



HOMELAND TOWERS



at&t

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

**TECHNICAL REPORT TO THE TOWN OF KENT  
PROPOSED WIRELESS TELECOMMUNICATIONS FACILITY**

**Bald Hill Road  
-or-  
93 Richards Road  
Kent, Connecticut**

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

**HOMELAND TOWERS, LLC  
9 HARMONY STREET  
DANBURY, CT 06810**

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## Introduction

Homeland Towers, LLC ("Homeland Towers") and New Cingular Wireless PCS, LLC ("AT&T") respectfully submit this Technical Report to the Town of Kent pursuant to Section 16-50/ of the Connecticut General Statutes. AT&T has contracted with Homeland Towers to assist in the development of various facilities in Connecticut for infrastructure to provide reliable wireless services, including one search ring in the central portion of the Town of Kent. As part of its coordination with AT&T, Homeland Towers' investigation of sites resulted in two potential locations: Bald Hill Road (Candidate A) and 93 Richards Road (Candidate B) for the proposed wireless tower facility. Only one of the candidate facilities will be constructed.

Homeland Towers would construct, own and operate the wireless telecommunications tower facility. AT&T's agreement with Homeland Towers includes a long-term lease obligation for AT&T's use of the tower facility.

The purpose of this Technical Report is to provide the Town with information concerning the need for a new tower in this area of the State (Section 1) and the site search history and selection process (Section 2). For Candidate A at Bald Hill Road, this Technical Report includes information regarding the facility design and current status of environmental assessments (Section 3). For Candidate B at 93 Richards Road, this Technical Report includes information regarding the facility design and current status of environmental assessments for the project (Section 4). To assess visibility of the proposed facilities, Homeland Towers will conduct a balloon float at each of the candidate sites and use the field data collected to prepare a visibility analysis for both candidate sites. The visibility analysis will be provided under separate cover. This information is provided for purposes of technical consultation with the Town and as provided for in Section 16-50/ of the Connecticut General Statutes.



## SECTION 1

### Statement of Public Need

The proposed tower facility will provide reliable wireless communications services to the central portion of Kent. The facility is needed by AT&T in conjunction with other existing and proposed facilities to provide reliable services to the public that is not currently provided in this part of Kent. In addition to providing reliable wireless service to this area of the Town, AT&T's will also provide FirstNet services, which is the first broadband network dedicated to America's police, firefighters and emergency medical services (EMS). AT&T was selected by the First Responder Network Authority ("FirstNet") to build and manage the only broadband network dedicated to unify emergency communications to give first responders the technology they need to communicate and collaborate across agencies and jurisdictions. Thus, rather than relying on commercial networks that can become congested in an emergency, the FirstNet system will allow immediate and dedicated access to a communications network by first responders.<sup>1</sup> AT&T seeks to provide wireless service to key traffic corridors through residential areas of the Town. The proposed tower facility at either candidate site will bring the required coverage to significant portions of Route 341 (Segar Mountain Road), Richards Road, Bald Hill Road, Stonefence Lane, Spectacle Road and the residential neighborhoods and business/ retail areas near the proposed tower location. Attached is a Radio Frequency Engineering Report for Candidate A Bald Hill Road with coverage plots depicting the "Current Coverage" provided by AT&T's existing facilities in this area of the state and "Proposed Coverage" as predicted from the proposed facility together with existing coverage from adjacent sites. Additional statistics regarding the overall area, population and roadway miles of expanded coverage in the community are included in the attached Radio Frequency Engineering Report. Similar maps and data will be provided for the Candidate B Richards Road site to show how that proposed facility will address AT&T's coverage needs.

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<sup>1</sup> See [http://about.att.com/sites/first\\_net\\_powered\\_by\\_att](http://about.att.com/sites/first_net_powered_by_att) for more information about FirstNet.

# Radio Frequency Analysis Report

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CT2693

Bald Hill Road, Kent, CT



at&t

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October 9, 2019



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## 1. Overview

C Squared Systems was retained by New Cingular Wireless PCS, LLC ("AT&T") to evaluate the proposed wireless communications facility at Bald Hill Road, Kent, CT at 150 feet AGL.

AT&T is licensed by the FCC to provide wireless communications services throughout the State of Connecticut including the Town of Kent where the proposed facility would be located.

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

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

## 2. Technology Advances & Design Evolution

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

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

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

## 3. Coverage Objective

There is a significant coverage deficiency in the existing AT&T wireless communications network along Segar Mountain Road, and the neighboring residential and business/retail areas in Kent, referred to herein as the "targeted area". A deficiency in coverage is evidenced by the inability to adequately and reliably transmit/receive quality calls and/or utilize data services offered by the network. Seamless reliable coverage provides users with the ability to

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

successfully originate, receive, and maintain quality calls and data applications throughout a service area. Appropriate overlapping coverage is required for users to be able to move throughout the service area and reliably "hand-off" between cells to maintain uninterrupted connections.

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

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

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

Table 1 below approximates the current coverage gap of AT&T's 700 MHz LTE technology in the vicinity of the proposed site.

Existing 700 MHz LTE Coverage Gap			
Population: <sup>2</sup>	( $\geq$ -83 dBm)	3,334	
	( $\geq$ -93 dBm)	2,608	
Business Pops: <sup>3</sup>	( $\geq$ -83 dBm)	466	
	( $\geq$ -93 dBm)	315	
Area (mi <sup>2</sup> ):	( $\geq$ -83 dBm)	52.41	
	( $\geq$ -93 dBm)	42.59	
Roadway (mi):	Main (-93 dBm):	95.3	
	Secondary (-93 dBm):	23.2	
	Total (-93 dBm):	72.1	

Table 1: Estimated Existing Coverage Gap Statistics

<sup>2</sup> Population figures are based upon 2010 US Census Block Data

<sup>3</sup> Employee population counts are based upon the 2011 U.S. Census Bureau LEHD database.

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

- Attachment 1: "*CT2693 Area Terrain Map*" details the terrain features around the area of deficient service being targeted by the proposed site in Kent. These terrain features play a key role in determining site designs and dictating the unique coverage achieved from a given location. This map is included to provide a visual representation of the ridges and valleys that must be considered when siting a wireless facility. The darker green, blue and purple shades correspond to lower elevations, whereas the orange, red and white shades indicate higher elevations.
- Attachment 1: "*Neighbor Site Data*" provides site specific information of existing neighboring sites used to perform the coverage analysis provided in Attachments 1 and 4.
- Attachment 3: "*CT2693 Existing 700 MHz LTE Coverage for the Current AT&T Network*" depicts 700 MHz LTE coverage from existing sites and demonstrates that there are currently gaps in 700 MHz LTE coverage effecting service within the targeted area. The coverage shown is where the signal strengths are: > -83 dBm (minimum level required reliable, high quality service and performance at 700 MHz) and, > -93 dBm (minimum required for adequate level of service at 700 MHz). In an effort to provide the required levels of coverage to these areas, AT&T is proposing to install a wireless facility at the Bald Hill Road location.
- Attachment 4: "*CT2693 Existing 700 MHz LTE Coverage with Proposed Site*" shows how this proposed site would fill in the existing coverage gaps and improve AT&T's 700 MHz LTE network.
- Attachment 5: "*Connecticut DOT Average Annual Daily Traffic Data – Kent*" shows the available vehicular traffic volume data for the subject area from the Connecticut Department of Transportation. This data shows as many as 1,600 vehicles per day passing through Segar Mountain Road just south of the proposed site.



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

	<b>Incremental Coverage from Proposed Site (700 MHz)</b>	
<b>Population:<sup>4</sup></b>	( $\geq$ -83 dBm)	167
	( $\geq$ -93 dBm)	335
<b>Business Pops: <sup>5</sup></b>	( $\geq$ -83 dBm)	9
	( $\geq$ -93 dBm)	27
<b>Area (mi<sup>2</sup>):</b>	( $\geq$ -83 dBm)	3.35
	( $\geq$ -93 dBm)	6.73
<b>Roadway (mi):</b>	Main (-93 dBm):	2.1
	Secondary (-93 dBm):	9.0
	<b>Total (-93 dBm):</b>	<b>11.1</b>

Table 2: Coverage Statistics

<sup>4</sup> Population figures are based upon 2010 US Census Block Data

<sup>5</sup> Employee population counts are based upon the 2011 U.S. Census Bureau LEHD database.

#### 4. Conclusion

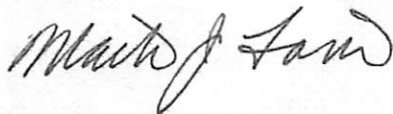
AT&T has identified an area of deficient coverage affecting a significant portion of Kent CT, including key traffic corridors through the residential and business/retail areas of the Town. The proposed Kent Proposed facility will bring the needed fill-in coverage to significant portions of Segar Mountain Road, and the residential neighborhoods and business/retail areas in the vicinity of the proposed location

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

As discussed in this report and depicted in the attached plots, the proposed interim AT&T site will provide a substantial portion of the coverage being lost to the "Target Area" while maintaining effective connectivity to the rest of AT&T's existing network and, facilitate the transparent migration from its 3G to 4G network.

#### 5. Statement of Certification

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



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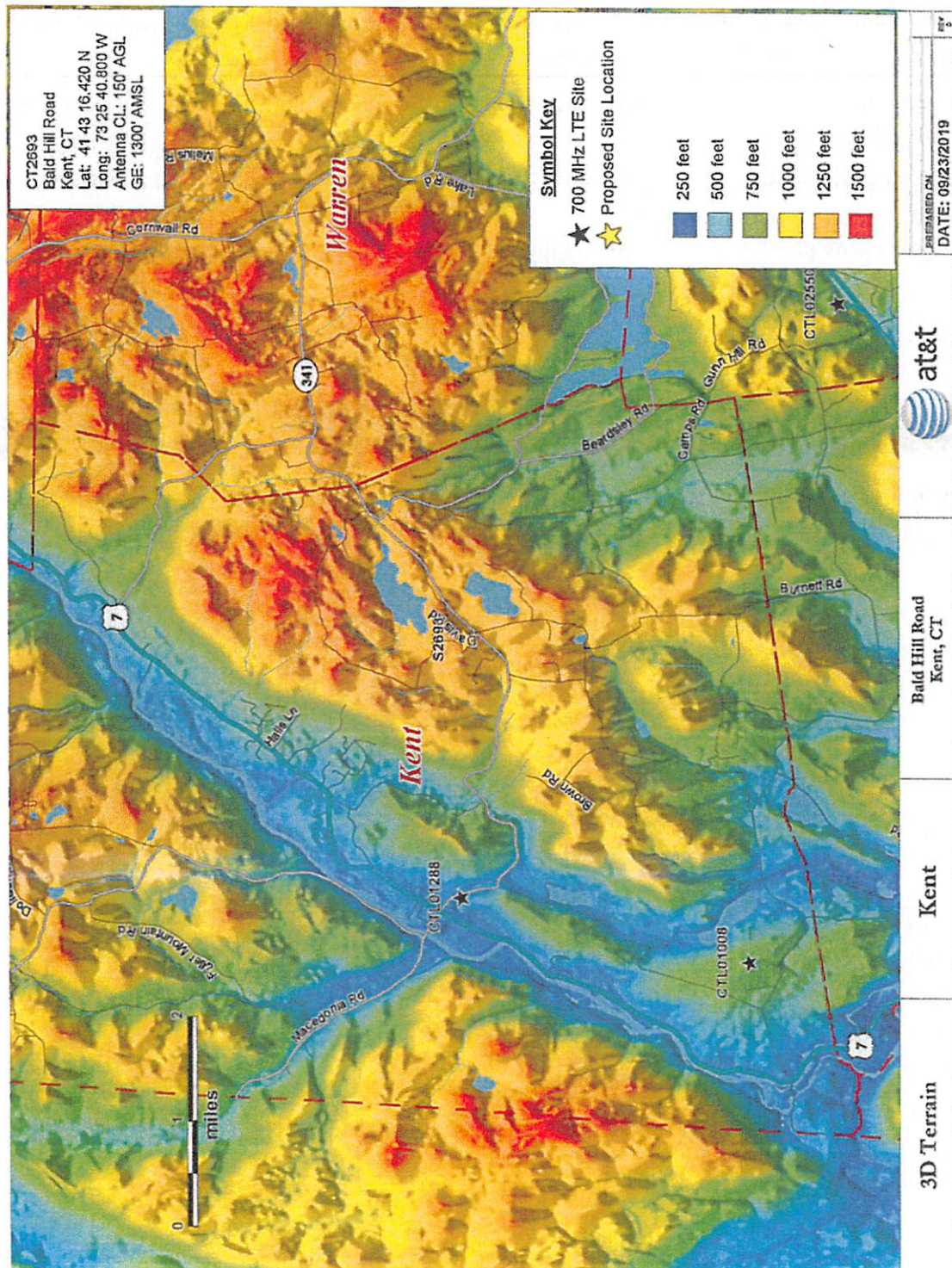
Martin J. Lavin  
C Squared Systems, LLC

October 9, 2019

Date



## 6. Attachments

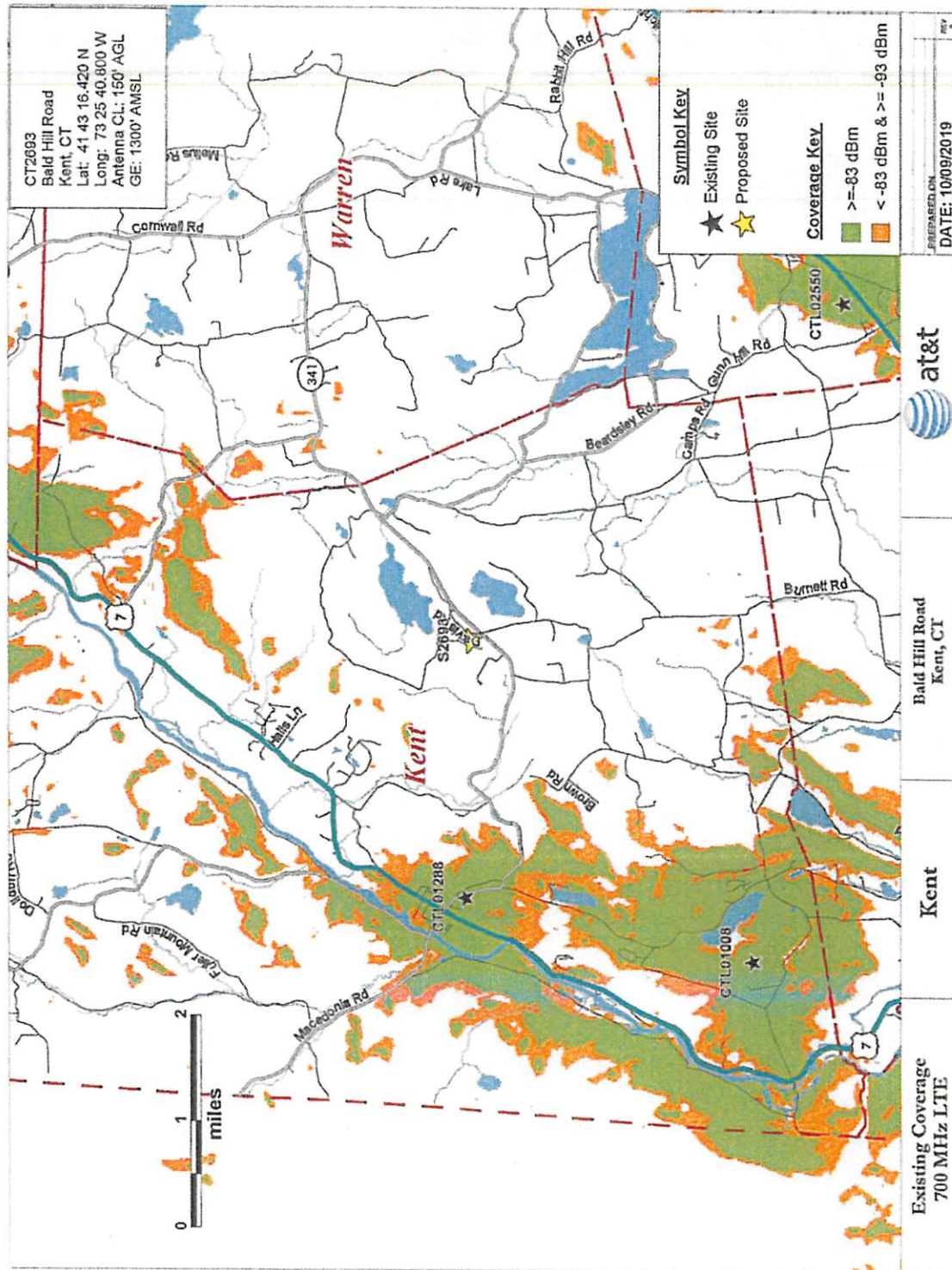


Attachment 1: Area Terrain Map

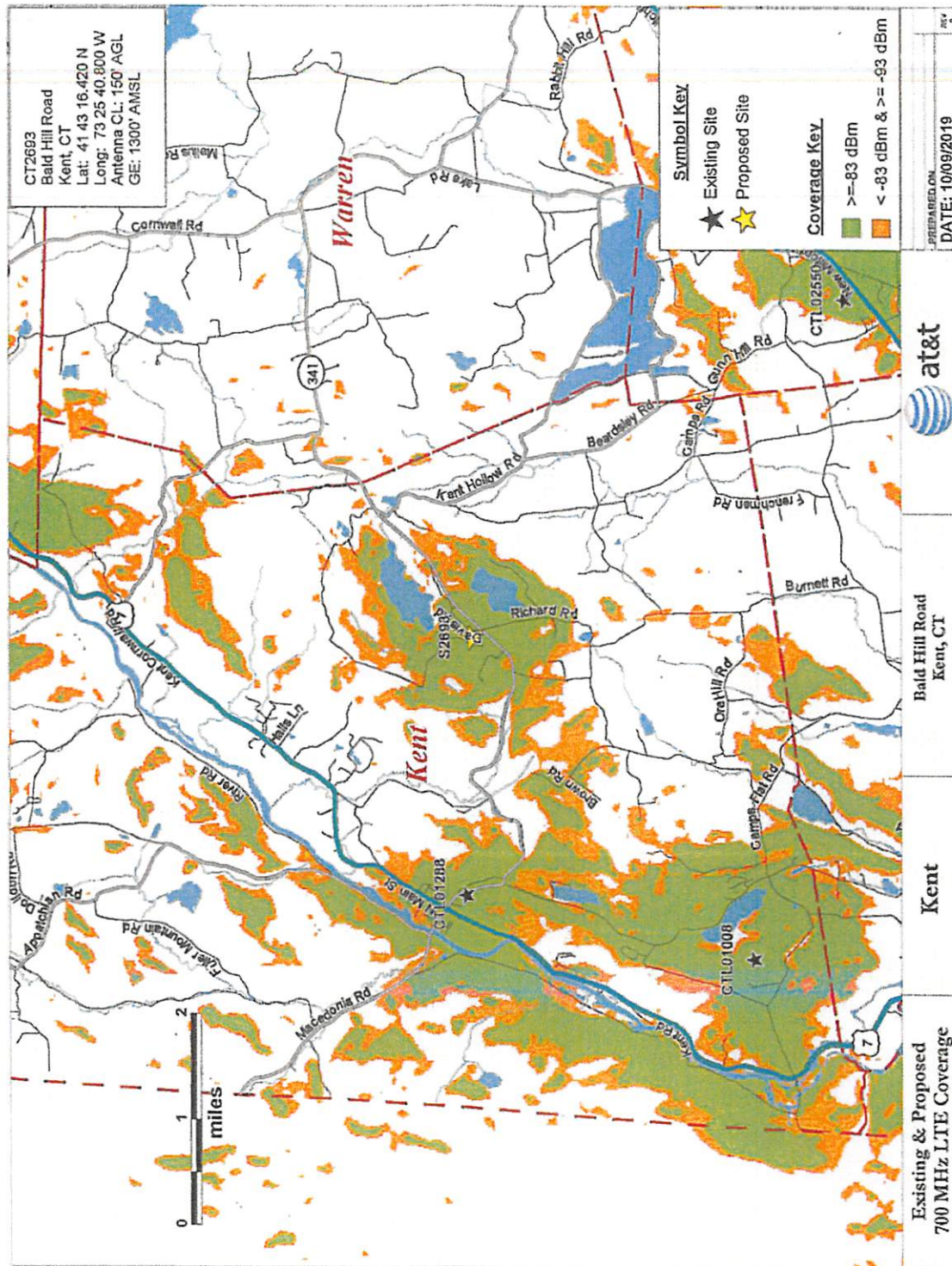
Site Name	Address	City/State	Location		Antenna Height (ft AGL)	Ground Elevation (feet)
			Latitude	Longitude		
CT1008	136 Bulls Bridge Road	South Kent	41.6816	-73.4866	180	781
CT1157	70 Herb Road	Sharon	41.7913	-73.4257	92	1083
CT1288	38 Maple Street	Kent	41.7219	-73.4750	140	387
CT2550	6 Mountain Road	Washington	41.6691	-73.3653	167	705

Attachment 2: Neighbor Site Data



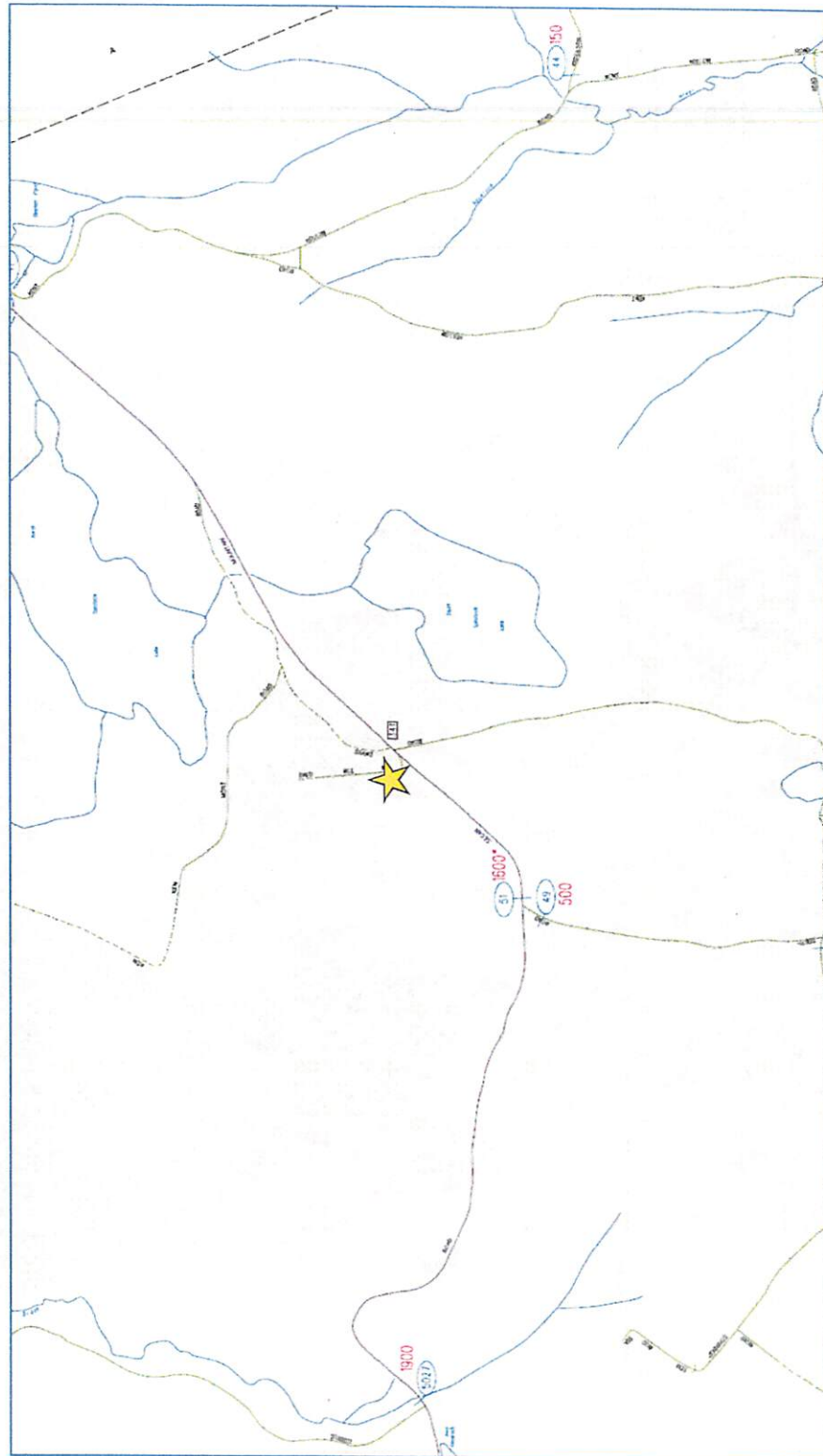


Attachment 3: "CT2693 Existing 700 MHz LTE Coverage" for the Current AT&T Network



Attachment 4: "CT2693 Existing 700 MHz LTE Coverage with Proposed Site" for the AT&T Network





Attachment 5: Connecticut DOT Average Annual Daily Traffic Data – Kent



## SECTION 2

### Homeland Towers

#### Site Search Summary

In general, a "site search area" is developed to initiate a site selection process in an area where a 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 problem while still allowing for orderly integration of the site into a network such as AT&T's, based on the engineering criteria hand-off, frequency reuse and interference. In any site search area, the Applicants seek 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 sufficient coverage, or lacking such a structure, parcels located within the narrowly defined search area upon which a tower may be constructed to a sufficient height. In order to be viable, a candidate must provide adequate coverage to the significant gap in AT&T's network. In addition, all viable candidates must have a willing landowner with whom commercially reasonable lease terms may be negotiated. Preference is given to locations that 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. In the case of this particular site search area in Kent, no tall, non-tower structures were located within the identified area of need that were available for leasing. The area consists of mainly forested land with challenging topography.

It should be noted that Homeland Towers is presenting two (2) candidates/locations for the facility, an A Candidate and a B Candidate. Only one of the candidates is needed.

Homeland Towers investigated twenty-five (25) different parcels of land within and near this area for construction of a new facility. The Applicants found these sites to be adequate and available for the siting of a wireless facility or, for the reasons cited below, unavailable or inappropriate for the siting of a facility or technically inadequate to satisfy AT&T's coverage requirements in this area of need.

#### Properties Investigated by Homeland Towers

Homeland Towers identified and investigated twenty-five (25) sites in and around the Kent site search area where the construction of a new tower might be feasible for radio frequency engineering purposes. Descriptions of Homeland's sites investigated are set forth below as well as a map depicting the approximate location of the sites investigated.

**A. Bald Hill Road, Kent, CT**

Section-Block-Lot: 10-22-38

Owner: InSite Towers Development 2, LLC (property formally owned by John P. Atwood)

Zoning District: Rural District

Parcel Size: 1.99 acres

Lat/Long: 41°43'16.42"N/73°25'40.8"W

Ground Elevation: 1300' +/-

This property is the A Candidate.

**B. 93 Richards Road, Kent, CT**

Section-Block-Lot: 17-25-1

Owner: Jason and Jennifer Dubray

Zoning District: Rural District

Parcel Size: 6.82 acres

Lat/Long: 41°42'30.92"N/73°25'14.02"W

Ground Elevation: 1350' +/-

This property is the B Candidate.

**C. 65 Kenmont Road, Kent, CT**

Section-Block-Lot: 10-22-51

Owner: Campland Inc a/k/a KenMount & KenWood

Zoning District: Rural District

Parcel Size: 99.6 acres

Lat/Long: 41°43'23.28"N/73°25'39.54"W

Ground Elevation: 1307' +/-

After meeting the owner and having multiple discussions, the owner decided not to pursue a lease with Homeland Towers.

**D. 70 Kentmont Road, Kent, CT**

Section-Block-Lot: 10-22-48

Owner: Campland Inc. a/k/a KenMount & KenWood

Zoning District: Rural District

Parcel Size: 20.71 acres

Lat/Long: 41°43'26.20"N/73°25'34.05"W

Ground Elevation: 1314' +/-

After meeting with the owner, they decided not to pursue a lease with Homeland Towers.

**E. Segar Mountain Road, Kent, CT**

Section-Block-Lot: 10-22-52

Owner: Marjorie and Teresa Yang

Zoning District: Rural District

Parcel Size: 245.7 acres

Lat/Long: 41°43'12.99"N/73°26'16.41"W

Ground Elevation: 1155' +/-

The owner responded to certified proposal and stated verbally and in an email that they were not interested in leasing to Homeland Towers.

**F. Segar Mountain Road, Kent, CT**

Section-Block-Lot: 16-25-12

Owner: Bruce W. Schnitzer

Zoning District: Rural District

Parcel Size: 38.46 acres

Lat/Long: 41°43'19.10"N/73°25'10.41"W

Ground Elevation: 1200' +/-

The owner responded to a certified proposal letter with potential interest. Upon further discussions with the owner on the possibility of locating a facility on the parcel, Homeland did not pursue due to the close proximity of wetlands and South Spectacle Lake.

**G. Richards Road, Kent, CT**

Section-Block-Lot: 10-41-2

Owner: Barbara Cohn

Zoning District: Rural District

Parcel Size: 14.9 acres

Lat/Long: 41°42'50.70"N/73°25'40.60"W

Ground Elevation: 1152' +/-

The owner, Dr. Cohn, responded to the certified proposal letter and stated that he was not interested in pursuing a lease with Homeland Towers.

**H. 17 Richards Road, Kent, CT**

Section-Block-Lot: 16-25-17

Owner: Barbara Cohn

Zoning District: Rural District

Parcel Size: 15.41 acres

Lat/Long: 41°43'1.51"N/ 73°25'25.36"W

Ground Elevation: 1200' +/-

The owner, Dr. Cohn, responded to the certified proposal letter and stated that he was not interested in pursuing a lease with Homeland Towers.

**I. 22 Richards Road, Kent, CT**

Section-Block-Lot: 10-41-1

Owner: Barbara Cohn

Zoning District: Rural District

Parcel Size: 27.19 acres

Lat/Long: 41°43'1.78"N/73°25'37.94"W

Ground Elevation: 1162' +/-

The owner, Dr. Cohn, responded to the certified proposal letter and stated that he was not interested in pursuing a lease with Homeland Towers.

**J. 218 Segar Mountain Road, Kent, CT**

Section-Block-Lot: 10-40-31

Owner: George and Jill Hetson

Zoning District: Rural District

Parcel Size: 8.08 acres

Lat/Long: 41°42'51.75"N/73°26'34.32"W

Ground Elevation: 1030' +/-

The owner responded to the certified proposal letter with potential interest. Upon further discussion with the owner Homeland did not pursue due to a wetland/bridge crossing and presence of steep slopes on the back portion of the property.

**K. 80 Kent Hollow Road, Kent, CT**

Section-Block-Lot: 16-25-62

Owner: Peter Diaz and Kim Jee Mee (Prior owner Dorothy Puskas)

Zoning District: Rural District

Parcel Size: 5 acres

Lat/Long: 41°43'29.25"N/73°24'13.44"W

Ground Elevation: 1100' +/-

The current owner did not claim certified mail containing a proposal that was sent from Homeland Towers. A follow up letter was sent by regular US postal service. Owner did not respond with interest.

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

**L. 71 Jennings Road, Kent, CT**

Section-Block-Lot: 10-40-23

Owner: William Arnold

Zoning District: Rural District

Parcel Size: 47.23 acres

Lat/Long: 41°42'37.52"N/73°27'20.08"W

Ground Elevation: 1176' +/-

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

**M. Jennings Road, Kent, CT**

Section-Block-Lot: 10-40-27

Owner: William Arnold

Zoning District: Rural District

Parcel Size: 112.92 acres

Lat/Long: 41°42'32.94"N/ 73°26'53.12"W

Ground Elevation: 1100' +/-

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

**N. Segar Mountain Road, Kent, CT**

Section-Block-Lot: 10-40-32

Owner: William Arnold

Zoning District: Rural District

Parcel Size: 57.63 acres

Lat/Long: 41°42'45.92"N/73°26'24.08"W

Ground Elevation: 1040' +/-

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

**O. 48 Stone Fence Lane, Kent, CT**

Section-Block-Lot: 10-22-47

Owner: Steven and Alison Katz

Zoning District: Rural District

Parcel Size: 8.63 acres

Lat/Long: 41°43'14.89"N/73°26'7.87"W

Ground Elevation: 1183' +/-

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

**P. Hidden Lane Road, Kent, CT**

Section-Block-Lot: 16-25-8

Owner: John Mullen

Zoning District: Rural District

Parcel Size: 49.32 acres

Lat/Long: 41°43'26.93"N/ 73°24'34.82"W

Ground Elevation: 1290' +/-

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

**Q. 255 Segar Mountain Road, Kent, CT**

Section-Block-Lot: 10-22-17

Owner: Charles Hirschler

Zoning District: Rural District

Parcel Size: 15.12 acres

Lat/Long: 41°42'55.47"N/73°25'57.91"W

Ground Elevation: 1075' +/-

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

**R. 141 Cobble Road, Kent, CT**

Section-Block-Lot: 10-22-5

Owner: Stephen and Valerie Ubertini

Zoning District: Rural District

Parcel Size: 72.3 acres

Lat/Long: 41°43'18.92"N/ 73°27'5.34"W

Ground Elevation: 700' +/-

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

**S. 120 Segar Mountain Road, Kent, CT**

Section-Block-Lot: 10-40-19

Owner: Ellen Donath

Zoning District: Rural District

Parcel Size: 26.48 acres

Lat/Long: 41°42'57.68"N/73°27'10.52"W

Ground Elevation: 800' +/-



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

**T. 7 Richards Road, Kent, CT**

Section-Block-Lot: 16-25-15

Owner: Joseph Agli

Zoning District: Rural District

Parcel Size: 24.22 acres

Lat/Long: 41°43'10.12"N/ 73°25'31.08"W

Ground Elevation: 1190' +/-

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

**U. Cobble Road, Kent, CT**

Section-Block-Lot: 10-22-11

Owner: Weantinoge Heritage Land Trust

Zoning District: Rural District

Parcel Size: 79.25 acres

Lat/Long: 41°43'29.07"N/73°26'54.43"W

Ground Elevation: 700' +/-

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

**V. 404 Segar Mountain Road, Kent, CT**

Section-Block-Lot: 16-25-9

Owner: Raymond and Christine Franks

Zoning District: Rural District

Parcel Size: 9.42 acres

Lat/Long: 41°43'33.68"N/ 73°24'48.02"W

Ground Elevation: 1215' +/-

The owner did not claim certified mail containing a proposal that was sent from Homeland Towers. A follow up letter was sent by regular US postal service. Owner did not respond with interest.

**W. 81 Kent Hollow Road, Kent, CT**

Section-Block-Lot: 16-24-1

Owner: John and Marc Hawley

Zoning District: Rural District

Parcel Size: 38 acres

Lat/Long: 41°43'31.29"N/ 73°24'5.37"W

Ground Elevation: 1000' +/-

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

**X. Ten Rod Road, Kent, CT**

Section-Block-Lot: 10-40-20

Owner: William Arnold and Stephanie Wargo

Zoning District: Rural District

Parcel Size: acres

Lat/Long: 41°42'57.31"N/ 73°26'46.16"W

Ground Elevation: 970' +/-

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

**Y. Spectacle Ridge Road, Kent, CT**

Section-Block-Lot: 16-25-38

Owner: Lee and Stephanie Spiegel

Zoning District: Rural District

Parcel Size: acres

Lat/Long: 41°42'38.94"N/ 73°25'6.67"W

Ground Elevation: 1360' +/-

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

Figure 1: Aerial Map of Homeland Towers Search and Proposed Site



### SECTION 3

#### TAB A

#### CANDIDATE A: BALD HILL ROAD

##### General Facility Description

Bald Hill Road, Kent, Connecticut

Tax/PIN Identification: Map: 10 Block: 22 Lot: 38

1.99 Acre Parcel

The proposed Candidate A tower site is located on an approximately 1.99-acre parcel located at Bald Hill Road owned by InSite Towers Development 2, LLC (formally owned by John P. Atwood). It is classified in the Rural Zoning District and is an unimproved vacant parcel. The proposed telecommunications facility includes an approximately 5,400 s.f. lease area and 3,950 s.f. compound area located in the southwestern section of the host parcel.

The facility consists of a new self-supporting monopole that is 154' in height. AT&T would install up to nine (9) panel antennas and related equipment at a centerline height of 150' above grade level (AGL). The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers. AT&T's walk-in equipment cabinet would be installed on helical piles within the approximately 3,950 s.f. fenced compound area at the base of the tower. AT&T would also install a separate concrete pad for an emergency backup power generator within the equipment compound.

The tower compound would consist of a 3,950 s.f area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an eight (8) foot high chain link fence. Vehicle access to the facility would be provided from Bald Hill Road over an existing abandoned drive that will be upgraded to a 12' wide gravel access drive a distance of approximately 300' to the proposed compound. Utility connections would be routed underground along the access easement.

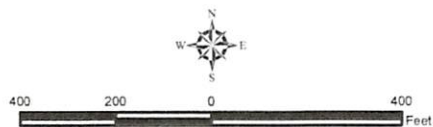




#### Legend

-  Site
-  Subject Property
-  Approximate Parcel Boundary (CTDEEP GIS)

Map Notes:  
 Base Map Source: 2016 CTECO Imagery  
 Map Scale: 1 inch = 400 feet



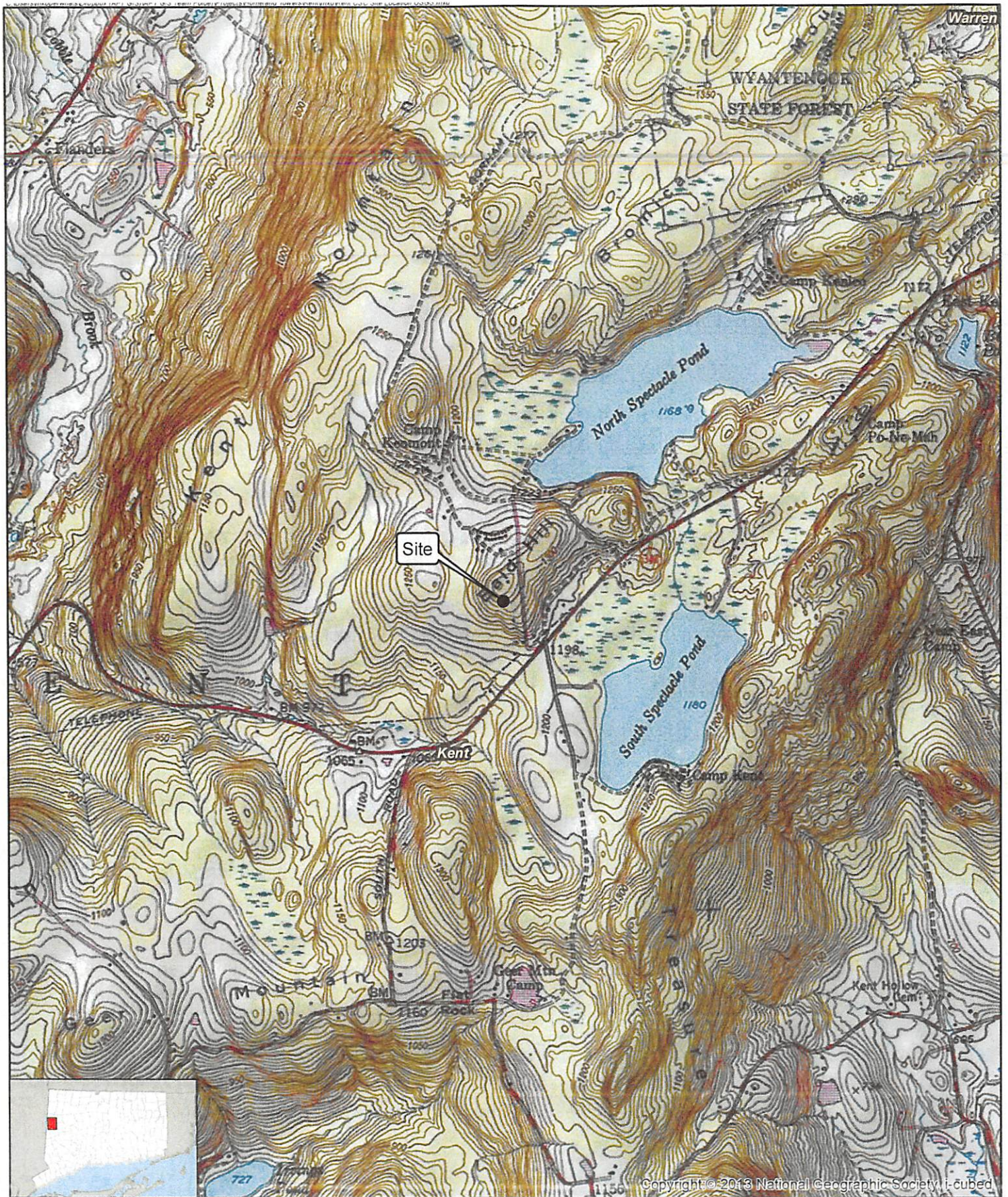
#### Site Location Map

Proposed Wireless  
 Telecommunications Facility  
 CT757-Kent  
 Bald Hill Road  
 Kent, Connecticut



ALL-POINTS  
 TECHNOLOGY CORPORATION





#### Legend

- Site
- Municipal Boundary

**Map Notes:**  
 Base Map Source: USGS 7.5 Minute Topographic  
 Quadrangle Map, Kent, CT (1971)  
 Map Scale: 1:24,000  
 Map Date: April 1919



1,000 500 0 1,000  
 Feet

#### Site Location Map

Proposed Wireless  
 Telecommunications Facility  
 CT757-Kent  
 Bald Hill Road  
 Kent, Connecticut



**ALL-POINTS**  
 TECHNOLOGY CORPORATION



**SITE EVALUATION REPORT**  
**KENT CT757**

**I. LOCATION**

- A. COORDINATES: 41° 43' 16.42" N  
73° 25' 40.80" W
- B. GROUND ELEVATION: 1300.0'± AMSL
- C. USGS MAP: USGS 7.5 quadrangle for Kent
- D. SITE ADDRESS: Bald Hill Road  
Kent, CT 06785
- E. ZONING WITHIN ¼ MILE OF SITE: Abutting areas to the north, south, east and west are zoned Rural District.

**II. DESCRIPTION**

- A. SITE SIZE: 1.99 Ac (Vol 185 - Page 644)  
LEASE AREA/COMPOUND AREA: 5,400 SF/3,950 SF
- B. TOWER TYPE/HEIGHT: A 154' Monopole.
- C. SITE TOPOGRAPHY AND SURFACE: Subject vacant land site slopes and decreases from north to south.
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The proposed compound is located in the southwestern corner of a 1.99 acre vacant parcel. To the north, south, east and west are residential properties. There are off-site wetlands located 580'± west of the proposed compound.
- E. LAND USE WITHIN ¼ MILE OF SITE: Residential properties to the south, east and west. Residential property and a public school to the north.

**III. FACILITIES**

- A. POWER COMPANY: Eversource



- B. POWER PROXIMITY TO SITE: 340'±
- C. TELEPHONE COMPANY: Frontier
- D. PHONE SERVICE PROXIMITY: 340'±
- E. VEHICLE ACCESS TO SITE: Access to the proposed telecommunication facility will be along a proposed gravel access driveway (300'+/-).
- F. OBSTRUCTION: None.
- G. CLEARING AND FILL REQUIRED: Total area of disturbance is 15,500 sf.; 22 trees will need to be removed. The site improvements shall entail approximately 150 CY of cut for utility trenching and net 450 CY of excavation for the construction of the compound and access driveway. Approximately 210 CY of broken stone is needed for the compound and driveway construction.

IV. LEGAL

- A. PURCHASE [ ] LEASE [X]
- B. OWNER: Est of John P. Atwood c/o Rebecca Rigdon
- C. ADDRESS: 15 Bald Hill Road, Kent, CT 06785
- D. DEED ON FILE AT: Volume 184 - Page 925

## FAA 1-A SURVEY CERTIFICATION

Applicant: Homeland Towers  
9<sup>th</sup> Harmony Street  
2<sup>nd</sup> Floor  
Danbury, CT 06810

Site Name: CT757 - KENT

Address: Bald Hill Rd  
Kent, CT 06785-1319

Horizontal Datum: NAD 83

Vertical Datum: NAVD 88 (A.M.S.L.)

Structure Type: Proposed Monopole

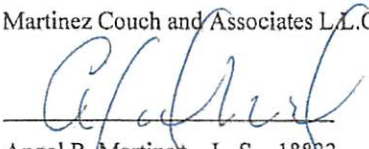
Latitude: 41°- 43'-16.420" N NAD 83  
Longitude: 73°- 25'-40.800" W NAD 83

Ground Elevation: 1300.0'± feet A.M.S.L.

Top of Proposed Monopole: 154.0'± feet A.G.L. (1454.0'± A.M.S.L.)

Certification: I certify that the Latitude and Longitude noted hereon are accurate to within ± 3 feet horizontally and that the site elevation is accurate to within ± 1 foot vertically. The top of proposed Monopole height is 154.0'± feet A.G.L. (1454.0'± A.M.S.L.). The horizontal datum (coordinates) are in terms of the North American Datum of 1983 (NAD 83) and are expressed in degrees minutes and seconds to the nearest thousandth of a second. The vertical datum (heights) are in terms of the North American Vertical Datum of 1988 and expressed to the nearest tenth of a foot.

Company: Martinez Couch and Associates L.L.C.

Signature: 

Surveyor/seal: Angel R. Martinez L. S. 18883

Date: September 20, 2019

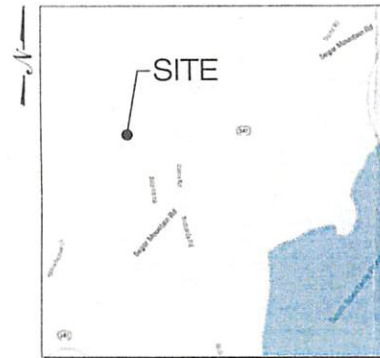




HOMELAND TOWERS, LLC  
**WIRELESS TELECOMMUNICATIONS FACILITY**  
**KENT**  
**BALD HILL ROAD**  
**KENT, CT 06785**



**MUNICIPAL NOTIFICATION LIMIT MAP**  
 SCALE 1" = 1/4 MI



**VICINITY MAP**  
 SCALE 1" = 1/4 MI

**DRAWING INDEX**

- T-1 TITLE SHEET & INDEX
- EX-1 EXISTING CONDITIONS SURVEY
- SP-1 SITE PLAN & ABUTTERS MAP
- CP-1 COMPOUND PLAN & TOWER ELEVATION
- C-1 SITE DETAILS

**SITE INFORMATION**

PROJECT LOCATION: BALD HILL ROAD  
 KENT, CT 06785

PROJECT DESCRIPTION: HAWLAND SITE W/ GROUND  
 EQUIPMENT WITHIN 6,400 SF  
 TELECOMMUNICATIONS LEASE AREA  
 W/ FFP: 154' x 40' MONOPOLE

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

DEVELOPER CONTACT: RAY VERGATI  
 (203) 297-6345

ENGINEER CONTACT: ROBERT C. BURNS, P.E.  
 (860) 663-1697 x208

LATITUDE: 41° 43' 16.42"N  
 LONGITUDE: 72° 55' 40.10"W  
 ELEVATION: 1,200' ± AMSL

MAP: 10  
 LOT: 38  
 ZONE: RURAL DISTRICT



ALL-POINTS  
 TECHNOLOGY CORPORATION  
 1 BALESTON DRIVE PHASE III 1933 WY  
 KILLBUCK, CT 06032 FAX: 860-663-1697  
 WWW.ALLPOINTSCT.COM

SUBMITTING DOCUMENTS	
NO.	DATE
1	06/11/18 FOR REVIEW R/C
2	08/20/18 TOWER REVISION R/C
3	
4	
5	
6	

DESIGN PROFESSIONALS OF RECORD  
 PROF. ROBERT C. BURNS, P.E.  
 CORP. ALL-POINTS TECHNOLOGY  
 CORPORATION, P.C.  
 ADD: 3 BALESTON DRIVE  
 KILLBUCK, CT 06032  
 DEVELOPER: HOMELAND TOWERS, LLC  
 ADDRESS: 9 HARMONY STREET  
 2ND FLOOR  
 DANBURY, CT 06810

**HOMELAND TOWERS**  
**KENT**  
 SITE: BALD HILL ROAD  
 ADDRESS: KENT, CT 06785  
 APP. FILE NO.: 18-000000-0000  
 DATE: 08/20/18  
 CHECKED BY: RCB

**TITLE SHEET**  
**& INDEX**

**SHEET NUMBER:**  
**T-1**

**OWNER:**  
 ESTATE OF JOHN P. ATWOOD  
 C/O FERRICIA RIGDON  
 15 BALD HILL ROAD  
 KENT, CT 06785

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

**AT&T**  
 340 MOUNT REMBLE AVE  
 MIDDLETOWN, NJ 07960

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

**POWER PROVIDER:**  
 EVERSOURCE: (800) 280-2000

**TELCO PROVIDER:**  
 FRONTIER (800) 921-8102

**CALL BEFORE YOU DIG:**  
 (800) 922-4455

**GOVERNING CODES:**  
 CONNECTICUT STATE BUILDING CODE, LATEST EDITION  
 NATIONAL ELECTRIC CODE, LATEST EDITION  
 11A-222-G





**SITE AREAS & COLUMNS OF EARTHWORK**

BEFOREWORK AS SHOWN APPROXIMATELY NOT TO SCALE. RANGES OF EXCAVATION, THE COMPOUND AND PAVEMENT, BENCH APPROXIMATELY 2' TO 3' CUBIC YARDS OF CEMENT STONE. THE UTILITY TRENCH FROM THE DRAINAGE TO THE COMPOUND WILL EXCAVATE APPROXIMATELY 100 CUBIC YARDS OF MATERIAL THAT WILL BE USED TO BACKFILL THE TRENCH.

COMPOUND & GRADES  
 EX. TRENCH - 15%  
 EX. FENCE - 2.5%

TOTAL AREA OF DISTURBANCE = 15,500 SF

STORMWATER VOLUMES  
 FROM 10' BLOCK 22 LOT 40  
 FOLLOWING GROUND COVER = 3.0 FT FILL  
 FOLLOWING GROUND COVER = 3.0 FT FILL

STORMWATER VOLUMES  
 FROM 10' BLOCK 22 LOT 40  
 FOLLOWING GROUND COVER = 3.0 FT FILL  
 FOLLOWING GROUND COVER = 3.0 FT FILL

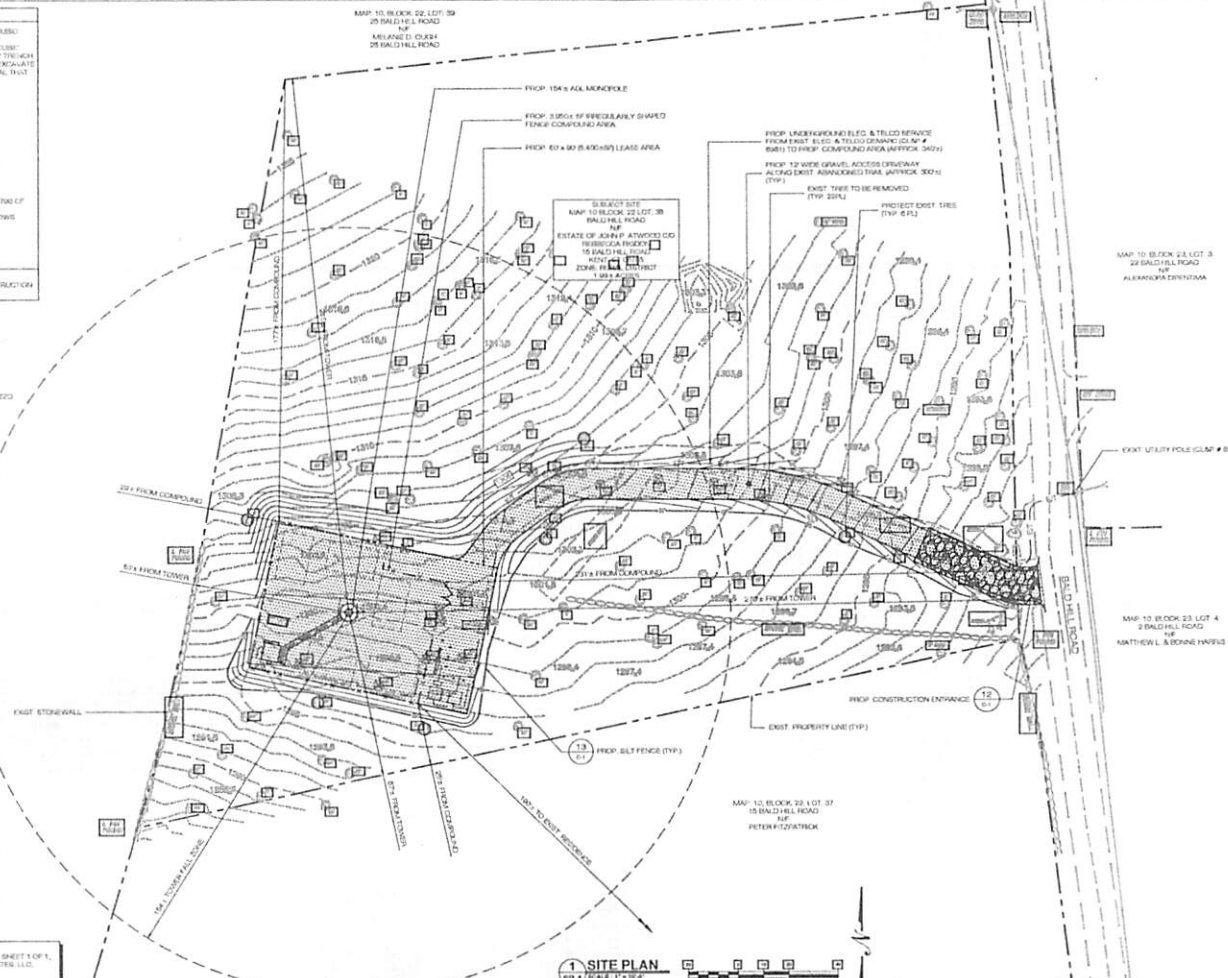
GROUND COVER TO BE ESTABLISHED AS FOLLOWS  
 2.0 FT  
 WHITE CULTIVAR 2.0 FT  
 TALL FESCUE 2.0 FT  
 PERMANENT 2.0 FT

NOTE:  
 20' TALL WALL NEED TO BE REMOVED IN CONSTRUCTION OF THE FACILITY.

# LEGEND

- PROPERTY LINE
- EXIST 1 FT CONTOUR
- EXIST 5 FT CONTOUR
- EXIST STONE WALL
- REMOVE EXIST. TRENCH
- PROPOSED EXIST. TRENCH
- PROPOSED 1 FT CONTOUR
- PROPOSED 5 FT CONTOUR
- PROPOSED UNDERGROUND ELECTRICITY/TEL. CABLE
- PROPOSED FENCE

MAP REFERRED TO:  
 1. "10' BLOCK 22 LOT 40 CONDITIONS SURVEY PLAT" SHEET 1 OF 1,  
 PREPARED BY MATTHEW DORCH & ASSOCIATES, LLC,  
 DATED 04-19-19



1 SITE PLAN  
 SP-1 SCALE: 1" = 20'

340 MOUNT REMBE AVENUE  
 HONOLULU, NEW JERSEY 07030

DESIGNER: ALL-POINTS TECHNOLOGY CORPORATION  
 1000 WILSON AVENUE, SUITE 200  
 KILLINGWORTH, CT 06031  
 TEL: 860-336-1111 FAX: 860-336-1112  
 WWW.ALLPOINTS.COM

NO.	DATE	REVISION
1	06/19/19	FOR REVIEW, R.C.B.
2	06/19/19	TOWER REVISION, R.C.B.
3		
4		
5		

DESIGN FROM 800/800/800 OF A RECORD  
 PROJ. ROBERT C. BURNS, P.E.  
 COMP. ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
 ACT. 2 BACKBROOK DRIVE  
 KILLINGWORTH, CT 06031  
 DEVELOPER: HOMETOWN TOWERS, LLC  
 ADDRESS: 3 HARBOR STREET  
 2ND FLOOR  
 DANBURY, CT 06819

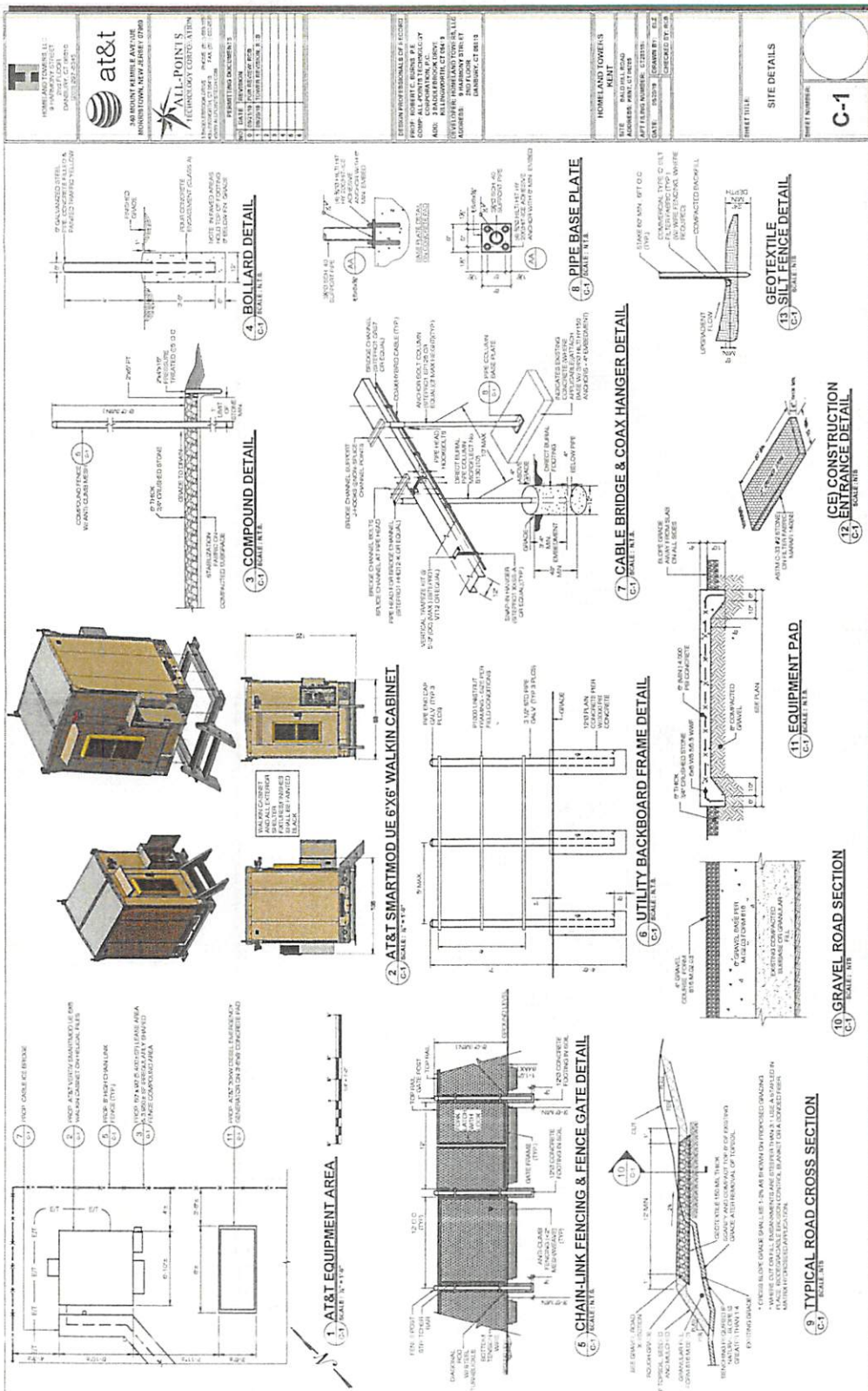
**HOMETOWN TOWERS**  
 KENT

SITE: BALDWIN ROAD  
 ADDRESS: KENT, CT 06031  
 SPT NO. 200 NUMBER: CT0019  
 DATE: 06/19/19 DRAWN BY: R.C.B.  
 CHECKED BY: R.C.B.

SHEET TITLE:  
**SITE PLAN & ABUTTERS MAP**

SHEET NUMBER:  
**SP-1**





## **Facilities and Equipment Specification**

### **I. TOWER SPECIFICATIONS:**

- A. MANUFACTURER: To be determined
- B. TYPE: Self-supporting monopole tower
- C. HEIGHT: 154' AGL  
DIMENSIONS: Tower structure tapered
- D. TOWER LIGHTING: None required.

### **II. TOWER LOADING:**

- A. AT&T - up to 9 panel antennas
  - a. Model - TBD
  - b. Antenna Dimensions - approximately 96"H x 12"W x 9"D
  - c. Position on Tower - 150' centerline AGL
  - d. Transmission Lines - DC and Fiber lines internal to tower.
  - e. (18) 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:** Kent CT757  
**Site Address:** Bald Hill Road  
Kent, CT 06785

**Access distances:**

Distance of proposed gravel access driveway: (300'+/-).

**Distance to Nearest Wetlands**

580'+/- west of the proposed compound.

**Distance to Property Lines:**

215'+/- to the northern property boundary from the tower  
67'+/- to the southern property boundary from the tower  
63'+/- to the western property boundary from the tower  
270'+/- to the eastern property boundary from the tower

177'+/- to the northern property boundary from the compound  
25'+/- to the southern property boundary from the compound  
29'+/- to the western property boundary from the compound  
231'+/- 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 151 feet to the south and is located at Parcel 10-22-37 (15 Bald Hill Road).

**Special Building Information:**

None.

**Tree Removal Count:**

22 trees need to be removed to improve the access driveway and construct the compound area.

6" - 10" dbh	7 trees
10" - 14" dbh	5 trees
14" or greater dbh	10 trees

**Cut/Fill:** The site improvements shall entail approximately 150 CY of cut for utility trenching and net 450 CY of excavation for the construction of the compound and access driveway. Approximately 210 CY of broken stone is needed for the compound and driveway construction.

**Clearing/Grading Necessary:** Total area of disturbance = 15,500+/- SF



## Tree Inventory

May 17, 2019

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

RE: Tree Inventory  
Site: Kent CT757  
Bald Hill Road  
Kent, CT 06785

Dear Ms. Chiocchio:

A Tree Inventory was completed at the subject site on April 25, 2019 to determine the size and quantity of existing trees that will need to be removed for the installation of the proposed facility. The proposed site has suitable access, but clearing and earthwork will be required to improve the access route and to construct the compound area. Installation of the proposed compound area and access driveway improvements will require the removal of 22 trees.

6" – 10" dbh	- 7 tree
10" – 14" dbh	- 5 trees
14" or greater dbh	- 10 trees

The area to be disturbed for construction of the compound area will be approximately 3,950 square feet of interior area currently vacant. A new access driveway will be installed to connect to the proposed compound. The total combined area of disturbance for compound, access drive, and utility improvements is 15,500 sf.

Sincerely,

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

Robert C. Burns, P.E.  
Program Manager

<b>HOMELAND TOWERS KENT 1000' RESIDENTIAL BUILDING LIST</b>			
<b>PARCEL ID</b>	<b>STREET ADDRESS</b>	<b>BUILDING TYPE</b>	<b>DISTANCE FROM COMPOUND* (ft)</b>
10-22-37	15 BALD HILL ROAD	Single Family	151+/-
10-22-36	9 BALD HILL ROAD	Single Family	222+/-
10-22-34	5 BALD HILL ROAD	Single Family	509+/-
10-22-30	303 SEGAR MTN ROAD	Single Family	939+/-
10-23-4	2 BALD HILL ROAD	Single Family	515+/-
16-23-2	12 DAVIS ROAD	Single Family	603+/-
16-23-1	335 SEGAR MTN ROAD	Single Family	921+/-
10-23-3	22 BALD HILL ROAD	Single Family	379+/-
10-23-1	26 BALD HILL ROAD	Single Family	470+/-
10-23-2	23 BALD HILL ROAD	Single Family	923+/-
10-22-39	25 BALD HILL ROAD	Single Family	215+/-
10-22-40	28B STONE FENCES LANE	Single Family	440+/-
10-22-41	26 STONE FENCES LANE	Single Family	415+/-
10-22-33	20 STONE FENCES LANE	Single Family	806+/-
10-22-21	18 STONE FENCES LANE	Single Family	742+/-
10-22-42	24 STONE FENCES LANE	Single Family	727+/-
<b>*Information gathered from Kent Assessor Map 10 and Map 16 and Bing Digiglobe Aerial Images (1-ft resolution)</b>			

## **TAB B**

### **Candidate A: Bald Hill Road**

#### **Environmental Assessment Statement**

##### **I. PHYSICAL IMPACT**

###### **A. WATER FLOW AND QUALITY**

A wetland delineation was conducted at the site and there were no wetlands identified in or immediately adjacent to the proposed access drive or facility compound. There are off-site wetlands located approximately 580' west of the proposed compound. 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 temporary impacts. No wetlands or inland waterways will be impacted by the proposed facility.

###### **B. AIR QUALITY**

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind. An emergency backup power diesel generator would be exercised once a week and comply with the CT DEEP "permit by rule" criteria pursuant to R.C.S.A. §22a-174-3b.

###### **C. LAND**

Approximately 22 trees will need to be removed in order to construct the compound and the new access drive. The total area of clearing and grading disturbance will be approximately 15,500 s.f. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

###### **D. NOISE**

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system. Some construction related noise would be anticipated during



facility construction, which is expected to take approximately four to six weeks. Temporary power outages could involve sound from the emergency generator which is tested weekly.

#### E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the facility would be 8.01% of the federal MPE standard. Attached is a copy of a Radio Frequency Emissions Analysis Report for the facility.

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

Homeland Towers consulted with the CT State Historic Preservation Office ("SHPO") and the SHPO confirmed no previously identified archaeological sites or properties listed or determined eligible for listing in the National Register of Historic Places are located within 1 mile of the project area. A copy of the SHPO determination is enclosed.

Homeland Towers further consulted with the CT Department of Energy and Environmental Protection ("DEEP") and the DEEP confirmed that there are no anticipated negative impacts to State-listed species based on information contained within the Natural Diversity Data Base ("NDDB") maps as areas that represent approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut.

#### G. SCHOOLS/DAY CARE CENTERS

There are no schools or day care centers located within 250' of the tower site.



## WETLAND INSPECTION

May 14, 2019

APT Project No.: CT283180

Prepared For: Homeland Towers  
9 Harmony Street  
Danbury, CT 06810

HLT Site Name: CT757 Kent

Site Address: Bald Hill Road  
Kent, Connecticut

Date(s) of Investigation: 4/22/2019

Field Conditions: Weather: cloudy, low 60's  
Soil Moisture: moist

**Wetland/Watercourse Delineation Methodology\*:**

- ☒ Connecticut Inland Wetlands and Watercourses
- ☐ Connecticut Tidal Wetlands
- ☐ U.S. Army Corps of Engineers

The wetlands inspection was performed by†:

Matthew Gustafson, Registered Soil Scientist

Enclosures: Wetland Inspection 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.† 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.*

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

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

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

---

## Attachments

- Wetland Inspection Field Form
- Wetland Inspection Map

### Wetland Inspection Field Form

Wetlands Identified within Study Area:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Nearest Wetland Resource:	±580 feet to the west	
Identification Method:	Remote sensing <input checked="" type="checkbox"/> Type: CTDEEP Wetland Mapping	Field identified <input type="checkbox"/>

#### SITE CONDITIONS:

##### DEVELOPED ☐

Paved <input type="checkbox"/>	Gravel <input type="checkbox"/>	Maintained Lawn <input type="checkbox"/>
Agriculture <input type="checkbox"/>	Cultivated <input type="checkbox"/>	Hayfield/Pasture <input type="checkbox"/>
Comments: None		

##### UNDEVELOPED UPLAND HABITAT ☒

Forest <input checked="" type="checkbox"/>	Scrub/Shrub <input type="checkbox"/>	Field <input type="checkbox"/>
Other:		
Comments: Upland forest with surrounding light residential development on adjacent parcels.		

#### SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
If no, describe field identified soils		

#### NEAREST WETLAND TYPE:

##### SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

##### CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

##### WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		



### Wetland Inspection Field Form (Cont.)

**SPECIAL AQUATIC HABITAT:**

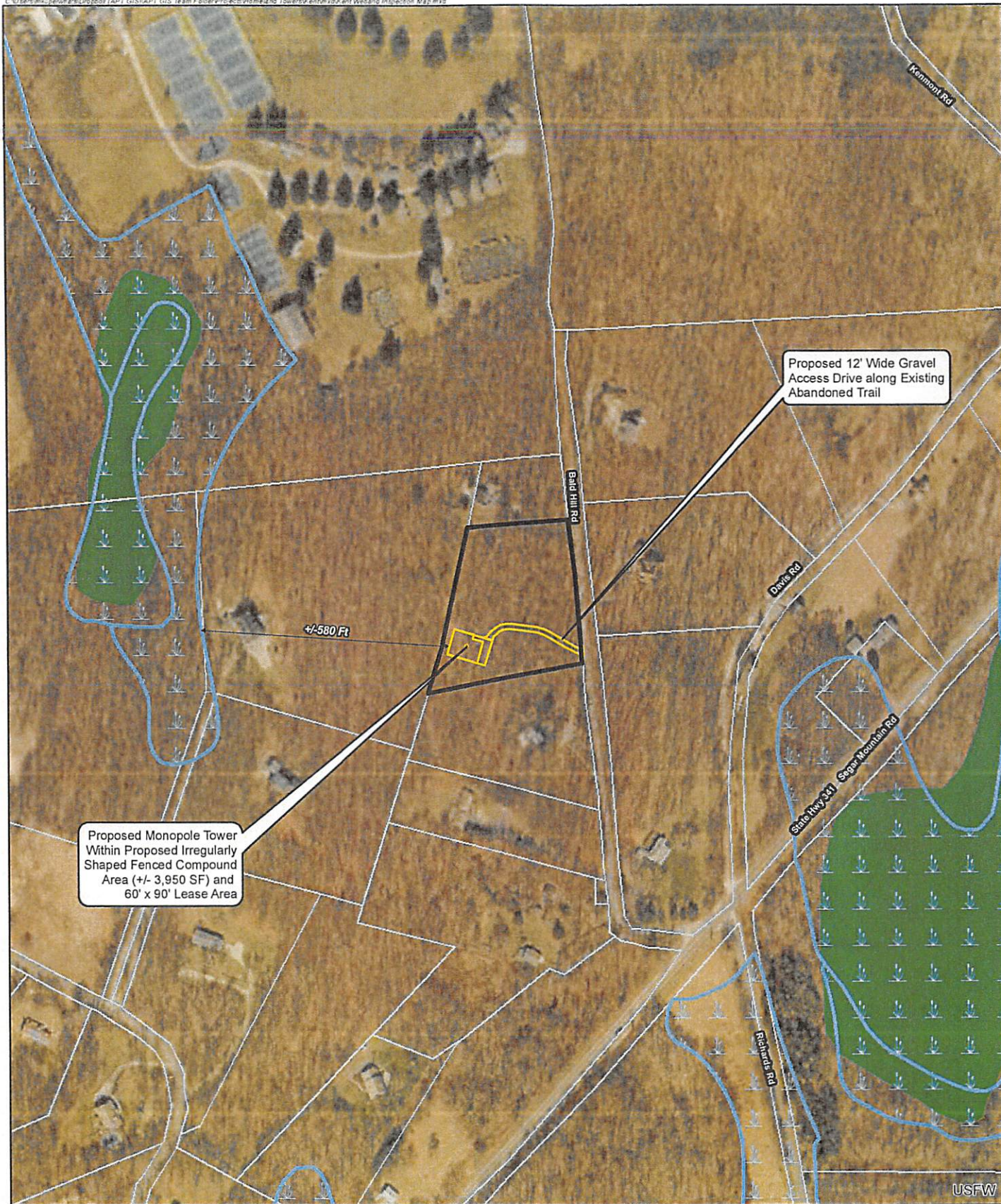
Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

**GENERAL COMMENTS:**

Homeland Towers is proposing to construct a monopole telecommunications tower within an irregularly shaped fenced compound area totaling approximately 3,950 sf. This telecommunications facility is proposed to be accessed off Bald Hill Road via a new gravel access road. The entire proposed facility would be located within mature upland forest. The proposed tower/compound location is sited within an existing clearing therefore minimizing the need for mature tree clearing.

No wetlands or watercourses are located on the subject property. The nearest wetland to the proposed facility appears to be located off-property  $\pm 580$  feet to the west as identified by remote sensing techniques. Therefore, the proposed development would not result in a likely adverse impact to wetland resources.





#### Legend

- Proposed Site Layout
- ▲ Wetland Flag\*
- Delineated Wetland Boundary\*
- Approximate Wetland Area\*
- Subject Property
- Approximate Parcel Boundary

#### Map Notes:

\*Legend item not located in mapped area  
 Base Map Source: 2016 CT Aerial Imagery (CTECO)  
 Map Scale: 1 inch = 300 feet  
 Map Date: April 2019

#### NWI+

- Freshwater Forest and Shrub Wetlands
- Freshwater Emergent Wetland
- Other Freshwater Wetland
- Estuarine and Marine Wetlands
- Estuarine and Marine Deep Water
- Freshwater Ponds
- Lakes
- Riverine



300 150 0 300 Feet

#### Wetland Inspection Map

Proposed Wireless  
 Telecommunications Facility  
 CT757-Kent  
 Bald Hill Road  
 Kent, Connecticut



**ALL-POINTS**  
 TECHNOLOGY CORPORATION





C Squared Systems, LLC  
65 Dartmouth Drive  
Auburn, NH 03032  
603-644-2800  
[support@csquaredsystems.com](mailto:support@csquaredsystems.com)

---

## Calculated Radio Frequency Exposure



at&t

CT2693A

Bald Hill Road, Kent, CT

---

October 9, 2019

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## 1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of AT&T antenna arrays on a new monopole tower located at Bald Hill Road in Kent, CT. The coordinates of the tower are 41° 43' 16.420" N, 73° 25' 40.800" W.

AT&T is proposing the following:

- 1) Install six (6) multi-band antennas (two per sector) to support its commercial LTE network and the FirstNet National Public Safety Broadband Network ("NPSBN").

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

## 2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

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

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

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

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

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

---

<sup>1</sup> As referenced to AT&T's Radio Frequency Design Sheet updated 1/17/2019.

### 3. RF Exposure Calculation Methods

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

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

Where:

ERP = Effective Radiated Power

R = Radial Distance =  $\sqrt{H^2 + V^2}$

H = Horizontal Distance from antenna

V = Vertical Distance from radiation center of antenna

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

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

#### 4. Calculation Results

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

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm <sup>2</sup> )	Limit	% MPE
AT&T	150	722	1	1730	0.0030	0.4813	0.62%
AT&T	150	739	1	3794	0.0066	0.4927	1.34%
AT&T	150	763	1	3794	0.0066	0.5087	1.29%
AT&T	150	885	1	4066	0.0071	0.5900	1.20%
AT&T	150	1900	1	5743	0.0100	1.0000	1.00%
AT&T	150	2100	1	8614	0.0149	1.0000	1.49%
AT&T	150	2300	1	6153	0.0107	1.0000	1.07%
						<b>Total</b>	<b>8.01%</b>

Table 1: Carrier Information

## 5. Conclusion

The above analysis concludes that RF exposure at ground level from the proposed site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using conservative calculation methods, the highest expected percent of Maximum Permissible Exposure at ground level is **8.01% of the FCC General Population/Uncontrolled limit.**

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

## 6. Statement of Certification

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

A handwritten signature in cursive script, reading 'Martin Lavin'.

Reviewed/Approved By: \_\_\_\_\_  
Martin Lavin  
Sr. RF Engineer  
C Squared Systems, LLC

September 24, 2019  
Date



### **Attachment A: References**

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

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

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

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

### (A) Limits for Occupational/Controlled Exposure<sup>2</sup>

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

### (B) Limits for General Population/Uncontrolled Exposure<sup>3</sup>

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

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

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

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

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

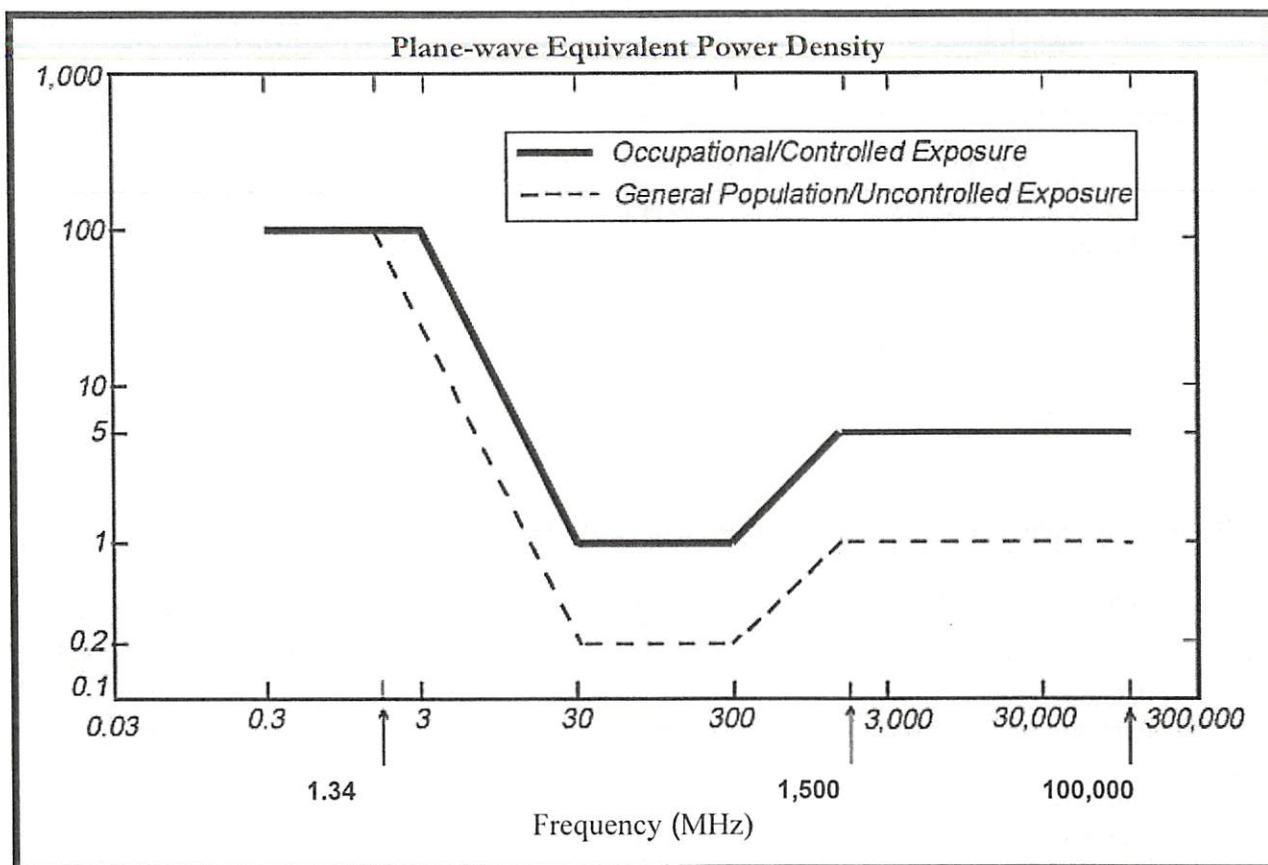
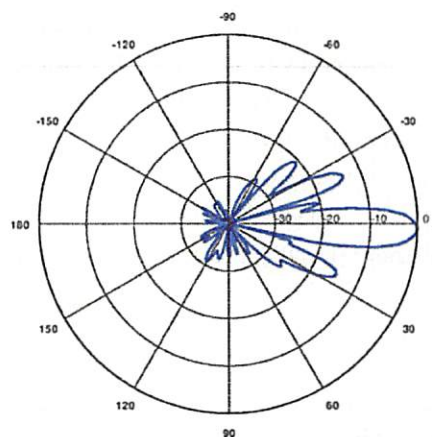


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

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

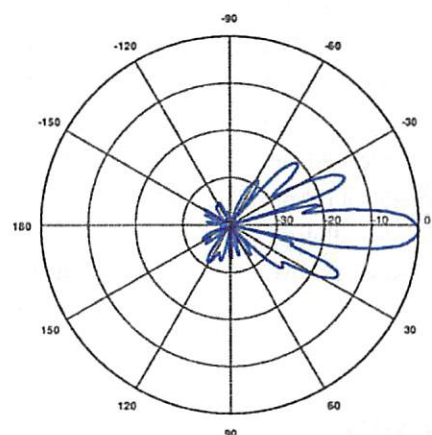
### 722 MHz

Manufacturer: KMW  
 Model #: EPBQ-654L8H8-L2  
 Frequency Band: 698-806 MHz  
 Gain: 15.9 dBi  
 Vertical Beamwidth: 9.3°  
 Horizontal Beamwidth: 67°  
 Polarization: ±45°  
 Dimensions (L x W x D): 96.0" x 21.0" x 6.3"



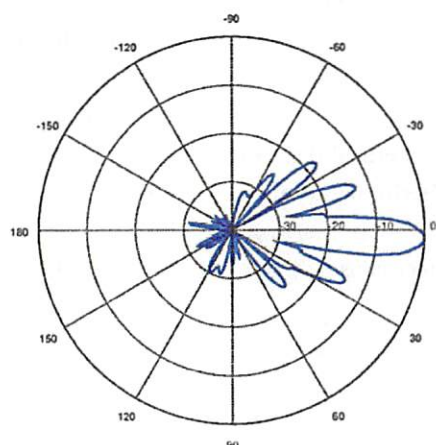
### 739/763 MHz

Manufacturer: KMW  
 Model #: EPBQ-654L8H8-L2  
 Frequency Band: 698-806 MHz  
 Gain: 15.9 dBi  
 Vertical Beamwidth: 9.3°  
 Horizontal Beamwidth: 67°  
 Polarization: ±45°  
 Dimensions (L x W x D): 96.0" x 21.0" x 6.3"



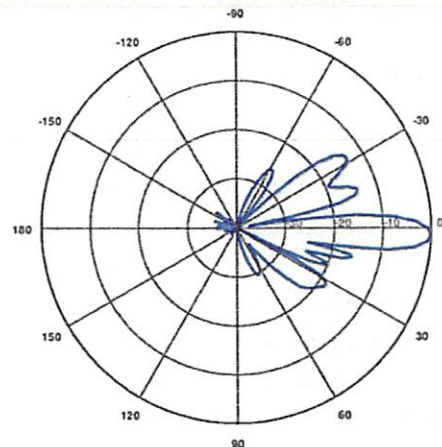
### 885 MHz

Manufacturer: KMW  
 Model #: EPBQ-654L8H8-L2  
 Frequency Band: 806-894 MHz  
 Gain: 16.2 dBi  
 Vertical Beamwidth: 8.7°  
 Horizontal Beamwidth: 66°  
 Polarization: ±45°  
 Dimensions (L x W x D): 96.0" x 21.0" x 6.3"



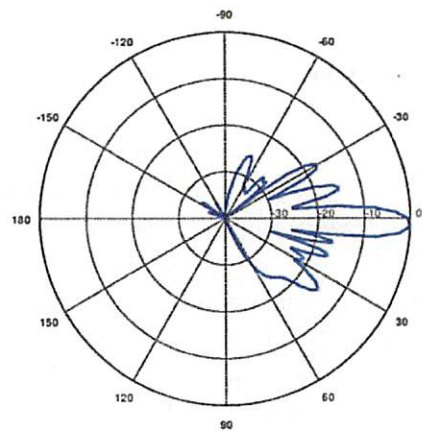
## 1900 MHz

Manufacturer: KMW  
 Model #: EPBQ-654L8H8-L2  
 Frequency Band: 1910-2180 MHz  
 Gain: 17.7 dBi  
 Vertical Beamwidth: 7.4°  
 Horizontal Beamwidth: 60°  
 Polarization: ±45°  
 Dimensions (L x W x D): 96.0" x 21.0" x 6.3"



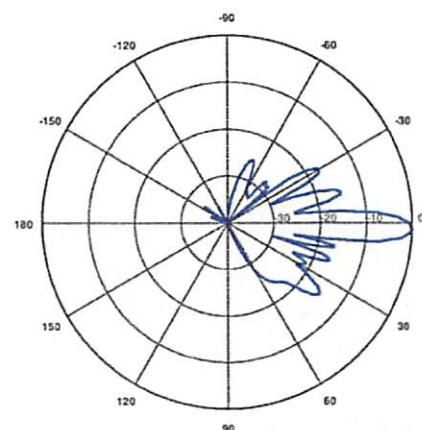
## 2100 MHz

Manufacturer: KMW  
 Model #: EPBQ-654L8H8-L2  
 Frequency Band: 1910-2180 MHz  
 Gain: 17.7 dBi  
 Vertical Beamwidth: 7.4°  
 Horizontal Beamwidth: 60°  
 Polarization: ±45°  
 Dimensions (L x W x D): 96.0" x 21.0" x 6.3"



## 2300 MHz

Manufacturer: KMW  
 Model #: EPBQ-654L8H8-L2  
 Frequency Band: 2300-2400 MHz  
 Gain: 18.0 dBi  
 Vertical Beamwidth: 4.0°  
 Horizontal Beamwidth: 60°  
 Polarization: ±45°  
 Dimensions (L x W x D): 96.0" x 21.0" x 6.3"







Department of Economic and  
Community Development

State Historic Preservation Office

May 30, 2019

Mr. Lucas Karmazinas  
c/o All Points Technology Corp.  
3 Saddlebrook Drive  
Killingworth, CT 06419

Subject: Proposed Wireless Telecommunications Facility  
Bald Hill Road (Map 10, Block 22, Lot 38)  
Kent, CT  
Homeland Towers  
ENV-19-0556

Dear Mr. Karmazinas:

The State Historic Preservation Office (SHPO) has reviewed the information submitted by All Points Technology Corp. (All Points) dated May 28, 2019. 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 180 foot tall monopole within a 70 foot by 60 foot chain-link equipment compound, located at the southwest of the Subject Property. A 12 foot-wide utility easement/access drive is proposed to run from the equipment compound east to provide access to Bald Hill Road.

No previously identified archaeological sites are located within 1 mile of the project area. No properties listed or determined eligible for listing in the National Register of Historic Places are located within 1 mile of the project area. A review of historical maps and aerial images revealed that the Subject Property appears to have been left undeveloped.

A reconnaissance survey undertaken 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 were identified during the survey. Additionally, soil profiles of the site are extremely stony, and situated on approximately 3 – 15 percent slopes. A small depression, indicative of a borrow pit, was identified at the location of the proposed installation, indicating previous ground disturbance.

Therefore, based on the information provided to our office, SHPO concurs with the findings of All Points that no historic properties will be affected by the construction of the telecommunications facility.

State Historic Preservation Office

450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | P: 860.500.2300 | DECD.org  
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Department of Economic and  
Community Development

State Historic Preservation Office

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](mailto:marena.wisniewski@ct.gov).

Sincerely,

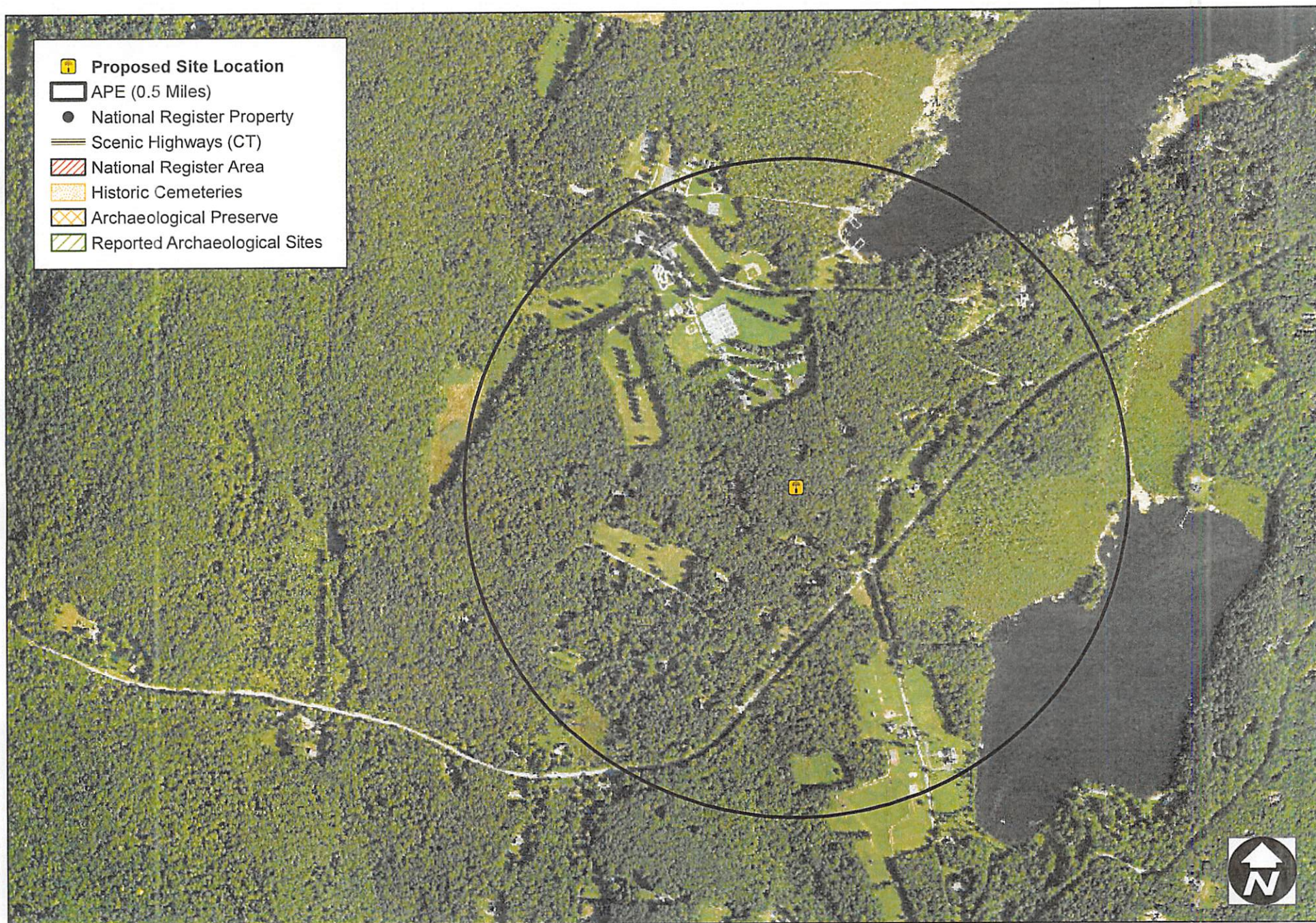
Catherine Labadia  
Deputy State Historic Preservation Officer

State Historic Preservation Office

450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | P: 860.500.2300 | [DECD.org](http://DECD.org)

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Cultural Resources Screen  
**CT757- Kent-** Bald Hill Rd Kent Ct  
 May 8, 2019 \ USGS QUAD: Kent

0 600 1,200 2,400 Feet

Prepared for All-Points Technology Corp. by Heritage Consultants, 2019.





Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

79 Elm Street • Hartford, CT 06106-5127

[www.ct.gov/deep](http://www.ct.gov/deep)

Affirmative Action/Equal Opportunity Employer

May 10, 2019

Dean Gustafson  
All-Points Technology Corporation PC  
3 Saddlebrook Drive  
Killingworth CT 06419  
[dgustafson@allpointstech.com](mailto:dgustafson@allpointstech.com)

Project: Kent CT 757, Construction of monopole telecommunications tower off Bald Hill Road in Kent, CT  
NDDB Determination No.: 201905801

Dear Mr. Gustafson,

I have reviewed Natural Diversity Database (NDDB) maps and files regarding the area of work provided for the proposed new telecommunications tower off Bald Hill Road in Kent, Connecticut. I do not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from your proposed activity at the site based upon the information contained within the NDDB. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits. This determination is good for two years. Please re-submit a new NDDB Request for Review if the scope of work changes or if work has not begun on this project by May 10, 2021.

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

Please contact me if you have further questions at (860) 424-3378, or [karen.zyko@ct.gov](mailto:karen.zyko@ct.gov). Thank you for consulting the Natural Diversity Database.

Sincerely,

A handwritten signature in cursive script, appearing to read "Karen Zyko".

Karen Zyko  
Environmental Analyst

## **SECTION 4**

### **TAB A**

#### **CANDIDATE B: 93 RICHARDS ROAD**

##### **General Facility Description**

93 Richards Road, Kent, Connecticut

Tax/PIN Identification: Map: 17 Block: 25 Lot: 1

6.821 Acre Parcel

The proposed Candidate B tower site is located on an approximately 6.821-acre parcel located at 93 Richards Road owned by Jason and Jennifer Dubray. It is classified in the Rural Zoning District and is improved with a residence and commercial building. The proposed telecommunications facility includes an approximately 6,075 s.f. lease area located in the northeastern section of the host parcel.

The facility consists of a new self-supporting monopole that is 175' in height'. AT&T would install up to nine (9) panel antennas and related equipment at a centerline height of 171' above grade level (AGL). The tower would be designed for future shared use of the structure by other FCC licensed wireless carriers. AT&T's walk-in equipment cabinet and diesel generator would be installed within the 60' x 60' fenced compound area at the base of the tower.

The tower compound would consist of a 3,600 s.f. area to accommodate AT&T's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an eight (8) foot high chain link fence. Vehicle access to the facility would be provided from Richards Road along an existing drive a distance of approximately 1,050 feet. Utility connections would be routed underground along the access easement.

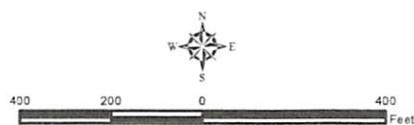




**Legend**

-  Site
-  Subject Property
-  Approximate Parcel Boundary

**Map Notes**  
Base Map Source: 2016 CT ECO Imagery  
Map Scale 1 inch = 400 feet  
Map Date: October 2019



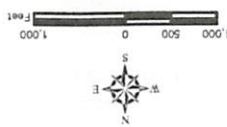
**Site Location Map**

Proposed Wireless  
Telecommunications Facility  
CT757-Kent  
93 Richards Road  
Kent, Connecticut





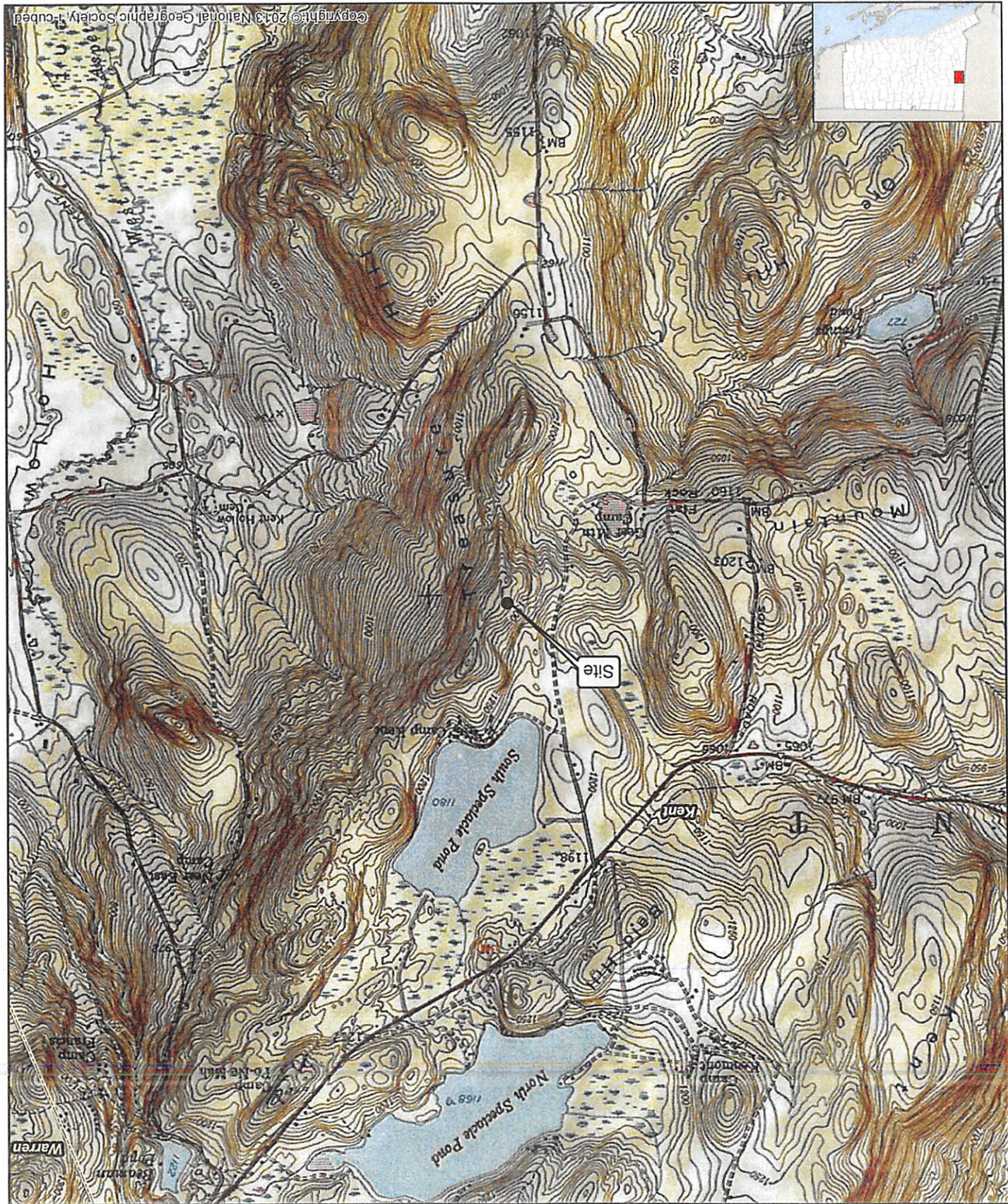
Map Notes  
 Base Map Source: USGS 7.5 Minute Topographic  
 Quadrangle Map, Kent, CT (1971)  
 Map Scale: 1:24,000  
 Map Date: October 2019



- Legend**
- Site
  - Municipal Boundary


**Site Location Map**

Proposed Wireless  
 Telecommunications Facility  
 CT757-Kent  
 93 Richards Road  
 Kent, Connecticut



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 <b>ALL-POINTS</b> TECHNOLOGY CORPORATION 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1697 FAX: (860)-663-0935 WWW.ALLPOINTSTECH.COM		<b>APT FILING NUMBER: CT283180</b> <b>LE-1</b> <b>DRAWN BY: ELZ</b> <b>CHECKED BY: RCB</b>		<b>DATE: 07/19/19</b> <b>SCALE: AS NOTED</b>		<b>HOMELAND TOWERS, LLC</b> 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810		<b>KENT</b> 93 RICHARDS ROAD SOUTH KENT, CT 06785	
<b>HOMELAND TOWERS:</b> <b>CT757</b>									

PROP. UNDERGROUND ELEC. & TELCO SERVICE FROM EXIST. UTILITY POLE (CL&P POLE # 10854) TO PROP. COMPOUND (APPROX. 1,060'±) PROVIDE (2) 3" CONDUITS AT EXIST. BUILDING FOR LANDLORD'S USE.

EXIST. UTILITY POLE (CL&P POLE # 10854)  
 EXIST. UTILITY POLE (CL&P POLE # 15038)

PROP. 175'± AGL MONOPOLE  
 COMPOUND AREA (3,600'± SF) FENCED GRAVEL (6,075'± SF) LEASE AREA & 60'±60' PROP. IRREGULARLY SHAPED

LE-2  
 1



PROP. 12' WIDE GRAVEL ACCESS (60'±) FROM RICHARDS ROAD TO EXIST. DRIVEWAY  
 PROP. COMPOUND ACCESS FROM RICHARDS ROAD ALONG PROP. GRAVEL ACCESS DRIVE (60'±) AND EXIST. VARYING WIDTH GRAVEL ACCESS DRIVE (APPROX 1,050'± TOTAL LENGTH)  
 PROPERTY LINE (TYP.)  
 EXIST. BUILDING  
 EXIST. RESIDENCE (TYP.)  
 SCALE: 1" = 200'-0"  
 LE-1  
**1**  
**SITE PLAN**

-REV1: 10/10/19: CLIENT REVISIONS: RCB

NOTE: EXACT LOCATION AND ORIENTATION OF PROPOSED LEASE AREA PENDING SITE SURVEY & FURTHER ENGINEERING REVIEW AND ANALYSIS. PROPOSED UTILITY ROUTING AND R.O.W. EXTENTS TO BE DETERMINED BY LOCAL UTILITY PROVIDERS.





**ALL-POINTS**  
TECHNOLOGY CORPORATION

3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419  
WWW.ALLPOINTSTECH.COM

PHONE: (860)-663-1697  
FAX: (860)-663-0935

APT FILING NUMBER: CT283180

LE-2

SCALE: AS NOTED

DRAWN BY: ELZ

DATE: 07/19/19

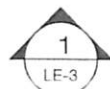
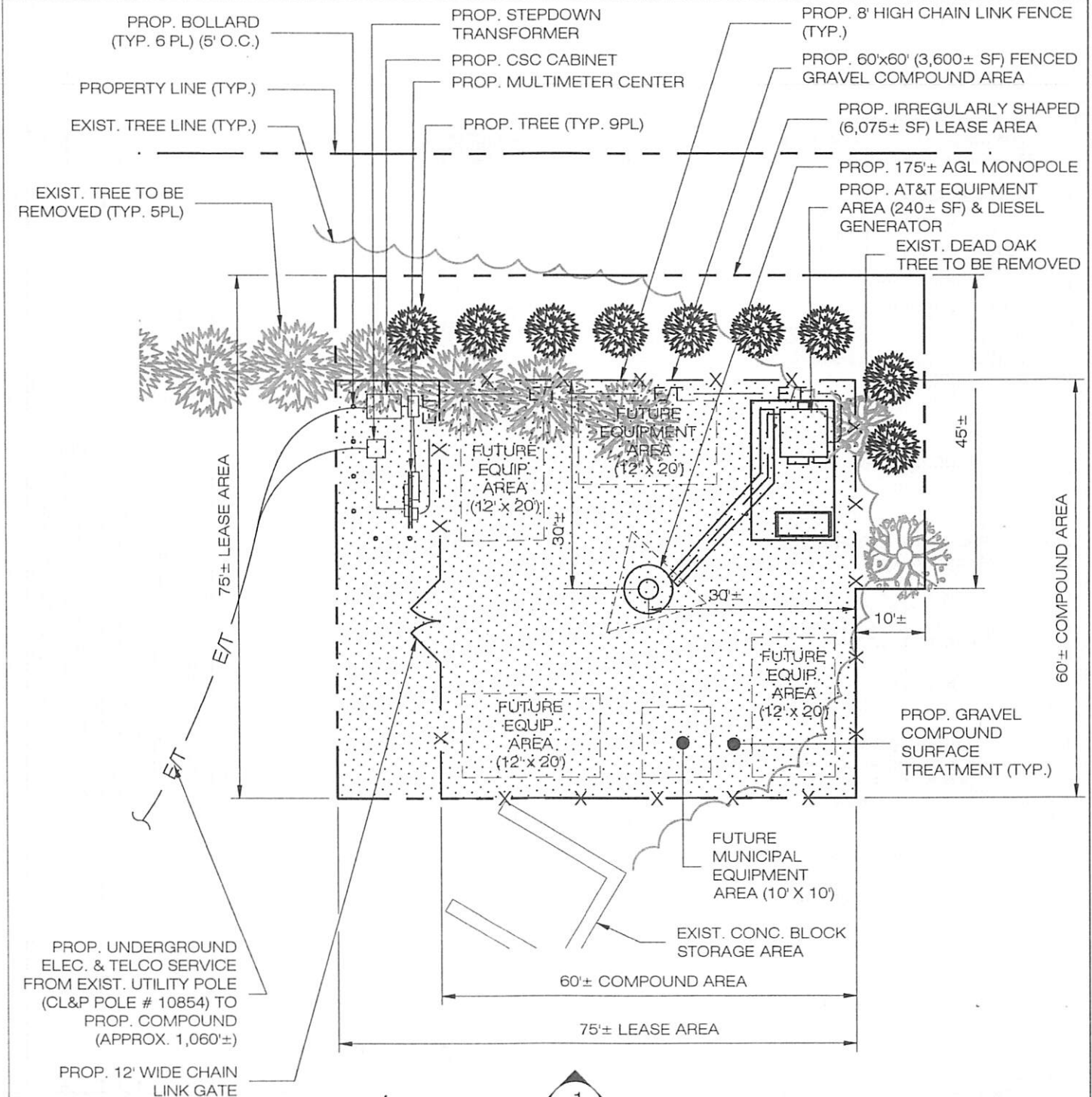
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HOMELAND TOWERS, LLC  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810

**HOMELAND TOWERS:**  
**CT757**

**KENT**  
**93 RICHARDS ROAD**  
**SOUTH KENT, CT 06785**



1  
LE-2

## COMPOUND PLAN

SCALE: 1" = 20'-0"

-REV1: 10/10/19: CLIENT REVISIONS: RCB

NOTE: EXACT LOCATION AND ORIENTATION OF PROPOSED LEASE AREA PENDING SITE SURVEY & FURTHER ENGINEERING REVIEW AND ANALYSIS. PROPOSED UTILITY ROUTING AND R.O.W. EXTENTS TO BE DETERMINED BY LOCAL UTILITY PROVIDERS.





**ALL-POINTS**  
TECHNOLOGY CORPORATION

3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419  
WWW.ALLPOINTSTECH.COM

PHONE: (860)-663-1697  
FAX: (860)-663-0935

APT FILING NUMBER: CT283180

LE-3

SCALE: AS NOTED

DRAWN BY: ELZ

DATE: 07/19/19

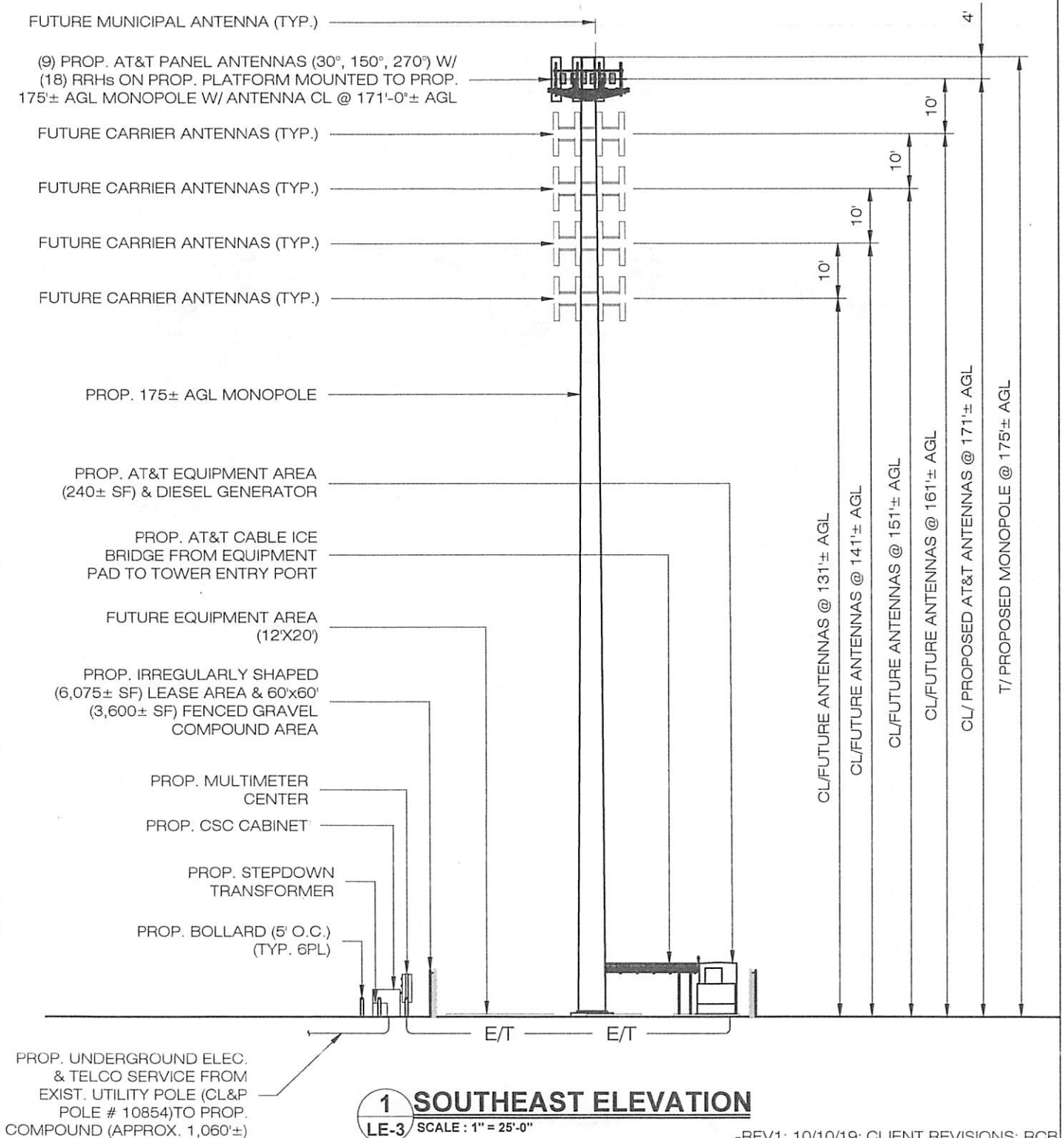
CHECKED BY: RCB



HOMELAND TOWERS, LLC  
9 HARMONY STREET  
2nd FLOOR  
DANBURY, CT 06810

**HOMELAND TOWERS:**  
**CT757**

KENT  
93 RICHARDS ROAD  
SOUTH KENT, CT 06785



**1 SOUTHEAST ELEVATION**  
LE-3 SCALE: 1" = 25'-0"

-REV1: 10/10/19: CLIENT REVISIONS: RCB

NOTE: EXACT LOCATION AND ORIENTATION OF PROPOSED LEASE AREA PENDING SITE SURVEY & FURTHER ENGINEERING REVIEW AND ANALYSIS. PROPOSED UTILITY ROUTING AND R.O.W. EXTENTS TO BE DETERMINED BY LOCAL UTILITY PROVIDERS.

## **Facilities and Equipment Specification**

### **I. TOWER SPECIFICATIONS:**

- A. MANUFACTURER: To be determined
- B. TYPE: Self-supporting monopole tower
- C. HEIGHT: 175' AGL  
DIMENSIONS: Tower structure tapered
- D. TOWER LIGHTING: None required.

### **II. TOWER LOADING:**

- A. AT&T - up to 9 panel antennas
  - a. Model - TBD
  - b. Antenna Dimensions - approximately 96"H x 12"W x 9"D
  - c. Position on Tower - 171' centerline AGL
  - d. Transmission Lines - DC and Fiber lines internal to tower.
  - e. (18) 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.

**TAB B**

**Candidate B: 93 Richards Road**

**Environmental Assessment Statement**

**I. PHYSICAL IMPACT**

**A. WATER FLOW AND QUALITY**

A wetland delineation will be conducted at the site and the results provided to the Town. 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 temporary impacts.

**B. AIR QUALITY**

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind. An emergency backup power diesel generator would be exercised once a week and comply with the CT DEEP "permit by rule" criteria pursuant to R.C.S.A. §22a-174-3b.

**C. LAND**

It is anticipated that the proposed Site B facility will require minimal clearing and tree removal given the use of the existing access drive and currently improved areas. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

**D. NOISE**

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks.

Temporary power outages could involve sound from the emergency generator which is tested weekly.

#### E. POWER DENSITY

The cumulative worst-case calculation of power density from AT&T's operations at the Site B facility is expected to be well below the federal MPE standard. A Radio Frequency Emissions Analysis Report will be prepared and submitted.

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

No historic properties are located within the ½ mile area of potential effect. Thus, it is anticipated that the proposed facility at Candidate B will have no impact on historic resources. Homeland Towers is currently consulting with the CT State Historic Preservation Office ("SHPO") for confirmation.

The proposed facility is not located within 0.25 mile of any locations identified on the DEEP Natural Diversity Data Base ("NDDB") maps as areas that represent 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

There are no schools or day care centers located within 250' of the tower site.