

DIAMOND TOWERS V LLC (DIAMOND)

Application to the State of Connecticut Siting Council

For a Certificate of Environmental Compatibility and Public Need

-CHESHIRE FACILITYDocket No. ____

DIAMOND TOWERS V LLC (Diamond) 820 MORRIS TURNPIKE, SUITE 104 SHORT HILLS. NEW JERSEY 07078

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- 1. Verizon's Statement of Radio Frequency (RF) Need with Coverage Plots
- 2. Summary of Site Search and List of Existing Tower/Cell Sites
- General Facility Description, Site Evaluation Report, Facilities and Equipment Specifications, Site Impact Statement, Tree Inventory, List of Residential Buildings within 1,000'
- Aerial Map, Topographical Map, Drawings, FAA 1-A Survey Certification, FAA
 Determination of No Hazard to Air Navigation
- 5. Environmental Assessment Statement
- 6. Wetland Inspection, Avian Resources Evaluation, Farmland Soils Map
- 7. Power Density Analysis
- 8. Visibility Analysis
- State Historic Preservation Office (SHPO) Correspondence, CT Department of Energy and Environmental Protection (DEEP) NDDB Overview Map, Map of Nearest Schools and Childcare Locations
- 10. Materials related to municipal consultation
- 11. Text of legal notice published in the <u>Cheshire Herald</u>; Notice to Abutting Landowners; List of Abutting Landowners; Certification of Service of Notice
- 12. Certification of Service of Application on Federal, State and Municipal Agencies
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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, Diamond Towers V, LLC ("Diamond"), a subsidiary of Diamond Communications LLC (the "Applicant") hereby submits an application and supporting documentation (collectively, the "Application") for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications tower facility (the "Facility"). The Facility is proposed on an 8.10acre parcel of land owned by Cheshire United Methodist Church with an address of 185 Academy Road, also known as State Route 68 in the Town of Cheshire (the "Parcel"). The Parcel is the site of the Cheshire United Methodist Church. The Facility is proposed within an approximately 52' x 50' square-foot ("s.f.") lease area located in the southcentral section of the Parcel. Construction of the Facility will permit Cellco Partnership d/b/a Verizon Wireless ("Verizon") and other FCC licensed wireless carriers to provide reliable wireless services to residents, businesses, schools, municipal facilities, and visitors to eastern-central Cheshire. The proposed Facility will also be available for emergency communications equipment.

B. <u>Executive Summary</u>

The Facility will provide reliable wireless communications services to the eastern-central portion of Cheshire, including the Cheshire Town Center/ Business District, by offloading the demand on the other existing facilities in the Verizon wireless communications network. The Facility will also provide additional coverage along the eastern portion of Route 68 and surrounding local roadways. The presence of wetlands, water supply and watershed lands to the east, as well as the predominantly residential character of the surrounding area with soils classified as Prime Agricultural Soils or Statewide Important Farmland Soils, limit options for the siting of a wireless facility.

Diamond investigated different parcels of land in and around Cheshire and northwest Wallingford. These searches determined that there are no tall structures located at the higher elevations in this area and other sites investigated were either unavailable or

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inappropriate for the siting of a tower facility or technically inadequate to satisfy coverage requirements in this part of the state.

The Facility consists of a new self-supporting monopole designed to resemble a pine tree ("monopine") that is 95' in height with faux branches extending an additional 4' above the top of the pole, bringing the total height to approximately 99'. The monopine tower will be located within a 42' x 50' s.f. fenced equipment compound located within the 52' x 50' s.f. lease area in the south-central portion of the parcel. Verizon's antennas would be installed at an antenna centerline height of 90' on the monopine tower with an equipment cabinet and emergency back-up generator located within the equipment compound. The monopine tower and fenced equipment compound are designed to support the antennas and equipment of other FCC licensed wireless carriers as well as the Town fire, police, and EMS services communications equipment. Access to the Facility will be provided from Academy Road using the existing paved driveway. Utilities will extend from existing service on the Parcel. 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 Applicant respectfully submits that the public need for a tower to provide reliable wireless services to eastern-central Cheshire 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 and will not have any substantial adverse effect on the aesthetics or scenic quality of the neighborhood.

C. The Applicant

Diamond is a Delaware limited liability company with offices at 820 Morris Turnpike, Suite 104, Short Hills, New Jersey. Diamond currently owns and/or operates numerous tower facilities in Connecticut and across the Country. Diamond entered into a long-term lease with Cheshire United Methodist Church. Diamond will construct, maintain and own the proposed Facility and would be the Certificate holder.

Diamond does not conduct any other business in the State of Connecticut other than the development of tower sites for the provision of personal wireless services under FCC rules and regulations. Correspondence and/or communications regarding this Application shall be addressed to the attorneys for the Applicants:

Cuddy & Feder, LLP

445 Hamilton Avenue, 14th Floor

White Plains, New York 10601

Attention: Christopher B. Fisher, Esq.

Kristen Motel, Esq.

A copy of all correspondence shall also be sent to:

Diamond Towers V LLC 820 Morris Turnpike, Suite 104 Short Hills, NJ 07078 Attention: Scott Von Rein

svonrein@diamondcomm.com

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 13.

E. Compliance with C.G.S. §16-50/(c)

The Applicant is not 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 12. 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 Cheshire Herald, the publication used for planning and zoning notices in the Town of Cheshire. The text of the published legal notice is included in Attachment 11. 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 11.

III. Statements of Need and Benefits

- A. Statement of Need
- 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.¹

Congress and the Federal Communications Commission further developed a national plan entitled "Connecting America: The National Broadband Plan" (the "Plan").² 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.³ [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."4

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

¹ Presidential Proclamation No. 8460, 74 C.F.R. 234 (2009).

² Connecting America: The National Broadband Plan, Federal Communications Commission (2010), available at https://www.fcc.gov/general/national-broadband-plan.

³ Id. at XI.

⁴ Id. at 25.

across the nation including better wireless access for the public.⁵ 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 applications.⁶ 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.

More recently 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. 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. The Trump Administration has further developed a national strategy for the United States to win the 5G global race and continue American leadership in wireless technology. 8

2. <u>United States Wireless Usage Statistics</u>

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 2019, there were an estimated over 421 million wireless devices in the United States

⁵ 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.

⁶ 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.

⁷ WT Docket No. 17-79 - Declaratory Ruling and Third Report and Order, Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment.

⁸ See https://www.whitehouse.gov/presidential-actions/presidential-memorandum-developing-sustainable-spectrum-strategy-americas-future and 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

amounting to approximately 1.3 devices per person.⁹ Of those devices, over 284 million are data-intensive smartphones.¹⁰ The United States also saw a record-setting amount of data-traffic with over 28 trillion megabytes carried over U.S. wireless networks in 2018, an increase of 12.9 trillion megabytes (over 82%) from the previous year.¹¹ The ever-increasing number of households transitioning to mobile voice connection only (i.e. abandoning land lines) has now grown to approximately 54.9% of households nationwide.¹² As of 2016, Connecticut in contrast lags behind in this statistic with approximately 33.4% wireless only households.¹³

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. ¹⁴ 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. ¹⁵

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

⁹ CTIA Annual "The State of Wireless 2018" available at https://api.ctia.org/wp-content/uploads/2019/06/2019-annual-survey-highlights-final.pdf.

¹⁰ Id.

¹¹ Id.

¹² See Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-June 2018, National Center for Health Statistics, Stephen J. Blumberg Ph.D and Julian V. Luke, found at https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201812.pdf.

¹³ See Modeled Estimates of the percent distribution of household telephone status for adults aged 18 and over, by state: United States, 2016 available at https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless_state_201712.pdf.

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

¹⁵See 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 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.

from the 4.4 exabytes per month at the end of 2015. As of 2018, smartphone data traffic has surpassed that of fixed broadband. To

3. Public Need For A Tower For Wireless Services

Verizon 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).

The Facility proposed in this Application will be an integral component of Verizon's network in its FCC licensed areas throughout the state. The proposed Facility will provide reliable wireless communications services to the Cheshire Town Center and Business District to the west, surrounding residences and the eastern portion of Route 68 (Academy Road) and local roadways in the Town of Cheshire. The Facility is needed by Verizon, in conjunction with its other existing and proposed facilities, to meet increased network demands and provide reliable services to the public in this part of Cheshire. Based on demand characteristics and usage patterns, the proposed Facility is needed to offload the existing wireless facilities and infrastructure located to the west of the Parcel. The proposed Facility will provide the needed fill-in capacity and coverage to the nearby business corridor to the west of the Parcel during peak usage times.

The proposed Facility will also enhance reliable wireless services to residences in the surrounding area and provide additional coverage heading east along Route 68. Attached are coverage plots depicting the "Current Coverage" provided by Verizon's existing facilities in this area and "Proposed Coverage" as predicted from the proposed Facility together with existing coverage from adjacent sites.

B. Statement of Benefits

The Cheshire Town Center and the area to the east of the business district experiences increased network demand creating needed fill-in capacity during peak usage times. Additionally, coverage gaps exist along the eastern portion of Route 68. The proposed Facility will provide the needed in-fill capacity and coverage to the businesses to the

¹⁶ 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.

¹⁷ PriceWaterhouseCoopers as reported by CTIA; https://www.ctia.org/the-wireless-industry/infographics-library.

west of the Parcel during peak usage times as well as enhancing wireless service to residences in the surrounding area.

Beyond the above noted benefits, 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 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. The Facility would allow Verizon and other carriers to provide these benefits to the public that are not offered by any other form of communication system.

Moreover, Verizon 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 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.

C. <u>Technological Alternatives</u>

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 targeted areas for fill-in capacity and coverage along the eastern portion of Route 68 in Cheshire consist of mainly residential properties and large areas of watershed/ water supply lands and wetlands. At this time, there are no known existing tower sites or structures in the eastern-central Cheshire 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 along the eastern portion of Route 68 in Cheshire. Technologies like the small cells that exist within the Cheshire Town Center are best suited for such areas that are specifically defined areas. Providing reliable wireless services in eastern-central Cheshire requires a tower site that can provide reliable to a broad area. The Applicant submit that there are no equally effective, feasible technological alternatives to a new tower for providing reliable personal wireless services in the eastern-central Cheshire area.

IV. Site Selection and Tower Sharing

A. <u>Site Selection</u>

Due to capacity issues during peak usage times, Verizon currently does not provide reliable services in the Town Center and surrounding business district and the residences and road network to the east along Route 68.

No tall structures are located at the higher elevations in this area of the Town of Cheshire that are available for leasing. The area to the east of the business corridor consists principally of a mix of single-family residential structures and wooded or public water supply/ watershed lands. Many parcels surrounding the site are classified as having Prime Farmland Soils or Statewide Important Farmland Soils.

Verizon has been investigating sites in this area of Cheshire since approximately 2012 and was previously unable to find a viable candidate for the Proposed Facility. Several years after Verizon's initial investigation, the Parcel was identified as a candidate, and in response to Verizon's network demands, Diamond reinstated its lease agreement with the Cheshire United Methodist Church. As one of its core business principles, Diamond prioritizes leasing sites where the property owner is a nonprofit organization.

As provided in Attachment 2, other than the Parcel, one other site was investigated and deemed unavailable for the siting of a tower facility.

B. <u>Tower Sharing</u>

The proposed Facility is designed to accommodate the antennas and equipment of Verizon and up to two (2) additional wireless carriers for wireless services networks in the Town of Cheshire as well as Town EMS, fire, and police communications equipment.

V. Facility Design

The proposed Facility includes an approximately 52' x 50' s.f. rectangular shaped lease area located in the south-central portion of the approximately 8.10-acre Parcel located at 185 Academy Road. The Facility consists of a new self-supporting monopole designed

to resemble a pine tree ("monopine") that is 95' in height with faux branches extending an additional 4' above the top of the pole, bringing the total height to approximately 99'. The monopine tower will be located within a 2,100 s.f. fenced compound. Verizon would initially install six (6) antennas and related equipment at a centerline height of 90' and will install an equipment cabinet and emergency 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 as well as Town EMS, fire, and police communications equipment. The monopine 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 2,100 s.f. fenced equipment compound would accommodate Verizon's equipment and provide for future shared use of the Facility by other carriers. The tower compound would be enclosed by an 8' high wood shadowbox fence. A Verizon walk-in cabinet, 30kW propane emergency generator and 500 gallon propane tank would be installed at the tower base on concrete pads within the tower compound.

Vehicle access to the Facility would be provided from Academy Road using an existing paved driveway leading to the southeast corner of the paved parking area (approximately 480') which will connect to a 12'-wide wooden gate enclosing the leased area. Utility connections would be routed underground from an existing utility pole (CL&P #724) located at the southeast corner of the paved parking area. 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 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 2,600 s.f. and no trees are proposed for removal. Site improvements entail approximately 100 cubic yards of fill excavated from the site. Approximately 50 cubic yards of crushed stone are needed for construction of the compound.

- On-site management of stormwater and erosion controls will be implemented during and after construction and as such, the proposed Facility will have little to no impact on water flow or water quality. No direct impacts to any wetlands or watercourses are anticipated.
- Vegetation and the relatively low height of the proposed Facility will obscure, partially or totally, views of the tower from most locations within the two-mile radius study area during leaf-on conditions. Visual mitigation is also enhanced by the monopine design.

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. <u>Visual Assessment</u>

Included in Attachment 8 is a Visibility Analysis which contains a viewshed map and photo simulations of off-site views. As detailed in the enclosed Visibility Analysis, areas from where the Facility would be visible comprise 7+/- acres of year-round visibility and an additional 39+/- acres of seasonal visibility. Together, this represents less than 1% of the 2-mile radius study area. Camouflaging, existing vegetation and the relative height of the tower will obscure, partially or totally, views of the tower from most locations in the study area during leaf-on conditions. The visual assessment concludes that the majority of the views beyond the Parcel would be limited to nearby locations along Academy Road north/northwest of the Facility up to 0.12 miles away and the Cheshire Hillside Cemetery. During leaf-off conditions, obstructed visibility is predicted in the area to the west and northwest of the Facility extending up to 0.44 miles from the site. Beyond the immediate area, no additional visibility is predicted to the east, north or

south of the Facility. The presence of mature trees both in the immediate area of the Parcel and throughout much of the study area as well as the monopine design minimizes the extent of visibility.

No schools or daycare centers are located within 250' of the Parcel. Cheshire Academy is located approximately 0.27-miles northwest of the Parcel. No visibility is predicted from school grounds. No commercial childcare centers are located within 250' of the Parcel. No views of the Facility are expected from the nearest child day care center which is located approximately 0.45 miles from the Parcel. Moreover, the Visibility Analysis demonstrates that the facility will not have a substantial adverse effect on the aesthetics or scenic quality of the neighborhood.

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. <u>CT DEEP, SHPO and Other State and Federal Agency Comments</u>

Various consultations and analyses for potential environmental impacts are summarized and included in Attachment 9. 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). SHPO indicated that although there are five properties listed, determined eligible for listing, or potentially eligible for listing on the National Register of Historic Places within 0.5 miles of the Parcel, they will not be impacted by the proposed Facility. See SHPO Review Letter in Attachment 9. The SHPO review concluded that no cultural resources will be impacted by the proposed Facility.

The Facility is not located within 0.25 miles of any locations identified on the DEEP Natural Diversity Data Base ("NDDB") maps as areas that represent approximate locations of endangered, threatened, and special concerns species and significant natural communities in Connecticut. See Natural Diversity Data Base Areas map in Attachment 9. Thus, consultation with CT DEEP is not required. 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. <u>Power Density</u>

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. The tower site will fully comply with federal and state MPE standards. The cumulative worst-case calculation of power density from Verizon's operations would be 81.85% of the MPE standard. A maximum power density calculation prepared by Verizon is included in Attachment 7.

D. <u>Wetlands, Drainage & Other Environmental Factors</u>

A wetland delineation identified one wetland at the Parcel and one interior perennial watercourse on an adjacent parcel to the southwest. There were no wetlands identified in or immediately adjacent to the proposed access drive or the lease area. The onsite wetland is located to the east of the existing paved parking area at the base of a steep embankment, approximately 105' from the proposed facility compound. No wetlands are located within the area of proposed work activities and no new disturbance is proposed within 100' of the wetland. Proposed 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 which will minimize any temporary impacts. Overall, the construction and operation of the proposed Facility will not impact any wetlands or inland waterways. The Wetlands Inspection is included in Attachment 6.

Included in Attachment 6 is an Avian Resources 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 United States Fish and Wildlife Service guidelines for minimizing impacts to bird species.

The proposed Facility would be unstaffed, requiring periodic maintenance visits approximately one hour long. Carriers that maintain antennas and equipment at an approved Facility monitor their equipment 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.

E. <u>National Environmental Policy Act Review</u>

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. Furthermore, according to the site survey and field investigations, no federally regulated wetlands or watercourses will be impacted by the proposed Facility.

F. <u>Air Navigation</u>

The proposed Facility was analyzed for potential impacts to air navigation. The Applicants obtained a Federal Aviation Administration ("FAA") 1-A Survey as well as an FAA Determination of No Hazard to Air Navigation Determination. These confirm that 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 Cheshire'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. Cheshire's Plan of Conservation and Development

Cheshire's 2016 Plan of Conservation & Development ("POCD"), last amended March 25, 2019 with revisions effective April 1, 2019, is included in the Bulk Filing. The POCD does not address wireless service and infrastructure specifically, however POCD Pages i and vii identify the goals of locating growth towards regional center areas with

infrastructure, revitalizing the Town Center and concentrating development around major transportation corridors and Village Centers. Page 37 of the POCD identifies Routes 10 and 68 as Principal Arterial roads in the Town, page 1 identifies the intersection of Routes 10, 68 and 70 as a major intersection in the Town and page 2 estimates that there are more than 20,000 motor vehicle trips per day along Route 10 through the Town Center area. It is respectfully submitted that the proposed Facility fulfills the POCD's goals by providing reliable wireless service to the Town Center and areas along Routes 10 and 68.

B. <u>Cheshire's Zoning Regulations and Zoning Classification</u>

The Town of Cheshire Zoning Regulations Section 80.1 set forth general requirements for communications tower siting. The Parcel is classified in the Town's "R-40" Residence Zone. The Town of Cheshire Zoning Regulations provide specific standards to be submitted to the CSC for consideration in reviewing the "location preferences or criteria" of the proposed Facility pursuant to C.G.S. Chapter 277a. The table below provides a review of general requirements of tower facilities under the Town of Cheshire Zoning Regulations accompanied by the proposed Facility's overall conformity with those requirements.

Section from the	Standard or Preference	Proposed Facility
Zoning		
Regulations		
80.7.1	Wireless telecommunications facilities	The Town's visual quality will be protected
	should be designed to minimize any	from any adverse visual impacts due to the
	adverse effects of the facility on the	overall low height of the proposed Facility,
	public health, safety, and welfare and	the proposed stealth "monopine" design,
	to mitigate their visual impact on, and	and surrounding topography and vegetation.
	to enhance their compatibility with, the	As set forth herein, the proposed Facility
	neighborhood and the Town.	only has a year-round visibility of
		approximately 7 acres with a seasonal
		visibility of approximately 39 acres with
		most areas of visibility being limited to the
		immediate vicinity of the tower and the
		adjacent Cheshire Hillside Cemetery.
80.7.2	Order and hierarchy of preferences for	The proposed Facility is located within an
	wireless communication facilities.	area that provides the greatest amount of
		screening due to existing buildings,
		vegetation and topography. There are no

	<u> </u>	
		available existing wireless
		telecommunications towers and no viable
		locations in industrial or commercial zoning
		districts that are sufficient to address the
		capacity need and there are no existing
		structures in the vicinity.
80.7.3.B.1	The perimeter of new ground-mounted	The proposed Facility is designed to
	towers shall be screened to minimize	resemble a pine tree and designed to
	visual impacts on, and enhance	minimize visual impacts. The proposed
	compatibility with, the neighborhood	Facility will be located in the rear of the
	and the Town.	Parcel and be screened from views along
		Academy Road and from the west by
		existing mature vegetation. Views from the
		Cheshire Hillside Cemetery and residences
		to the east will be partially screened by
		existing mature vegetation. Additionally, the
		tower compound will be enclosed with an
00.7.2.0.2	If the feelith is not in a worlded one	8' high wood shadowbox fence.
80.7.3.B.3	If the facility is not in a wooded area,	The proposed Facility will be concealed
	a vegetated buffer strip of at least 50'	utilizing the existing natural buffer and the
	in depth and 6' in height shall be	proposed 8' wood shadowbox fence. The
	planted around the perimeter of the	Facility is proposed in the rear portion of
	site. The buffer strip shall be planted	the Property characterized with a dense
	with vegetation of a type that has the	natural vegetated buffer to the north and
	potential to reach 30' at maturity.	west and existing vegetation to the south
		and east.
80.7.3.B.4	To the greatest extent possible,	No trees are proposed to be removed in
	existing trees, vegetation, and unique	order to construct the proposed Facility.
	site features shall be retained and	
	protected.	
80.7.4.A	Tower facilities shall not be located in	As set forth herein, the proposed Facility
	wetlands or watercourses. Locating	will not be located within any regulated
	facilities in wetland buffer areas shall	wetlands or watercourses and will not
	be avoided to the extent possible, and	result in any significant adverse
	disturbance to wetland buffer areas	environmental impacts to wetlands or
	shall be minimized.	watercourses. The nearest onsite wetland is
		located approximately 105' from the
		proposed facility compound.
80.7.4.B	No hazardous waste shall be	No storage of hazardous waste is required
55.7. 4 .5	discharged on the site and storage of	for operation of the proposed Facility and
	hazardous materials on site shall	
		the propane tank for the emergency back-
	conform to the requirements of	

	Section 47.4.5(A)(1) of the Town	up generator will conform to applicable
	, ,, ,	1 7 7
00.7.4.0	Zoning Regulations.	health and safety standards.
80.7.4.C	Facilities shall comply with Section 47	The proposed Facility is not located within
	of the Town's Zoning Code regarding	a Town-designated aquifer protection area.
20.7.15	Aquifer Protection.	
80.7.4.D	Noise-producing equipment shall be	The only noise that will be emitted from
	sited, constructed, and insulated to	the proposed Facility will result from the
	comply with State noise laws and	proposed generator's use during emergency
	regulations.	situations and occasional testing. The State
		DEEP Noise Regulations specifically
		exempts and excludes "noise created as a
		result of, or relating to, an emergency,
		including emergency generators, and public
		health and safety emergencies."
80.7.5	All facilities shall comply with FCC	An RF Power Density report is included in
	requirements for radio frequency	Attachment 7 which demonstrates
	emissions and exposure.	compliance with applicable standards.
80.7.6	For new towers, Cheshire expresses	The proposed Facility is designed to
	its preference that the number of	accommodate additional carriers to allow
	towers be minimized.	colocation in the future to reduce the need
		for additional towers.
80.7.7.A	Ground-mounted facilities shall be	The proposed facility is located on an
	located on a lot of not less than the	approximately 8.10-acre lot (352,836 square
	minimum lot size for the zoning	feet) in the R40 Zoning District where the
	district within which the facility is	minimum lot size required is 40,000 square
	proposed.	feet.
80.7.7.B	The minimum setback between the	The proposed base of the 99' monopine
	base of the ground-mounted facility	will be equipment compound will be
	and any property line; public or	approximately 266' from the eastern
	private road; habitable dwelling; public	property line, 418' from the front property
	recreational area; or commercial,	line, 364' from the western property line
	industrial, governmental, or other	and 40' from the rear property line. The
	business or institutional use shall be	proposed Facility will be located 166' from
	the height of the tower including any	the church and 310' to the nearest
	antennas or other appurtenances.	residence. While the tower is 40' feet from
		the nearest lot line, the proposed monopine
		tower is designed with a "hinge point" or
		yield point of at the 55' above grade level
		elevation so that in the unlikely event of a
		catastrophic failure, the tower radius will be
		contained within the parcel.
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_	Τ	Γ
80.7.8.A	Equipment shelters shall comply with the setback requirements of Section 32.2 of the Zoning Regulations.	The equipment cabinet for the proposed Facility will be located within the fenced tower compound located approximately 343' from the western property line, 385' from the front property line, 240' from the eastern property line and 8' from the rear property line.
80.7.8.B	Wireless facilities shall be served by a single equipment shelter designed to house the equipment of all users of the facility at full build-out.	The equipment cabinets for all carriers will be located within a fenced tower compound completely enclosed with an 8' tall wooden shadowbox fence.
80.7.8.C	Equipment shelters shall be designed with an architectural style which is in harmony with the neighboring properties.	The Applicant is proposing an 8' tall wood shadowbox fence to completely enclosed the Facility and screen the equipment.
80.7.8.D	At least one foundation planting shall be planted every 5 feet around equipment shelters.	The proposed equipment cabinet will be concealed from view behind an 8' tall wood shadowbox fence as well as shielded from view by the natural buffer in the area.
80.7.9.A	Access roads to the tower facility shall be at least 15' wide and shall have appropriate access for emergency vehicles.	Access to the proposed Facility will be provided using the existing 20' wide driveway and parking area.
80.7.9.B	The grade of the access road shall not exceed 10%.	Access to the proposed Facility will be provided using the existing driveway and parking area. No changes to the existing grade are proposed.
80.7.9.C	The turnaround area at the end of the access road shall have a minimum radius of 25 feet.	Access to the proposed Facility will be provided using the existing driveway and parking area. The existing parking lot is greater than 25' wide. No changes to the existing parking area are proposed.
80.7.9.D	Required drainage pipes, basins and curbing shall be constructed as part of the access road construction.	No changes to the existing driveway or parking area are proposed. Required drainage will be installed during construction of the equipment compound.
80.7.10	All external illumination shall be directed and shielded so that the source of light will not be visible from any street or adjoining property. Illuminated areas shall be confined to	No illumination is required by the FAA and none is proposed.

	the property where the illumination	
	originates.	
80.7.11.A	Wireless facilities shall be constructed	The proposed Facility will be constructed in
	in accordance with applicable	accordance with applicable construction
	construction codes and standards.	codes and standards.
80.7.11.B	An 8-foot high chain-link fence with 1-	The Applicant is proposing an 8' tall wood
	inch squares shall be installed to	shadowbox fence to completely enclosed
	enclose the tower and equipment	the Facility.
	shelter.	
80.7.11.C-D	A sign no larger than 2 square feet	Trespassing, warning, FCC registration, and
	shall be posted adjacent to the gate	associated signs on the compound fencing
	into the fence-enclosed area that	will be minimal in nature and be posted
	provides the name of the facility	adjacent to the gate to the equipment
	owner and the name and number of	compound.
	an emergency contact available 24-	
	hours a day. "No Trespassing" and	
	other warning signs may be posted on	
	the fence.	
80.7.11.E	An emergency access key box	The Applicants will work with the Cheshire
	approved by the Cheshire Fire	Fire Department to address emergency
	Department shall be provided for all	access requirements.
	equipment shelters and fence gates.	
80.7.12.B	Wireless facilities are permitted to a	The proposed Facility will consist of a 99'
	maximum height of 150 feet.	tall monopine.

C. <u>Planned and Existing Land Uses</u>

The Facility is proposed on an 8.10-acre parcel of land owned by Cheshire United Methodist Church 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 Cheshire Zoning Code, Inland Wetlands Regulations, Zoning Map and Plan of Conservation and Development are included in the Bulk Filing.

D. Cheshire's Inland Wetlands and Watercourses Regulations

The Cheshire 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 50' for regulated

activities. As set forth in the Wetland Investigation Report in Attachment 6, the proposed Facility is located approximately 105' to the west of the nearest wetland resource located along the southeastern boundary of the Parcel. As such, the project would not constitute a regulated activity under Local Wetlands Regulations. The proposed Facility is not anticipated to result in an adverse impact to wetlands due to the distance separating the proposed work activities from the nearest wetland or watercourse. Further, 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. 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 and respectfully submit that any indirect impacts would be less than those associated with development of the Parcel for a use as a single family residence.

VIII. Consultation with Town Officials

C.G.S. § 16-50/ 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 Cheshire on October 2, 2020. On November 23, 2020, the Town of Cheshire held a joint public information meeting by videoconference which included an opening statement by the Town Manager, Sean M. Kimball, a presentation by the Applicants, and comments and questions from Jack Casner, Cheshire Fire Chief/ Emergency Management Director. No member of the public commented during the information session.

Subsequent to the information meeting, the Director of Planning & Development, William S. Voelker, submitted an evaluation of the proposed Facility in correspondence dated December 21, 2020. This evaluation notes that the proposed location is favorable because of its position in the rear yard of the church, which is approximately 418' from the edge of Academy Road, and the Cheshire Hillside Cemetery located to the rear of the Parcel which is not likely to be developed. The evaluation also agrees with the Applicant's assessment that the proposed Facility will not result in any wetland impacts

and concludes that the tower design is consistent with the Cheshire Planning & Zoning Regulations.

Copies of the municipal consultation documents are included in Attachment 10.

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. Note that the estimates provided below do not include the cost of Verizon's antennas and equipment.

Requisite Component:	Cost (USD)
Tower & Foundation	\$ 115,000
Site Development	\$ 45,000
Utility Installation	\$ 25,000
Total Estimated Diamond Cost	\$ 185,000

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 Cheshire. The site preparation phase is expected to be completed in 4-5 weeks. Installation of the monopine, 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 demonstrate that a public need for a new tower in the eastern-central area of Cheshire exists to provide wireless services to the public. Verizon has 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 Diamond Towers for a new wireless telecommunications Facility in eastern-central Cheshire.

Respectfully Submitted,

y:_____

Christopher B. Fisher, Esq.

Kristen Motel, Esq.

Cuddy & Feder LLP

445 Hamilton Avenue, 14th Floor

White Plains, New York 10601

(914) 761-1300

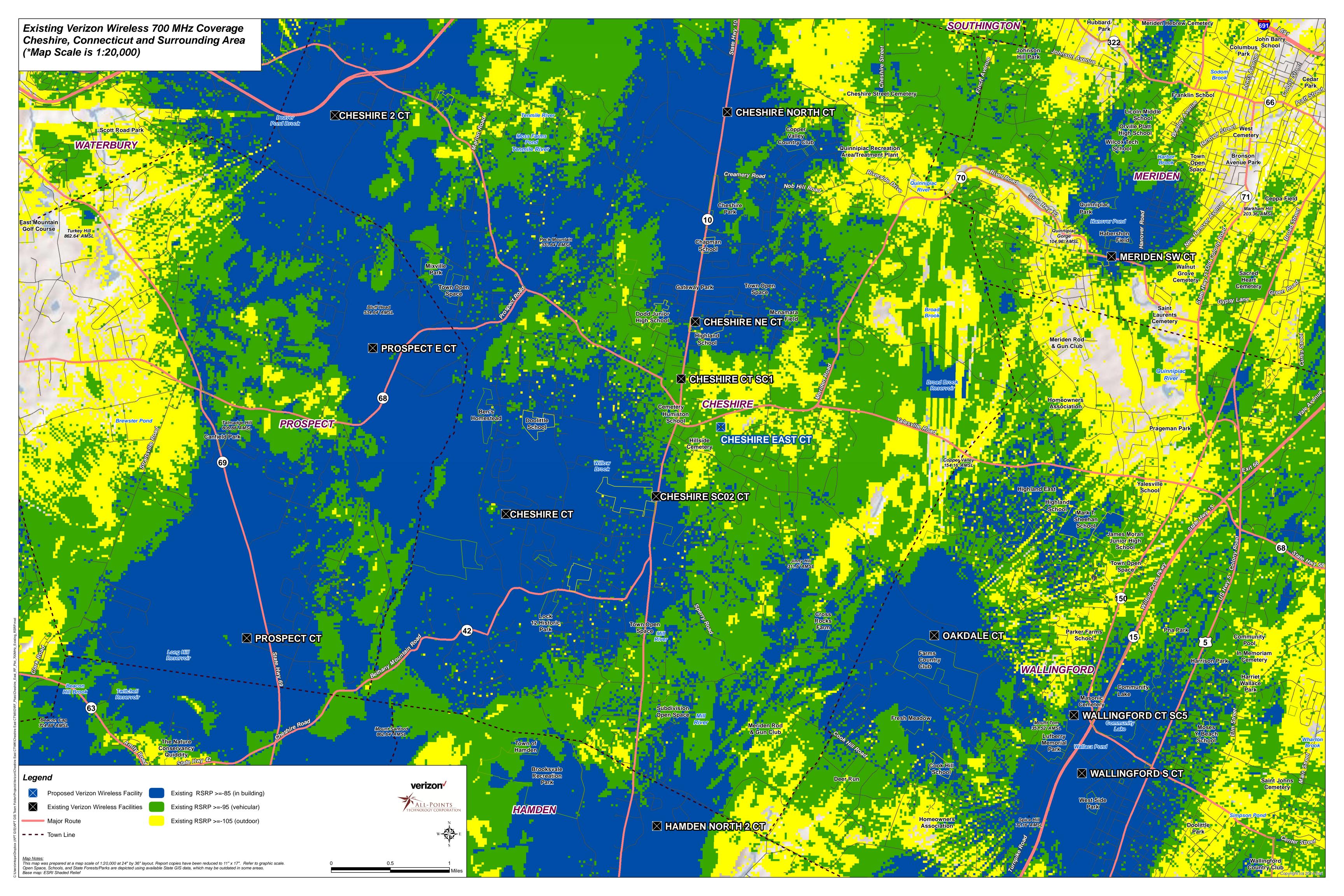
Attorneys for the Applicants

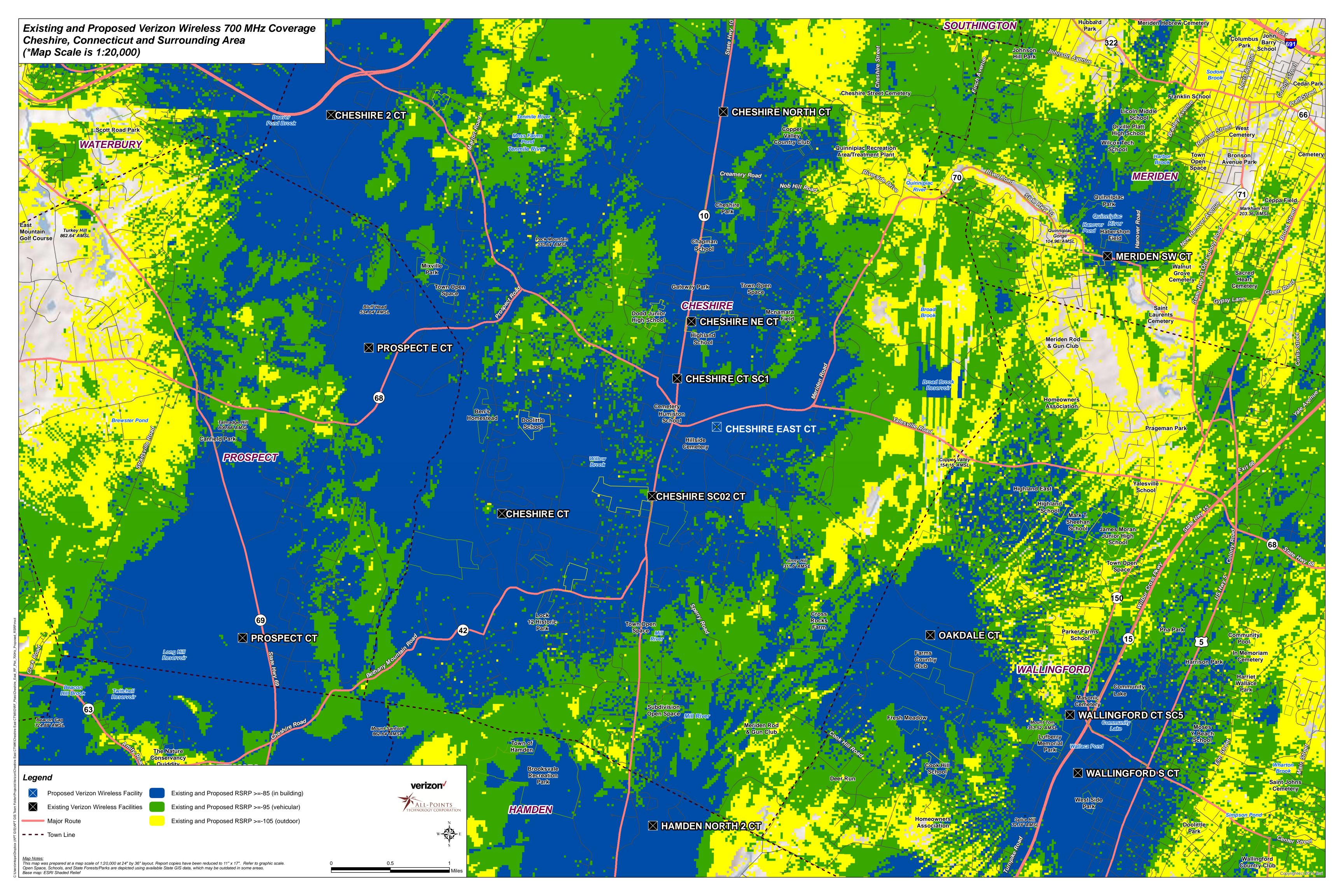
ATTACHMENT 1

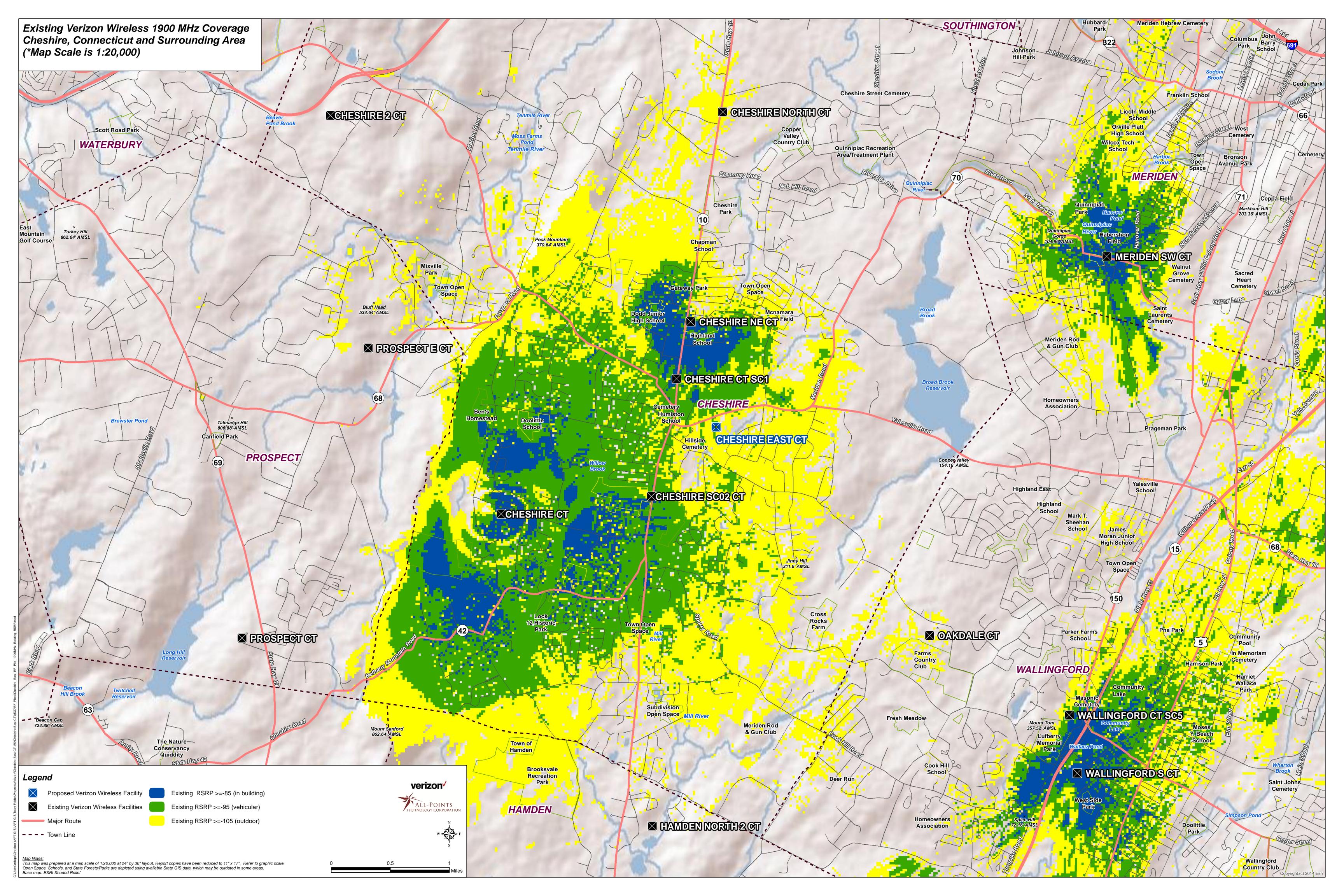
ATTACHMENT 1

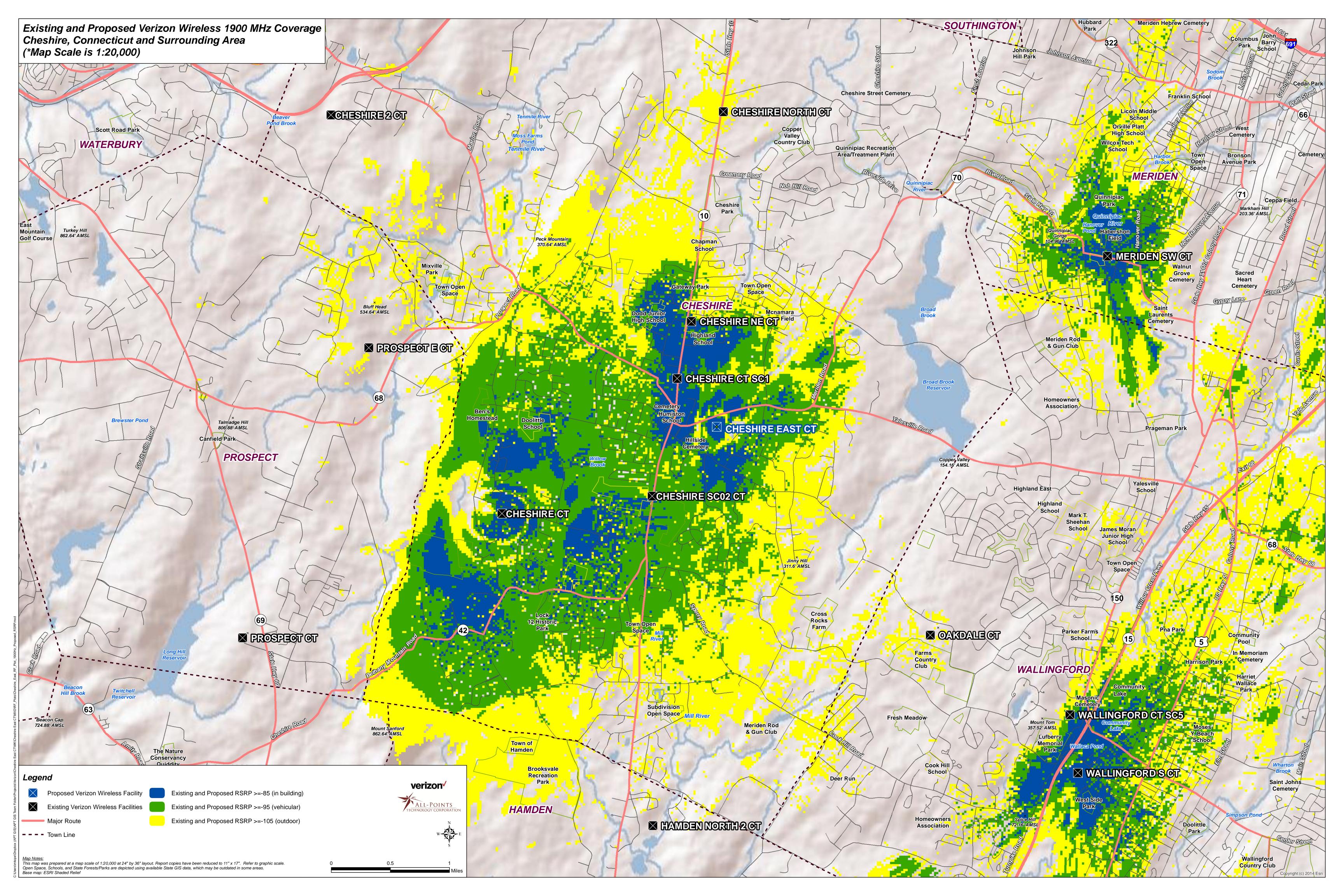
Statement of Public Need

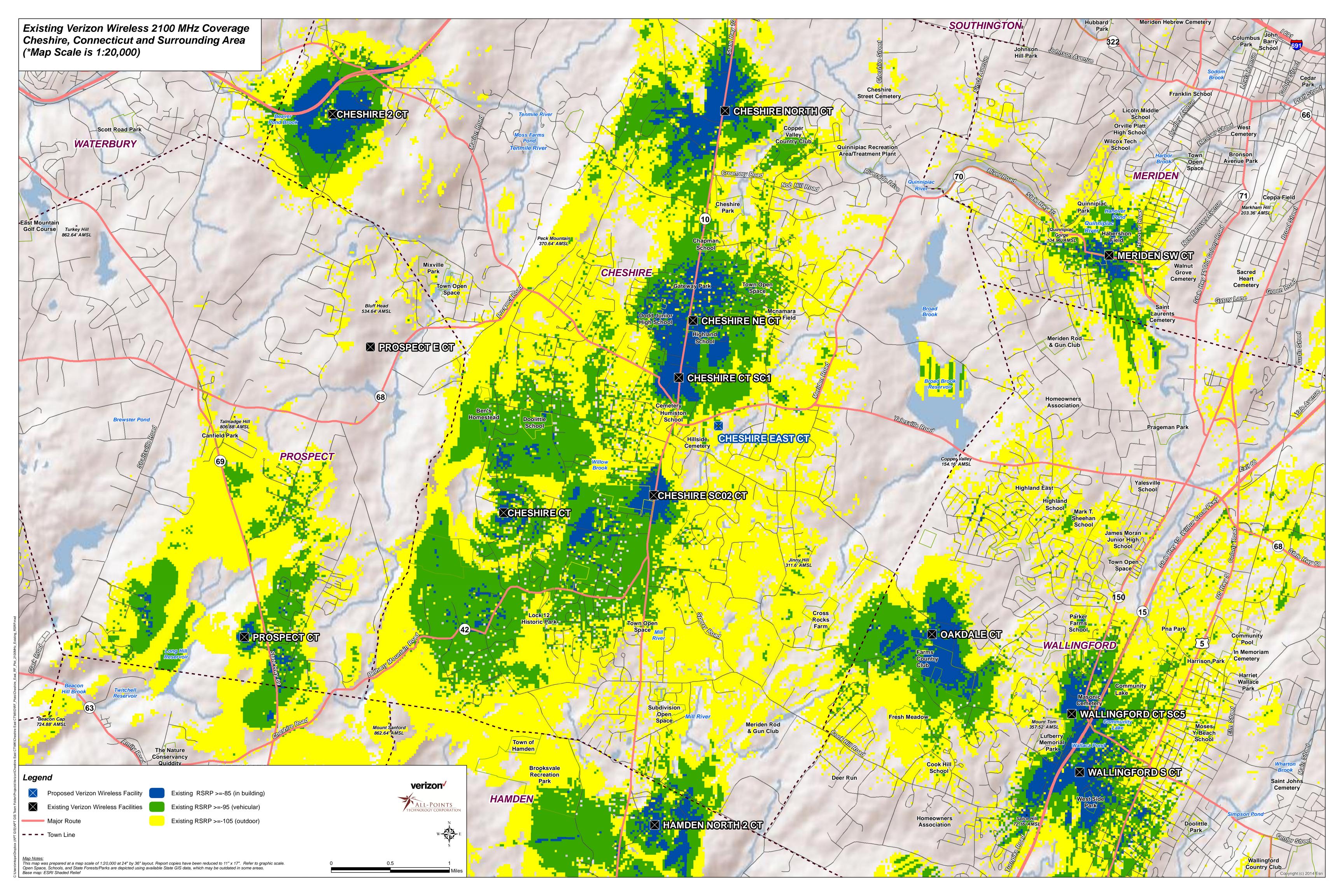
The proposed wireless tower facility (the "Proposed Facility") will provide reliable wireless communications services to the Cheshire Town Center and Business District to the west, surrounding residences and the eastern portion of Route 68 (Academy Road) and local roadways in the Town of Cheshire. The facility is needed by Verizon, in conjunction with its other existing and proposed facilities, to meet increased network demands and provide reliable services to the public in this part of Cheshire. Based on demand characteristics and usage patterns, the Proposed Facility is needed to offload the existing wireless facilities and infrastructure located to the west of the Parcel. The Proposed Facility will provide the needed fill-in capacity and coverage to the nearby business corridor to the west of the Parcel during peak usage times. The Proposed Facility will also enhance reliable wireless services to residences in the surrounding area and provide additional coverage heading east along Route 68. Attached are coverage plots depicting the "Current Coverage" provided by Verizon's existing facilities in this area and "Proposed Coverage" as predicted from the proposed facility together with existing coverage from adjacent sites.

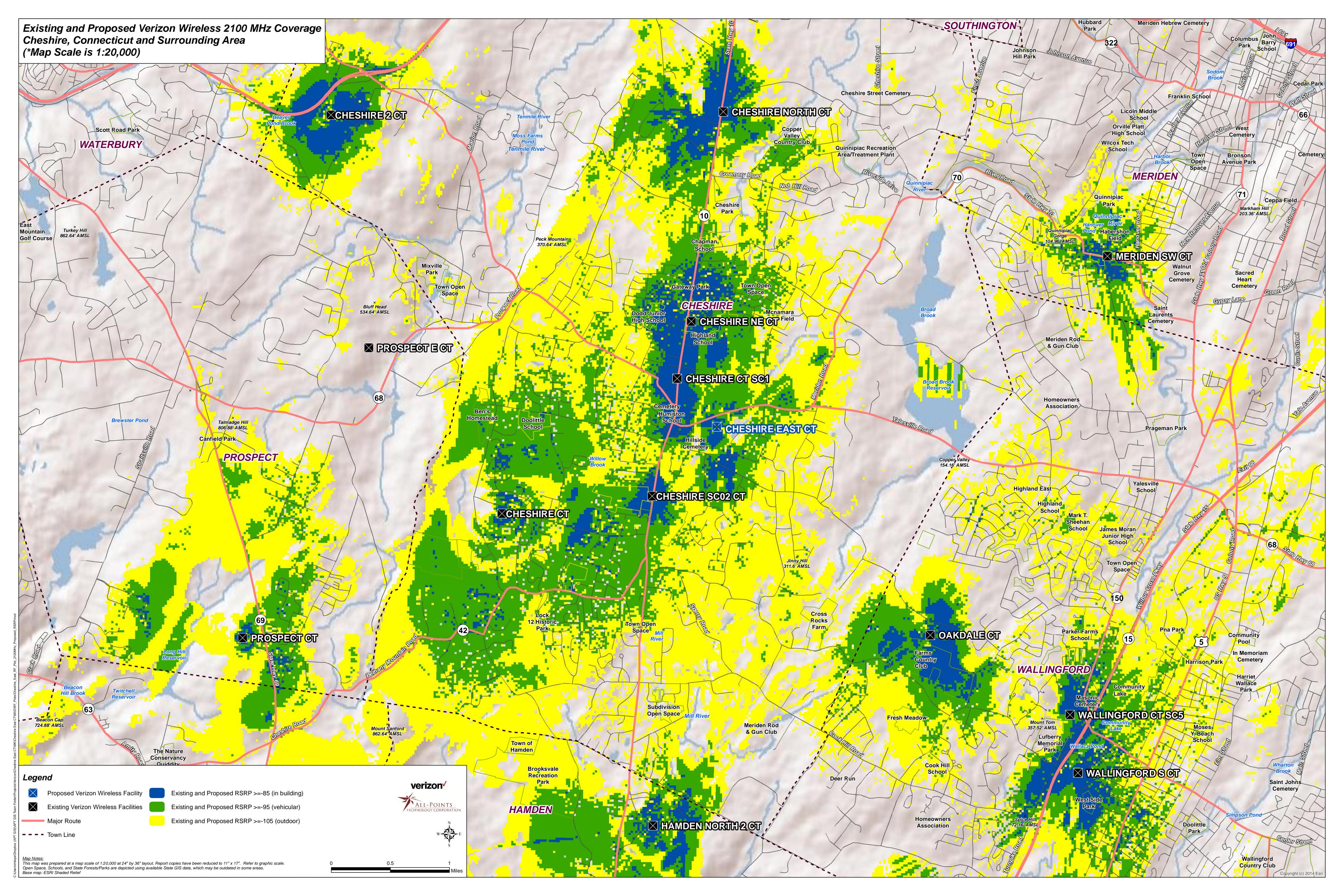












ATTACHMENT 2

Site Search Summary

In general, a "site search area" is developed to initiate a site selection process in an area where a coverage need has been identified. The site search area is a general location where the installation of a wireless facility would address an identified coverage need while still allowing for orderly integration of the site into a network such as Verizon's, based on the engineering criteria hand-off, frequency reuse and interference. In any site search area, the Applicant 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 includes reviewing the applicable zoning ordinance to identify areas within which the proposed use is allowed. Viable candidates consist of existing structures of sufficient height from which an antenna installation can provide adequate 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, a candidate must provide adequate coverage to the significant gap in Verizon'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 closely comply 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.

Verizon has been investigating sites in this area of Cheshire since approximately 2012. Several years after Verizon's initial investigation, the Parcel was identified as a candidate and Verizon approached Diamond with interest in constructing a facility. Diamond had previously entered into a lease agreement with the United Methodist

Church prior to Verizon's interest and reinstated its ground lease with the Church once Verizon expressed interest.

In the case of this particular area within eastern-central Cheshire and northwest Wallingford, no tall non-tower structures were located within the identified area of need that were available for leasing. The area consists of mainly residential parcels along with challenging topography. Based on current network demands, Verizon's radio frequency engineers have determined that the proposed location will provide appropriate coverage in this area of need. Verizon identified the proposed site as a viable candidate with a willing landowner with whom commercially reasonable lease terms could be negotiated.

Properties Investigated by Verizon

Descriptions of Verizon's sites investigated are set forth below along with a map depicting the approximate location of the sites investigated.

A. 185 Academy Road, Cheshire, CT

Tax Map Identification: 58-27

Owner: Cheshire United Methodist Church

Zoning District: Residential Parcel Size: 8.10 acres

This property is the Candidate site.

B. 300 South Meriden Road, Cheshire, CT

Tax Map Identification: 59-62

Owner: Arisco Realty LLC (Michael's Greenhouses)

Zoning District: Residential Parcel Size: 36.21 acres

The owner was not willing to pursue a lease with Verizon.



September 10, 2020

Town of Cheshire, CT 84 South Main Street Cheshire, CT 06410

Re: Proposed Cell Tower – 185 Academy Road, Cheshire, CT 06410, Cheshire United Methodist Church, – Site Search Summary

Dear Sir/Ma'am,

Diamond Communication is proposing a 99' Monopine Cell Tower, with Verizon Wireless as the anchor tenant, at the above referenced location. Verizon approached us in 2017 with interest in building a cell tower on this property but had been looking for a site location since 2012. We entered into a ground lease agreement with the United Methodist Church (UMC), prior to Verizon approaching us, for a cell tower based on interest from another tenant at the time. Diamond has an exclusive agreement with the UMC to market their properties for cell towers/antennas across the country. We reinstated the ground lease with the church once Verizon approached us with interest. Verizon was unable to identify an alternate candidate in the search area that was willing to lease them space for a tower. Given the topography and the residential nature of the area there were few options.

Sincerely,

Scott Von Rein

Director of Site Development

Scott Von Rein



Legend

Site Investigated

___ Approximate Parcel Boundary

Sites Investigated:

- 185 Academy Road (Proposed Candidate), Cheshire, CT
- 2 300 S. Meriden Road (Michael's Greenhouses), Cheshire, CT

Site Search Summary Map

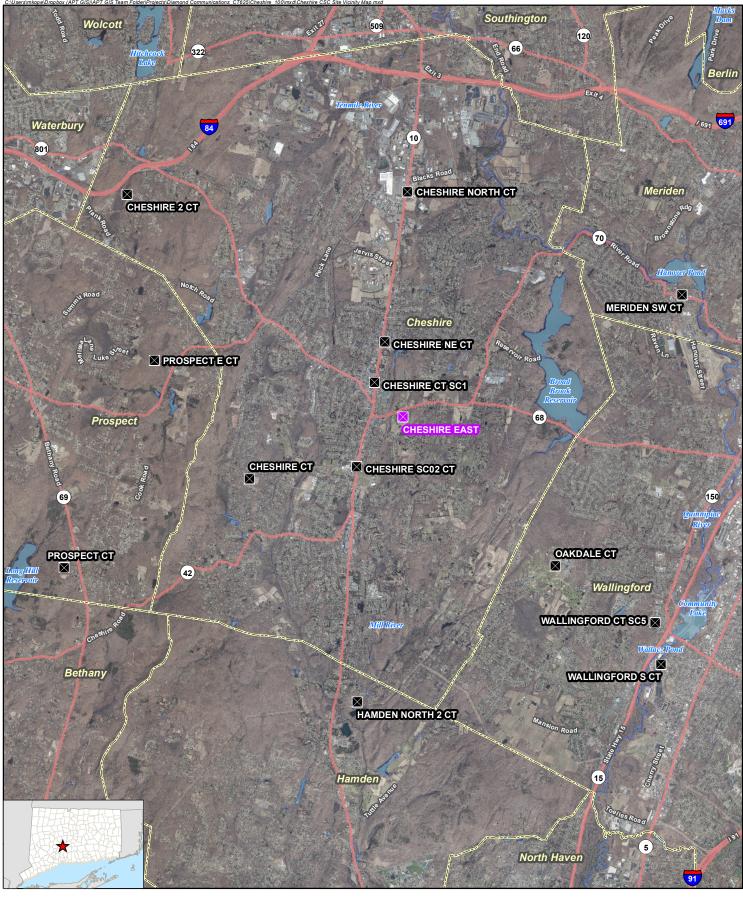
Proposed Wireless Telecommunications Facility Cheshire East 185 Academy Road Cheshire, Connecticut





EXISTING FACILITIES WITHIN 4 MILE RADIUS

Site Name	Latitude	Longitude	Structure Type	Street Address	City	State	Zip Code
CHESHIRE 2 CT	41.536389	-72.957278	Monopole	1119 Summit Rd	Cheshire	CT	6410
CHESHIRE CT	41.487597	-72.929269	Self-Support Lattice	751 Higgins Rd.	Cheshire	CT	6410
CHESHIRE CT SC1	41.5041806	-72.900753	Utility pole	199 Highland Avenue	Cheshire	CT	6410
CHESHIRE EAST CT	41.498278	-72.894278	Proposed Momopine	185 Academy Rd.	Cheshire	CT	6410
CHESHIRE NE CT	41.511194	-72.898458	Monopole	500 Highland Ave.	Cheshire	CT	6410
CHESHIRE NORTH CT	41.5368889	-72.893297	Silo	1338 Highland Ave	Cheshire	CT	6410
CHESHIRE SC02 CT	41.489778	-72.904796	Utility pole	525 S MAIN STREET	Cheshire	CT	6410
HAMDEN NORTH 2 CT	41.449392	-72.904572	Monopole	150 Willow Street	Hamden	CT	6518
MERIDEN SW CT	41.51925	-72.830639	Church Steeple	145 Main St South	Meriden	CT	6451
OAKDALE CT	41.472801	-72.859447	Water Tank	60 Gaylord Farm Rd	Wallingford	CT	6492
PROSPECT CT	41.472303	-72.971458	Monopole	178 New Haven Rd.	Prospect	CT	6712
PROSPECT E CT	41.507881	-72.951022	Monopole	229 Cheshire Road	Prospect	CT	6712
WALLINGFORD CT SC5	41.46305	-72.836678	Building	22 Masonic Ave	Wallingford	CT	6492
WALLINGFORD S CT	41.455928	-72.835378	Smoke Stack	340 Quinnipiac St. Silversmith Park	Wallingford	CT	6492



Legend

- Proposed Facility
- Surrounding Verizon Wireless Facilities

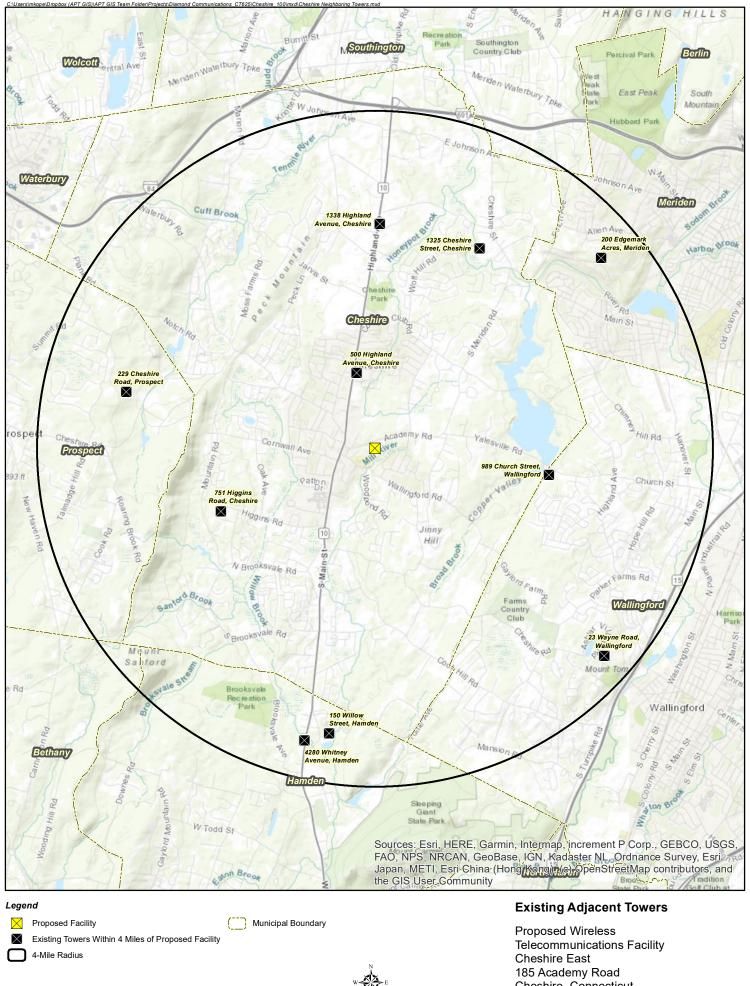
Municipal Boundary

6,000 3,000 0 6,000

Site Vicinity Map

Proposed Wireless Telecommunications Facility Cheshire East 185 Academy Road Cheshire, Connecticut





Base Map Source: ESRI World Topographic Map Data Sources: CSC Tower Database, Updated March 2020; FCC ASR GIS Database, Updated 2012 Map Scale: 1 inch = 6,000 feet Map Date: June 2020

3,000 6,000

6,000

Cheshire, Connecticut



General Facility Description

185 Academy Road, Cheshire, Connecticut

Tax Map Identification: 58-27

8.10-Acre Parcel

The proposed tower site is situated on an approximately 8.10-acre parcel located at 185 Academy Road owned by the Cheshire United Methodist Church. It is classified in the Residential "R-40" Zoning District and the property is the site of the Cheshire United Methodist Church. The proposed telecommunications facility includes an approximately 52' x 50' s.f. lease area located in the south-central section of the host parcel.

The facility consists of a new 95-foot tall self-supporting monopole designed to resemble a pine tree ("monopine") with faux branches extending an additional 4' above the top of the pole, bringing the total height to approximately 99'. Verizon would initially install six (6) panel antennas and related equipment at a centerline height of 90' above grade level ("AGL"). The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers. Verizon's equipment cabinet would be installed on a 9' x 9' concrete pad within the 42' x 50' fenced tower compound at the base of the monopine. Verizon would also install a 30 KW propane emergency backup power generator on a 4' x 8'6" concrete pad within the equipment compound.

The tower compound would consist of a 2,100 s.f. area to accommodate Verizon's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an 8'-high wooden shadow box fence. Vehicle access to the facility would be provided from Academy Road using an existing paved driveway leading to the southeast corner of the paved parking area (approximately

480') which will connect to a 12'-wide wooden gate enclosing the leased area. Utility connections would be routed underground from existing utility pole (CL&P #724) located at the southeast corner of the paved parking area.



Site Evaluation Report

SITE EVALUATION REPORT CHESHIRE EAST

I. LOCATION

A. <u>COORDINATES</u>: 41° 29' 53.7872" N 72° 53' 39.3902" W

B. GROUND ELEVATION: 242.7'± AMSL

C. <u>USGS MAP</u>: USGS 7.5 quadrangle for Mt. Carmel

D. <u>SITE ADDRESS:</u> 185 Academy Road

Cheshire, CT 06410

E. <u>ZONING WITHIN ¼ MILE OF SITE:</u> Abutting areas to the north, south and east are zoned R-40 (Residential). R-40 (Residential), and C-1 (Commercial) zoned areas are located to the west.

II. DESCRIPTION

A. <u>SITE SIZE:</u> 8.10 Ac (Vol 1141 - Page 126)

LEASE AREA/COMPOUND AREA: 2,600 SF/2,100 SF

- B. <u>TOWER TYPE/HEIGHT:</u> A 95' AGL Monopine (top of branches @ 99' AGL).
- C. <u>SITE TOPOGRAPHY AND SURFACE:</u> Subject site slopes northwest to southeast and is located on land consisting of an existing church.
- D. <u>SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR</u>
 <u>WATER:</u> The proposed compound is located on the southern side (existing open area) of 8.10 acre parcel which is currently occupied by an existing church and associated parking area. To the north, east and west are residential properties. To the south is an existing cemetery. There are wetlands on-site to the east (±105') of the proposed compound.
- E. <u>LAND USE WITHIN ¼ MILE OF SITE</u>: Residential properties to the north, east and west. Existing cemetery to the south.

III. FACILITIES

- A. <u>POWER COMPANY:</u> Eversource
- B. <u>POWER PROXIMITY TO SITE:</u> 10'±
- C. TELEPHONE COMPANY: Frontier
- D. PHONE SERVICE PROXIMITY: 10'±
- E. <u>VEHICLE ACCESS TO SITE:</u> Access to the proposed telecommunication facility will be along an existing bituminous driveway/parking area (480'+/-).
- F. <u>OBSTRUCTION:</u> A new utility pole will need to be added and existing overhead utility lines will require relocation in order to construct the new compound.
- G. <u>CLEARING AND FILL REQUIRED</u>: Total area of disturbance is 2,600 sf.; no trees will need to be removed. The site improvements shall entail approximately 10 CY of cut for utility trenching and net 100 CY of excavation for the construction of the compound. Approximately 50 CY of broken stone is needed for the compound.

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: Cheshire United Methodist Church
- C. ADDRESS: 185 Academy Road, Cheshire, CT 06410
- D. DEED ON FILE AT: Volume 1141 Page 126

Facilities and Equipment Specification

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: To be determined

B. TYPE: Monopine tower

C. HEIGHT: 95' AGL (with 4' branches extending to 99')

DIMENSIONS: Tower structure tapered

D. TOWER LIGHTING: None required.

II. TOWER LOADING:

- A. Verizon -6 panel antennas
 - a. Model TBD
 - b. Antenna Dimensions approximately:

70.9"H x 12"W x 7"D

- c. Position on Tower 90' centerline AGL
- d. Transmission Lines DC and Fiber lines internal to tower.
- e. Up to 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-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2012 International Building Code with 2016 Building Code Amendment. The foundation design would be based on soil conditions at the site. The details of the tower and foundation design will be provided as part of the final D&M plan.



Site Impact Statement

Site: Cheshire East

Site Address: 185 Academy Road

Cheshire, CT 06410

Access distances:

Distance of existing paved driveway/parking area (480'+/-).

Distance to Nearest Wetlands

There are wetlands located on-site approximately 105' to the east.

Distance to Property Lines:

418'+/- to the northern property boundary from the tower 40'+/- to the southern property boundary from the tower 364'+/- to the western property boundary from the tower 266'+/- to the eastern property boundary from the tower

385'+/- to the northern property boundary from the compound

8'+/- to the southern property boundary from the compound

343'+/- to the western property boundary from the compound

240'+/- to the eastern property boundary from the compound

Residence Information:

There are 16 single family residences within 1,000' feet of the compound. The closest off site residence is approximately 310 feet to the east and is located at Parcel 65-283 (245 Academy Road).

Special Building Information:

A new utility pole will need to be added and existing overhead utility lines will require relocation in order to construct the new compound.

Tree Removal Count:

No trees need to be removed to construct the compound area.

6" – 10"dbh 0 trees 10" – 14"dbh 0 tree 14" or greater dbh 0 tree

Cut/Fill: The site improvements shall entail approximately 10 CY of cut for utility trenching and net 100 CY of excavation for the construction of the compound. Approximately 50 CY of broken stone is needed for the compound.

Clearing/Grading Necessary: Total area of disturbance = 2,600+/- SF





August 10, 2020

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

RE: Tree Inventory

Site: Cheshire East 185 Academy Road Cheshire, CT 06410

Dear Mr. Fisher:

A Tree Inventory was completed at the subject site on April 22, 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 construct the compound area. Installation of the proposed compound area will not require the removal of any trees.

The area to be disturbed for construction of the compound area will be approximately 2,600 square feet of interior area currently vacant.

Sincerely,

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

Robert C. Burns, P.E. Program Manager

Diamond Towers V, LLC 185 Academy Road, Cheshire, CT 1000' RESIDENTIAL BUILDING LIST

PARCEL ID	STREET ADDRESS	BUILDING TYPE	DISTANCE FROM COMPOUND* (ft+/-
65-283	245 Academy Road	Single Family	310'
58-26	165 Academy Road	Single Family	395'
65-21	123 Academy Road	Single Family	575
58-25	154 Academy Road	Single Family	695'
58-24	190 Academy Road	Single Family	480'
58-63	194 Academy Road	Single Family	690'
58-23-1	204 Academy Road	Single Family	840'
58-22	214 Academy Road	Single Family	630'
58-19	244 Academy Road	Single Family	840'
58-29	269 Academy Road	Single Family	910'
58-55	259 Academy Road	Single Family	750'
58-28	247 Academy Road	Single Family	555'
65-72	60 Williamsburg Drive	Single Family	955'
65-71	52 Williamsburg Drive	Single Family	950'
65-70	44 Williamsburg Drive	Single Family	990'
65-9	35 Williamsburg Drive	Single Family	845'

^{*}Information gathered from Cheshire Assessor Map 58 and Map 65 and CTECO Ortho Aerial Images



Legend



Site

Subject Property

Approximate Parcel Boundary (CTDEEP GIS)

Municipal Boundary

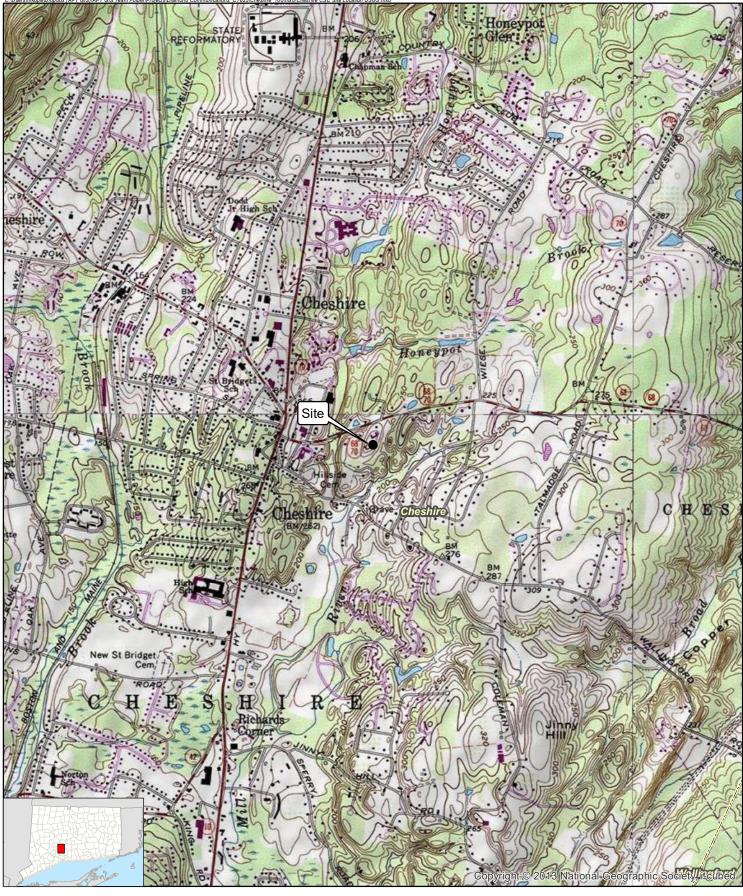
Map Notes: Base Map Source: CT ECO 2019 Imagery Map Scale:1 inch = 400 feet Map Date: December 2020



Figure 1 - Site Location Map

Proposed Wireless Telecommunications Facility Cheshire East 185 Academy Road Cheshire, Connecticut





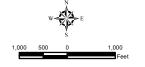
Legend





Municipal Boundary

Map Notes: Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, Mount Carmel, CT (1984) Map Date: June 2020



Site Location Map

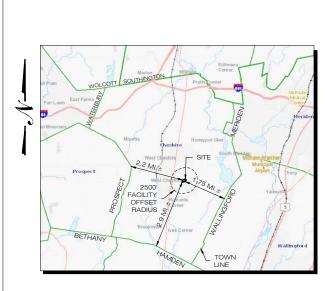
Proposed Wireless Telecommunications Facility Cheshire East 185 Academy Road Cheshire, Connecticut

ALL-POINTS TECHNOLOGY CORPORATION

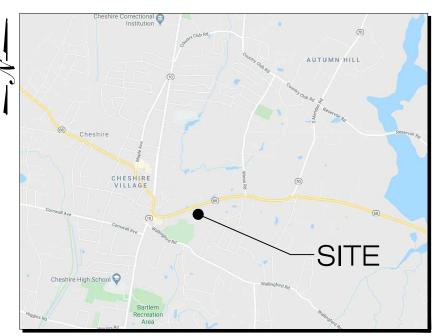
DIAMOND TOWERS V

WIRELESS TELECOMMUNICATIONS FACILITY

CHESHIRE EAST 185 ACADEMY ROAD CHESHIRE, CT 06410



MUNICIPAL NOTIFICATION LIMIT MAP



VICINITY MAP

DRAWING INDEX

T-1 TITLE SHEET & INDEX

1 OF 2 & 2 OF 2 TOPOGRAPHIC SURVEY

SP-1 SITE PLAN & ABUTTERS MAP

CP-1 COMPOUND PLAN & ELEVATION

C-1 SITE DETAILS

C-2 SITE DETAILS

SITE INFORMATION

PROJECT LOCATION: 185 ACADEMY ROAD CHESHIRE, CT 06410

PROJECT DESCRIPTION: RAWLAND SITE W/ GROUND EQUIPMENT WITHIN 2,100± SF TELECOMMUNICATIONS

COMPOUND WITH NEW 95'± AGL MONOPINE

PROPERTY DEVELOPER: DIAMOND TOWERS V

820 MORRIS TURNPIKE SUITE 104

SHORT HILLS, NJ 07078

DEVELOPER CONTACT: SCOTT VON REIN

(973) 544-6834

ENGINEER CONTACT: ROBERT C. BURNS, P.E. (860) 663-1697 x206

> LATITUDE: 41° 29' 53.7872"N (41.49827422°N) LONGITUDE: 72° 53' 39.3902"W (72.89427505°W)

ELEVATION: 242.7'± AMSI

MAP: 58 LOT: 27 ZONE: R-40

DIAMOND TOWERS V LLC 820 MORRIS TPKE STE 104

'ALL-POINTS

PERMITTING DOCUMENTS

NO DATE REVISION

0 08/10/20 FOR REVIEW: RCB 08/20/20 CLIENT REVISIONS: RCB

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

DEVELOPER: DIAMOND TOWERS V, LLC ADDRESS: 820 MORRIS TURNPIKE SUITE 104 SHORT HILLS, NJ 07078

DIAMOND TOWERS V, LLC **CHESHIRE EAST**

185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

DATE: 08/07/20 DRAWN BY: ELZ

APT FILING NUMBER: CT625100

CHECKED BY: RCE

TITLE SHEET & INDEX

SHEET NUMBER:

T-1

POWER PROVIDER:

CALL BEFORE YOU DIG:

GOVERNING CODES NATIONAL ELECTRIC CODE, LATEST EDITION

OWNER:

CHESHIRE UNITED METHODIST CHURCH 185 ACADEMY ROAD CHESHIRE, CT 06410

DIAMOND TOWERS V 820 MORRIS TURNPIKE SUITE 104 SHORT HILLS, NJ 07078 SCOTT VON BEIN (973) 544-6834

VFRIZON 20 ALEXANDER DRIVE WALLINGFORD, CT 06492

PROJECT ATTORNEY: CUDOY & FEDER, LLP

445 HAMILTON AVENUE, 14TH FLOOR WHITE PLAINS, NY 10601 (914) 761-1300

EVERSOURCE: (800) 286-2000

TELCO PROVIDER: FRONTIER (800) 921-8102

(800) 922-4455

CONNECTICUT STATE BUILDING CODE. LATEST EDITION

MAP NOTES: 1. THIS MAP AND SURVEY HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND "THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ADOPTED JUNE 21, 1996; AMENDED OCTOBER 26, 2018. 2. THE TYPE OF SURVEY PERFORMED AND THE MAPPED FEATURES DEPICTED HEREON ARE IN ACCORDANCE WITH THE REQUIREMENTS OF A TOPOGRAPHIC SURVEY AND IS INTENDED TO DEPICT THE EXISTING CONDITION OF THE SUBJECT PARCEL FOR THE PURPOSE OF DESIGN CONSIDERATIONS OF A CELLULAR TOWER. 3. THE PROPERTY BOUNDARY LINES DEPICTED HEREON CONFORM TO A CLASS 'D' AND HAVE BEEN COMPILED FROM OTHER MAPS, RECORD RESEARCH, AND OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. 4. THE TOPOGRAPHIC FEATURES DEPICTED HEREON ARE THE RESULT OF A FIELD SURVEY CONDUCTED ON APRIL 22, 2020. 5. THE HORIZONTAL BASELINE CONFORMS TO A CLASS A-2 ACCURACY. THE VERTICAL BASELINE CONFORMS TO A CLASS V-2 ACCURACY. THE TOPOGRAPHIC FEATURES CONFORM TO A CLASS T-2 ACCURACY. LEASE AREA LEGAL DESCRIPTION: COMMENCING AT A POINT IN THE AT THE SOUTHEAST CORNER OF LAND NOW OR FORMERLY OF UNITED METHODIST CHURCH HEREAFTER REFERRED TO AS THE GRANTOR, SAID POINT ALSO BEING THE SOUTHWEST CORNER OF LAND NOW OR

*SEE SHEET 2

6. THE NORTH ARROW AND BEARINGS ARE BASED UPON THE CONNECTICUT STATE COORDINATE SYSTEM N.A.D. 1983 (2011). THE ELEVATIONS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) USING GEOID 12B. COORDINATES AND ELEVATIONS WERE DETERMINED FROM RTK GPS OBSERVATIONS MADE ON APRIL 22, 2020, USING THE CT DOT RTK NETWORK

MAP NOTES (CONTINUED):

LATITUDE = N 41° 40' 24.71719"

ELLIPSOID HEIGHT = 41.746M

LONGITUDE = W 72° 42' 52.25224"

KNOWN AS ACORN (CTNE BASE), HAVING THE FOLLOWING VALUES:

7. THE WETLANDS DEPICTED HEREON WERE DELINEATED BY ALL POINTS TECHNOLOGY ON MAY 4, 2020.

8. UNDERGROUND UTILITIES, STRUCTURES AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE COMPANIES OR GOVERNMENTAL AGENCIES AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE WHICH IS UNKNOWN TO MARTIN SURVEYING ASSOCIATES, LLC.. ALL CONTRACTORS ARE REQUIRED TO CONTACT CALL-BEFORE-YOU-DIG AT 1-800-922-4455 FOR LOCATION AND OR STAKEOUT OF

A. "MAP SHOWING PROPERTY OF AND PROPERTY TO BE SOLD BY THE METHODIST CHURCH OF CHESHIRE INC. ACADEMY ROAD, CHESHIRE, CONNECTICUT" SCALE: 1"=50'; DATED: FEBRUARY 28, 1970; BY: CARL G. MATTSON ASSOCIATES.

MAP REFERENCES:

- B. "MAP SHOWING PROPERTY OF THE METHODIST CHURCH OF CHESHIRE INC. ACADEMY ROAD, CHESHIRE, CONNECTICUT" SCALE: 1" =50'; DATED: NOVEMBER 28, 1959; BY CARL G. MATTSON ASSOCIATES.
- C. "MAP SHOWING PROPERTY TO BE DEEDED CHESHIRE HILLSIDE CEMETERY ASSOC. INC. BY HERBERT W & BARBARA G. COLEMAN WALNUT STREET, CHESHIRE, CONNECTICUT" SCALE: 1" = 50'; DATED: AUGUST 16, 1970; BY CARL G. MATTSON, ASSOCIATES.
- D. "MAP SHOWING PROPERTY TO BE CONVEYED HENRY H. & EVELYN L. SCOTT, CHESHIRE, CONNECTICUT" SCALE: 1"=40'; DATED: DECEMBER 3, 1960; BY: HARRY E
- E. "MAP SHOWING PROPERTY TO BE DEEDED BY THE METHODIST CHURCH OF CHESHIRE INC. ACADEMY ROAD, CHESHIRE CONNECTICUT" SCALE: 1"=50' DATED: OCTOBER 2, 1986; BY: MATTSON ASSOCIATES.
- F. "RIGHT OF WAY MAP, TOWN OF CHESHIRE, CHESHIRE-SO. MERIDEN ROAD FROM CHESHIRE STREET EASTERLY TO YALESVILLE ROAD, ROUTE NO 325" (SHEETS & 2) SCALE: 1"=40'; DATED: APRIL 14, 1930; BY: CONNECTICUT STATE HIGHWAY



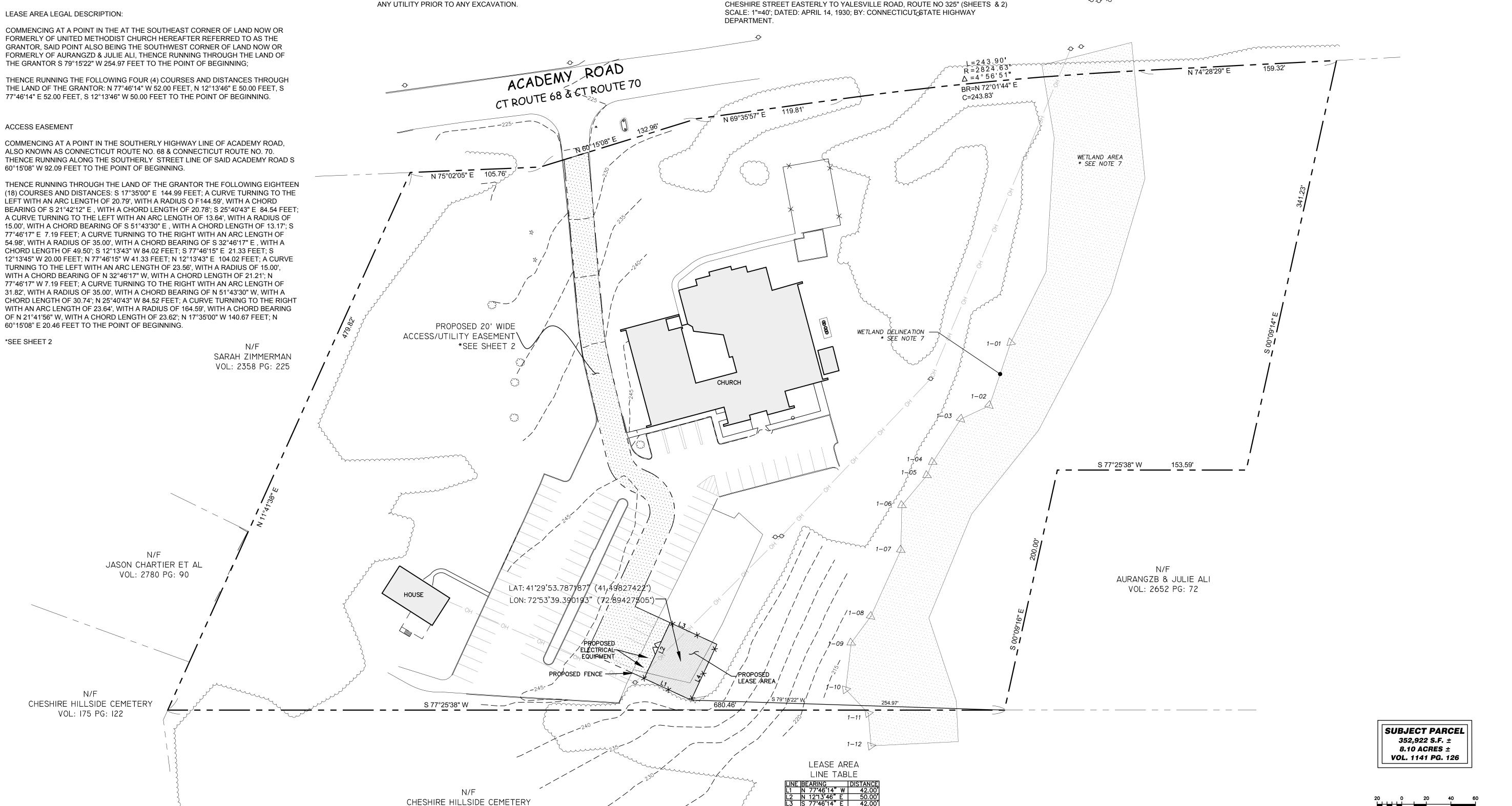
SCALE: 1"=40'

70147

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY

THIS DOCUMENT AND COPIES THEREOF ARE VALID ONLY IF THEY BEAR THE SIGNATURE

CORRECT AS NOTED HEREON.



TRANSFORMER □ "C-L" CATCH BASIN SELEC. METER € DECIDUOUS TREES □ HAND HOLE ☆ EVERGREEN TREES SHRUB/BUSH BUTTON BOX A.C. UNIT ↑ FLAG POLE © TRAFFIC CONTROL ← TRAFFIC LIGHT —— — — BOUNDARY LINE GUARD RAIL UNDERGROUND PIPING (San., Stm.) — U/G GAS LINE U/G ELEC. LINE WATER LINE ----- \\ ----- OVERHEAD UTILITIES ----- T ----- U/G TELE. LINE * * * CHAIN LINK FENCE \mathcal{M} TREE LINE

LEGEND:

O IRON PIN (FOUND)

☐ MONUMENT (FOUND)

© DRAINAGE MANHOLE O WATER GATE

• Rebar/Drill Hole

© ELEC. MANHOLE

TELE. MANHOLE

(To Be Set)

MANHOLE

≖ SIGN

POST

□ LIGHT POLE

GUY ANCHOR

Q UTILITY POLE

GV GAS VALVE

GAS METER



860-832-9328 860-357-4604 (FAX)

REVISIONS:

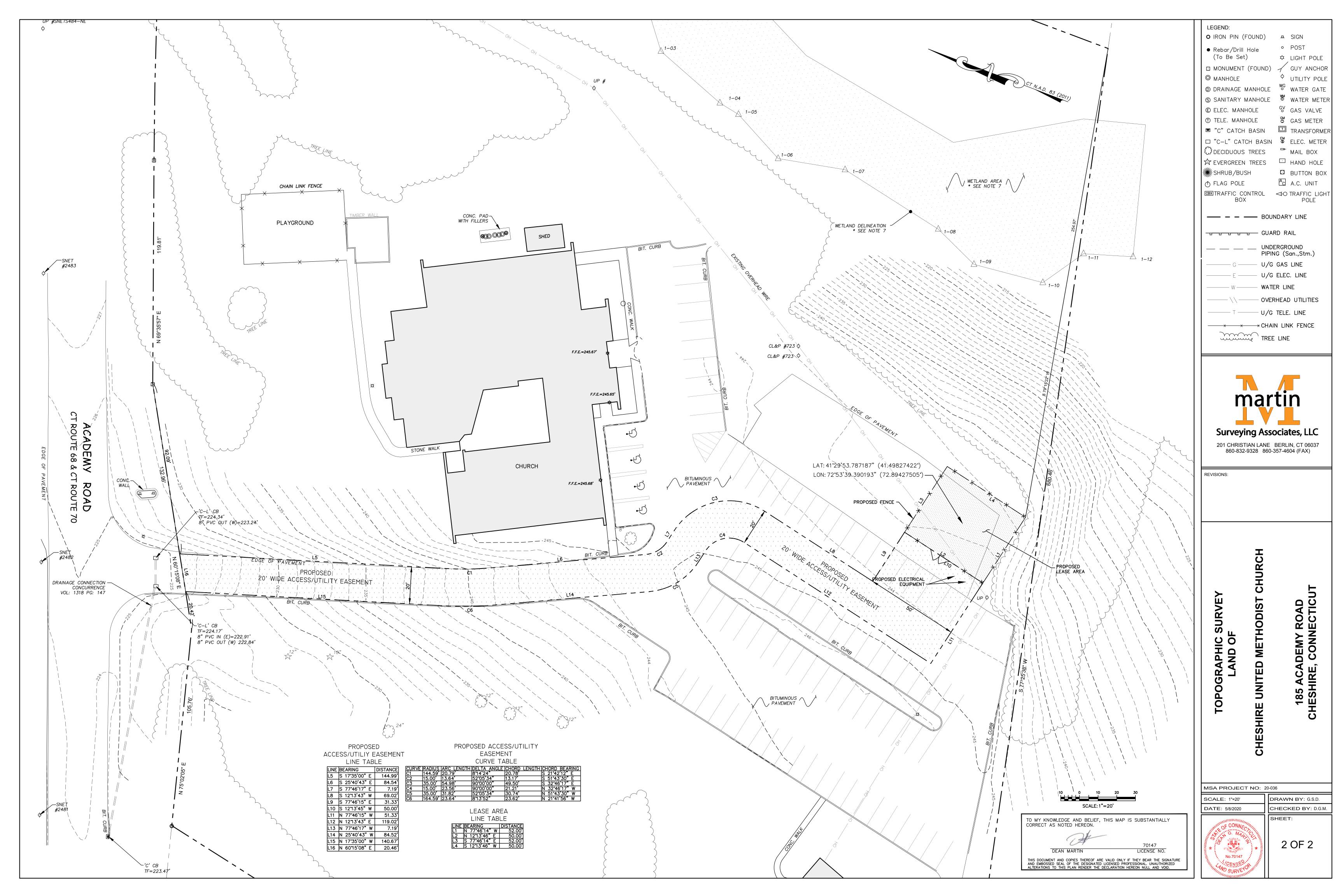
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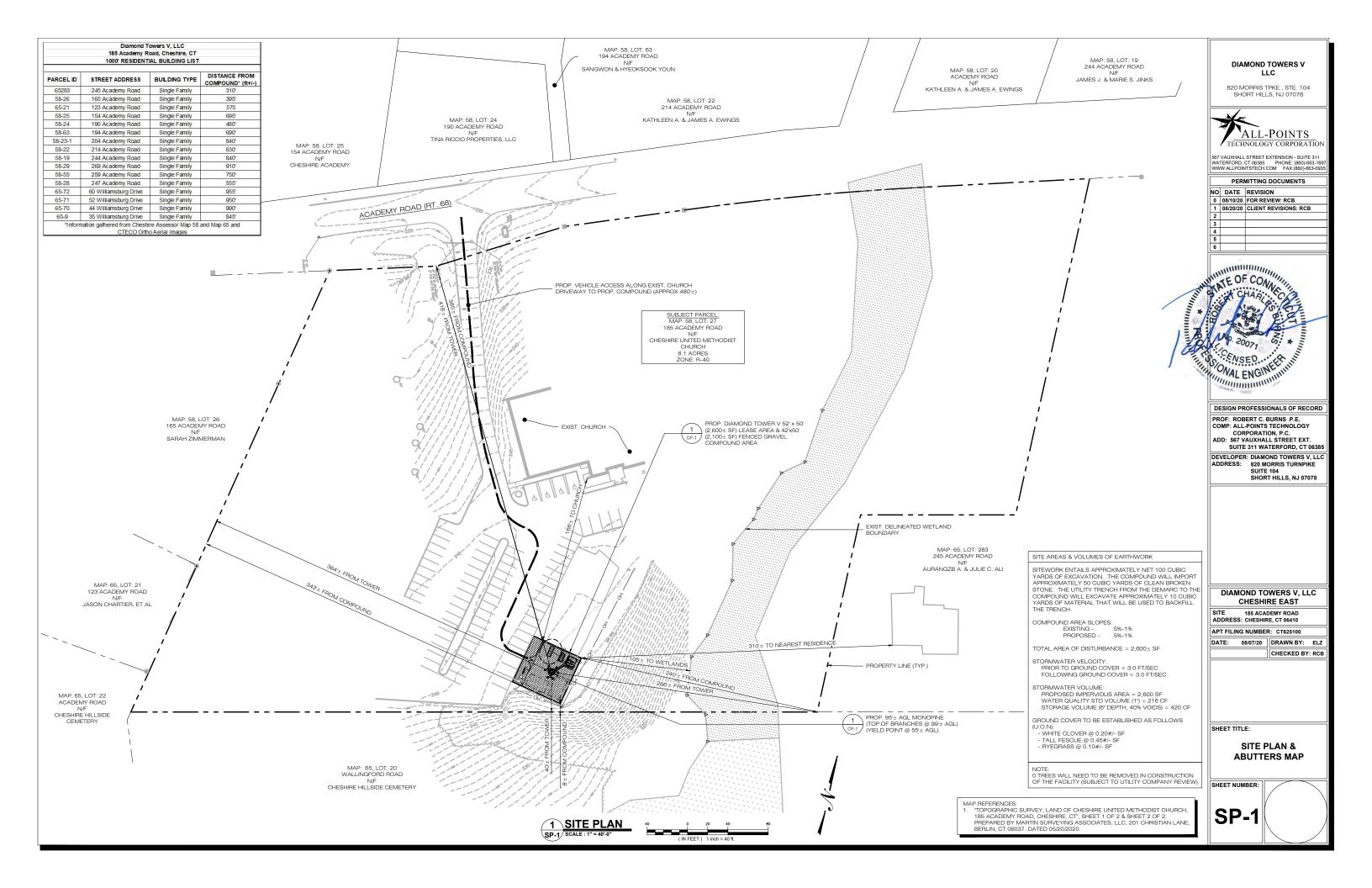
MSA PROJECT NO: 20-036 SCALE: 1"=40' DRAWN BY: G.S.D. DATE: 5/8/2020 CHECKED BY: D.G.M

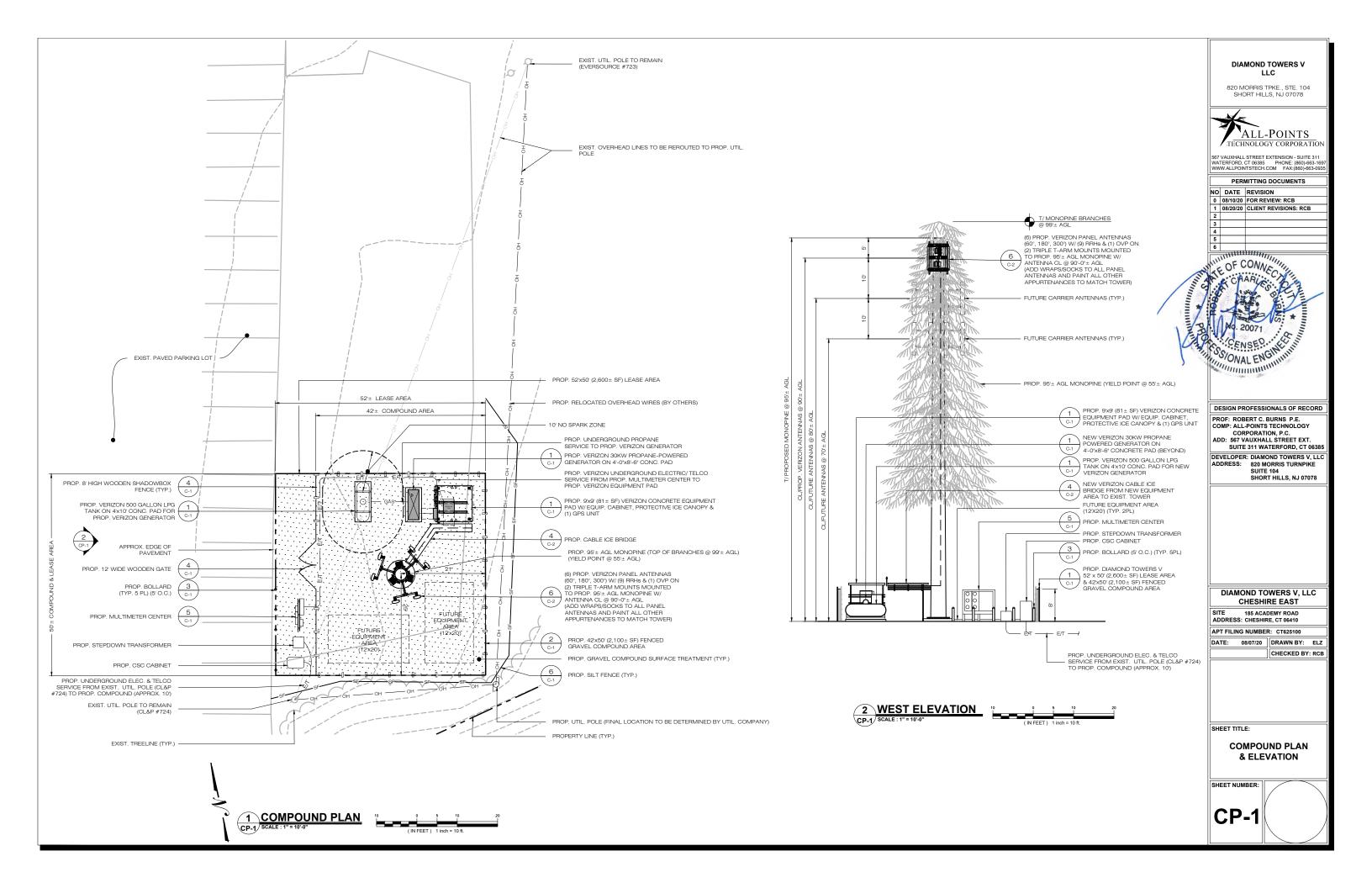
No.70147

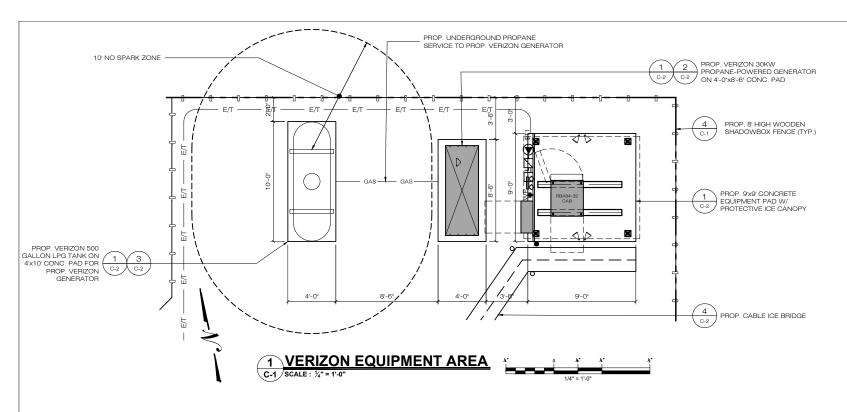
1 OF 2

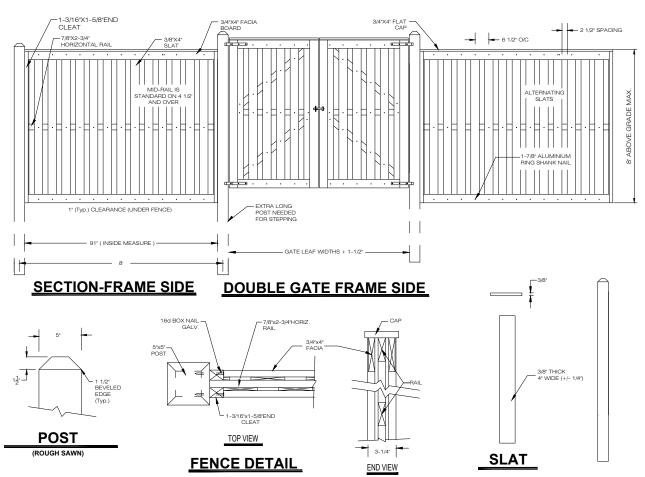
DEMY ROAD
CONNECTICE





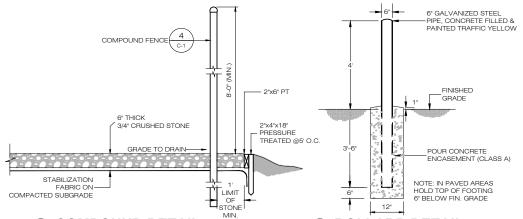




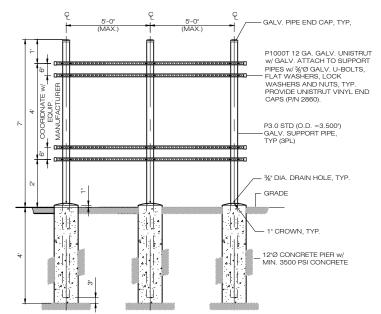




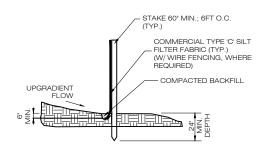




2 COMPOUND DETAIL
C-1 SCALE: N.T.S. 3 BOLLARD DETAIL
C.1 SCALE: N.T.S.



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



GEOTEXTILE 6 SILT FENCE DETAIL

DIAMOND TOWERS V LLC

820 MORRIS TPKE., STE. 104 SHORT HILLS, NJ 07078



567 VAUXHALL STREET EXTENSION - SUITE 31 WATERFORD, CT 06385 PHONE: (860)-663-7 WWW.ALLPOINTSTECH.COM FAX:(860)-663-0

	PERMITTING DOCUMENTS				
NO	NO DATE REVISION				
0	08/10/20	FOR REVIEW: RCB			
1	08/20/20	CLIENT REVISIONS: RCB			

E OF CONNEC

Mannanna Mannanna

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

DEVELOPER: DIAMOND TOWERS V, LLC ADDRESS: 820 MORRIS TURNPIKE SUITE 104 SHORT HILLS, NJ 07078

DIAMOND TOWERS V, LLC CHESHIRE EAST

185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT625100 DATE: 08/07/20 DRAWN BY: ELZ

CHECKED BY: RCB

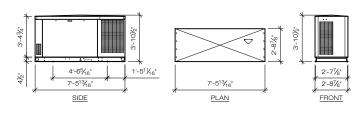
SHEET TITLE:

SITE DETAILS

SHEET NUMBER

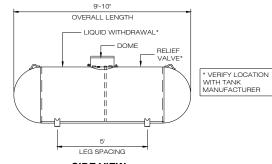


KOHLER CO. POWER SYSTEMS. 30kW PROPANE-POWERED GENERATOR MODEL #30CCL, 120/240V, 1Ø, 60Hz w/ VIBRATION ISOLATORS (VMC MSS-2E-1000 or APPROVED EQUAL)



2 GENERATOR SCHEMATICS C-2 SCALE : 1/4" = 1'-0"

LEG WIDTH **FRONT VIEW**

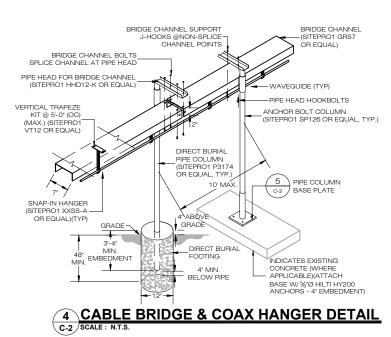


SIDE VIEW

- 1. 500 USWG AMSE VIII, DIV. 1 ABOVE GROUND LPG TANK AS MANUFACTURED BY TRINITY CONTAINERS, LLC:-
- WWW.TRINITYCONTAINERS.COM PH: 1-888-558-8265
- WEIGHT (EMPTY) = 871 lbs

NOTE: PROVIDE TANK MANUFACTURER SHOP DRAWING FOR REVIEW BY ENGINEER OF RECORD PRIOR TO PURCHASE

3 ABOVE GROUND PROPANE TANK DETAIL
C-2 SCALE: N.T.S.



#5 REBAR @ 18" O.C.

EACH WAY

1 TYPICAL CONCRETE PAD DETAIL

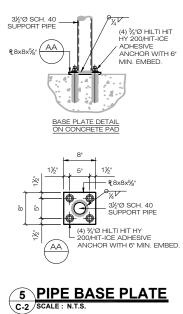
4,000 PSI CONC. SLAB - (REFER TO ENLARGED EQUIPMENT PLAN FOR DIMENSIONS)

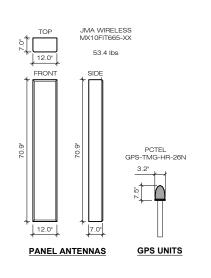
3/4" CHAMFER ALL AROUND

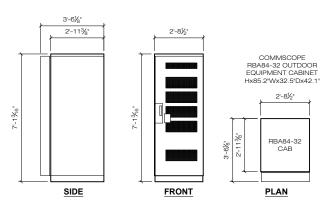
GRADE

COMPACTED

GRAVEL BASE







OUTDOOR RBA84-32 EQUIPMENT CABINET

6 VERIZON EQUIPMENT DETAILS

DIAMOND TOWERS V LLC

820 MORRIS TPKE., STE. 104



	PERMITTING DOCUMENTS			
NO	DATE	REVISION		
0	08/10/20	FOR REVIEW: RCB		
1	08/20/20	CLIENT REVISIONS: RCB		
2				
3				
4				
5				
_				



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: DIAMOND TOWERS V, LLC ADDRESS: 820 MORRIS TURNPIKE SUITE 104 SHORT HILLS, NJ 07078

DIAMOND TOWERS V, LLC CHESHIRE EAST

185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT625100

DATE: 08/07/20 DRAWN BY: ELZ CHECKED BY: RCB

SHEET TITLE:

SITE DETAILS

SHEET NUMBER:



FAA 1-A SURVEY CERTIFICATION

Applicant:	Diamond Tower 820 Morris Turn Suite 104 Short Hills, NJ 0	pike	
Site Address:	185 Academy Ro Cheshire, CT	oad	
Horizontal Datum:		NAD 83	
Vertical Datum:		NAVD 1988 (AMSL)	
Latitude:		(NAD 83) 41°29'53.7872" N (41.4982	7422° N)
Longitude:		(NAD 83) 72°53'39.3902" W (72.8942	7505° W)
Ground Elevation:		242.7'± (in feet) AMSL Elevation	
Certification:			
I certify that the latitude (72.89427505° W) are ac within 3 feet vertically.	ccurate to within 2 The existing grour merican Datum of	"N (41.49827422° N) and the longitude 20 feet horizontally, and that the following height is 242.7' AMSL. The horizont f 1983 (NAD 83) and are expressed in dund decimal degrees.	ng elevations are accurate to al datum (coordinates) are in
The vertical datum (heig the nearest tenth of a foo		of the North American Vertical Datum o	f 1988 and are determined to
Company:		Martin Surveying Associates, LLC.	MINIMARINA CONSTRUCTION

Dean Martin, PLS CT #70147

May 20, 2020

Surveyor Signature/Seal:

TOWAIR Determination Results

*** NOTICE ***

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

DETERMINATION Results

Structure does not require registration. The structure meets the 6.10-meter (20-foot) Rule criteria.

Your Specifications

NAD83 Coordinates

Latitude	41-29-53.7 north
Longitude	072-53-39.4 west

Measurements (Meters)

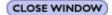
Overall Structure Height (AGL)	30.2
Support Structure Height (AGL)	30.2
Site Elevation (AMSL)	74

Structure Type

TREE - When used as a support for an antenna

Tower Construction Notifications

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



Environmental Assessment Statement

I. PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

A wetland delineation identified one wetland at the Parcel and one interior perennial watercourse located on an adjacent parcel to the southwest. were no wetlands identified in or immediately adjacent to the proposed access drive or the lease area. The onsite wetland is located to the east of the existing paved parking area at the base of a steep embankment, approximately 105' from the proposed facility compound. No wetlands are located within the area of proposed work activities and no new disturbance is proposed within 100' of the The Proposed Facility will be sited within an existing developed and disturbed area and no mature vegetation would be removed. 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, which will minimize any temporary impacts. Given the distance of the Proposed Facility to the wetlands, its location in a previously-disturbed area, the proposed erosion and sedimentation controls and the fact that no mature vegetation will be removed, there will be no anticipated adverse impacts to the wetlands. Attached is a copy of the wetland inspection report.

B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the Proposed Facility would not emit air pollutants of any kind. An emergency backup power propane 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

Installation of the proposed compound area will not require the removal of any trees. The total area of clearing and grading disturbance will be approximately 2,600 square feet. 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 Proposed 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 60 days. Temporary power outages could involve sound from the emergency generator which is tested weekly.

E. POWER DENSITY

As demonstrated in the attached Power Density Calculation, the cumulative worst-case calculation of radio frequency power density from the Proposed Facility will be within the Federal and State emission standards for the public adopted by the Connecticut Department of Energy & Environmental Protection, as set forth in Section 22a-162 of the Connecticut General Statutes. This calculated fraction of the Maximum Permissible Exposure ("MPE") is used by the Siting Council as a screening tool and assumes all antennas are pointed at the ground, which differs from the methodology provided for in the MPE limits established by the Federal Communications Commission Office of Engineering & Technology ("OET"). As such, the MPE of the Proposed Facility will be well-below the FCC MPE Standards using OET-65 methodologies.

F. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The parcel on which the Proposed Facility will be located exhibits no scenic, natural, historic or recreational characteristics which are unique. The Cheshire Historic District, listed on the State and National Registers of Historic Places is within the project area and the Congregational Church of Cheshire, which is listed on the National Register of Historic Places, is within this Historic District. Five properties listed on the State Register of Historic Places are within the project

site: the Abraham Jarvis House, the Phillips House, the Congregation Church, Bowden Hall and the Town Center State Register Historic District.

Diamond consulted with the Connecticut State Historic Preservation Office ("SHPO") and the SHPO confirmed that the project will have no adverse effect on any listed or eligible historic resources or archeological sites due to distance from the Proposed Facility, intervening foliage and varying topography. A copy of the SHPO determination is enclosed.

The facility site is not located within 0.25 miles of any locations identified on the DEEP Natural Diversity Data Base ("NDDB") maps as the approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut. Thus, consultation with the DEEP is not required.

G. SCHOOLS/DAY CARE CENTERS

Cheshire Academy at 10 Main Street in Cheshire is located less than 1/2 mile to the west of the Host Property. There are no day care centers located within 250' of the tower site.



WETLAND INSPECTION

June 24, 2020 APT Project No.: CT625100

Prepared For: **Diamond Communications**

820 Morris Turnpike, Suite 104

Short Hills, NJ 07078 Attn: Scott Von Rein

Site Name: Cheshire East

Site Address: 185 Academy Road, Cheshire, Connecticut

Date(s) of Investigation: 5/4/2020

Field Conditions: Weather: partly cloudy, high 60's

Soil Moisture: moist

Wetland/Watercourse Delineation Methodology1:

Municipal Upland Review Area/Buffer Zone:

Wetlands: 50 feet Watercourses: 50 feet

The wetlands inspection was performed by²:

Mutchen Lustuf

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.

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 Diamond Communicaations 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
- Professional Qualifications

Wetland Delineation Field Form

Wetland 1	
WF 1-01 to 1-21	
Site Sketch ⊠	GPS (sub-meter) located ⊠
	WF 1-01 to 1-21

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 seasonally flooded areas, permanently flooded areas, and seasonally saturated seep areas resulting from an interior perennial watercourse, a secondary feeder intermittent watercourse, and pockets of hillside bordering wetlands.				

TIDAL

Subtidal □	Regularly Flooded □	Irregularly Flooded □
Irregularly Flooded □		
Comments: None		

WETLAND TYPE:

SYSTFM:

0.0.E			
Estuarine □	Riverine □	Palustrine ⊠	
Lacustrine □	Marine □		
Comments: None			

CLASS:

Emergent ⊠	Scrub-shrub ⊠	Forested ⊠
Open Water □	Disturbed ⊠	Wet Meadow □

Comments: The wetland system is mostly forested with areas to the south (off-property) containing cleared and maintained emergent, wet meadow, and disturbed vegetation classes. Transitional scrub/shrub ecotones also exist within Wetland 1.

WATERCOURSE TYPE:

Perennial ⊠	Intermittent ⊠	Tidal □
Watercourse Name: Unnamed		

Comments: An interior perennial watercourse was identified consisting of a channel 3- to 4-feet wide with flowing water 2- to 3-inches in depth. The bottom of the channel consists of sand/cobble. A secondary intermittent watercourse feeds the perennial watercourse from the southwest with a 1- to 2-feet wide channel and sandy bottom.

Wetland Delineation Field Form (Cont.)

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes ☐ No ☒ Potential ☐	Other □
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

DOMINANT PLANTS:

Red Maple (Acer rubrum)	Silky Dogwood (Cornus amomum)
Multiflora Rose* (Rosa multiflora)	Broad-Leaf Cattail (Typha latifolia)
Soft Rush (Juncus effuses)	Skunk Cabbage (Symplocarpus foetidus)

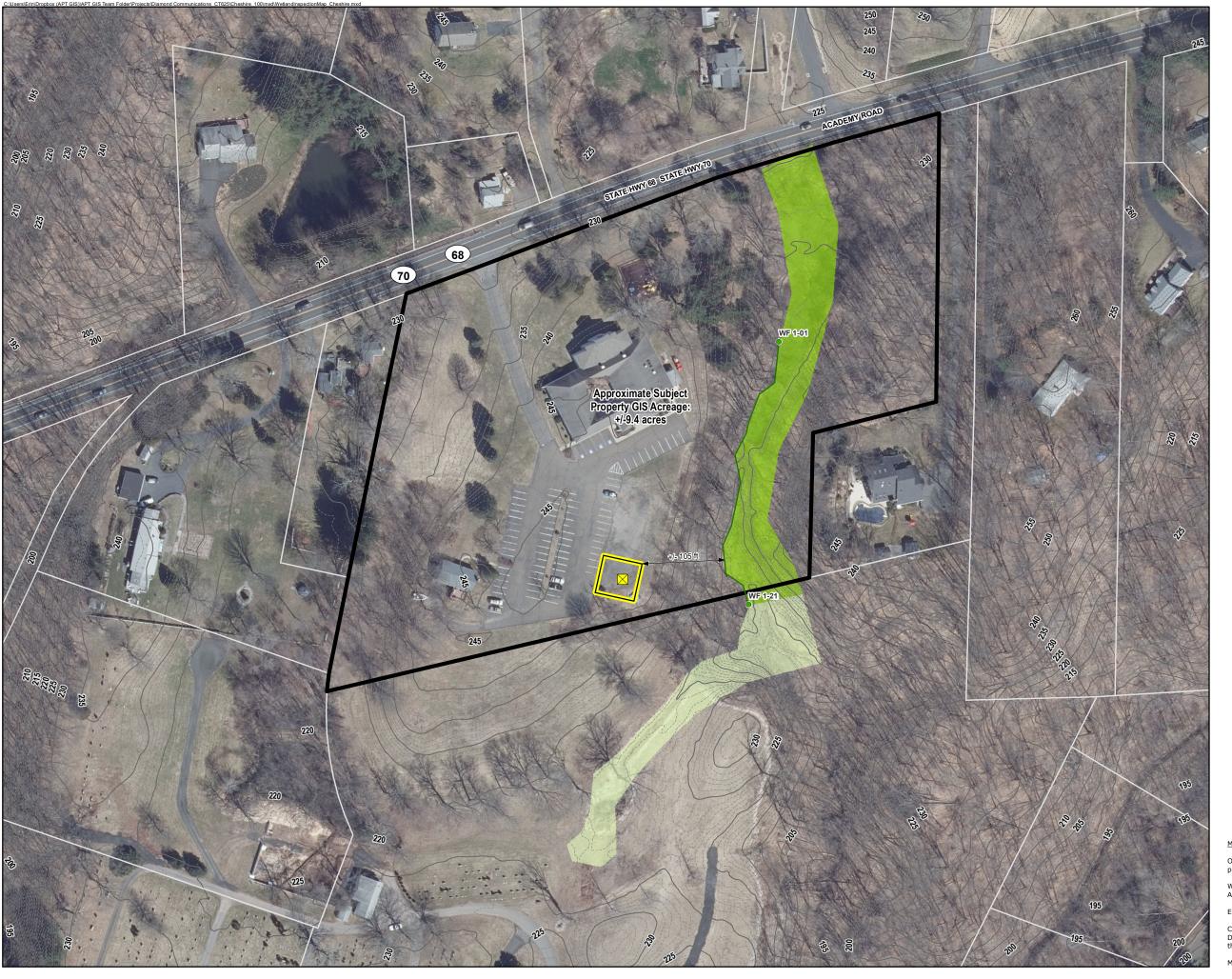
^{*} denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

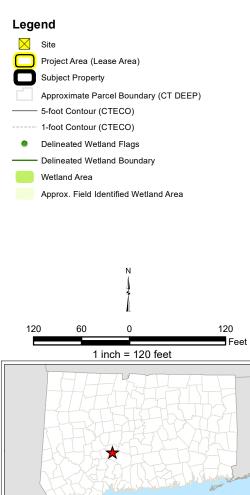
All-Points Technology Corp., P.C. ("APT") understands that Diamond Communication proposes a telecommunications facility within existing paved surfaces at the far southeast corner of a paved parking lot at 185 Academy Road in Cheshire, CT. Access to the facility would use the existing paved access off Academy Road and utilities would use existing overhead structures to the north.

No wetlands are located within or immediately adjacent to the proposed work activities. The nearest wetland area, Wetland 1, is located off the east side of the paved parking area at the base of a steep embankment. This wetland generally consists of a narrow riparian corridor that has experienced historic alteration in the form of a dam/weir located along its mid-point restricting flows to the south. This impoundment has resulted in flooded conditions to the north approaching Academy Road. As this feature drains south, some limited bordering hillside wetlands occur. In addition, a secondary intermittent watercourse feeds this perennial system from the southwest.

The proposed communication facility development activities are located ± 105 feet west of the nearest location to Wetland 1's boundary. Therefore, the project would not result in a likely adversely impact Wetland 1 due to the separating distance, the facility would be sited in an existing developed and disturbed area, and no mature vegetation would be removed, provided appropriate erosion controls are installed and maintained in accordance with the *2002 Connecticut Guidelines For Soil Erosion and Sediment Control*.



Wetland Inspection Map Proposed Cheshire East CT Wireless Telecommunications Facility 185 Academy Road **Cheshire, Connecticut**



Map Sources:

Ortho Base Map: State of Connecticut 2019 aerial imagery provided by CTECO Map Service

Wetland Field Delineated by: APT, Matthew Gustafson, Registered Soil Scientist; Date: 05/04/2020

ALL-POINTS TECHNOLOGY CORPORATION

Elevation contours derived from 2016 LiDAR data provided by CTECO

CTDEEP's data library (http://www.ct.gov/deep)
Data layers are maintained and updated by CTDEEP and represent
the most recent publications.

Map Date: June 2020

MATTHEW GUSTAFSON Registered Soil Scientist Forester

All-Points Technology Corporation, P.C. 567 Vauxhall Street Extension, Suite 311 Waterford, CT 06385 860-663-1697 Ext. 202

mgustafson@allpointstech.com

General Background

Matt Gustafson is a Registered Soil Scientist, Wetland and Forestry Biologist, and Certified Professional in Erosion and Sedimentation Controls. His skills include Connecticut and federal wetland delineations, Army Corp of Engineers data plots, wetlands functions and values assessments, vernal pool analyses, threatened and endangered species and critical habitats inventories, biological surveys, vegetative habitat classification and cover-type mapping, environmental and construction monitoring, erosion control inspections and wetland mitigation planning and monitoring. Mr. Gustafson has consulted on numerous projects which involved erosion and sediment control planning, vegetative soil stabilization and storm water management Best Management Practices evaluation and selection. He is experienced in vernal pool monitoring and assessment, including identification of a wide variety of native amphibians and reptiles that utilize vernal pool habitats.

Matt has assisted with local, state and federal wetland permitting for a variety of projects including wireless telecommunications, electric and alternative energy utilities, roadway improvements, and commercial and public developments. He also has experience in GIS data creation and management, data analysis, mobile data collection applications, integrating GIS services and solutions, and mapping.

Representative Projects

Solar Energy Facility Developments, Connecticut

Matt assisted in developing environmental documentation for several solar energy facilities in Connecticut, from the due diligence phase through construction. Matt performed feasibility analyses, wetland delineations and function/value assessments, ACOE permitting coordination, rare species field investigations and state/federal compliance services. He also assisted in the development and implementation of wetland, vernal pool, and rare species protection programs and mitigation plans, and creation of environmental assessment documentation. Matt also provided compliance monitoring services including development and implementation of a contractor awareness program, inspection of erosion and sedimentation controls, rare species protection, and documentation to satisfy regulatory approval requirements.

Northeast Utilities, Central Connecticut Reliability Project

Matt assisted with field efforts associated with natural resource and constructability evaluations along a 35-mile electrical transmission corridor in central Connecticut. The natural resource evaluation included Connecticut and Federal wetland delineations, Army Corps of Engineers data plots, wetland functions and values assessment, inventory of several State and Federal Threatened and Endangered species, and habitat/land use cover-type mapping. The constructability evaluation included documenting and mapping key project features including existing and potential access routes, current and new transmission tower locations, and construction laydown areas and their proximities to wetlands and other sensitive natural resources. The data was used to assess potential impacts to resources and identify constructability constraints.

Utility Right of Way Rare Species/Wetland/Vernal Pool Investigations, Waterford, CT

Matt assisted with field investigations for the presence of several state listed rare species (flora and fauna) and habitat within a four-mile long electrical transmission corridor and immediately surrounding areas. Potential habitat was field-located using GPS survey equipment, catalogued and qualitatively described. He also conducted an extensive vernal pool investigation which identified, mapped and evaluated over fifteen vernal pool systems.



Utility Right-of-Way Wetland Investigation/Permitting/Compliance Monitoring, Card St./Tunnel Substation, Lebanon, CT Matt assisted with field investigations and mapping for wetland resources within the entire 30 mile corridor including vernal pool assessments, constructability analyses and field location of important resources. Following these preliminary assessments, Matt assisted in securing various state and federal permits including the CT General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, Certificates of Environmental Compatibility and Public Need and Orders of Conditions issued by the Connecticut Siting Council, CT State Land Notifications, and Army Corps. Of Engineers Connecticut General Permit for activities within waters of the United States. During construction, Matt provided compliance monitoring for the various environmental permit requirements including compliance with the CT General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, CT DEEP Natural Diversity Database conditions, and Army Corps of Engineers CT General Permit.

Environmental Compliance Monitoring, Siting Council-approved Facilities, Connecticut

Matt has provided environmental monitoring services during construction of numerous telecommunication, electrical utility infrastructure, and solar facilities to ensure compliance with Certificates of Environmental Compatibility and Public Need and Orders of Conditions issued by the Connecticut Siting Council. Monitoring responsibilities include inspection of erosion and sedimentation controls, vernal pool protection plan implementation, amphibian and reptile sweeps, and development and implementation of contractor awareness programs. to educate construction personnel of the environmentally sensitive nature of these projects. Numerous projects have been completed under the direction of Matt fully complying with all elements of the various conditions of approval relating to environmental sensitivity. Where compliance issues have occurred, each has been resolved without net degradation to the environment or project delays.

University of Vermont, The Rubenstein School of Environment and Education

Natural Resources

B.S., Double Major: Environmental Science and Forestry, May 2011

Continuing Education

New England Soil Certification Program, completed 2012

Registered Soil Scientist, Society of Soil Scientists of Southern Registrations

New England.

Connecticut Association of Wetland Scientists.

Certifications OSHA Hazardous Water Operations and Emergency Response

(HAZWOPER) Training (29 CFR 1910.120)

Certified Professional in Erosion and Sedimentation Controls

(CPESC) #6523





AVIAN RESOURCES EVALUATION

June 30, 2020

To: Diamond Communications, LLC

820 Morris Turnpike - Suite 104

Short Hills, NJ 07078

Re: Cheshire East CT, 185 Academy Road, Cheshire, CT

APT Project No. CT625100

Diamond Communications, LLC proposes to construct a new wireless telecommunications facility ("Facility") at 185 Academy Road in Cheshire, Connecticut (the "Host Property"). The Host Property consists of an approximately 9.4-acre parcel that is the site of the Cheshire United Methodist Church. The proposed Facility will include a ±95-foot tall steel monopole with faux branching designed to resemble a pine tree ("monopine"). Faux branching would extend to a height of 99' above ground level ("AGL"). The monopine would be located within a new gravel based fenced equipment compound adjacent to a paved parking lot. The Facility is being designed to allow for the future collocation of multiple service providers.

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

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 Host Property. Information within an approximate 3-mile radius of the Host Property is graphically depicted on the attached Avian Resources Map. Some of the avian 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 behavior¹. The closest IBA to the host Property

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

is the Naugatuck State Forest in Naugatuck, Oxford, Beacon Falls, and Bethany located approximately 8.1 miles to the southwest. Naugatuck State Forest is a 3,542-acre forest with a mixture of habitat types ranging from conifer/deciduous forests to various streams, rivers, ponds, and lakes. The area is known as a particularly important area for bird species that require early successional habitats. Due to its distance from the Site, this IBA would not experience an adverse impact from the proposed development of the Facility.

Supporting Migratory Bird Data

Beyond Audubon's IBAs, 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 concentrations² or migratory pathways.

Critical Habitat

Connecticut Critical Habitats depict the classification and distribution of 25 rare and specialized wildlife habitats in the state. They represent a compilation of ecological information collected over many years by state agencies, conservation organizations and individuals. These habitats range in size from areas less than one acre to areas that are tens of acres in extent. The Connecticut Critical Habitats information can highlight ecologically significant areas and target areas of species diversity for land conservation and protection, but are not necessarily indicative of habitat for bird species. The nearest Critical Habitat to the proposed Facility is a Palustrine Forested area associated with Mill River, adjacent to Sleeping Giant State Park, which is located approximately 3.1 miles to the south/southwest. Due to its distance from the Site, this Critical Habitat would not experience an adverse impact from the proposed development of the Facility.

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 Southington Breeding Bird Survey Route (Route #18015) located approximately 6.3 miles to the northeast. This ±25-mile long bird survey route begins on East Street in Southington and generally winds its way north through Plainville, Farmington, Avon, and Canton before terminating in West Simsbury. In this case, its distance from the Site would negate any potential adverse impact resulting from development of the Facility.

² "Bird concentrations" is related to 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.

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, Taft School, is located in Watertown, approximately 13.8 miles to the northwest of the proposed Facility.

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 this 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. The associated database includes information on statewide, regional and national trends. Survey routes are included in the database only if they were surveyed in at least four consecutive years and where at least four eagles were counted in a single year. The nearest Bald Eagle Survey Route is the Naugatuck River Survey Route Number 14, located approximately 7.9 miles west of the Site.

Bald eagle migration patterns are complex, dependent on age of the individual, climate (particularly during the winter) and availability of food.³ 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 the day (10:30–17:00) as thermals provide opportunities to soar up with limited energy expense; Bald Eagle migration altitudes are estimated by ground observers to average 1,500 to 3,050 meters.⁴ 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).⁵

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

³ 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].

⁴ 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.

⁵ 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.

water. No known bald eagle nests occur in the vicinity of the Host Property so the 660-foot bald eagle nest buffer would not apply.

No adverse impacts to migrating bald eagle are anticipated from development of the Facility. This conclusion is based on the relatively short (99-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 New Haven County, approximately 13.8 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 a 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 preferred breeding habitats. The Connecticut Migratory Bird Stopover Habitat Project (Stokowski, 2002)⁶ 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 Survey⁷), which collected migratory bird data along the Connecticut River and the following major Connecticut River tributaries: Farmington, Hockanum, Scantic, Park, Mattabesset, Salmon, and Eightmile Rivers. Of these potential flyways, the nearest to the Host Property is the Connecticut River, located approximately 13.6 miles to the northeast. 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.⁸ The Quinnipiac River riparian corridor, located 2.4 miles northeast of the Host Property, is not identified as a potential flyway but potentially forms a secondary flyway as birds move northward from the Connecticut River corridor during the spring migration.

Siting of tower structures within flyways can be a concern, particularly for towers much taller than that proposed, and even more particularly for taller towers with guy wires and lighting. The majority of studies on bird mortality associated with towers focuses on very tall towers (greater than 1000 feet above grade), illuminated with non-flashing lights, and guyed. These types of towers, particularly if sited in major migratory pathways, can result in significant bird mortality (Manville, 2005)⁹. The proposed Facility is not this type of tower, being an unlit and unguyed monopine structure only 99 feet in height. More recent

⁶ Stokowski, J.T. 2002. Migratory Bird Stopover Habitat Project Finishes First Year. Connecticut Wildlife, November/December 2002. P.4.

⁷The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey http://www.science.smith.edu/stopoverbirds/index.html

⁸ The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey. http://www.science.smith.edu/stopoverbirds/Chapter5_Conclusions&Recommendations.html

⁹ 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.

studies of short communication towers (<300 feet) reveal that they rarely kill migratory birds, 10 Studies of 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). 11

No adverse impacts to migrating bird species are anticipated with development of the Facility, based on its design (unlit and unquyed), relatively short (99-foot) height, and the distances separating the Host Property from the potential Connecticut and Quinnipiac River flyways. The design and height of the proposed Facility would also mitigate the potential for migratory bird impacts should either river be used as a secondary flyway.

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 that recognize the most important habitats for waterfowl along the Atlantic Flyway. Connecticut contains several of these waterfowl focus areas, the nearest of which is the New Haven Harbor area, located approximately 4.3 miles to the southeast. 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 Connecticut Department of Energy and Environmental Protection ("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, Quinnipiac River and New Haven Harbor in New Haven, is located approximately 8.4 miles to the south/southeast of the Host Property. The associated species are identified as American black duck, bufflehead, canvasback, goldeneye, and mallard. 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.

¹⁰ 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.

¹¹ 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.

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.

No known areas of state-listed species are currently depicted on the most recent DEEP NDDB Maps (June 2020) at or within a 0.25 mile of the location of the Site. As a result, the proposed development is not anticipated to adversely impact any state threatened, endangered or species of special concern. In accordance with the DEEP's and Connecticut Siting Council's NDDB review policy, consultation with DEEP is not required.

USFWS Communications Towers Compliance

In April 2018, the USFWS prepared its *Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning.* These suggested best practices were developed to assist tower companies in developing their communication systems 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. Collocation of the communications equipment on an existing communication tower or other structure (e.g., billboard, water and transmission tower, distribution pole, or building mount) is strongly recommended. 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.

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, no federally-listed bird species were identified. However, 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.

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. 12 The nearest NLEB habitat resource to the proposed activity is

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¹² Based on review of DEEP's publicly-available *Northern long-eared bat areas of concern in Connecticut to assist with Federal Endangered Species Act Compliance* mapping (dated 2/1/16) and correspondence with NDDB.

located in North Branford, approximately 9.9 miles to the southeast. Therefore, this project would not adversely affect NLEB.

- 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 within a previously disturbed area adjacent to a paved parking lot.

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, or key habitats for Birds of Conservation Concern.

The Site is not within wetlands, a known bird concentration area, migratory or daily movement flyway, or habitat of threatened/endangered species; nor would the development result in fragmentation of a core forest habitat that could potentially provide habitat for Birds of Conservation Concern.

d. Towers should avoid ridgelines, coastal areas, wetlands or other known bird concentration areas.

The Site is not located within ridgeline areas, 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 99-foot tall monopine 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.

Development of the Site will not require removal of trees because it is within an existing cleared area. Although vegetation removal will be minimal, avoidance of removal during peak breeding season will be observed, if feasible. However, due to the duration and ambiguity of this window, it may not be possible.

- 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.

All guidelines will be followed if tree removal activities cannot be performed outside of the 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 plants identified by the Connecticut Invasive Species Council as invasive plant species will be used for either temporary or permanent vegetation establishment. No vehicle wash stations are required since no sensitive habitat areas are located 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.
 - 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. Security lighting for on-ground facilities, equipment, and infrastructure should be motion or heatsensitive, 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.

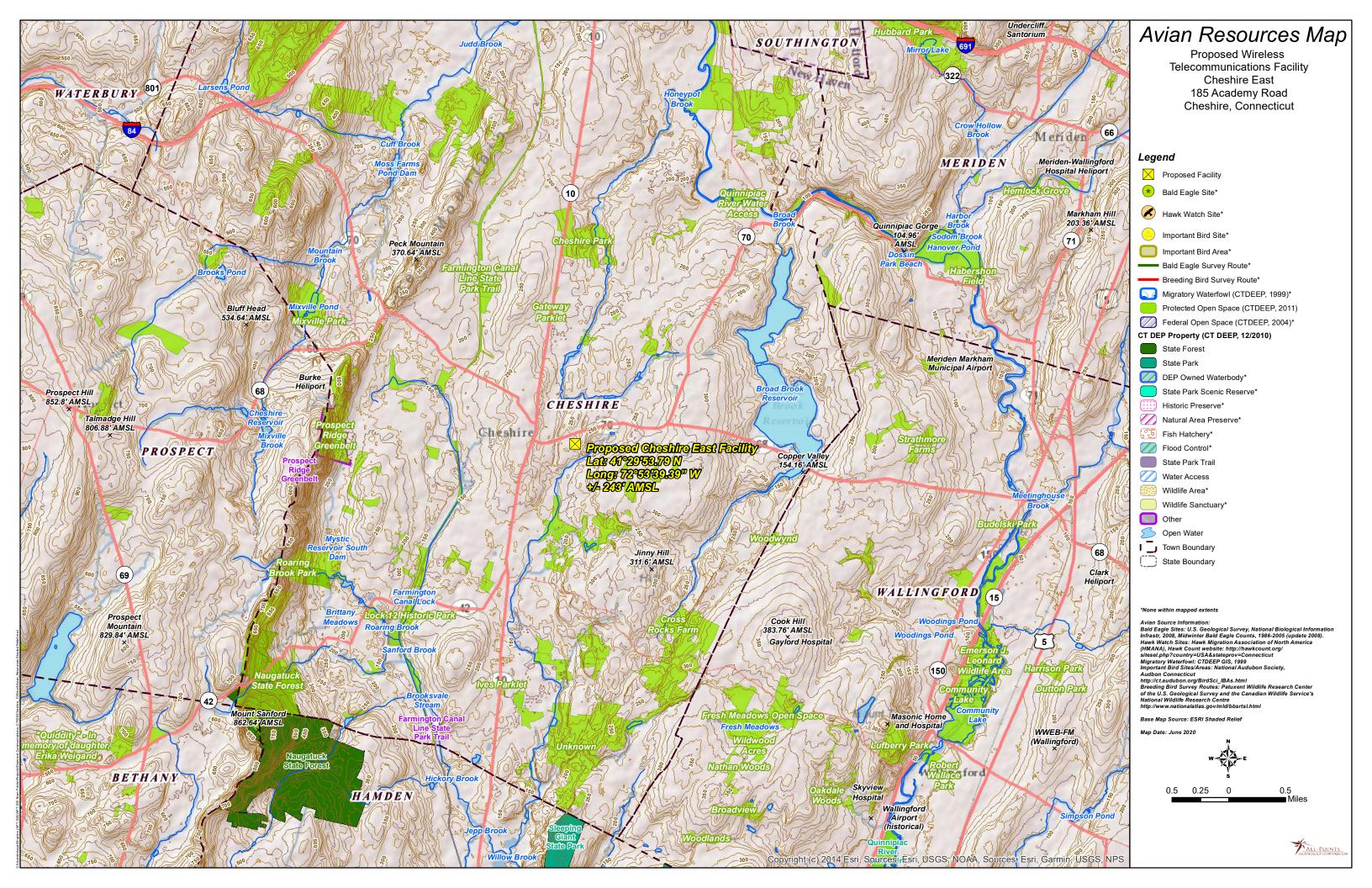
The proposed Facility would consist of a 99-foot tall monopine structure, which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard". Security lighting for on-ground facilities would be down-shielded using Dark Sky compliant fixtures set on motion sensor with timer to eliminate constant nighttime illumination.

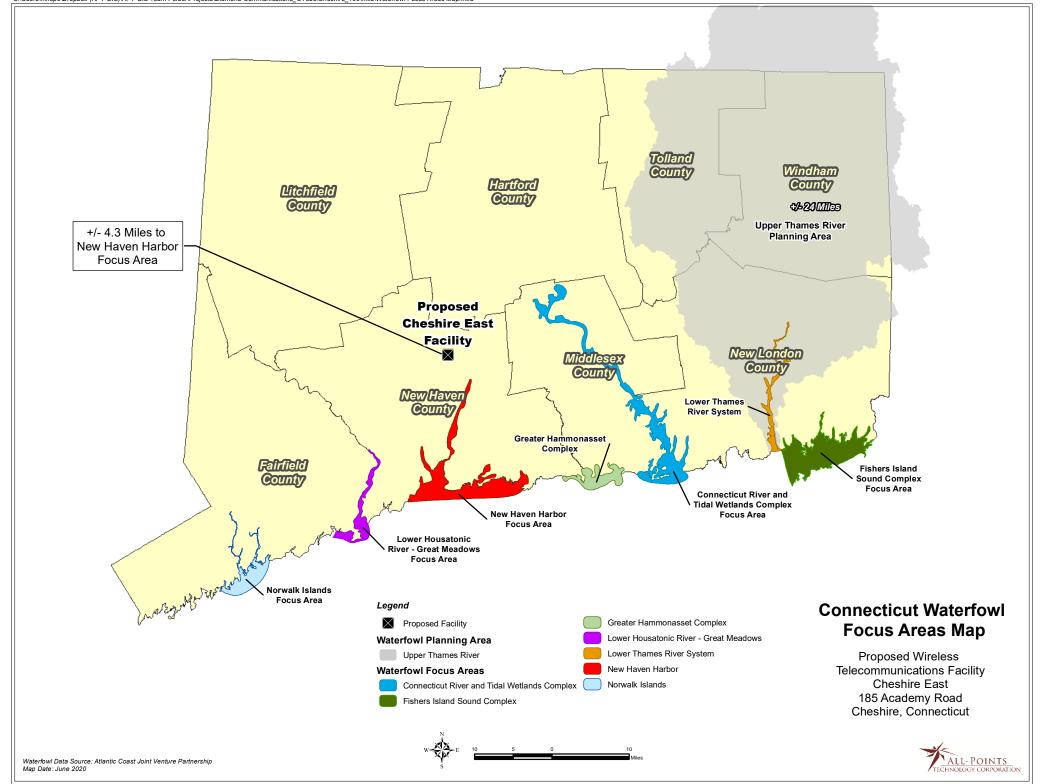
Summary and Conclusions

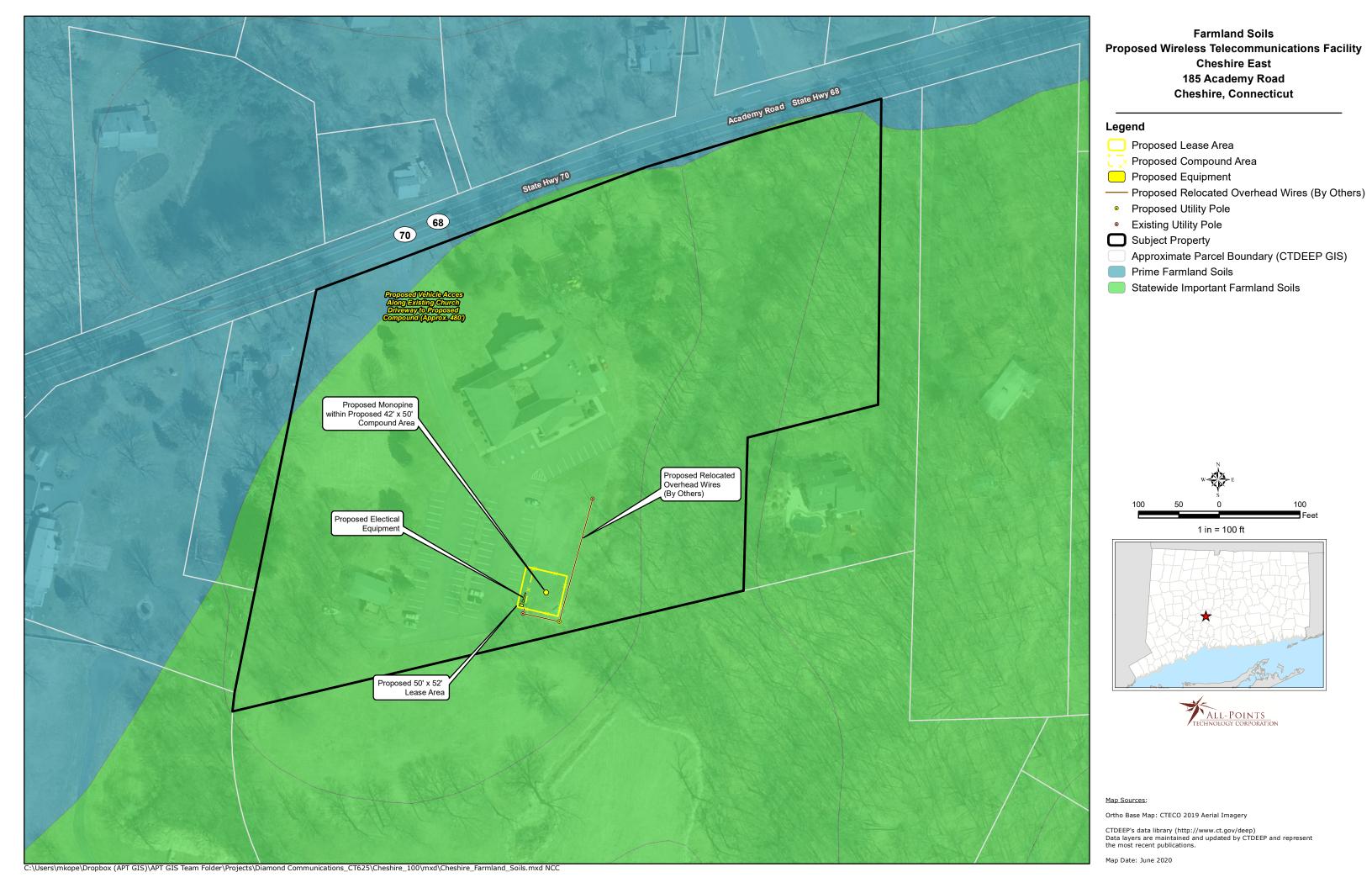
Based on the results of this desk-top evaluation, no migratory bird species are anticipated to be impacted by the proposed development. The Site is not proximate to an Important Bird Area and the proposed Facility would comply with the USFWS guidelines for minimizing the potential impacts to bird species.

Figures

- > Avian Resources Map
- > Connecticut Waterfowl Focus Areas Map







ATTACHMENT 7

Site Name: Cheshire East CT Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW 700	746	4	593	2370.8	90	0.1053	0.497333333	21.16%
VZW Cellular LTE	880	4	593	2370.6	90	0.1052	0.586666667	17.94%
VZW PCS	1970	4	1137	4548	90	0.2019	1.0	20.19%
VZW AWS	2145	4	1230	4918.8	90	0.2184	1.0	21.84%
VZW CBRS	3550	4	40	160	90	0.0071	1.0	0.71%

Total Percentage of Maximum Permissible Exposure

81.85%

MHz = Megahertz

mW/cm^2 = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:

- 1. closest accessible point is distance from antenna to base of pole;
- 2. continuous transmission from all available channels at full power for indefinite time period; and,
- 3. all RF energy is assumed to be directed solely to the base of the pole.

^{*}Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

ATTACHMENT 8

ATTACHMENT 8

Visibility Analysis

As set forth in detail in the enclosed Visibility Analysis, areas where the tower site would be visible comprise approximately 7 acres of year-round visibility and an additional approximately 39 acres of seasonal visibility. The combination of camouflaging, existing vegetation and the relative height of the tower will obscure, partially or totally, views of the tower from most locations in the 2-mile study area during leaf-on conditions. The majority of the year-round views occur on the host property, at nearby locations along Academy Road north/northwest of the Parcel up to 0/12 miles away and immediately south within the adjacent cemetery.

During leaf-off conditions, obstructed visibility is predicted in the area to the west and northwest of the propose Facility extending up to 0.44 miles from the site. Beyond the immediate area, no additional visibility is predicted to the east, north or south of the Facility. The presence of mature trees both in the immediate area of the Parcel and throughout much of the study area as well as the monopine design minimizes the extent of visibility.

Visual Assessment & Photo-Simulations

CHESHIRE EAST 185 ACADEMY ROAD CHESHIRE, CT 06410

Prepared in December 2020 by: All-Points Technology Corporation, P.C. 567 Vauxhall Street Extension – Suite 311 Waterford, CT 06385

Prepared for Diamond Towers V, LLC





VISUAL ASSESSMENT & PHOTO-SIMULATIONS

Diamond Communications, LLC ("Diamond") is seeking approval for the development of a new wireless communications facility (the "Facility") at 185 Academy Road in Cheshire, Connecticut (the "Host Property"). At the request of Diamond, 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 municipality of Wallingford to the southeast.

Project Setting

The Host Property consists of a ± 8.1 -acre irregularly shaped parcel located on the southern side of Academy Road. The parcel is developed with a church, a house, and a paved parking lot. It is surrounded by residentially-developed properties to the north and east, the Cheshire Hillside Cemetery to the south, and commercial properties and the Cheshire Academy to the west.

The topography within the Study Area consists of gently rolling terrain. Ground elevations range from approximately 128 feet AMSL in the northern portion of the Study Area to approximately 342 feet AMSL in its southeastern portion. Tree cover within the Study Area (consisting primarily of mixed deciduous hardwoods) occupies approximately 3,156 acres (or $\pm 39.25\%$) of the 8,042-acre Study Area. Broad Brook Reservoir occupies approximately 167 acres ($\pm 2\%$) of the Study Area.

Project Undertaking

Diamond plans to construct the proposed Facility on the southern portion of the Host Property (the "Site"). The proposed Facility would include a ±95-foot tall monopole designed to resemble a pine tree ("monopine") at an approximate ground elevation of 242 feet above mean sea level ("AMSL"). Faux branches would extend approximately four (4) feet above the top of the pole to provide a conical top, bringing the total Facility height to ±99 feet above ground level ("AGL"). Antenna arrays would be concealed within faux branching affixed to the monopole. The monopine would be built within an approximate 42-foot by 50-foot gravel base, fenced equipment compound. The Facility has been designed to accommodate multiple service providers. Access to the site would be gained over the existing paved driveway and parking lot associated with the church. Please refer to the current Site Drawings prepared by APT, dated August 20, 2020, 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 analyses consisted of a crane test 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 GIS¹ 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 LiDAR² LAS³ 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," 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 by identifying those cells⁴ 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

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.

⁴ Each DSM cell size is 1 square meter.

feature which was then overlaid onto an aerial photograph and topographic base map. 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 limitations. For instance, it is important to note that 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-predicted 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.

Crane Test and Field Reconnaissance

To supplement and fine tune the results of the computer modeling efforts, APT completed infield verification activities consisting of a crane test, vehicular and pedestrian reconnaissance, and photo-documentation. The crane test and field reconnaissance were completed on December 11, 2020. The crane test consisted of positioning a crane at the proposed Facility

location and extending the crane boom with a brightly-colored flag to the top height of the Facility (±99 feet AGL). This provided a fixed object unaffected by the wind. Weather conditions were favorable for the in-field activities with calm winds and partly cloudy 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 flag 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 crane 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 5 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, one (1) photograph was taken at a 24mm focal length and six (6) 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 Photoshop image editing software). The scale of the subjects in the photograph (the crane boom) 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

4

⁵ 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.

(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 crane boom 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 height of 95' AGL with the faux top extending to 99' AGL. 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.

<u>Table 1 – Photo Locations</u> 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	Academy Road*	Southeast	± 0.13 Mile	Not Visible
2	Academy Road	Southeast	± 0.12 Mile	Year Round
3	Academy Road	Southeast	± 488 Feet	Year Round
4	Academy Road	Southwest	± 0.13 Mile	Seasonal
5	Academy Road	Southwest	± 0.21 Mile	Year Round
6	Academy Road	Southwest	± 0.17 Mile	Not Visible
7	Greenbriar Drive	Southwest	± 1.10 Miles	Not Visible
8	McNamara Field	Southwest	± 1.07 Miles	Not Visible
9	Wiese Road at Academy Road	Southwest	± 0.46 Mile	Not Visible
10	Cortland Circle at South Meriden Road	Southwest	± 1.20 Miles	Not Visible
11	Academy Road	Southwest	± 0.80 Mile	Not Visible
12	Village Drive at North Wood Court	Northwest	± 0.54 Mile	Not Visible
13	Wallingford Road at Sir Walter Drive	Northwest	± 1.09 Miles	Not Visible
14	Unnamed Road	Northwest	± 1.36 Miles	Not Visible
15	Woodp ond Road at Wallingford Road	Northwest	± 0.48 Mile	Not Visible
16	Williamsburg Drive	Northwest	± 0.27 Mile	Not Visible

^{*}Photograph was taken at 24 mm focal length.

^{**}Photograph was taken at 35 mm focal length.

Table 1 – Photo Locations Continued

Wallingford Road Northeast ± 0.25 Mile Woodpond Road Northeast ± 0.28 Mile Woodpond Road Northeast ± 0.31 Mile Wallingford Road** Northeast ± 0.25 Mile Northeast ± 0.25 Mile Northeast ± 0.25 Mile Northeast ± 432 Feet Wallingford Road at Walnut Street Northeast ± 0.33 Mile Wallingford Road at Walnut Street Northeast ± 0.33 Mile Wallingford Road at Walnut Street Northeast ± 0.88 Mile Northeast ± 0.54 Mile Cornwall Avenue** East ± 1.05 Miles Cornwall Avenue** East ± 0.70 Mile Northeast ± 0.43 Mile	
19 Woodpond Road Northeast ± 0.28 Mile Your Woodpond Road Northeast ± 0.31 Mile Northeast ± 0.31 Mile Northeast ± 0.25 Mile Northeast ± 0.25 Mile Northeast ± 432 Feet Your Wallingford Road at Walnut Street Northeast ± 0.33 Mile Northeast ± 0.33 Mile Northeast ± 0.88 Mile Northeast ± 0.88 Mile Northeast ± 0.54 Mile Northeast ± 0.55 Mile Northeast ± 0.	Not Visible
Woodpond Road Northeast ± 0.31 Mile Wallingford Road** Northeast ± 0.25 Mile Cheshire Hillside Cemetery Northeast ± 432 Feet Wallingford Road at Walnut Street Northeast ± 0.33 Mile House Bartlem Recreation Area** Northeast ± 0.88 Mile South Main Street Northeast ± 0.54 Mile Cornwall Avenue** East ± 1.05 Miles Cornwall Avenue** East ± 0.70 Mile South Main Street South Main Street South Main Street East ± 0.43 Mile	Seasonal
21 Wallingford Road** Northeast ± 0.25 Mile Northeast ± 432 Feet Your Northeast ± 432 Feet Your Northeast ± 0.33 Mile Northeast ± 0.33 Mile Northeast ± 0.88 Mile Northeast ± 0.88 Mile Northeast ± 0.54 Mile Northeast ± 0.70 Mile Northeast ± 0.	ear Round
Cheshire Hillside Cemetery Northeast ± 432 Feet Wallingford Road at Walnut Street Northeast ± 0.33 Mile Bartlem Recreation Area** Northeast ± 0.88 Mile South Main Street Northeast ± 0.54 Mile Cornwall Avenue** East ± 1.05 Miles Cornwall Avenue** East ± 0.70 Mile South Main Street South Main Street East ± 0.43 Mile	Not Visible
Wallingford Road at Walnut Street Northeast ± 0.33 Mile Bartlem Recreation Area** Northeast ± 0.88 Mile South Main Street Northeast ± 0.54 Mile Cornwall Avenue** East ± 1.05 Miles Cornwall Avenue** East ± 0.70 Mile South Main Street East ± 0.43 Mile	Not Visible
24 Bartlem Recreation Area** Northeast ± 0.88 Mile N 25 South Main Street Northeast ± 0.54 Mile N 26 Cornwall Avenue** East ± 1.05 Miles N 27 Cornwall Avenue** East ± 0.70 Mile N 28 South Main Street East ± 0.43 Mile Y	ear Round
25 South Main Street Northeast ± 0.54 Mile N 26 Cornwall Avenue** East ± 1.05 Miles N 27 Cornwall Avenue** East ± 0.70 Mile N 28 South Main Street East ± 0.43 Mile Y	Seasonal
26 Cornwall Avenue** East \pm 1.05 Miles M 27 Cornwall Avenue** East \pm 0.70 Mile M 28 South Main Street East \pm 0.43 Mile Y	Not Visible
27 Cornwall Avenue** East ± 0.70 Mile N 28 South Main Street East ± 0.43 Mile Y	Not Visible
28 South Main Street East ± 0.43 Mile Y	Not Visible
	Not Visible
29 Wallingford Road** East ± 0.40 Mile Y	ear Round
	ear Round
30 111 Church Drive - First Congregational East ± 0.44 Mile	Seasonal
31 South Main Street East ± 0.40 Mile Yo	ear Round
32 Elm Street East ± 0.36 Mile	Seasonal
33 Academy Road at Elm Street** East ± 0.31 Mile	Not Visible
34 Main Street Southeast ± 0.38 Mile	Seasonal
35 Main Street Southeast ± 0.40 Mile Y	ear Round
36 Main Street Southeast ± 0.44 Mile	Seasonal
37 Main Street Southeast ± 0.53 Mile N	Not Visible
38 Highland Avenue Southeast ± 0.42 Mile	Seasonal
39 West Main Street at Main Street Southeast ± 0.67 Mile	Not Visible

^{*}Photograph was taken at 24 mm focal length.

^{**}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 are not extensive and would be limited to the areas immediately surrounding the Site (within 0.5-mile or less). In all but a few, select nearby locations (within ± 500 feet), the combination of the Facility's relatively low height and camouflaging assist in minimizing the visual effect, primarily by blending in with the surrounding landscape and vegetation.

The nearest year-round views of the Facility would be from Academy Road north/northwest of the Facility and the Cheshire Hillside Cemetery. Photo locations 2 and 3 depict representative year-round views from the area on Academy Road, at distances ranging approximately 488 feet to 0.12 mile away. Photo location 22 depicts representative year-round views from the Cheshire Hillside Cemetery.

Seasonally, when the leaves are off the deciduous trees, additional areas of obstructed visibility are predicted in the area surrounding the Facility and extending up to approximately 0.44 mile from the Site.

Both year-round and seasonal visibility is to the west and northwest of the Facility. No additional visibility is predicted to the east, north or south of the Facility, beyond the immediate area. Predicted year-round visibility of the proposed Facility is estimated to include approximately 7 acres. Predicted seasonal visibility is estimated to include an additional ± 39 acres. Collectively, the total acreage of visibility represents less than one percent of the Study Area.

Proximity to Schools And Commercial Child Day Care Centers

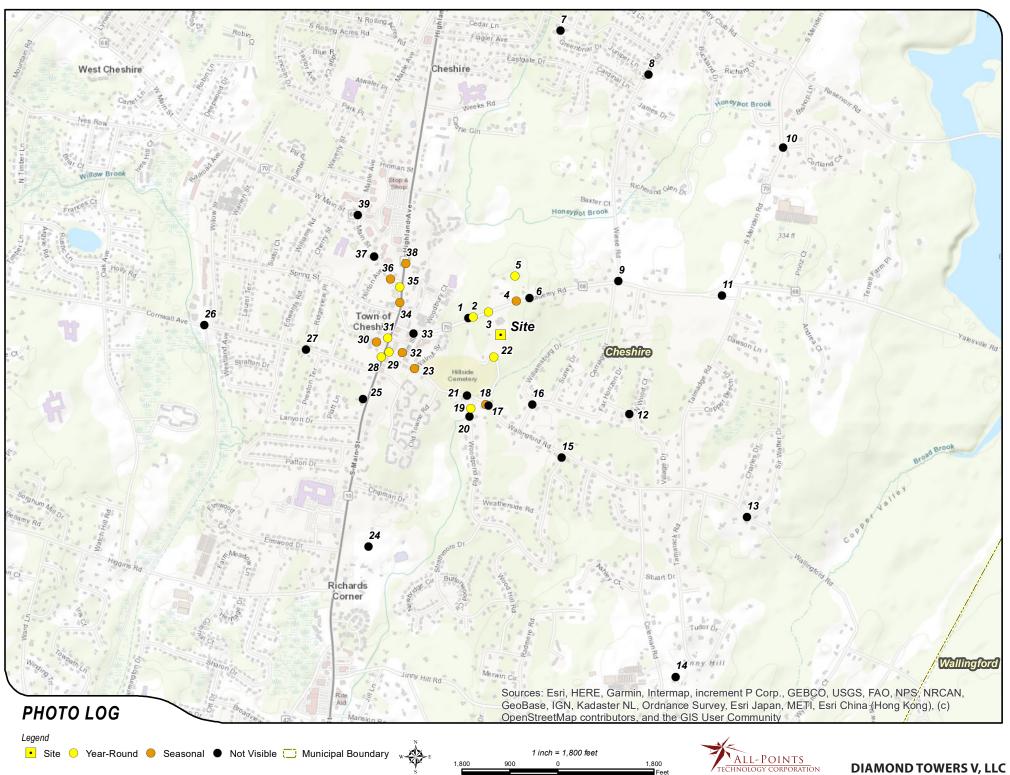
No schools or commercial day care centers are located within 250 feet of the proposed Facility. Cheshire Academy is located approximately 0.27-mile northwest of the Site at 10 Main Street in Cheshire. No visibility is predicted from the school grounds. The nearest commercial child care center is Doodlebugz Child Care Learning Center approximately 0.45 mile to the northwest of the Site at 150 Highland Avenue in Cheshire. 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 partly cloudy skies.

ATTACHMENTS



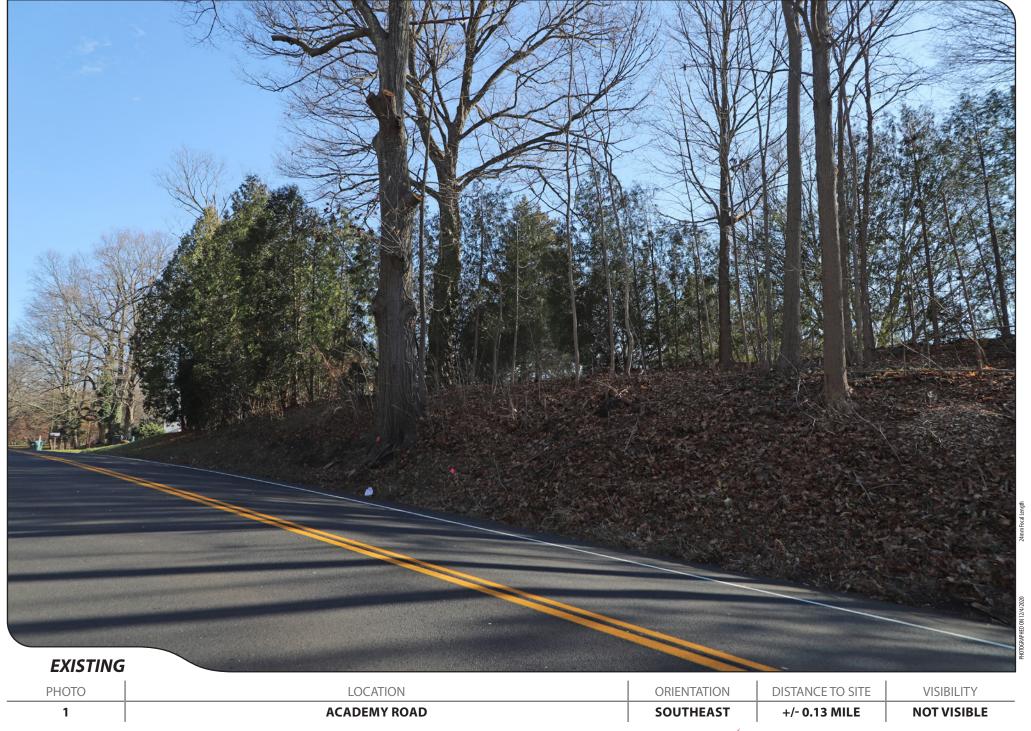










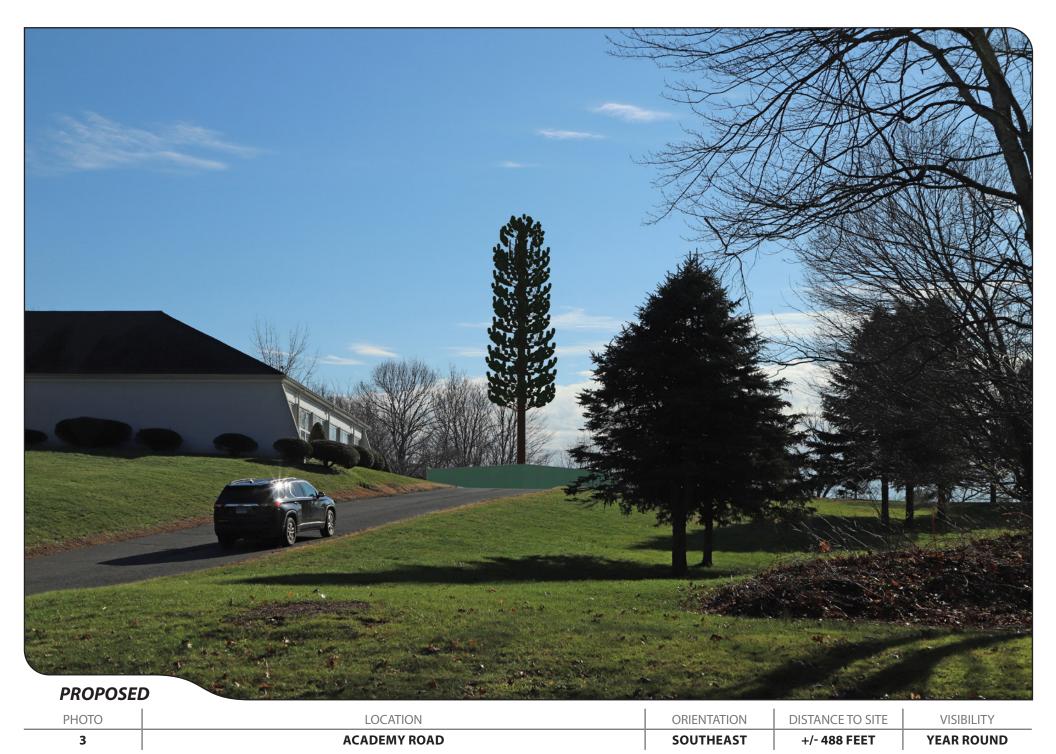
PHOTO LOCATION ORIENTATION DISTANCE TO SITE VISIBILITY

2 ACADEMY ROAD SOUTHEAST +/- 0.12 MILE YEAR ROUND





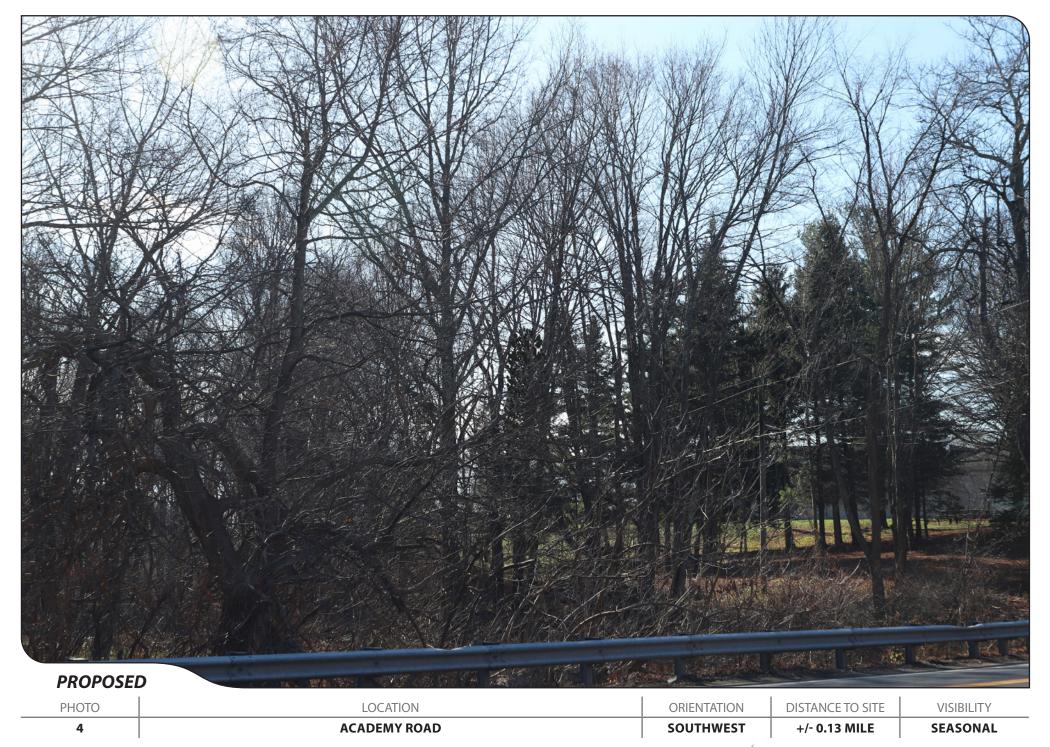




























































16	WILLIAMSBURG DRIVE	NORTHWEST	+/- 0.27 MILE	NOT VISIBLE
PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY













PHOTO LOCATION ORIENTATION DISTANCE TO SITE VISIBILITY

18 WALLINGFORD ROAD NORTHEAST +/- 0.25 MILE SEASONAL















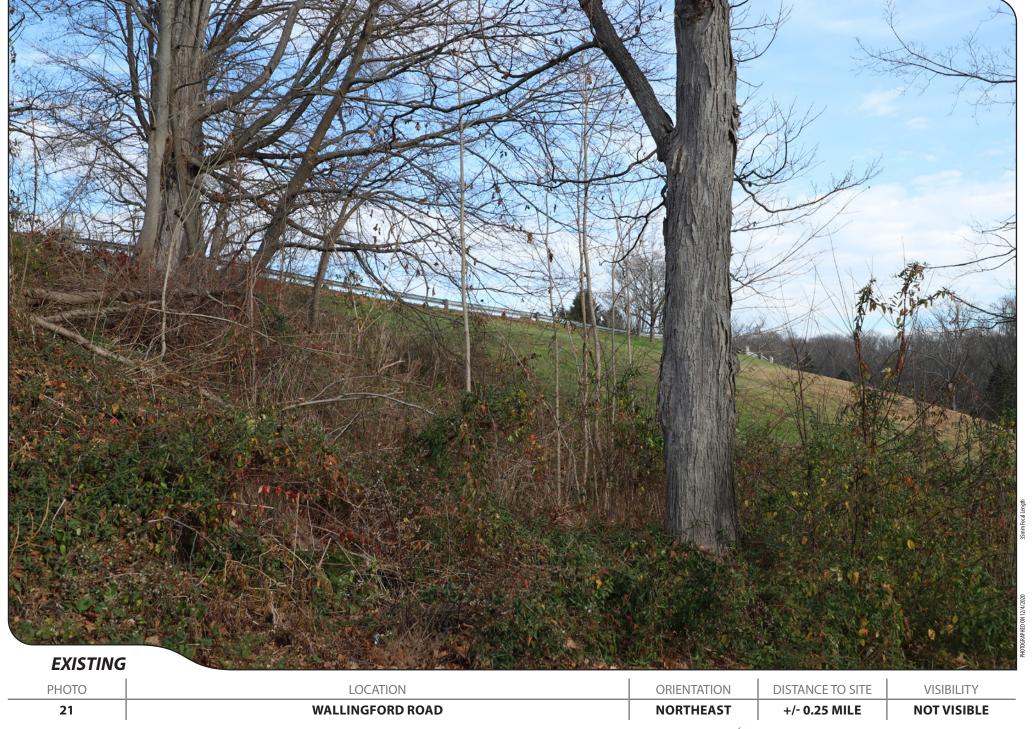












































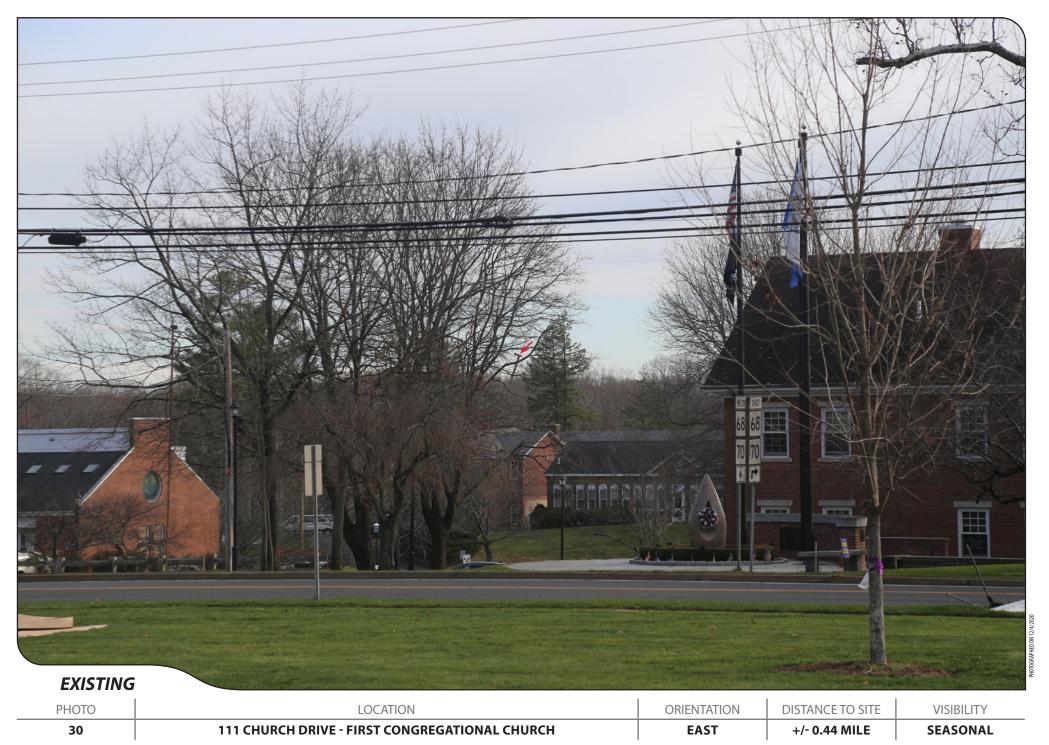




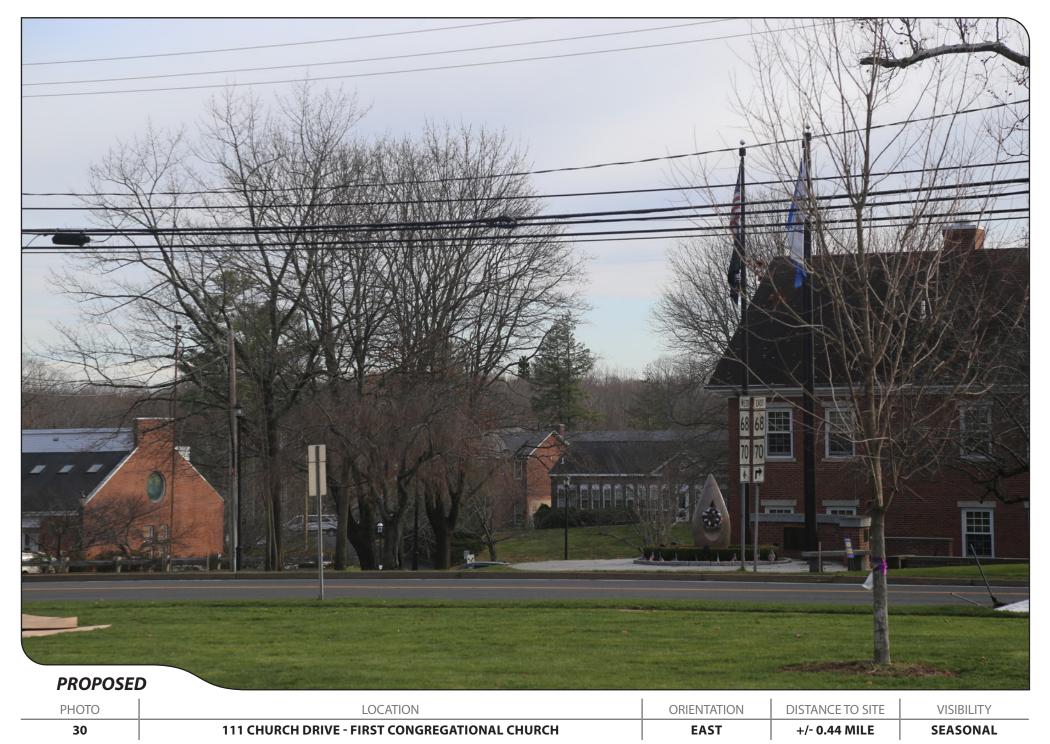
PHOTO LOCATION ORIENTATION DISTANCE TO SITE VISIBILITY

29 WALLINGFORD ROAD EAST +/- 0.40 MILE YEAR ROUND























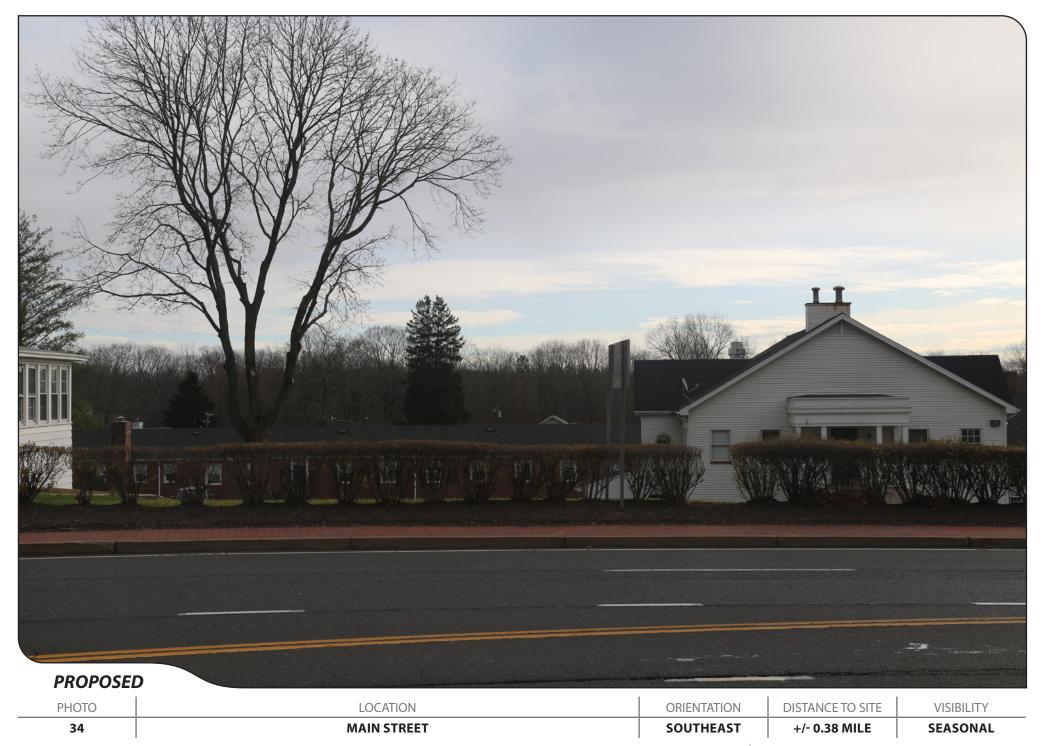




























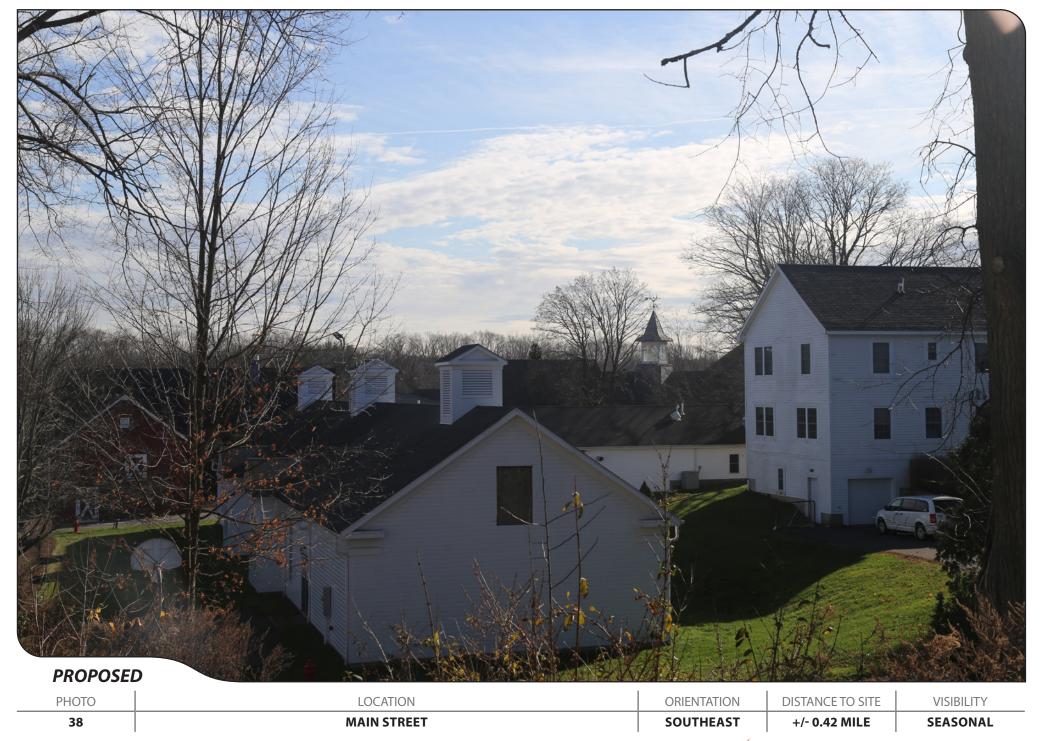








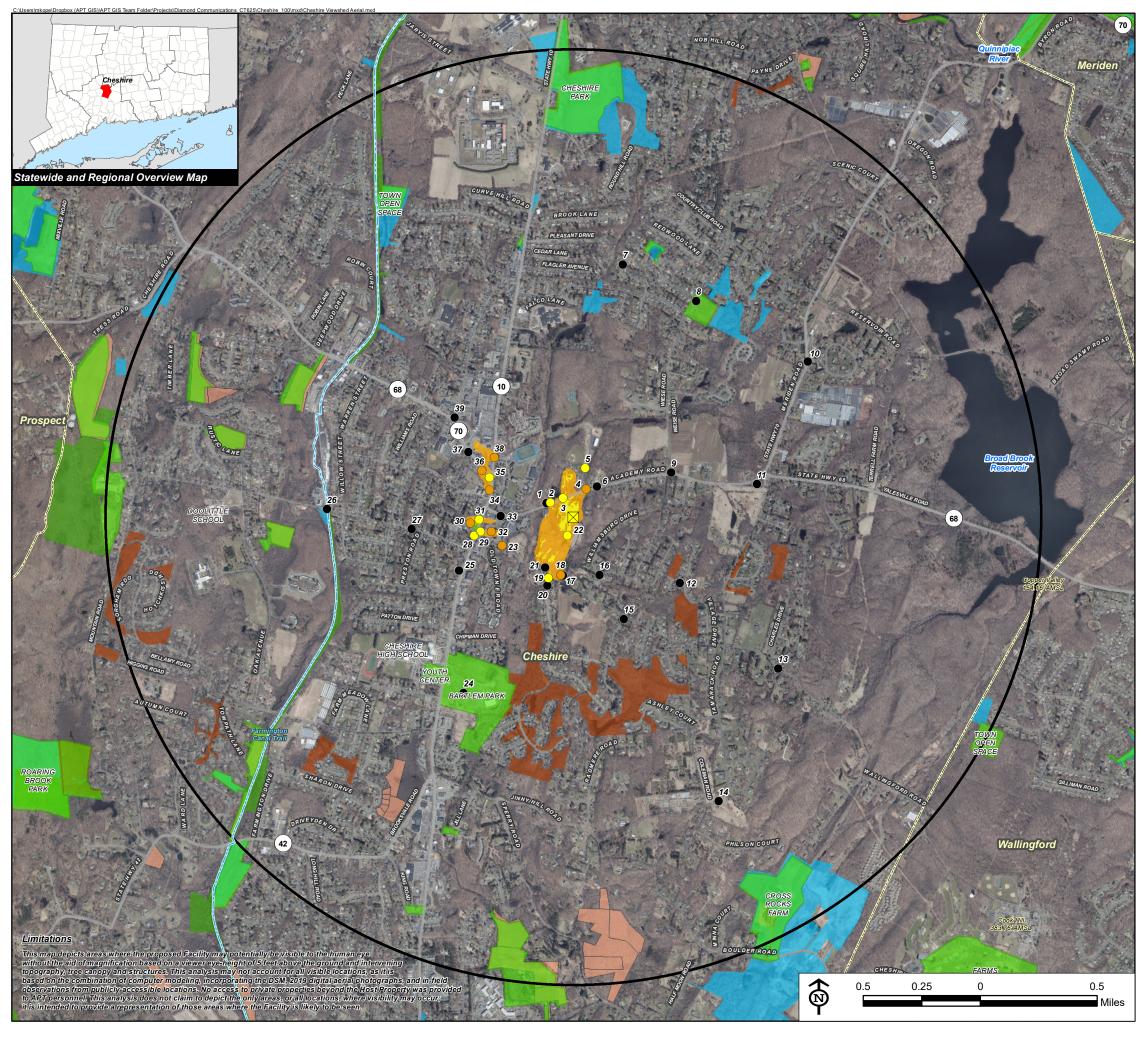


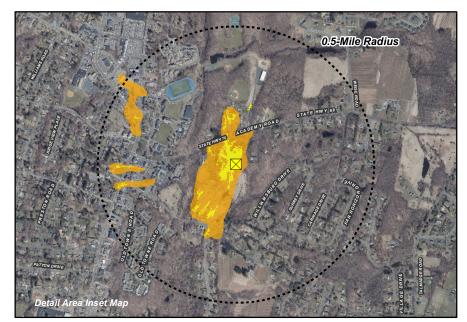












Viewshed Analysis Map

Proposed Wireless Telecommunications Facility **Cheshire East** 185 Academy Road Cheshire, Connecticut

Proposed facility height is 99 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 December 4, 2020
Base Map Source: 2019 Acres Photograph (CTECO) Map Date: December 2020

Legend



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

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

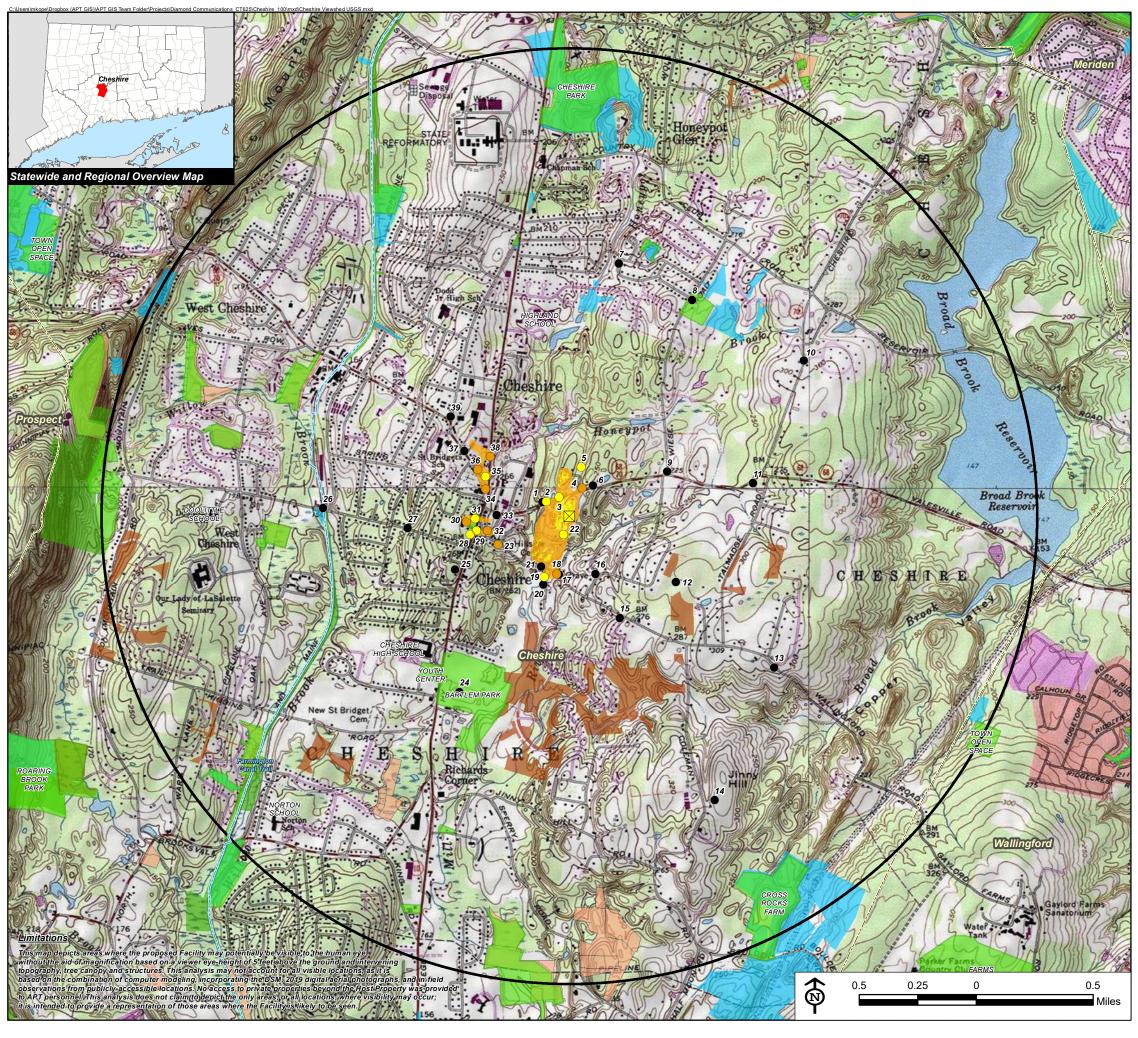
Connecticut Department of Energy and Environmental Protection (DEEP): DEEP Property (May 2007; Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)

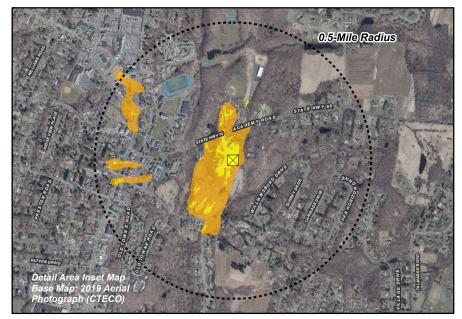
Connecticut Forest & Parks Association, Connecticut Walk Books East & West

CTDOT Scenic Strips (based on Department of Transportation data)

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







Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
Cheshire East
185 Academy Road
Cheshire, Connecticut

Proposed facility height is 99 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 December 4, 2020
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Maps,
Meriden, CT (1992), Mount Carmel, CT (1984), Southington, CT (1992), and
Wallingford, CT (1984)
Map Date: December 2020

Legend



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

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

Othe

CTDOT Scenic Strips (based on Department of Transportation data)

Note

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





July 17, 2020

Ms. Stacey Vairo c/o All Points Technology Corp. 567 Vauxhall Street Extension, Suite 311 Waterford, CT 06385

Subject: Phase IA Cultural Resource Reconnaissance Survey

Proposed Wireless Telecommunications Facility

185 Academy Road

Cheshire, CT

Diamond Communications, LLC

ENV-21-0034

Dear Ms. Vairo:

The State Historic Preservation Office (SHPO) has reviewed the preliminary archaeological assessment report prepared by Heritage Consultants (Heritage) dated June 22, 2020 as part of the larger submittal for a proposed telecommunications facility. The proposed activities are subject to review by this office pursuant to the National Historic Preservation Act and in accordance with Federal Communications Commission regulations. SHPO understands that the proposed undertaking includes the installation of a 99 foot tall monopine within a 52 foot by 50 foot chainlink equipment compound, located at the southern boundary of the Subject Property. Antennae configuration is proposed to be in 10 foot increments at 70 feet, 80 feet and 90 feet above ground level (AGL), respectively. Access is to be from an existing paved drive, originating off of Academy Road.

No previously identified archaeological sites are located within 0.5 miles of the project area. One resource listed in the National Register of Historic Places (NR), the Cheshire Historic District (NR# 86002793) is located within the Area of Potential Effect-Visual Effects (APE-VE). The individually listed Congregational Church of Cheshire (NR# 73001950) is located within the district. Five properties listed on the State Register of Historic Places, The Abraham Jarvis House, the Phillips House, the Congregation Church, Bowden Hall, and the Town Center State Register Historic District are all within the APE-VE. However, distance, intervening foliage, and varying topography will prevent the installation from being visible from these resources the majority of the time.

The preliminary archaeological assessment consisted of a pedestrian survey of areas that would be subject to ground disturbing impacts as part of the proposed undertaking. No cultural material



from either historic or prehistoric periods. Soil profiles within the project area indicate well drained soils on low slopes. A review of historic maps and aerials indicate the property was used primarily for farming, prior to construction of the Cheshire United Methodist Church, constructed c. 1972. The proposed access area and compound are located in area previously disturbed by construction of the chu5rch and parking lot, and therefore have a low potential to contain intact archaeological deposits.

Therefore, based on the information provided to our office, SHPO concurs with the findings of the cultural resources survey that additional archaeological investigations are not warranted, and the proposed undertaking will have <u>no adverse effects</u> to sites listed on or eligible for listing on the National Register of Historic Places, with the following conditions:

- 1. The antennae, wires, mounts, and associated equipment will be designed, painted to match adjacent materials, and installed to be as non-visible as possible, and
- 2. if not in use for six consecutive months, the antennae, mounts, and equipment shall be removed by the telecommunications facility owner. This removal shall occur within 90 days of the end of such six-month period.

The State Historic Preservation Office appreciates the opportunity to review and comment upon this project. These comments are provided in accordance with the Connecticut Environmental Policy Act and Section 106 of the National Historic Preservation Act. For further information please contact Marena Wisniewski, Environmental Reviewer, at (860) 500-2357 or marena.wisniewski@ct.gov.

Sincerely,

Mary B. Dunne

State Historic Preservation Officer

Natural Diversity Data Base Areas

CHESHIRE, CT

June 2020

State and Federal Listed Species



Critical Habitat



Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a variety of data sources. Exact locations of species have been buffered to produce the generalized locations.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a hatched area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

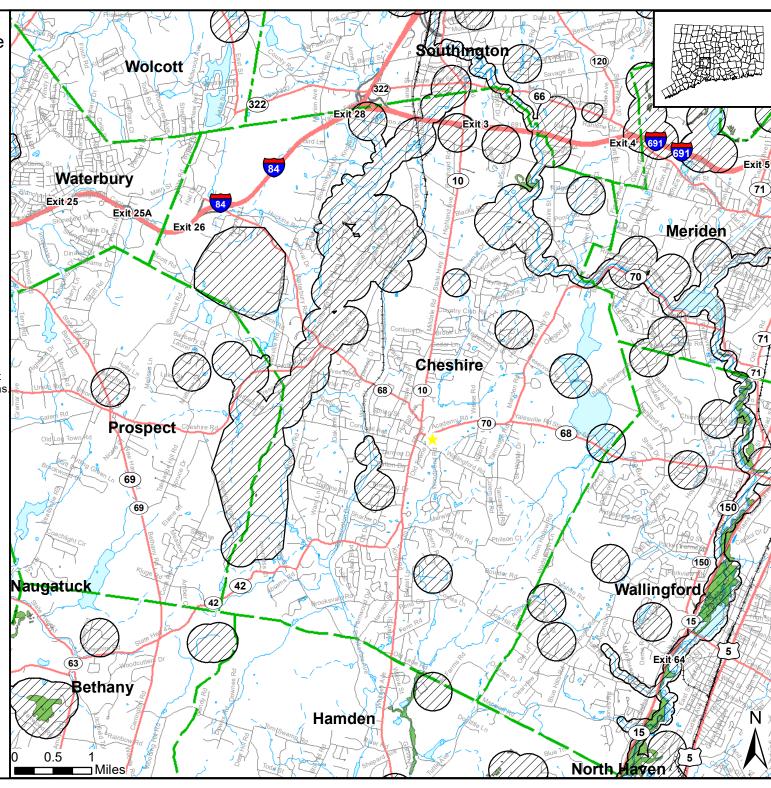
www.ct.gov/deep/nddbrequest

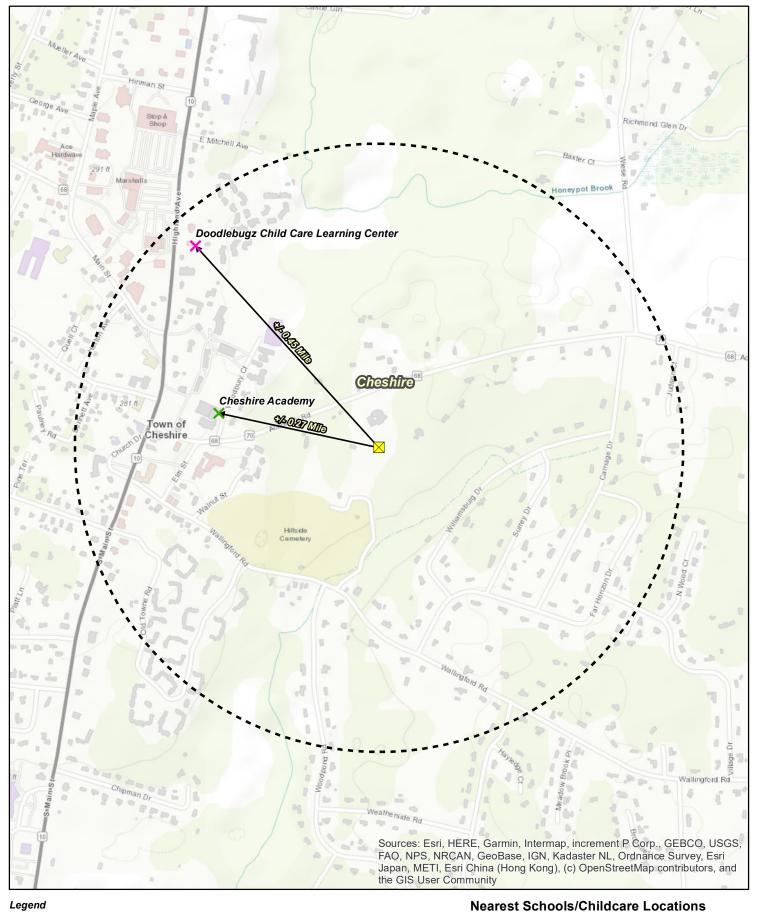
Use the CTECO Interactive Map Viewers at http://cteco.uconn.edu to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP) 79 Elm St, Hartford, CT 06106 email: deep.nddbrequest@ct.gov Phone: (860) 424-3011

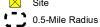


Connecticut Department of Energy & Environmental Protection Bureau of Natural Resources Wildlife Division







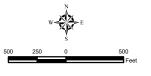


Schools/Childcare Locations



X School

Childcare



Proposed Wireless Telecommunications Facility Cheshire East 185 Academy Road Cheshire, Connecticut





TOWN OF CHESHIRE 84 SOUTH MAIN STREET, CHESHIRE, CONNECTICUT 06410 Telephone (203) 271-6660 FAX (203) 271-6639

December 22, 2020

Kristen Motel Cuddy & Feder, LLP 445 Hamilton, Avenue, 14th Floor White Plains, NY 10601

RE: Diamond/Verizon Proposed Wireless Tower – 185 Academy Road

Dear Ms. Motel:

At a Public Information Session held on November 23, 2020, representatives from Diamond Towers and Verizon Wireless presented information related to a proposed 99 ft. wireless tower at 185 Academy Rd in Cheshire.

Please see the attached memo from Director of Planning and Development, William S. Voelker offering an evaluation of the proposal from the Town's perspective.

Additionally, as discussed during the Public Information Session, the Town of Cheshire would request that the design of the tower include an option for the Town to be granted a section of the tower to potentially place public safety communications equipment at a future date. Please advise as to any additional conversations or agreements that may need to take place to formalize this arrangement.

Thank you for your thorough presentation of the proposed wireless tower project and your engagement with our community as part of the CT Siting Council process.

Kind Regards,

Sean M. Kimball

Cc: William S. Voelker, Director of Planning and Development

Jack Casner, Fire Chief/Emergency Management Director

Neil Dryfe, Chief of Police

To: Sean Kimball, Town Manager

From: William S. Voelker, AICP, Town Planner/Development Coordinator

Re: Wireless Telecommunications Facility, 185 Academy Road

Date: December 21, 2020

We have reviewed the application for the wireless telecommunications tower proposed at 185 Academy Road in the context of the regulations that used to pertain to these facilities prior to the Connecticut Siting Council obtaining full authority over their installation. The Planning and Zoning Commission would review these proposals under Section 80 (Wireless Telecommunications Facilities) of the Cheshire Zoning Regulations.

What is still useful for providing context for any comments that we wish to make to the Siting Council are portions of the Standards of Review set forth in Section 80.7 of these regulations. Section 80.7.2(A),4 encourages that these towers be sited in "locations which provide the greatest amount of screening due to existing topography, vegetation, buildings, or other structures." The proposed location does have favorable location characteristics on this property as it will be in the rear yard of a church nearly 418 feet from the edge of the Academy Road right-of-way, with the surrounding support compound approximately 385 feet from the same edge. Property to the rear of this site is owned and occupied by the Cheshire Hillside Cemetery and not likely to be developed.

Section 80.7.2(B) would require screening around the perimeter of the facility, but this tower is located at the edge of the church parking lot and at the top of a steep grade to its rear. We take note that the proposed tower is of the evergreen "stealth" mode which should reduce its visual impact.

Section 80.7.4 contains environmental standards to minimize impacts on wetlands, watercourses, and aquifer protection areas. The application includes a report stating that the project is more than 100 feet from on-site wetland areas and not within Cheshire's 50 foot upland review area, and that the design will not result in any wetland impacts. Staff agrees with this assessment. In any case, the regulation of wetland impacts is also the responsibility of the Connecticut Siting Council. This property is not within the Aquifer Protection District and will have no impacts on any aquifer areas.

The regulations also encourage co-location standards in order to minimize the number of towers. This application is for a 95-foot tower designed to accommodate multiple users and is therefore consistent with this standard.

In summary, it is our opinion that the proposed tower and support equipment at 185 Academy Road is designed in accordance with best practices for these facilities and would be consistent with regulations adopted by the Cheshire Planning and Zoning Commission when it was their responsibility to regulate them.

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 Diamond Towers V, LLC ("DTV") (the "Applicant") to file an Application for a Certificate of Environmental Compatibility and Public Need with the Connecticut Siting Council ("Siting Council") on or after March 11, 2021 to construct a wireless telecommunications tower facility ("Facility") at 185 Academy Road, also known as State Route 68, in the Town of Cheshire.

The Facility is proposed on an 8.10-acre parcel of land owned by the Cheshire United Methodist Church identified as Map 58, Lot 27 on the Town of Cheshire Tax Map and includes an approximately 52' x 50' square-foot lease area located in the south-central section of the parcel.

The Facility consists of a new self-supporting monopole designed to resemble a pine tree ("monopine") that is 95' in height with faux branches extending an additional 4' above the top of the pole, bringing the total height to approximately 99'. The monopine tower will be located within a 42' x 50' square-foot fenced equipment compound located within the lease area. Cellco Partnership d/b/a Verizon Wireless ("Verizon") will install antennas and associated equipment at a centerline height of 90' on the monopine tower and the Facility will be designed to support the antennas and equipment of two (2) additional FCC-licensed wireless carriers. 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.

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 Cheshire.

Interested parties and residents of Cheshire, Connecticut are invited to review the Application during normal business hours after March 11, 2021 when the Application is anticipated to be filed, at the following offices:

Connecticut Siting Council 10 Franklin Square New Britain, CT 06051 Laura Brennan Town Clerk Town of Cheshire Town Hall 84 South Main Street Cheshire, CT 06410

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

Christopher B. Fisher, Esq. Kristen Motel, Esq. Cuddy & Feder LLP 445 Hamilton Ave, 14th Floor White Plains, NY 10601 (914) 761-1300



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

March 3, 2021

VIA CERTIFIED MAIL/ RETURN RECEIPT REQUESTED

Re:

Diamond Towers V, LLC ("DTV")

Wireless Telecommunications Tower Facility

185 Academy Road, also known as State Route 68, Cheshire, Connecticut

Dear:

We are writing on behalf of our client, Diamond Towers V, LLC ("DTV"), with respect to the above referenced matter and our client's 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 Cheshire.

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 185 Academy Road, also known as State Route 68, identified as Map 58, Lot 27 on the Town of Cheshire Tax Map. We are writing to you to provide notice as you are an abutting neighbor to 185 Academy Road. The Facility consists of a new self-supporting monopole designed to resemble a pine tree ("monopine") that is 95' in height with faux branches extending an additional 4' above the top of the pole, bringing the total height to approximately 99". The monopine tower will be located within a 42' x 50' square-foot fenced equipment compound located within the 52' x 50' square foot lease area in the south-central portion of the parcel and will be unmanned with no sanitary or water services. Additional details are provided in 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 11, 2021, the date which the application is expected to be on file.

Very truly yours,

Christopher B. Fisher, Esq.

Enclosure

cc: Kristen Motel, Esq.

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

Christopher B. Fisher, 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
58-27	Cheshire United Methodist		185 Academy Road	Cheshire	CT	06410
58-25	Cheshire Academy		154 Academy Road	Cheshire	CT	06410
58-26	Sarah A. Zimmerman		165 Academy Road	Cheshire	CT	06410
65-21	Jason Chartier	Karen Cartier	123 Academy Road	Cheshire	CT	06410
65-22	Cheshire Hillside Cemetary	Assoc In.	Academy Road	Cheshire	CT	06410
65-20	Cheshire Hillside Cemetary	Assoc In.	Wallingford Road	Cheshire	CT	06410
65-283	Aurangzb A. Ali	Julie C. Ali	245 Academy road	Cheshire	CT	06410
58-19	James J. Jinks	Marie S. Jinks	244 Academy Road	Cheshire	CT	06410
58-20	Ewings A. Kathleen	James A. Ewings	Academy Road	Cheshire	CT	06410
58-22	Ewings A. Kathleen	James A. Ewings	214 Academy Road	Cheshire	CT	06410
58-63	Sangwong Youn	Hyeoksook Youn	194 Academy Road	Cheshire	CT	06410
58-24	Tina Riccio Properties LLC		190 Academy Road	Cheshire	CT	06410

CERTIFICATION OF SERVICE

I hereby certify that on the <u>3rd</u> 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

Cuddy & Feder LLP

45 Hamilton Avenue, 14th Floor White Plains, New York 10601

Attorneys for:

Diamond Towers V LLC

CHESHIRE UNITED METHODIST	CHESHIRE ACADEMY
CHURCH	154 ACADEMY ROAD
185 ACADEMY ROAD	CHESHIRE, CT 06410
CHESHIRE, CT 06410	
SARAH A. ZIMMERMAN	JASON CHARTIER
165 ACADEMY ROAD	KAREN CARTIER
CHESHIRE, CT 06410	123 ACADEMY ROAD
	CHESHIRE, CT 06410
CHESHIRE HILLSIDE CEMETARY	CHESHIRE HILLSIDE CEMETARY
ASSOC INC	ASSOC INC
ACADEMY ROAD	WALLINGFORD ROAD
CHESHIRE, CT 06410	CHESHIRE, CT 06410
AURANGZB A. ALI	JAMES J. JINKS
JULIE C. ALI	MARIE S. JINKS
245 ACADEMY ROAD	244 ACADEMY ROAD
CHESHIRE, CT 06410	CHESHIRE, CT 06410
KATHLEEN A. EWINGS	KATHLEEN A. EWINGS
JAMES A. EWINGS	JAMES A. EWINGS
ACADEMY ROAD	214 ACADEMY ROAD
CHESHIRE, CT 06410	CHESHIRE, CT 06410
SANGWONG YOUN	TINA RICCIO PROPERTIES LLC
HYEOKSOOK YOUN	190 ACADEMY ROAD
194 ACADEMY ROAD	CHESHIRE, CT 06410
CHESHIRE, CT 06410	

CERTIFICATION OF SERVICE

I hereby certify that on the of 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.

Cuddy & Feder LLP 45 Hamilton Avenue, 14th Floor

White Plains, New York 10601 Attorneys for:

Diamond Towers V LLC

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., 5 TH FLOOR, HARTFORD, CT 06103 STATE HOUSE REPRESENTATIVE- DISTRICT 103 LIZ LINEHAN LEGISLATIVE OFFICE BUILDING ROOM 4011 300 CAPITOL AVENUE HARTFORD, CT 06106	SECRETARY OF STATE DENISE MERRILL 165 CAPITOL AVENUE HARTFORD, CT 06106 STATE SENATOR – DISTRICT S13 MARY DAUGHERTY ABRAMS LEGISLATIVE OFFICE BUILDING 300 CAPITOL AVENUE ROOM 3300 HARTFORD, CT 06101
NAUGATUCK VALLEY COUNCIL OF GOVERNMENTS 49 LEAVENWORTH STREET, 3 RD FLOOR WATERBURY, CT 06702 GREATER WATERBURY TRANSIT DISTRICT 49 LEAVENWORTH STREET, 3 RD FLOOR WATERBURY, CT 06702	AREA COOPERATIVE EDUCATIONAL SERVICES (ACES) 350 STATE STREET NORTH HAVEN, CT 06473

Federal

i cuci ui			
FEDERAL COMMUNICATIONS	FEDERAL AVIATION ADMINISTRATION		
COMMISSION	800 INDEPENDENCE AVENUE, SW		
45 L STREET NE	WASHINGTON, DC 20591		
WASHINGTON, DC 20554			
U.S. CONGRESSWOMAN -5 TH DISTRICT	U.S. SENATOR CHRIS MURPHY		
JAHANA HAYES	COLT GATEWAY		
108 BANK STREET, 2 ND FLOOR	120 HUYSHOPE AVENUE		
WATERBURY, CT 06702			
	SUITE 401		
	HARTFORD, CT 06106		
U.S. SENATOR RICHARD BLUMENTHAL			
90 STATE HOUSE SQUARE, 10TH FLOOR			
HARTFORD, CT 06103			

Town of Cheshire

ROB ORIS, JR., CHAIRMAN	WILLIAM S. VOELKER, AICP, TOWN
CHESHIRE TOWN COUNCIL	PLANNER
CHESHIRE TOWN HALL 84 SOUTH MAIN STREET CHESHIRE, CT 06410	PLANNING AND ZONING COMMISSION CHESHIRE TOWN HALL 84 SOUTH MAIN STREET CHESHIRE, CT 06410

INLAND WETLANDS AND WATERCOURSES COMMISSION CHESHIRE TOWN HALL 84 SOUTH MAIN STREET CHESHIRE, CT 06410	LAURA BRENNAN, TOWN CLERK CHESHIRE TOWN HALL 84 SOUTH MAIN STREET CHESHIRE, CT 06410
CONSERVATION COMMISSION	SEAN M. KIMBALL, TOWN MANAGER
CHESHIRE TOWN HALL	CHESHIRE TOWN HALL
84 SOUTH MAIN STREET	84 SOUTH MAIN STREET
CHESHIRE, CT 06410	CHESHIRE, CT 06410

Connecticut Siting Council Application Guide

Application Guideline	Location in Application
(A) An Executive Summary containing the addresses and	Section I.B; Attachment 1
proposed locations of the proposed facility and any	
alternatives, including height of tower and associated	
antennas, access road 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.	
(B) Statement of the need for the proposed facility with as	Section III.A; Attachment 1
much specific information as is practicable.	
(C) Statement of the benefits expected from the proposed	Section III.B; Attachment 1
facility.	
(D) Maps and drawings for the proposed facility and any	Attachment 4
alternatives.	
(E) A description of the proposed site and any alternative	Sections V & VII; Attachments
sites, including zoning classification, planned land uses	3, 4 & 5
and surrounding areas.	
(F) A description of the scenic, natural, historic, and	Sections VI.A., VI.B, & VI.E;
recreational characteristics of the proposed site and any	Attachment 5; Attachment 8
alternative sites and surrounding areas including but not	
limited to officially designated nearby hiking trails, nature	
preserves, and scenic roads.	
(G) Visibility Analyses of the proposed site area and any	Section VI.A; Attachment 8
alternative site areas.	
(H) Photographs of the balloon float conducted at the	Attachment 8
proposed site including the date, time, and demonstrated	
height.	
(I) List describing the type and height of all existing and	Attachment 2
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.	

Application Guideline	Location in Application
(J) A description of efforts to share existing towers,	Section IV; Attachment 2
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.	
(K) A description of technological alternatives and a	Section III.C
statement containing justification for the proposed facility.	
(L) A description of rejected sites with a U.S.G.S.	Section IV.A; Attachment 2
topographic quadrangle maps marked to show the location	
of rejected sites.	
(M) A detailed description and justification for the sites	Section IV.A; Attachment 2
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.	
(N) A statement describing hazards to human health, if	Section VI.C; Attachment 7
any, with such supporting data, including signal frequency,	
power density and references to regulatory standards.	
(O) A statement of estimated costs for site acquisition,	Section IX.A
construction, and equipment for a facility at the various	
proposed sites of the facility, including all candidates	
referred to in the application.	
(P) A schedule showing proposed program of site	Section IX.B
acquisition, construction, completion, operation, and	
relocation or removal of existing facilities for the name	
sites.	
(Q) A statement indicating that, weather permitting, the	Section VI.A
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.	

	T
Application Guideline	Location in Application
(R) Such information as any department or agency of the	Sections VI & VII & VIII;
State exercising environmental controls may, by regulation,	Attachments 9 & 10
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.	
(S) Description of proposed site clearing for access road	Section V & VI.D; Attachments
and compound including type of vegetation scheduled for	3, 4, 5 & 6
removal and quantity of trees greater than six inches	
diameter at breast height and involvement with wetlands.	
(T) A statement explaining mitigation measures for the	Sections VI.D & VII.D;
proposed facility including, but not limited to, construction	Attachments 3, 4, 5 & 6
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.	