

# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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Web Site: [www.state.ct.us/csc/index.htm](http://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-029-020801** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 161 Pinney Street, Colebrook, Connecticut.

Dear Attorney Fisher:

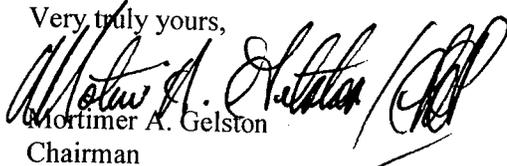
At a public meeting held on August 15, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice received in our office on August 1, 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 George M. Wilber, First Selectman, Town of Colebrook  
George F. Collins, Zoning Enforcement Officer, Town of Colebrook  
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC  
Sandy M. Carter, Verizon Wireless

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July 9, 2002

VIA FACSIMILE (860) 827-2950

David Martin  
Siting Analyst I  
Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

Re: AT&T Wireless

Dear Mr. Martin:

In response to your request, the latitude and longitude for 161 Pinney Street, Colebrook (EM-AT&T-029-020801) is 41.96583, -73.12028 and 41-17-55.6, 72-22-27.12 for 430 Middlesex Turnpike, Old Saybrook (EM-AT&T-106-020801). Additionally, I have confirmed that the correct address for EM-AT&T-131-020801 is Shuttle Meadow Road, Southington.

Please do not hesitate to contact us should you require any additional information.

Very truly yours,

*Linda Grant*  
Linda Grant

**NOTICE OF INTENT TO MODIFY AN  
EXISTING TELECOMMUNICATIONS FACILITY AT  
161 PINNEY STREET, COLEBROOK, 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 161 Pinney Street, Colebrook, Connecticut (the "Pinney Street Facility"), owned by Sprint Sites USA ("Sprint"). AT&T Wireless and Sprint have agreed to share the use of the Pinney Street Facility, as detailed below.

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**The Pinney Street Facility**

The Pinney Street Facility consists of an approximately one hundred and fifty (150) foot monopole (the "Tower") and associated equipment currently being used or proposed for wireless communications use by Sprint and Verizon. A chain link fence surrounds the Tower compound.

**AT&T Wireless' Facility**

As shown on the enclosed plans prepared by SEA Consultants, Inc., including a site layout and elevation of the Pinney Street 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 127 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 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**

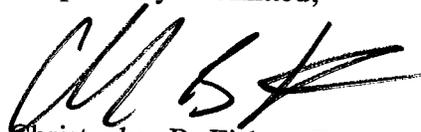
The proposed addition of AT&T Wireless' antennas and equipment to the Pinney Street Facility constitutes an exempt "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and Council regulations promulgated pursuant thereto. Addition of AT&T Wireless' antennas 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 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**

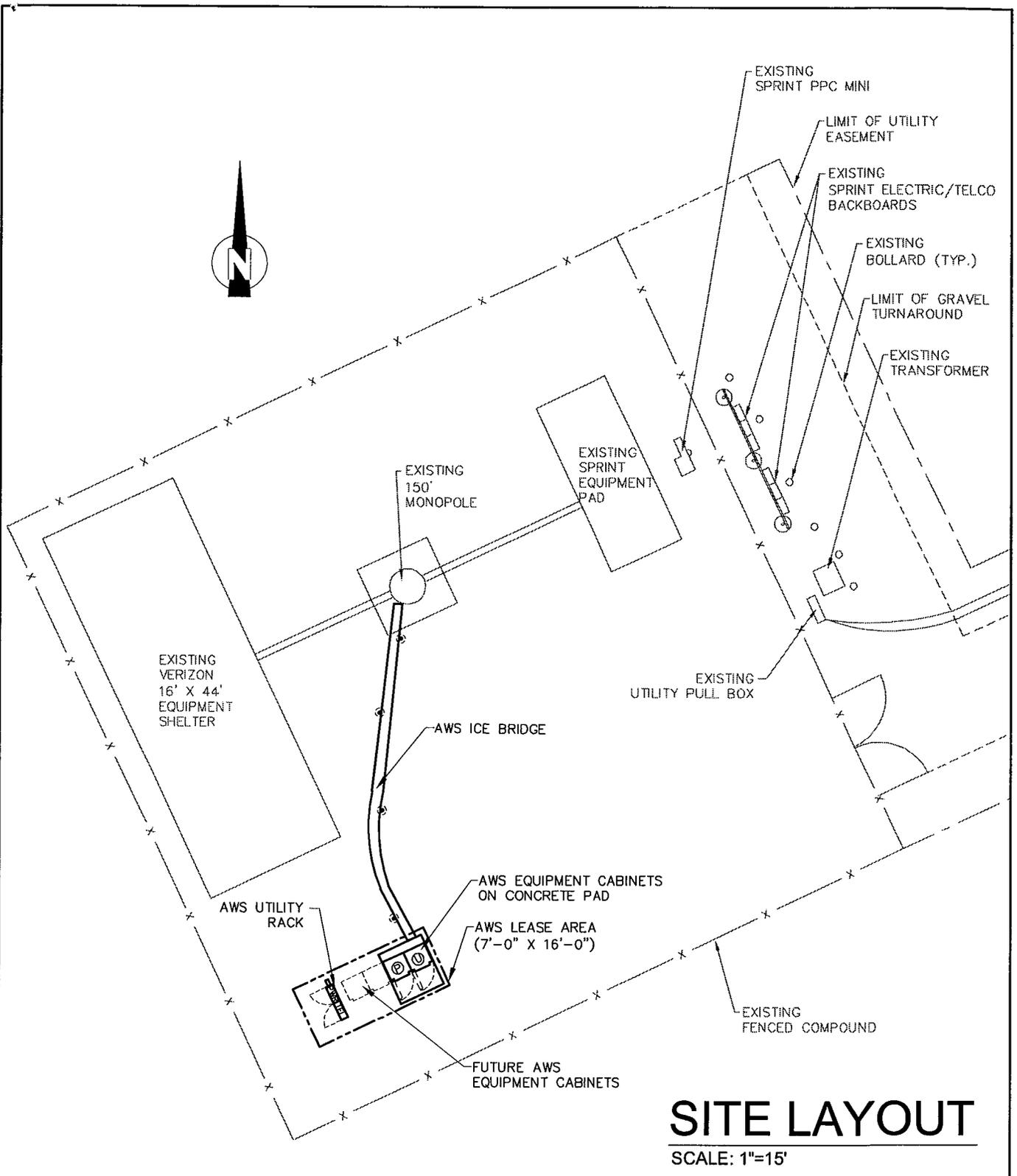
Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Pinney Street Facility meets the Council's exemption criteria.

Respectfully Submitted,



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

cc: First Selectman, Town of Colebrook  
RJ Wetzel, Bechtel



# SITE LAYOUT

SCALE: 1"=15'



**SEA**  
**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 LAYOUT

**PROJECT INFORMATION:**  
 COLEBROOK-SW  
 CT647  
 161 PINNEY STREET  
 COLEBROOK, CT

**PROPERTY OWNER:**  
 SPRINT SITES USA  
 535 EAST CRESCENT AVENUE  
 RAMSEY, NJ 07446

<b>DRAWING NO.</b>	
<b>907-007-647A-SC1</b>	
REVISION NO. 1	DRAWN BY: KBL
DATE ISSUED: 6/3/02	CHECKED BY: SMB
SCALE: AS NOTED	APPROVED BY: SMB
	SHEET NO. 1 OF 1
SEA PROJECT NO:	

SPRINT PCS ANTENNAS  
RAD. CENTER 147'

VERIZON ANTENNAS  
RAD. CENTER 137'

AWS ANTENNAS  
RAD. CENTER 127'

EXISTING 150' MONOPOLE

AWS ICE BRIDGE

AWS EQUIPMENT CABINET

TOWER BASE ELEVATION 1223'

NOTE: OTHER CARRIER EQUIPMENT NOT SHOWN FOR CLARITY

# ELEVATION

SCALE: 1"=20'



**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:

ELEVATION

PROJECT INFORMATION:

COLEBROOK--SW  
CT647  
161 PINNEY STREET  
COLEBROOK, CT

PROPERTY OWNER:

SPRINT SITES USA  
535 EAST CRESCENT AVENUE  
RAMSEY, NJ 07446

DRAWING NO.

**907-007-647A-SC2**

REVISION NO. 2	DRAWN BY: KBL
DATE ISSUED: 7/31/02	CHECKED BY: SMB
SCALE: AS NOTED	APPROVED BY: SMB
	SHEET NO. 1 OF 1
SEA PROJECT NO:	

CT 647

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

**SEMAAN ENGINEERING SOLUTIONS**

**148 ft SUMMIT Monopole  
Structural Analysis**

OK  
P/O  
7/1/02

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

**Site: CT33XC115  
AT&T  
Colebrook, CT**

**June 26, 2002**

**Bechtel ID#** 913-008-647  
**AWS ID#** NYNYCT 2020

**SCANNED**

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

**Re: Site Number CT33XC115 – Colebrook, 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 148 ft SUMMIT Monopole.

Refer to SUMMIT job #11163 dated September 11, 2000 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 80 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)

<b>Elev. (ft)</b>	<b>Qty.</b>	<b>Antennas and Mounts</b>	<b>Coax</b>	<b>Owner</b>
147.0	9	DB980H90 Mounted On a 14 ft Low Profile platform	(9) 1-5/8	Sprint
137.0	12	DB844H80 Mounted On a Low Profile Platform	(12) 1-5/8	Verizon
<b>127.0</b>	<b>6</b>	<b>Allgon 7250 Mounted On (3) Stand-off Arms</b>	<b>(12) 1-1/4</b>	<b>AT&amp;T</b>

**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: 74.4%.

**Foundation:**

<b>Pole Reactions</b>	<b>Original Design Reactions</b>	<b>Current Analysis Reactions</b>	<b>% Of Design</b>
Moment (ft-kips)	2,200.00	1,608.93	73.1
Shear (kips)	20.00	15.58	77.9

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 80 mph with 1/2" radial ice.

**SEMAAN ENGINEERING SOLUTIONS**

1047 N.204<sup>th</sup> Avenue  
 Elkhorn, NE 68022  
 Phone: 402-289-1888  
 Fax: 402-289-1861

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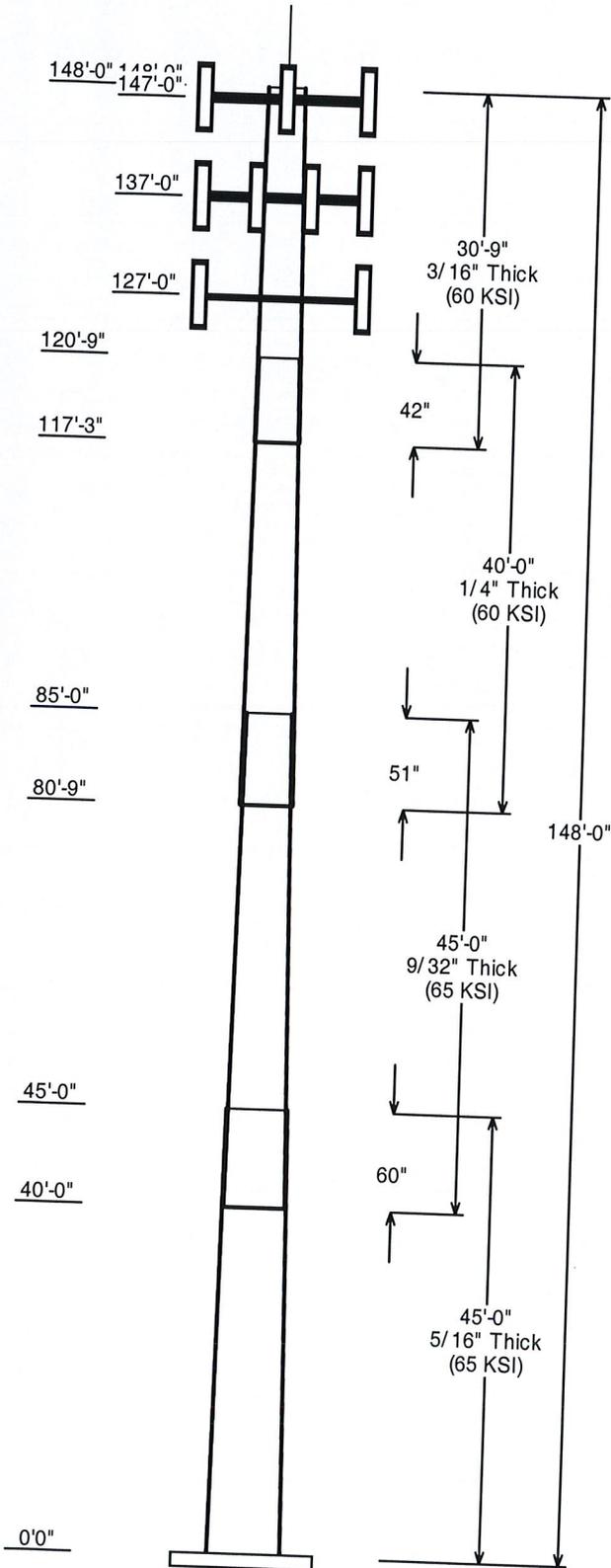
Job Information	
Pole :	CT33XC115
Description :	
Client :	Sprint Sites USA - NJ
Location :	Colebrook, CT
Type :	18 Sides Slip Joints
Height :(ft)	148.000 Taper: 0.1700 (in/ft)

Sections Properties							
Shaft Section	Section Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade (ksi)
		Across Top	Flats Bottom				
1	45.000	38.07	45.72	0.313		0.000	65
2	45.000	31.83	39.48	0.281	Slip Joint	60.000	65
3	40.000	26.25	33.05	0.250	Slip Joint	51.000	60
4	30.750	22.00	27.22	0.188	Slip Joint	42.000	60

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Type	Qty	Description
148.000	152.000	Lightning	1	5/8" lightning rod
147.000	147.000	Panel	9	DB980H90
147.000	147.000	Platform	1	14 ft Low Profile platform
137.000	137.000	Platform	1	Low Profile Platform
137.000	137.000	Panel	12	DB844H80
127.000	127.000	Straight	3	Stand-off Arms
127.000	127.000	Panel	6	Allgon 7250

Load Cases / Deflections			
Load Case	Attach Elev (ft)	Translation (in)	Rotation (deg)
<b>No Ice</b>			
<b>No Ice Wind Speed = 80.00 mph w/ No Ice</b>			
	148.000	85.52	-4.738
	147.000	84.52	-4.738
	137.000	74.64	-4.702
	127.000	64.91	-4.573
<b>Ice</b>			
<b>Ice Wind Speed = 69.28 mph w/ Ice 0.50 in Thick</b>			
	148.000	72.17	-4.017
	147.000	71.33	-4.017
	137.000	62.94	-3.985
	127.000	54.70	-3.874

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	1,608.935	15.579	-20.215
Ice	1,338.091	12.570	-25.644





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

SITE ID: 913-008-647

June 05, 2002

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

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## 1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at 161 Pinney Street, Colebrook CT. 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: <b>Colebrook SW</b>	
Number of simultaneously operating channels	12
Type of antenna	Allgon 7250.02
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	127.00 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>:

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

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.

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

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> 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.<sup>2</sup> 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 0.001661 mW/cm<sup>2</sup> which occurs at 210 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000200 mW/cm<sup>2</sup> 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 <sup>2</sup>	2.9 mW/cm <sup>2</sup>	0.001661 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 0.26% of the public MPE limit for PCS frequencies.

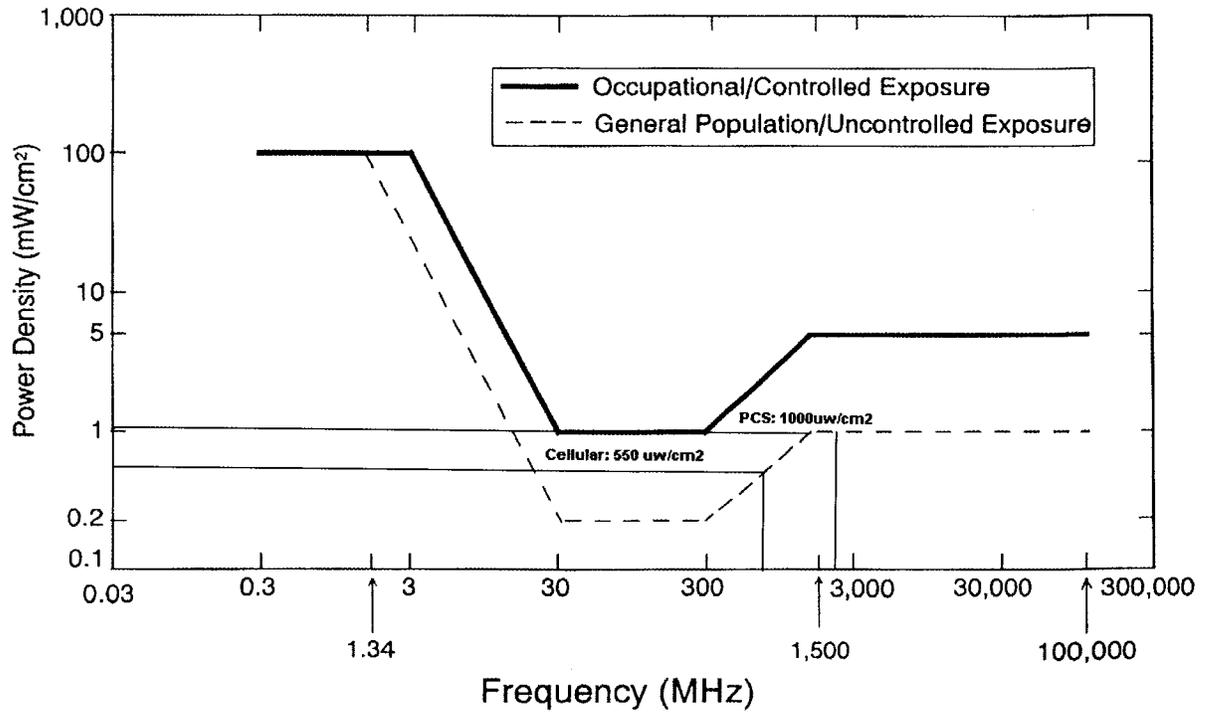
#### 6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.001661 mW/cm<sup>2</sup>, a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

<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.”

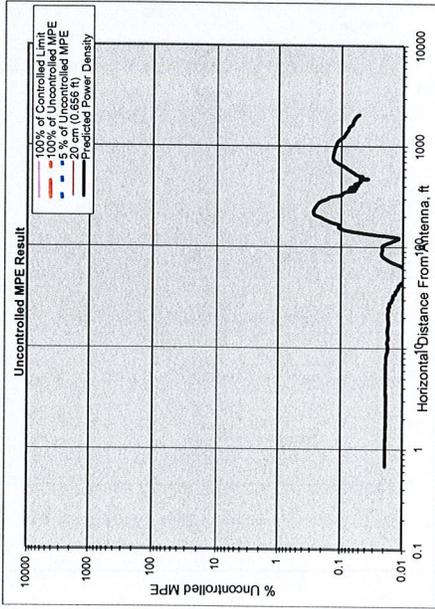
### 7. FCC Limits for Maximum Permissible Exposure

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



**8. Exhibit A**

**Heading**



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

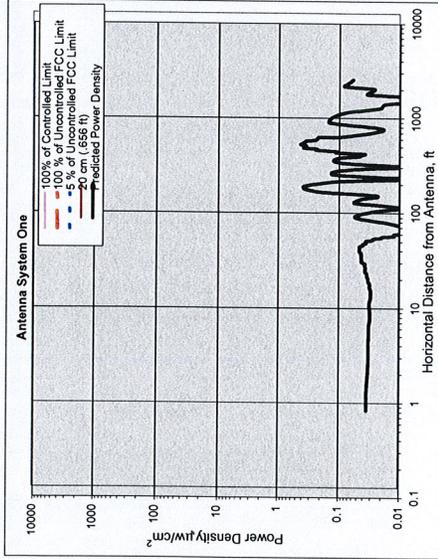
Meets FCC Uncontrolled Limits for The Antenna Systems.

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

No Further Maximum Permissible Exposure (MPE) Analysis Required.

Power Density	mW/cm <sup>2</sup>	@Horiz. Dist.
Maximum Power Density =	0.001661	% of limit
378.11 times lower than the MPE limit for uncontrolled environment	0.26	210.00
Composite Power (ERP) =	9,000.00	Watts

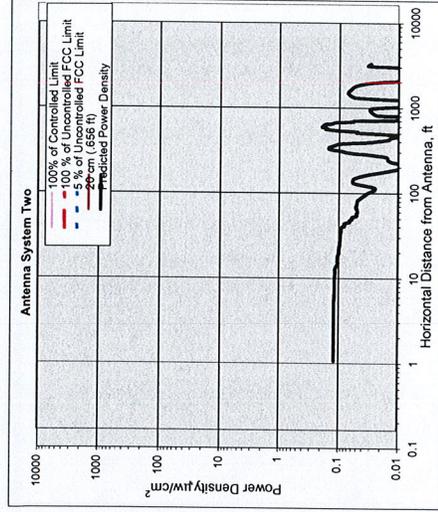
Site ID: 913-008-647  
 Site Name: Colebrook SW  
 Site Location: 161 Pinney Street  
 Colebrook, CT  
 Performed By: Dhakar K Rughooobur  
 Date: 6/5/02



**Antenna System One**

Frequency	units	Value
# of Channels	MHz	1945.00
Max ERP/Ch	Watts	12
Max Pwr/Ch Into Ant.	Watts	5.60
(Center of Radiator)	feet	127.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		Alicon 7250.02
Max Ant Gain	dBd	16.50
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.11
Ant HBW	degrees	65.00
Distance to Ant <sub>100dBm</sub>	feet	124.45
WOS?	Y/N?	n

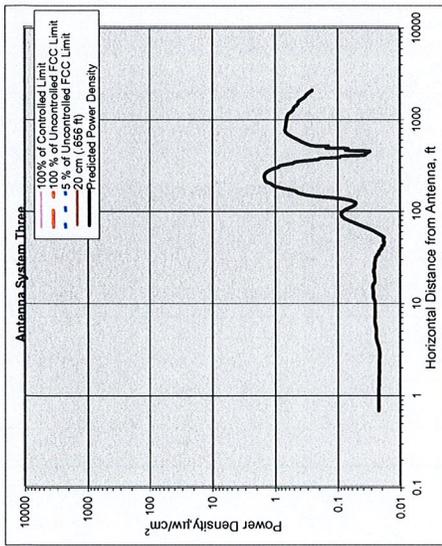
Ant System ONE Owner: AT&T  
 Sector: 3  
 Azimuth: 50/120/270



**Antenna System Two**

Frequency	units	Value
# of Channels	MHz	1930.00
Max ERP/Ch	Watts	12
Max Pwr/Ch Into Ant.	Watts	250.00
(Center of Radiator)	feet	7.73
Calculation Point	feet	147.00
(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 <sub>100dBm</sub>	feet	144.50
WOS?	Y/N?	n

Ant System TWO Owner: Sprint  
 Sector: 3  
 Azimuth: 0/120/270



**Antenna System Three**

Parameter	Value	units
Frequency	880.00	MHz
# of Channels	12	#
Max ERP/Ch	250.00	Watts
Max Pwr/Ch Into Ant.	13.43	Watts
(Center of Radiator)	137.00	feet
Calculation Point	0.00	feet
(above ground or roof surface)	0.00	feet
Antenna Model No.	DB844H80E-XY	
Max Ant Gain	12.70	dBd
Down tilt	0.00	degrees
Miscellaneous Att.	0.00	dB
Height of aperture	4.00	feet
Ant HBW	80.00	degrees
Distance to Ant. <sub>5000m</sub>	135.00	feet
WDS?	n	Y/N?

Ant System Three Owner: Verizon  
Sector: 3  
Azimuth 301/50/270

## 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](mailto:rfsafety@fcc.gov)  
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## 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.