



December 22, 2004

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

RE: **EM-NCING-031-041123** – New Cingular Wireless Services, Inc. notice of intent to modify an existing telecommunications facility located at Mohawk Mountain, near Allyn Road, Cornwall, Connecticut.

Dear Attorney Fisher:

At a public meeting held on December 21, 2004, 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 November 23, 2004, including the placement of all necessary equipment and shelters within the tower compound. 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,

Pamela B. Katz, P.E.
Chairman

PBK/laf

- c: The Honorable Gordon M. Ridgway, First Selectman, Town of Cornwall
- Karl Nilsen, Zoning Enforcement Officer, Town of Cornwall
- Jeremy McDavitt, American Tower Corporation
- Thomas F. Flynn III, Nextel Communications, Inc.
- Michele G. Briggs, Southwestern Bell Mobile Systems, LLC

**TOWN OF CORNWALL
PLANNING & ZONING COMMISSION**
P.O. Box 155, Cornwall, CT 06753 (860) 672-4957

Office Hours: Wednesdays, 8-12 and Fridays 10-12.
(Please leave messages at other times)

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CONNECTICUT
SITING COUNCIL

FROM: Vera Dinneen, Land Use Clerk
TO: Connecticut Siting Council
RE: EM-NCING-031-041123
DATE: December 15, 2004

The Cornwall Planning and Zoning Commission has asked me to send you a copy of the portion of their regulations regarding Antennas, Towers, and Wireless Communication Facilities which were in place prior to the jurisdiction change. These regulations are serving as the Commission's comments. Please consider them in making your decision.

Public Hearing 4-10-02
Adopted 4-10-02
Effective 4-14-02

Revision to the Cornwall Zoning Regulations for Antennas, Towers, and Wireless Communication Facilities

Replace Article VIII, Section 8.24 with the following:

SECTION 8.24. ANTENNAS, TOWERS, AND WIRELESS COMMUNICATION FACILITIES

01.0 Statement of Purpose: This regulation establishes standards, requirements and permitting procedures for antennas, towers, and wireless communication facilities that are subject to local zoning regulation in Connecticut.

Its purpose is to regulate the placement of antennas, towers, and wireless communication facilities in order to:

- preserve the character and appearance of the Town of Cornwall while allowing adequate telecommunication services to be developed,
- protect the scenic, historic, environmental, and natural or man-made resources of Cornwall,
- protect property values, and the health, safety and welfare of the Town,
- minimize the total number and height of towers throughout Cornwall,
- require the sharing of existing towers where possible,
- provide for facility locations consistent with the Town Plan and the purposes of these Regulations,
- minimize adverse visual effects through proper design, siting and screening,
- avoid potential damage to adjacent properties,
- provide for orderly removal of abandoned facilities.

These regulations are intended to be consistent with "The Telecommunications Act of 1996" in that a) they do not prohibit, or have the effect of prohibiting, the provision of Personal Wireless Services, b) they are not intended to be used to unreasonably discriminate among providers of functionally equivalent services, and c) they do not regulate Personal Wireless Services on the basis of the environmental effects of radio frequency emissions to the extent that the regulated services and facilities comply with the FCC's regulations concerning such emissions.

02.0 Definitions

02.1 Adequate Capacity. Capacity is considered to be "adequate" if the Grade of Service (GOS) is p.05 or better for median traffic levels offered during the typical busy hour, as assessed by direct measurement of the Personal Wireless

- 02.10 Equipment Shelter.** An enclosed structure, cabinet, shed or box at the base of the mount within which are housed batteries and electrical equipment necessary for the operation of the communication facility.
- 02.11 Fall Zone.** The area on the ground within a prescribed radius from the base of a wireless communication facility. The fall zone is the area within which there is a potential hazard from falling debris (such as ice) or collapsing material.
- 02.12 Guyed Tower.** A monopole or lattice tower that is tied to the ground or other surface by diagonal cables.
- 02.13 Lattice Tower.** A type of mount that is self-supporting with multiple legs and cross-bracing of structural steel.
- 02.14 Licensed Carrier.** A company authorized by the FCC to construct and operate a wireless communication facility.
- 02.15 Monopole Tower.** The type of mount that is self-supporting with a single shaft of wood, steel or concrete and a platform (or racks) for panel antennas arrayed at the top.
- 02.16 Mount.** The structure or surface upon which antennas are mounted, including the following four types of mounts:
1. Roof-mounted. Mounted on the roof of a building.
 2. Side-mounted. Mounted on the side of a building.
 3. Ground-mounted Tower. Mounted on the ground.
 4. Structure-mounted. Mounted on a structure other than a building.
- 02.17 Omnidirectional (whip) antenna.** A thin rod that beams and receives a signal in all directions.
- 02.18 Panel Antenna.** A flat surface antenna usually developed in multiples.
- 02.19 Propagation Studies or Coverage Plots.** Computer generated estimates of the signal emanating, and prediction of coverage, from antennas or repeaters sited on a specific tower or structure. The height above ground, power input and output, frequency output, type of antenna, antenna gain, topography of the site and its surroundings are all taken into account to create these simulations. They are the primary tool for determining whether a site will provide adequate coverage for the telecommunication facility proposed for the site.
- 02.20 Radiofrequency (RF) Engineer.** An engineer specializing in electrical or microwave engineering, especially the study of radiofrequencies. (*Note: When RF engineers are certified or licensed, they are known as Professional Engineers.*)

twenty feet, except in designated historic districts (or other historic or scenic areas of the town as shown on a map on file in the Planning and Zoning Office) or within 150 feet of the paved portion of a Town road or State highway proposed for or designated as a scenic road or highway.

03.2.4 Building (roof or side) mounts provided it does not project either above the building or the height limit of the zoning district by more than 10 feet.

03.2.5 Building (roof or side) mounts may locate on a building or structure legally non-conforming with respect to height, provided it does not project above the existing building or structure height, or more than 10 feet above the height limit of the zoning district.

03.2.6 Police and Emergency Services. A regulated facility intended solely for the purpose of Police, Fire, Ambulance and other Emergency Dispatch. A Tower may be erected as a Permitted Use for these purposes unless it is to be shared by a commercial wireless service carrier which shall require a Special Permit.

03.3 Regulated Facilities Allowed As A Special Permit Use. The following regulated facilities and ground mounted towers shall be Special Permit Uses in all residential districts subject to Site Plan approval:

0.3.3.1 Regulated facilities located on existing structures or co-located that do not qualify as a Permitted Use as set forth in 3.2 above.

03.3.2 All Ground Mounted Towers.

04.0 General Standards and Requirements for Permitted and Special Permit Uses.

04.1 Location. Wherever feasible, regulated facilities shall be located on existing structures, including but not limited to buildings, water towers, existing telecommunications facilities, utility poles and towers provided the installation preserves the character and integrity of those structures.

04.1.1 Applicants are urged to consider use of existing telephone, cable, or electric utility structures as sites for regulated facilities.

04.1.2 The preferred location for free standing towers is where the existing topography, vegetation, buildings, or other structures provide the greatest amount of screening and have the least long range visual effect. Town owned land or buildings are preferred locations where the Town has determined that such town owned land or building is appropriate for a tower or antenna. Unless adequate coverage and adequate capacity cannot otherwise be achieved, towers shall be sited off ridgelines and in as low a population density area as is possible.

The following areas of special concern, and their viewsheds, are the least preferred locations for free standing towers: Cornwall Plains, West Cornwall, Cornwall Bridge, the Housatonic River Overlay Zone (inner and outer corridor),

d. Regulated facilities in an historic district shall be concealed within or behind existing architectural features, or shall be located so that they are not visible from public roads and viewing areas within the district.

04.2.2 Requirements for Proposed Ground Mounted Towers. Proposed ground-mounted towers shall provide a vegetated buffer of sufficient height and a depth of not less than 50' to screen the facility to the extent feasible. Trees and vegetation may be existing on the subject property or installed as part of the proposed facility or a combination of both. Where it is not feasible to fully buffer a facility, the applicant shall submit a landscape plan prepared by a Connecticut Licensed Landscape Architect. The landscape plan shall recommend the type of tree and plant materials and depth of buffer appropriate to the site, design, height and location of the facility. The Commission may require reasonable modifications to the landscape plan where it determines such are necessary to minimize the visual impact of the facility on the neighborhood and community character. All landscaping shall be properly maintained to ensure its good health and viability at the expense of the owner(s). The Commission reserves the right to require stealth or camouflage designs such as towers made to resemble trees or other structures.

04.2.3 Scenic Roads and Areas.

a. The Commission may approve a ground mounted tower located in an open area visible from a public road, recreational area, or residential development only where it has been demonstrated by the applicant to the satisfaction of the Commission that the proposed service cannot be reasonably provided in a location on an existing structure or a co-location.

b. A regulated facility located within an area ranked high for protection according to Section 1 of the Town Plan, or within 300 feet of a Town or State designated scenic road, shall not exceed the height of vegetation at the proposed location.

04.2.4 Sight Line and Elevation Information. Where the Commission determines that sight line and/or elevation information is necessary to determine compliance with these regulations it shall require the following:

a. Tree cover on the subject property and adjacent properties within 300 feet, by dominant species and average height, as measured by or available from a verifiable source.

b. Sight line representation. A sight line representation shall be drawn from any public road within 300 feet and the closest facade of each residential building (viewpoint) within 300 feet to the highest point (visible point) of the regulated facility. Each sight line shall be depicted in profile, drawn at one-inch equals 40 feet. The profiles shall show all intervening trees and buildings. In the event there is only one (or more) residential building within 300 feet there shall be at least two sight lines from the closest habitable structures or public roads, if any.

- f. **Radiofrequency Radiation (RFR) Standards and Requirements.** The applicant shall provide documentation that all equipment proposed for a regulated facility is authorized according to FCC Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (FCC Guidelines) or its successor publication.

05.0 Additional Standards and Requirements for Ground Mounted Tower Special Exception Uses.

05.1 Feasible Alternative. Where a ground mounted tower is proposed, the applicant shall have the burden of proving that there are no feasible existing structures or co-location sites upon which to locate.

05.2 Lot Size. All ground mounted towers and their equipment shelters shall be considered a principal structure and use and shall comply with all of the requirements for the zoning district in which the facility is to be located except that the height of the tower may exceed the maximum height dimension specified in Article IV of the zoning regulations.

05.3 Fall Zone. In order to ensure public safety, the minimum distance from the base of any new proposed ground-mounted tower to any property line, road, habitable dwelling, business or institutional use, or public recreational area shall be equal to 110% of the height of the tower including any antennas or other appurtenances. Provision shall be made that no new road, habitable dwelling, business or institutional use, or public recreational area be located within the fall zone. The Commission may allow the required fall zone to be measured into a neighboring property where the neighboring property is not developed and will be subject to a legally binding agreement preventing development during the time the tower is in place.

06.0 Application Filing Requirements. The following shall be included with an application for a Special Permit or Site Plan Application for all regulated facilities. The Commission may choose to not require one or more of the following for a Permitted Use Site Plan application.

06.1 General Filing Requirements

a. Name, address and telephone number of applicant, co-applicants, and any agents for the applicant or co-applicants.

b. Co-applicants shall include the landowner of the subject property, and any licensed carriers and tenants for the Regulated Facility.

c. A licensed carrier shall either be an applicant or a co-applicant and shall provide documentation of qualifications as a "licensed carrier."

d. Original signatures for the applicant and all co-applicants applying for the Special Permit. If the applicant or co-applicant will be represented by an agent, an original signature authorizing the agent to represent the applicant and/or co-applicant is required. Photoreproductions of signatures will not be accepted.

6. Location of all roads, public and private, on the subject property and on all adjacent properties within 300 feet including driveways proposed to serve the regulated facility.
7. Distances, at grade, from the proposed regulated facility to each building on the vicinity plan.
8. Contours at each two feet AMSL (see definition section) for the subject property and adjacent properties within 300 feet.
9. All proposed changes to the existing property, including grading, vegetation removal and temporary or permanent roads and driveways.
10. Representations, dimensioned and to scale, of the proposed mount, antennas, equipment shelters, cable runs, parking areas and any other construction or development attendant to the personal wireless service facility.

06.4 Design Filing Requirements

- a. Equipment brochures for the proposed Regulated Facility such as manufacturer's specifications or trade journal reprints shall be provided for the antennas, mounts, equipment shelters, cables as well as cable runs, and security barrier, if any.
- b. Materials of the proposed Regulated Facility specified by generic type and specific treatment (e.g., anodized aluminum, stained wood, painted fiberglass, etc.). These shall be provided for the antennas, mounts, equipment shelters, cables as well as cable runs, and security barrier, if any.
- c. Colors of the proposed Regulated Facility represented by a color board showing actual colors proposed. Colors shall be provided for the antennas, mounts, equipment shelters, cables as well as cable runs, and security barrier, if any.
- d. Dimensions of the Regulated Facility specified for all three directions: height, width and breadth. These shall be provided for the antennas, mounts, equipment shelters and security barrier, if any.
- e. Viewshed Analysis. Where a tower is proposed, sight line graphs shall be provided to the proposed prime and alternative sites from visually impacted areas, such as residential developments, public roadways, recreational sites, historic districts, and historic sites. In lieu of sight line graphs, the Commission may accept photographs showing the tower imposed on the photograph with the tower height established in reference to a balloon flown to the proposed tower height at the site, as required herein. This visual assessment shall be based upon the existing landscape conditions without leaf cover.

to beginning operations for any wireless communication facility proposed in or involving any of the following: 1) wilderness areas, 2) wildlife preserves, 3) endangered species habitat, 4) historical site, 5) Indian religious site, 6) flood plain, 7) wetlands, 8) high intensity white lights in residential neighborhoods, 9) excessive radiofrequency exposure.

b. At the time of application filing, an Environmental Assessment that meets FCC requirements shall be submitted to the Commission for each Regulated Facility site that requires such an environmental assessment to be submitted to the FCC.

c. For all Special Permit uses the applicant shall identify and assess the impact of the proposed facility on areas recommended for protection or conservation as presented in the Town Plan and State Plan of Conservation and Development.

d. The applicant shall list location, type and amount (including trace elements) of any materials proposed for use within the facility that are considered hazardous by the federal, state or local government.

07.0 Co-location

07.1 Licensed carriers shall share facilities and sites where feasible and appropriate, thereby reducing the number of facilities that are stand-alone. All applicants for a Special Permit for a Regulated Facility shall demonstrate a good faith effort to co-locate with other carriers. Such good faith effort includes:

1. A survey of all existing structures that may be feasible sites for co-locating wireless service facilities;

2. Contact with all the other licensed telecommunication facility carriers operating in the service area of the proposed facility; and

3. Sharing information necessary to determine if co-location is feasible under the design configuration most accommodating to co-location.

07.2 In the event that co-location is found to be not feasible, a written statement of the reasons for the infeasibility shall be submitted to the Commission. The Commission may retain a technical expert in the field of RF engineering to verify if co-location at the site is not feasible or is feasible given the design configuration most accommodating to co-location. The Town may deny a Special Permit to an applicant that has not demonstrated a good faith effort to provide for co-location.

07.3 The Commission reserves the right to limit tower height and the number of facilities on a structure in order to preserve the character and appearance of the Town of Cornwall.

08.0 Modifications.

- a. Removal of antennas, mount, equipment shelters and security barriers from the subject property.
- b. Proper disposal of the waste materials from the site in accordance with local and state solid waste disposal regulations.
- c. Restoring the location of the facility to its natural condition, except that any landscaping and grading shall remain in the after-condition.

10.3 If a facility owner fails to remove a Regulated Facility in accordance with this section of this regulation, the town shall have the authority to enter the subject property and physically remove the facility. The Commission shall require the applicant to post a bond at the time of construction to cover costs for the removal of the Regulated Facility in the event the Town must remove the facility. Town access to this bond shall remain until such time as the facility is removed.

11.0 Reconstruction or Replacement of Existing Towers and Monopoles

Guyed towers, lattice towers, utility towers and monopoles in existence at the time of adoption of this regulation may be reconstructed, altered, extended or replaced on the same site by Special Permit, provided that the Commission finds that such reconstruction, alteration, extension or replacement will not be substantially more detrimental to the neighborhood and/or the Town than the existing structure. In making such a determination, the Commission shall consider whether the proposed reconstruction, alteration, extension, or replacement will create public benefits such as opportunities for co-location, improvements in public safety, and/or reduction in visual and environmental impacts.

Adopted by the Commission on April 4, 2000.



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Cellular Division
RF Engineering Department

Bechtel Telecommunications
Address: 3 University Plaza Dr.
Suite 500, Hackensack, NJ 07601
TEL: 201-336-3830
FAX: 201-336-3765

December 9, 2004

Re: NYNYCT0L12
1Mohawk State Forest, Allyn Rd., West Goshen, CT

As per your request, attached is the RF Exposure Analysis for the proposed AT&T Wireless antenna facility located at Mohawk State Forest, Allyn Rd..

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

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

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

power needed to maintain contact with the base station - between 0.1-0.6 watts. Therefore, when new antenna sites are added in a system, the operating power of both the antenna facilities and the phones decreases as the distance between the antenna sites and the phones is reduced.

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

The Telecommunications Act of 1996 recognizes the importance of ensuring the integrity of wireless communication networks that provide nationwide communication services. Nevertheless, we understand people's concerns about health and safety and we recognize our responsibility to address those concerns. Consequently, I have prepared the attached power density report to demonstrate that the Mohawk State Forest, Allyn Rd. antenna facility site will comply with FCC regulations governing the safety of RF emissions. The report indicates that under maximum operating conditions, the highest power density in a publicly accessible area is 0.014543 milliwatts per square centimeter; 39.89 times lower than the maximum permissible limit allowed for the public at our operating frequency.

Wireless communication services make people and communities safer by providing mobile communications support for law enforcement, disaster relief, and personal emergencies. Wireless antenna facilities carry the calls that support the needs of our customers and communities. I hope that the enclosed report answers your questions regarding the safety of this site. If you have any additional questions about this site, I may be reached at (201)-755-0310.

Very truly yours,

Galen Belen
RF Engineer
Bechtel Telecommunications.



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

SITE ID: NYNYCT0L12

December 9, 2004

**Prepared by Bechtel Telecommunication
Galen Belen 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 Mohawk State Forest, Allyn Rd., 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: <i>Mohawk Mountain</i>	
Number of simultaneously operating channels	4 (GSM1900), 8 (GSM850), 25 (TDMA)
Type of antenna	Allgon 7391.00, Decibel DB731DG85V1EXM
Power per channel (Watts ERP)	(GSM) 250 Watts ; (TDMA) 80 Watts
Height of antenna (feet AGL)	48.00 feet
Antenna Aperture Length	5.00 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:

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

Where, *N*= Number of channels, *R*= distance in cm from the center of antenna, and *EIRP*(θ) = The isotropic power expressed in milliwatts in the direction of prediction point. This is the correct equation for antennas which have their gain expressed in dBi, which is the usual case for the PCS bands.

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

Where *P_{in}/ch* = Input power to antenna terminals in watts/ch, *R* = distance to center of antenna, *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 exposure

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 0.014543 mW/cm² which occurs at 15 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.008949 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 exposure

<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	0.014543 mW/cm ²
PCS	1 mW/cm ²	5 mW/cm ²	0.014543 mW/cm ²

The maximum power density at the proposed facility represents only 2.51% of the public MPE limit for PCS frequencies.

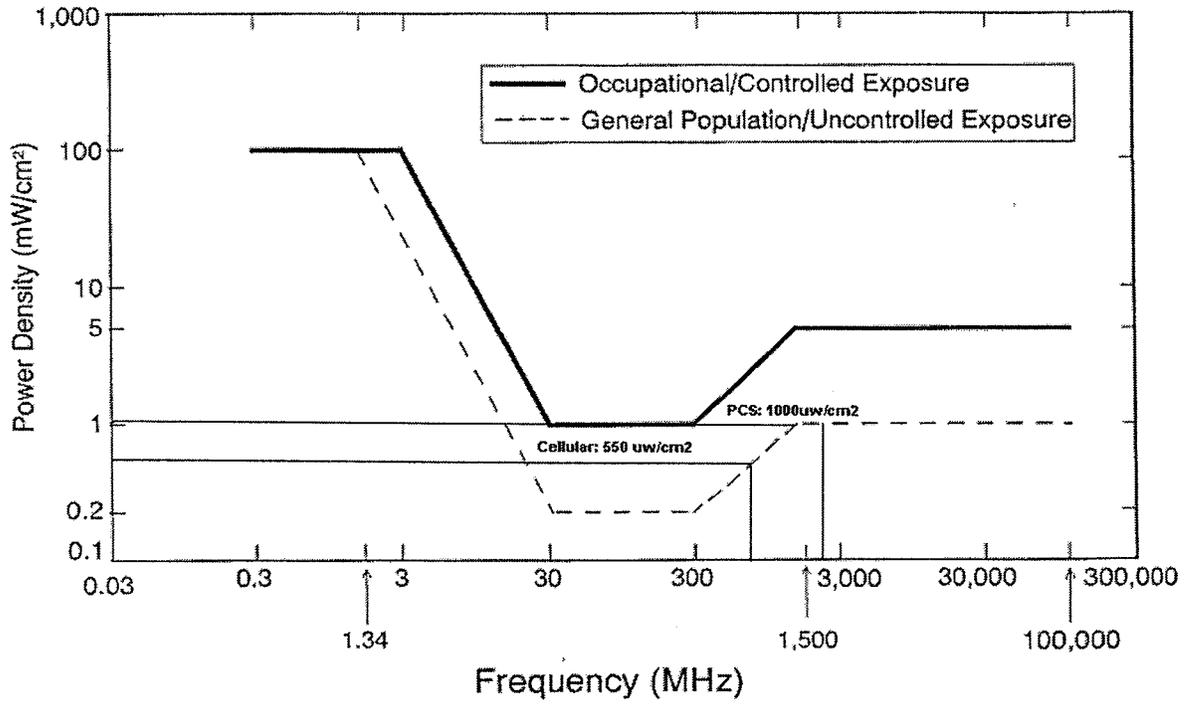
6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.014543 mW/cm², a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

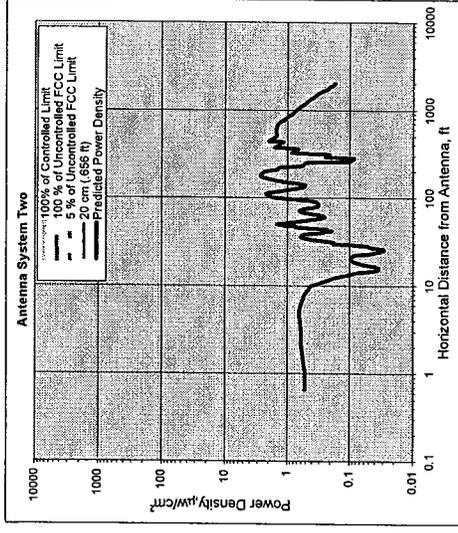
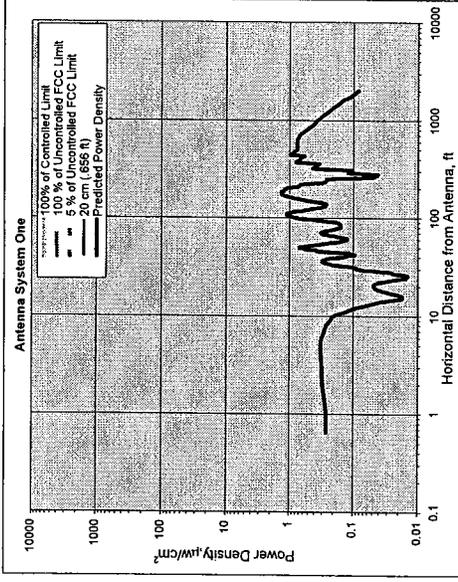
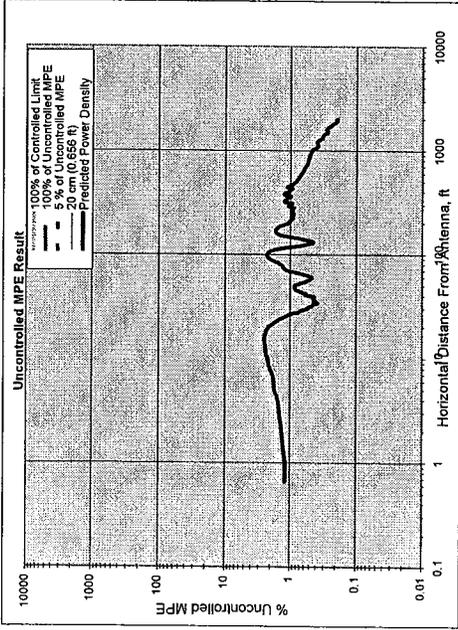
² 47 U.S. C. Section 332 (c) (7)(B)(iv) states that “[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such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



Number of Antenna Systems: 7
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 Analysis Required.

Power Density		@ Horiz. Dist.	
mW/cm ²	% of limit	feet	feet
Maximum Power Density =	0.014543	2.51	15.00
39.89 times lower than the MPE limit for uncontrolled environment			
Composite Power (ERP) =	18,000.00	Watts	

Site ID: NNYCT012
Site Name: Mohawk Mountain
Site Location: Mohawk State Forest, Ailyn Rd.
West Goshen, CT

Performed By: Galen Belen

Date: December 3, 2004

Antenna System One

units	Value
Frequency	1945.00
# of Channels	4
Max ERP/Ch	250.00
Max Pwr/Ch Into Ant.	7.73
Antenna Centerline	48.00
Calculation Point	6.00
(above ground or roof surface)	0.00
Antenna Model No.	731DG65V1EXM
Max Ant Gain	15.10
Down tilt	0.00
Miscellaneous Att.	0.00
Height of aperture	4.00
Ant HBW	65.00
Distance to Ant _{horiz}	40.00
WOSZ	Y/N?
	n

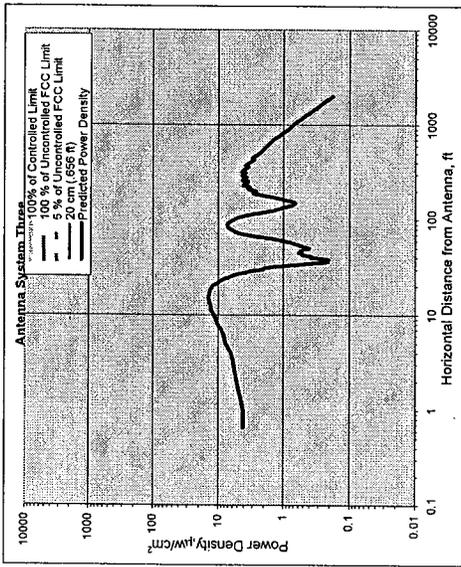
Ant System ONE Owner: AT&T GSM1900
Sector: 3
Azimuth: 0/180/270

Antenna System Two

units	Value
Frequency	870.00
# of Channels	8
Max ERP/Ch	250.00
Max Pwr/Ch Into Ant.	7.73
Antenna Centerline	48.00
Calculation Point	6.00
(above ground or roof surface)	0.00
Antenna Model No.	731DG65V1EXM
Max Ant Gain	15.10
Down tilt	0.00
Miscellaneous Att.	0.00
Height of aperture	4.00
Ant HBW	65.00
Distance to Ant _{horiz}	40.00
WOSZ	Y/N?
	n

Ant System TWO Owner: AT&T GSM850
Sector: 3
Azimuth: 0/180/270

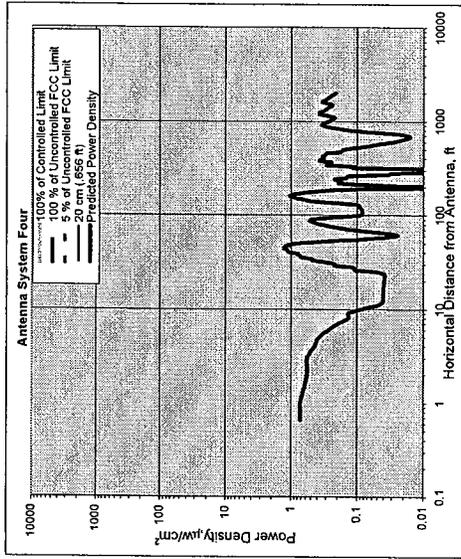
NOTES Decibel 776QNB120EXM is only use as a receiver antenna for the ES11 equipment and has no emission.
The Shielded Parabolic Antennas will not have any effect on the ground as it propagates in a line of sight.



Antenna System Three

Frequency	MHz	Value
# of Channels	#	25
Max ERP/Ch	Watts	80.00
Max Pwr/Ch Into Ant.	Watts	5.66
Antenna Centerline	feet	48.00
Calculation Point (above ground or roof surface)	feet	6.00
Antenna Model No.		7391.00
Max Ant Gain	dBd	11.50
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	4.40
Ant HBW	degrees	90.00
Distance to Ant _{100dBm}	feet	39.80
WOS?	Y/N?	n

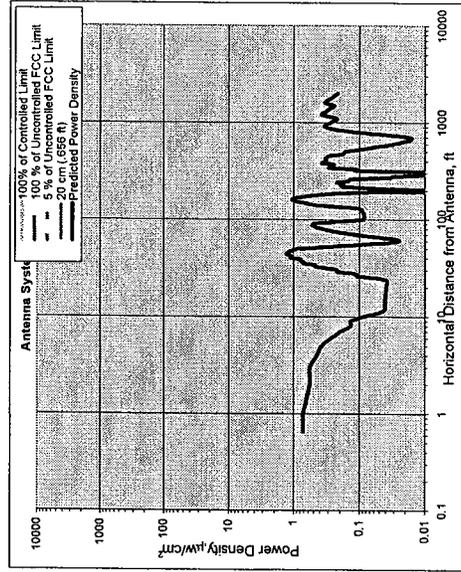
Ant System Three Owner: AT&T TDMA 850
 Sector: 3
 Azimuth: 0/180/270



Antenna System Four

Frequency	MHz	Value
# of Channels	#	12
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	25.00
Antenna Centerline	feet	75.00
Calculation Point (above ground or roof surface)	feet	6.00
Antenna Model No.		DB810K-XC
Max Ant Gain	dBd	10.00
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	14.50
Ant HBW	degrees	360.00
Distance to Ant _{100dBm}	feet	61.75
WOS?	Y/N?	n

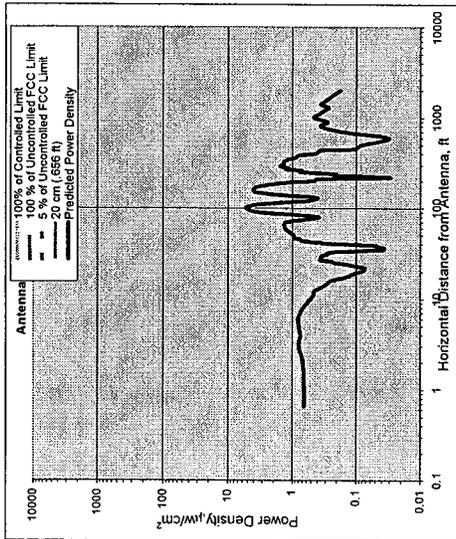
Ant System Four Owner: Nextel
 Sector: 1
 Azimuth: 360



Antenna System Five

Frequency	MHz	Value
# of Channels	#	12
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	25.00
Antenna Centerline	feet	75.00
Calculation Point (above ground or roof surface)	feet	6.00
Antenna Model No.		DB810K-XC
Max Ant Gain	dBd	10.00
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	14.50
Ant HBW	degrees	360.00
Distance to Ant _{100dBm}	feet	61.75
WOS?	Y/N?	n

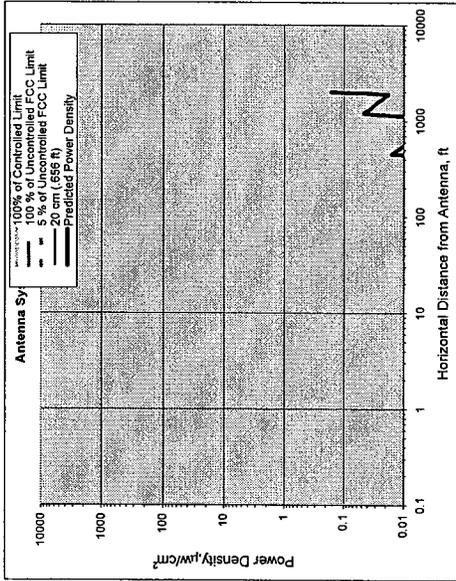
Ant System Five Owner: Cingular
 Sector: 1
 Azimuth: 360



Antenna System Six

Parameter	Value	Units
Frequency	860.00	MHz
# of Channels	12	#
Max ERP/Ch	250.00	Watts
Max Pwr/Ch Into Ant.	8.87	Watts
Antenna Centerline	65.00	feet
Calculation Point (above ground or roof surface)	6.00	feet
Antenna Model No.	DB878H105-X	
Max Ant Gain	14.50	dBd
Down tilt	0.00	degrees
Miscellaneous Alt.	0.00	dB
Height of aperture	10.00	feet
Ant. HBW	105.00	degrees
Distance to Ant. _{topdown}	54.00	feet
WOST?	n	Y/N?

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



Antenna System Seven

Parameter	Value	Units
Frequency	6200.00	MHz
# of Channels	4	#
Max ERP/Ch	1000.00	Watts
Max Pwr/Ch Into Ant.	0.21	Watts
Antenna Centerline	57.00	feet
Calculation Point (above ground or roof surface)	6.00	feet
Antenna Model No.	UHX6-53	
Max Ant Gain	36.70	dBd
Down tilt	0.00	degrees
Miscellaneous Alt.	0.00	dB
Height of aperture	6.00	feet
Ant. HBW	1.60	degrees
Distance to Ant. _{topdown}	48.00	feet
WOST?	n	Y/N?

Ant System SEVEN Owner: AT&T Microwave
Sector: 4
Azimuth: N/A

9. For Further Information

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

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

RF Safety Program: 202-418-2464
Internet address: rfsafety@fcc.gov
RF Safety Web Site: www.fcc.gov/oet/rfsafety

10. References

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

**NOTICE OF INTENT TO MODIFY AN
EXISTING TELECOMMUNICATIONS FACILITY AT
MOHAWK STATE FOREST (OFF ALLYN ROAD), CORNWALL, CONNECTICUT**

Litchfield Acquisition Corp. and AT&T Wireless PCS, LLC, by and through its agent AT&T Wireless recently merged into New Cingular Wireless Services, Inc., a Delaware Corporation. Consequently, New Cingular Wireless Services Inc. ("New Cingular") is the successor in interest to AT&T's interests and should be considered the Applicant for purposes of this notice.

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, New Cingular hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at Mohawk State Forest (off Allyn Road), Cornwall, Connecticut (the "Mohawk Mountain Facility"), owned by American Tower Corporation ("ATC").

RECEIVED
NOV 23 2004

**CONNECTICUT
SITING COUNCIL**

The Mohawk Mountain Facility

The Mohawk Mountain Facility consists of an approximate sixty five (65) foot lattice tower (the "Tower") and associated equipment shelters currently being used and/or approved for use for wireless communications by Nextel, Cingular Wireless, New Cingular (formerly AT&T Wireless), AT&T Landline, SNET and the Fire Warden.

New Cingular's Facility

As shown on the enclosed plans prepared by Edwards and Kelcey, including a detailed site plan, equipment layout and elevation of the Mohawk Mountain Facility, New Cingular proposes adding a third sector of panel antennas for enhanced network services and adding one E911 antenna per sector at the 48 foot level of the Tower. When complete, there will be a total of 11 antennas at this level of the tower. As evidenced in the structural prepared by American Tower, annexed hereto as Exhibit A, New Cingular has confirmed that the tower is structurally capable of supporting the added Cingular antennas. Additional equipment will be added in the existing shelter.

New Cingular's Facility Constitutes An Exempt Modification

The additional Cingular antennas and equipment to be installed at the Mohawk Mountain 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 New Cingular's 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 Galen Belen, Radio Frequency Engineer, annexed hereto as

Page 2

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, the addition of New Cingular's facility to the Tower constitutes an exempt modification which will not have a substantially adverse environmental effect.

Conclusion

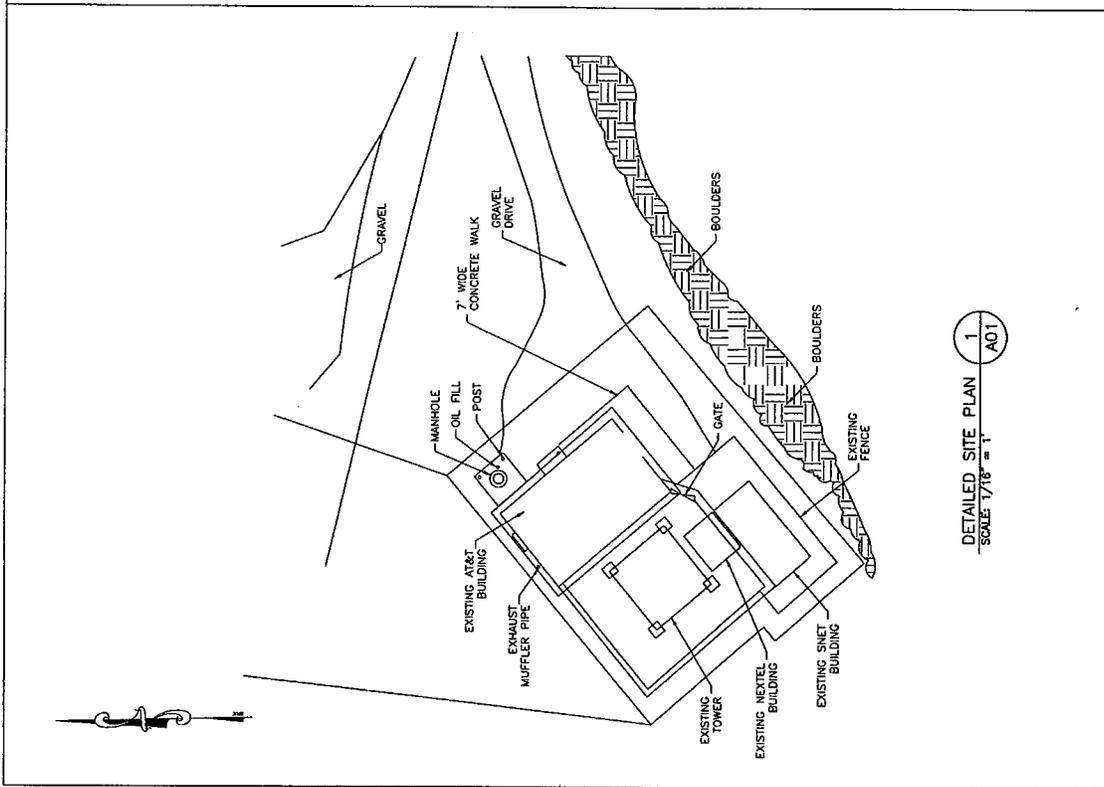
Accordingly, New Cingular requests that the Connecticut Siting Council acknowledge that its proposed modification to the Mohawk Mountain Facility meets the Council's exemption criteria.

Respectfully Submitted,

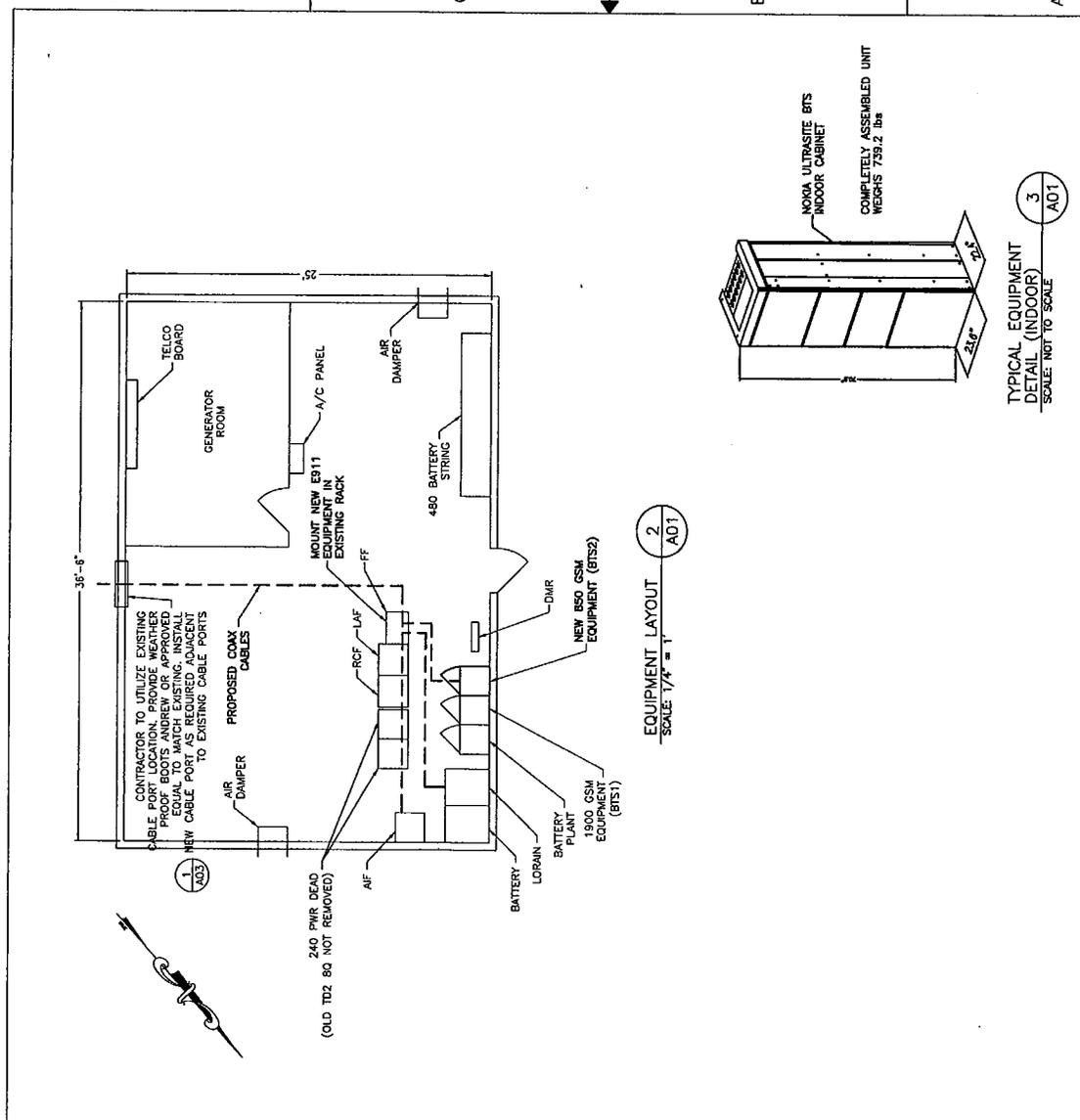


Christopher B. Fisher, Esq.
On behalf of New Cingular

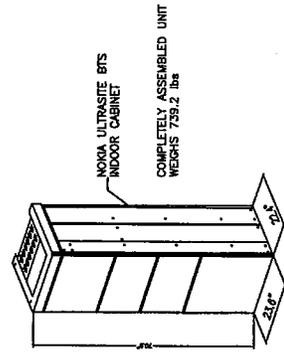
cc: Gordon M. Ridgway, First Selectman, Town of Cornwall
Leslie Small, Wireless Network Group
Robin VanLaer, Bechtel



1
A01
DETAILED SITE PLAN
SCALE: 1/18" = 1'



2
A01
EQUIPMENT LAYOUT
SCALE: 1/4" = 1'



3
A01
TYPICAL EQUIPMENT
DETAIL (INDOOR)
SCALE: NOT TO SCALE

AT&T
AT&T WIRELESS SERVICES, INC.
19 WEST MAIN AND AVENUE
PARAMAR, NJ 07652

2
3
4
5
6

**Edwards
and
Kelcey**
EDWARDS AND KELCEY
1247 WARD AVENUE
WEST CHESTER, PA 19380-4259

**SITE NAME: MOHAWK MOUNTAIN
SITE #: NYNYCTOL12**
MOHAWK STATE FOREST (AT END OF ALLYN ROAD)
WEST GOSHEN, CT 06769

E. & K. PROJ.#: 040015.007
CONTACT: MICHAEL DOMARSKI
PHONE: (610) 701-7000

**SITE PLAN &
EQUIPMENT LAYOUT**

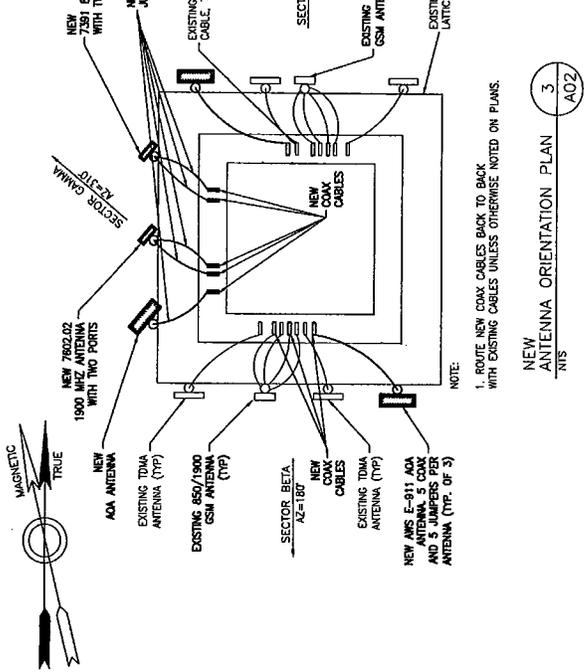
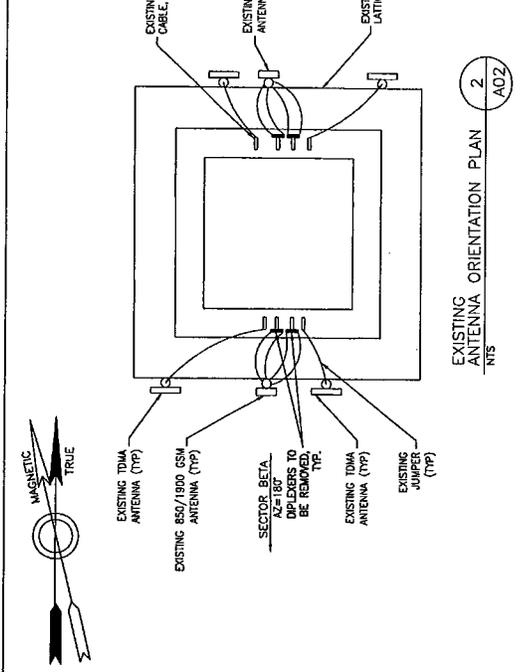
2G (TMA) E911 (INDOOR) SITES

PROJECT NUMBER	ISSUE NUMBER	DATE	BY	CHK	APP	DESIGNED BY	SCALE
24897-211B	NYNYCTOL12-A01					DESIGNED BY: JPL	AS SHOWN
		11/17/04	ADDED THIRD ANTENNA SECTOR	WJC	PMF		
		01/26/05	ISSUED FOR CONSTRUCTION	JAS	PMF		

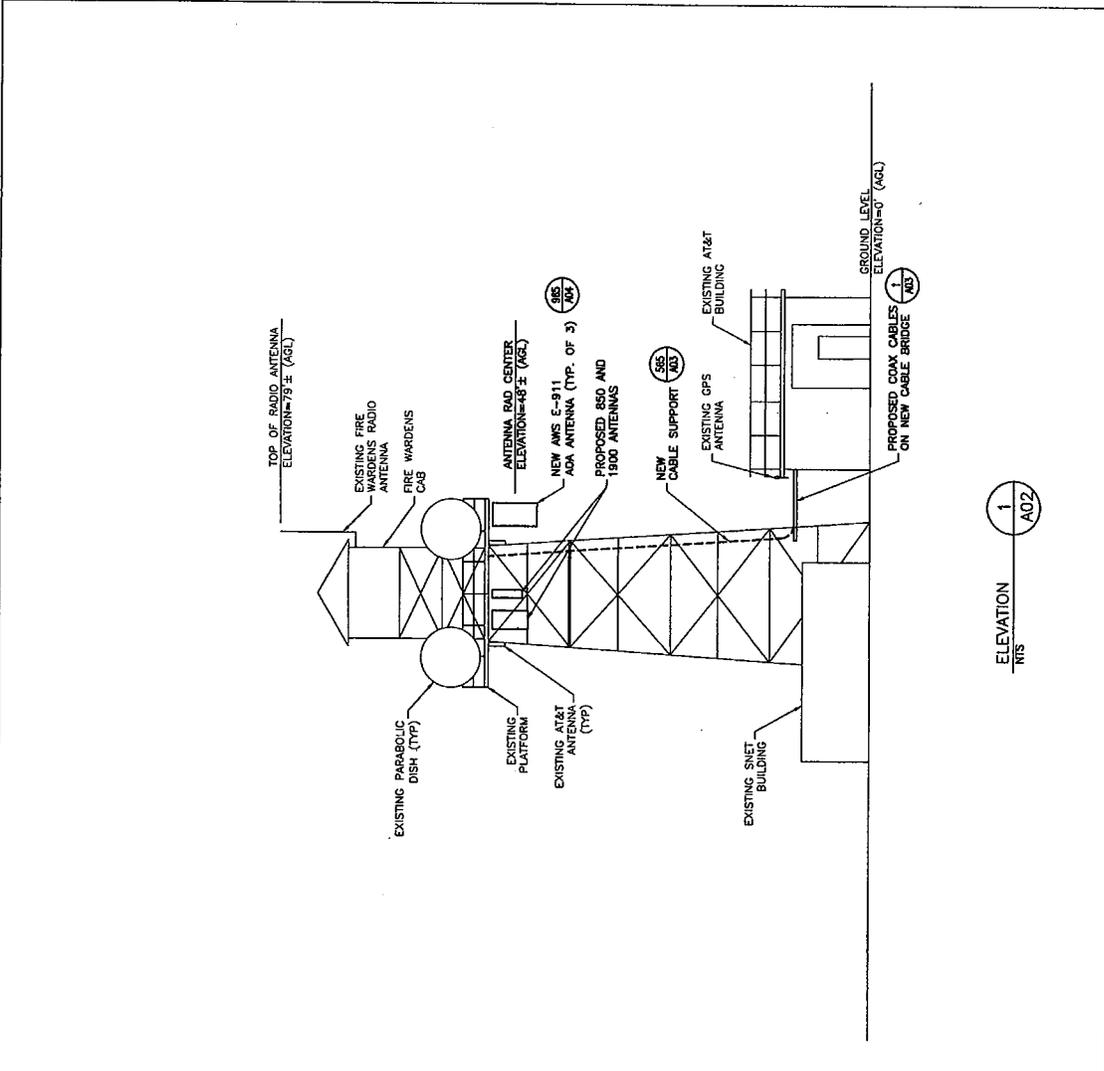
REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK	APP
1					

DESIGNED BY: JPL
SCALE: AS SHOWN



NOTE:
1. ROUTE NEW COAX CABLES BACK TO BACK WITH EXISTING CABLES UNLESS OTHERWISE NOTED ON PLANS.



Edwards and Kelcey
EDWARDS AND KELCEY
1247 WARD AVENUE
WEST CHESTER, PA 19380-4259

AT&T
AT&T WIRELESS SERVICES, INC.
10 PARKWAY, 10000
FARMVILLE, VA 22434

SITE NAME: MOHAWK MOUNTAIN
SITE#: NYNYCT0112
MOHAWK STATE FOREST AT END OF ALLYN ROAD
WEST GOSHEN, CT 06769

E & K PROJ#: 040015.007
CONTACT: MICHAEL DOMERSKI
PHONE: (610) 701-7000

SCALE: AS SHOWN (DESIGNED BY: JPL, DRAWN BY: WAC)
DATE: 01/22/04 ISSUED FOR CONSTRUCTION
REVISIONS: BY: [CHK] MPT
MAC PWF RET
JMS PWF RET
11/17/04/AM ADDED THIRD ANTENNA SECTOR
01/22/04/AM ISSUED FOR CONSTRUCTION

PROJECT NUMBER: 24897-211B
DRAWING NUMBER: NYNYCT0112-A02
DATE: 01/14/04

ELEVATION
2G (TDMA) E911 (INCOOR) SITES
24897-211B

PASSED



AMERICAN TOWER

Structural Analysis Report

Structure : Existing 65' Self-Supporting Tower
ATC Site Name : Cornwall CT, CT
ATC Site Number : 88009
Proposed Carrier : AT&T Wireless
Carrier Site Name : Mohawk Mountain
Carrier Site Number : CT-L012
County : Litchfield
Eng. Number : 73120456
Date : November 2, 2004

NATIONAL STRUCTURAL ENGINEERING
11312 South Pipeline Road – 2ND Floor
Euless, Texas 76040
Phone: (817) 355-4100
Fax: (817) 858-0398



Mr. Jaime Reyes, P.E.
American Tower Corporation
11312 South Pipeline Rd.; Euless, TX 76040

October 29, 2004

Re: Structural Review of American Tower Corporation's Existing 65-ft Lattice Steel Tower
American Tower Site Name: Cornwall, CT; ATC Site No. 88009; ATC Services Eng. No. 73120456
AT&T Wireless Site Name: Mohawk Mountain; AT&T Wireless Site No. CT-L012
Located: At Mohawk Mtn. on Mattatuck Trail Rd. in Litchfield County; Lat N 41° 49' 21", Long. W 73° 17' 52"

Dear Mr. Reyes,

Communication Structures Engineering, Inc. (CSEI) has completed a structural review of the existing 65-ft Modified Type 'A DD' tower located at this American Tower Corporation (ATC) site known as Cornwall, CT. In accordance with ATC's request, CSEI performed a structural analysis of this tower to check its capability to support the existing tower, antenna and equipment loads as well as the new loads from the AT&T Wireless Services (ATTWS) proposed antenna and transmission line additions. The specific loading criteria that we utilized were those prescribed by the national standard "ANSI/TIA/EIA-222-F" "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures." In accordance with this Standard the "basic wind speed" that we utilized for the analysis of this structure was the "fastest-mile velocity" of 80-mph applicable to Litchfield County, CT. A description of the existing tower, the applicable design criteria, the structural analysis procedure, and a description of the results of CSEI's structural analysis follow.

EXISTING TOWER INFORMATION & HISTORY

The 65-ft custom designed tower at this site was originally built by AT&T in 1953 to support four KS5759 Delay Lens Antennas. This tower was a custom designed structure engineered by Rose Chulkoff & Rose Engineering. In addition to the AT&T antennas, it was designed to support a Fire Warden Cab (Fire Lookout Station) on the upper platform above the four antennas and an access stair instead of the usual climbing ladder. This tower structure has been modified several times since 1953. In 1978 & 1983 the tower was modified by Rose Chulkoff & Rose to replace the Delay Lens Antennas with the four current 10-ft diameter parabolic antennas. AT&T added the co-locations antennas for Nextel, Cingular and ATTWS. ATC purchased this tower from AT&T on 2/28/00. The Fire Warden's Cab and AT&T's four parabolic antennas are still located at the top of this tower.

CSEI utilized the original 1953 tower design, as well as later tower modification drawings to conduct our structural review of this tower. The tower "Loading & Specifics" equipment list, provided to us by ATC, was utilized to determine the existing & proposed AT&T Wireless Services antenna & cable requirements. A site visit or condition survey of this tower was not a part of CSEI's scope of work for this location. We have assumed that the tower has been maintained in good physical condition.

DESIGN CRITERIA

See the attached page for the applicable Design Criteria and Antenna Configuration that were used for our structural analysis.

STRUCTURAL ANALYSIS PROCEDURE

The referenced design criteria combined with wind tunnel test data from tests conducted on AT&T towers, and antenna platforms were utilized to determine the applicable loads for this structure. A structural frame analysis was performed by applying these loads to a computer model of the tower framing that was modeled on STAAD III software. The load carrying frame members of this structure were then reviewed to check their compliance with the AISC ASD "Specification for Structural Steel Buildings".

RESULTS OF STRUCTURAL ANALYSIS

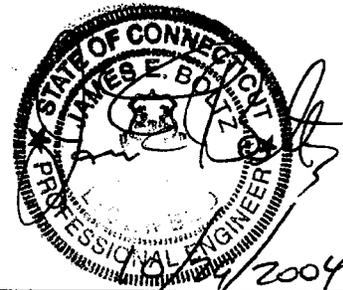
Our analysis determined that all of the existing tower members had maximum stress levels that were less than the allowable stresses permitted by the AISC Specification. We have therefore concluded that this existing tower will be capable of supporting the existing loads as well as the proposed AT&T Wireless Services additions in compliance with ANSI/TIA/EIA-222-F design criteria. This tower will not require any current structural modifications or changes to support the new equipment provided the AT&T Wireless antenna & cable mounts are properly engineered & installed by the firms responsible for that work scope.

If any co-location customers add any future additional antennas or equipment to this tower, this structure should be re-analyzed at that time. CSEI would be happy to respond to any questions regarding this structural analysis.

Sincerely,


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

Attachments: 1.) Design Criteria for Cornwall, CT
2.) Structural Calculations for Cornwall, CT





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

SITE ID: NYNYCT0L12

August 24, 2004

**Prepared by Bechtel Telecommunications
Galen Belen RF Engineer**

Bechtel Telecommunications

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4. FCC GUIDELINES FOR EVALUATING THE ENVIRONMENTAL EFFECTS OF RF RADIATION	4
5. COMPARISON WITH STANDARDS.....	4
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*Bechtel Telecommunications***1. Introduction**

This report constitutes an RF exposure analysis for the proposed AT&T Wireless additional sector antenna to be located at *Mohawk State Forest, Allyn Rd., West Goshen, 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: <i>Mohawk Mountain</i>	
Number of simultaneously operating channels	5
Type of antenna	Allgon 7262.03 and 7391
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	48 feet
Antenna Aperture Length	4.40 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:

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

Where, N = Number of channels, R = distance in cm from the Center of antenna, and $EIRP(\theta)$ = The isotropic power expressed in milliwatts in the direction of prediction point.

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

Where P_m/ch = Input power to antenna terminals in watts/ch, R = distance to center of antenna, h = aperture height in meters, α = 3 dB band-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.

*Bechtel Telecommunications***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 0.004278 mW/cm² which occurs at 11 feet from the antenna facility. The chart in exhibit A also shows that the power density is 0.002306 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 emission

<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	0.004278 mW/cm ²
PCS	1 mW/cm ²	5.0 mW/cm ²	0.004278 mW/cm ²

The maximum power density from AT&T's proposed sector at the proposed facility represents only 0.67 % of the public MPE limit for PCS frequencies. Since there are multiple transmitters at this site operating at different frequencies, the proper method for evaluating compliance with exposure limits is to find the percentage of MPE for each service, then sum the percentages to reach a total % of MPE for the site. (OET 65, pp 35-37)

From the last filing with the Connecticut Siting Council, it is seen that the total exposure for this site was 1.424 % of MPE. Adding the energy from the proposed AT&T system brings the total exposure to 2.09 % of MPE for uncontrolled (general public) exposure.

6. Conclusion

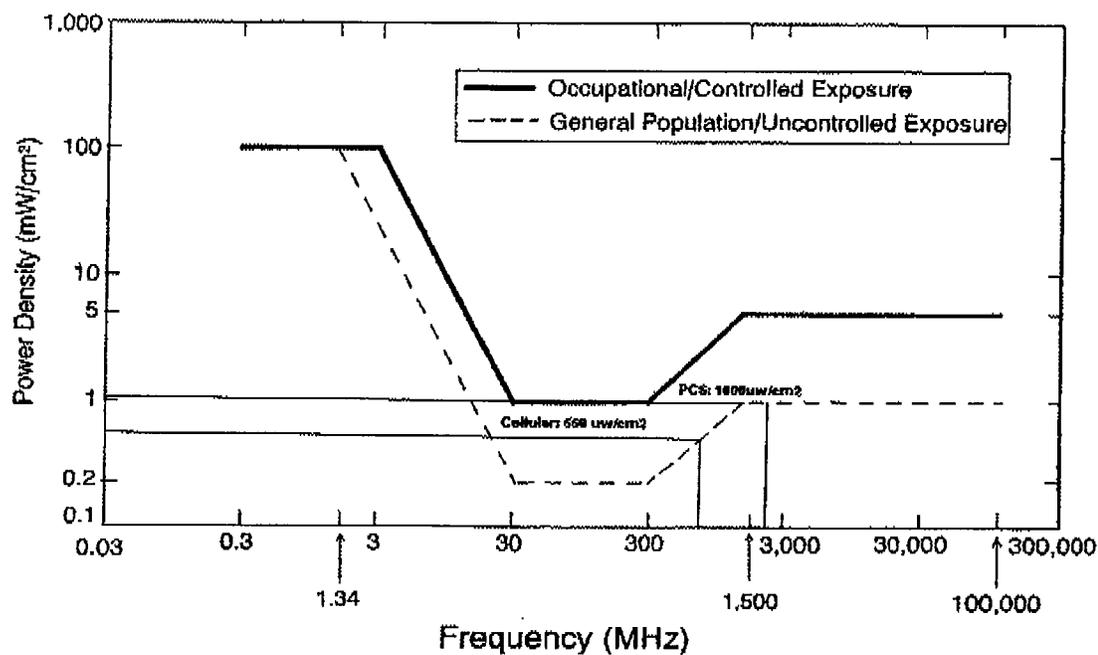
This analysis show that the maximum power density in accessible areas at this location will be 2.09 % of MPE, a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

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."

Bechtel Telecommunications

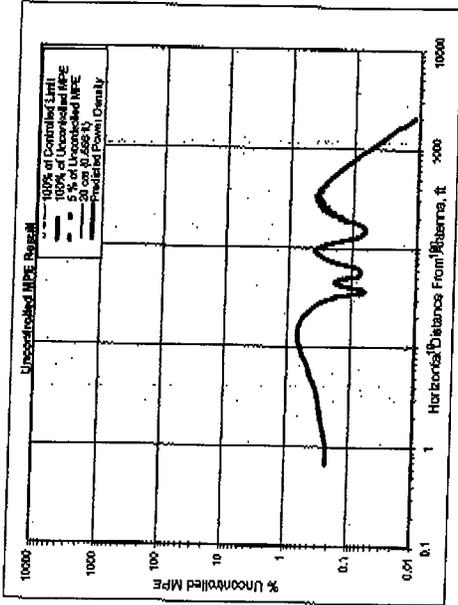
7. FCC Limits for Maximum Permissible Exposure

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



Bechtel Telecommunications

8. Exhibit A



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

Meets FCC Uncontrolled Limits for The Antenna Systems.

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

No Further Analysis Required.

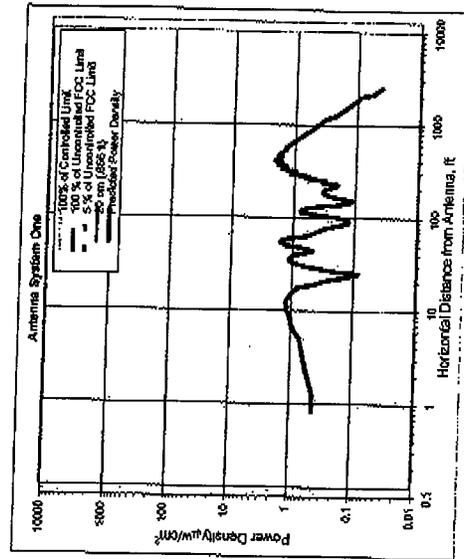
Power Density	0.004276	% of limit	0.67
Maximum Power Density =	149.82	limit from the MPE limit for uncontrolled environment	11.00
Composite Power (ERP) =	1,250.00	Watts	

Performed By: Galen Beien
Site Name: Mohawk Mountain
Site Location: Mohawk State Forest, Allyn Rd.
West Goshen, CT

Date: August 24, 2004
The most recent Shing Council filing reflects that the combined % MPE at this site is: 1.124

The combined % MPE when adding AT&T Wireless' antennas will therefore be: 2.0227045

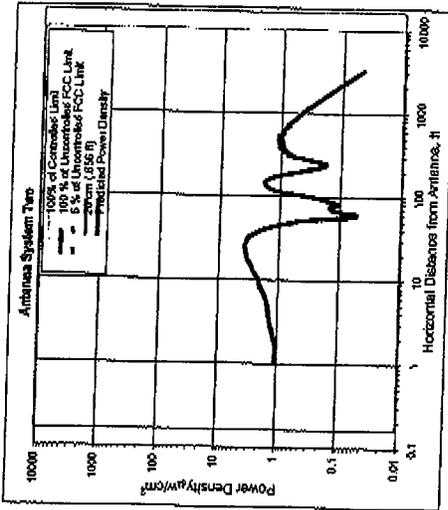
Bechtel Confidential



Antenna System One

Frequency	MHz	Value
# of Channels	#	1945.00
Max ERP/Ch	Watts	250.00
Max Power Into Ant	Watts	9.95
Antenna Centerline	feet	48.00
Calculation Point (above ground or roof surface)	feet	6.00
Antenna Model No.		0.00
Max Ant Gain	dBi	Allgon 7282.03
Down tilt	degrees	14.00
Miscellaneous Att	dB	0.00
Height of aperture	feet	4.25
Ant H/W	degrees	90.00
Distance to Antenna	feet	39.88
WDS?	Y/N?	N

Ant System ONE Owner: AT&T GSM-1900
Sector: 1
Azimuth: 310



Antenna System Two

Frequency	MHz	Value
# of Channels	#	870.00
Max ERP/Ch	Watts	250.00
Max Power Into Ant	Watts	17.70
Antenna Centerline	feet	48.00
Calculation Point (above ground or roof surface)	feet	6.00
Antenna Model No.		0.00
Max Ant Gain	dBi	7391.00
Down tilt	degrees	11.50
Miscellaneous Att	dB	0.00
Height of aperture	feet	0.00
Ant H/W	degrees	90.00
Distance to Antenna	feet	39.80
WDS?	Y/N?	N

Ant System TWO Owner: AT&T GSM850
Sector: 1
Azimuth: 310

Decline 7780JN6120E:EM was only used as a receiver antenna for the ES11 equipment and has no emissions.

8240004

Bechtel Telecommunications

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 (e)(7)(B)(iv).
- [2] Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Red 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.