF 89.25 MPH WIND LOAD  
WITH 1/2" RADIAL ICE

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

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 •  
Telephone: (440) 918-1101



# Engineered Endeavors Inc.

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

## Communications Structure Nonlinear Analysis and Design Program

10:48:16      05-28-1999  
Revision 1.2 - 4/22/98  
Engineer: PARR

Customer    SPRINT PCS  
Job Name    5069  
Structure    120' MONOPOLE  
Location    MIDDLESEX COUNTY, CT  
Site        EAST HAMPTON/CT03XC335

OD BOT	OD TOP	NUM. SIDES	THICK INCH	TAPER IN/FT	LENGTH FT	JOINT INCH	JOINT TYPE	YIELD KSI	WEIGHT LBS	JOINT HEIGHT
22.90	15.00	18	0.1875	0.253	31.21	41.00	SLIP	65.0	1171.	88.00
33.46	21.54	18	0.3125	0.253	47.08	57.00	SLIP	65.0	4267.	45.00
43.50	31.51	18	0.3125	0.253	47.38	0.00	BASEPL	65.0	5874.	0.00
TOTAL TUBE WEIGHT								11313.	POUNDS	
POLE SHAFT LENGTH								117.50	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.  
ORIGINAL DATA FILE NAME    H:\QUOTES\9603-120  
REVISED    DATA FILE NAME    H:\JOBS\5069-120

### APPURTENANCES

DESCRIPTION	NUM.	ELEV.	Kz	< WITHOUT ICE >			< WITH ICE >			FACTOR
				AREA	WGT	Ca	AREA	WGT	Ca	
DB 980H	12	118.	1.437	2.50	9.	2.0000	3.00	29.	2.0000	0.75
LOW PROFILE PLATFORM	1	118.	1.437	11.25	1500.	2.0000	14.10	2250.	2.0000	1.00
ALP 9212-N	12	105.	1.392	3.90	27.	2.0000	4.24	55.	2.0000	0.75
LOW PROFILE PLATFORM	1	105.	1.392	11.25	1500.	2.0000	14.10	2250.	2.0000	1.00
ALP 9212-N	12	95.	1.353	3.90	27.	2.0000	4.24	55.	2.0000	0.75
LOW PROFILE PLATFORM	1	95.	1.353	11.25	1500.	2.0000	14.10	2250.	2.0000	1.00

LOAD CASE 1

OPERATIONAL LOADING

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

WIND VELOCITY 50 BOTTOM 6.45 PSF TOP 9.13 PSF  
 MAX BASE ROTATION 0.00 DEG

APPLIED APPURTENANCE FORCES

	ELEVATION FT	WEIGHT KIPS	WIND KIPS
DB 980H	117.50	0.102	0.700
LOW PROFILE PLATFORM	117.50	1.500	0.350
ALP 9212-N	105.00	0.324	1.057
LOW PROFILE PLATFORM	105.00	1.500	0.339
ALP 9212-N	95.00	0.324	1.027
LOW PROFILE PLATFORM	95.00	1.500	0.329

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
117.50	15.00	0.1875	1.19	0.00	1.77	0.20	0.00	60.63	0.00	25.2	1.94
105.00	18.16	0.1875	2.80	14.84	4.04	0.38	3.78	58.56	0.06	20.2	1.87
95.00	20.70	0.1875	2.80	42.85	4.04	0.33	8.38	57.36	0.14	16.4	1.72
88.00	22.47	0.1875	4.34	73.18	6.21	0.47	12.11	60.52	0.21	14.0	1.56
TYPE OF JOINT: SLIP JOINT											
88.00	21.97	0.3125	4.50	73.18	7.12	0.33	7.74	62.26	0.12	14.0	1.56
75.00	25.26	0.3125	4.69	131.65	8.07	0.33	10.47	60.50	0.16	10.1	1.33
65.00	27.79	0.3125	4.86	178.52	8.99	0.33	11.69	59.43	0.18	7.5	1.14
55.00	30.32	0.3125	4.86	227.11	8.99	0.31	12.45	58.54	0.20	5.3	0.95
45.00	32.86	0.3125	5.03	277.43	10.01	0.31	12.93	62.62	0.21	3.5	0.76
TYPE OF JOINT: SLIP JOINT											
45.00	32.11	0.3125	5.23	277.43	11.70	0.37	13.55	58.00	0.22	3.5	0.76
33.00	35.14	0.3125	5.23	340.14	11.70	0.34	13.83	57.20	0.23	1.8	0.54
22.00	37.93	0.3125	5.42	399.71	13.05	0.35	13.92	56.58	0.24	0.8	0.35
11.00	40.71	0.3125	5.60	461.35	14.44	0.36	13.92	56.04	0.24	0.2	0.17
0.00	43.50	0.3125	5.93	525.19	16.70	0.39	13.87	58.43	0.24	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	MOMENT ABOUT WIND AXIS
0.000	16.701	-5.928	525.190	0.000	0.000	0.000

LOAD CASE 2

BASIC LOADING

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

WIND VELOCITY 89.25 BOTTOM 20.56 PSF TOP 29.10 PSF

MAX BASE ROTATION 0.00 DEG

APPLIED APPURTENANCE FORCES

	ELEVATION FT	WEIGHT KIPS	WIND KIPS
DB 980H	117.50	0.102	2.229
LOW PROFILE PLATFORM	117.50	1.500	1.115
ALP 9212-N	105.00	0.324	3.367
LOW PROFILE PLATFORM	105.00	1.500	1.079
ALP 9212-N	95.00	0.324	3.273
LOW PROFILE PLATFORM	95.00	1.500	1.049

TUBE ELEV FT	TUBE PROPERTIES		MEMBER FORCES			STRESSES		STRESS ALLOW RATIO	TOTAL		
	DIAM IN	WALL IN	SHEAR K	BENDING K-FT	AXIAL K	AXIAL KSI	BEND. KSI		DEFL IN	TILT DEG	
117.50	15.00	0.1875	3.77	0.00	1.42	0.16	0.00	60.63	0.00	79.3	6.13
105.00	18.16	0.1875	8.88	46.80	3.17	0.30	11.92	58.56	0.19	63.7	5.89
95.00	20.70	0.1875	8.88	135.14	3.17	0.26	26.42	57.36	0.43	51.9	5.43
88.00	22.47	0.1875	13.75	230.99	4.98	0.38	38.23	60.52	0.64	44.3	4.94
TYPE OF JOINT: SLIP JOINT											
88.00	21.97	0.3125	14.28	230.99	5.99	0.28	24.42	62.26	0.38	44.3	4.94
75.00	25.26	0.3125	14.90	416.08	7.06	0.29	33.09	60.50	0.51	31.8	4.22
65.00	27.79	0.3125	15.45	564.71	8.11	0.30	36.97	59.43	0.57	23.6	3.61
55.00	30.32	0.3125	15.45	718.95	8.11	0.28	39.43	58.54	0.62	16.7	3.01
45.00	32.86	0.3125	16.01	878.91	9.25	0.29	40.96	62.62	0.66	11.0	2.42
TYPE OF JOINT: SLIP JOINT											
45.00	32.11	0.3125	16.64	878.91	11.11	0.36	42.92	58.00	0.69	11.0	2.42
33.00	35.14	0.3125	16.64	1078.44	11.11	0.32	43.84	57.20	0.72	5.8	1.71
22.00	37.93	0.3125	17.25	1268.17	13.05	0.35	44.18	56.58	0.74	2.5	1.10
11.00	40.71	0.3125	17.85	1464.54	14.44	0.36	44.20	56.04	0.75	0.6	0.53
0.00	43.50	0.3125	18.89	1667.93	16.70	0.39	44.04	58.43	0.76	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	16.701	-18.887	1667.925	0.000	0.000	

LOAD CASE 3

BASIC LOADING PLUS ICE

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

WIND VELOCITY 89.25 BOTTOM 15.42 PSF TOP 21.83 PSF  
 MAX BASE ROTATION 0.00 DEG

	APPLIED APPURTENANCE FORCES		
	ELEVATION FT	WEIGHT KIPS	WIND KIPS
DB 980H	117.50	0.343	2.006
LOW PROFILE PLATFORM	117.50	2.250	1.048
ALP 9212-N	105.00	0.660	2.746
LOW PROFILE PLATFORM	105.00	2.250	1.015
ALP 9212-N	95.00	0.660	2.668
LOW PROFILE PLATFORM	95.00	2.250	0.986

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
117.50	15.00	0.1875	3.50	0.00	2.49	0.29	0.00	60.63	0.00	69.3	5.40
105.00	18.16	0.1875	7.90	43.55	5.44	0.51	11.09	58.56	0.17	55.5	5.18
95.00	20.70	0.1875	7.90	122.22	5.44	0.45	23.89	57.36	0.39	45.1	4.75
88.00	22.47	0.1875	12.07	206.44	8.44	0.64	34.17	60.52	0.58	38.5	4.32
TYPE OF JOINT: SLIP JOINT											
88.00	21.97	0.3125	12.46	206.45	9.43	0.44	21.83	62.26	0.34	38.5	4.32
75.00	25.26	0.3125	12.90	367.99	10.48	0.43	29.26	60.50	0.45	27.6	3.67
65.00	27.79	0.3125	13.29	496.74	11.50	0.43	32.52	59.43	0.50	20.4	3.14
55.00	30.32	0.3125	13.29	629.52	11.50	0.39	34.52	58.54	0.55	14.4	2.61
45.00	32.86	0.3125	13.70	766.35	12.61	0.39	35.71	62.62	0.58	9.5	2.09
TYPE OF JOINT: SLIP JOINT											
45.00	32.11	0.3125	14.15	766.36	14.87	0.48	37.43	58.00	0.60	9.5	2.09
33.00	35.14	0.3125	14.15	936.04	14.87	0.43	38.06	57.20	0.63	5.0	1.48
22.00	37.93	0.3125	14.57	1096.30	16.21	0.44	38.19	56.58	0.64	2.2	0.95
11.00	40.71	0.3125	14.99	1261.22	17.60	0.44	38.07	56.04	0.65	0.5	0.46
0.00	43.50	0.3125	15.75	1431.11	19.86	0.47	37.78	58.43	0.66	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	MOMENT ABOUT WIND AXIS
0.000	19.864	-15.749	1431.107	0.000		0.000

SUMMARY TABLE

ELEV	STRESS RATIO	AXIAL	BENDING	LOADING
117.50	0.01	1.42	0.0	2 BASIC LOADING
105.00	0.19	3.17	46.8	2 BASIC LOADING
95.00	0.43	3.17	135.1	2 BASIC LOADING
88.00	0.64	4.98	231.0	2 BASIC LOADING
75.00	0.51	7.06	416.1	2 BASIC LOADING
65.00	0.57	8.11	564.7	2 BASIC LOADING
55.00	0.62	8.11	718.9	2 BASIC LOADING
45.00	0.69	11.11	878.9	2 BASIC LOADING
33.00	0.72	11.11	1078.4	2 BASIC LOADING
22.00	0.74	13.05	1268.2	2 BASIC LOADING
11.00	0.75	14.44	1464.5	2 BASIC LOADING
0.00	0.76	16.70	1667.9	2 BASIC LOADING

MAXIMUM SUPPORT MOMENT K-FT	1667.93
CORRESPONDING AXIAL FORCE KIPS	16.70
CORRESPONDING SHEAR FORCE KIPS	18.89

BASE PLATE AT ELEVATION 0.00 FEET

TUBE DIAMETER 43.50 INCHES  
 DESIGN MOMENT 1667.9 KIP FT  
 DESIGN MOMENT IS 0. DEGREES FROM THE WIND DIRECTION  
 BOLTS ARE ON THE KNUCKLES OF THE TUBE

APPLIED AXIAL FORCE 16.7 KIPS  
 APPLIED SHEAR 18.89 KIPS

## BOLT DATA

BOLT TYPE A615 GR75  
 BOLTS ARE EVENLY SPACED  
 DIAMETER 2.250 INCHES  
 EFFECTIVE AREA 3.250 SQ IN  
 TOTAL LENGTH 8.5 FEET  
 MINIMUM EMBEDMENT 6.7 FEET  
 NUMBER OF BOLTS 12  
 BOLT CIRCLE DIAMETER 52.00 INCHES  
 ALLOWABLE STRESS 60.0 KSI  
 APPLIED AXIAL STRESS 39.9 KSI  
 MAX BOLT FORCE 129.7 KIPS  
 BOLT BENDING STRESS 2.3 KSI  
 COMBINED BOLT STRESS 42.2 KSI  
 CLEARANCE UNDER PLATE 3.25 INCHES  
 BOLT WEIGHT 1438.2 POUNDS

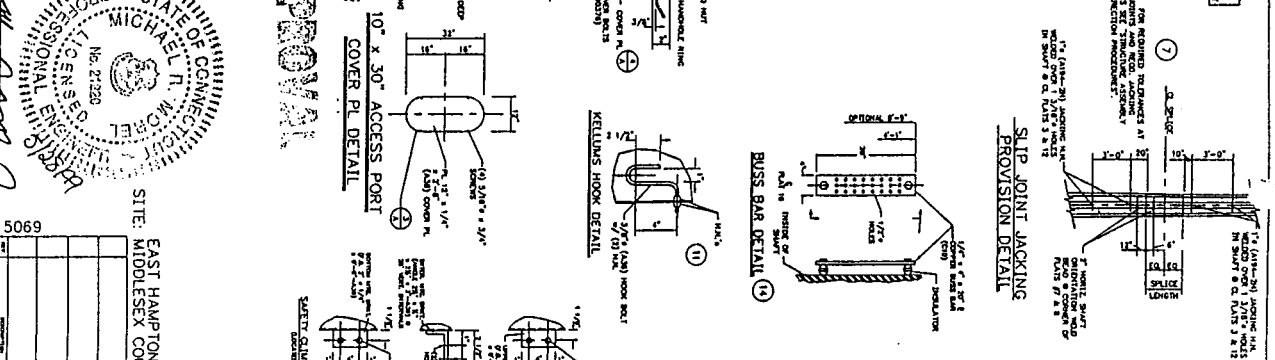
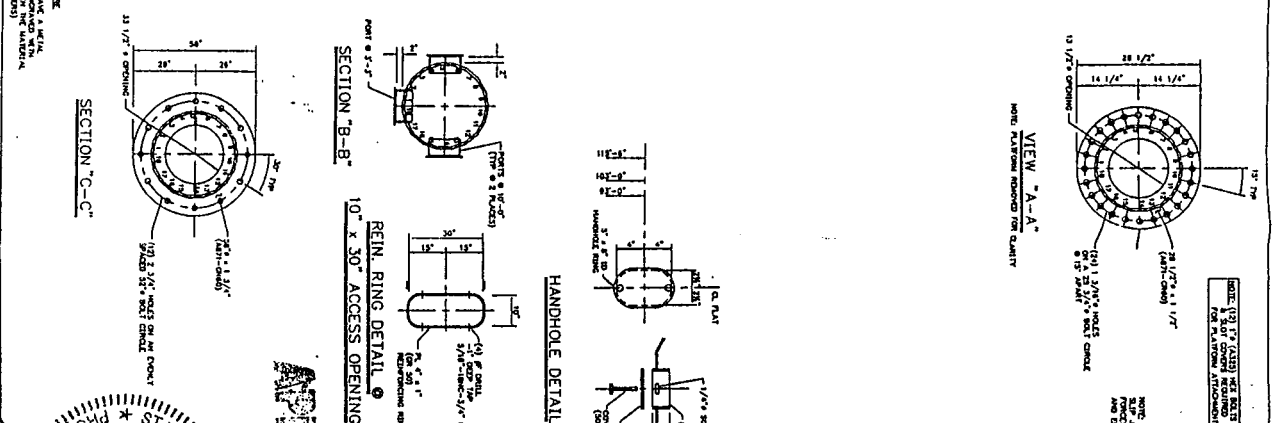
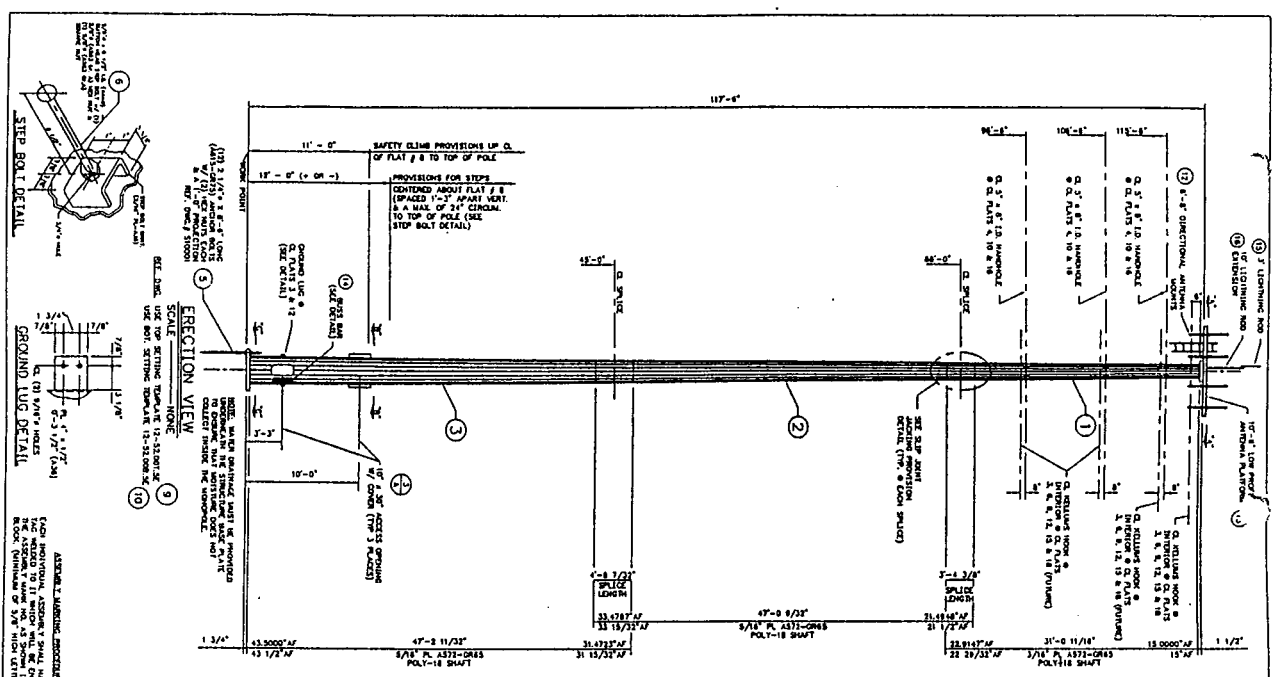
## PLATE DATA

DIAMETER OF PLATE 58.00 INCHES  
 MATERIAL A871 GR60  
 PROVIDED THICKNESS 1.750 INCHES  
 REQUIRED THICKNESS 1.457 INCHES  
 BOLT HOLE DIAMETER 2.625 INCHES  
 CENTER HOLE SIZE 33.50 INCHES  
 NET WEIGHT 839.8 POUNDS  
 RAW STOCK WEIGHT 1666.0 POUNDS  
 SURFACE AREA 23.55 SQ FT  
 ALLOWABLE STRESS 60.00 KSI  
 MAX APPLIED STRESS 41.56 KSI

CONCRETE STRENGTH 3000. PSI

Base Plate - use 58.00 inch ROUND x 1.750 inch A871 GR60  
 with (12) 2.250 diameter x 8.50 foot caged A615 GR75 bolts  
 on a 52.00 inch bolt circle





MATERIAL REQ'D. PER ASSEMBLY		DESCRIPTION	
QTY.	ITEM	QTY.	DESCRIPTION
1	(1)	1	SHAFT ASSY. (TOP SECTION)
1	(2)	1	SHAFT ASSY. (MIDDLE SECTION)
1	(3)	1	SHAFT ASSY. (BOTTOM SECTION)
3	(4)	3	10' x 30' ACCESS PORT COVER PL. (C12849)
9	(5)	9	HANDHOLE AS FOLLOWS:
9	(6)	9	P-10811
12	(7)	12	1/2\"/>

APPROVAL: [Signature]

STATE OF CONNECTICUT PROFESSIONAL ENGINEER MICHAEL I. MOORE No. 27330

EAST HAMPTON/COT03XG335 SITE: MIDDLESEX COUNTY, CT

120' MONOPOLE SPRINT PCS

5069

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

DATE: [Date]

PROJECT NO.: [Number]

SCALE: [Scale]

DATE: [Date]

PROJECT NO.: [Number]

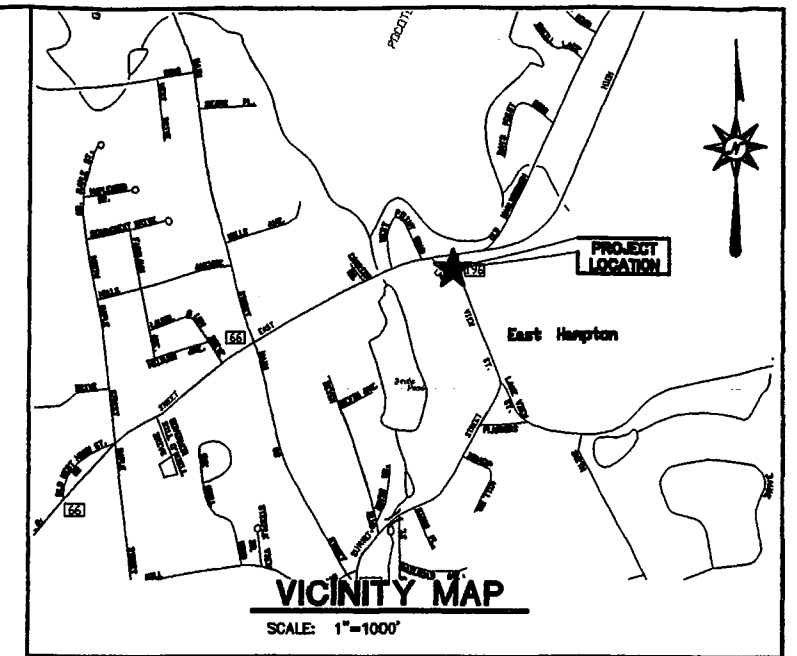
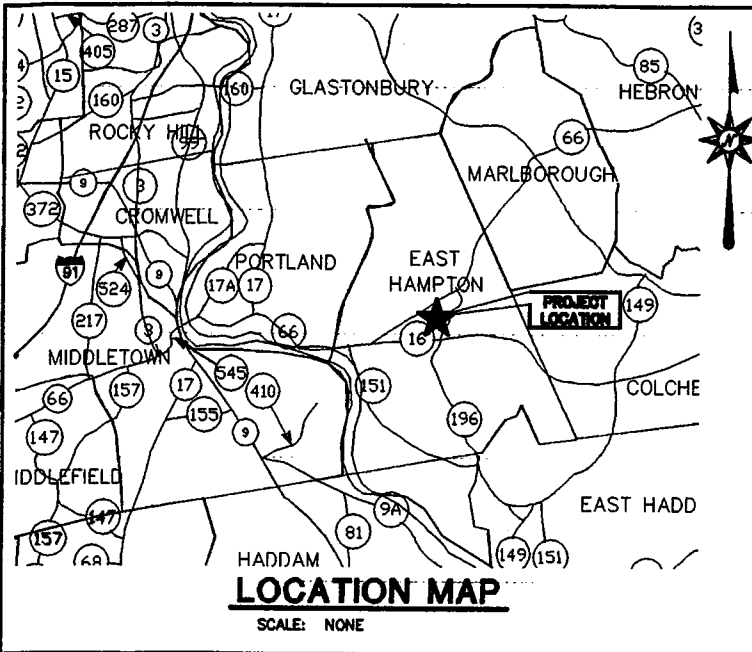
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DATE: [Date]

PROJECT NO.: [Number]

SCALE: [Scale]

DATE: [Date]



# SITING COUNCIL SUBMISSION

## EAST HAMPTON

# TELECOMMUNICATION FACILITY

94 EAST HIGH STREET  
 EAST HAMPTON, CONNECTICUT 06424

PREPARED FOR:  
 VERIZON WIRELESS  
 20 ALEXANDER DRIVE  
 WALLINGFORD, CONNECTICUT 06492

### CONTENTS

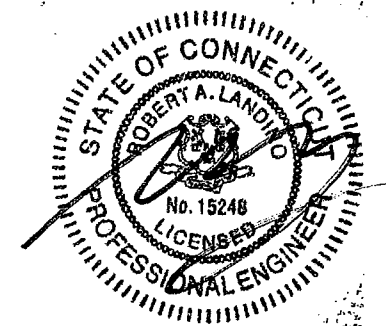
	TITLE SHEET
SC-1	SITE PLAN AND ELEVATION

PREPARED BY:



ARCHITECTURE ENGINEERING PLANNING LANDSCAPE ARCHITECTURE  
 LAND SURVEYING ENVIRONMENTAL SCIENCES ANALYTICAL SERVICES

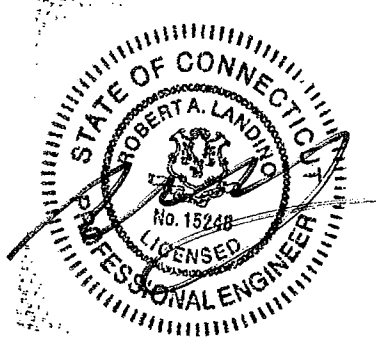
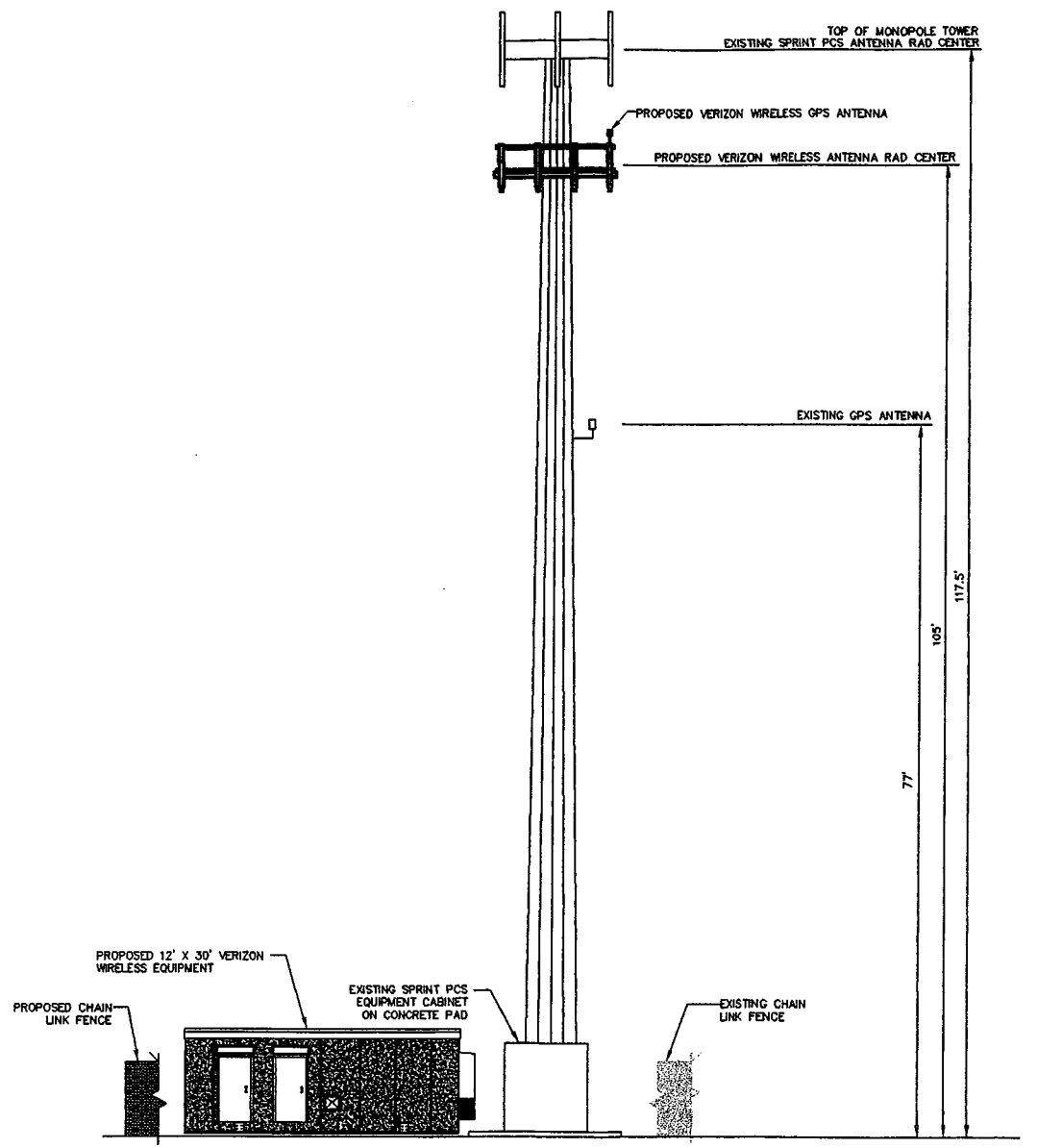
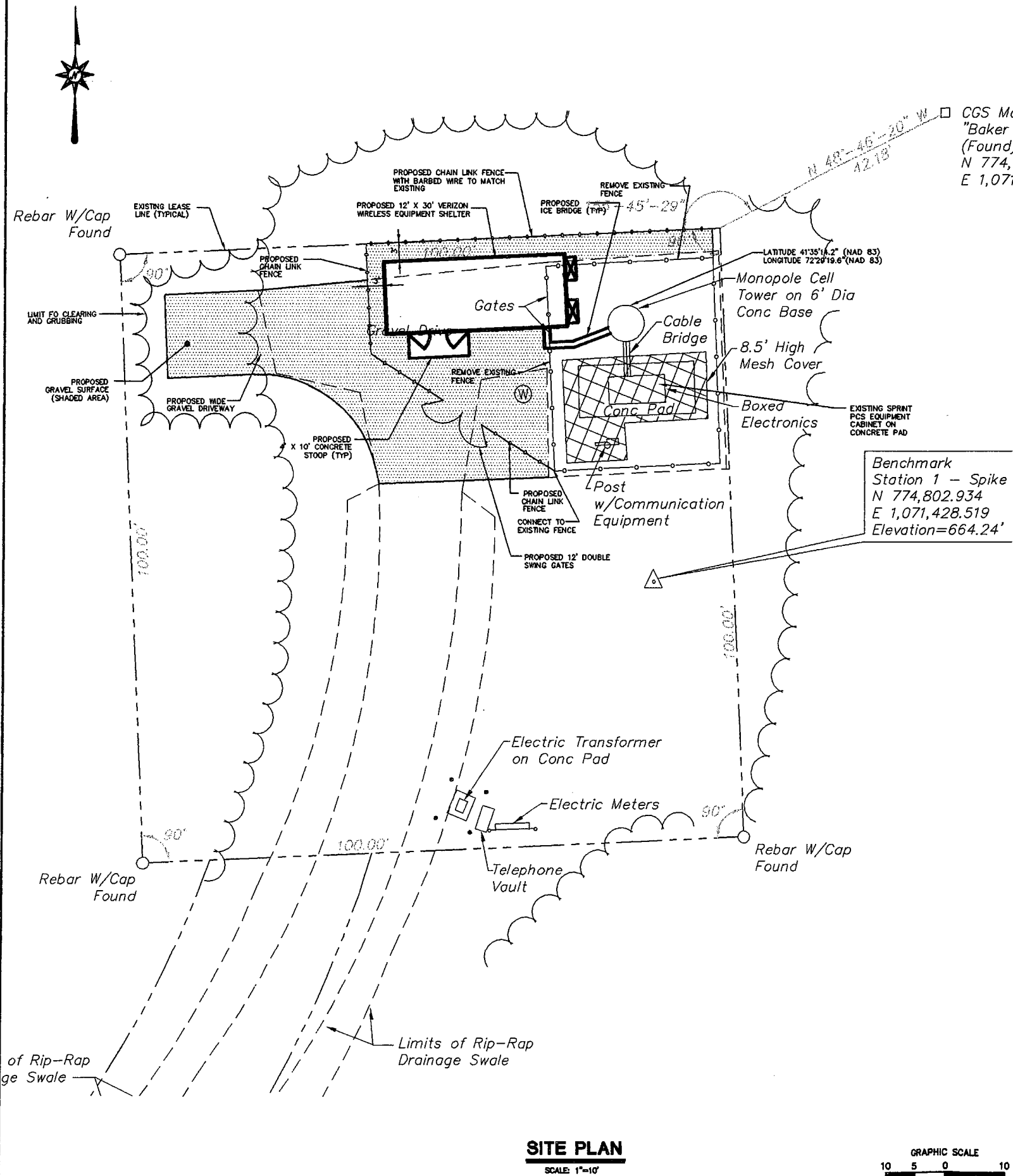
355 RESEARCH PARKWAY  
 MERIDEN, CONNECTICUT 06450  
 (203) 630-1406  
 (203) 630-2615 Fax



**NOT FOR CONSTRUCTION**

### DATES

ISSUE DATE: AUGUST 25, 2000  
 REVISION:



**BL Companies**  
ARCHITECTURE  
ENGINEERING  
PLANNING  
LANDSCAPE ARCHITECTURE  
LAND SURVEYING  
ENVIRONMENTAL SCIENCES  
ANALYTICAL SERVICES

355 Research Parkway  
Meriden, CT 06460  
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(203) 630-2815 Fax

**SITE PLAN AND TOWER ELEVATION**  
EAST HAMPTON TELECOMMUNICATION FACILITY  
94 EAST HIGH STREET  
TOWN OF EAST HAMPTON, MIDDLESEX COUNTY, CONNECTICUT

REVISIONS	No.	Date	Des.
Designed			R.C.B.
Drawn			K.A.K.
Checked			S.N.
Approved			R.A.L.
Scale			AS SHOWN
Project No.			00C742
Date			08/25/00
CAD File			SCC74201

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