

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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October 24, 2002

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

RE: EM-AT&T-025-0201002 - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 751 Higgins Road, Cheshire, Connecticut.

Dear Attorney Fisher:

At a public meeting held on October 23, 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 October 2, 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.

Chairman

MAG/laf

c: Honorable Sandra R. Mouris, Council Chairman, Town of Cheshire Michael A. Milone, Town Manager, Town of Cheshire Richard A. Pfurr, Town Planner, Town of Cheshire American Telephone and Telegraph Company Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene & MacRae Julie Donaldson Kohler, Hurwitz & Sagarin LLC Thomas F. Flynn III, Nextel Communications Michele G. Briggs, Southwestern Bell Mobile Systems Sandy M. Carter, Verizon Wireless

NOTICE OF INTENT TO MODIFY AND EXISTING TELECOMMUNICATIONS FACILITY AT 0 CT - 2 2002 751 HIGGINS ROAD, CHESHIRE, CONNECTICUTON NECTICUT

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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 751 Higgins Road, Cheshire, Connecticut (the "Higgins Road Facility"), owned by American Telephone and Telegraph Company (the "Tower Owner"). AT&T Wireless and the Tower Owner have agreed to share the use of the Higgins Road Facility, as detailed below.

The Higgins Road Facility

The Higgins Road Facility consists of an approximately two hundred fifty (250) foot lattice tower (the "Tower") and associated equipment currently being used and/or approved for use for wireless communications by SGI Communications, VoiceStream, Sprint, Nextel, Cingular and Verizon. A chain link fence surrounds the Tower compound. The surrounding land uses are predominantly residential.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by Tectonic/Keyes Associates, including a site plan and tower elevation of the Higgins 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 170 foot level of the Tower and associated equipment, three Nokia Metrosite GSM BTS units and two Metrosite BBU's (battery back-up units) mounted on the tower leg at approximately 6' AGL. As evidenced in the letter of structural integrity prepared by Communication Structures Engineering, Inc., annexed hereto as Exhibit A, AT&T has confirmed that the tower is structurally capable of supporting the addition of AT&T Wireless' antennas and associated equipment.

AT&T Wireless' Facility Constitutes An Exempt Modification

The proposed addition of AT&T Wireless' antennas and equipment to the Higgins 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

¹ Other carriers' antennas shown generally on the elevation included with this filing.

more at the Tower site's boundary. As set forth in an Emissions Report² prepared by Prabhakar K. Rughoobur, 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 Higgins Road Facility meets the Council's exemption criteria.

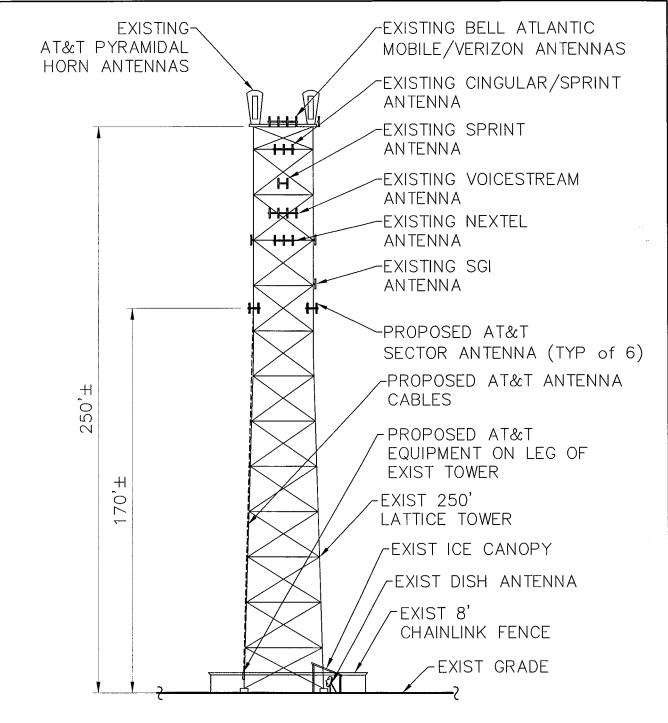
Respectfully Submitted,

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

cc: Town Manager, Town of Cheshire

RJ Wetzel, Bechtel

² SGI Communications antennas on the tower are inactive. In addition, AT&T's Horn antennas are a redundant backup system and are not currently operational. <u>See</u> page 4 of the Emissions Report.



NOTE: 1) FENCE FABRIC & GREEN SLATS NOT SHOWN FOR CLARITY

NOTE: 2) ANTENNA INVENTORY APPROX. PENDING ADDITIONAL INFORMATION

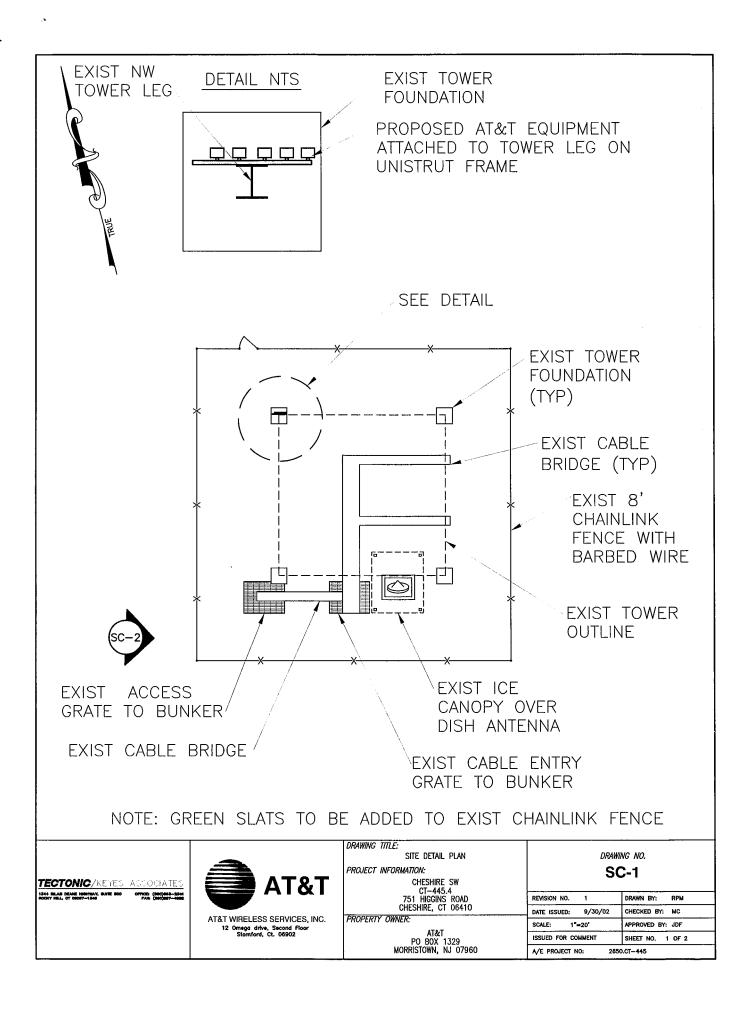




DRAWING TITLE:	
ELEVATION	
PROJECT INFORMATION:	
CHESHIRE SW	
CT445.4 751 HIGGINS ROAD	RE
CHESHIRE, CT 06410	DA'
PROPERTY OWNER:	SC
AT&T PO BOX 1329	ISS
MORRISTOWN, NJ 07960	4

REVISION NO. 1	DRAWN BY: RPM						
DATE ISSUED: 9/30/0	2 CHECKED BY: MC						
SCALE: 1"=40'	APPROVED BY: JDF						
ISSUED FOR COMMENT	SHEET NO. 2 OF 2						
A/E PROJECT NO: 2850.CT-445							

DRAWING NO.





Communication Structures Engineering, Inc.

Mr. Larry Montee
AT&T National Tower Engineering
1200 Peachtree Street, Atlanta, GA 30309

September 30, 2002

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Structural Analysis of AT&T's 250-ft Modified Type 'J' Tower

AT&T L-4 Junction Building Site 751 Higgins Road, Cheshire, CT

AT&T Wireless Services' Antenna & Equipment Additions

Dear Mr. Montee,

Communication Structures Engineering, Inc. (CSEI) has completed a structural review of the existing AT&T 250-ft Type 'J' Tower that is located at this AT&T site in Cheshire, CT. In accordance with AT&T Wireless Services (AWS) request, we performed a structural analysis of this structure to check its capability to support the existing tower, antenna and equipment loads as well as the new loads from the AWS proposed panel antennas, transmission lines, and equipment additions. The specific loading criteria that we utilized in accordance with BOCA were those prescribed by the national standard "ANSI/TIA/EIA-222-F". CSEI utilized the original engineering & fabrication drawings for the 250-ft Type 'J' tower at this site to conduct this structural review. A CSEI engineer previously visited this site in 1998. At that time, CSEI climbed, photographed & reviewed the condition of the existing tower structure and confirmed equipment locations. Recent photos of this structure were used to confirm the most current antenna & equipment configuration for this structure. A summary of the loads considered and the results of CSEI's structural analysis follow.

ANTENNA CONFIGURATION (Used for Structural Analysis)

Existing Antennas & Cables to remain on tower

AT&T: Two KS15676 Pyramidal Horn antennas at a centerline of 258-ft AGL each with one run of WC281 waveguide.

Bell Atlantic Mobile: Twelve Swedcom ALP-E9011 Panel Antennas at 253-ft AGL with 12 runs of 1-5/8 inch coaxial cable.

SNET: Nine Panel Antennas at 253-ft & 240-ft AGL with 9 runs of 1-5/8-inch coaxial cable.

Sprint PCS: Six Decibel DB980 panel antennas at 225-ft AGL each w/ one run of 1-5/8 inch coaxial cable.

Nextel Communications: Nine Decibel DB844H90 Panel Antennas at 200-ft & 212-ft AGL with 9 runs of 1-5/8-inch coaxial cable. SGI Communications:

Two Andrew PG1-NOF-0091-011 Rx antennas at 199-ft AGL each w/ one run of 7/8 inch coaxial cable. One Andrew PG1-NOF-0093-311 Tx antenna, at 181-ft AGL w/ one run of 7/8 inch coaxial cable.

Pending Removels VoiceStream Antenna, Cables & Equipment - To be removed from tower

Four DAPA 58210 Panel Antennas at 212-ft AGL with 6 runs of 7/8 inch coaxial cable and two runs of 1/2-inch coaxial cable Two Nortel \$2000H BTS Cabinets mounted on the tower face at 20-ft AGL.

Existing VoiceStream Antenna, Cables & Equipment - To remain on tower

One 2-ft square planar array antenna (pt. to pt. microwave antenna) with one run of 1/2 -inch coaxial cable.

Pending Installation VoiceStream Antenna, Cables & Equipment - Presently being installed on tower

Eight EMS RR-90-17 Panel Antennas at 212-ft ATBP with 16 new runs of 1-5/8 inch coaxial cable.

Two Nortel S8000 BTS Cabinets mounted on existing platform at 37-ft AGL.

New AT&T Wireless Services Antenna, Cables & Equipment - Additions to tower

Six Aligon 7250.03 Panel Antennas at 170-ft ATBP with 12 new runs of 1-5/8 inch coaxial cable.

Three Nokia Metrosite GSM BTS Units & Two Metrosite BBU's (Battery Back-up Units) mounted on the tower leg at approx. 6-ft AGL

CSEI's structural analysis utilized the structural loads prescribed by "ANSI/TIA/EIA-222-F" "Structural Standards for Antenna Supporting Structures". The applicable "basic wind speed" that was utilized for this tower was the 86-mph, fastest-mile velocity, specified by the above standard for the New Haven County, CT area. The tower was also reviewed in accordance with this Standard for loads resulting from the combined effect of 75% wind load + ½-inch of radial ice loads. However, the full 85mph "basic wind speed" load without radial ice was found to be the controlling criteria for the design of this structure. The load carrying members of this structure were reviewed to check their compliance with the AISC ASD "Specification for Structural Steel Buildings. As a result of our structural analysis we determined that all existing tower members had maximum stress levels that were less than the allowable stresses permitted by the AISC Specification. We therefore have concluded that this existing 250-ft tower structure will be capable of supporting the loads from existing equipment as well as the proposed AT&T Wireless Services equipment additions, in accordance with the referenced codes. This tower structure will not require any structural modifications to support the AT&T Wireless Services equipment provided that the new equipment is mounted in conformance with CSEI's drawings E-1 & E-2 (CSEI Project #02-193), which have been prepared for this project.

If AT&T Wireless Services or any other carriers add any future equipment to this tower, this structure should be re-analyzed at that time. We hope that this information is sufficient for your present needs.

CSEI will be happy to supply you with additional information as required.

Sincerely,

James E. Boltz, P.E. (CT P.E. #20122)





RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

SITE ID: 913-008-445

September 30, 2002

Prepared by AT&T Wireless Services, Inc. Prabhakar Kumar 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 751 Higgins Rd, Cheshire, CT 06410. 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: Cheshire SW	
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 facility!

$$PowerDensity = \frac{0.64 * N * EIRP(\theta)}{\pi * R^2} (mW/cm^2)$$
 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, 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 (cm²). 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 0.004025 mW/cm^2 which occurs at 1500 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000289 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.

 Frequency
 Public/Uncontrolled
 Occupational/controlled
 Maximum power density at Accessible location

 Cellular
 .580 mW/cm²
 2.9 mW/cm²

 PCS
 1 mW/cm²
 5 mW/cm²

Table 1: Maximum Permissible Exposure limits for RF radiation

The maximum power density at the proposed facility represents only 0.67% of the public MPE limit for all frequencies in use. SGI Communications has antennas on this tower which are not included in the emissions calculations as they are inactive. The AT&T Pyramidal Horn antennas were also excluded as they are a redundant backup system that is not currently operational.

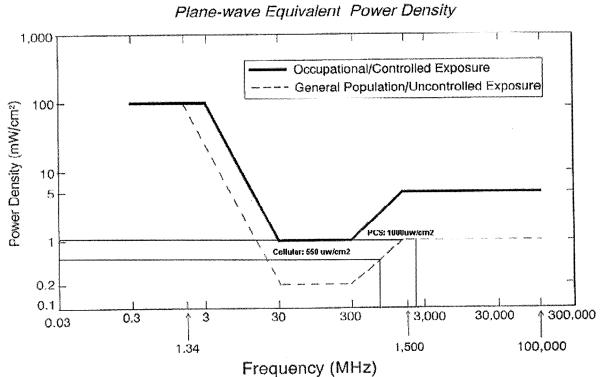
6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.004025 mW/cm², a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

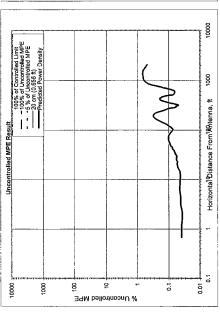
² 47 U.S. C. Section 332 (c) (7)(B)(iv) states that "[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such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

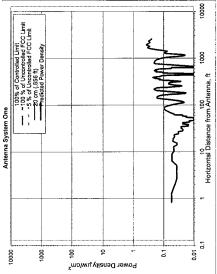
7. FCC Limits for Maximum Permissible Exposure

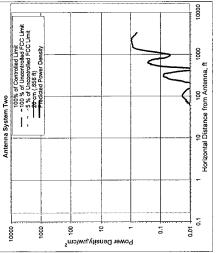
FCC Limits for Maximum Permissible Exposure (MPE)



8. Exhibit A







Antenna System One

	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	feet	5.00
(above ground or		0.00
roof surface)		0.00
Antenna Model No.		Allgon 7250.03
Max Ant Gain	dBd	16.30
Down tilt	degrees	2 00
Miscellaneous Att.	дB	0.00
Height of aperture	feet	5.11
Ant HBW	degrees	65,00
Distance to Ant _{bottom}	feet	162.45
WOS?	Y/N?	c

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

No Further Analysis Required.

Meets FCC Uncontrolled Limits for The Antenna Systems.

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

Performed By: Prabhakar K Rughoobur

Date: 9/30/02

Site ID: 913-008-445
Site Name: Cheshire SW
Site Location: 751 Higgins Rd
Cheshire, CT 06410

@Horiz. Dist. feet 1500.00

Maximum Power Density ≈ 150.34 times lower than the MPE limit for

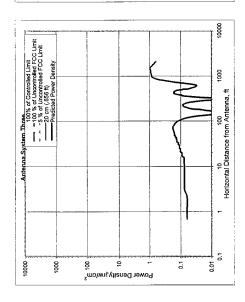
	9		0		0				50.03					_	i0	
Value	1945.00	12	250.00	5.86	170.00	2.00	00.0	0.00	Allgon 7250.03	15.30	2 00	0.00	5.11	65,00	162.45	c
units	MHz	*	Watts	Watts	feet	feet				qBd	degrees	gp	feet	degrees	feet	Y/N?
	Frequency	# of Channels	Max ERP/Ch	Max Pwr/Ch Into Ant.	(Center of Radiator)	Calculation Point	(above ground or	roof surface)	Antenna Model No.	Max Ant Gain	Down tilt	Miscellaneous Att.	Height of aperture	Ant HBW	Distance to Antbottom	SOM

Ant System ONE Owner: AT&T Wireless Sector: 3

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3	
Horizontal Distance from Antenna, ft	Antenna System Two
-	

units

0		0		0				**					_	o)	
860.00	36	250.00	15.77	253.00	5.00	0.00	00'0	SCP 9011	12.00	4.00	0.00	5.42	90.00	245.29	c
MHZ	*	Watts	Watts	feet	feet				dBd	degrees	дB	feet	degrees	feet	Y/N?
Frequency	# of Channels	Max ERP/Ch	Max Pwr/Ch Into Ant.	(Center of Radiator)	Calculation Point	(above ground or	roof surface)	Antenna Model No.	Max Ant Gain	Down tilt	Miscellaneous Att.	Height of aperture	Ant HBW	Distance to Ant _{bottom}	WOS



5

Power Density, trw/cm²

9

Power Density, tw/cm²

2



units Value	Jency MHz 880.00	nnels # 30	P/Ch Watts 250.00	5 Ant. Watts 18.11	liator) feet 253.00	Point feet 5.00	0.00 0.00	face) 0.00	el No. Aligon 7120, 16,33	Gain dBd 11.40	wn tilt degrees 4.00	is Att. dB 0.00	arture feet 4.00	HBW degrees 110.00	t _{bottom} feet 246.00	
	Frequency	# of Channels	Max ERP/Ch	Max Pwr/Ch Into Ant.	(Center of Radiator)	Calculation Point	(above ground or	roof surface)	Antenna Model No.	Max Ant Gain	Down tilt	Miscellaneous Att.	Height of aperture	Ant HBW	Distance to Ant _{bottom}	******

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

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

	10000	
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	om ¹ Matenr	
	Horizontal Distance from Antenna,	
	-	
10.0	0.1	

10000

Horizontal Distance from Antenna, ft 1000

2.0

0.1

Antenna System Four

Watts Watts feet feet

Frequency
of Channels
Max EMPICH
Max PWICH Into Ant
(Center of Radiator)
Calculation Point
(above grund or
noof surface)
Anterna Model No.
Max Ant Gain
Miscellaneous Att.
Height of aperture
Ant Haw
Distance to Anfessen
WOS?

10000

Antenna System Four

10000

1000

100

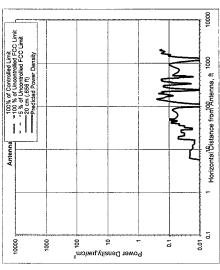
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Antenna System Five

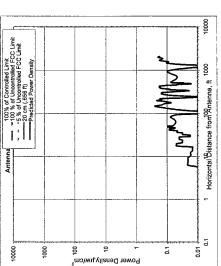
	units	Value
Frequency	MHz	1830,00
# of Channels	#	12
Max ERP/Ch	Watts	00'009
Max Pwr/Ch Into Ant.	Watts	15,45
(Center of Radiator)	feet	225.00
Calculation Point	feet	2.00
(above ground or		00'0
roof surface)		00'0
Antenna Model No.		W-30650868G
Max Ant Gain	dBd	15.10
Down tilt	degrees	4.00
Miscellaneous Att.	дB	00.0
Height of aperture	feet	60.3
Ant HBW	degrees	00'08
Distance to Antbettom	feet	217.50
KON	Y/N?	c

Ant System Five Owner: Sprint PCS Sector: 3 Azimuth: 0/120/240

9/30/2002



Power Density, tuwicm²



¥	Value	00'0561	12
Antenna System Six	nnits	MHz	#
Ar		Frequency	# of Channels

										02							
	Value	1950.00	12	250.00	80'6	212.00	9.00	00'0	0.00	RR-90-17-02	14.40	2.00	0.00	4.66	90.00	204.67	c
•	nnits	MHz	#	Watts	Watts	feet	feet				dBd	degrees	Вb	feet	degrees	feet	CIN/A
		Frequency	# of Channels	Max ERP/Ch	Max Pwr/Ch Into Ant.	(Center of Radiator)	Calculation Point	(above ground or	roof surface)	Antenna Model No.	Max Ant Gain	Down tilt	Miscellaneous Att.	Height of aperture	Ant HBW	Distance to Antbottom	28OW

Ant System SIX Owner: Voicestream Sector: 3
Azimuth: 0/120/240

	10000
100% of Countiele Limit 100% of Countiele Limit 25 of uncontrolled FCC Limit 25 or uncontrolled FCC Limit 25 or uncontrolled FCC Limit Tedicad Fower Density	1000
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1 1000%	10 100 Horizontal Distance from Antenna, ft
Antenna Sys	10 intal Distan
An	1 Horizo
Power Density, tu/w/cm³	0.1

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Antenna Sys

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degrees	dBd	(Center of Radiator) feet 217.00	Max Pwr/Ch Into Ant. Watts 1.10	Max ERP/Ch Watts 100.00	# of Channels #	Value 2400.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.00 (1.0		Frequency # of Channels Max ERPICh Max Pwr/Ch Into Art. (Certainlain Point (above ground or coff surface) Anterna Model No. Max Art Gain Nacollocous Na.
	99	Gabriel Gabriel dBd degrees	feet feet dBd degrees dB	Watts feet feet feet dBd degrees dB	Watts Watts Watts feet feet dBd degrees dB		3	
Ş		feet	feet	Watts feet feet	Watts Watts feet feet	0.00		(above ground or roof surface)
4		feet	feet	Watts feet feet	Watts Watts feet	0:00		(above ground or
Ş			feet	Watts	Watts Watts feet	5.00	feet	Calculation Point
Watts Watts Watts feet feet	# Watts Watts feet feet	# Watts	# Watts			2400.00	MHz	Frequency
MHZ # # # # # # # # # # # # # # # # # # #	MHz ## Watts Watts feet feet	MHz # Watts	MHz # Watts	MHz #	MHz	Value	units	

Watts			00 0000
# # Watts Wa	Frequency	MHZ	2400.00
Watts Watts Watts Feet Feet Feet GBG GBG GBG GBG GBGTRees Feet Feet Feet Feet Feet Feet Feet	# of Channels	#	4
Matts feet feet feet dBd degrees degrees feet YNNY	Max ERP/Ch	Watts	100.00
feet feet feet dBd degrees dBB feet feet ABB ABBA ABBA ABBA ABBA ABBA Feet feet feet ABBA ABBA ABBA ABBA ABBA ABBA ABBA A	Max Pwr/Ch Into Ant.	Watts	1.10
degrees dBd degrees dB feet feet ANN?	nter of Radiator)	feet	217.00
dBd degrees dB feet degrees feet feet YNY	Salculation Point	feet	00'5
dBd degrees dB feet degrees feet YNY	above ground or		00'0
dBd degrees dB feet degrees feet YNY	roof surface)		00'0
dBd degrees dB feet degrees feet YNNY	enna Model No.	9	abriel 2' Flat Pan
degrees dB feet degrees feet YNV?	Max Ant Gain	qBd	19.80
feet feet degrees feet Y/N?	Down tilt	degrees	00'0
feet degrees feet Y/N?	scellaneous Att.	dB	00'0
degrees feet Y/V?	eight of aperture	feet	2.00
feet Y/N?	Ant HBW	degrees	10.00
¿N/A	ance to Antbottom	feet	211.00
	SOM	¿N/A	υ

Antenna System Eight

	CHIRS	9
Frequency	MHz	851.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	15.77
(Center of Radiator)	feet	212.00
Calculation Point	feet	9.00
(above ground or		0.00
roof surface)		00'0
Antenna Model No.		D8844H90-XY
Max Ant Gain	qBd	12.00
Down tilt	degrees	2.00
Miscellaneous Att.	æ	0.00
Height of aperture	feet	4.00
Ant HBW	degrees	90.00
Distance to Antbottom	feet	205.00
WOSS	Y/N?	c

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

Ant System SEVEN Owner: Voicestream (Microwave)
Sector: 1
Azimuth: 60

Antenna System Nine

Value	851.00	16	250.00	15.77	200.00	5.00	00:0	00'0	DB844H90-XY	12.00	2:00	00'0	00'7	90.00	193.00	
nnits	MHz	#	Watts	Watts	feet	feet				dBd	degrees	8	feet	degrees	feet	CIVIX
	Frequency	# of Channels	Max ERP/Ch	Max Pwr/Ch Into Ant.	(Center of Radiator)	Calculation Point	(above ground or	roof surface)	Antenna Model No.	Max Ant Gain	Down tilt	Miscellaneous Att.	Height of aperture	Ant HBW	Distance to Antbottom	CSC/W

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

9. For Further Information

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

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

RF Safety Program: 202-418-2464 Internet address: rfsafety@fcc.gov

RF Safety Web Site: www.fcc.gov/oet/rfsafety

10. References

- [1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).
- [2] Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Rcd 2849 (1993).
- [3] Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).
- [4] Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Second Memorandum Opinion and Order, ET Docket 93-62, adopted August 25, 1997.
- [5] Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields, OET Bulletin 65, August, 1997.