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 24, 2002

Christopher B. Fisher, Esq.
Cuddy & Feder & Worby LLP
90 Maple Avenue
White Plains, NY 10601-5196

RE: **EM-AT&T-028-020510** - AT&T Wireless notice of intent to modify an existing telecommunications facility located at 29 Mahoney Road, Colchester, Connecticut.

Dear Attorney Fisher:

At a public meeting held on May 21, 2002, 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 received May 10, 2002. 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,

Mortimer A. Gelston
Chairman

MAG/DM/laf

c: Honorable Jenny Contois, First Selectman, Town of Colchester
Liz Rasmussen, Zoning Enforcement Officer, Town of Colchester
Sheila R. Becker, SBA, Inc.
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene, and MacRae

NOTICE OF INTENT TO MODIFY AN EXISTING TELECOMMUNICATIONS FACILITY AT 29 MAHONEY ROAD, COLCHESTER, 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, by and through its agent AT&T Wireless PCS, Inc., ("AT&T Wireless") hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 29 Mahoney Road, Colchester, Connecticut (the "Mahoney Road Facility"), owned by SBA Towers Inc., ("SBA"). AT&T Wireless and SBA have agreed to share the use of the Mahoney Road Facility, as detailed below.

The Mahoney Road Facility

The Mahoney Road Facility consists of an approximately one hundred eighty (180) foot monopole (the "Tower") and associated equipment currently being used for wireless communications by VoiceStream. A chain link fence surrounds the Tower compound. The Tower is located at the Colchester Fish and Game Club.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by Natcomm, LLC, including a site plan and tower elevation of the Mahoney Road Facility, AT&T Wireless proposes shared use of the Facility by placing antennas on the Tower and equipment cabinets needed to provide personal communications services ("PCS") within the existing fenced compound. AT&T Wireless will install 6 panel antennas at approximately the 172 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 Natcomm, LLC, 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 Mahoney 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 Mark G. van der Hoek, 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.

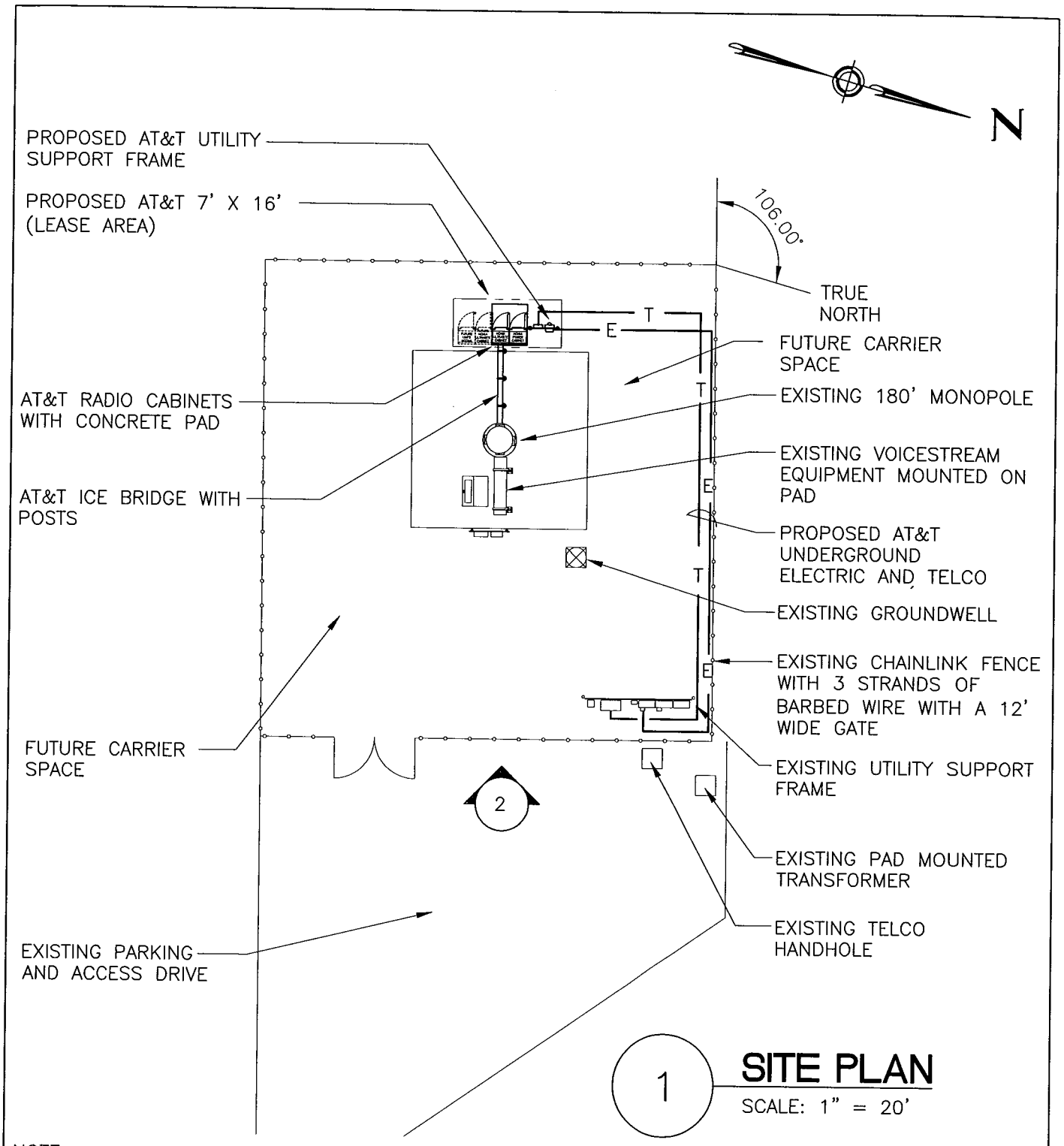
Conclusion

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

Respectfully Submitted,

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

cc: First Selectman, Town of Colchester
Harold Hewett, Bechtel
Mark Roberts, SBA



1 **SITE PLAN**

SCALE: 1" = 20'

NOTE:
LATITUDE: 41°-33'-52.5"
LONGITUDE: 72°-15'-5.2"

"ISSUED FOR SITING COUNCIL"

487ALE01.dwg 2-11-02 10:26:31 am EST

Natcomm, LLC
63-2 North Branford Road
Branford, Connecticut 06405
Tel. (203) 488-0580
Fax (203) 488-8587
Consulting Engineers · Project Management
Civil · Structural · Mechanical · Electrical

AT&T
AT&T WIRELESS PCS LLC
12 OMEGA DRIVE
STAMFORD, CONNECTICUT 06907

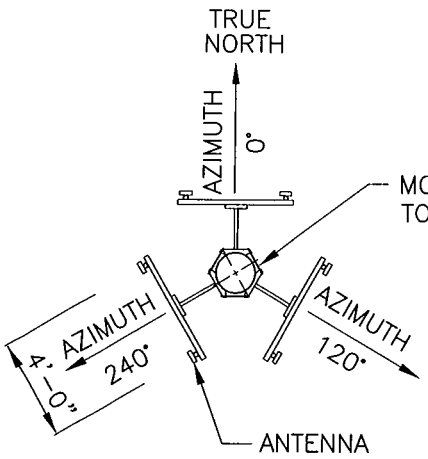
DRAWING TITLE:
SITING COUNCIL

PROJECT INFORMATION:
COLCHESTER SE
CT-348.1
29 MAHONEY ROAD
COLCHESTER, CT 06415

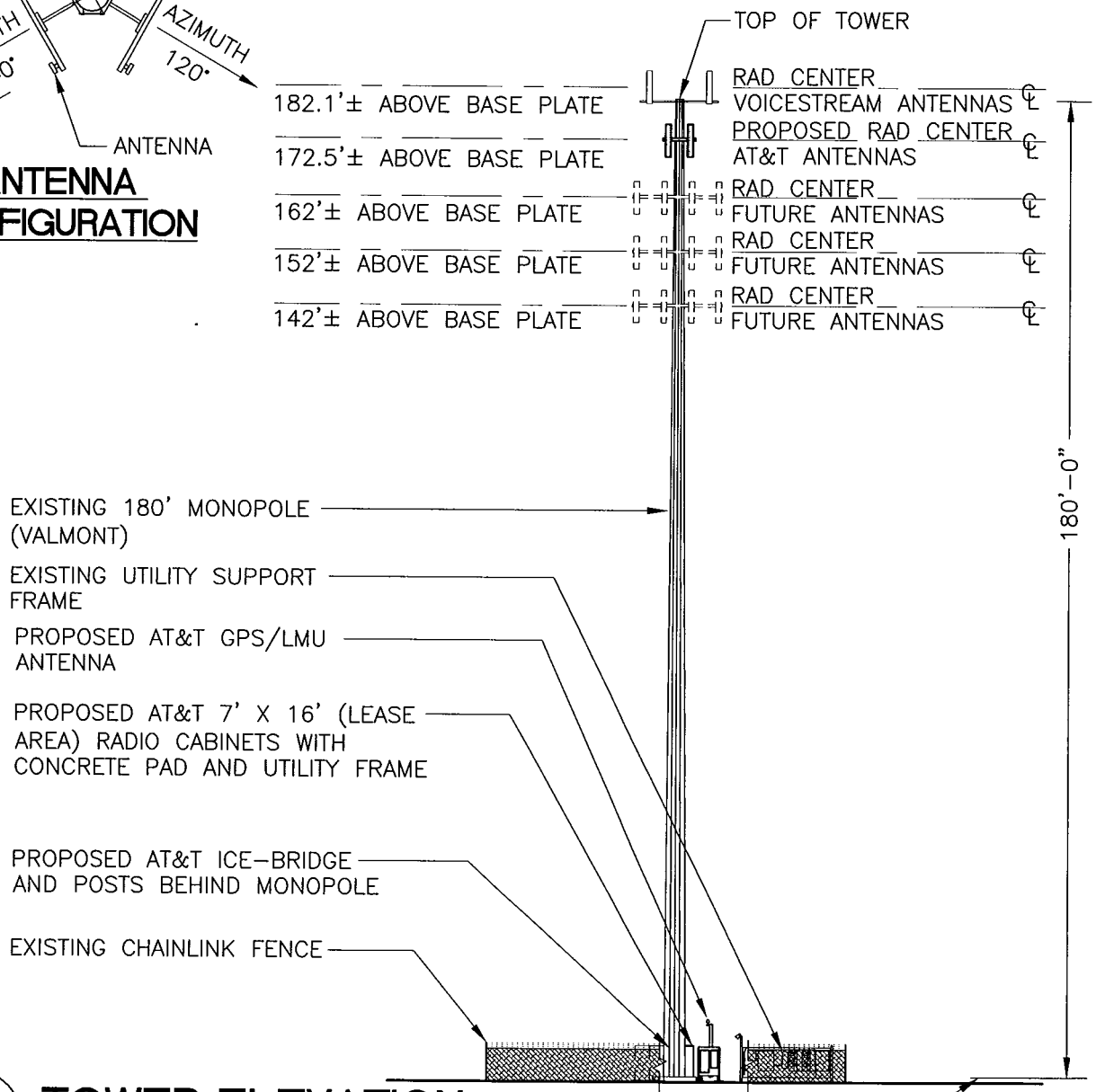
LESSOR:
COLCHESTER FISH & GAME CLUB, INC
29 MAHONEY ROAD
COLCHESTER, CT 06415

DRAWING NO.
3CO-CT348.1-SC01-1

REVISION NO. 1	DRAWN BY: P.A.M.
DATE ISSUED: 02/11/02	CHECKED BY: JJP
SCALE: AS NOTED	APPROVED BY: CFC
	SHEET NO. 1 OF 2
A/E PROJECT NO: 487A	



ANTENNA CONFIGURATION



2 **TOWER ELEVATION**

SCALE: 1"=30'

"ISSUED FOR SITING COUNCIL"

Natcomm, LLC
63-2 North Branford Road
Branford, Connecticut 06405
Tel. (203) 488-0580
Fax (203) 488-8587
Consulting Engineers · Project Management
Civil · Structural · Mechanical · Electrical

AT&T
AT&T WIRELESS PCS LLC
12 OMEGA DRIVE
STAMFORD, CONNECTICUT 06907

DRAWING TITLE: SITING COUNCIL

PROJECT INFORMATION:
COLCHESTER SE
CT-348.1
29 MAHONEY ROAD
COLCHESTER, CT 06415

LESSOR:
COLCHESTER FISH & GAME CLUB, INC
29 MAHONEY ROAD
COLCHESTER, CT 06415

DRAWING NO.
3CO-CT348.1-SC02-1

REVISION NO. 1	DRAWN BY: P.A.M.
DATE ISSUED: 02/11/02	CHECKED BY: JJP
SCALE: AS NOTED	APPROVED BY: CFC
	SHEET NO. 2 OF 2
A/E PROJECT NO: 487A	

487ASC02.dwg 2-11-02 11:48:50 am EST

NATCOMM, LLC

Consulting Engineers

February 11, 2002

Mr. Don Huntley
Bechtel Telecommunications
210 Pomeroy Avenue, Suite 201
Meriden, CT 06450

Re: *AT&T CT-348 (Colchester South East)*
29 Mahoney Road
Colchester, CT 06415

Natcomm Project No. 487C

We have reviewed the proposed AT&T antenna installation at the above referenced site. The purpose of the review is to determine the adequacy of an existing 180 ft. monopole to support the proposed antennas. The review considered the effects of wind load, dead load, ice load and seismic forces in accordance with TIA/EIA-222-F and Connecticut State Building Code. Structural design documents prepared by Valmont Microflect job/quote #11277-00 dated March 22, 2000, tower inspection report SBA (Site ID # CT02652-S) prepared by Spectrum Management, LLC and dated 7/13/01, and antenna height verification provided by SBA at the design visit of 11/15/01 were used as reference material along with tower loading information furnished by SBA.

The existing antenna configuration is as follows:

- Voicestream: Three (3) RR901702DP (EMS) mounted on a 12'-6" platform with handrails at an elevation of 182.1 ft.

(For the purpose of this report we are considering Twelve (12) DB896 (Decibel) mounted on a 14 ft. low profile platform at each of the above levels per the Valmont design.)

The proposed additional antenna loading is as follows:

- AT&T: Six (6) 7250.03 (Allgon) mounted on universal T-ARM mounts at an elevation of 172.5 ft.

The future antenna loading is as follows:

- Future carrier: Twelve (12) DB896 (Decibel) mounted on a 14 ft. low profile platform at an elevation of 162 ft.
- Future carrier: Twelve (12) DB896 (Decibel) mounted on a 14 ft. low profile platform at an elevation of 152 ft
- Future carrier: Twelve (12) DB896 (Decibel) mounted on a 14 ft. low profile platform at an elevation of 142 ft

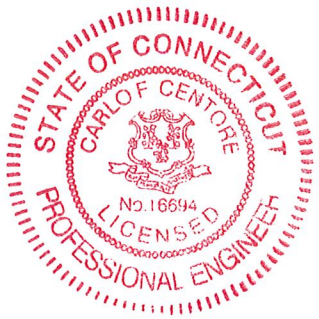
Based on the information provided, the existing structure meets all the requirements of the TIA/EIA-222-F standards for a basic wind speed of 85mph with ½ inch radial ice.

In conclusion, the existing 180 ft. monopole is adequate to support the proposed AT&T antennas.

If there are any questions regarding this matter, please feel free to call.

Regards,

Carlo F. Centore, P.E.
Senior Project Manger



(203) 488-0580 • Fax (203) 488-8587 • www.natcommllc.com 63-2 North Branford Rd. Branford, CT 06405

RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

907-009-348

DATE

Prepared by AT&T Wireless Services, Inc.
Mark G. van der Hoek **RF Engineer**

Table of Contents

1. INTRODUCTION 3
2. SITE DATA 3
3. RF EXPOSURE PREDICTION 3
4. FCC GUIDELINES FOR EVALUATING THE ENVIRONMENTAL EFFECTS OF RF RADIATION 4
5. COMPARISON WITH STANDARDS 4
6. CONCLUSION 4
7. FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE 5
8. EXHIBIT A 6
9. FOR FURTHER INFORMATION 7
10. REFERENCES 7

Cellular Division
RF Engineering Department

Bechtel Telecommunications
Address: 210 Pomeroy Ave
Suite 201, Meriden, CT 06450
TEL: 203-639-0640
FAX: 203-238-2068

May 1, 2002

Re: CT-348
29 Mahoney Road, Colchester, CT 06415

As per your request, attached is the RF Exposure Analysis for the proposed AT&T Wireless antenna facility located at Weston Town Hall.

Thank you for giving me an opportunity to respond to your inquiry about the safety of this wireless antenna facility. **The maximum level of RF energy associated with simultaneous and continuous operations of all transmitters at this facility will be less than safety criteria adopted by the Federal Communications Commission as mandated by the Telecommunications Act of 1996. Therefore, this wireless antenna facility fully complies with FCC.**

This antenna facility is an integral part of the wireless infrastructure that provides mobile communication services to individuals, businesses, and safety agencies throughout our community and the nation. People rely on wireless phones for personal safety and security. At the same time, many public service agencies depend on wireless technology to provide disaster relief and emergency services. AT&T Wireless Services is committed to providing safe and efficient wireless communication services to everyone who depends on wireless phones for personal safety, convenience and emergency communications.

Cellular systems use low power radio signals that operate in the same frequency band as UHF television and PCS frequencies have been used by utilities and public safety agencies throughout our communities for years. Wireless antenna facilities transmit low power radio signals to carry telephone conversations. These personal wireless base station antennas typically operate at one hundred watts or less per channel and are placed in inaccessible locations on towers and rooftops. The power density decreases rapidly as one moves away from the antenna, creating very low-level signals at ground level and points of public access. In addition, wireless phones operate at the lowest power needed to maintain contact with the base station – between 0.1-0.6 watts. Therefore, when new antenna sites are added in a system, the operating power of both the antenna facilities and the phones decreases as the distance between the antenna sites and the phones is reduced.

Wireless antenna facilities comply with FCC rules governing the safety of radio emissions. Under the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over the safety of RF emissions from personal wireless antenna facilities. Public Law 104-104, Section 704(a)(7)(B)(iv). The FCC rules constitute a national RF exposure standard that reflects the consensus of the federal agencies charged with protecting public health and the environment, including the FDA, EPA, NIOSH, and OSHA. AT&T Wireless Service antenna sites comply with all FCC rules regulating RF emissions and safety.

The Telecommunications Act of 1996 recognizes the importance of ensuring the integrity of wireless communication networks that provide nationwide communication services. Nevertheless, we understand people's concerns about health and safety and we recognize our responsibility to address those concerns. Consequently, I have prepared the attached power density report to demonstrate that the Weston antenna facility site will comply with FCC regulations governing the safety of RF emissions. The report indicates that under maximum operating conditions, the highest power density in a publicly accessible area from our facility is 0.000502 milliwatts per square centimeter; 1991 times lower than the maximum permissible limit allowed for the public at our operating frequency. As other transmitters are also located at this site, I have calculated the combined exposures for all transmitters at this site. I find that the combined exposures are .05 % of the Maximum Permissible Exposure for the public.

Wireless communication services make people and communities safer by providing mobile communications support for law enforcement, disaster relief, and personal emergencies. Wireless antenna facilities carry the calls that support the needs of our customers and communities. I hope that the enclosed report answers your questions regarding the safety of this site. If you have any additional questions about this site, I may be reached at 801-718-5065.

Very truly yours,

Mark van der Hoek
Sr. RF Engineer
Bechtel Telecommunications.
AT&T Wireless Services, Inc.

1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at *29 Mahoney Road, Colchester*. 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: ***Colchester South East***	
Number of simultaneously operating channels	16
Type of antenna	Allgon 7250.02
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	5 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 .000520 mW/cm^2 which occurs at 500 feet from the antenna facility. The chart in exhibit A also shows that the power density is only .00002 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	.000520 mW/cm^2
PCS	1 mW/cm^2	5 mW/cm^2	

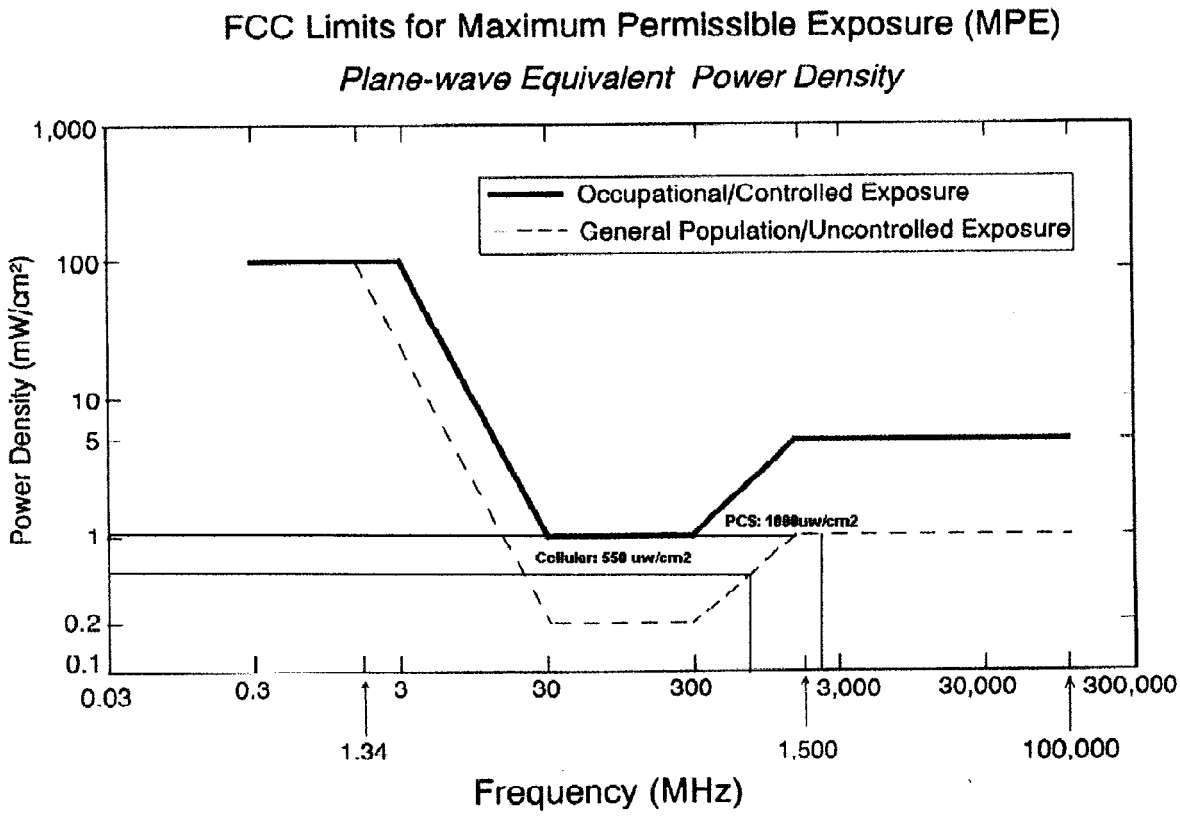
The maximum power density at the proposed facility represents only .05% of the public MPE limit for PCS frequencies.

6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is .000520 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

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

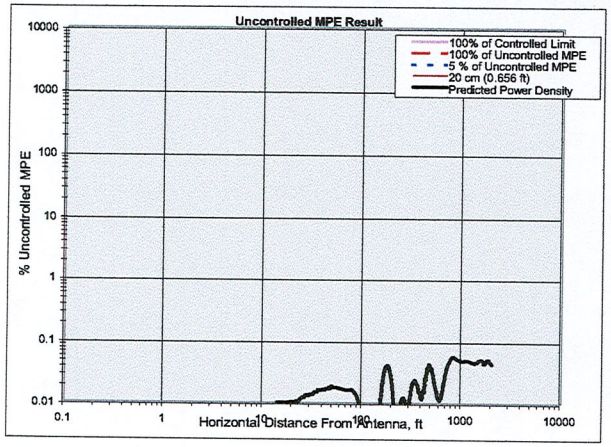
[1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).

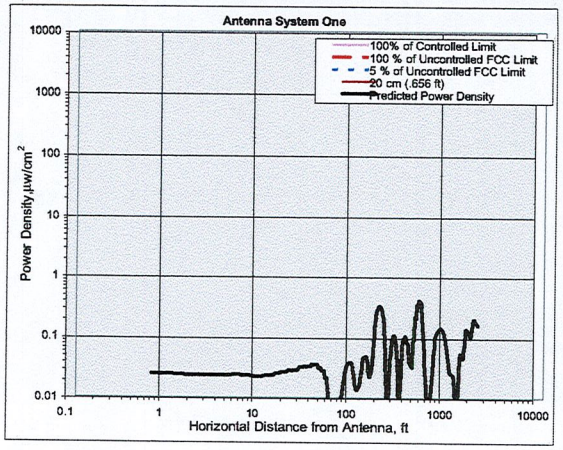
[2] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Rcd 2849 (1993).

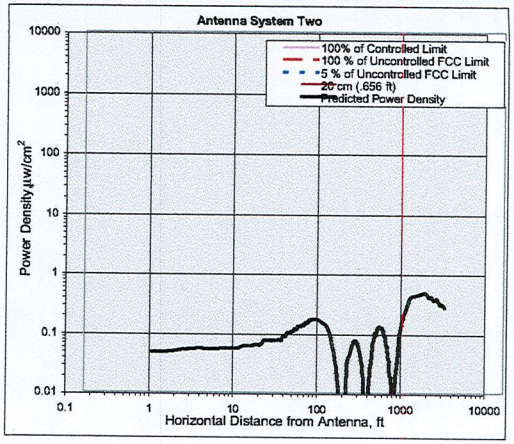
[3] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).

[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.







Number of Antenna Systems: 2

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/cm^2	% of limit	feet
Maximum Power Density =	0.000551	0.06	800.00
1,815.30 times lower than the MPE limit for uncontrolled environment			
Composite Power (ERP) =	12,000.00 Watts		

Site ID: 907-009-348
Site Name: Colchester South East
Site Location: 29 Mahoney Road
Colchester, CT, 06415

Performed By: Mark G. van der Hoek

Date: 5/1/02

Antenna System One

	units	Value
Frequency	MHz	1945.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	5.80
(Center of Radiator)	feet	172.00
Calculation Point (above ground or roof surface)	feet	6.00
		0.00
		0.00
Antenna Model No.		Allgon 7250.02
Max Ant Gain	dBd	16.50
Down tilt	degrees	2.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.11
Ant HBW	degrees	65.00
Distance to Ant_{bottom}	feet	163.45
WOS?	Y/N?	n

Ant System ONE Owner: AT&T
Sector: 1,2,3
Azimuth: 0/120/240

Antenna System Two

	units	Value
Frequency	MHz	1960.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	18.11
(Center of Radiator)	feet	182.00
Calculation Point (above ground or roof surface)	feet	6.00
		0.00
		0.00
Antenna Model No.		Allgon 7120.16.33
Max Ant Gain	dBd	11.40
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	4.00
Ant HBW	degrees	110.00
Distance to Ant_{bottom}	feet	174.00
WOS?	Y/N?	n

Ant System TWO Owner: VoiceStream
Sector: 1,2,3
Azimuth 0,120,240