TOWN OF VERNON

BUILDING DEPARTMENT

55 WEST MAIN STREET, VERNON, CT 06066
Tel: (860) 870-3633
Fax: (860) 870-3589
E-Mail: bollesg@vernonconn.com

May 28, 2002

State of Connecticut
Connecticut Citing Council
Ten Franklin Square
New Britain, CT 06051

Attention: S. Derek Phelps

RE: EM-AT&T-146-020521 – AT&T Wireless notice of intent to modify an existing telecommunications facility located at 60 Industrial Park Road, Vernon, Connecticut

Dear Mr. Phelps:

Thank you for your letter of inquiry regarding an existing telecommunications facility located at 60 Industrial Park Road, Vernon, Connecticut.

The Town of Vernon Planning and Zoning Commission granted approval of a site plan for the 165 foot tower on October 21, 1999. The Planning and Zoning Commission and the Zoning Regulations Section 23.1.1, 23.1.2, and 23.2.2, intended that the telecommunication equipment should be colocated on existing structures wherever possible.

Therefore the addition of the antenna panels is approved. However, the AWS equipment cabinets will require approval. This may be done as a minor modification to an existing approval.

Please address a letter to Thomas Joyce, Town Planner, 14 Park Place, Vernon, Connecticut 06066 and request a minor modification for the AWS cabinets.

If you have any further questions on this matter, please call me at 860-870-3650.

Sincerely,
Gene F. Bolles
Gene F. Bolles
Building Official/Zoning Enforcement Officer

C: Mayor Diane Wheelock
Laurence Shaffer, Town Administrator

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

May 22, 2002

Honorable Diane Wheelock
Mayor
Town of Vernon
Municipal Building
14 Park Place
Vernon, CT 06066

RE: **EM-AT&T-146-020521** - AT&T Wireless notice of intent to modify an existing telecommunications facility located at 60 Industrial Park Road, Vernon, Connecticut.

Dear Mayor Wheelock:

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 3, 2002, 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/dsj

Enclosure: Notice of Intent

c: Gene F. Bolles, Zoning Enforcement Officer, Town of Vernon

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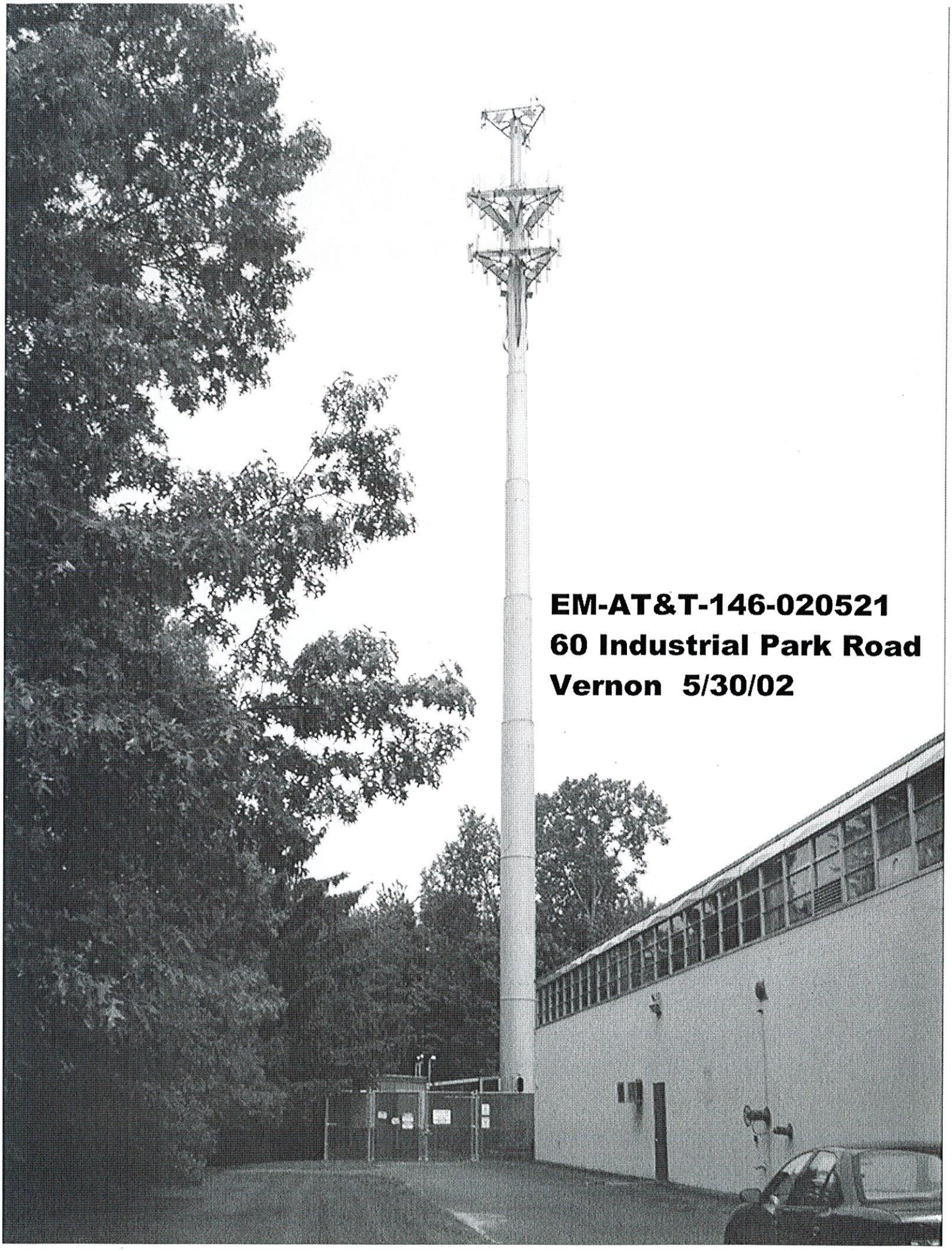

EM-AT&T-146-020521
60 Industrial Park Road
Vernon 5/30/02

NOTICE OF INTENT TO MODIFY AN EXISTING TELECOMMUNICATIONS FACILITY 60 INDUSTRIAL PARK ROAD, VERNON, CONNECTICUT

Pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes § 16-50g et. seq. ("PUESA"), and Sections 16-50j-72(b) of the Regulations of Connecticut State Agencies adopted pursuant to the PUESA, AT&T Wireless PCS, LLC d/b/a AT&T Wireless ("AT&T Wireless") hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 60 Industrial Park Road, Vernon, Connecticut (the "Industrial Park Road Facility"), owned by Millenicom, Inc. AT&T Wireless and the tower owner have agreed with to share the use of the Industrial Park Road Facility, as detailed below.

The Industrial Park Road Facility

The Industrial Park Road Facility consists of an approximately one hundred seventy-five (175) foot monopole (the "Tower") and associated equipment currently being used for wireless communications by Nextel, Verizon and VoiceStream. A chain link fence surrounds the Tower compound. The surrounding land uses are predominantly industrial.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by SEA Consultants, Inc., including a site plan and tower elevation of the Industrial Park Road Facility, AT&T Wireless proposes shared use of the Facility by placing antennas on the Tower and equipment cabinets within the existing fenced compound needed to provide personal communications services ("PCS"). AT&T Wireless will install 6 panel antennas at approximately the 165 foot level of the Tower and associated equipment cabinets (2 proposed, 2 future, each 76"H x 30" W x 30" D) located on a concrete pad. As evidenced in the letter of structural integrity prepared by H.E.Bergeron Engineers PA, annexed hereto as Exhibit A, AT&T has confirmed that the tower is structurally capable of supporting the addition of AT&T Wireless' antennas.

AT&T Wireless' Facility Constitutes An Exempt Modification

The proposed addition of AT&T Wireless' antennas and equipment to the Industrial Park Road Facility constitutes an exempt "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and Council regulations promulgated pursuant thereto. Addition of AT&T Wireless' antennas and equipment to the Tower will not result in an increase of the Tower's height nor extend the site boundaries. Further, there will be no increase in noise levels by six (6) decibels or more at the Tower site's boundary. As set forth in an Emissions Report prepared by Nader Soliman, Radio Frequency Engineer, annexed hereto as Exhibit B, the total radio frequency electromagnetic radiation power density at the Tower site's

boundary will not be increased to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. For all the foregoing reasons, addition of AT&T Wireless' facility to the Tower constitutes an exempt modification which will not have a substantially adverse environmental effect.

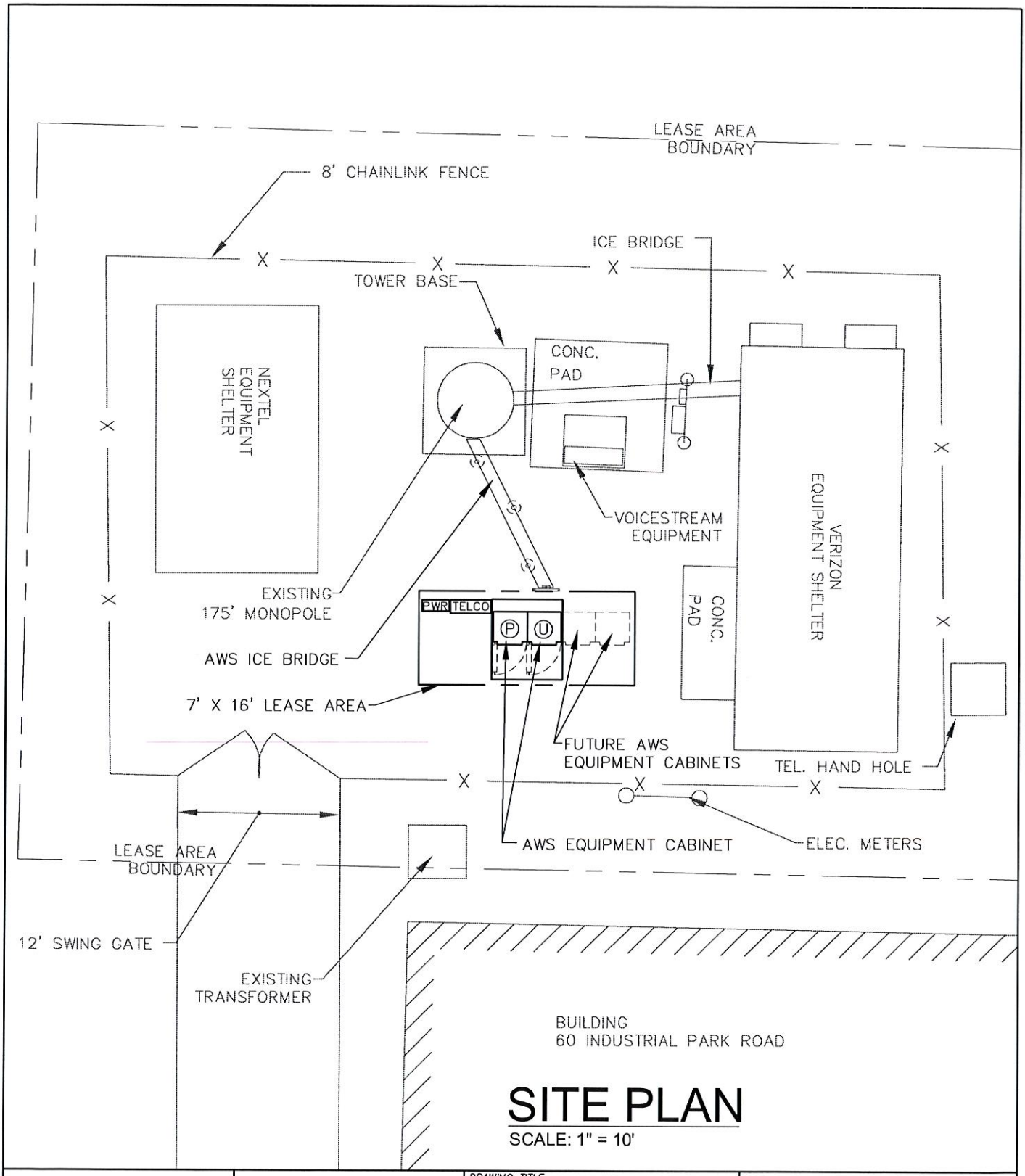
Conclusion

Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Industrial Park Road Facility meets the Council's exemption criteria.

Respectfully Submitted,

Christopher B. Fisher, Esq.
On behalf of AT&T Wireless

cc: Mayor, Town of Vernon
Harold Hewett, Bechtel



SITE PLAN

SCALE: 1" = 10'

S E A Consultants Inc.
Science/Engineering/Architecture
2080 SILAS DEANE HWY, SUITE 302
ROCKY HILL, CT 06067

AT&T
AT&T WIRELESS SERVICES, INC.
12 OMEGA DRIVE
STAMFORD, CT 06907

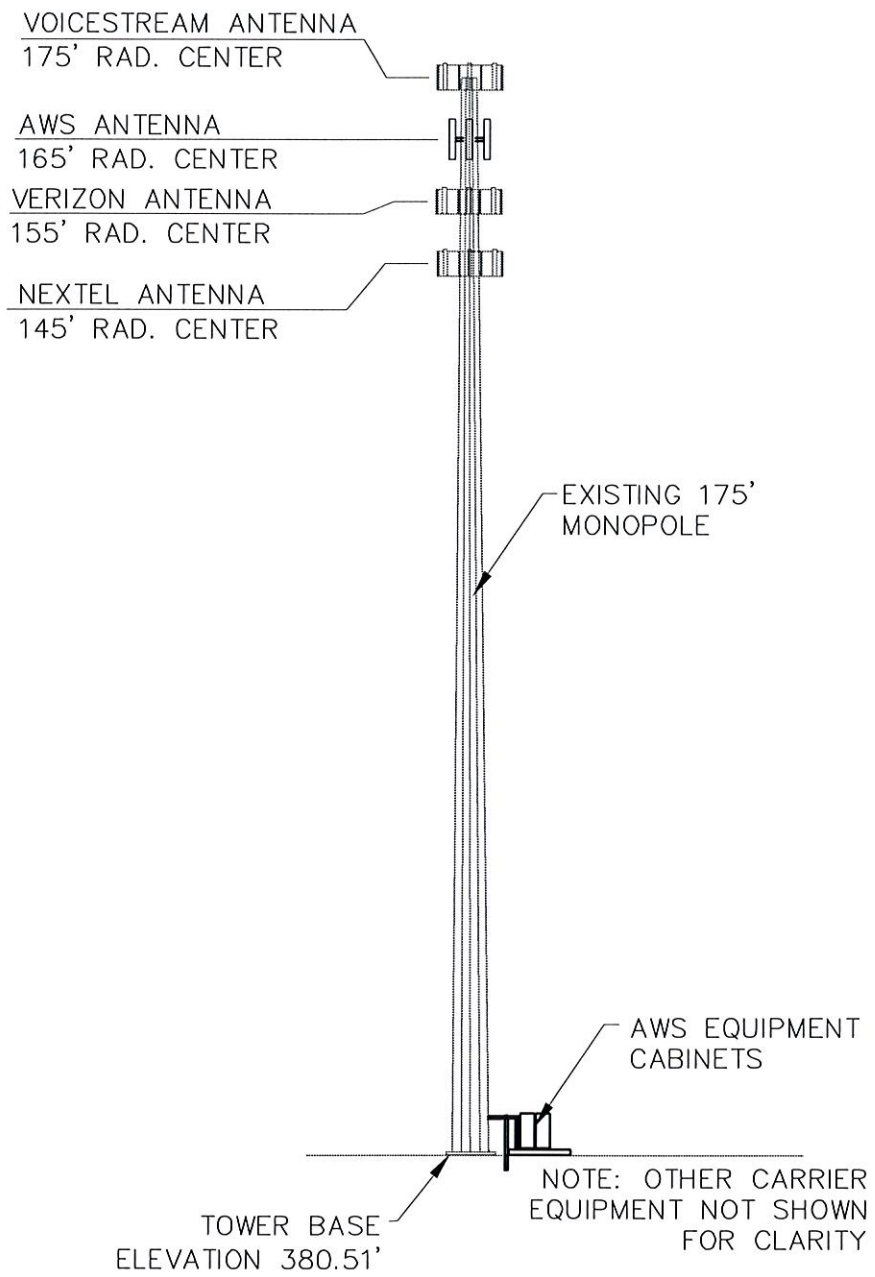
DRAWING TITLE: LEASE EXHIBIT

PROJECT INFORMATION: VERNON CENTER
CT310.1
60 INDUSTRIAL PARK ROAD

PROPERTY OWNER: MILLENICOM

DRAWING NO. 907-007-310A-SC1

REVISION NO. 0	DRAWN BY: KBL
DATE ISSUED: 5/7/02	CHECKED BY: SMB
SCALE: AS NOTED	APPROVED BY: SMB
	SHEET NO. 1 OF 2
SEA PROJECT NO: 2001420.02-A	



TOWER ELEVATION

SCALE: 1" = 30'

S E A Consultants Inc.
Science/Engineering/Architecture
2080 SILAS DEANE HWY, SUITE 302
ROCKY HILL, CT 06067

AT&T
AT&T WIRELESS SERVICES, INC.
12 OMEGA DRIVE
STAMFORD, CT 06907

DRAWING TITLE: LEASE EXHIBIT

PROJECT INFORMATION:
VERNON CENTER
CT-310
60 INDUSTRIAL PARK ROAD

PROPERTY OWNER:
MILLENICOM

DRAWING NO.
907-007-310A-SC2

REVISION NO. 0	DRAWN BY: SMB
DATE ISSUED: 5/7/02	CHECKED BY: WNH
SCALE: AS NOTED	APPROVED BY: WNH
	SHEET NO. 2 OF 2
SEA PROJECT NO: 2001420.01-A	

H. E. Bergeron Engineers
• Civil • Structural • Land Surveying

P.O. Box 440
2605 White Mountain Highway
North Conway, NH 03860
(603) 356-6936
(603) 356-7715 (fax)

65 W. Commercial Street
Portland, ME 04101
(207) 780-1100
(207) 780-1101 (fax)
www.hebcivil.com

HEB

April 29, 2002

Stephen Braun
SEA Consultants Inc.
2080 Silas Deane Hwy.
Rocky Hill, CT 06067

Attn: Stephen Braun
Re: Vernon, CT AWS Site CT310-Vernon

Dear Stephen,

I am writing regarding the changes to the original antenna loading HEB analyzed in our August 17th, 2000 report.

The original August 17th 2000 analysis was done with the following inventory:

(6) DAPA59212 panel antennas on a 10'-6" low profile platform at elev. 175'
(6) DB812 antennas on two clamp mounts with 5' side arms at elev. 165'
(12) EMS RR90-17 panel antennas on a 16'-6" low-profile platform at elev. 155'
(12) DB844H90panel antennas on a low-profile platform at elev. 145'

The proposed changes, provided by SEA Consultants Inc., include the following:

(6) DAPA59212 antennas at elev. 175'
(6) Allgon 7250 Antennas on EEI universal T-ARM bracket at elev. 165'
(12) Swedcom 9011 antennas on a 16' – 6" low-profile platform at elev. 155'
(12) Decibel DB844H90E-XY on a low-profile platform at elev. 145'

The proposed changes will reduce the EIA/TIA wind area by approximately 42 SF which will reduce the load on the monopole and foundation. Therefore, as stated in the August 17th, 2000 analysis, the Vernon, CT (AWS Site CT-310-Vernon) has the capacity to support the proposed changes mentioned above.

Please give us a call if you have any questions.

Sincerely,
H. E. Bergeron Engineers, P.A.

Joe Klementovich E.I.T.

H. Edmund Bergeron

STATE OF CONNECTICUT
H. EDMUND BERGERON
No. 20022
LICENSED
PROFESSIONAL ENGINEER

RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

SITE ID: 907-007-310

April 30, 2002

Prepared by AT&T Wireless Services, Inc.
Nader Soliman **RF Engineer**

Table of Contents

1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at *60 Industrial Park Rd, Vernon CT 06066.* This analysis uses site-specific engineering data to determine the predicted levels of radio frequency (RF) electromagnetic energy in the vicinity of the proposed facility and compares those levels with the Maximum Permissible Exposure (MPE) limits established by the Federal Communications Commission.

2. Site Data

Site Name: ***Vernon Center***	
Number of simultaneously operating channels	16
Type of antenna	Allgon 7250.03
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	165.00 feet
Antenna Aperture Length	5 feet

3. RF Exposure Prediction

The following equations established by the FCC, in conjunction with the site data, were used to determine the levels of RF electromagnetic energy present in the vicinity of the proposed facility[1]:

$$PowerDensity = \frac{0.64 * N * EIRP(\theta)}{\pi * R^2} \ (mW/cm^2) \qquad \textit{Eq. 1-Far-field}$$

Where, ***N***= Number of channels, ***R***= distance in cm from the RC (Radiation Center) of antenna, and ***EIRP(θ)*** = The isotropic power expressed in milliwatts in the direction of prediction point. This is the correct equation for antennas which have their gain expressed in dBi, which is the usual case for the PCS bands.

$$PowerDensity = \frac{P_{in} / ch * N * 10^3}{2 * \pi * R * h * \alpha / 360} \ (mW/cm^2) \qquad \textit{Eq. 2-Near-field}$$

Where P_{in}/ch = Input power to antenna terminals in watts/ch, R = distance to center of radiation, h = aperture height in meters, α = 3 dB beam-width of horizontal pattern.

[1] RF exposure is measured and predicted in terms of power density in units of milliwatts (mW), a thousandth of a watt, or microwatts (μ W), a millionth of a watt, per square centimeter (cm^2). Data comparing predictive analysis with on site measurements has demonstrated that power density can be effectively predicted at given locations in the vicinity of a wireless antenna facility.

4. FCC Guidelines for Evaluating the Environmental Effects of RF Radiation

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by a Second Memorandum Opinion and Order. These new rules represent a consensus of the federal agencies responsible for the protection of public health and the environment, including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Health and Safety (NIOSH), and the Occupational Safety and Health Administration (OSHA).

Under the laws that govern the delivery of wireless communications services in the United States, as amended by the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over RF emissions from personal wireless antenna facilities, which include cellular, PCS, messaging and aviation sites.[2] Pursuant to its authority under federal law, the FCC has established rules to regulate the safety of emissions from these facilities.

5. Comparison with Standards

Exhibit A shows the levels of RF electromagnetic energy as one moves away from the antenna facility. As shown in Exhibit A, the maximum power density is 0.001465 mW/cm^2 which occurs at 130 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000060 mW/cm^2 at a distance of 4 feet. Table 1 below shows the Maximum Permissible Exposure (MPE) limits established by the FCC. There are different MPE limits for public/uncontrolled and occupational/controlled environments.

Table 1: Maximum Permissible Exposure limits for RF radiation

Frequency	*Public/Uncontrolled*	*Occupational/controlled*	*Maximum power density at Accessible location*
Cellular	.580 mW/cm^2	2.9 mW/cm^2	0.001465 mW/cm^2
PCS	1 mW/cm^2	5 mW/cm^2	

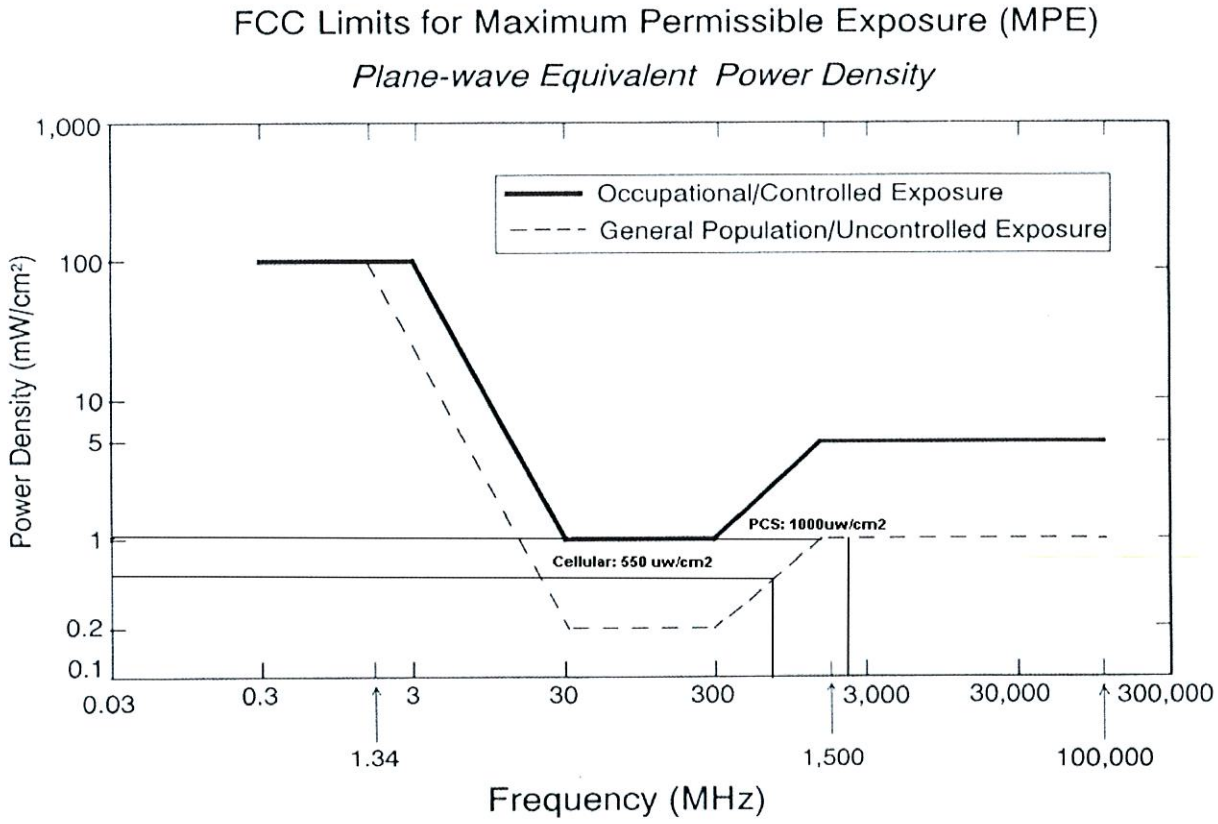
The maximum power density at the proposed facility represents only 0.24% of the public MPE limit for PCS frequencies.

6. Conclusion

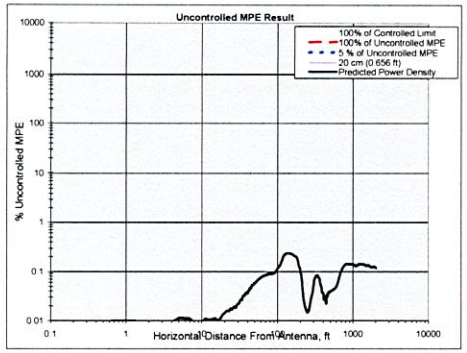
This analysis show that the maximum power density in accessible areas at this location is 0.001465 mW/cm^2, a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

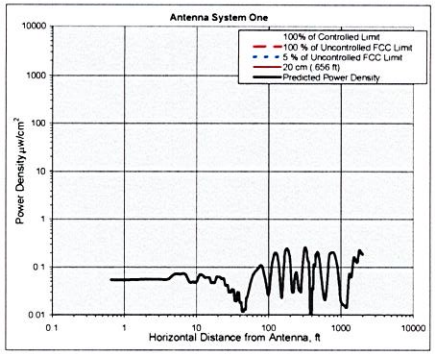
[2] 47 U.S. C. Section 332 (c) (7)(B)(iv) states that "[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."

7. FCC Limits for Maximum Permissible Exposure



8. Exhibit A





Number of Antenna Systems: 4

Meets FCC Controlled Limits for The Antennas Systems.

Meets FCC Uncontrolled Limits for The Antenna Systems.

Meets 5% of FCC Uncontrolled Limits for The Antenna Systems.

No Further Maximum Permissible Exposure (MPE) Analysis Required.

	Power Density		@Horiz. Dist.
	mW/cm²	% of limit	feet
Maximum Power Density =	0.001465	0.24	130.00
422.02 times lower than the MPE limit for uncontrolled environment			
Composite Power (ERP) = 16,000.00 Watts			

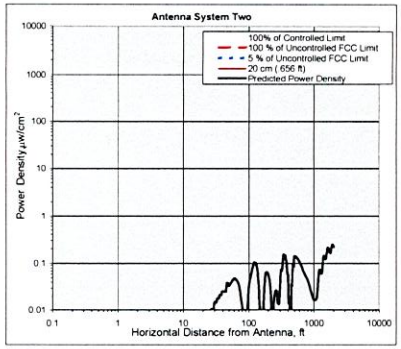
Site ID: 907-07-310
Site Name: Vernon Center
Site Location: 60 Industrial Park Rd

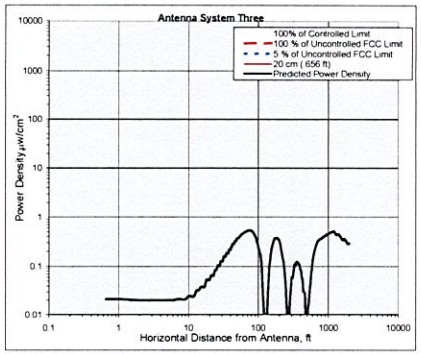
Performed By: Nader Soliman
Date: 4/30/02

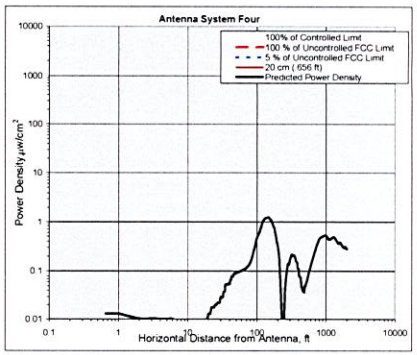
Antenna System One

	units	Value
Frequency	MHz	1945.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant	Watts	5.86
(Center of Radiator	feet	165.00
Calculation Point	feet	0.00
(above ground o		0.00
roof surface)		0.00
Antenna Model No		Allgon 7250.03
Max Ant Gain	dBd	16.30
Down tilt	degrees	0.00
Miscellaneous Att	dB	0.00
Height of aperture	feet	5.11
Ant HBW	degrees	65.00
Distance to Ant$_{bottom}$	feet	162.45
WOS?	Y/N?	n

Ant System ONE Owner: AT&T
Sector: 3
Azimuth: 0/120/240







Antenna System Two

	units	Value
Frequency	MHz	1865.20
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant	Watts	7.73
(Center of Radiator	feet	175.00
Calculation Poin	feet	0.00
(above ground o		0.00
roof surface)		0.00
Antenna Model No		DAPA59212
Max Ant Gain	dBd	15.10
Down tilt	degrees	0.00
Miscellaneous Att	dB	0.00
Height of aperture	feet	3.73
Ant HBW	degrees	83.00
Distance to Ant$_{bottom}$	feet	173.14
WOS?	Y/N?	n

Ant System TWO Owner: VoiceStream
Sector: 3
Azimuth 0/120/140

Antenna System Three

	units	Value
Frequency	MHz	880.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant	Watts	18.53
(Center of Radiator	feet	155.00
Calculation Poin	feet	0.00
(above ground o		0.00
roof surface)		0.00
Antenna Model No		ALP9212
Max Ant Gain	dBd	11.30
Down tilt	degrees	0.00
Miscellaneous Att	dB	0.00
Height of aperture	feet	4.00
Ant HBW	degrees	95.00
Distance to Ant$_{bottom}$	feet	153.00
WOS?	Y/N?	n

Ant System Three Owner: Verizon
Sector: 3
Azimuth 0/120/240

Antenna System Four

	units	Value
Frequency	MHz	851.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant	Watts	15.77
(Center of Radiator	feet	145.00
Calculation Poin	feet	0.00
(above ground o		0.00
roof surface)		0.00
Antenna Model No		DB844H90-XY
Max Ant Gain	dBd	12.00
Down tilt	degrees	0.00
Miscellaneous Att	dB	0.00
Height of aperture	feet	4.00
Ant HBW	degrees	90.00
Distance to Ant$_{bottom}$	feet	143.00
WOS?	Y/N?	n

Ant System Four Owner: Nextel
Sector: 3
Azimuth: 0/120/240

9. For Further Information

Additional information about the environmental impact of RF energy from personal wireless antenna facilities can be obtained from the Federal Communications Commission:

Dr. Robert Cleveland
Federal Communications Commission
Office of Engineering and Technology
Washington, DC 20554

RF Safety Program: 202-418-2464
Internet address: rfsafety@fcc.gov
RF Safety Web Site: www.fcc.gov/oet/rfsafety

10. References

[1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).

[2] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Rcd 2849 (1993).

[3] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).

[4] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Second Memorandum Opinion and Order, ET Docket 93-62, adopted August 25, 1997.

[5] *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*, OET Bulletin 65, August, 1997.