STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF OPTASITE, INC. AND NEW CINGULAR WIRELESS PCS, LLC FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS FACILITY AT ONE OF TWO LOCATIONS AT 1662 GOLD STAR MEMORIAL HIGHWAY IN THE TOWN OF GROTON

DOCKET NO. 319

Date: August 1, 2006

APPLICATION FOR CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

TABLE OF CONTENTS

LIST OF ATTACHMENTS

1. Pre-Filed Testimony of Ronald C. Clark
2. Pre-Filed Testimony of John Blevins
3. Statement of Need with Coverage Plots
4. Site Search Summary
5. Site A: Description and Design of Proposed Facility
6. Site B: Description and Design of Proposed Facility
7. Visual Resource Evaluation Report: Site A and Site B
8. Correspondence from State Agencies

   United States Department of Interior Fish and Wildlife Service: Service Guidance on the Siting, Construction, Operation and Decommissioning of Communication Towers
9. Correspondence with the Town of Groton (A copy of the Technical Report is included in the Bulk Filing)
10. Certification of Service on Governmental Officials including List of Officials Served
11. Legal Notice in the New London Day and the Groton Times
12. Notice to Abutting Landowners; Certification of Service; List of Abutting Landowners
13. Connecticut Siting Council Application Guide

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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, Optasite Incorporated ("Optasite") and New Cingular Wireless PCS, LLC ("Cingular") (together, the "Applicants") hereby submit 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 Groton. The proposed Facility will become a necessary component in Cingular's network plan to expand and improve wireless communications services in the State of Connecticut and in this portion of New London County. The proposed Facility will provide service in the southeast section of town, in/around the Center Groton area, in the general vicinity of State Routes 184 (Gold Star Memorial Highway) and 117 (North Road).

B. Site History and Background

In 2002, AT&T Wireless conducted a search for a site for the installation of a wireless facility to provide service in the Center Groton area of the Town. AT&T Wireless' search resulted in the selection of the subject site and on January 31, 2003, AT&T Wireless submitted a Technical Report to the Town of Groton for the proposed installation of a tower at one of two locations on the subject site. Shortly after the Technical Report was submitted to the Town of Groton as part of the municipal consultation process, the merger of AT&T Wireless and Cingular Wireless was announced. As a result of the merger, a moratorium was placed on all new infrastructure deployment and as such, a Certificate Application was not submitted to the Siting Council for the proposed facility in Groton.

After the completion of the merger and the integration of the carriers' systems into the combined new system, Cingular determined that a lack of reliable wireless service still existed in the Center Groton area. Moreover, no changes to this area of Groton have taken place since the submission of a Technical Report in 2003 that would obviate the need for a new tower facility. Accordingly, the need for the proposed Groton facility still exists for providing service in the area in and around Center Groton.

During the merger and system integration periods, the proposed Groton facility was assigned to Optasite by Cingular for site development. As such, Optasite and Cingular are co-applicants for this Certificate Application.

C. Executive Summary

The proposed Facility will consist of a monopole, antennas, associated equipment and other site improvements integral to a functional wireless communications facility. Optasite was able to secure leases at two sites on the approximately 32.23 acre property located at 1662 Gold

Star Memorial Highway (Route 184) for the construction and operation of the proposed Facility. The subject property is owned by Mr. Chester B. Crouch.

Site A is located in the center section of the Crouch property. At Site A, the proposed Facility will consist of a self-supporting monopole, 150 feet in height, and a 75' by 75' fenced compound within a 100' by 100' leased area. At Site A, Cingular proposes to install up to 12 panel antennas on the monopole at a centerline height of 120 feet and an associated 12' x 20' equipment shelter within the fenced equipment compound. Vehicular access to the compound would extend northward from Gold Star Memorial Highway, along the existing driveway that serves the host property, then transition onto an existing, but currently unimproved, dirt travel way to the entrance of the proposed compound. Underground utility services would extend from Gold Star Memorial Highway paralleling the driveway and travel way into the site.

Site B is situated approximately 450 feet south of proposed Site A. At Site B, Optasite seeks approval to install a 160 foot self-supporting monopole and a fenced 100' by 50' equipment compound situated within a 100' by 100' leased area. Cingular proposes to install 12 panel antennas on the monopole at a centerline height of 130 feet and an associated 12' x 20' equipment shelter within the equipment compound. Vehicular access to the facility would extend northerly from Gold Star Memorial Highway onto the existing driveway serving the Crouch property and then continue along the existing travel way to the site location. Utility services would extend underground from an existing CL&P pole on Gold Star Memorial Highway to the proposed Site B compound.

The tower and compound area at Sites A and B have been designed and engineered to accommodate shared use by at least three additional wireless carriers. The equipment compound at both sites will be enclosed by an 8-foot high security fence.

Included in this application as Attachments 5 and 6 and 7 are reports with survey based plans and other information detailing the Facility proposed at Sites A and B, and the potential environmental impacts associated therewith. Optasite respectfully submits that the reports and other supporting documentation included in this Application contain relevant site specific information as required by Statute and the Regulations of the Connecticut Siting Council (the "Siting Council" or "Council"). 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 13.

D. The Applicants

Optasite, Inc. is a Delaware Corporation with offices at One Research Drive, Westborough, Massachusetts 01581. Optasite will construct and maintain the proposed Facility. Cingular is a Delaware limited liability company with a Connecticut office at 500 Enterprise Drive, Rocky Hill, Connecticut 06067. The company and its affiliated entities are licensed by the Federal Communications Commission ("FCC") to construct and operate a personal wireless services system in Connecticut, which has been interpreted as a "cellular system" within the meaning of CGS Section 16-50i(a)(6). Cingular does not conduct any other business in the State of Connecticut other than the provision of cellular and personal communications services ("PCS") under FCC rules and regulations.

Correspondence and/or communications regarding this Application shall be addressed to the attorneys for the applicants:

Cuddy & Feder LLP
90 Maple Avenue
White Plains, New York 10601
Attention: Lucia Chiocchio, Esq.
914 - 761 – 1300

A copy of all correspondence shall also be sent to:

Optasite, Inc.
One Research Drive, Suite 200 C
Westborough, Massachusetts 01581
Attention: Mr. Keith Coppins
508-799-2460

CONNsult Wireless Services, LLC
6 Evarts Lane,
Madison, Connecticut 06443
Attention: Ronald C. Clark
203-645-3301

E. Application Fee

Pursuant to RCSA Section 16-50v-1a(b), a check made payable to the Connecticut Siting Council in the amount of $1,000 accompanies this Application. The estimated total construction costs for Site A are: $292,700.00 and for Site B are: $286,700.00. As such, the applicable application fee is $1,000 in accordance with RCSA Section 16-50v-1a(b).

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

Neither Optasite nor Cingular are engaged in generating electric power in the State of Connecticut. As such, the proposed Facility is not subject to CGS Section 16-50r. The proposed Facility has not been identified in any annual forecast reports. As such, the proposed Facility is not subject to CGS Section 16-50*l*(c).

II. Service and Notice Required by CGS Section 16-50*l*(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 10. Pursuant to CGS 16-50*l*(b), notice of Optasite's intent to submit this application was published on two occasions in the New London Day and the Groton Times. A copy of the published legal notice is included in Attachment 11. If available, a copies of the publishers'

affidavits of notice are included in Attachment 11 or 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 Sites A and B. Certification of such notice, a sample notice letter, and the list of property owners to whom the notice was mailed is included in Attachment 12.

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's overhaul of the Communications Act of 1934 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, 104th 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 Cingular's network in its FCC licensed areas throughout the State. Currently, a gap in coverage exists in Cingular's network in the Town of Groton, specifically in the Center Groton area, along/around the area of State Route 184 (Gold Star Memorial Highway) and State Route 117 (North Road), in this portion

of New London County. The proposed Facility, in conjunction with other facilities in the towns of Groton and Stonington is needed by Cingular to provide its wireless services to people living in and traveling through this area of the State. The Pre-Filed Testimony of Mr. Ronald C. Clark and Mr. John Blevins set forth in Attachments 1 and 2 respectively, details the specific need for the proposed Facility. Attachment 3 of this Application also includes a Statement of Radio Frequency ("RF") Need and propagation plots which further articulate and identify the specific need for a Facility in this area of Groton.

B. Statement of Benefits

Cingular Wireless is the leading provider of advanced wireless voice and data services in the United States, with well over 50 million subscribers. Cingular and its corporate predecessors were the inventors of cellular telephone technology, constructed the first wireless networks in the United States and are actively involved today in the deployment of next generation wireless services. Over that same time period, Cingular has seen the public's demand for traditional cellular telephone services in a highly mobile environment migrate to a demand for anytime anywhere wireless connectivity with the ability to send and receive voice, text, image and video. People today are using their wireless devices more and more as their primary and often their only, form of communication for both personal, business and security needs. Modern devices allow for calls to be made, the internet to be accessed and other services to be used, irrespective of whether a user is mobile or stationary.

Wireless devices have become integral to the telecommunications needs of the public and their benefits are no longer considered a luxury, but almost a necessity. Indeed, in an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (the "911 Act"). The purpose of this 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 found that the establishment of a network that provided for the rapid, efficient deployment of emergency services would result in many public benefits, including faster delivery of emergency care with reduced fatalities and severity of injuries and improved service in rural and suburban areas.

As an outgrowth of the 911 Act, the FCC mandated wireless carriers, such as Cingular, to provide enhanced 911 services ("E911") as part of their communications networks. These services ultimately allow 911 public safety dispatchers to identify a wireless caller's geographical location within several hundred feet. Cingular has deployed and continues to deploy network technologies to implement the FCC's E911 mandates. The proposed Facility in Groton will become an integral component of Cingular's E911 network in this area of the state. These factors will apply equally to other wireless carriers as they expand their service in the Groton area through the proposed Facility.

C. Technological Alternatives

The FCC license granted to Cingular authorizes it to provide Cellular and PCS services in this area of the State through deployment of a network of wireless transmitting sites. The proposed Facility is a necessary component of Cingular's network required to provide wireless service in Groton. Repeaters, microcell transmitters and/or distributed antenna systems are not a practicable or feasible means to providing coverage in this area and as such, are not an alternative to the proposed Facility. The Applicants submit that there are no equally effective technological alternatives for providing reliable personal wireless services in this area of Groton to construction of this new tower Facility.

IV. Site Selection and Tower Sharing

A. Site Selection

Included in Attachment 3 are propagation plots prepared by Cingular, which illustrate the coverage gaps that the proposed Facility is designed to eliminate. Selection of the properties on which the Facility has been proposed was the result of a site search process explained in detail in the Pre-Filed Testimony of Mr. Ronald C. Clark and Mr. John Blevins in Attachments 1 and 2 and the Site Search Summary contained in Attachment 4 which also contains a map of the "site search area". Generally, a search area is an area where a coverage and/or capacity problem exists within a carrier's network and where a new wireless facility is needed to provide service to the public.

As noted in the Site History and Background section above, there have been no material changes in circumstances in this area of town with respect to the need for a new tower facility to provide service to the Center Groton area. As such, the site search process previously conducted by AT&T is still applicable and included in Attachment 4 is the Site Search summary which includes a description of eight(8) sites/areas in Groton that were originally investigated and the reasons for the elimination of seven (7) of the eight (8) locations.

Investigations were made to identify any existing towers and/or other structures of adequate height in a site search area and the surrounding environs that may accommodate the facility. There are five existing towers within approximately three miles of the site search area as noted in Attachment 4. Four of the towers (75 Roberts Road, Groton Long Point Road, 741 Flanders Road and 86 Voluntown Road, Stonington) are already being used by Cingular to provide coverage. The fifth tower, located on Welles Road in Groton, is situated too far east to provide coverage to the Center Groton area. As detailed in the Site Search Summary included in Attachment 4, investigation also revealed there were no tall existing structures that could be used as an alternative to the proposed facility. Once it was determined that a new tower facility was

required, the goal was to find properties upon which a tower could be constructed and provide service to the public while at the same time minimizing any potential environmental impact to the extent practicable and feasible. (See Pre-Filed testimony of Ronald C. Clark in Attachment 1 and Site Search Summary in Attachment 4).

B. Tower Sharing

To promote the sharing of wireless facilities in this section, Optasite has proposed at both Sites A and B, a Facility that can structurally accommodate a minimum of three additional wireless carriers' antennas and equipment. Details of the designs are included in Attachments 5 and 6. If requested, Optasite would also provide space for municipal public safety communications antennas and associated radio equipment.

V. Facility Design:

A. Site A: 1662 Gold Star Memorial Highway (Route 184), Groton

At Site A, Optasite would lease a 10,000 square foot parcel of the approximately 32.24 acre property located at 1662 Gold Star Memorial Highway (Route 184). The proposed Facility at Site A consists of a 150' high self-supporting monopole tower and a 75' x 75' equipment compound. Cingular would install up to twelve (12) panel antennas on a platform at a centerline height of 120' on the tower and place a 12' x 20' equipment shelter, at grade, within the equipment compound. The compound would be enclosed by a security fence, 8' in height. The monopole and equipment compound are currently designed to accommodate the facilities of at least three additional wireless carriers.

Vehicular access to the facility would extend northerly from Gold Star Memorial Highway, onto the existing driveway that services the host property and then along an existing (but currently unimproved), travel way for a distance of approximately 450' to the Site A compound entrance.

The travel way would be upgraded by increasing its width to approximately 12', leveling and conditioning the road bed and surfacing it with gravel. Underground utility connections would be extended from Gold Star Memorial Highway and run along the existing driveway and travel way into the compound. Attachment 5 contains the specifications for the proposed facility at Site A including a site plan, a compound plan, tower elevation, access map and other relevant information contained in a Site Evaluation Report and Facilities and Equipment Specifications. Also included are an environmental assessment statement and a power density report. Attachment 7 includes a Visual Resource Evaluation Report with photosimulations and a viewshed map for the proposed Site A Facility. Some of the relevant information included in Attachments 5 and 7 for Site A reveals that:

- The property is classified in the RU-40 rural zoning district;
- The proposed site is located adjacent to a wetland and a section of the area leased by Optasite is located within Groton's 100' wetlands buffer. However, no construction activities or ground disturbances will occur inside the buffer zone. The existing travel way, which will be used for vehicular access to the site, currently crosses a 20'-25' long section of intermittent wetlands;
- Minimal amounts of grading and vegetative clearing would be required for the construction of the proposed Facility and the new access drive;
- Impacts to any State Special Concern Species that may exist in the vicinity of the proposed Facility will be appropriately mitigated;
- The proposed Facility will have no effect on historic, architectural or archaeological resources according to the State Historic Preservation Officer; and
- The proposed Facility will be designed and engineered to have no impact on water flow, water quality or air quality.

B. Site B: 1662 Gold Star Memorial Highway (Route 184)

At Site B, Optasite would lease a 10,000 square foot section of land on an approximately 32.24 acre parcel located on the north side of Gold Star Memorial Highway. The proposed Facility at Site B will consist of a 160' high self-supporting monopole and a 50' by 100' equipment compound. Cingular would install up to twelve (12) panel antennas on a platform at a centerline height of 130' on the tower and place a 12'x 20' equipment shelter, at grade, within the equipment compound. The compound would be enclosed by an 8' tall security fence. The monopole and equipment compound are currently designed to accommodate shared use by at least three additional wireless carriers.

Vehicular access to the facility would extend northerly from Gold Star Memorial Highway along the existing driveway that serves the host property, then transition onto an existing, unimproved travel way for approximately 100' to the proposed site location. Utility services would be extended underground from Gold Star Memorial Highway along the driveway and travel way to the compound area. Attachment 6 contains the specifications for the proposed facility at Site B including a site plan, a compound plan, tower elevation, access map and other relevant information contained in a Site Evaluation Report and Facilities and Equipment Specifications. Also included are an environmental assessment statement and a power density report. Attachment 7 includes a Visual Resource Evaluation Report with photosimulations and a viewshed map for the proposed Site B Facility. Some of the relevant information included in Attachments 6 and 7 for Site B reveals that:

- The property is classified in the RU-40 zoning district;
- A section of inland wetlands lies approximately 100' north of the proposed site location, however no construction activities will occur within the 100' wetlands buffer;

- Minimal amounts of grading and vegetative clearing would be required for the construction of the proposed Facility and the new access drive;
- Impacts to any State Special Concern Species that may exist in the vicinity of the proposed Facility will be appropriately mitigated;
- The proposed Facility will have no effect on historic, architectural or archaeological resources according to the State Historic Preservation Officer; and
- The proposed Facility will have no impact on water flow, water quality, or air quality and will not emit any noise.

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, neither of the proposed Facilities will have any significant adverse environmental impacts.

A. Visual Assessment

The visual impact of the proposed Facilities would vary from different locations around the towers depending upon factors such as vegetation, topography, distance from the towers, and the location of structures around the towers. Attachment 7 contains a Visual Resource Evaluation Report for both proposed sites and includes photosimulations which depict the potential impact of the proposed Facilities from surrounding views for Site A and Site B, respectively and a viewshed map for Site A and Site B.

As demonstrated in the Visual Resource Evaluation Report included in Attachment 7, the topography and the mature vegetation in the vicinity of the property provide screening of each proposed site. Both sites are expected to be visible above the tree canopy along portions of Route 184, Route 117, Lambtown Road, Gales Ferry Road and Rogers Road. Site B is expected to be visible from Route 184 west of the property and south along Rogers Road.

The closest structure, a greenhouse on the host parcel, is located approximately 450' from the compound. The closest residence, which is the property owner's residence, is approximately 575' away. The closest off-site residence is located approximately 770' from the proposed compound. In total, there are 5 off-site homes within 1000' of Site A.

The closest structure to Site B is a greenhouse located approximately 75' from the compound. The closest residence is the property owner's home, located approximately 200' from the proposed site. The closest off-site residence is located approximately 600' from the proposed site. In all, there are 6 off-site residences located within 1000' of Site B.

Weather permitting, Optasite will raise helium filled balloons with a diameter of at least three (3) feet from the proposed Site A and B locations on the day of the Council's first public hearing session and/or at time(s) otherwise specified by the Council.

B. Solicitation of State Agency Comments

Requests for review and comment for each site were made to the Connecticut State Historic Preservation Officer ("SHPO") and Department of Environmental Protection ("DEP") representatives responsible for the Natural Diversity Data Base and endangered species review. At SHPO's request, Optasite conducted an archaeological survey at the subject site to determine if any archaeological resources existed. No archaeological resources were identified in Optasite's surveys. Accordingly, SHPO has determined that the proposed Facilities will have no effect on

archaeological resources. A copy of SHPO's response is included in Attachment 8. No other resources such as historic structures were identified by SHPO as an area of concern.

According to the DEP's records, the Whip-poor-will (*Caprimulgus vociferous*), a State Species of Special Concern, may occur in the vicinity of the proposed sites. At the request of DEP, an ornithological survey was conducted to determine the potential existence of the Whip-poor-will in the project area. The results of the survey indicated no sitings of any Whip-poor-wills at either site. Also, no vocalizations of any Whip-poor-wills were recorded at either site. To minimize any impact on any Whip-poor-wills that may frequent the site, the survey report recommended that any non-routine maintenance activities take place during the fall, winter and early spring and that Connecticut-native evergreens be planted at the perimeter of the compound. The survey report was forwarded to DEP for review and final comment. DEP confirmed the recommendations included in the ornithological report as appropriate and worth implementing. DEP also confirmed that the recommendations included in the ornithological report would mitigate any potential negative impacts to listed bird species that may frequent the site. The DEP also commented on tower strikes by birds and reductions in impacts. Included in Attachment 8 is a report by the United States Department of Interior Fish and Wildlife Service regarding tower strikes. Based on its analysis, the type of towers proposed is not known to increase potential migratory bird strikes.

C. Power Density Analysis

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, Cingular has performed maximum power density calculations for the proposed Facilities assuming that the antennas were pointed at the base of the tower and all channels were operating simultaneously. The resulting power density for Cingular's

operations at Site A would be approximately 10.76% of the applicable MPE standards and at Site B would be approximately 9.17% of the applicable MPE standards.

D. Other Environmental Factors

The proposed Facility would be unmanned, requiring only monthly maintenance visits by a service technician that will last approximately one hour. Cingular's equipment at the Facility would be monitored electronically 24 hours a day, 7 days a week from a remote location. The proposed Facility at either Site A or B would not require a water supply or wastewater utilities. No outdoor storage or solid waste receptacles will be needed. Further, the proposed Facility will not create or emit any smoke, gas, dust or other air contaminants, noise, odors or vibrations. The construction and operation of either one of the proposed Optasite Facilities will have no significant impact on air, water, or noise quality.

Optasite has evaluated Site A and Site B in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA"). None of the proposed sites was identified as a wilderness area. No National Parks, National Forests, National Parkways or Scenic Rivers are located in the vicinity of the subject sites. The subject sites are not located in or adjacent to any areas identified as a federal wildlife preserve. Further, according to the site survey and field investigations, no federally regulated wetlands or watercourses will be impacted by the proposed Facilities. Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps of the proposed sites indicated that Sites A and B will not effect areas of the 100 year flood zone. As such, and based on the information contained in other reports included in this Application, Site A and Site B will be categorically excluded from any requirement for further environmental review by the FCC in accordance with NEPA and no permit will be required by that agency prior to construction of the proposed Facility. See 47 C.F.R. §§ 1.1306(b) and 1.1307(a).

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

Pursuant to the Council's Application Guide, included in this section is a narrative 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 each Site and the planned and existing uses of the proposed site locations are also detailed in this section.

A. Groton Plan of Conservation and Development

The Town of Groton's 2002 Plan of Conservation and Development, a copy of which is included in Section 1 of the Applicants' bulk filing, addresses the increasing demand for wireless communications and the subsequent infrastructure required to meet the increasing demand. The Plan characterizes wireless communications as an important development. It is respectfully submitted that the proposed Facility will aid the Town in its goal of anticipating demand for wireless service while minimizing any aesthetic impacts associated with wireless tower facilities to the extent practicable. See Plan of Conservation and Development, pg. 144.

B. Groton's Zoning Regulations and Zoning Classification

Sites A and B are classified in the Town of Groton's RU-40, residential zoning district. "Telecommunication Towers" as defined in the Town's Zoning Regulations and which involve new towers are a permitted use in the RU-40 zoning district subject to approval of a special permit by the Zoning Commission. See Applicant's Bulk Filing, Section 2, page 7-29L.

Section 7.1-41 of the Town of Groton's Zoning Regulations sets forth the general standards, including dimensional requirements, for proposed wireless telecommunication facilities. Consistency of the proposed Facility at Site A or Site B with these requirements is illustrated in the table below. The first two columns of the table provide the requirements set forth

in the zoning regulations and the remaining columns apply these standards to the proposed Site A and Site B Facilities.

General Local Zoning Standards

Section 7.1-41.C	**Telecommunication towers prohibited**	**Site A**	**Site B**
	In Town or National Register Historic Districts	Not located w/in Town or National Historic District.	Not located w/in Town or National Historic District
Section 71.-41.D	**Minimum Lot Size**	**Site A**	**Site B**
	40,000 sf	Approximately 33 acres	Approximately 33 acres
Section 7.1-41.F	**Setbacks**	**Site A**	**Site B**
	Underlying zone or tower height, whichever is greater	Tower height: 150' Front yard > 150' Rear yard > 150' Side yards > 150'	Tower height: 160' Front yard> 160' Rear yard > 160' Side yards >160'
Section 7.1-41.I	**Lighting**	**Site A**	**Site B**
	No lighting unless required by the FAA	No lighting proposed or required by the FAA	No lighting proposed or required by the FAA

Section 7.1-41 of the Town's Zoning Regulations also contains other general requirements for wireless facilities. To the extent applicable, the proposed Facility at Site A or Site B would comply with these general requirements.

C. Planned and Existing Land Uses

The proposed Site A and Site B facilities are located upon an owner-occupied residential property. Land uses in the immediate area of both sites are a mix of developed/undeveloped residential parcels and commercial properties.

The closest residence to Site A is the property owner's home, which is located approximately 450' from the compound. The next closest residence is located approximately 770' away. There are 5 off-site residences located within 1000' of Site A.

The closest residence to Site B, that of the property owner, is situated approximately 200' from the proposed compound. The next closest home is located approximately 600' from the site. In total, there are 6 off-site residences within 1,000' of Site B.

D. Groton's Inland Wetlands and Watercourses Regulations

The Town of Groton's Inland Wetlands and Watercourses Regulations ("Local Wetlands Regulations"), regulate certain activities conducted in or adjacent to "wetlands" as defined therein. One such regulated activity is "any operation or use of a wetland or watercourse involving removal or deposition of material; or any obstruction, construction, alteration, or pollution of such wetlands or watercourses. The Local Wetland Regulations recommend a 100' buffer to protect the quality of inland wetlands. See Applicant's Bulk Filing, Section 3, p. 2-4; p. 5-1.

According to the site survey and field investigations conducted at Site A, inland wetlands were delineated approximately 150' to the north of the site, however, the construction activities for the proposed Facility and equipment compound will not take place within the wetlands or within the 100' wetlands buffer. The existing dirt travel way that would be used to access the facility crosses a short section (20'-25') of a small seasonal inland wetland area. As part of the upgrade to the existing travel way portion of the Site A access drive, Optasite will design, engineer and construct the wetlands crossing to improve water flow, mitigate sedimentation and eliminate any existing potential for soil erosion.

Inland wetlands were delineated approximately 100' to the north of Site B, however, no construction activities for the Facility or Site B access drive will take place within the wetlands or within the 100' wetlands buffer.

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 proposed Facility to mitigate any potential impacts to nearby wetlands.

VIII. Consultations with Local, State and Federal Officials

A. Local Consultations

CGS Section 16-50*l*(e) requires an applicant to consult with the local municipality in which a proposed facility may be located and with any adjoining municipality having a boundary of 2,500 feet from the proposed facility concerning the proposed and alternate sites of the facility. As noted in I.B above, in 2003, AT&T Wireless submitted a Technical Report to the Town of Groton for the proposed Groton facility, however due to the AT&T Wireless and Cingular merger, AT&T did not submit a Certificate Application. Comments were received in April of 2003 from the Town Planner, a copy of which is included in Attachment 9. After the merger and determination by Cingular that a new tower facility was needed in this area of the Town to provide service, the Groton site was reactivated. As such, on May 10, 2006, an updated Technical Report, prepared by the Applicants, was delivered to the Town Planner and the Town Manager. The updated Technical Report, a copy of which is being bulk filed, included specifics about each proposed location and addressed the public need for the facility, the site selection process, the environmental effects of the proposed Facility and detailed any modifications to the proposed facility from the 2003 Technical Report. The updated Technical Report submission was followed by a letter to the Planner, a copy of which is included in Attachment 9, which described the proposed Facility history and invited the Town to discuss any comments or questions about the Facility with Optasite.

In correspondence dated June 22, 2006, the Groton Town Planner provided comments on the updated Technical Report and proposed facility designs. A copy of the Planner's

correspondence is included in Attachment 9. Detailed responses to the Town's comments are included in Mr. Clark's pre-filed testimony provided in Attachment 1. As demonstrated therein, the Town's comments have been incorporated and addressed in to the facility design.

B. Consultations with State Officials

As noted in Section VI.B of this Application, DEP and SHPO were consulted and reviewed the proposed Site A and B Facilities. Attachment 8 contains DEP and SHPO's responses for both sites.

C. Consultation with Federal Agencies

Optasite has received determinations from the Federal Aviation Administration ("FAA") for Site A and Site B, which are included in Attachments 5 and 6, respectively. The results indicate neither of the proposed Facilities would require FAA registration, let alone FAA review as a potential air navigation obstruction or hazard. As such, no FAA lighting or marking would be required for the towers proposed in this Application.

Cingular's FCC license permits it to modify its network by building wireless facilities within its licensed area without prior approval from the FCC provided that a proposed facility does not fall within one of the "listed" categories requiring review under NEPA. The "listed" categories, included in 47 CFR §1.1307, are activities that may affect wilderness areas, wilderness preserves, endangered or threatened species, critical habitats, National Register historic districts, sites, buildings, structures or objects, Indian religious sites, flood plains and federal wetlands. As noted in Section VI.D of this Application, a review for both sites was conducted and it was determined that neither site falls under any of the NEPA "listed" categories of 47 CFR §1.1307. Therefore, the proposed Facility will not require review by the FCC pursuant to NEPA.

IX. Estimated Cost and Schedule

A. Overall Estimated Cost

The total estimated cost of construction for the proposed Site A facility is $292,700. This estimate includes:

(1) Electronic equipment costs of approximately $ 70,000;

(2) Tower and antenna costs (including installation) of approximately $138,900; and

(3) Site development and utility construction costs of approximately $83,800.

The total estimated costs for the construction of the proposed Site B facility is $286,700. This estimate includes:

(1) Electronic equipment costs of approximately $ 70,000;

(2) Tower and antenna costs (including installation) of approximately $140,500; and

(3) Site development and utility construction costs of approximately $76,200.

B. Overall Scheduling

Site preparation and engineering would commence immediately following Council approval of Optasite's Development and Management ("D&M") Plan and is expected to be completed within two (2) to four (4) weeks. Installation of the tower, antennas and associated equipment cabinets 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 the Town of Groton for improved wireless services. The foregoing

information and attachments also demonstrate that either of the proposed Facilities will not have any substantial adverse environmental effects. The Applicants respectfully submit that the public need for the proposed facility outweighs any potential environmental effects resulting from the construction of the proposed facility at either Site A or Site B. As such, the Applicants respectfully request that the Council grant this Application for a Certificate of Environmental Compatibility and Public Need for a proposed wireless telecommunication facility in the Town of Groton.

Respectfully Submitted,

By: Lucia Chiocchio

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Reserved for
Exhibit 1

PRE-FILED TESTIMONY
OF
RONALD C. CLARK

1. Q. Mr. Clark, please summarize your professional background in telecommunications.

A. In summary, I have been in the telecommunications industry for more than thirty years and have worked exclusively in the wireless telecommunications sector since 1983.

After graduating from college with a degree in Business Administration-Management, I began my telecommunications career in 1969 at the Southern New England Telephone Company (SNET). For the next fourteen years, I held a variety of sales, sales management, market and account management positions, all focused around and involving providing telecommunications products, services and technologies to SNET's largest business customers (Connecticut State Government, in particular).

In 1983, I accepted an offer from SNET's new cellular telephone subsidiary to organize, staff, train, manage and launch the startup venture's sales operations. For the next four years I was responsible for the operational, marketing and developmental aspects of the sales division. During this period, I worked with Bell Telephone Laboratory engineers and with the cellular telephone manufacturers to identify, study, evaluate and introduce software/hardware based enhancements into the wireless network. During this period I also served as a Director of the Cellular Telecommunications Industry Association's (CTIA) Cellular Safety Committee. While serving in this capacity, I negotiated and worked with the Connecticut State Police to integrate wireless 911 into the State's public safety answering and dispatch networks.

In 1987, I became Manager of Real Estate Services in SNET's cellular telephone subsidiary. In this position I was responsible for wireless acquisition activities, including identifying, evaluating, selecting, negotiating, leasing and zoning of SNET's infrastructure facilities. This included development of new tower sites, as well as those making use of other types of structures For the next ten years I was directly involved in the acquisition and zoning of almost 200 new wireless sites and testified, literally hundreds of times, as an expert witness on siting matters before municipal land use boards and commissions, the Connecticut Siting Council and various State legislative committees.

In 1997, I retired from SNET to accept a position with Nextel Communications, Inc., as Manager of Real Estate Operations. In this capacity I had direct responsibility for the acquisition, zoning and design of Nextel's wireless sites in Connecticut and western Massachusetts. From 1997 through April of 2002, I planned, managed and implemented the development of all Nextel wireless infrastructure in these areas.

In April of 2002, I formed ***CONN***sult Wireless Services, LLC, a consulting firm that provides a variety of specialized site selection, site acquisition, land use and facility planning services to the wireless industry. It is in that capacity I am serving Optasite and Cingular in this proceeding.

Additionally, I served for three years as chairman of the Selectmen's Telecommunications Tower Advisory Committee in the Town of Guilford and currently sit on the Madison Planning & Zoning Commission.

2. Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide background information relating to the application of Optasite, Inc. ("Optasite") to the Connecticut Siting Council for a Certificate of Environmental compatibility and Public Need for the proposed Groton facility and to explain: (1) Optasite's site search philosophy and general methodology; (2) the restraints under which Optasite operates in selecting potential sites; and (3) the manner in which Optasite's methodology was employed in the selection of the two sites proposed in this application.

3. Q. How does Optasite conduct a wireless site search?

A. Optasite realizes the wireless carriers serving Connecticut are committed to making use of existing structures (tall buildings, other towers, water tanks, electric transmission towers, etc.) to mount their antenna arrays whenever possible. Optasite supports their commitment and as such, does not involve itself in developing new tower sites in areas where viable non-tower alternatives exist. Therefore, the first step in Optasite's site search process is to identify, inventory and evaluate structures in the vicinity of the site search area to determine if any can be used as an alternative to a new tower.

If it is found that no viable alternatives do exist, Optasite then seeks out industrial, commercial and/or underdeveloped residential areas which have appropriate environmental and land use characteristics for possible use as a tower site. Optasite generally must focus on locations with relatively high ground elevations to meet its client's coverage objectives. For sites that appear to posses the requisite physical and locational characteristics, the Company contacts the property owners to gauge interest in making a portion of the property available as a tower site. If interest is expressed, Optasite and its client carrier conduct a battery of site-specific analyses to evaluate associated technical, practical and environmental issues and then negotiate a long term lease for the site.

In addition, while in the process of investigating and analyzing these identified properties, Optasite's site search personnel stay cognizant of other potential candidate properties in/around the site search area. If the investigations reveal additional potential sites (solicited or unsolicited), they are pursued in the manner described above.

In summary, Optasite's objectives are to: 1) construct its tower facilities only in areas where no viable non-tower alternatives exist; 2) engineer and develop facilities that can be shared by multiple carriers; and 3) locate facilities in areas that have a minimal impact on the environment.

4. Q. In what ways does the nature of wireless communications technology limit Optasite's ability to select facility locations?

A. In addition to the technical and engineering limitations the carriers, including Cingular, must consider (addressed in the Pre-Filed Testimony of Mr. John Blevins), the site selection process is also limited to a substantial degree by local terrain, relative changes in ground elevation and by land use patterns in and around the site search area. These constraints are particularly limiting here in southeastern Connecticut, because of the generally hilly or otherwise irregular landscape and by expansive areas of residential housing development (the very areas where wireless coverage is often most needed).

5. Q. Please describe Optasite's search for the proposed Groton facility.

A. The search for the Groton facility actually began in the fall of 2002, when AT&T Wireless (since acquired by Cingular) established a Search Ring for a site in the Center Groton area. During the initial phase of the site search, acquisition personnel conducted a thorough investigation of the area in/around the Groton Search Ring to identify any existing towers or structures that might be used to mount AT&T's antennas. When it was determined that there were no such existing towers or other structures, a search for potential new tower locations was initiated. The AT&T site search team focused on larger tracts of land in/around the site search area and attempted to avoid areas of relatively heavy residential development. Numerous sites were visited, evaluated and considered. Eventually, all but two were rejected because of coverage needs, site availability and/or siting issues. AT&T was successful in reaching agreement with the owner of the property at 1662 Gold Star Memorial Highway for two potential site locations, after detailed studies, engineering / environmental evaluations and reviews were performed and a lease was secured. In the spring of 2003, AT&T Wireless submitted a Technical Report for this facility to the Town of Groton.

Shortly after the Technical Report was submitted, Cingular announced that it had reached an agreement to acquire AT&T Wireless. To avoid building duplicative facilities and to prevent unnecessary tower proliferation, both carriers immediately placed moratoriums on site development activities until the acquisition occurred and Cingular could evaluate the impact of integrating the "new" AT&T Wireless sites into its existing network. In the summer of 2005, Cingular determined that the need for a Center Groton site still existed, reactivated the "old" 2002 Search Ring and negotiated an agreement with Optasite to locate and develop a new facility for Cingular's use.

After analyzing and validating the information compiled during the original Groton Center site search, Optasite conducted its own analysis of the Search Ring and the surrounding area. With additional input from Cingular's RF engineering and technical operations staffs, Optasite concluded that: 1) no viable non-tower alternatives existed in the area; and 2) the property originally proposed by AT&T Wireless was still the most viable site location available. Optasite then proceeded to negotiate a lease for the sites proposed in this application and performed the requisite steps necessary to prepare and submit its Siting Council application.

6. Q. Please address the unique aspects of this application.

A. This application respectfully presents two (2) proposed tower sites for the Siting Council's consideration. The Sites, which are referred to as Site A and Site B, are both located at 1662 Gold Star Memorial Highway (Route 184) in Groton, on a 32.24 acre parcel of land owned by Chester B. Crouch. Mr. Crouch's property is on the north side of Route 184, approximately ½ mile east of North Road (Route 117).

Site A is located on a wooded plateau in the central section of the Crouch property. A 150' monopole is proposed at this location.

Site B rests in a clearing, approximately 450 feet south of the Site A location. Optasite proposes to construct a 160 foot monopole at the Site B location.

As addressed in Mr. Blevins' Pre-Filed Testimony, both of the sites proposed in this application meet Cingular's coverage needs. In addition, and consistent with Optasite's goal to develop sites shared by the wireless service providers, the proposed towers have been designed to accommodate a minimum of three (3) additional carriers.

7. Q. Has Optasite consulted with municipal officials in Groton with regards to its plans?

A. Yes. As noted in response number 5 above, a Technical Report was submitted by AT&T for its proposed facility to the Town of Groton in the Spring of 2003. At that time, the Town Planner provided comments on AT&T's proposed facility.

After the merger of AT&T and Cingular and subsequent to the integration of the combined networks, Cingular determined that a new tower facility was needed to provide coverage to the Center Groton area. As such, the proposed Groton facility was reactivated in 2005 and Cingular negotiated an agreement with Optasite to develop a new facility for Cingular's use.

On May 10, 2006, Attorney Christopher B. Fisher and I submitted and updated Technical Report to the Town of Groton Planner. Prior to the Technical Report submission, I had been in touch by telephone with the Town of Groton Planner, Mr. Michael Murphy, to discuss the reactivation of the proposed facility and the anticipated submission of the updated Technical Report. The updated Technical Report provided a brief history of the proposed facility, a summary of the changes from the 2003 report and details regarding the proposed facility design and environmental impacts. Most of the comments provided by the Planner in 2003 were incorporated into the updated facility design.

The Town of Groton Planner provided comments on the facility design in correspondence dated June 22, 2006. Copies of all correspondence with the Town of Groton, including the 2003 correspondence, are included in Attachment 9 of this Application.

8. Q. What response does Optasite have to the Town's comments provided during the municipal consultation period?

A. Responses to the Town's comments are provided below in the same order as they appeared in the correspondence of June 22, 2006 (see Attachment 9 of the Application).

- **Color of the Tower**: The Technical Report and the Siting Council Application propose the tower type to be a "self-supporting monopole with galvanized non-reflective exterior finish."

- **Landscaped Buffer**: Proposed Site A sits well in the interior of the host parcel (the nearest property line is 325' to the east) in an area that is surrounded by heavy stands of trees and relatively heavy undergrowth that shield the compound location from view at the property's perimeter. It is therefore Optasite's opinion, that landscape buffering would not serve a useful purpose. At Proposed Site B, a landscape buffer planted along

the south side of the compound security fence might help shield the compound from view along Route 184 (approximately 400' away).

- **Clearing Limit and Erosion Control**: Optasite understands and shares the Town Planner's concern and has included the following note on Drawing Number SC-1 (for Proposed Sites A & B) in the Technical Report and in the Siting Council Application: "Specific Erosion and Sedimentation Control information will be submitted to the Siting Council for review in a Development and Management Plan (D&M Plan). All procedures included in the D&M Plan will conform to all applicable sections of the Department of Environmental Protection's Bulletin 34, Connecticut Guidelines for Soil and Sediment Control, Dated 2002."

- **Lighting**: Optasite will not light and or mark the proposed Groton tower unless specifically ordered to do so by the Federal Aviation Administration (FAA) or by the Connecticut Siting Council. Further, if the FAA or the Siting Council orders that lighting/marking be placed on the tower, Optasite will use its best efforts to negotiate a lighting/marking plan that uses low intensity red night lights and/or a minimally impactive tower marking scheme.

- **Signage**: On-site advertising is neither planned nor contemplated. Both the A and B Site Plan Drawings (SC-1) included in the Technical Report and in the Siting Council Application state: "No signs (other than appropriate warning/safety/security signs) or advertising will be placed on any portion of the facility."

- **Removal**: The Siting Council in its Decision and Order would stipulate the conditions and time at which the tower must be removed.

- **Co-location**: Optasite's core business is developing tower facilities explicitly for shared use. Further, the proposed sites will be designed and engineered to accommodate a minimum of three (3) additional wireless carriers.

- **Minimum height**: Preliminary documentation of the proposed tower's minimum height requirements have been provided by Cingular Wireless and are included in this Siting Council Application. Additional relevant documentation will be offered as part of the Siting Council Docket process (Interrogatory questions and responses, Exhibits, sworn testimony by and cross examination of Cingular's engineering personnel, etc.).

- **Interference**: The Pre-Filed Testimony of Mr. Blevins addresses this point.

- **Fire Access**: I contacted Fire Marshal Richard Branche of the Center Groton Fire District on June 28, 2006 and after a brief discussion, sent him a complete copy of the Technical Report for review and comment. As of the date of the application filing, Mr. Branche's comments had not yet been received. Should a Certificate be issued for this proposed Facility, Optasite will work with the Fire Marshall in designing the access drive.

- **Tower Design for Wind Loading**: If approved, the tower and tower foundation will be designed and engineered to meet (or exceed) all applicable codes for this type of structure. Tower and foundation load calculations will be based upon the proposed use (Cingular) and the anticipated tower loading of other potential users.

- **Comparison of Sites**: Attachments 5, 6 and 7 provide details for each proposed site in the same format for comparison. I have also provided a table below to summarize some of the design aspects for each proposed facility.

	Site A	**Site B**
Tower Height	150'	160'
Ground Elevation AMSL	278'	245'
Tower Height AMSL	428'	405'
Lease Area	100' x 100'	100' x 100'
Compound Size	75' x 75'	100' x 50'
Access Road Length from Route 184 (Approximate)	850'	400'
Wetlands Crossing	Upgrade existing crossing	None required
Clearing	Moderate	Minimal
Fill	Minor	Minor
Underground Utilities	Yes	Yes
Lighting/Marking	Not required per FAA	Not required per FAA
Distance to Property Line	> 150' - tower height	> 160' – tower height
Distance to Closest Off-Site Residence	770'	600'

- **Visual Resource Evaluation Report**: 1) The red "triangles" represent potential areas of year-round tower visibility associated with Candidate B; 2) Photographic simulations of the proposed towers were only provided from locations where a balloon (hence a tower) was visible. In the examples cited (no tower photosimulations for 6A and 7A), only Site B would be seen from those locations.

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Reserved for
Exhibit 2

PRE-FILED TESTIMONY OF JOHN BLEVINS

Question 1: Please summarize your professional background in telecommunications.

Answer: I am a Senior Radio Frequency Engineer and have been employed by Cingular Wireless and its predecessors including SNET for over thirty years. My current responsibilities include the identification of signal coverage gaps in the Cingular Wireless telecommunications network in Massachusetts and Connecticut and assessment of whether proposed facilities will adequately fill those signal coverage gaps. I am also responsible for frequency planning, E911 implementation, and other radio frequency engineering requirements for Cingular. I have been employed in this role for over ten years. Prior to my current responsibilities and in the period from 1988 to 1994, I was responsible for radio frequency deployment of SNET's paging network in the State of Connecticut. From 1986 to 1988, I worked in the cellular engineering department responsible for the original deployment of SNET Cellular's network in the State of Connecticut. In the days before cellular technology, I was employed by SNET working as a technician and a microwave engineer from 1974 to 1986. Prior to that, I served in the United States Army as a microwave technician.

Question 2: What does your testimony address?

Answer: The main purpose of my testimony is to provide information relating to Cingular's existing network in this area of the State and explain the need for the proposed facility on Gold Star Memorial Highway in the Town of Groton. This includes information on the general design of the fixed wireless network, the technical constraints in selecting proposed facilities, and other radiofrequency engineering ("RF") issues such as coverage.

Question 3: Please describe Cingular's wireless network in Connecticut.

Answer: The buildout of the Cingular wireless network in Connecticut dates back to the inception of cellular telephone services in the mid 1980s. At that time, SNET, as the landline "B" carrier, was granted licenses by the Federal Communications Commission ("FCC") for the development of a cellular network (850 Mhz) across most

of the State of Connecticut. Over time, cellular system operators such as Cingular have had to continually engineer their networks to expand coverage and respond to an ever-increasing subscriber base. The system's growth requires adding sites at closer spacing by increasing frequency re-use across the network, while mitigating RF interference among sites. In 2004, Cingular and AT&T Wireless, a PCS (1900 Mhz) carrier in the State of Connecticut merged. The combined company retained the Cingular name and is currently integrating the two networks in Connecticut and throughout the country.

Question 4: In what ways does the nature of wireless technology limit Cingular's ability to select cell site locations?

Answer: Cell site selection is heavily impacted by terrain variation as well as local land use policies within intended service areas. The presence of widely varying, hilly terrain and heavy residential land use in the State of Connecticut poses challenges to the wireless engineer whose ultimate goal is to construct a seamless network of interconnecting and adequately overlapping cell sites. Cell site locations must be chosen such that sufficient signal strength overlap is achieved to ensure call hand-off between cells. Proper spacing between cells is critical for maintaining sufficient signal strength overlap and eliminating unnecessary duplicative coverage between cells. The wireless industry has also experienced a revolution in handset technology whereby the availability of inexpensive, small, and lower powered handsets with longer battery life has fueled consumer demand for ubiquitous service. The infrastructure required to support this demand drives the need for additional facilities.

Question 5: What is the significance of antenna height in wireless network design?

Answer: The laws of physics dictate radio signal losses associated with RF propagation between a fixed wireless network antenna site, and both fixed and mobile users of the fixed wireless network antenna site. Higher relative fixed network antenna heights, as compared with surrounding terrain, generally provide a greater coverage distance and a stronger signal amplitude at most distances from the fixed wireless network antenna site. Higher relative fixed network antenna heights are the result of higher antenna support structure attachment height, and higher relative ground elevation

of the fixed wireless network antenna site. A two-way communication system cannot simply increase the power transmitted by the fixed network antenna to make up for lower fixed network antenna height, like a one-way broadcaster, since it is limited in the reverse path by the low power user handset's ability to "talk-back" to the fixed network antenna. Having said this, there is also a practical maximum fixed network antenna height, above which there will be a sharp increase in the negative effects of RF interference, thus limiting frequency re-use and capacity across the network.

Question 6: Please explain the interrelationship between the proposed site and Cingular's current system.

Answer: The interrelationship between the proposed site and Cingular's current system is depicted in the propagation plots included in the Statement of RF Need included in the Application. As shown therein, this proposed site is needed primarily to provide coverage to an area of the State where users of Cingular's network have difficulty originating or maintaining wireless services.

Question 7: Please describe the engineering aspects of the proposed site in Groton.

Answer: As described in the Statement of RF Need included in the Application, the proposed site will provide coverage along a significant portion of State Highway 184 (Gold Star Memorial Highway), State Highway 117 (North Road), and surrounding areas in Groton. The proposed site is needed for coverage continuation, versus a capacity enhancement.

The topography in the Groton area is characterized by fairly severe terrain, with hills and valleys interspersed. The effect on RF propagation generally is that signals carry well over the low areas but are obstructed by the hills and ridges. The proposed alternative sites are situated well enough to carry users to the existing neighboring sites to the east, west and south. At some point in the future, an additional site will be needed to the north.

Question 8: Please compare alternative Sites A and B.

Answer: Both Site A and Site B will provide coverage within the targeted portion of State Highways 184 and 117 and the surrounding area. From the Site A location, Cingular can achieve adequate coverage at a height of 120'. From the Site B location, coverage similar to that from Site A would require a height of 130', due to a difference in ground elevation and surrounding terrain.

Question 9: Please address the Town's requirement that no new telecommunications facility shall interfere with public safety communications or with existing radio or television signals.

Answer: Cingular is licensed by the FCC to operate within a specified frequency which is significantly different from the frequencies used by local police, fire and EMS departments. Therefore, the possibility of interference is extremely remote. Also, Cingular is currently operating facilities in the Town of Groton (see Attachment 3 for details on Cingular's existing sites) which are not causing interference. Finally, in the unlikely event that interference does occur, Cingular will fully cooperate with the entity experiencing interference to resolve any issues.

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Exhibit 3

Statement of Need & Coverage Plots

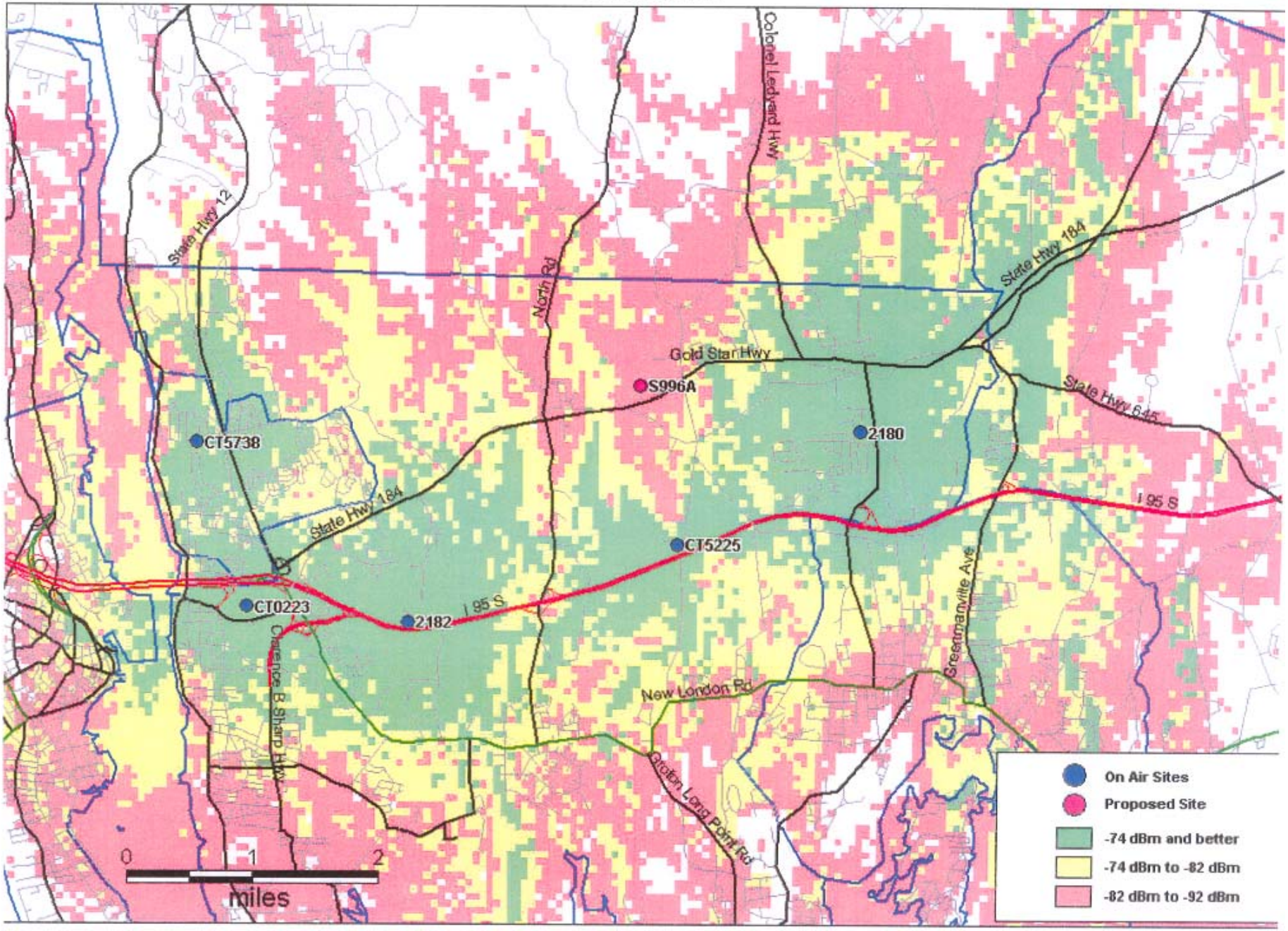
The proposed Groton facility would be used to provide wireless telecommunications service along State Highway 184 (Gold Star Memorial Highway), State Highway 117 (North Road), and surrounding areas in the Town of Groton for Cingular and for other carriers providing wireless services to the public. The proposed Groton facility is needed by Cingular in conjunction with other existing and proposed facilities in the area.

Included herein are coverage propagation plots prepared by Cingular for Site A and Site B. The plots depict existing coverage from surrounding sites at 1900 MHz and 850 MHz; coverage from the proposed site and existing sites at 1900 MHz and 850 MHz for Site A at an antenna centerline height of 120' and coverage from the proposed site and existing sites at 1900 MHz and 850 MHz for Site B at an antenna centerline height of 130'. Also included is a chart identifying the existing surrounding sites shown on the enclosed propagation plots.

These propagation maps confirm the need for a site in the Center Groton area and the effectiveness of either of the proposed sites in meeting the coverage needs for the area.

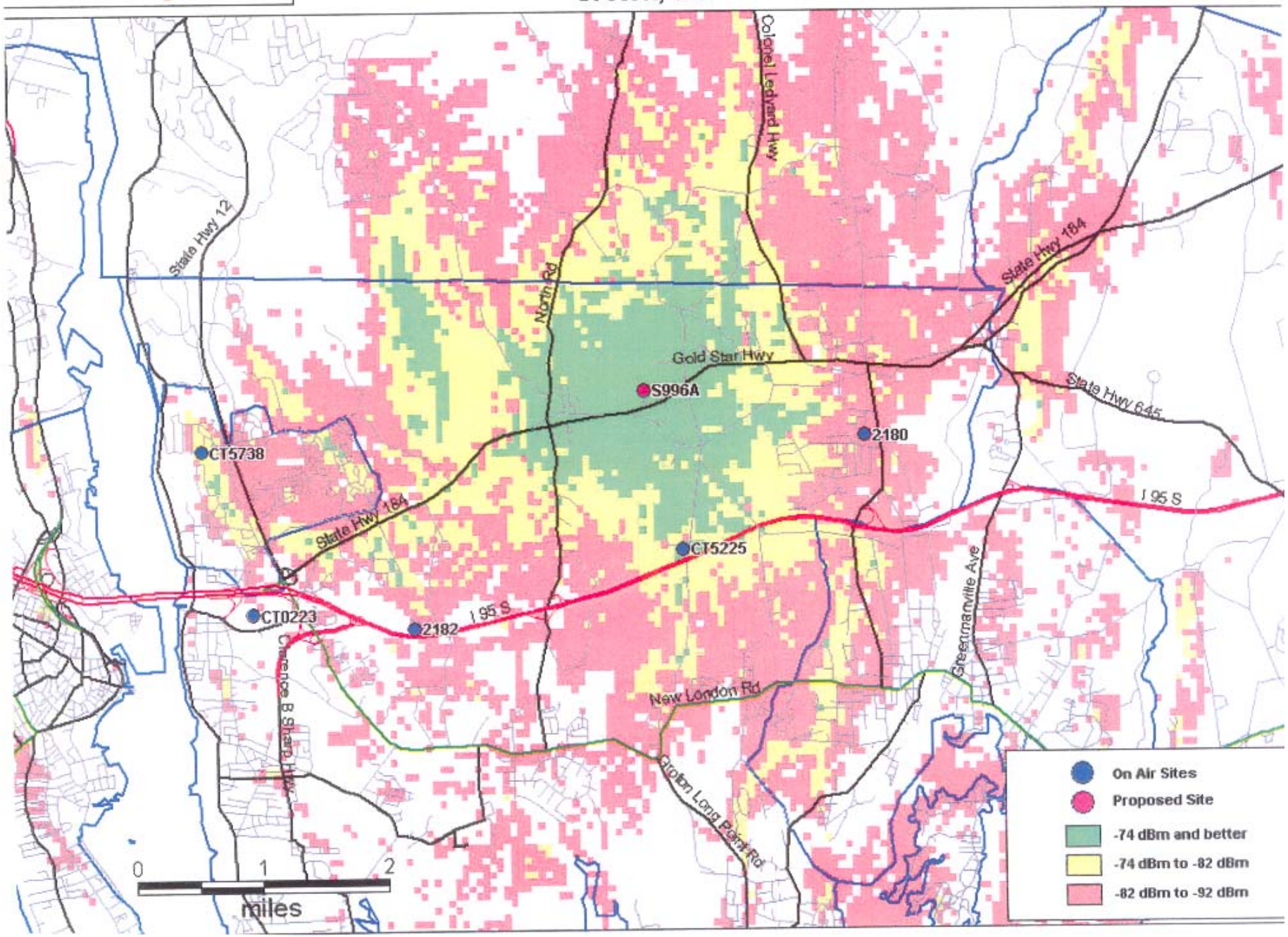
cingular
raising the bar

Cingular Wireless
Existing Sites - Combined Coverage
Groton, CT.



cingular
raising the bar

Cingular Wireless
New Site S996 (A) - 120ft
Groton, CT.



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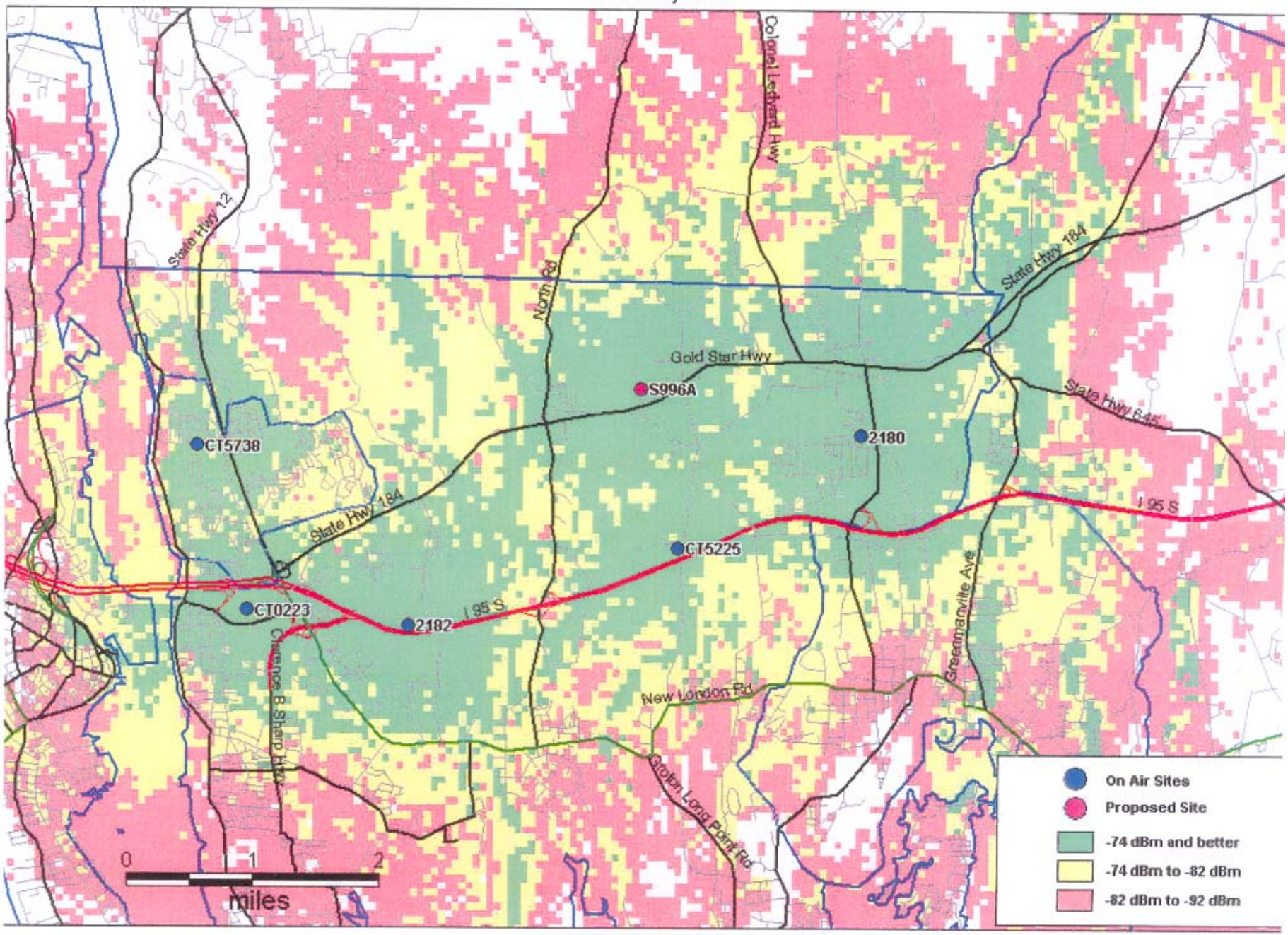
raising the bar

Cingular Wireless
Existing and New Site S996 (A) - Combined Coverage (120ft)
Groton, CT.



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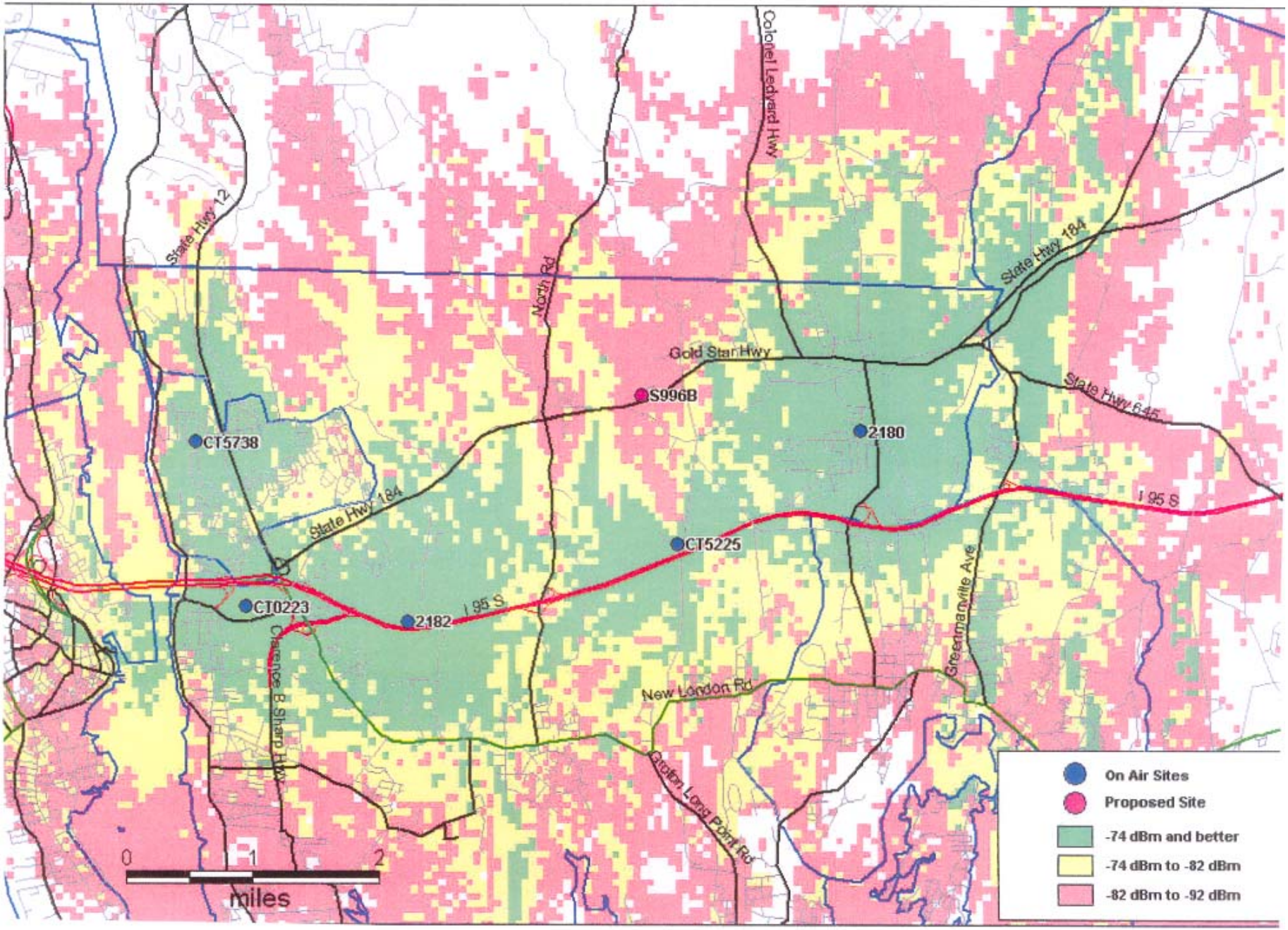
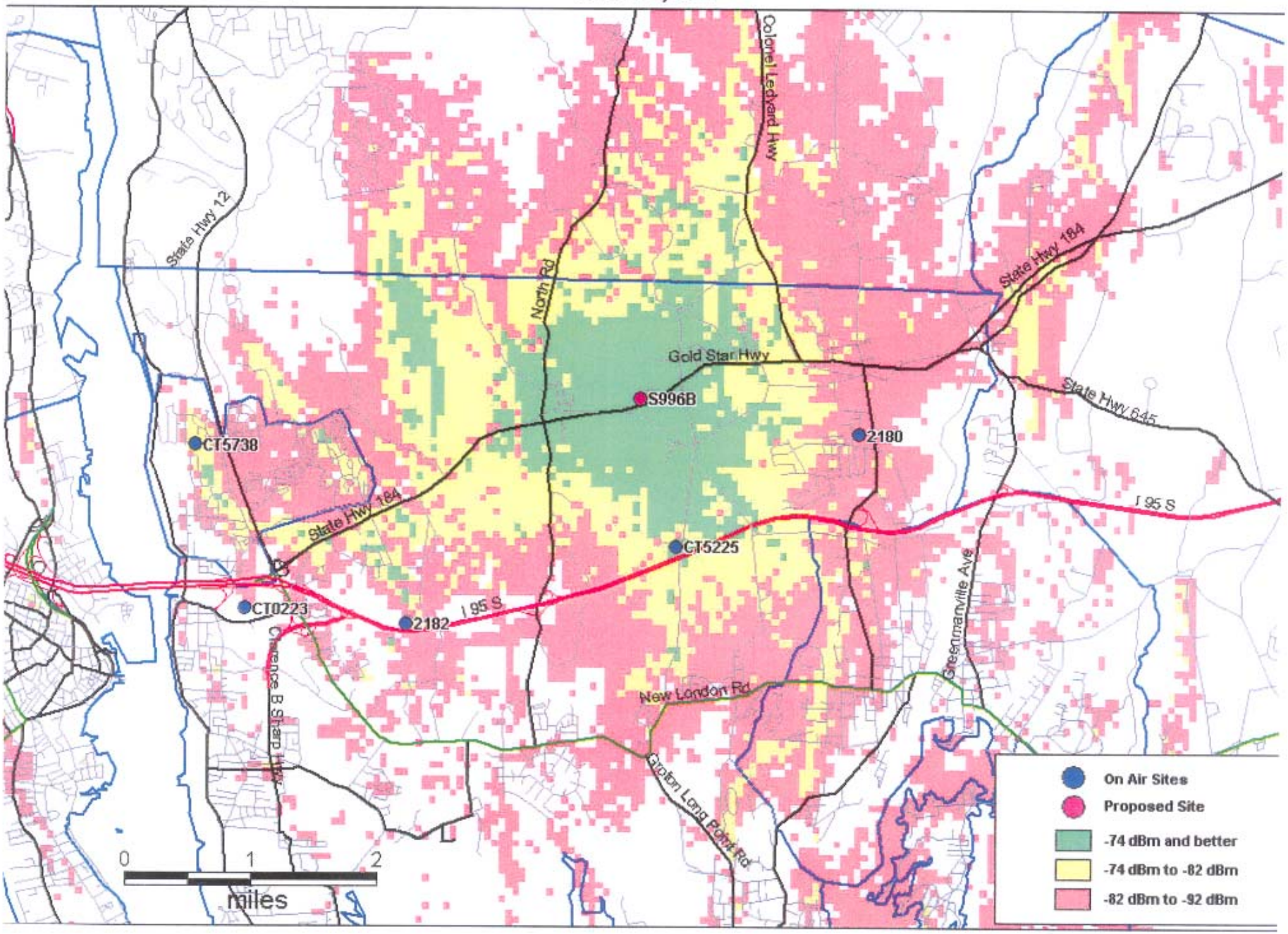
raising the bar

Cingular Wireless
Existing Sites - Combined Coverage
Groton, CT.



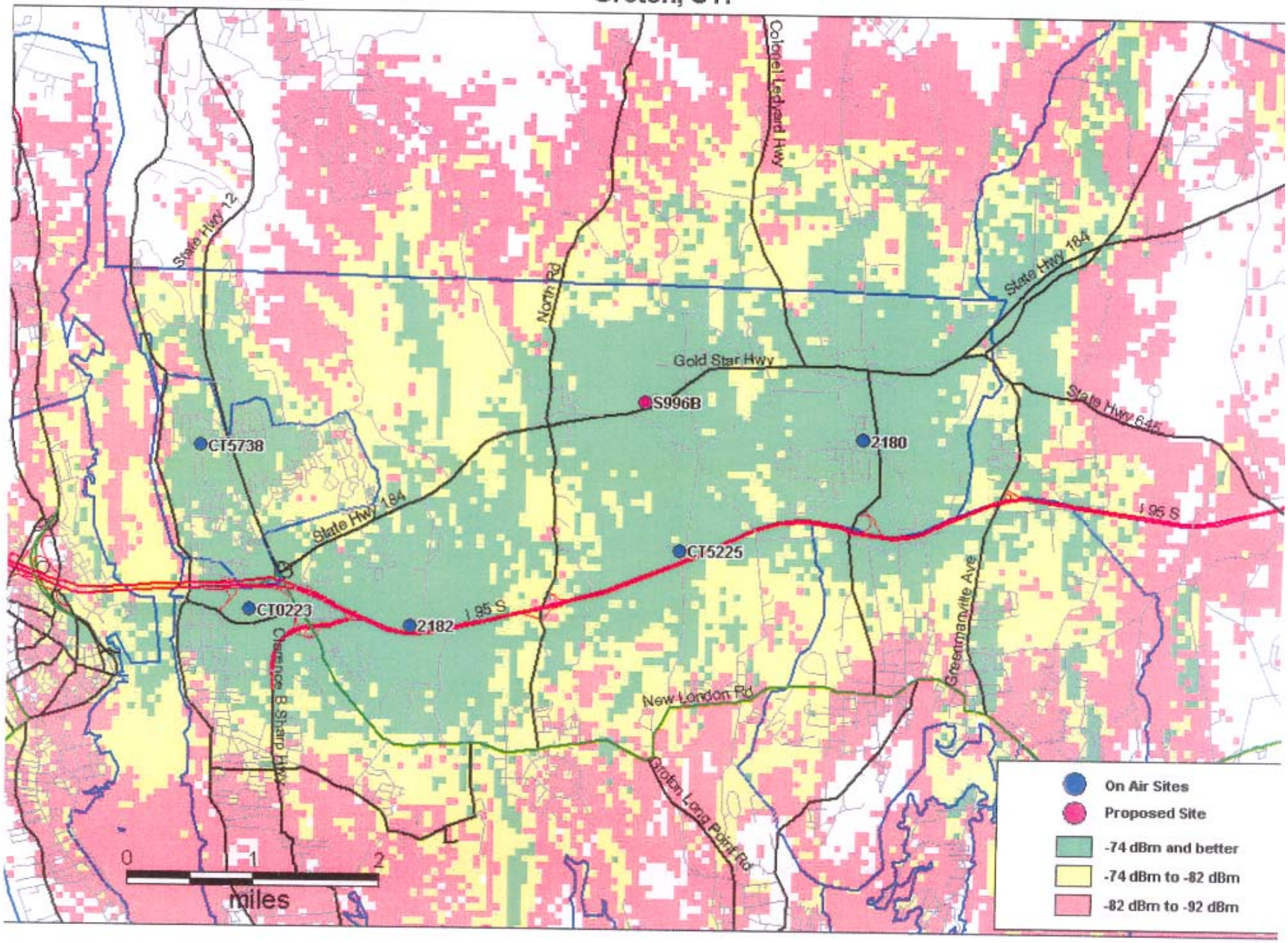
cingular
raising the bar

Cingular Wireless
New Site S996 (B) - 130ft
Groton, CT.



cingular
raising the bar

Cingular Wireless
Existing and New Site S996 (B) - Combined Coverage (130ft)
Groton, CT.



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Reserved for
Exhibit 4

Site Search Summary

There have been no material changes in circumstances in this area of town with respect to the need for a new tower facility to provide service to the Center Groton area. As such, the site search process previously conducted by AT&T is still applicable and is included below with an update by Optasite for the Tilcon Minerals Inc. property.

AT&T's Site Search Process

Various parcels of land within and near this area were investigated by AT&T. AT&T identified no communications towers located within approximately two (2) miles of the approximately 0.5 mile radius site search area. Existing structures within the site search area consisted primarily of one to three story buildings. These buildings were not adequate to meet the coverage requirements for the proposed site. In general, locations outside the search area would not provide adequate coverage due to the topography in the area and the overall distance to the area where coverage is needed.

AT&T investigated several locations where the construction of a tower might be feasible. The descriptions of the individual sites investigated are set forth below. Where applicable, the reasons for eliminating the property are set forth in the site description.

1. Tilcon Minerals, Inc., Gold Star Memorial Highway, Groton AT&T investigated the 52.4 acre parcel of land owned by Tilcon Minerals, Inc. Tests and computer analyses revealed the location would provide adequate levels of coverage. As a result, AT&T entered into discussions with local Tilcon officials and over a period of several months, negotiated the terms of a mutually acceptable lease. On January 30, 2003, the day the lease was scheduled to be signed, AT&T was informed by senior Tilcon officials that the document would not be executed, because Tilcon had decided against having a long-term encumbrance placed on this particular property.

   Optasite has attempted to contact Tilcon to determine if they would now be interested in leasing a portion of this parcel for the proposed facility. Tilcon has not responded to Optasite.

2. 1662 Gold Star Memorial Highway, Groton This property, which abuts the Groton Garden Center, was analyzed and found fully capable of providing acceptable coverage from a new tower located on the property. Several locations on the property were reviewed for possible use and leases were eventually obtained at the two locations included in this Report. These sites are referred to as the Proposed Site A and the Proposed Site B locations.

3. 325 Rogers Road, Groton This parcel, which is the location of Roy & Sons Auto Body Inc., was evaluated for possible use. While this site could possibly

be used to achieve coverage objectives, it was rejected because of potential environmental issues, tower fall zone considerations and visibility concerns.

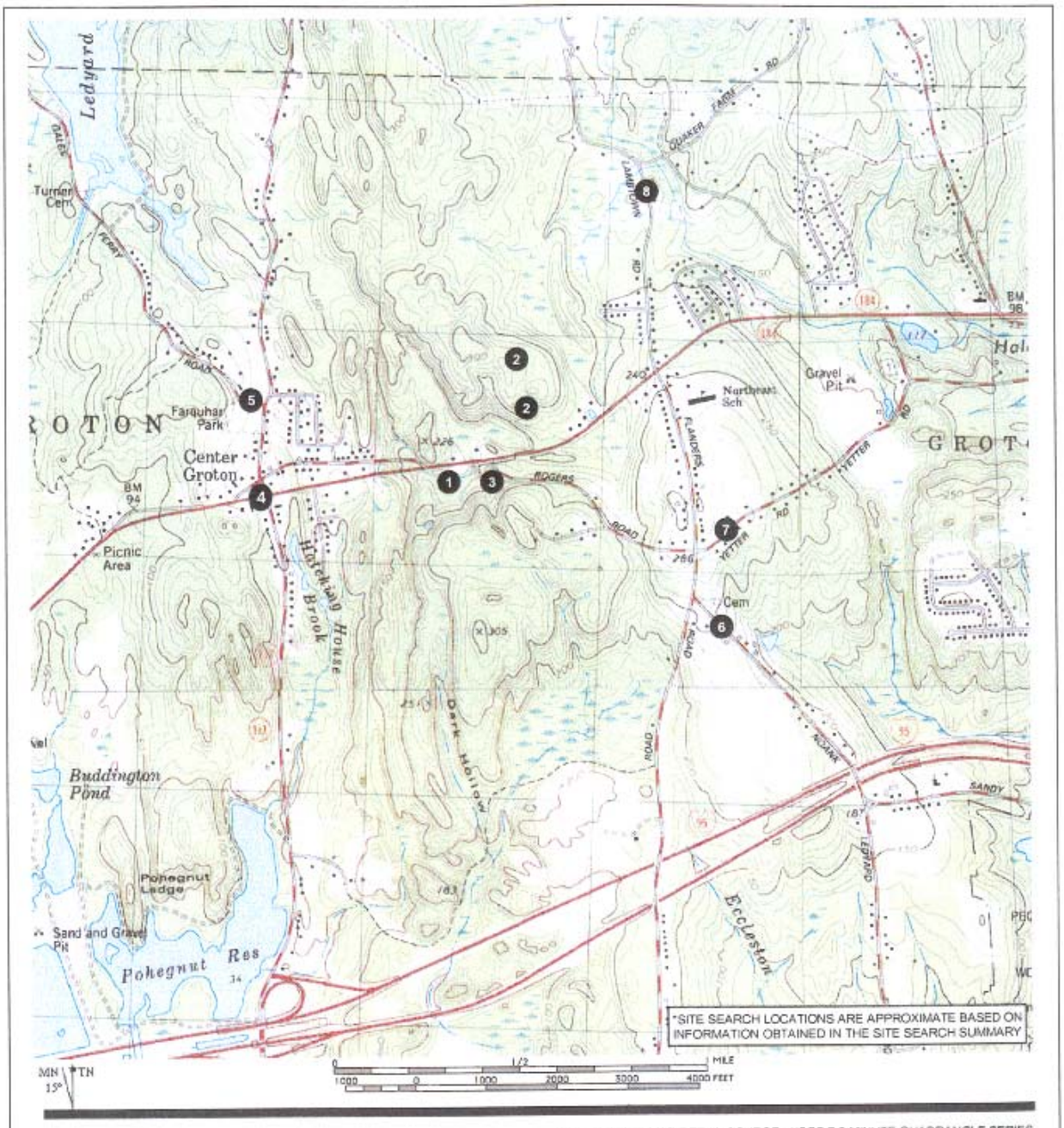
4. Center Groton Site acquisition personnel searched the area around Center Groton (vicinity of the intersection of Routes 117 and 184) for potential site locations. The investigation revealed there were no existing structures of significant height to accommodate needed antenna elevations nor were there any parcels of land large enough to support a tower installation.

5. Route 117/Gales Ferry Road area Several properties in this area were evaluated, but were not pursued because of their proximity to nearby visually sensitive areas (Farquhar Park and the Ledyard Reservoir area).

6. Noank-Ledyard Road Two large parcels on Noank-Ledyard Road were studied for possible use. Both locations were rejected because they were found to be located too far southeast to provide coverage to the target area.

7. Yetter Road Properties along Yetter Road were plotted and found to be too far east to achieve needed coverage.

8. Lambtown Road area The section north of Route 184, along and near Lambtown Road was searched, but was rejected from consideration because of the high concentration of single family homes in the area.



TOPOGRAPHIC MAP DETAIL SOURCE: USGS 7.5-MINUTE QUADRANGLE SERIES
Uncasville - Q41072D1 – 1984, NA, 1984
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SITE SEARCH KEY	DATE: JULY 2006	SCALE: AS NOTED

URS
URS Corporation AES
500 Enterprise Drive, Ste 3B
Rocky Hill, CT 06067
Tel. 860-529-6882
Fax 860-529-5566

PROJECT #: OPT-001.06915381.7.12.06

Optasite

SITE SEARCH SUMMARY:
GROTON, CONNECTICUT

EXISTING TOWER LISTING

Five communications towers were found within approximately three miles of the site search area for the proposed Groton Site A and B Facilities. These existing towers would not provide adequate coverage to the target area and/or would duplicate existing coverage.

OWNER/OPERATOR	TOWER LOCATION	HEIGHT	SOURCE
Candid Communications	75 Roberts Road Groton, CT	150'	CSC Database
VoiceStream Wireless	725 Flanders Road Groton, CT	130'	CSC Database
Town of Groton	68 Groton Long Point Road Groton, CT	110'	CSC Database
SBA	86 Voluntown Road Stonington, CT	195'	CSC Database
Sprint	Welles Road Groton, CT	120'	CSC Database

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Reserved for
Exhibit 5

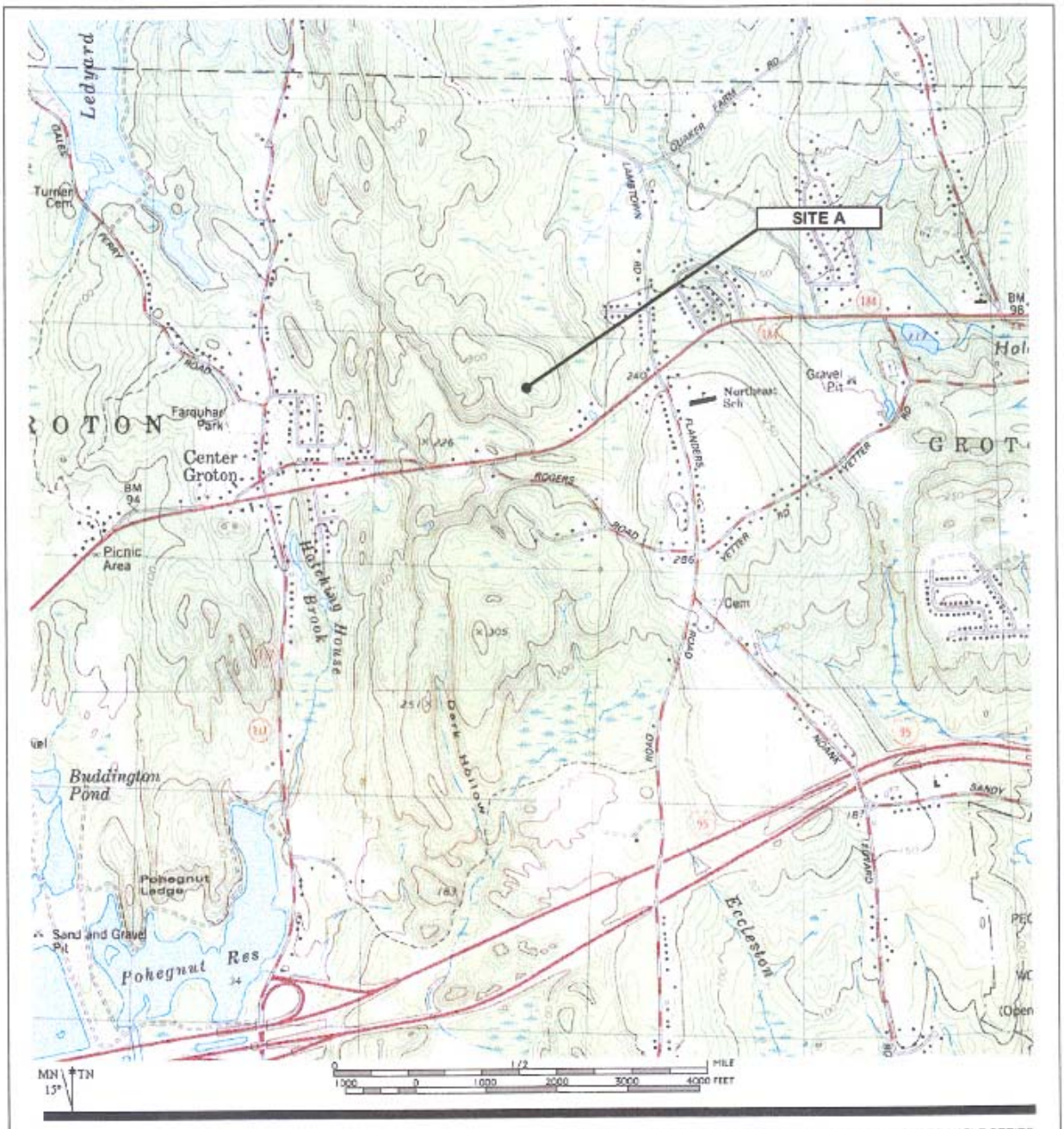
Proposed Site A

1662 Gold Star Memorial Highway, Groton, Connecticut

Land of Chester B. Crouch
Tax Map 270013; Block 12; Lot 6797
32.24 Acre Parcel

General Facility Description

The proposed Site A facility consists of a 100' by 100' leased area located in the center section of a 32.24 acre parcel at 1662 Gold Star Memorial Highway (Route 184) in Groton, which is located approximately a half mile northeast of the intersection of Route 184 and Route 117. The property is owned by Chester B. Crouch and it hosts a residence and several greenhouses associated with the adjacent Groton Garden Center. A new self-supporting monopole tower 150 feet in height would be constructed at the Site A location. Cingular would install up to 12 panel antennas at approximately the 120 foot level of the tower together with associated equipment shelter placed at the base of the tower within a tower compound. The tower compound would consist of a 75' by 75' area to accommodate Cingular's equipment shelter and to provide space for future shared use of the facility by other carriers. The compound would be enclosed by an 8-foot high security fence. Vehicle access to the facility would extend to the site northerly from Route 184, onto an existing driveway that serves the Crouch property and then along an existing, but currently unimproved, travel way than runs to the west side of the proposed site. Utility connections would be run underground from an existing CL&P pole, located on the north side of Route 184, into the Site A compound.



TOPOGRAPHIC MAP DETAIL SOURCE: USGS 7.5-MINUTE QUADRANGLE SERIES
Uncasville - Q41072D1 – 1984, NA, 1984
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VICINITY MAP	DATE: JULY 2006	SCALE: AS NOTED

URS
URS Corporation AES
500 Enterprise Drive, Ste 3B
Rocky Hill, CT 06067
Tel. 860-529-8882
Fax 860-529-5566

PROJECT #: OPT-001/38815381.7.12.06

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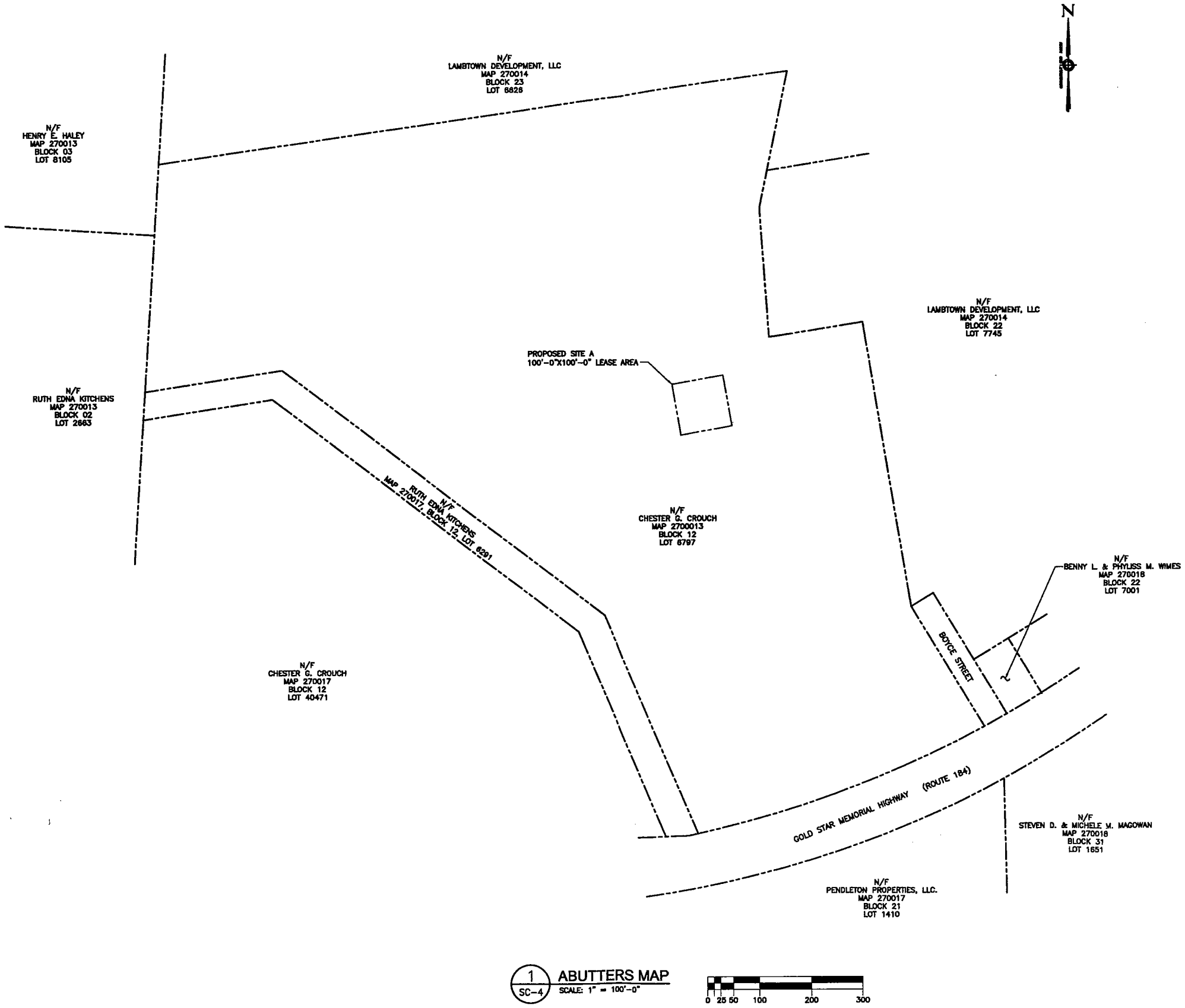
SITE A

1662 GOLD STAR MEMORIAL HIGHWAY
ROUTE 184
GROTON, CONNECTICUT



1 SC-4 ABUTTERS MAP
SCALE: 1" = 100'-0"

Optasite
446 MAIN STREET, 2ND FLOOR
WORCESTER, MA 06108
(508) 779-2460

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

A&E SEAL
STATE OF CONNECTICUT
DOUGLAS J. ROBERTS
REGISTERED ARCHITECT

PROJECT NO: 36915381
JOB NO: OPT001
DRAWN BY: RRH
CHECKED BY:

ISSUED FOR	
07-11-05	REVIEW
04-12-06	SITING COUNCIL
07-14-06	SITING COUNCIL
07-18-06	SITING COUNCIL

1662 ROUTE 184
SITE A

1662 GOLD STAR MEMORIAL
HIGHWAY ROUTE 184
GROTON, CONNECTICUT

SCALE: AS NOTED

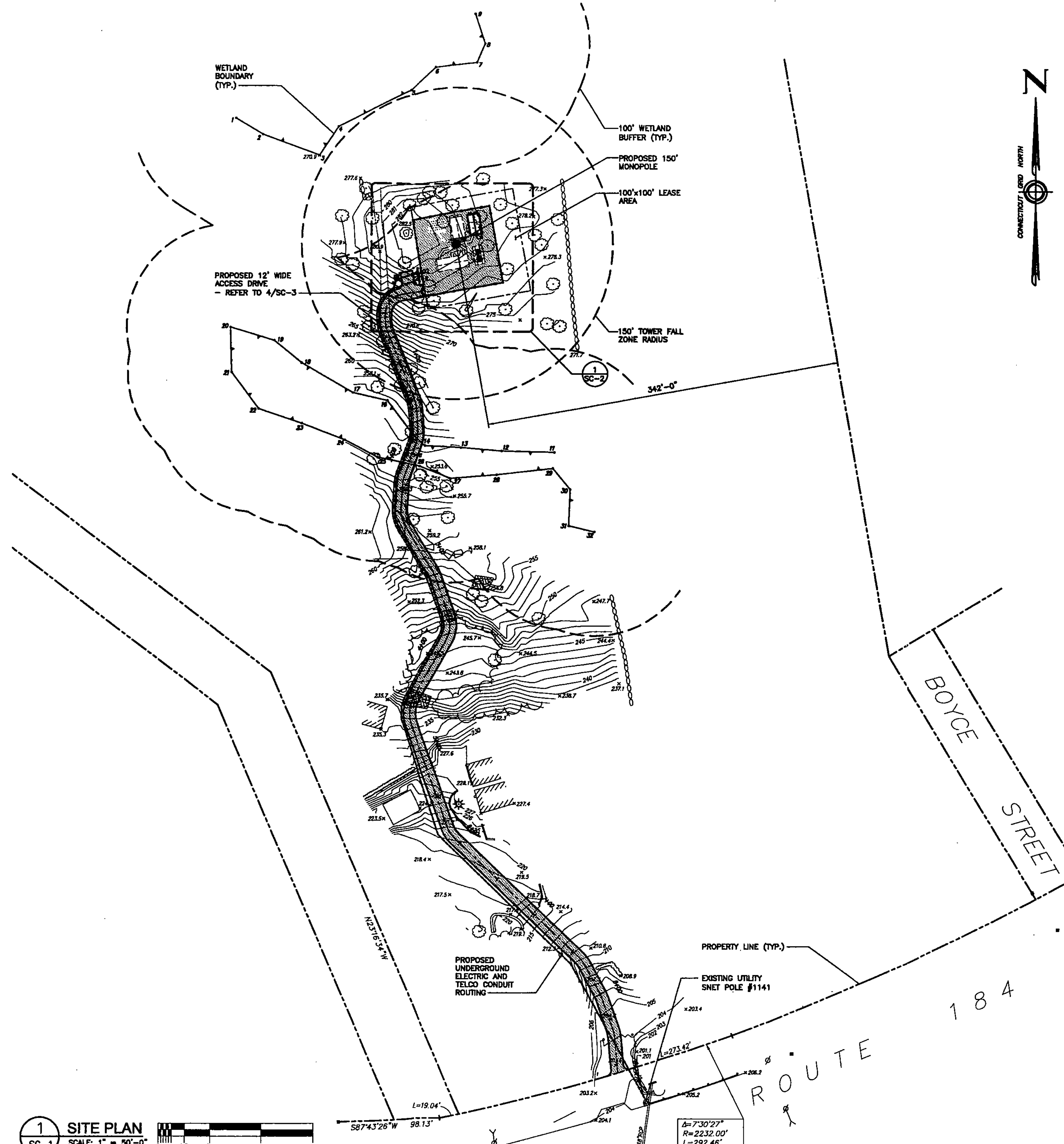
ABUTTERS MAP

SC-4

NOTES:

1. SPECIFIC EROSION AND SEDIMENTATION CONTROL INFORMATION WILL BE SUBMITTED TO THE SITING COUNCIL FOR REVIEW IN A DEVELOPMENT AND MANAGEMENT PLAN (D&M PLAN). ALL PROCEDURES INCLUDED IN THE D&M PLAN WILL CONFORM TO ALL APPLICABLE SECTIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S "BULLETIN 34, CONNECTICUT GUIDELINES FOR SOIL AND SEDIMENT CONTROL, DATED 2002".

2. NO SIGNS (OTHER THAN APPROPRIATE WARNING/SAFTEY/SECURITY SIGNS) OR ADVERTISING WILL BE PLACED ON ANY PORTION OF THE FACILITY.



1 SC-1 **SITE PLAN**
SCALE: 1" = 50'-0"
0 25 50 100 150

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STATE OF CONNECTICUT DOUGLAS I. ROBERTS ... LICENSED PROFESSIONAL ENGINEER

PROJECT NO:	36915381
JOB NO:	OPT001
DRAWN BY:	RRH
CHECKED BY:	

ISSUED FOR	
07-11-05	REVIEW
04-12-06	SITING COUNCIL
07-14-06	SITING COUNCIL
07-18-06	SITING COUNCIL

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CINGULAR WIRELESS IS STRICTLY PROHIBITED.

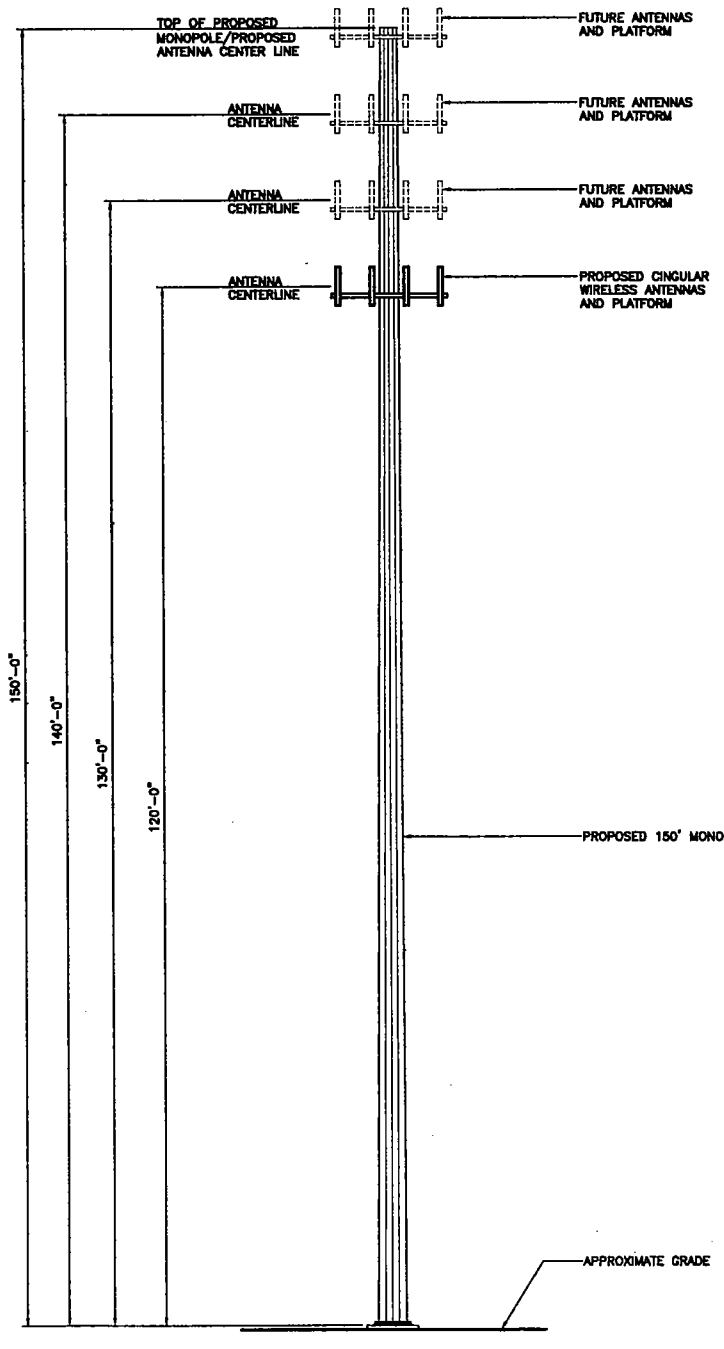
1662 ROUTE 184 SITE A

1662 GOLD STAR MEMORIAL HIGHWAY ROUTE 184
GROTON, CONNECTICUT

SCALE: AS NOTED

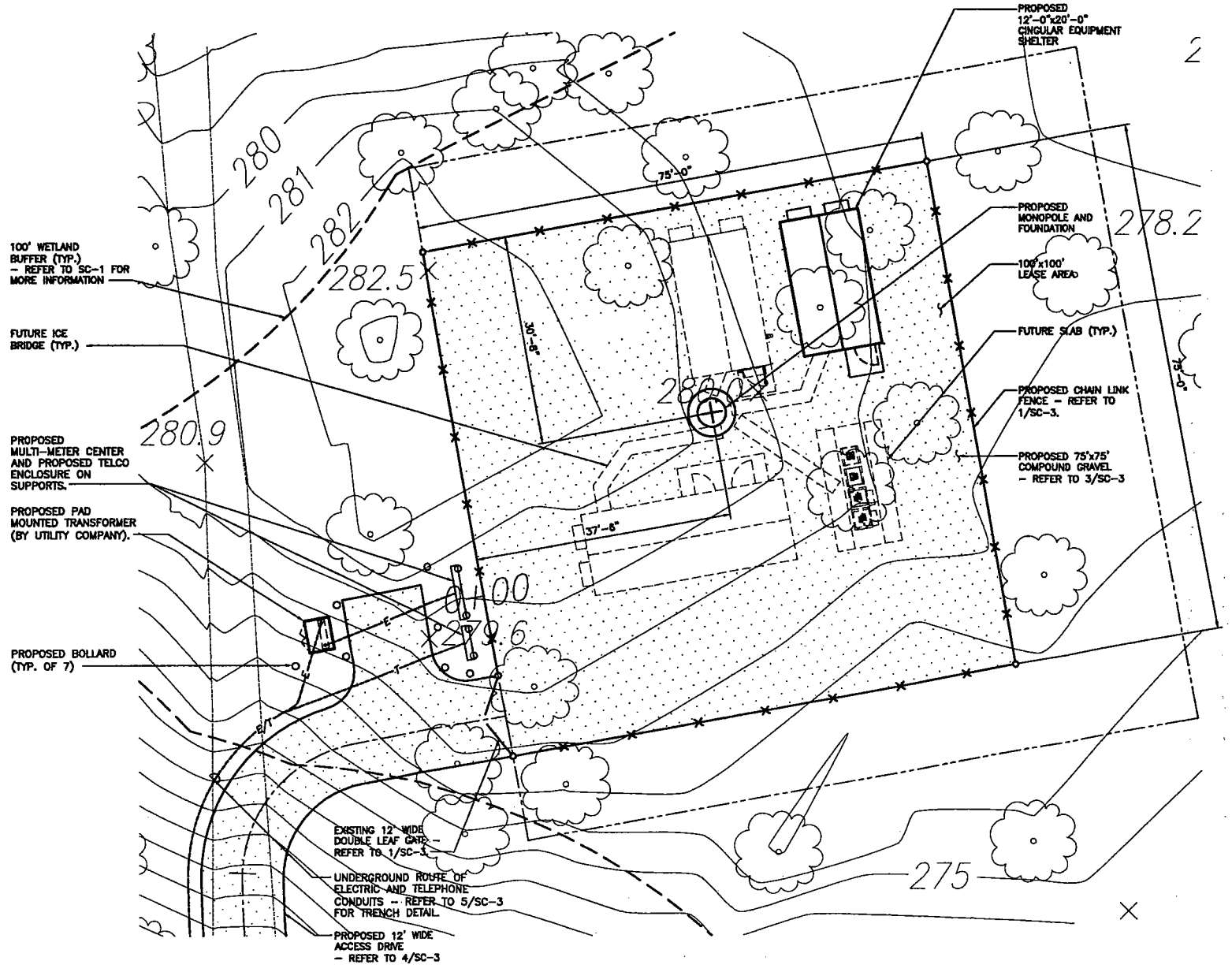
SITE PLAN AND SILT FENCE NOTES

SC-1



2 SC-2 **MONOPOLE ELEVATION**
SCALE: 1" = 10'-0"

0 2.5 5 10 20 30



1 SC-2 **COMPOUND PLAN**
SCALE: 1" = 10'-0"

0 2.5 5 10 20 30

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A&E SEAL

STATE OF CONNECTICUT
THOMAS J. ROBERTS
REGISTERED ARCHITECT

PROJECT NO: 36915381
JOB NO: OPT001
DRAWN BY: RRH
CHECKED BY:

ISSUED FOR	
07-11-05	REVIEW
04-12-06	SITING COUNCIL
07-14-06	SITING COUNCIL
07-18-06	SITING COUNCIL

1662 ROUTE 184
SITE A

1662 GOLD STAR MEMORIAL HIGHWAY ROUTE 184
GROTON, CONNECTICUT

SCALE: AS NOTED

COMPOUND PLAN AND MONOPOLE ELEVATION

SC-2

Site Evaluation Report

I. LOCATION

A. COORDINATES: 41° 23' 12.52" N
72° 00' 48.63" W

B. GROUND ELEVATION: 279 feet AMSL

C. USGS MAP: Uncasville, CT

D. SITE ADDRESS: 1662 Gold Star Memorial Highway, Groton, CT 06340

E. ZONING WITHIN 1/4 MILE OF SITE: RU-40 and CB.

II. DESCRIPTION

A. SITE SIZE: 100' x 100'

B. LESSOR'S PARCEL: 32.24 acres

C. TOWER TYPE/HEIGHT: Monopole/150 feet AGL

D. SITE TOPOGRAPHY AND SURFACE: The proposed facility site is located on the north side of Route 184, on an elevated section in the center portion of the host property. Surface geology is classified as thin till, which is categorized as areas of land where till is generally less than 10-15 feet thick and includes areas of bedrock outcropping where till is absent.

E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER:
Site A is situated on a level and somewhat elevated portion of the Crouch property. The proposed site location sits within, and is surrounded by, a moderate to heavy stand of mature trees The nearest surface water body is an unnamed south flowing brook located off the host parcel, approximately 1,700' to the east. The closest area of inland wetlands lies approximately 100' north of the proposed compound perimeter. A second section of inland wetlands, over which the existing unimproved travel way (that will be used to access the site) briefly traverses, is located approximately 200' south of the proposed tower site.

F. LAND USE WITHIN 1/4 MILE OF SITE: a combination of single family residences, open space, commercial properties and undeveloped land.

III. FACILITIES

A. POWER COMPANY: Connecticut Light and Power

B. POWER PROXIMITY TO SITE: Facilities available from CL&P pole line on Route 184.

C. TELEPHONE COMPANY: AT&T

D. PHONE SERVICE PROXIMITY: Same as power

E. VEHICLE ACCESS TO SITE: Vehicle access to the facility would extend from the north side of Route 184, onto the existing driveway that serves the Crouch property. From the northern terminus of the driveway, vehicles would travel along an existing, but currently unimproved, travel way for approximately 500' to the tower compound location. The unimproved section of the access roadway would be upgraded, widened to approximately 12' and top coated with a pervious layer of gravel to insure all season travel.

F. OBSTRUCTIONS: None

G. CLEARING AND FILL REQUIRED: The compound and improved section of the access drive will require minimal amounts of grading. Some tree clearing will be necessary to locate and construct the facility as well as to widen several sections of the currently unimproved roadway. Detailed grading, clearing and erosion/sedimentation control plans would be submitted to the Siting Council for review in a Development and Management Plan ("D&M Plan"), if approval to construct the facility is obtained.

IV. LEGAL

A. PURCHASE [ ] LEASE [X]

B. OWNER: Chester B. Crouch

C. ADDRESS: 1662 Gold Star Memorial Highway, Groton, Connecticut 06340

D. DEED ON FILE AT: Town of Groton, Vol. 279; Page123

Facilities and Equipment Specification

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: (TBD)

B. TYPE: Self-Supporting monopole with galvanized non-reflective exterior finish

C. HEIGHT: 150 feet
DIMENSIONS: Approx. 4 feet at base
Approx. 2 ½ feet at top

D. LIGHTING/MARKING: Not required, per FAA

II. TOWER LOADING:

A. Cingular Wireless: up to 12 panel Antennas
a. Model – Powerwave Model 7770 (or equivalent)
b. Antenna Dimensions – 55"H x 11"W x 5.3"D
c. Position on Tower – 120 foot antenna centerline
d. Transmission Lines – up to 12 internal to the monopole

B. Future Carriers – (TBD)

III. ENGINEERING ANALYSIS AND CERTIFICATION:

In accordance with American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures", the tower would be designed to withstand pressures equivalent to an 85 MPH or 74 MPH wind with a one-half inch solid ice accumulation. The foundation design would be based upon the specific soil conditions found at the site.

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2006-ANE-15-OE
Prior Study No.
2005-ANE-466-OE

Issued Date: 02/08/2006

Keith Coppins
Optasite, Inc
446 Main Street
Worcester, MA 01608

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure Type:	Antenna Tower
Location:	Groton, CT
Latitude:	41-23-12.52 NAD 83
Longitude:	72-0-48.63
Heights:	155 feet above ground level (AGL)
	435 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory Circular 70/7460-1 K.

This determination expires on 08/08/2007 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed , as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above.

Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (781)238-7522 On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2006-ANE-15-OE.

Signature Control No: 447662-437648 (DNE)

Suzanne Dempsey
Technician

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 Site A facility. No effect on the wetlands area located to the north of the proposed site will result from the development and/or operation of the proposed facility. 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.

The existing, but unimproved dirt travel way that would be used to access the facility crosses a short (20'-25') section of a small "seasonal" inland wetland area. As part of the upgrade to the existing travel way portion of the proposed access drive, Optasite will design, engineer and construct the wetland crossing section to improve/encourage water flow, mitigate sedimentation and eliminate any existing potential for soil erosion. In addition, Best Management Environmental Practices will be used while the travel way is being upgraded to control storm water runoff and to prevent erosion, siltation and sedimentation from occuring.

B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind.

C. LAND

Grading and clearing of the compound area and the northernmost portion of the access drive would be necessary in order to make use of the site. The remaining land of the lessor would remain totally unchanged by the construction and operation of the facility.

D. NOISE

The equipment to be in operation at the facility would emit some noise associated with operation of the installed ventilation system(s) with no impacts to adjoining property owners. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density from Cingular's wireless operations at the facility assuming that all antennas were pointed at the base of the tower and all channels were operating simultaneously, would be 10.76% of all applicable standards.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the facility is located exhibits no scenic, natural or recreational characteristics which are unique. The Connecticut State Historic Preservation Office (SHPO) and the Connecticut Department of Environmental Protection (DEP) were contacted for review of the site. SHPO requested that an archaeological survey be preformed at the site. Upon review of the archaeological survey, SHPO determined that the proposed facility will have no effect upon Connecticut's historic, architectural and archaeological heritage. Pursuant to the DEP's request, an ornithological survey was conducted at the site due to the potential presence of a species of special concern, the Whip-poor-will. The survey resulted in no sitings of any Whip-poor-wills or recorded vocalizations. The report recommended that construction should be scheduled around the breeding and nesting periods of the Whip-poor-will and plantings should be included around the equipment area. This report was forwarded to the DEP for review and the DEP indicated that the recommendations in the report for minimizing impacts to any potential Whip-poor-will were appropriate and Optasite will comply with these recommendations.

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

April 10, 2006

TO: Ron Clark
Mark Appleby

FROM: Steve Levine

RE: Cingular's Power Density Calculation for the Groton - North Tower Site

The cumulative worst-case power density for this site in accordance with FCC OET Bulletin No. 65 (1997) for a point of interest at ground level beside the tower follows:

This worst-case calculation assumes all channels working simultaneously at full power with the antennas facing directly downward.

Candidate Site A – 120 ft Centerline

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density† (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Cingular	120	880 - 894	6	296	0.0443	0.5867	7.56
Cingular	120	1930 - 1935 1965 - 1970	3	427	0.0320	1.0000	3.20
Total							**10.76%**

Candidate Site B – 130 ft Centerline

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density† (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Cingular	130	880 - 894	6	296	0.0378	0.5867	6.44
Cingular	130	1930 - 1935 1965 - 1970	3	427	0.0273	1.0000	2.73
Total							9.17%

† Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 (i.e., the square of 1.6) as described in FCC OET Bulletin No. 65.

Aerial photograph source: Town of Groton – GIS Services – September, 2004

AERIAL MAP	DATE: JULY, 2006	SCALE: NTS

URS
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Rocky Hill, CT 06067
Tel. 860-529-8882
Fax 860-529-5566

PROJECT #: OPT-001/36915381 7.12.06

Optasite

SITE A

1662 GOLD STAR MEMORIAL HIGHWAY
ROUTE 184
GROTON, CONNECTICUT

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Reserved for
Exhibit 6

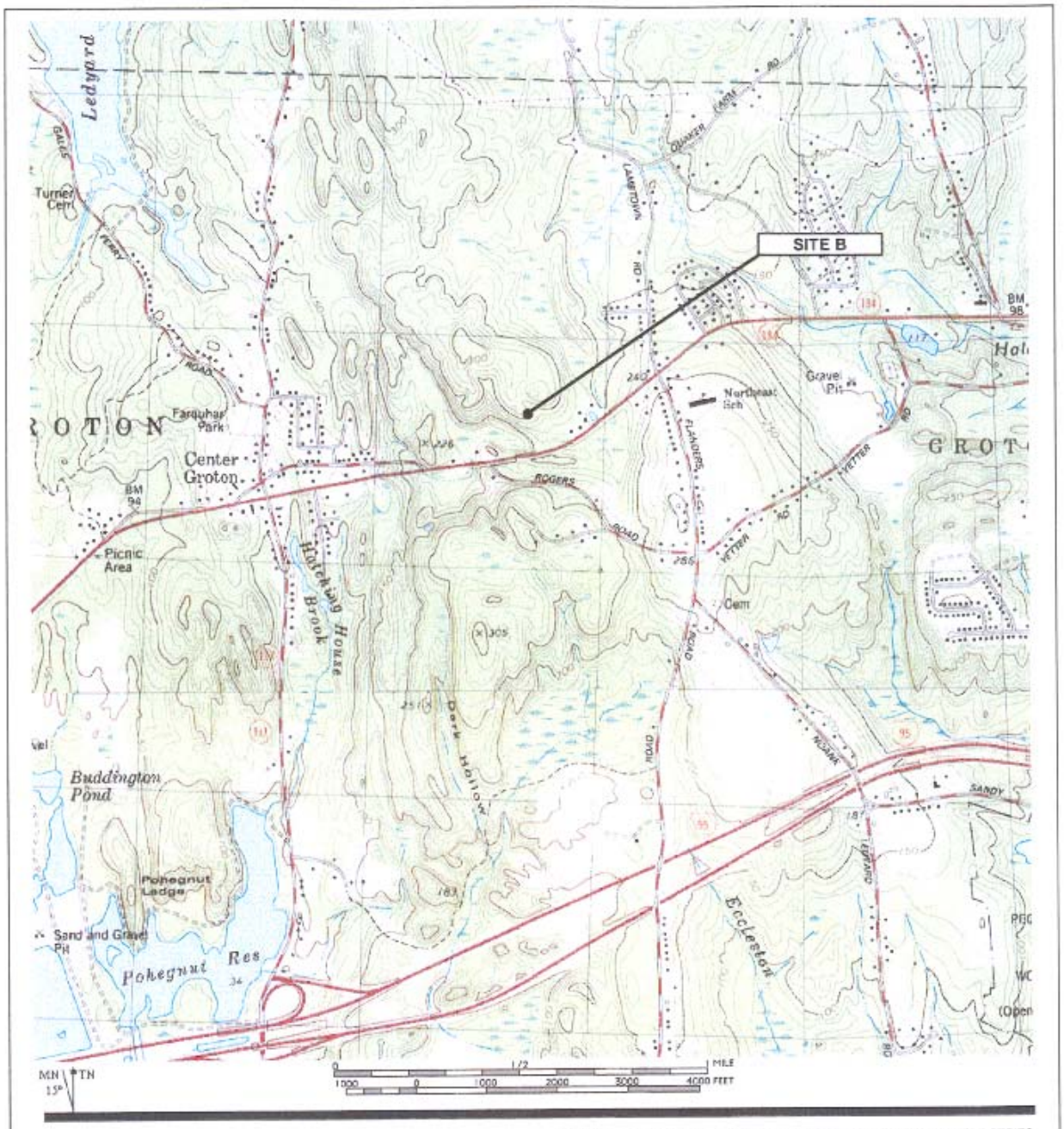
Proposed Site B

1662 Gold Star Memorial Highway, Groton, Connecticut

Land of Chester B. Crouch
Tax Map 270013; Block 12; Lot 123
32.24 Acre Parcel

General Facility Description

The proposed Site B facility would consist of a 100' by 100' leased area situated in the southern section of a 32.24 acre parcel of land located at 1662 Gold Star Memorial Highway (Route 184) in Groton. The property, which also hosts proposed Site A, is owned by Chester B. Crouch. A new self-supporting monopole tower 160 feet in height would be constructed at this location. Cingular would install up to 12 panel antennas at approximately the 130 foot level of the tower together with an associated equipment shelter mounted at the base of the tower located within a tower compound. The tower compound would consist of a 100' by 50' area to accommodate Cingular's equipment shelter and to provide space for future shared use of the facility by other carriers. The tower compound would be enclosed by an 8-foot high security fence. Vehicle access to the facility would extend from Route 184, northerly onto the Crouch property along the driveway that serves the property and then transition onto an existing, but currently unimproved, travel way than runs past the west side of the proposed site location. Utility services would extend underground from an existing CL&P pole on the north side of Route 184, to the proposed Site B compound.



TOPOGRAPHIC MAP DETAIL SOURCE: USGS 7.5-MINUTE QUADRANGLE SERIES
Uncasville - Q41072D1 – 1984, NA, 1984
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VICINITY MAP	DATE: JULY 2006	SCALE: AS NOTED

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500 Enterprise Drive, Ste 3B
Rocky Hill, CT 06067
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Fax 860-529-5566

PROJECT #: OPT-001/06815381 7.12.06

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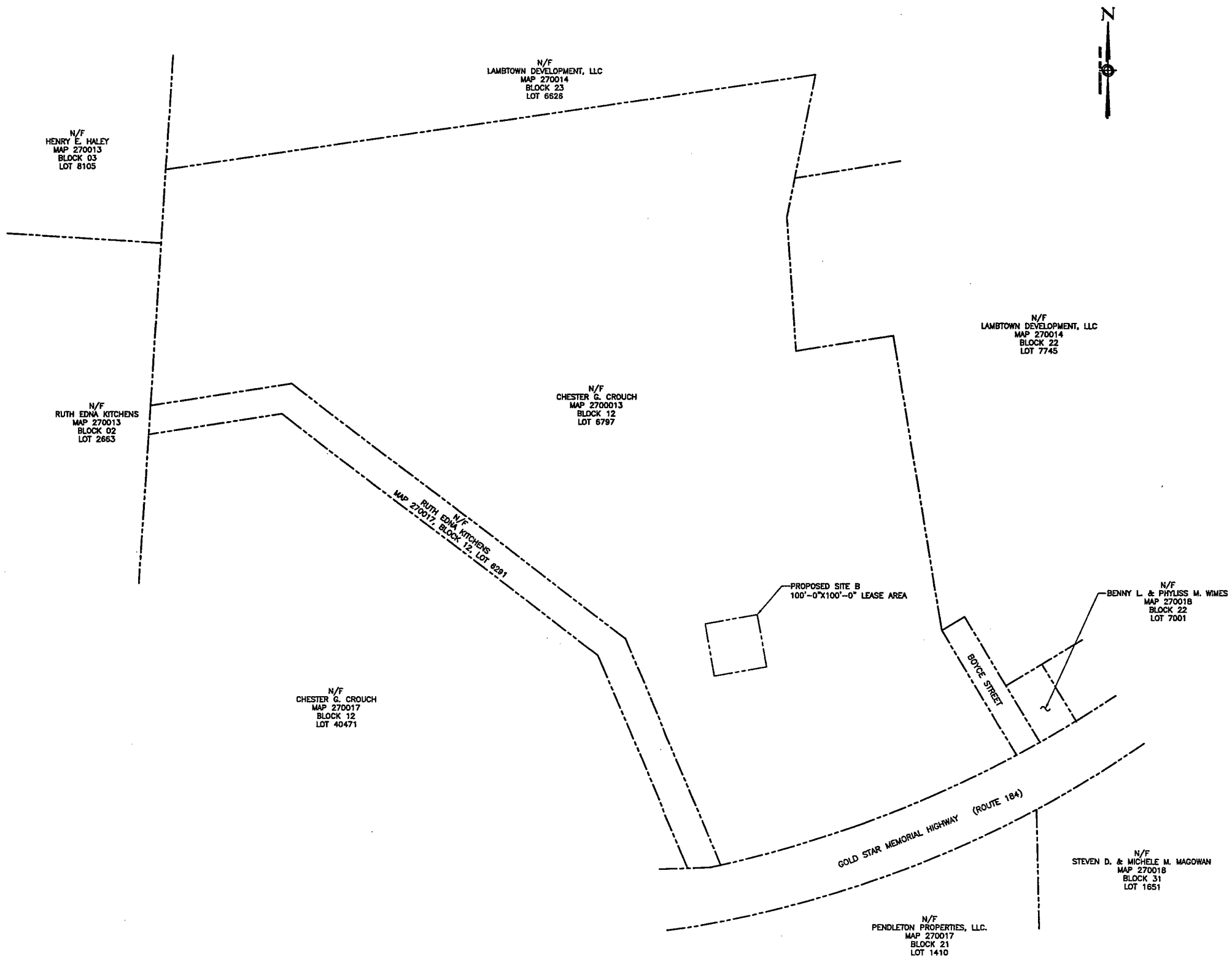
SITE B
1662 GOLD STAR MEMORIAL HIGHWAY
ROUTE 184
GROTON, CONNECTICUT



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A&E SEAL
STATE OF CONNECTICUT
DOUGLAS J. ROBERTS
LICENSED ARCHITECT

PROJECT NO: 36915381
JOB NO: OPT001
DRAWN BY: CRS
CHECKED BY:

ISSUED FOR

	07-11-05	REVIEW
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	04-16-06	SITING COUNCIL
	07-14-06	SITING COUNCIL
	07-18-06	SITING COUNCIL

1662 ROUTE 184
SITE B

1662 GOLD STAR MEMORIAL HIGHWAY ROUTE 184
GROTON, CONNECTICUT

SCALE: AS NOTED

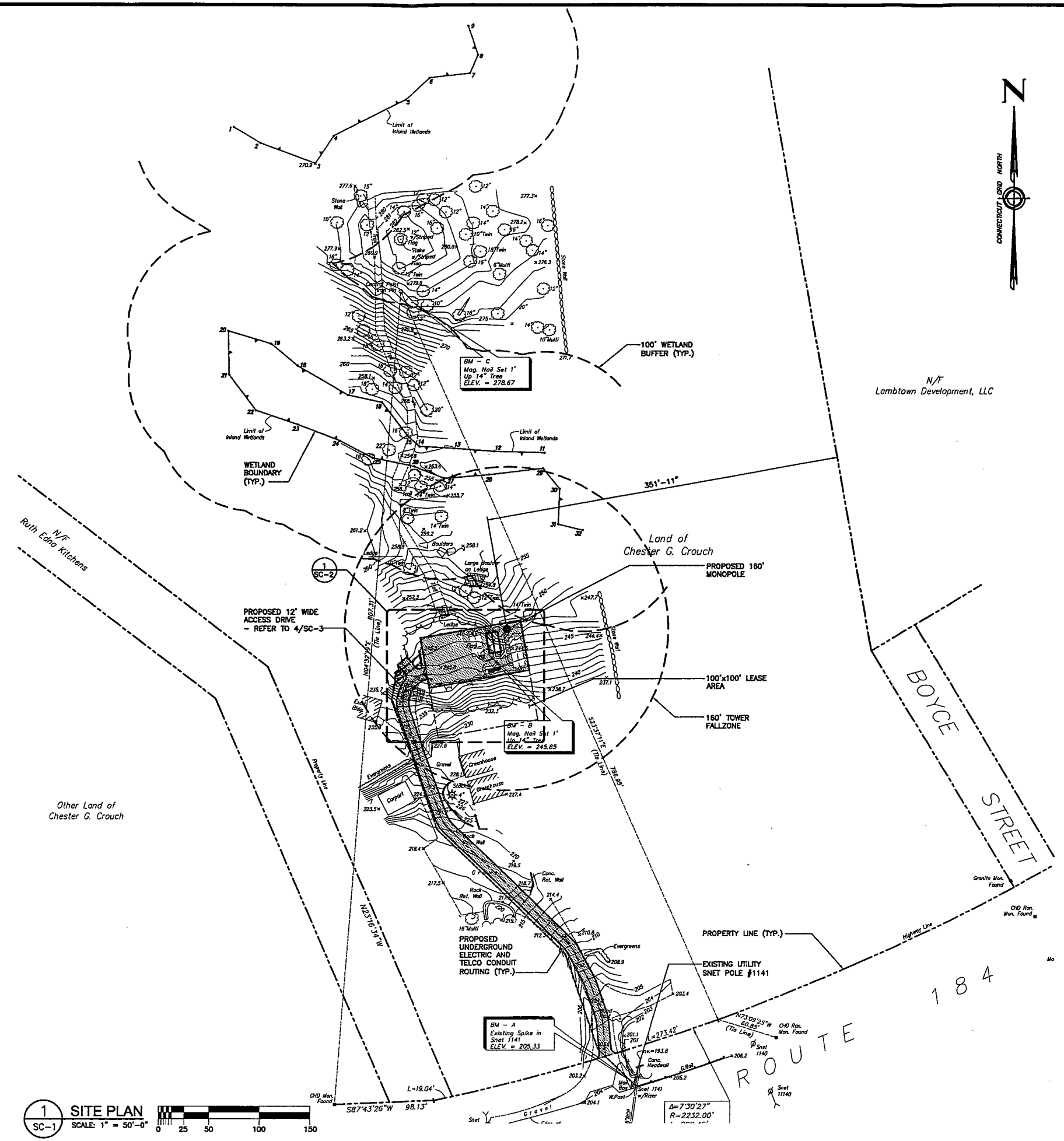
ABUTTERS MAP

SC-4

NOTES:

1. SPECIFIC EROSION AND SEDIMENTATION CONTROL INFORMATION WILL BE SUBMITTED TO THE SITING COUNCIL FOR REVIEW IN A DEVELOPMENT AND MANAGEMENT PLAN (D&M PLAN). ALL PROCEDURES INCLUDED IN THE D&M PLAN WILL CONFORM TO ALL APPLICABLE SECTIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S "BULLETIN 34, CONNECTICUT GUIDELINES FOR SOIL AND SEDIMENT CONTROL, DATED 2002".

2. NO SIGNS (OTHER THAN APPROPRIATE WARNING/SAFTEY/SECURITY SIGNS) OR ADVERTISING WILL BE PLACED ON ANY PORTION OF THE FACILITY.



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A&E SEAL

STATE OF CONNECTICUT
DOUGLAS J. ROBERTS
REGISTERED PROFESSIONAL ENGINEER

PROJECT NO:	36915381
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07-18-06	SITING COUNCIL

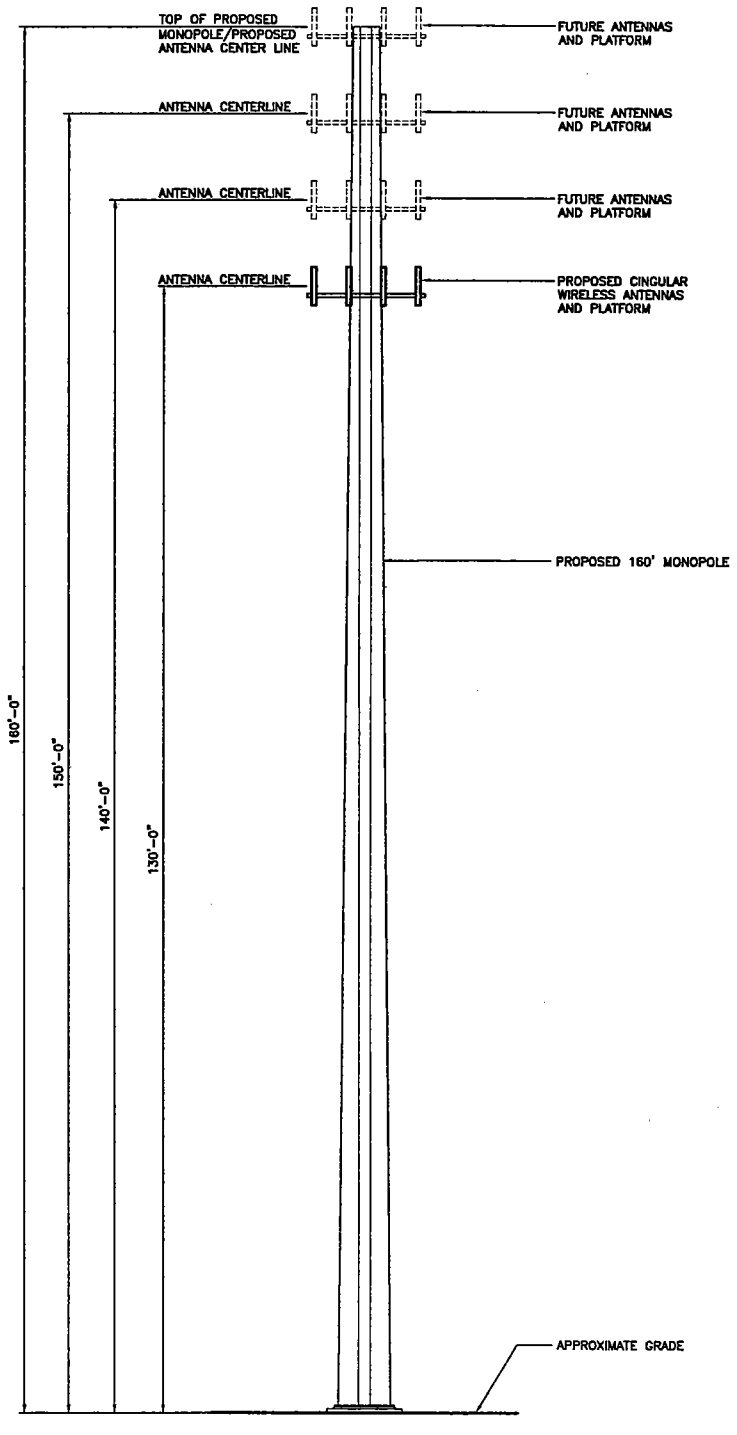
1662 ROUTE 184
SITE B

1662 GOLD STAR MEMORIAL HIGHWAY ROUTE 184
GROTON, CONNECTICUT

SCALE: AS NOTED

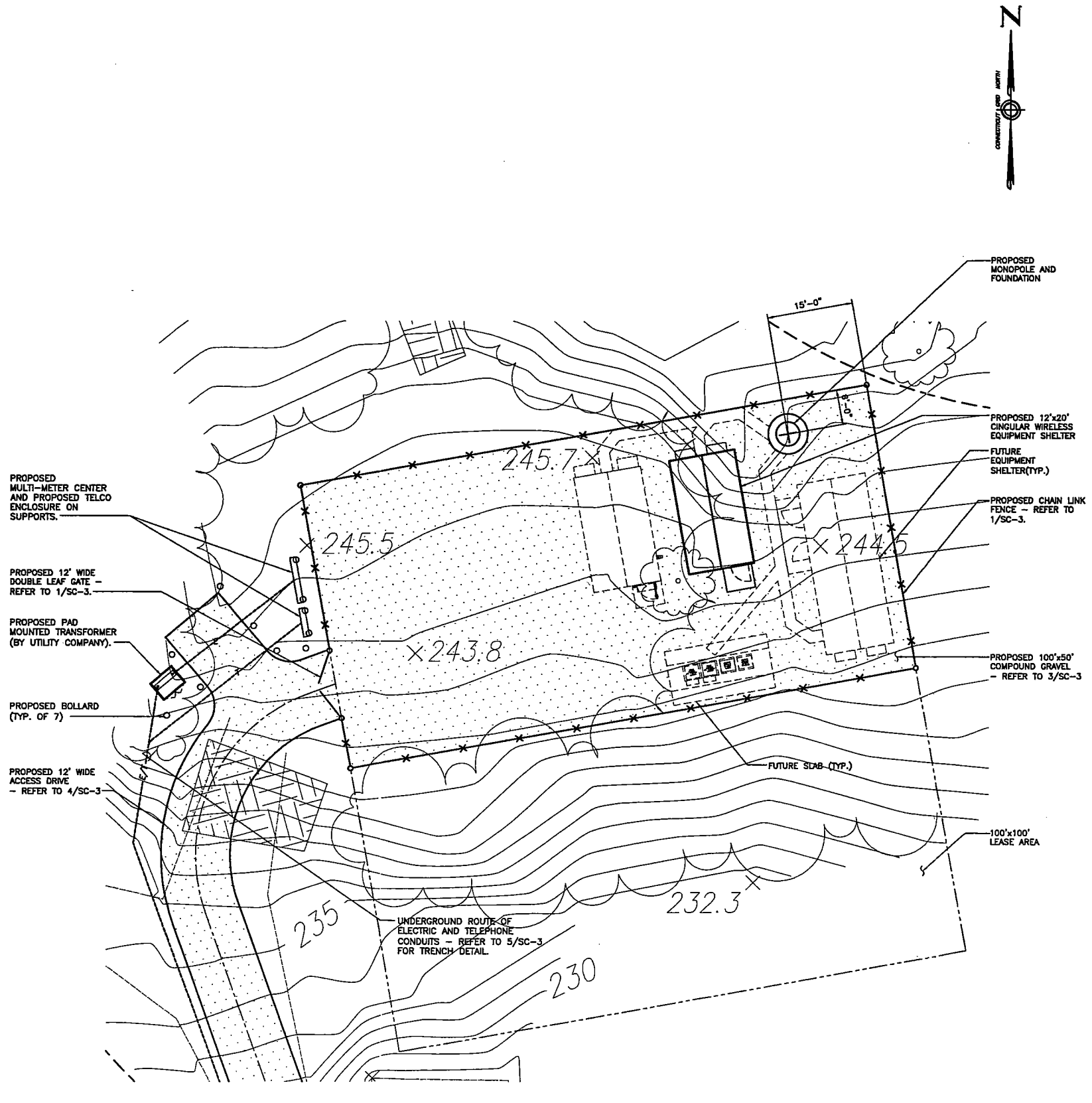
SITE PLAN AND SILT FENCE NOTES

SC-1



2 SC-2 MONOPOLE ELEVATION
SCALE: 1" = 10'-0"

0 2.5 5 10 20 30



1 SC-2 COMPOUND PLAN
SCALE: 1" = 10'-0"

0 2.5 5 10 20 30

Optasite
446 MAIN STREET, 2ND FLOOR
WORCESTER, MA 06108
(508) 779-2460

A&E FIRM
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
1-(860)-529-8882

STATE OF CONNECTICUT
DOUGLAS ROBERTS
REGISTERED ARCHITECT

PROJECT NO:	36915381
JOB NO:	OPT001
DRAWN BY:	RRH
CHECKED BY:	

ISSUED FOR

07-11-05	REVIEW
04-12-06	SITING COUNCIL
04-16-06	SITING COUNCIL
07-14-06	SITING COUNCIL
07-18-06	SITING COUNCIL

1662 ROUTE 184
SITE B

1662 GOLD STAR MEMORIAL HIGHWAY ROUTE 184
GROTON, CONNECTICUT

SCALE: AS NOTED

COMPOUND PLAN AND MONOPOLE ELEVATION

SC-2

Site Evaluation Report

I. LOCATION

A. COORDINATES: 41° 23' 08.50" N
72° 00' 47.99" W

B. GROUND ELEVATION: 243 feet AMSL

C. USGS MAP: Uncasville, CT

D. SITE ADDRESS: 1662 Gold Star Memorial Highway, Groton, CT 06340

E. ZONING WITHIN 1/4 MILE OF SITE: RU-40 and CB.

II. DESCRIPTION

A. SITE SIZE: 100' x 100'

B. LESSOR'S PARCEL: 32.24 acres

C. TOWER TYPE/HEIGHT: Monopole/160 feet AGL

D. SITE TOPOGRAPHY AND SURFACE: Proposed Site B is located north of Route 184 on a level plateau, on a cleared section of land, in the southern section of the host parcel. Surface geology in the area is classified as thin till, which is categorized as areas of land where till is generally less than 10-15 feet thick and includes areas of bedrock outcropping where till is absent.

E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER:
The leased site is located in a cleared section of the property that is surrounded by trees to the north, east and west. The nearest surface water body is an unnamed south flowing brook, which is located east of the host property, approximately 1,700' away.

F. LAND USE WITHIN 1/4 MILE OF SITE: a combination of commercial/retail properties and single family residences.

III. FACILITIES

A. POWER COMPANY: Connecticut Light and Power

B. POWER PROXIMITY TO SITE: Facilities available from CL&P pole line running along Route 184

C. TELEPHONE COMPANY: AT&T

D. PHONE SERVICE PROXIMITY: Same as power

E. VEHICLE ACCESS TO SITE: Vehicles would access the site by turning north off Route 184 onto the driveway that serves the host property and then follow the driveway north for approximately 300' and transition onto an existing, but unimproved, access drive that runs to and past the western side of the proposed compound location.

F. OBSTRUCTIONS: None

G. CLEARING AND FILL REQUIRED: The compound and section of the improved gravel access drive will require a minimal amount of grading. A small amount of clearing will be necessary on the eastern edge of the compound area to facilitate construction and facility operation. Detailed plans would be included in a Development and Management Plan ("D&M Plan") if approval to develop the facility is obtained from the Connecticut Siting Council.

IV. LEGAL

A. PURCHASE [ ] LEASE [X]

B. OWNER: Chester B. Crouch

C. ADDRESS: 1662 Gold Star Memorial Highway, Groton, Connecticut 06340

D. DEED ON FILE AT: Town of Groton, Vol. 379; Page 123

Facilities and Equipment Specification

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: (TBD)

B. TYPE: Self-Supporting monopole with galvanized non-reflective exterior finish

C. HEIGHT: 160 feet
DIMENSIONS: Approx. 4 ½ feet at base
Approx. 2 ½ feet at top

D. LIGHTING/MARKING: Not required, per FAA

II. TOWER LOADING:

A. Cingular Wireless: up to 12 panel Antennas
   a. Model – Powerwave Model 7770 (or equivalent)
   b. Antenna Dimensions – 55"H x 11'W x 5.3"D
   c. Position on Tower – 130 foot antenna centerline
   d. Transmission Lines – up to 12 internal to the monopole

B. Future Carriers – TBD

III. ENGINEERING ANALYSIS AND CERTIFICATION:

In accordance with American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures", the tower would be designed to withstand pressures equivalent to an 85 MPH wind or 74 MPH with a one-half inch solid ice accumulation. The foundation design would be based on the specific soil conditions found at the site.

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2006-ANE-14-OE
Prior Study No.
2005-ANE-465-OE

Issued Date: 02/08/2006

Keith Coppins
Optasite, Inc
446 Main Street
Worcester, MA 01608

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure Type:	Antenna Tower
Location:	GROTON, CT
Latitude:	41-23-8.5 NAD 83
Longitude:	72-0-47.99
Heights:	195 feet above ground level (AGL)
	438 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory Circular 70/7460-1 K.

This determination expires on 08/08/2007 unless:

(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed , as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above.

Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority

If we can be of further assistance, please contact our office at (781)238-7522. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2006-ANE-14-OE.

Signature Control No: 447658-437643 (DNE)

Suzanne Dempsey
Technician

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 Site B facility. No effect on wetlands area located to the north of the proposed site will result from development and operation of the proposed facility. 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 equipment that would be used at the proposed facility would emit no air pollutants of any kind.

C. LAND

A small amount of grading will be necessary to develop the compound area and upgrade the travel way portion of the access drive. A small amount tree clearing will be required on the eastern side of the compound area. The remaining land of the lessor would remain totally unchanged by the construction and operation of the facility.

D. NOISE

The equipment to be in operation at Site B would emit some noise associated with operation of the installed ventilation system(s), but with no impacts to adjoining property owners. Some construction related noise would be anticipated during facility construction, which is expected to take from four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density from Cingular's wireless operations at the facility assuming that all antennas were pointed at the base of the tower and all channels were operating simultaneously, would be 9.17% of all applicable standards.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the facility is located exhibits no scenic, natural or recreational characteristics which are unique. The Connecticut State Historic Preservation Office (SHPO) and the Connecticut Department of Environmental

Protection (DEP) were contacted for review of the site. SHPO requested that an archaeological survey be preformed at the site. Upon review of the archaeological survey, SHPO determined that the proposed facility will have no effect upon Connecticut's historic, architectural and archaeological heritage. Pursuant to the DEP's request, an ornithological survey was conducted at the site due to the potential presence of a species of special concern, the Whip-poor-will. The survey resulted in no sitings of any Whip-poor-wills or recorded vocalizations. The report recommended that construction should be scheduled around the breeding and nesting periods of the Whip-poor-will and plantings should be included around the equipment area. This report was forwarded to the DEP for review and the DEP indicated that the recommendations in the report for minimizing impacts to any potential Whip-poor-will were appropriate and Optasite will comply with these recommendations.

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

April 10, 2006

TO: Ron Clark
Mark Appleby

FROM: Steve Levine

RE: Cingular's Power Density Calculation for the Groton - North Tower Site

The cumulative worst-case power density for this site in accordance with FCC OET Bulletin No. 65 (1997) for a point of interest at ground level beside the tower follows:

This worst-case calculation assumes all channels working simultaneously at full power with the antennas facing directly downward.

Candidate Site A – 120 ft Centerline

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density† (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Cingular	120	880 - 894	6	296	0.0443	0.5867	7.56
Cingular	120	1930 - 1935 1965 - 1970	3	427	0.0320	1.0000	3.20
Total							10.76%

Candidate Site B – 130 ft Centerline

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density† (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Cingular	130	880 - 894	6	296	0.0378	0.5867	6.44
Cingular	130	1930 - 1935 1965 - 1970	3	427	0.0273	1.0000	2.73
Total							9.17%

† Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 (i.e., the square of 1.6) as described in FCC OET Bulletin No. 65.

Aerial photograph source: Town of Groton – GIS Services – September, 2004

AERIAL MAP	DATE: JULY, 2006	SCALE: NTS

URS
URS Corporation AES
500 Enterprise Drive, Ste 3B
Rocky Hill, CT 06067
Tel. 860-529-8882
Fax 860-529-5566

PROJECT #: OPT-001/36915381 7.12.06

Optasite

SITE B

1662 GOLD STAR MEMORIAL HIGHWAY
ROUTE 184
GROTON, CONNECTICUT

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Reserved for
Exhibit 7

Proposed Wireless Telecommunications Facility

Two Candidate Site Locations
Route 184
Groton, Connecticut

Prepared for **Optasite, Inc.**
1 Research Drive
Westborough, MA 01581

Prepared by **VHB/Vanasse Hangen Brustlin, Inc.**
54 Tuttle Place
Middletown, CT 06457

May 2006

Visual Resource Evaluation

Optasite, Inc. seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need to construct a telecommunications Facility to be located within the Town of Groton, Connecticut. As part of the approval process, Optasite, Inc. has selected two potential candidate sites located on property off Route 184. These site locations are referred to herein as Candidate A and Candidate B. This "Visual Resource Evaluation" was conducted to approximate the visibility of the proposed Facilities within a two-mile radius of the Sites (Study Area) and present the results of the analysis in a comparative format.

Project Introduction

Development of the proposed Facilities would include installing either a 150-foot tall monopole tower (Candidate A) or a 160-foot tall monopole tower (Candidate B) featuring slim profile antenna arrays. Associated ground equipment would be located within fenced enclosures at the base of the monopoles. Candidate A is located at approximately 282 feet Above Mean Sea Level (AMSL) and Candidate B is located at approximately 242 feet AMSL. Access to the proposed Facilities would follow an existing woods road.

Site Description and Setting

Both Candidate A and Candidate B are located on property off Route 184 in the Town of Groton, Connecticut (host property). The Candidate site locations are situated approximately 390 feet apart. See Photolog Documentation map contained in Attachment A. The host property consists of approximately 32.6-acres of land and is currently occupied by a single-family residential dwelling and several large greenhouses located adjacent to the residence. Other portions of the host property are undeveloped and heavily wooded. Candidate A is located approximately 600 feet north of the existing residential dwelling on a wooded portion of the host property. Candidate B is located on a partially cleared portion of the property near several of the existing greenhouses. Photographs of both site locations and their surrounding areas are included in Attachment A of this report. Land use within the general vicinity of the proposed Facility is comprised of undeveloped forested land and residential parcels with roadside commercial uses located along Route 184 further west of the host property.

The topography within the Study Area is generally characterized by gently rolling hills that range in elevation from approximately 34 feet AMSL to approximately 305 feet AMSL. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species. The tree canopy occupies approximately 7,181 acres of the 8,042-acre study area (89%). During the in-field activities associated with this analysis, an infrared laser range finder was used to accurately determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy established, in this case 60

feet. The Study Area features approximately 272 acres of open water, dominated by reservoirs. Segments of Route 117, Route 184 and the Interstate 95 transportation corridor traverse portions of the Study Area. In total, the Study contains roughly 54 linear miles of paved roadways.

METHODOLOGY

To estimate the visibility associated with the proposed Facility, VHB incorporates a two-fold approach utilizing both a predictive computer model and in-field analysis. The predictive model is 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 are also conducted to obtain locational and height representations, back check the initial computer model results and provide documentation from publicly accessible areas. Results of both activities 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 ArcView® Spatial Analyst, a computer modeling tool, the areas from where the proposed 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, existing vegetation and any significant structures/objects that may act to obstruct potential views. Data incorporated in the model includes 7.5 minute digital elevation models (DEMs) and a digital forest layer for the project area. The DEMs were produced by the United States Geological Survey (USGS) in 1982 at a 30 meter resolution. The forest layer was derived through on-screen digitizing in ArcView® GIS from 2004 digital orthophotos with a 0.5 foot pixel resolution.

Once the data 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 provides a reference for comparison once the tree canopy is established and also 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 is determined in the field using a hand-held infra-red laser range finder. The average tree canopy height is incorporated into the final viewshed map; in this case, 60 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 60 feet added and the visibility calculated. The

forested areas are then 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. Lastly, this analysis was conducted in 30-foot and 32-foot increments for Candidate A and Candidate B, respectively, and the results consolidated into a single thematic layer in order to determine the approximate amount of the tower structure that would be visible from any given location.

Also included on the map is a data layer, obtained from the Connecticut State Department of Environmental Protection (CTDEP), which depicts various land and water resources such as state parks and forests, recreational facilities, dedicated open space and CTDEP boat launches among other categories. This layer is useful in identifying potential visual impacts to any sensitive receptors that may be located within the Study Area.

A preliminary viewshed map (using topography and a conservative tree canopy height of 50 feet) is generated for use during the in-field activity in order to confirm that no significant land use changes have occurred since the 2004 aerial photographs used in this analysis were produced and to verify the results of the model in comparison to the balloon float. Information obtained during the reconnaissance is then incorporated into the final visibility map.

Balloon Float and Study Area Reconnaissance

On April 14, 2006 Vanasse Hangen Brustlin Inc., (VHB) conducted a "balloon float" at the proposed Facilities in order to evaluate their potential viewsheds within the Study Area. The balloon floats consisted of raising and maintaining two helium-filled weather balloons at the proposed site locations at heights of 155 feet Above Ground Level (AGL) for Candidate A and 195 feet (AGL) for Candidate B, the initial heights proposed for these facilities. These heights were appropriately scaled down to reflect the currently proposed heights of 150 feet for Candidate A and 160 feet for Candidate B. The balloons measure roughly four feet in diameter. Red and black balloons were used at Candidates A and B, respectively, to distinguish between the two proposed sites. Once the balloons were secured at the proposed site locations, VHB personnel drove the public road system in the Study Area to inventory those areas where the balloons were visible and obtain photographs from representative locations. Several non-visible locations were also photographically documented. During the balloon float, weather conditions were sunny. The temperature was approximately 65 degrees Fahrenheit with mostly calm winds.

Photographic Documentation

During the balloon float, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area with an emphasis on nearby residential areas and other

potential sensitive receptors in order to evaluate and refine the results of the preliminary viewshed map and to verify where the balloons were, and were not, visible above and/or through the tree canopy. The balloons were photographed from a number of different vantage points to document the actual view towards the proposed Facility. The locations and orientations of the photos are described below:

1. View from Route 184 west of Route 117, looking northeast.
2. View from Gales Ferry Road north of Farquahar Park, looking east.
3. View from Lambtown Road north of Lambtown Extension, looking south.
4. View from Route 117 west of host property, looking northeast.
5. View from Rogers Road, looking northwest.
6. View from Route 117 at Orchard Drive, looking northeast.
7. View from Rogers Road at Maple Ridge Kennels, looking north.
8. View from Gales Ferry Road west of Route 117, looking east.
9. View from Route 117 at Ledyard Reservoir, looking southeast.
10. View from Lambtown Road at Quaker Farm Road, looking southwest.
11. View from Vetter Road at Flanders Road and Rodgers Road, looking northwest.

Photographs of the balloon from the view points listed above were taken with a Nikon Digital Camera COOLPIX 5700, which has a lens focal length equivalent to a 35 mm camera with a 38 to 115 mm zoom. "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.[1]" The optical zoom lens for the Nikon COOLPIX was set at a range of 50 mm 70 mm for the purposes of this Visual Resource Evaluation.

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 the seven locations identified above where one or both balloons were visible. The photographic simulations represent a scaled depiction of the proposed monopoles from these locations. As noted previously in this report, the balloons were flown at 155 feet and 195 feet for Candidate A and Candidate B, respectively which represented the heights originally discussed for these Facilities. In order to develop photographic simulations that depict the currently proposed heights, VHB scaled down the location of the balloons in the photographs. Proportional monopole images are simulated into the photographs. The simulations are contained in Attachment B.

[1] Warren, Bruce. *Photography*, West Publishing Company, Eagan, MN, c. 1993, (page 70).

CONCLUSIONS

Attachment B includes three maps: a comparative viewshed map depicting areas of visibility associated with each of the Candidate locations; a viewshed map depicting the approximate percentage of a monopole's visibility at Candidate A; and a viewshed map depicting the approximate percentage of a monopole's visibility at Candidate B.

Based on this visibility analysis, areas from where the proposed monopoles would be visible above the tree canopy comprise approximately 60 and 56 acres for Candidate A and Candidate B, respectively. This includes 18 acres of year round visibility from locations within a 500-foot radius of the proposed Facilities. Areas from where both Candidate A and Candidate B are expected to be visible include portions of Route 184, Route 117, Lambtown Road, Gales Ferry Road and Rogers Road as well as several additional areas located on private property throughout the Study Area. Candidate B is expected to be visible in several additional locations along Route 184 west of the host property and along Rogers Road south of the host property. VHB estimates that approximately 8 residences within the Study Area would have year round views of either proposed Facility. These include three properties along Route 184 (including the host property); one residence along Route 117 near Route 184; and two properties each along Rogers Road and Gales Ferry Road. VHB anticipates that views of Candidate B would be achieved from two additional residential properties along Orchard Drive south of Route 184. The topography and abundance of mature woodlands contained within the Study Area serve to minimize views of the proposed monopoles. The viewshed map also depicts several additional areas where seasonal (i.e. during "leaf off" conditions) views through the trees of both Candidate locations are anticipated. These areas comprise approximately 17 additional acres and are mostly limited to portions of Route 184 and within the immediate vicinity of host property.

Attachment A

Photolog Documentation Map, Photos of the Proposed Project Area, Balloon Float Photographs and Photographic Simulations

Photolog Documentation

Town of
Groton
Connecticut

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING NORTH FROM PROPOSED CANDIDATE B SITE AREA

Optasite
Vanasse Hangen Brustlin, Inc.

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING SOUTH FROM PROPOSED CANDIDATE B SITE AREA

Optasite
Vanasse Hangen Brustlin, Inc.

c:\mdata\proj\40999.04\graphics\figures\Site_Host photos.indd

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING EAST FROM PROPOSED CANDIDATE B SITE AREA

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING WEST FROM PROPOSED CANDIDATE B SITE AREA

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING NORTH FROM CANDIDATE A SITE AREA

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING SOUTH FROM PROPOSED CANDIDATE A SITE AREA

Optasite
Vanasse Hangen Brustlin, Inc.

cmickal\proj\40899.04\graphics\figures\Site_Host photos.indd

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING EAST FROM PROPOSED CANDIDATE A SITE AREA

Optasite
Vanasse Hangen Brustlin, Inc.

Photographic Documentation - Proposed Site Area and Host Property

Town of
Groton
Connecticut

PHOTO TAKEN LOOKING WEST FROM PROPOSED CANDIDATE A SITE AREA

Optasite
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 1a*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

PHOTO TAKEN FROM ROUTE 184 WEST OF ROUTE 117, LOOKING NORTHEAST - CANDIDATES A AND B ARE VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.89 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.89 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 1b*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

PHOTO TAKEN FROM ROUTE 184 WEST OF ROUTE 117, LOOKING NORTHEAST - CANDIDATES A AND B ARE VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.89 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.89 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 2a*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

PHOTO TAKEN FROM GALES FERRY ROAD NORTH OF FARQUAHAR PARK, LOOKING EAST - CANDIDATE A IS VISIBLE; CANDIDATE B IS VISIBLE (SEE FOLLOWING PHOTO)

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.79 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.81 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 2b*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4
carriers

PHOTO TAKEN FROM GALES FERRY ROAD NORTH OF FARQUAHAR PARK, LOOKING EAST - CANDIDATE B IS VISIBLE; CANDIDATE A IS VISIBLE (SEE PREVIOUS PHOTO)
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.79 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.81 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 3a*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

PHOTO TAKEN FROM LAMBTOWN ROAD NORTH OF LAMBTOWN EXTENSION, LOOKING SOUTH - CANDIDATES A AND B ARE VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 1.41 MILES +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 1.48 MILES +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 3b*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

PHOTO TAKEN FROM LAMBTOWN ROAD NORTH OF LAMBTOWN EXTENSION, LOOKING SOUTH - CANDIDATES A AND B ARE VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 1.41 MILES +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 1.48 MILES +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 4a*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4
carriers

PHOTO TAKEN FROM ROUTE 117 WEST OF HOST PROPERTY, LOOKING NORTHEAST - CANDIDATES A AND B ARE VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 1.41 MILES +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 1.48 MILES +/-

Optasite
Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 4b*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4
carriers

PHOTO TAKEN FROM ROUTE 117 WEST OF HOST PROPERTY, LOOKING NORTHEAST - CANDIDATES A AND B ARE VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 1.41 MILES +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 1.48 MILES +/-

Optasite
VHB Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 5a*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

PHOTO TAKEN FROM ROGERS ROAD, LOOKING NORTHWEST - CANDIDATE A IS VISIBLE; CANDIDATE B IS NOT VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.46 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.40 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 6b*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

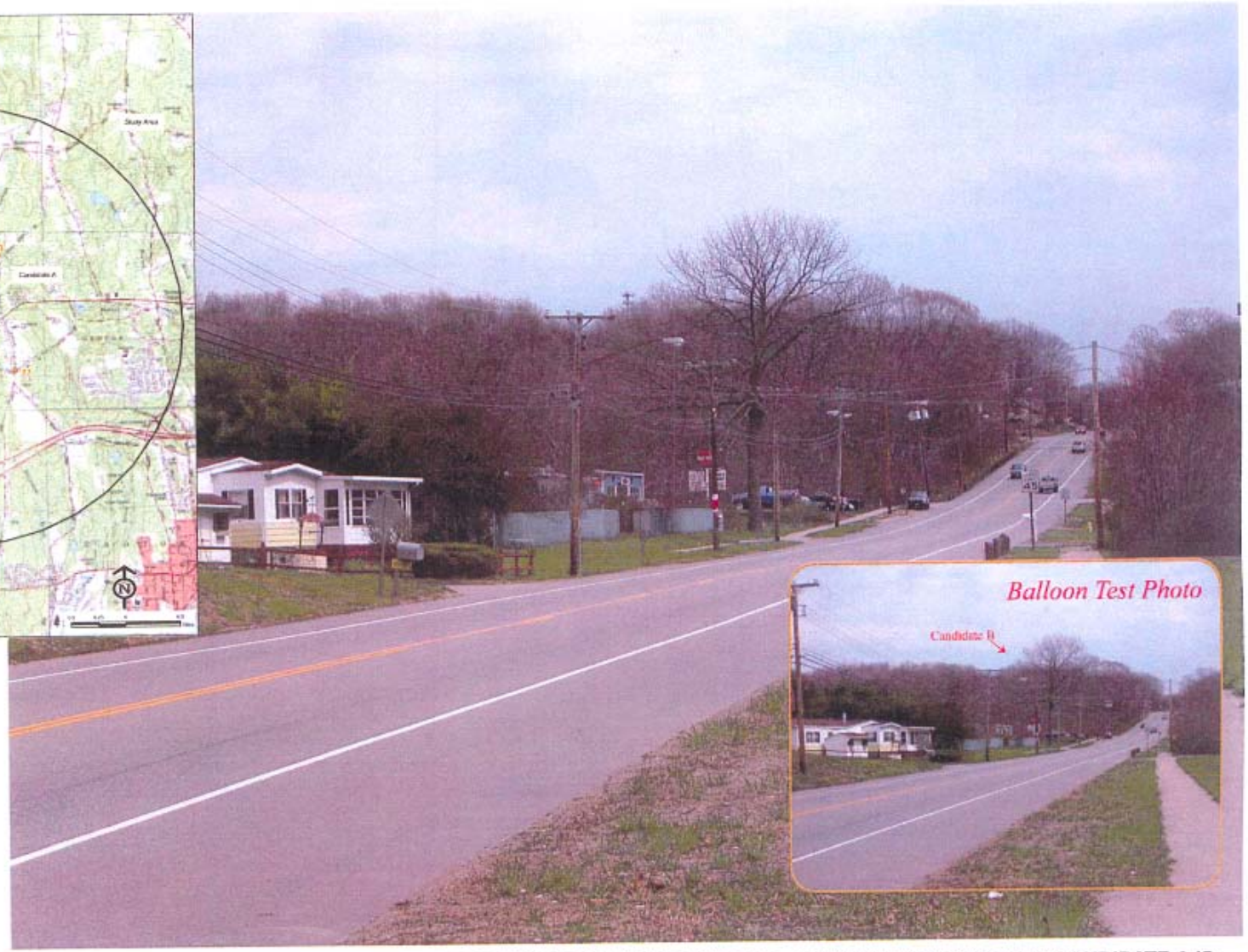


PHOTO TAKEN FROM ROUTE 117 AT ORCHARD DRIVE, LOOKING NORTHEAST - CANDIDATE B IS VISIBLE; CANDIDATE A IS NOT VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.62 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.58 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 7b*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

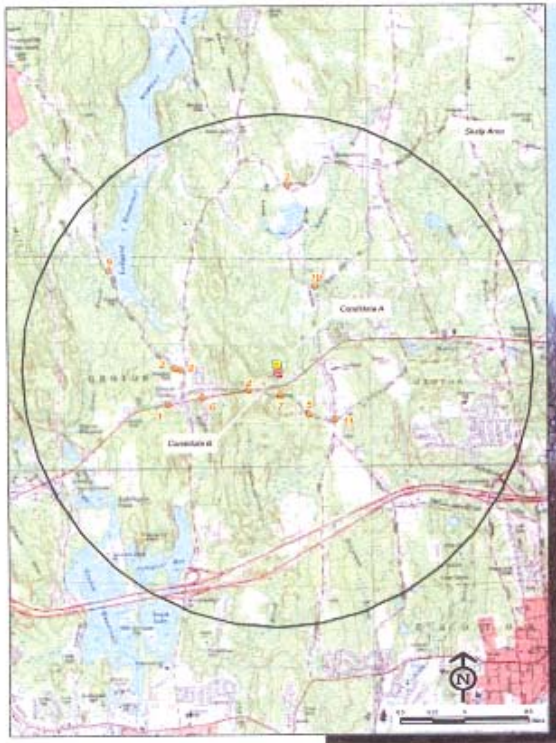
Monopole with 4
carriers

PHOTO TAKEN FROM ROGERS ROAD AT MAPLE RIDGE KENNELS, LOOKING NORTH - CANDIDATE B IS VISIBLE; CANDIDATE A IS NOT VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.24 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.16 MILE +/-

Optasite
Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 8*

Town of
Groton
Connecticut



Route 184
Groton, Connecticut

Monopole with 4
carriers

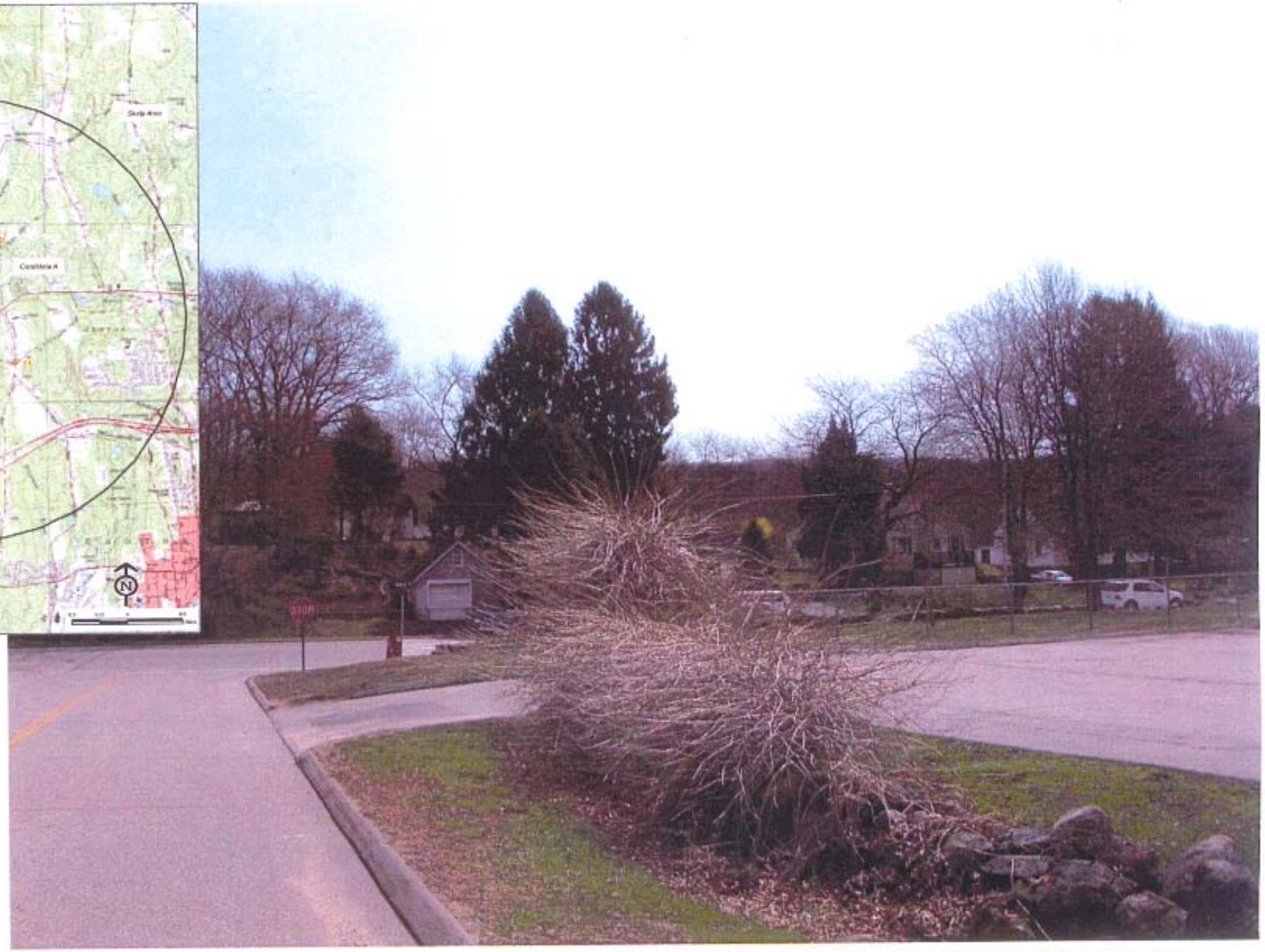


PHOTO TAKEN FROM GALES FERRY ROAD WEST OF ROUTE 117, LOOKING EAST - BALLOONS ARE NOT VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.76 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.82 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 9*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4
carriers

PHOTO TAKEN FROM ROUTE 117 AT LEDYARD RESERVOIR, LOOKING SOUTHEAST - BALLOONS ARE NOT VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 1.50 MILES +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 1.54 MILES +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 10*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4 carriers

PHOTO TAKEN FROM LAMBTOWN ROAD AT QUAKER FARM ROAD, LOOKING SOUTHWEST - BALLOONS ARE NOT VISIBLE
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.68 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.74 MILE +/-

Optasite

Vanasse Hangen Brustlin, Inc.

Photographic Documentation and Simulation *View 11*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4
carriers

Optasite

VHB Vanasse Hangen Brustlin, Inc.

PHOTO TAKEN FROM VETTER ROAD AT FLANDERS ROAD AND ROGERS ROAD, LOOKING NORTHWEST - BALLOONS ARE NOT VISIBLE

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.62 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.62 MILE +/-

Photographic Documentation and Simulation *View 11*

Town of
Groton
Connecticut

Route 184
Groton, Connecticut

Monopole with 4
carriers

Optasite

VHB Vanasse Hangen Brustlin, Inc.

PHOTO TAKEN FROM VETTER ROAD AT FLANDERS ROAD AND ROGERS ROAD, LOOKING NORTHWEST - BALLOONS ARE NOT VISIBLE

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE A SITE IS 0.62 MILE +/-
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED CANDIDATE B SITE IS 0.62 MILE +/-

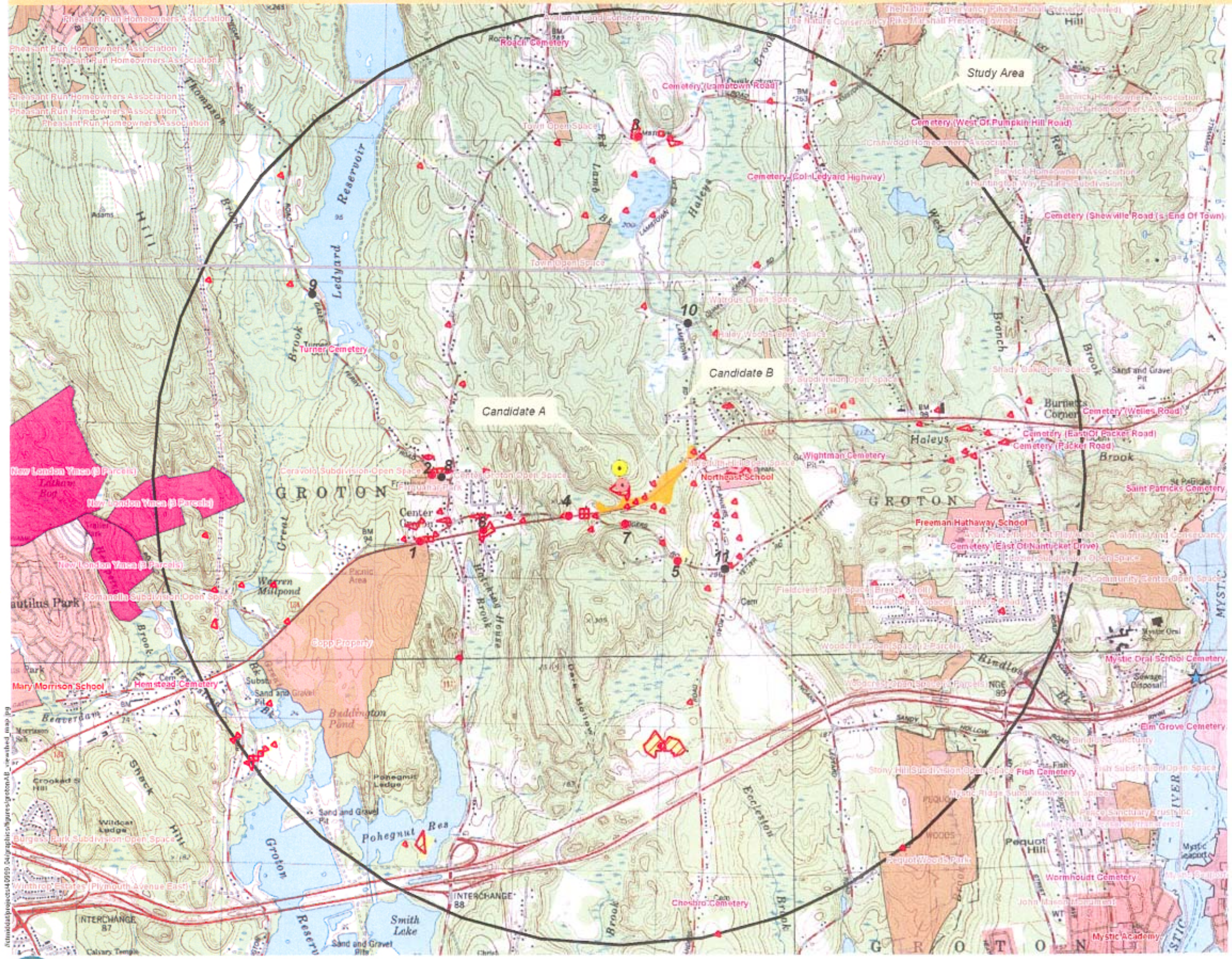
Attachment B

Viewshed Map

Comparative Viewshed Map

Candidate A and Candidate B

Town of Groton Connecticut



Proposed Telecommunications Facilities
Candidate A and Candidate B
Route 184
Groton, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility heights are 150 feet (Candidate A) and 160 feet (Candidate B).
- Existing tree canopy height estimated at 60 feet.

DATA SOURCES:
- 7.5 minute digital elevation model (DEM) with 30 meter resolution produced by the USGS, 1982
- Forest areas derived from 2004 digital orthophotos with 0.5-foot pixel resolution; digitized by VHB, 2006
- Base map comprised of Mystic, New London, Old Mystic and Uncasville USGS Quadrangle Maps
- Coordinates of proposed Facility:
  Candidate A - Lat. 41 23 12.52 Long. 72 00 48.63
  Candidate B - Lat. 41 23 08.50 Long. 72 00 47.99
- Protected properties data layer provided CTDEP, 2003

Map Compiled April 2006

Legend

- Two Proposed Tower Locations (Includes area of visibility approximately 500 feet around facility)

Photographs - April 14, 2006
- Balloon visible above trees
- Balloon not visible

- Seasonal Visibility - Candidate A and Candidate B (Approximately 17 acres)
- Year-round Visibility - Candidate A (Approximately 60 acres)
- Year-round Visibility - Candidate B (Approximately 56 acres)

Protected Properties (Municipal)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- Genaral Recreation
- School
- Uncategorized

Protected Properties (CT DEP)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary

- Protected Properties (Federal)
- DEP Boat Launches
- Scenic Road (State and Local)
- Town Line

N W E S

0 0.25 0.5 Miles

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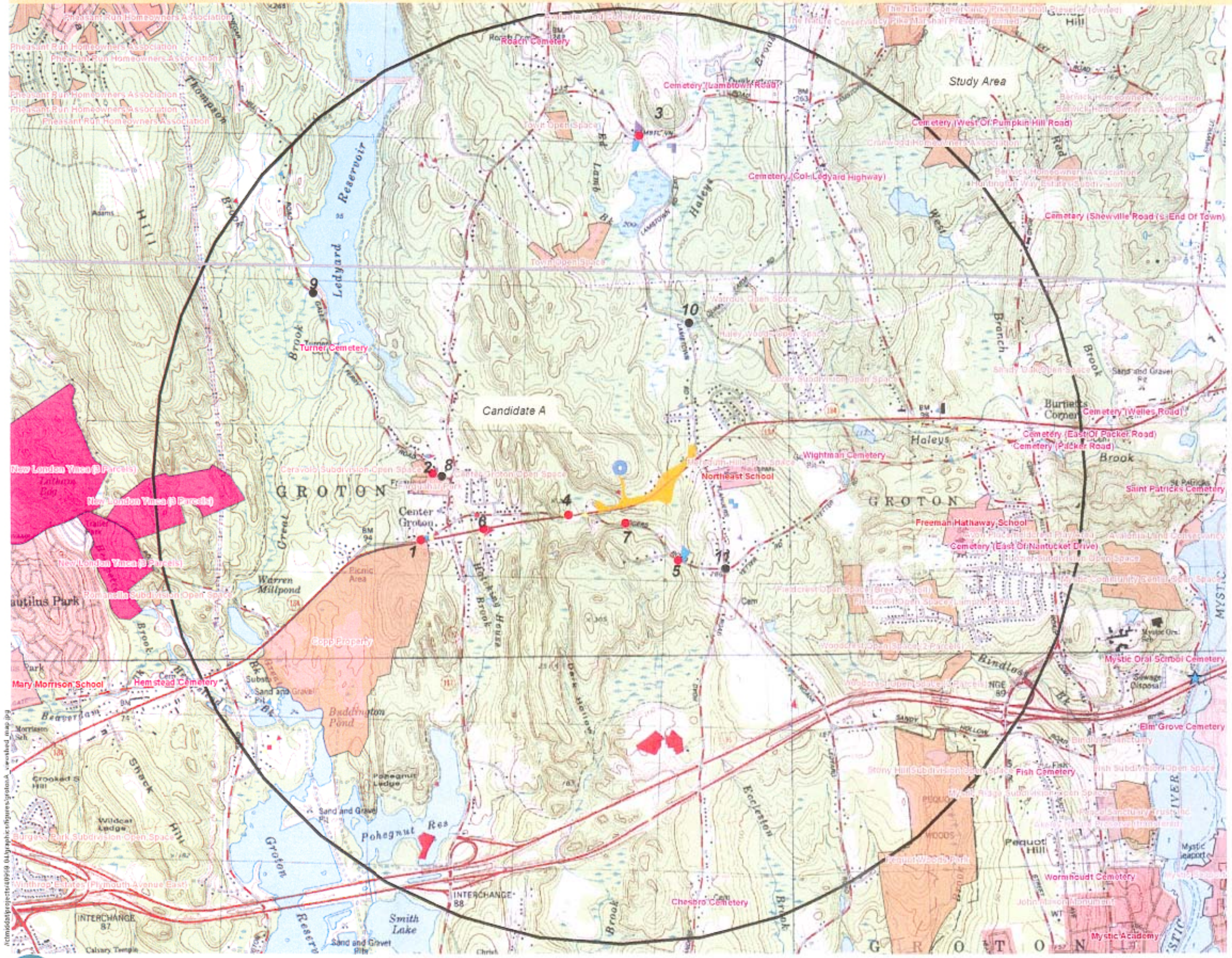
Transportation | Land Development | Environmental Services

Viewshed Map

Percentage of Tower Expected To Be Visible - Candidate A

Town of Groton Connecticut



Proposed Telecommunications Facilities
Candidate A Visibility
Route 184
Groton, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 150 feet.
- Existing tree canopy height estimated at 60 feet.

DATA SOURCES:
- 7.5 minute digital elevation model (DEM) with 30 meter resolution produced by the USGS, 1982
- Forest areas derived from 2004 digital orthophotos with 0.5-foot pixel resolution; digitized by VHB, 2006
- Base map comprised of Mystic, New London, Old Mystic and Uncasville USGS Quadrangle Maps
- Coordinates of proposed Facility:
  Candidate A - Lat. 41 23 12.52 Long. 72 00 48.63
  Candidate B - Lat. 41 23 08.50 Long. 72 00 47.99
- Protected properties data layer provided CTDEP, 2003

Map Compiled April 2006

Legend

Proposed Tower Locations (Includes area of visibility approximately 500 feet around facility)

Photographs - April 14, 2006
- Balloon visible above trees
- Balloon not visible

Seasonal Visibility - Candidate A and Candidate B (Approximately 17 acres)

Candidate A

Approx. % of Tower Visible (Year-Round)
- Tree Line View - 10 Acres
- Upper 25% - 10 Acres
- 50% - 10 Acres
- 75% - 8 Acres
- Entire Facility Visible - 24 Acres

Year-Round Visibility is Approximately 60 Acres

Protected Properties (Municipal)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized

Protected Properties (CT DEP)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary

Protected Properties (Federal)

DEP Boat Launches

Scenic Road (State and Local)

Town Line

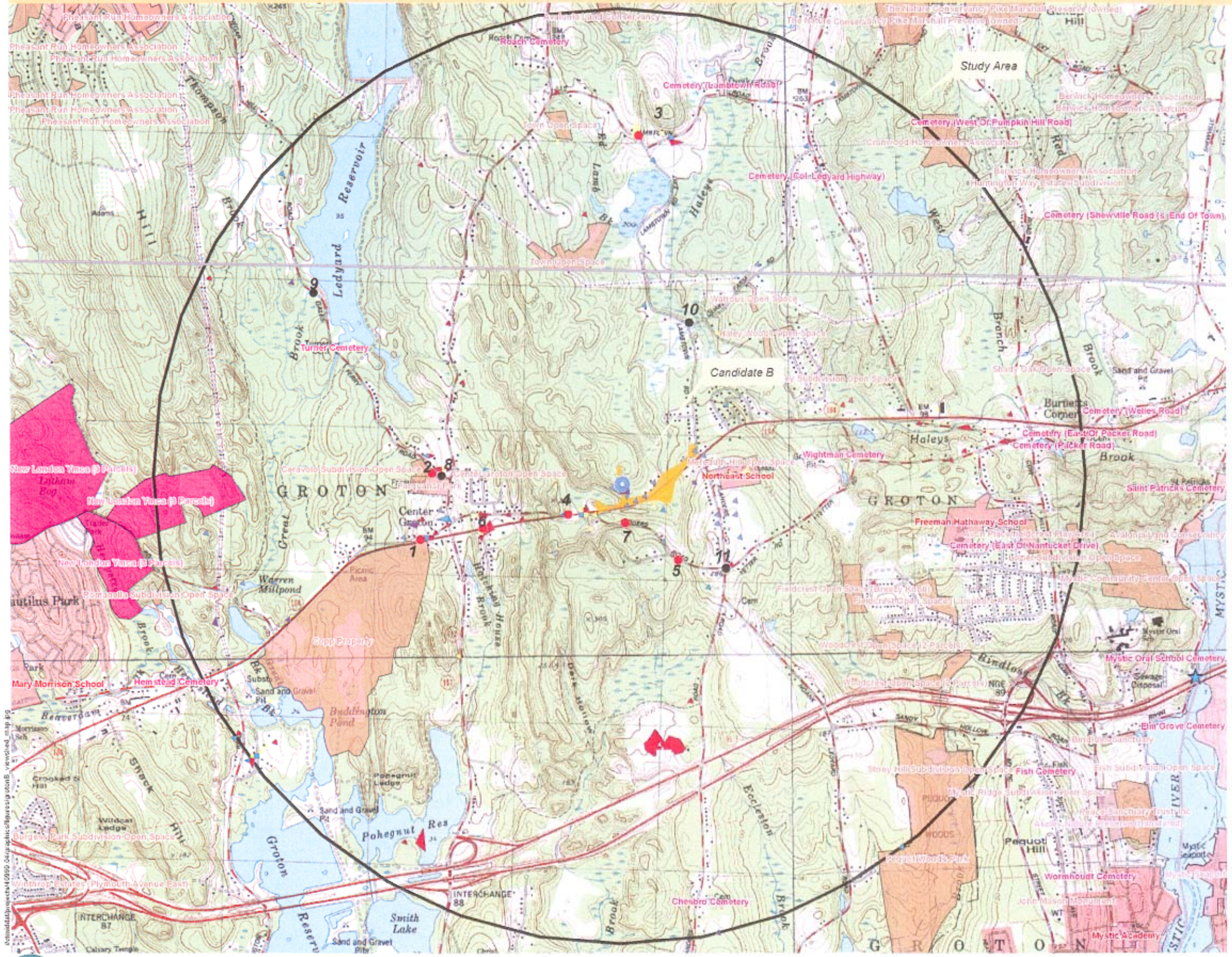
N W E S

0.5 0.25 0 0.5 Miles

Viewshed Map

Percentage of Tower Expected To Be Visible - Candidate B

Town of Groton Connecticut



Proposed Telecommunications Facilities
Candidate B Visibility
Route 184
Groton, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 160 feet.
- Existing tree canopy height estimated at 60 feet.

DATA SOURCES:
- 7.5 minute digital elevation model (DEM) with 30 meter resolution produced by the USGS, 1982
- Forest areas derived from 2004 digital orthophotos with 0.5-foot pixel resolution; digitized by VHB, 2006
- Base map comprised of Mystic, New London, Old Mystic and Uncasville USGS Quadrangle Maps
- Coordinates of proposed Facility:
  Candidate A - Lat. 41 23 12.52 Long. 72 00 48.63
  Candidate B - Lat. 41 23 08.50 Long. 72 00 47.99
- Protected properties data layer provided CTDEP, 2003

Map Compiled April 2006

Legend

- Proposed Tower Location (Includes area of visibility approximately 500 feet around facility)

Photographs - April 14, 2006
- Balloon visible above trees
- Balloon not visible

Seasonal Visibility - Candidate A and Candidate B (Approximately 17 acres)

Candidate B

Approx. % of Tower Visible (Year-Round)
- Tree Line View-18 Acres
- Upper 25%- 7 Acres
- 50%- 4 Acres
- 75%-3 Acres
- Entire Facility Visible- 24 Acres

Year-Round Visibility is Approximately 56 Acres

Protected Properties (Municipal)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized

Protected Properties (CT DEP)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary

- Protected Properties (Federal)
- DEP Boat Launches
- Scenic Road (State and Local)
- Town Line

0.5 0.25 0 0.5 Miles

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Exhibit 8

Connecticut Commission on Culture & Tourism

Historic Preservation
& Museum Division

59 South Prospect Street
Hartford, Connecticut
06106

(v) 860.566.3005
(f) 860.566.5078

June 22, 2006

Mr. David R. George
Heritage Consultants LLC
877 Main Street
Newington, CT 06111

Subject: Telecommunications Facilities
1662 Gold Star Highway (Route 184)
Groton, CT
EBI #61060316

Dear Mr. George:

The State Historic Preservation Office has reviewed the reconnaissance survey prepared by Heritage Consultants LLC concerning the above-named project. In the opinion of the State Historic Preservation Office, the archival and archaeological methodologies employed by Heritage Consultants LLC are consistent with our *Environmental Review Primer for Connecticut's Archaeological Resources.*

The State Historic Preservation Office concurs with Heritage Consultants LLC that no further archaeological investigations appear warranted with respect to the proposed undertaking. This office believes that the proposed undertaking will have no effect upon Connecticut's historic, architectural and archaeological heritage.

The State Historic Preservation Office appreciates the cooperation of all interested parties concerning the professional management of Connecticut's cultural resources.

This comment updates and supersedes all previous correspondence regarding the proposed project. For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

J. Paul Loether
Division Director and Deputy
State Historic Preservation Officer

cc: Bellantoni, Vito

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

September 17, 2003

Jonathan D. Sorrow
ATC Associates
290 Roberts Street, Suite 204
East Hartford, CT 06108

Re: Proposed Telecommunication Site CT-750
Groton Garden Center (Site B & C), 1662 Route 184, Groton, CT

Dear Mr. Sorrow:

Thank you for providing the ornithological survey report for the above project area. The methods employed during the survey and the analysis of temporal variations were well done. The recommendations outlined in the report for further mitigation of potential impacts to the whip-poor-will (*Caprimulgus vociferous;* state species of special concern) are thorough and appropriate for the species in this location.

The report mentions a significant amount of bat activity in the project area. Connecticut does have several listed bat species, however without a lot of labor intensive work it would be difficult to determine the species of bat(s) observed during the survey period. Following the recommended guidelines for construction activity should also help prevent any potential negative impact to listed bat species.

Please keep in mind that these recommendations do not address risks to birds or bats from tower kills during migration. These risks can be reduced through the tower design process. Tower height and design are important considerations. Two other issues relating to strikes involve tower lighting and geographic location. In general, towers located along ridgelines have a greater potential for bird strikes. Both of the tower designs provided appear to meet the general guidelines for tower height and lighting to minimize strikes. One additional factor to weigh in the final site decision is the total elevational height of the completed tower. A taller tower may have a lower vertical projection profile into a migratory corridor than a shorter tower that is installed at a higher starting elevation.

Thank you for providing additional information regarding whip-poor-will use of this area. Please feel free to contact me if you have any additional questions.

Sincerely,

Jenny Dickson

Jenny Dickson
Wildlife Biologist

cc: D. McKay #12288

United States Department of Interior
Fish and Wildlife Service
Washington, DC 20240

September 14, 2000

To: Regional Directors
From: Director /s/ Jamie Rappaport Clark
Subject: Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers

Construction of communications towers (including radio, television, cellular, and microwave) in the United States has been growing at an exponential rate, increasing at an estimated 6 percent to 8 percent annually. According to the Federal Communication Commission's *2000 Antenna Structure Registry*, the number of lighted towers greater than 199 feet above ground level (AGL) currently number over 45,000 and the total number of towers over 74,000. Non-compliance with the registry program is estimated at 24 percent to 38 percent, bringing the total to 92,000 to 102,000. By 2003, all television stations must be digital, adding potentially 1,000 new towers exceeding 1,000 feet AGL.

The construction of new towers creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. Communications towers are estimated to kill 4-5 million birds per year, which violates the spirit and the intent of the Migratory Bird Treaty Act and the Code of Federal Regulations at Part 50 designed to implement the MBTA. Some of the species affected are also protected under the Endangered Species Act and Bald and Golden Eagle Act.

Service personnel may become involved in the review of proposed tower sitings and/or in the evaluation of tower impacts on migratory birds through National Environmental Policy Act review; specifically, Sections 1501.6, opportunity to be a cooperating agency, and 1503.4, duty to comment on federally-licensed activities for agencies with jurisdiction by law, in this case the MBTA, or because of special expertise. Also, the National Wildlife Refuge System Improvement Act requires that any activity on Refuge lands be determined as compatible with the Refuge system mission and the Refuge purpose(s). In addition, the Service is required by the ESA to assist other Federal agencies in ensuring that any action they authorize, implement, or fund will not jeopardize the continued existence of any Federally endangered or threatened species.

A Communication Tower Working Group composed of government agencies, industry, academic researchers and NGO's has been formed to develop and implement a research protocol to determine the best ways to construct and operate towers to prevent bird strikes. Until the research study is completed, or until research efforts uncover significant new mitigation measures, all Service personnel involved in the review of proposed tower sitings and/or the evaluation of the impacts of towers on migratory birds should use the attached interim guidelines when making recommendations to all companies, license applicants, or licensees proposing new tower sitings. These guidelines were developed by Service personnel from research conducted in several eastern, midwestern, and southern states, and have been refined through Regional review. They are based on the best information available at this time, and are the most prudent and effective measures for avoiding bird strikes at towers. We believe that they will provide significant protection for migratory birds pending completion of the Working Group's recommendations. As new information becomes available, the guidelines will be updated accordingly.

Implementation of these guidelines by the communications industry is voluntary, and our recommendations must be balanced with Federal Aviation Administration requirements and local

community concerns where necessary. Field offices have discretion in the use of these guidelines on a case by case basis, and may also have additional recommendations to add which are specific to their geographic area.

Also attached is a Tower Site Evaluation Form which may prove useful in evaluating proposed towers and in streamlining the evaluation process. Copies may be provided to consultants or tower companies who regularly submit requests for consultation, as well as to those who submit individual requests that do not contain sufficient information to allow adequate evaluation. This form is for discretionary use, and may be modified as necessary.

The Migratory Bird Treaty Act (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the Act has no provision for allowing unauthorized take, it must be recognized that some birds may be killed at structures such as communications towers even if all reasonable measures to avoid it are implemented. The Service's Division of Law Enforcement carries out its mission to protect migratory birds not only through investigations and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impacts on migratory birds. While it is not possible under the Act to absolve individuals or companies from liability if they follow these recommended guidelines, the Division of Law Enforcement and Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds.

Please ensure that all field personnel involved in review of FCC licensed communications tower proposals receive copies of this memorandum. Questions regarding this issue should be directed to Dr. Benjamin Tuggle, Chief, Division of Habitat Conservation, at (703)358-2161, or Jon Andrew, Chief, Division of Migratory Bird Management, at (703)358-1714. These guidelines will be incorporated in a Director's Order and placed in the Fish and Wildlife Service Manual at a future date.

Service Interim Guidelines For Recommendations On

Communications Tower Siting, Construction, Operation, and Decommissioning

1. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communication tower or other structure (*e.g.,* billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.

2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (*e.g.,* use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.

3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.

4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (*e.g.,* state or

Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.

5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.

6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species. (For guidance on markers, see *Avian Power Line Interaction Committee (APLIC). 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute, Washington, D.C., 78 pp*, and *Avian Power Line Interaction Committee (APLIC). 1996. Suggested Practices for Raptor Protection on Power Lines. Edison Electric Institute/Raptor Research Foundation, Washington, D.C., 128 pp.* Copies can be obtained via the Internet at http://www.eei.org/resources/pubcat/enviro/, or by calling 1-800/334-5453).

7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.

8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.

9. In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.

10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.

11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.

12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

In order to obtain information on the extent to which these guidelines are being implemented, and to identify any recurring problems with their implementation which may necessitate modifications, letters provided in response to requests for evaluation of proposed towers should contain the following request:

> "In order to obtain information on the usefulness of these guidelines in preventing bird strikes, and to identify any recurring problems with their implementation which may necessitate modifications, please advise us of the final location and specifications of the proposed tower, and which of the measures recommended for the protection of migratory birds were implemented. If any of the recommended measures can not be implemented, please explain why they were not feasible."

Return to Home Page

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Reserved for
Exhibit 9

CUDDY & FEDER LLP

90 MAPLE AVENUE
WHITE PLAINS, NEW YORK 10601-5196

(914) 761-1300
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NEW YORK, NEW YORK 10110
(212) 944-2841
FACSIMILE (212) 944-2843

WESTAGE BUSINESS CENTER
300 WESTAGE BUSINESS CENTER, SUITE 380
FISHKILL, NEW YORK 12524
(845) 896-2229
FACSIMILE (845) 896-3672

NORWALK, CONNECTICUT

WILLIAM V. CUDDY
1971-2000

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THOMAS R. BEIRNE (also DC)
STEPHANIE BORTNYK (also NJ)
JOSEPH P. CARLUCCI
LUCIA CHIOCCHIO (also CT)
ROBERT DiSIENA
KENNETH J. DUBROFF
ROBERT FEDER
CHRISTOPHER B. FISHER (also CT)
ANTHONY B. GIOFFRE III (also CT)
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BARRY E. LONG

EON S. NICHOLS (also CT)
WILLIAM S. NULL
DAWN M. PORTNEY
ELISABETH N. RADOW
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NEIL T. RIMSKY
RUTH E. ROTH
ANDREW P. SCHRIEVER (also MA)
JENNIFER L. VAN TUYL
CHAUNCEY L. WALKER (also CA)

Of Counsel
ANDREW A. GLICKSON (also CT)
KAREN G. GRANIK
ROBERT L. OSAR (also TX)
MARYANN M. PALERMO
ROBERT C. SCHNEIDER

May 11, 2006

VIA OVERNIGHT MAIL
Mr. Michael J. Murphy, AICP
Director
Planning Department
Town of Groton
134 Groton Long Point Road
Groton, Connecticut 06340

Re: Proposed Wireless Communications Tower Facility
Gold Star Memorial Highway
Groton, Connecticut

Dear Mr. Murphy:

It was a pleasure meeting with you yesterday. We are writing as a follow up to our clients' submission of an updated Technical Report with the Town, a copy of which we gave you, for the above referenced wireless communications facility proposed in Groton.

As you recall and as we discussed, this project was initially presented to the Town in 2003 by our then client AT&T Wireless. At that time, AT&T through our office and its consultant, Mr. Ronald Clark, commenced the local municipal consultation process with the Town of Groton in furtherance of Section 16-501 of the Connecticut General Statutes. Indeed, you provided our office with comments at that time which we are enclosing as you requested and for your convenience in reviewing the updated Technical Report for the project.

As we mentioned yesterday, prior to AT&T Wireless' submission of an application with the State Siting Council, Cingular Wireless and AT&T Wireless announced their proposed merger. During the merger process, pursuit of this project was

put on hold by AT&T Wireless and Cingular which are now one company known as New Cingular Wireless PCS, LLC. Subsequent to the merger, Cingular asked Optasite, Inc. ("Optasite"), a leading tower infrastructure development company, to partner with it in pursing this project which is needed by Cingular to provide its service in the Center Groton area. As such, while the names may have changed, the project is essentially the same with some reduction in proposed tower height and modest changes in tower site locations on the property in question.

As you already know, jurisdiction over this facility rests exclusively with the State of Connecticut Siting Council pursuant to Section 16-50i and x of the Connecticut General Statutes. Further, that the purpose of this letter is to formally establish the 60 day municipal consultation process that began with the submission of the updated Technical Report. In reviewing the updated Technical Report, were confident you will find that the plans for the project have incorporated many of your prior comments and recommendations when this project was initially reviewed by your office.

We would appreciate any additional comments you may have at your earliest convenience. Indeed, should the Town have no objection to our clients' submission of the State Siting Council application prior to end of the 60 day consultation period, we would simply ask that you note same in any new comments you may provide us with in reviewing the updated Report. Thank you for your consideration in this matter and please do not hesitate to contact us or Mr. Clark should you have any questions regarding the Technical Report.

Very truly yours,

Christopher B. Fisher

Enclosure

Cc: Mayor Harry A. Watson
Mark R. Oefinger, Town Manager
Ronald C. Clark

TOWN OF GROTON

PLANNING AND DEVELOPMENT SERVICES
Planning Department

134 Groton Long Point Road
Groton, Connecticut 06340-4873
Telephone (860) 446-5970
Fax (860) 446-5978

April 8, 2003

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

SUBJECT: AT&T Wireless Communications Tower Facility
1662 Goldstar Highway, Groton, CT

Dear Mr. Christopher B. Fisher:

Please consider this a response of the Office of Planning and Development Services of the Town of Groton in the matter of the AT&T proposed wireless communications facility at 1662 Goldstar Highway in Groton. Your letter to the Town Manager dated January 31, 2003 and received by the Town Manager's Office on February 3, 2003, stated that a follow-up call by your firm to schedule a consultation meeting with the Town was going to take place. A follow-up call by Town staff to your office last week to clarify the status of the application, was not returned. To keep within the spirit and intent of the provisions included within Section 16-501(e) of the Connecticut General Statutes and in anticipation of AT&T's filing of an application with the Siting Council, the following information is offered. This office reserves all other rights with regard to regulatory review of the project in accordance with law.

The Town of Groton currently has in effect development standards for review of Telecommunications Towers, Antennae and Facilities. These standards require that a comprehensive package of components be addressed by an applicant to assure that a proposal's siting, construction and maintenance are accomplished in the public interest. In this regard, the Town's planning staff has identified the following items that should be addressed in the proposal to the Connecticut Siting Council since receipt of the referral. These include:

1. The submitted report references Site A in the Introduction but no additional data is given throughout the report except on Page 6. Please clarify the status of Site A within the Introduction of the Report.

2. Page 6: 1662 Goldstar Highway: The report states that leases were obtained for two sites; Site B and C. Please clarify the status of leases and confirm that only one tower is to be built.

3. The plans in the report are not to scale and some information can not adequately be obtained to see if the proposed site meets the requirements of our regulations. Several of the following comments are based what the Town staff would require on the site plans.

4. The Zoning Regulations require that all towers be set back from the property line a minimum distance equal to the height of the structure. Please provide dimensional setback information on the plans.

5. The Zoning Regulations require the color of the tower to be a subdued, non-reflective color that shall blend in with the surroundings. The color needs to be stated on the plans and in the report and clearly understood in the proposal.

6. The Zoning Regulations require a 25' landscape buffer where a conditional use such as this abuts a residential district and a landscape buffer around the perimeter of all structures, including guy anchors. The landscape buffers should include evergreen plantings of sufficient size and distance to provide visual screening as necessary. A buffer should be shown adjacent to the residential properties to the east.

7. Plans should show clearing limit lines, erosion and sediment control measures and distance from the development area to any wetlands.

8. The Zoning Regulations state that signal lights should not be allowed unless required by FCC or FAA, and if required should minimize impacts to affected residences (i.e., red night lighting). This should be stated on the plans. Any proposed lighting should be the compatible with the requirements that the tower be a subdued – non-reflective color (i.e., not painted orange and white). This scheme can easily be accommodated with the FAA.

9. The plans and report should state that "There should be no advertising or signs, other than warning signs, permitted on any tower."

10. The plans and report should state that "The tower shall be removed from the site within 12 months of cessation of the use. In the event an unused tower is not removed within this time period, the tower and associated facilities may be removed by the Town and the cost of removal assessed against the property."

11. The Town requires permit holders for telecommunication towers and facilities to exercise good faith in allowing other providers to share space or co-locate on the site, provided that such shared use does not impair the technical level or quality of service. The applicant should provide information and/or a note to this effect on the plans and report.

12. The Town requires documentation, prepared by a professional telecommunications engineer, to demonstrate the minimum tower height necessary to satisfy the technical requirements of the telecommunication facility. This information has not been provided. For example, is there a height of less than 155' for Site B or 195' for Site C that would work?

13. No new or existing telecommunications service shall interfere with public safety telecommunications or with existing television or radio signals. A study that provides a

technical evaluation of existing and proposed transmissions and indicates all potential interference problems should be required. This has not been provided with the pre-application.

14. The plans should show that adequate fire access to any proposed tower is provided, as required by the Center of Groton Fire District. This usually includes an all weather surface road that meets the Fire Department's width and clearance requirements and is able to hold a 60,000-lb. fire apparatus.

These comments should provide you with a comprehensive record of the physical planning and design concerns associated with the project.

The Town of Groton will continue to monitor the project with the Siting Council and expects to obtain Party status as necessary to assure that the Town's concerns are adequately addressed. Please forward us a copy of your full submittal to the Siting Council. Also, feel free to call Diane Glemboski, Planner I, at this office if you have any questions.

Sincerely,

Michael Murphy, AICP
Acting Director of Planning and Development

MJM:

Cc: S. Derek Phelps, CT Siting Council
Diane Glemboski, Planner I

TOWN OF GROTON

PLANNING AND DEVELOPMENT SERVICES
Planning Department

134 Groton Long Point Road
Groton, Connecticut 06340-4873
Telephone (860) 446-5970
Fax (860) 446-5978

June 22, 2006

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

SUBJECT: New Cingular Wireless PCS Tower Facility
1662 Goldstar Highway, Groton, CT

Dear Mr. Christopher B. Fisher:

Please consider this a response of the Planning Department of the Town of Groton in the matter of the New Cingular Wireless proposed communications facility at 1662 Goldstar Highway in Groton. The Office of Planning and Development received your letter on May 11, 2006. To keep within the provisions included within Section 16-501(e) of the Connecticut General Statutes and in anticipation of Cingular's filing of an application with the Siting Council, the following information is offered. This office reserves all other rights with regard to regulatory review of the project in accordance with the law.

The Town of Groton currently has development standards in effect for review of Telecommunications Towers, Antennae and Facilities. These standards require that a comprehensive package of components be addressed by an applicant to assure that a proposal's siting, construction, and maintenance are accomplished in the public interest. In this regard, the Town's planning staff has identified the following items that still should be addressed in the proposal to the Connecticut Siting Council. These items include:

1. The Zoning Regulations require the color of the tower to be a subdued, non-reflective color that shall blend in with the surroundings. The color needs to be stated on the plans and in the report and clearly understood in the proposal.

2. The Zoning Regulations require a 25' landscape buffer where a conditional use abuts a residential district and a landscape buffer around the perimeter of all structures, including guy anchors. The landscape buffers should include evergreen plantings of sufficient size and distance to provide visual screening. A buffer should be shown adjacent to the residential properties to the east.

3. Plans should show the clearing limit lines and the erosion control methods that will be incorporated into the project design.

4. The Technical Report states that the FAA has not required any lighting or markings on the tower. A note should still be placed on the plans stating "Signal lights are not allowed unless required by FCC or FAA, and if required the lights should minimize impacts to affected residences with use of red night lighting. Any proposed lighting should be compatible with the requirements that the tower be a subdued – non-reflective color (i.e., not painted orange and white)."

5. The plans and report should state "There shall be no advertising or signs, other than warning signs, permitted on any tower."

6. The plans and report should state that "The tower shall be removed from the site within 12 months of cessation of the use. In the event an unused tower is not removed within this time period, the tower and associated facilities may be removed by the Town and the cost of removal assessed against the property."

7. The Town requires permit holders for telecommunication towers and facilities to exercise good faith in allowing other providers to share space or co-locate on the site, provided that such shared use does not impair the technical level or quality of service. The applicant should provide information and/or a note to this effect on the plans and report.

8. The Town requires documentation, prepared by a professional telecommunications engineer, to demonstrate the minimum tower height necessary to satisfy the technical requirements of the telecommunication facility. This documentation should be provided.

9. No new or existing telecommunications service shall interfere with public safety telecommunications or with existing television or radio signals. A study that provides a technical evaluation of existing and proposed transmissions and indicates all potential interference problems should be provided.

10. The plans should show that adequate fire access to any proposed tower is provided, as required by the Center of Groton Fire District. This usually includes a paved road that meets the Fire Department's width, clearance, and turn-around requirements and is able to hold a 60,000-lb. fire apparatus. Planning Staff suggests that the applicant work closely with the local Fire Marshal to obtain the appropriate access design.

11. The report needs to confirm that the tower design meets the updated State Building Code requirements for withstanding current pressure requirements. Please address.

12. Site A is significantly further away from the road making emergency access more problematic. In addition Site A disturbs significantly more wetland area than Site B. A comparison table should be provided for ease of analysis of each location.

13. The Visual Resource Evaluation Report:
    - Comparative Map – Candidate A and B – Clarify small red triangular shapes on the map and in legend.
    - Several of the Viewshed Maps show locations where the Balloons are visible but do not provide a photo simulation of the location (e.g. 6A, 7A). Please address for consistency.

These comments should provide you with a comprehensive record of the physical planning and design concerns associated with the project.

The Planning Department will continue to monitor the project with the Siting Council and expects to obtain Party status to assure that the Town's concerns are adequately addressed. Please forward us a copy of your full submittal to the Siting Council. Also, feel free to call Diane Glemboski, Planner II, at this office if you have any questions.

Sincerely,

Michael Murphy
Director of Planning and Development

MJM:

Cc: S. Derek Phelps, CT Siting Council
Diane Glemboski, Planner II

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Reserved for
Exhibit 10

CERTIFICATION OF SERVICE

I hereby certify that on this 1th day of Aug, 2006, copies of Optasite's and Cingular's Application and Attachments for a Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance and Operation of a Wireless Telecommunications Facility were sent by certified mail, return receipt requested, to the following:

The Honorable Richard Blumenthal
Attorney General
Office of the Attorney General
55 Elm Street
Hartford, CT 06106
(860) 808-5318

Department of Environmental Protection
Gina McCarthy, Commissioner
79 Elm Street
Third Floor
Hartford, CT 06106-5127
(860) 424-3001

Department of Public Health
Dr. J. Robert Galvin, M.D., Commissioner
410 Capitol Avenue
Hartford, CT 06106
(860) 509-7101

Council On Environmental Quality
Karl J. Wagener, Executive Director
79 Elm Street
Hartford, CT 06106
(860) 424-4000

Department of Public Utility Control
Donald W. Downes, Chairman
10 Franklin Square
New Britain, CT 06051
(860) 827-1553

Office of Policy and Management
Robert L. Genuario, Secretary
450 Capitol Avenue
Hartford, CT 06106-1308
(860) 418-6200

Department of Economic and Community Development
James F. Abromaitis, Commissioner
505 Hudson Street
Hartford, CT 06106-7106
(860) 270-8000

Department of Transportation
Stephen E. Korta, Commissioner
2800 Berlin Turnpike
Newington, CT 06131-7546
(860) 594-3000

Southeastern Connecticut Council of Governments
Paul Brycki, Chairman
5 Connecticut Avenue
Norwich, Connecticut 06360

State Senate
Senator Catherine W. Cook
18th Senatorial District
State Capitol
Room 2304
Hartford, CT 06106

House of Representatives
Lenny Winkler
41st Assembly District
Legislative Office Building
Room 4200
Hartford, CT 06106-1591

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

Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

GROTON

Town of Groton
Harry A. Watson, Mayor
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Town of Groton
Mark R. Oefinger, Town Manager
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Town of Groton
Michael J. Murphy, AICP, Planning &
Development Director
134 Groton Long Point Road
Groton, CT 06340-4394

Town of Groton
Planning Commission
James R. Sherrard, Chairman
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Town of Groton
Zoning Commission
Steven Hudecek, Chairman
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Town of Groton
Zoning Board of Appeals
Edward Stebbins, Chairman
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Town of Groton
Inland Wetlands Commission
David Scott, Chairman
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Town of Groton
Conservation Commission
Brae Rafferty, Chairman
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Town of Groton
Barbara Tarbox, Town Clerk
Town Hall
45 Fort Hill Road
Groton, Connecticut 06340-4394

Dated 8/1/06

L Chiocchio

Cuddy & Feder LLP
90 Maple Avenue
White Plains, New York 10601
Attorneys for:
Optasite, Inc.
New Cingular Wireless PCS LLC

C&F: 610558.1

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Reserved for
Exhibit 11

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 submitted to the Connecticut Siting Council ("Siting Council") on or about , July 24, 2006 by Optasite, Inc. and New Cingular Wireless PCS, LLC (the "Applicants"). The Applicants will request a certificate of environmental compatibility and public need from the Siting Council for the construction, maintenance and operation of a telecommunications facility in the Town of Groton, Connecticut. Two locations are being considered for the proposed telecommunications facility on the same approximately 33 acre property located at 1662 Gold Star Memorial Highway (Route 184), owned by Chester B. Crouch. At the first site, designated as Site A, in a 100-foot by 100-foot lease area in the center section of the property, a 150-foot self-supporting monopole would be installed within a 75-foot by 75-foot fenced equipment compound. At Site B, in the southern portion of the property, on a 100-foot by 100-foot lease area, a 160-foot self-supporting monopole would be installed within a 50-foot by 100-foot fenced equipment compound. The location, height and other features of the proposed facility are subject to review and potential change under provisions of the Connecticut General Statutes § 16-50g et. seq.

Two balloons, representative of the proposed tower heights of Site A and Site B, will be flown at each site on the day of the Siting Council public hearing on the application, which will be held in the Town of Groton. The balloons will be flown from approximately noon to 7 p.m., or such other time specified by the Siting Council. Notice of the public hearing date will be provided by the Siting Council.

The proposed facility would provide wireless communication service to portions of Groton and surrounding areas which do not have adequate service. The Application will explain the need, purpose and benefits of the facility and will also describe the environmental impacts of the proposed facility.

Interested parties are invited to review the Application during normal business hours at either of the following locations:

Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Town Clerk
Town of Groton
Town Hall
45 Fort Hill Road
Groton, CT 06340

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

Lucia Chiocchio, Esq.
Cuddy & Feder LLP
90 Maple Avenue
White Plains, New York 10601
(914) 761-1300
Attorneys for the Applicants

C&F: 610588.1

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Reserved for
Exhibit 12

_____, 2006

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Proposed Wireless Communications Facility
Optasite, Inc. and New Cingular Wireless PCS, LLC
Application for Approval by the Connecticut Siting Council
Groton, Connecticut

Dear _____:

We are writing to you on behalf of our clients, Optasite, Inc. ("Optasite") and New Cingular Wireless PCS, LLC ("Cingular"), with respect to the above referenced matter which involves the submission of an application to the Connecticut Siting Council for approval for a proposed wireless communications tower facility at one of two locations within the Town of Groton. We are writing to you in accordance with State law, which requires that owners of record of property which abuts a parcel on which the proposed facility may be located must be sent notice of the submission of the application.

Both of the proposed locations for the installation of the proposed facility are on an approximately 33 acre property located at 1662 Gold Star Memorial Highway (Route 184) which is owned by Chester B. Crouch. The first proposed site location is in the center section of the property. At this location, a 150-foot self-supporting monopole tower is being proposed. The monopole would be located within a 75-foot by 75-foot fenced equipment compound. Associated unmanned equipment would be installed inside the compound at the tower base in either single-story equipment shelters or on concrete pads. Vehicle access to the proposed

facility would extend from Route 184 along the existing driveway that serves the property, then along a new 12-foot wide gravel drive to the equipment compound entrance. Underground utility connections would extend from an existing utility pole on Route 184 and parallel the driveway and gravel access drive to the equipment compound location.

The other proposed site for the installation of the proposed facility is in the southern section of the property. At this location, a 160-foot self-supporting monopole tower is proposed. The monopole would be situated within a 50-foot by 100-foot fenced equipment compound. Associated unmanned equipment would be installed inside the compound at the tower base in either single-story equipment shelters or on concrete pads. Vehicle access to the proposed facility would extend from Route 184 north onto the property using the existing driveway that serves the property, then along a new 12-foot wide gravel drive to the equipment compound entrance. Underground utility connections would extend from an existing utility pole on Route 184 and parallel the driveway and new gravel drive to the equipment compound.

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.

If you have any questions concerning this application, please do not hesitate to contact the Connecticut Siting Council in New Britain (860-827-2935) or the undersigned.

Very Truly Yours,

Lucia Chiocchio

ADJACENT PROPERTY OWNERS
Site A and Site B
1662 Gold Star Memorial Highway, Groton

The following information was collected from the Tax Assessors' records and the land records at the Town Hall in the Town of Groton, Connecticut.

Map-Block-Lot(s)/Property Owner/Mailing Addresses

270017-12-4047 Chester G. Crouch c/o Groton Garden Center 1592 Gold Star Memorial Highway Groton, CT 06340	270013-12-6797 Chester G. Crouch c/o Groton Garden Center 1592 Gold Star Memorial Highway Groton, CT 06340
270017-12-6291 Ruth E. Kitchens 21 Candlewood Road Groton, CT 06340	270014-22-7745 Lambtown Development LLC 27A Vinegar Hill Road Gales Ferry, CT 06335
270018-22-7001 Benny L. & Phyllis M. Wimes 1720 Gold Star Memorial Highway Groton, CT 06340	270014-23-6626 Lambtown Development LLC 27A Vinegar Hill Road Gales Ferry, CT 06335
270013-02-2663 Ruth E. Kitchens 21 Candlewood Road Groton, CT 06340	270017-21-1410 Pendleton Properties, LLC P.O. Box 738 Groton, CT 06340
270013-03-8105 Henry E. Haley 425 Drozdyk Drive #216 Groton, CT 06340	270018-31-1651 Steven D. & Michele M. Magowan 1715 Rte. 184 Groton, CT 06340

CERTIFICATION OF SERVICE

I hereby certify that on the 27 th day of July, 2006, a copy of the foregoing letters were mailed by certified mail, return receipt requested to each of the abutting properties owners on the attached list.

7/27/06
Date

Lucia Chiocchio
Cuddy & Feder LLP
90 Maple Avenue
White Plains, New York 10601

Attorneys for:
Optasite, Inc. and
New Cingular Wireless PCS, LLC

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Reserved for
Exhibit 13

Application Guideline	Location in Application
(A) An Executive Summary on the first page of the application with the address, proposed height, and type of tower being proposed. A map showing the location of the proposed site should accompany the description;	I.B. Executive Summary, page2 Attachments 5 & 6: Description and Design of Proposed Facility
(B) A brief description of the proposed facility, including the proposed locations and heights of each of the various proposed sites of the facility, including all candidates referred to in the application;	I.B. Executive Summary, page 2 V.A & V.B: Facility Design: pages 10-13
(C) A statement of the purpose for which the application is made;	I.A Purposed and Authority, page 1
(D) A statement describing the statutory authority for such application;	I.A. Purpose and Authority, page 1
(E) The exact legal name of each person seeking the authorization or relief and the address or principle place of 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;	I.C. The Applicants, page 4
(F) The name, title, address, and telephone number of the attorney or other person to whom correspondence or 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;	I.C. The Applicants, page 4
(G) A statement of the need for the proposed facility with as much specific information as is practicable to demonstrate the need including a description of the proposed system and how the proposed facility would eliminate or alleviate any existing deficiency or limitation;	III.A. Statement of Need, page 6 Attachment 1: Pre-Filed Testimony of Ronald C. Clark Attachment 2: Pre-Filed Testimony of John Blevins Attachment 3: Statement of Need with Coverage Plots
(H) A statement of the benefits expected from the proposed facility with as much specific information as is practicable;	III.B. Statement of Benefits, page 7
(I) A description of the proposed facility at the proposed prime and alternative sites including: (1) Height of the tower and its associated antennas including a maximum "not to exceed height" for the facility, which may be higher than the height proposed by the Applicant; (2) Access roads and utility services; (3) Special design features; (4) Type, size, and number of transmitters and receivers, as well as the signal frequency and conservative worst-case and estimated operational level approximation of electro magnetic radiofrequency power density levels (facility using FCC Office of Engineering and Technology Bulletin 65, August 1997) at	I.B. Executive Summary, page 2 V.A & V.B: Facility Design, pages 10-13

Application Guideline	Location in Application
the base of the tower base, site compound 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; **(6)** The coverage signal strength, and integration of the 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 modeling used, but a legend is required to explain each color used) showing interfaces with any adjacent service areas, 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.	Attachment 3: Statement of Need with Coverage Plots Attachments 5 & 6: Description and Design of Proposed Facility
(J) A description of the named sites, including : **(1)** The most recent U.S. G.S. topographic quadrangle map (scale 1 inch = 2000 feet) marked to show the site of the facility and any significant changes within a one mile radius of 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 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, fall zones, 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.	Attachments 5 & 6: Description and Design of Proposed Facility
(K) A statement explaining mitigation measures for the proposed facility including: (1) Construction techniques designed to specifically minimize adverse effects on natural areas and sensitive areas; (2)Special design features made specifically to avoid or minimize adverse effects on natural areas and sensitive areas; (3) Establishment of vegetation proposed near residential,	Attachments 5 & 6: Description and Design of Proposed Facility VI. Environmental Compatibility, pages 13-16

Application Guideline	Location in Application
recreation, and scenic areas; and (4) Methods for preservation of vegetation for wildlife habitat and screening.	
(L) A description of the existing and planned land uses of the named sites and surrounding areas;	VII.C. Planned and Existing Land Uses, page 18
(M) A description of the scenic, natural, historic, and recreational characteristics of the named sites and surrounding areas including officially designated nearby hiking trails and scenic roads;	V.I. Environmental Compatibility, pages 13-16
(N) Sight line graphs to the named sites from visually impacted areas such as residential developments, recreational areas, and historic sites;	See Attachment 7: Visual Resource Evaluation Report for photosimulations and a visual viewshed analysis for both sites
(O) A list describing the type and height of all existing and proposed towers and facilities within a four mile radius within the site search area, or within any other area from which use of the proposed towers might be feasible from a location standpoint for purposes of the application;	IV.A. Site Selection, page 9 Attachment 1: Pre-Filed Testimony of Ronald C. Clark Attachment 4: Site Search Summary
(P) A description of efforts to share existing towers, or consolidate telecommunications antennas of public and private services onto the proposed facility including efforts to offer tower space, where feasible, at no charge for space for municipal antennas;	IV.C. Site Selection, page 9 V. Facility Design, pages 10-13 Attachment 1: Pre-Filed Testimony of Ronald C. Clark Attachment 4: Site Search Summary
(Q) A description of the technological alternatives and a statement containing justification for the proposed facility;	III.C. Technological Alternatives, page 8
(R) A description of rejected sites with a U.S.G.S. topographic quadrangle map (scale 1 inch= 2,000 feet) marked to show the location of rejected sites;	IV.A. Site Selection, page 9 Attachment 4: Site Search Summary Attachment 1: Pre-Filed Testimony of Ronald C. Clark
(S) A detailed description and justification for the site(s) selected, including a description of siting criteria and the narrowing process by which other possible sites were 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);	IV.A. Site Selection, page 9 Attachment 4: Site Search Summary Attachment 1: Pre-Filed Testimony of Ronald C. Clark
(T) A statement describing hazards to human health, if any, with such supporting data and references to regulatory standards;	VI. Environmental Compatibility, page 13

Application Guideline	Location in Application
(U) A statement of estimated costs for site acquisition, construction, and equipment for a facility at the various proposed sites of the facility, including all candidates referred to in the application;	IX.A. Overall Estimated Cost, page 22
(V) A schedule showing the proposed program of site acquisition, construction, completion, operation and relocation or removal of existing facilities for the named sites;	IX.B. Overall Scheduling, page 22
(W) A statement indicating that, weather permitting, the applicant will raise a balloon with a diameter of at least three 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; and	VI. A. Visual Assessment, page 13
(X) Such information as any department or agency of the state exercising environmental controls may, by regulation, require including: 1. A listing of any federal, State, regional, district, and municipal agencies, including but not limited to the Federal Aviation Administration; Federal Communications Commission; State Historic Preservation Officer; State Department of Environmental Protection; and local conservation, inland wetland, and planning and zoning commissions with which reviews were conducted concerning the facility, including a copy of any agency position or decision with respect to the facility; and 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.	VI. Environmental Compatibility, pages 13-16 Attachment 8: Correspondence from State Agencies Attachments 5 & 6: Description and Design of Proposed Facility Bulk Filing
(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;	Attachments 5 & 6: Description and Design of Proposed Facility
(Z) Such information as the applicant may consider relevant.	