# NOTICE OF INTENT TO MODIFY AN SECTION - 3 2002 EXISTING TELECOMMUNICATIONS FACILITY AT 206 EVERETT ROAD, EASTON, CONNECTICUT STING COUNCIL

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 206 Everett Road, Easton, Connecticut (the "Everett Road Facility"), owned by Nextel Communications ("Nextel"). AT&T Wireless and Nextel have agreed to share the use of the Everett Road Facility, as detailed below.

#### The Everett Road Facility

The Everett Road Facility consists of an approximately one hundred twenty-three (123) foot monopole (the "Tower") and associated equipment currently being used for wireless communications by Nextel.

#### **AT&T Wireless' Facility**

As shown on the enclosed plans prepared by Natcomm, LLC, including a site plan and tower elevation of the Everett Road Facility, AT&T Wireless proposes shared use of the Facility by placing antennas on the Tower and equipment cabinets at grade needed to provide personal communications services ("PCS"). AT&T Wireless will install 6 panel antennas at approximately the 100 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 within the existing fenced compound. 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 Everett 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 Vishal Kataria, RF 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.

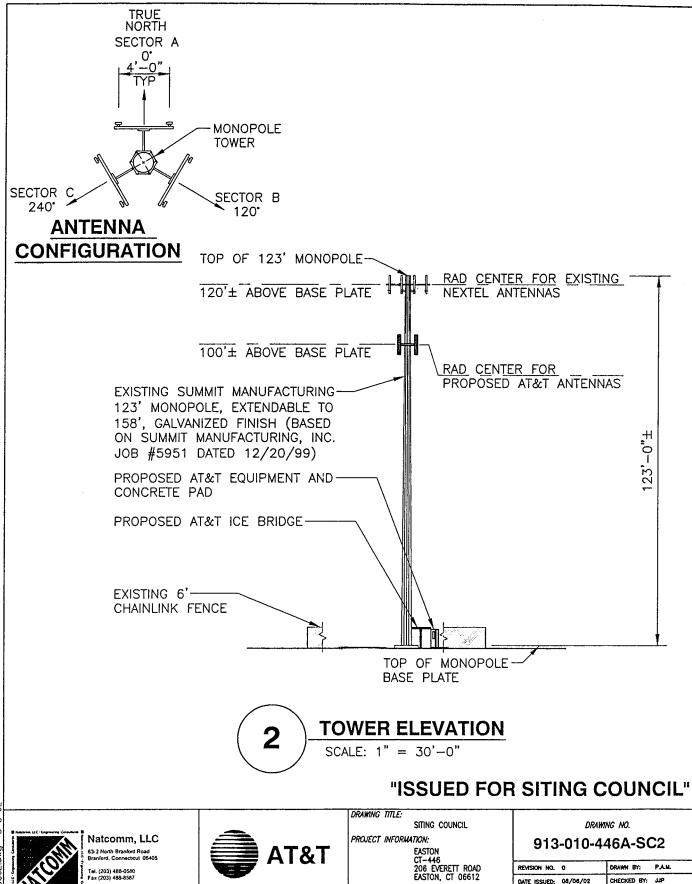
#### **Conclusion**

Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Everett 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 Easton RJ Wetzel, Bechtel



AT&T WIRELESS PCS LLC

12 OMEGA DRIVE STAMFORD, CONNECTICUT 06907

LESSOR:

BARNEY FAMILY TRUST 206 EVERETT ROAD EASTON, CT 06612

REVISION NO. 0

A/E PROJECT NO:

DATE ISSUED: 08/06/02

AS NOTED

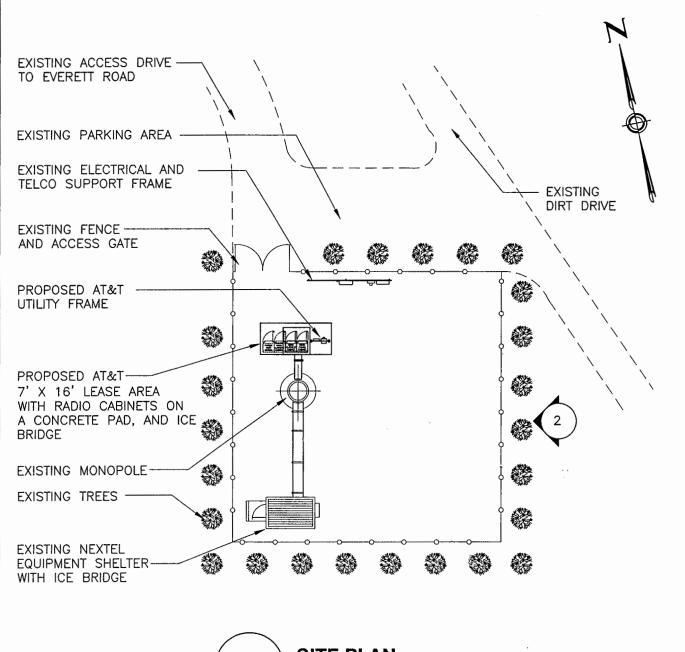
504A

DRAWN BY:

CHECKED BY: JJP

APPROVED BY: CFC

SHEET NO. 2 OF 2





NOTE: 41'-17'-25.22" 73'-16'-57.63" COORDINATES WHERE TAKEN WITH A HAND HELD GPS

#### "ISSUED FOR SITING COUNCIL"



Natcomm, LLC 63-2 North Branford Road Branford, Connecticut 0640

Consulting Engineers · Project Mar Civil · Structural · Mechanical · Elect



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

DRAWING TITLE: SITING COUNCIL PROJECT INFORMATION:

EASTON CT-446 206 EVERETT ROAD EASTON, CT 06612

LESSOR:

BARNEY FAMILY TRUST 206 EVERETT ROAD EASTON, CT 06612

#### DRAWING NO. 913-010-446A-SC1

REVISION NO.	0	DRAWN BY:	P.A.W.
DATE ISSUED:	08/08/02	CHECKED BY:	Th.
SCALE:	AS NOTED	APPROVED BY:	CFC
		SHEET NO. 1	OF 2
A/E PROJECT	NO: 50	44	

**Consulting Engineers** 

August 29, 2002

Mr. Ray Wetzel

Bechtel Telecommunications
210 Pomeroy Avenue, Suite 201

Meriden, CT 06450

Re: AT&T CT-446 206 Everett Road Easton, CT 06612

Natcomm Project No. 504C

Dear Ray,

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 120ft 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 Paul J. Ford and Company job #29299-938 dated December 20, 1999 were used as reference material.

The existing antenna configuration is as follows:

• Nextel: Twelve (12) Allgon 7143.26 mounted on 14ft. low profile platform at an elevation of 120ft.

The proposed additional antenna loading is as follows:

• AT&T: Six (6) Allgon 7250.03 mounted on "EEI" universal T-arm at an elevation of 100ft.

The future antenna loading is as follows:

None.

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.

In conclusion, the existing 120ft is adequate to support the proposed AT&T antennas.

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

Submitted by:

Emad Mourad Structural Engineer





## RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

SITE ID: 913-010-446

Aug 29, 2002

Prepared by AT&T Wireless Services, Inc. Vishal Kataria RF Engineer

#### **Table of Contents**

1.	INTRODUCTION	3
	SITE DATA	
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

#### 1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at 206 Everett Road, Easton, CT-06612. 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: Easton Central	
Number of simultaneously operating channels	12
Type of antenna	Allgon7250
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	100,00 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<sup>1</sup>:

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

Where, N= Number of channels, R= distance in cm from the RC (Radiation Center) of antenna, and  $EIRP(\theta)=$  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.

$$PowerDensity = \frac{P_{in} / ch * N * 10^3}{2 * \pi * R * h * \alpha / 360} (mW/cm^2)$$
 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,  $\alpha$  = 3 dB beam-width of horizontal pattern.

<sup>1</sup> 

 $<sup>^{1}</sup>$  RF exposure is measured and predicted in terms of power density in units of milliwatts (mW), a thousandth of a watt, or microwatts ( $\mu$ 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. 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  $0.001176 \, \text{mW/cm}^2$  which occurs at  $900 \, \text{feet}$  from the antenna facility. The chart in exhibit A also shows that the power density is only  $0.000586 \, \text{mW/cm}^2$  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 <sup>2</sup>	2.9 mW/cm <sup>2</sup>	0.001176 mW/cm <sup>2</sup>
PCS	1 mW/cm <sup>2</sup>	5 mW/cm <sup>2</sup>	

The maximum power density at the proposed facility represents only 0.15% of the public MPE limit for PCS frequencies.

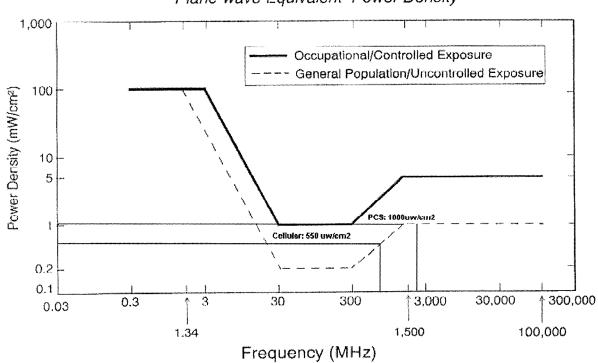
#### 6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.001176 mW/cm<sup>2</sup>, a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

<sup>&</sup>lt;sup>2</sup> 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."

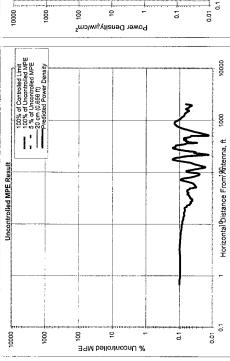
#### 7. FCC Limits for Maximum Permissible Exposure

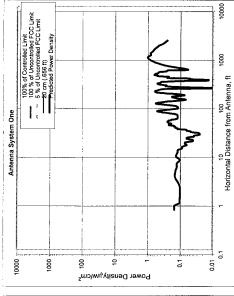
## FCC Limits for Maximum Permissible Exposure (MPE) Plane-wave Equivalent Power Density



#### 8. Exhibit A







100% of Controlled Limit

100% of Uncontrolled FCC Limit

50 % of Uncontrolled FCC Limit

25 on (656 ft)

Antenna System Two

10000

1000

100

0

Power Density µw/cm²

# Antenna System One

	units	Value
Frequency	MHz	1965.00
# of Channels	#	12
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	5.85
(Center of Radiator)	feet	100.00
Calculation Point	feet	00'0
(above ground or		00'0
roof surface)		00'0
Antenna Model No.		Allgon 7250.03
Max Ant Gain	dBd	16.30
Down tilt	degrees	2.00
Miscellaneous Att.	ВB	00.0
Height of aperture	feet	5.11
Ant HBW	degrees	65.00
Distance to Ant <sub>bottom</sub>	feet	97.45
SOM	YNY	c

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

# Antenna System Two

10000

10 100 Horizontal Distance from Antenna, ft

.

0.01

5.

## Frequency MHz 851.00 ## of Chainnels ## 16 Max ERP/Ch Watts 5.00.00 Max Pawr(Ch Into Ant. Watts 15.45 (Center of Rediator) feet 120.00 Calculation Point feet 0.50 (above ground or of surface) Antenna Model No. Down tift degrees 0.30 Miscellaneous Att. dala 0.30 Miscellaneous Att. dala 0.30 Height of aperture feet 5.30 Height of Antewn feet 117.50 NOS? YNR? n		units	Value
## Watts Watts Watts Watts Feet Feet Get ded degrees dB feet feet ANY	Frequency	MHz	851.00
Watts Watts Feet feet feet ded degrees degrees feet feet	# of Channels	#	16
Watts feet feet ded degrees dB feet degrees AB YNV?	Max ERP/Ch	Watts	900:00
feet feet dBd degrees dB feet feet VNN?	Max Pwr/Ch Into Ant.	Watts	15.45
dBd degrees dB defreet feet YNN?	(Center of Radiator)	feet	120.00
dBd degrees dB feet degrees feet VNV?	Calculation Point	feet	0.00
dBd degrees dB feet degrees feet V/N?	(above ground or		0.00
dBd degrees dB feet degrees feet YNN?	roof surface)		000
dBd degrees dB feet degrees feet Y/N/7	Antenna Model No.		0898680
degrees dB feet degrees feet Y/N?	Max Ant Gain	dBd	15.10
dB feet degrees feet Y/N?	Down tilt	degrees	0.00
feet degrees feet Y/N?	Miscellaneous Att.	ďВ	0.00
degrees feet Y/N?	Height of aperture	feet	5.00
feet Y/N?	Ant HBW	degrees	90.00
¿N/A	Distance to Antbottom	feet	117.50
	WOS	Y/N?	c

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

# Number of Antenna Systems: 2 Meets FCC Controlled Limits for The Antennas Systems.

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

No Further Maximum Permissible Exposure (MPE) Analysis Required.

	Power Density	nsity	@Horiz. Dist.
νm	mW/cm²	% of limit	feet
Maximum Power Density = 0.001176	01176	0.15	900.00
655.62 times lower than the MPE limit for uncontrolled environment	ontrolled envi	ronment	
Composite Power (ERP) = 11,000.00 Watts	00.00 wat	ts	

			2
Site ID: 907-010-446	Easton Central	206 Everett Road	Easton , CT-06612
Site ID:	Site Name:	Site Location:	

8/28/02
Date:

Performed By: Vishal Kataria

Bechtel Confidential

#### 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.



# Town of Kaston

TOWN HALL - 225 CENTER ROAD, P.O. BOX 61 EASTON, CONNECTICUT 06612

TELEPHONE (203) 268-6291 FAX (203) 268-4928

September 12, 2002

State of Connecticut Connecticut Siting Council Ten Franklin Square New Britain, Connecticut 06051 SEP 16 2002

CONNECTICUT
SITING COUNCIL

Attention: S. Derek Phelps
Executive Director

Dear Mr. Phelps:

We have received your letter of September 5, 2002 pertaining to the Notice of Intent to Modify an Existing Telecommunications Facility at 206 Everett Road, Easton, Connecticut filed on behalf of AT&T Wireless.

The Town of Easton takes no position on the proposed modification. By taking no position, the Town of Easton does not agree that the Town does not have jurisdiction over the modification, or that it comes within the Siting Council's jurisdiction, or exemption criteria.

In taking its position, the Town assumes that the applicant will apply for building permits as required by construction at the site.

Sincerely yours,

William J. Kupinse, Jr.

First Selectman

WJK/ajf

Cc: Christopher B. Fisher, Esq. – AT&T Wireless

Planning and Zoning Building Department



#### 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

September 26, 2002

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

RE: EM-AT&T-046-020903 - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 206 Everett Road, Easton, Connecticut.

Dear Attorney Fisher:

At a public meeting held on September 25, 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 in our office on September 3, 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,

MAG-/RKE Mortimer A. Gelston

Chairman

MAG/DM/laf

c: Honorable William J. Kupinse, First Selectman, Town of Easton Planning and Zoning Official, Town of Easton Thomas F. Flynn III, Nextel Communications, Inc.