

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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E-Mail: siting.council@po.state.ct.us

Web Site: www.state.ct.us/csc/index.htm

August 16, 2002

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

RE: **EM-AT&T-115-020724** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 15 Kluge Road, Prospect, Connecticut.

Dear Attorney Fisher:

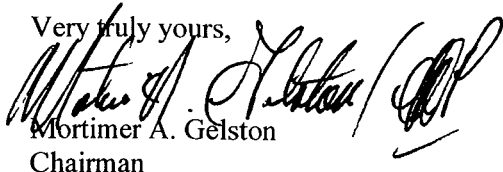
At a public meeting held on August 15, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice received in our office on July 24, 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/laf

c: Honorable Robert J. Chatfield, Mayor, Town of Prospect
William J. Donovan, Zoning Enforcement Officer, Town of Prospect
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene & MacRae



EM-AT&T-115-020724
15 Kluge Road
Prospect 8/13/02

**NOTICE OF INTENT TO MODIFY AN
EXISTING TELECOMMUNICATIONS FACILITY AT
15 KLUGE ROAD, PROSPECT, 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 15 Kluge Road, Prospect, Connecticut (the "Kluge Road Facility"), owned by Sprint Sites USA ("Sprint"). AT&T Wireless and Sprint have agreed to share the use of the Kluge Road Facility, as detailed below.

The Kluge Road Facility

The Kluge Road Facility consists of an approximately one hundred ninety (190) foot monopole (the "Tower") and associated equipment currently being used for wireless communications by Sprint and Voicestream. A chain link fence surrounds the tower compound.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by SEA Consultants, including a site plan and tower elevation of the Kluge 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 170 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.¹ As evidenced in the structural analysis prepared by Semaan Engineering Solutions, 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 Kluge 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 Prabhakar Kumar Rughoobur, RF Engineer, annexed hereto as Exhibit B, the total radio

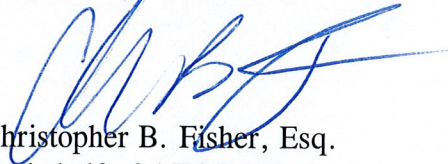
¹ Given relative mounting height, AT&T has proposed shared use of this facility in lieu of the SBA tower on New Haven Road. (See EM-SBA-115-020502).

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

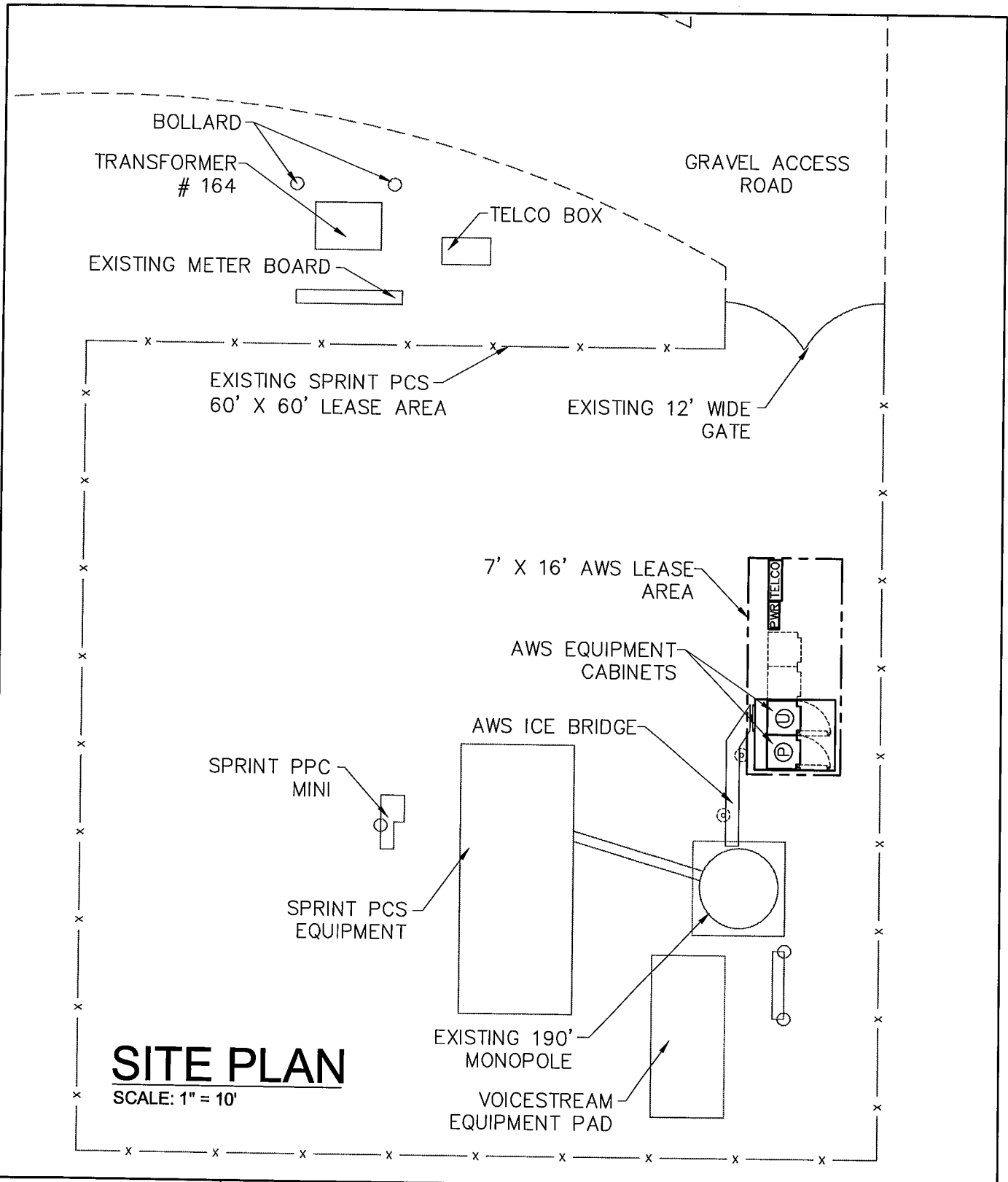
Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Kluge Road Facility meets the Council's exemption criteria.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'C. Fisher', is written over the typed name.

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

cc: Robert J. Chatfield, Mayor, Town of Prospect
Harold Hewitt, Bechtel



SITE PLAN

SCALE: 1" = 10'



SEA 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:

SITE PLAN

PROJECT INFORMATION:

PROSPECT
 CT-629
 15 KLUGE ROAD
 PROSPECT, CT 06172

PROPERTY OWNER:

SPRINT SITES USA
 535 EAST CRESCENT AVENUE
 RAMSEY, NJ 07446

DRAWING NO.

907-007-629A-SC1

REVISION NO. 0	DRAWN BY: KBL
DATE ISSUED: 5/28/02	CHECKED BY: SMB
SCALE: AS NOTED	APPROVED BY: SMB
	SHEET NO. 1 OF 1
SEA PROJECT NO: 2002325.01-A	

SPRINT PCS ANTENNAS
RAD. CENTER 190'

VOICESTREAM ANTENNAS
RAD. CENTER 180'

AWS ANTENNAS
RAD. CENTER 170'

EXISTING 190' MONOPOLE

AWS ICE BRIDGE
AWS EQUIPMENT CABINET

TOWER BASE ELEVATION 791'

NOTE: OTHER CARRIER EQUIPMENT
NOT SHOWN FOR CLARITY

TOWER ELEVATION

SCALE: 1"=25'



SEA 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:

PROSPECT
CT 629
15 KLUGE ROAD
PROSPECT, CT 06172

PROPERTY OWNER:

SPRINT SITES USA
535 EAST CRESCENT AVENUE
RAMSEY, NJ 07446

DRAWING NO.

907-007-629A-SC2

REVISION NO.	0	DRAWN BY:	KBL
DATE ISSUED:	5/29/02	CHECKED BY:	SMB
SCALE:	AS NOTED	APPROVED BY:	SMB
		SHEET NO.	1 OF 1
SEA PROJECT NO:	2002325.01-A		

CT. 62A

1047 N. 204th Avenue
Elkhorn, NE 68022
Ph: 402-289-1888
Fax: 402-289-1861

SEMAAN ENGINEERING SOLUTIONS

**190 ft EEI Monopole
Structural Analysis**

OK
R/O
7/1/02

**Prepared for:
Sprint Sites USA
535 East Crescent Ave
Ramsey, NJ 07446**

**Site: CT33XC514
AT&T
Prospect, CT**

June 26, 2002

Bechtel ID# 913-008-629
AWS ID# N4N4CT2607

SCANNED

Mr. Russ Van Oudenaren
Sprint Sites USA
535 East Crescent Ave
Ramsey, NJ 07446

Re: Site Number CT33XC514 – Prospect, CT.

Dear Mr. Van Oudenaren:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the EIA/TIA-222-F standard and local building codes for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 190 ft EEI Monopole.

Refer to EEI job #5266 dated July 9, 1999 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. It also treats guys as exact cable elements and therefore is ideal for guyed towers. The analysis was performed in conformance with **EIA/TIA-222-F and local building codes for 85 mph with 1/2" radial ice**. Wind is applied to the structure, accessories and antennas.

Structure loading:

Per the loading sheet supplied, the analysis was performed using the following loading: (Proposed loading in bold)

Elev. (ft)	Qty.	Antennas and Mounts	Coax	Owner
190.0	9	DB980H90 Mounted On a EEI Low Profile platform	(9) 1-5/8	Sprint
180.0	6	RR90-17 Mounted On a Low Profile Platform	(6) 1-5/8	VoiceStream
170.0	6	Allgon 7250 Mounted On a Low Profile Platform	(12) 1-5/8	AT&T

All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

All transmission lines are assumed running inside of pole shaft.

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas.

The maximum structure usage is: 97.2%.

Foundation:

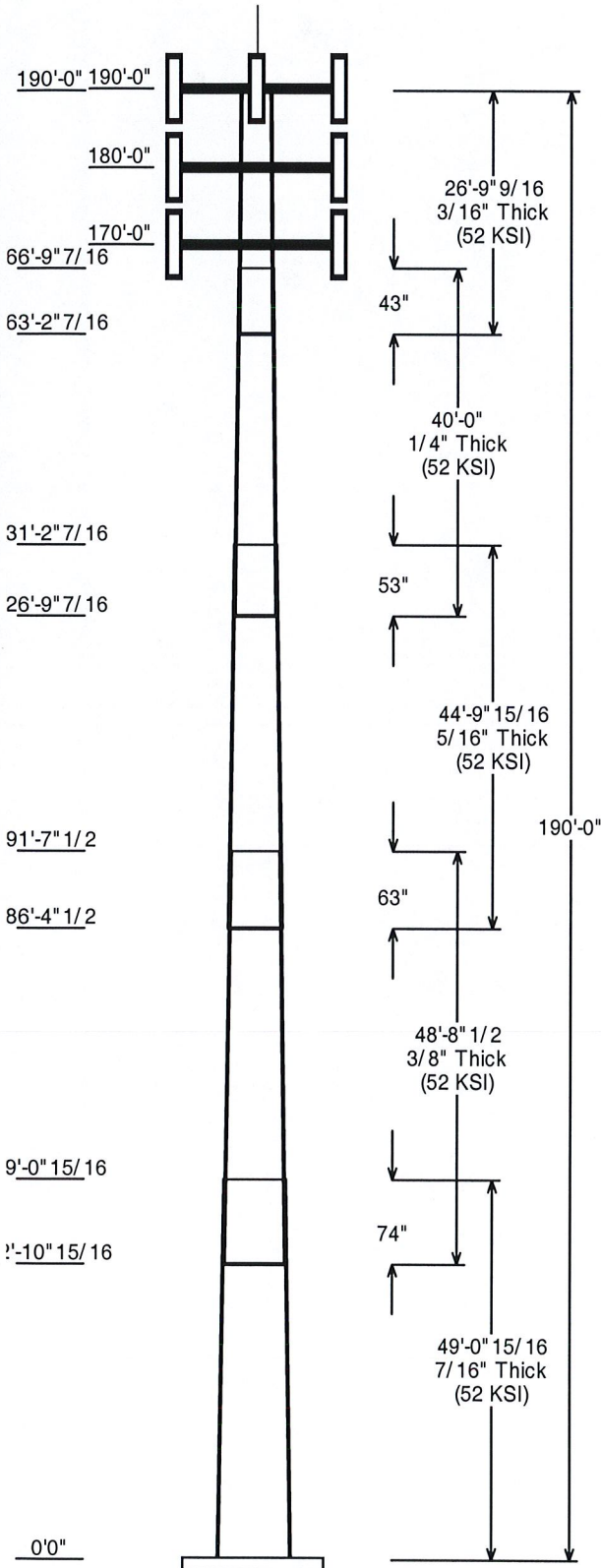
Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	3,283.90	2,840.04	86.5
Shear (kips)	24.98	22.37	89.6

The structure base reactions resulting from this analysis do not exceed the ones shown on the original structure drawings.

Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the EIA/TIA-222-F standards for a basic wind speed of 85 mph with 1/2" radial ice.

Job Information	
Pole :	CT33XC514
Description :	
Client :	Sprint Sites USA - NJ
Location :	Prospect, CT
Type :	18 Sides Slip Joints
Height :(ft)	190.000 Taper: 0.1829 (in/ft)



Sections Properties						
Shaft Section	Section Length (ft)	Diameter (in)		Joint Type	Overlap Length (in)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom			
1	49.080	43.02	52.00	0.438	0.000	52
2	48.710	35.99	44.90	0.375	Slip Joint	52
3	44.830	29.37	37.57	0.313	Slip Joint	52
4	40.000	23.37	30.68	0.250	Slip Joint	52
5	26.797	19.50	24.40	0.188	Slip Joint	52

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Type	Qty	Description
190.000	190.000	Panel	9	DB980H90
190.000	190.000	Platform	1	EEI Low Profile platform
190.000	194.000	Lightning	1	8 ft lightning rod
180.000	180.000	Platform	1	Low Profile Platform
180.000	180.000	Panel	6	RR90-17
170.000	170.000	Platform	1	Low Profile Platform
170.000	170.000	Panel	6	Alligon 7250

Load Cases / Deflections			
Load Case	Attach Elev (ft)	Translation (in)	Rotation (deg)
No Ice	No Ice Wind Speed = 85.00 mph w/ No Ice		
	190.000	150.31	-7.309
	180.000	135.08	-7.251
Ice	Ice Wind Speed = 73.61 mph w/ Ice 0.50 in Thick		
	170.000	120.11	-7.050
	190.000	128.06	-6.296
	180.000	114.94	-6.240
	170.000	102.05	-6.057

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	2,840.043	22.371	-32.264
Ice	2,360.223	17.910	-39.267



6-28-02



RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

SITE ID: 913-008-629

June 26, 2002

**Prepared by AT&T Wireless Services, Inc.
Prabhakar K Rughoobur 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

1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at 15 Kludge Rd, Prospect CT 06172. 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: Prospect South	
Number of simultaneously operating channels	12
Type of antenna	Allgon 7250.03
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	170.00 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 facility¹:

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

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.

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

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 0.000451 mW/cm² which occurs at 130 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000175 mW/cm² 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

<i>Frequency</i>	<i>Public/Uncontrolled</i>	<i>Occupational/controlled</i>	<i>Maximum power density at Accessible location</i>
Cellular	.580 mW/cm ²	2.9 mW/cm ²	0.000451 mW/cm ²
PCS	1 mW/cm ²	5 mW/cm ²	

The maximum power density at the proposed facility represents only 0.05% of the public MPE limit for PCS frequencies.

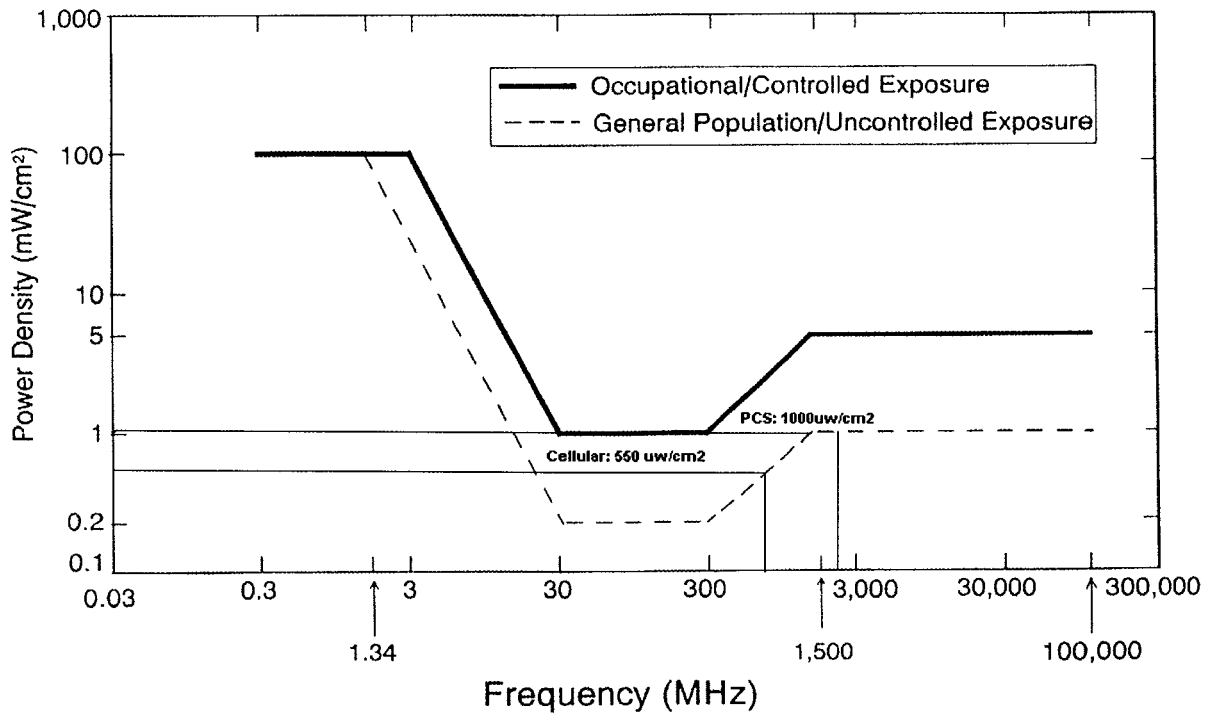
6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.000451 mW/cm², 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.”

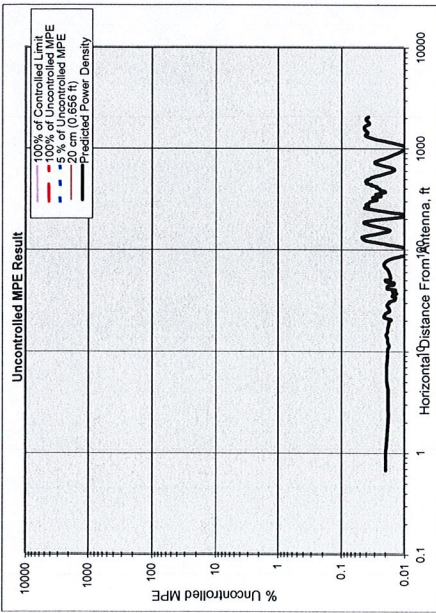
7. FCC Limits for Maximum Permissible Exposure

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



8. Exhibit A

Heading



Number of Antenna Systems: 3
Meets FCC Controlled Limits for The Antennas Systems.

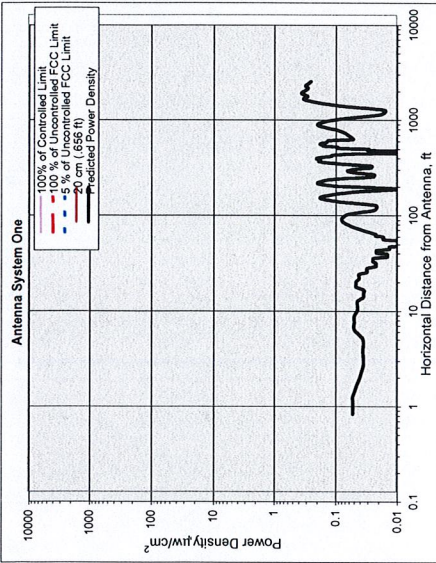
Meets FCC Uncontrolled Limits for The Antenna Systems.

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

No Further Maximum Permissible Exposure (MPE) Analysis Required.

	Power Density mW/cm ²	% of limit	@Horz. Dist. feet
Maximum Power Density =	0.000451	0.05	130.00
2,216.63 times lower than the MPE limit for uncontrolled environment			
Composite Power (ERP) =	12,000.00	Watts	

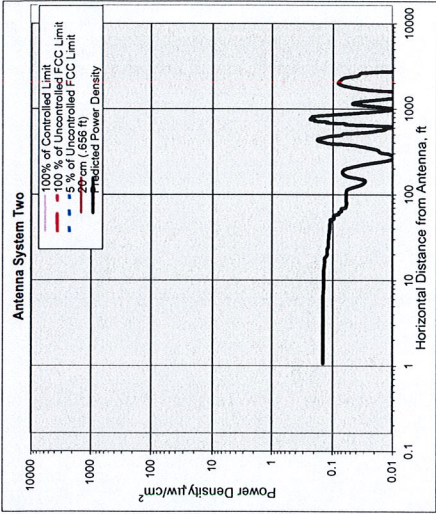
Site ID: 913-008-629
Site Name: Prospect South
Site Location: 15 Kludge Rd
 Prospect, CT 06172
Performed By: Prabhakar K Rughoobur
Date: 6/26/02



Antenna System One

Parameter	units	Value
Frequency	MHz	1945.00
# of Channels	#	12
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	5.86
(Center of Radiator)	feet	170.00
Calculation Point (above ground or roof surface)	feet	0.00
Antenna Model No.		Aligon 7250.03
Max Ant Gain	dBd	16.30
Down tilt	degrees	2.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.11
Ant HBW	degrees	65.00
Distance to Ant. _{beam}	feet	167.45
WOS?	Y/N?	n

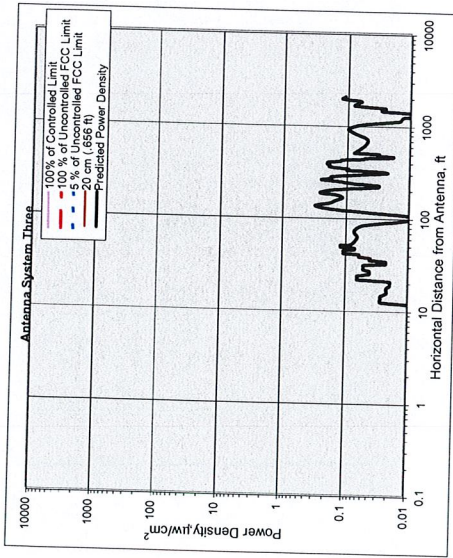
Ant System ONE Owner: AT&T
Sector: 3
Azimuth: 0/120/240



Antenna System Two

Parameter	units	Value
Frequency	MHz	1950.00
# of Channels	#	12
Max ERP/Ch	Watts	500.00
Max Pwr/Ch Into Ant.	Watts	15.45
(Center of Radiator)	feet	190.00
Calculation Point (above ground or roof surface)	feet	0.00
Antenna Model No.		DB980G90
Max Ant Gain	dBd	15.10
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.00
Ant HBW	degrees	90.00
Distance to Ant. _{beam}	feet	187.50
WOS?	Y/N?	n

Ant System TWO Owner: Sprint
Sector: 3
Azimuth: 10/130/250



Antenna System Three

Parameter	units	Value
Frequency	MHz	1950.00
# of Channels	#	12
Max ERP/Ch	Watts	250.00
Max Pwr/Ch into Ant. (Center of Radiator)	Watts	9.08
Calculation Point (above ground or roof surface)	feet	180.00
	feet	0.00
Antenna Model No.		RR901702
Max Ant Gain	dBd	14.40
Down tilt	degrees	0.00
Miscellaneous Att	dB	0.00
Height of aperture	feet	4.66
Ant H/W	degrees	90.00
Distance to Ant _{base}	feet	177.67
WOS?	Y/N?	n

Ant System Three Owner: Voicestream
Sector: 3
Azimuth 90/180/350

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.