

# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:	
APPLICATION OF NEW CINGULAR	DOCKET NO
WIRELESS PCS, LLC (AT&T) FOR A	
CERTIFICATE OF ENVIRONMENTAL	
COMPATIBILITY AND PUBLIC NEED FOR	May 18, 2011
THE CONSTRUCTION, MAINTENANCE	
AND OPERATION OF A	
TELECOMMUNICATIONS TOWER	
FACILITY IN THE TOWN OF	
WILLINGTON, CONNECTICUT	

APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

New Cingular Wireless PCS, LLC ("AT&T") 500 Enterprise Drive Rocky Hill, Connecticut 06067

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- 1. Statement of Radio Frequency Need with Coverage Plots
- Site Search Summary with Map Identifying Sites Searched and Existing Tower/Cell Sites
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  - A. Description and Design of Proposed Facility with Drawings, Map and Aerial
  - B. Visual Analysis with Photo Simulations
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  - D. DEP NDDB Review
  - E. SHPO Correspondence
- 5. Correspondence with the Town of Willington<sup>1</sup>
- 6. Certification of Service on Governmental Officials including List of Officials Served
- Copy of legal notice published twice in the <u>Willemantic Chronicle</u>, Notice to Abutting Landowners; Certification of Service; List of Abutting Landowners
- 8. Connecticut Siting Council Application Guide

ii C&F: 1638215.1

<sup>&</sup>lt;sup>1</sup> A Copy of the Technical Report submitted to the Town is included in the Bulk Filing.

# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF NEW CINGULAR WIRELESS DOCKET NO.\_\_\_\_\_
PCS, LLC (AT&T) FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND
PUBLIC NEED FOR THE CONSTRUCTION, May 18, 2011
MAINTENANCE AND OPERATION OF A
TELECOMMUNICATIONS TOWER FACILITY
AT EITHER TOLLAND TURNPIKE OR
OLD SOUTH WILLINGTON ROAD IN THE
TOWN OF WILLINGTON

# APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

## I. Introduction

## A. Purpose and Authority

Pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes ("CGS"), as amended, and Sections 16-50j-1 et seq. of the Regulations of Connecticut State Agencies ("RCSA"), as amended, New Cingular Wireless PCS, LLC ("AT&T" or the "Applicant"), hereby submits an application and supporting documentation (collectively, the "Application") for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless communications facility (the "Facility") in the Town of Willington. A Facility at one of the two candidate locations is a necessary component of AT&T's wireless network and its provision of personal wireless communications services and will allow service to be provided in along Tolland Turnpike (State Route 74), Willington Hill Road, Ruby Road and surrounding areas in the Town of Willington. The candidate facilities are proposed on adjoining parcels owned by Lawrence Becker.

## **B.** Executive Summary

The site of AT&T's proposed Candidate A Facility is Tolland Turnpike. The proposed Facility consists of a new 160' monopole and associated unmanned equipment. AT&T will mount up to twelve (12) panel antennas and twelve tower mounted amplifiers on a low profile platform at a height of 157' AGL. A 12' by 20' equipment shelter will be installed adjacent to the tower within a 40' x 80' gravel compound. The tower compound would be enclosed by an 8' foot high chain link fence. Vehicular access to the facility would be provided over approximately 331' of existing asphalt driveway and then over 581' of new gravel access drive. Utility connections would be extended underground from an existing utility pole on Tolland Turnpike.

The site of AT&T's proposed Candidate B Facility is Old South Willington Road. The proposed Facility consists of a new 190' monopole and associated unmanned equipment. AT&T will mount up to twelve (12) panel antennas and twelve tower mounted amplifiers on a low profile platform at a height of 187' AGL. A 12' by 20' equipment shelter will be installed adjacent to the tower within a 75' x 75' gravel compound. The tower compound would be enclosed by an 8' foot high chain link fence. Vehicular access to the facility would provided over 958' of new gravel access drive. A potential alternate route suggested by the town of Willington courses over an existing drive/right-of-way onto the host parcel; details of which included in Attachment 4(A). Utility connections in either instance would be extended underground from existing utility poles on Old South Willington Road.

Included in this Application and its accompanying attachments are reports, plans and visual materials detailing the proposed candidate Facilities and the environmental effects associated therewith. A copy of the Council's Community Antennas Television and

Telecommunication Facilities Application Guide with page references from this Application is

also included in Attachment 9.

C. The Applicant

The Applicant, New Cingular Wireless PCS, LLC, is a Delaware limited liability

company with an office at 500 Enterprise Drive, Rocky Hill, Connecticut 06067. The

company's member corporation is licensed by the Federal Communications Commission

("FCC") to construct and operate a personal wireless services system, which has been interpreted

as a "cellular system", within the meaning of CGS Section 16-50i(a)(6). The company does not

conduct any other business in the State of Connecticut other than the provision of personal

wireless services under FCC rules and regulations.

Correspondence and/or communications regarding this Application shall be addressed to

the attorneys for the applicant:

Cuddy & Feder LLP

445 Hamilton Avenue, 14<sup>th</sup> Floor

White Plains, New York 10601

(914) 761-1300

Attention: Daniel M. Laub, Esq.

Christopher B. Fisher, Esq.

A copy of all correspondence shall also be sent to:

AT&T

500 Enterprise Drive

Rocky Hill, Connecticut

Attention: Michele Briggs

**D.** Application Fee

Pursuant to RCSA Section 16-50v-1a(b), a check made payable to the Siting Council in

the amount of \$1,250 accompanies this Application.

## E. Compliance with CGS Section 16-50*l*(c)

AT&T is not engaged in generating electric power in the State of Connecticut. As such, AT&T's proposed Facility is not subject to Section 16-50r of the Connecticut General Statutes. Furthermore, AT&T's proposed Facility has not been identified in any annual forecast reports, therefore AT&T's proposed Facility is not subject to Section 16-50*l*(c).

## II. Service and Notice Required by CGS Section 16-50l(b)

Pursuant to CGS Section 16-50*l*(b), copies of this Application have been sent by certified mail, return receipt requested, to municipal, regional, State, and Federal officials. A certificate of service, along with a list of the parties served with a copy of the Application is included in Attachment 7. Pursuant to CGS 16-50*l*(b), notice of the Applicant's intent to submit this application was published on two occasions in the Willemantic Chronicle, the paper utilized for publication of planning and zoning notices in the Town of Willington and of general circulation in the area. A copy of the published legal notice is included in Attachment 8. The publisher's affidavits of service will be forwarded upon receipt. Further, in compliance with CGS 16-50*l*(b), notices were sent to each person appearing of record as owner of a property which abuts the parcels upon which the candidate Facilities are proposed. Certification of such notice, a sample notice letter, and the list of property owners to whom the notice was mailed are included in Attachment 8.

#### III. Statements of Need and Benefits

#### A. Statement of Need

As the Council is aware, the United States Congress, through adoption of the Telecommunications Act of 1996, recognized the important public need for high quality telecommunication services throughout the United States. The purpose of the Telecommunication Act was to "provide for a competitive, deregulatory national policy

framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies to all Americans." H.R. Conf. Rep. No. 104-458, 206, 104<sup>th</sup> Cong., Sess. 1 (1996). With respect to wireless communications services, the Telecommunications Act of 1996 expressly preserved State and/or local land use authority over wireless facilities, placed several requirements and legal limitations on the exercise of such authority and preempted State or local regulatory oversight in the area of emissions as more fully set forth in 47 U.S.C. § 332(c)(7). In essence, Congress struck a balance between legitimate areas of State and/or local regulatory control over wireless infrastructure and the public's interest in its timely deployment to meet the public need for wireless services.

The Facility proposed in this Application is an integral component of AT&T's network in its FCC licensed areas throughout the State. Currently, a gap in coverage exists in the area of Tolland Turnpike (Route 74), Willington Hill Road (State Route 320), Ruby Road, and surrounding areas in Willington. One of the proposed candidate Facilities, in conjunction with other existing and proposed facilities in the area, is needed by AT&T to provide its wireless services to people living in and traveling through this area of the State. Attachment 1 of this Application includes a Statement of Radio Frequency ("RF") Need and propagation plots which identify and demonstrate the specific need for a Facility in this area of Willington. The gap in coverage is significant in that it includes two state routes, well used local roads and includes residential and commercial areas.

#### **B.** Statement of Benefits

Carriers have seen the public's demand for traditional cellular telephone services in a mobile setting develop into the requirement for anytime-anywhere wireless connectivity with the ability to send and receive voice, text, image and video. Wireless devices have become integral

to the telecommunications needs of the public and their benefits are no longer considered a luxury. People today are using their wireless devices more and more as their primary form of communication for both personal and business needs. Modern devices allow for calls to be made, the internet to be reached and other services to be provided irrespective of whether a user is mobile or stationary and provided network service is available. The candidate Facilities proposed by AT&T would allow it, and other carriers, to provide these benefits to the public.

Moreover, AT&T will provide Enhanced 911 services from the site as required by the Wireless Communications and Public Safety Act of 1999 (the "911 Act"). The purpose of this Federal legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. In enacting the 911 Act, Congress recognized that networks that provide for the rapid, efficient deployment of emergency services would enable faster delivery of emergency care with reduced fatalities and severity of injuries. With each year since passage of the 911 Act, additional anecdotal evidence supports the public safety value of improved wireless communications in aiding lost, ill or injured individuals such as motorists and participants in sporting events along with supporting public safety. Carriers are simply able to help 911 public safety dispatchers identify wireless caller's geographical locations within several hundred feet, a significant benefit to the community associated with any new wireless site.

# C. Technological Alternatives

The FCC licenses granted to AT&T authorize it to provide wireless services in this area of the State through deployment of a network of wireless transmitting sites. The proposed Facility is a necessary component of AT&T's wireless network. Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a

practicable or feasible means to providing service within the target area for this site which contains a significant coverage gap. As such, they were not considered by AT&T as an alternative to the proposed Facility. The Applicant submits that there are no equally effective, feasible technological alternatives to construction of a new tower Facility for providing reliable personal wireless services in this area of Connecticut.

## IV. Site Selection & Town Consultation; Tower Sharing

#### A. Site Selection

AT&T's investigation of the area has been guided by benchmark data on gaps in its wireless coverage in Willington that was used to establish a "site search area" for the placement of a new facility. This site search area is the general geographical location where the installation of a wireless facility would address an identified service problem while still allowing for orderly integration of a site into AT&T's network, based on the engineering criteria of hand-off, frequency reuse and interference and physical terrain in the area.

In any site search area, AT&T seeks to avoid the unnecessary proliferation of towers and to reduce the potential adverse environmental effects of a needed facility, while at the same time ensuring the quality of service provided by the site to users of its network. There are seventeen (17) existing communications facilities within four (4) miles of the proposed Facility. AT&T already uses a number of these sites. Other existing sites are outside of the site search area and would not provide reliable coverage to the area intended in this Application.

Representatives for AT&T originally identified eight (8) parcels for a potential facility ultimately identifying the Candidate A location as one which could host a facility and provided reliable service to the targeted coverage area. As originally contemplated this location would have hosted a 180' tall monopole which was reviewed by the State Historic Preservation Officer.

A monopole at 180' at the candidate location was deemed by the SHPO to have a potentially adverse impact on a historic resource, namely the local Willington Green located near the intersection of Routes 302 and 72. The Town of Willington Conservation Commission also noted its objection to a 180' facility at the Candidate facility for similar reasons.<sup>2</sup> AT&T was able to reduce the height of the proposed monopole at the Candidate A location to 160'. The SHPO re-reviewed this proposal at that height but still found that the views from Willington Green would be adversely impacted.

Subsequently AT&T subsequently identified a new alternate location proposed here as the Candidate B facility. A Technical Report providing details of both candidate facilities was provided to the Town of Willington by letter dated October 4, 2011. Subsequent discussions with the First Selectman and Town Staff indicated a preference for the proposed Candidate A Facility noting that the reduced height (160') appeared to minimally impact the Willington Green and the proposed location was in an existing gravel mining operation near other commercial ventures. The Candidate B Facility is less preferred by the Town of Willington due to its proximity to residential homes and Old Willington Road, a local dirt road of generally rural nature. In addition, the Town also noted that of the Candidate B Facility to become the more likely of the two options, an alternate route utilizing an existing driveway for access would be preferred to the proposed entirely new gravel access drive. The Candidate A Facility provides AT&T with superior coverage along Route 74 and is AT&T's preferred Candidate. Given the Town preference for the Candidate A Facility, the proximity and visibility of other utility infrastructure in the area, representatives for AT&T are asking the SHPO to once again review the proposal.

<sup>2</sup> The Conservation Commission's comments were received as part of the National Environmental Protection Act

procedures associated with a Federally licensed facility and were received prior to the filing of a Technical Report with the Town.

# **B.** Tower Sharing

Both the Candidate A and B Facilities can accommodate three additional carriers' antennas and ground equipment.

### V. Candidate Facility Designs

# A. Candidate A Facility

AT&T has leased a 100' x 100' area on an approximately 47.7-acre parcel of property owned by Lawrence Becker. The proposed Facility would consist of a 160' AGL high self-supporting monopole within a 40' x 80' fenced equipment compound located in the north central portion of the parcel. AT&T would install up to twelve (12) panel antennas on a platform at a centerline height of 157'AGL and unmanned equipment within the compound. The compound would be enclosed by an 8' chain link fence.

Both the monopole and the equipment compound are designed to accommodate the facilities of three other wireless carriers and equipment. Vehicle access to the facility would be provided first by an existing asphalt access drive off of Tolland Turnpike (Route 74). Utility connections would be extended underground from a utility pole along Tolland Turnpike.

Attachment 3(A) contains the specifications for the proposed Facility including a site access map, a compound plan, tower elevation, and other relevant details of the proposed Facility. Also included is a Visual Analysis Report (Attachment 3(B)) and information related to the Environmental Assessment of the Candidate A Facility (Attachments 3(C). Some of the relevant information included in Attachment 3 (and its sub-tabs) reveals that:

- The property is classified locally in the R-80 zoning district;
- Minimal grading and clearing of the proposed compound area would be required for the construction of the proposed Facility;

- The proposed Facility will have no impact on water flow, water quality, or air quality;
- Topography and vegetation screen visibility of the tower from a large portion of the viewshed analysis study area;
- Visibility of the tower is largely limited to upper portions of the tower, and
- Year-round visibility of the proposed tower is limited to approximately .9% or 71.7 acres
  of the 8,053 acre study area;

#### **B.** Candidate B Facility

AT&T has leased a 100' x 100' area on an approximately 170-acre parcel of property owned by Lawrence Becker. The proposed Facility would consist of a 190' AGL high self-supporting monopole within a 75' x 75' fenced equipment compound located in the southern portion of the parcel. AT&T would install up to twelve (12) panel antennas on a platform at a centerline height of 187'AGL and unmanned equipment within the compound. The compound would be enclosed by an 8' chain link fence.

Both the monopole and the equipment compound are designed to accommodate the facilities of three other wireless carriers and equipment. Vehicle access to the facility would be provided over a proposed new gravel access drive extending from Old Willington Road. A potential alternate route may be available, and was suggested/preferred by the Town of Willington, utilizing an existing driveway/ right-of-way. AT&T is researching the legal rights to utilizing such access and can incorporate this alternate route in a facility if the Candidate B Facility is approved and if legally available. Utility connections would be extended above ground from a utility pole along Old Willington Road to a new riser pole and then underground to the proposed compound. Attachment 4(A) contains the specifications for the proposed Facility including a site access map, a compound plan, tower elevation, and other relevant details

of the proposed Facility. Also included is a Visual Analysis Report (Attachment 4(B)) and information related to the Environmental Assessment of the Candidate B Facility (Attachments 4(C) and 4D)). Some of the relevant information included in Attachment 4 and its sub-tabs reveals that:

- The property is classified locally in the R-80 zoning district;
- Grading and clearing of the access road as proposed would be required for the construction of the proposed Facility;
- An on-site wetland is approximately 100' from the proposed access drive and 500' from the proposed compound,
- Pools capable of providing vernal pool habitat to a variety of amphibian species were identified as part of the wetland,
- The proposed Facility is not anticipated to have an impact on water flow, water quality,
   or air quality;
- Topography and vegetation screen visibility of the tower from a large portion of the view shed analysis study area;
- Visibility of the tower is largely limited to upper portions of the tower, and
- Year-round visibility of the proposed tower above the tree canopy is limited to approximately 0.25% or 20 acres of the 8,053 acre study area;

## VI. Environmental Compatibility

Pursuant to CGS Section 16-50p, the Council is required to find and to determine as part of the Application process any probable environmental impact of the facility on the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forest and parks, air and water purity and fish and wildlife. As demonstrated in this

Application and the accompanying Attachments and documentation, the proposed Facility will not have a significant adverse environmental impact.

### A. Visual Assessment: Candidate A Facility

It is anticipated that the proposed 160' AGL monopole will be visible year-round from approximately 0.9% or 71.7 acres of the 8,053 acre study area. The proposed monopole will be seen from 11 residential properties and 2 sensitive visual receptors (Willington Cemetery and old West Cemetery) year-round. Included as Attachment 3(B) is a Visual Analysis Report which contains a viewshed map and photosimulations of off-site views. As shown in the report and photosimulations, areas of visibility are expected primarily distant to the site. As depicted in the Viewshed Analysis included in Attachment 3(B), the majority of anticipated year-round and seasonal visibility of the proposed facility occurs over portions of Glass Factory Road, Willington Hill Road (Route 320), and Tolland Turnpike (Route 74).

Weather permitting, AT&T will raise a balloon with a diameter of at least three (3) feet at the proposed Candidate A Facility site on the day of the Council's first hearing session on this Application, or at a time otherwise specified by the Council.

## B. Visual Assessment: Candidate B Facility

It is anticipated that the proposed 190' AGL monopole will be visible year-round from approximately 0.25% or 20 acres of the 8,053 acre study area. The proposed monopole will be seen from portions of 6 residential properties within the study area year-round with an additional 3 properties having seasonal views. Included as Attachment 3(B) is a Visual Resource Evaluation Report which contains a view shed map and photo simulations of off-site views. As shown in the report and photo simulations, areas of visibility are expected primarily distant to the site. As depicted in Attachment 3(B), the majority of anticipated year-round and seasonal

visibility of the proposed facility occurs over portions of Willington Hill Road (Route 320) and Lindsey Lane.

Weather permitting, AT&T will raise a balloon with a diameter of at least three (3) feet at the proposed Candidate B Facility site on the day of the Council's first hearing session on this Application, or at a time otherwise specified by the Council.

# C. Solicitation of State and Federal Agency Comments

Various consultations with municipal, State and Federal governmental entities and AT&T consultant reviews for potential environmental impacts are summarized and included in Attachments 6-8. For both Candidate A and B Facilities, AT&T submitted requests for review from Federal, State and Tribal entities including the United States Fish & Wildlife ("USFW") Service and the Connecticut State Historic Preservation Officer ("SHPO").

As noted above the Candidate A Facility is being resubmitted to the SHPO in response to the Town comments received. In addition, it should be noted that a potential archaeological issue associated with a cemetery/burial ground previously identified as being on the south side of Tolland Turnpike has proven incorrect. The historic cemeteries are to the north of Tolland Turnpike while the proposed Candidate A Facility is to the south. This is being clarified with SHPO. As for the Candidate B Facility, SHPO has issued a letter indicating that it will have no effect on historical, architectural or archeological resources.

No endangered or threatened species habitat was identified based on a review of the CT DEP Natural Diversity Database for either Candidate Facility. Please see Natural Diversity Database Map information included in Attachments 3(C) and 4(D). As required, this Application is being served on State and local agencies which may choose to comment on the Application prior to the close of the Siting Council's public hearing.

## **D.** Power Density

In August 1996, the FCC adopted a standard for exposure to Radio Frequency ("RF") emissions from telecommunications facilities like those proposed in this Application. To ensure compliance with applicable standards, a maximum power density report was produced by AT&T and is included herein as part of Attachment 5. As demonstrated in this report, the calculated worst-case emissions from the Candidate Facilities site are as follows:

- Candidate A Facility: 5.2% of the Federal MPE standard; and
- Candidate B Facility: 3.6% of the Federal MPE standard.

#### D. Other Environmental Factors

Either of the Candidate Facilities would be unmanned, requiring monthly maintenance visits approximately one hour long. AT&T's equipment would be monitored 24 hours a day, seven days a week from a remote location. Neither of the Candidate Facilities requires water supply or wastewater utilities. No outdoor storage or solid waste receptacles will be needed. Further, neither of the proposed Candidate Facilities will create or emit any smoke, gas, dust or other air contaminants, noise, odors or vibrations other than installed heating and ventilation equipment. Temporary power outages could require the limited use of an on-site diesel fuel generator. Overall, the construction and operation of AT&T's proposed Facility will have no significant impact on the air, water, or noise quality of the area.

AT&T utilized the FCC's TOWAIR program to determine if either of the Candidate Facilities would require registration with the Federal Aviation Administration ("FAA"). The TOWAIR program results for the Candidate Facilities, a copies of which are included in Attachments 3(C) and 4(C), indicate that registration with the FAA is not required let alone FAA

review as a potential air navigation obstruction or hazard. As such, no FAA lighting or marking would be required for the either of the Candidate Facilities proposed in this Application.

AT&T has evaluated the Site in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA"). Neither host site was identified as a wilderness area, wildlife preserve, National Park, National Forest, National Parkway, Scenic River, State Forest, State Designated Scenic River or State Gameland. Further, according to the site survey and field investigations, no Federally regulated wetlands or watercourses or threatened or endangered species will be impacted by the proposed Facility.

## VII. Consistency with the Town of Willington's Land Use Regulations

Pursuant to the Council's Application Guide, included in this section is a summary of the consistency of the project with the local municipality's zoning and wetland regulations and plan of conservation and development. A description of the zoning classification of the Site and the planned and existing uses of the proposed site location are also detailed in this Section.

#### A. Willington's Plan of Conservation and Development

The Town of Willington Plan of Conservation & Development ("Plan"), effective February 7, 2006 is included in Section 1 of the Bulk Filing. This document does not addresses the provision of wireless telecommunications facilities as a land use. The Plan does however list as a goal the attraction of new economic development. In order to achieve this objective the Plan calls for the "[u]pgrade [of] telecommunications infrastructure to better attract high-technology facilities." Plan p. 4-47. Tolland Turnpike (Route 74) is listed in the Plan as a "Highway Primary" and Willington Hill Road (Route 320) is classified as a "Highway Secondary". Plan Map No. 4 "Existing Transportation Map".

# B. Willington's Zoning Regulations and Zoning Classification

Both Candidate Facility sites are classified in the Town of Willington's R-80 Zoning

District. The zoning code sets forth provisions which indicate a wireless telecommunications

facility such as the ones proposed would be subject to special exception approval. (See Town of

Willington Zoning Regulations Applicant's Bulk Filing, Section 2). Section 11 of the Zoning

Regulations set forth the standards for wireless telecommunications facilities and the consistency

of the proposed Facility with these standards is illustrated in the table below. The first two

columns include the requirements of the Zoning Regulations and the third column applies these

standards to the proposed Candidate Facilities.

# C. Local Zoning Standards and Dimensional Requirements

Section from the Zoning Regulations	Standard	Proposed Candidate Facilities
11.13.06.02.01	All utilities serving the facilities shall be underground.	The proposed Candidate Facilities would be served by underground utilities.
11.13.06.02.02	The base area should accommodate parking for technician vehicles and provide a 20' buffer of screening and/or landscaping around the compound fence perimeter	The Candidate Facilities will be able to accommodate technician vehicles. Given the location interior to the host parcels no screening is currently proposed.
11.13.06.02.03	A tower shall have two time (2x) the fall zone distance from any abutting sensitive area and three times the fall zone from any sensitive area is it is deemed visible. <sup>3</sup>	The Candidate A facility approximately 354' from the nearest property boundary (approximately 2.2x the tower height). Other boundaries range from approximately 520' to 1,120' distant from the proposed facility. Views of the lower 50% of the tower will be obscured from view from these surrounding properties.  The Candidate B Facility is
		approximately 190' from the nearest

<sup>&</sup>lt;sup>3</sup> "Sensitive Area" is defined to include historic, residential and other areas including village, riparian corridors and stream belts. "Visible" means that the base, base equipment, and lower 50% of a tower is visible to a higher degree than for a tower that is not visible, as viewed by an observer from a sensitive area.

		property boundary. Other boundaries range from 771' to 1,004'.
11.13.06.02.04	A facility's ground equipment shall not be in a required yard	The location of the ground equipment for both Candidate Facilities is outside any required yard.
11.13.06.03.01	The "support structure" design shall be of a type that blends into the neighborhood architecturally or a monopole design	The proposed tower is a monopole design.
11.13.06.03.02	unless required by the FAA the color of the tower shall be a non-contrasting blue or gray.	The proposed monopole is a (galvanized) matte gray finish.
11.13.06.03.04	Unless required by the FAA, no lights shall be installed above 14' AGL	No lighting is proposed for either of the candidate facilities.
11.13.06.03.04	No signs other than for safety and security directly involving the operation of the facility shall be permitted	No signs other than for safety and security directly involving the operation of the facility are proposed.
11.13.06.03.05	Towers shall be designed to accommodate at least three (3) additional co-locators.	The proposed Candidate Facilities can accommodate up to three (3) additional carriers and are designed for co-location (in accordance with 11.13.06.03.10)
11.13.06.03.06	The maximum size of panel antennas shall be 2' x 8' x 6'	AT&T's antennas are typically within these dimensions.

# **D.** Planned and Existing Land Uses

The proposed Facility will be located on an approximately 2.4 acre parcel. Properties in the area immediately surrounding the subject site include single family residential homes, commercial business, and open space. Consultation with municipal officials did not indicate any planned changes to the existing or surrounding land uses. A copy of the Town's Zoning Map is included in Attachment 3 of the Bulk Filing.

# E. Willington's Inland Wetlands and Watercourses Regulations

The Town of Willington's Inland Wetlands Regulations ("Local Wetlands Regulations") regulate certain activities conducted in "wetlands" and "watercourses" as defined therein.

A review of available information regarding the site through Federal, State and local databases and a field visit indicates the parcel hosting the Candidate A Facility has one nearby wetland system. The access drive for the Candidate A Facility is approximately 47' from the nearest flagged wetland area with no activity occurring directly within the delineated wetland area. Construction of the proposed facility and the associated access drive will not occupy any portion of this flagged wetland/watercourse area.

The host parcel of the Candidate B Facility has one nearby wetland system which demonstrates features supportive of vernal pool habitat. The access drive is approximately 100' from this resource and the proposed compound is over 500' distant. No activity occurs any nearer to this delineated wetland area. Construction of the proposed facility and its associated access drive will not occupy any portion of this flagged wetland/watercourse area.

In accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council of Soil and Water Conservation, soil erosion control measures and other best management practices will be established and maintained throughout the construction of either Candidate Facility. Given the distance and precautionary measures to be taken, no adverse impact to these wetland or water resources is anticipated erosion control measures and other best management practices will be implemented.

#### IX. Estimated Cost and Schedule

#### A. Overall Estimated Cost

The total estimated cost of construction for the proposed Candidate Facilities is as follows:

	Tolland Turnpike Candidate	Old South Willington Road	
	A Facility	Candidate B Facility	
Tower & Foundation	\$ 90,000	\$ 90,000	

Site Development	\$ 45,000	\$ 47,900
Utility Installation	\$ 27, 360	\$ 28,740
Facility Installation	\$ 93,000	\$ 93,000
Antennas and Equipment	\$ 250,000	\$ 250,000
	\$ 505,960	\$ 509,640

# B. Overall Scheduling

Site preparation work would commence immediately following Council approval of a Development and Management ("D&M") Plan and the issuance of a Building Permit by the Town of Willington. The site preparation phase for either Candidate Facility is expected to be completed within three (3) to four (4) weeks. Installation of the monopole, antennas and associated equipment is expected to take an additional two (2) weeks. The duration of the total construction schedule is approximately six (6) weeks. Facility integration and system testing is expected to require an additional two (2) weeks after the construction is completed.

#### X. Conclusion

This Application and the accompanying materials and documentation clearly demonstrate that a public need exists in this central portion of Town of Willington and surrounding areas for the provision of AT&T's wireless services to the public. The foregoing information and attachments also demonstrate that one of the Candidate Facilities proposed will not have any substantial adverse environmental effects. The Applicant respectfully submits that the public need for the proposed Facility outweighs any potential environmental effects resulting from the construction of the proposed Facility at the Site. As such, the Applicant respectfully requests that the Council grant a Certificate of Environmental Compatibility and Public Need to AT&T for one of the proposed Candidate Facilities in the Town of Willington.

Respectfully Submitted,

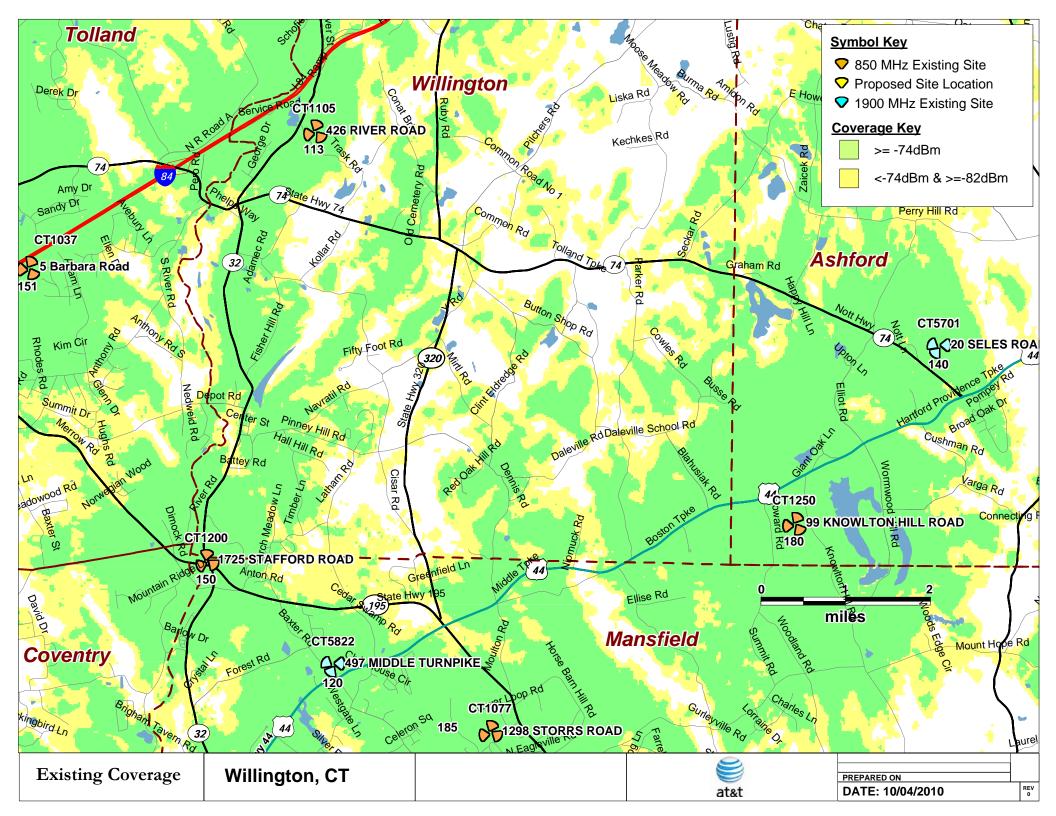
By:

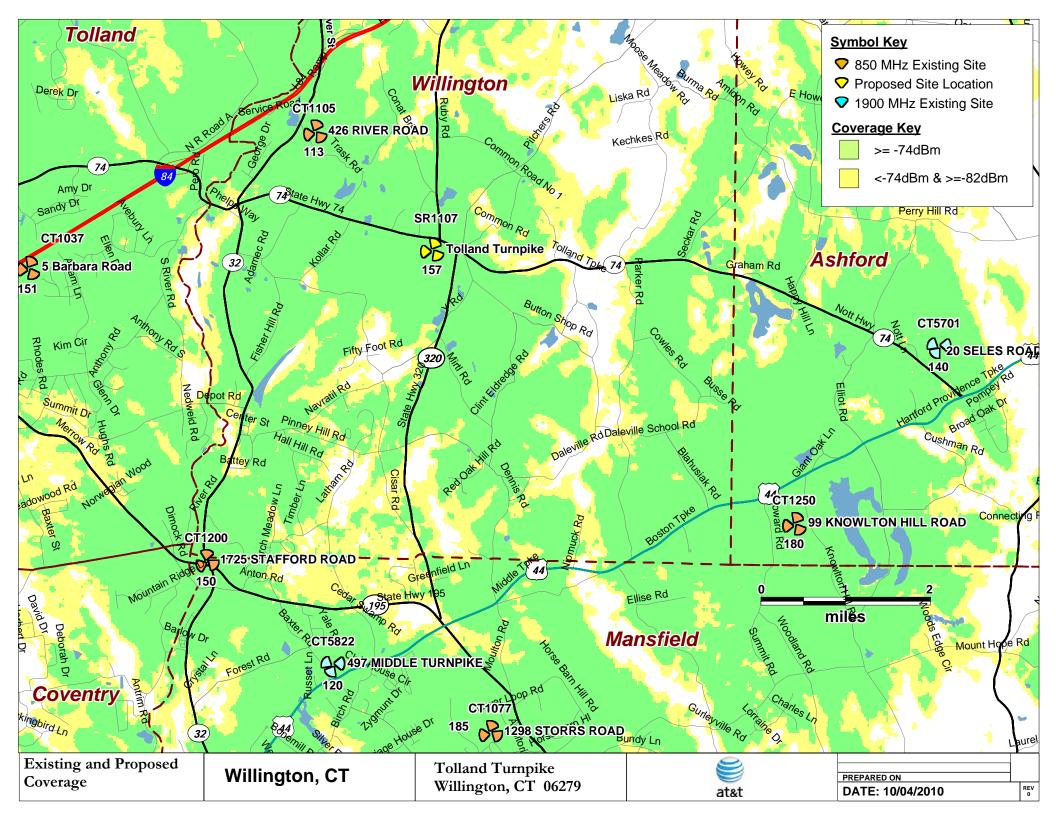
Daniel M. Laub, Esq. Christopher B. Fisher, Esq. Cuddy & Feder LLP 445 Hamilton Avenue, 14<sup>th</sup> Floor White Plains, New York 10601 (914) 761-1300 Attorneys for the Applicant

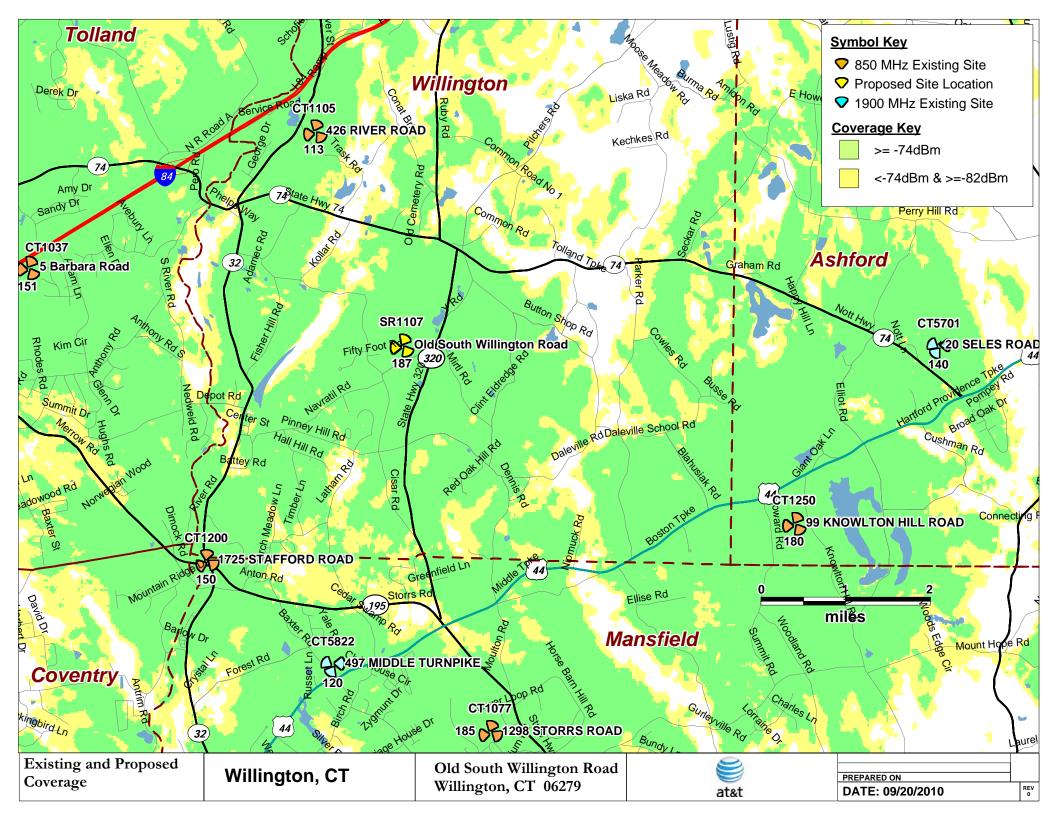
# **ATTACHMENT 1**

#### Statement of Public Need

The proposed facility will provide wireless communications service along Tolland Turnpike (State Route 74), Willington Hill Road (State Route 320), Ruby Road and surrounding areas in the Town of Willington. The facility is needed by AT&T in conjunction with other existing and proposed facilities in Willington and adjoining communities. Attached are coverage plots that depict the "Current Coverage" provided by AT&T's existing facilities in this area and "Proposed Coverage" for the proposed site. Additionally, an information sheet providing details of surrounding telecommunication sites is also included. As clearly demonstrated by these materials, a facility in this area of Willington is required for AT&T to serve the public in this portion of the Town.





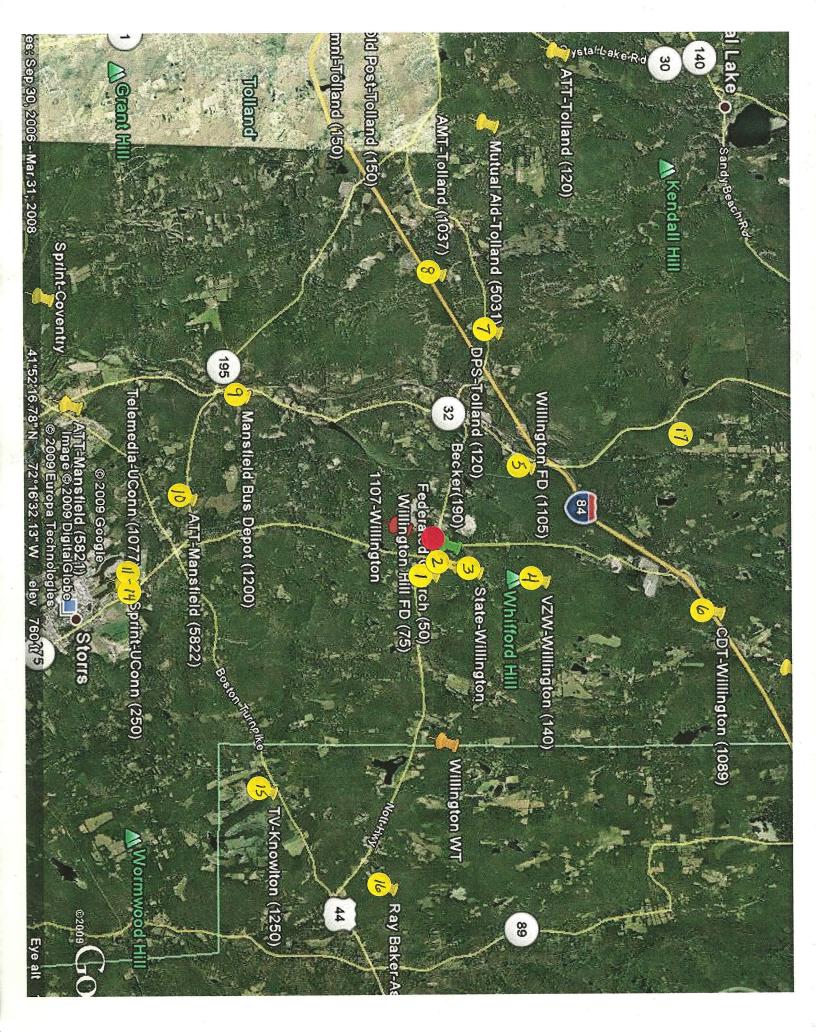


## **EXISTING TOWER/ CELL SITE LISTING**

There are 16 communications towers and a church steeple located within approximately four miles of the site search area for the proposed site in Willington. Each location is also shown on the following map, numbered in the order appearing on this list. Not one of the below existing facilities would provide adequate coverage to the target area. Indeed, many of the towers listed below are currently being used or proposed for use by AT&T to provide service outside of the area targeted for service by the proposed Willington Facility.

No.	OWNER/OPERATOR	TOWER/CELL SITE	<u>HEIGHT</u>	<u>SOURCE</u>	COORDINATES
		<u>LOCATION</u>			
1.	Willington Hill FD	24 Old Farms Road,	+/-75'	Visual	Lat 41-52-18
		Willington			Long 72-15-44
	- 1 1 C1 1 2	2017	4.501		7 11 70 01 1
2.	Federated Churches of	236 Tolland Tpke.,	+/-50'	Visual	Lat 41-52-31.4
	Willington	Willington			Long 72-15-53
3.	State of CT	Jared Sparks Road,	+/-75'	Visual	Lat 41-52-47
3.	State of C1	Willington	+/-/3	Visuai	Lat 41-32-47 Long 72-15-46.6
		willington			Long 72-13-40.0
4.	Verizon Wireless	Cosgrove Road,	140'	CSC	Lat 41-53-33
		Willington		Database	Long 72-15-38
5.	Willington FD	126 River Road,	110'	AT&T	Lat 41-28-06
		Willington		Site #1105	Long 72-16-23.6
6.	Cordless Data (CDT)	Turnpike Road,	170'	AT&T	Lat 41-55-32
		Willington		Site #1089	Long 72-15-09
7.	DPS	Tolland Stage Road,	120'	CSC	Lat 41-53-03
		Tolland		Database	Long 72-19-26
8.	American Tower	5 Barbara Road	150'	AT&T	Lat 41-52-22
0.	Amencan Tower	(Ruops), Tolland	130	Site #1037	Lat 41-32-22 Long 72-20-22
		(Kuops), Tolialiu		3116 #103/	Long 12-20-22
9.	Town of Mansfield	1725 Stafford Road,	170'	AT&T	Lat 41-50-08.6
'		Mansfield		Site #1200	Long 72-18-27
					6
10.	AT&T	497 Middle Tpke,	120'	AT&T	Lat 41-49-33
		Mansfield		Site #5822	Long 72-16-55
11-	UConn tower farm	North Eagleville	80' – 320'	AT&T	Lat 41-48-50
14		Road, Mansfield		Site #1077	Long 72-15-36

15.	SBA (Tower Ventures)	Knowlton Hill Road,	150'	AT&T	Lat 41-50-26.8
		Ashford		Site #1250	Long 72-12-27.1
16.	Ray Baker	20 Seles Road,	190'	AT&T	Lat 41-51-48
		Ashford		Site #5701	Long 72-10-57.2
17.	North Atlantic Towers	155 Schofield Road,	149'	NAT	Lat 41-55-20.2
	("NAT")	Willington		marketing	Long 72-17-37.08



# **ATTACHMENT 2**

## Site Search Summary

To initiate its site selection process in an area where a coverage need has been identified, AT&T first establishes a "site search area". The site search area is a general geographical location where the installation of a wireless facility would address the identified coverage need and/or capacity problem, while still allowing for orderly integration of the site into AT&T's network based on the radiofrequency engineering criteria of hand-off, frequency reuse and interference. In any site search area, AT&T seeks to avoid the unnecessary proliferation of towers and to reduce the potential adverse environmental effects of a needed facility, while at the same time ensuring the quality of service provided by the site to users of its network.

Attached is a map demonstrating sites searched by AT&T for location of a facility in Willington. In this particular area of Town, there are no communications towers or other structures that could service AT&T's gap in coverage. Subsequently, AT&T investigated several locations where the construction of a wireless facility might be feasible and identified the proposed site which will meet AT&T's radio frequency propagation needs.

Additional sites in and out of the site search area were analyzed and found to be technically inadequate or otherwise infeasible for construction. Descriptions of these sites are included below. These sites were generally rejected due either to the topography in the Willington site search area, the overall distance from the investigated site to the area where system coverage is needed or the inability to develop a tower at the site.

## Sites Investigated

There are no existing structures within the search area adequate to meet the coverage requirements of the proposed Facility. In all, AT&T's representatives identified and investigated nine (9) potential sites/areas in and near the Willington site search area described above. The location of the sites investigated as well as any reason for eliminating the property as a siting option is included in the summary below. Following these descriptions is a map indicating the location of all sites investigated.

# 1. Address: Tolland Turnpike

Owner: Lawrence Becker

Map/Lot: 23/062 Deed: 86/332 Zoning District: R80

Lot Size: Approx. 47.7 Acres

This is the proposed Candidate A location.

2. Address: 180 Tolland Turnpike (pit)

Owner: Lawrence Becker

Map/Lot: 23/066 Deed: 41/394 Zoning District: R80 The site was rejected by AT&T's radio frequency engineers.

# 8. Address: Luchon Road

Owner: Town of Willington

Map/Lot: 13/005 Zoning District: R80

Lot Size: Approx. 3.26 Acres

The site was rejected by AT&T's radio frequency engineers. In addition, a site at this location would likely impact on-site wetlands.

# 9. Address: Jared Sparks Road

Owner: Town of Willington

Map/Lot: 27/012 Zoning District: R80

Lot Size: Approx. 20.0 Acres

The site was rejected by AT&T's radio frequency engineers.

Lot Size: Approx. 128.50 Acres

A site at this location would interfere with ongoing gravel operations of the land owner.

### 3. Address: Old South Willington Road

Owner: Lawrence Becker

Map/Lot: 18/019 Deed: 76/714 Zoning District: R80

Lot Size: Approx. 170 Acres

This is the proposed Candidate B location.

# 4. Address: 236 Tolland Turnpike

Owner: Federated Churches of Willington

Map/Lot: 23/053 Deed: 43/140 Zoning District: R80

Lot Size: Approx. 1.0 Acre

This church steeple proposed installation was rejected by AT&T's radio frequency engineers.

#### 5. Address: 24 Old Farms Road

Owner: Willington Hill FD

Map/Lot: 23/044 Deed: 101/739 Zoning District: R80

Lot Size: Approx. 0.84 Acres

Existing tower too short; limited ground space for tower replacement; less natural screening; would require a  $2^{nd}$  tower for comparable radio frequency coverage to proposed Facility.

## 6. Address: 74 Willington Hill Road

Owner: Thompson Map/Lot: 18/037 Zoning District: R80

Lot Size: Approx. 25.3 Acres

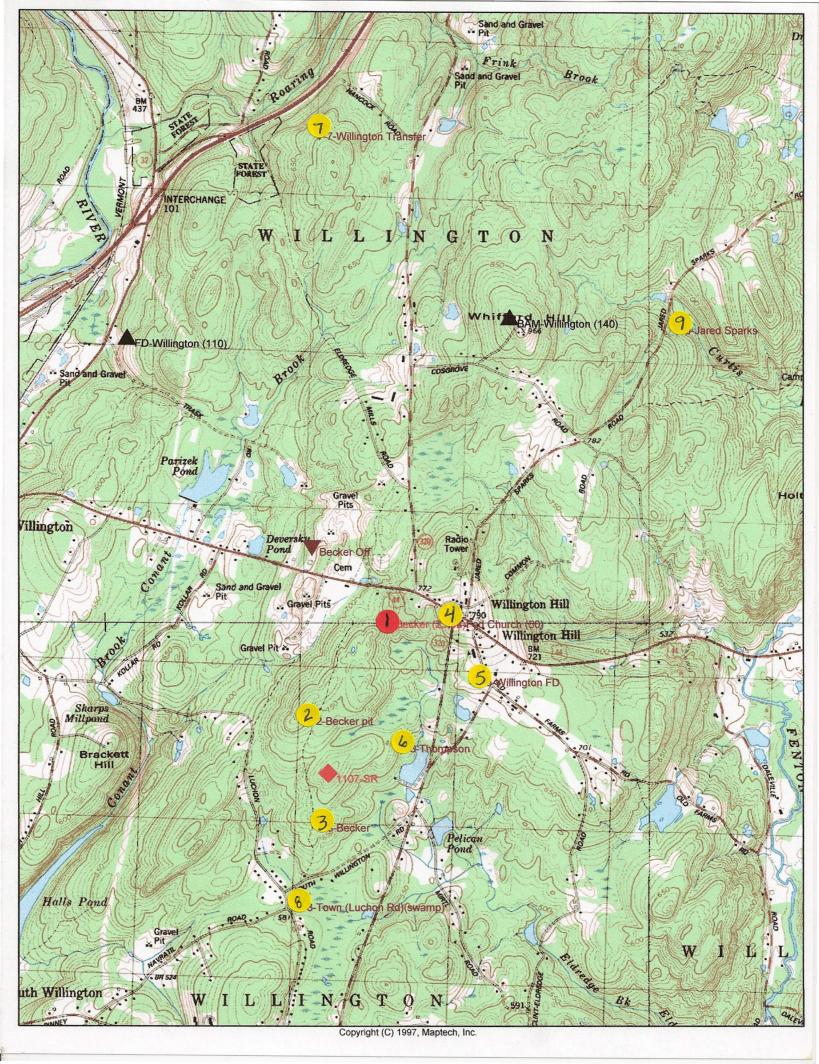
*The site was rejected by AT&T's radio frequency engineers.* 

#### 7. Address: 49 Hancock Road

Owner: Town of Willington

Map/Lot: 38/020 Zoning District: R80

Lot Size: Approx. 49.85 Acres



## **ATTACHMENT 3(A)**

### Candidate A: General Facility Description

Tolland Turnpike, Willington, Connecticut 06279 Owner: Lawrence Becker Tax ID: M23/P62 Approximately 47.7 Acre Parcel

The proposed facility consists of a 100' by 100' lease area located in the central-north portion of an approximately 47.7 acre parcel owned by Lawrence Becker at Tolland Turnpike in Willington. A new self-supporting monopole tower 160' in height would be constructed. AT&T will install up to 12 panel antennas at the 157' centerline height on the tower together with an associated 12' x 20' radio equipment shelter at the tower base on a concrete pad within the tower compound. The tower compound would consist of a 40' by 80' area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. An 8' high chain link fence would enclose the tower compound. Vehicle access to the facility would be provided over 331' of existing access drive and over a new 581' gravel access drive 12' in width. The total distance of site access is 912'. Electric and telephone utilities would be extended underground from an existing offsite utility pole to the proposed facility. Provisions are also included for an emergency generator to be placed on a concrete pad within the tower compound.

### Site A: Site Evaluation Report

#### I. LOCATION

- A. COORDINATES: 41° 52' 32.4" N 72° 16' 9.7" W
- B. GROUND ELEVATION: 768' AMSL
- C. USGS MAP: Coventry Quadrangle
- D. SITE ADDRESS: Tolland Turnpike in Willington, Connecticut, 06279
- E. ZONING WITHIN 1/4 MILE OF SITE: Commercial, Residential

### II. DESCRIPTION

- A. SITE SIZE: 100' by 100' lease area, 40' by 80' compound
- B. LESSOR'S PARCEL:  $\pm 47.7$  acres
- C. TOWER TYPE/HEIGHT: Monopole / 160' AGL.
- D. SITE TOPOGRAPHY AND SURFACE: The proposed site is located towards the northern/central portion of a 47.7-acre parcel. The site is located on a sloping wooded area.
- E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The surrounding terrain ranges in elevation from 400' AMSL to over 950' AMSL. The majority of the surrounding area is covered with vegetation. A field investigation identified one on-site wetland approximately 41' to the south of the proposed access road.
- F. LAND USE WITHIN 1/4 MILE OF SITE: Land uses within ½ mile of the site are include commercial, sand & gravel mining, a cemetery and residential uses.

### III. FACILITIES

- A. POWER COMPANY: Connecticut Light and Power
- B. POWER PROXIMITY TO SITE: Facilities available from off site utility pole.
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: Same as power.
- E. VEHICLE ACCESS TO SITE: Access to the facility would be provided initially over an existing asphalt driveway then a new 12' wide gravel access drive approximately 581' to the site.
- F. OBSTRUCTIONS: None
- G. CLEARING AND FILL REQUIRED: The compound will require clearing and grading to level the area. Some filling may be required. Detailed plans would be included in a Development and Management Plan ("D&M" plan) after any approval of the facility which may be issued by the Connecticut Siting Council.

### IV. LEGAL

- A. PURCHASE [ ] LEASE [ X ]
- B. OWNER: Lawrence Becker
- C. ADDRESS: Tolland Turnpike, Willington, Connecticut 06279

### Candidate A: Facilities and Equipment Specification

### I. TOWER SPECIFICATIONS:

A. MANUFACTURER: To be determined

B. TYPE: Self-Supporting monopole

C. HEIGHT: 160'

DIMENSIONS: Approximately 4½' in diameter at the base, tapering to

approximately 2' at the top.

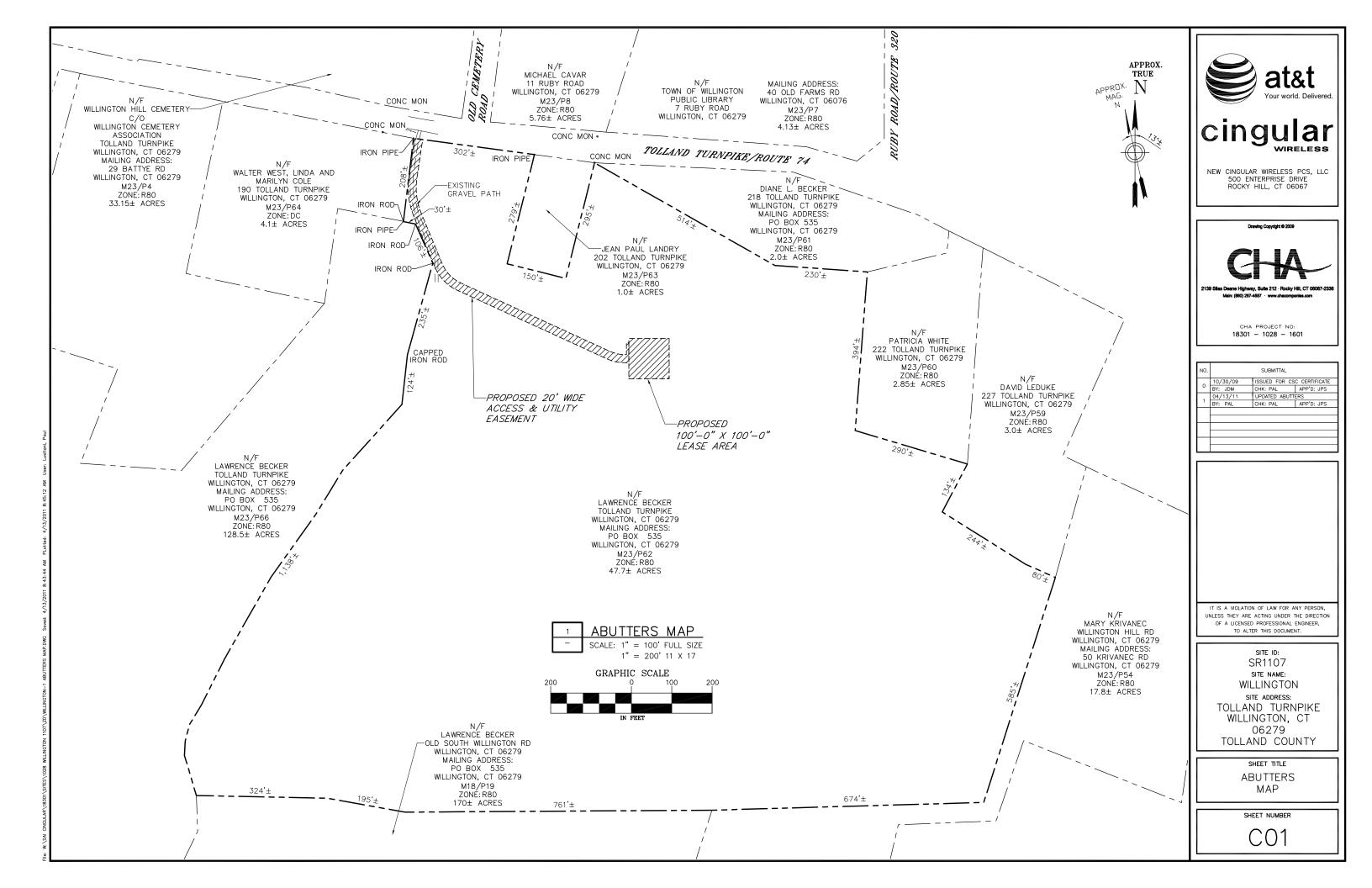
D. LIGHTING: None as set forth in attached TOWAIR report

### II. TOWER LOADING:

- A. AT&T up to 12 panel Antennas
  - a. Model P90-14-XVH-RR or equivalent panel antenna
  - b. Antenna Dimensions 48"H x 12"W x 6"D
  - c. Position on Tower 157' centerline mounted on low profile platform
  - d. Transmission Lines MFG/Model: Commscope Aluminum 1-5/8"
- B. Future Carriers 3 carriers can be accommodated.

### III. ENGINEERING ANALYSIS AND CERTIFICATION:

The tower will be designed in accordance with American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with 2005 Connecticut Amendment. The foundation design would be based on soil conditions at the site. The details of the tower and foundation design will be provided as part of the final D&M plan.



#### SURVEY NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 26, 1996. THE BOUNDARY LINES SHOWN ON THIS PLAN WERE COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

TYPE OF SURVEY: COMPILATION PLAN

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY: HORIZONTAL CLASS A-2
VERTICAL CLASS V-2
TOPOGRAPHIC CLASS T-2

- 2. PROPERTY LINE SHOWN HEREON ARE FROM RECORD DEEDS PLOTS AND TAX MAPS AS OVERLAID ON ANY MONUMENTATION OR OTHER EVIDENCE THAT MAY HAVE BEEN LOCATED DURING THE TOPOGRAPHIC SURVEY. A PROPERTY SURVEY WAS NOT PERFORMED BY CHA AND AS A RESULT THE PROPERTY LINES SHOWN ARE APPROXIMATE AND DO NOT PRESENT A PROPERTY/BOUNDARY OPINION.
- 3. BASE MAPPING PREPARED BY CHA FROM AN OCTOBER 2009 FIELD SURVEY.
- 4. NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY.
- 5. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES, IF ANY, HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY, THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFE PRIOR.
- 6. SUBJECT TO ANY STATEMENT OF FACTS THAT AN UP-TO-DATE ABSTRACT OF TITLE WOULD DISCLOSE.
- 7. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
- 8. LATITUDE/LONGITUDE/ELEVATIONS WERE OBTAINED UTILIZING NGS CORS BASE STATION NAMED "CTGE". LATITUDE/LONGITUDE ARE REFERENCED TO NAD83 CONNECTICUT ZONE. COORDINATES SHOWN, IF ANY, ARE EXPRESSED IN U.S. SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD88. TOP OF STRUCTURE HEIGHT AS SHOWN, IF ANY, DETERMINED BY VERTICAL ANGLE OR BY ACTUAL LOCATION.

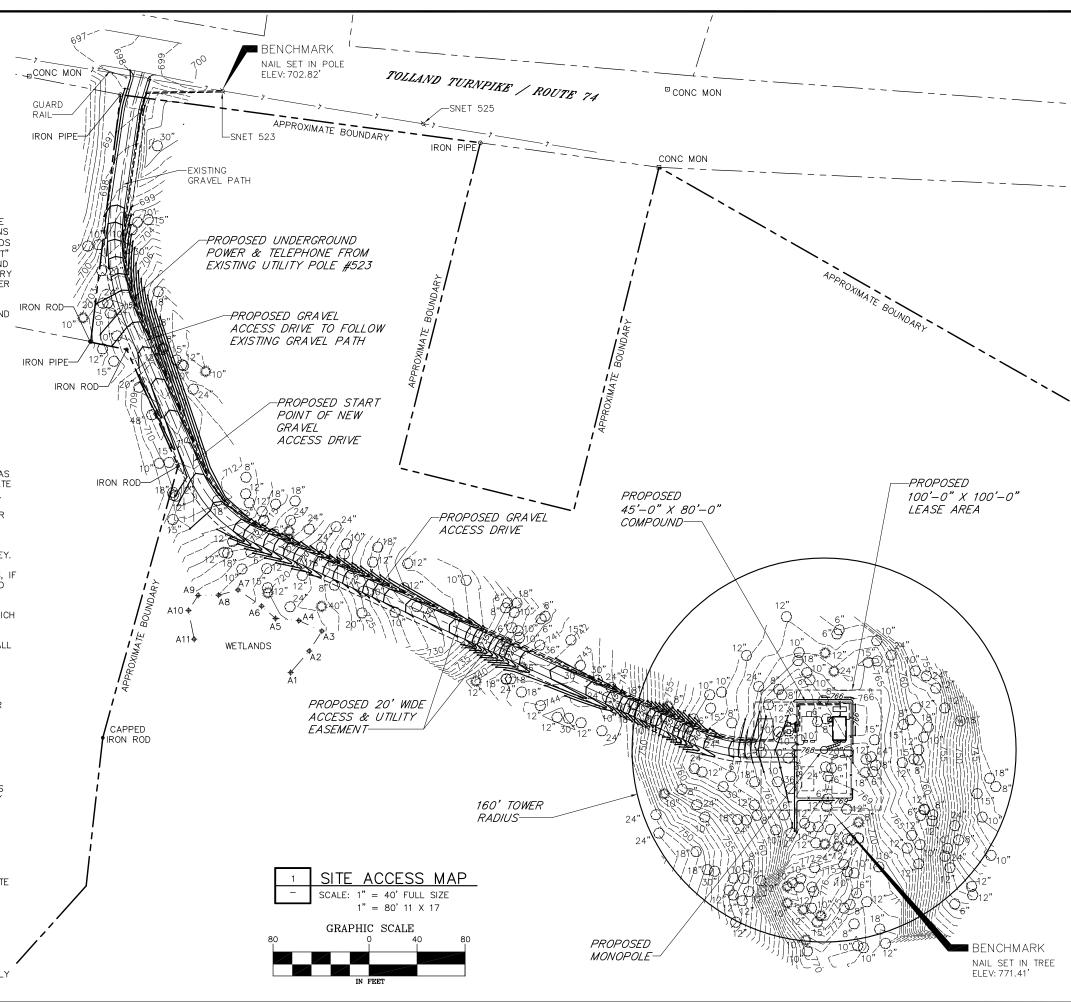
INFORMATION SHOWN BASED ON FAA 2C CERTIFICATION ACCURACY LEVEL DEFINED AS;
HORIZONTAL: ±20 FEET / 6 METERS

VERTICAL: ±3 FEET / 1 METERS

9. SITE FALLS WITHIN ZONE "C" DEFINED AS AREAS OF MINIMAL FLOODING AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF WILLINGTON, CONNECTICUT, TOLLAND COUNTY, PANEL 20 OF 20, COMMUNITY PANEL NUMBER 090159 0020 A, EFFECTIVE DATE JUNE 15, 1982.

MAP REFERENCES:

1. MAP ENTITLED "PLAN OF LAND OWNED BY THOMAS J. OWENS" AS PREPARED BY GLBERT F. PERRY, DATED JULY 12, 1967 AND FILED AS MAP BOOK 5 PAGE 25.





# cingular

NEW CINGULAR WIRELESS PCS, LLC 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067

Drawing Copyright @ 2009



CHA PROJECT NO: 18301 - 1028 - 1601

NO.	SUBMITTAL			
	10/30/09	ISSUED FOR CS	C CERTIFICATE	
0	BY: JDM	CHK: PAL	APP'D: JPS	
Γ.	09/21/10	REVISED TOWER	REVISED TOWER HEIGHT	
1	BY: JDM	CHK: PAL	APP'D: JPS	
		•	•	
ı				

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE ID:

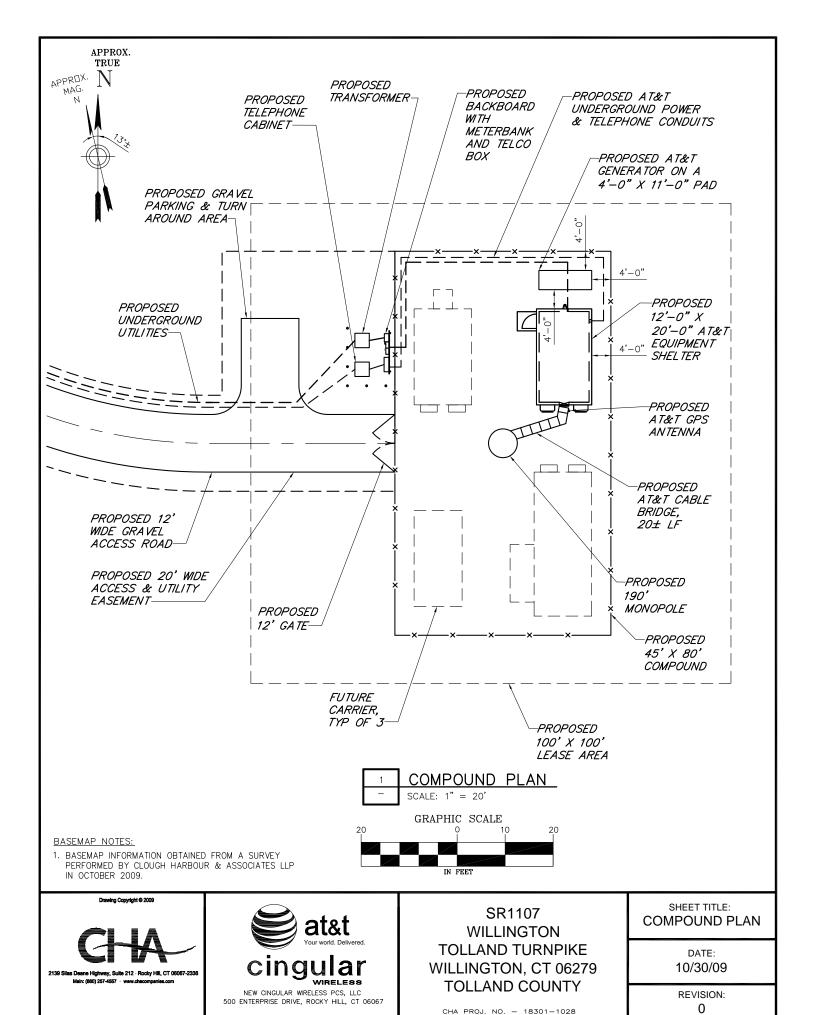
SR1107
SITE NAME:
WILLINGTON
SITE ADDRESS:
TOLLAND TURNPIKE
WILLINGTON, CT
06279
TOLLAND COUNTY

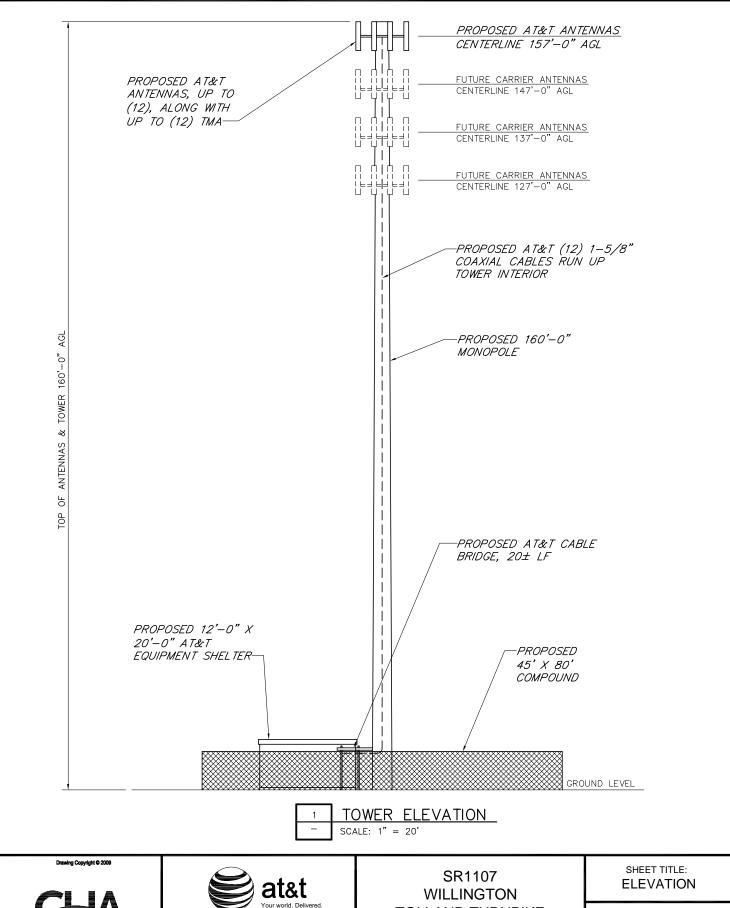
SHEET TITLE

SITE ACCESS MAP

SHEET NUMBER

C02





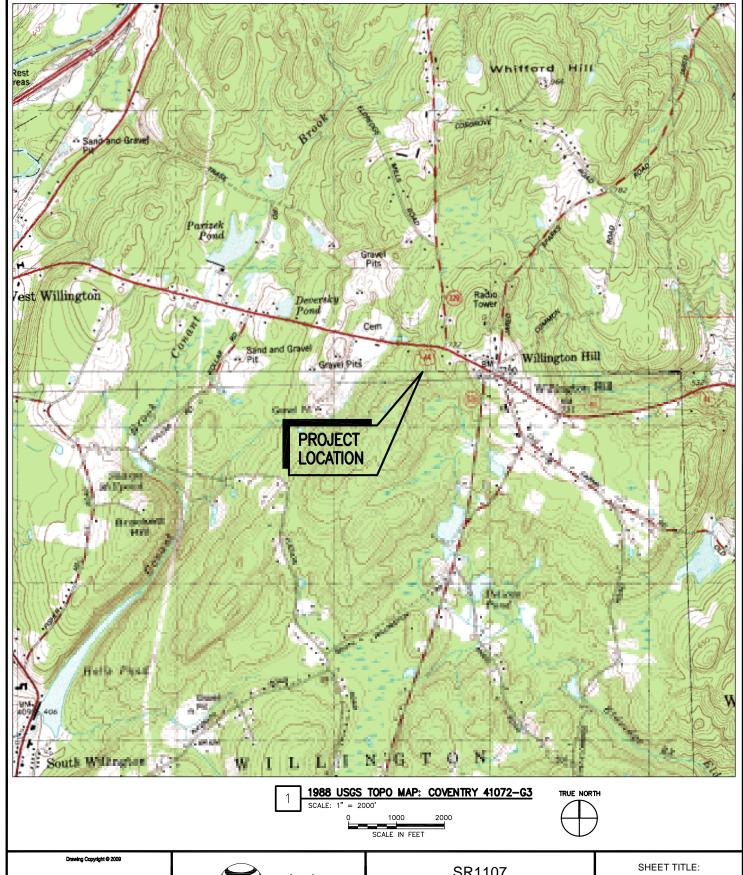




SR1107 WILLINGTON TOLLAND TURNPIKE WILLINGTON, CT 06279 TOLLAND COUNTY

DATE: 09/21/10

CHA PROJ. NO. - 18301-1028







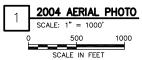
SR1107 WILLINGTON TOLLAND TURNPIKE WILLINGTON, CT 06279 TOLLAND COUNTY

CHA PROJ. NO. - 18301-1028

SHEET TITLE: USGS TOPO MAP

DATE: 10/30/09







Drawing Copyright © 200





SR1107 WILLINGTON TOLLAND TURNPIKE WILLINGTON, CT 06279 TOLLAND COUNTY

CHA PROJ. NO. - 18301-1028

SHEET TITLE: AERIAL PHOTO

DATE: 10/30/09



Site Number: SR1107 Site Name: Willington

Site Address: Tolland Turnpike, Willington, CT 06279

#### **Access distances:**

Distance of access over existing asphalt driveway: 331' Distance of access over new gravel driveway: 581' Total distance of site access: 912'

### **Distance to Nearest Wetlands:**

41' from wetland flag A7 to edge of proposed access drive

### **Distance to Property Lines:**

354' to the northern property boundary 1,120' to the southern property boundary 582' to the western property boundary 520' to the eastern property boundary

### **Residence Information:**

There are 6 residences within 1,000' feet of the tower. The closest residence is 445' to the N and W and is owned by Jean Paul Landry and is located at 202 Tolland Turnpike, Willington, CT 06279.

### **Tree Removal Count:**

See tree letter.

#### Distance to Nearest Town (Must notify town if less than 2,500'):

The nearest town to the proposed tower is Tolland. The town boundary is 9,500' to the west.



October 30, 2009

New Cingular Wireless PCS, LLC 500 Enterprise Drive Rocky Hill, CT 06067

RE: **Tree Inventory** 

> **Site: Willington Tolland Turnpike** Willington, CT 06279 CHA # 15363-1028-1101

A site survey was completed at the subject site in October 2009. A requirement of the survey involved determining the location of all trees within the topographic survey area with a diameter at breast height of 6" or larger. As can be seen on the site access map, there are fifty-five (55) trees with a diameter of 6" or larger within the area of the proposed access road and compound which need to be removed for construction of the facility. The quantity and size of trees being removed is summarized in the below table:

Tree Diameter	Number of Trees to be Removed
6"	7
8"	6
10"	12
12"	9
18"	6
20"	3
24"	7
30"	3
36"	2
TOTAL	55

If you have any questions, comments or need further information, please do not hesitate to contact our office.

Very truly yours,

CLOUGH HARBOUR & ASSOCIATES LLP

Paul Lusitani

Paul Lusitani Project Engineer

 $W:\SAI\ Cingular\18301\Sites\1028\ Willington\ 1107\ZD\WILLINGTON-10\ TREE\ INVENTORY.doc$ 

## **ATTACHMENT 3(B)**

### Visual Analysis Report

## Willington Tolland Turnpike Willington, CT

CHA Project Number: 18301.1028.1101

Prepared for: New Cingular Wireless PCS, LLC 500 Enterprise Drive Rocky Hill, CT 06067

Prepared by:



November 2009 Rev. 0 February 9, 2010 Rev. 1



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3.0	Computer Model Visual Analysis	1
4.0	Visual Receptor Research	2
5.0	Field Visual Analysis	2
6.0	Conclusion	2
7.0	Viewshed Map	
8.0	Photosims	6

### 1.0 INTRODUCTION

CHA conducted a visibility study for the proposed 160'-0" monopole located on Tolland Turnpike in Willington, CT. The purpose of the study was to determine the visual impact, if any, that a proposed 160'-0" monopole would have on the surrounding community within a two mile radius study area. Two techniques were utilized to determine the visual impact within the study area: a computer model using topography and vegetation as constraints to estimate the visual limits and a field analysis to verify the visual limits determined from the computer model. Research of the study area was also conducted to determine locations of sensitive visual receptors.

### 2.0 SITE AND STUDY AREA DESCRIPTION

The subject parcel is approximately 47.7 acres. A majority of the parcel is wooded, and there are no residences on the parcel. The proposed facility is located at the peak of a wooded hill north of the center of the parcel approximately 500' from Tolland Turnpike (CT Route 74). The base of the tower will be 768' AMSL. The wooded area surrounding the proposed facility will act as a visual buffer to the adjacent residential and wooded parcels.

The topography within the study area consists of hills ranging from 400' AMSL to 950' AMSL. Approximately 6,611 acres, or 82.1%, of the 8,053 acre study area is covered with vegetation. The rolling hills and heavy vegetation in the study area will help screen the facility in the surrounding areas. Watercourses occupy approximately 123 acres, or 1.5%, of the study area. There is a historical district found on the National Register of Historic Places, the Willington Common Historic District, as well as approximately 40 properties designated by the Town of Willington as having historic value. There is also 1 school, 2 cemeteries, and 3 churches within the study area. There are no designated scenic roads, trails, parks, or recreational facilities in the study area.

### 3.0 COMPUTER MODEL VISUAL ANALYSIS

A computer model was developed using a proprietary AutoCAD-based application developed by our Technology Solutions Group to estimate how the surrounding topography and vegetation within a 2 mile radius may obstruct the monopole's visibility. The visibility calculations are completed using digital elevation models (DEM), which are models of the earth's surface represented by a grid of elevations spaced 10 or 30 meters and is based on USGS topography maps. Each point in the DEM is independently tested for visibility based on the surrounding topography developed from the USGS maps. Once all points have been tested, a map is generated showing areas of visibility and areas screened by topography. Knowing which areas are screened by topography will assist in field determining which areas within the study area may have seasonal visibility. Next, vegetation within the study area is added to the map by digitizing it from 2004 aerial photographs. CHA's application utilizes a vegetation outline layer which is assigned the standard 65' height. A new map is generated showing only areas of visibility based on topography and the vegetation constraint. The visible areas on the map based on the surrounding topography and vegetation will be verified during the field visual analysis.

### 4.0 VISUAL RECEPTOR RESEARCH

Research of the surrounding study area was conducted to determine the locations of sensitive visual receptors such as historic sites, historic districts, schools, churches, cemeteries, parks, playgrounds, recreational areas, walking trails, beaches, and scenic roads. Historic sites and districts were determined from national and state registers. State parks and walking trail systems were determined from the CTDEP website. Surrounding schools, churches, cemeteries, parks, playgrounds, recreational areas, and beaches were determined from street maps, internet searches, and available mapping from the Town's website. Scenic roads were determined from the CTDOT list of designated scenic roads. Inquiries were also made to the Town of Willington to determine if there are any locally designated scenic roads, historic districts or properties, or walking trails. All of the above sensitive visual receptors were added to the viewshed map.

### 5.0 FIELD VISUAL ANALYSIS

On October 26<sup>th</sup>, 2009 a field visual analysis was conducted to verify the sensitive visual receptors and the limit of visibility determined from our research and computer model. Weather conditions were favorable on the date of the visibility study as it was a clear and sunny day with winds between 4-5 MPH; therefore, visibility of the balloon from surrounding areas was not affected. In general, the field visibility study was conducted as follows: A 36" diameter black balloon was flown at a height of 190'-0"\* above existing grade. Once the balloon was flown, CHA completed a field drive of the surrounding area to determine the visibility of the balloon, and thus the proposed tower. Visibility from the sensitive visual receptors was our primary focus so photos were taken from each of these locations. Photos were also taken from major streets, intersections, and residential areas; from key areas where the balloon was visible; and from key areas where it was not visible. The limits of visibility determined from the computer model were field verified and adjusted as needed. Areas of potential seasonal visibility were field determined and marked on the viewshed map. Finally, the number of residences within the seasonal and year round visible areas was determined.

\*The balloon was flown at 190'-0" above existing grade as this was the originally proposed height. The photosims (Section 8.0) were adjusted to reflect the newly proposed height of 160'-0". The limits of potential year round and seasonal visibility (See Section 7.0 Viewshed Maps) were modified based on the adjusted photosims.

### 6.0 CONCLUSION

The results of our visual study are summarized in the following documents: Section 7.0: Viewshed Map, and Section 8.0: Photosims. In conclusion, the year round visual impact to the surrounding community within a two mile radius is limited to the red hatched areas on the viewshed map, which is approximately 0.9%, or 71.7 acres, of the total study area. The limit of year round visibility includes the area surrounding the following public streets: a 1150' stretch along Glass Factory Road; a 285' stretch along Willington Hill Road (CT Route 320); and a 370', 670', 1635' stretch along Tolland Turnpike (CT Route 74). These areas contain residential properties and will impact the following number of residences: 1 residence along Glass Factory Road; and 10 residences along Tolland Turnpike (CT Route 74). The proposed monopole will be seen year round from the following visual receptors: Willington Hill Cemetery, and Old West Cemetery.

Immediately outside some of the limits of year round visibility, trees start to screen the proposed monopole giving the potential for seasonal views. The blue hatched areas on the viewshed map indicate the approximate seasonal visual impact estimated during leaf on conditions, which is approximately 0.2%, or 16.3

Visual Analysis Report Willington



acres, of the total study area. The limit of seasonal visibility includes the area surrounding the following public streets: a 1,500' stretch along Old Farms Road; a 465' stretch along Jared Sparks Road; a 575' stretch along Common Road; and a 705' stretch along Tolland Turnpike (CT Route 74). Some of these areas contain residential properties and will impact the following number of residences: 6 residences along Old Farms Road. The proposed monopole will be seen seasonally from the following visual receptors: Willington Common Historic District (See Figure VS-02 "Willington Common Historic District Tower Visibility" for additional detail on specific views), St. Jude Church and Rectory, and 2 town designated historic properties on Old Farms Road.

The remainder of the two mile radius study area is screened by topography (3,398 acres, 42.2%) and vegetation (4,567 acres, 56.7%). Photos documenting the visible conditions described above have been included in the photo-simulations with their locations marked on the viewshed map. Following is a summary of each view with a description of the tower visibility:

View Number	Location	Distance from Tower	Visibility	Amount of Tower Visible (Ft/%)	Nearby Residences with Views By Addresses	Nearby Visual Receptors with Views	
1	Willington Hill Cemetery	1,409.2	Year Round	35 / 22%	None	Willington Hill Cemetery,	
2	Old West Cemetery	1,598.0	Year Round	20 / 13%	None	and Old West Cemetery	
3	Tolland Turnpike - CT Route 74	1,525.5	Year Round	75 / 47%	None	and Old West Cemetery	
4	Tolland Turnpike - CT Route 74	7,096.9	Year Round	105 / 66%	70, 72, 77, 74*, and 78*	None	
5	Tolland Turnpike - CT Route 74	5,703.8	Year Round	80 / 50%	105, 106, 108, 110, and 114	None	
6	Koller Road	4,062.2	Non-Visible	None	None	None	
7	Glass Factory Road	6,988.0	Year Round	10 / 6%	33	None	
8	Old Farms Road	4,547.3	Seasonal	30 / 19%	49, 55, 56, 60, 61, and 67	St. Jude Church & Rectory, and 2 Town Designated Historic Properties on Old Farms Road	
9	Willington Common Historic District Green	1,514.3	Seasonal	75 / 47%	None		
10	The Hiram Rider House (Willington Common Historic District	1,427.8	Seasonal	10 / 6%	None	Willington Hill Church, and Willington Common Historic District	
11	Daniel Glazier Tavern (Willington Common Historic District)	1,026.5	Seasonal	10 / 6%	None		
12	The Old Baptist Personage (Willington Common Historic District)	1,365.6	Seasonal	30 / 19%	None		
13	The Old Congregational Church (Willington Common Historic District)	1,547.5	Seasonal	60 / 38%	None		
14	Crossgrove Road	5,481.8	Non-Visible	None	None	None	

<sup>\*</sup>No House/Mailbox labels found during field visit. House Number is assumed.

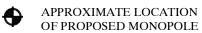
Visual Analysis Report CHA Project No: 18301.1028.1101

### 7.0 VIEWSHED MAPS



- 1. Only visible areas are shown on the map utilizing the process described in note 2. The remainder of the map has been estimated to be nonvisible utilizing the process described in note 3.
- 2. Seasonal and year round areas of visibility were estimated from a field visual analysis within public R.O.W. and public properties. Areas shown on private property were interpolated from the field visual analysis.
- 3. Nonvisible areas were estimated from a computer generated topography & vegetation analysis and field verification of vegetation & building screening within public R.O.W and public properties. Vegetation limits were determined from 2004 aerial photos and is assumed to be 65' high. Verification of vegetation height, coverage, and type within private areas not visible from public R.O.W or public properties was not field verified.
- 4. Historical areas were determined from national and state historical registers.
- 5. Parks, schools, cemeteries, and churches were determined from street maps and field observations.
  6. Scenic roads, if any, were determined from the CTDOT list of designated scenic roads and field observations.

### Legend





COMPUTER SIMULATION PHOTOGRAPH LOCATION



APPROXIMATE LIMIT OF SEASONAL TOWER VISIBILITY



APPROXIMATE LIMIT OF YEAR ROUND TOWER VISIBILITY

C# CHURCH/CEMETERY



H# HISTORICAL SITE

### Visibility by Acreage

ITEM	APPROXIMATE ACRES	% OF TOTAL AREA
2 MILE RADIUS AREA	8,053	100%
NOT VISIBLE DUE TO TOPOGRAPHY	3,398	42.2%
NOT VISIBLE DUE TO VEGETATION	4,567	56.7%
VISIBLE YEAR ROUND	71.7	0.9%
POTENTIAL SEASONAL VISIBILITY	16.3	0.2%

### Distances from Photo Locations to Tower

PHOTO	DIST. (FT)	PHOTO	DIST. (FT)
01	1,409.2	08	4,547.3
02	1,598.0	09	1,514.3
03	1,525.5	10	1,427.8
04	7,096.9	11	1,026.5
05	5,703.8	12	1,365.6
06	4,062.2	13	1,547.5
07	6,988.0	14	5,481.8

### 2 MILE VIEWSHED ANALYSIS MAP

### WILLINGTON VISUAL IMPACT ASSESSMENT





**FEBRUARY** 2010

2500' 5000' 0 625' 1250'



H02 Town Designated Historic Properties (+/- 40 Properties)

\*\*For additional detail in this area see Figure VS-02
"Willington Common Historic District Tower Visibility"

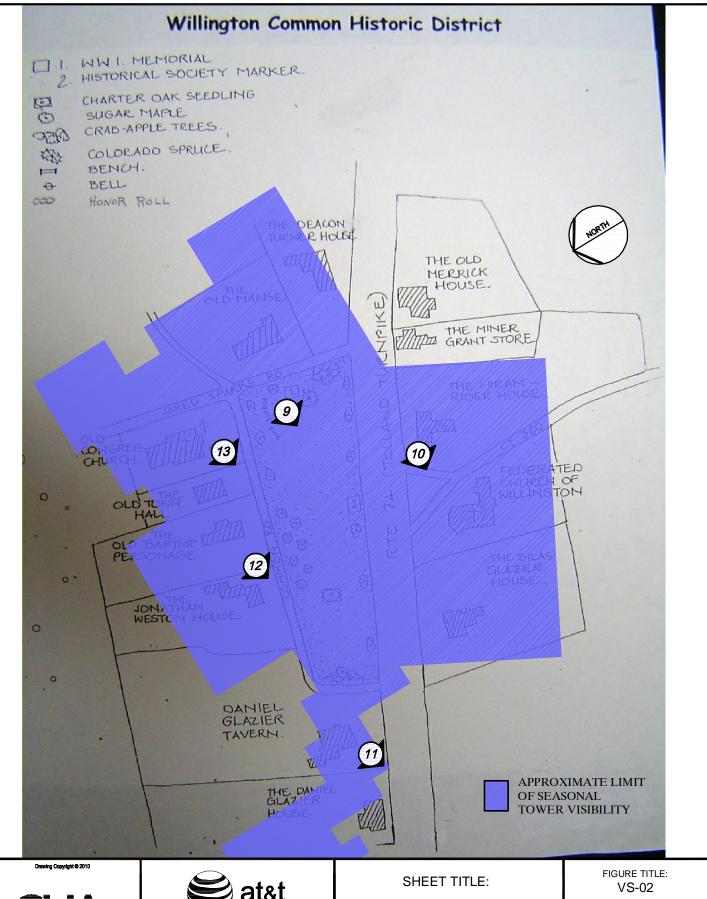
No scenic road sign designations were observed during the field visual analysis.

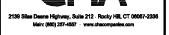
Willington Baptist

C04 Willington Hill Cemetery

#### Tolland Turnpike 70,72,77,74\*,78\* 105,106,108,110,114 (CT Route 74) Glass Factory Road 49,55,56,60,61,67 Old Farms Road

\*No House/Mailbox labels found during field visit. House number is assumed







WILLINGTON COMMON HISTORIC DISTRICT TOWER VISIBILITY

CHA PROJ. NO. - 18301-1028

DATE: 02/09/10

### 8.0 PHOTOSIMS





**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 1 - EXISTING VIEW FROM WILLINGTON HILL CEMETERY LOOKING SOUTHEAST TOWARD SITE







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 1 - PROPOSED VIEW FROM WILLINGTON HILL CEMETERY LOOKING SOUTHEAST TOWARD SITE (PLATFORM MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 1 - PROPOSED VIEW FROM WILLINGTON HILL CEMETERY LOOKING SOUTHEAST TOWARD SITE (FLUSH MOUNT OPTION)







**DATE: FEB 2010** 

SITE: WILLINGTON

VIEW 2 - EXISTING VIEW FROM OLD WEST CEMETERY LOOKING SOUTHEAST TOWARD SITE







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 2 - PROPOSED VIEW FROM OLD WEST CEMETERY LOOKING SOUTHEAST TOWARD SITE (PLATFORM MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 2 - PROPOSED VIEW FROM OLD WEST CEMETERY LOOKING SOUTHEAST TOWARD SITE (FLUSH MOUNT OPTION)







**DATE: FEB 2010** 

SITE: WILLINGTON

VIEW 3 - EXISTING VIEW FROM ROUTE 74 (NEAR WILLINGTON HILL PACKAGE STORE) LOOKING SOUTHEAST TOWARD SITE







Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 3 - PROPOSED VIEW FROM ROUTE 74 (NEAR WILLINGTON HILL PACKAGE STORE) LOOKING SOUTHEAST TOWARD SITE (PLATFORM MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 3 - PROPOSED VIEW FROM ROUTE 74 (NEAR WILLINGTON HILL PACKAGE STORE) LOOKING SOUTHEAST TOWARD SITE (FLUSH MOUNT OPTION)







**DATE: FEB 2010** 

SITE: WILLINGTON

VIEW 4 - EXISTING VIEW FROM ROUTE 74 LOOKING SOUTHEAST TOWARD SITE







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 4 - PROPOSED VIEW FROM ROUTE 74 LOOKING SOUTHEAST TOWARD SITE (PLATFORM MOUNT OPTION)









**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 4 - PROPOSED VIEW FROM ROUTE 74 LOOKING SOUTHEAST TOWARD SITE (FLUSH MOUNT OPTION)







Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



DATE: FEB 2010 SITE: WILLINGTON

VIEW 5 - EXISTING VIEW FROM ROUTE 74 LOOKING SOUTHEAST TOWARD SITE





Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 5 - PROPOSED VIEW FROM ROUTE 74 LOOKING SOUTHEAST TOWARD SITE (PLATFORM MOUNT OPTION)







Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 5 - PROPOSED VIEW FROM ROUTE 74 LOOKING SOUTHEAST TOWARD SITE (FLUSH MOUNT OPTION)







Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 6 - NON-VISIBLE VIEW FROM KOLLAR ROAD LOOKING EAST TOWARD SITE





Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 7 - EXISTING VIEW FROM GLASS FACTORY ROAD LOOKING EAST TOWARD SITE







Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 7 - PROPOSED VIEW FROM GLASS FACTORY ROAD LOOKING EAST TOWARD SITE (PLATFORM MOUNT OPTION)





Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 7 - PROPOSED VIEW FROM GLASS FACTORY ROAD LOOKING EAST TOWARD SITE (FLUSH MOUNT OPTION)







Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 8 - EXISTING VIEW FROM OLD FARMS ROAD LOOKING NORTHWEST TOWARD SITE







Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 8 - PROPOSED VIEW FROM OLD FARMS ROAD LOOKING NORTHWEST TOWARD SITE (PLATFORM MOUNT OPTION)





Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 8 - PROPOSED VIEW FROM OLD FARMS ROAD LOOKING NORTHWEST TOWARD SITE (FLUSH MOUNT OPTION)





Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 9 - EXISTING VIEW FROM WILLINGTON COMMON HISTORIC DISTRICT GREEN LOOKING WEST TOWARD SITE







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 9 - PROPOSED VIEW FROM WILLINGTON COMMON HISTORIC DISTRICT GREEN LOOKING WEST TOWARD SITE (PLATFORM MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 9 - PROPOSED VIEW FROM WILLINGTON COMMON HISTORIC DISTRICT GREEN LOOKING WEST TOWARD SITE (FLUSH MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 10 - EXISTING VIEW FROM THE HIRAM RIDER HOUSE LOOKING WEST TOWARD SITE









**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 10 - PROPOSED VIEW FROM THE HIRAM RIDER HOUSE LOOKING WEST TOWARD SITE (PLATFORM MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 10 - PROPOSED VIEW FROM THE HIRAM RIDER HOUSE LOOKING WEST TOWARD SITE (FLUSH MOUNT OPTION)





Photosim for conceptual purposes only - actual antenna and equipment locations to be determined based on final engineering design



**SITE: WILLINGTON** 

VIEW 11 - EXISTING VIEW FROM THE DANIEL GLAZIER TAVERN LOOKING WEST TOWARD SITE









**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 11 - PROPOSED VIEW FROM THE DANIEL GLAZIER TAVERN LOOKING WEST TOWARD SITE (PLATFORM MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 11 - PROPOSED VIEW FROM THE DANIEL GLAZIER TAVERN LOOKING WEST TOWARD SITE (FLUSH MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 12 - EXISTING VIEW FROM 5 COMMON ROAD LOOKING WEST TOWARD SITE







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 12 - PROPOSED VIEW FROM 5 COMMON ROAD LOOKING WEST TOWARD SITE (PLATFORM MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 12 - PROPOSED VIEW FROM 5 COMMON ROAD LOOKING WEST TOWARD SITE (FLUSH MOUNT OPTION)







**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 13 - EXISTING VIEW FROM THE OLD CONGREGATIONAL CHURCH LOOKING WEST TOWARD SITE









**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 13 - PROPOSED VIEW FROM THE OLD CONGREGATIONAL CHURCH LOOKING WEST TOWARD SITE (PLATFORM MOUNT OPTION)









**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 13 - PROPOSED VIEW FROM THE OLD CONGREGATIONAL CHURCH LOOKING WEST TOWARD SITE (FLUSH MOUNT OPTION)









**DATE: FEB 2010** 

**SITE: WILLINGTON** 

VIEW 14 - NON-VISIBLE VIEW FROM CROSSGROVE ROAD LOOKING SOUTHWEST TOWARD SITE





# **ATTACHMENT 3(C)**

#### Candidate A: Environmental Assessment Statement

#### I. PHYSICAL IMPACT

## A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the proposed facility. The construction and operation of the tower and related site improvements will have no effect on any watercourses or water bodies. Best Management Practices to control storm water and soil erosion during construction will be implemented. The equipment associated with the facility will discharge no pollutants to area surface or groundwater systems.

## B. AIR QUALITY

Under ordinary operating conditions, the telecommunications equipment that would be used at the proposed facility would emit no air pollutants of any kind. Infrequent use of a generator would result in a small amount of emissions.

#### C. LAND

Some clearing and grading will be necessary in the compound area and access drive and best management practices implemented for any steep slopes. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

#### D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system as well as a proposed generator to be utilized in power outages. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks. Temporary power outages could involve sound from an emergency generator.

### E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 5.2% of the MPE standard. Attached is a copy of AT&T's Power Density Report dated September 20, 2010.

#### F. VISIBILITY

The potential visual impact of the proposed facility was determined by preparation of the attached Visual Analysis Report prepared by Clough Harbour & Associates LLP in November 2009 and revised in February of 2010. The potential visibility of the proposed

monopole was assessed within an approximate two-mile radius using a computer-based, predictive view shed model and in-field visual analysis. As shown in the report and photosimulations, only 71.7 acres (approximately 0.9%) of the 8,042-acre study area (a two-mile radius of the proposed facility) would have views of the proposed tower above the tree canopy. The proposed monopole would be visual year round from some visual receptors including the Willington Historic District. Overall, there is intervening topography and vegetation in the area that serve to limit visibility.

### II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the facility is located exhibits no unique scenic, natural, historic or recreational characteristics. Its location is adjacent to an existing and active gravel mining operation. The Connecticut State Historic Preservation Officer ("SHPO") has been contacted to review the proposed facility and expressed concerns regarding the location of a historic cemetery and the potential impact on such an archeological resource. However, subsequent research revealed that the cemetery of concern was instead located north of Tolland Turnpike and not to the south where the access road and facility are proposed. SHPO did determine that the proposed facility at 160' in height will have an adverse effect on visual resources. The Connecticut Department of Environmental Protection Natural Diversity Database ("NDDB") map for the project area has been reviewed and no nearby threatened or endangered species present and accordingly no such impacts are anticipated.

## **TOWAIR Determination Results**

## \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### **DETERMINATION Results**

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

#### Your Specifications

#### **NAD83 Coordinates**

Latitude	41-52-32.4 north		
Longitude	072-16-09.7 west		
Measurements (Meters)			
Overall Structure Height (AGL)	57.9		
Support Structure Height (AGL)	57.9		
Site Elevation (AMSL)	234.1		

### **Structure Type**

TOWER - Free standing or Guyed Structure used for Communications Purposes

#### **Tower Construction Notifications**

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

**CLOSE WINDOW** 

Tony Wells C Squared Systems 920 Candia Road Manchester, NH 03109 603-657-9702 Tony.Wells@csquaredsystems.com



September 20, 2010

Connecticut Siting Council

Subject: New Cingular Wireless, Willington, CT

Dear Connecticut Siting Council:

C Squared Systems has been retained by New Cingular Wireless to investigate the RF Power Density at the proposed site located at Tolland Turnpike, Willington, CT.

Calculations were done in accordance with FCC OET Bulletin 65. These worst-case calculations assume that all transmitters are simultaneously operating at full power and pointing directly at the ground. The calculation point is 6 feet above ground level to model the RF power density at the head of a person standing at the base of the tower.

Location	Carrier	Antenna Centerline Height Above Ground Level (Ft.)	Operating Frequency (MHz)	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Power Density (mw/cm²)	Limit	% FCC MPE Limit General Public/ Uncontrolled
Ground Level	AT&T UMTS	157	880	1	500	0.0079	0.5867	1.34%
	AT&T UMTS	157	1900	1	500	0.0079	1.0000	0.79%
	AT&T GSM	157	880	3	296	0.0140	0.5867	2.39%
	AT&T GSM	157	1900	1	427	0.0067	1.0000	0.67%
	Total							5.20%

**Summary**: Under worst-case assumptions, the RF Power Density at the proposed site located at Tolland Turnpike, Willington, CT will not exceed 5.20% of the FCC MPE limit for General Public/Uncontrolled Environments.

Sincerely,

Anthony Wells Managing Partner

anthony wells



December 4, 2009

Paul Lusitani Project Manager Clough Harbour & Associates, LLP 2139 Silas Deane Highway Rocky Hill, CT 06067

RE: Wetland & Watercourse Delineation Report Tolland Turnpike (Site ID: SR1107) Willington, CT 06279 Project # 106386

Dear Mr. Lusitani:

Kleinfelder East, Inc. (Kleinfelder) completed an on-site investigation to determine the presence or absence of wetlands and/or watercourses on the above referenced property (Tolland Turnpike), as requested and authorized. This investigation involved a wetland/watercourse delineation that was completed by a qualified staff soil scientist and conducted in accordance with the principles and practices noted in the United States Department of Agriculture (USDA) Soil Survey Manual (Soil Survey Staff, 1993). The soil classification system of the National Cooperative Soil Survey was used in this investigation to identify the soil map units present on the project site.

#### INVESTIGATION

The project site was investigated on September 21, 2009, with a temperature in the mid-60s under sunny conditions. Soil types were identified by observing soil morphology (soil texture, color, structure, etc.). To observe the morphology of the soils, numerous test pits and/or hand borings (generally to a depth of at least two feet) were completed. Wetland and watercourse boundaries were identified with flags and hung from vegetation or stakes if in fields or grass communities. These flags are labeled "Wetland Delineation" and generally spaced approximately 25 feet apart. It is important to note that flagged wetland and watercourse boundaries are subject to change until verified by local, state, or federal regulatory agencies.

### REGULATORY INFORMATION

Wetlands and watercourses are regulated by both state and federal law each with different definitions and regulatory requirements. Accordingly, the State may regulate waters that fall outside of federal jurisdiction; however, where federal jurisdiction exists concurrent State jurisdiction is almost always present.

# State Regulations

Wetland determinations are based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land. Watercourses are defined as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." Intermittent watercourse determinations are made based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus, (2) the presence of standing or flowing water for a duration longer than a particular storm incident, and (3) the presence of hydrophytic vegetation. (See Inland Wetlands and Watercourses Act §22a-38 CGS.)

### WETLAND AND WATERCOURSE SITE DESCRIPTION

Wetland classifications used to identify the type of wetland(s) occurring on the project site are based on guidance from the U.S. Fish and Wildlife Service (USFWS) (Cowardin et. al. 1979). These are further qualified with the Hydrogeomorphic Method of wetland classification (Brinson, 1993).

One on-site wetland system was delineated during the September 2009 site visit using sequentially numbered flags ranging from A1 to A11 (see attached plans). The wetland consisted of a palustrine, forested, broad-leaved deciduous, saturated (USFWS class: PFO1) wetland system. As indicated by its classification, this wetland community is predominantly a forested habitat. The adjacent area consists of an open mixed hardwood forest dominated by oaks, hickories, and maples. (Table 1)

The distance from the proposed project where ground disturbance would occur to the nearest wetland is approximately 41 feet to the south of the proposed gravel access road, with no activity occurring directly within the delineated wetland area. Thus, the proposed project will not directly impact the wetland's hydrologic functional role. In addition, there will not be severe impacts to the habitat provided by the wetland as the main portion of the construction will occur in an area in excess of 400 feet from the wetland.

**TABLE 1:** Predominate Vegetation within and adjacent to the wetlands (Common (*Scientific*) names)

## **TREES & SAPLINGS**

Red Maple (Acer rubrum)

Sugar Maple (Acer saccharum)

Ironwood (Carpinus caroliniana)

Pignut Hickory (Carya ovata)

White Pine (Pinus strobus)

White Oak (Quercus alba)

# **SHRUBS**

Japanese Barberry (Berberis thunbergii)

Witch-hazel (Hamamelis virginiana)

Maple-leaf Viburnum (Viburnum acerfolium)

## **HERBS/VINES**

Hayscented Fern (Dennstaedtia punctilobula)

Sensitive Fern (Onoclea sensibilis)

Cinnamon Fern (Osmunda cinnamomea)

Virginia creeper (Parthenocissus quinquefolia)

\*Denotes state non-native invasive species

### **SOIL MAP TYPES**

A brief description of each soil map unit identified on the project site is presented below including information from the Untied States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil descriptions. Further information on these and other soils, please refer to the internet site at <a href="http://soils.usda.gov/technical/classification/osd/index.html">http://soils.usda.gov/technical/classification/osd/index.html</a>).

## **Upland Soils**

## **Charlton Series**

Coarse-loamy, mixed, active, mesic Typic Dystrudepts

The Charlton series consists of very deep, well drained loamy soils formed in till. They are nearly level to very steep soils on till plains and hills. Slope ranges from 0 to 50 percent. Saturated hydraulic conductivity is moderately high or high. Mean annual temperature is about 50 degrees F., and mean annual precipitation is about 47 inches.

## **Chatfield Series**

Coarse-loamy, mixed, superactive, mesic Typic Dystrudepts

The Chatfield series consists of moderately deep, well drained, and somewhat excessively drained soils formed in till. They are nearly level to very steep soils on glaciated plains, hills, and ridges. Slope ranges from 0 to 70 percent. Crystalline

bedrock is at depths of 20 to 40 inches. Saturated hydraulic conductivity is moderately high to high in the mineral soil. Mean annual temperature is 51 degrees F. and mean annual precipitation is 38 inches.

The soils within the project area are classified as Charlton-Chatfield complex, ranging from 3 to 45 percent slope that is very rocky. These soils are classified as hydric soils of the State of Connecticut due to a potentially high groundwater table. Soils within the access road consist of silt with some clay and gravel with a matrix of 7.5YR 4/4 from 0-18 inches. Soils within the area of the proposed cell tower consist of silt with gravel with a matrix of 10YR 5/6 from 0-8 inches. Bedrock was reached at 8 inches. The wetland located south of the proposed access road contains soils that consist of silt, clay, and organics with a matrix of 2.5Y 2/1 from 0-8 inches. A sandy, silt, gravel with a matrix of 10YR 4/3 with abundant mottles were found below 8 inches.

#### SUMMARY CLOSING

No wetlands were observed within the proposed access road or cell tower pad. The proposed tower development project reviewed is not anticipated to cause an adverse impact on the delineated wetland noted in this report. Utilizing appropriate soil erosion and sedimentation controls will reduce, if not eliminate, any risk of impact to the wetland during construction.

Thank for the opportunity to work with you on this project. Please contact me at (860) 683-4200 if you have any questions or require additional assistance.

Very truly yours,

Kleinfelder East, Inc.

jamie n. morgan

Jamie Morgan Ecologist/Soil Scientist Ben Rieger Project Manager

#### **REFERENCES**

Brinson, M.M. 1993. *A Hydrogeomorphic Classification for Wetlands*. Tech. Rpt.WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of Wetland and Deepwater Habitats of the Untied States. US Government Printing Office. Washington D.C. GPO 024-010-00524-6.103 pp.

Soil Survey Staff. 1993. Soil Survey Manual. USDA Handbook No. 18. United States Government Printing Office, Washington, D.C., USA.

### Kleinfelder Photo Documentation

Client: Clough Harbor Site Name: CHA Willington SR 1107

KA Project Number: 106386

Site Location: Willington, CT Date Photographs Taken:

September 21, 2009

Figure 1: View Direction: East

View of uplands in general location of proposed site pad.

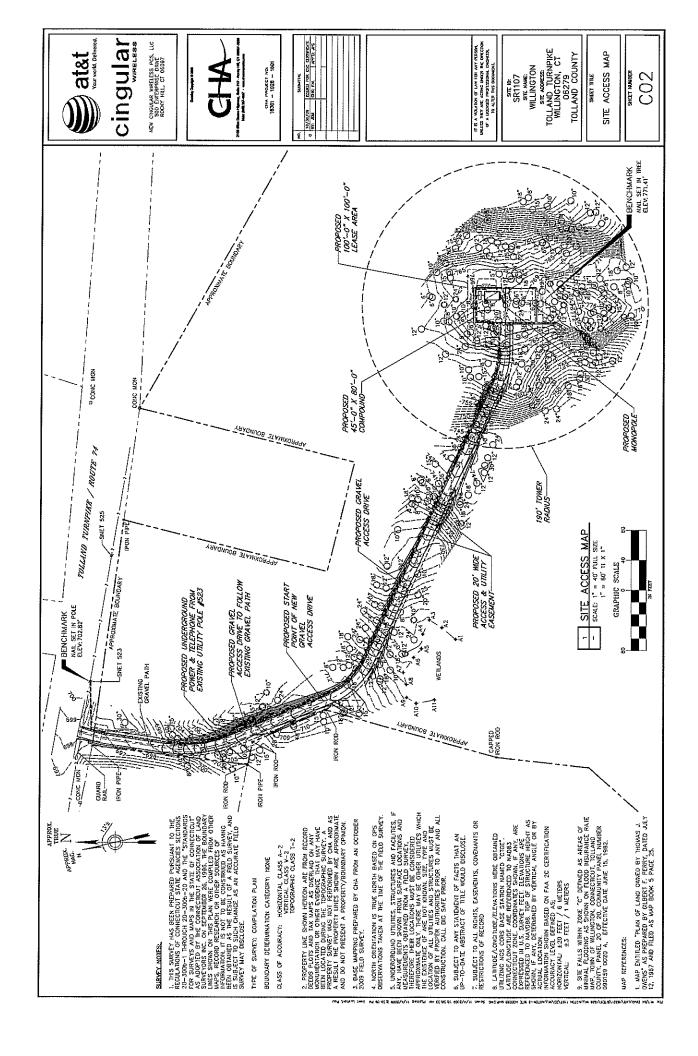


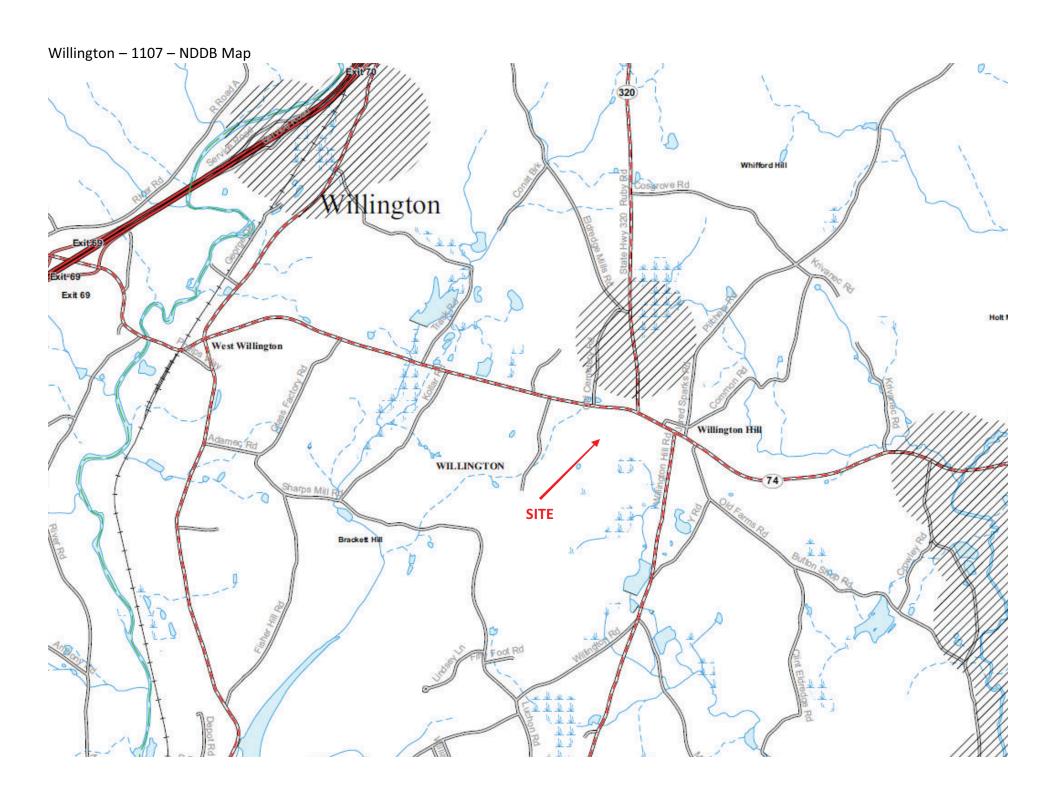
Figure 2:

View Direction: South

View of red maple forested wetland Located south of the proposed access road.







# **ATTACHMENT 3(D)**





Historic Preservation and Museum Division

One Constitution Plaza Second Floor Hartford, Connecticut 06103

860.256.2800 860.256.2763 (f) January 11, 2010

Ms. Stacy Montgomery Architectural Historian The Ottery Group 1810 August Drive Silver Spring, Maryland 20902

Subject: Proposed AT&T Mobility" Willington #1107 Telecommunications

Facility" - Tolland Turnpike, Willington, CT 06279

Dear Ms. Montgomery:

The State Historic Preservation Office has reviewed the above-named project. The "Archaeological Assessment for the Proposed Willington Telecommunications Facility" prepared by the Ottery Group notes that a 1-acre parcel, possibly located within the Area of Potential Effects, was conveyed in the early eighteenth-century for use as a burying ground. Although no evidence of a cemetery was identified during the archaeological survey undertaken for this project, the Ottery Group notes, "this investigation can not preclude the presence of the historically documented 'burying yard'". SHPO concurs with the Ottery Group's recommendation that additional investigations are warranted. Specifically, SHPO recommends that a professionally implemented program of topsoil stripping be employed to identify any elements of the reported cemetery that may be extant within the proposed access roadway. Based on the background studies completed by the Ottery Group, SHPO believes the area of soil stripping can be confined to those segments of the access road between 300 and 700 feet south of the existing Tolland Turnpike roadway. If burials or other cemetery related features, such as buried grave markers or coffin furniture, are identified near the boundary of the soil stripping area, the area of investigation should be expanded within the confines of the APE until the extent of the burial ground can be confidently delineated.

Please note that human burials and skeletal remains are protected under Connecticut General Statute Section 10-388. In accordance with these statutes, SHPO recommends that the archaeological monitoring be undertaken in coordination with the Connecticut Office of the State Archaeologist (OSA).

CONNECTICUT
www.cultureandtourism.org

<sup>&</sup>lt;sup>1</sup> Archaeological Assessment for the Proposed Willington Telecommunications Facility, Tolland Turnpike, Tolland County, Connecticut (Franz, Sperling, and Torp 2009: 4).



Accommodations should be made for the safe and respectful treatment of any human remains and/or mortuary objects that are inadvertently exposed by the soil stripping activity. OSA can provide further guidance on the design and implementation of an appropriate research design for the recommended study. All archaeological studies must be undertaken in accordance with our *Environmental Review Primer for Connecticut's Archaeological Resources* 

No ground disturbance or construction-related activities should be initiated until this office has had an opportunity to review and comment upon the recommended archaeological survey report.

In the opinion of this office, the proposed undertaking also appears to have an <u>adverse effect</u> on the Willington Common National Register Historic District. As noted in the "Visual Analysis Report" submitted to our office, the proposed monopole will be visible year-round from the above-referenced District.

We anticipate working with all interested parties on the proposed undertaking as well as in the professional management of Connecticut's historical and archaeological heritage.

For further information please contact Daniel Forrest, Staff Archaeologist.

Sincerely,

David Bahlman

Deputy State Historic Preservation Officer

cc: Dr. Nicholas Bellantoni/OSA

# **ATTACHMENT 4(A)**

#### Candidate B: General Facility Description

Old South Willington Road, Willington, Connecticut 06279
Owner: Lawrence Becker
Tax ID: M18-19
Approximately 170 Acre Parcel

The proposed facility consists of a 100' by 100' lease area located in the south portion of an approximately 170 acre parcel owned by Lawrence Becker at Old South Willington Road in Willington. A new self-supporting monopole tower 190' in height would be constructed. AT&T would install up to 12 panel antennas at the 187' centerline height on the tower together with an associated 12' x 20' radio equipment shelter at the tower base on a concrete pad within the tower compound. The tower compound would consist of a 75' by 75' area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. An 8-foot high chain link fence would enclose the tower compound. Vehicle access to the facility would be provided over a new 958' gravel access drive 12' in width. Electric and telephone utilities would be extended underground from a proposed riser utility pole to the proposed facility. Provisions are also included for an emergency generator to be located on a 4' x 11' concrete pad within the tower compound.

#### Candidate B: Site Evaluation Report

#### I. LOCATION

- A. COORDINATES: 41° 51' 48.3" N 72° 16' 28.3" W
- B. GROUND ELEVATION: 682' AMSL
- C. USGS MAP: Coventry Quadrangle
- D. SITE ADDRESS: Old South Willington Road, Willington, Connecticut
- E. ZONING WITHIN 1/4 MILE OF SITE: Commercial, Residential

#### II. DESCRIPTION

- A. SITE SIZE: 100' by 100' lease area, 75' by 75' compound
- B. LESSOR'S PARCEL: ± 170 acres
- C. TOWER TYPE/HEIGHT: Monopole / 190' AGL.
- D. SITE TOPOGRAPHY AND SURFACE: The proposed site is located towards the northern/central portion of a 170 acre parcel. The site is located on a sloping wooded area.
- E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The surrounding terrain ranges in elevation from 330' AMSL to over 740' AMSL. The majority of the surrounding area is covered with vegetation. A field investigation identified one on-site wetland approximately 79' to the east of the proposal access drive.
- F. LAND USE WITHIN 1/4 MILE OF SITE: Land uses within ½ mile of the site are primarily residential, commercial, and a future sand & gravel mining operation.

#### III. FACILITIES

- A. POWER COMPANY: Connecticut Light and Power
- B. POWER PROXIMITY TO SITE: Facilities available from off site utility pole using a proposed riser pole.
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: Same as power.
- E. VEHICLE ACCESS TO SITE: Access to the facility would be provided over a new 12' wide gravel access drive approximately 958' to the site.
- F. OBSTRUCTIONS: None
- G. CLEARING AND FILL REQUIRED: The compound will require clearing and grading to level the area. Some filling may be required. Detailed plans would be included in a Development and Management Plan ("D&M" plan) after any approval of the facility which may be issued by the Connecticut Siting Council.

#### IV. LEGAL

- A. PURCHASE [ ] LEASE [ X ]
- B. OWNER: Lawrence Becker
- C. ADDRESS: Old South Willington Road, Willington, Connecticut

#### Candidate B: Facilities and Equipment Specification

#### I. TOWER SPECIFICATIONS:

A. MANUFACTURER: To be determined

B. TYPE: Self-Supporting monopole

C. HEIGHT: 190'

DIMENSIONS: Approximately 4½' in diameter at the base, tapering to

approximately 2' at the top.

D. LIGHTING: None as set forth in attached TOWAIR report

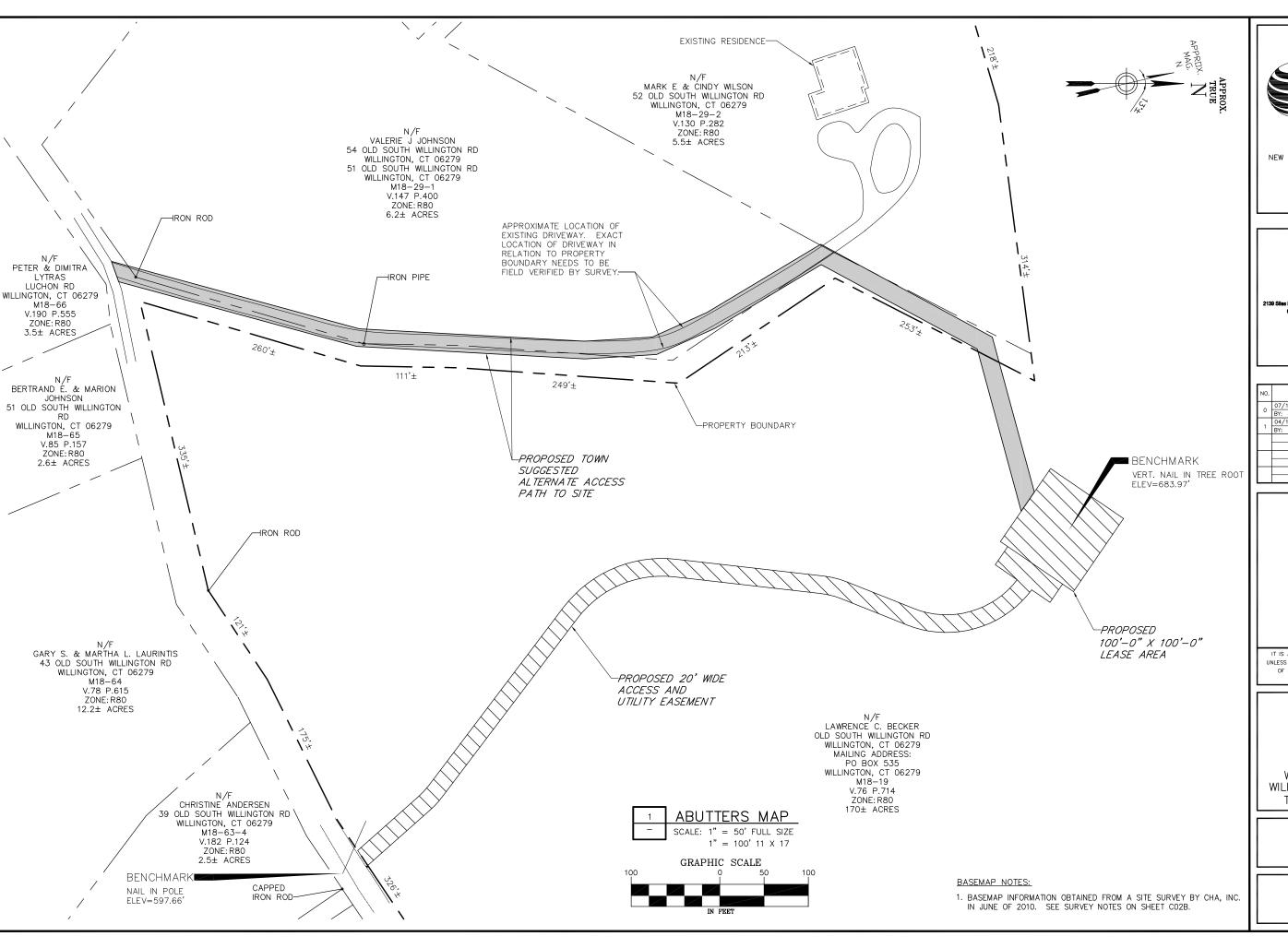
#### II. TOWER LOADING:

A. AT&T - up to 12 panel Antennas

- a. Model P90-14-XVH-RR or equivalent panel antenna
- b. Antenna Dimensions 48"H x 12"W x 6"D
- c. Position on Tower 157' centerline mounted on low profile platform
- d. Transmission Lines MFG/Model: Commscope Aluminum 1-5/8"
- B. Future Carriers 3 additional carriers can be accommodated.

#### III. ENGINEERING ANALYSIS AND CERTIFICATION:

The tower will be designed in accordance with American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with 2005 Connecticut Amendment. The foundation design would be based on soil conditions at the site. The details of the tower and foundation design would be provided as part of the final D&M plan.





NEW CINGULAR WIRELESS PCS, LLC 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067

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CHA PROJECT NO: 18301 - 1059 - 43000

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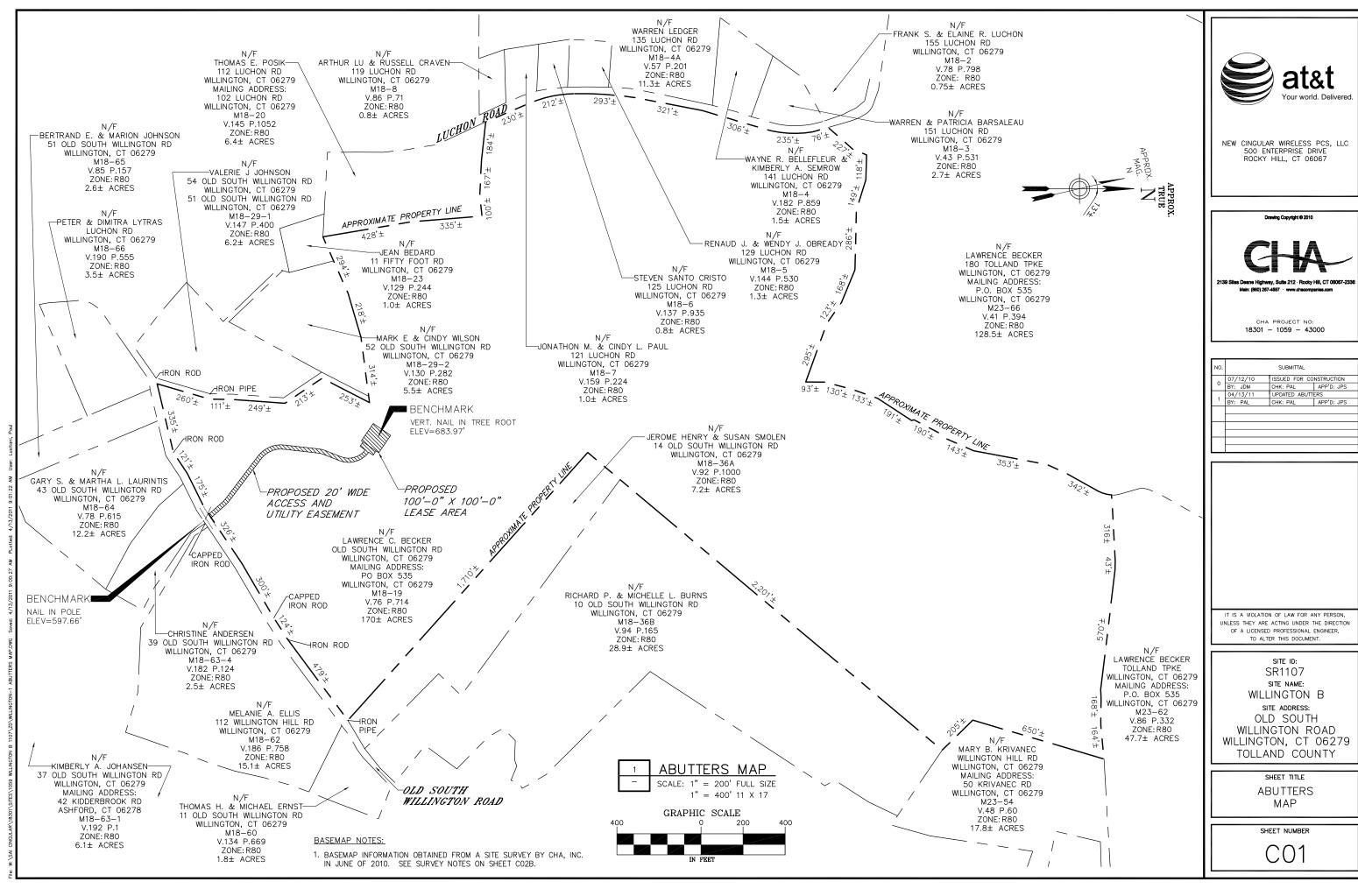
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTIO OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE ID:
SR1107
SITE NAME:
WILLINGTON B
SITE ADDRESS:
OLD SOUTH
WILLINGTON ROAD
WILLINGTON, CT 06279
TOLLAND COUNTY

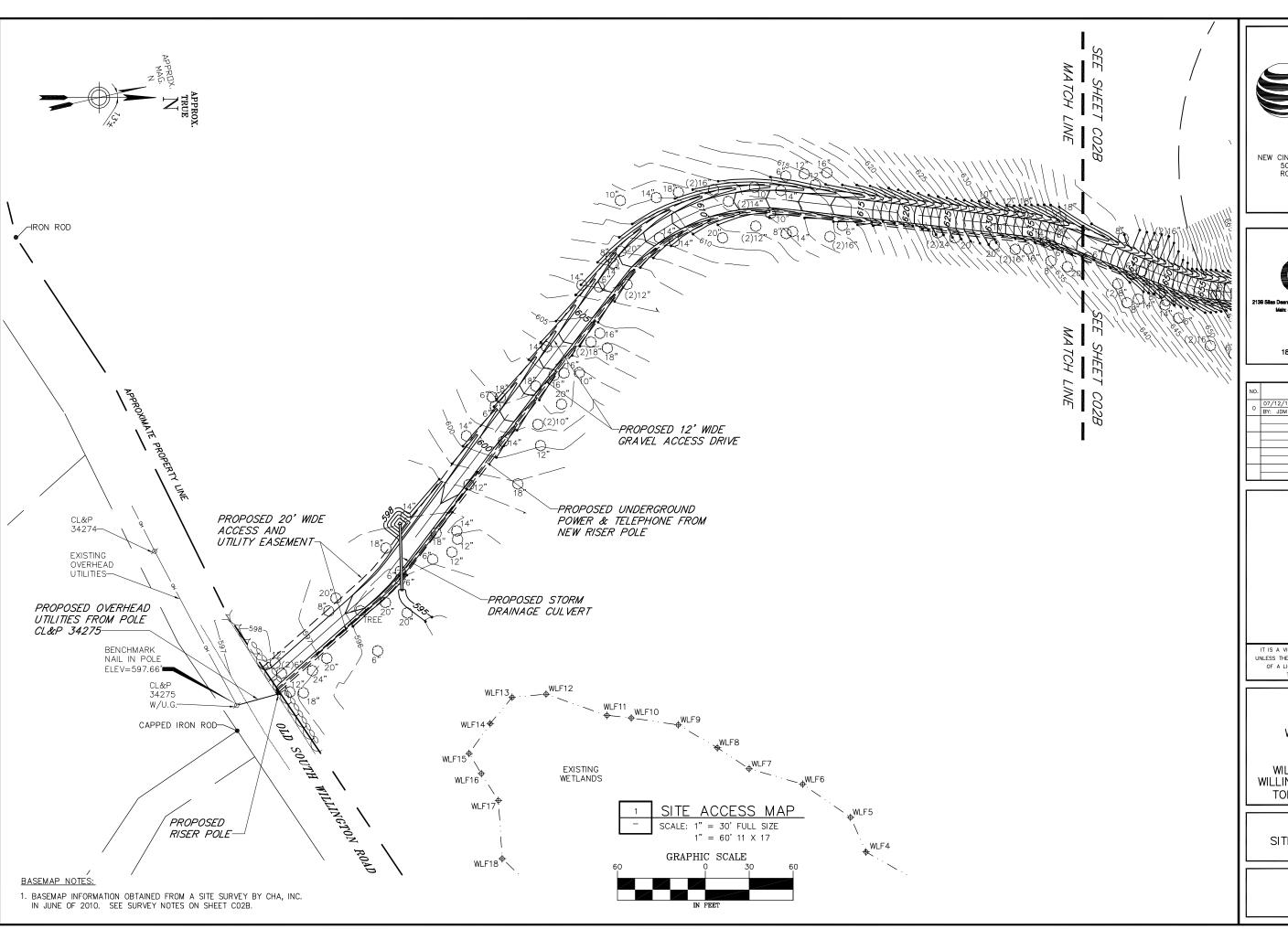
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NEW CINGULAR WIRELESS PCS, LLC 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067

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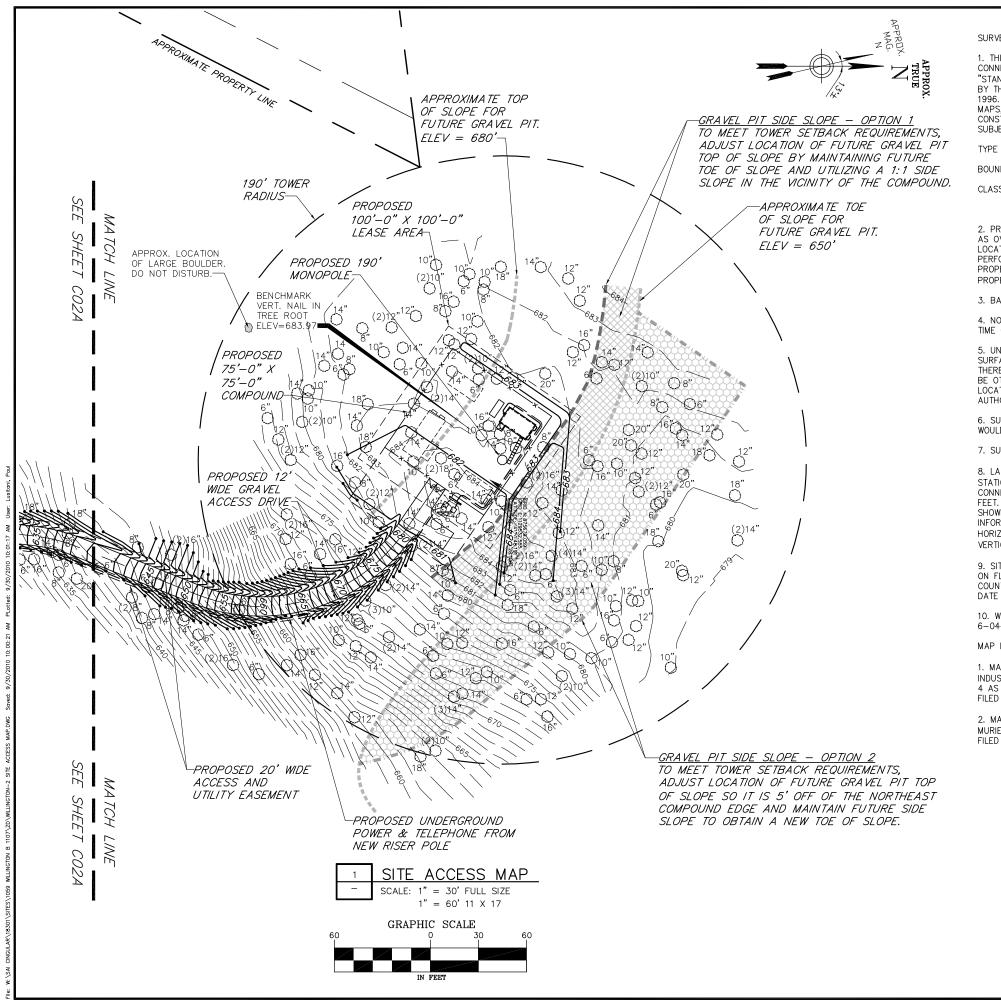
SITE ID:
SR1107
SITE NAME:
WILLINGTON B
SITE ADDRESS:
OLD SOUTH
WILLINGTON ROAD
WILLINGTON, CT 06279
TOLLAND COUNTY

SHEET TITLE

SITE ACCESS MAP

SHEET NUMBER

CO2A



#### SURVEY NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 26, 1996. THE BOUNDARY LINES SHOWN ON THIS PLAN WERE COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

TYPE OF SURVEY: COMPILATION PLAN

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY: HORIZONTAL CLASS A-2
VERTICAL CLASS V-2
TOPOGRAPHIC CLASS T-2

- 2. PROPERTY LINE SHOWN HEREON ARE FROM RECORD DEEDS PLOTS AND TAX MAPS AS OVERLAID ON ANY MONUMENTATION OR OTHER EVIDENCE THAT MAY HAVE BEEN LOCATED DURING THE TOPOGRAPHIC SURVEY. A PROPERTY SURVEY WAS NOT PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP AND AS A RESULT THE PROPERTY LINES SHOWN ARE APPROXIMATE AND DO NOT PRESENT A PROPERTY/BOUNDARY OPINION.
- 3. BASE MAPPING PREPARED BY CHA, INC. FROM A JUNE 2010 FIELD SURVEY.
- 4. NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY.
- 5. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY, THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFE PRIOR.
- 6. SUBJECT TO ANY STATEMENT OF FACTS THAT AN UP-TO-DATE ABSTRACT OF TITLE WOULD DISCLOSE.
- 7. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
- 8. LATITUDE/LONGITUDE/ELEVATIONS WERE OBTAINED UTILIZING NGS CORS BASE STATION NAMED "CTGE". LATITUDE/LONGITUDE ARE REFERENCED TO NAD83 CONNECTICUT ZONE. COORDINATES SHOWN, IF ANY, ARE EXPRESSED IN U.S. SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD88. TOP OF STRUCTURE HEIGHT AS SHOWN, IF ANY, DETERMINED BY VERTICAL ANGLE OR BY ACTUAL LOCATION. INFORMATION SHOWN BASED ON FAA 2C CERTIFICATION ACCURACY LEVEL DEFINED AS; HORIZONTAL: ±50 FEET / 15 METERS VERTICAL: ±20 FEET / 6 METERS
- 9. SITE FALLS WITHIN ZONE "C" DEFINED AS AREAS OF MINIMAL FLOODING AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF WILLINGTON, CONNECTICUT, TOLLAND COUNTY, PANEL 20 OF 20, COMMUNITY PANEL NUMBER 090159 0020 A, EFFECTIVE DATE JUNE 15, 1982.
- 10. WETLANDS SHOWN AS DELINATED BY VANASSE HANGEN BRUSTLIN, INC., DATED 6-04-10 AND LOCATED BY CHA AT THE TIME OF THE FIELD SURVEY.

#### MAP REFERENCES:

- 1. MAP ENTITLED "PERIMETER / TOPOGRAPHIC / SURVEY PROPOSED COMMERCIAL / INDUSTRIAL ROADWAY PREPARED FOR BECKER CONSTRUCTION COMPANY" SHEET 4 OF 4 AS PREPARED BY GARDNER & PETERSON ASSOCIATES, LLC DATED 12-31-2007 AND FILED IN THE WILLINGTON TOWN CLERKS OFFICE.
- 2. MAP ENTITLED "BOUNDARY SURVEY & SUBDIVISION PLAN NANCY ANN LATHE & MURIEL S. NICHOLSON" AS PREPARED EVERETT GARDNER, DATED 10-29-1968 AND FILED IN THE WILLINGTON TOWN CLERKS OFFICE.



NEW CINGULAR WIRELESS PCS, LLC 500 ENTERPRISE DRIVE ROCKY HILL, CT 06067

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CHA PROJECT NO: 18301 - 1059 - 43000

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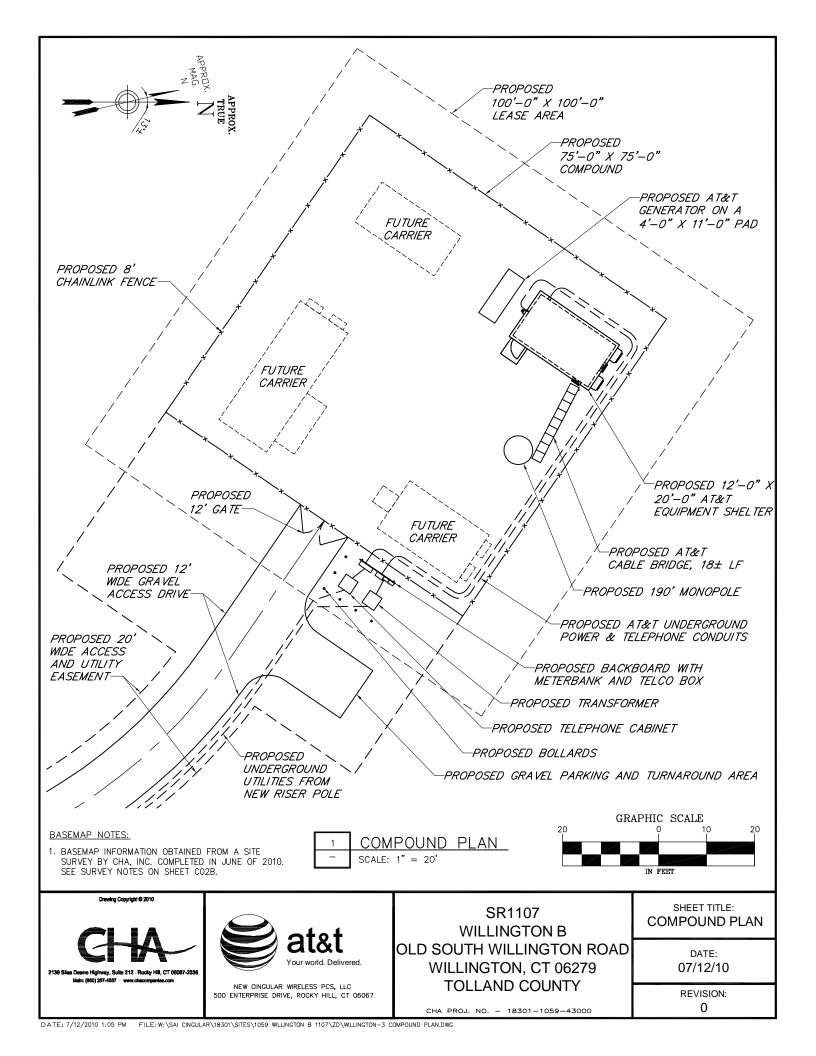
SITE ID:
SR1107
SITE NAME:
WILLINGTON B
SITE ADDRESS:
OLD SOUTH
WILLINGTON ROAD
WILLINGTON, CT 06279
TOLLAND COUNTY

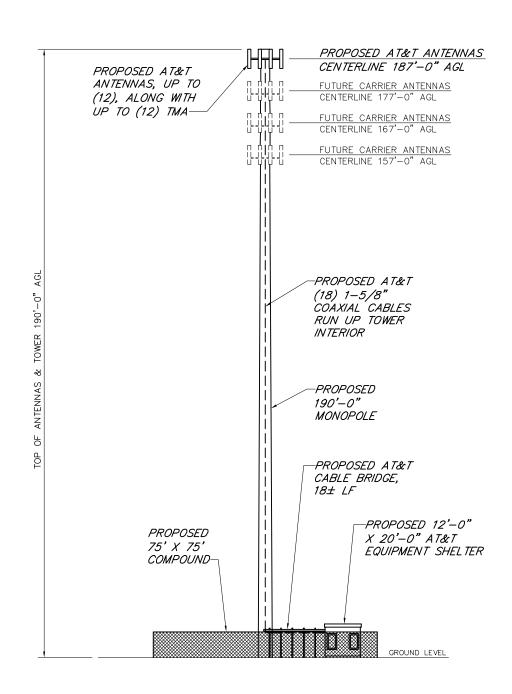
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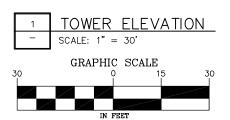
SITE ACCESS MAP

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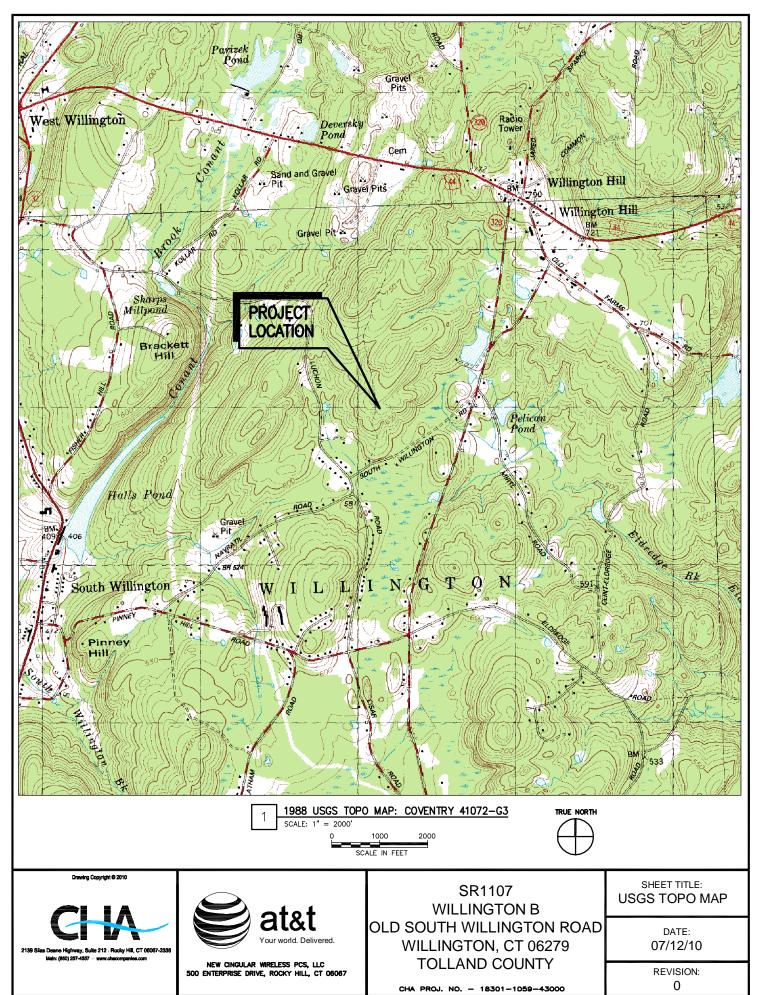
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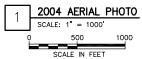
SHEET TITLE:
TOWER ELEVATION

DATE: 07/12/10

REVISION:









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CHA PROJ. NO. - 18301-1059-43000

SHEET TITLE: AERIAL PHOTO

DATE: 07/12/10

REVISION:



Site Number: SR1107 Site Name: Willington B

Site Address: Old South Willington Road, Willington, CT 06279

#### **Access distances:**

Distance of access over existing asphalt driveway: 0' Distance of access over new gravel driveway: 958' Total distance of site access: 958'

#### **Distance to Nearest Wetlands:**

79' from nearest grading extents to WLF13

#### **Distance to Property Lines:**

1,004' to the northern property boundary 871' to the southern property boundary 190' to the western property boundary 771' to the eastern property boundary

#### **Residence Information:**

There are 8 residences within 1,000' feet of the tower. The closest residence is 550' to the southwest and is owned by Mark and Cindy Wilson and is located at 52 Old South Willington Road, Willington, CT.

#### **Tree Removal Count:**

See Tree Inventory Letter.

#### Distance to Nearest Town (Must notify town if less than 2,500'):

The nearest town to the proposed tower is Tolland, CT. The town boundary is 8,775' to the west.



July 12, 2010

New Cingular Wireless PCS, LLC 500 Enterprise Drive Rocky Hill, CT 06067

RE: **Tree Inventory** 

Site: Willington B

**Old South Willington Road** Willington, CT 06279 CHA # 15363-1059-43000

A site survey was completed at the subject site in June 2010. A requirement of the survey involved determining the location of all trees within the topographic survey area with a diameter at breast height of 6" or larger. As can be seen on the site access map, there are one-hundred fifteen (115) trees with a diameter of 6" or larger within the area of the proposed access road and compound which need to be removed for construction of the facility. The quantity and size of trees being removed is summarized in the below table:

Tree Diameter	Number of Trees to be Removed
6"	19
8"	10
10"	15
12"	16
14"	28
16"	11
18"	10
20"	4
24"	2
TOTAL	115

If you have any questions, comments or need further information, please do not hesitate to contact our office.

Very truly yours,

**CLOUGH HARBOUR & ASSOCIATES LLP** 

Paul Lustum:

Paul Lusitani Project Engineer

W:\SAI Cingular\18301\Sites\1059 Willington B 1107\ZD\WILLINGTON-10 TREE INVENTORY 07-09-10.doc

# **ATTACHMENT 4(B)**

#### **Visual Resource Evaluation Report**

# Proposed Wireless Telecommunications Facility

Willington B
Old South Willington Road
Willington, Connecticut

Prepared for New Cingular Wireless PCS, LLC

500 Enterprise Drive, Suite 3A

Rocky Hill, CT 06057

Prepared by VHB/Vanasse Hangen Brustlin, Inc.

54 Tuttle Place

Middletown, CT 06457

#### Visual Resource Evaluation

New Cingular Wireless PCS, LLC seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need for the construction of a wireless telecommunications facility ("Facility") to be located on property off Old South Willington Road in the Town of Willington, Connecticut (identified herein as the "host property"). This Visual Resource Evaluation was conducted to evaluate the visibility of the proposed Facility within a two-mile radius ("Study Area"). Attachment A contains a map that depicts the location of the proposed Facility and the limits of the Study Area.

#### **Project Introduction**

The proposed Facility includes the installation of a 190-foot tall monopole with associated ground equipment to be located at its base. Both the proposed monopole and ground equipment would be situated within a fence-enclosed compound. The proposed project area is located at approximately 684 feet Above Mean Sea Level (AMSL). Access to the Facility would be provided via a proposed 12-foot wide gravel access drive.

#### Site Description and Setting

Identified in the Town of Willington Tax Assessor's records as Map 18/Lot 19, the host property consists of approximately 170 acres of undeveloped, wooded land. The proposed Facility would be located on the southern portion of the host property, roughly 950 feet north of Old South Willington Road. Land use within the general vicinity of the proposed Facility site and host property consists primarily of low-density residential development to the west, south and east; and undeveloped woodlands to the north. In total, the Study Area features approximately 79 linear miles of roadways, including portions of Route 32, Route 74 and Route 320.

The topography within the Study Area is generally characterized by rolling hills with ground elevations ranging from approximately 330 feet AMSL to just over 740 feet AMSL. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species interspersed with stands of mature evergreen species and occupies approximately 6,576 acres of the 8,042-acre study area (82%). During the in-field activities associated with this analysis, a laser range finder was used to determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy was determined to be 65 feet. The Study Area contains approximately 107 acres of surface water that includes portions of the Willimantic River, Fenton River, Halls Pond, Pelican Pond, Parizek Pond, Deversky Pond and several unnamed ponds.

#### **METHODOLOGY**

In order to represent the visibility associated with the Facility, VHB utilizes a two-fold approach incorporating both a predictive computer model and in-field analysis. The predictive model was employed to assess potential visibility throughout the entire Study Area, including private property and/or otherwise inaccessible areas for field verification. A balloon float and Study Area drive-through reconnaissance were also conducted to provide a height and locational representation, back check the computer model and obtain photographic documentation from publicly accessible areas. Results of the balloon float are analyzed and incorporated into the final viewshed map. A description of the methodologies used in the analysis is provided below.

#### Visibility Analysis

Using ESRI's ArcGIS® Spatial Analyst, a computer modeling tool, the areas from where the top of the Facility is expected to be visible are calculated. This is based on information entered into the computer model, including Facility height, its ground elevation, the surrounding topography and existing vegetation. Data incorporated into the predictive model includes a digital elevation model (DEM) and a digital forest layer for the Study Area. The DEM was derived from the Connecticut LiDAR-based digital elevation data. The LiDAR data was produced by the University of Connecticut Center for Land Use Education and Research (CLEAR) in 2007 and has a horizontal resolution of 10 feet. In order to create the forest layer, digital aerial photographs of the Study Area are incorporated into the computer model. The mature trees and woodland areas depicted on the aerial photos are manually traced in ArcGIS® GIS and then converted into a geographic data layer. The aerial photographs were produced in 2006 and have a pixel resolution of one foot.

Once the data layers are entered, a series of constraints are applied to the computer model to achieve an estimate of where the Facility will be visible. Initially, only topography was used as a visual constraint; the tree canopy is omitted to evaluate all areas of potential visibility without any vegetative screening. Although this is an overly conservative prediction, the initial omission of these layers assists in the evaluation of potential seasonal visibility of the proposed Facility. A conservative tree canopy height of 50 feet is then used to prepare a preliminary viewshed map for use during the Study Area reconnaissance. The average height of the tree canopy was determined in the field using a laser range finder. The average tree canopy height is incorporated into the final viewshed map; in this case, 65 feet was identified as the average tree canopy height. The forested areas within the Study Area were then overlaid on the DEM with a height of 65 feet added and the visibility calculated. As a final step, the forested areas are extracted from the areas of visibility, with the assumption that a person standing among the trees will not be able to view the Facility beyond a distance of approximately 500 feet. Depending on the density of the vegetation in these areas, it is assumed that some locations within this range will provide visibility of at least portions of the Facility based on where one is standing.

Also included on the map is a data layer, obtained from the State of Connecticut Department of Environmental Protection ("CTDEP"), which depicts various land and water resources such as parks and forests, recreational facilities, dedicated open space, CTDEP boat launches and other categories. Lastly, based on both a review of published information and discussions with municipal staff in Willington, it was determined that there are no locally-or state-designated scenic roads contained within the Study Area.

The preliminary viewshed map (using topography and a conservative tree canopy height of 50 feet) is used during the in-field activity to assist in determining if significant land use changes have occurred since the aerial photographs used in this analysis were produced and to compare the results of the computer model with observations of the balloon float. Information obtained during the reconnaissance is then incorporated into the final visibility map.

#### Balloon Float and Study Area Reconnaissance

On July 13, 2010 Vanasse Hangen Brustlin Inc., (VHB) conducted a balloon float at the proposed Facility to further evaluate the potential viewshed within the Study Area. The balloon float consisted of raising and maintaining an approximate four-foot diameter, helium-filled balloon at the proposed site location at a height of 190 feet. Once the balloon was secured, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area in order to evaluate the results of the preliminary viewshed map and to document where the balloon was, and was not, visible above and/or through the tree canopy. During the balloon float, the temperature was approximately 85 degrees Fahrenheit with calm wind conditions and partly sunny skies.

#### **Photographic Documentation**

During the balloon float, VHB personnel drove the public road system within the Study Area to inventory those areas where the balloon was visible. The balloon was photographed from a number of different vantage points to document the actual view towards the proposed Facility. Locations where the balloon was not visible are also included in order to provide documentation. The locations of the photos are described below:

View	Location	Orientation	Dist. To Site	Visibility
1	Intersection of Y Road and Route 320	Southwest	<u>+</u> 0.50-Mile	Year-Round
2	Route 74 (Tolland Turnpike)	Southwest	<u>+</u> 0.98-Mile	Not Visible
3	Willington Town Green	Southwest	<u>+</u> 1.01-Mile	Not Visible
4	Willington Town Hall Parking Lot	Southwest	<u>+</u> 0.90-Mile	Not Visible
5	Willington Center School Parking Lot	Southwest	<u>+</u> 0.89-Mile	Not Visible

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Photographs of the balloon from the view points listed above were taken with a Nikon D-80 digital camera body and Nikon 18 to 135 mm zoom lens. For the purposes of this report, the lens was set to 50mm. "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm."

The locations of the photographic points are recorded in the field using a hand-held GPS receiver and are subsequently plotted on the maps contained in the attachments to this document.

#### Photographic Simulation

Photographic simulations were generated for two representative locations where the balloon was visible during the in-field activities. The photographic simulations represent a scaled depiction of the proposed Facility (a monopole) from these locations. The height of the Facility is determined based on the location of the balloon and a proportional monopole image is simulated into the photographs. The simulations are contained in Attachment A.

#### **CONCLUSIONS**

Based on this analysis, areas from where a 190-foot tall tower would be visible above the tree canopy comprise approximately 20 acres, representing less than one half of one percent of the total land area contained within the 8,042- acre Study Area. As depicted on the attached viewshed map, most of the year-round visibility occurs over open water on undeveloped land, including a portion of an unnamed pond located west of Route 320 (approximately 0.40-mile to the northeast of the proposed Facility); part of a large wetland area approximately 0.5 south of the proposed Facility Site; and open land located between 0.50-mile and 0.80-mile to the north/northeast. The viewshed map also depicts areas of year-round visibility limited to select portions of Route 320 and Lindsey Lane as well as several small areas located on portions of private properties to the north and southeast of the proposed Facility that were inaccessible to VHB field personnel for verification during the Study Area reconnaissance. As evidenced by the results of the balloon float and viewshed modeling conducted as part of this analysis, the intervening topography and abundance of

<sup>&</sup>lt;sup>1</sup> Warren, Bruce. *Photography*, West Publishing Company, Eagan, MN, c. 1993, (page 70).

mature trees and other vegetation contained within the Study Area serve to confine potential year-round views to the areas described above. VHB estimates that select portions of approximately six (6) residential properties within the Study Area may have at least partial year-round views of the proposed Facility. This includes two (2) properties located along Route 320 to the northeast of the proposed Facility; one (1) residential property off Mirtl Road located approximately 0.50-mile to the southeast; one (1) property located along Luchon Road approximately 0.20-mile to the southwest; one (1) parcel located along Glass Factory Road approximately 1.40-mile to the northwest; and one (1) property located off Lindsey Lane located roughly 0.34-mile to the southwest.

The viewshed map also depicts additional areas where seasonal (i.e. during "leaf off" conditions) views through the trees are anticipated. These areas comprise approximately 18 additional acres are generally limited to the vicinity of the host property. VHB estimates that seasonal views may be achieved from select portions of approximately three (3) residential properties located within the Study Area. This includes one (1) residential property located off Route 320; (1) property located along Luchon Road and (1) property located off Old South Willington Road.

# Attachment A

Photolog Documentation Map, Balloon Float Photographs, and Photographic Simulations

**■ AT&T** 







# PHOTOGRAPHIC SIMULATION













# A STATE OF THE STA











SOUTHWEST

0.89 MILE +/-



**WILLINGTON CENTER SCHOOL PARKING LOT** 

**●**AT&T

5



**NON-VISIBLE** 













	のでは、100mmの	STOP			
VIE	w	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7		ADJACENT TO #4 LINDSEY LANE	NORTHEAST	0.35 MILE +/-	YEAR-ROUND
- 1			I	I	1







SOUTHWEST

0.89 MILE +/-



WILLINGTON WOODS SENIOR HOUSING - OLD FARMS ROAD

**AT&T** 

9



**NON-VISIBLE** 

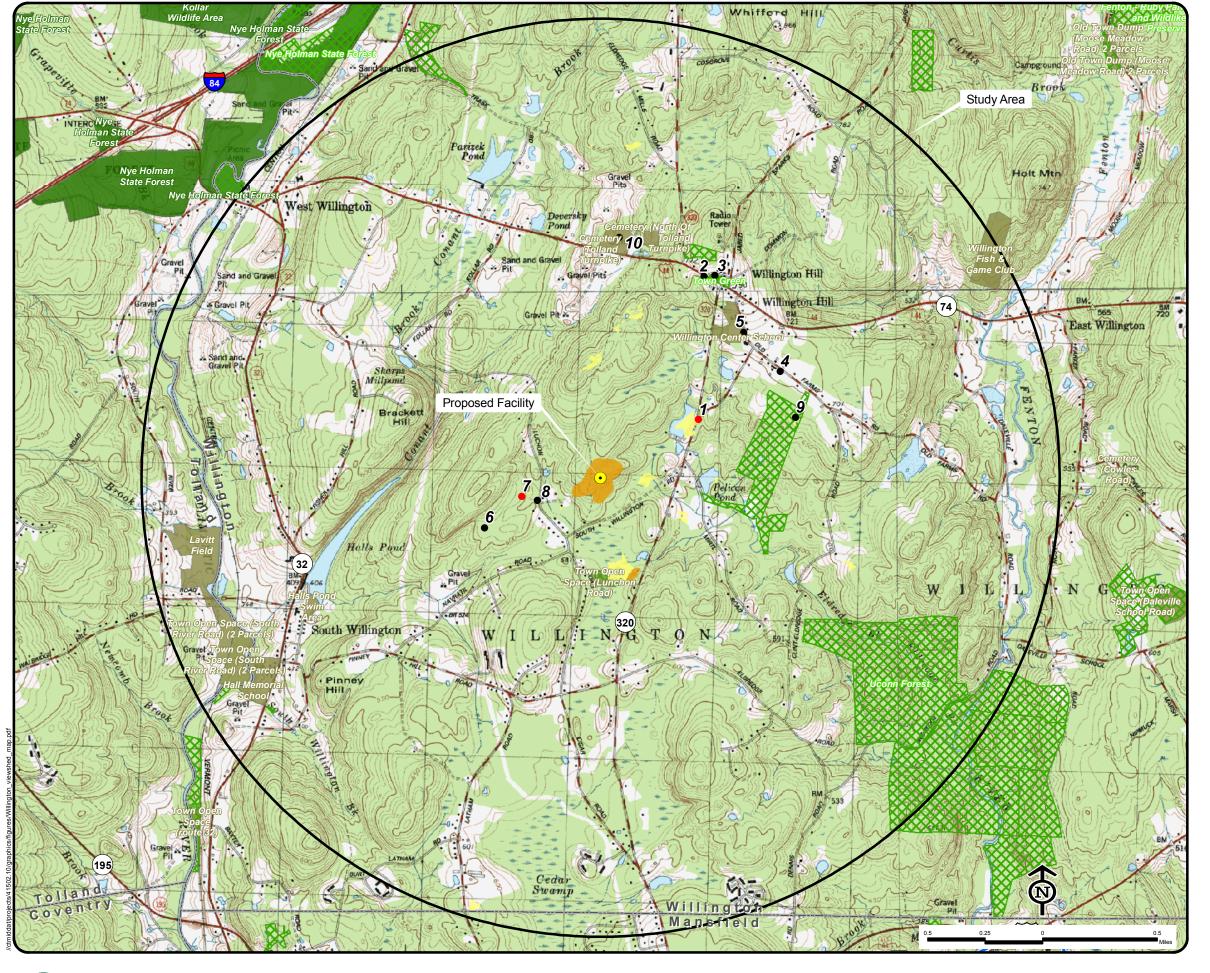


**●**AT&T



# Attachment B

Viewshed Map



#### Viewshed Analysis <u>Proposed AT&T</u> Wireless Telecommunications Facility Willington B Old South Willington Road Willington, Connecticut

#### NOTE:

- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 190 feet.
- Existing tree canopy height estimated at 65 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

#### DATA SOURCES:

- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2008 digital orthophotos with 1-meter pixel resolution; digitized by VHB, 2010
- Base map comprised of Coventry (1983), Spring Hill (1983),
- Westford (1983) and Stafford Springs (1983) USGS Quadrangle Maps
- Municipal and Private Open Space data layer provided by CT DEP, 1997
- Federal Open Space data layer provided by CT DEP, 2004
- CT DEP Property data layer provided by CT DEP, April 2010
- CT DEP Protected Open Space Mapping (POSM) data layer provided by CT DEP, Dec 2009
- CT DEP boat launches data layer provided by CT DEP, Dec 2009
- Scenic Roads layer derived from available State and Local listings

#### Map Compiled August, 2010

#### Legend

Proposed Tower Location

Photographs - July 13, 2010

 Balloon is not visible Balloon visible above trees

Seasonal Visibility Area (Approximately 18 acres)

Year-Round Visibility Area (Approximately 20 acres)

Protected Municipal and Private Open Space (CT DEP, 1997)

Cemetery Preservation

Uncategorized

Conservation Existing Preserved Open Space Recreation

General Recreation School

State Park DEP Owned Waterbody State Park Scenic Reserve Historic Preserve Natural Area Preserve Fish Hatchery

CT DEP Property (CT DEP, May 2010)

Flood Control Other

State Forest

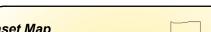
State Park Trail Water Access

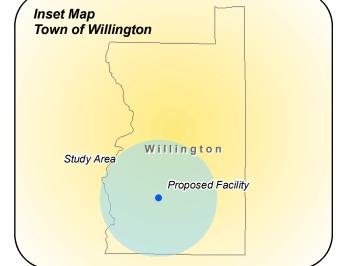
Wildlife Area Wildlife Sanctuary Protected Open Space Mapping (POSM) Area (CT DEP, Dec 2009)

Federal Open Space (CT DEP, 2004)

Boat Launches (CT DEP, Dec 2009)

Scenic Road (State and Local) --- Town Line









# **ATTACHMENT 4(C)**

#### Candidate B: Environmental Assessment Statement

#### I. PHYSICAL IMPACT

#### A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the proposed facility. The construction and operation of the tower and related site improvements will have no effect on any watercourses or water bodies. Best Management Practices to control storm water and soil erosion during construction will be implemented. The equipment associated with the facility will discharge no pollutants to area surface or groundwater systems.

#### B. AIR QUALITY

Under ordinary operating conditions, the telecommunications equipment that would be used at the proposed facility would emit no air pollutants of any kind. Infrequent use of a generator would result in a small amount of emissions.

#### C. LAND

Some clearing and grading will be necessary in the compound area and access drive and best management practices implemented for any steep slopes. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

#### D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system as well as a proposed generator to be used during power outages. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks. Temporary power outages could involve sound from an emergency generator.

#### E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 3.62% of the MPE standard. Attached is a copy of AT&T's Power Density Report dated September 20, 2010.

#### F. VISIBILITY

The potential visual impact of the proposed facility was determined by preparation of the attached Visual Resource Evaluation Report prepared by Vanasse Hangen Brustlin, Inc. The potential visibility of the proposed monopole was assessed within an approximate

two-mile radius using a computer-based, predictive view shed model and in-field visual analysis. As shown in the report and photo simulations, only 20 acres (less than one half of 1%) of the 8,042-acre study area would have views of the proposed tower above the tree canopy. The proposed monopole would not be visible from the Willington Town Green. There is intervening topography and vegetation in the area that serve to limit visibility.

#### II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the facility is located exhibits no unique scenic, natural, historic or recreational characteristics. The Connecticut State Historic Preservation Officer ("SHPO") determined that the proposed project will have no effect on archeological or historic resources. Additionally, the Connecticut Department of Environmental Protection Natural Diversity Database ("NDDB") map for the project area has been reviewed by the DEP and determined that there are no nearby threatened or endangered species present and accordingly no such impacts on same are anticipated.

#### **TOWAIR Determination Results**

#### \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### **DETERMINATION Results**

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

#### **Your Specifications**

#### **NAD83 Coordinates**

Latitude	41-51-48.3 north
Longitude	072-16-28.3 west

#### **Measurements (Meters)**

Overall Structure Height (AGL)	57.9
Support Structure Height (AGL)	NaN
Site Elevation (AMSL)	207.9

#### Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

#### **Tower Construction Notifications**

Notify Tribes and Historic Preservation Officers of your plans to build a tower.



Tony Wells C Squared Systems 920 Candia Road Manchester, NH 03109 603-657-9702 Tony.Wells@csquaredsystems.com



September 20, 2010

Connecticut Siting Council

Subject: New Cingular Wireless, Willington, CT

Dear Connecticut Siting Council:

C Squared Systems has been retained by New Cingular Wireless to investigate the RF Power Density at the proposed site located at Old South Willington Road, Willington, CT.

Calculations were done in accordance with FCC OET Bulletin 65. These worst-case calculations assume that all transmitters are simultaneously operating at full power and pointing directly at the ground. The calculation point is 6 feet above ground level to model the RF power density at the head of a person standing at the base of the tower.

Location	Carrier	Antenna Centerline Height Above Ground Level (Ft.)	Operating Frequency (MHz)	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Power Density (mw/cm²)	Limit	% FCC MPE Limit General Public/ Uncontrolled
	AT&T UMTS	187	880	1	500	0.0055	0.5867	0.94%
	AT&T UMTS	187	1900	1	500	0.0055	1.0000	0.55%
Ground Level	AT&T GSM	187	880	3	296	0.0098	0.5867	1.66%
	AT&T GSM	187	1900	1	427	0.0047	1.0000	0.47%
							Total	3.62%

**Summary**: Under worst-case assumptions, the RF Power Density at the proposed site located at Old South Willington Road, Willington, CT will not exceed 3.62% of the FCC MPE limit for General Public/Uncontrolled Environments.

Sincerely,

Anthony Wells

**Managing Partner** 

anthony wells



Services



#### WETLANDS DELINEATION REPORT

#### Vanasse Hangen Brustlin, Inc.

Date:	September 2, 2010				
Project No.:	41502.10				
Prepared For:	Mr. David Vivian New Cingular Wireless PCS, LLC 500 Enterprise Drive, Suite 3A Rocky Hill, Connecticut, 06067				
Site Location:	Willington B - Old South Willington Road, Willington, Connecticut				
Site Map:	Wetland Sketch, dated June 4, 2010				
Inspection Date:					
Field Conditions:	Weather: partly cloudy, mid 80's Snow Depth: 0 inches	General Soil Moisture: moist Frost Depth: 0 inches			
Type of Wetlands Id	lentified and Delineated:				
Connecticut Inland Wetlands and Watercourses  Tidal Wetlands  U.S. Army Corps of Engineers					
Local Regulated Upland Review Areas: Wetlands: 100 feet Watercourses: 100 feet					
<b>Field Numbering Sequence of Wetlands Boundary:</b> Connecticut - WF 1 to 20 [as depicted on attached wetland sketch map]					

The classification systems of the National Cooperative Soil Survey, the U.S. Department of Agriculture, Natural Resources Conservation Service, County Soil Survey Identification Legend, Connecticut Department of Environmental Protection and United States Army Corps of Engineers New England District were used in this investigation.

All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

The wetlands delineation was conducted and reviewed by:

Dean Gustafson

Professional Soil Scientist

**Enclosures** 

## **Attachments**

- Wetland Delineation Field Form
- Soil Map
- Soil Report Wetland Delineation Sketch Map

#### **Wetland Delineation Field Form**

Project Address:		Willington Road , Connecticut	Project Num	nber:	41502.10		
Inspection Date: June 4, 2010			Inspector:		Dean Gustafson, PSS		
Wetland I.D.:	Wetland 1						
			_				
Field Conditions:		er: partly cloudy, mid 8			w Depth: 0 inches		
		l Soil Moisture: moist	Il Moisture: moist Frost		t Depth: 0 inches		
Type of Wetland I	Delineation:	Connecticut					
		ACOE					
		Tidal					
Field Numbering	Sequence: W	F 1 to 20					
WETLAND HYI	DROLOGY:						
NONTIDAL  Intermittently Flo	oded 🗆	Artificially Flooded		р	ermanently Flooded		
Semipermanently		Seasonally Flooded			emporarily Flooded		
Permanently Satur		Seasonally Saturated			easonally Saturated - perched		
Comments:			seepuge _	<u> </u>	outonamy savarance perente		
TIDAL							
Subtidal		Regularly Flooded		Irr	egularly Flooded		
Irregularly Floode	ed 🗌		<del></del>				
Comments: N/A							
WETLAND TYP	E:						
Estuarine		Riverine		Palu	strine 🛛		
Lacustrine		Marine					
Comments:		<u> </u>		•			
CLASS:							
Emergent		Scrub-shrub		Fore	ested 🖂		
Open Water Disturbed Disturbed			Wei		t Meadow		
Comments: typica	Comments: typical red maple swamp						
WATERCOURS	E TYPE:						
Perennial	Intermittent 🖂		Tida	ıl 🗌			
Comments: intermittent channel forms at the northeastern end of the delineated wetland							
SPECIAL AQUA	TIC HADI	гат.					
Vernal Pool	ATIC HADI	Other					
	ssions in hun	nmock-hollow microto	pography prov	ide v	ernal pool habitat		

#### **Wetland Delineation Field Form (Cont.)**

#### **MAPPED SOILS:**

SOIL SERIES (Map Unit Symbol)	WET	UP	NRCS MAPPED	FIELD IDD/ CONFIRMED
Ridgebury, Leicester, and Whitman soils, extremely stony (3)	$\boxtimes$			$\boxtimes$
Sutton fine sandy loam (52)		$\boxtimes$		$\boxtimes$
Canton and Charlton soils (61)		$\boxtimes$		
Charlton-Chatfield complex (73)		$\boxtimes$		$\boxtimes$

#### **DOMINANT PLANTS:**

red maple (Acer rubrum)	eastern hemlock (Tsuga Canadensis)
pepperbush (Clethra alnifolia)	highbush blueberry (Vaccinium corymbosum)
skunk cabbage (Symplocarpus foetidus)	sensitive fern (Onoclea sensibilis)
cinnamon fern (Osmunda cinnamomea)	

#### **WETLAND NARRATIVE:**

Wetland 1 is a forested swamp located approximately 100 feet east of the proposed access road and approximately 500 feet southeast of the proposed AT&T Willington B wireless telecommunications facility. The red maple swamp is a typical forested wetland community located along upland forest communities. The wetland is bound to the south by Old South Willington Road and continues off property to the northeast. During site inspection small shallow pools that appear to be seasonally inundated were noted. The pools, found to be approximately 6 to 10 inches deep at the time of the inspection, provide vernal pool habitat to a variety of amphibian species. Adult green grogs were seen within the pools along with spotted salamander egg masses. Northern grey tree frogs were also heard chorusing from within the interior of the wetland system.

Web Soil Survey National Cooperative Soil Survey

# Natural Resources Conservation Service

# (Becker Property, Old South Willington Road, WIllington, CT) Soil Map-State of Connecticut

# MAP LEGEND

#### Streams and Canals Short Steep Slope Very Stony Spot Special Line Features Wet Spot Oceans Other Other Gully Political Features Cities Water Features \ \ 8 Area of Interest (AOI) Closed Depression Soil Map Units Special Point Features **Gravelly Spot Borrow Pit** Clay Spot **Gravel Pit** Area of Interest (AOI) Blowout Landfill X Soils

# MAP INFORMATION

Map Scale: 1:7,120 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 18N NAD83 Source of Map: Natural Resources Conservation Service

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut Survey Area Data: Version 7, Dec 3, 2009

Date(s) aerial images were photographed: 8/16/2006

imagery displayed on these maps. As a result, some minor shifting The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background of map unit boundaries may be evident.

Interstate Highways

Rails

ŧ

Marsh or swamp

Lava Flow

Mine or Quarry

**Fransportation** 

Major Roads

**US Routes** 

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot Sandy Spot

Local Roads

>

Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Spoil Area

Stony Spot

#### **Map Unit Legend**

State of Connecticut (CT600)						
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI			
3	Ridgebury, Leicester, and Whitman soils, extremely stony	8.6	8.5%			
17	Timakwa and Natchaug soils	4.8	4.8%			
18	Catden and Freetown soils	1.3	1.3%			
21A	Ninigret and Tisbury soils, 0 to 5 percent slopes	0.0	0.0%			
34A	Merrimac sandy loam, 0 to 3 percent slopes	3.1	3.1%			
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	4.7	4.6%			
61B	Canton and Charlton soils, 3 to 8 percent slopes, very stony	14.7	14.5%			
61C	Canton and Charlton soils, 8 to 15 percent slopes, very stony	1.9	1.9%			
62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	26.2	25.9%			
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	19.9	19.7%			
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	8.9	8.8%			
75C	Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes	7.0	6.9%			
Totals for Area of Intere	est	101.1	100.0%			

#### **Map Unit Description (Brief)**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the selected area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit. A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The "Map Unit Description (Brief)" report gives a brief, general description of the major soils that occur in a map unit. Descriptions of nonsoil (miscellaneous areas) and minor map unit components may or may not be included. This description is written by the local soil scientists responsible for the respective soil survey area data. A more detailed description can be generated by the "Map Unit Description" report.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

#### Report—Map Unit Description (Brief)

#### State of Connecticut

**Description Category: SOI** 

**Map Unit:** 3—Ridgebury, Leicester, and Whitman soils, extremely stony

Ridgebury, Leicester And Whitman Soils, Extremely Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 50 inches (940 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 40 percent Ridgebury soils, 35 percent Leicester soils, 15 percent Whitman soils. 10 percent minor components. Ridgebury soils This component occurs on upland drainageway and depression landforms. The parent material consists of lodgement till derived from granite, schist, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is 20 to 30 inches to densic material. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 2.5 inches (low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 3 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; slightly decomposed plant material 1 to 5 inches; fine sandy loam 5 to 14 inches; fine sandy loam 14 to 21 inches; fine sandy loam 21 to 60 inches; sandy loam Leicester soils This component occurs on upland drainageway and depression landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 9 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 7 inches; fine sandy loam 7 to 10 inches; fine sandy loam 10 to 18 inches; fine sandy loam 18 to 24 inches; fine sandy loam 24 to 43 inches; gravelly fine sandy loam 43 to 65 inches; gravelly fine sandy loam Whitman soils This component occurs on upland drainageway and depression landforms. The parent material consists of lodgement till derived from gneiss, schist, and granite. The slope ranges from 0 to 2 percent and the runoff class is very low. The depth to a restrictive feature is 12 to 20 inches to densic material. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 1.9 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is occasional. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; slightly decomposed plant material 1 to 9 inches; fine sandy loam 9 to 16 inches; fine sandy loam 16 to 22 inches; fine sandy loam 22 to 60 inches; fine sandy loam

Map Unit: 17—Timakwa and Natchaug soils

Timakwa And Natchaug Soils This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 40 to 50 inches (1016 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Timakwa soils, 40 percent Natchaug soils. 15 percent minor components. Timakwa soils This component occurs on depression landforms. The parent material consists of woody organic material over sandy and gravelly glaciofluvial deposits. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with about 16.2 inches (very high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 3.9 LEP (moderate). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 4 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 10 inches; muck 10 to 21 inches; muck 21 to 24 inches; muck 24 to 37 inches; muck 37 to 47 inches; very gravelly loamy coarse sand 47 to 60 inches; gravelly loamy very fine sand Natchaug soils This component occurs on depression landforms. The parent material consists of woody organic material over loamy alluvium, loamy glaciofluvial deposits, or loamy till. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.20 in/hr (moderately slow), with about 15.6 inches (very high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 3.9 LEP (moderate). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 2 inches; peat 2 to 4 inches; peat 4 to 6 inches; muck 6 to 11 inches; muck 11 to 18 inches; muck 18 to 24 inches; muck 24 to 33 inches; fine sandy loam 33 to 36 inches; fine sandy loam 36 to 80 inches; loam

Map Unit: 18—Catden and Freetown soils

Catden And Freetown Soils This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 32 to 47 inches (813 to 1194 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 40 percent Catden soils, 40 percent Freetown soils. 20 percent minor components. Catden soils This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The available water capacity is about 24.4 inches (very high). The weighted average shrink-swell potential in 10 to 60 inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 2 inches; muck 2 to 18 inches; muck 18 to 47 inches; muck 47 to 49 inches; muck 49 to 61 inches; muck Freetown soils This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The available water capacity is about 33.1 inches (very high). The weighted average shrink-swell potential in 10 to 60 inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w Typical Profile: 0 to 4 inches; peat 4 to 10 inches; peat 10 to 22 inches; muck 22 to 35 inches; muck 35 to 41 inches; muck 41 to 55 inches; muck 55 to 71 inches; muck 71 to 91 inches; muck

Map Unit: 21A—Ninigret and Tisbury soils, 0 to 5 percent slopes

Ninigret And Tisbury Soils, 0 To 5 Percent Slopes This map unit is in the Connecticut Valley Major Land Resource Area. The mean annual precipitation is 35 to 50 inches (889 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 60 percent Ninigret soils, 25 percent Tisbury soils. 15 percent minor components. Ninigret soils This component occurs on valley and outwash plain terrace landforms. The parent material consists of eolian deposits over glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.2 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2w Typical Profile: 0 to 8 inches; fine sandy loam 8 to 16 inches; fine sandy loam 16 to 26 inches; fine sandy loam 26 to 65 inches; stratified very gravelly coarse sand to loamy fine sand Tisbury soils This component occurs on valley and outwash plain terrace landforms. The parent material consists of eolian deposits over sand and gravel. The slope ranges from 0 to 3 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2w Typical Profile: 0 to 8 inches; silt loam 8 to 18 inches; silt loam 18 to 26 inches; silt loam 26 to 60 inches; stratified very gravelly sand to loamy sand

Map Unit: 34A—Merrimac sandy loam, 0 to 3 percent slopes

Merrimac Sandy Loam, 0 To 3 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Merrimac soils. 20 percent minor components. Merrimac soils This component occurs on valley outwash plain, terrace, and kame landforms. The parent material consists of sandy glaciofluvial deposits derived from schist, granite, and gneiss. The slope ranges from 0 to 3 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is somewhat excessively drained. The lowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 4.0 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 1 Typical Profile: 0 to 9 inches; sandy loam 9 to 16 inches; sandy loam 16 to 24 inches; gravelly sandy loam 24 to 60 inches; stratified very gravelly coarse sand to gravelly sand

Map Unit: 52C—Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony

Sutton Fine Sandy Loam, 2 To 15 Percent Slopes, Extremely Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Sutton soils. 20 percent minor components. Sutton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, gneiss, and schist. The slope ranges from 2 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.3 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 6 inches; fine sandy loam 6 to 12 inches; fine sandy loam 12 to 24 inches; fine sandy loam 24 to 28 inches; fine sandy loam 28 to 36 inches; gravelly fine sandy loam 36 to 65 inches; gravelly sandy loam

Map Unit: 61B—Canton and Charlton soils, 3 to 8 percent slopes, very stony

Canton And Charlton Soils, 3 To 8 Percent Slopes, Very Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Canton soils, 35 percent Charlton soils. 20 percent minor components Canton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from schist, granite, and gneiss. The slope ranges from 3 to 8 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 5.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 3 inches; gravelly fine sandy loam 3 to 15 inches; gravelly loam 15 to 24 inches; gravelly loam 24 to 30 inches; gravelly loam 30 to 60 inches; very gravelly loamy sand Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 3 to 8 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam

Map Unit: 61C—Canton and Charlton soils, 8 to 15 percent slopes, very stony

Canton And Charlton Soils, 8 To 15 Percent Slopes, Very Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Canton soils, 35 percent Charlton soils. 20 percent minor components Canton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from schist, granite, and gneiss. The slope ranges from 8 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 5.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 3 inches; gravelly fine sandy loam 3 to 15 inches; gravelly loam 15 to 24 inches; gravelly loam 24 to 30 inches; gravelly loam 30 to 60 inches; very gravelly loamy sand Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 8 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam

**Map Unit:** 62C—Canton and Charlton soils, 3 to 15 percent slopes, extremely stony

Canton And Charlton Soils, 3 To 15 Percent Slopes, Extremely Stony This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Canton soils, 35 percent Charlton soils. 20 percent minor components. Canton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from schist, granite, and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 5.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; moderately decomposed plant material 1 to 3 inches; gravelly fine sandy loam 3 to 15 inches; gravelly loam 15 to 24 inches; gravelly loam 24 to 30 inches; gravelly loam 30 to 60 inches; very gravelly loamy sand Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam

Map Unit: 73C—Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky

Charlton-Chatfield Complex, 3 To 15 Percent Slopes, Very Rocky This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Charlton soils, 30 percent Chatfield soils. 25 percent minor components. Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrinkswell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam Chatfield soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 15 inches; gravelly fine sandy loam 15 to 29 inches; gravelly fine sandy loam 29 to 36 inches; unweathered bedrock

Map Unit: 73E—Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky

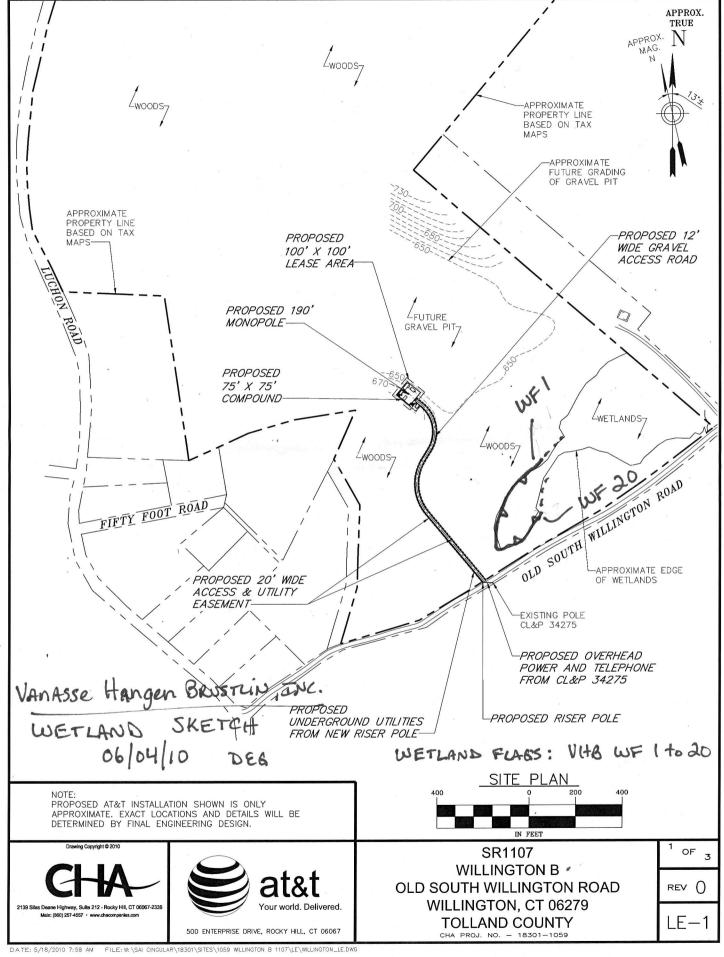
Charlton-Chatfield Complex, 15 To 45 Percent Slopes, Very Rocky This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Charlton soils, 30 percent Chatfield soils. 25 percent minor components. Charlton soils This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 15 to 45 percent and the runoff class is high. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam 19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam Chatfield soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 15 to 45 percent and the runoff class is high. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 15 inches; gravelly fine sandy loam 15 to 29 inches; gravelly fine sandy loam 29 to 36 inches; unweathered bedrock

Map Unit: 75C—Hollis-Chatfield-Rock outcrop complex, 3 to 15 percent slopes

Hollis-Chatfield-Rock Outcrop Complex, 3 To 15 Percent Slopes This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 54 degrees F. (7 to 12 degrees C.) This map unit is 35 percent Hollis soils, 30 percent Chatfield soils, 15 percent Rock Outcrop. 20 percent minor components. Hollis soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from granite, gneiss, and schist. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 10 to 20 inches to bedrock (lithic). The drainage class is somewhat excessively drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 1.8 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 9 inches; channery fine sandy loam 9 to 15 inches; gravelly fine sandy loam 15 to 25 inches; unweathered bedrock Chatfield soils This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 6s Typical Profile: 0 to 1 inches; highly decomposed plant material 1 to 6 inches; gravelly fine sandy loam 6 to 15 inches; gravelly fine sandy loam 15 to 29 inches; gravelly fine sandy loam 29 to 36 inches; unweathered bedrock Rock Outcrop This component occurs on bedrock controlled landforms. The slope ranges from 3 to 15 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8

#### Data Source Information

Soil Survey Area: State of Connecticut Survey Area Data: Version 7, Dec 3, 2009



# **ATTACHMENT 4(D)**



# STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Natural Resources Wildlife Division 79 Elm Street, Sixth Floor Hartford, CT 06106 Natural Diversity Data Base



June 15, 2010

Ms. Coreen Kelsey Vanasse Hangen Brustlin, Inc. 54 Tuttle Place Middletown, CT 06457

Re: Proposed AT&T Cell Tower (SR1107-Willington B) on Old South Willington Rd., Willington, CT

Dear Ms. Kelsey:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed AT&T cell tower (SR1107-Willington B) on Old South Willington Rd., Willington, CT. According to our information, there are no extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on this property.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Environmental Protection's Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

Dawn M. McKay

Biologist/Environmental Analyst

Cc: NDDB File # 17797

DMM/hpw

#### Natural Diversity Data Base Areas

WILLINGTON, CT

December 2010

State and Federal Listed Species & Significant Natural Communities

#### Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources. Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center.

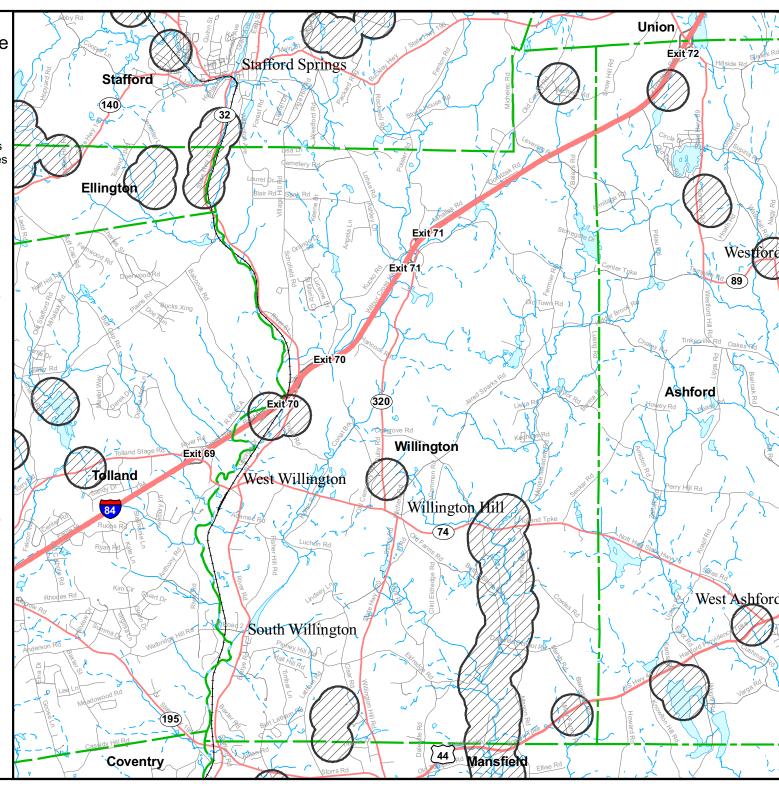
This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area; or overlapping a lake, pond or wetland that has shading; or upstream or downstream (by less than 1/2 mile) from a shaded area, the project may have a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on the DEP website.

To view street labels, use the PDF Layers tab on the left. Expand the Layers and use the "eye" icons to change visibility.

QUESTIONS: DEP, Bureau of Natural Resources, Wildlife Division Phone (860) 424-3011 www.ct.gov/dep/nddbrequest







# **ATTACHMENT 4(E)**

## Transportation Land Development Environmental °

Services



imagination innovation energy Creating results for our clients and benefits for our communi-

all

Vanasse Hangen Brustlin, Inc.

July 9, 2010

Ref: 41502.10

Mr. Daniel Forrest Commission on Culture & Tourism State Historic Preservation Office One Constitution Plaza, Second Floor Hartford, CT 06103 Davied Call Carle DEPUTY SHPO STATE HISTORIC PRESERVATION OFFICE

·20 · 10 Project

Re:

Proposed AT&T Wireless Telecommunications Facility SR-1107 – Willington B

Old South Willington Road Willington, Connecticut

Dear Mr. Forrest:

Vanasse Hangen Brustlin, Inc. (VHB) has been retained by SAI Communications representing AT&T Mobility (AT&T) to review environmental resource information outlined in 47 CFR Ch.1 § 1.1307 sections (a) and (b) for environmental consequences pursuant to the Federal Communications Commission ("FCC or Commission") requirements. VHB determines the presence of resources listed under the National Environmental Policy Act (NEPA) on or near sites where AT&T proposes to locate a facility. Results of this screening process for the above referenced proposed facility in Willington are depicted on the enclosed Cultural Resources Screen map.

AT&T is proposing to construct a new wireless telecommunications facility on portions of property located off of Old South Willington Road in Willington, Connecticut. The facility, consisting of a ±190-foot tall monopole, antennas, and associated ground equipment, will be installed within a 75' x 75' fenced enclosed compound within a 100' x 100' lease area. The proposed 20' wide access/utilities easement will initiate off of Old South Willington Road and then continue along a proposed 12' wide gravel access drive in a northwesterly direction towards the proposed compound lease area. AT&T antennas will be attached to the monopole at a centerline height of 187 feet above ground level and associated ground equipment will be installed at its base. The monopole and compound area will be developed for use by future wireless service providers. See attached Site Plans for details.

The Cultural Resources Screen did not reveal the existence of any historic resources listed or eligible for listing on the National Register of Historic Places or Indian religious sites at or within a 0.5-mile radius (the area of potential effects; APE) of the project area. As a result, it is VHB's opinion that no visual or direct effects exist within the APE.

A *Preliminary Archaeological Assessment* prepared by Heritage Consultants, LLC dated July 7, 2010 was completed for the proposed project area. Heritage Consultants, LLC concluded that "In conclusion, although the project area has been only minimally impacted by historic and modern occupation and landuse, its natural characteristics suggest that it is unlikely that significant intact cultural deposits exist within the Area of Potential Effect associated with the proposed cellular communications tower. As a result, it is the professional opinion of Heritage Consultants, LLC that additional archeological investigation of the proposed project are not warranted."

SEP 13 2010
VANASSE HANGEN BRUSTLIN, INC.

54 Tuttle Place
Middletown, Connecticut 06457-1847
860.632.1500 = FAX 860.632.7879
email: info@vhb.com
www.vhb.com



445 Hamilton Avenue, 14th Floor White Plains, New York 10601 Tel 914.761.1300 Fax 914.761.5372 www.cuddyfeder.com

November 30, 2010

#### VIA FEDERAL EXPRESS & EMAIL

Hon. Christina B. Mailhos, First Selectman Town of Willington Town Office Building 40 Old Farms Road Willington, CT 06279

Email: cmailhos@willingtonct.org

Phone: (860) 487-3100

Re: AT&T

Proposed Wireless Telecommunications Tower Facility

Tolland Turnpike and Old South Willington Road Candidate Sites

Willington, Connecticut

Dear First Selectman Mailhos:

I am writing to you on behalf of our client New Cingular Wireless PCS, LLC ("AT&T") with respect to the above captioned matter and the Technical Report submitted to your office in October.

As per our phone conversation and subsequent email correspondence, I and AT&T's real estate consultant, David Vivian, will meet with you and other Town officials this coming Thursday at 10:00 a.m. at the Town of Willington Offices at 40 Old Farms Road. Thereafter we can all proceed to the candidate site locations for a field review as requested. We have coordinated with our engineering consultants to have the access and compound areas at the candidate sites staked and marked for your review.

Thank you for your time and consideration in this matter. We look forward to meeting with you.

Very truly yours,

Daniel M. Laub

cc:

Susan Yorgensen, Town of Willington Land Use Agent Michelle Briggs, AT&T

David Vivian, SAI Communications

Christopher B. Fisher, Esq.



445 Hamilton Avenue, 14th Floor White Plains, New York 10601 Tel 914.761.1300 Fax 914.761.5372 www.cuddyfeder.com

November 30, 2010

## VIA FEDERAL EXPRESS & EMAIL

Hon. Christina B. Mailhos, First Selectman Town of Willington Town Office Building 40 Old Farms Road Willington, CT 06279

Email: cmailhos@willingtonct.org

Phone: (860) 487-3100

Re: AT&T

Proposed Wireless Telecommunications Tower Facility

Tolland Turnpike and Old South Willington Road Candidate Sites

Willington, Connecticut

Dear First Selectman Mailhos:

I am writing to you on behalf of our client New Cingular Wireless PCS, LLC ("AT&T") with respect to the above captioned matter and the Technical Report submitted to your office in October.

As per our phone conversation and subsequent email correspondence, I and AT&T's real estate consultant, David Vivian, will meet with you and other Town officials this coming Thursday at 10:00 a.m. at the Town of Willington Offices at 40 Old Farms Road. Thereafter we can all proceed to the candidate site locations for a field review as requested. We have coordinated with our engineering consultants to have the access and compound areas at the candidate sites staked and marked for your review.

Thank you for your time and consideration in this matter. We look forward to meeting with you.

Very truly yours,

Daniel M. Laub

cc:

Susan Yorgensen, Town of Willington Land Use Agent Michelle Briggs, AT&T David Vivian, SAI Communications Christopher B. Fisher, Esq.

### **CERTIFICATION OF SERVICE**

I hereby certify that on the	day of	, 2011, copies of AT&T's Application
and Attachments for a Certificate of En	vironmental Con	mpatibility and Public Need for the Construction,
Maintenance and Operation of a Wirele	ess Telecommuni	ications Facility were sent by certified mail, return
receipt requested, to the following:		

# State and Regional

The Honorable George Jepsen Attorney General Office of the Attorney General 55 Elm Street Hartford, CT 06106

Department of Environmental Protection Daniel C. Esty, Commissioner 79 Elm Street Third Floor Hartford, CT 06106

Department of Public Health Dr. Jewel Mullen, Commissioner 410 Capitol Avenue Hartford, CT 06134-0308

Council on Environmental Quality Karl J. Wagener, Executive Director 79 Elm Street Hartford, CT 06106

Department of Public Utility Control Kevin M. DelGobbo, Chair 10 Franklin Square New Britain, CT 06051

Office of Policy and Management Benjamin Barnes, Secretary 450 Capitol Avenue Hartford, CT 06106-1308 Connecticut Department of Emergency Management and Homeland Security Peter J. Boynton, Commissioner 25 Sigourney Street, 6th Floor Hartford, CT 06106-5042

Department of Economic and Community Development Catherine Smith, Commissioner 505 Hudson Street Hartford, CT 06106-71067

Department of Transportation James P. Redeker, Commissioner 2800 Berlin Turnpike Newington, CT 06131-7546

Department of Agriculture Steven Reviczky, Commissioner 165 Capitol Avenue Hartford, CT 06106

Windham Region Council of Governments Mark N. Paquette, Executive Director 700 Main Street Willimantic, Connecticut 06226

State Representative
Bryan Hurlburt
53rd Assembly District
Legislative Office Building, Room 4032
Hartford, CT 06106

State Senator Tony Guglielmo Legislative Office Building 300 Capitol Avenue Hartford, CT 06106

#### Federal

Federal Aviation Administration 800 Independence Avenue, SW Washington, DC 20591

Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, D.C. 20554

United States Senator Joseph Lieberman One Constitution Plaza, 7th Floor Hartford, CT 06103 United States Senator Richard Blumenthal 30 Lewis Street, Suite 101 Hartford, CT 06103

Congressman Joseph Courtney 101 Water Street, Suite 301 Norwich, CT 06360

## **Town of Willington**

Christina B. Mailhos First Selectman Town Office Building 40 Old Farms Road Willington, CT 06279

Donna Hardie Town Clerk Town Office Building 40 Old Farms Road Willington, CT 06279

Bradford C. Freeman Building Official Town Office Building 40 Old Farms Road Willington, CT 06279 Susan Yorgensen Inland Wetlands and Watercourses Commission Agent / Planner - Zoning Enforcement Officer Town Office Building 40 Old Farms Road Willington, CT 06279

Peter Andersen Conservation Commission Town Office Building 40 Old Farms Road Willington, CT 06279

Dated		

Cuddy & Feder LLP 445 Hamilton Avenue, 14<sup>th</sup> Floor White Plains, New York 10601 Attorneys for AT&T

#### NOTICE

Notice is hereby given, pursuant to Section 16-50*l*(b) of the Connecticut General Statutes and Section 16-50*l*-1(e) of the Regulations of Connecticut State Agencies of an Application to be filed with the Connecticut Siting Council ("Siting Council") on or after May 16, 2011 by New Cingular Wireless PCS, LLC ("AT&T" or the "Applicant") for a certificate of environmental compatibility and public need for the construction and maintenance of a wireless telecommunications facility in Willington, Connecticut. Two alternative site locations are being proposed by the Applicant and only one facility ("Facility") would be constructed.

Site Candidate A is located on Tolland Turnpike (Route 74) and identified as parcel number 23/62 by the Willington Tax Assessor. The proposed Facility is located in the northern portion of the parcel and is proposed as a 160-foot self-supporting tower. The tower, antennas and ground equipment will all be within a 45' x 80' fenced equipment compound designed to accommodate unmanned equipment in either single-story equipment buildings or on a concrete pad. Access to the Facility will be over an existing access drive and a new 12 foot wide access drive approximately 581 feet in length to the proposed equipment compound.

Site Candidate B is located on Old South Willington Road and identified as parcel number 18/19 by the Willington Tax Assessor. The proposed Facility is located in the southern portion of the parcel and is proposed as a 190-foot self-supporting tower. The tower, antennas and ground equipment will all be within a 75' x 75' fenced equipment compound designed to accommodate unmanned equipment in either single-story equipment buildings or on a concrete pad. Access to the Facility as proposed would be over 958' of new gravel access drive. A potential alternate route using a portion of an existing drive is also being reviewed. Utility connections in either instance would be extended underground from existing utility poles on Old South Willington Road.

The location, height and other features of the proposed Facility are subject to review and potential change under provisions of the Connecticut General Statutes Sections 16-50g et. seq.

The Facility is being proposed to allow AT&T to provide service in this area of the State. The Application explains the need, purpose and benefits of the Facility and also describes the environmental impacts of the proposed Facility. The Facility will be available for co-location by other wireless carriers.

Balloons, representative of the proposed height of the each of the candidate towers, will be flown at the proposed candidate sites on the first day of the Siting Council public hearing on the Application, which will take place in Town, or such other date specified by the Siting Council and a time to be determined by the Siting Council, but anticipated to be between the hours of 12pm and 5pm.

Interested parties and residents of the Town of Willington, Connecticut are invited to review the Application during normal business hours after May 16, 2011 at any of the following offices:

Connecticut Siting Council 10 Franklin Square New Britain, CT 06051 Donna Hardie Town Offices 40 Old Farms Rd. Willington, CT 06279

or the offices of the undersigned. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Daniel M. Laub, Esq. Christopher B. Fisher, Esq. Cuddy & Feder LLP 445 Hamilton Ave, 14<sup>th</sup> Floor White Plains, New York 10601 (914) 761-1300 Attorneys for the Applicant

## VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

[Addressee and Address]

Re:	New Cingular Wireless PCS, LLC ("AT&T")
	Proposed Wireless Telecommunications Facility
	Tolland Turnpike & Old South Willington Road, Town of Willington, Connecticut
	Application to the State of Connecticut Siting Council
Dear _	:

We are writing to you on behalf of our client AT&T with respect to the above referenced matter and our client's intent to file an application with the State of Connecticut Siting Council for approval of one (1) proposed wireless communications tower facility (the "Facility") within the Town of Willington. State law requires that owners of record of property that abuts a parcel on which a facility is proposed be sent notice of an applicant's intent to file an application with the Siting Council. Two alternative site locations are being proposed by the Applicant and only one facility ("Facility") would be constructed.

Candidate A is located on Tolland Turnpike (Route 74) and identified as parcel number 23/62 by the Willington Tax Assessor. The proposed Facility is located in the northern portion of the parcel and is proposed as a 160-foot self-supporting tower. The tower, antennas and ground equipment will all be within a 45' x 80' fenced equipment compound designed to accommodate unmanned equipment in either single-story equipment buildings or on a concrete pad. Access to the Facility will be over an existing access drive and a new 12 foot wide access drive approximately 581 feet in length to the proposed equipment compound.

Candidate B is located on Old South Willington Road and identified as parcel number 18/19 by the Willington Tax Assessor. The proposed Facility is located in the southern portion of the parcel and is proposed as a 190-foot self-supporting tower. The tower, antennas and ground equipment will all be within a 75' x 75' fenced equipment compound designed to accommodate unmanned equipment in either single-story equipment buildings or on a concrete pad. Access to the Facility as proposed would be over 958' of new gravel access drive. A potential alternate route using a portion of an existing drive is also being reviewed. Utility connections in either instance would be extended underground from existing utility poles on Old South Willington Road.

The location, height and other features of the proposed Facility are subject to review and potential change by the Connecticut Siting Council under the provisions of Connecticut General Statutes §16-50g et seq. Balloons, representative of the proposed height of the each of the candidate towers, will be flown at the proposed candidate sites on the first day of the Siting Council public hearing on the Application, which will take place in Town, or such other date

specified by the Siting Council and a time to be determined by the Siting Council, but anticipated to be between the hours of 12pm and 5pm.

If you have any questions concerning this application, please do not hesitate to contact the Connecticut Siting Council or the undersigned after May 16, 2011, the date which the application is expected to be on file.

Very truly yours,

Daniel M. Laub DML/ag

### CERTIFICATION OF SERVICE

I hereby certify that on the 12th day of May 2011, a copy of the foregoing letter was mailed by certified mail, return receipt requested to each of the abutting properties owners on the accompanying list.

7-10,001

Daniel M. Laub

Cuddy & Feder LLP

445 Hamilton Avenue, 14<sup>th</sup> Floor White Plains, New York 10601

Attorneys for: AT&T

# PROPERTY OWNERS ABUTTING AT&T CANDIDATE A AND CANDIDATE B HOST PARCELS IN THE TOWN OF WILLINGTON

The following information was collected from the Town of Willington Tax Assessors' records:

Bertrand E. & Marion Johnson 51 Old South Willington Rd Willington, CT 06279 Valerie J Johnson 51 Old South Willington Rd Willington, CT 06279

Peter & Dimitra Lytras 68 Luchon Rd Willington, CT 06279 Jean Bedard 11 Fifty Foot Rd Willington, CT 06279

Gary S. & Martha L. Laurintis 43 Old South Willington Rd Willington, CT 06279 Mark E & Cindy Wilson 52 Old South Willington Rd Willington, CT 06279

Christine Andersen 39 Old South Willington Rd Willington, CT 06279 Lawrence C. Becker PO Box 535 Willington, CT 06279

Kimberly A. Johansen 42 Kidderbrook Rd Ashford, CT 06278 Jonathon M. & Cindy L. Paul 121 Luchon Rd Willington, CT 06279

Melanie A. Ellis 112 Willington Hill Rd Willington, CT 06279 Richard P. & Michelle L. Burns 10 Old South Willington Rd Willington, CT 06279

Thomas H. & Michael Ernst 11 Old South Willington Rd Willington, CT 06279 Warren Ledger 135 Luchon Rd Willington, CT 06279 Thomas E. Posik 102 Luchon Rd Willington, CT 06279

Valerie J Johnson 54 Old South Willington Rd Willington, CT 06279

Jean Paul Landry 202 Tolland Turnpike Willington, CT 06279

Town of Willington 40 Old Farms Road Willington, CT 06076

Diane L. Becker PO Box 535 Willington, CT 06279

Patricia White 222 Tolland Turnpike Willington, CT 06279

David Leduke 227 Tolland Turnpike Willington, CT 06279 Wayne R. Bellefleur & Kimberly A. Semrow 141 Luchon Rd Willington, CT 06279

Steven Santo Cristo 125 Luchon Rd Willington, CT 06279

Application Guideline	Location in Application
(A) An Executive Summary on the first page of the application	Executive Summary, pages 2-3
with the address, proposed height, and type of tower being	
proposed. A map showing the location of the proposed site	Attachments 3(A) & 4(A): Description and
should accompany the description;	Design of Candidate Facilities
(B) A brief description of the proposed facility, including the	Executive Summary, pages 2-3
proposed locations and heights of each of the various proposed	
sites of the facility, including all candidates referred to in the	Facility Design: pages 9-11
application;	
(C) A statement of the purpose for which the application is	Purpose and Authority, page 1
made;	
( <b>D</b> ) A statement describing the statutory authority for such	Purpose and Authority, page 1
application;	771 8
(E) The exact legal name of each person seeking the	The Applicant, page 3
authorization or relief and the address or principle place of	11, 1
business of each such person. If any applicant is a corporation,	
trust, or other organized group, it shall also give the state under	
the laws of which it was created or organized;	
( <b>F</b> ) The name, title, address, and telephone number of the	The Applicant, page 3
attorney or other person to whom correspondence or	Francis, Fuge 5
communications in regard to the application are to be	
addressed. Notice, orders, and other papers may be served	
upon the person so named, and such service shall be deemed to	
be service upon the applicant;	
(G) A statement of the need for the proposed facility with as	Statement of Need, page 4
much specific information as is practicable to demonstrate the	a mariant of a second property of the second
need including a description of the proposed system and how	Attachment 1: Statement of RF Need with
the proposed facility would eliminate or alleviate any existing	Coverage Plots
deficiency or limitation;	
(H) A statement of the benefits expected from the proposed	Statement of Benefits, page 5
facility with as much specific information as is practicable;	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
(I) A description of the proposed facility at the proposed prime	Executive Summary, pages 2-3
and alternative sites including:	
(1) Height of the tower and its associated antennas	Facility Designs, pages 9-11
including a maximum "not to exceed height" for the	Tuesticy Besigns, pages > 11
facility, which may be higher than the height proposed	Attachment 3(A) and 4(A): Description and
by the Applicant;	Design of Proposed Candidate Facilies
(2) Access roads and utility services;	2 co.g.n of 1 top obout cumulature 1 ucines
(3) Special design features;	Attachment 3(C) and 4(C): Environmental
(4) Type, size, and number of transmitters and	Assessment Statement
receivers, as well as the signal frequency and conservative	
worst-case and estimated operational level approximation of	Power Density, page 17
electro magnetic radiofrequency power density levels (facility	, , , , , , , , , , , , , , , , , , ,
using FCC Office of Engineering and Technology Bulletin 65,	Attachment 1: Statement of RF Need with
August 1997) at the base of the tower base, site compound	Coverage Plots
	22,123,00
· · · · · · · · · · · · · · · · · · ·	
= 7	
boundary where persons are likely to be exposed to maximum power densities from the facility;  (5) A map showing any fixed facilities with which the proposed facility would interact;	

Application Guideline	Location in Application
(6) The coverage signal strength, and integration of the	Location in Application
proposed facility with any adjacent fixed facility, to be	
accompanied by multi-colored propagation maps of red, green	
and yellow (exact colors may differ depending on computer	Att 1 (1 Ct ) CDEN 1 'd
modeling used, but a legend is required to explain each color	Attachment 1: Statement of RF Need with
used) showing interfaces with any adjacent service areas,	Coverage Plots
including a map scale and north arrows; and	
(7) For cellular systems, a forecast of when maximum	
capability would be reached for the proposed facility and for	
facilities that would be integrated with the proposed facility.	
( <b>J</b> ) A description of the named sites, including :	Attachment 3(A) and 4(A): Description and
(1) The most recent U.S.G.S. topographic quadrangle map	Design of Proposed Facility
(scale 1 inch = $2000$ feet) marked to show the site of the	
facility and any significant changes within a one mile radius of	Attachment 3(B) and 4(B) Visual Analyses
the site;	
(2) A map (scale not less than 1 inch = 200 feet) of the lot	
or tract on which the facility is proposed to be located showing	
the acreage and dimensions of such site, the name and location	
of adjoining public roads or the nearest public road, and the	
names of abutting owners and the portions of their lands	
abutting the site;	
(3) A site plan (scale not less than 1 inch = 40 feet) showing	
the proposed facility, set back radius, existing and proposed	
contour elevations, 100 year flood zones, waterways, and all	
associated equipment and structures on the site;	
(4) Where relevant, a terrain profile showing the proposed	
facility and access road with existing and proposed grades; and	
(5) The most recent aerial photograph (scale not less than 1	
inch = 1000 feet) showing the proposed site, access roads, and	
all abutting properties.	
(K) A statement explaining mitigation measures for the	Attachment 3(A) and 4(A): Description and
proposed facility including:	Design of Proposed Facility
(1) Construction techniques designed to specifically minimize	Design of Froposed Facility
adverse effects on natural areas and sensitive areas;	Attachment 3(C) and 4(C): Environmental
(2)Special design features made specifically to avoid or	Assessment Statement
minimize adverse effects on natural areas and sensitive areas,	Assessment Statement
including but not limited to a yield point, if applicable;	
(3) Establishment of vegetation proposed near residential,	VI: Environmental Compatibility, pages 11-
recreation, and scenic areas; and	14
(4) Methods for preservation of vegetation for wildlife habitat	17
and screening; and  (5) Other environmental concerns identified by the applicant	
(5) Other environmental concerns identified by the applicant,	
the Council, or any public agency, including but not limit to,	
where applicable: Coastal Consistency Analysis, Connecticut	
Heritage Areas, Ridgeline Protection Zones, DOT Scenic	
Lands, State Parks and Forests, Agricultural Lands, Wild and	
Scenic Rivers, Protected Rivers, Endangered, Threatened or	
Special Concern Species	

Application Guideline	Location in Application
(L) A description of the proposed site and any alternative sites,	Planned and Existing Land Uses, page 22
including the zoning classification, planned land uses and	2 /1 8
surrounding areas;	
(M) A description of the scenic, natural, historic, and	Environmental Compatibility, pages 11-14
recreational characteristics of the proposed sites and any	7
alternative sites and surrounding areas including but not	Attachment 3(B) and 4(B) Visual Analysis
limited to officially designated nearby hiking trails, nature	Report
preserves and scenic roads;	1000
(N) Visibility Analyses of the proposed site area and any	Attachment 3(B) and 4(B) Visual Analysis
alternative site areas including, but not limited to:	Report (2) and (2) visual maryons
(1) A viewshed analysis consisting of a two-mile radius	Report
from visually impacted areas such as residential developments,	
recreational areas, and historic sites;	
(2) Photographic documentation;	
(3) Balloon float photographs;	
(4) Photographic simulations in "leaf-on" and "leaf-off"	
conditions, where possible, and;	
(5) If proposed in close proximity to a shoreline,	
including lakes and rivers, photographic documentation from	
open waters, where possible.	
open waters, where possible.	
(N-a) An affidavit for each balloon float conducted at the	
proposed site and any alternative sites including the date, time	
and demonstrated height.	
(O) A list describing the type and height of all existing and	Site Selection, pages 7-9
proposed towers and facilities within a four mile radius within	Site Selection, pages 7 9
the site search area, or within any other area from which use of	Attachment 2: Site Search Summary
the proposed towers might be feasible from a location	Transmission 2. Site Search Sammary
standpoint for purposes of the application;	
(P) A description of efforts to share existing towers, including	Executive Summary, pages 2-3
but not limited to installations on electric transmission poles,	
or to consolidate telecommunications antennas of public and	Site Selection, pages 7-9
private services onto the proposed facility including efforts to	Site Selection, pages 7 9
offer tower space, where feasible, at no charge for space for	Tower Sharing, page 9
municipal antennas;	Tower smaring, page y
mamerpar antennas,	Facility Designs, pages 9-11
	Tuentty Designs, pages 7 11
	Attachment 2: Site Search Summary
	1 Actual Monte 2. Site Search Summary
(Q) A description of the technological alternatives and a	Technological Alternatives, page 6
statement containing justification for the proposed facility;	2
suite of the proposed facility,	Attachment 1: Statement of RF Need with
	Coverage Plots
(R) A description of rejected sites with a U.S.G.S. topographic	Site Selection, pages 7-9
quadrangle map (scale 1 inch = $2,000$ feet) marked to show the	Site selection, pages / /
location of rejected sites;	Attachment 2: Site Search Summary
location of rejected sites,	1 Action on 2. Site Search Sullillary
(S) A detailed description and justification for the site(s)	Site Selection, pages 7-9
(b) A detailed description and justification for the she(s)	one officially pages 1-9

Application Guideline	Location in Application
selected, including a description of siting criteria and the	**
narrowing process by which other possible sites were	Attachment 2: Site Search Summary
considered and eliminated, including, but not limited to,	
environmental effects, cost differential, coverage lost or	
gained, potential interference with other facilities, and signal	
loss due to geographical features compared to the proposed	
site(s);	
(T) A statement describing hazards to human health, if any,	Environmental Compatibility, pages 11-14
with such supporting data including signal frequency, power	
density and references to regulatory standards;	
(U) A statement of estimated costs for site acquisition,	Overall Estimated Cost, page 18
construction, and equipment for a facility at the various	71 8
proposed sites of the facility, including all candidates referred	
to in the application;	
(V) A schedule showing the proposed program of site	Overall Scheduling, page 19
acquisition, construction, completion, operation and relocation	, F. 2
or removal of existing facilities for the named sites;	
(W) A statement indicating that, weather permitting, the	Visual Assessment, pages 12 & 13
applicant will raise a balloon with a diameter of at least three	v isuai rissessinent, pages12 & 13
feet, at the sites of the various proposed sites of the facility,	
including all candidates referred to in the application, on the	
day of the Council's first hearing session on the application or	
at a time otherwise specified by the Council. For the	
convenience of the public, this event shall be publicly noticed	
at least 30 days prior to the hearing on the application as	
scheduled by the Council; An affidavit of the balloon float	
conducted on the day of the first hearing session including the	
date, time, demonstrated height and weather condition shall be	
filed with the Council as soon as is practicable; and	
(X) Such information as any department or agency of the state	Environmental Compatibility, pages 11-15
exercising environmental controls may, by regulation, require	Environmental Compationity, pages 11-13
including:	Attachment 5: Correspondence with State
1. A listing of any Federal, State, regional, district, and	Agencies
municipal agencies, including but not limited to the Federal	rigencies
Aviation Administration; Federal Communications	Attachment 6: Relevant Correspondence with
Commission; State Historic Preservation Officer; State	the Town of Willington
Department of Environmental Protection; and local	ale Town of Willington
conservation, inland wetland, and planning and zoning	Consistency with the Town of Willington's
commissions with which reviews were conducted concerning	Land Use Regulations, pages 15-17
the facility, including a copy of any agency position or	Land Obe Regulations, pages 13-17
decision with respect to the facility; and	Bulk Filing
2. The most recent conservation, inland wetland, zoning,	
and plan of development documents of the municipality,	
including a description of the zoning classification of the site	
and surrounding areas, and a narrative summary of the	
consistency of the project with the Town's regulations and	
plans.	
hims.	

Application Guideline	Location in Application
(Y) Description of proposed site clearing for access road and compound including type of vegetation scheduled for removal and quantity of trees greater than six inches diameter at breast height and involvement with wetlands;	V: Facility Designs, pages 9-11
(Z) Such information as the applicant may consider relevant.	