HOMELAND TOWERS, LLC (HOMELAND)
NEW CINGULAR WIRELESS PCS, LLC (AT&T)

Application to the
State of Connecticut Siting Council

For a Certificate of
Environmental Compatibility and Public Need

–SHERMAN FACILITY–

Docket No. ____

HOMELAND TOWERS, LLC (HOMELAND)
9 HARMONY STREET, 2nd FLOOR
DANBURY, CONNECTICUT 06810

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MERIDEN, CONNECTICUT 06450

Table of Contents

Page

LIST OF ATTACHMENTS

I. Introduction

A. Purpose and Authority

Pursuant to Chapter 277a, § 16-50g et seq. of the Connecticut General Statutes (C.G.S.), as amended, and § 16-50j-1 et seq. of the Regulations of Connecticut State Agencies (R.C.S.A.), as amended, Homeland Towers, LLC ("Homeland") and New Cingular Wireless PCS, LLC ("AT&T") (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 telecommunications tower facility (the "Facility"). The Facility is proposed on an approximately 19.87 acre parcel of land owned by Michael J. and Suzanne J. Berger with an address of 16 Coote Hill Road in the Town of Sherman (the "Parcel"). The Parcel is improved with a single-family residence and paved driveway. The Facility is proposed within an approximately 5,625 square-foot ("s.f.") lease area in the southwestern section of the Parcel. Construction of the Facility will permit AT&T and other FCC licensed wireless carriers to provide reliable wireless services to residents, businesses, schools, municipal facilities, and visitors to southern Sherman. The proposed Facility will also provide safety benefits by supporting emergency communications equipment and AT&T's FirstNet system, a nationwide broadband public safety network dedicated to the needs of first responders.

B. Executive Summary

It is well established that the southern portion of the Town of Sherman suffers from a lack of reliable wireless services. Indeed, an independent wireless analysis that the Town commissioned in 2013 confirms the lack of reliable wireless service in this part of Town, including emergency communication services ("independent wireless analysis").[1] The Facility will provide reliable wireless communications services to the southern portion of Sherman and address the significant coverage deficiency in the existing AT&T wireless communications network along the nearby roadways and the neighboring residential and business/retail areas in Sherman. The Facility is needed by AT&T in conjunction with other existing facilities to provide reliable wireless services to the public that is not currently provided in this part of Sherman. AT&T will also deploy FirstNet, a nationwide

[1] Radio Communications System Analysis & Recommendation Report, prepared by RCC, January 15, 2013.

broadband public safety network dedicated to the needs of first responders. The Facility will also be utilized for municipal emergency communications equipment. The area is characterized by significant changes in ground elevation resulting in challenging terrain for signal propagation as well as densely wooded areas. The challenging terrain and distance between existing wireless sites and the targeted coverage area result in limited options for AT&T to provide reliable wireless services.

AT&T and Homeland independently investigated different parcels of land in southern Sherman. Over the last decade, AT&T searched for and proposed numerous sites in Sherman, including potential tower locations within this search ring in the southern area of the Town. On June 12, 2013, AT&T submitted a Technical Report ("AT&T's 2013 Technical Report") to the Town proposing a wireless telecommunications tower facility at the proposed Parcel. AT&T completed the municipal consultation process and had intended to file a certificate application for a tower site on the Parcel. In 2014, AT&T made a business decision to simply defer the site and an application was not filed with the Siting Council at that time.

In the intervening time, Homeland Towers began its own independent investigation for sites and the potential for a new tower facility in this area of Sherman. Like AT&T before it, Homeland Towers identified the Parcel as a viable candidate and entered into a long-term ground lease with the Owners. Homeland plans to construct, own and operate a wireless telecommunications tower facility on the Parcel.

AT&T more recently took its site search ring in the southern area of Sherman off its deferred status to address the significant gap in service in the community and also as part of its FirstNet Initiative, a broadband network dedicated to America's police, firefighters and emergency medical services ("EMS"). Thereafter, AT&T entered into an agreement with Homeland Towers which includes a long-term lease for AT&T's use of the proposed tower Facility to provide its services to the community.

The Facility consists of a new self-supporting monopole 170' in height that will accommodate 2 municipal whip antennas extending an additional 22' above the top of the monopole, bringing the total facility height to approximately 192' (the "Proposed Facility"). The monopole tower will be located within a 2,400 s.f. fenced equipment compound located within the 5,625 s.f. leased area in the southwestern portion of the Parcel. AT&T's antennas would be installed at an antenna centerline height of

approximately 166' above grade level ("AGL") with a walk-in equipment cabinet and emergency back-up propane fueled generator located within the equipment compound. The monopole tower and fenced equipment compound are designed to support the antennas and equipment of other FCC licensed wireless carriers as well as the municipal emergency communications equipment. Access and utilities to the Facility will be extended from Coote Hill Road. The Facility will be unmanned with no sanitary or water services and will generate on average 1 vehicle trip per month by each wireless carrier consisting of a service technician in a light duty van or truck.

The Applicants respectfully submit that the public need for a tower to provide reliable wireless services to southern Sherman far outweighs any potential adverse environmental effects from the Facility as proposed in this Application. Indeed, the proposed Facility will provide the important benefit of reliable wireless services to the nearby roadways and the neighboring residential and business/retail areas as well as reliable emergency communication services via FirstNet and municipal emergency communications equipment and will not have any substantial adverse effect on the aesthetics or scenic quality of the neighborhood.

C. The Applicants

Homeland Towers, LLC ("Homeland"), is a New York limited liability company with offices at 9 Harmony Street, 2nd Floor, Danbury, Connecticut. Homeland currently owns and/or operates numerous tower facilities in Connecticut. Homeland entered into a long term lease with Michael J. and Suzanne J. Berger. Homeland will construct, maintain and own the proposed Facility and would be the Certificate holder.

New Cingular Wireless PCS, LLC ("AT&T"), is a Delaware limited liability company with an office at 84 Deerfield Lane, Meriden, Connecticut 06450. The company's member corporation is licensed by the Federal Communications Commission ("FCC") to construct and operate a personal wireless services system, which has been interpreted as a "cellular system", within the meaning of C.G.S. Section 16-50i(a)(6).

Neither company conducts any other business in the State of Connecticut other than the development of tower sites and provision of personal wireless services under FCC rules and regulations. Correspondence and/or communications regarding this Application shall be addressed to the attorneys for the Applicants:

Cuddy & Feder, LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attention: Lucia Chiocchio, Esq.
Christopher B. Fisher, Esq.

A copy of all correspondence shall also be sent to:

Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810
Attention: Raymond Vergati
Manuel Vicente

AT&T
84 Deerfield Lane
Meriden, CT 06450
Attention: Brian Leyden
Harry Carey

D. Application Fee

Pursuant to R.C.S.A. § 16-50v-1a (b), a check made payable to the Siting Council in the amount of $1,250 accompanies this Application. Included in this Application and its accompanying attachments are reports, plans and visual materials detailing the design and location for the proposed Facility and the environmental effects associated therewith. A copy of the Siting Council's Community Antennas Television and Telecommunication Facilities Application Guide with page references from this Application is also included in Attachment 14.

E. Compliance with C.G.S. §16-50/ (c)

Neither of the Applicants is engaged in generating electric power in the State of Connecticut. Therefore, the Facility is not subject to C.G.S. § 16-50r. Furthermore, the proposed Facility has not been identified in any annual forecast reports. Accordingly, the proposed Facility is not subject to § 16-50/ (c).

II. Service and Notice Required by C.G.S. § 16-50/ (b)

Pursuant to C.G.S. § 16-50/ (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 13. Pursuant to C.G.S. § 16-50/ (b), notice of the Applicant's intent to submit this application was published on two occasions in the Town Tribune, the publication used for planning and zoning notices in the Town of Sherman. The text of the published legal notice is included in Attachment 12. The original affidavits of publication will be provided to the Siting Council once received from the publisher. Furthermore, in compliance with C.G.S. § 16-50/ (b), notices were sent to each person or entity appearing of record as the owner of a property which abuts the premises on which the Facility is proposed. Certification of such notice, a sample notice letter, and the list of property owners to whom the notice was mailed are also included in Attachment 12.

III. Statements of Need and Benefits

A. Statement of Need

1. United States Policy & Law – Wireless Facilities

United States policy and laws continue to support the growth of wireless networks. In 1996, the United States Congress recognized the important public need for high quality wireless communications service throughout the United States in part through adoption of the Telecommunications Act (the "Act"). A core purpose of the Act was to "provide for a competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies to all Americans." H.R. Rep. No. 104-458, at 206 (1996) (Conf. Rep.). With respect to wireless communications services, the Act 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.

In December 2009, then President Obama issued Proclamation 8460 which included wireless facilities within his definition of the nation's critical infrastructure and declared in part:

> Critical infrastructure protection is an essential element of a resilient and secure nation. Critical infrastructure are the assets, systems, and networks, whether physical or virtual, so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, public health or safety. From water systems to computer networks, power grids to cellular phone towers, risks to critical infrastructure can result from a complex combination of threats and hazards, including terrorist attacks, accidents, and natural disasters.[2]

Congress and the Federal Communications Commission further developed a national plan entitled "Connecting America: The National Broadband Plan" (the "Plan").[3] Although broad in scope, the Plan's goal is undeniably clear:

> [A]dvance consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, employee training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.[4] [internal quotes omitted]

A specific goal of the Plan is that "[t]he United States should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation."[5]

Shortly after adoption of the Plan, and in April 2011, the FCC issued a Notice of Inquiry concerning the best practices available to achieve wide-reaching broadband capabilities across the nation including better wireless access for the public.[6] The FCC also adopted various orders in furtherance of the public need for the deployment of wireless infrastructure including specific time limits for decisions on land use and zoning permit

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[2] Presidential Proclamation No. 8460, 74 C.F.R. 234 (2009).

[3] *Connecting America: The National Broadband Plan, Federal Communications Commission (2010)*, available at https://www.fcc.gov/general/national-broadband-plan.

[4] Id. at XI.

[5] Id. at 25.

[6] FCC 11-51: Notice of Inquiry, In the Matter of Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting, available at https://docs.fcc.gov/public/attachments/FCC-11-51A1.pdf.

applications.[7] Congress also acted again when it passed the Middle Class Tax Relief and Job Creation Act of 2012, which includes Section 6409 in the Spectrum Act which preempts a discretionary review process for eligible modifications of existing wireless towers or base stations.

In 2018, the FCC adopted two separate orders incorporating several declaratory rulings and a set of new regulations to specifically address various areas of state and municipal oversight of wireless facility siting including towers and small cells.[8] The first order prohibits any actual or de facto moratoria on the siting of wireless facilities. The second, intended to streamline the siting of current 4G LTE and future 5G wireless infrastructure, addressed numerous provisions of the Telecommunications Act and focused on any state or local siting requirements that might materially inhibit the deployment of wireless facilities including small cells. In October of 2018, a national strategy was developed for the United States to win the 5G global race and continue American leadership in wireless technology.[9]

Most recently, the pandemic underscored the critical importance of reliable wireless services as various government entities issued stay-at-home orders and Americans utilized wireless services for work, school, telehealth, deliveries, etc. Indeed, telecommunications was deemed an essential service during the pandemic state of emergency. The federal government also identifies the continued operation and growth of telecommunications capabilities as vital during this unprecedented time. On March 16, 2020, the Director of the United States Department of Homeland Security, Cybersecurity and Infrastructure Security Agency, National Communications Coordination Branch issued a directive ordering cooperation and access to allow telecommunications providers to maintain their infrastructure to ensure the continuation of critical communication capabilities during the COVID-19 pandemic.[10]

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[7] WT Docket No. 08-165- Declaratory Ruling on Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review and to Preempt Under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance.

[8] WT Docket No. 17-79 – Declaratory Ruling and Third Report and Order, Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment.

[9] See https://www.whitehouse.gov/presidential-actions/presidential-memorandum-developing-sustainable-spectrum-strategy-americas-future and https://www.whitehouse.gov/articles/america-will-win-global-race-5g

[10] https://www.cisa.gov/news/2020/03/19/cisa-releases-guidance-essential-critical-infrastructure-workers-during-covid-19

2. United States Wireless Usage Statistics

Over the past thirty plus years, wireless communications have revolutionized the way Americans live, work and play. The ability to connect with one another in a mobile environment has proven essential to the public's health, safety and welfare. As of June 2020, there were an estimated over 442.5 million wireless devices in the United States amounting to approximately 1.3 devices per person.[11] The United States also saw a record-setting amount of data-traffic with over 37 trillion megabytes carried over U.S. wireless networks in 2019, which translates to 96x more data used in 2019 than 2010.[12] The pandemic resulted in a 24.3% increase in voice traffic and a 19.6% increase in U.S. data traffic.[13] The ever-increasing number of households transitioning to mobile voice connection only (i.e. abandoning land lines) has now grown to approximately 62.5% of households nationwide.[14] As of 2016, Connecticut in contrast lags behind in this statistic with approximately 40.8% wireless only households.[15]

Wireless access has also provided individuals a newfound form of safety. Up to 80% of *all* 9-1-1 calls made each year come from a wireless device.[16] Beginning May 15, 2015, wireless carriers in the U.S. voluntarily supported Text-to-911, a program that allows users to send text messages to emergency services as an alternative to placing a phone call.[17]

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[11] CTIA 2020 Annual Survey Highlights available at https://www.ctia.org/news/report-2020-annual-survey-highlights.

[12] Id.

[13] Id.

[14] *See Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-June 2020*, National Center for Health Statistics, Stephen J. Blumberg Ph.D and Julian V. Luke, found at https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless202102-508.pdf.

[15] *See Modeled Estimates of the percent distribution of household telephone status for adults aged 18 and over, by state: United States*, 2018 available at https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless_state_201912-508.pdf.

[16] 911 Wireless Services Guide last reviewed November 2, 2015 available at https://transition.fcc.gov/cgb/consumerfacts/wireless911srvc.pdf.

[17] *See Text-to-911: What you need to know* available at https://www.fcc.gov/consumers/guides/what-you-need-know-about-text-911. It should be noted that while the carriers have committed to supporting 911 texting in their service areas, text-to-911 is not available everywhere. Emergency call centers, called PSAPs (Public Safety Answering Points), are the bodies in charge of implementing text messaging in their areas. These PSAPs are under the jurisdiction of their local state and counties, not the FCC, which

Wireless access to the internet has also grown exponentially since the advent of the truly "smartphone" device. Cisco reports that mobile data traffic will continue to grow significantly, reaching 77.5 exabytes per month by 2022 which is an exponential increase from the 4.4 exabytes per month at the end of 2015.[18] As of 2018, smartphone data traffic has surpassed that of fixed broadband.[19]

3. Public Need For A Tower For Wireless Services

The Facility proposed in this Application will be an integral component of AT&T's network in its FCC licensed areas throughout the state. A significant gap in AT&T's network in the southern part of Sherman dates back more than eight years as evidenced by AT&T's municipal consultation with the Town for a tower site in 2013. The Town's independent wireless analysis demonstrates that there is also a deficiency in emergency communication services in the southern part of Sherman. The proposed Facility in southern Sherman will provide reliable services in AT&T's network to an area of the Town currently experiencing deficient coverage, including State Routes 37 and 39 and the neighboring residential and community uses in Sherman. Attachment 1 is a Radio Frequency Engineering Report with coverage plots depicting the "Current Coverage" provided by AT&T's existing facilities in this area of the state and "Proposed Coverage" as predicted from the proposed Facility together with existing coverage from adjacent sites. Additional statistics regarding the overall area, population and roadway miles of expanded coverage in the community are included in AT&T's report.

B. Statement of Benefits

Southern Sherman is an area that unquestionably experiences significant gaps in both emergency communications and reliable wireless services. Carriers have seen the public's demand for traditional cellular telephone services in a mobile setting develop into a requirement for anytime-anywhere wireless connectivity with critical reliance placed on

governs the carriers. *See also Text-to-911 is now available in Connecticut* available at https://www.text911ct.org/, indicating that the State of Connecticut has recently transitioned to the Text-to-911.

[18] *Cisco Visual Networking Index: Forecast and Trends, 2017-2022 White Paper*, February 18, 2019; Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2016-2021, March 28, 2017.

[19] PriceWaterhouseCoopers as reported by CTIA; https://www.ctia.org/the-wireless-industry/infographics-library.

the ability to send and receive voice, text, image and video. Provided that network service is available, modern devices allow for interpersonal and internet connectivity, irrespective of whether a user is mobile or stationary, which has led to an increasing percentage of the population to rely on their wireless devices as their primary form of communication for personal, business and emergency needs. This reliance on wireless services became critical during the pandemic for working-from-home, virtual schooling, telehealth appointments and access to goods. The Facility would allow AT&T and other carriers to provide these benefits to the public that are not offered by any other form of communication system.

Moreover, AT&T will provide "Enhanced 911" services from the Facility, as required by the Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286 (codified in relevant part at 47 U.S.C. § 222) ("911 Act"). The purpose of this federal legislation is to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. In enacting the 911 Act, Congress recognized that networks that provide for the rapid, efficient deployment of emergency services would enable faster delivery of emergency care with reduced fatalities and severity of injuries. With each year since passage of the 911 Act, additional anecdotal evidence supports the public safety value of improved wireless communications in aiding lost, ill, or injured individuals, such as motorists and hikers. Carriers are able to help 911 public safety dispatchers identify wireless callers' geographical locations within several hundred feet, a significant benefit to the community associated with any new wireless site.

In 2009, Connecticut became the first state in the nation to establish a statewide emergency notification system. The CT Alert ENS system utilizes the state Enhanced 911 services database to allow the Connecticut Department of Homeland Security and Connecticut State Police to provide targeted alerts to the public and local emergency response personnel alike during life-threatening emergencies, including potential terrorist attacks, Amber Alerts and natural disasters. Pursuant to the Warning, Alert and Response Network Act, Pub. L. No. 109-437, 120 Stat. 1936 (2006) (codified at 47 U.S.C. § 332(d)(1) (WARN), the FCC has established the Personal Localized Alerting Network (PLAN). PLAN will require wireless service providers to issue text message alerts from the President of the United States, the U.S. Department of Homeland Security, the Federal Emergency Management Agency, and the National Weather Service using their

networks that include facilities such as the one proposed in this Application. Telecommunications facilities like the one proposed in this Application enable the public to receive e-mails and text messages from the CT Alert ENS system on their mobile devices. The ability of the public to receive targeted alerts based on their geographic location at any given time represents the next evolution in public safety, which will adapt to unanticipated conditions to save lives.

Public safety will also be serviced by AT&T's deployment of FirstNet services from this Facility. FirstNet is a federal agency with a mandate to create a nationwide, interoperable public safety broadband network for first responders.[20] FirstNet selected AT&T to build, manage and operate the FirstNet network. By deploying FirstNet at this Facility, AT&T will provide prioritize, preemptive wireless services for first responders in this area of Sherman.

C. Technological Alternatives

The FCC licenses granted to wireless carriers operating in Connecticut authorize them to provide wireless services in this area of the state through deployment of a network of wireless transmitting sites. The southern portion of Sherman is a community with significant changes in ground elevation and forested areas which results in challenging topography for transmitting wireless services in all directions. At this time, there are no known existing tower sites or structures in the southern Sherman area that would meet the technical requirements and/or are available for lease or acquisition for construction of a tower site that could support a wireless facility.

Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means of addressing the existing coverage deficiency in Sherman. Technologies like small cells are best suited for specifically defined areas where capacity is necessary, such as commercial buildings, shopping malls, and tunnels. Closing the coverage gaps and providing reliable wireless services in southern Sherman requires a tower site that can provide reliable service over a footprint that spans several square miles. The Applicants submit that there are no

[20] See https://about.att.com/newsroom/2019/fn_purpose_built_cell_sites.html for more information about FirstNet.

equally effective, feasible technological alternatives to a new tower for providing reliable personal wireless services in the southern Sherman area.

IV. Site Selection and Tower Sharing

A. Site Selection

AT&T currently does not provide reliable services in southern Sherman. Indeed, AT&T was engaged in site searches in the Sherman area over a period of several years and consulted with the Town in 2013 on the proposed Parcel before deferring its proposal in 2014. Recognizing the significant gap in wireless services and lack of infrastructure in the southern areas of Sherman, in early 2015, Homeland began its search for suitable sites. This particular site search area in Sherman is predominated by significant ranges in ground elevation and densely wooded areas. No tall structures are located at the higher elevations in this area of the Town of Sherman. The entire area consists principally of a mix of single family residential structures and wooded land.

AT&T and Homeland independently investigated a number of different parcels of land within southern Sherman for construction of a new tower facility. AT&T's 2013 technical report included 31 sites investigated with references back to 2009. As provided in Attachment 2, Homeland investigated 42 sites and only 9 had landowners that expressed potential interest to Homeland. AT&T's RF engineers determined that 7 of these 9 sites would not provide the necessary coverage and one site was rejected due to the presence of an extensive wetlands system throughout the property.

B. Tower Sharing

The proposed Facility is designed to accommodate the antennas and equipment of AT&T and up to three (3) additional wireless carriers for wireless services networks in the Town of Sherman as well as municipal emergency communications equipment.

V. Facility Design

The proposed Facility includes an approximately 5,625 s.f. square shaped lease area located in the southwest portion of the approximately 19.87 acre Parcel located at 16 Coote Hill Road. The Facility consists of a new self-supporting monopole 170' in height with 2 municipal whip antennas extending an additional 22' above the top of the

monopole, bring the total height to approximately 192'. The monopole tower will be located within a 2,400 s.f. fenced compound. AT&T would install six (6) antennas and related equipment at a centerline height of 166' and will install a walk-in equipment cabinet and emergency back-up propane-fueled generator at grade within the fenced equipment compound. The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers and municipal communications equipment. The monopole will be designed with a yield point so that in the unlikely event of a catastrophic failure, the tower radius will be contained within the Parcel boundaries.

The 2,400 s.f. fenced equipment compound would accommodate AT&T's equipment and provide for future shared use of the Facility by other carriers. The tower compound would be enclosed by an 8' high chain link fence. An AT&T walk-in equipment cabinet, a 15kW propane emergency back-up generator and 500 gallon propane tank would be installed at the tower base on a concrete pads within the tower compound.

Vehicle access to the Facility would be provided from Coote Hill Road over the existing paved driveway a distance of approximately 415', then along a new 12' wide gravel access drive approximately 1,635' to the tower compound. Utility connections would be routed underground along the proposed access drive from an existing transformer and telco box at the existing paved driveway on the Parcel. Attachments 3 and 4 contain the specifications for the proposed Facility, including an abutters map, existing conditions survey, site plan, compound plan and tower elevation, and other relevant details of the proposed Facility.

Included as Attachments 3, 5, 6, 7 and 8 are various documents obtained or created as part of the Applicants' environmental review including a Visibility Analysis (Attachment 8). Some of the relevant information included in Attachments 5, 6, 7 and 8 reveals that:

- Total area of disturbance is approximately 67,000 s.f. and of the 90 trees proposed for removal, 48 are 14" or greater DBH. Site improvements entail approximately 1,663 cubic yards of fill. Approximately 712 cubic yards of crushed stone are needed for the compound and driveway construction.

- One wetland system separated by a relatively large upland island was identified in the central portion of the Parcel. The Proposed Facility is located approximately 79' from the nearest wetland boundary. The proposed gravel

access drive includes two wetland crossings within the narrowest features of the wetland impacting approximately 1,545 s.f. of delineated wetlands. As noted in the Wetlands Impact Analysis included in Attachment 6, there are no alternative access options that would avoid the wetlands crossings because the wetland system extends across both north and south property boundaries. The Wetland Impact Analysis details other design considerations and protection measures during construction that will mitigate adverse impacts to wetland resources. On-site management of stormwater and erosion controls will be implemented during and after construction.

- Visibility of the proposed Facility is primarily limited to two areas to the northeast and northwest of the site at distances between approximately 0.5-mile and 0.85-mile. The area of visibility is only 0.4% of the 8,042-acre visibility study area.

- To mitigate any potential impacts to the slimy salamander, Homeland relocated the proposed Facility on the Parcel from the location shown in the Technical Report to the location proposed herein and submitted a report to DEEP detailing this proposed mitigation. In response, DEEP concurred with the mitigation report findings that the relocation of the proposed Facility on the Parcel eliminates all direct impacts to the slimy salamander habitat. With respect to the other State Listed Species, Homeland will comply with all DEEP recommended best management practices to avoid impacts.

- In addition to avoiding impacts to the slimy salamander, the facility relocation resulted in a reduction of 34 tree removals and area of disturbance.

VI. Environmental Compatibility

Pursuant to C.G.S. §16-50p (a)(3)(B), the Siting Council is required to find and determine as part of the Application process any probable 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, the Facility will be constructed in compliance with applicable regulations and guidelines, and best practices will be followed to ensure that the construction of the proposed Facility will not have a significant adverse environmental impact. In addition,

the regular operation and monthly maintenance of the Facility will not have a significant environmental impact.

A. Visual Assessment

Included in Attachment 8 is a Visibility Assessment & Photosimulations analysis which contains a viewshed map and photo simulations of off-site views. As detailed in the enclosed analysis, areas from where the Facility would be visible comprise ± 29 acres of seasonal visibility and an additional ± 5 acres of year-round visibility. Together, this represents approximately 0.4%, or less than 1% of the 2-mile radius study area.

The visual assessment concludes that visibility is primarily limited to two areas, northeast and northwest of the site at distances between ± 0.5 mile and ± 0.85 mile away. Predicted visibility is primarily seasonal, when leaves are off the trees, including northwest of the Site along Route 37 and Leach Hollow Road for an approximately ± 0.5 mile stretch.

No schools or commercial day care centers are located within 250' of the Parcel.

Weather permitting, the Applicants will raise a balloon with a diameter of at least three (3) feet at the Parcel on the day of the Siting Council's first hearing session on this Application, or at a time otherwise specified by the Siting Council.

B. CT DEEP, SHPO and Other State and Federal Agency Comments

Various consultations and analyses for potential environmental impacts are summarized and included in Attachment 10. Representatives of the Applicants submitted requests for review from federal and state entities including the Connecticut Department of Economic and Community Development State Historic Preservation Office ("SHPO") and the Connecticut Department of Energy & Environmental Protection ("DEEP").

Consultation with DEEP indicated known extant populations of State Listed Species, including the slimy salamander (Plethodon glutinosus), a State Threatened Species, to occur within or close to the boundaries of the Parcel. To mitigate any potential impacts to the slimy salamander, Homeland relocated the proposed Facility on the Parcel from the location shown in the Technical Report to the current proposed location and submitted a report to DEEP detailing this proposed mitigation. In response, DEEP concurred with

the mitigation report findings that the relocation of the proposed Facility on the Parcel eliminates all direct impacts to the slimy salamander habitat. With respect to the other State Listed Species, DEEP recommended best management practices, including tree clearing time limits, and Homeland agrees to comply with all recommended best practices. A copy of the January 9, 2021 DEEP response concurring with the slimy salamander mitigation and best practices details is included in Attachment 10 in the USFWS & NDDB Compliance Determination.

Homeland's evaluation also identified that one federally listed threatened species, the northern long eared bat ("NLEB"), is known to occur in the vicinity of the Parcel. A review of the DEEP National Database Diversity ("NDDB") Map reveals that proposed Facility is not located within 150' of a known NLEB maternity roost tree or within 0.25 mile of a NLEB hibernaculum. As explained in the USFWS and NDDB Compliance Determination included in Attachment 10, based on these results, conservation measures are not required. However, Homeland agrees to implement the USFWS voluntary conservation measures detailed in the enclosed Compliance Determination.

No historic resources were identified within 0.5 miles of the Site. A professional cultural resources assessment and reconnaissance survey will be conducted and provided to the SHPO for confirmation that the Proposed Facility will have no adverse effect on any listed or eligible historic resources or identified archaeological sites. SHPO's determination will be forwarded upon receipt. It is noteworthy that when a 170' tall facility was previously proposed on the Parcel in 2013, the SHPO determined that there would be no historic properties affected.

Included in Attachment 10 is an Avian Resource Evaluation which concludes that no migratory bird species are anticipated to be impacted by the proposed Facility. No Important Bird Areas are located in proximity to the proposed Facility and it will comply with the USFWS guidelines for migratory impacts to bird species.

As required by statute, this Application is being served on state and local agencies, which may choose to comment on the Application prior to the close of the Siting Council's public hearing.

C. Power Density

In August of 1996, the FCC adopted a standard for Maximum Permissible Exposure (MPE) for RF emissions from telecommunications facilities like the one proposed in this Application.[21] The tower site will fully comply with federal and state MPE standards. The cumulative worst-case calculation of power density from AT&T's, Town of Sherman and Litchfield County Dispatch operations would be 6.61% of the MPE standard. A maximum power density report is included in Attachment 7.

D. Wetlands, Drainage & Other Environmental Factors

A wetland delineation at the Parcel identified one wetland system separated by a relatively large upland island in the central portion of the Parcel. The Proposed Facility is located approximately 79' from the nearest wetland boundary. The proposed gravel access drive includes two wetlands crossings impacting approximately 1,545 s.f. of delineated wetlands. As set forth in the Wetlands Impact Analysis enclosed in Attachment 6, there are no alternative access options that would avoid wetlands crossings because the wetland system extends across north and south property boundaries. The wetlands crossings are proposed within the narrowest features of the wetland and are comprised of seasonal intermittent watercourses with minimal to no bordering wetlands and utilize the upland areas for the majority of the driveway location. The Wetland Impact Analysis details other design considerations, such as the utilization of natural stream crossing design standards and the placement of the crossings at topographic plateaus to minimize filling and grading requirements. Wetland protection measures and an invasive species control plan as set forth in the Wetland Impact Analysis will also be implemented to mitigate impacts. Due to the fact that the proposed Facility will not alter existing surface or subsurface flow and include gravel surfaces, the hydrology of the nearby wetland will not be altered. Based on these mitigation measures as outlined in the Wetland Impact Analysis, no adverse impacts to wetlands or watercourse are anticipated.

Best management practices to control stormwater and soil erosion during construction and post-installation of the Proposed Facility and access drive will be implemented.

[21] See https://www.fcc.gov/document/chairman-pai-proposes-maintain-current-rf-exposure-safety-standards for the FCC's August 2019 announcement that no changes are warranted to the FCC's RF Exposure Limits for Handheld Devices after a six year public input and comment period.

Sedimentation and erosion controls will be designed, installed, and maintained during construction activities in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

The proposed Facility would be unmanned, requiring monthly maintenance visits approximately one hour long. Carriers that maintain antennas and equipment at an approved Facility monitor their facility 24 hours a day, seven days a week from a remote location. The proposed Facility does not require a water supply or wastewater utilities. No outdoor storage or solid waste receptacles will be needed. Furthermore, the proposed Facility will neither create nor emit any smoke, gas, dust, other air contaminants, noise, odors, nor vibrations other than those created by any heating and ventilation equipment or generators installed by the carriers. During power outages and weekly equipment cycling an emergency generator would be utilized with air emissions in compliance with State of Connecticut requirements. The Environmental Sound Assessment included in Attachment 9 demonstrates that the worse-case sound estimate at the nearest residence, which would occur only when the emergency back-up generator is running at the same time as a supplementary cabinet cooler, is well below the daytime ambient level.

E. National Environmental Policy Act Review

The Applicants evaluated the project in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (codified in relevant part at 42 U.S.C. § 4321 et seq.) ("NEPA"). The Parcel was not identified as a wilderness area, wildlife preserve, National Park, National Forest, National Parkway, Scenic River, State Forest, State Designated Scenic River or State Gameland.

F. Air Navigation

The proposed Facility was analyzed for potential impacts to air navigation. The analysis revealed that no registration is required with the FAA; no marking or lighting of the tower for air navigation safety is required and that the tower will not be an obstruction to aviation. See materials included in Attachment 4.

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

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

A. Sherman's Plan of Conservation and Development

Sherman's 2013 Plan of Conservation & Development ("POCD"), adopted June 20, 2013, is included in the Bulk Filing. POCD Pages 29-31 address wireless service and infrastructure and confirms that the topography of Sherman makes siting infrastructure challenging and, as a result "dead spots" exist. The POCD recommends that Sherman's committee to improve public safety make recommendations for telecommunications services within the town. As noted above, the town engaged RCC for an analysis of the town's emergency communications and a report was issued on January 15, 2013. This report confirmed significant lack of reliable town-wide communications coverage, including areas in the south. The need for reliable wireless service in the Town is also confirmed by the Sherman Telecommunications Committee which was formed in 2018 to help facilitate cell service for all of Sherman. It is respectfully submitted that the Proposed Facility will remedy the identified lack of reliable wireless service and provide needed emergency communications services, including municipal and FirstNet services, to the southern portion of Town.

B. Sherman's Zoning Regulations and Zoning Classification

Requirements for personal wireless facilities are included in the Town of Sherman Zoning Regulations Section 356 titled "Public Utilities". Zoning Regulations Section 356.3 sets forth general requirements for personal wireless facilities as defined in the regulations and provides that personal wireless facilities are permitted in all zones subject to a special use permit. The Parcel is classified in the Town's Farm-Residence Zone. Siting preferences in the Zoning Regulations include collocation on existing towers as the most preferred location with new towers 75' in height or greater in residential zones as the least preferred. Sections 356.3E and 356.I include specific standards and the table below provides a review of the requirements of tower facilities under the Town of

Sherman Zoning Regulations accompanied by the proposed Facility's overall conformity with those requirements.

Section from the Zoning Regulations	Standard or Preference	Proposed Facility
356.3E i	Minimum Lot Size: 160,000 s.f. and shaped so that a square of 259' may be fit within the lot	The proposed Site is approximately 19.87 acres in size.
356.3E ii	Maximum Height: 150' or minimum height needed; whichever is lower	Proposed tower height is 170', or minimum needed to provide service.
356.3E iii	Setbacks: 2 times the tower height, in this case 240'	The distance from the Proposed tower to the southwestern property line is approximately 102'. However, the tower will be designed with a yield point at 68'. The distance from the Proposed tower to all other property lines exceeds 240'.
356.3E iv	400' minimum buffer from any residential use	The closest off-site residence is approximately 809' to the east.
356.3E v	Maximum lot coverage: 500 s.f.	The proposed 2,400 s.f. fenced equipment compound and new access drive will be gravel surfaces.
356.3E vi	No tower shall be located within 400' of the boundary of an existing approved historic district or site on the national register of historic places	The proposed Facility is not located within 400' of the boundary of an existing approved historic district of site on the national register of historic places.
356.3E vii	No lighting unless required by the FCC and not outdoor lights except when a person is at the site	No illumination is required by the FAA and none is proposed. See Attachment 4.
356.3E viii	No commercial signs or advertising	No advertising signs are proposed, and any other signage would be minimal in scale and nature and would be limited to no trespassing, warning, FCC registration, and associated signs on the compound fencing.
356.3E ix	Towers shall be designed to accommodate two additional users if 100' in height or taller	The proposed Facility will be designed to accommodate 3 additional wireless carriers as well as municipal communications equipment.
356.3E xii	Facilities must comply with the standards promulgated by the FCC for non-ionizing electromagnetic emissions.	The proposed Facility will comply with all applicable emission standards. See Attachment 7.

Section from the Zoning Regulations	Standard or Preference	Proposed Facility
356.3E xiii	All utilities shall be installed underground.	Utilities will be installed underground and be routed along the proposed access drive.
356.3E xiv	All generators shall comply with State and local noise regulations.	The sound study included in Attachment 9 demonstrates that the facility, including the emergency back-up generator complies with State and local noise regulations. It should also be noted that the emergency back-up generator is exempt from DEEP noise control standards.
356.3E xv	Any building in a residential or residential/commercial zone or on a lot adjacent to a residential or residential/commercial zone shall be made to look like a residential building, with a pitched roof, wood or wood-type construction, and other design requirements consistent to other structures in the zone.	Equipment buildings are not proposed. In addition, given the existing mature vegetative buffer, the proposed 8' fence equipment enclosure and distance to the nearest residence, it is respectfully submitted that the proposed equipment cabinet and emergency generator will not result in any visual impacts.
356.3E xvi	Appropriate trees and other vegetation as approved by the Commission shall be planted and maintained to screen the tower and any equipment buildings from view from nearby residences and roads. Existing trees and vegetation should be used as much as possible to provide this screening.	Given the existing dense vegetative buffer and the distance to the nearest off-site residence (approximately 809' to the east), it is respectfully submitted that additional vegetative screening is not needed.
356.3I i	Each facility shall have adequate security provided. No razor wire shall be allowed.	The proposed Facility will be enclosed by an 8' tall security fence. AT&T's facility will be monitored remotely.
356.3I iii	No more than one tower is permitted on a lot.	Only one tower is proposed at the Site.
356.3I iv	Towers may be required to be painted a neutral color, or have such other finish or camouflage as to allow them to blend into the existing surroundings.	Noted.

C. Planned and Existing Land Uses

The Facility is proposed on a 19.87 acre parcel of land owned by Michael J. and Suzanne J. Berger with the surrounding area being made up of single family residences. Consultation with municipal officials did not indicate any other planned changes to the existing surrounding land uses. Copies of the Town of Sherman Zoning Regulations, Inland Wetlands Regulations, Zoning Map and Plan of Conservation and Development are included in the Bulk Filing.

D. Sherman's Inland Wetlands and Watercourses Regulations

The Sherman Inland Wetlands Regulations ("Local Wetlands Regulations") regulate certain activities conducted in "Wetlands" and "Watercourses" as defined therein. The Town established upland review areas for wetlands and watercourses of 100' for regulated activities. As set forth in the Wetland Delineation Report and Wetland Impact Analysis included in Attachment 6, the Proposed Facility is located approximately 79' from the nearest wetland boundary and the proposed gravel access drive includes two wetlands crossings impacting approximately 1,545 s.f. of delineated wetlands. As noted above, the location of the proposed Facility was shifted to avoid impacts to the slimy salamander, a State Threatened Species. The Wetland Impact Analysis details design measures and mitigation measures that will be implemented and will result in no adverse impacts to wetland resources. All appropriate sediment and erosion control measures will be designed and employed in accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Connecticut Council of Soil and Water Conservation and DEP (2002). Soil erosion control measures and other best management practices will be established and maintained throughout the construction of the proposed Facility. Thus, the Applicants do not anticipate an adverse impact on any wetland or water resources as part of construction or longer term operation of the Facility.

VIII. Consultation with Town Officials

C.G.S. § 16-50*l* generally requires an applicant to consult with the municipality in which a new tower facility may be located for a period of ninety days prior to filing any application with the Siting Council. With respect to the Facility as proposed in this Application, a Technical Report was filed with the Town of Sherman on October 13, 2020. On November 21, 2020, a duly noticed public information meeting was conducted

via videoconference at the Board of Selectman meeting. This information meeting included a presentation by the Applicants, and comments and questions from the Board of Selectman and the public. At the meeting, the Town requested that Homeland Towers conduct a balloon float. On Sunday, January 31st, 2021 a noticed balloon float was performed at the Site from approximately 8:30am to 12:00pm.

Subsequent to the information meeting, the Planning & Zoning Commission submitted comments in correspondence dated December 3, 2020. The Planning & Zoning Commission expressed concern regarding erosion and water control impacts to surrounding properties and Lake Mauweehoo and the maintenance of the proposed access drive. As indicated herein, all appropriate sediment and erosion control measures will be designed and employed in accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Connecticut Council of Soil and Water Conservation and DEP (2002). Soil erosion control measures and other best management practices will be established and maintained throughout the construction of the proposed Facility. A complete sediment and erosion control plan will be submitted as part of the Development and Management Plan submission. Comments from residents were also received after the information meeting.

After the information meeting, the location of the proposed Facility on the Site was shifted in consultation with DEEP to avoid impacts to the slimy salamander, a State Threatened Species. This location is depicted in the enclosed Application materials, documents and reports.

Copies of the municipal consultation documents, including the Planning & Zoning Commission correspondence and resident comments letters are included in Attachment 11.

IX. Estimated Cost and Schedule

A. Overall Estimated Cost

The total estimated cost of construction for the proposed Facility is represented in the table below.

Requisite Component:	**Cost (USD)**
Tower & Foundation	170,000
Site Development	145,000
Utility Installation	60,000
Facility Installation	45,000
Subtotal Homeland Towers Cost	**420,000**
Antennas and Equipment	250,000
Subtotal AT&T Cost	**250,000**
Total Estimated Costs	**670,000**

B. Overall Scheduling

Site preparation work would commence following Siting Council approval of a Development and Management ("D&M") Plan and the issuance of a Building Permit by the Town of Sherman. The site preparation phase is expected to be completed in 4-5 weeks. Installation of the monopole, antennas and associated equipment is expected to take an additional three weeks. The duration of the total construction schedule is approximately 8 weeks. Facility integration and system testing for carrier equipment is expected to require an additional 2 weeks after construction is completed.

X. Conclusion

This Application and the accompanying materials and documentation clearly demonstrate that a public need for a new tower in southern Sherman exists to provide both emergency communications and wireless services to the public. AT&T and other wireless carriers have gaps in reliable communications in and around this area of the state. The Applicants respectfully submit that the public need for the proposed Facility outweighs any potential environmental effects from development of the tower, none of which have been identified as substantial or significant. Accordingly, the Applicants respectfully request that the Siting Council grant a Certificate of Environmental Compatibility and Public Need to Homeland Towers for a new wireless telecommunications Facility in southern Sherman.

Respectfully Submitted,

By: Lucia Chiocchio

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Christopher B. Fisher, Esq.
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ATTACHMENT 1

Radio Frequency Analysis Report

CT1341
16 Coote Hill Road, Sherman, CT

February 18, 2021

C Squared Systems, LLC
65 Dartmouth Drive, A3
Auburn, NH 03032

Phone: (603) 644-2800
Fax: (603) 644-2801
Support@csquaredsystems.com

Table of Contents

List of Tables

List of Attachments

1. Overview

C Squared Systems was retained by New Cingular Wireless PCS, LLC ("AT&T") to evaluate the proposed wireless communications facility at 16 Coote Hill Road, Sherman, CT at 166 feet AGL, hereinafter referred to as "CT1341".

AT&T is licensed by the FCC to provide wireless communications services throughout the State of Connecticut including the Town of Sherman where the proposed facility would be located. The proposed facility has been selected as suitable for implementation of the National Public Safety Broadband Network ("NPSBN") using FirstNet, while also addressing a substantial gap in 4G LTE coverage for AT&T's network.

This report addresses AT&T's need for the proposed wireless facility and confirms that there are no other suitable existing structures that could address the coverage gaps in their wireless communications network.

The coverage analysis completed by C Squared Systems confirms: AT&T has a gap in reliable service in Sherman, and that Candidate "CT1341" provides AT&T with coverage in that service gap. Included as attachments in this report are coverage maps detailing the existing network and expected coverage from the proposed facility, pertinent site information, terrain and network layout maps.

2. Technology Advances & Design Evolution

AT&T provides digital voice and data services using 3rd Generation (3G) UMTS technology in the 800 MHz and 1900 MHz frequency band, and advanced 4th Generation (4G) services over LTE technology in the 700 MHz and 1900 MHz frequency bands as allocated by the FCC (as part of AT&T's scheduled sunset of 3G service in February 2022, only 4G technology will be installed on the proposed site). These data networks are used by mobile devices for fast web browsing, media streaming, and other applications that require broadband connections. The mobile devices that benefit from these advanced data networks are not limited to basic handheld phones, but also include devices such as smartphones, PDA's, tablets, and laptop air-cards. 4G LTE services and devices have enabled AT&T customers to have even faster connections to people, information, and entertainment.

AT&T will also deploy FirstNet services from this facility. FirstNet is a federal agency with a mandate to create a nationwide, interoperable public safety broadband network for first responders. First responders across the country currently rely on more than 10,000 separate radio networks which oftentimes do not interoperate with one another. By deploying a nationwide broadband public safety network built specifically to meet the communications needs of first responders, the FirstNet network will provide a solution to the decades-long interoperability and communications challenges first responders have experienced, and which was highlighted by the 9/11 Commission's 2004 Final Report.

FirstNet selected AT&T to build, manage and operate the National Public Safety Broadband Network ("NPSBN") using FirstNet's Band 14 spectrum (Call Sign WQQE234, 20 MHz of the 700 MHz spectrum), together with AT&T's own wireless network. Using a combination of new and existing wireless facilities, AT&T provides prioritized, preemptive wireless services for first responders across Connecticut, New England and nationwide, while also improving 4G LTE coverage for AT&T customers.

It is important to note that with AT&T's migration from 3G to 4G services come changes in the base station infrastructure and resultant changes in the operating thresholds required by the LTE network. In the past, AT&T has presented receive signal thresholds of -74 dBm for their in-building coverage threshold and -82 dBm for their in-vehicle coverage threshold. Those thresholds were based on network requirements to support 2G/3G data speeds and

past usage demand. Today, customers expect low latency and faster data speeds as evidenced by increasing data usage trends and customer demand.

AT&T's 4G LTE technology is designed to thresholds of -83 dBm and -93 dBm for their 700 MHz LTE and -86 dBm and -96 dBm for their 1900 MHz LTE.[1] The stronger thresholds (-83 dBm and -86 dBm) yield greater throughputs and improved customer experience. The -93 dBm and -96 dBm thresholds are the minimum acceptable levels required to meet customer expectations for 4G service.

3. Coverage Objective

There is a significant coverage deficiency in the existing AT&T wireless communications network along State Route 37 and State Route 39 and the neighboring residential and business/retail areas in Sherman, referred to herein as the "targeted area". A deficiency in coverage is evidenced by the inability to adequately and reliably transmit/receive quality calls and/or utilize data services offered by the network. Seamless reliable coverage provides users with the ability to successfully originate, receive, and maintain quality calls and data applications throughout a service area. Appropriate overlapping coverage is required for users to be able to move throughout the service area and reliably "hand-off" between cells to maintain uninterrupted connections.

AT&T is expanding and enhancing their 4G LTE high-speed wireless broadband services throughout New England by filling in existing coverage gaps and addressing capacity, interference, and high-speed broadband issues. In addition to improving 4G LTE coverage for AT&T customers, AT&T is also building, managing and operating the National Public Safety Broadband Network using FirstNet's 700 MHz Band 14 spectrum, in order to provide prioritized, preemptive wireless services for first responders across Connecticut, New England and nationwide.

Due to terrain characteristics and the distance between the targeted coverage area and the existing sites, AT&T's options to provide services in this area are quite limited (maps of the terrain in this area and the distance to neighboring AT&T sites from the proposed site are included as Attachments 1 & 2, respectively.). AT&T's network requires deployment of antennas throughout the area to be covered. These antennas are connected to receivers and transmitters that operate in a limited geographic area known as a "cell." AT&T's wireless network, including their wireless handsets and devices, operate by transmitting and receiving low power radio frequency signals to and from these cell sites. The signals are transferred to and from the landline telephone network and routed to their destinations by sophisticated electronic equipment. The size of the area served by each cell site is dependent on several factors, including the number of antennas used, the height at which the antennas are deployed, the topography of the land, vegetative cover and natural or man-made obstructions in the area. As customers move throughout the service area, the transmission from the portable devices is automatically transferred to the AT&T facility with the best connection to the device, without interruption in service provided that there is overlapping coverage from the cells.

In order to define the extent of the coverage gap to be filled, both propagation modeling and real-world drive testing has been conducted in the area of Sherman. Propagation modeling uses PC software to determine the network coverage based on the specific technical parameters of each site including, but not limited to, location, ground elevation, antenna models, antenna heights, and also databases of terrain and ground cover in the area. Drive testing consists of traveling along area roadways in a vehicle equipped with a sophisticated setup of test devices and receivers that collect a variety of network performance metrics. The data are then processed and mapped in conjunction with the propagation modeling to determine the coverage gaps.

[1] The threshold range differences between the 700 MHz and 1900 MHz frequency bands directly correlates to the type branch diversity receivers deployed in AT&T's receiver design.

Analysis of the propagation modeling and drive testing in Sherman reveal that AT&T's network is unreliable throughout much of the area due to gaps in coverage, and that there is a service deficiency as a result. In order to fill in these coverage gaps and improve the network reliability to Sherman, a new facility is needed in the area.

Included in this report are Attachments 1 through 5, which are explained below to help describe AT&T's 4G network deployment in and around Sherman, and the need for the proposed facility.

- Attachment 1: "CT1341 *Area Terrain Map"* details the terrain features around the area of deficient service being targeted by the proposed site in Sherman. These terrain features play a key role in determining site designs and dictating the unique coverage achieved from a given location. This map is included to provide a visual representation of the ridges and valleys that must be considered when siting a wireless facility. The darker green, blue and purple shades correspond to lower elevations, whereas the orange, red and white shades indicate higher elevations.

- Attachment 1: "CT1341 *Neighbor Site Data"* provides site specific information of existing neighboring sites used to perform the coverage analysis provided in Attachments 1 and 4.

- Attachment 3: *"* CT1341 *Existing 700 MHz LTE Coverage" for the Current AT&T Network* depicts 700 MHz LTE coverage from existing sites and demonstrates that there are currently gaps in 700 MHz LTE coverage effecting service within the targeted area. The coverage shown is where the signal strengths are: > -83 dBm (minimum level required reliable, high quality service and performance at 700 MHz) and, > -93 dBm (minimum required for adequate level of service at 700 MHz). In an effort to provide the required levels of coverage to these areas, AT&T is proposing to install a wireless facility at the Coote Road location.

- Attachment 4: *"* CT1341 *Existing 700 MHz LTE Coverage with Proposed Site"* shows how this proposed site would fill in the existing coverage gaps and improve AT&T's 700 MHz LTE network.

- Attachment 5: *Connecticut DOT Average Annual Daily Traffic Data* – Sherman shows the available vehicular traffic volume data for the subject area from the Connecticut Department of Transportation. This data shows as many as 3,500 vehicles per day passing through State Route 39 and 2,800 vehicles per day passing through State Route 37 south of the proposed site.

Table 1 below lists the coverage statistics compiled for the AT&T's 700 MHz 4G LTE network with the deployment of the Proposed Site.

	Incremental Coverage from Proposed Site (700 MHz)	
Population:[2]	(≥ -83 dBm)	781
	(≥ -93 dBm)	1398
Business Pops: [3]	(≥ -83 dBm)	61
	(≥ -93 dBm)	102
Area (mi²):	(≥ -83 dBm)	2.68
	(≥ -93 dBm)	4.86
Roadway (mi):	Main (-93 dBm):	5.3
	Secondary (-93 dBm):	18.1
	Total (-93 dBm):	**23.4**

Table 1: Coverage Statistics

[2] Population figures are based upon 2010 US Census Block Data
[3] Employee population counts are based upon the 2011 U.S. Census Bureau LEHD database.

4. Conclusion

AT&T has identified an area of deficient coverage affecting a significant portion of Sherman CT, including key traffic corridors through the residential and business/retail areas of the Town. Candidate "CT1341" will bring the needed fill-in coverage to significant portions of State Route 37 and State Route 39, and the residential neighborhoods and business/retail areas in the vicinity of the proposed location

No existing structures were identified and available that would be able to satisfy the coverage requirements needed for this area.

As discussed in this report and depicted in the attached plots, the proposed interim AT&T site will provide a substantial portion of the coverage being lost to the "Target Area" while maintaining effective connectivity to the rest of AT&T's existing network. In addition to providing improved LTE service to AT&T's customers to throughout the targeted areas of Sherman, AT&T is providing enhanced services for first responders through the implementation of FirstNet's National Public Safety Broadband Network ("NPSBN").

5. Statement of Certification

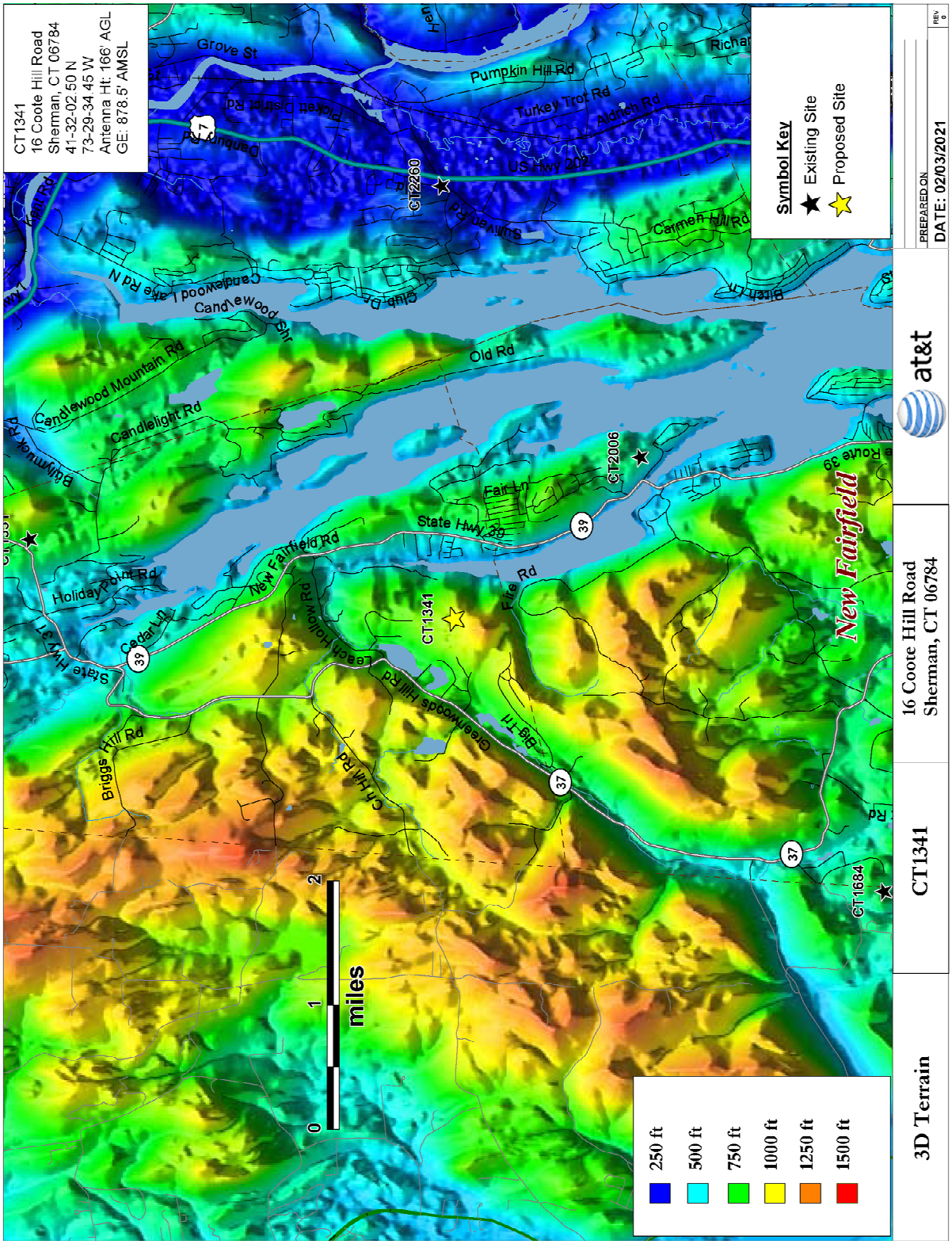
I certify to the best of my knowledge that the statements in this report are true and accurate.

February 18, 2021

Martin J. Lavin
C Squared Systems, LLC

Date

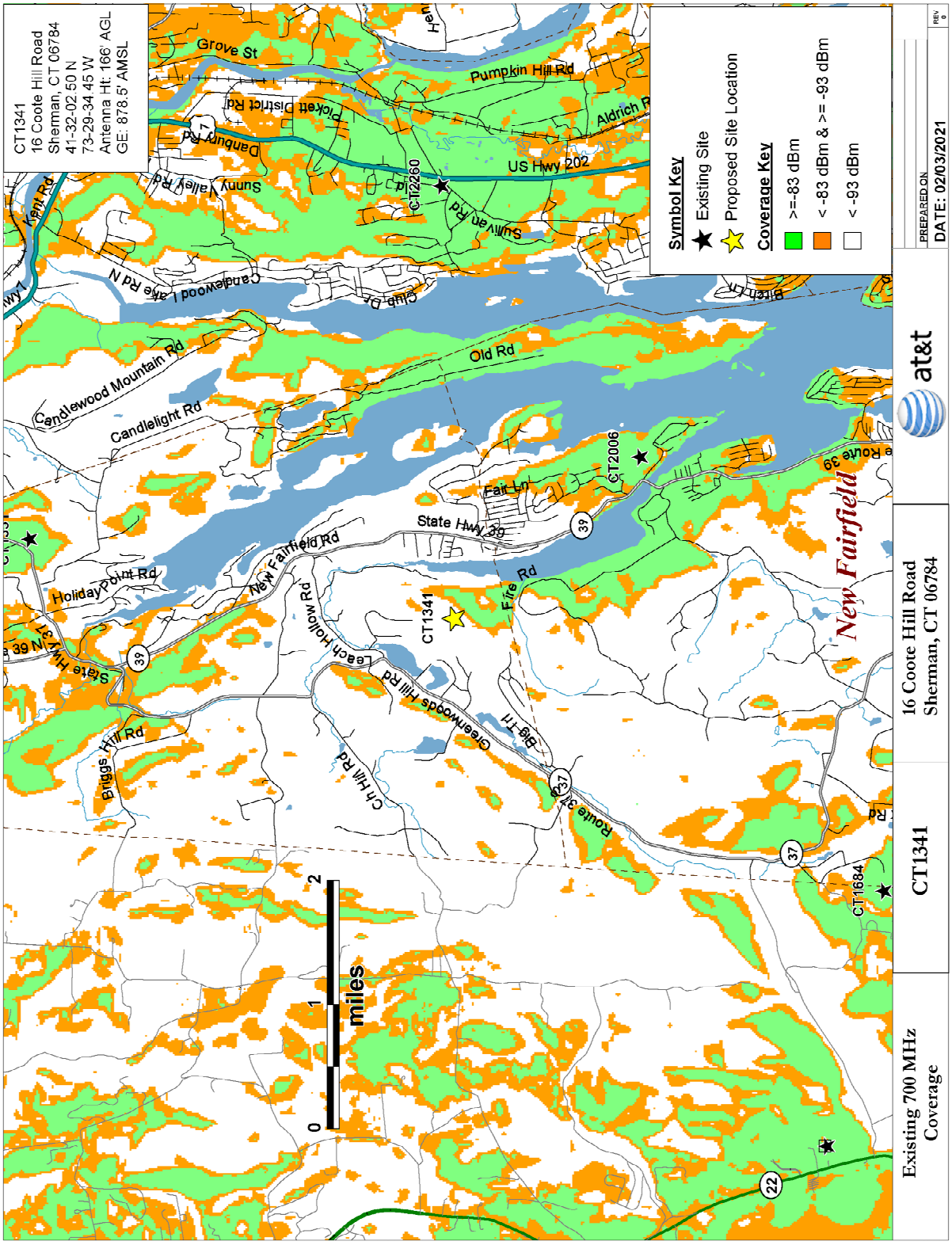
6. Attachments



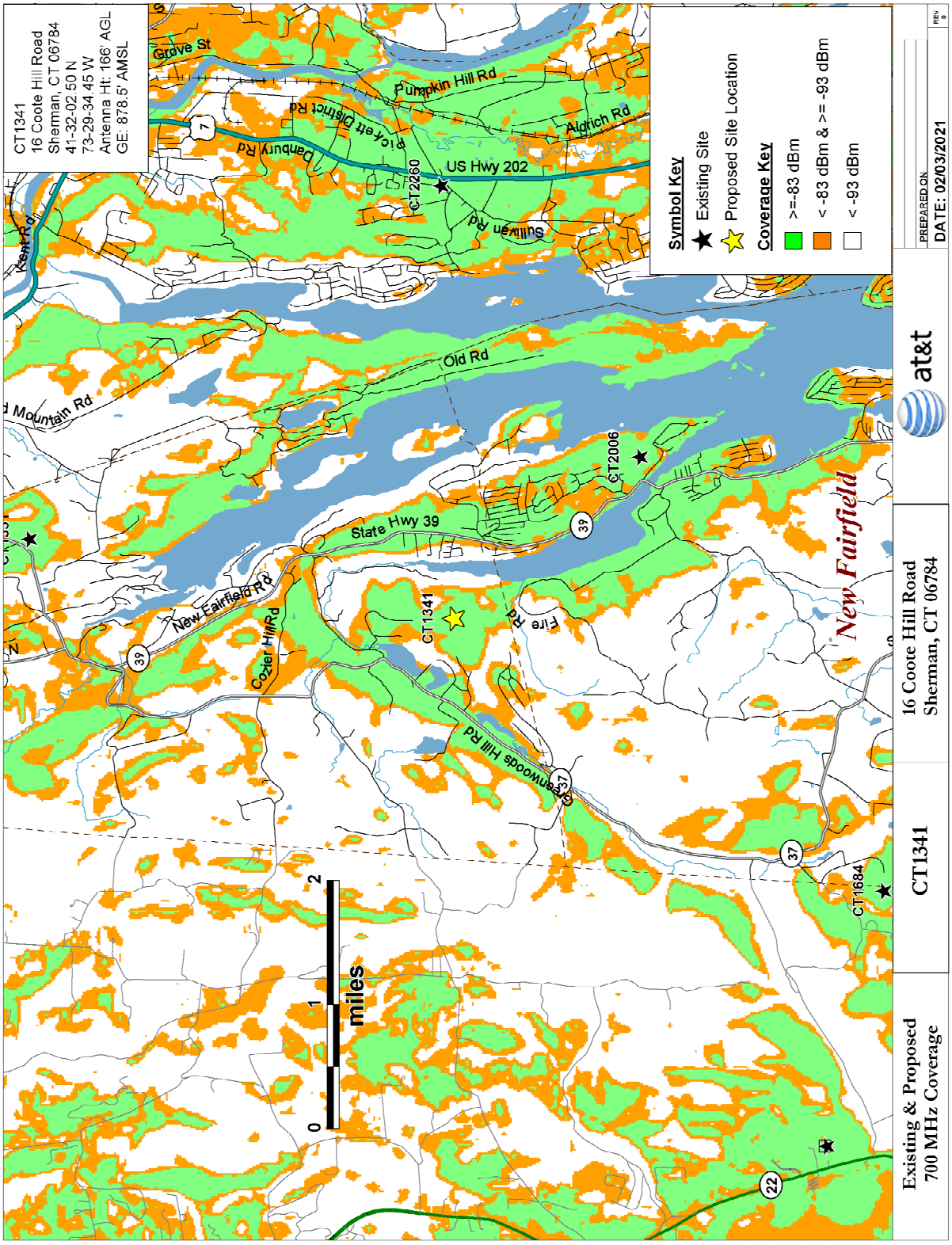
Attachment 1: CT1341 Area Terrain Map

Site Name	Address	City/State	Location		Antenna Height (ft AGL)	Ground Elevation (feet)
			Latitude	Longitude		
CT1252	111 Second Hill Road	Bridgewater	41.5550	-73.3709	156	908
CT1331	32 Ct Route 37 East	Sherman	41.5833	-73.4800	72	738
CT1684	25 Garland Road	Patterson	41.4833	-73.5349	122	634
CT2001	33 Boardman Road	New Milford	41.5994	-73.4375	120	564
CT2006	29 Bogus Hill Road	New Fairfield	41.5118	-73.4672	140	619
CT2155	4 Elkington Farm Road	New Milford	41.5909	-73.4086	154	478
CT2260	100 Old Town Park Road	New Milford	41.5351	-73.4249	175	254
CT2400	89 Wewaka Brook Road	Bridgewater	41.5087	-73.3544	166	583
NW2813	2680 Route 22	Patterson	41.4899	-73.5746	129	795
UN4388	124 Penny Rd	Pawling	41.5845	-73.6345	126	921

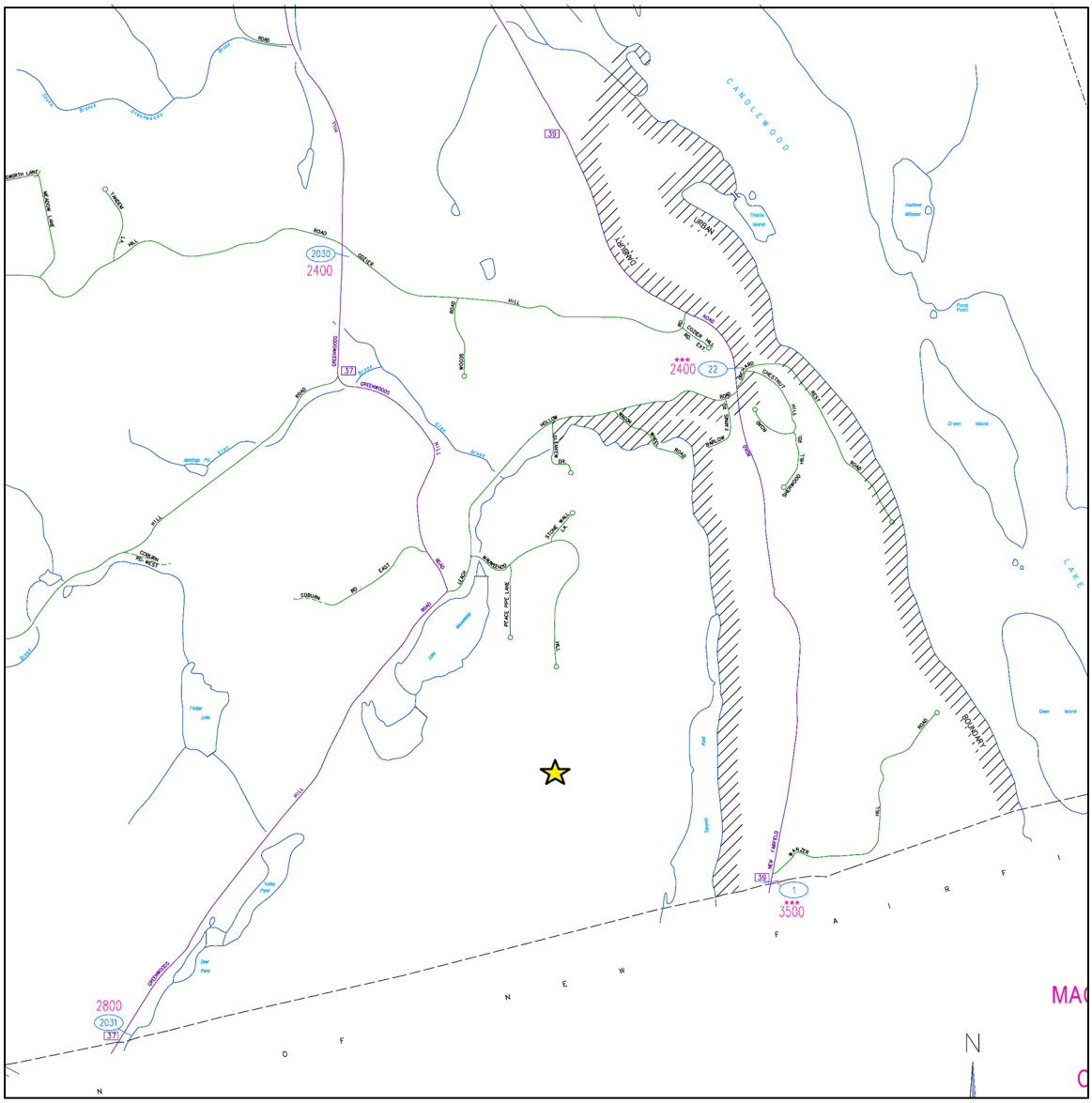
Attachment 2: CT1341 Neighbor Site Data



Attachment 3: CT1341 Existing 700 MHz LTE Coverage for the Current AT&T Network



Attachment 4: CT1341 Existing 700 MHz LTE Coverage with Proposed Site for the AT&T Network



Attachment 5: CT1341 Connecticut DOT Average Annual Daily Traffic Data – Sherman

ATTACHMENT 2

Homeland Towers

Site Search Summary

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

The candidate identification process for both AT&T and Homeland includes reviewing the applicable zoning ordinance to identify areas within which the proposed use might be preferred. Viable candidates may consist of existing structures of sufficient height from which an antenna installation can provide sufficient coverage, or lacking such a structure, parcels located within the narrowly defined search area upon which a tower may be constructed to a sufficient height. In order to be viable, particularly in more rural areas, a candidate must provide adequate coverage to the significant gap in AT&T’s network.

In addition, all viable candidates must have a willing landowner with whom commercially reasonable lease terms may be negotiated. Preference is given to locations that are consistent with local zoning ordinances, or in the event no viable candidates are determined to be located within such areas, to identify other potentially suitable locations based on state criteria. In the case of this particular site search area in the southern portion of Sherman, no tall, non-tower structures were located within the identified area of need that were available for leasing. The area consists of

undulating terrain, densely wooded areas and has coverage objectives on both sides of peak elevations in the search ring

Properties Investigated by AT&T and Homeland Towers

As previously discussed in the Introduction of this Technical Report, AT&T sought to address the significant coverage gap in its network in the southern area of Sherman and developed a site search area that investigated at least thirty-one (31) potential sites, including the Candidate Site. This prior AT&T site search concluded that the Candidate Site was the only viable location for the Proposed Facility, even after completion of the municipal consultation process. We refer the Town to Section 3 the 2013 AT&T Technical Report for a complete list of the 31 sites investigated in 2013 and with references back to approximately 2009 when AT&T had secured property at 32 Leach Hollow Road as a site candidate which received objections prior to a technical report ever being filed with the Town.

In early 2015, Homeland Towers began its Site Search within the southern area of Sherman, independent of AT&T's prior site investigation. Homeland Towers investigated forty-two (42) different sites, including the Candidate Site, within and near this area for construction of a new facility. In addition to the sites previously evaluated by AT&T, Homeland Towers investigated upwards of twenty or more additional locations.

Only 9 of the 42 sites that Homeland Towers investigated had land owners that expressed potential interest in leasing to Homeland Towers, including the Candidate Site. Upon review of these 9 sites by AT&T's radio frequency engineer, 7 were determined to be insufficient and did not provide the necessary coverage and therefore were disqualified technically for the siting of a tower facility. One site was rejected due to the presence of very extensive wetlands throughout the property.

Homeland Towers has had comprehensive communications with Naromi Land Trust ("NLT") regarding the possibility of leasing any of the 7 parcels owned by NLT identified in the Site Search. Those discussions with NLT are iterative of AT&T's discussions dating back years now. After several meetings and numerous discussions, Naromi Board Members voted not to enter into a lease with Homeland Towers for any Naromi property.

AT&T and Homeland Towers' extensive independent site search investigations, spanning over a decade, identify the Candidate Site as the only viable location for construction of a new wireless telecommunications facility. The 42 sites Homeland Towers investigated are set forth below with a map depicting the approximate location of the sites investigated.

1. **16 Coote Hill Road, Sherman, CT**
   Map/Lot: 51/28
   Owner: Michael J. and Suzanne J. Berger
   Zoning District: Farm Residence Zone
   Parcel Size: 19.79 acres
   Lat/Long: 41°32'01.16"N/73°29'32.71"W
   Ground Elevation: 902.4' +/-

   This property is the Candidate Site.

2. **130 Route 37 South, Sherman, CT**
   Map/Lot: 7/14
   Owner: Ann Price
   Zoning District: Farm Residence Zone
   Parcel Size: 12 acres
   Lat/Long: 41°32'37.07"N/ 73°30'2.00"W
   Ground Elevation: 822' +/-

   Owner responded to proposal and stated verbally that they were not interested in leasing to Homeland Towers.

3. **126 RT 37 South, Sherman, CT**
   Map/Lot: 7/15
   Owner: Gail Hubbard
   Zoning District: Farm Residence Zone
   Parcel Size: 6.47 acres
   Lat/Long: 41°32'40.08"N/ 73°30'2.91"W
   Ground Elevation: 880’ +/-

   The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

4. **18 Colburn Road East, Sherman, CT**
   Map/Lot: 7/9
   Owner: Naromi Land Trust
   Zoning District: Farm Residence Zone
   Parcel Size: 4.5 acres
   Lat/Long: 41°32'28.07"N/73°30'20.39"W
   Ground Elevation: 997’ +/-

   Homeland Towers had walked this parcel with members from NLT. After further meetings and discussions, the Naromi Board Members voted to not enter into a lease with Homeland Towers on any of Naromi’s properties.

5. **3 Chapel Road, Sherman, CT**
   Map/Lot: 7/42
   Owner: Naromi Land Trust
   Zoning District: Farm Residence Zone
   Parcel Size: 6.54 acres
   Lat/Long: 41°32'52.05"N/ 73°30'25.81"W
   Ground Elevation: 972’+/-

   After meetings and many discussions with NLT, the Board Members ultimately voted to not enter into a lease with Homeland Towers on any of Naromi’s properties.

6. **1 Chapel Road, Sherman, CT**
   Map/Lot: 7/43
   Owner: Naromi Land Trust
   Zoning District: Farm Residence Zone
   Parcel Size: 6.96 acres
   Lat/Long: 41°32'56.81"N/73°30'10.75"W
   Ground Elevation: 941’+/-

   After meetings and many discussions with NLT, the Board Members ultimately voted to not enter into a lease with Homeland Towers on any of Naromi’s properties.

7. **<u>118 Route 37 South, Sherman, CT</u>**
   Map/Lot: 7/44
   Owner: Naromi Land Trust
   Zoning District: Farm Residence Zone
   Parcel Size: 10.54 acres
   Lat/Long: 41°32'50.98"N/ 73°29'59.23"W
   Ground Elevation: 912’ +/-

   After meetings and many discussions with NLT, the Board Members ultimately voted to not enter into a lease with Homeland Towers on any of Naromi’s properties.

8. **<u>26 Wagon Wheel Road, Sherman, CT</u>**
   Map/Lot: 57/10
   Owner: Naromi Land Trust
   Zoning District: Farm Residence Zone
   Parcel Size: 10.47 acres
   Lat/Long: 41°32'35.73"N/ 73°29'18.88"W
   Ground Elevation: 835’ +/-

   Homeland Towers had walked this parcel with members from NLT. With no access available from Mauweehoo Road, access into the parcel is extremely difficult due to steep slopes that are approximately 20%. After further meetings and discussions, the Naromi Board Members voted to not enter into a lease with Homeland Towers on any of Naromi’s properties. In addition, this parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

9. **<u>28 Wagon Wheel Road, Sherman, CT</u>**
   Map/Lot: 57/11
   Owner: Naromi Land Trust
   Zoning District: Farm Residence Zone
   Parcel Size: 13.87 acres
   Lat/Long: 41°32'33.28"N/73°29'17.61"W
   Ground Elevation: 806‘ +/-

   Homeland Towers had walked this parcel with members from NLT. With no access available from Mauweehoo Road, access into the parcel is extremely difficult due to steep slopes that are approximately 20%. After further meetings and discussions, the Naromi Board Members voted to not enter into a lease with Homeland Towers on any of Naromi’s properties. In addition, this parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

10. **<u>0 Cozier Hill Road, Sherman, CT</u>**
    Map/Lot: 9/32
    Owner: Naromi Land Trust
    Zoning District: Farm Residence Zone
    Parcel Size: 45.57 acres
    Lat/Long: 41°33'23.29"N/ 73°29'56.86"W
    Ground Elevation: 1044’ +/-

    Homeland Towers had walked this parcel with members from NLT and completed visuals for a proposed stealth silo at this site. After further meetings and discussions, the Naromi Board Members voted to not enter into a lease with Homeland Towers on any of Naromi’s properties.

11. **<u>7 Old Stone Lane, Sherman, CT</u>**
    Map/Lot: 7/38
    Owner: Chapel Hill Properties LLC
    Zoning District: Farm Residence Zone
    Parcel Size: 10.6 acres
    Lat/Long: 41°32'44.95"N/73°30'9.06"W
    Ground Elevation: 989’ +/-

    The owner responded to Homeland and expressed potential interest. After visiting the site with the owner, Homeland Towers decided to not move forward with a lease since the owner had requested that a bridge be engineered and constructed into the property in order to provide access to a proposed housing subdivision. In addition, the owner did not wish to proceed with a lease over concerns of selling housing lots.

12. **<u>0 Cozier Hill Road, Sherman, CT</u>**
    Map/Lot: 9/53
    Owner: Cozier Woods Property Owners
    Zoning District: Farm Residence Zone
    Parcel Size: 35.52 acres
    Lat/Long: 41°33'13.11"N/ 73°30'4.88"W
    Ground Elevation: 928’ +/-

    Owner responded to proposal and stated verbally that they were not interested in leasing to Homeland Towers.

13. **0 Route 37 South, Sherman, CT**
    Map/Lot: 9/54
    Owner: Charles Emery Taylor and Virginia Neel
    Zoning District: Farm Residence Zone
    Parcel Size: 5 acres
    Lat/Long: 41°33'10.60"N/ 73°30'12.81"W
    Ground Elevation: 884’ +/-

    The owner responded to Homeland and expressed potential interest. This parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

14. **0 Route 37 South, Sherman, CT**
    Map/Lot: 9/75
    Owner: Charles Emery Taylor and Virginia Neel
    Zoning District: Farm Residence Zone
    Parcel Size: 15.21 acres
    Lat/Long: 41°33'1.96"N/ 73°30'12.68"W
    Ground Elevation: 885’ +/-

    The owner responded to Homeland and expressed potential interest. This parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

15. **0 Cozier Hill Road, Sherman, CT**
    Map/Lot: 9/34
    Owner: Suzanne Hatfield
    Zoning District: Farm Residence Zone
    Parcel Size: 33.16 acres
    Lat/Long: 41°33'23.33"N/ 73°29'50.39"W
    Ground Elevation: 991’ +/-

    The owner did not respond to proposals sent to them by certified and regular mail from Homeland Towers.

16. **23 Cozier Hill Road, Sherman, CT**
    Map/Lot: 9/35
    Owner: Suzanne Hatfield
    Zoning District: Farm Residence Zone
    Parcel Size: 62.79 acres
    Lat/Long: 41°33'18.93"N/ 73°29'36.72"W
    Ground Elevation: 1048’ +/-

    The owner did not respond to proposals sent to them by certified and regular mail from Homeland Towers.

17. **15 Cozier Hill Road, Sherman, CT**
    Map/Lot: 9/33
    Owner: Janienne and Patrick Hackett
    Zoning District: Farm Residence Zone
    Parcel Size: 8.08 acres
    Lat/Long: 41°33'21.07"N/ 73°29'48.98"W
    Ground Elevation: 996’ +/-

    The owner did not respond to proposals sent to them by certified mail from Homeland Towers.

18. **0 Mauweehoo Road, Sherman, CT**
    Map/Lot: 46/18
    Owner: Ivan Kavrukov
    Zoning District: Farm Residence Zone
    Parcel Size: 5 acres
    Lat/Long: 41°31'59.51"N/ 73°29'27.75"W
    Ground Elevation: 960’ +/-

    The owner did not respond to proposals sent to them by certified and regular mail from Homeland Towers.

19. **37 Mauweehoo Road, Sherman, CT**
    Map/Lot: 51/16
    Owner: Ivan Kavrukov
    Zoning District: Farm Residence Zone
    Parcel Size: 20.43 acres
    Lat/Long: 41°32'10.72"N/ 73°29'32.18"W
    Ground Elevation: 845’ +/-

    The owner did not respond to proposals sent to them by certified and regular mail from Homeland Towers.

20. **0 Mauweehoo Road, Sherman, CT**
    Map/Lot: 47/52
    Owner: Ivan Kavrukov
    Zoning District: Farm Residence Zone
    Parcel Size: 21.64 acres
    Lat/Long: 41°32'4.29"N/73°29'24.90"W
    Ground Elevation: 875’ +/-

    The owner did not respond to proposals sent to them by certified and regular mail from Homeland Towers.

21. **8 Coote Hill Road, Sherman, CT**
    Map/Lot: 51/25
    Owner: Nancy Gage Manderville
    Zoning District: Farm Residence Zone
    Parcel Size: 30.7 acres
    Lat/Long: 41°31'58.40"N/73°29'36.29"W
    Ground Elevation: 925’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

22. **0 Mauweehoo Road, Sherman, CT**
    Map/Lot: 56/26
    Owner: Mauweehoo Property Owners
    Zoning District: Farm Residence Zone
    Parcel Size: 5.07 acres
    Lat/Long: 41°32'30.05"N/ 73°29'33.99"W
    Ground Elevation: 819’ +/-

    The owners responded that they were not interested in leasing to Homeland Towers. In addition, this parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

23. **0 Wagon Wheel Road, Sherman, CT**
    Map/Lot: 47/51
    Owner: Craig Nelson
    Zoning District: Farm Residence Zone
    Parcel Size: 5.4 acres
    Lat/Long: 41°32'7.48"N/73°29'8.91"W
    Ground Elevation: 540’ +/-

    The owner responded to Homeland and expressed potential interest. This parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as the ground elevation is too low and it did not provide adequate coverage to the intended area.

24. **104 Route 37 South, Sherman, CT**
    Map/Lot: 9/61
    Owner: Joseph and Ann Chiaramonte
    Zoning District: Farm Residence Zone
    Parcel Size: 2.05 acres
    Lat/Long: 41°33'6.58"N/73°30'20.74"W
    Ground Elevation: 900’ +/-

    The owner responded to a proposal sent to them by certified mail from Homeland Towers. This parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

25. **0 Wakeman Hill Road, Sherman, CT**
    Map/Lot: 8/22
    Edward and Rosemary Cook
    Zoning District: Farm Residence Zone
    Parcel Size: 116.95 acres
    Lat/Long: 41°33'39.08"N/73°31'9.65"W
    Ground Elevation: 1098’ +/-

    The owner responded to Homeland and expressed potential interest. This parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

26. **1 Woods Road, Sherman, CT**
    Map/Lot: 9/43
    Owner: Allen and Barbara Flood
    Zoning District: Farm Residence Zone
    Parcel Size: 2.68 acres
    Lat/Long: 41°33'11.09"N/73°29'49.35"W
    Ground Elevation: 1014’ +/-

    The owner did not respond to proposals sent to them by certified mail from Homeland Towers.

27. **16 Cozier Hill Road, Sherman, CT**
    Map/Lot: 9/41
    Owner: Allen and Barbara Flood
    Zoning District: Farm Residence Zone
    Parcel Size: 10.7 acres
    Lat/Long: 41°33'9.25"N/73°29'45.55"W
    Ground Elevation: 1037’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

28. **0 Route 37 South, Sherman, CT**
    Map/Lot: 9/9
    Owner: Foley, Linkletter and Zinn
    Zoning District: Farm Residence Zone
    Parcel Size: 11.7 acres
    Lat/Long: 41°33'14.28"N/73°30'16.54"W
    Ground Elevation: 877’ +/-

    The owner responded to Homeland and expressed potential interest. Upon further review of the parcel, it was determined that due to the extensive presence of wetlands a facility could not be constructed.

29. **98 Route 37 South, Sherman, CT**
    Map/Lot: 9/7
    Owner: George and Roberta Linkletter
    Zoning District: Farm Residence Zone
    Parcel Size: 21 acres
    Lat/Long: 41°33'6.68"N/ 73°30'38.24"W
    Ground Elevation: 1034’ +/-

    The owner did not respond to proposals sent to them by certified mail from Homeland Towers.

30. **4 Nutmeg Lane, Sherman, CT**
    Map/Lot: 7/22
    Owner: Stephen Grossnickle
    Zoning District: Farm Residence Zone
    Parcel Size: 14.18 acres
    Lat/Long: 41°32'36.52"N/ 73°30'24.86"W
    Ground Elevation: 1111’ +/-

    The owner did not respond to proposals sent to them by certified mail from Homeland Towers.

31. **Wagon Wheel Road, Sherman, CT**
    Map/Lot: 52/11
    Owner: Squantz LLC and Wagon Wheel Road LLC
    Zoning District: Farm Residence Zone
    Parcel Size: 55.85 acres
    Lat/Long: 41°32'14.74"N/ 73°29'7.55"W
    Ground Elevation: 546’ +/-

    The owner responded to Homeland and expressed potential interest. This parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as the ground elevation is too low and it did not provide adequate coverage to the intended area.

32. **20 Coburn Road East, Sherman, CT**
    Map/Lot: 7/8
    Owner: Hope Miller and Andrew Engel
    Zoning District: Farm Residence Zone
    Parcel Size: 5 acres
    Lat/Long: 41°32'30.13"N/ 73°30'25.64"W
    Ground Elevation: 997’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

33. **57 Wakeman Hill Road, Sherman, CT**
    Map/Lot: 8/47
    Owner: Connecticut Audubon Society
    Zoning District: Farm Residence Zone
    Parcel Size: 168.99 acres
    Lat/Long: 41°33'8.85"N/73°31'10.95"W
    Ground Elevation: 1141’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

34. **5 Woods Road, Sherman, CT**
    Map/Lot: 9/45
    Owner: Dennis and Ruth Byrnes
    Zoning District: Farm Residence Zone
    Parcel Size: 5.47 acres
    Lat/Long: 41°33'5.71"N/ 73°29'44.96"W
    Ground Elevation: 999’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

35. **21 Mauweehoo Road, Sherman, CT**
    Map/Lot: 57/3
    Owner: Kenneth Ward- Smith
    Zoning District: Farm Residence Zone
    Parcel Size: 44.3 acres
    Lat/Long: 41°32'27.10"N/ 73°29'20.82"W
    Ground Elevation: 781’ +/-

    The owner responded via email to Homeland Towers stating that they were not interested in leasing to Homeland Towers.

36. **35 Mauweehoo Road, Sherman, CT**
    Map/Lot: 51/13
    Owner: Millie Loeb
    Zoning District: Farm Residence Zone
    Parcel Size: 3.14 acres
    Lat/Long: 41°32'15.08"N/ 73°29'25.46"W
    Ground Elevation: 800’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

37. **29 Mauweehoo Road, Sherman, CT**
    Map/Lot: 56/23
    Owner: Martha Carlucci
    Zoning District: Farm Residence Zone
    Parcel Size: 4.97 acres
    Lat/Long: 41°32'22.40"N/ 73°29'26.44"W
    Ground Elevation: 839’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

38. **33 Mauweehoo Road, Sherman, CT**
    Map/Lot: 51/12
    Owner: Mark and Ann Townsend
    Zoning District: Farm Residence Zone
    Parcel Size: 4.07 acres
    Lat/Long: 41°32'18.48"N/73°29'25.01"W
    Ground Elevation: 820’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

39. **31 Mauweehoo Road, Sherman, CT**
    Map/Lot: 51/11
    Owner: Warren and Amy Willet
    Zoning District: Farm Residence Zone
    Parcel Size: 2.98 acres
    Lat/Long: 41°32'19.53"N/ 73°29'27.18"W
    Ground Elevation: 831’ +/-

    The owner did not respond to a proposal sent to them by certified mail from Homeland Towers.

40. **Long Meadow Trail, Sherman, CT**
    Map/Lot: 46-17
    Owner: Timber Trails Associates
    Zoning District: Residence Zone
    Parcel Size: 94 acres
    Lat/Long: 41°31'58.38"N/ 73°29'47.61"W
    Ground Elevation: 934’ +/-

    The owner showed initial interest in leasing to Homeland Towers but was unwilling to move forward with a lease due to concerns of visual impact and aesthetics of the tower.

41. **2-4 Memory Lane, Sherman, CT**
    Map/Lot: 3/3
    Owner: Pepper Jones
    Zoning District: Farm Residence Zone
    Parcel Size: 11.75 acres
    Lat/Long: 41°32'22.03"N/ 73°30'11.96"W
    Ground Elevation: 862’ +/-

    The owner expressed initial interest in leasing to Homeland Towers. This parcel was reviewed by the AT&T Radio Frequency Engineer and was rejected as it did not provide adequate coverage to the intended area.

42. **60 Leach Hollow Road, Sherman, CT**
    Map/Lot: 61/5
    Owner: Ernie and Carolina Fernandez
    Zoning District: Farm Residence Zone
    Parcel Size: 14.2 acres
    Lat/Long: 41°32'49.31"N/73°29'51.22"W
    Ground Elevation: 770’ +/-

    The owner reached out and expressed potential interest in leasing to Homeland Towers. Upon further discussions with owner they decided not to move forward due to their personal concerns regarding radio frequency emissions.

CT009 – SHERMAN II

AERIAL MAP OF HOMELAND TOWERS SITE SEARCH AND PROPOSED SITE WITH 1 MILE RADIUS

EXISTING FACILITIES WITHIN 4 MILE RADIUS

There is (1) communication tower, (3) power mounts and (1) stealth silo located within approximately 4 miles of the proposed site in Sherman. Each location is depicted on the following map, numbered in the order appearing on the list below. Not one of the existing facilities does currently, or could, provide adequate coverage to the area of Sherman. The facilities listed below that are currently being used by AT&T provide service outside of the area targeted for service by the proposed Sherman Facility.

No.	OWNER/ OPERATOR	TOWER/CELL SITE LOCATION	STRUCTURE HEIGHT/TYPE	AT&T OPERATING	COORDINATES
1.	Gorman/ Garlasco	32 Route 37 East, Sherman, CT	74'/Silo	YES	Lat.: 41°35'1.81"N Long.:73°28'49.08"W
2.	SBA	29 Bogus Hill Road, New Fairfield, CT	130'/Monopole	YES	Lat.: 41°30'42.61"N Long.: 73°28'1.95"W
3.	CL&P	5 Old Town Park Road, New Milford, CT	160'/ Power Mount	YES	Lat.: 41°32'6.46"N Long.:73°25'29.46"W
4.	CL&P	18 Hilltop View Lane, New Milford, CT	130'/Power Mount	No	Lat.: 41°32'17.32"N Long.:73°25'33.10"W
5.	CL&P	Hilltop View Lane, New Milford, CT	130'/Power Mount	No	Lat.: 41°32'23.96"N Long.:73°25'34.28"W

*Site information obtained from Connecticut Siting Council database (Comprehensive List of Sites)

EXISTING SITE MAP WITHIN 4 MILE RADIUS

ATTACHMENT 3

General Facility Description

16 Coote Hill Road, Sherman, Connecticut
Tax/PIN Identification: Map: 51 Lot: 28
19.87 Acre Parcel

The proposed tower site is located on a wooden portion of an approximately 19.87-acre parcel located at 16 Coote Hill Road owned by Michael J. & Suzanne J. Berger. It is classified in the Zone A: Farm Residence Zoning District and is improved with a single-family home and paved driveway, located in the northeastern portion of the parcel.

The proposed telecommunications Facility includes an approximately 5,625 s.f. lease area located in the southwestern section of the host parcel. The facility consists of a new self-supporting monopole that is approximately 170' in height with 2 municipal whip antennas extending an additional 22' above the top of the pole, bringing the total facility height to approximately 192'. AT&T would initially install six (6) panel antennas and related equipment at a centerline height of 166' above grade level (AGL). The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers. AT&T's walk-in equipment cabinet would be installed on a concrete pad within the 50' x 48' fenced tower compound area at the base of the monopole. AT&T would also install a 15kW propane fueled emergency backup power generator as well as a 500 gallon propane tank on concrete pads within the equipment compound.

The tower compound would consist of a 2,400 s.f. area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an 8' high chain link fence. Vehicle access to the facility would be provided from Coote Hill Road over the existing paved driveway, a distance of approximately 416', then along a new 12' wide gravel access drive approximately 1,1635' to the tower compound. Utility connections would be routed underground along the proposed access drive from an existing transformer and telco box along the existing paved driveway on the parcel.

Facilities and Equipment Specification

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: To be determined

B. TYPE: Self-Supporting monopole tower

C. HEIGHT: 170' AGL

DIMENSIONS: Tower structure tapered

D. TOWER LIGHTING: None required.

II. TOWER LOADING:

A. AT&T – 6 panel antennas

a. Model – TBD

b. Antenna Dimensions – TBD

c. Position on Tower – 166' centerline AGL

d. Transmission Lines – DC and Fiber lines internal to tower.

e. 9 Remote Radio Units on proposed antenna mounts

B. Future Carriers – To be determined

III. ENGINEERING ANALYSIS AND CERTIFICATION:

The tower will be designed in accordance with American National Standards Institute TIA/EIA-222 “Structural Standards for Steel Antenna Towers and Antenna Support Structures” as amended. The foundation design would be based on soil conditions at the site. The details of the tower and foundation design will be provided as part of the final D&M plan.

SITE EVALUATION REPORT
Sherman II CT009

I. LOCATION

A. COORDINATES: 41°-32-02.50 N
73°-29-34.45 W

B. GROUND ELEVATION: 878.5'± AMSL

C. USGS MAP: USGS 7.5 quadrangle for New Milford

D. SITE ADDRESS: 16 Coote Hill Rd.
Sherman, CT 06784

E. ZONING WITHIN ¼ MILE OF SITE: Abutting areas to the north and east are zoned Zone A – Farm Residence Zone. Areas to the south are zoned Zone B – Residence Zone. Areas to the west are zoned Zone A – Farm Residence Zone and Zone B – Residence Zone.

II. DESCRIPTION

A. SITE SIZE: 19.87048 Ac (Vol 99 - Page 444)

LEASE AREA/COMPOUND AREA: 5,625 SF/2,400 SF

B. TOWER TYPE/HEIGHT: A 170' Monopole.

C. SITE TOPOGRAPHY AND SURFACE: Wooded portion of residential property. Site slopes and decreases from south to north.

D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The proposed compound is located toward the southern corner of a 19.87± acre residential parcel in a wooded area. To the north, south, east and west are residential properties. There are wetlands located on property.

E. LAND USE WITHIN ¼ MILE OF SITE: Residential properties to the north, south, east and west.

III. FACILITIES

A. POWER COMPANY: Eversource

B. POWER PROXIMITY TO SITE: 1,725'±

C. TELEPHONE COMPANY: Frontier

D. PHONE SERVICE PROXIMITY: 2,075'±

E. VEHICLE ACCESS TO SITE: Access to the proposed telecommunication facility will be along existing paved driveway (approx. 415'±) to a proposed gravel access driveway (approx. 1,635'±)

F. OBSTRUCTION: (2) Wetland Crossings (Permanent wetland impacts: 360± sf & 1,185± sf)

G. CLEARING AND FILL REQUIRED: Total area of disturbance is 67,000± sf.; 90 trees will need to be removed. The site improvements shall entail approximately 323 CY of cut for utility trenching and 968 CY of excavation and 1,663 CY of fill for the construction of the compound and access driveway. Approximately 712 CY of broken stone is needed for the compound and driveway construction.

IV. LEGAL

A. PURCHASE [ ] LEASE [X]

B. OWNER: MICHAEL J. & SUZANNE J. BERGER

C. ADDRESS: 16 Coote Hill Road, Sherman, CT 06784

D. DEED ON FILE AT: Volume 99 - Page 444

ALL-POINTS TECHNOLOGY CORPORATION

Site Impact Statement

Site: **Sherman II CT009**
Site Address: **16 Coote Hill Rd.**
Sherman, CT 06784

Access distances:
Existing paved driveway (approx. 415'±) to a Proposed gravel access driveway (approx. 1,635'±)

Distance to Nearest Wetlands
79'+/- north of the proposed compound.

Distance to Property Lines:
1,068'+/- to the northwestern property boundary from the tower
510'+/- to the northeastern property boundary from the tower
346'+/- to the eastern property boundary from the tower
102'+/- to the southwestern property boundary from the tower

1,026'+/- to the northwestern property boundary from the compound
476'+/- to the northeastern property boundary from the compound
329'+/- to the eastern property boundary from the compound
63'+/- to the southwestern property boundary from the compound

Residence Information:
There is 1 single family residences within 1,000' feet of the compound. The closest off site residence is approximately 809 feet to the east and is located at Parcel 47-54 (39 Mauweehoo Hill Rd.)

Special Building Information:
(2) Wetland Crossings (Permanent wetland impacts: 360± sf & 1,185± sf).

Tree Removal Count:
90 trees need to be removed to construct the access driveway and the compound area.

6" - 10"dbh	23 trees
10" – 14"dbh	19 trees
14" or greater dbh	48 trees

Cut/Fill: The site improvements shall entail approximately 323 CY of cut for utility trenching and 968 CY of excavation and 1,663 CY of fill for the construction of the compound and access driveway. Approximately 712 CY of broken stone is needed for the compound and driveway construction.

Clearing/Grading Necessary: Total area of disturbance = 67,000+/- SF (1.54+/- Ac)

ALL-POINTS TECHNOLOGY CORPORATION

Tree Inventory

February 4, 2021

Cuddy & Feder, LLP
Attn: Lucia Chiocchio
445 Hamilton Avenue
14th Floor
White Plains, NY 10601

RE: Tree Inventory
Site: Sherman II CT009
16 Coote Hill Road
Sherman, CT 06784

Dear Ms. Chiocchio:

A Tree Inventory was completed at the subject site during the month of August 2020 to determine the size and quantity of existing trees that will need to be removed for the installation of the proposed facility. The proposed site has suitable access, but clearing and earthwork will be required to improve the access route and to construct the compound area. Installation of the proposed compound area and access driveway improvements will require the removal of 90 trees.

6" - 10"dbh	23 trees
10" – 14"dbh	19 trees
14" or greater dbh	48 trees

The area to be disturbed for construction of the compound area will be approximately 5,625 square feet (sf) of interior area currently wooded. A new access driveway will be installed to connect to the proposed compound. The total combined area of disturbance for compound, access drive, and utility improvements is 67,000 sf.

Sincerely,

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

Robert C. Burns, P.E.
Program Manager

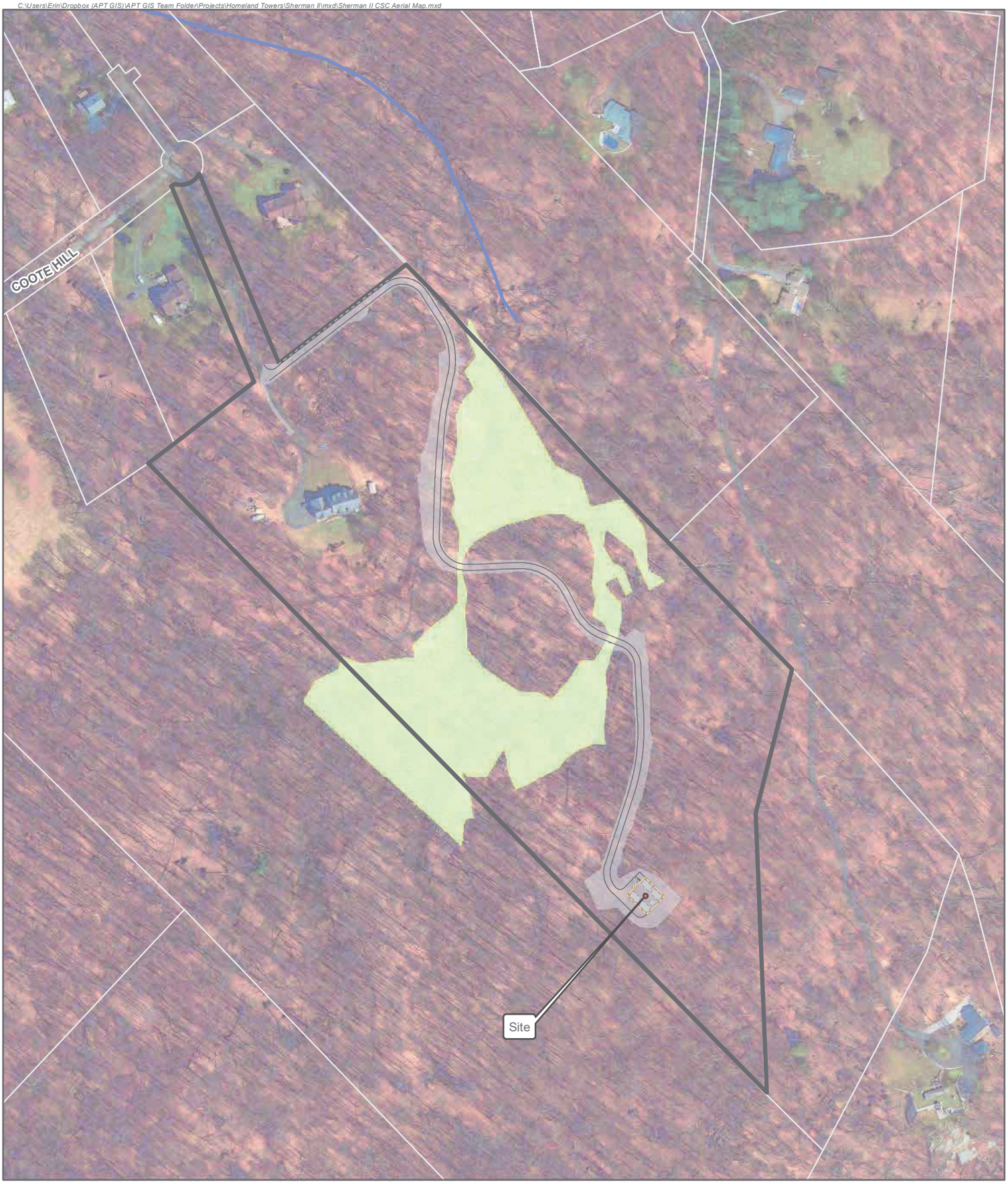
Homeland Towers
16 Coote Hill Road Sherman, CT
1000' RESIDENTIAL BUILDING LIST

PARCEL ID	STREET ADDRESS	BUILDING TYPE	DISTANCE FROM COMPOUND* (ft+/-)
47-54	39 Mauweehoo Hill	Single Family	809'

*Information gathered from Sherman Assessor's Database & CTECO Ortho Aerial Images

ATTACHMENT 4

C:\Users\Erin\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Homeland Towers\Sherman II\mxd\Sherman II CSC Aerial Map.mxd



Legend

- Subject Property
- Approximate Parcel Boundary
- Watercourse
- Wetland Area
- Limit of Disturbance
- Monopole
- Carrier Equipment Areas
- Access Road
- Compound Fence
- Underground Elec / Telco

N

250 125 0 250 Feet

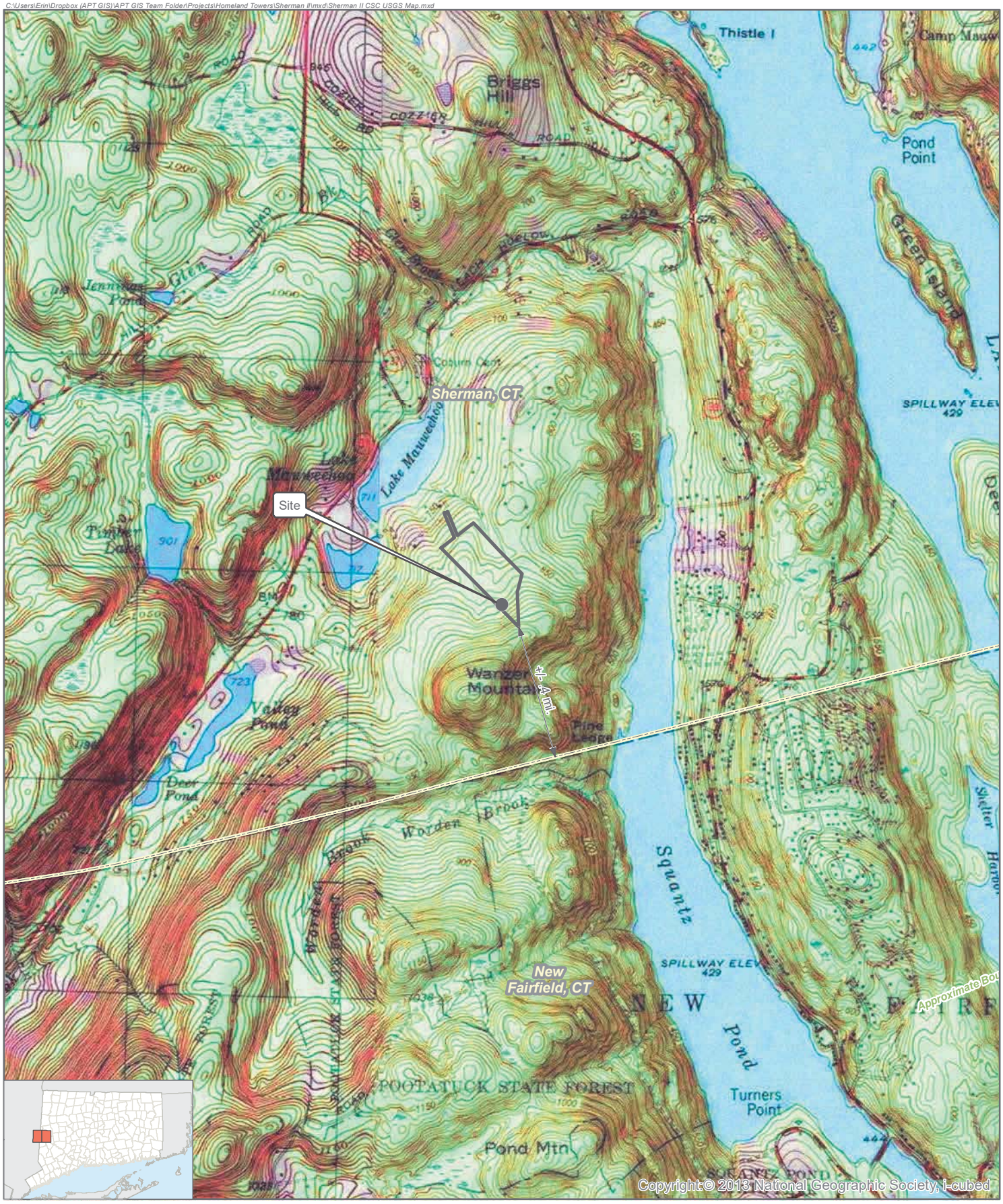
Aerial Site Location Map

Proposed Wireless
Telecommunications Facility
CT009
Sherman II
16 Coote Hill Road
Sherman, Connecticut

Map Notes:
Base Map Source: CTECO 2019 Aerial Photograph
Map Scale: 1 inch = 250 feet
Map Date: October 2020

ALL-POINTS TECHNOLOGY CORPORATION

C:\Users\Erin\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Homeland Towers\Sherman II\mxd\Sherman II CSC USGS Map.mxd



Legend

- Site
- Subject Property
- Municipal Boundary

N

2,000 1,000 0 2,000 Feet

Map Notes:
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, New Milford, CT (1984) and Pawiling, CT (1998)
Map Scale: 1:24,000
Map Date: October 2020

USGS Topo Site Location Map

Proposed Wireless
Telecommunications Facility
CT009
Sherman II
16 Coote Hill Road
Sherman, Connecticut

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS, LLC

WIRELESS TELECOMMUNICATIONS FACILITY

SHERMAN II
16 COOTE HILL ROAD
SHERMAN, CT 06784

MUNICIPAL NOTIFICATION LIMIT MAP
SCALE: 1" = 2 Miles

VICINITY MAP
SCALE: N.T.S.

DRAWING INDEX

SITE INFORMATION

PROJECT LOCATION: 16 COOTE HILL ROAD
SHERMAN, CT 06784

PROJECT DESCRIPTION: RAWLAND SITE W/ GROUND EQUIPMENT WITHIN 2,400± SF TELECOMMUNICATIONS COMPOUND W/ PROPOSED 170'± AGL GALVANIZED MONOPOLE

PROPERTY DEVELOPER: HOMELAND TOWERS, LLC
9 HARMONY STREET
2ND FLOOR
DANBURY, CT 06810

DEVELOPER CONTACT: RAY VERGATI
(203) 297-6345

ENGINEER CONTACT: ROBERT C. BURNS, P.E.
(860) 552-2036

LATITUDE: 41° 32' 02.50" N
LONGITUDE: 73° 29' 34.45" W
ELEVATION: 878.5'± AMSL

MAP: 51
LOT: 28
ZONE: ZONE A : FARM RESIDENCE

OWNER:
MICHAEL J. & SUZANNE J. BERGER
16 COOTE HILL ROAD
SHERMAN, CT 06784

APPLICANTS:
HOMELAND TOWERS, LLC
9 HARMONY STREET
2ND FLOOR
DANBURY, CT 06810
RAY VERGATI
(203) 297-6345

AT&T
340 MOUNT KEMBLE AVE.
MORRISTOWN, NJ 07960

HOMELAND PROJECT ATTORNEY:
CUDDY & FEDER, LLP
445 HAMILTON AVENUE
14TH FLOOR
WHITE PLAINS, NY 10601
(914) 761-1300

POWER PROVIDER:
EVERSOURCE: (800) 286-2000

TELCO PROVIDER:
FRONTIER (800) 921-8102

CALL BEFORE YOU DIG:
(800) 922-4455

GOVERNING CODES:
CONNECTICUT STATE BUILDING CODE, LATEST EDITION
NATIONAL ELECTRIC CODE, LATEST EDITION
TIA-222-H

HOMELAND TOWERS, LLC
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567 VAUXHALL STREET EXTENSION - SUITE 311
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DESIGN PROFESSIONALS OF RECORD

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COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS
SHERMAN II

SITE ADDRESS: 16 COOTE HILL ROAD SHERMAN, CT 06784

APT FILING NUMBER: CT283390

DATE: 09/28/20 | DRAWN BY: ELZ

CHECKED BY: RCB

SHEET TITLE:
TITLE SHEET & INDEX

SHEET NUMBER:
T-1

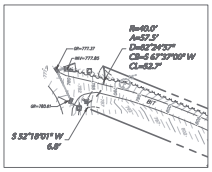
LEGEND (NOT SHOWN TO SCALE)

- AIR CONDITIONING UNIT
- BOLLARD
- BORING HOLE
- MONITORING WELL
- SIGN
- SHRUB
- TEST PIT
- TREE
- WETLAND FLAG
- CABLE BOX HAND HOLE
- CATCH BASIN
- CLEANOUT
- ELECTRIC BOX
- ELECTRIC METER
- FILLER VALVE
- FIRE HYDRANT
- FLARED END SECTION
- GAS METER
- GAS VALVE
- GUY POLE
- GUY WIRE
- HAND HOLE
- LIGHT POLE
- MANHOLE (TYPE AS LABELED)
- POWER POLE
- TELEPHONE BOX
- TRAFFIC BOX
- UNDERGROUND VAULT
- VALVE UNKNOWN
- WATER METER
- WATER VALVE
- SPOT ELEVATION
- BITUMINOUS
- CONCRETE
- CONCRETE PAD
- LANDSCAPED AREA
- BUILDING OVERHANG
- BOTTOM OF WALL
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- EDGE OF WALK
- BITUMINOUS CURB
- CONCRETE CURB
- SINGLE WHITE STRIPE
- BROKEN WHITE STRIPE
- SINGLE YELLOW STRIPE
- DOUBLE YELLOW STRIPE
- METAL GUARD RAIL
- WOOD GUARD RAIL
- STOCKADE FENCE
- CHAINLINK FENCE
- STONE WALL
- TREE LINE
- OVERHEAD WIRE
- WETLAND LINE
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- CONTOUR LINE
- SANITARY FORCE MAIN
- CABLE TV MARK OUT LINE
- DRAINAGE MARK OUT LINE
- ELECTRIC MARK OUT LINE
- COMMUNICATION MARK OUT LINE
- GAS MARK OUT LINE
- SANITARY SEWER MARK OUT LINE
- WATER MARK OUT LINE
- STEAM MARK OUT LINE
- UNKNOWN MARK OUT LINE
- REFERENCE UTILITY LINE (TYPE AS NOTED) – PLOTTED FROM EXISTING MAPPING

NOTES

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE"STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
   a. THIS SURVEY IS A PROPERTY SURVEY CONFORMING TO A HORIZONTAL ACCURACY OF A-2 AND A TOPOGRAPHIC SURVEY CONFORMING TO A T-2 ACCURACY. THE BOUNDARY DETERMINATION IS A RESURVEY. THE PURPOSE OF THIS SURVEY IS TO PROVIDE A BOUNDARY OPINION AND DEPICT SITE FEATURES FOR FUTURE SITE DEVELOPMENT.
2. THIS SURVEY IS BASED UPON EXISTING PHYSICAL CONDITIONS FOUND AT THE SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:
   A. COMMITMENT FOR TITLE INSURANCE ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY. COMMITMENT NUMBER: 01-19030934, EFFECTIVE DATE OCTOBER 28, 2019. SCHEDULE B SECTION II:
      1. NOT SURVEY RELATED
      2. SURVEY PROVIDED
      3-8. NOT SURVEY RELATED
      9. RIGHTS AND RIGHT OF WAY AS DEFINED IN VOLUME 30 PAGE 238 S.L.R. RIGHT OF WAY TO ROUTE 37.
      10. RIGHTS AS DEFINED IN VOLUME 64 PAGE 76 S.L.R. RIGHTS OF ACCESS TO COOTE HILL ROAD (PRIVATE WAY).
      11. RIGHTS AND EASEMENTS AS DEFINED IN VOLUME 152 PAGE 791 S.L.R
      12. NOT SURVEY RELATED
      13. TERMS AND CONDITIONS OF A LEASE AGREEMENT AS DEFINED IN VOLUME 168 PAGE 808 S.L.R.
   B. MAP TITLED"MAP PREPARED FOR PEPPER PLATT JONES ROUTE 37 SHERMAN, CONNECTICUT", SCALE 1"= 100', BY: RICHARD W. DIBBLE #488 S.L.R.
   C. MAP TITLED"COOTEHILL ON THE LAND OF CLAIRE E.L. COOTE", SHERMAN, CONNECTICUT, SCALE: 1"= 100', DATED: OCTOBER 1973, BY: PAUL LUND, #830 S.L.R.
3. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO CONNECTICUT STATE PLANE COORDINATE SYSTEM NAD 83 (EPOCH 2011). POSITION WAS DETERMINED BY GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS) AS PROVIDED BY HKGN SMARTNET CONTINUOUSLY OPERATED REFERENCE STATIONS (CORS).
4. ELEVATIONS SHOWN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) (GEOID 12B) AS DETERMINED BY GNSS
5. PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN CT, INC. FIELD WORK COMPLETED DURING THE MONTH OF AUGUST 2020 AND JANUARY 2021.
6. AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP ENTITLED"FAIRFIELD COUNTY, CONNECTICUT PANEL 80 OF 626, MAP NUMBER 09001C0080F, EFFECTIVE DATE JUNE 18, 2010" THE PROJECT AREA IS IN ZONE X (UNSHADED).
7. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC.). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND LOCATIONS WHERE DATA IS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE, THE SURVEYOR CANNOT, AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT A STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.
8. ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.
9. UNLESS SPECIFICALLY NOTED HEREON, THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.
10. ALL BUILDINGS AND STRUCTURES WERE LOCATED AND MEASURED AT GROUND LEVEL. THE SURVEYOR MAKES NO DETERMINATIONS OR GUARANTEES AS TO THE ABSENCE, EXISTENCE OR LOCATION OF UNDERGROUND STRUCTURES, FOUNDATIONS, FOOTINGS, CRAWL SPACES, OR BASEMENTS. NO EXCAVATIONS, TEST PITS, BORINGS, EXCAVATIONS OR GROUND PENETRATING RADAR WERE PERFORMED AS PART OF THIS SURVEY.
11. PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
12. THIS SURVEY IS NOT VALID WITHOUT THE EMBOSSED OR INKED SEAL OF THE PROFESSIONAL.

PROJECT LOCATION MAP
NOT TO SCALE



SCALE: 1 INCH = 60 FEET

Date	Description	No.
1/26/2021	ADDITIONAL TOPO. ADDED	1

REVISIONS

"TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON."

ANDREW G. IVES — DATE SIGNED
PROFESSIONAL LAND SURVEYOR
CT STATE LIC. NO. 70286

LANGAN
Langan CT, Inc.
555 Long Wharf Drive
New Haven, CT 06511
T: 203.562.5771 F: 203.789.8142 www.langan.com

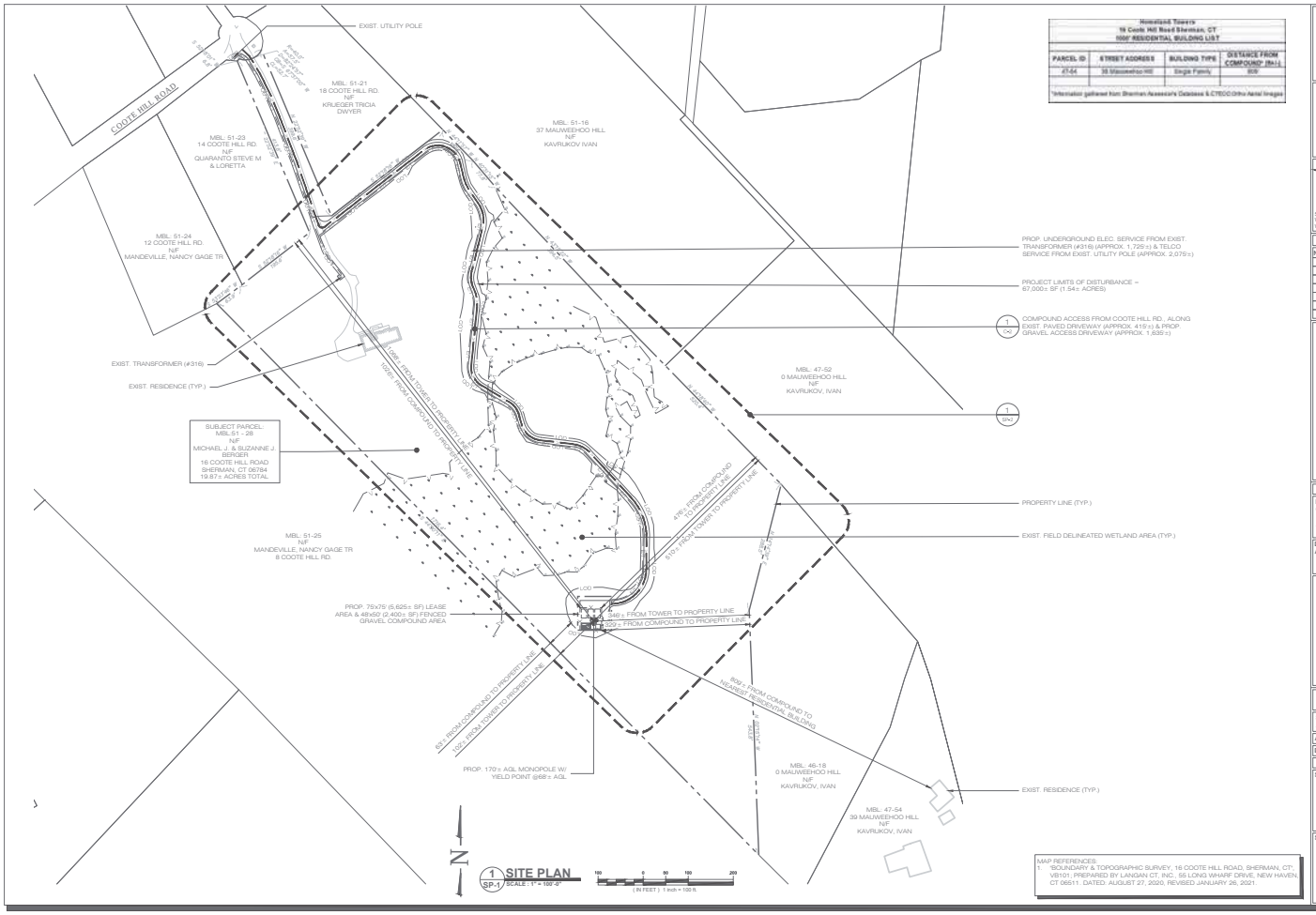
Project: 16 COOTE HILL ROAD
TOWN OF SHERMAN
FAIRFIELD COUNTY CONNECTICUT

Drawing Title: BOUNDARY & TOPOGRAPHIC SURVEY

Project No. 140223491
Date AUGUST 27, 2020
Drawn By ELH
Checked By ACE

Drawing No. VB101
Sheet 1 of 1

PROJECT NO. 140223491



Homeland Towers
16 Coote Hill Road Sherman, CT
1000' RESIDENTIAL BUILDING LIST

PARCEL ID	STREET ADDRESS	BUILDING TYPE	DISTANCE FROM COMPOUND* (ft+/-)
47-54	39 Mauweehoo Hill	Single Family	809

*Information gathered from Sherman Assessor's Database & CTECO Ortho Aerial Images

MAP REFERENCES:
1. "BOUNDARY & TOPOGRAPHIC SURVEY, 16 COOTE HILL ROAD, SHERMAN, CT", VB101, PREPARED BY LANGAN CT, INC., 55 LONG WHARF DRIVE, NEW HAVEN, CT 06511. DATED: AUGUST 27, 2020, REVISED JANUARY 26, 2021.

HOMELAND TOWERS, LLC
9 HARMONY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

at&t
340 MOUNT KEMBLE AVENUE
MORRISTOWN, NEW JERSEY 07960

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX:(860)-663-0935

PERMITTING DOCUMENTS

NO	DATE	REVISION
0	09/28/20	FOR REVIEW: RCB
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DESIGN PROFESSIONALS OF RECORD

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COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
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DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS SHERMAN II

SITE ADDRESS: 16 COOTE HILL ROAD SHERMAN, CT 06784

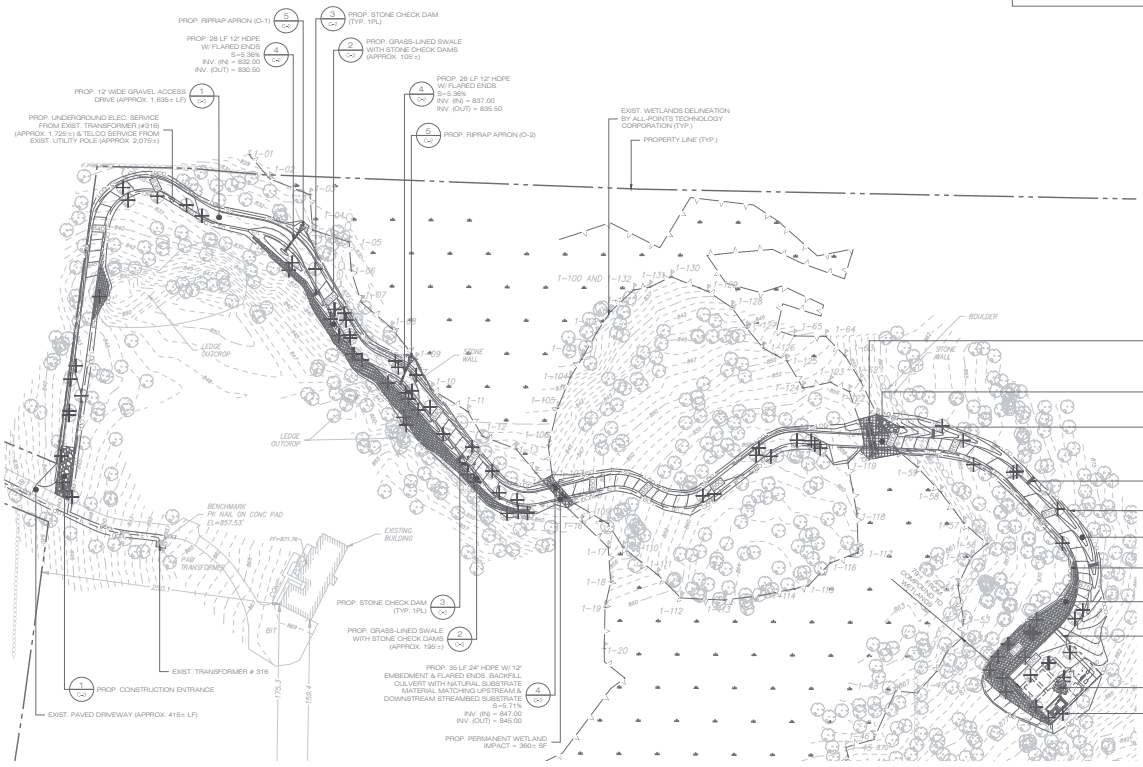
APT FILING NUMBER: CT283390

DATE: 09/28/20 DRAWN BY: ELZ

CHECKED BY: RCB

SHEET TITLE:
SITE PLAN & ABUTTERS MAP

SHEET NUMBER:
SP-1



1 SP-2 **PARTIAL SITE PLAN**
SCALE : 1" = 50'-0"

NOTE:
90 TREES WILL NEED TO BE REMOVED IN CONSTRUCTION OF THE FACILITY.

<10" DIA.	23 TREES
10"-14" DIA.	19 TREES
>14" DIA.	48 TREES

SITE AREAS & VOLUMES OF EARTHWORK

SITEWORK ENTAILS APPROXIMATELY 968 CUBIC YARDS OF EXCAVATION AND 1,663 CUBIC YARDS OF FILL. THE COMPOUND WILL IMPORT APPROXIMATELY 712 CUBIC YARDS OF CLEAN BROKEN STONE. THE UTILITY TRENCH FROM THE DEMARCS TO THE COMPOUND WILL EXCAVATE APPROXIMATELY 323 CUBIC YARDS OF MATERIAL THAT WILL BE USED TO BACKFILL THE TRENCH.

COMPOUND AREA SLOPES:
EXISTING - 5%-10%
PROPOSED - 3%-5%

TOTAL AREA OF DISTURBANCE = 67,000± SF

STORMWATER VELOCITY:
PRIOR TO GROUND COVER < 3.0 FT/SEC
FOLLOWING GROUND COVER < 3.0 FT/SEC

STORMWATER VOLUME:
PROPOSED IMPERVIOUS AREA = 4,158 SF
WATER QUALITY STD VOLUME (1") = 347 CF
STORAGE VOLUME (6" DEPTH, 40% VOIDS) = 530 CF

GROUND COVER TO BE ESTABLISHED AS FOLLOWS (U.O.N):
- WHITE CLOVER @ 0.20#/- SF
- TALL FESCUE @ 0.45#/- SF
- RYEGRASS @ 0.10#/- SF

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SITE ADDRESS: 16 COOTE HILL ROAD SHERMAN, CT 06784

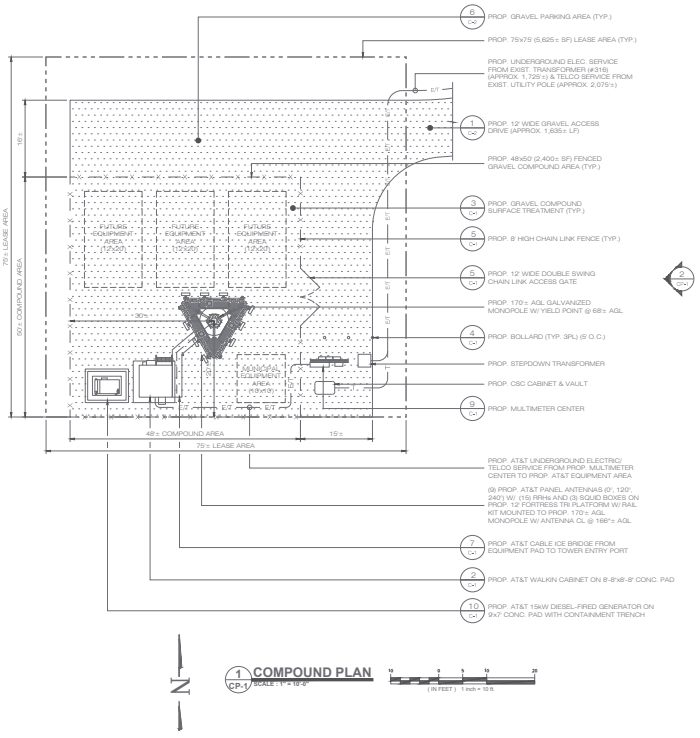
APT FILING NUMBER: CT283390

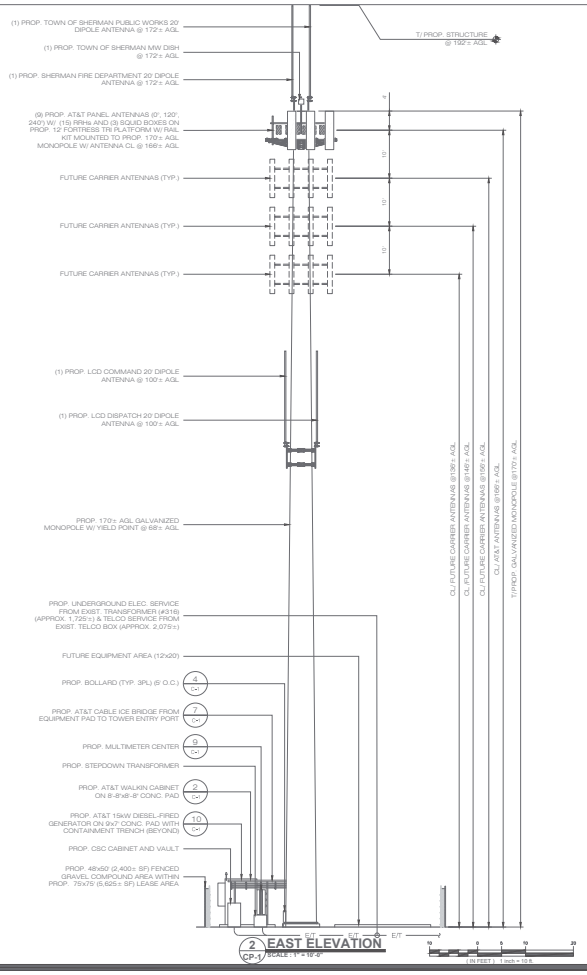
DATE: 09/28/20 DRAWN BY: ELZ

CHECKED BY: RCB

SHEET TITLE:
PARTIAL SITE PLAN

SHEET NUMBER:
SP-2





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HOMELAND TOWERS SHERMAN II

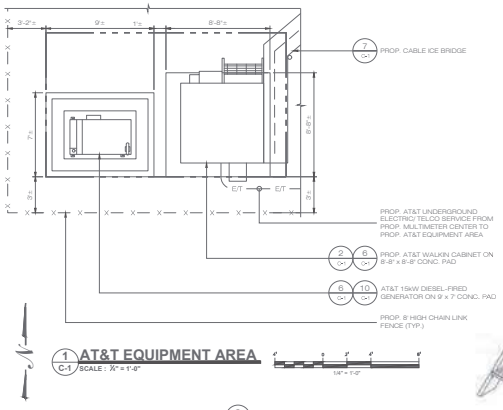
SITE 16 COOTE HILL ROAD
ADDRESS: SHERMAN, CT 06784

APT FILING NUMBER: CT283390

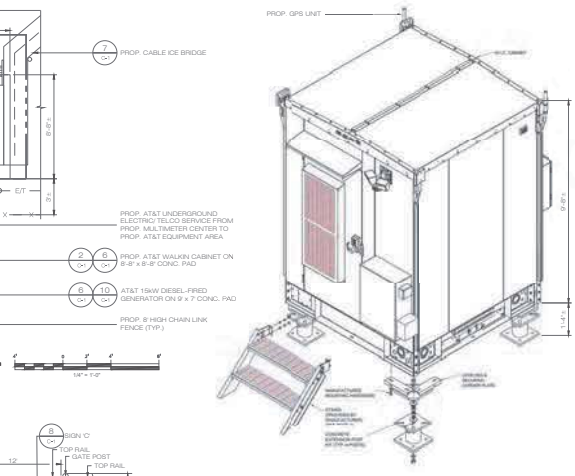
DATE: 09/28/20 DRAWN BY: ELZ
CHECKED BY: RCB

SHEET TITLE:
COMPOUND PLAN AND ELEVATION

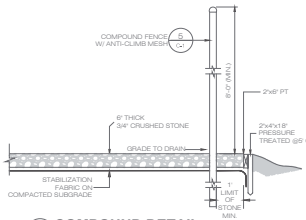
SHEET NUMBER:
CP-1



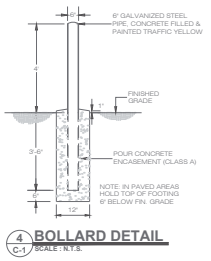
1 AT&T EQUIPMENT AREA
C-1 SCALE : 1/4" = 1'-0"



2 AT&T WALKIN CABINET
C-1 SCALE : N.T.S.



3 COMPOUND DETAIL
C-1 SCALE : N.T.S.



4 BOLLARD DETAIL
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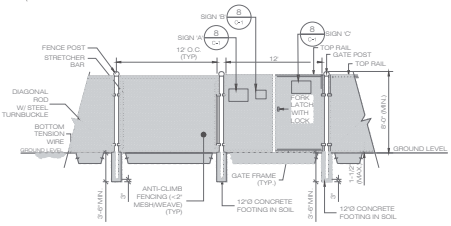
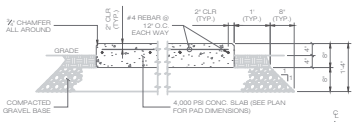
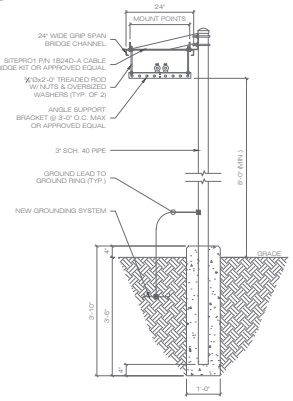


5 CHAIN-LINK FENCING & FENCE GATE DETAIL
C-1 SCALE : N.T.S.

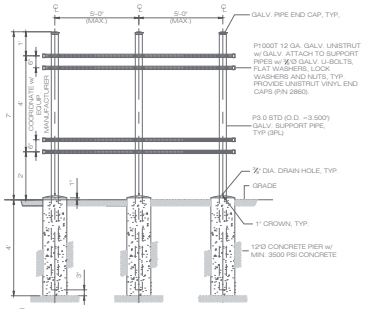


6 EQUIPMENT PAD
C-1 SCALE : N.T.S.

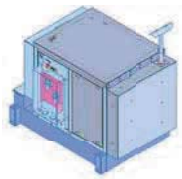


7 CABLE BRIDGE DETAIL
C-1 SCALE : N.T.S.

8 TYPICAL SIGNAGE
C-1 SCALE : N.T.S.



9 UTILITY BACKBOARD FRAME DETAIL
C-1 SCALE : N.T.S.



POLAR POWER, INC.
15KW 48VDC GENERATOR
HORIZONTAL ALUMINUM ENCLOSURE

10 GENERATOR
C-1 SCALE : N.T.S.

HOMELAND TOWERS, LLC
9 HARMONY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

340 MOUNT KEMBLE AVENUE
MORRISTOWN, NEW JERSEY 07960

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX:(860)-663-0935

PERMITTING DOCUMENTS		
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6		

DESIGN PROFESSIONALS OF RECORD

PROF: ROBERT C. BURNS P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS SHERMAN II

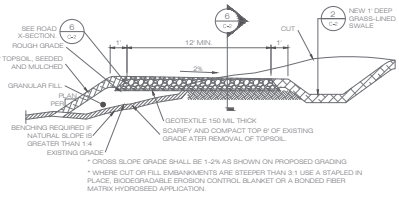
SITE: 16 COOTE HILL ROAD
ADDRESS: SHERMAN, CT 06784

APT FILING NUMBER: CT283390

DATE: 09/28/20 | DRAWN BY: ELZ | CHECKED BY: RCB

SHEET TITLE:
AT&T EQUIPMENT PLAN & DETAILS

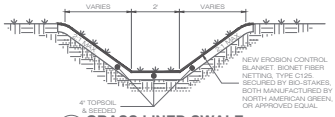
SHEET NUMBER:
C-1



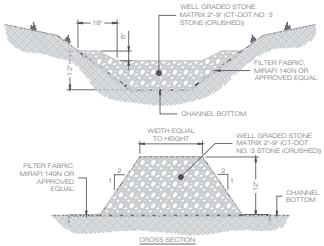
* CROSS SLOPE GRADE SHALL BE 1-2% AS SHOWN ON PROPOSED GRADING

* WHERE CUT OR FILL EMBANKMENTS ARE STEEPER THAN 3:1 USE A STAPLED IN PLACE, BIODEGRADABLE EROSION CONTROL BLANKET OR A BONDED FIBER MATRIX HYDROSEED APPLICATION.

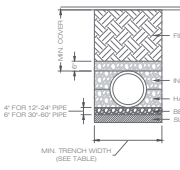
1 TYPICAL ROAD CROSS SECTION
C-2 SCALE : N.T.S.



2 GRASS LINED SWALE
C-2 SCALE : N.T.S.



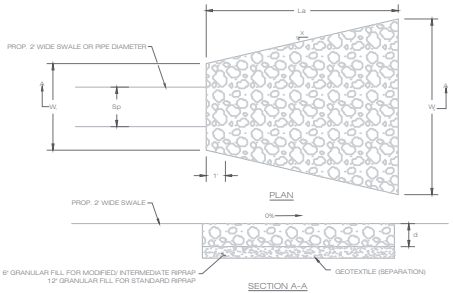
3 STONE CHECK DAM
C-2 SCALE : N.T.S.



RECOMMENDED MIN. TRENCH WIDTH	
PIPE DIA.	MIN. TRENCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 , "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION .
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

4 HDPE STORM DRAINAGE TRENCH DETAIL
C-2 SCALE : N.T.S.



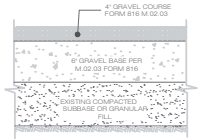
SECTION A-A

LEGEND
Sp= INSIDE PIPE DIAMETER
La= LENGTH OF RIPRAP APRON
d= 12" MODIFIED RIPRAP
18" INTERMEDIATE RIPRAP
36" STANDARD RIPRAP

	X	W_1	W_2
TYPE A RIPRAP APRON	3	3Sp	3Sp + 0.7 La
TYPE B RIPRAP APRON	5	3Sp	3Sp + 0.4 La

OUTLET	SWALE WIDTH/ PIPE DIAMETER Sp (FT)	APRON LENGTH La (FT)	APRON INITIAL WIDTH W1 (FT)	APRON TERMINAL WIDTH W2 (FT)	RIPRAP SPECIFICATION
O-1	1	5	3	6.5	MODIFIED
O-2	1	5	3	6.5	MODIFIED
O-3	2	19	6	25	MODIFIED

5 RIPRAP APRON
C-2 SCALE : N.T.S.



6 GRAVEL ROAD/PARKING SECTION
C-2 SCALE : N.T.S.

HOMELAND TOWERS, LLC
9 HARMONY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

at&t
340 MOUNT KEMBLE AVENUE
MORRISTOWN, NEW JERSEY 07960

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
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COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
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DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS SHERMAN II

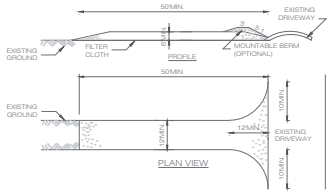
SITE ADDRESS: 16 COOTE HILL ROAD SHERMAN, CT 06784

APT FILING NUMBER: CT283390

DATE: 09/28/20 DRAWN BY: ELZ
CHECKED BY: RCB

SHEET TITLE:
SITE DETAILS

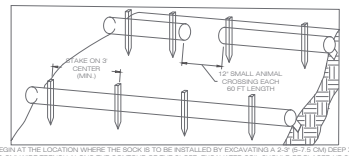
SHEET NUMBER:
C-2



CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

1 CONSTRUCTION ENTRANCE DETAIL
C-3 SCALE : N.T.S.



1. BEGIN AT THE LOCATION WHERE THE SOCK IS TO BE INSTALLED BY EXCAVATING A 2-3' (5-7.5 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE SOCK IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE SOCK ON THE UPHILL SIDE. SOCKS SHALL BE INSTALLED IN 60 FT CONTINUOUS LENGTHS WITH ADJACENT SOCKS TIGHTLY ABUT. EVERY 60 FT THE SOCK ROW SHALL BE SPACED 12 INCHES CLEAR, END TO END, FOR AMPHIBIAN AND REPTILE TRAVEL. THE OPEN SPACES SHALL BE STAGGERED MID LENGTH OF THE NEXT DOWN GRADIENT SOCK.
3. SECURE THE SOCK WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9 -1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE SOCK. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

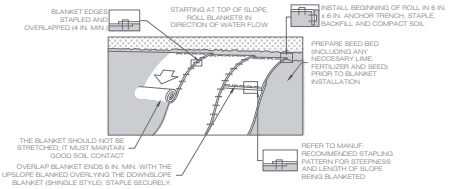
2 COMPOST FILTER SOCK SEDIMENTATION CONTROL BARRIER
C-3 SCALE : N.T.S.

SEQUENCE OF CONSTRUCTION:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPS IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPS.
3. ROLL THE RECPS DOWN HORIZONTALLY ACROSS THE SLOPE. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL RECPS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON THE RECPS TYPE.
5. CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECPS WIDTH.

NOTES:

1. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
3. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
4. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.



3 EROSION CONTROL BLANKET STEEP SLOPES
C-3 SCALE : N.T.S.

HOMELAND TOWERS, LLC
9 HARMONY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

340 MOUNT KEMBLE AVENUE
MORRISTOWN, NEW JERSEY 07960

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ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS
SHERMAN II

SITE ADDRESS: 16 COOTE HILL ROAD SHERMAN, CT 06784

APT FILING NUMBER: CT283390

DATE: 09/28/20 DRAWN BY: ELZ

CHECKED BY: RCB

SHEET TITLE:

EROSION CONTROL DETAILS

SHEET NUMBER:

C-3

FAA I-A SURVEY CERTIFICATION

Applicant: Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Site Name: Sherman II

Site Address: Map 51 Lot 28
16 Coote Hill Road
Sherman, CT 06784

Source of Coordinates: **X** GPS Survey Ground Survey

Vertical Datum: NAVD 1988 (AMSL) **X** GPS Survey Ground Survey

Structure Type: **X** New Tower Existing Tower Roof Top

Water Tank Smoke Stack Other_____

Latitude: (NAD 83) 41-32-02.50

Longitude: (NAD 83) 73-29-34.45

Ground Elevation: AMSL Elevation (in feet) 878.5'

Top of Tower: AMSL Elevation (in feet) 1070.5'

Certification: I certify that the latitude of 41-32-02.50 and the longitude of 73-29-34.45 are accurate to within + 15 feet horizontally, and that the ground elevation of 878.5' AMSL is accurate to within + 3 feet vertically. With a structure height of 192' AGL, the overall height will be 1070.5' AMSL. The horizontal datum (coordinates) are in the terms of the North American Datum of 1983 (NAD 83) and are expressed in degrees, minutes, seconds to the nearest hundredth of a second.

The vertical datum (heights) are in terms of the North American Vertical Datum of 1988 and are determined to the nearest 1/10 of a foot.

Company: Langan CT, Inc.

Surveyor Signature/Seal:

Andrew G. Ives, P.L.S. #70286

STATE OF CONNECTICUT ANDREW G. IVES No. 70286 LICENSED LAND SURVEYOR

Date: February 26, 2021

WIRELESS APPLICATIONS, CORP.®
Connecting Wireless...

OPINION LETTER

February 18, 2021

FAA & FCC Not Required

Christine Vergati
Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

RE: **CT009 - Sherman 2, CT Airspace Analysis**

Latitude (NAD-83):	**41° 32' 02.50" N**
Longitude (NAD-83):	**73° 29' 34.45" W**
Ground Elevation:	**879.0 ft AMSL**
Tower tip height:	**192.0 ft AGL**
Overall height:	**1071.0 ft AMSL**

Dear Ms. Vergati,

Our airspace analysis results for the CT009 - Sherman 2, CT site are as follows:

1. **PER AIRSPACE, filing an FAA Form 7460-1 is not required for the proposed tower height of 192.0 ft AGL (1071.0 ft AMSL). The maximum allowable height for not filing an FAA Form 7460-1 is 200 ft.**
2. **FCC's TOWAIR Determination indicates that this Structure does not require registration as it would PASS SLOPE (50:1): NO FAA REQ-Runway more than 10719 Meters or less & 4469.89 Meters (4.4699) KM away. The maximum allowable height for not filing an ASR is 200 ft AGL**
3. The proposed site is 2.494 nm SW from the nearest public landing facility – 6Y2: Candlelight and it is 2.527 nm SW 11N: Candlelight Farms. At an overall height of 1071.0 ft AMSL, it does not exceed FAR 77.9 (a) or FAR 77.9 (b) Notice Criteria for 11N airport. This airport has both Circling and Straight-In Instrument approach procedures. It does not exceed any glide slopes of 11N airport. 6Y2: Candlelight is a heliport type landing facility and 11N: Candlelight Farms is an airport type landing facility associated with the city of New Milford, CT.
4. The proposed site is not within any of the instrument approach procedures of 11N airport.
5. The nearest private landing facility is 5NK8: South Quaker, which is a heliport type landing facility not eligible for study under FAR Part 77 sub-Part C. It is 3.97 nm West from the proposed site.
6. The proposed 192.0 ft AGL tower would not adversely affect low altitude en route airways and/ or VFR routes in the area.
7. The nearest AM tower is WINE, which is 4.37 mi (7037 meters) away bearing 130.31°. WFAU AM is operating a non-directional type antenna system. As noted per the FCC AM Tower Locator and per FCC regulation 13-115, Section 1.30002, the structure will not require a 'Proof of Performance' measurement study before and after construction. The electrical height of the studied antenna is: 58°. Your structure is not within 1 wavelength of this station. The wavelength for this AM station is 319 meters. The critical tower height is 53 meters.
8. Marking and lighting are not required as FAA notification is not required.
9. All Wireless Applications Corp. analyses are based on the latest AIRSPACE, FAA Notice Criteria Tool and FCC TOWAIR programs.

If you have any questions, please do not hesitate to call. Thank you.

Ronald W. Lageson, Jr.
425-643-5000 (office)
425-649-5675 (fax)

Antenna Structure Registration

TOWAIR Determination Results

HELP

New Search Printable Page

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

*** NOTICE ***

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

DETERMINATION Results

PASS SLOPE(50:1): NO FAA REQ-RWY 10499 MTRS OR LESS & 4463.79 MTRS (4.4638) KM AWAY

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	41-33-56.00N	073-27-35.00W	CANDLELIGHT FARMS	LITCHFIELD NEW MILFORD, CT	197.8	883.89999999999998

PASS SLOPE(25:1): NO FAA REQ-HELIPORT 4603.69 MTRS (4.60369 KM) AWAY

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
HELI	C	41-34-4.00N	073-27-38.00W	CANDLELIGHT	LITCHFIELD NEW MILFORD, CT	205.7	15.199999999999999

Your Specifications

NAD83 Coordinates

Latitude	41-32-02.5 north
Longitude	073-29-34.5 west

Measurements (Meters)

Overall Structure Height (AGL)	58.5
Support Structure Height (AGL)	51.8
Site Elevation (AMSL)	267.9

Structure Type

MTOWER - Monopole

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

ASR Help	ASR License Glossary - FAQ - Online Help - Documentation - Technical Support
ASR Online Systems	TOWAIR- CORES - ASR Online Filing - Application Search - Registration Search
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Help | Tech Support

Federal Communications Commission
45 L Street NE
Washington, DC 20554

Phone: 1-877-480-3201
TTY: 1-717-338-2824
Submit Help Request

ATTACHMENT 5

ATTACHMENT 5

Environmental Assessment Statement

I. PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

A wetland delineation at the Parcel identified one wetland system separated by a relatively large upland island in the central portion of the Parcel. The Proposed Facility is located approximately 79' from the nearest wetland boundary. The proposed gravel access drive includes two wetlands crossings impacting approximately 1,545 s.f. of delineated wetlands. As set forth in the Wetlands Impact Analysis enclosed in Attachment 6, there are no alternative access options that would avoid wetlands crossings because the wetland system extends across north and south property boundaries. The wetlands crossings are proposed within the narrowest features of the wetland and are comprised of seasonal intermittent watercourses with minimal to no bordering wetlands and utilize the upland areas for the majority of the driveway location. The Wetland Impact Analysis details other design considerations, such as the utilization of natural stream crossing design standards and the placement of the crossings at topographic plateaus to minimize filling and grading requirements. Wetland protection measures and an invasive species control plan as set forth in the Wetland Impact Analysis will also be implemented to mitigate impacts. Due to the fact that the proposed Facility will not alter existing surface or subsurface flow and include gravel surfaces, the hydrology of the nearby wetland will not be altered. Based on these mitigation measures as outlined in the Wetland Impact Analysis, no adverse impacts to wetlands or watercourse are anticipated.

Best management practices to control stormwater and soil erosion during construction and post-installation of the Proposed Facility and access drive will be implemented. Sedimentation and erosion controls will be designed, installed, and maintained during construction activities in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

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. An emergency backup power diesel generator would be exercised once a week and comply with the Connecticut Department of Energy and Environmental Protection ("DEEP") "permit by rule" criteria pursuant to R.C.S.A. §22a-174-3b.

C. LAND

Approximately 90 trees over 6" DBH will need to be removed in order to construct the compound and the new access drive. The total area of clearing and grading disturbance will be approximately 67,000 s.f. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system. Some construction related noise would be anticipated during facility construction, which is expected to take approximately six to eight weeks. Temporary power outages would involve sound from the emergency generator which is tested weekly. The Environmental Sound Assessment in Attachment 9 confirms that the operation of the Facility during emergencies, when the back-up generator is operating, will not result in adverse impacts.

E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 6.61% of the federal MPE standard. Included in Attachment 7 is a Radio Frequency Emissions Analysis Report for the facility.

F. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

Consultation with DEEP indicated known extant populations of State Listed Species, including the slimy salamander (Plethodon glutinosus), a State Threatened Species, to occur within or close to the boundaries of the Parcel. To mitigate any potential impacts to the slimy salamander, Homeland relocated the proposed Facility on the Parcel from the location shown in the Technical Report to the current proposed location and submitted a report to DEEP detailing this proposed mitigation. In response, DEEP concurred with the mitigation report findings that the relocation of the proposed Facility on the Parcel eliminates all direct impacts to the slimy salamander habitat. With respect to the other State Listed Species, DEEP recommended best management practices, including tree clearing time limits, and Homeland agrees to comply with all recommended best practices. A copy of the January 9, 2021 DEEP response concurring with the slimy salamander mitigation and best practices details is included in Attachment 10 in the USFWS & NDDB Compliance Determination.

Homeland's evaluation also identified that one federally listed threatened species, the northern long eared bat ("NLEB"), is known to occur in the vicinity of the Parcel. A review of the DEEP National Database Diversity ("NDDB") Map reveals that proposed Facility is not located within 150' of a known NLEB maternity roost tree or within 0.25 mile of a NLEB hibernaculum. As explained in the USFWS and NDDB Compliance Determination included in Attachment 10, based on these results, conservation measures are not required. However, Homeland agrees to implement the USFWS voluntary conservation measures detailed in the enclosed Compliance Determination.

No historic resources were identified within 0.5 miles of the Site. A professional cultural resources assessment and reconnaissance survey will be conducted and provided to the SHPO for confirmation that the Proposed Facility will have no adverse effect on any listed or eligible historic resources or identified archaeological sites. SHPO's determination will be forwarded upon receipt. It is noteworthy that when a 170' tall facility was previously proposed on the Parcel in 2013, the SHPO determined that there would be no historic properties affected.

Included in Attachment 10 is an Avian Resource Evaluation which concludes that no migratory bird species are anticipated to be impacted by the proposed Facility.

No Important Bird Areas are located in proximity to the proposed Facility and it will comply with the USFWS guidelines for migratory impacts to bird species.

G. VISIBILITY

Included in Attachment 8 is a Visibility Assessment & Photosimulations analysis which contains a viewshed map and photo simulations of off-site views. As detailed in the enclosed analysis, areas from where the Facility would be visible comprise + 29 acres of seasonal visibility and an additional + 5 acres of year-round visibility. Together, this represents approximately 0.4%, or less than 1% of the 2-mile radius study area.

The visual assessment concludes that visibility is primarily limited to two areas, northeast and northwest of the site at distances between + 0.5 mile and + 0.85 mile away. Predicted visibility is primarily seasonal, when leaves are off the trees, including northwest of the Site along Route 37 and Leach Hollow Road for an approximately + 0.5 mile stretch.

H. SCHOOLS/DAY CARE CENTERS

The nearest school is Sherman School, located +/- 3 miles north of the Parcel on Route 37. There are no day care centers located within 250' of the Proposed Facility.

ATTACHMENT 6

WETLAND INSPECTION

September 23, 2020 **APT Project No.: CT283390**
Revised February 26, 2021

Prepared For: Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Site Name: Sherman II (HLT-CT009/AT&T – CT1341 Sherman)

Site Address: 16 Coote Hill Road, Sherman, Connecticut

Date of Investigation: 7/27/2020

Field Conditions: **Weather:** sunny**,** mid 90's **Soil Moisture:** dry to moist

Wetland/Watercourse Delineation Methodology[1]:
☒Connecticut Inland Wetlands and Watercourses

Municipal Upland Review Area:
Wetlands: 100 feet **Watercourses:** 100 feet

The wetlands inspection was performed by[2]:

Matthew Gustafson, Registered Soil Scientist

Enclosures: Wetland Delineation Field Form & Wetland Inspection Map

This report is provided as a brief summary of findings from APT's wetland investigation of the referenced Study Area that consists of proposed development activities and areas generally within 200 feet.[3] If applicable, APT is available to provide a more comprehensive wetland impact analysis upon receipt of site plans depicting the proposed development activities and surveyed location of identified wetland and watercourse resources.

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1 *Wetlands and watercourses were delineated in accordance with applicable local, state and federal statutes, regulations and guidance.*

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

3 *APT has relied upon the accuracy of information provided by Homeland Towers, LLC and its contractors regarding proposed lease area and access road/utility easement locations for identifying wetlands and watercourses within the study area.*

Attachments

- Wetland Delineation Field Form
- Wetland Inspection Map

Wetland Delineation Field Form

Wetland I.D.:	Wetland 1	
Flag #'s:	WF 1-01 to 1-28, 1-40 to 1-85, 1-100 to 1-132 (closed loop – upland island)	
Flag Location Method:	Site Sketch ☒	GPS (sub-meter) located ☒

WETLAND HYDROLOGY:

NONTIDAL ☒

Intermittently Flooded ☐	Artificially Flooded ☐	Permanently Flooded ☐
Semipermanently Flooded ☐	Seasonally Flooded ☒	Temporarily Flooded ☐
Permanently Saturated ☐	Seasonally Saturated/seepage ☒	Seasonally Saturated/perched ☐
Comments: Wetland 1 consists of a complex of a hillside seep system with seasonal saturation, shallow seasonally flooded depressional areas and intermittent watercourses.		

TIDAL ☐

Subtidal ☐	Regularly Flooded ☐	Irregularly Flooded ☐
Irregularly Flooded ☐		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine ☐	Riverine ☐	Palustrine ☒
Lacustrine ☐	Marine ☐	
Comments: None		

CLASS:

Emergent ☒	Scrub-shrub ☒	Forested ☒
Open Water ☐	Disturbed ☐	Wet Meadow ☐
Comments: Mature forest is the dominant vegetive class. Storm events have resulted in patches of windthrown trees/canopy openings where scrub/shrub and emergent vegetation dominates.		

WATERCOURSE TYPE:

Perennial ☐	Intermittent ☒	Tidal ☐
Watercourse Name: Unnamed		
Comments: Two intermittent watercourses drain southeast to northwest within a narrow 1- to 3-foot wide, heavily incised channel with sandy/cobble bottoms. Both seasonal watercourses are characterized by limited bordering vegetated wetlands. These watercourses converge into a large seep wetland system to the north. The eastern watercourse contains a higher quality stream bed structure with a diversity of stone sizes, coarse woody debris, and riffle/pool structure than the western watercourse and its seasonal periods of flow appear to endure longer. The eastern watercourse also is entirely shaded with mature closed canopy forest. The western watercourse streambed is primarily dominated by sandy and small cobble with much of the stream exposed resulting from a lack of forest canopy shading.		

Wetland Delineation Field Form (Cont.)

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other ☐
Vernal Pool Habitat Type: None	
Comments: Two wood frog metamorphose were observed within or near Wetland 1. However, no discernable potential vernal pool habitat was observed within or nearby the delineated extents of Wetland 1. It is possible that potential vernal pool habitat exists within the identified wetland system off the subject property and the subject wetland and uplands are located within the dispersal range of the possible off-site vernal pool.	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes ☒	No ☐

DOMINANT PLANTS:

Red Maple (Acer rubrum)	Yellow Birch (Betula alleghaniensis)
Tulip Poplar (Liriodendron tulipifera)	Spicebush (Lindera benzoin)
Tussock Sedge (Carex stricta)	Sphagnum moss (Sphagnum spp.)
Japanese Barberry* (Berberis thunbergii)	Sensitive Fern (Onoclea sensibilis)
Skunk Cabbage (Symplocarpus foetidus)	Jewelweed (Impatiens capensis)
Wood Fern (Dryopteris carthusiana)	Japanese Stilt Grass (Microstegium vimineum)

* denotes Connecticut Invasive Species Council invasive plant species

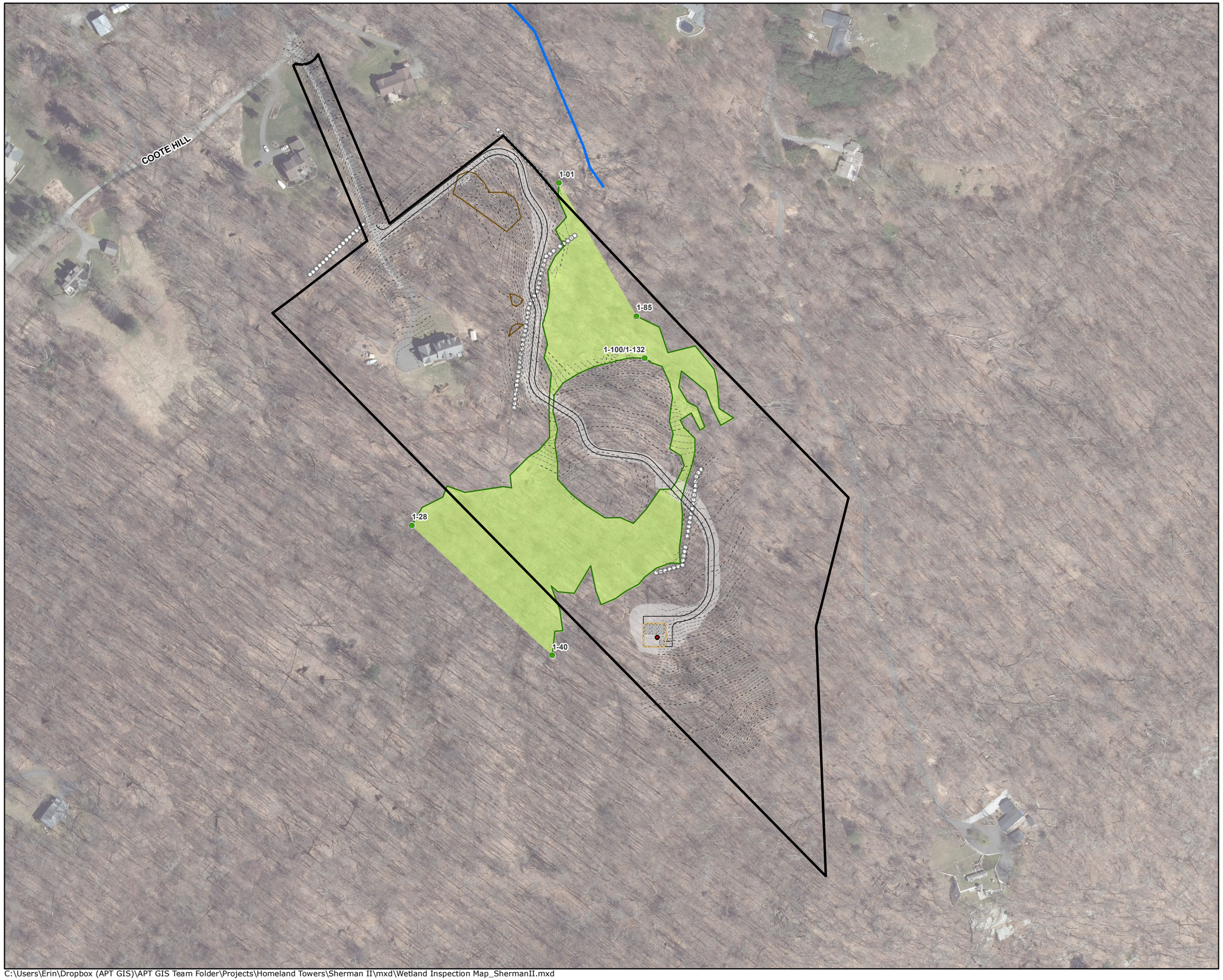
GENERAL COMMENTS:

All-Points Technology Corp., P.C. ("APT") understands that Homeland Towers proposes to install a wireless communications facility ("Facility") in the southeast corner of a residentially developed property within a dry to xeric mature forested upland. A proposed 12-foot wide gravel access road and utility route would start from the existing residential driveway, follow along the northern then western property boundaries before turning toward the central portion of the property. One wetland system, separated by a relatively large upland island, was identified in the central portion of the property.

Wetland 1 consists of a complex of two broad hillside seep wetlands with two seasonal intermittent watercourses that connect these seep systems to the northwest and southeast, separated by a central upland forested island. The wetland system is dominated by mature hardwood forest with pockets of scrub/shrub and emergent vegetation within isolated canopy openings. The hillside seep system to the southeast is characterized by moderate slopes and a lack of surface saturation. The more northerly seep system collects drainage from the connecting intermittent watercourses and is characterized by more variably steep slopes and pockets of seasonal surface saturation and shallow inundation. This north/northwest draining wetland system extends off the subject property to both the north and south.

The proposed Facility would be located ±79 feet southeast from the nearest location to Wetland 1's boundary. In order to access the proposed Facility location, a crossing through Wetland 1 is required; with the wetland system extending across both the north and south property boundaries there is no alternative access available that would avoid the wetland crossing. Utilizing the upland island centrally located within Wetland 1 to minimize wetland impacts, two crossings within the narrowest features of Wetland 1 that consist of seasonal intermittent watercourse features with minimal to no bordering wetlands are proposed. A wetland impact evaluation will be provided under separate cover to assess these unavoidable, relatively small, wetland impacts.

Wetland Inspection Map
Proposed Sherman II
Wireless Telecommunications Facility
16 Coote Hill Road
Sherman, Connecticut



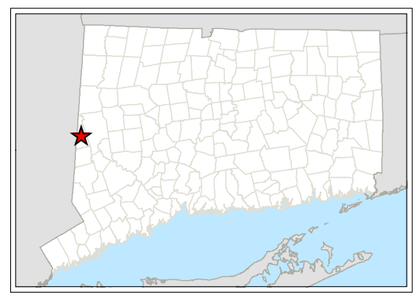
Legend

- Subject Property
- Rock Outcrop
- Stonewall
- Major Contours
- Minor Contours
- Delineated Wetland Boundary
- Wetland Area
- Limit of Disturbance
- Monopole
- Carrier Equipment Areas
- Access Road
- Compound Fence
- Underground Elec / Telco
- Utility Equipment
- Watercourse

N

200 100 0 200 Feet

1 inch = 200 feet



ALL-POINTS TECHNOLOGY CORPORATION

Map Sources:

Ortho Base Map: State of Connecticut 2019 aerial imagery CTECO

Wetlands Field Delineated by:
All-Points Tech. Corp., Matthew Gustafson, Registered Soil Scientist; Date: July 27,2020

Proposed Design Data: All-Points Tech. Corp.

Map Date: February 2021

C:\Users\Erin\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Homeland Towers\Sherman II\mxd\Wetland Inspection Map_ShermanII.mxd

Wetland Impact Analysis

February 26, 2021

Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Re: Proposed Homeland Towers Sherman II Telecommunications Facility
16 Coote Hill Road, Sherman CT
APT Project No. CT283390

On behalf of Homeland Towers, LLC ("Homeland"), All-Points Technology Corporation, P.C. ("APT") performed an evaluation of wetland impacts associated with the proposed referenced telecommunication facility ("Facility") on an undeveloped forested parcel located south of Coote Hill Road in Sherman, Connecticut ("Subject Property").

Introduction

This wetland impact evaluation is based on field inspections performed on July 22, 2020 by APT along with a review of site plans prepared by APT (latest revision date 2/16/21).

APT wetland scientists conducted an initial inspection of the Subject Property on July 22, 2020 to confirm the presence and extent of wetlands and watercourses within and proximate to the proposed Facility. A forested hillside seep wetland system (Wetland 1) was identified in the central portion of the Subject Property draining south to north connecting to other wetland areas on adjoining parcels. The wetland system is dominated by mature hardwood forest with pockets of scrub/shrub and emergent vegetation within isolated canopy openings. The hillside seep system to the southeast is characterized by moderate slopes and a lack of surface saturation. The more northerly seep system collects drainage from the connecting intermittent watercourses and is characterized by more variably steep slopes and pockets of seasonal surface saturation and shallow inundation.

This wetland feature includes a separation of drainage to either side of an upland 'island' characterized by two narrow seep channels that convey seasonal intermittent flows. As these features flow around the upland 'island', they are primarily classified as intermittent watercourses with very narrow or nonexistent bordering wetlands. As these intermittent watercourses travel to the northern end of the

upland ‘island’, they connect to a larger hillside seep system as the entire wetland system drains north off the Subject Property.

The proposed Facility is located within mature upland forest in the southeast portion of the Subject Property. The proposed Facility would consist of a monopole and associated ground equipment located within a gravel compound area surrounded by an exterior chain-link fence. Access to the Facility would be provided by a proposed 12-foot wide gravel road off Coote Hill Road requiring crossing of Wetland 1 at two narrow points in the wetland system that consist of seasonal intermittent watercourse features.

Wetland Impact Evaluation

The proposed Facility would not result in direct wetland impacts and would be located ±79 feet south of the nearest wetland boundary (wetland flag 1-52). However, in order to access the proposed Facility, Wetland 1 would require crossing at two narrow wetland areas characterized by seasonal intermittent watercourses. Avoiding these two crossing is not possible with the proposed location of the Facility on the Subject Property. Since avoidance of wetland impacts is not possible, the design team identified alternative access routes to achieve minimization of wetland impacts by positioning both crossings at narrow portions of the wetland system where each location consists of seasonal intermittent watercourse features to avoid impacting bordering wetland habitat that is located both to the north and south of the two crossings. Generally, both intermittent watercourse crossing points consist of well-defined and heavily incised banks and channels with no or very narrow bordering wetland areas. Locating the crossings to these two specific locations limits the amount of wetland disturbance as well as the potential hydraulic impacts to larger wetland areas located both upstream (south) and downstream (north).

The second design consideration that was employed to minimize impacts at each crossing was utilization of natural stream crossing design standards that follow guidelines from the U.S. Army Corps of Engineers and the Connecticut Department of Energy and Environmental Protection. The crossing design will convey flows under the gravel road with a single 24-inch HDPE pipe at the western crossing and two 24-inch HDPE pipes at the eastern crossing location. All of the pipes will be embedded 12 inches below the existing intermittent watercourse channel surface and backfilled with natural substrate material matching the upstream and downstream channel substrates. The outlet and inlet to these pipes will be flared to better disperse any flows and mitigate any erosive force at the outlet. While the use of these pipes may have the potential for hydraulic impacts to either the upstream or downstream side of the proposed crossings by creating focused flows, as the watercourse at the proposed locations are already highly focused with well incised banks any potential hydraulic impacts are minimized. The wider of the two crossings, the eastern crossing, is slightly wider and hence why two culverts were used to better distribute the flows and further minimize the potential for hydraulic

impacts. Furthermore, the crossings are designed to fully convey large storm events without risk of overtopping or washing out the road or creating an erosive force within the wetland system. Inverts of these culverts will be imbedded to ensure surface water is conveyed during low flows as well as to allow for aquatic organism movement through the crossing during low flow or dry periods.

The proposed wetland crossings have been generally located at topographic plateau's minimizing the filling and grading requirements for the proposed access road to further minimize wetland impacts. As a result, the proposed crossings will impact ±1,545 square feet of wetlands (±360 sq. ft. associated with the western crossing and ±1,185 sq. ft. associated with the eastern crossing). Disturbed side-slopes adjacent to the wetland crossings along with any temporary wetland impacts associated with installed erosion controls will be seeded with a native wetland seed mix to reestablish vegetative cover while side slopes in upland areas will use a native New England semi-shade grass and forbs seed mix.

The Facility will also require construction activities proximate to Wetland 1 (±79 feet east of Wetland 1). To promote protection of wetlands during construction, safeguards are proposed to avoid unintentional impacts to these resources, including construction phase protection measures and the installation and maintenance of erosion controls in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. In addition, a wetland protection plan will be implemented during construction that will include an environmental monitor to ensure proper protective measures are installed and maintained throughout the duration of construction. The environmental monitor would also observe work at both wetland crossings. By implementing these protective techniques throughout the duration of construction, potential adverse impacts to wetland resources incidental to construction activities will be minimized. Details of the construction phase resource protection measures will be provided in the Development and Management Plan should the Facility be approved by the Connecticut Siting Council.

Potential long-term secondary impacts to wetland resources associated with the operation of this Facility are minimized due to its unstaffed nature and negligible traffic for maintenance requiring approximately one visit per month. As such, operation of the Facility will not result in a likely adverse impact to wetland resources.

Considering the relatively small area of direct wetland impacts, environmentally sensitive design considerations incorporated into the wetland crossing and wetland protection measures to be implemented during construction, the proposed Facility will not result in a likely adverse impact to wetland resources.

Homeland will also prepare and file a Self-Verification Notification Form ("SVNF") with the U.S. Army Corps of Engineers for the referenced watercourse crossings. The culvert installations comply with those requirements of the New England District of the U.S. Army Corps of Engineers Connecticut

General Permits Program through General Permit 19 Stream, River & Brook Crossing, and therefore shall be eligible as a SVNF. As previously discussed, the culvert installations will comply with those guidelines outlined in the Connecticut Department of Environmental Protection Inland Fisheries Division Habitat Conservation and Enhancement Program Stream Crossing Guidelines document referenced by the Army Corps of Engineers. These standards to be met include: the invert of the culverts being set no less than 1 foot below the existing streambed elevation; the culverts gradient being no steeper than the streambed gradient upstream or downstream of the existing streambeds; the culvert alignments will mimic the existing channel alignments to ensure proper water conveyance; and, the length of the culverts will be minimized. The culvert installation shall follow phasing to be determined by the contractor but shall include the use of dewatering techniques if necessary (as per the 2002 Guidelines for Soil and Sediment Control produced by CT DEEP), to provide temporary flow across the access road crossing during culvert installation to prevent the risk of sediment release. If the construction schedule allows, the culvert installation work would occur during no flow periods.

Hydraulic Alterations

Land-use changes (i.e., clearing, increases in impervious surface) can increase surface runoff in the watershed of a wetland system. The proposed development will not alter existing surface or subsurface flow conditions or directions. Site clearing and grading activities will not de-water the nearby wetland or alter surface water drainage patterns associated with the watercourse crossings. Impervious surfaces associated with the proposed Project have been minimized with the use of a gravel surface for the access drive and within the Facility compound to support infiltration and local groundwater recharge. Therefore, the proposed development will not alter the hydrology of the nearby Wetland 1.

Invasive Species Control Plan

The setting for the proposed Facility consists primarily of a mature forest with native trees, shrubs and forbs that contains minimal invasive plant species, particularly within the interior of the Subject Property where the proposed Facility and access are proposed. As such, certain precautions are recommended during construction in order to avoid/minimize the importation of invasive plant seeds/material that could colonize the interior of this forest community and diminish its wildlife habitat value. Proposed soil disturbances during construction provide an opportunity for invasive plants to gain a foothold and spread into the surrounding forested habitat. This can occur through the importation of soil that contains invasive plant seed stock or carried by construction equipment that has picked up soil with invasive seed stock. The invasive species plan would include the following:

- The contractor shall attend a pre-construction meeting to review the requirements of the Invasive Species Control Plan prior to mobilization of equipment, vehicles, materials, etc. onto the Property.
- Prior to entry onto the Property, all equipment and vehicles shall be pressure washed by the contractor at its storage yard in order to remove any loose soil that may be carrying invasive plant seeds.
- No topsoil shall be imported onto the Property.
- Any clean fill material imported onto the Property shall be free of weed seeds.
- Use of haybales is prohibited on this project. Natural erosion control materials shall be either straw bales or straw- or compost-filled socks/wattles.
- Topsoil removed from the proposed access drive and Facility compound shall be retained and temporarily stockpiled on the Property to restore and permanently stabilize disturbed areas. Temporarily stockpiled topsoil shall be immediately seeded with either annual rye or winter rye if it will not be used within one (1) week.
- All restored areas will be inspected during the growing season for one (1) year following establishment of permanent vegetation to monitor for possible colonization by invasive plants species. Invasive plants are those listed as non-native invasive plants by the Connecticut Invasive Plant Working Group.
- If invasive plants are identified to have more than 10% aerial coverage in the restored areas, a control plan for removal of the invasive plants will be implemented.

Details of the invasive species control plan will be provided in the Development and Management Plan should the Facility be approved by the Connecticut Siting Council.

With implementation of the proposed intermittent stream crossing designs that minimize impact to these resource areas and employment of various protection measures during construction, including the invasive species control plan, the proposed Facility will not result in a likely adverse impact to wetland resources.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 552-2033 or via email at dgustafson@allpointstech.com.

Sincerely,
All-Points Technology Corporation, P.C.

Dean Gustafson
Senior Wetland Scientist

ATTACHMENT 7

C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
603-644-2800
support@csquaredsystems.com

Calculated Radio Frequency Exposure

CT1341

16 Coote Hill Road, Sherman, CT 06784

February 25, 2021

Table of Contents

List of Tables

List of Figures

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of the AT&T antenna arrays on a new monopole tower located at 16 Coote Hill Road in Sherman, CT. The coordinates of the tower are 41° 32' 02.50" N, 73° 29' 34.45" W. The Town of Sherman and the Litchfield County Dispatch will also install antenna mounted on the proposed tower.

AT&T is proposing the following:

1) Install nine (9) multi-band antennas (three per sector) to support its commercial LTE network and the FirstNet National Public Safety Broadband Network ("NPSBN").

This report considers the planned antenna configuration for AT&T[1] to derive the resulting % Maximum Permissible Exposure of its proposed installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

[1] As referenced to AT&T's Radio Frequency Design Sheet updated 06/04/2020.

3. RF Exposure Calculation Methods

The power density calculation results were generated using the following formula as outlined in FCC bulletin OET 65, and Connecticut Siting Council recommendations:

$$\text{Power Density} = \left(\frac{1.6^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2}\right) \text{X Off Beam Loss}$$

Where:

ERP = Effective Radiated Power

R = Radial Distance = $\sqrt{\left(H^2 + V^2\right)}$

H = Horizontal Distance from antenna

V = Vertical Distance from radiation center of antenna

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all antenna channels are transmitting simultaneously. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not consider actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

4. Calculation Results

Table 1 below outlines the cumulative power density information for the AT&T and town equipment at the site. The proposed antennas are directional in nature; therefore, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. Please refer to Attachment D for the vertical pattern of the proposed town antennas. The calculated results for AT&T and public safety in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	ERP Per Transmitter (Watts)	Power Density (mw/cm^2)	Limit	% MPE
AT&T	166	722	1542	0.0022	0.4813	0.45%
AT&T	166	739	3794	0.0053	0.4927	1.08%
AT&T	166	763	3794	0.0053	0.5087	1.05%
AT&T	166	885	4066	0.0057	0.5900	0.97%
AT&T	166	1900	5237	0.0074	1.0000	0.74%
AT&T	166	2100	8614	0.0121	1.0000	1.21%
AT&T	166	2300	5118	0.0072	1.0000	0.72%
Litchfield County Dispatch	110	155.1075	100	0.0003	0.2000	0.17%
Litchfield County Dispatch	110	155.1225	100	0.0003	0.2000	0.17%
Town of Sherman	182	159.33	50	0.0001	0.2000	0.03%
Town of Sherman	182	159.3225	50	0.0001	0.2000	0.03%
Town of Sherman	172	5000	28	0.0000	1.0000	0.00%
					Total	**6.61%**

Table 1: Carrier Information

5. Conclusion

The above analysis concludes that RF exposure at ground level from the proposed site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using conservative calculation methods, the highest expected percent of Maximum Permissible Exposure at ground level is **6.61% of the FCC General Population/Uncontrolled limit**.

As noted previously, the calculated % MPE levels are more conservative (higher) than the actual signal levels will be from the finished modifications.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in FCC OET Bulletin 65 Edition 97-01, ANSI/IEEE Std. C95.1 and ANSI/IEEE Std. C95.3.

Report Prepared By: Marc Salas
RF Engineer
C Squared Systems, LLC

February 23, 2021
Date

Reviewed/Approved By: Martin J.; Lavin
Senior RF Engineer
C Squared Systems, LLC

February 25, 2021
Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2005, IEEE Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure[2]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure[3]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 2: FCC Limits for Maximum Permissible Exposure (MPE)

[2] Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

[3] General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

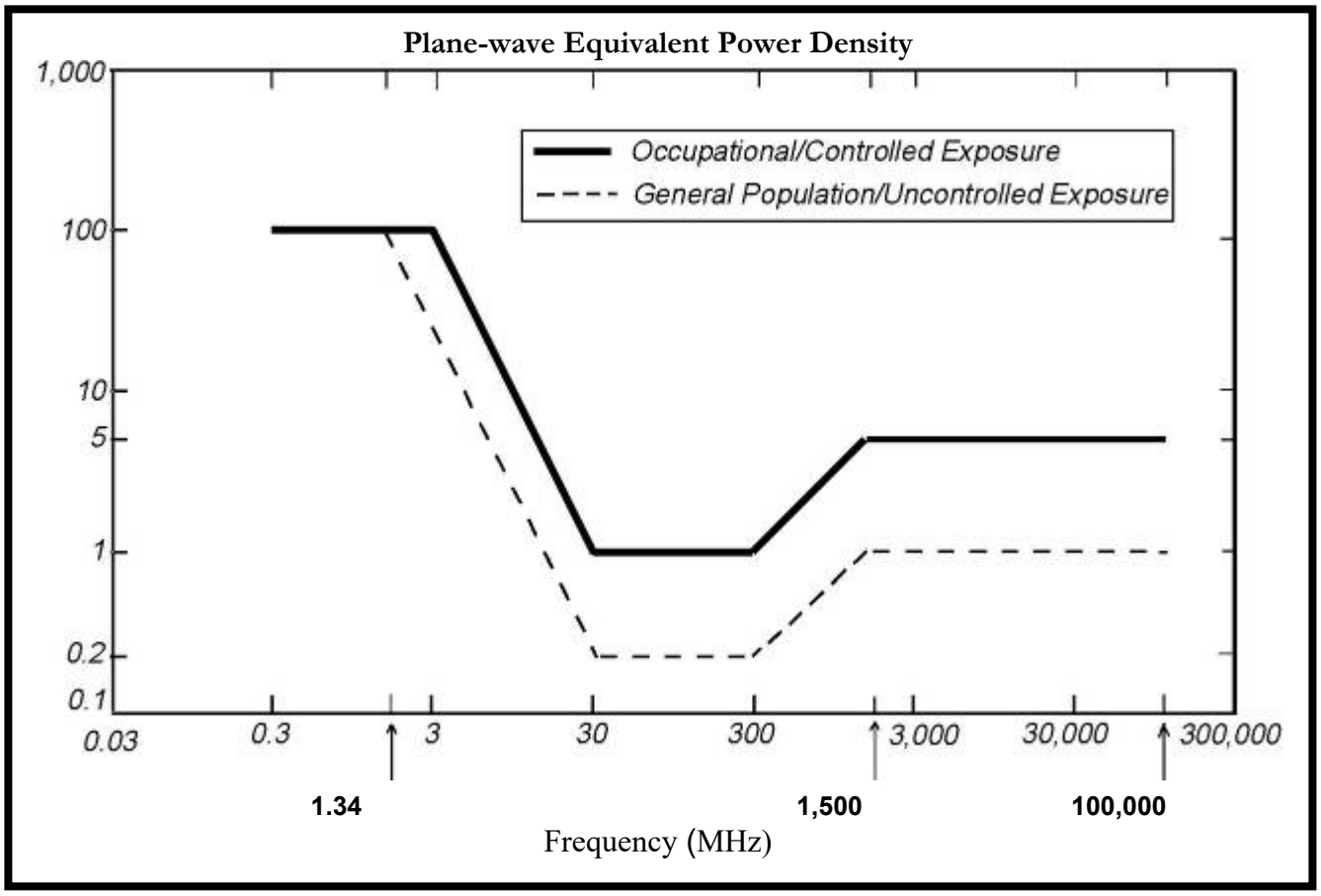
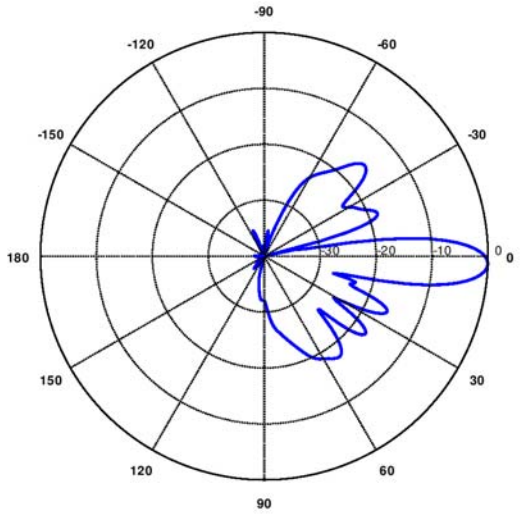


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: AT&T Antenna Data Sheets and Electrical Patterns

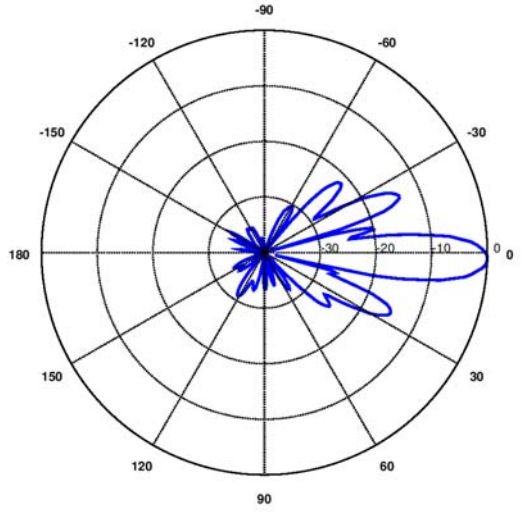
722 MHz

Manufacturer:	CCI Products
Model #:	HPA65R-BU8A
Frequency Band:	698-806 MHz
Gain:	12.85 dBd
Vertical Beamwidth:	9.7°
Horizontal Beamwidth:	67°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” x 11.7” x 7.7”



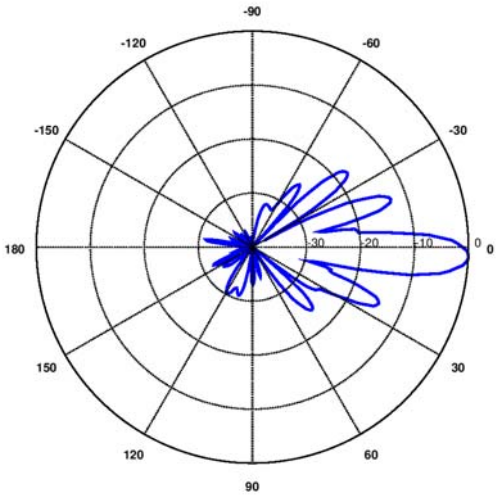
739/763 MHz

Manufacturer:	KMW
Model #:	EPBQ-654L8H8-L2
Frequency Band:	698 - 806MHz
Gain:	13.75 dBd
Vertical Beamwidth:	9.3°
Horizontal Beamwidth:	67°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” x 21” x 6.3”



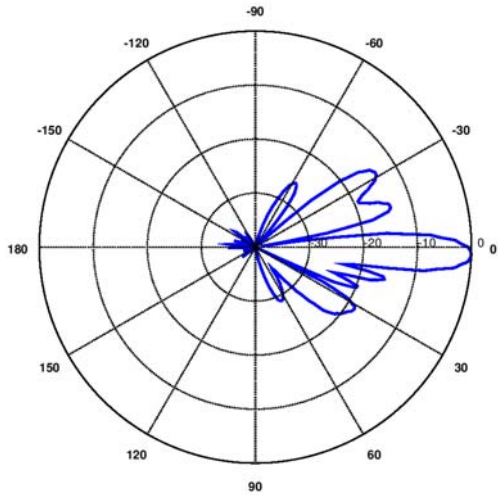
885 MHz

Manufacturer:	KMW
Model #:	EPBQ-654L8H8-L2
Frequency Band:	806 - 894 MHz
Gain:	14.05 dBd
Vertical Beamwidth:	8.7°
Horizontal Beamwidth:	66°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” x 21” x 6.3”



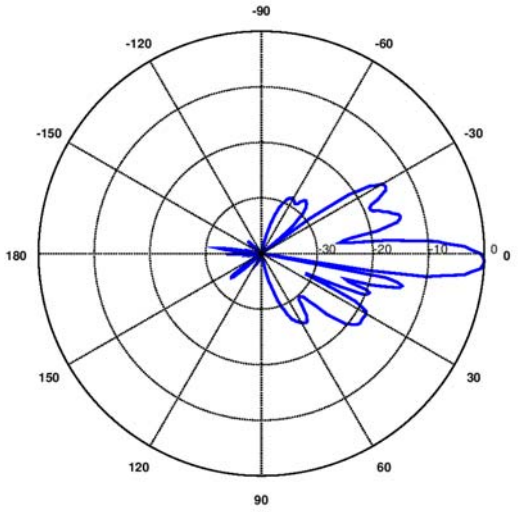
1900 MHz

Manufacturer:	KMW
Model #:	EPBQ-654L8H8-L2
Frequency Band:	1850-1910 MHz
Gain:	15.15 dBd
Vertical Beamwidth:	7.8°
Horizontal Beamwidth:	60°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” x 21” x 6.3”



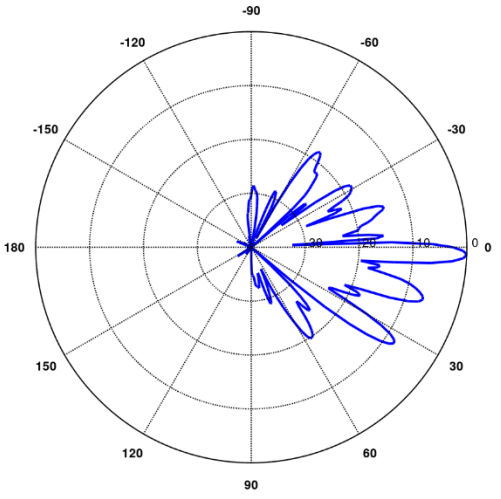
2100 MHz

Manufacturer:	KMW
Model #:	EPBQ-654L8H8-L2
Frequency Band:	1910-2180 MHz
Gain:	15.55 dBd
Vertical Beamwidth:	7.4°
Horizontal Beamwidth:	60°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” x 21” x 6.3”

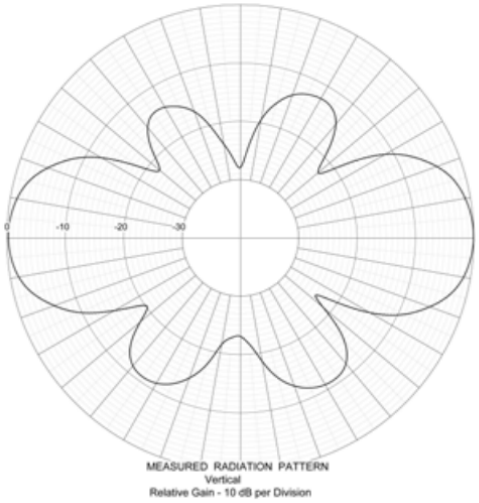
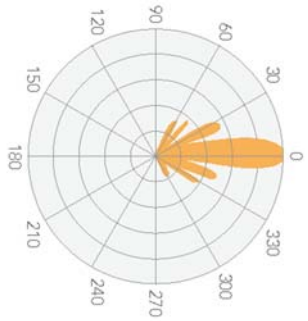


2300 MHz

Manufacturer:	CCI Products
Model #:	HPA-65R-BU8A
Frequency Band:	2300 - 2400 MHz
Gain:	15.05 dBd
Vertical Beamwidth:	4.0°
Horizontal Beamwidth:	60°
Polarization:	Dual Linear 45°
Size L x W x D:	96.0” × 11.7” × 7.7”



Attachment D: Town Antenna Data Sheets and Electrical Patterns

155.1075/155.1225/ 159.33/159.3225 MHz Manufacturer: Sinclair Model #: SD235D-SF2PASNM Frequency Band: 138-174 MHz Gain: 3.0 dBd Vertical Beamwidth: 36° Horizontal Beamwidth: 360° Polarization: Vertical Size L x W x D: 240.0" x 36.1" x 36.1"	
5000 MHz Manufacturer: Ligo Wave Model #: Rapid Fire 5-23 Frequency Band: 4900-5900 MHz Gain: 20.85 dBd Vertical Beamwidth: 7° Horizontal Beamwidth: 6° Polarization: Dual Linear Size L x W x D: 4.6" x 3.4" x 1.3"	

ATTACHMENT 8

Visual Assessment & Photo-Simulations

SHERMAN II
16 COOTE HILL ROAD
SHERMAN, CT 06784

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9 Harmony Street
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February 2021

VISUAL ASSESSMENT & PHOTO-SIMULATIONS

Homeland Towers, LLC ("Homeland") is seeking approval for the development of a new wireless communications facility (the "Facility") at 16 Coote Hill Road in Sherman, Connecticut (the "Host Property"). At the request of Homeland, All-Points Technology Corporation, P.C. ("APT") completed this assessment to evaluate the potential visual effects of the proposed Facility from within a 2-mile radius (the "Study Area"). The Study Area includes portions of the neighboring municipalities of New Fairfield, Connecticut to the south and Pawling, New York to the west.

Project Setting

The Host Property consists of a ±19.79-acre roughly rectangular shaped residential parcel located southeast of Coote Hill Road and south of Mauweehoo Hill within a heavily wooded area. Residential neighborhoods are located to the west, north and south of the Host Property. Woodland and the northern end of Squantz Pond are located to the east of the Host Property; Candlewood Lake lies beyond Squantz Pond, approximately 1.35 miles to the east. Pootatuck State Forest is located to the south of the Host Property beyond the residential development. Residentially developed parcels extend along Route 37 in both directions from the Host Property.

The topography within the Study Area consists of relatively hilly terrain. Ground elevations range from approximately 424 feet above mean sea level ("AMSL") along the western shore of Candlewood Lake in the eastern portion of the Study Area to approximately 1,260 feet AMSL in its southwestern portion. Tree cover within the Study Area (consisting primarily of mixed deciduous hardwoods with interspersed stands of conifers) occupies approximately 5,496 acres (or ±68.34%) of the 8,042-acre Study Area. Open water over Candlewood Lake, Squantz Pond, Lake Mauweehoo, Timber Lake, Valley Pond, and Platts Pond collectively occupies approximately 1,210 acres (±15%) of the Study Area.

Project Undertaking

Homeland plans to construct the proposed Facility on the south-central portion of the Host Property (the "Site"). The proposed Facility would be located at a ground elevation of approximately 878 feet AMSL and include a 170-foot tall monopole with municipal whip antennas extending to a height of 192' above ground level ("AGL"). Associated ground-mounted equipment would be placed within a 48-foot by 50-foot fenced compound. The Facility has been designed to accommodate multiple service providers. Access to the Site would be gained over a new 12' wide gravel access drive. Please refer to the current Site Drawings prepared by APT,

dated February 9, 2021, and provided under separate cover, for details regarding the proposed installation.

Methodology

APT used the combination of a predictive computer model, in-field analysis, and a review of various data sources to evaluate the visibility associated with the proposed Facility on both a quantitative and qualitative basis. The predictive model provides a measurable assessment of visibility throughout the entire Area, including private properties and other areas inaccessible for direct observations. The in-field analysis consisted of a balloon float and field reconnaissance of the Study Area to record existing conditions, verify results of the model, inventory seasonal and year-round view locations, and provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

Preliminary Computer Modeling

To conduct this assessment, a predictive computer model was developed specifically for this project using ESRI's ArcMap GIS[1] software and available GIS data. The predictive model incorporates Project and Study Area-specific data, including the Site location, its ground elevation and the proposed Facility height, as well as the surrounding topography, existing vegetation, and structures (the primary features that can block direct lines of sight).

A digital surface model ("DSM"), capturing both the natural and built features on the Earth's surface, was generated for the extent of the Study Area utilizing State of Connecticut 2016 LiDAR[2] LAS[3] data points. LiDAR is a remote-sensing technology that develops elevation data by measuring the time it takes for laser light to return from the surface to the instrument's sensors. The varying reflectivity of objects also means that the "returns" can be classified based on the characteristics of the reflected light, normally into categories such as "bare earth," "vegetation," "road," "surface water" or "building." Derived from the 2016 LiDAR data, the LAS datasets contain the corresponding elevation point data and return classification values. The Study Area DSM incorporates the first return LAS dataset values that are associated with the highest feature in the landscape, typically a treetop, top of a building, and/or the highest point of other tall structures.

Once the DSM was generated, ESRI's Viewshed Tool was utilized to identify locations within the Study Area where the proposed Facility may be visible. ESRI's Viewshed Tool predicts visibility

[1] ArcMap is a Geographic Information System desktop application developed by the Environmental Systems Research Institute for creating maps, performing spatial analysis, and managing geographic data.

[2] Light Detection and Ranging

[3] An LAS file is an industry-standard binary format for storing airborne LiDAR data.

by identifying those cells[4] within the DSM that can be seen from an observer location. Cells where visibility was indicated were extracted and converted from a raster dataset to a polygon feature which was then overlaid onto aerial photograph and topographic base maps. Since the DSM includes the highest relative feature in the landscape, isolated "visible" cells are often indicated within heavily forested areas (e.g., from the top of the highest tree) or on building rooftops during the initial processing. It is recognized that these areas do not represent typical viewer locations and overstate visibility. As such, the resulting polygon feature is further refined by extracting those areas. The viewshed results are also cross-checked against the most current aerial photographs to assess whether significant changes (a new housing development, for example) have occurred since the time the LiDAR-based LAS datasets were captured.

The results of the preliminary analysis are intended to provide a representation of those areas where portions of the Facility may potentially be visible to the human eye without the aid of magnification, based on a viewer eye-height of five (5) feet above the ground and the combination of intervening topography, trees and other vegetation, and structures. However, the Facility may not necessarily be visible from all locations within those areas identified by the predictive model, which has its limitations. For instance, the computer model cannot account for mass density, tree diameters and branching variability of trees, or the degradation of views that occur with distance. As a result, some areas depicted on the viewshed maps as theoretically offering potential visibility of the Facility may be over-predictive because the quality of those views is not sufficient for the human eye to recognize the Facility or discriminate it from other surrounding or intervening objects.

Seasonal Visibility

Visibility also varies seasonally with increased, albeit obstructed, views occurring during "leaf-off" conditions. Beyond the variabilities associated with density of woodland stands found within any given Study Area, each individual tree also has its own unique trunk, pole timber and branching patterns that provide varying degrees of screening in leafless conditions which, as introduced above, cannot be precisely modeled. Seasonal visibility is therefore estimated based on a combination of factors including the type, size, and density of trees within a given area; topographic constraints; and other visual obstructions that may be present. Taking into account these considerations, areas depicting seasonal visibility on the viewshed maps are intended to represent locations from where there is a potential for views through intervening trees, as opposed to indicating that leaf-off views will exist from within an entire seasonally-shaded area.

[4] Each DSM cell size is 1 square meter.

Balloon Float and Field Reconnaissance

To supplement and fine tune the results of the computer modeling efforts, APT completed in-field verification activities consisting of a balloon float, vehicular and pedestrian reconnaissance, and photo-documentation. The balloon float and field reconnaissance were completed on January 31, 2021. The balloon float involved raising a brightly-colored, approximately 4-foot diameter, helium-filled balloon tethered to a string height of ±170 feet AGL[5] at the proposed Site. Weather conditions were favorable for the in-field activities with calm winds and overcast skies.

APT conducted a Study Area reconnaissance by driving along local and State roads and other publicly accessible locations to document and inventory where the balloon could be seen above and through the tree canopy and other visual obstructions. Visual observations from the reconnaissance were also used to evaluate the results of the preliminary visibility mapping and identify any discrepancies in the initial modeling.

Photographic Documentation and Simulations

During the Study Area reconnaissance, APT obtained photo-documentation of representative locations where the balloon was – and was not - visible. At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body[6] and Canon EF 24 to 105 millimeter ("mm") zoom lens. APT typically uses a standard focal length of 50mm to present a consistent field of view. On occasion, photos are taken at lower focal lengths to provide a greater depth of field and to provide context to the scene by including surrounding features within the photograph. During this evaluation, seven (7) photographs were taken at a 35mm focal length as noted in Table 1 – Photo Locations.

Photographic simulations were generated to portray scaled renderings of the proposed Facility from 17 locations presented herein where the Facility may be recognizable above or through the trees. Using field data, site plan information and 3-dimensional (3D) modeling software, spatially referenced models of the Site and Facility were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce virtual camera positions within the spatial 3D model. Photo-simulations were then created using a combination of renderings generated in the 3D model and photo-rendering software programs, which were ultimately composited and merged with the existing conditions photographs (using Adobe Photoshop image editing software). The scale of the subjects in the

[5] The bottom of the balloon represented the top of the monopole.

[6] The Canon EOS 6D is a full-framed camera which includes a lens receptor of the same size as the film used in 35mm cameras. As such, the images produced are comparable to those taken with a conventional 35mm camera.

photograph (the balloon) and the corresponding simulation (the Facility) is proportional to their surroundings.

For presentation purposes in this report, the photographs were produced in an approximate 7-inch by 10.5-inch format. When reproducing the images in this format size, we believe it is important to present the largest view while providing key contextual landscape elements (existing developments, street signs, utility poles, etc.) so that the viewer can determine the proportionate scale of each object within the scene. Photo-documentation of the field reconnaissance and photo-simulations of the proposed Facility are presented in the attachment at the end of this report. The field reconnaissance photos that include the balloon in the view provide visual reference points for the approximate height and location of the proposed Facility relative to the scene. All simulations were created to represent the proposed monopole and antennas (including the municipal whip antennas). The photo-simulations are intended to provide the reader with a general understanding of the different view characteristics associated with the Facility from various locations. Photographs were taken from publicly-accessible areas and unobstructed view lines were chosen wherever possible.

Table 1 – Photo Locations summarizes the photographs and simulations presented in the attachment to this report, and includes a description of each location, view orientation, distance from where the photo was taken relative to the Site, and the general characteristics of the view. The photo locations are depicted on the photolog and viewshed maps provided as attachments to this report.

Table 1 – Photo Locations

Photo	Location	Orientation	Distance to Site	Visibility
1	Short Woods Road – New Fairfield	Northwest	± 1.95 Miles	Not Visible
2	Squantz Pond State Park – New Fairfield	Northwest	± 1.96 Miles	Not Visible
3	Route 39 – New Fairfield	Northwest	± 0.86 Mile	Not Visible
4	Route 39 – New Fairfield	Northwest	± 0.71 Mile	Not Visible
5	Route 39	Northwest	± 0.69 Mile	Not Visible
6	Laurel Hills Road South at Wanzer Hill Road	West	± 0.95 Mile	Not Visible
7	Route 39	Northwest	± 0.68 Mile	Not Visible
8	Route 39 at Echo Road	West	± 0.69 Mile	Not Visible
9	Route 39	Southwest	± 0.75 Mile	Not Visible
10	Deer Hill Road	Southwest	± 0.78 Mile	Not Visible
11	Route 39	Southwest	± 0.84 Mile	Year Round

Table 1 – Photo Locations Continued

Photo	Location	Orientation	Distance to Site	Visibility
12	Route 39	Southwest	± 0.93 Mile	Year Round
13	Route 39	Southwest	± 0.98 Mile	Seasonal
14	Route 39	Southwest	± 1.03 Miles	Not Visible
15	Coxier Hill Road	South	± 1.38 Miles	Not Visible
16	Mauweehoo Hill*	South	± 0.34 Mile	Not Visible
17	Peace Pipe Lane	Southeast	± 0.50 Mile	Not Visible
18	Coote Hill Road	Southeast	± 0.32 Mile	Seasonal
19	Coote Hill Road	Southeast	± 0.32 Mile	Not Visible
20	Coote Hill Road	Southeast	± 0.41 Mile	Not Visible
21	Route 37*	Northeast	± 1.32 Miles	Not Visible
22	Route 37*	Northeast	± 0.92 Mile	Not Visible
23	Route 37*	Southeast	± 0.60 Mile	Not Visible
24	Coote Hill Road*	Southeast	± 0.57 Mile	Not Visible
25	Route 37	Southeast	± 0.61 Mile	Year Round
26	Route 37	Southeast	± 0.62 Mile	Seasonal
27	Route 37	Southeast	± 0.63 Mile	Seasonal
28	Lake Mauweehoo Club	Southeast	± 0.61 Mile	Seasonal
29	Route 37 at Leach Hollow Road	Southeast	± 0.64 Mile	Year Round
30	Leach Hollow Road	Southeast	± 0.62 Mile	Seasonal
31	Leach Hollow Road	Southeast	± 0.62 Mile	Year Round
32	Lake Mauweehoo Club	Southeast	± 0.59 Mile	Not Visible
33	Leach Hollow Road	Southeast	± 0.65 Mile	Seasonal
34	Leach Hollow Road*	Southeast	± 0.68 Mile	Not Visible
35	Route 37*	Southeast	± 0.79 Mile	Not Visible
36	Coburn Road East	Southeast	± 0.77 Mile	Year Round
37	Coburn Road East	Southeast	± 0.78 Mile	Seasonal
38	Coburn Road East	Southeast	± 0.77 Mile	Seasonal
39	Coburn Road East	Southeast	± 0.76 Mile	Seasonal
40	Coburn Road East	Southeast	± 0.78 Mile	Seasonal

**Photograph was taken at 35 mm focal length.*

Final Visibility Mapping

Information obtained during the field reconnaissance was incorporated into the mapping data layers, including observations of the field reconnaissance, the photograph locations, areas that experienced recent land use changes and those places where the initial model was found to over or under-predict visibility. Once the additional data was integrated into the model, APT recalculated the visibility of the proposed Facility within the Study Area.

Conclusions

As presented on the attached viewshed maps, views of the Facility would be limited primarily to two areas to the northeast and northwest of the Site (at distances between ±0.5-mile and ±0.85-mile away). Predicted visibility of the Facility is primarily seasonal throughout the Study Area. Seasonally, when leaves are off the deciduous trees, areas of obstructed visibility are predicted northwest of the Site along Route 37 and Leach Hollow Road (approximately a 0.5-mile stretch) at distances ranging from ±0.61-mile to ±0.78-mile away. Additional seasonal visibility is predicted along a ±0.4-mile stretch of Route 39 ranging from ±0.83-mile to ±1.03-mile away from the Site. Photos 13, 26, 30 and 40 depict representative seasonal views from these areas.

Predicted year-round visibility is limited primarily to two areas, northwest and northeast of the Site, interspersed within the overall seasonal visibility areas. The nearest year-round views of the Facility would be northwest along Route 37 and Leach Hollow Road. Photo locations 25, 29 and 31 depict representative year-round views from those areas, at distances approximately 0.6-mile away. Photo locations 11 and 12 depict representative year-round views from Route 39 to the northeast.

Predicted seasonal visibility of the proposed Facility is estimated to include approximately 29 acres. Predicted year-round visibility is estimated to include an additional ±5 acres. Collectively, the total ± 34 acres of visibility represents ±0.4 percent of the 8,042-acre Study Area.

Proximity to Schools And Commercial Child Day Care Centers

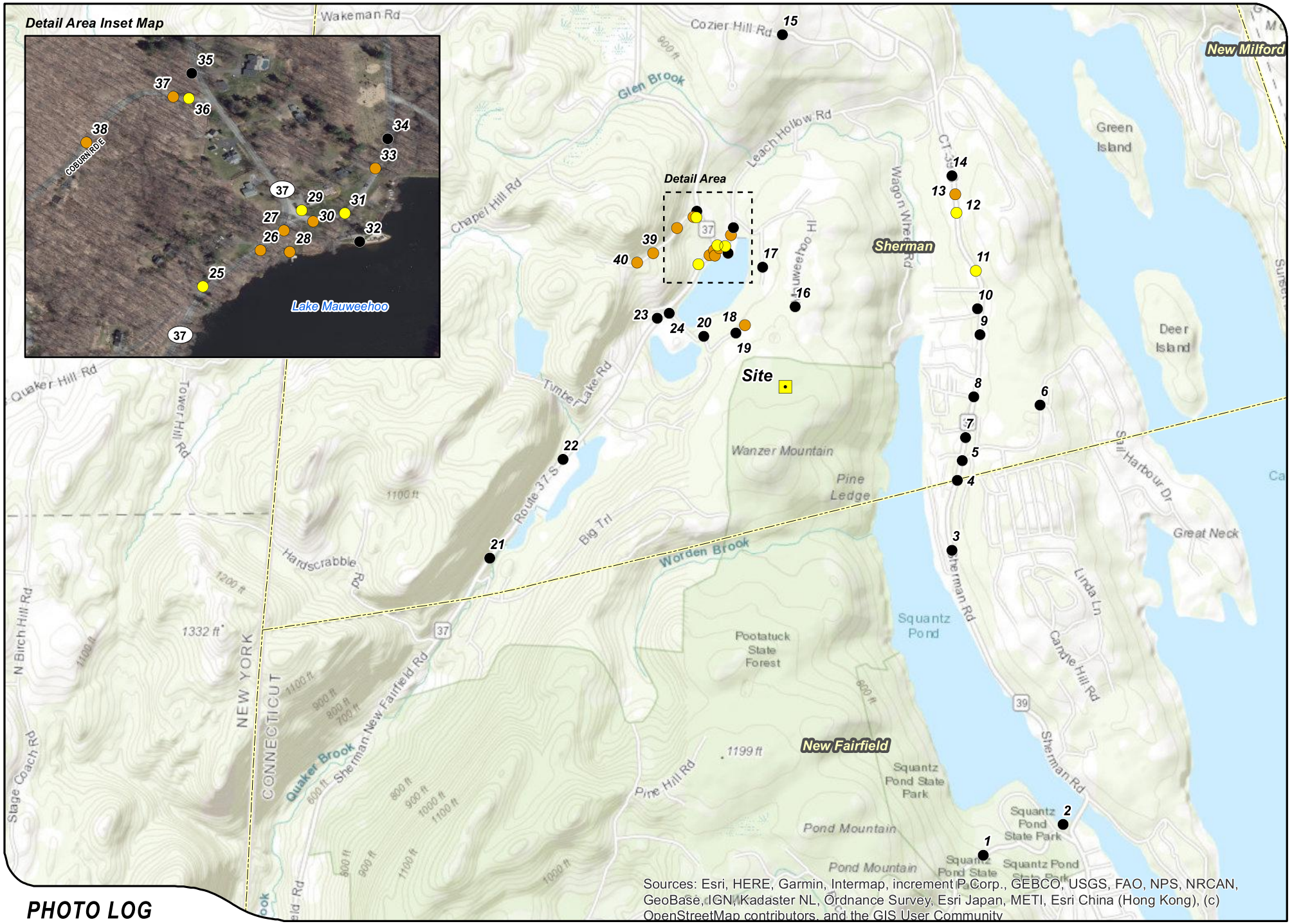
No schools or commercial day care centers are located within 250 feet of the proposed Facility. Hill and Plain Elementary School is located approximately 3.17 miles east of the Site at 60 Old Town Park Road in New Milford. No visibility is predicted from the school grounds. The nearest commercial child care center is Beehive Children's Center approximately 2.88 miles to the northeast of the Site at 278 Danbury Road in New Milford. No visibility is predicted from or in the vicinity of the day care center.

Limitations

The viewshed maps presented in the attachment to this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of five (5) feet above the ground and intervening topography, tree canopy, and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The photo-simulations provide a representation of the Facility under similar settings as those encountered during the field review and reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the field review included calm winds and overcast skies.

ATTACHMENTS


Detail Area Inset Map
Lake Mauweehoo
COBURN RDJE
Detail Area
Site
Sherman
New Milford
New Fairfield
Wakeman Rd
Cozier Hill Rd
Glen Brook
Leach Hollow Rd
Chapel Hill Rd
Wagon Wheel Rd
Mauweehoo Hl
Green Island
Deer Island
Quaker Hill Rd
Tower Hill Rd
Timber Lake Rd
Route 37 S
Wanzer Mountain
Pine Ledge
Big Trl
Worden Brook
Hardscrabble Rd
Stair Harbour Dr
Great Neck
Linda Ln
Candle Hill Rd
Sherman Rd
Squantz Pond
Pootatuck State Forest
Squantz Pond State Park
Pond Mountain
Pine Hill Rd
Sherman New Fairfield Rd
Quaker Brook
N Birch Hill Rd
Stage Coach Rd
NEW YORK
CONNECTICUT
1332 ft
1199 ft
1100 ft
1200 ft
900 ft
800 ft
700 ft
600 ft
1000 ft
37
39
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
PHOTO LOG
Legend
Site
Year-Round
Seasonal
Not Visible
Municipal Boundary
1 inch = 2,500 feet
2,500 1,250 0 2,500
Feet
ALL-POINTS TECHNOLOGY CORPORATION
HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**SHORT WOODS ROAD - NEW FAIRFIELD**	**NORTHWEST**	**+/- 1.95 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**SQUANTZ POND STATE PARK - NEW FAIRFIELD**	**NORTHWEST**	**+/- 1.96 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**ROUTE 39 - NEW FAIRFIELD**	**NORTHWEST**	**+/- 0.86 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	**ROUTE 39 - NEW FAIRFIELD**	**NORTHWEST**	**+/- 0.71 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 1/31/2021

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	**ROUTE 39**	**NORTHWEST**	**+/- 0.69 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	**LAUREL HILLS ROAD SOUTH AT WANZER HILL ROAD**	**WEST**	**+/- 0.95 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**ROUTE 39**	**NORTHWEST**	**+/- 0.68 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	**ROUTE 39 AT ECHO ROAD**	**WEST**	**+/- 0.69 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	**ROUTE 39**	**SOUTHWEST**	**+/- 0.75 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**DEER HILL ROAD**	**SOUTHWEST**	**+/- 0.78 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**ROUTE 39**	**SOUTHWEST**	**+/- 0.84 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**ROUTE 39**	**SOUTHWEST**	**+/- 0.84 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**ROUTE 39**	**SOUTHWEST**	**+/- 0.93 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**ROUTE 39**	**SOUTHWEST**	**+/- 0.93 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**ROUTE 39**	**SOUTHWEST**	**+/- 0.98 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**ROUTE 39**	**SOUTHWEST**	**+/- 0.98 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	**ROUTE 39**	**SOUTHWEST**	**+/- 1.03 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**COZIER HILL ROAD**	**SOUTH**	**+/- 1.38 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

35mm Focal Length

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	**MAUWEEHOO HILL**	**SOUTH**	**+/- 0.34 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
17	**PEACE PIPE LANE**	**SOUTHEAST**	**+/- 0.50 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	**COOTE HILL ROAD**	**SOUTHEAST**	**+/- 0.32 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	**COOTE HILL ROAD**	**SOUTHEAST**	**+/- 0.32 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
19	**COOTE HILL ROAD**	**SOUTHEAST**	**+/- 0.32 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
20	**COOTE HILL ROAD**	**SOUTHEAST**	**+/- 0.41 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

35mm Focal Length

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
21	**ROUTE 37**	**NORTHEAST**	**+/- 1.32 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

35mm Focal Length

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
22	**ROUTE 37**	**NORTHEAST**	**+/- 0.92 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

35mm Focal Length

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	**ROUTE 37**	**SOUTHEAST**	**+/- 0.60 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
24	**COOTE HILL ROAD**	**SOUTHEAST**	**+/- 0.57 MILE**	**NOT VISIBLE**

35mm Focal Length

PHOTOGRAPHED ON 1/31/2021

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	**ROUTE 37**	**SOUTHEAST**	**+/- 0.61 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	**ROUTE 37**	**SOUTHEAST**	**+/- 0.61 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	**ROUTE 37**	**SOUTHEAST**	**+/- 0.62 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	**ROUTE 37**	**SOUTHEAST**	**+/- 0.62 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	**ROUTE 37**	**SOUTHEAST**	**+/- 0.63 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	**ROUTE 37**	**SOUTHEAST**	**+/- 0.63 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
28	**LAKE MAUWEEHOO CLUB**	**SOUTHEAST**	**+/- 0.61 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
28	**LAKE MAUWEEHOO CLUB**	**SOUTHEAST**	**+/- 0.61 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29	**ROUTE 37 AT LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.64 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29	**ROUTE 37 AT LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.64 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
30	**LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.62 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
30	**LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.62 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
31	**LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.62 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
31	**LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.62 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
32	**LAKE MAUWEEHOO CLUB**	**SOUTHEAST**	**+/- 0.59 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
33	**LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.65 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
33	**LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.65 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
34	**LEACH HOLLOW ROAD**	**SOUTHEAST**	**+/- 0.68 MILE**	**NOT VISIBLE**

35mm Focal Length

PHOTOGRAPHED ON 1/31/2021

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

35mm Focal Length

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
35	**ROUTE 37**	**SOUTHEAST**	**+/- 0.79 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
36	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.77 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
36	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.77 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
37	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.78 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
37	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.78 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

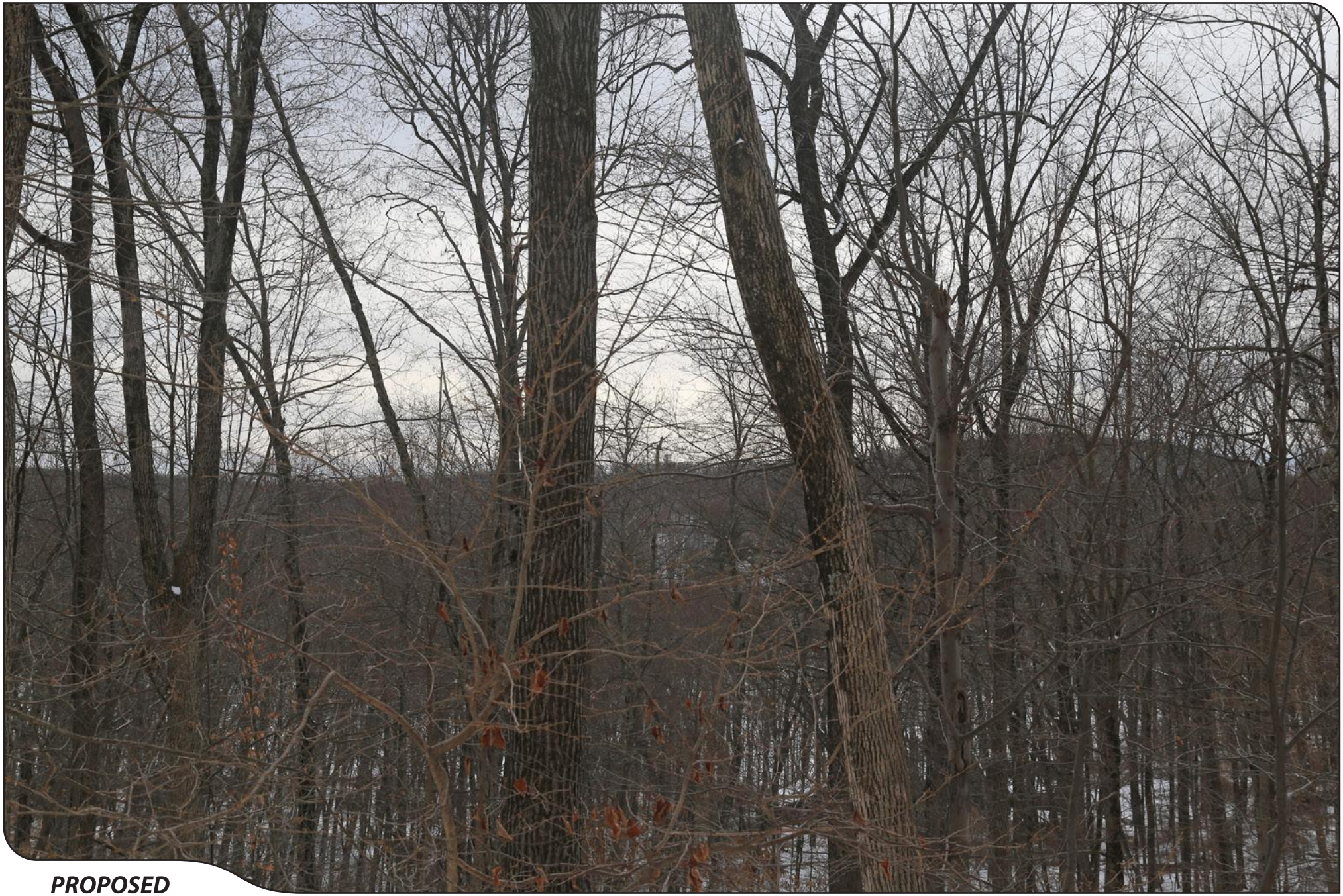
PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
38	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.77 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS



PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
38	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.77 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/31/2021

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
39	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.76 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
39	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.76 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 1/31/2021

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
40	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.78 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
40	**COBURN ROAD EAST**	**SOUTHEAST**	**+/- 0.78 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

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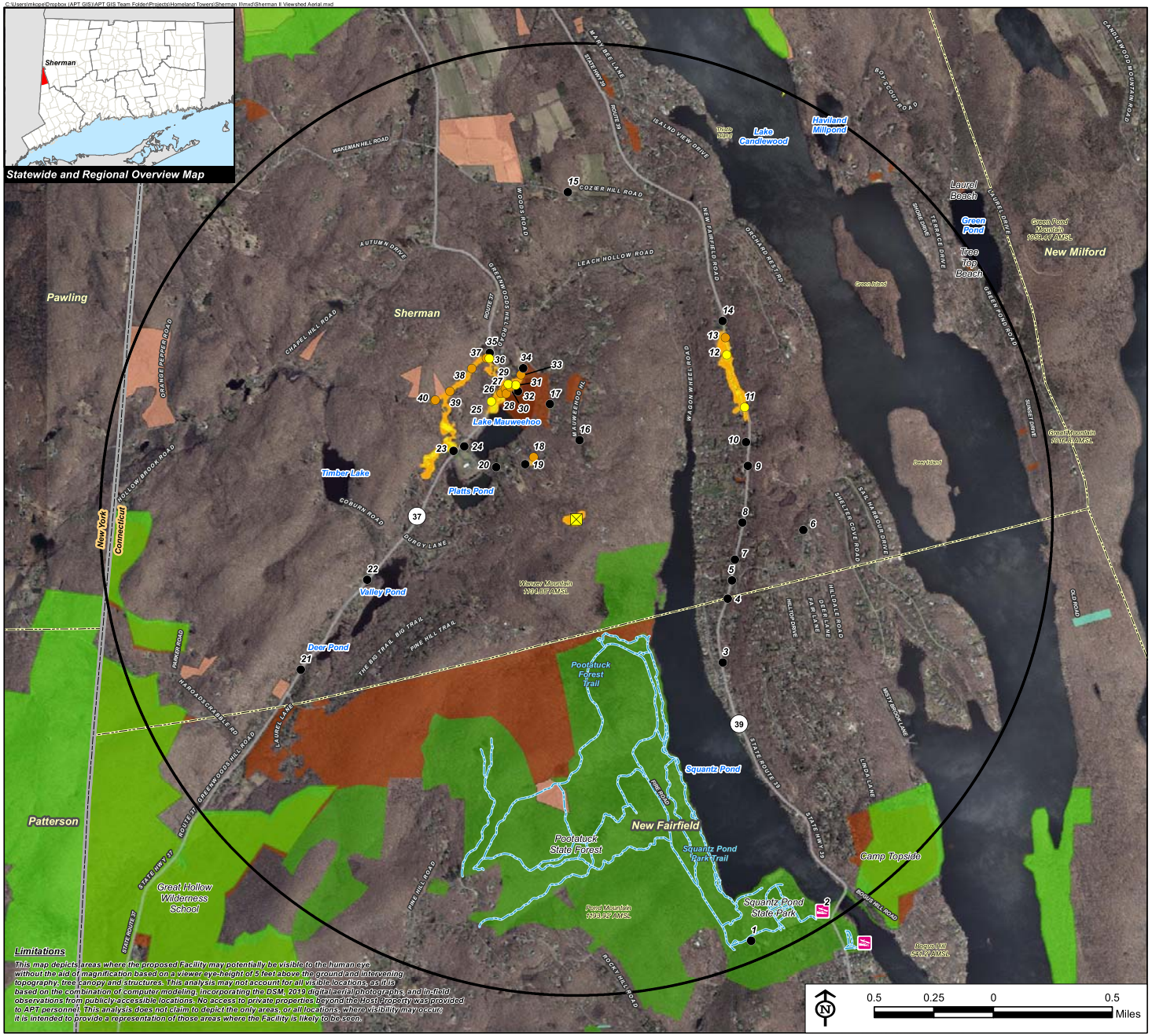

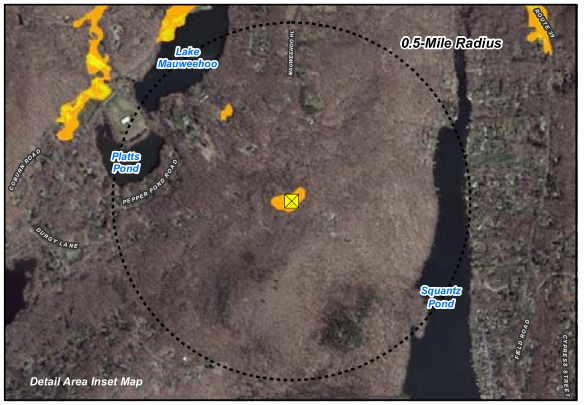

Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
CT009-Sherman II
16 Coote Hill Road
Sherman, Connecticut

Proposed facility height is 170 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Map information field verified by APT on January 31, 2021
Base Map Source: 2019 Aerial Photograph (CTECO); 2016 Aerial Photograph (New York State GIS Clearing House)
Map Date: February 2021

Legend

- Proposed Site
- Study Area (2-Mile Radius)
- Predicted Year-Round Visibility (5 Acres)
- Areas of Potential Seasonal Visibility (28 Acres)

Photo Locations (January 31, 2021)

- Not Visible
- Seasonal
- Year-Round
- Municipal Boundary
- State Boundary
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park

Protected Open Space Property

- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP. Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

Dedicated Open Space & Recreation Areas

Connecticut Department of Energy and Environmental Protection (DEEP); DEEP Property (May 2007; Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)

Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other

CTDOT Scenic Strips (based on Department of Transportation data)

Notes

***Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.*

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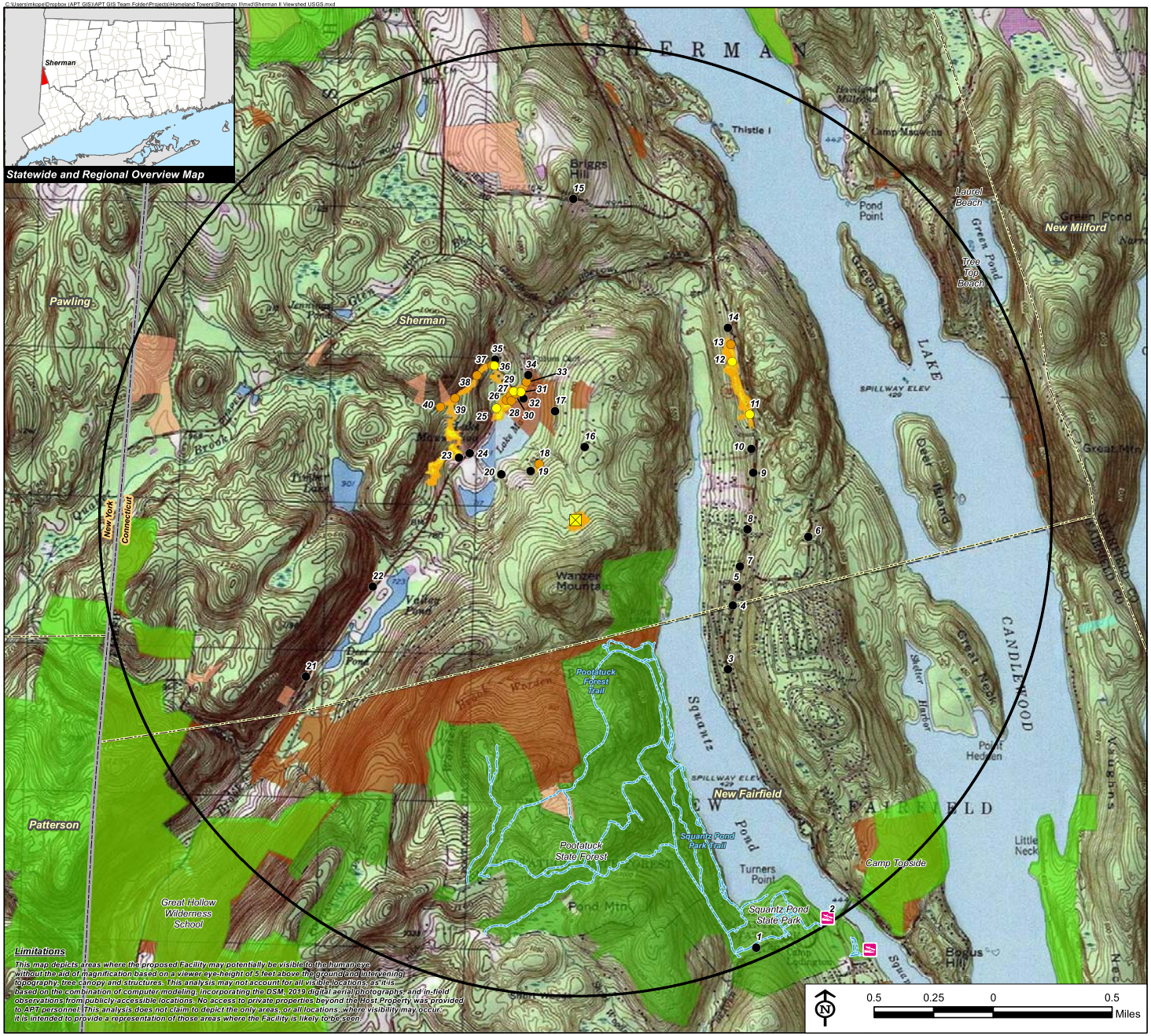
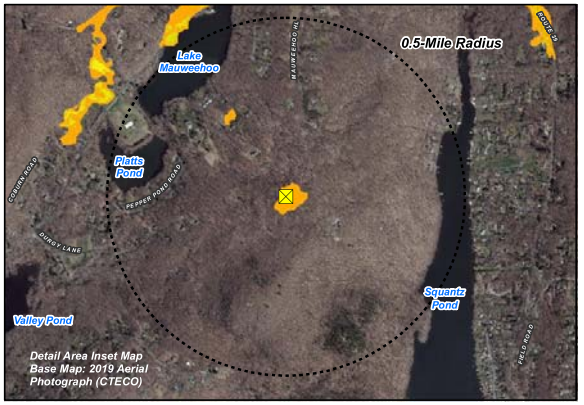




Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
CT009-Sherman II
16 Coote Hill Road
Sherman, Connecticut

Proposed facility height is 170 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Map information field verified by APT on January 31, 2021
Base Map Source: USGS 7.5 Minute Topographic
Quadrangle Map, New Milford, CT (1984) and Pawiling, NY- CT (1998)
Map Date: March 2021

Legend

- Proposed Site
- Study Area (2-Mile Radius)
- Predicted Year-Round Visibility (5 Acres)
- Areas of Potential Seasonal Visibility (29 Acres)

Photo Locations (January 31, 2021)

- Not Visible
- Seasonal
- Year-Round
- Municipal Boundary
- State Boundary
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park

Protected Open Space Property

- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP. Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

Dedicated Open Space & Recreation Areas

Connecticut Department of Energy and Environmental Protection (DEEP); DEEP Property (May 2007; Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)

Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other

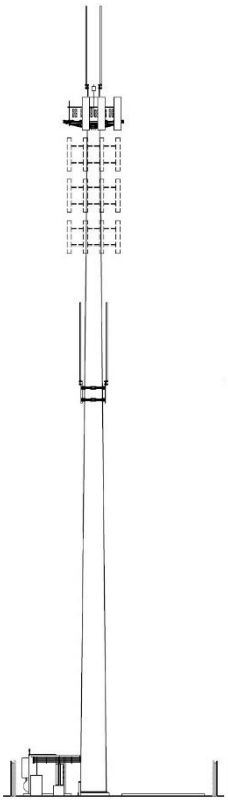
CTDOT Scenic Strips (based on Department of Transportation data)

Notes

***Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.*

ATTACHMENT 9

Environmental Sound Assessment



Wireless Communication Facility
CT009 Sherman II
New Monopole
16 Coote Hill Road, Sherman, CT 06784

Revised February 22, 2021

Prepared For:

AT&T Wireless
84 Deerfield Lane,
Meriden, CT 06450

Prepared By:

Modeling Specialties
30 Maple Road
Westford, MA 01886

ENVIRONMENTAL NOISE EVALUATION

AT&T Mobility is developing a Wireless Communications Facility in Sherman Connecticut to support personal wireless communication in the area. The proposed AT&T Wireless antennas will be mounted on a new monopole structure on the side of Coote Hill. The facility is designed to support 3 additional carriers and also a municipal antenna. AT&T's electronic equipment will be enclosed in Walk-In Cabinet (WIC) at the foot of the structure. The electronics are environmentally sensitive and will typically be cooled by ambient air. A small door-mounted cooler unit will be available on the WIC for periods of high ambient temperature when additional cooling is needed. The cooler is usually silent but will produce sound when it is actively protecting the equipment. AT&T will also have an emergency generator within the fenced equipment compound at the foot of the tower. The generator will operate only during emergencies and for occasional daytime testing of about one-half hour.

This report addresses land uses and measured ambient sound levels in the area, sources expected at this installation and resulting sound levels at area sensitive locations. This revision represents a re-analysis documenting the revised lease area on the same host parcel. The generator fuel has also changed from diesel to propane. As stated below, the graphics, modeling and results are updated consistent with the revised plan dated 2/16/21.

Overview of Project and Site Vicinity

The project is located on the rear lot of an existing residential parcel. Ambient sound levels were established by field measurements. The sound levels resulting from the proposed equipment were estimated using vendor data and measurements made at similar installations. Plans issued by Homeland Towers dated February 16, 2021 provided the necessary information to support the evaluation of project sounds. The corresponding sound levels expected at the nearby sensitive locations were estimated using noise modeling techniques prescribed in acoustical literature.

Figure 1 has a backdrop of Google aerial imagery and is annotated to show the proposed site, surrounding area and nearby receptor locations, showing the orientation and distance from the proposed equipment to the receptor locations.

Figure 1: Project Area Showing the Site, Nearby Features and Modeled Sensitive Receptors

Discussion of General Noise Analysis Methods

There are a number of ways in which sound (noise) levels are measured and quantified. All of them use the logarithmic decibel (dB) scale. Following is a brief introduction to the noise measurement terminology used in this assessment.

Noise Metrics

The Sound Level Meter used to measure environmental sound is a standardized instrument.[1] It contains "weighting networks" to adjust the frequency response of the instrument to approximate that of the human ear under various circumstances. One of these is the *A-weighting* network. A-weighted sound levels emphasize the middle frequency sounds and de-emphasize lower and higher frequency sounds; they are reported in decibels designated as "dBA." All broadband levels represented in this study are weighted using the A-weighting scale.

The sounds in our environment usually vary with time so they cannot always be described with a single number. Two methods are used for describing variable sounds. These are *exceedance levels* and *equivalent level.* Both are derived from a large number of moment-to-moment A-weighted sound level measurements. Exceedance levels are designated L_n, where "n" can have any value from 0 to 100 percent. For example:

- L_{10} is the sound level in dBA exceeded only 10 percent of the time. It is close to the maximum level observed during the measurement period. The L_{10} is sometimes called the *intrusive* sound level because it is caused by occasional louder noises like those from passing motor vehicles.

- L_{50} is the median sound level: the sound level in dBA exceeded 50 percent of the time during the measurement period.

- L_{90} is the sound level in dBA exceeded 90 percent of the time during the measurement period. The L_{90} is close to the lowest sound level observed. It is essentially the same as the *residual* sound level, which is the sound level observed when there are no loud, transient noises.

By using exceedance levels, it is possible to separate steady sounds (L_{90}) from occasional louder sounds (L_{10}) in the environment. The *equivalent level* is the level of a hypothetical steady sound that has the same energy as the actual fluctuating sound observed. The equivalent level is designated L_{eq}, and is also A-weighted. The equivalent level is strongly influenced by occasional loud, intrusive noises. When a steady sound is observed, all of the L_n and L_{eq} are equal.

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[1] *American National Standard Specification for Sound Level Meters*, ANSI S1.4-1983, published by the Standards Secretariat of the Acoustical Society of America, NY.

In the design of noise control treatments, it is essential to know something about the frequency spectrum of the sound of interest. Noise control treatments do not function like the human ear, so simple A-weighted levels are not useful for noise-control design or the identification of tones. The spectra of sounds are usually stated in terms of *octave band sound pressure levels*, in dB, with the octave frequency bands being those established by standard.[2] The sounds at the proposed site have been evaluated with respect to the octave band sound pressure levels, as well as the A-weighted equivalent sound level. Only the A-weighted values are presented here, since they represent the more easily recognized sound scale.

Noise Regulations and Criteria

Sound compliance is judged on two bases: the extent to which governmental regulations or guidelines are met, and the extent to which it is estimated that the community is protected from the excessive sound levels. The governmental regulations that may be applicable to sound produced by activities at the project site are summarized below.

Federal

- Occupational Noise Exposure Standards: 29 CFR 1910.95. This regulation restricts the noise exposure of employees at the workplace as referred to in OSHA requirements. Workers will not routinely attend this facility so this is not applicable to the project. Furthermore, this study demonstrates the facility will only emit infrequent sounds of modest levels that would comply with these requirements.

State

- The state of Connecticut (Connecticut Department of Energy & Environmental Protection or CTDEEP) regulates noise at Regulation Title 22a, Sections 69-1 through 69-7.4, Control of Noise. The project is a Class B (Utility - Communications) emitter. The land use is Farm Residence Zone or Residence A. The parcels adjacent to the site are residential land whose property lines were evaluated as Class A Noise Receptors. The details of the CTDEEP performance criteria are shown in Table 1 below and are based on the source and receiving land uses. An excerpt from the Town of Sherman Zoning Map is shown in Figure 2.

Table 1: Overview of CTDEEP Performance Criteria

	Receptor's Zone			
Emitter's Zone	Industrial	Commercial	Residential/Day	Residential/Night
Residential	62 dBA	55 dBA	55 dBA	45 dBA
Commercial	62 dBA	62 dBA	55 dBA	45 dBA
Industrial	70 dBA	66 dBA	61 dBA	51 dBA

[2] *American National Standard Specification for Octave, Half-octave and Third-octave Band Filter Sets*, ANSI S1.11-1966(R1975).

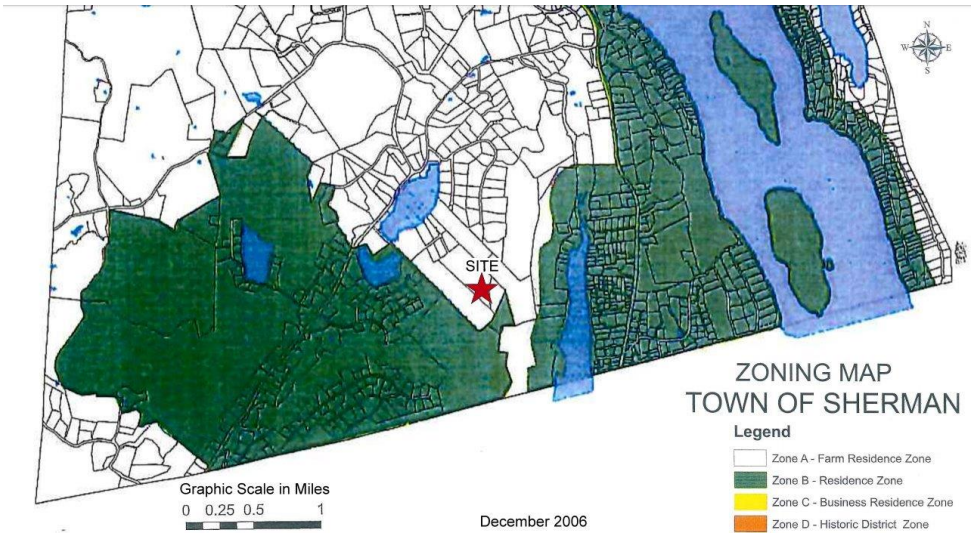


Figure 2: Excerpt of the Sherman Online Zoning Map

Local

- The Sherman Zoning Regulations Section 324.2.B.g provides standards for accessory buildings that includes "no adverse noise impact and no nuisances". Section 324.3.B provides guidance on the location of generators and other noise producing equipment. Section 342.4 provides standards for Special Permit projects that includes "sources not be objectionable for reasons of noise…"..Section 356.3.E.xiv requires that "All generators installed in conjunction with any wireless telecommunication site shall comply with all State and local noise regulations. In the absence of local quantitative standards, this study will use the numerical standards provided by CTDEEP to protect the receptors from "nuisances" and "objectionable sources".

Existing Community Sound Levels

The area has a rural residential character. The nearest sensitive receptors (residences) are located on adjacent lots in various distances and directions from the proposed hilltop equipment. Sound level measurements were made at the site access drive to establish the background sound levels for the area on October 8, 2020. The ambient sound typically fluctuates through the day and night. While this facility has no significant sources of nighttime sound, both a daytime and nighttime survey were conducted at the site. A new source of sound tends to be noticed most during conditions that are otherwise quiet. Because of this, the ambient sound surveys were scheduled under conditions associated with quiet sound levels for the area.

The conditions at the time of the survey were exaggerated due to the COVID-19 emergency. Some residents are still working from home, which reduces traffic volume on area roadways. The only sounds were from very few vehicles on local roadways and

daytime distant lawn maintenance activities along with nature sounds. No existing sound sources were noted at or near the proposed site.

Attended sound level measurements were made using a Rion NA-28 sound level meter. The measurements create a baseline community sound level and captured the frequency-specific character of the sound. The meter was mounted on a tripod approximately 5 feet above the ground. The microphone was fitted with factory recommended foam windscreen. The meter was programmed to take measurements for 20 minutes and then store processed statistical levels. The meter meets the requirements of ANSI S1.4 Type 1 – Precision specification for sound level meters. The meter was calibrated in the field using a Larsen Davis Cal-250 acoustical calibrator before and after the sessions. The field calibrations indicated that the meters did not drift during the study. The spectrum analyzer complies with the requirements of the ANSI S1-11 for octave band filters.

Results of the Ambient Survey

The results of the ambient sound level measurements are summarized in Table 2. The Leq represents the "average" sound level of the fluctuating ambient sound while the L_{90} represents the background or "near quietest" level in the measured sample. Both are shown in this study to characterize the existing sound field. Comparing the Leq levels (including all sounds) to the L90 levels (quietest 10% of samples) illustrates the way fluctuating levels affect the measured ambient. Ambient levels are affected by community conditions, meteorology, seasons, insects and traffic patterns. The measurements indicate that the existing nighttime sound levels are currently well within the residential target levels of the CTDEEP standards for daytime sound standards (55 dBA). Because of the seasonal and weather conditions of the survey, the measured levels exclude precipitation, significant wind, insects and traffic peaks on local roads.

Table 2: Ambient Sound Levels Measured on October 8, 2020

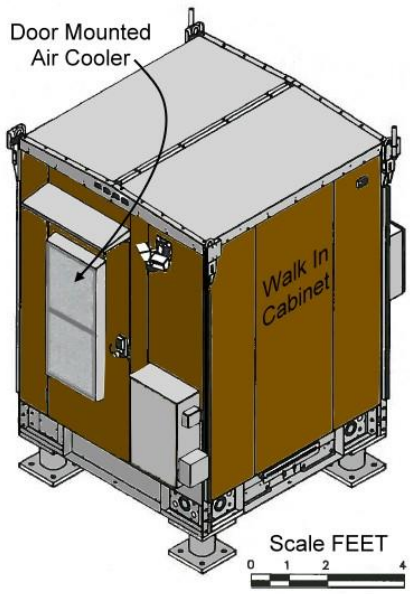
Location	Time	Period	L_{eq}	L_{90}
Site Drive	10:30 AM	Day	54 dBA	45 dBA
Site Drive	1:50 AM	Night	35 dBA	30 dBA

In most residential communities, the daytime is affected by more traffic volume on local and distant roadways along with local daytime activities. Nighttime levels tend to be lower because of lower traffic volumes and the lack of neighborhood activities. This is consistent with the measured levels in the project area. The proposed site is an undeveloped rear lot of a residential parcel. It is far from other developed land uses. The measurement was made at the end of the residential driveway where it merges with neighboring driveways as a private way locally known as Coote Hill Road. This location represents the existing conditions at the nearest accessible residences to the equipment.

Sounds from the Proposed Installation

The proposed installation has been designed to minimize the effect on the sound environment. Most of the equipment will produce no sound such as tower, antennas, cable trays, utilities and other infrastructure. Sounds that will be produced by the equipment will be significantly mitigated to manage any effects at sensitive locations. This analysis represents the most likely sound levels to be expected as a result of the normal operation of the equipment using data from potential equipment vendors and measurements of other similar equipment. Details of the modeling and assumptions are provided below. As noted, there are only two proposed sources of sound related to this project. The cabinet coolers and standby generators to provide system power during periods when utility support is lost. The equipment is described and quantified below:

Environmental Control Equipment. A walk-in cabinet (WIC) will be located in the fenced compound at the base of the utility structure. The cabinet will house AT&T equipment that is environmentally sensitive. The proposed Vertiv cabinet has two ways to provide cooling. Multiple fans move filtered ambient air through the front wall and out the back wall. Their speed and corresponding sound level vary based on how much cooling is needed. The ventilation system provides adequate cooling except when the ambient temperature is very high. When needed, the door-mounted cooler provides additional support. The highest operational sound levels are expected on the hottest days of summer when the cooler is active. It is noted that the system has a heating mode with minimal interaction with the outdoors, so is not associated with community sound.



Non-Routine Sound Emissions

The installation will include a horizontally configured propane generator installed inside a separate enclosure. It is a DC generator, which dramatically changes the way that it supports the facility. The generator will only operate to the level demanded by the load. Occasionally, the engine will be remotely tested to assure availability. But since it will have no load, the unit will operate at little more than an idle during the test. The sound level associated with the generator test is expected to be in the mid 50's dBA at 23 feet from the unit. Full load and emergency operation of the Polar generator is rated at 60 dBA at 23 feet from the unit. The AT&T equipment is monitored remotely, so attended service will be infrequent. Only during an emergency or during an attended performance test will the unit operate under load. A full load test requires a service technician to physically attach a load bank

to assure that all design loads are available, so it is considered an upset condition. The Town is also expected to have an antenna on the pole. They plan to use technology that does not require any air conditioning or backup generator. Therefore, their equipment is not expected to be a significant contributor to facility sound.

Equipment Sound Level Modeling

A computer model was developed for the project sounds based on conservative sound propagation principles prescribed in acoustics literature. Each of the expected sources during operation of the facility were identified and quantified, then estimated at the nearest sensitive receptors. Sound levels decrease with distance, so the resulting sound level will be lower at more distant locations. The sound modeling accounts for specific source and propagation path assumptions for each modeled receiver location.

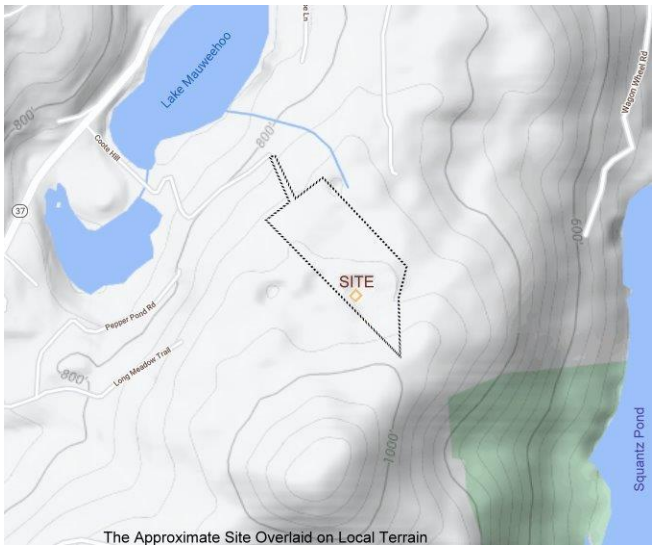
Sound level prediction modeling was performed using CADNA software under downwind weather conditions as assumed in the standard ISO 9613-2. Table 3 summarizes the modeling input parameters.

Table 3: Modeling Input Parameters

Item	Modeling Input and Description
Terrain	Flat Terrain assumed
Temperature	10ºC
Relative Humidity	70%
Weather Condition	6.5 mph, directly from facility to receptor*
Ground Attenuation	0.2, hard surface (0.5 = soft ground, 0.0 = pure reflection)
Atmospheric Inversion	CONCAWE – Category F**
# of Sound Reflections	2
Receptor Height	1.5 meter above ground level

** Propagation calculations incorporate the adverse effects of certain atmospheric and meteorological conditions on sound propagation, such as gentle breeze of 1 to 5 m/s (ISO 1996-2: 1987) from source to receiver.*
***CONCAWE – Category F indicates an atmosphere that promotes sound propagation.*

The project area has significant terrain as shown in the sketch to the right. However, Connecticut standards apply at the property line, the nearest of which is about 90 feet from the nearest equipment. Some modeled residences are line-of-sight to the equipment, so no terrain effects were included in any modeling. The proposed equipment layout plan is shown in Figure 3. An elevation drawing of the compound is shown in Figure 4.



The Approximate Site Overlaid on Local Terrain

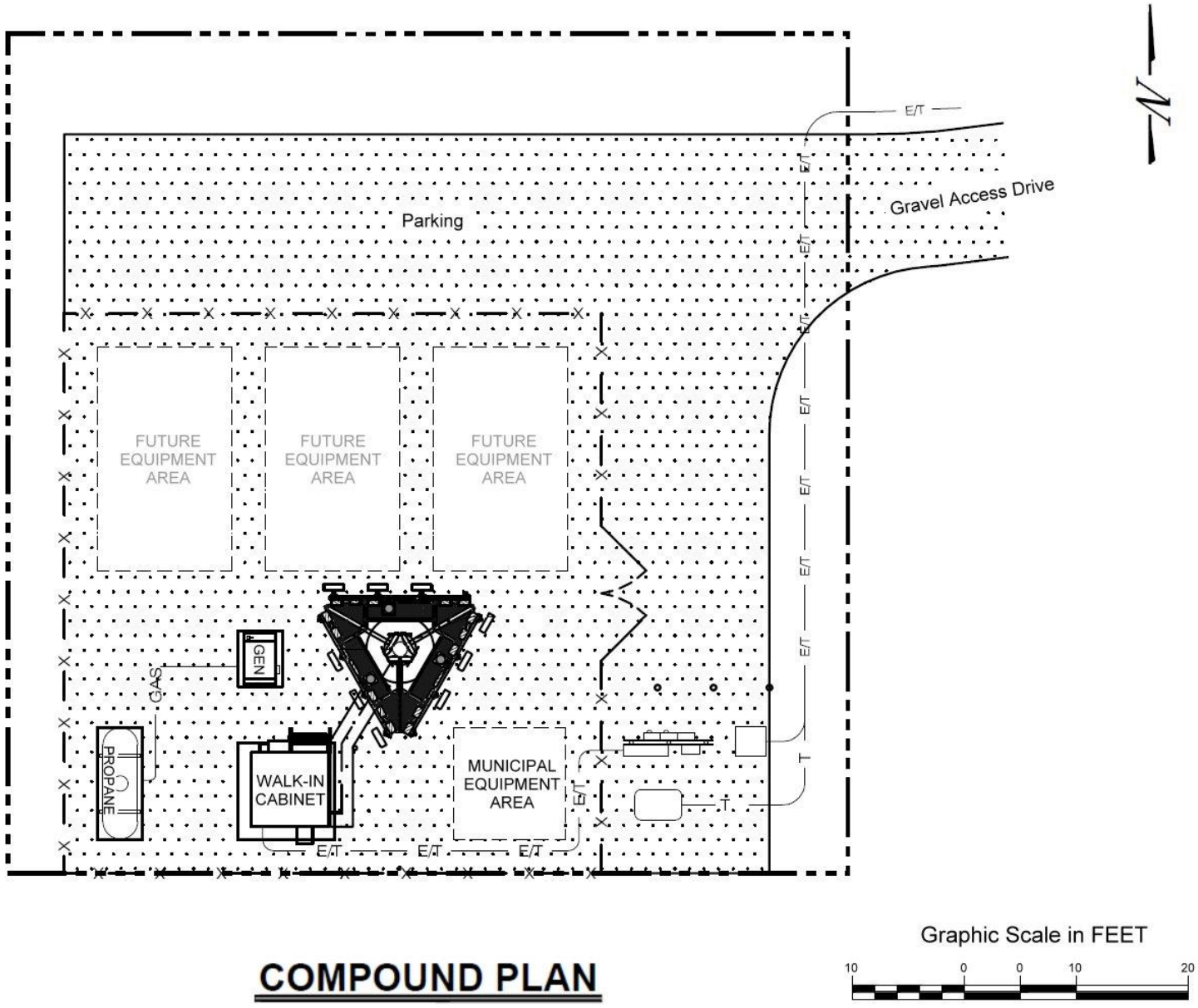


Figure 3: Plan Showing the Proposed Layout of the Equipment Compound

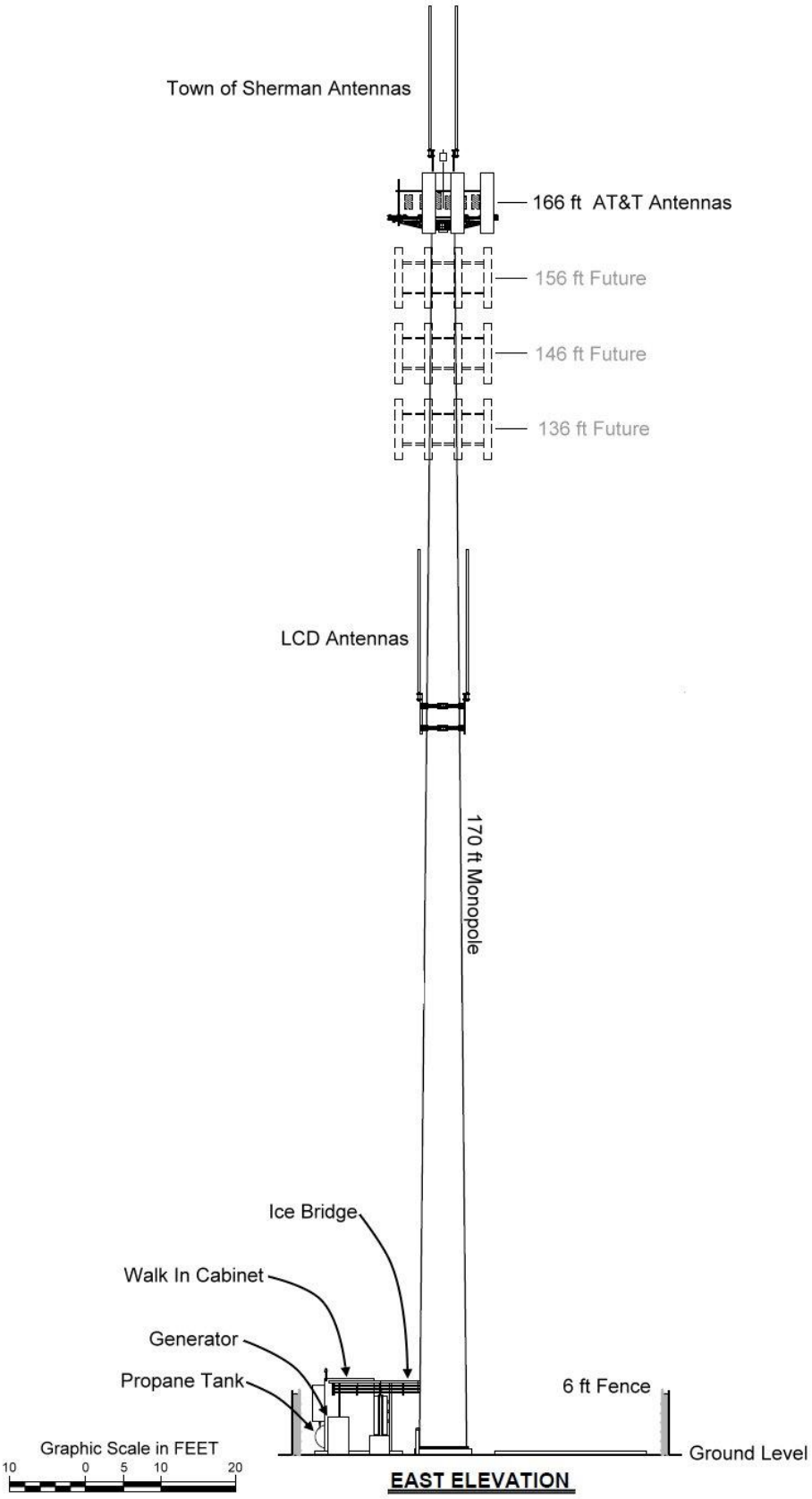


Figure 4: Plan Showing the Proposed Elevation Character of the Project

Results of Sound Level Modeling

The routine operation of the facility is not expected to include the cabinet cooler or generator, so emits only fan sounds when modest cooling is needed. To calculate the effect of the facility under the worst-case conditions, the sounds from the cabinet cooler plus generator are modeled together at receptor locations. The site location, receptors and their orientation to the proposed equipment were shown in Figure 1. The results of the worst-case modeling are shown in Table 4. Like air conditioning units in the surrounding community, the need for the supplemental cooler is expected to be limited to the warmest summer days under direct sunlight conditions. The cooler and generator test might never operate together as modeled in this worst-case scenario.

Table 4: Predicted Worst-Case Sound Levels Expected at Receptors

Receptor Location	Distance (ft) (from Source)	Ambient Level Day (dBA L_{eq})	Sound Level Standard (dBA)	Cooler+ Generator Worst Case Level
P/L, Southwest	~90	45	55	46 dBA
P/L, Southeast	346	45	55	34 dBA
P/L, Northeast	480	45	55	30 dBA
Residence, Southeast	690	45	55	26 dBA
Residence, Northeast	1175	45	55	24 dBA
Residence, North	1460	45	55	22 dBA
Residence, Northwest	1450	45	55	22 dBA
Residence, West	1400	45	55	22 dBA

Note: It is customary to conduct all calculations using precise values, but to round the result to whole dBA. All results are rounded to units (dBA).

Sound Mitigation Assumptions

There are several notable mitigation measures in place to achieve the low sound levels shown above. The selection of the walk-in cabinet reduces the size and sound levels associated with full size shelters. The cabinet is oriented to emit sound in a direction that minimizes sound at the most exposed property line. The cabinet cooling system uses fans to move fresh air through the cabinet for cooling under most conditions. When the heat load exceeds the fan cooling capacity a door mounted cooler operates. Even then, the cooler is expected to result in only 37 dBA at the nearest property line.

Various generator configurations and mitigation options were evaluated as part of this study. Secondary enclosures or other external features could achieve the same emission level of compliance using various well-designed genset models. AT&T selected the Polar unit which is quieter by design. The lower sound levels are a result of the genset's full enclosure, low profile and quiet-test feature. Its inverter generator design is inherently quieter than a corresponding AC generator of similar capacity. As a comparison, most mobile gasoline fired AC generators sized to support a residence would operate at about 70 dBA at 23 feet. The routine test of the project generator which is much higher capacity is expected to emit in the mid 50's dBA at the same reference distance.

Conclusions

The potential sounds from the proposed installation were evaluated using measured field levels, vendor data and numerical modeling methods. Most of the time, the proposed wireless facility will produce no significant sound. The existing ambient sound level was established to be 45 dBA during the daytime in the area. The only routine facility sound is from the cabinet ventilation which is expected to be well below the ambient level at the nearest property lines. A supplementary cabinet cooler is expected to operate only during the daytime under summertime highest ambient temperatures. Its sound is expected to be about 37 dBA at the nearest property line during its infrequent operation.

Occasionally, the proposed facility will include the sound from testing the emergency generator. This weekly daytime testing was modeled to include the combined sound from cooler and generator simultaneously. This represents a worst-case estimate, which could only happen during the few hottest days of the summer. The graphical summary in Figure 5 shows the modeling results at the applicable site property lines. The Figure also shows the lower sound levels expected at the nearest existing residences in various directions from the equipment. The worst-case daytime sound estimate at the nearest property line is 46 dBA. The worst-case daytime sound estimate at the nearest residence is 26 dBA, which is far below the daytime ambient level in the area.

No significant sources are expected to operate during nighttime conditions. Therefore, the nighttime levels will remain at or near ambient levels (~30 dBA). It is noted that because of the significant distances, the expected worst-case daytime project sounds will remain below the nighttime ambient levels at the surrounding residences. The results of this expert analysis indicate the facility will comply with all federal and state requirements with respect to project sound at residential receptors.

Figure 5: Graphical Summary of the Modeling Results Under Worst-Case Daytime Operating Conditions

ATTACHMENT 10

USFWS & NDDB Compliance Determination

February 26, 2021

Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Re: CT009 Sherman II, 16 Coote Hill Road, Sherman, CT
APT Job No: CT283390

On behalf of Homeland Towers, LLC ("Homeland"), All-Points Technology Corporation, P.C. ("APT") performed an evaluation with respect to possible federally- and state-listed, Endangered, Threatened, or Special Concern species in order to determine if the proposed referenced telecommunication facility ("Facility") would result in a potential adverse effect to listed species.

APT understands that Homeland is proposing to construct a wireless telecommunications facility within the southeastern portion of 16 Coote Hill Road, Sherman, Connecticut ("Subject Property"). The ±19.79-acre Subject Property is developed with a residence in the western portion of the property with the remaining areas consisting of undeveloped mature forest. The proposed Facility and 12-foot-wide gravel access drive would be located within the forested portions of the Subject Property.

USFWS

The federal consultation was completed in accordance with Section 7 of the Endangered Species Act through the U.S. Fish and Wildlife Service's ("USFWS") Information, Planning, and Conservation System ("IPaC"). Based on the results of the IPaC review, one federally listed[1] threatened species is known to occur in the vicinity of the Subject Property documented as the northern long-eared bat ("NLEB"; *Myotis septentrionalis*). As a result of this preliminary finding, APT performed an evaluation to determine if the proposed referenced Facility would result in a likely adverse effect to NLEB.

The proposed Facility and access drive would be located within a forested area requiring ±2.5 acres of tree clearing (trees provide potential NLEB habitat). A review of the Connecticut Department of Energy & Environmental Protection ("CTDEEP") Wildlife Division Natural Diversity Data Base ("NDDB") NLEB habitat map[2] revealed that the proposed Facility is not within 150 feet of a known occupied NLEB maternity roost tree and is not within 0.25 mile of a known NLEB hibernaculum. The nearest NLEB habitat resource to the proposed Facility is located ±3.89 miles to the southwest in New Milford.

APT submitted the effects determination using the NLEB key within the IPaC system for the proposed Facility (the "Action"). This IPaC key assists users in determining whether a Federal action is consistent

[1] Listing under the federal Endangered Species Act

[2] *Northern long-eared bat areas of concern in Connecticut to assist with Federal Endangered Species Act Compliance* map. February 1, 2016.

with the activities analyzed in the USFWS's January 5, 2016, intra-Service Programmatic Biological Opinion ("PBO") on the Final 4(d) Rule for the NLEB for Section 7(a)(2) compliance.

Based upon the IPaC submission, the Action is consistent with activities analyzed in the PBO; please refer to the enclosed July 31, 2020 USFWS letter. The Action may affect NLEB; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). If the USFWS does not respond within 30 days from the date of the letter (August 31, 2020), one may presume that the IPaC-assisted determination was correct and that the PBO satisfies and concludes Homeland's responsibilities for this Action under ESA Section 7(a)(2) with respect to NLEB. No response was received from USFWS; therefore, the Action complies with ESA Section 7(a)(2) with respect to NLEB.

In addition, Homeland would consider the following additional USFWS voluntary conservation measures, where appropriate and as the project schedule allows, as encouraged in the April 29, 2016 FCC Public Notice[3], to reduce the potential impacts of activities in NLEB.

- Conduct tree removal activities outside of the NLEB pup season (June 1-July 31) and active season (April 1-October 31) to minimize impacts to pups at roosts not yet identified.
- Avoid clearing suitable spring staging and fall swarming habitat within a five-mile radius of known or assumed NLEB hibernacula during the staging and swarming seasons (April 1-May 15 and August 15-November 14, respectively).
- Maintain dead trees (snags) and large trees when possible.
- Use herbicides and pesticides only if unavoidable. If necessary, spot treatment is preferred over aerial application.
- Minimize exterior lighting, opting for down-shielded, motion-sensor security lights instead of constant illumination.

NDDB

According to the most recent DEEP NDDB maps, the proposed Facility is located in close proximty to a shaded NDDB buffer area and therefore could potentially conflict with listed rare species. Please refer to the enclosed NDDB Map. APT submitted a NDDB review request with DEEP to identify state-listed Endangered, Threatened, and Special Concern species occurring in the vicinity of the proposed Facility and if the proposed activity could potentially conflict with listed species.

DEEP issued an October 6, 2020 preliminary assessment letter (No. 202011003) indicating that one state Endangered Species, little brown bat (*Myotis lucifugus*), one state Threatened species, northern slimy salamander (*Plethodon glutinosus*), and three state Special Concern species, eastern box turtle (*Terrapene carolina carolina*), eastern hognose snake (*Heterodon platirhinos*), and red bat (*Lasiurus borealis*), are known to occur in the vicinity of the Facility. Please refer to the attached letter for further details. DEEP recommended protection strategies for all of the identified species with the exception of slimy salamander. For that particular species, DEEP required that surveys be performed.

Quinn Ecological, LLC, an expert in northern slimy salamander populations and habitat in Connecticut, performed a detailed habitat survey in November 2020. Since this assessment was conducted outside of the primary active season with limited access to adjacent private properties, a very conservative approach to identifying slimy salamander habitat, their associated conservation zones and potential impact from the proposed Facility was employed. Core habitat (Zone 1) for slimy salamander was

[3] Federal Communications Commission. *Tower Construction Guidance for Protection of Northern Long-Eared Bat Under the Endangered Species Act*. Public Notice DA 16-476. April 29, 2016

identified off the Subject Property just to the east and south east. Two conservation zones associated with the core habitat were found to encroach into the eastern portion of the Subject Property: Zone 2 (300 foot buffer from Zone 1 – Core Forest Zone) and Zone 3 (300 foot buffer from Zone 2 – Core Forest Interface Zone). When assessing impacts from a proposed development within core forest habitat that is critical to this species, one must also evaluate a 300-foot buffer from the limits of the proposed development. It is generally recognized that changes to forest environmental conditions (i.e., forest floor temperature, moisture, etc.) can result up to 300 feet away from the limit of disturbance associated with a development activity that requires tree removal. Cool, moist microhabitats within core forests are essential to the survival of slimy salamanders.

At the time of this investigation, the proposed Facility was placed in a location further east of its current location in an attempt to maximize its buffer from nearby wetlands. An evaluation of the original Facility location revealed that it would be located within Zone 3 resulting in the development's 300-foot area of influence encroaching into Zone 2. Impacts to Zone 1 and 2 are incompatible with maintaining suitable habitat for the long-term persistence of northern slimy salamander populations. Homeland was sensitive to the results of these findings and expended their resources to determine if an alternate Facility location on the Subject Property could be achieved while satisfying other interests of the project. To ensure that no adverse impact to slimy salamander would occur, Homeland identified an alternative tower location that placed the Facility outside of Zone 3. Homeland then proceeded to redesign the compound layout and access road to accommodate the acceptable location while also trying to balance maximizing the buffer to nearby wetlands. Quinn Ecological's report concluded that the new Facility location would result only in indirect impacts to Zone 3 habitat which would not have an adverse impact on northern slimy salamander habitat or populations. As a result, no further surveys or conservation actions were recommended.

The results of the northern slimy salamander survey and impact analysis were provided to DEEP, resulting in a response letter dated January 9, 2021. DEEP indicated in their letter that "No further conservation mitigation or actions are required to protect the slimy salamander as long as the telecommunications facility is placed in the alternate location as described by the Quinn report dated January 8, 2021." Please refer to the attached letter for further details. The January 9th letter also provided best management practices that are required to protect the other noted state-listed species: eastern box turtle, eastern hognose snake, little brown bat, and red bat. Protection measures for eastern box turtle and eastern hognose snake include various protection measures to be employed during construction activities while a time of year ("TOY") restriction for tree clearing (limit tree clearing between November 1st and March 30th) is required to protect the two bat species. The TOY tree clearing restrictions for these two bats will also comply with the associated NLEB voluntary conservation measures. APT understands that Homeland will implement the recommended protection measures and tree clearing TOY restrictions to protect state-listed species and details of those protection measures will be included in the Connecticut Siting Council's Development and Management Plan, provided the Council approves of the Facility.

Therefore, with implementation of these measures, the proposed Facility is not anticipated to adversely impact any federal or state threatened, endangered or species of special concern.

Sincerely,
All-Points Technology Corporation, P.C.

Dean Gustafson
Senior Biologist

Enclosures

USFWS NLEB Letter

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

IPaC Record Locator: 582-22822730 July 31, 2020

Subject: Consistency letter for the 'Homeland Sherman II' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Deborah Gustafson:

The U.S. Fish and Wildlife Service (Service) received on July 31, 2020 your effects determination for the 'Homeland Sherman II' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

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[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Homeland Sherman II

2. Description

The following description was provided for the project 'Homeland Sherman II':

> Homeland proposes to construct a telecommunications facility at 16 Coote Hill Road in Sherman, Connecticut. The proposed galvanized monopole will be at a height of +/- 170 AGL within a 75-foot by 75-foot lease area. The proposed 50-foot by 53-foot fenced gravel compound area will be accessed from Coote Hill Road along an existing paved driveway (approximately 460-feet) and proposed gravel access driveway (approximately 1,765-feet) with a 12-foot wide double swing chain link access gate. Proposed underground electric and telco service will be from an existing transformer (#316) and existing telco box (approximately 1,885-feet).

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.535067154299966N73.49322602013399W

Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Will your activity purposefully **Take** northern long-eared bats?

   No

3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

6. Will the action involve Tree Removal?

   Yes

7. Will the action only remove hazardous trees for the protection of human life or property?

   No

8. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

9. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

2.5

2. If known, estimated acres of forest conversion from April 1 to October 31

2.5

3. If known, estimated acres of forest conversion from June 1 to July 31

2.5

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

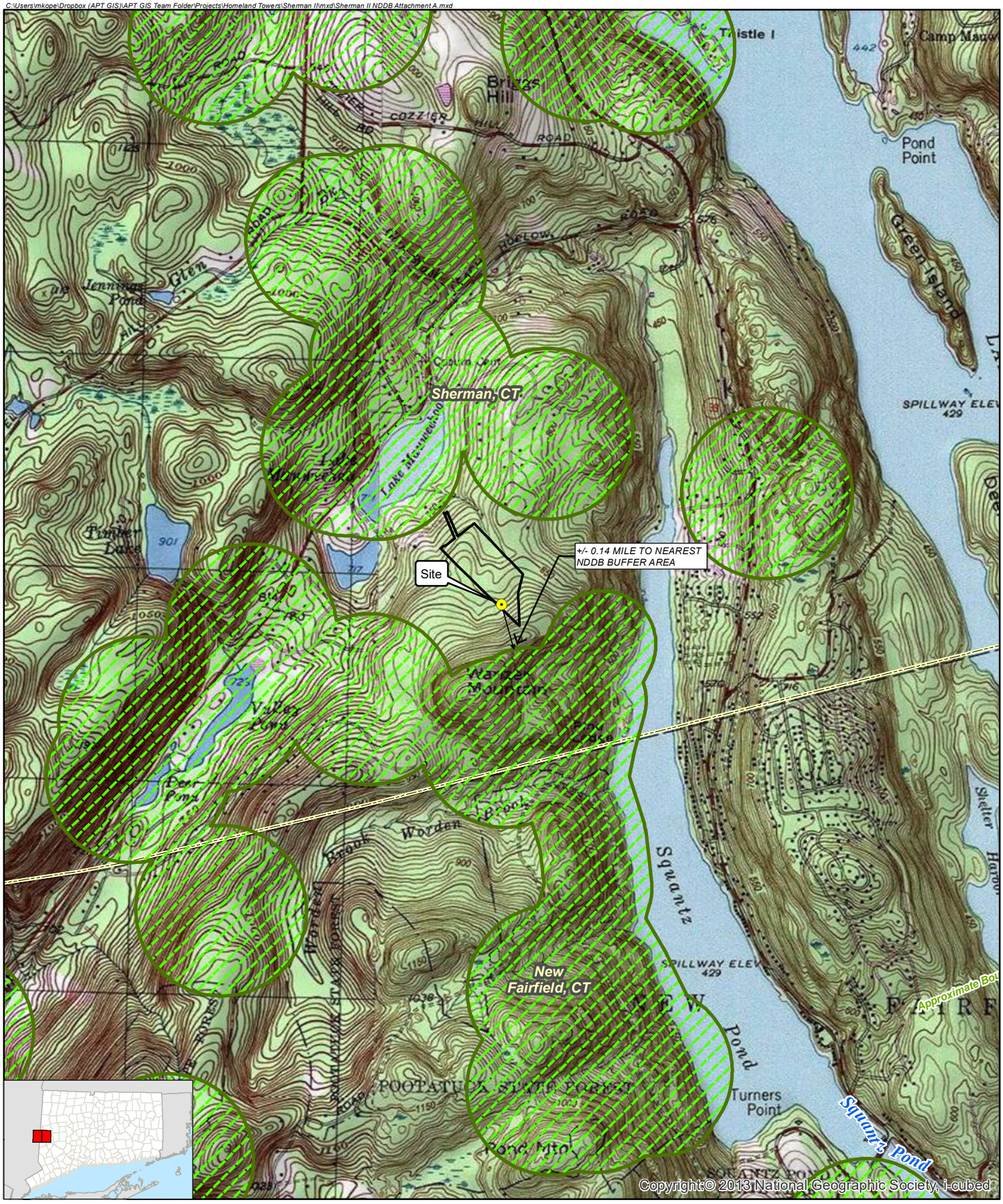
0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?
0

NDDB Map

C:\Users\mkope\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Homeland Towers\Sherman II\mxd\Sherman II NDDB Attachment A.mxd



Legend

- Proposed Monopole
- Subject Property
- Natural Diversity Database (updated June 2020)
- Municipal Boundary

Map Notes:
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, New Milford, CT (1984) and Pawling, CT (1998)
Map Scale: 1:24,000
Map Date: July 2020

N W E S

1,000 500 0 1,000 Feet

Attachment A: Overview Map

Proposed Wireless Telecommunications Facility
CT009
Sherman 2
16 Coote Hill Road
Sherman, Connecticut

HOMELAND TOWERS

ALL-POINTS TECHNOLOGY CORPORATION

NDDB Determination Letters

- October 6, 2020 Preliminary Assessment Letter
- January 9, 2021 Determination Letter

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

October 6, 2020

Dean Gustafson
All-Points Technology Corporation, P.C.
567 Vauxhall Street Extension—Suite 311
Waterford, CT 06385
dgustafson@allpointstech.com

Project: Preliminary Comments for New Telecommunications Facility Sherman 2 (HLT-CT009, AT&T-C1341-Sherman) Located at 16 Coote Hill Road in Sherman, Connecticut
NDDB Preliminary Assessment No.: 202011003

Dear Dean Gustafson,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for a proposed new telecommunications facility Sherman 2 (HLT-CT009/AT&T-C1341-Sherman) located at 16 Coote Hill Road in Sherman, Connecticut.

This is not a final determination letter from our program as at least one of the species known from this area of Sherman will require further investigations before final comments can be prepared. This particular letter cannot be used with any state permit or registration since I will need to review either field survey reports generated from field investigations and/or protection strategies to ensure that state actions do not impact state-listed species.

According to our records there two known extant populations of State Listed Species known that occur within or close to the boundaries of this property. The species include:

State Endangered
Myotis lucifugus (little brown bat)

State Threatened
Plethodon glutinosus (slimy salamander)

State Special Concern
Terrapene carolina carolina (eastern box turtle)
Heterodon platirhinos (eastern hognose snake)
Lasiurus borealis (red bat)

State Threatened *Plethodon glutinosus* (slimy salamander):
In Connecticut the state threatened slimy salamander is restricted to mature mesic forest habitat with rocky talus slopes, numerous fallen logs along with a thick layer of leaf litter and forest debris. The property surrounding this subject property has been identified as providing suitable habitat for the slimy salamander. To prevent impacts to this State-listed amphibian species, I require that surveys of the site be performed by a qualified herpetologist. A report summarizing the results of such surveys should include:

- Survey date(s) and duration
- Site descriptions and photographs

- List of species within the survey area (including scientific binomials)
- Data regarding population numbers and/or area occupied by State-listed species
- Detailed maps of the area surveyed including the survey route and locations of state-listed species
- Statement/résumé indicating the biologist's qualifications
- Please be sure to ask if your herpetologist has a current/valid collectors permit from CTDEEP to work with slimy salamanders at this project site.

The site survey report should be sent to our NDDB email address (deep.nddbrequest@ct.gov) and it will be reviewed by our program biologists. Further evaluation and recommendations will be provided once we receive the results of this field investigation. If this salamder is found to occupy this property please provided best management practices that will avoid or mitigate potential impacts to this amphibian speies from this project.

If you do not intend to do site surveys to determine the presence or absence of state-listed species, please let us know how you will protect the state-listed species from being impacted by this project. You may submit these best management practices or protection plans with a new request for an NDDB review. Please confirm, with your new NDDB request, how you will actually protect the species described above. Consider direct and indirect impacts to the species in the conservation measures.

We also have State Endangered little brown bat, and State Special Concern red bat, eastern box turtle and eastern hognose snake in this area. The following best management practices will be required to protect these state listed species.

Eastern Box Turtle: Eastern box turtles inhabit old fields and deciduous forests, which can include power lines and logged woodlands. They are often found near small streams and ponds. The adults are completely terrestrial but the young may be semiaquatic, and hibernate on land by digging down in the soil from October to April. They have an extremely small home range and can usually be found in the same area year after year. Eastern box turtles have been negatively impacted by the loss of suitable habitat. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated.

Recommended Protection Strategies for Box Turtles:

The following recommendations will minimize potential impacts to the turtles. These recommendations should be implemented throughout the work area:

- A qualified herpetologist must be on site to ensure these protection guidelines remain in effect and prevent turtles from being run over when moving heavy equipment. This is especially important in the month of June when turtles are selecting nesting sites.
- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance.
- Exclusionary fencing must be at least 20 in tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through. Do not use plastic web or netted silt-fence.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.

- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species, and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Avoid degradation of wetland habitats including any wet meadows and seasonal pools.
- The Contractor and consulting herpetologist must search the work area each morning prior to any work being done.
- When felling trees adjacent to brooks and streams please cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- Avoid and limit any equipment use within 100 feet of streams and brooks.
- Any confirmed sightings of box, wood or spotted turtles should be reported and documented with the NDDB (nddbrequestdep@ct.gov) on the appropriate special animal form found at (http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641)

Eastern hognose snake (*Heterodon platirhinos*)
The eastern hognose snake has been declining due to loss of suitable habitat. It favors areas of well drained sandy and gravelly soils along the edges of second-growth deciduous forest. This species is dormant from November -April. Many of these harmless snakes are killed by people who are convinced that they are venomous and dangerous. When confronted, the hognose snake will suck in air, spread the skin around its head and neck like a cobra, hiss, and lunge as if to strike. Despite this rather convincing show, hognose snakes almost never bite. They will often feign death if provoked enough.

Recommended Protection Strategies for Eastern Hognose Snake:
- Any snakes observed shall be moved, unharmed, to an area immediately outside of the work area, and positioned in the same direction that it was traveling;
- These animals are protected by law and should never be removed entirely from the site;
- Vehicles and heavy machinery should operate at slower speeds to allow animals the time to move out of harm's way on their own;
- Work conducted during early morning, evening hours or shortly after rain events shall occur with special care not to harm basking or foraging individuals;
- Vehicles shall be parked on graveled surfaces only;
- Material used for this project should only be placed on existing graveled surfaces.

Tree Roosting Bat Protection (State Endangered Little Brown and State Special Concern Red Bats)

Tree clearing should be completed during the hibernation or winter range period for bats. Tree clearing should be limited to between November 1st and March 30th. The implementation of this measure would be protective of those species of bats identified as well as other bat species. Additionally, large diameter coniferous and deciduous trees and wooded buffers adjacent to wetland areas should be maintained whenever possible. Bat houses should be installed in the area where trees will be removed and will help in the conservation of tree roosting bats. Bat houses should be mount on east facing, mature tree trunks, not less than 12 feet from the ground in areas where trees are removed.

Please be advised that this is a preliminary review and not a final determination. A more detailed review will be necessary to move forward with any environmental permit applications submitted to DEEP for the proposed project. **This preliminary assessment letter cannot be used or submitted with your permit applications at DEEP**. This letter is valid for one year.

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

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,

Dawn M. McKay

Dawn M. McKay
Environmental Analyst 3

Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

January 9, 2021

Dean Gustafson
All-Points Technology Corporation, P.C.
567 Vauxhall Street Extension—Suite 311
Waterford, CT 06385
dgustafson@allpointstech.com

Project: Preliminary Comments for New Telecommunications Facility Sherman 2 (HLT-CT009, AT&T-C1341-Sherman) Located at 16 Coote Hill Road in Sherman, Connecticut
NDDB Preliminary Assessment No.: 202011003

Dear Dean Gustafson,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for a proposed new telecommunications facility Sherman 2 (HLT-CT009/AT&T-C1341-Sherman) located at 16 Coote Hill Road in Sherman, Connecticut.

According to our records there are known extant populations of State Listed Species known that occur within or close to the boundaries of this property. The species include:

State Endangered
Myotis lucifugus (little brown bat)

State Threatened
Plethodon glutinosus (slimy salamander)

State Special Concern
Terrapene carolina carolina (eastern box turtle)
Heterodon platirhinos (eastern hognose snake)
Lasiurus borealis (red bat)

State Threatened *Plethodon glutinosus* (slimy salamander):
In Connecticut the state threatened slimy salamander is restricted to mature mesic forest habitat with rocky talus slopes, numerous fallen logs along with a thick layer of leaf litter and forest debris. The property surrounding this subject property has been identified as providing suitable habitat for the slimy salamander. I received a report, Slimy Salamander Habitat Assessment and Impact Analysis: Findings and Species Impact Avoidance Measures 16 Coote Hill, Sherman Connecticut, prepared by Dennis P. Quinn of Quinn Ecological, LLC and dated January 8, 2021. Although the habitat assessment was conducted in November of 2021-outside the normal slimy salamander active season- the Quinn analysis of the potential slimy salamander habitat indicates that an alternate site for the facility was chosen as mitigation. The alternate location of the facility will eliminate all direct impacts to the most essential slimy salamander habitat in this area. I concur that this project will not adversely impact the State Threatened slimy salamander based on the Quinn slimy salamander habitat analysis on this subject property, the alternate location chosen for the placement of the cell facility and the avoidance of the essential habitat of the slimy salamander. No further conservation mitigation or actions are required to protect the slimy salamander as long as the telecommunications facility is placed in the alternate location as described by the Quinn report dated January 8, 2021.

We also have State Endangered little brown bat, and State Special Concern red bat, eastern box turtle and eastern hognose snake in this area. The following best management practices will be required to protect these state listed species.

Eastern Box Turtle: Eastern box turtles inhabit old fields and deciduous forests, which can include power lines and logged woodlands. They are often found near small streams and ponds. The adults are completely terrestrial but the young may be semiaquatic, and hibernate on land by digging down in the soil from October to April. They have an extremely small home range and can usually be found in the same area year after year. Eastern box turtles have been negatively impacted by the loss of suitable habitat. Some turtles may be killed directly by construction activities, but many more are lost when important habitat areas for shelter, feeding, hibernation, or nesting are destroyed. As remaining habitat is fragmented into smaller pieces, turtle populations can become small and isolated.

Recommended Protection Strategies for Box Turtles:

The following recommendations will minimize potential impacts to the turtles. These recommendations should be implemented throughout the work area:

- A qualified herpetologist must be on site to ensure these protection guidelines remain in effect and prevent turtles from being run over when moving heavy equipment. This is especially important in the month of June when turtles are selecting nesting sites.
- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance.
- Exclusionary fencing must be at least 20 in tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through. Do not use plastic web or netted silt-fence.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species, and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Avoid degradation of wetland habitats including any wet meadows and seasonal pools.
- The Contractor and consulting herpetologist must search the work area each morning prior to any work being done.
- When felling trees adjacent to brooks and streams please cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- Avoid and limit any equipment use within 100 feet of streams and brooks.
- Any confirmed sightings of box, wood or spotted turtles should be reported and documented with the NDDB (nddbrequestdep@ct.gov) on the appropriate special animal form found at (http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641)

Eastern hognose snake (*Heterodon platirhinos*)
The eastern hognose snake has been declining due to loss of suitable habitat. It favors areas of well drained sandy and gravelly soils along the edges of second-growth deciduous forest. This species is dormant from November - April. Many of these harmless snakes are killed by people who are convinced that they are venomous and dangerous. When confronted, the hognose snake will suck in air, spread the skin around its head and neck like a cobra, hiss, and lunge as if to strike. Despite this rather convincing show, hognose snakes almost never bite. They will often feign death if provoked enough.

Recommended Protection Strategies for Eastern Hognose Snake:

- Any snakes observed shall be moved, unharmed, to an area immediately outside of the work area, and positioned in the same direction that it was traveling;
- These animals are protected by law and should never be removed entirely from the site;

- Vehicles and heavy machinery should operate at slower speeds to allow animals the time to move out of harm's way on their own;
- Work conducted during early morning, evening hours or shortly after rain events shall occur with special care not to harm basking or foraging individuals;
- Vehicles shall be parked on graveled surfaces only;
- Material used for this project should only be placed on existing graveled surfaces.

Tree Roosting Bat Protection (State Endangered Little Brown and State Special Concern Red Bats)
Tree clearing should be completed during the hibernation or winter range period for bats. Tree clearing should be limited to between November 1st and March 30th. The implementation of this measure would be protective of those species of bats identified as well as other bat species.
Additionally, large diameter coniferous and deciduous trees and wooded buffers adjacent to wetland areas should be maintained whenever possible. Bat houses should be installed in the area where trees will be removed and will help in the conservation of tree roosting bats. Bat houses should be mount on east facing, mature tree trunks, not less than 12 feet from the ground in areas where trees are removed.

This determination is good for two years. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by January 9, 2023.

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

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.
Sincerely,

Dawn M. McKay

Dawn M. McKay
Environmental Analyst 3

AVIAN RESOURCES EVALUATION

March 2, 2021

Homeland Towers, LLC
9 Harmony Street
Danbury, Connecticut 06810

Re: Proposed Sherman II Facility
16 Coote Hill Road, Sherman, Connecticut 06784
APT Project No. CT283390

Homeland Towers, LLC ("Homeland") proposes to construct a new wireless telecommunications facility ("Facility") at 16 Coote Hill Road in Sherman, Connecticut (the "Host Property"). The Host Property consists of an approximately 19.79-acre parcel that is residentially developed. The Facility would be located in the southeastern portion of the Host Property ("Site") within an upland forested area, and would include a 170-foot tall monopole tower with associated ground equipment within a 48-foot by 50-foot fenced compound. The facility would be accessed from Coote Hill Road via a proposed gravel access drive.

The purpose of this evaluation is to document the proposed Facility's proximity to avian resource areas and its compliance with recommended guidelines of the United States Fish and Wildlife Service ("USFWS") for minimizing potential impacts to bird species from telecommunications towers.

On behalf of Homeland, All-Points Technology Corporation, P.C. ("APT") reviewed several publicly available sources of avian data for the state of Connecticut to provide the following information with respect to potential impacts on migratory birds associated with the proposed development. This desktop analysis and attached graphics identify avian resources and their proximities to the proposed Facility. Resources within approximately three (3) miles of the Host Property are graphically depicted on the attached Avian Resources Map. Some of the data referenced herein are not located in proximity to the Host Property and are therefore not visible on the referenced map due to its scale. In those cases, the distances separating the Host Property from the resources are identified in the discussions below.

Proximity to Important Bird Areas

The National Audubon Society has identified 27 Important Bird Areas ("IBAs") in the state of Connecticut. IBAs are sites that provide essential habitat for breeding, wintering, and/or migrating birds. To achieve this designation, an IBA must support species of conservation concern, restricted-range species, species vulnerable due to concentration in one general habitat type or biome, or species vulnerable due to their occurrence at high densities as a result of their congregatory behavior[1]. The closest IBA to the Host Property is the Shepaug Forest Block in Kent, Warren, Washington, Litchfield, Morris, Roxbury, and New Milford, located approximately 7.7 miles to the northeast. The Shepaug Forest Block is a nearly 14,000-acre landscape-level Important Bird Area that includes a forested landscape along a 15-mile stretch of the Shepaug River in Washington and Roxbury, Connecticut. This IBA stretches from Lake Waramaug to Steep Rock Association's Macricostas, Hidden Valley, and Steep Rock Preserves, to Roxbury Land Trust's Carter and Mine Hill Preserve, and includes preserves and easements held by the Weantinoqe Heritage Land Trust. Due to its distance from the Site, this IBA would not experience an adverse impact from development of the Facility.

Supporting Migratory Bird Data

The following analysis and attached graphics identify several additional avian resources and their proximities to the Host Property. Although these data sources may not represent habitat indicative of IBAs, they may indicate possible bird concentrations[2] or migratory pathways.

Critical Habitat

Connecticut Critical Habitats is a database developed by the Connecticut Department of Energy and Environmental Protection ("DEEP"), and available through the Connecticut Environmental Conditions Online (CT ECO)[3] website that depicts the classification and distribution of 25 rare and specialized wildlife habitats in the state. The compilation represents ecological information collected over many years by state agencies, conservation organizations and individuals. These habitats range in size from less than one acre to tens of acres in extent. The Connecticut Critical Habitats information can serve to highlight ecologically significant areas and to target areas of species diversity for land conservation and protection, but may not necessarily be indicative of habitat for bird species. The nearest Critical Habitat to the proposed Facility is a palustrine non-forested floodplain forest - subtype alluvial marsh area associated with Still River and located approximately 0.18 miles to the southeast. Although this resource is proximate to the Facility, there will be no work completed within or adjacent to the floodplain forest, so no direct impacts are anticipated.

[1] http://web4.audubon.org/bird/iba/iba_intro.html

[2] The term "bird concentrations" is found in the USFWS *Revised Voluntary Guidelines for communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning* (September 27, 2013) analysis provided at the end of this document

[3] CT ECO is a partnership between the Connecticut Department of Energy and Environmental Protection and the University of Connecticut.

Avian Survey Routes and Points

Breeding Bird Survey Route

The North American Breeding Bird Survey is a cooperative effort between various agencies and volunteer groups to monitor the status and trends of North American bird populations. Routes are randomly located to sample habitats that are representative of an entire region and do not necessarily represent concentrations of avifauna or identification of critical avian habitats. Each year during the height of the avian breeding season (June for most of the United States) participants skilled in avian identification collect bird population data along roadside survey routes. Each survey route is approximately 24.5 miles long and contains 50 stops located at 0.5-mile intervals. At each stop, a three-minute count is conducted. During each count, every bird seen or heard within a 0.25-mile radius is recorded. The resulting data is used by conservation managers, scientists, and the general public to estimate population trends and relative abundances and to assess bird conservation priorities. The nearest survey route to the host Property is the Sherman Breeding Bird Survey Route (Route #18009) located approximately 0.5 mile to the northwest. This ±25-mile long bird survey route begins near Lake Mauweehoo in Sherman on Route 37 and generally winds its way north through the northwest corner of New Milford and through Kent before terminating in Sharon. Since bird survey routes represent randomly selected data collection areas, they do not necessarily represent a potential restriction to development projects.

Hawk Watch Site

The Hawk Migration Association of North America ("HMANA") is a membership-based organization committed to the conservation of raptors through the scientific study, enjoyment and appreciation of raptor migration. HMANA collects hawk count data from almost 200 affiliated raptor monitoring sites throughout the United States, Canada and Mexico, identified as "Hawk Watch Sites." In Connecticut, Hawk Watch Sites are typically situated on prominent hills and mountains that tend to concentrate migrating raptors. The nearest Hawk Watch Site, Briggs Hill, is located in Sherman, approximately 1.7 miles north of the proposed Facility.

Further, most hawks migrate during the day (diurnal) to take advantage of two theorized benefits: (1) diurnal migration allows for the use of updrafts or rising columns of air called thermals to gain lift without flapping, thereby reducing energy loss; and (2) day migrants can search for prey and forage as they migrate.

Based on the distance separating the proposed Facility from the Briggs Hill Hawk Watch Site and hawk migration behavior occurring during the daytime under favorable weather conditions when thermals form, no adverse impacts to migrating hawks are anticipated from development of the Facility.

Bald Eagle Survey Route

Bald Eagle Survey Routes consist of locations of midwinter Bald Eagle counts from 1986 to 2005 with an update provided in 2008. Initiated by the National Wildlife Federation, this database includes information on statewide, regional and national trends. Survey routes are included in the database only if they were surveyed consistently in at least four years and where at least four eagles were counted in a single year. The nearest Bald Eagle Survey Route is the Lake Candlewood Survey Route Number 8 that follows the Lake Candlewood Shoreline; it is located approximately 1.1 miles east of the Site.

Bald eagle migration patterns are complex, dependent on age of the individual, climate (particularly during the winter) and availability of food.[4] Adult birds typically migrate alone and generally as needed when food becomes unavailable, although concentrations of migrants can occur at communal feeding and roost sites. Migration typically occurs during the middle of day (10:30–17:00) as thermals provide opportunities to soar up with limited energy expense; Bald Eagle migration altitudes are estimated to average 1,500 to 3,050 meters by ground observers.[5] Four adults tracked by fixed-wing aircraft in Montana averaged 98 km/d during spring migration and migrated at 200 to 600 meters above the ground (McClelland et al. 1996).[6]

The USFWS's *National Bald Eagle Management Guidelines* (May 2007) recommend a 660-foot buffer to bald eagle nests if the activity will be visible from the nest, with an additional management practice recommendation of retaining mature trees and old growth stands, particularly within 0.5 mile from water. No known bald eagle nests occur in the vicinity of the Host Property.

Therefore, no adverse impacts to migrating bald eagles are anticipated with development of the Facility. This conclusion is based on the 170-foot height of the Facility, eagle migration patterns during the daytime under favorable weather conditions when thermals form, and compliance with USFWS bald eagle management guidelines.

Flyways

The Host Property is located in Fairfield County, approximately 30.5 miles north of Long Island Sound. The Connecticut coast lies within the Atlantic Flyway, one of four generally recognized regional primary migratory bird flyways (Mississippi, Central and Pacific being the others). This regional flyway is used by migratory birds travelling to and from summering and wintering grounds. The Atlantic Flyway is particularly important for many species of migratory waterfowl and shorebirds, and Connecticut's coast serves as vital stopover habitat. Migratory land birds also stop along coastal habitats before making their way inland. Smaller inland migratory flyways (secondary flyways) are often concentrated along major riparian areas as birds use these valuable stopover habitats to rest and refuel as they make their way further inland to their

[4] Buehler, David A. 2000. Bald Eagle (*Haliaeetus leucocephalus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/506 [Accessed 09/09/13].

[5] Harmata, A. R. 1984. Bald Eagles of the San Luis valley, Colorado: their winter ecology and spring migration. Ph.D. Thesis. Montana State Univ. Bozeman.

[6] McClelland, B. R., P. T. McClelland, R. E. Yates, E. L. Caton, and M. E. McFadden. 1996. Fledging and migration of juvenile Bald Eagles from Glacier National Park, Montana. J. Raptor Res. 30:79-89.

preferred breeding habitats. The Connecticut Migratory Bird Stopover Habitat Project (Stokowski, 2002)[7] identified potential flyways along the Housatonic, Naugatuck, Thames, and Connecticut Rivers. This study paralleled a similar earlier study conducted by the Silvio O. Conte National Fish & Wildlife Refuge (Neotropical Migrant Bird Stopover Habitat Survey[8]), which consisted of collection of migratory bird data along the Connecticut River and the following major Connecticut River tributaries: Farmington, Hockanum, Scantic, Park, Mattabesset, Salmon, and Eight Mile Rivers. Of these potential flyways, the nearest to the proposed Facility is the Housatonic River, located approximately 4.4 miles to the east. The Still River riparian corridor, located 3.8 miles east of the proposed Facility, is not identified as a potential flyway but potentially forms a secondary flyway as birds move northward from the Housatonic River corridor during the spring migration. These major riparian corridors may provide secondary flyways as they likely offer more food and protection than more exposed upland sites, particularly during the spring migration[9].

Siting of tower structures within flyways can be a concern, particularly for tall towers and even more particularly for tall towers with guy wires and lighting. The majority of studies on bird mortality due to towers focuses on very tall towers (greater than 1000 feet), illuminated with non-flashing lights, and guyed. These types of towers, particularly if sited in major migratory pathways, do result in significant bird mortality (Manville, 2005)[10]. The proposed Facility is not this type of tower, being an unlit, unguyed monopole structure only 170 feet in height. More recent studies of short communication towers (<300 feet) reveal that they rarely kill migratory birds[11]. Studies of the mean flight altitude of migrating birds reveal flight altitudes of 410 meters (1350 feet), with flight altitudes on nights with bad weather between 200 and 300 meters above ground level (656 to 984 feet)[12].

No adverse impacts to migrating bird species are anticipated from development of the Facility, based on its design (unlit and unguyed) and 170-foot height. The design and height of the proposed Facility, combined with distance from the Site, would also mitigate the potential for migratory bird impacts should the Still River be used as a secondary flyway.

---

[7] Stokowski, J.T. 2002. Migratory Bird Stopover Habitat Project Finishes First Year. Connecticut Wildlife, November/December 2002. P.4.

[8] The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey http://www.science.smith.edu/stopoverbirds/index.html

[9] The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey. http://www.science.smith.edu/stopoverbirds/Chapter5_Conclusions&Recommendations.html

[10] Manville, A.M. II. 2005. Bird strikes and electrocutions at power lines, communications towers, and wind turbines: state of the art and state of the science - next steps toward mitigation. Bird Conservation Implementation in the Americas: Proceedings 3rd International Partners in Flight Conference 2002. C.J. Ralph and T.D. Rich, editors. USDA Forest Service General Technical Report PSW-GTR-191. Pacific Southwest Research Station, Albany CA. pp. 1-51-1064.

[11] Kerlinger, P. 2000. Avian Mortality at Communication Towers: A Review of Recent Literature, Research, and Methodology. Prepared for U.S. Fish and Wildlife Service Office of Migratory Bird Management.

[12] Mabee, T.J., B.A. Cooper, J.H. Plissner, D.P. Young. 2006. Nocturnal bird migration over an Appalachian ridge at a proposed wind power project. Wildlife Society Bulletin 34:682-690.

Waterfowl Focus Areas

The Atlantic Coast Joint Venture ("ACJV") is an affiliation of federal, state, regional and local partners working together to address bird conservation planning along the Atlantic Flyway. The ACJV has identified waterfowl focus areas recognizing the most important habitats for waterfowl along the Atlantic Flyway. Connecticut contains several of these waterfowl focus areas. The nearest waterfowl focus area to the Host Property is the Norwalk Islands area, which is located 23 miles to the south. Please refer to the attached Connecticut Waterfowl Focus Areas Map. Based on the distance of this waterfowl focus area to the Host Property, no impact to migratory waterfowl would result from development of the proposed Facility.

DEEP Migratory Waterfowl Data

The DEEP created a Geographic Information System ("GIS") data layer in 1999 identifying concentration areas of migratory waterfowl at specific locations in Connecticut. The intent of this data layer is to assist in the identification of migratory waterfowl resource areas in the event of an oil spill or other condition that might be a threat to waterfowl species. This data layer identifies conditions at a particular point in time and has not been updated since 1999.

The nearest migratory waterfowl area, located along Bantam Lake in Litchfield and Morris, is approximately 17.5 miles to the northeast of the Host Property. The associated species are identified as bufflehead, Canada goose, mallard, green wing teal, wood duck. Based on the distance of this migratory waterfowl area to the Host Property, no impact to migratory waterfowl would result from development of the proposed Facility.

DEEP Natural Diversity Data Base

DEEP's Natural Diversity Data Base ("NDDB") program performs hundreds of environmental reviews each year to determine the impact of proposed development projects on state listed species and to help landowners conserve the state's biodiversity. State agencies are required to ensure that any activity authorized, funded or performed by a state agency does not threaten the continued existence of endangered or threatened species. Maps have been developed to serve as a pre-screening tool to help applicants determine if there is a potential impact to state listed species.

The NDDB maps represent approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by DEEP staff, scientists, conservation groups, and landowners. In some cases, an occurrence represents a location derived from literature, museum records and/or specimens. These data are compiled and maintained in the NDDB. The general locations of species and communities are symbolized as shaded areas on the maps. Exact locations have been masked to protect sensitive species from collection and disturbance and to protect landowners' rights whenever species occur on private property.

DEEP issued an October 6, 2020 preliminary assessment letter (No. 202011003) indicating that one state Endangered Species, little brown bat (Myotis lucifugus), one state Threatened species, northern slimy

salamander (Plethodon glutinosus), and three state Special Concern species, eastern box turtle (Terrapene carolina carolina), eastern hognose snake (Heterodon platirhinos), and red bat (Lasiurus borealis), are known to occur in the vicinity of the Facility. Please refer to the attached letter for further details. DEEP recommended protection strategies for all of the identified species with the exception of slimy salamander. For that particular species, DEEP required that surveys be performed.

Quinn Ecological, LLC, an expert in northern slimy salamander populations and habitat in Connecticut, performed a detailed habitat survey in November 2020. Since this assessment was conducted outside of the primary active season with limited access to adjacent private properties, a very conservative approach to identifying slimy salamander habitat, their associated conservation zones and potential impact from the proposed Facility was employed. Core habitat (Zone 1) for slimy salamander was identified off the Subject Property just to the east and south east. Two conservation zones associated with the core habitat were found to encroach into the eastern portion of the Subject Property: Zone 2 (300-foot buffer from Zone 1 – Core Forest Zone) and Zone 3 (300 foot buffer from Zone 2 – Core Forest Interface Zone). When assessing impacts from a proposed development within core forest habitat that is critical to this species, one must also evaluate a 300-foot buffer from the limits of the proposed development. It is generally recognized that changes to forest environmental conditions (i.e., forest floor temperature, moisture, etc.) can result up to 300 feet away from the limit of disturbance associated with a development activity that requires tree removal. Cool, moist microhabitats within core forests are essential to the survival of slimy salamanders.

At the time of this investigation, the proposed Facility was placed in a location further east of its current location in an attempt to maximize its buffer from nearby wetlands. An evaluation of the original Facility location revealed that it would be located within Zone 3 resulting in the development's 300-foot area of influence encroaching into Zone 2. Impacts to Zone 1 and 2 are incompatible with maintaining suitable habitat for the long-term persistence of northern slimy salamander populations. Homeland was sensitive to the results of these findings and expended their resources to determine if an alternate Facility location on the Subject Property could be achieved while satisfying other interests of the project. To ensure that no adverse impact to slimy salamander would occur, Homeland identified an alternative tower location that placed the Facility outside of Zone 3. Homeland then proceeded to redesign the compound layout and access road to accommodate the acceptable location while also trying to balance maximizing the buffer to nearby wetlands. Quinn Ecological's report concluded that the new Facility location would result only in indirect impacts to Zone 3 habitat which would not have an adverse impact on northern slimy salamander habitat or populations. As a result, no further surveys or conservation actions were recommended.

The results of the northern slimy salamander survey and impact analysis were provided to DEEP, resulting in a response letter dated January 9, 2021. DEEP indicated in their letter that "No further conservation mitigation or actions are required to protect the slimy salamander as long as the telecommunications facility is placed in the alternate location as described by the Quinn report dated January 8, 2021." Please refer to the attached letter for further details. The January 9th letter also provided best management practices that are required to protect the other noted state-listed species: eastern box turtle, eastern hognose snake, little brown bat, and red bat. Protection measures for eastern box turtle and eastern hognose snake include various protection measures to be employed during construction activities while a time of year ("TOY")

restriction for tree clearing (limit tree clearing between November 1st and March 30th) is required to protect the two bat species. The TOY tree clearing restrictions for these two bats will also comply with the associated NLEB voluntary conservation measures. APT understands that Homeland will implement the recommended protection measures and tree clearing TOY restrictions to protect state-listed species and details of those protection measures will be included in the Connecticut Siting Council's Development and Management Plan, provided the Council approves of the Facility.

Therefore, with implementation of these measures, the proposed Facility is not anticipated to adversely impact any federal or state threatened, endangered or species of special concern.

USFWS Communications Towers Compliance

In April 2018, the USFWS issued its *Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning*. These suggested best practices were instituted to assist tower developers in designing their structures in a way that minimizes the risk to migratory birds and threatened and endangered species. The following avoidance and minimization measures, when used comprehensively, are recommended by USFWS to reduce the risk of bird mortality at communication towers. APT offers the following responses to each of the USFWS recommendations, which are abridged from the original document.

1. *Contact with USFWS Field Office. Communicate project plans to nearest USFWS Field Office.*

   APT completed consultation protocols in accordance with Federal Communications Commission ("FCC") rules implementing the National Environmental Policy Act ("NEPA") and Section 7 of the Endangered Species Act through the USFWS Information, Planning, and Conservation System ("IPaC"). Based on the results of the IPaC review, one federally-listed threatened species is known to occur in the vicinity of the host property: northern long-eared bat ("NLEB"; *Myotis septentrionalis*). As a result of this preliminary finding, APT performed an evaluation to determine if development of the proposed Facility would result in a likely adverse effect to NLEB.

   Consultation with the DEEP Wildlife Division NDDB revealed that the Host Property is not within 150 feet of a known occupied maternity roost tree and is not within 0.25 mile of a known NLEB hibernaculum. The nearest NLEB habitat resource to the proposed activity is located in New Milford, approximately 3.89 miles to the southwest. Therefore, this project would not adversely affect NLEB.

2. *Co-location. Co-locate communications equipment on existing communication towers or other structures (e.g., billboard, water and transmission tower, distribution pole, or building mounts). This recommendation is intended to reduce the number of towers across the landscape.*

   Collocation opportunities on existing towers or non-tower structures are not available in the area while achieving the required radio frequency ("RF") coverage objectives.

3. *Placement. All new towers should be sited to minimize environmental impacts to the maximum extent practicable.*

   a. Place new towers within existing "antenna farms" (i.e., clusters of towers) when possible.

There are no existing "antenna farms" in the Site vicinity that would satisfy the RF coverage objectives.

b. Select already degraded areas for tower placement.

The Site is developed with a residential building and contains upland forested areas. Surrounding properties are likewise residentially developed.

c. Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries, and Important Bird Areas), or in known migratory bird movement routes, daily movement flyways, areas of breeding concentration, in habitat of threatened or endangered species, key habitats for Birds of Conservation Concern or near the breeding areas ("leks") of prairie grouse.

The tower is not within wetlands, a known bird concentration area, migratory or daily movement flyway, or habitat of avian threatened/endangered species.

d. Towers should avoid ridgelines, coastal areas, wetlands or other known bird concentration areas.

The tower is not located near ridgelines, coastal areas, wetlands, or other known bird concentration areas.

e. Towers and associated facilities should be designed, sited, and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". In addition, several shorter, un-guyed towers may be preferable to one, tall guyed, lit tower.

The proposed Facility will be sited, designed, and constructed to accommodate proposed equipment and to allow for future collocations within the smallest footprint possible, thus minimizing habitat fragmentation or the creation of barriers or excessive disturbance. The proposed Facility would consist of a 170-foot tall monopole structure which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard".

4. Construction. During construction, the following considerations can reduce the risk of take of birds:

a. Schedule all vegetation removal and maintenance (e.g., general landscaping activities, trimming, grubbing) activities outside of the peak bird breeding season to reduce the risk of bird take.

All tree clearing activities will occur outside of the peak bird breeding season.

b. When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys:

i. Surveys should be conducted no more than five days prior to the scheduled activity to ensure recently constructed nests are identified;

ii. Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance; and

iii. If active nests are identified within or in the vicinity of the project site, avoid the site until nestlings have fledged or the nest fails. If the activity must occur, establish a buffer zone

around the nest and no activities will occur within that zone until nestlings have fledged. The dimension of the buffer zone will depend on the proposed activity, habitat type, and species present. The buffer should be a distance that does not elicit a flight response by the adult birds and can be 0.5 – 1 mile for hawks and eagles.

Not applicable, tree clearing activities will be conducted outside of the peak bird breeding season.

c. Prevent the introduction of invasive plants during construction to minimize vegetation community degradation by:

i. Use only native and local (when possible) seed stock for all temporary and permanent vegetation establishment; and

ii. Use vehicle wash stations prior to entering sensitive habitat areas to prevent accidental introduction of non-native plants.

No landscaping or other vegetation plantings are proposed. No sensitive habitat areas exist at the Site.

5. Tower Design. Tower design should consider the following attributes:

a. Tower Height. It is recommended that new towers should be not more than 199 ft. above ground level (AGL). This height increases the mean free airspace between the top of the tower and average bird flight height, even in weather conditions with reduced cloud ceiling;

b. Guy Wires. We recommend using free standing towers such as lattice towers or monopole structures.

i. The minimum number of guy wires necessary should be used; and

ii. Guy wired towers that are proposed to be located in known raptor or waterbird concentrations areas, daily movement routes, major daytime migratory bird movement routes, staging areas, or stopover sites should have daytime visual markers or bird flight diverters installed on the guy wires to attempt to prevent daytime collisions.

c. Lighting System. Lights are a primary source of bird aggregation around towers, thus minimizing all light is recommended, including:

i. No tower lighting is the preferred option if Federal Aviation Administration (FAA) regulations and lighting standards (FAA 2015, Patterson 2012) permit.

ii. If taller (> 199 ft. 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.

iii. For some towers, the FAA can permit an Aircraft Detection Lighting System (ADLS), which maintains a communication tower of any height to be unlit until the ADLS radars detect nearby aircraft, at which time the tower lighting system is triggered to illuminate until the aircraft is out of radar range.

iv. If taller (> 199 ft. 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 or red flashing lights should be used at night, and these should follow FAA obstruction and marking standards with regards to the minimum number of lights, minimum intensity (< 2,000 candela), and minimum number of flashes per minute (i.e., longest duration between flashes and "dark phase"). Avoid using non-flashing warning lights

at night (FAA 2015, Patterson 2012). Owners of existing towers lit with lighting systems that include non-flashing lights should submit plans to the FAA explaining how and when they will transition to the new standards.

v. Security lighting for on-ground facilities, equipment, and infrastructure should be motion- or heat-sensitive, down-shielded, and of a minimum intensity to reduce nighttime bird attraction and eliminate constant nighttime illumination while still allowing safe nighttime access to the site.

The proposed Facility would consist of a 170-foot tall monopole structure which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard". Security lighting for on-ground facilities would be down-shielded using Dark Sky compliant fixtures set on motion sensor with timer to eliminate constant nighttime illumination.

Summary and Conclusions

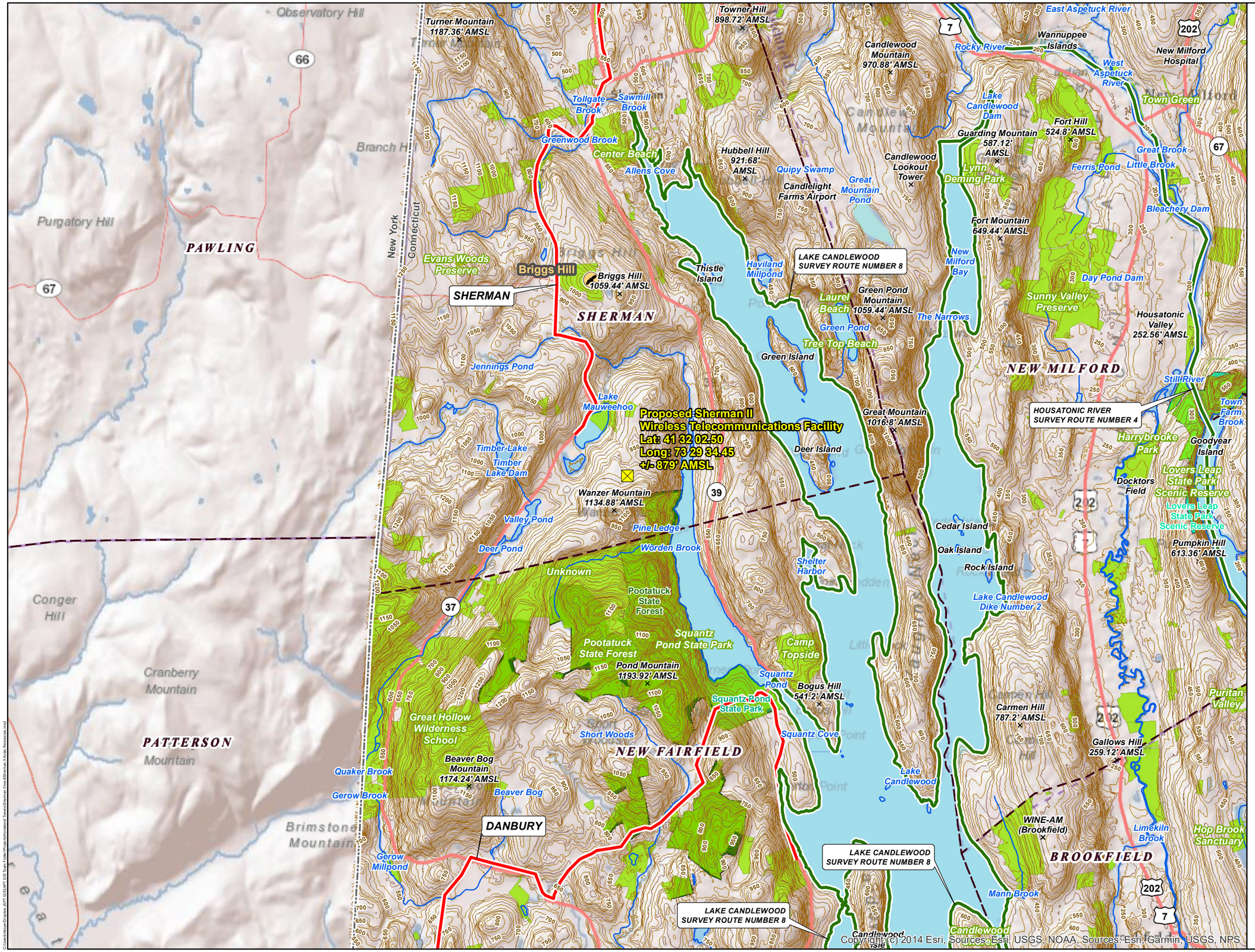
Based on the results of this desktop evaluation, no migratory bird species are anticipated to be impacted by the proposed development. The Site is not proximate to an Important Bird Area and the proposed Facility would comply with the USFWS guidelines for minimizing the potential impacts to bird species.

Figures

- Avian Resources Map
- Connecticut Waterfowl Focus Areas Map

Avian Resources Map

Proposed Wireless
Telecommunications Facility
Sherman II
16 Coote Hill Road
Sherman, Connecticut



Legend

- Proposed Facility
- Bald Eagle Site*
- Hawk Watch Site
- Important Bird Site*
- Important Bird Area*
- Bald Eagle Survey Route
- Breeding Bird Survey Route
- Migratory Waterfowl (CTDEEP, 1999)*
- Protected Open Space (CTDEEP, 2011)
- Federal Open Space (CTDEEP, 2004)*

CT DEP Property (CT DEEP, 12/2010)

- State Forest
- State Park
- DEP Owned Waterbody*
- State Park Scenic Reserve
- Historic Preserve*
- Natural Area Preserve*
- Fish Hatchery*
- Flood Control*
- State Park Trail*
- Water Access
- Wildlife Area*
- Wildlife Sanctuary*
- Other*
- Open Water
- Town Boundary
- State Boundary

*None within mapped extents

Avian Source Information:
Bald Eagle Sites: U.S. Geological Survey, National Biological Information Infrastr, 2008, Midwinter Bald Eagle Counts, 1986-2005 (update 2008).
Hawk Watch Sites: Hawk Migration Association of North America (HMANA), Hawk Count website: http://hawkcount.org/sitesel.php?country=USA&stateprov=Connecticut
Migratory Waterfowl: CTDEEP GIS, 1999
Important Bird Sites/Areas: National Audubon Society, Audubon Connecticut
http://ct.audubon.org/BirdSci_IBAs.html
Breeding Bird Survey Routes: Patuxent Wildlife Research Center of the U.S. Geological Survey and the Canadian Wildlife Service's National Wildlife Research Centre
http://www.nationalatlas.gov/mld/bbsrtsl.html

Base Map Source: ESRI Shaded Relief

Map Date: March 2021

N
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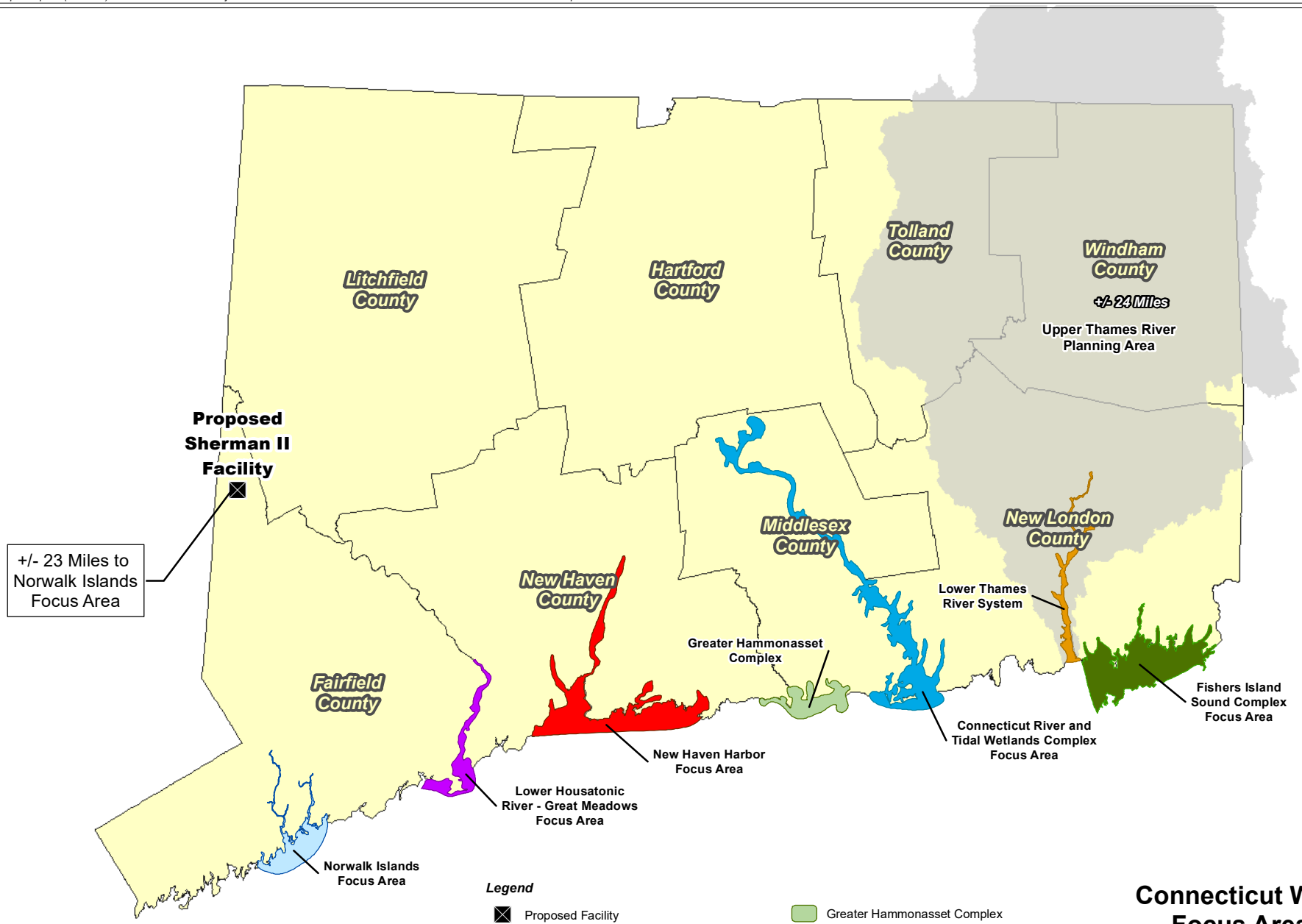
0.5 0.25 0 0.5 Miles

C:\Users\mkope\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Homeland Towers\Sherman II\mxd\Sherman II Waterfowl Focus Areas Map.mxd



Legend

- Proposed Facility

Waterfowl Planning Area

- Upper Thames River

Waterfowl Focus Areas

- Connecticut River and Tidal Wetlands Complex
- Fishers Island Sound Complex
- Greater Hammonasset Complex
- Lower Housatonic River - Great Meadows
- Lower Thames River System
- New Haven Harbor
- Norwalk Islands

N W E S

10 5 0 10 Miles

Connecticut Waterfowl Focus Areas Map

Proposed Wireless Telecommunications Facility
Sherman II
16 Coote Hill Road
Sherman, Connecticut

Waterfowl Data Source: Atlantic Coast Joint Venture Partnership
Map Date: March 2021

ALL-POINTS TECHNOLOGY CORPORATION

ATTACHMENT 11

CUDDY +FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
T 914 761 1300
F 914 761 5372
cuddyfeder.com

Christopher B. Fisher
cfisher@cuddyfeder.com

October 13, 2020

VIA OVERNIGHT MAIL
Don Lowe
First Selectman
Town of Sherman
Mallory Town Hall
9 Route 39 North
PO Box 39
Sherman, CT 06784

Re: Homeland Towers, LLC and New Cingular Wireless PCS LLC ("AT&T")
Proposed Wireless Telecommunications Tower Facility
16 Coote Hill Road, Sherman, Connecticut

Dear First Selectman Lowe:

We are writing to you on behalf of Homeland Towers, LLC ("Homeland Towers") and New Cingular Wireless PCS, LLC ("AT&T") to start a formal consultation process for a proposed wireless telecommunication tower facility to be located at 16 Coote Hill Road in the Town of Sherman (the "Parcel"). Enclosed you will find a detailed Technical Report which includes information on AT&T's need for the new tower, alternatives evaluated, and the environmental effects of the project as identified at this time. We also thought it might be helpful to you and the community if our letter provided some background on the applicants, the public need for this specific project, and prior history associated with the development of a tower site to serve this part of the community.

1. Homeland Towers and AT&T

Homeland Towers is an innovative company that provides wireless infrastructure solutions to meet the wireless communication needs of communities. Homeland Towers works closely with municipalities, commercial wireless carriers and public safety agencies and has installed numerous facilities (communications towers, antennas, and supporting equipment shelters and other infrastructure) throughout Connecticut, New York and New Jersey. AT&T and its predecessors have been providing wireless services in Connecticut since the 1980s and is the exclusive partner of FirstNet providing a nationwide interoperable public safety communications network.

2. The Need for a Tower in this Part of Sherman

All commercial wireless carriers who serve parts of Sherman have gaps in their network services in southern Sherman, including major parts of Routes 37 and 39. Existing facilities to the south in New Fairfield (Girl Scout property along Candlewood Lake) and north in Sherman (Happy Acres and White Silo Farms) simply cannot serve this part of the community given the terrain.

The result is that residents, the traveling public and visitors to the area are without reliable wireless services that are so critical in today's day and age.

This specific project is the result of over ten years of AT&T and Homeland Towers' extensive independent site search investigations to identify a viable location for construction of a new wireless communications facility to fill coverage gaps in the southern portion of the Town. It's also located in an area that the Town itself has noted requires some form of new tower infrastructure to address gaps in public safety emergency communications coverage. Indeed, a previously Town commissioned report recommended the desirability of working with the private sector for construction of a tower facility in the south end of Sherman and predicted the need to work with FirstNet for First Responder communication needs.

3. Communications Services to the Public this Tower will Provide

The proposed tower facility is planned as a multi-use facility to address the wireless communications needs of the public now and in the future from AT&T and other wireless carriers, FirstNet, and local public safety agencies. As shown in the Technical Report materials which includes data from AT&T, this proposed tower facility would provide reliable 4G LTE service along State Route 37 and State Route 39, to as many as 3,500 vehicles, as well as the surrounding secondary roads, residences and some of the properties that are used by the community in southern Sherman. The tower is also being planned to support public safety communications from the very top of the facility to maximize its reach for local agencies that serve Sherman.

4. History of Tower Projects in Southern Sherman

Over the last decade, numerous tower site locations have been privately and publicly vetted in this part of Sherman. AT&T had proposed a tower site along Leach Hollow Road a decade ago. Then in June of 2013, AT&T submitted a Technical Report ("AT&T's 2013 Technical Report") proposing a wireless telecommunications tower facility on this Parcel highlighting over 30 sites it had studied in the community. AT&T completed the municipal consultation process with Sherman and had an intention to file a Siting Council application, but simply deferred the site that next year.

In the intervening time, Homeland Towers began its own independent investigation for a tower in this area of Sherman. Like AT&T before it, Homeland Towers identified the Parcel as a viable candidate and entered into a long-term lease with the owners. Homeland Towers plans to construct, own and operate a wireless telecommunications tower facility on the Parcel and has also coordinated with the Coote Hill Road private road owner to obtain its permission for access and other work associated with the project.

AT&T more recently reactivated its site search ring in the southern area of Sherman to address the significant gap in service in the community and deploy FirstNet spectrum for first responders. The company confirmed that there have been no material changes in this area of Sherman since its last proposal in 2013 (i.e. still a coverage problem for all companies and no new towers have

been built). AT&T then entered into an agreement with Homeland Towers for its use of the proposed tower facility and support for the state application process.

5. The Proposed Tower Facility

The project as proposed would consist of a 170' monopole with 2 municipal whip antennas to support municipal emergency communications extending an additional 20' above the top of the pole. The monopole will be located within a fenced compound in the southeast portion of the 19.87-acre parcel. The tower and fenced compound are designed to support the antennas and equipment of other FCC licensed wireless carriers. The facility will be unmanned with no sanitary or water facilities and will generate an average of one vehicle trip per month by each carrier at the site, consisting of a service technician in a light duty van or truck.

In designing the proposed facility, Homeland Towers did review prior Town comments as part of the AT&T's 2013 Technical Report and consultation with Sherman. The facility, as it is now proposed, is in a slightly different location than what was proposed then and with a re-configured access drive to balance wetland, visual, stormwater and other effects and provide access to the rear of the Parcel where the tower needs to be located. Many other aspects of the facility are similar to the prior proposal including areas of visibility in this part of Sherman.

6. State Siting Council Jurisdiction

Connecticut State policy generally recognizes the need for new towers to serve the public and has designated the Connecticut Siting Council as the state agency with responsibility for reviewing and approving any specific tower proposals. The Siting Council will evaluate this project once an application is filed with the agency. The Siting Council's evaluation is focused on balancing the need for a tower on a case by case basis with any significant adverse environmental impacts. Jurisdiction over any proposed cellular telecommunications facility rests exclusively with the Siting Council and in lieu of any local zoning, wetlands and other types of municipal land use review and approvals.

7. Town Consultation & Procedural Next Steps

Homeland Towers and AT&T are providing the enclosed Technical Report to the Town of Sherman in accordance with Section 16-50*l* of the Connecticut General Statutes. The statute requires consultation with a municipality in which a tower facility is proposed prior to submission of an application with the Siting Council. The purpose of the local consultation is to give the municipality in which the facility has been proposed an opportunity to provide the prospective applicant with any recommendations or preferences it may have prior to the filing of an application with the Siting Council.

Upon review of Section 16-50*l*(g) of the Connecticut General Statutes, you will note that municipalities also have the option of conducting a noticed public information session on any proposed wireless telecommunications tower facility. State law requires any such information session to be held by the Town during the first 60 days of the 90-day period afforded to the municipalities for consultation with a prospective Siting Council applicant. As such, should

Sherman elect to conduct a public information meeting regarding this project, it should occur on or before December 13, 2020. For such public information sessions, our typical practice is for

introductions to be made by a municipal official, have the project team make a presentation (usually a power point) and then respond to public questions moderated by a local official or agency.
In advance, we thank you for your consideration and will follow this correspondence with a call to your office to discuss next steps regarding the municipal consultation process. We look forward to meeting with you further on this project and learning more about Sherman's interests, concerns and any recommendations prior to filing an application with the Siting Council.

Very truly yours,

Christopher B. Fisher

Enclosure

cc: Planning & Zoning Commission
Manuel Vicente, Homeland Towers
Raymond Vergati, Homeland Towers
Harry Carey, AT&T
Lynn Brady, AT&T
Project Consultant Team

TOWN of SHERMAN
Planning & Zoning Office
Mallory Town Hall
P.O. Box 39, Sherman, CT 06784
T: 860-355-1821 F:860-350-5041
planzone@townofshermanct.org

12/3/2020

Don Lowe, First Selectman
Mallory Town Hall
9 Route 39 North
P.O. Box 39
Sherman, CT 06784

Subject: 16 Coote Hill Road Sherman, CT

Mr. Don Lowe,

On Saturday, November 21st the Town of Sherman held a public forum via Zoom to discuss the application for a cellular tower on 16 Coote Hill Road in Sherman, Connecticut. At this forum over 65 people attended with several voicing opinions both for and against the proposal. The overwhelming sentiment was the need for reliable emergency services in this part of Sherman which would be provided by this tower. Other concerns were the health impacts, road maintenance and repair, visual impacts, sediment and erosion control and storm water management. At this forum we asked if the balloon be flown at the site prior the ninety day window closing. We have since asked for this to be done as soon as possible so any potential visual impact can be noted.

At this meeting we also inquired if a full sediment and erosion control plan had been developed. We have since asked for a copy. Our commission has concerns regarding impact, in particular erosion and water control to the surrounding properties and Lake Mauweehoo, during and after construction. We need assurance that a plan is in place to mitigate all such impact and to know the details of the provisions for water management that will be in place. This site and the surrounding parcels have a history of problems with runoff and erosion. The access to the site is concerning. The health, safety and welfare of Coote Hill residents is a foremost concern. This is a narrow, winding and in places one lane road with no shoulder and only one point of ingress and egress. Is there a contingency plan if any aspect of construction renders the road impassable?

At this time it is impossible for our commission to make a fair and impartial recommendation without this information. We understand some information will not be provided until the application reaches the Connecticut Siting Council. We respectfully request to reserve the right to review this information when made available to our commission and that we be afforded an opportunity for ourselves and or consultants to comment at that time.

Sincerely, Ryan Peburn Chairman, Sherman Planning and Zoning Commission

Ryan Peburn

Ryan Peburn, Chair P&Z Commission cc CB

CC:
Kevin Keenan, Selectman
Bob Ostrosky, Selectman

Chiocchio, Lucia

From: Chiocchio, Lucia
Sent: Wednesday, February 24, 2021 4:28 PM
To: Chiocchio, Lucia
Subject: FW: Cell tower

_____

From: Judith Weinstock <orchidgyn@gmail.com>
Sent: Tuesday, February 9, 2021 9:53 AM
To: Don Lowe
Subject: Cell tower

Dear Selectman Lowe:
I am a senior who lives in Sherman as does my mother. I am very concerned about our lack of cell service and this is not the first letter I have written to support a tower being erected here. Of course you are aware that over 50% of Sherman is comprised of seniors and we are endangered by a lack of services. Here are two stories to illustrate my point.
A few years ago, my mother's friend, Suzy, was driving home from a friend's house at 10 p.m. and skidded on the ice on Leach Hollow Rd. into an embankment. Her phone got no pick-up so she waited there in her car in sub-freezing weather. Luckily, an hour later a woman drove by and stopped to help. It turned out this woman's son was an EMT or volunteer fireman and this woman went home and got her son to come help.
More recently, my husband and I were driving on Rte 37 near Chapel Hill Road and there was a car stopped on the side of the road in a dangerous spot. My husband and I stopped to find a very sick man in the car draped over his steering wheel who said he had extreme dizziness and had to stop driving. He had tried to call for help but, of course, his cell phone did not work. Luckily, my husband did get service on his phone and we got EMS there and he went by ambulance to a hospital. The man said that he had been there for some time and some other passerby was supposed to call the State Police.
When I told my mother this story she said she knows of two people- also seniors- who moved from Sherman because they were afraid to live here due to lack of cell service.
Should we take down all phone and electric lines as they are unsightly or just realize we are going to have to abide a few breaches to our natural beauty to keep our neighbors safe?
Thanks for your time.

Sent from my iPhone

Chiocchio, Lucia

From: Chiocchio, Lucia
Sent: Wednesday, February 24, 2021 4:28 PM
To: Chiocchio, Lucia
Subject: FW: My letter on the cell tower

From: Charley Gerard [mailto:cgerard@pipeline.com]
Sent: Friday, February 5, 2021 11:13 AM
To: Don Lowe <dlowe@townofshermanct.org>
Subject: My letter on the cell tower

I understand that at the last BOS meeting 2 letters were read opposing the much-needed cell tower. My letter (see below) was published in the latest Town Tribune:

Sherman Cell Tower
The danger from cell towers is practically nil. Cell towers as well as cell phones, send radiofrequency (RF) waves. From the American Cancer Society website we learn that "Like FM radio waves, microwaves, visible light, and heat, they are forms of **non-ionizing radiation**. This means they do not directly damage the DNA inside cells, which is how stronger (**ionizing**) types of radiation such as x-rays, gamma rays, and ultraviolet (UV) rays are thought to be able to cause cancer." Worried about being close to a cell tower? The American Cancer Society advises: "At ground level near typical cellular base stations, the amount of energy from RF waves is hundreds to thousands of times less than the limits for safe exposure set by the US Federal Communication Commission (FCC) and other regulatory authorities. It is very unlikely that a person could be exposed to RF levels in excess of these limits just by being near a cell phone tower."

The danger of poor cellphone reception to drivers suffering from accidents or traumatic injuries is real. The danger from cell towers seems to be imaginary. Let's make town decisions based on facts and confirmed science.

Charley Gerard
Sherman

Chiocchio, Lucia

From: Chiocchio, Lucia
Sent: Wednesday, February 24, 2021 4:24 PM
To: Chiocchio, Lucia
Subject: FW: sherman cell tower

From: Charley Gerard <cgerard@pipeline.com>
Sent: Thursday, December 10, 2020 4:53 PM
To: CSC-DL Siting Council <Siting.Council@ct.gov>
Subject: Re: sherman cell tower

I enthusiastically support the proposal to build a cell tower. We have ling worried about the dangers of living in a community in which poor cellphone service makes it difficult to contact 911. THIS is the real danger; not electromagnetic fields. The American Cancer Society says that there are no dangers.

Charley Gerard
161 Route 37 S Sherman
cgerard@pipeline.com
Composer:
www.brokenreedsax.com
2019 recipient of New Jazz Works from Chamber Music America
Spotify-listed under "Broken Reed Saxophone Quartet"
Author:
Salsa: The Rhythm of Latin Music
Jazz in Black and White: Race, Culture and Identity in the Jazz Community
Cuban Musicians in the United States: Mongo Santamaria and more

Recent music is here:

https://soundcloud.com/charleysax/sets/self-quarantine-mu8sic

check out Obamalogue: https://m.youtube.com/playlist?list=PLkznJ-8Ht9iOUkn1DvW7JBkG7mNyBOupb

"I've started seeing life as an invisible game of chess played with a blind aunt." Caroline Hagood. "If you're an artist, you have to thrive on what you do and believe in what you do and be obsessed with it." Roger Ballin. "Maybe the most significant piece of misinformation, supported by schools, religion, parents, pretty much everyone - is that humans are rational and capable of accepting new or contrary information." Philip Gerard

January 23, 2021

Don Lowe
First Selectman
Mallory Town Hall
9 Rte. 39 North
Sherman, CT 06784

Dear Mr. Lowe,

We have recently learned that Homeland Towers is looking to place a 170-foot tower in a residential area near us. We would like to voice our strong opposition to this project.

We moved to Sherman because of the rural environment. We love that there is not a lot of commercial development, and that there is an abundance of forests and open space. We feel this tower will negatively affect the natural beauty of this area. A cell tower in full view will not only affect the value of our property, it affects wildlife and quality of life for all those around us. This tower, if allowed to be constructed, will create significant, lasting and irreversible damage to our neighborhood.

Additionally, we read in the Town Tribune that there was one Zoom Advisory meeting on Saturday 11-21-20. Shouldn't something this important require the town to notify all residents in the area? And are meeting minutes available? Now that we have been informed of the balloon test, we would like to ask if time could be extended to ensure that all of us are able to observe it. We would also ask if Homeland Towers can provide pictures of the tower including the antennas which will be installed/clustered on the monopole, for use by multiple cell service providers.

We do understand that people want better cell service, but with all the acreage in this area, we find it hard to believe that there is not a better area, with less impact on property and wildlife than a residential neighborhood, next to homes, lake recreation, and community.

We support stopping this tower from being placed on Coote Hill Rd, Sherman, CT and ask that Homeland Towers find an alternate location that will not be a detriment to our neighborhood.

Sincerely, Jim Dowling Margaret Dowling

Jim and Margaret Dowling
5 Coburn Rd E
Sherman, CT 06784

Cc:
Connecticut Siting Council
Attn: Melanie Bachman
10 Franklin Square
New Fairfield, CT 06051

Cuddy & Feder, LLP
Christopher B. Fisher, Attorney
445 Hamilton Ave. 14th Fl
White Plains, NY 10601

January 21, 2021

Don Lowe
First Selectmen
Mallory Town Hall
9 Rt 39 North
P.O. Box 39
Sherman, Connecticut 06784

Dear Don:

We would like to express our opposition to the new proposed cell tower site on Coote Hill Road in Sherman, Connecticut. We strongly feel it should not be located in the center of such a residential area, and especially within 1250 feet of a resident's property.

The most concerning issue to us is the health implications down the road from our area's close proximity to a cell tower, especially if 5G is installed in the near future. What would the recourse be for residents affected?

We understand other properties are being considered, specifically Wagon Wheel Road, a much safer and unpopulated area, and hope you will urge this site to be considered for a much-needed cell tower instead of a neighborhood such as Coote Hill Road.

Sincerely,

John and Nancy Cauli
10 Coburn Road East
Sherman, CT 06784

cc: Cuddy & Feder, LLP
Christopher B. Fisher, Attorney
445 Hamilton Avenue, 14th Floor
White Plains, NY. 10601

January 4, 2021

Stephen & Loretta Quaranto
14 Coote Hill
Sherman, CT 06784

Cuddy & Feder, LLP
Christopher B. Fisher, Attorney At Law
445 Hamilton Avenue, 14 Floor
White Plains, NY 10601

Subject: Sherman 16 Coote Hill Cell Tower

Attention: Mr. Fisher

We have been residents of 14 Coote Hill, Sherman, CT for 34 years. My husband built our house. Like many people, our home is our primary source of equity.

We just retired eight years ago to enjoy the peaceful life on Coote Hill in Sherman when we found out through whispers, the second time around, conveniently happening during Covid, that a 190 foot cell tower is proposed to be built approximately 1250 feet from our home. I ask you, to my knowledge a cell tower cannot be built any closer than 1500 feet to a school, so why is it okay to be built 1250 feet from our home?

We are given the right away by Pepper Jones, the owner of the road. It is zoned as residential not commercial. The intention of such zoning seeks protection for homeowners from commercial development efforts and illegal zoning intrusions to their privacy. The road is very windy, narrow, single lane dirt road one way in, no two car passage private road to arrive at our property. The road is narrow, steep and heavily tree lined. The need to provide ATT access for tower site preparation, tower construction and all future tower maintenance is challenged in view of existing rural road limitations. The project will disturb the essential character of the private neighborhood. Any plans to reconfigure the road path, cut down existing large trees or invade homeowners property rights will have to be contested by private home road associates. The Town of Sherman "Inlands and

Wetlands Commission is very protective of endangered waterways and wildlife habitats.

Over the years, we have maintained this road consisting of thousands and thousands of dollars. We know this road very well with all the drainage problems coming off the hill. A serious water problem exists behind our house. When Mr. Berger moved in, we had to put additional drainage pipes across the back of our property in addition to belgian block run off. Mind you, the driveway, not a road to the site of the cell tower is located to the left of our house going up to where a dirt driveway will be constructed involving wetlands to reach the monstrous of 190 foot tower overlooking scenic Lake Mauweehoo where children play and swim during summer and ice skate during the winter.

It is shocking how a cell tower this size can be constructed on residential property with no input about this project from Don Lowe, First Selectman, owner of the road Pepper Jones, Mr. Berger, Ray Vergati of Homeland Towers. Months have gone by with no notification by Pepper Jones and Homeland Towers to have a meeting with the residents.

Residents of the road requested to Pepper Jones not to sign any contract without a lawyer being present. He tends to ignore the responsibility he has to the road and the people who live on it. We finally became informed by our town that a Cell Tower Proposal meeting will be held on zoom on November 21, 2020. We were all shocked by the manner in which this was being handled. Definitely, not professional, very quietly by Mr. Vergati, Mr. Berger, Mr. Jones and Don Lowe.

Who is really looking out for us? Not the owner of the road, not the cell tower people and not the town whom we pay our taxes to. We have been stripped of our rights in every way. I am not a lawyer, but we do not want any legal issues coming out of this.

An alternative site has to be found that is condusive to all. Several locations were brought up over the years but there is always one excuse or another why it can't be done. Of course, the bottom line is money. What happened to the Patterson tower, what happened to the New Fairfield tower, why not the wagon wheel road site which may cost ATT more money? Lots of barren land in the town of Sherman now known as the Northwest CT Land Conservancy consisting of 12,000 acres. We are not against improving the

cell service of the people and town emergency services, we are against where this monstrous cell tower is being placed. It does not belong in a country neighborhood community.

I respectfully request that you look into investigating another site that is condusive to all involved. Thank you.

Sincerely,

Steve + Loretta Quaranto

Steve and Loretta Quaranto
cc: Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051
Attention: Melanie Bachman

Chiocchio, Lucia

From: Fisher, Christopher
Sent: Thursday, February 18, 2021 6:58 AM
To: Motel, Kristen; Chiocchio, Lucia
Cc: Raymond Vergati; Harry Carey
Subject: Fwd: Proposed Cell Tower at 16 Coote Hill Road, Sherman, CT

Sent from my iPhone

Begin forwarded message:

From: Gail Wildman <gwildman@optonline.net>
Date: February 17, 2021 at 11:19:40 PM EST
To: "Fisher, Christopher" <cfisher@cuddyfeder.com>, planzone@townofshermanct.org
Cc: stan.greenbaum@gmail.com, sspengler123@gmail.com, ronney007@aol.com, lsquatro@aol.com, prescott.jen@gmail.com, rjaretsky@verizon.net, skuring64@yahoo.com, nanc24@charter.net, Sandy.r.ng@gmail.com, R.pohl@charter.net, pkuring64@yahoo.com
Subject: Proposed Cell Tower at 16 Coote Hill Road, Sherman, CT

To: Don Lowe, First Selectman
planzone@townofshermanct.org

Cuddy & Feder, LLP
Christopher B. Fisher, Attorney
445 Hamilton Avenue, 14 Floor
White Plains, NY. 10601
914-761-1300
cfisher@cuddyfeder.com

Copy: stan.greenbaum@gmail.com
sspengler123@gmail.com
ronney007@aol.com
lsquatro@aol.com
Prescott.jen@gmail.com
rjaretsky@verizon.net
skuring64@yahoo.com
nanc24@charter.net
Sandy.r.ng@gmail.com
r.pohl@charter.net
pkuring64@yahoo.com

Subject: Proposed Cell Tower at 16 Coote Hill Road, Sherman, CT

We own property on 15 Coote Hill Road that will be adversely affected by the construction of a cell tower so close to our property. We have plans to construct a home on this property, but in light of this news, we are reluctant to proceed.

Building a cell tower in the proposed location will result in the following adverse consequences to our property.

These consequences include, but are not limited to the following:

Loss of Property Value

The Bond and Hue - Proximate Impact Study

The Bond and Hue study conducted in 2004 involved the analysis of 9,514 residential home sales in 10 suburbs. The study reflected that close proximity to a Cell Tower reduced price by 15% on average.

The Bond and Wang - Transaction Based Market Study

The Bond and Wang study involved the analysis of 4,283 residential home sales in 4 suburbs between 1984 and 2002. The study reflected that close proximity to a Cell Tower reduced the price between 20.7% and 21%.

The Bond and Beamish - Opinion Survey Study

The Bond and Beamish study involved surveying whether people who lived within 100' of a tower would have to reduce the sales price of their home. 38% said they would reduce the price by more than 20%, 38% said they would reduce the price by only 1%-9%, and 24% said they would reduce their sale price by 10%-19%.

Environmental damage and concerns

Wildlife Impact

Removal of trees to clear land for the cell tower will adversely affect the local environment and wildlife. The removal of trees and other types of vegetation reduces available food, shelter, and breeding habitat. Wildlife habitats become fragmented and native species are displaced to live on remaining habitat islands surrounded by developed land that is being used for agriculture and other uses.

Land becomes waterlogged.

Our property is downstream from the proposed cell tower area where a significant number of trees are to be cut down. This will increase run-off and subject our property to erosion and extensive water damage.

Consider alternative, more suitable locations.

- Coote Hill is a residential neighborhood with low traffic and a narrow unpaved private road.
- Coote Hill is not a suitable location for a commercial structure.
- Consider locating the tower in a zone with commercial, industrial, or farmland property.
- Locate the cell tower in town, near the firehouse.

Regards,
Andi Ilic and Gail Wildman
gailfwildman@gmail.com

30 November 2020

Peter Kuring
5 Coote Hill Road
Sherman CT 06784

Subject: Cell Tower Town Forum for Saturday, Nov. 21 @10 am

Mr. Ray Vergati
Homeland Towers
9 Harmony Street
Danbury, CT 06810

Mr. Veragati,

During my comments at the Cell Tower Forum, my contact with Zoom became intermittent and I lost my internet signal. I was not able to reconnect reliably to complete my comments. I request that the following comments be added to the records compiled and recorded before and during the session.

I work in a family business, technical in nature, and I therefore appreciate the value and necessity of reliable wireless communication. As a resident in Sherman, I also support our Emergency Services and their ability to communicate effectively in the event of an emergency in Southern Sherman.

Much attention by Homeland Towers in the application, by Don Lowe, and the newspaper articles to date has been centered on the tower facility itself and the benefits of wireless communication and emergency services to Southern Sherman. However, other than the Cuddy and Feder cover letter which states that Homeland Towers, "coordinated with Coote Hill Private Owner to obtain permission for access and other work associated with the project." there been no comment on the access to the site.

When Homeland Towers "coordinated" with Coote Hill Private owner (Pepper Jones) they did not consult with the homeowners/property owners who are responsible to share the costs of maintaining the road due to the accidental damage or wear and tear caused by construction and service vehicles throughout the life of the tower lease.

Coote Hill Road is a narrow, single lane, private right of way which was created to support a limited residential purpose and was clearly cannot support the commercial enterprise proposed by Homeland Towers. Furthermore, Coote Hill Road is the homeowners' only access to Route 37.

The first stretch, beginning at Route 37, was paved long ago and requires annual maintenance just due to existing passenger traffic of homeowners and their guests, as well as the limited commercial vehicles supporting the seven residences. Along these first few hundred yards is a drop off on the left side, into Lake Mauweehoo. Bordering the right side is a series of grass drainage ditches critical to the survival of the road and also multiple mature maple trees. There is NO OPPORTUNITY to pass an oncoming commercial truck of any kind except in one spot where one of the vehicles must enter private property to do so. This first stretch ends at a single lane bridge on which NO OPPORTUNITY exists to pass.

The second stretch, immediately after the bridge, begins with the first of three uphill 90 Degree turns on Coote Hill, but now the road becomes an unimproved dirt surface. This stretch contains a steep slope on both the right and the left of the road. There is NO OPPORTUNITY to pass an oncoming commercial truck of any kind.

The third stretch begins with a second 90 Degree and ends with a tight 3rd 90 Degree uphill turn. This stretch is also unimproved and contains a deep drainage ditch (swale) on the left and several mature trees on the right. This stretch is particularly susceptible to drainage issues as it is a straight downslope from the mountain above and any vehicle traffic which veers off the main dirt road will lead to ruts and erosion issues. There is NO OPPORTUNITY to pass an oncoming commercial truck of any kind.

The last stretch consists of approximately a hundred yards and serves as access to 5 of the 7 houses on Coote Hill Road. It is the narrowest portion with a long drainage ditch on the right and a steep drop off on the left. There are also two large drainage pipes which direct water under the road, from the hillside where the tower site is proposed, through residential properties below, before draining into Lake Mauweehoo. Any damage to these pipes will cause serious erosion to the respective residential properties. There is NO OPPORTUNITY for two oncoming passenger vehicles to pass one another and NO OPPORTUNITY to pass an oncoming commercial truck of any kind.

Coote Hill Road is a mostly unimproved, windy, single lane, right-of-way which must be constantly maintained to support its current limited residential purpose. All maintenance and wear and tear of this right of way is paid and supported by 9 landowners/homeowners. It cannot support a commercial enterprise requiring construction vehicles and equipment necessary to construct, transport and maintain a cell tower for the life of its lease.

Homeland Towers has not adequately addressed these concerns.

Peter Kuring

Cc: Planning & Zoning Commission, Sherman CT.

ATTACHMENT 12

NOTICE

NOTICE IS HERBY GIVEN, pursuant to Section 16-50g et seq. of the Connecticut General Statutes, as amended, and Section 16-50j-1 et seq. of the Regulations of Connecticut State Agencies, as amended, of the intent of Homeland Towers, LLC ("Homeland Towers") and New Cingular Wireless PCS, LLC ("AT&T") (together the "Applicants") to file an Application for a Certificate of Environmental Compatibility and Public Need with the Connecticut Siting Council ("Siting Council") on or after March 12, 2021 to construct a wireless telecommunications tower facility ("Facility") at 16 Coote Hill Road in the Town of Sherman.

The Facility is proposed on a 19.87-acre parcel of land owned by Michael J. and Suzanne J. Berger identified as Map 51, Lot 28 on the Town of Sherman Tax Map and includes an approximately 5,625 square-foot lease area in the southwestern section of the parcel.

The Facility consists of a new self-supporting monopole that is 170' in height located within a 2,400 square-foot fenced equipment compound within the 5,625 square- foot lease area. AT&T's antennas would be installed at a centerline height of approximately 166' above grade level. AT&T will also install unmanned equipment and an emergency back-up generator within the equipment compound. The monopole tower and fenced equipment compound are designed to support the antennas and equipment of other FCC licensed wireless carriers as well as the municipal emergency communications equipment. The location and other features of the proposed Facility are subject to change under provisions of Connecticut General Statutes §16-50g et seq.

The Application explains the need, purpose and benefits of the Facility and also describes the environmental impacts of the proposed Facility.

A balloon, representative of the proposed height of the facility, will be flown at the proposed location on the first day of the Siting Council public hearing on the Application, or on such other day specified by the Siting Council at a time to be determined by the Siting Council, but anticipated to be between the hours of 12pm and 5pm. The Siting Council public hearing on the Application will be held in the Town of Sherman.

Interested parties and residents of Sherman, Connecticut are invited to review the Application during normal business hours after March 12, 2021 when the Application is anticipated to be filed, at the following offices:

Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Carol L. Havens, Town Clerk
Sherman Town Clerk
Mallory Town Hall
9 Rt 39 North
P.O. Box 39
Sherman, CT 06784

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

Lucia Chiocchio, Esq.
Kristen Motel, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, NY 10601
(914) 761-1300

CUDDY +FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
T 914 761 1300
F 914 761 5372
cuddyfeder.com

Lucia Chiocchio
lchiocchio@cuddyfeder.com

March 3, 2021

VIA CERTIFIED MAIL/
RETURN RECEIPT REQUESTED

Re: Homeland Towers, LLC ("Homeland Towers") and New Cingular Wireless PCS, LLC ("AT&T")
Wireless Telecommunications Tower Facility
16 Coote Hill Road, Sherman, Connecticut

Dear Mr. and Ms. Berger:

We are writing on behalf of our clients Homeland Towers, LLC ("Homeland Towers") and New Cingular Wireless PCS, LLC ("AT&T") with respect to the above referenced matter and our clients' intent to file an application with the State of Connecticut Siting Council ("CSC") for approval of a proposed wireless communications tower (the "Facility") within the Town of Sherman.

State Law requires that record owners of property abutting a parcel on which a facility is proposed be sent notice of an applicant's intent to file an application with the CSC. The Facility is proposed to be constructed at 16 Coote Hill Road, identified as Map 51, Lot 28 on the Town of Sherman Tax Map. We are writing to you to provide notice as you are an abutting neighbor to 16 Coote Hill Road. The Facility is proposed within a 5,625 square-foot lease area in the southwestern portion of the parcel. The Facility consists of a new self-supporting monopole 170' in height within a 2,400 square foot fenced equipment compound. AT&T will install antennas at a centerline height of approximately 166' above grade level as well as unmanned equipment and an emergency back-up generator within the fenced equipment compound. Access to the Facility would be provided from Coote Hill Road over the existing paved driveway a distance of approximately 415', then along a new 12' wide gravel access drive approximately 1,635' to the tower compound. Please see the notice included with this letter.

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

If you have any questions concerning this application, please contact the CSC or the undersigned after March 12, 2021, the date which the application is expected to be on file.

Very truly yours,

Lucia Chiocchio

Enclosure
cc: Kristen Motel, Esq.

NOTICE

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The Application explains the need, purpose and benefits of the Facility and also describes the environmental impacts of the proposed Facility.

A balloon, representative of the proposed height of the facility, will be flown at the proposed location on the first day of the Siting Council public hearing on the Application, or on such other day specified by the Siting Council at a time to be determined by the Siting Council, but anticipated to be between the hours of 12pm and 5pm. The Siting Council public hearing on the Application will be held in the Town of Sherman.

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New Britain, CT 06051

Carol L. Havens, Town Clerk
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Mallory Town Hall
9 Rt 39 North
P.O. Box 39
Sherman, CT 06784

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

Lucia Chiocchio, Esq.
Kristen Motel, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, NY 10601
(914) 761-1300

Parcel	Owner	Owner2	Address	City	State	Zip
51-28	Michael J. Berger	Suzanne J. Berger	16 Coote Hill Road	Sherman	CT	06784
51-21	Tricia Dwyer Krueger		18 Coote Hill Road	Sherman	CT	06784
51-23	Steve M. Quaranto	Loretta Quaranto	14 Coote Hill Road	Sherman	CT	06784
51-24	Nancy Gage Tr Mandeville		12 Coote Hill Road	Sherman	CT	06784
51-25	Nancy Gage Tr Mandeville		8 Coote Hill Road	Sherman	CT	06784
46-18	Ivan Kavrukov		0 Mauweehoo Hill	Sherman	CT	06784
47-52	Ivan Kavrukov		0 Mauweehoo Hill	Sherman	CT	06784
51-16	Ivan Kavrukov		37 Mauweehoo Hill	Sherman	CT	06784
47-54	Ivan Kavrukov		39 Mauweehoo Hill	Sherman	CT	06784

CERTIFICATION OF SERVICE

I hereby certify that on the 3rd day of March 2021, a copy of foregoing notice of the intent to file an Application with the Connecticut Siting Council, was sent by certified mail, return receipt requested to each of the parties listed below:

Dated: 03/03/2021

Lucia Chiocchio

Cuddy & Feder LLP
45 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for:
Homeland Towers, LLC and
New Cingular Wireless PCS, LLC (AT&T)

MICHAEL J. BERGER SUZANNE J. BERGER 16 COOTE HILL ROAD SHERMAN, CT 06784	TRICIA DWYER KRUEGER 18 COOTE HILL ROAD SHERMAN, CT 06784
STEVE M. QUARANTO LORETTA QUARANTO 14 COOTE HILL ROAD SHERMAN, CT 06784	NANCY GAGE MANDEVILLE TRUSTEE 12 COOTE HILL ROAD SHERMAN, CT 06784
NANCY GAGE MANDEVILLE TRUSTEE 8 COOTE HILL ROAD SHERMAN, CT 06784	IVAN KAVRUKOV 0 MAUWEEHOO HILL SHERMAN, CT 06784
IVAN KAVRUKOV 0 MAUWEEHOO HILL SHERMAN, CT 06784	IVAN KAVRUKOV 37 MAUWEEHOO HILL SHERMAN, CT 06784
IVAN KAVRUKOV 39 MAUWEEHOO HILL SHERMAN, CT 06784	

ATTACHMENT 13

CERTIFICATION OF SERVICE

I hereby certify that on the 11th day of March 2021, a copy of the foregoing Application to the State of Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need, was sent by first class certified mail to the list below.

Dated: 3/11/21

Lucia Chiocchio

Cuddy & Feder LLP
45 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for:
Homeland Towers, LLC and
New Cingular Wireless PCS, LLC ("AT&T)

State

THE HONORABLE WILLIAM TONG ATTORNEY GENERAL OFFICE OF THE ATTORNEY GENERAL 165 CAPITOL AVENUE HARTFORD, CT 06106	DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT OFFICES OF CULTURE AND TOURISM DAVID LEHMAN, COMMISSIONER 450 COLUMBUS BLVD HARTFORD, CT 06103
DEPARTMENT OF PUBLIC HEALTH Dr. DEIDRE S. GIFFORD, MD, MPH, ACTING COMMISSIONER 410 CAPITOL AVENUE HARTFORD, CT 06134	DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION PUBLIC UTILITIES REGULATORY AUTHORITY MARISSA P. GILLETT, CHAIRMAN TEN FRANKLIN SQUARE NEW BRITAIN, CT 06051
COUNCIL ON ENVIRONMENTAL QUALITY PETER B. HEARN, EXECUTIVE DIRECTOR 79 ELM STREET HARTFORD, CT 06106	DEPARTMENT OF TRANSPORTATION JOSEPH GIULIETTI, COMMISSIONER 2800 BERLIN TURNPIKE P.O. BOX 317546 NEWINGTON, CT 06131
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION KATIE DYKES, COMMISSIONER 79 ELM STREET HARTFORD, CT 06106	DEPARTMENT OF AGRICULTURE BRYAN P. HURLBURT, COMMISSIONER 450 COLUMBUS BOULEVARD SUITE 701 HARTFORD, CT 06103
OFFICE OF POLICY AND MANAGEMENT MELISSA MCCAW, SECRETARY 450 CAPITOL AVENUE HARTFORD, CT 06106	DEPARTMENT OF EMERGENCY SERVICES & PUBLIC PROTECTION DIVISION OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY JAMES C. ROVELLA, COMMISSIONER 1111 COUNTRY CLUB ROAD

	MIDDLETOWN, CT 06457
STATE HISTORIC PRESERVATION OFFICE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT 450 COLUMBUS BLVD., 5TH FLOOR, HARTFORD, CT 06103	SECRETARY OF STATE DENISE MERRILL 165 CAPITOL AVENUE HARTFORD, CT 06106
STATE HOUSE REPRESENTATIVE-108th DISTRICT PATRICK E. CALLAHAN LEGISLATIVE OFFICE BUILDING ROOM 4200 300 CAPITOL AVENUE HARTFORD, CT 06106	STATE SENATOR JULIE KUSHNER, DISTRICT S24 LEGISLATIVE OFFICE BUILDING 300 CAPITOL AVENUE ROOM 3800 HARTFORD, CT 06101
WESTERN CONNECTICUT COUNCIL OF GOVERNMENTS 1 RIVERSIDE ROAD SANDY HOOK, CT 06482	HOUSATONIC RESOURCES RECOVERY AUTHORITY (HRRA) OLD TOWN HALL 162 WHISCONIER ROAD BROOKFIELD, CT 06804

Federal

FEDERAL COMMUNICATIONS COMMISSION 45 L STREET NE WASHINGTON, DC 20554	FEDERAL AVIATION ADMINISTRATION 800 INDEPENDENCE AVENUE, SW WASHINGTON, DC 20591
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ATTACHMENT 14

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Connecticut Siting Council Application Guide

Application Guideline	Location in Application
(A) An Executive Summary containing the addresses and proposed locations of the proposed facility and any alternatives, including height of tower and associated antennas, access roads and utility services; special design features; type/size/number of transmitters and receivers with signal frequency; map showing fixed facilities with which facility would interact; coverage signal strength; forecast of when maximum capability would be reached.	Section I.B; Attachment 1
(B) Statement of the need for the proposed facility with as much specific information as is practicable.	Section III.A; Attachment 1
(C) Statement of the benefits expected from the proposed facility.	Section III.B; Attachment 1
(D) Maps and drawings for the proposed facility and any alternatives.	Attachment 4
(E) A description of the proposed site and any alternative sites, including zoning classification, planned land uses and surrounding areas.	Sections V & VII; Attachments 3, 4 & 5
(F) A description of the scenic, natural, historic, and recreational characteristics of the proposed site and any alternative sites and surrounding areas including but not limited to officially designated nearby hiking trails, nature preserves, and scenic roads.	Sections VI.A., VI.B, & VI.E; Attachment 5; Attachment 8
(G) Visibility Analyses of the proposed site area and any alternative site areas.	Section VI.A; Attachment 8
(H) An affidavit for each balloon float conducted at the proposed site and any alternative sites including the date, time, and demonstrated height.	Attachment 8
(I) 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.	Attachment 2

Application Guideline	Location in Application
(J) A description of efforts to share existing towers, including but not limited to installations on electric transmission poles, or to 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.	Section IV; Attachment 2
(K) A description of technological alternatives and a statement containing justification for the proposed facility.	Section III.C
(L) A description of rejected sites with a U.S.G.S. topographic quadrangle maps marked to show the location of rejected sites.	Section IV.A; Attachment 2
(M) A detailed description and justification for the sites 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.	Section IV.A; Attachment 2
(N) A statement describing hazards to human health, if any, with such supporting data, including signal frequency, power density and references to regulatory standards.	Section VI.C; Attachment 7
(O) 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.	Section IX.A
(P) A schedule showing proposed program of site acquisition, construction, completion, operation, and relocation or removal of existing facilities for the name sites.	Section IX.B
(Q) 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 date of the CSC's first hearing on the application or at a time otherwise specified by the CSC.	Section VI.A

Application Guideline	Location in Application
(R) Such information as any department or agency of the State exercising environmental controls may, by regulation, require including but not limited to any federal, state, regional, and municipal agencies and the most recent conservation, inland wetland zoning, and plan of development documents of the municipality.	Sections VI & VII & VIII; Attachments 9 & 10
(S) 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.	Section V & VI.D; Attachments 3, 4, 5 & 6
(T) A statement explaining mitigation measures for the proposed facility including, but not limited to, construction techniques designed to minimize adverse effects on natural areas and sensitive areas, special design features made specifically to avoid or minimize adverse effects on natural areas and sensitive areas, establishment of vegetation proposed near residential/recreation/scenic areas, methods for preservation of vegetation for wildlife habitat and screening, and other environmental concerns identified by the applicant, the CSC, or any other public agency.	Sections VI.D & VII.D; Attachments 3, 4, 5 & 6