



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

**And**

**TARPON TOWERS II, LLC**

**TECHNICAL REPORT  
PROPOSED WIRELESS TELECOMMUNICATION FACILITY**

**92 GREENS FARMS ROAD  
WESTPORT, CT 06880**

**NEW CINGULAR WIRELESS PCS, LLC  
84 DEERFIELD LANE  
MERIDEN, CT 06450**

**TARPON TOWERS II, LLC  
8916 77<sup>th</sup> TERRACE EAST, SUITE 103  
LAKEWOOD RANCH, FL 34202**

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## Introduction

New Cingular Wireless PCS, LLC (“AT&T”) and Tarpon Towers II, LLC (“Tarpon”) submit this Technical Report to the Town of Westport (“Town” or “Westport”) pursuant to Connecticut General Statutes §16-50/. AT&T and Tarpon (collectively the “Applicants”) propose to install a wireless telecommunications facility (the “Facility”) on an approximately 1.99+/- acre parcel located at 92 Greens Farms Road, Westport, and owned by Pradiv and Sharuna Mahesh (the “Property” or the “Site”). The Facility would consist of a 124' foot monopole structure (not to exceed 124' with antennas) within a 35' x 64' fenced equipment compound (within a 2500 square foot leased area) surrounded by a chain-link fence, located adjacent to an existing house and along Interstate 95. The tower would accommodate the antenna arrays of AT&T, Cellco Partnership, d/b/a Verizon Wireless (“Verizon”), and two future wireless carriers. If approved, the Facility would provide enhanced wireless communications and improved 911 service in this area of Westport.

The purpose of this Technical Report is to provide the Town with information concerning the Facility. Section 1 addresses the need for the proposed Facility. Section 2 details the site selection process, including an analysis of other sites considered and rejected by Tarpon. Section 3 describes the Site, the design of the Facility, and the environmental effects, if any, associated with the Facility.

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## **SECTION 1**

### **Site Justification**

The proposed Facility is necessary to allow AT&T and Verizon to provide wireless service in this area of the Town. AT&T and Verizon are licensed by the Federal Communications Commission ("FCC") to provide wireless communication service throughout the State of Connecticut, including Fairfield County. AT&T and Verizon's FCC licenses require the construction and build-out of their wireless networks within their respective federally licensed service areas, which include the Town of Westport.

The proposed 124' monopole at 92 Greens Farms Road, Westport, Connecticut, will allow AT&T and Verizon to provide necessary in-building residential and in-vehicle coverage if they are permitted to locate at the 120' and 110' levels, respectively. AT&T and Verizon's locations at the 120' and 110' levels, respectively, will provide much-needed coverage in the area within the proposed coverage footprint. With the development of the proposed Facility, residential customers would have reliable in-vehicle and in-building coverage for their voice and data needs as well as reliable coverage for E-911 services.

The attached Statement of Need is comprised of an *RF Report* containing AT&T propagation plots and separate propagation plots prepared by Verizon that collectively depict (1) coverage from existing and approved surrounding sites, and (2) coverage from the proposed Site in conjunction with existing and approved sites. See *attached RF Report prepared by C Squared Systems, LLC, dated June 28, 2021, and attached Verizon propagation plots*. Together, these propagation plots demonstrate AT&T's need and Verizon's need for a site in the area of the proposed Facility, and the effectiveness of the proposed Facility in meeting the need for wireless service in this area of Westport.

## SECTION 2

### Site Search Process and Selection

Connecticut General Statutes § 16-50/ requires the Applicants to provide the Town with a technical report considering, *inter alia*, “the site selection process.” When filing its application for a certificate of environmental compatibility and public need with the Connecticut Siting Council, the Applicants must include a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” Regs., Conn. State Agencies § 16-50j-74(j). In accordance with these requirements, this Technical Report details the description of the general site search process, the identification of the target search area, and the alternative locations considered for development of the proposed Facility.

As a tower infrastructure provider, Tarpon is in direct consultation with individual carriers and uses its overall knowledge and understanding of existing wireless carrier networks to identify geographical areas where wireless service is unreliable. Tarpon only pursues a site search for a new tower when it is clear that a new tower facility will be required, and all other options have been evaluated and/or exhausted. When conducting a site search, Tarpon, in consultation with the appropriate wireless carrier radio frequency engineers, identifies search areas central to the necessary geographical coverage area. In this case, AT&T and Verizon identified a need for wireless coverage in this area of Westport. AT&T will be a co-applicant with Tarpon, and Verizon has agreed to support the application to construct a new facility in this location to provide the coverage required.

Tarpon is sensitive to State and local desires to minimize the construction of new towers, and it does not pursue development of a new facility where an acceptable existing structure can be found. In general, Tarpon’s site acquisition personnel study the area in and near the search area to determine whether any suitable structure exists. If Tarpon cannot find a structure with appropriate height and structural capabilities, it turns to individual parcels that have appropriate environmental and land use characteristics. The list of potential locations is limited by the willingness of property owners to make their properties available for a telecommunications facility. Radio frequency engineers study potentially suitable and available locations to determine whether those locations will meet the technical requirements for a telecommunications facility. The list of possible alternative sites may be further narrowed by Tarpon’s analysis of potential environmental effects and benefits. The weight given to relevant factors varies for each search, depending on the nature of the area and the availability of potential sites.

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the submission of a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” In accordance with this requirement, descriptions of the general site search process, the identification of the applicable

search area, and the alternative locations considered for development of the proposed telecommunications facility in Westport are provided below.

### Site Search Process

A site search ring is selected in an area where wireless service problems have been identified. In any search ring or search area, Tarpon seeks to avoid the unnecessary proliferation of towers and to reduce the potential adverse environmental effects of the cell site, while at the same time maximizing the quality of service provided from a particular facility. These objectives are achieved by initially locating existing towers and other sufficiently tall structures within and near the site search area. If any are found, they are evaluated to determine whether they are capable of supporting a carrier's telecommunications antennas and related equipment at a location and elevation that satisfies its technical requirements.

The list of available locations may be further reduced if, after preliminary negotiations, the property owners withdraw a site from further consideration. From among the remaining locations, the proposed sites are selected by eliminating those that have greater potential for adverse environmental effects and fewer benefits to the public (i.e., those requiring taller towers; those with substantial adverse environmental impacts; or those with limited ability to share space with other public or private telecommunications service providers). It should be noted that in any given site search, the weight afforded to factors considered in the selection process will vary depending upon the availability and nature of sites within the search area.

### Sites Investigated

#### **1. Owner: Pradiv and Sharuna Moola-Mahesh**

Map Block and Lot: E06/ 074/ 000

Site Location: 92 Greens Farms Road

Property Size: 1.99 acres

Zone: AA

This location is the Property on which the Applicants propose to construct the Facility.

The Applicants determined that the Property is preferable to the other properties in the area. The Property is an approximately 1.99 acre parcel with a designated land use as AA in the Town's records.

**2. Owner: Craig and Elizabeth Fisher**

Map Block and Lot: E06/ 073/ 000

Site Location: 102 Greens Farms Road

Property Size: 2.15 acres

Zoning: AA

This site was deemed unusable due to lack of interest from the owner.

Tarpon representatives had a conversation with Mr. Fisher, and he is not interested in moving forward with the construction of a tower.

**3. Owner: 1735 Ashley, LLC**

Map Block and Lot: D06/ 050/ 000

Site Location: 55 Greens Farms Road

Property Size: 21.93 acres

Zone: DDD4

This site was deemed unusable due to lack of interest from the owner.

Further, after Tarpon representatives walked the property with the owner's representative, there was no viable location for construction of a tower.

**4. Owner: Corporation of the Catholic Church of Assumption**

Map Block and Lot: E06/ 075 / 000

Site Location: Greens Farms Road

Property Size: 3.45 acres

Zone: A

This site was deemed unusable due to lack of interest from the owner.

**5. Owner: Corporation of the Catholic Church of Assumption**

Map Block and Lot: E07/ 01 / 000

Site Location: Greens Farms Road

Property Size: 7.64 acres

Zone: AA

This site was deemed unusable due to lack of interest from the owner.

**6. Owner: Town of Westport**

Map Block and Lot: F07/ 032/ 000

Site Location: 300 Sherwood Island Connector

Property Size: 8.62 acres

Zone: AA

This site was deemed unusable due to RF considerations, as it was too close to existing sites of AT&T and Verizon. Therefore, the site did not meet the carriers' coverage objectives.



**SECTION 3**

**PROPOSED SITE AND FACILITY**

**92 Greens Farms Road  
Westport, CT 06880**

Map Block & Lot E06/074/000  
1.99+/- Acres

## **GENERAL SITE AND FACILITY DESCRIPTION**

The Site is an approximately 1.99+/- acre parcel, with a designated land use as AA. The Property is presently used as a single-family home with a portion of the property along Interstate 95 that remains undeveloped. The Site is situated on the east side of Hills Point Road, to the south side of Greens Farms Road, with Interstate 95 directly to the south.

The Applicants are proposing to construct a telecommunications facility consisting of a 124' monopole with AT&T equipment and antennas, situated within a 35' x 64' fenced equipment compound within a 2500 square foot leased area. A 25'-wide easement originating off Greens Farms Road would provide the Site with underground utilities and vehicular access. The vehicular access would be over a 12' wide gravel driveway within the 25' wide easement. The antennas affixed to the top of the monopole will consist of AT&T panel antennas, mounted in three sectors, at a centerline height of 120' and Verizon panel antennas, mounted in three sectors at a centerline height of 110'.

## SITE EVALUATION REPORT

### I. LOCATION

- A. COORDINATES: N41° 07' 25.39" W73° 20' 41.26"  
(See attached 2-C Certification)
- B. GROUND ELEVATION: 19.5' AMSL  
(See attached 2-C Certification)
- C. USGS MAP: Sherwood Point CT-NY (2012)
- D. SITE ADDRESS: 92 Greens Farms Road, Westport, CT
- E. ZONING WITHIN ¼ MILE OF SITE: Residential, Interstate I-95, and light commercial.

### II. DESCRIPTION

- A. SITE SIZE: 2500 square feet  
LESSOR'S PARCEL: 1.99 acres
- B. TOWER TYPE/HEIGHT: Monopole 124'
- C. SITE TOPOGRAPHY AND SURFACE: Fairly flat along access drive until a brief downhill grade of  $\pm 8\%$  as the compound is approached, and then fairly flat again with a  $\pm 4\%$  grade across the parking and compound area.
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: Moderately wooded area.
- E. LAND USE WITHIN ¼ MILE OF SITE: Residential, Interstate I-95, and light commercial.

### III. FACILITIES

- A. POWER COMPANY: Eversource
- B. POWER PROXIMITY TO SITE: Existing utility pole  $\pm 150$  feet north of proposed tower.
- C. TELEPHONE COMPANY: Frontier

- D. PHONE SERVICE PROXIMITY: Existing utility pole  $\pm 150'$  north of proposed tower.
- E. VEHICLE ACCESS TO SITE: None until constructed, 12' wide gravel access drive is proposed.
- F. OBSTRUCTION: None
- G. CLEARING AND FILL REQUIRED: Approximately 11 trees and a portion of the existing stone wall will need to be removed for the access road and site development.

Cut & Fill Calculations (quantities in CY):

Access Road and Parking Area: Cut = 125 CY; Fill = 85; Net = 55 CY CUT

Compound: Cut = 82 CY; Fill = 85; Net = 3 CY FILL

Foundation: Pad and Pier, Cut of 120 CY of Material and installation of approximately 100 CY of Concrete and 25 CY of borrowed material

Overall Site: Cut = 327 CY; Fill = 265; Net = 62 CY

#### IV. LEGAL

- A. PURCHASE [ ] LEASE [X]
- B. OWNERS: Pradiv and Sharuna Mahesh
- C. ADDRESS: 92 Greens Farms Road
- D. DEED ON FILE AT: Town of Westport

**FACILITIES AND EQUIPMENT SPECIFICATIONS  
(TOWER & EQUIPMENT)**

I. TOWER SPECIFICATIONS

A. MANUFACTURER: TBD

B. TYPE: Monopole

C. HEIGHT: 124'

D. DIMENSIONS: TBD

II. TOWER LOADING

A. AT&T

1. MODEL: TBD

2. DIMENSIONS: TBD

3. ANTENNAS: 12 antennas on a WLL frame mount

4. TOWER POSITION: 120' AGL at the center of the antenna array

5. TRANSMISSION LINES: TBD

B. Verizon Wireless

1. MODEL: TBD

2. DIMENSIONS: TBD

3. ANTENNAS: 12 antennas on a WLL frame mount

4. TOWER POSITION: 110' AGL at the center of the antenna array

5. TRANSMISSION LINES: TBD

C. Future Carriers: 2 Additional Carriers

### III. ENGINEERING ANALYSIS AND CERTIFICATION:

All work shall be in accordance with the 2018 Connecticut State Building Code, including the TIA/EIA-222 revision G "structural standards for steel antenna towers and supporting structures," or the current State Building Code. The foundation design will be based on soil conditions at the Site.

## ENVIRONMENTAL ASSESSMENT STATEMENT

### I. PHYSICAL IMPACT

#### A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the Facility. Tarpon has retained All-Points Technology Corporation (“APT”) to perform a wetlands inspection. The construction, operation, and maintenance of the Facility would not result in a likely adverse impact to any wetlands. Two (2) wetland areas were identified and delineated proximate to the proposed Facility location, the nearest being ±40 feet from the Facility. Proper erosion and sedimentation controls would be installed and maintained during construction to avoid any impacts to these nearby wetland resources during construction. Both wetland systems exhibit high levels of historical and ongoing human disturbance associated with the former Greens Farms Road route and the Interstate 95 transportation corridor. *See attached Wetland Inspection prepared by All-Points Technology Corporation dated May 21, 2021.*

#### B. AIR QUALITY

Under ordinary operating conditions, the equipment located at this Facility would emit no air pollutants of any kind. For limited periods during power outages, a generator will be utilized.

#### C. LAND

Grading would be required for development of the Facility. The remainder of the Property would remain unchanged by the construction and operation of the Facility.

#### D. NOISE

The Facility equipment after construction would not emit any noise other than the installed heating, air conditioning, ventilation systems, and in the event of a power outage, the proposed self-contained natural gas generator. Some noise is anticipated during the construction of the Facility, which is expected to take approximately 10 weeks.

#### E. POWER DENSITY

The Facility is compliant with FCC/ANSI standards. *See attached Calculated Radio Frequency Exposure Report.*

F. VISIBILITY

The Preliminary Visual Assessment provides initial viewshed mapping and an evaluation of the proposed visibility within a two-mile radius of the Site. Visibility of the tower is predicted to include approximately 438 acres year-round ( $\pm 5.45\%$  of the 8,042-acre Study Area) and approximately 144 acres seasonally ( $\pm 1.79\%$  of the 8,042-acre Study Area). The preliminary viewshed mapping will be field verified in the near future via a balloon float. An updated report with photo simulations will be prepared for inclusion in the Application to the Connecticut Siting Council. See *attached Preliminary Visual Assessment prepared by All-Points Technology Corporation dated July 21, 2021*. In addition, the Federal Aviation Administration has concluded that the Facility does not exceed obstruction standards and will not be a hazard to air navigation, based on conditions that Tarpon will meet. See *attached Determination of No Hazard to Air Navigation dated May 11, 2021*.

G. SCHOOLS/DAYCARE CENTERS

There are no schools or daycare centers located within 250 feet of the site. Saugatuck Elementary School is located approximately 1.32 miles northwest of the site at 170 Riverside Avenue. The nearest commercial childcare center is Children's Community Development Center, located approximately 0.23 miles to the north at 90 Hillspoint Road. No visibility is predicted from either location. See *attached Preliminary Visual Assessment prepared by All-Points Technology Corporation dated July 14, 2021*.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

Tarpon has retained APT to evaluate the Facility in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA"). A copy of APT's NEPA evaluation will be included in the Application to the Connecticut Siting Council.

APT conducted a Preliminary Historic Resources Determination based on an independent review of the National Register of Historic Places ("NRHP") and an examination of data obtained from the Connecticut State Historic Preservation Office (CT-SHPO). Based on its research, APT has concluded that the proposed Facility would have no effect on historic properties or cultural sites listed or eligible for listing on the NRHP. See *attached Preliminary Historic Resources Determination prepared by All-Points Technology Corporation dated May 17, 2021*.



Heritage Consultants, LLC (“Heritage”) conducted a Preliminary Archaeological Review based on an examination of data obtained from the Connecticut State Historic Preservation Office (CT-SHPO) as well as GIS data. Heritage states that the proposed project area contains Udorthents soils and “do not retain archaeological sensitivity.” Heritage concludes that “no additional archaeological examination of this area is recommended prior to construction.” See *attached Preliminary Archaeological Review dated April 26, 2021*.

Additional scenic, natural and recreational resources will be addressed in the Application.



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RF Report  
Proposed Wireless Facility



CT1843  
92 Greens Farms Road  
Westport, CT 06880

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August 23, 2021

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## 1. Overview

This RF Report has been prepared on behalf of AT&T Mobility in support of its application to the Connecticut Siting Council for the installation and operation of a wireless facility located at 92 Greens Farms Road in Westport, CT. The proposed facility consists of ground-based equipment cabinets, and antennas mounted to a proposed 120' monopole.

This report concludes that the proposed site will provide additional capacity and coverage improvement to Westport in order to improve deficient service areas along Interstate-95, Greens Farms Road, Hillspoint Road, and the surrounding roads, businesses, and neighborhoods in the proximity of the proposed site.

Included in this report is: a brief summary of the site's objectives, maps showing AT&T's neighboring sites, and predicted Radio Frequency coverage maps of the subject site and the surrounding sites in AT&T's network.

## 2. Introduction

To maintain a reliable and robust communications system for the individuals, businesses, public safety workers and others who use its network, AT&T deploys a network of cell sites (also called wireless communications facilities) throughout the areas in which it is licensed to provide service. These cell sites consist of antennas mounted on structures, such as buildings and towers, supported by radio and power equipment. The receivers and transmitters at each of these sites process signals within a limited geographic area known as a "cell."

Mobile subscriber handsets and wireless devices operate by transmitting and receiving low power radio frequency signals to and from these cell sites. Handset signals that reach the cell site are transferred through land lines (or other means of backhaul transport) and routed to their destinations by sophisticated electronic equipment. In order for AT&T's network to function effectively, there must be adequate overlapping coverage between the "serving cell" and adjoining cells. This not only allows a user to access the network initially, but also allows for the transfer or "hand-off" of calls and data transmissions from one cell to another, and prevents unintended disconnections or "dropped calls."

AT&T's antennas also must be located high enough above ground level to allow transmission (a.k.a. propagation) of the radio frequency signals above trees, buildings, and other natural or man-made structures that may obstruct or diminish the signals. Areas without adequate radio frequency coverage have substandard service, characterized by dropped and blocked calls, slow data connections, or no wireless service at all, and are commonly referred to as coverage gaps.

The size of the area potentially served by each cell site depends on several factors including the number of antennas used, the height at which the antennas are deployed, the topography of the surrounding land, vegetative cover, and natural or man-made obstructions in the area. The actual service area at any given time also depends on the number of customers who are on the network in range of that cell site. As customers move throughout the service area, the transmission from the phone or other device is automatically transferred to the AT&T facility with the best reception, without interruption in service, provided that there is overlapping coverage between the cells.

Each cell site must be primarily designed to strike a balance between the overall geographic coverage area it will serve, and the site's capacity to support the usage within the coverage footprint. In rural areas, cell sites are generally

designed to have broader coverage footprints because the potential traffic is sparser and distributed over a larger area. In more densely populated suburban and urban environments, the capacity to handle calls and data transmissions is of increasing concern, and cell sites must limit their coverage footprint to an area where the offered network traffic can be supported by the radio equipment and resources. Due to the aggressive historical and projected growth of mobile usage, particularly for mobile data (42% in 2016-2017, 35% CAGR 2016-2021 in North America)<sup>1</sup>, instances arise where the usage demand can no longer be supported by the site(s) serving an area, and new facilities must be integrated to provide capacity relief to the overloaded sites.

We have concluded that by installing the proposed wireless communication facility on the proposed monopole tower at 92 Greens Farms Road at an antenna centerline height of 120' AGL (above ground level), AT&T will be able to provide additional capacity and coverage improvement to residents, businesses, and traffic corridors within Westport that are currently located within deficient service areas of AT&T's network.

### 3. AT&T Mobility Coverage and Capacity Objectives

In order to expand and enhance their wireless services throughout New England, AT&T must fill in existing coverage gaps and address capacity, interference, and high-speed broadband issues. As part of this effort, AT&T has determined that significant gaps in service exist in and around sections of the Town of Westport, CT, as described further below.

AT&T currently operates wireless facilities similar to the proposed facility within Westport and the surrounding cities/towns. Due in large part to the distances between the existing sites, the intervening topography, and volume of user traffic in the area, these existing facilities do not provide sufficient coverage to portions of Westport. Specifically, AT&T determined that much of south-west Westport is without reliable service in the following areas and town roads<sup>2</sup>, including but not limited to:

- Interstate-95;
- Greens Farms Road;
- Hillspoint Road
- The surrounding roads, businesses, and neighborhoods in the proximity of the proposed site and the above-mentioned roads.

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<sup>1</sup> "Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2016-2021", February 7, 2017, Cisco Systems, Inc. <http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-cl11-520862.html>

<sup>2</sup> Traffic counts are sourced from the Massachusetts Department of Transportation, Transportation Data Management System.

## 4. Pertinent Site Data

Table 1 below details the site-specific information for the on-air AT&T macro-sites used to perform the coverage analysis and generate the coverage plots provided herein.

Site Name	Address	City/State	Location		Antenna Height (ft AGL)	Structure Type	Status
			Latitude	Longitude			
CT2103	26 Maple	Westport/CT	41.1234	-73.3131	131	Monopole	On-Air
CT2119	651 Pequot Avenue	Southport/CT	41.1334	-73.2876	85	Steeple	On-Air
CT2132	344 Strawberry Hill Avenue	Norwalk/CT	41.1283	-73.3902	347	Lattice	On-Air
CT2147	800 Post Road East	Westport/CT	41.1375	-73.3344	133	Lattice	On-Air
CT2153	9 Crescent Park Road	Westport/CT	41.1402	-73.3472	120	Monopole	On-Air
CT5080	22 Riverside Avenue	Westport/CT	41.1397	-73.3644	59/69	Rooftop	On-Air
CT5278	21 Charles Street	Westport/CT	41.1197	-73.3719	102	Rooftop	On-Air
<b>CT1843</b>	<b>92 Greens Farms Road</b>	<b>Westport/CT</b>	<b>41.1236</b>	<b>-73.3450</b>	<b>120</b>	<b>Monopole</b>	<b>Proposed</b>
CT2094	2 Allen Raymond Lane	Westport/CT	41.1629	-73.3731	100	Monopole	On-Air
CT2107	180 Bayberry	Westport/CT	41.1717	-73.3285	100	Monopole	On-Air
CT2128	3965 Congress Street	Fairfield/CT	41.1884	-73.2991	128	Monopole	On-Air
CT2305	986 Old Academy Road	Fairfield/CT	41.1769	-73.2923	90	Steeple	On-Air
CT5055	499 Main Avenue	Norwalk/CT	41.1514	73.4259	128	Rooftop	On-Air
CT2115	25 Van Zant Street	Norwalk/CT	41.1013	-73.4079	60	Rooftop	On-Air
CT5014	50 Washington Street	Norwalk/CT	41.0995	-73.4197	177	Rooftop	On-Air
CT5015	24 Belden Avenue	Norwalk/CT	41.1180	-73.4159	121/141	Rooftop	On-Air
CT5243	200 Connecticut Avenue	Norwalk/CT	41.1044	-73.4325	120	Rooftop	On-Air
CT2151	173 ½ West Rocks Road	Norwalk/CT	41.1439	-73.4183	111	Watertank	On-Air
CT2137	2150 Post Road	Fairfield/CT	41.1408	-73.2697	59	Rooftop	On-Air
CT5022	100 Reef Road	Fairfield/CT	41.1395	-73.2572	130	Monopole	On-Air
CT2120	55 Walls Road	Fairfield/CT	41.1478	-73.2515	70	Rooftop	On-Air

**Table 1: AT&T Mobility Site Information Used in Coverage Analysis<sup>3</sup>**

<sup>3</sup> Some sites listed in this table are outside the plot view but are included for completeness of information.

## 5. Coverage Analysis and Propagation Plots

The radio frequency coverage plots provided in this report were produced using deciBel Planner™, a Windows-based RF propagation computer modeling program and network planning tool. The software takes into account the geographical features of an area, land cover, antenna models, antenna heights, RF transmitting power and receiver thresholds to predict coverage and other related RF parameters used in site design and wireless network expansion.

The plots included as attachments show coverage based on the minimum required signal strength needed to support reliable 4G LTE service in this area. All other areas (depicted in white) fall within coverage areas characterized by poor voice and data quality, slow data speeds, latency<sup>4</sup>, and the substantial likelihood of unreliable service.

While AT&T holds licenses in the 700 MHz, 850 MHz (Cellular), 1900 MHz (PCS), 2100 MHz (AWS), and 2300 MHz (WCS) bands, this report focuses on the 700 MHz layers, which are representative of the 4G LTE service most readily available to AT&T subscribers in Westport, and are the spectrum layers that are essential to AT&T's ability to address the coverage needs for their 4G LTE service offerings. It is relevant to note that the 700 MHz coverage layer, which serves as the "base" layer for the LTE service, has a substantially larger coverage footprint due to the propagation characteristics of the frequency band. The 1900 MHz, 2100 MHz, and 2300 MHz overlay layers will have incrementally smaller footprints and are used by AT&T to manage capacity.

The following paragraphs discuss each of the AT&T maps attached hereto.

**Attachment 1** titled "**CT1843 - Existing 700 MHz LTE Coverage**" shows the coverage provided to Westport from the "On-Air" sites listed in Table 1. The green and yellow shaded areas represent the minimum desired level of coverage for much of this area on the 700 MHz network layers, respectively. As such, the deficient areas of 700 MHz coverage are defined by the unshaded or "white" areas. As shown in this plot, the surrounding AT&T macro-sites are unable to provide adequate coverage to Westport.

**Attachment 2** titled "**CT1843 - 700 MHz LTE Coverage with Proposed Site**" shows the composite coverage with the proposed "CT1843" facility. As shown by the additional areas of coverage in comparison with the **Attachment 1**, the proposed facility will provide coverage improvement at the 700 MHz layer in the areas of Interstate-95, Greens Farms Road, Hillspoint Road.

- ~ 1900 additional residents<sup>5</sup> within the surrounding area at the 700 MHz frequency;
- The surrounding roads, neighborhoods, and business areas within the proximity of the proposed site and the above-mentioned roadways.

**Attachment 3** titled "**CT1843 – Area Terrain Map**" details the topographical features around the proposed "CT1843" site. These terrain features play a key role in dictating both the unique coverage areas served from a given location, and the coverage gaps within the network. This map is included to provide a visual representation of the terrain variations that must be considered when determining the appropriate location and design of a proposed wireless facility. The purple, blue, and green shades correspond to lower elevations, whereas the yellow, red and grey shades indicate higher elevations.

---

<sup>4</sup> In data transfer it is the delay or lapse in the time between initiating a request from the wireless device and receiving the response.

<sup>5</sup> Population counts are based upon 2010 U.S. Census residential data. Please note that this does not include any visitors in the area.



Attachment 4 titled “CT1843 - Neighbor Sites & Radial Distances” provides a “zoomed-out” view of the subject area showing the locations of AT&T’s existing sites within Westport relative to the proposed facility, as well as other AT&T sites in neighboring cities and towns that may be contributing to the aggregate coverage in Westport.

## 6. Summary

In undertaking its build-out of 4G LTE service in Fairfield County, AT&T has determined that an additional facility is needed to provide reliable service and additional capacity throughout Westport, CT. AT&T determined that installing the proposed wireless communications facility at 92 Greens Farms Road in Westport at an antenna centerline height of 120 feet (AGL) will provide additional capacity and coverage needed in the targeted coverage areas including key roadways such as Interstate-95, Greens Farms Road, Hillspoint Road, and the surrounding roads, businesses and neighborhoods in the proximity of the proposed site. In addition to providing service to the targeted areas of Westport, AT&T is providing enhanced services for Public Safety and meeting E911 compliance for the State of Connecticut. Without the installation of the proposed site, AT&T will be unable to improve and expand their existing 4G LTE wireless communication services in this area of Westport; therefore, AT&T respectfully requests that the Connecticut Siting Council act favorably upon the proposed facility.

## 7. Statement of Certification

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



---

Martin J. Lavin  
Senior RF Engineer  
C Squared Systems, LLC

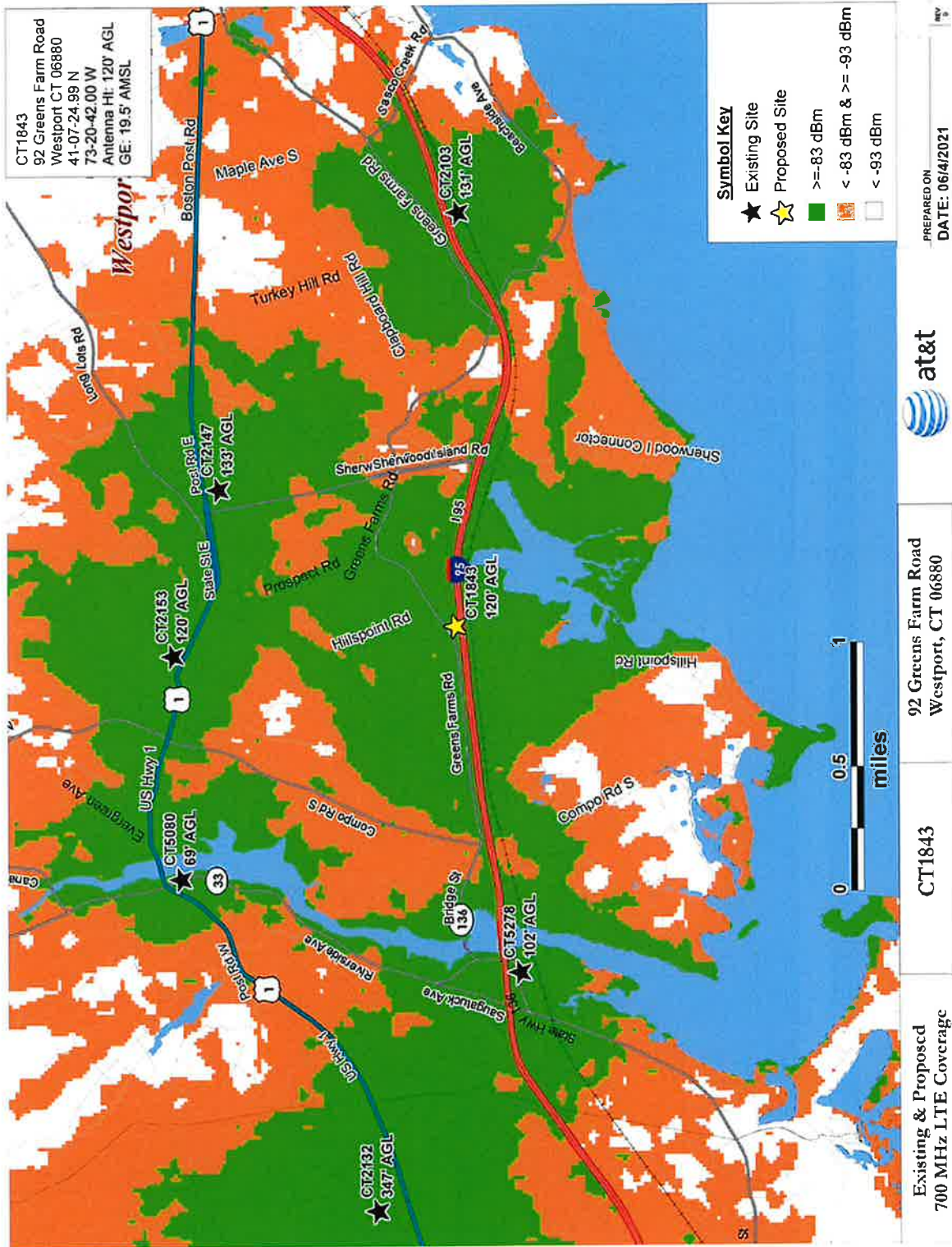
August 23, 2021

Date

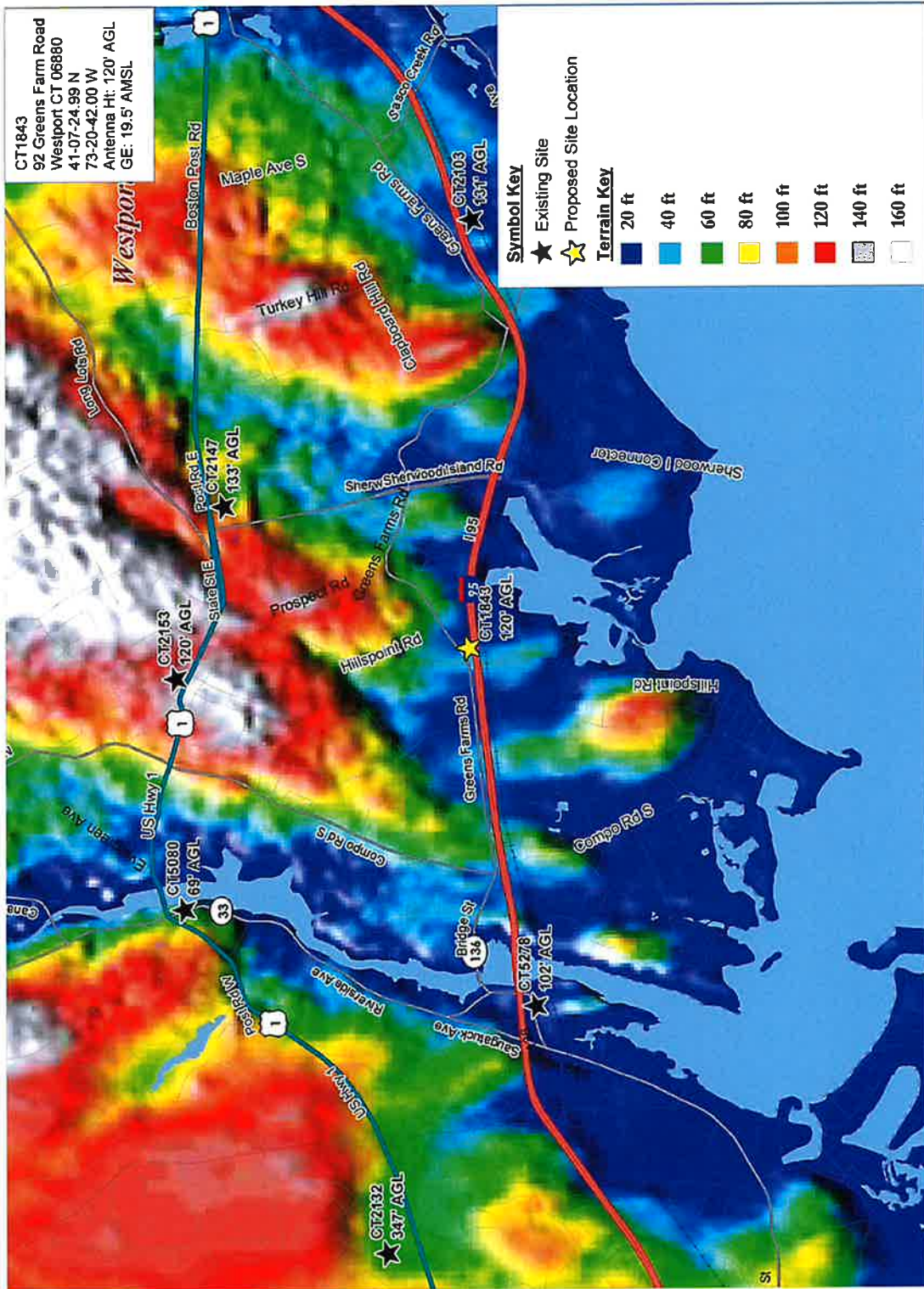
## 8. Attachments



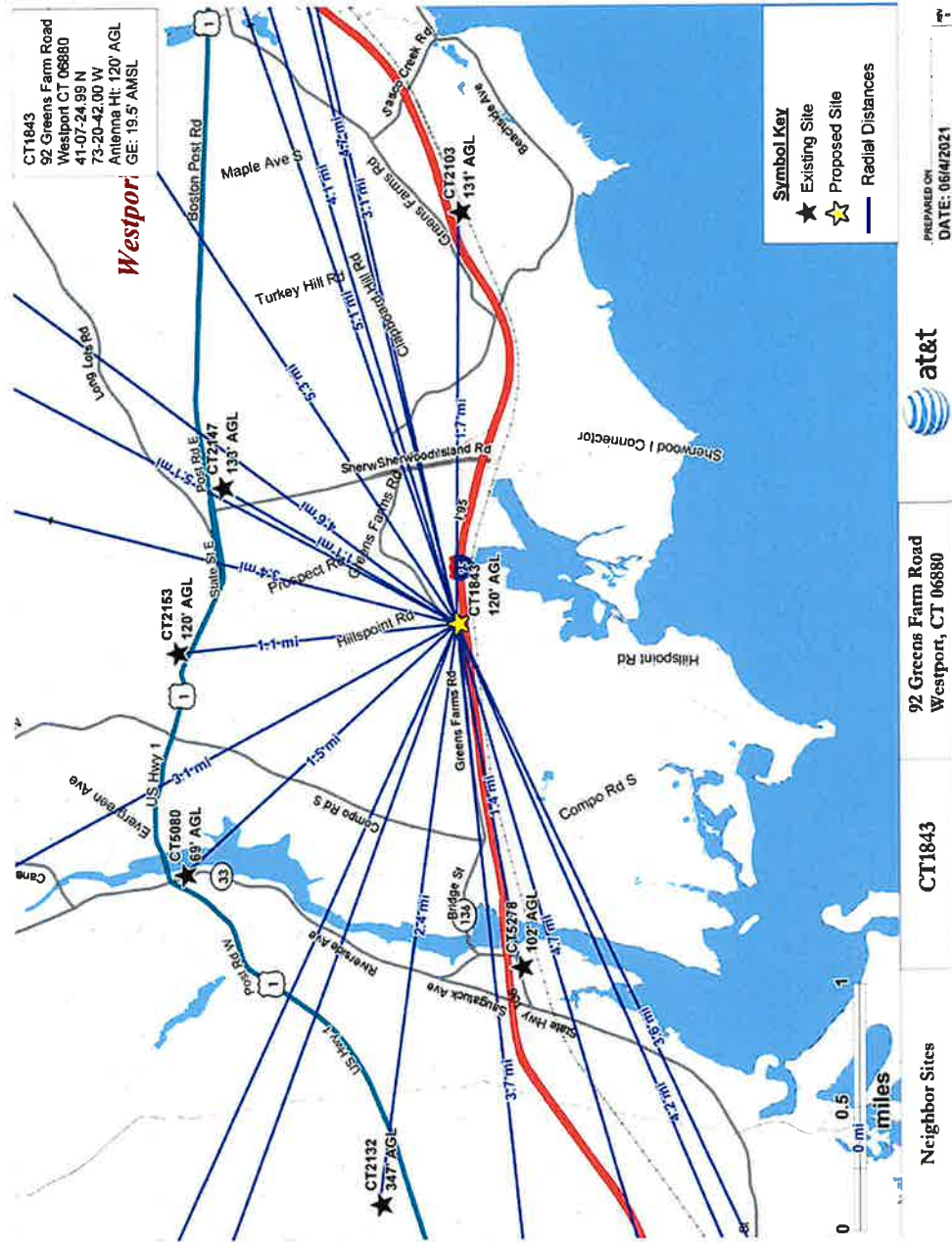
Attachment 2: CT1843 – 700 MHz LTE Coverage with Proposed Site



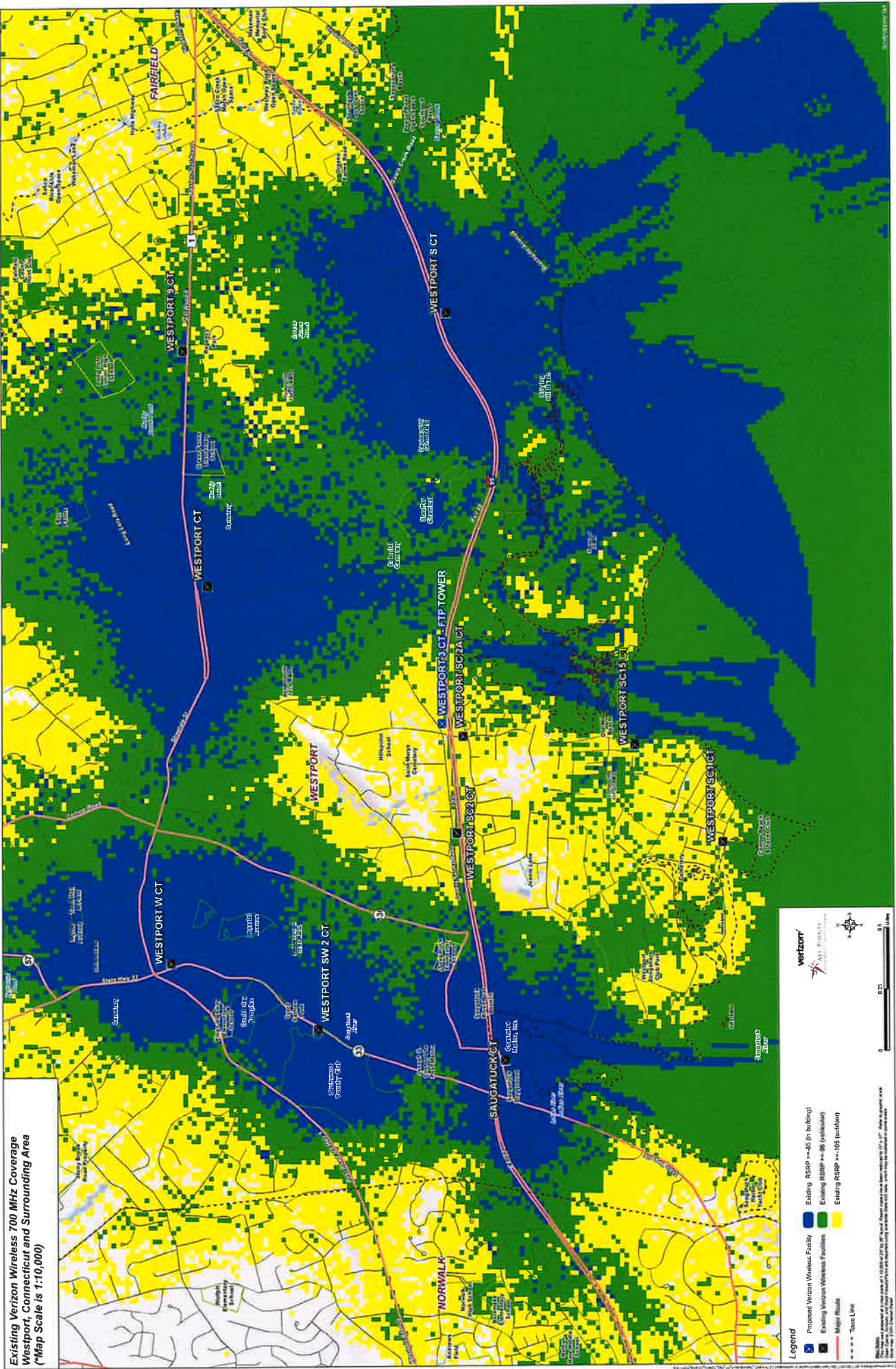
Attachment 3: CT1843 – Area Terrain Map



Attachment 4: CT1843 – Neighbor Sites & Radial Distances



Existing Verizon Wireless 700 MHz Coverage  
 Westport, Connecticut and Surrounding Area  
 (Map Scale is 1:10,000)



**Legend**

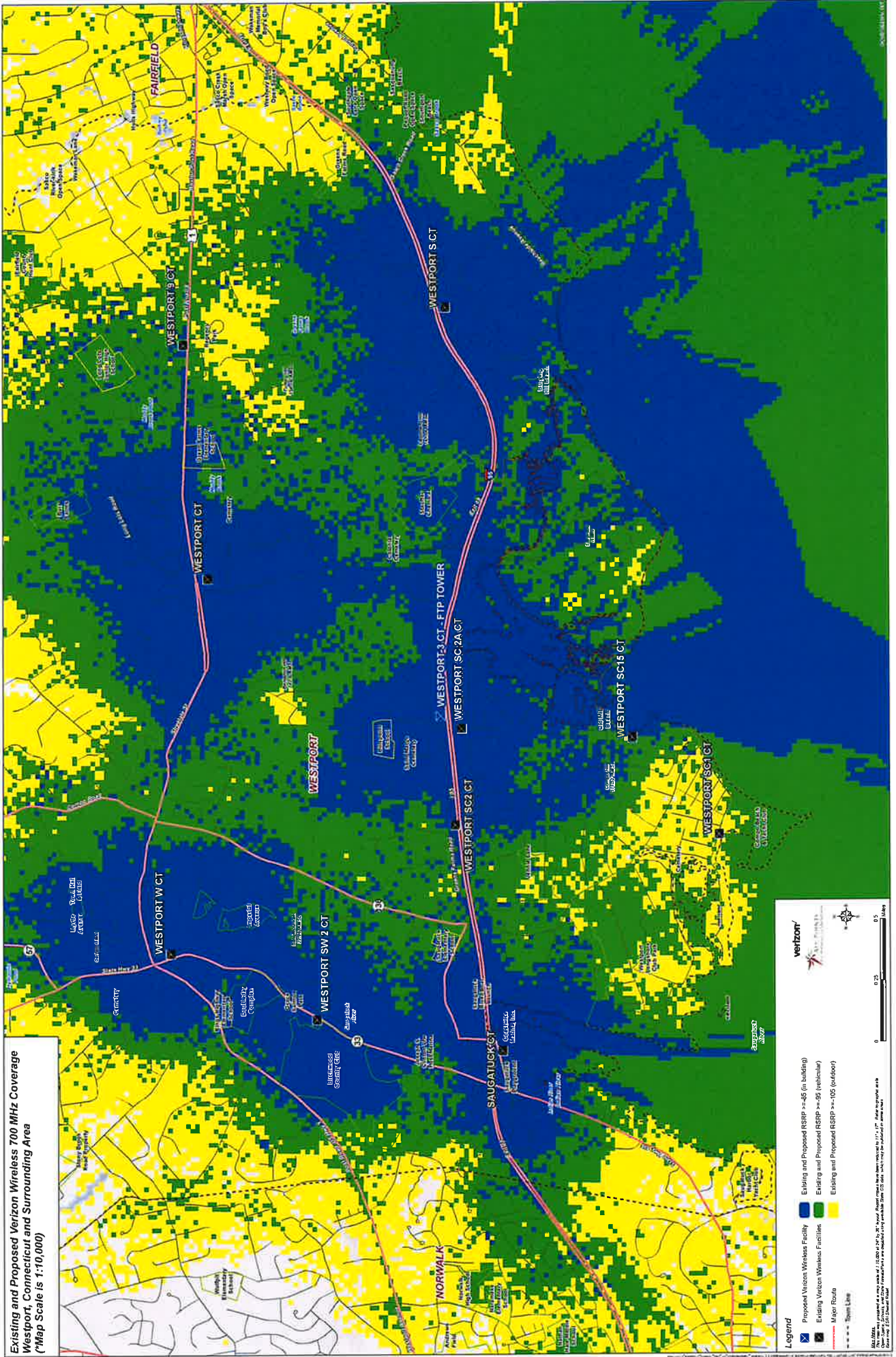
- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facilities
- Existing Verizon Wireless Facilities
- Existing RSPSP -> 45 (in building)
- Existing RSPSP -> 55 (in building)
- Existing RSPSP -> 105 (outdoor)

— Major Road  
- - - - Town Line

Scale: 0 0.25 0.5 Miles  
 North Arrow

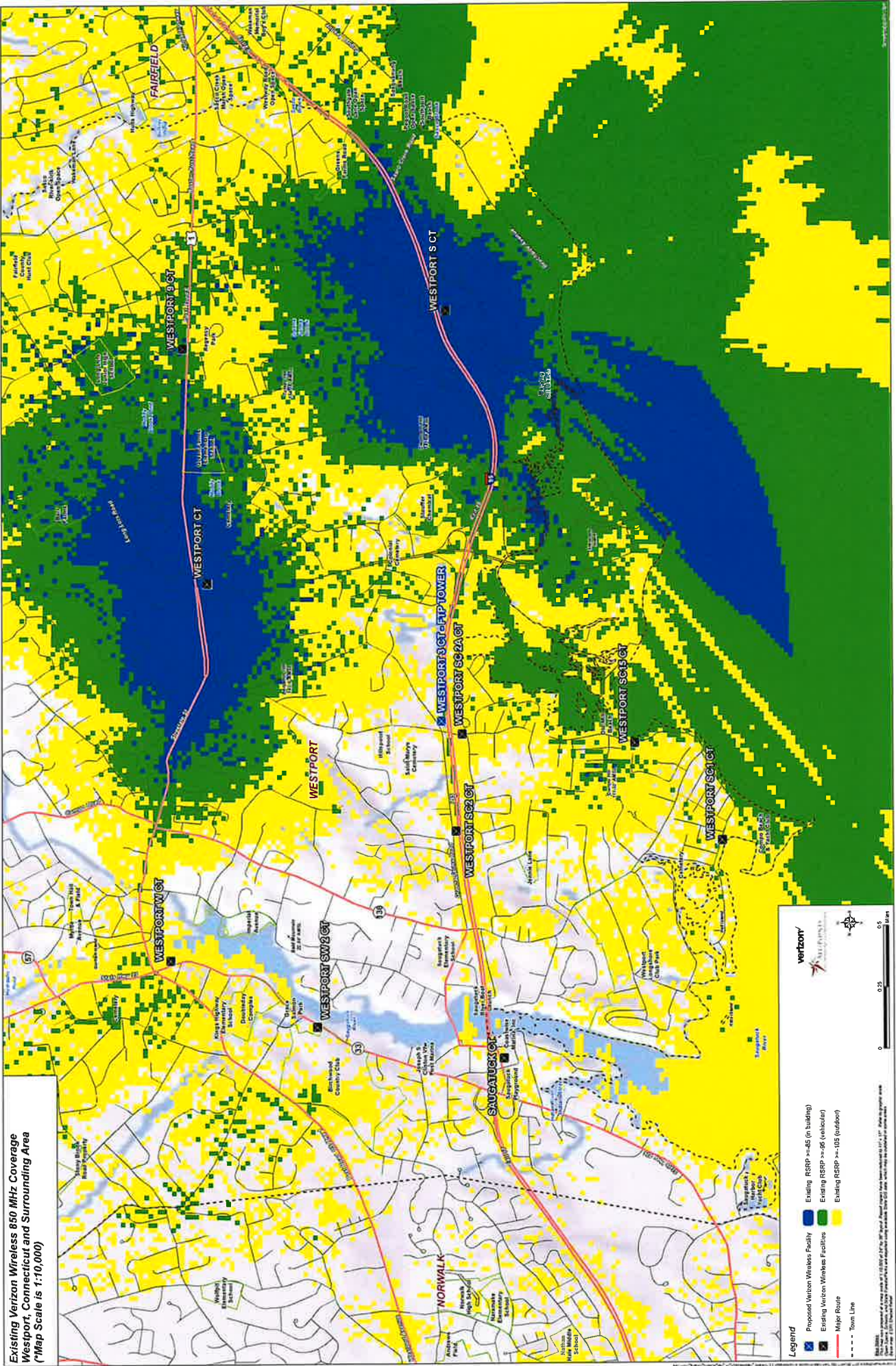
This map is a computer-generated map of the 700 MHz coverage area for Verizon Wireless in Westport, Connecticut. It is not a legal document and should not be used for legal purposes. The coverage area is subject to change without notice. The map is based on the most current information available to Verizon Wireless as of the date of this map.

Existing and Proposed Verizon Wireless 700 MHz Coverage  
 Westport, Connecticut and Surrounding Area  
 (Map Scale is 1:10,000)





**Existing Verizon Wireless 850 MHz Coverage  
Westport, Connecticut and Surrounding Area  
(\*Map Scale is 1:70,000)**



**Legend**

- Existing Verizon Wireless Facility
- Existing RSRP >= -85 (in building)
- Existing RSRP >= -85 (vehicular)
- Existing RSRP >= -85 (outdoor)
- Major Route
- Town Line

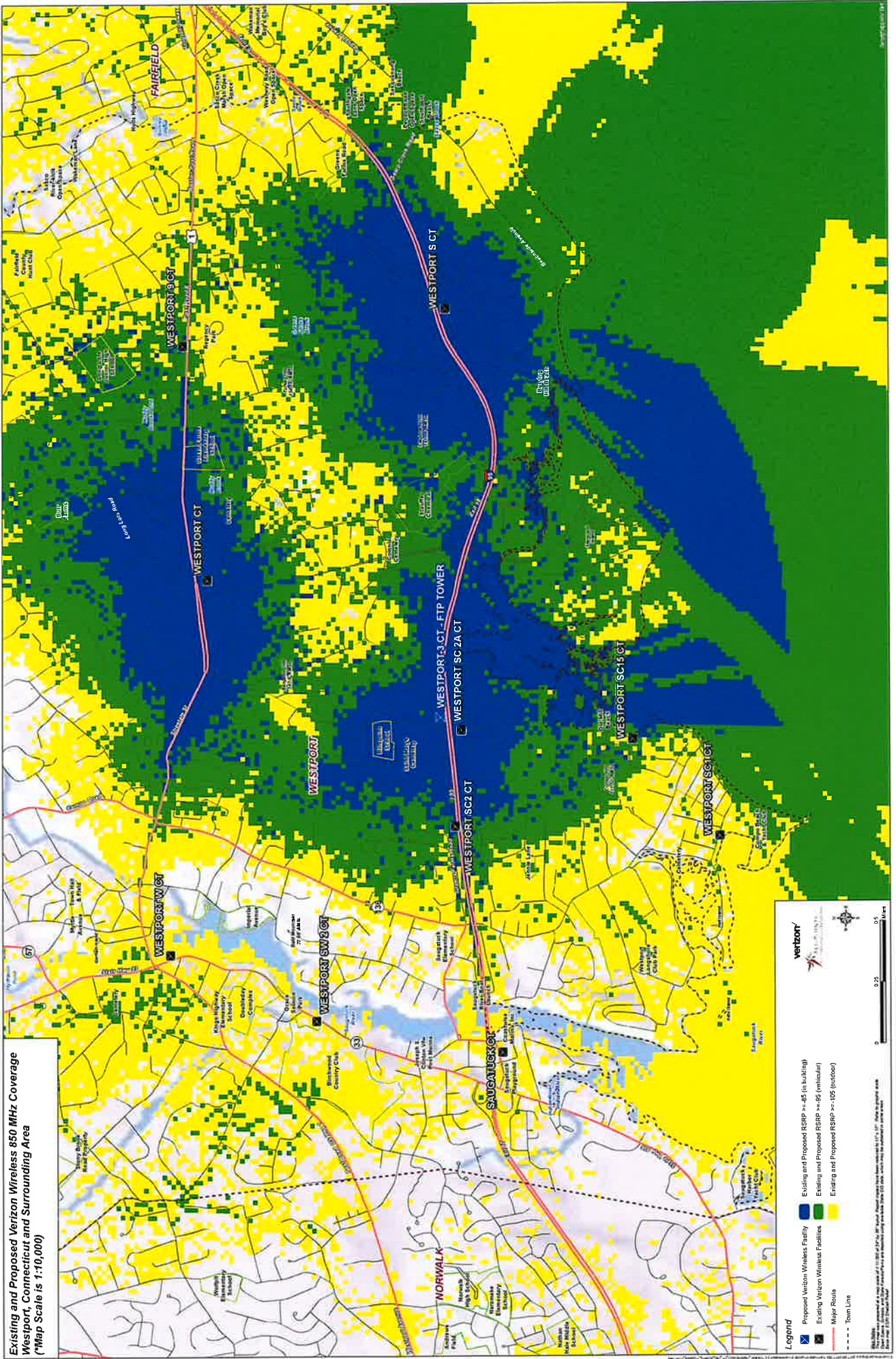
**Scale:** 0 0.25 0.5 Miles

**North Arrow:**

**Verizon Wireless Logo:**

Map Data: © 2010 Verizon Wireless. All rights reserved. This map is for informational purposes only. It is not intended to be used for any other purpose. Coverage is not guaranteed in all areas. Coverage may vary by location and time of day. Coverage is not available in all areas. Coverage is not available in all areas.

**Existing and Proposed Verizon Wireless 850 Mhz Coverage  
Westport, Connecticut and Surrounding Area  
(\*Map Scale is 1:10,000)**



**Legend**

- Existing and Proposed RSRP >= -85 (in building)
- Existing and Proposed RSRP >= -95 (outdoor)
- Existing and Proposed RSRP >= -105 (outdoor)
- Major Route
- - - - Town Line

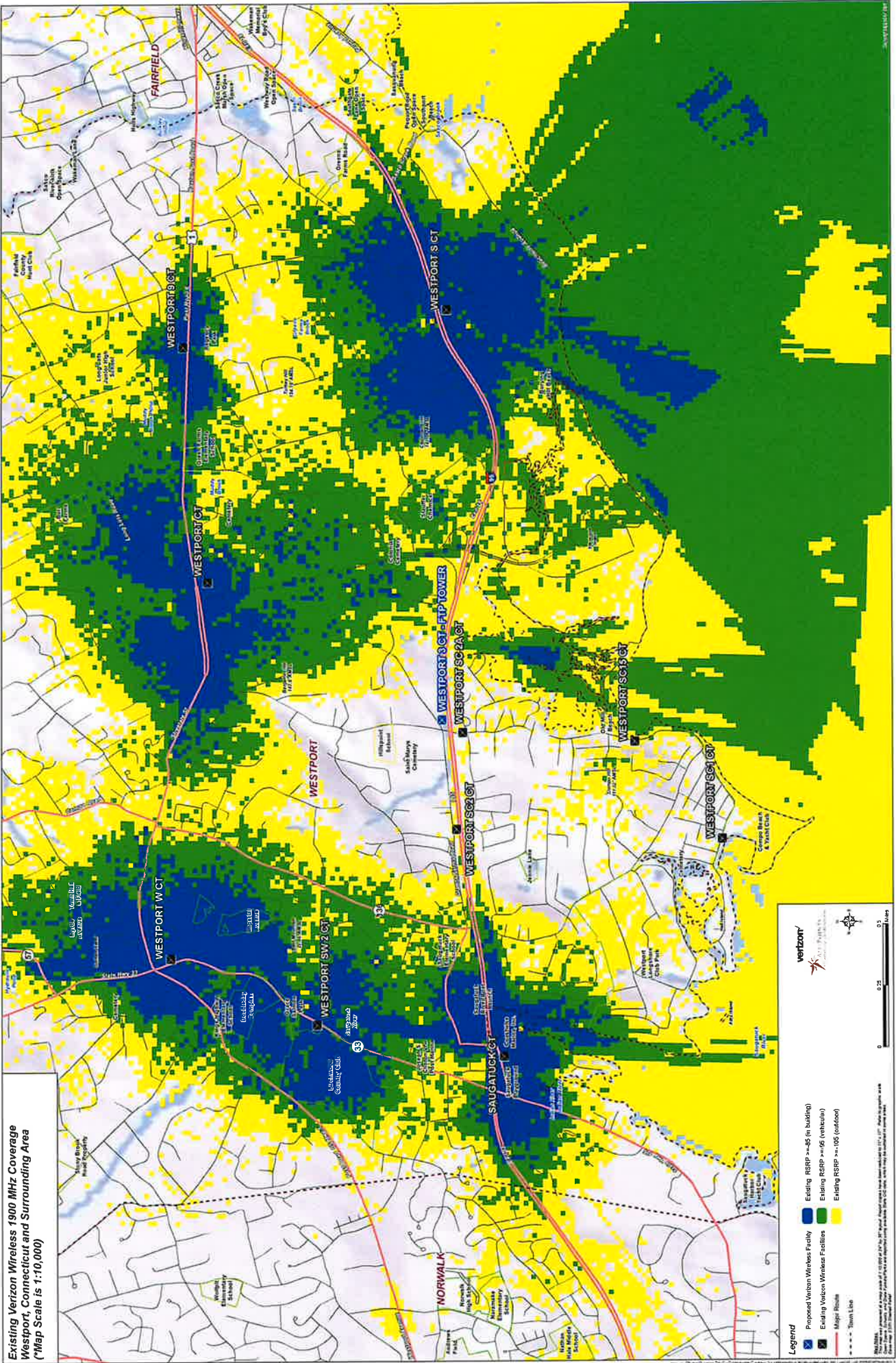
**VERIZON WIRELESS**

Scale: 0 0.25 0.5 Miles

North Arrow

Map Scale: 1:10,000. Coverage shown is based on a model of the radio environment. Actual coverage may vary. © 2010 Verizon Wireless. All rights reserved.

**Existing Verizon Wireless 1900 MHz Coverage  
Westport, Connecticut and Surrounding Area  
(\*Map Scale is 1:10,000)**



**Legend**

- Proposed Verizon Wireless Facility
- Existing RSRP >= 95 (in building)
- Existing RSRP >= 95 (vehicular)
- Existing RSRP >= 105 (outdoor)
- Major Road
- - - Town Line

**Scale:** 0 0.25 0.5 Miles

**North Arrow:**

**Verizon Logo:**

**Map Title:** Existing Verizon Wireless 1900 MHz Coverage Westport, Connecticut and Surrounding Area

**Map Scale:** 1:10,000

**Map Date:** 10/15/2014

**Map Author:** Verizon Wireless

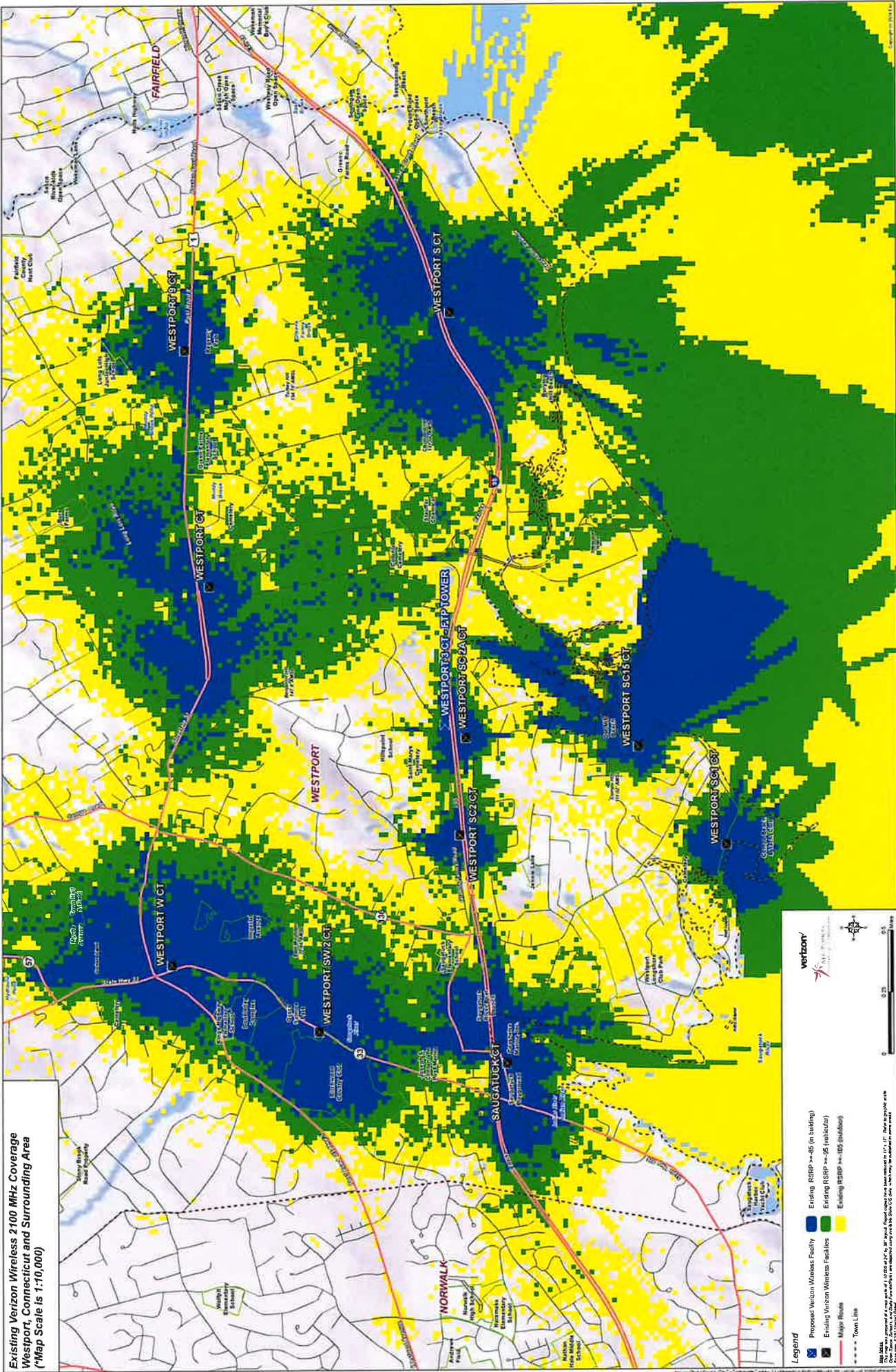
**Map Contact:** Verizon Wireless

**Map Copyright:** © 2014 Verizon Wireless

**Map Disclaimer:** This map is provided as a guide only. It is not intended to be used as a legal document. The information on this map is subject to change without notice. Verizon Wireless is not responsible for any errors or omissions on this map. The information on this map is provided for informational purposes only. Verizon Wireless is not responsible for any errors or omissions on this map. The information on this map is provided for informational purposes only. Verizon Wireless is not responsible for any errors or omissions on this map.



**Existing Verizon Wireless 2100 MHz Coverage**  
**Westport, Connecticut and Surrounding Area**  
 (\*Map Scale is 1:10,000)



**Legend**

- Existing Verizon Wireless Facility
- Existing Verizon Wireless Facilities
- Existing Verizon Wireless Facilities
- Major Road
- Town Line

**Legend**

- Existing RSP - 85 (in building)
- Existing RSP - 95 (vehicle)
- Existing RSP - 105 (outdoor)

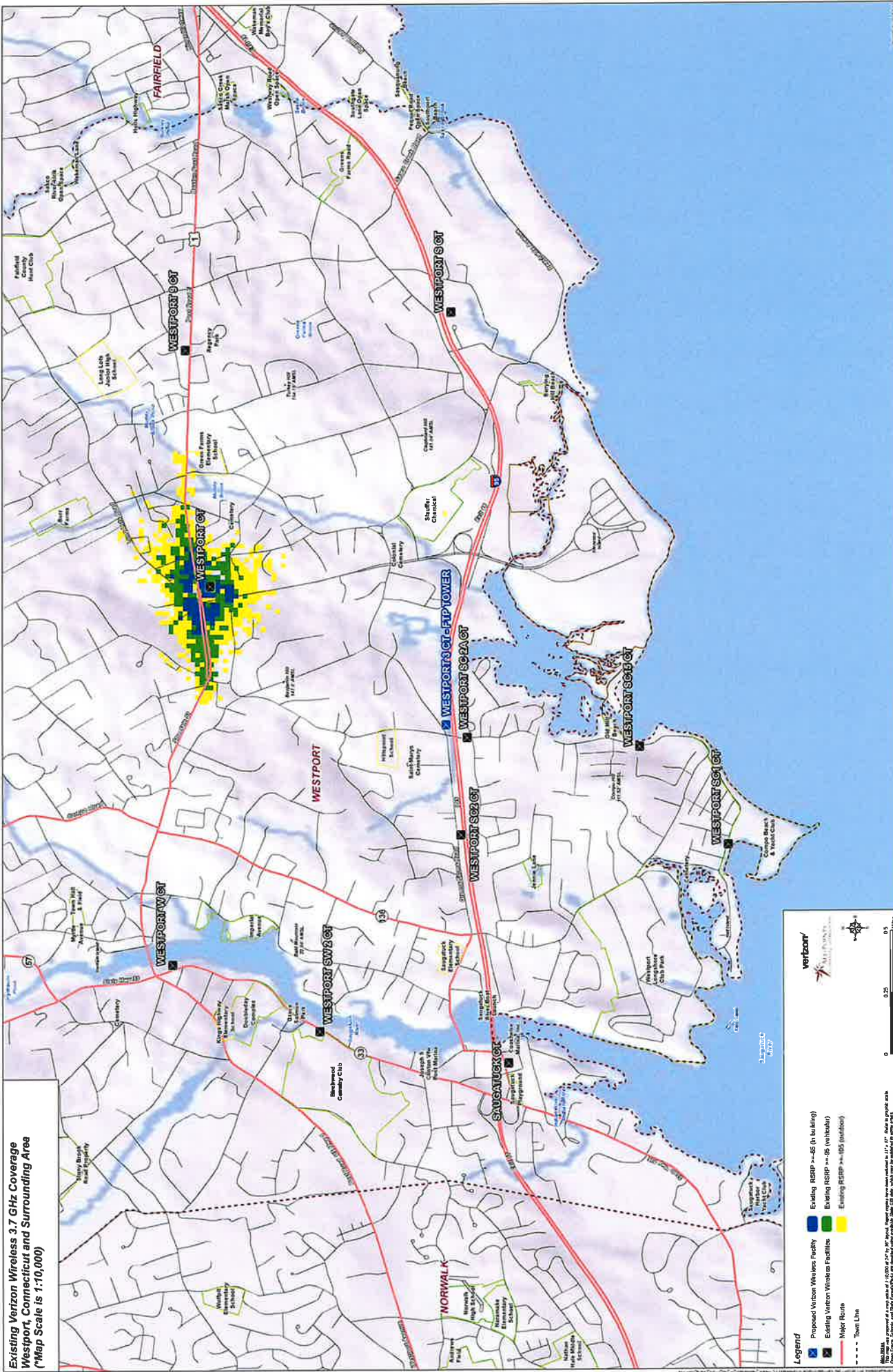
0 0.25 0.5 Miles

verizon  
 Verizon Wireless

Map Data: Provided by map data of 10/2014 for the 30' aerial. Power lines have been removed to 1/2". Road to graphic scale. Data source: © 2014 Verizon Wireless. Coverage is subject to change. © 2014 Verizon Wireless. All rights reserved.



**Existing Verizon Wireless 3.7 GHz Coverage  
Westport, Connecticut and Surrounding Area  
(\*Map Scale is 1:10,000)**



- Legend**
- Proposed Verizon Wireless Facility
  - Existing Verizon Wireless Facility
  - Existing Verizon Wireless Facilities
  - Existing Verizon Wireless Facilities
  - Major Road
  - Town Line

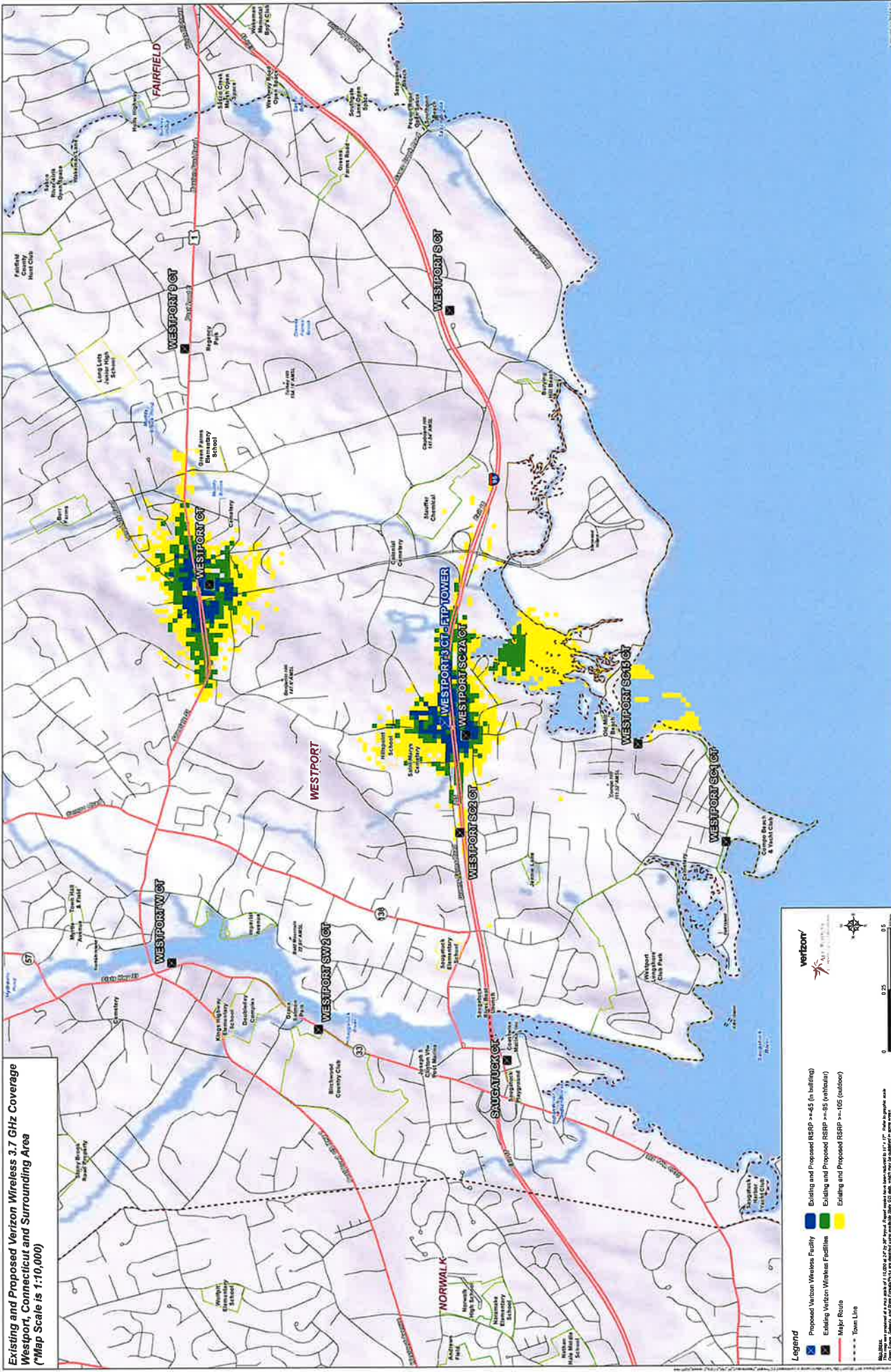
verizon  
  
 ALL RIGHTS RESERVED

0 0.25 0.5 Miles

North Arrow

Map data provided by Esri, DeLorme, NAVTEQ, Swire, GEBCO, USGS, AeroGRID, IGN, and the GIS User Community  
 Copyright © 2011 Verizon Wireless. All rights reserved. This map is provided for informational purposes only. It is not intended for use in any other manner.

**Existing and Proposed Verizon Wireless 3.7 GHz Coverage  
Westport, Connecticut and Surrounding Area  
(\*Map Scale is 1:10,000)**



**Legend**

- Proposed Verizon Wireless Facility
- Existing and Proposed (ESBP) <math>\leq 45</math> (in building)
- Existing Verizon Wireless Facilities
- Existing and Proposed (ESBP) <math>\leq 95</math> (outdoor)
- Major Route
- Town Line

**Scale:** 0 0.25 0.5 Miles

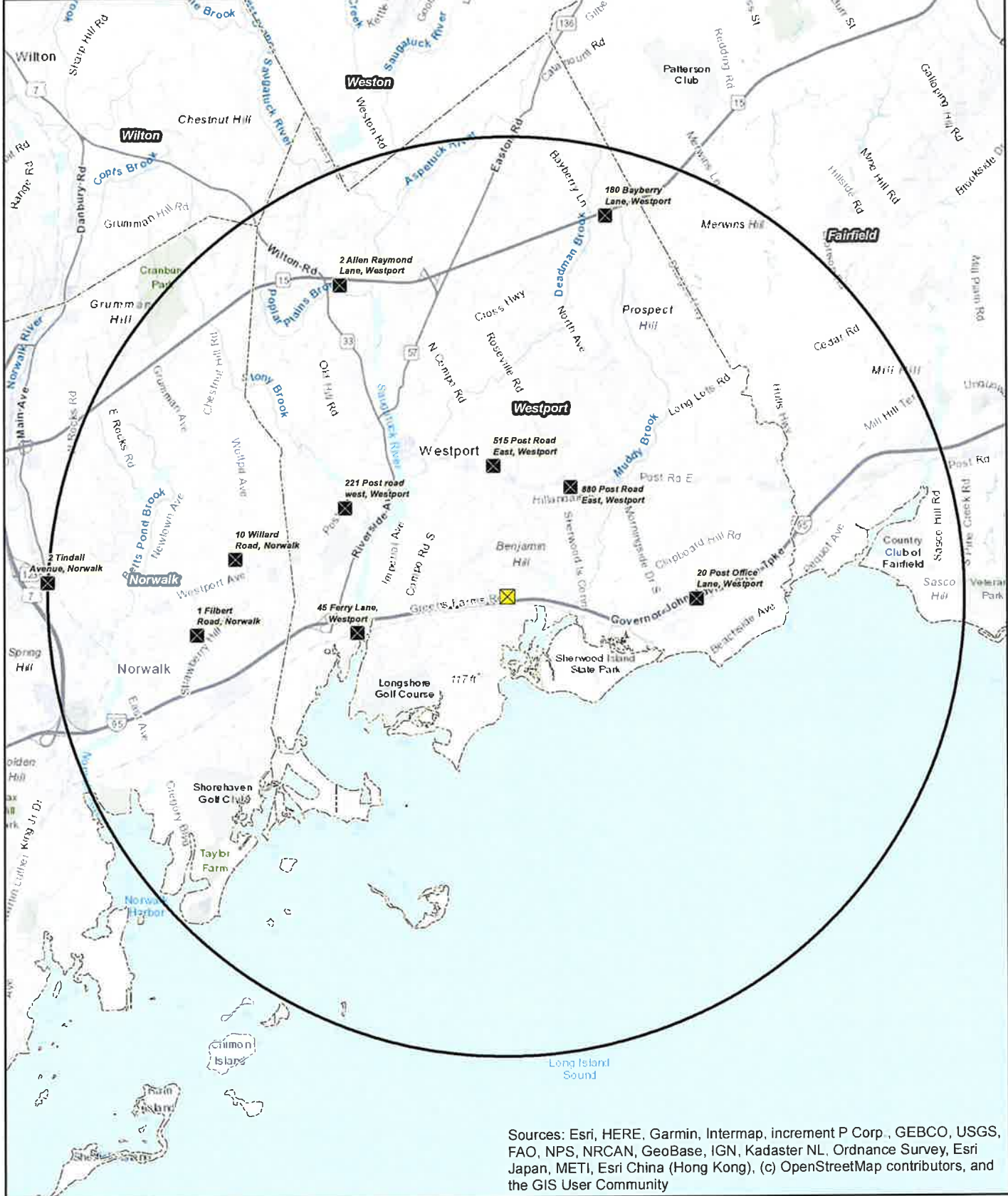
**North Arrow:**

**Verizon Logo:**

Map data: © 2010 Verizon Wireless. All rights reserved. Coverage shown is based on current data and is subject to change without notice. Coverage shown is based on current data and is subject to change without notice. Coverage shown is based on current data and is subject to change without notice. Coverage shown is based on current data and is subject to change without notice.









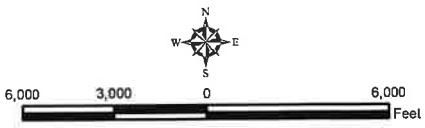


Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

**Legend**

-  Proposed Facility
-  Existing Towers Within 4 Miles of Proposed Facility (See attached table for detailed site information)
-  4-Mile Radius
-  Municipal Boundary

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: July 2021



**Existing Adjacent Towers**

Proposed Wireless  
 Telecommunications Facility  
 CT1024  
 Westport  
 92 Greens Farms Road  
 Westport, Connecticut



Existing Adjacent Towers within Four Miles

Proposed Wireless  
Telecommunications Facility  
CT1024  
Westport  
92 Greens Farms Road  
Westport, Connecticut

Data Sources: CTC Tower Database, Updated March 2020;  
FCC ASR GIS Database, Updated 2012

Town	Address	Alternate Address	Latitude	Longitude	Owner	Type	Tower Height (Feet AGL)	Ground Elevation (Feet AMSL)
Norwalk	1 Filbert Road	1 Filbert Street, 11 Filbert Street	41.11872222220	-73.39654444440	1st Taxing District, City of Norwalk	water tank	130	n/a
Norwalk	10 Willard Road		41.12828888890	-73.39018055560	SNET	self-support lattice	350	65
Norwalk	2 Tindall Avenue		41.12535277780	-73.42151111110	Eversource	self-support lattice	150	57
Westport	2 Allen Raymond Lane	2 Sunny Lane	41.16290555560	-73.37305277780	BAM	monopole	130	52
Westport	20 Post Office Lane		41.12346944440	-73.31306111110	SCLP	monopole	130	14
Westport	45 Ferry Lane		41.11908055560	-73.36978333330	CL&P	utility pole	233	n/a
Westport	221 Post road west	Eversource #19468	41.13479500000	-73.37199700000	Eversource	utility pole	34	n/a
Westport	515 Post Road East	515 Boston Post Road, 455 Post Road East, State Street East	41.14018055560	-73.34723611110	Westport Fire Dept	monopole	150	n/a
Westport	890 Post Road East	Sherwood Island Road	41.13749166670	-73.33433611110	State Police	self-support lattice	180	70
Westport	180 Bayberry Lane	(140' m) 180A Bayberry Lane, 182 Bayberry Lane, 180-182 Bayberry Lane	41.17166666670	-73.32861111110	American Tower	monopole	140	247



**TECH REPORT**



**SITE NUMBER: CT1024**  
**SITE NAME: WESTPORT**

**TECHNICAL REPORT**

**PROJECT INFORMATION**

SCOPE OF WORK:  
 TARPON TOWERS IS PROPOSING TO INSTALL THE FOLLOWING IMPROVEMENTS:  
 124 FOOT TOWER AND FOUNDATION TOWER APPROXIMATELY 9000' FROM CLOSEST TOWN LINE  
 35'x64' FENCED COMPOUND  
 12' ACCESS DRIVE  
 POWER AND TELCO UTILITIES  
 CONCRETE PAD WITH GENERATOR ON 131.8' (12) RRHs WITH ASSOCIATED CABLE AND APPLURTEANCES.  
 VERIZON EQUIPMENT ON 9'-4"x 16" STEEL PLATFORM TWELVE (12) VERIZON ANTENNAS, SIX (6) RADIOS (RRH) WITH ASSOCIATED CABLEING AND APPLURTEANCES

SITE ADDRESS:  
 92 GREENS FARMS ROAD  
 WESTPORT, CT 06880

PROPERTY OWNER:  
 MAHESH PRADIV & SHARUNA MOOLA-  
 92 GREENS FARMS ROAD  
 WESTPORT, CT 06880

MAP/LOT/BLOCK:  
 E08/ / 074/000 /

POWER COMPANY:  
 EVERSOURCE

TELEPHONE COMPANY:  
 FRONTIER COMMUNICATIONS

TOWER OWNER/APPLICANT:  
 Tarpon Towers II  
 8916 77th Terrace East  
 Suite 103  
 Lakewood Ranch, FL 34202

Keith Coppina 203-623-3287  
 Todd Bowman 941-757-5010



**AECOM**  
 500 ENTERPRISE DRIVE  
 ROCKY HILL, CONNECTICUT  
 (860) 259-9482

CHECKED BY: DJR

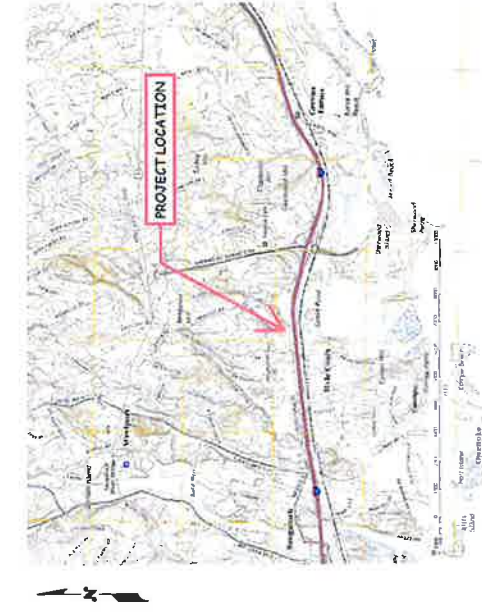
APPROVED BY: DJR

**GENERAL NOTES**

- THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COMPARTMENTED WORK OF TARPON TOWERS II. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. THE CONTRACTOR AND THESE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF THIS DOCUMENT ARE NOT TO BE HELD RESPONSIBLE FOR THE PURPOSES OF THIS DOCUMENT. ALL REGULATIONS, ORDINANCES, LOCAL, STATE AND FEDERAL ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
- THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS SUBJECT TO REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
- CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS OF THE FACILITY. NOTIFY THE TARPON TOWERS II REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**72 HOURS**  
**CALL BEFORE YOU DIG**  
 CALL TOLL FREE 1-800-922-4455  
 OR CALL 811  
**UNDERGROUND SERVICE ALERT**

**VICINITY MAP**



**DRAWING INDEX**

REV	DESCRIPTION
4	TITLE SHEET
0	ABUTTERS PLAN
0	EXISTING CONDITIONS
4	TR-1 SITE PLAN
4	TR-2 COMPOUND PLAN AND TOWER ELEVATION



**MUNICIPALITY NOTIFICATION LIMIT MAP**

REV	DATE	DESCRIPTION
1	07/27/2011	REV 1: TOWER REPORT
2	08/17/2011	REV 2: TOWER REPORT
3	08/17/2011	REV 3: TOWER REPORT
4	08/17/2011	REV 4: TOWER REPORT
5	08/17/2011	REV 5: TOWER REPORT
6	08/17/2011	REV 6: TOWER REPORT

SITE NAME:  
 WESTPORT  
 SITE NUMBER:  
 CT1024  
 SITE ADDRESS:  
 92 GREENS FARMS ROAD  
 WESTPORT, CT 06880

SHEET TITLE  
 TITLE SHEET

SHEET NUMBER  
 T-1





**TECH REPORT**

**SOURCE:**  
 NORTHEAST SURVEY CONSULTANTS, ABUTTERS PLAN AND  
 PARTIAL TOPOGRAPHIC MAP DATED 06/18/17  
 THIS IS NOT A BOUNDARY SURVEY

**LEGEND**

	PROPERTY LINE - SUBJECT PARCEL
	ABUTTERS PROPERTY LINE
	EXISTING CONTOUR LINE
	TREE LINE
	BARBED WIRE FENCE REMAINS
	OVERHEAD WIRE
	EXISTING CHAIN LINK FENCE
	EXISTING BUILDING
	CATCH BASIN
	CONIFEROUS TREE
	DECIDUOUS TREE
	STONEWALL
	WELL
	UTILITY POLE
	PROPOSED CONTOUR LINE
	PROPOSED CONSTRUCTION SILT SOCK

**TARPOON TOWERS**  
 TARPOON TOWERS II, LLC  
 8916 7th Terrace East, Suite 103  
 Lubbock, Texas, TX 79424

**AECOM**  
 500 ENTERPRISE DRIVE  
 ROCKY HILL, CONNECTICUT  
 (860) 524-4082

111 HELLSPORT ROAD  
 WESTPORT, CT 06890

12 GREENS FARMS ROAD  
 WESTPORT, CT 06810  
 AREA 1.99 ACRES

12 GREENS FARMS ROAD  
 WESTPORT, CT 06810  
 AREA 1.99 ACRES

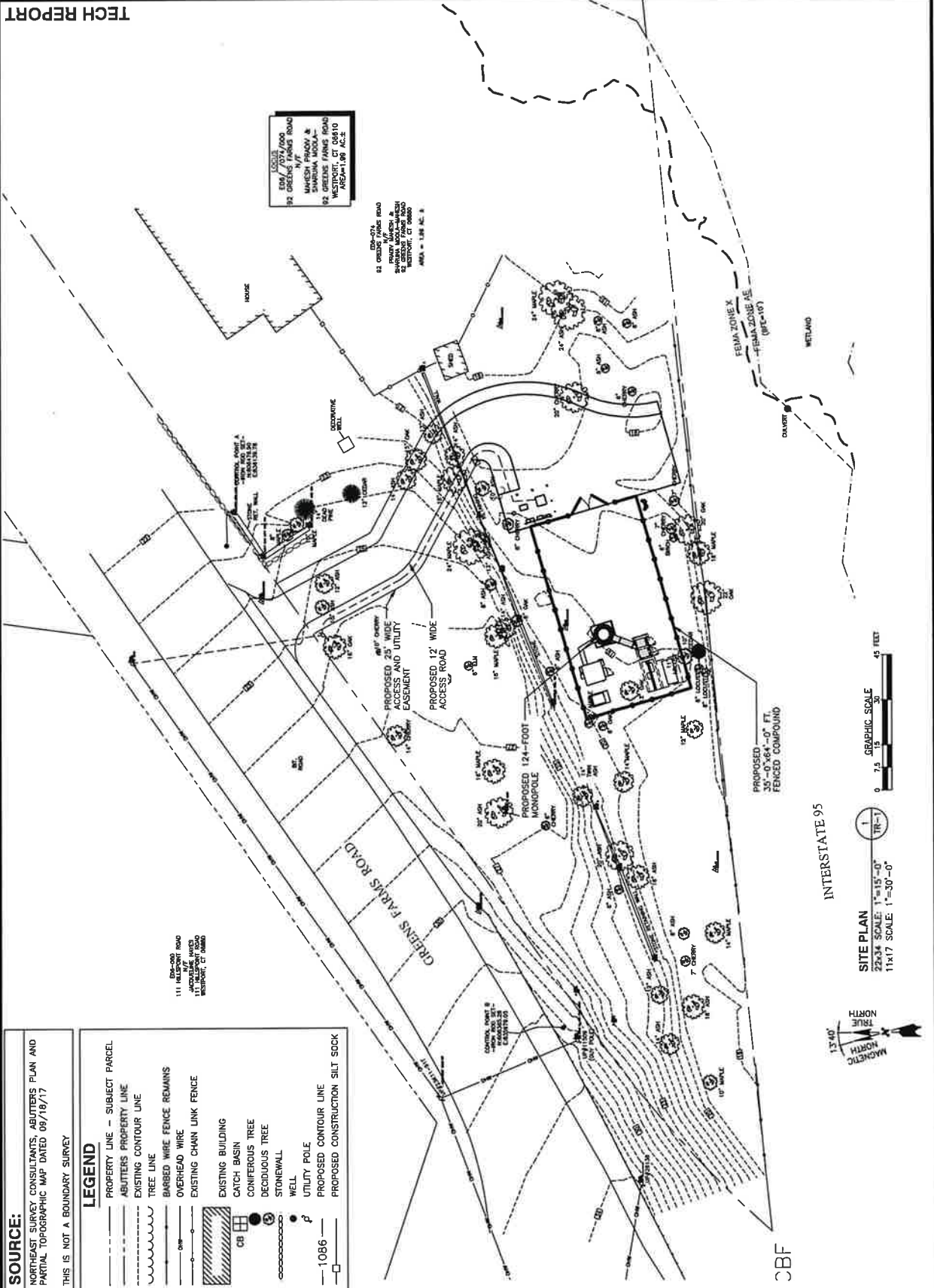
**SUBMITTALS**

REV	DATE	DESCRIPTION
1	06/27/2018	REVISED PER 3. TECH REPORT
2	07/17/2018	REVISED PER 1. TECH REPORT
3	08/14/2018	REVISED PER 1. TECH REPORT
4	08/20/2018	REVISED PER 1. TECH REPORT
5	08/20/2018	REVISED PER 1. TECH REPORT
6	08/20/2018	REVISED PER 1. TECH REPORT
7	08/20/2018	REVISED PER 1. TECH REPORT
8	08/20/2018	REVISED PER 1. TECH REPORT
9	08/20/2018	REVISED PER 1. TECH REPORT

**SITE NAME:**  
 WESTPORT  
**SITE NUMBER:**  
 CT1024  
**SITE ADDRESS:**  
 92 GREENS FARMS ROAD  
 WESTPORT, CT 06880

**SHEET TITLE**  
 SITE PLAN

**SHEET NUMBER**  
 TR-1

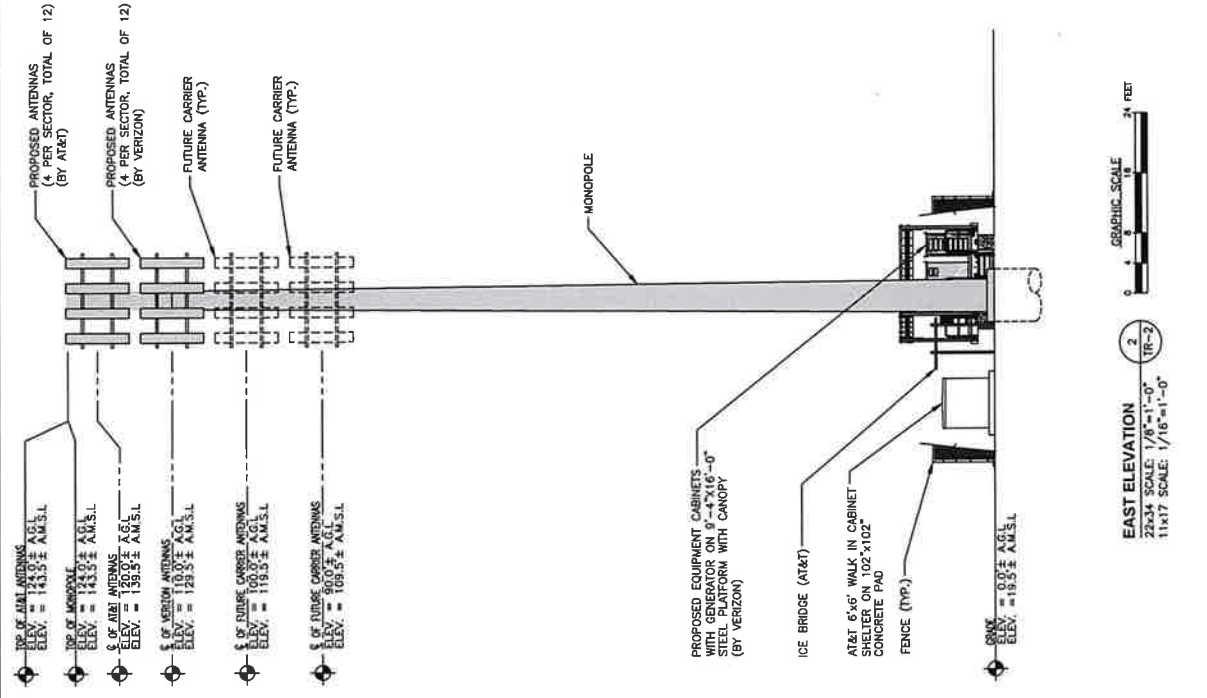
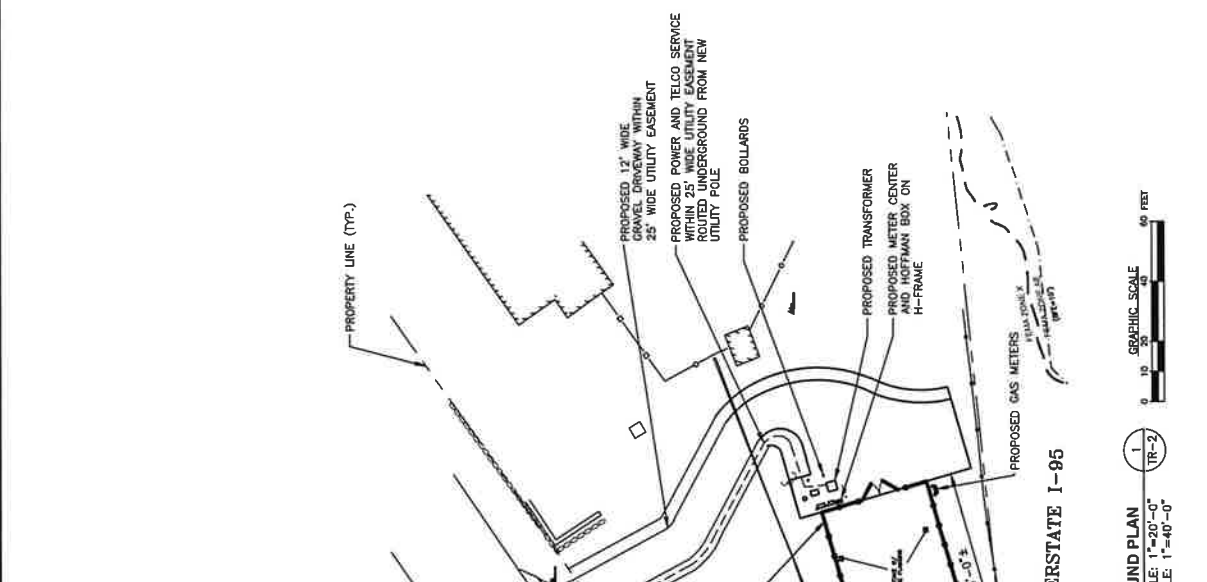




**TECH REPORT**

**LEGEND**

- PROPERTY LINE - SUBJECT PARCEL
- - - ADJUTERS PROPERTY LINE
- - - EXISTING CONTOUR LINE
- - - TREE LINE
- - - BARBED WIRE FENCE REMAINS
- - - OVERHEAD WIRE
- - - EXISTING CHAIN LINK FENCE
- - - EXISTING BUILDING
- - - CATCH BASIN
- - - CONIFEROUS TREE
- - - DECIDUOUS TREE
- - - STONEWALL
- - - WELL
- - - UTILITY POLE
- - - PROPOSED CONTOUR LINE
- - - PROPOSED CONSTRUCTION SILT SOCK



**TARPOON TOWERS**  
TARPOON TOWERS II, LLC  
8916.77th Terrace East, Suite 100  
Lakewood Ranch, FL 34203

**AECOM**  
500 ENTERPRISE DRIVE  
ROCKY HILL, CONNECTICUT  
(860) 524-8482

CHECKED BY: DJR

APPROVED BY: DJR

**SUBMITTALS**

REV	DATE	DESCRIPTION	BY
1	12/21/2011	ISSUE FOR PERMITS	DR
2	12/21/2011	ISSUE FOR PERMITS	DR
3	12/21/2011	ISSUE FOR PERMITS	DR
4	12/21/2011	ISSUE FOR PERMITS	DR
5	12/21/2011	ISSUE FOR PERMITS	DR
6	12/21/2011	ISSUE FOR PERMITS	DR
7	12/21/2011	ISSUE FOR PERMITS	DR
8	12/21/2011	ISSUE FOR PERMITS	DR
9	12/21/2011	ISSUE FOR PERMITS	DR

SITE NAME: WESTPORT  
SITE NUMBER: CT1024  
SITE ADDRESS: 92 GREENS FARMS ROAD  
WESTPORT, CT 06880

SHEET TITLE: COMPOUND PLAN AND TOWER ELEVATION

SHEET NUMBER: TR-2



# NORTHEAST SURVEY CONSULTANTS PC

3 FERRY STREET, STUDIO 1 EAST, EASTHAMPTON, MA 01027 (413) 203-5144

## 2-C CERTIFICATION

**Client:** Tarpon Towers II, LLC  
8916 77<sup>th</sup> Terrace East  
Suite 103  
Lakewood Ranch, FL 34202

**Site Number/Name:** CT1024 Westport  
**Site Address:** 92 Greens Farms Road  
Westport, CT

**Type of Survey:**  GPS Survey  Ground Survey

**Horizontal Datum:** NAD83 - expressed in degrees of Latitude and Longitude  
**Vertical Datum:** NAVD88 - expressed in feet Above Mean Sea Level (AMSL)

**Structure Type:**  Self-Support Tower  Monopole Tower  Guyed Tower  
 Wood Pole  Water Tank  Smoke Stack  
 Roof Top  Church Steeple  Temporary Site  
 Silo  Other:

**Center of Structure:** Latitude 41° 07' 25.39" N 41.123688° N  
Longitude 73° 20' 41.26" W 73.344842° W

<b>Existing Ground Elevation at Prop. Structure:</b>	0.0' (AGL)	19.5' (AMSL)
<b>Centerline of Proposed Vz Wireless Antennas:</b>	110.0' (AGL)	129.5' (AMSL)
<b>Centerline of Proposed AT&amp;T Antennas:</b>	120.0' (AGL)	139.5' (AMSL)
<b>Top of Proposed Structure:</b>	124.0' (AGL)	143.5' (AMSL)
<b>Top of Proposed AT&amp;T Antennas:</b>	124.0' (AGL)	143.5' (AMSL)

**Certification:** I certify that the latitude and the longitude are accurate to within +/- 50 feet horizontally, and that the ground elevation is accurate to within +/- 20 feet vertically. The horizontal coordinates are based upon the North American Datum of 1983 (NAD 83) and are expressed in degrees of Latitude and Longitude. The elevations are based on the North American Vertical Datum of 1988 and are expressed in feet Above Mean Sea Level (AMSL).

**Signature:**   
Charles G. Gidman, RPLS # 70103

**Date:** May 6, 2021







Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2021-ANE-2537-OE

Issued Date: 05/11/2021

Todd J Bowman  
Tarpon Towers II, LLC  
8916 77th Terrace East  
Suite 103  
Lakewood Ranch, FL 34202

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

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

Structure: Antenna Tower CT1024 Westport  
Location: Westport, CT  
Latitude: 41-07-25.39N NAD 83  
Longitude: 73-20-41.26W  
Heights: 20 feet site elevation (SE)  
199 feet above ground level (AGL)  
219 feet above mean sea level (AMSL)

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

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

This determination expires on 11/11/2022 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

**SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.**

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

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

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

If we can be of further assistance, please contact our office at (816) 329-2525, or [natalie.schmalbeck@faa.gov](mailto:natalie.schmalbeck@faa.gov). On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-ANE-2537-OE.

**Signature Control No: 479157534-480459135**

( DNE )

Natalie Schmalbeck  
Technician

Attachment(s)  
Frequency Data  
Map(s)

cc: FCC

**Frequency Data for ASN 2021-ANE-2537-OE**

<b>LOW FREQUENCY</b>	<b>HIGH FREQUENCY</b>	<b>FREQUENCY UNIT</b>	<b>ERP</b>	<b>ERP UNIT</b>
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W

Verified Map for ASN 2021-ANE-2537-OE









## WETLAND INSPECTION

May 21, 2021

APT Project No.: CT445200

**Prepared For:** Tarpon Towers II  
8916 77<sup>th</sup> Terrace East, Suite 103  
Lakewood Ranch, FL 34202

**Site Name:** CT1024 - Westport

**Site Address:** 92 Greens Farms Road, Westport, Connecticut

**Date of Investigation:** 1/10/2020

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

**Wetland/Watercourse Delineation Methodology<sup>1</sup>:**

- Connecticut Inland Wetlands and Watercourses  
 Connecticut Tidal Wetlands

**Municipal Upland Review Area:** **Wetlands:** 75 feet **Watercourses:** 75 feet

The wetlands inspection was performed by<sup>2</sup>:

Matthew Gustafson, Registered Soil Scientist

Enclosures: Wetland Delineation Field Forms & 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.<sup>3</sup> If applicable, APT is available to provide a more comprehensive wetland impact analysis upon receipt of site plans depicting the proposed development activities and surveyed location of identified wetland and watercourse resources.*

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<sup>1</sup> Wetlands and watercourses were delineated in accordance with applicable local, state and federal statutes, regulations and guidance.

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

<sup>3</sup> APT has relied upon the accuracy of information provided by Tarpon Towers II regarding the location and limits of the Study Area for the purposes of identifying wetlands and watercourses.

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# Attachments

- Wetland Delineation Field Forms
- Wetland Inspection Map

**Wetland Delineation Field Form**

Wetland I.D.:	Wetland 1	
Flag #'s:	WF 1-01 to 1-10 (closed loop)	
Flag Location Method:	Site Sketch <input checked="" type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>

**WETLAND HYDROLOGY:**

**NONTIDAL**

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated/seepage <input type="checkbox"/>	Seasonally Saturated/perched <input checked="" type="checkbox"/>
Comments: Wetland 1 is a very small, narrow, and isolated wetland feature formed in a small topographic depression.		

**TIDAL**

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

**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 checked="" type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input checked="" 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 Delineation 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	

**SOILS:**

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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**DOMINANT PLANTS:**

Common Reed* ( <i>Phragmites australis</i> )	Asiatic Bittersweet* ( <i>Celastrus orbiculatus</i> )
Poison Ivy ( <i>Toxicodendron radicans</i> )	Garlic Mustard* ( <i>Alliaria petiolata</i> )
Reed Canarygrass* ( <i>Phalaris arundinacea</i> )	Silky Dogwood ( <i>Cornus amomum</i> )
Japanese Knotweed* ( <i>Polygonum cuspidatum</i> )	

\* denotes Connecticut Invasive Species Council invasive plant species

**GENERAL COMMENTS:**

The Subject Property consists of an approximately 1.86-acre parcel developed as a residency adjacent to Interstate 95. The area proposed for the wireless telecommunications facility is located in a mature upland forested area in the western portion of the Subject Property. Access to the Facility would travel through mature upland forest south of Greens Farms Road for approximately 150 feet and would consist of an approximately 12-foot-wide gravel access. The project area in general is dominated by moderately aged second growth upland and wetland forested areas heavily influenced by anthropogenic factors including Interstate 95 and the old, abandoned route for Greens Farms Road. The surrounding land-use consists primarily of residential development.

Two wetland areas were identified and delineated proximate to the project area consisting of an isolated depressional wetland system (Wetland 1) and an intermittent stream system with narrow bordering forested wetlands (Wetland 2).

Wetland 1 is a very small, narrow, and isolated wetland feature formed in a small topographic depression. This wetland system exhibits high levels of human disturbance, both historically from the proximate construction of Interstate 95, as well as on-going disturbances associated with the proximity to this transportation corridor (as evident by disturbed soil profiles, prolific refuse material, and high densities/dominance of invasive plant species).

**Wetland Delineation Field Form**

Wetland I.D.:	Wetland 2	
Flag #'s:	WF 2-01 to 2-14	
Flag Location Method:	Site Sketch <input checked="" type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>

**WETLAND HYDROLOGY:**

**NONTIDAL**

Intermittently Flooded <input checked="" type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input checked="" type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated/seepage <input type="checkbox"/>	Seasonally Saturated/perched <input type="checkbox"/>
Comments: Wetland 2 consists of a channelized intermittent watercourse with narrow bordering forested wetland areas that are seasonally saturated and occasionally flooded.		

**TIDAL**

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

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

**WATERCOURSE TYPE:**

Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Unnamed		
Comments: Watercourse is 10-12 feet wide with a sandy bottom and 4- to 6-inches of water at the time of inspection.		

**Wetland Delineation 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	

**SOILS:**

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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**DOMINANT PLANTS:**

Common Reed* ( <i>Phragmites australis</i> )	Red Maple ( <i>Acer rubrum</i> )
Green Ash ( <i>Fraxinus pennsylvanica</i> )	Multiflora Rose* ( <i>Rosa multiflora</i> )
Jewelweed ( <i>Impatiens capensis</i> )	Soft Rush ( <i>Juncus effuses</i> )
Japanese Knotweed* ( <i>Polygonum cuspidatum</i> )	Blue Flag Iris ( <i>Iris versicolor</i> )
Poison Ivy ( <i>Toxicodendron radicans</i> )	Reed Canarygrass* ( <i>Phalaris arundinacea</i> )
Greenbrier ( <i>Smilax rotundifolia</i> )	Skunk Cabbage ( <i>Symplocarpus foetidus</i> )
Asiatic Bittersweet* ( <i>Celastrus orbiculatus</i> )	

\* denotes Connecticut Invasive Species Council invasive plant species

**GENERAL COMMENTS:**

The Subject Property consists of an approximately 1.86-acre parcel developed as a residency adjacent to Interstate 95. The area proposed for the wireless telecommunications facility is located in a mature upland forested area in the western portion of the Subject Property. Access to the Facility would travel through mature upland forest south of Greens Farms Road for approximately 150 feet and would consist of an approximately 12-foot-wide gravel access. The project area in general is dominated by moderately aged second growth upland and wetland forested areas heavily influenced by anthropogenic factors including Interstate 95 and the old, abandoned route for Greens Farms Road. The surrounding land-use consists primarily of residential development.

Two wetland areas were identified and delineated proximate to the project area consisting of an isolated depressional wetland system (Wetland 1) and an intermittent stream system with narrow bordering forested wetlands (Wetland 2).

Wetland 2 consists of a channelized intermittent watercourse with narrow bordering forested wetland areas that are seasonally saturated and occasionally flooded. The regulatory boundary of the intermittent stream system generally starts at a 72-inch reinforced concrete pipe culvert with the watercourse flowing to the east, parallel to Interstate 95. This wetland system exhibits high levels of human disturbance, both historically from the proximate construction of Interstate 95, as well as on-going disturbances associated with the transportation corridor (as evident by road sand deposition and bank erosion due to flashy hydrology from the highway's stormwater runoff).



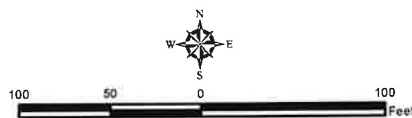
**Legend**

- Proposed Equipment
  - Proposed Site Layout
  - Proposed Conduit
  - 75' Upland Review
  - Delineated Wetland Boundary
  - Wetland Flag
  - Approximate Wetland
  - Existing Culvert
  - Subject Property
  - Approximate Parcel Boundary
- FEMA Flood Zones (CTDEEP)**
- 100-Year Flood Zone
  - 500-Year Flood Zone
  - Floodway\*

**Wetland Inspection Map**

Proposed Wireless  
Telecommunications Facility  
CT1024  
Westport  
92 Greens Farms Road  
Westport, Connecticut

**Map Notes:**  
Base Map Source: 2019 Aerial Photograph (CTECO)  
Map Scale: 1 inch = 100 feet  
Map Date: May 2021









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

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## Calculated Radio Frequency Exposure



CT1843

92 Greens Farm Road, Westport, CT 06880

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July 22, 2021

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## 1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of the AT&T antenna arrays on a new monopole tower located at 92 Greens Farm Road in Westport, CT. The coordinates of the tower are 41° 07' 25.00" N, 73° 20' 42.00" 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 12/14/2020.

### 3. RF Exposure Calculation Methods

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

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

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 cumulative power density information for the AT&T equipment at the site. The proposed antennas are directional in nature; therefore, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. 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)	ERP Per Transmitter (Watts)	Power Density (mw/cm <sup>2</sup> )	Limit	% MPE
AT&T	120	739	3156	0.0087	0.4927	1.77%
AT&T	120	763	3541	0.0098	0.5087	1.93%
AT&T	120	885	3883	0.0107	0.5900	1.82%
AT&T	120	1900	5877	0.0163	1.0000	1.63%
AT&T	120	2100	9890	0.0274	1.0000	2.74%
AT&T	120	3500	79433	0.2199	1.0000	21.99%
AT&T	120	2300	6153	0.0170	1.0000	1.70%
					<b>Total</b>	<b>33.58%</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 **33.58% 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.



---

July 22, 2021

Date

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

### **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

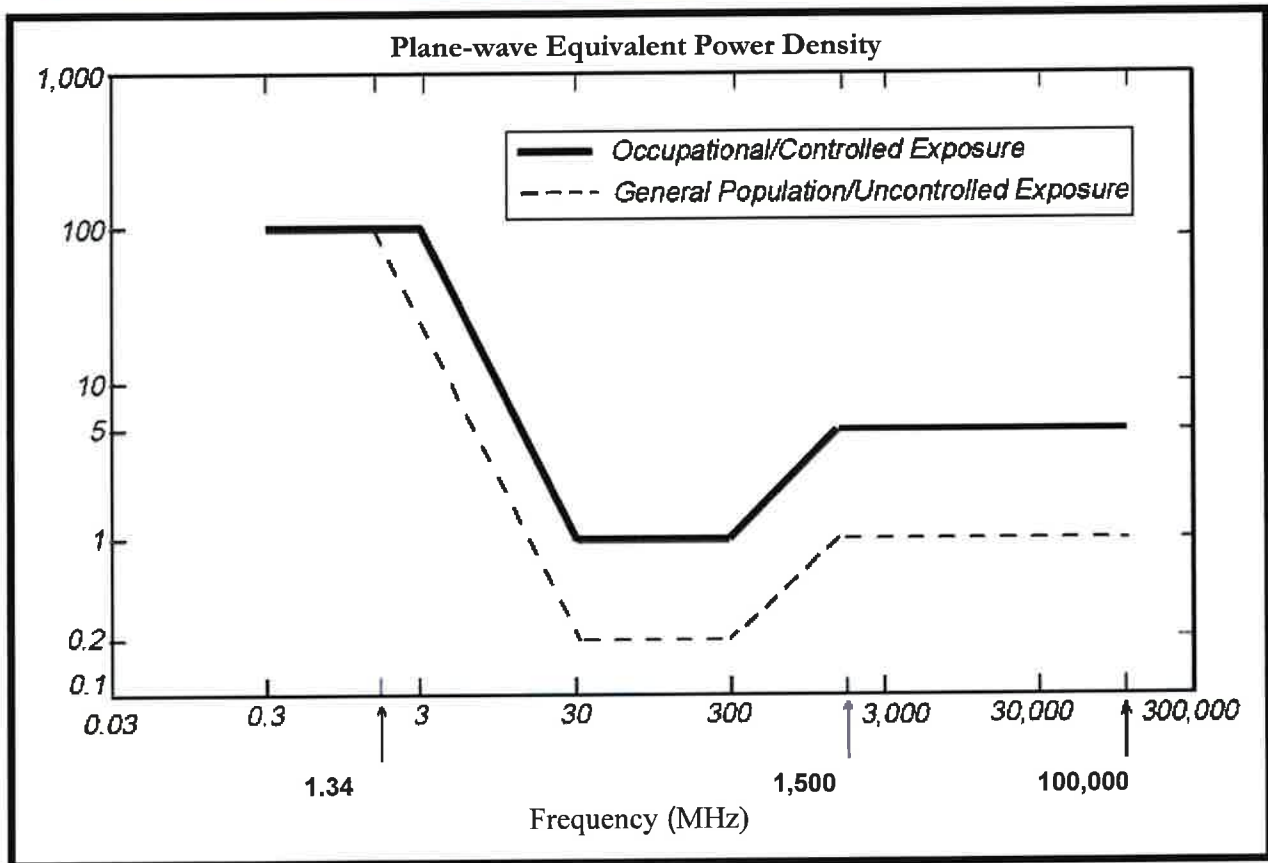
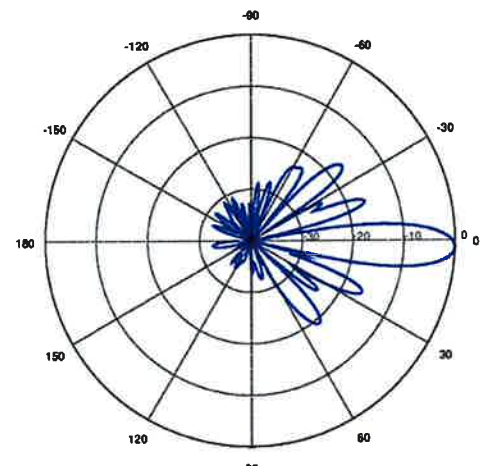
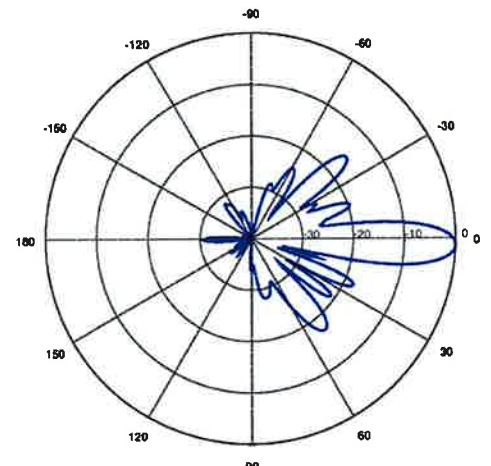
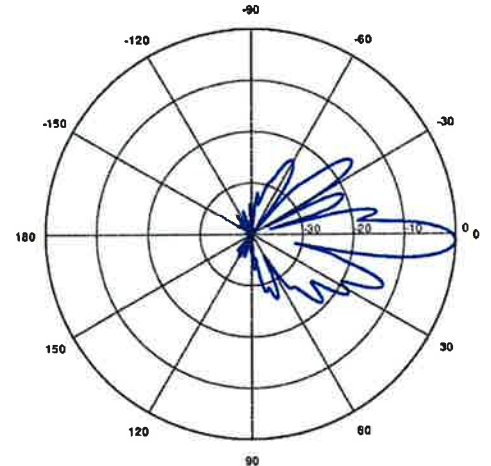


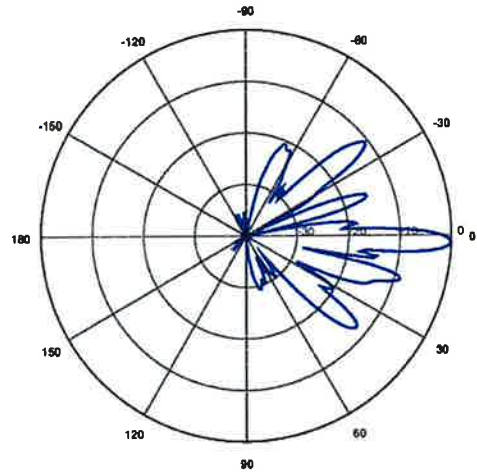
Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

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

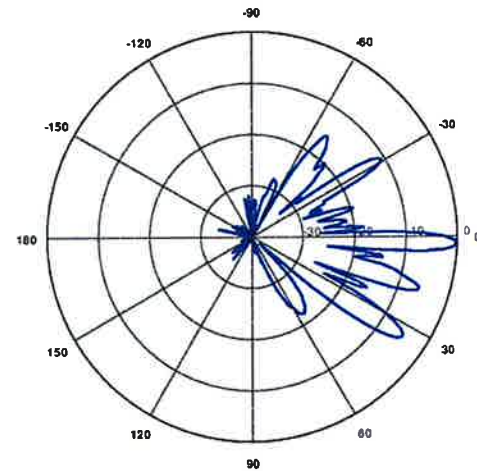
<p><b>739 MHz</b></p> <p>Manufacturer: CCI Products            Model #: DMP65R-BU8D            Frequency Band: 698-798 MHz            Gain: 15.1 dBi            Vertical Beamwidth: 9.5°            Horizontal Beamwidth: 75°            Polarization: Dual Linear 45°            Size L x W x D: 96.0" x 20.7" x 7.7"</p>	
<p><b>763 MHz</b></p> <p>Manufacturer: CCI Products            Model #: TPA65R-BU8D            Frequency Band: 698 - 806MHz            Gain: 15.6 dBi            Vertical Beamwidth: 9.5°            Horizontal Beamwidth: 74°            Polarization: Dual Linear 45°            Size L x W x D: 96.0" x 20.7" x 7.7"</p>	
<p><b>885 MHz</b></p> <p>Manufacturer: CCI Products            Model #: DMP65R-BU8D            Frequency Band: 824 - 896 MHz            Gain: 16.0 dBi            Vertical Beamwidth: 8.0°            Horizontal Beamwidth: 64°            Polarization: Dual Linear 45°            Size L x W x D: 96.0" x 20.7" x 7.7"</p>	

**1900 MHz**

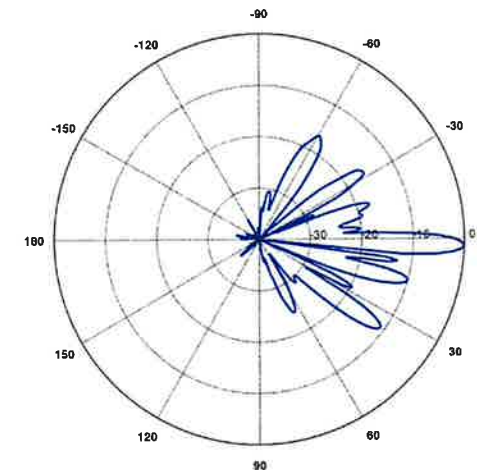
Manufacturer: CCI Products  
 Model #: DMP65R-BU8D  
 Frequency Band: 1850-1990 MHz  
 Gain: 17.8 dBi  
 Vertical Beamwidth: 5.1°  
 Horizontal Beamwidth: 68°  
 Polarization: Dual Linear 45°  
 Size L x W x D: 96.0" x 20.7" x 7.7"


**2100 MHz**

Manufacturer: CCI Products  
 Model #: TPA65R-BU8D  
 Frequency Band: 1920-2180 MHz  
 Gain: 18.3 dBi  
 Vertical Beamwidth: 4.7°  
 Horizontal Beamwidth: 67°  
 Polarization: Dual Linear 45°  
 Size L x W x D: 96.0" x 20.7" x 7.7"


**2300 MHz**

Manufacturer: CCI Products  
 Model #: TPA65R-BU8D  
 Frequency Band: 2300 - 2400 MHz  
 Gain: 18.0 dBi  
 Vertical Beamwidth: 4.1°  
 Horizontal Beamwidth: 62°  
 Polarization: Dual Linear 45°  
 Size L x W x D: 96.0" x 20.7" x 7.7"







## PRELIMINARY VISUAL ASSESSMENT

Date: July 14, 2021

To: Tarpon Towers II  
8916 77<sup>th</sup> Terrace East, Suite 103  
Lakewood Ranch, FL 34202

From: Brian Gaudet

Re: Proposed Telecommunications Facility  
92 Greens Farms Road  
Westport, Connecticut

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Tarpon Towers II ("Tarpon") has identified a proposed location for development of a wireless telecommunications facility ("Facility") at 92 Greens Farms Road in Westport, Connecticut (the "Host Property"). The proposed Facility would include a 124-foot-tall steel monopole, with the antennas top height at 124' above ground level ("AGL"), and equipment within a  $\pm 35$ -foot by  $\pm 64$ -foot fenced compound (the "Facility") located in the southwestern portion of the Host Property.

The Host Property is a single parcel located on the southeast corner of Greens Farms Road and Hillspoint Road, immediately north of Interstate 95 ("I-95"). It is developed with a single-family residence. Land use within the surrounding area is primarily residential. The Metro North rail line is located immediately south of I-95. Assumption-Greens Farms Cemetery and The Offices at Greens Farms lie farther to the west beyond residences on Hillspoint Road. A large industrial warehouse is located to the east beyond the residential properties off Leighton Road. Sherwood Island State Park is located beyond Sherwood Millpond to the southeast.

At the request of Tarpon, All-Points Technology Corporation, P.C. ("APT") has prepared initial viewshed mapping to provide a preliminary evaluation of the visibility associated with the proposed Facility. To conduct this assessment, a predictive computer model was developed specifically for this project using ESRI's ArcMap Geographic Information System ("GIS")<sup>1</sup> software and available GIS data. The predictive model provides an initial estimate of potential visibility throughout a pre-defined "Study Area", in this case a two-mile radius surrounding the proposed Facility location.

The predictive model incorporates project and Study Area-specific data, including the Facility 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). The Study Area extends into the neighboring municipality of Norwalk to the west. I-95 bisects the Study Area in roughly an east to west direction.

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<sup>1</sup> 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.

A digital surface model ("DSM"), capturing both the natural and built features on the Earth's surface, was generated for the extent of the Study Area utilizing State of Connecticut 2016 LiDAR<sup>2</sup> LAS<sup>3</sup> 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 cells<sup>4</sup> within the DSM that can be seen from an observer location. Cells where visibility was indicated were extracted and converted from a raster dataset to a polygon feature which was then overlaid onto 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 occurs 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.

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.

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<sup>2</sup> Light Detection and Ranging.

<sup>3</sup> An LAS file is an industry-standard binary format for storing airborne LiDAR data.

<sup>4</sup> Each DSM cell size is 1 square meter.

The preliminary viewshed mapping results indicate that predicted visibility associated with the proposed Facility could include up to approximately 438 acres of year-round views and approximately 144 acres of seasonal views ( $\pm 5.45\%$  and  $\pm 1.79\%$ , respectively, of the 8,042-acre Study Area). The majority of predicted year-round visibility (over 90%) occurs over open water and associated tidal marsh areas (408 of the 438 acres) to the south. Additional year-round views are predicted primarily from locations along the I-95 and Greens Farms Road corridor, east and west of the Facility. Similarly, seasonal visibility is predicted to occur from select surrounding locations within 0.25 mile of the Facility, as well as extending to bordering areas along I-95 and Greens Farms Road. Additional seasonal visibility is predicted on Clapboard Hill to the east and over open water and tidal marshes to the southeast, with portions of the predicted views potentially extending to the western shoreline within Sherwood Island State Park.

No schools or commercial day care centers are located within 250 feet of the proposed Facility. Saugatuck Elementary School is located approximately 1.32 miles northwest of the site at 170 Riverside Avenue. The nearest commercial child care center is Children's Community Development Center, approximately 0.23 mile to the north at 90 Hillspoint Road. No visibility is predicted from either location.

The maps provided as attachments offer a preliminary basis for understanding the extent of visibility that may occur throughout the Study Area, but they do not address the character of those potential views. Note also that the results of the computer model have not been field verified. Our experience is that the computer model's sensitivity typically results in the initial mapping being over-predictive of the Facility's viewshed. These initial results will be field-verified and presented in Tarpon's application to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need.



## **Attachments**



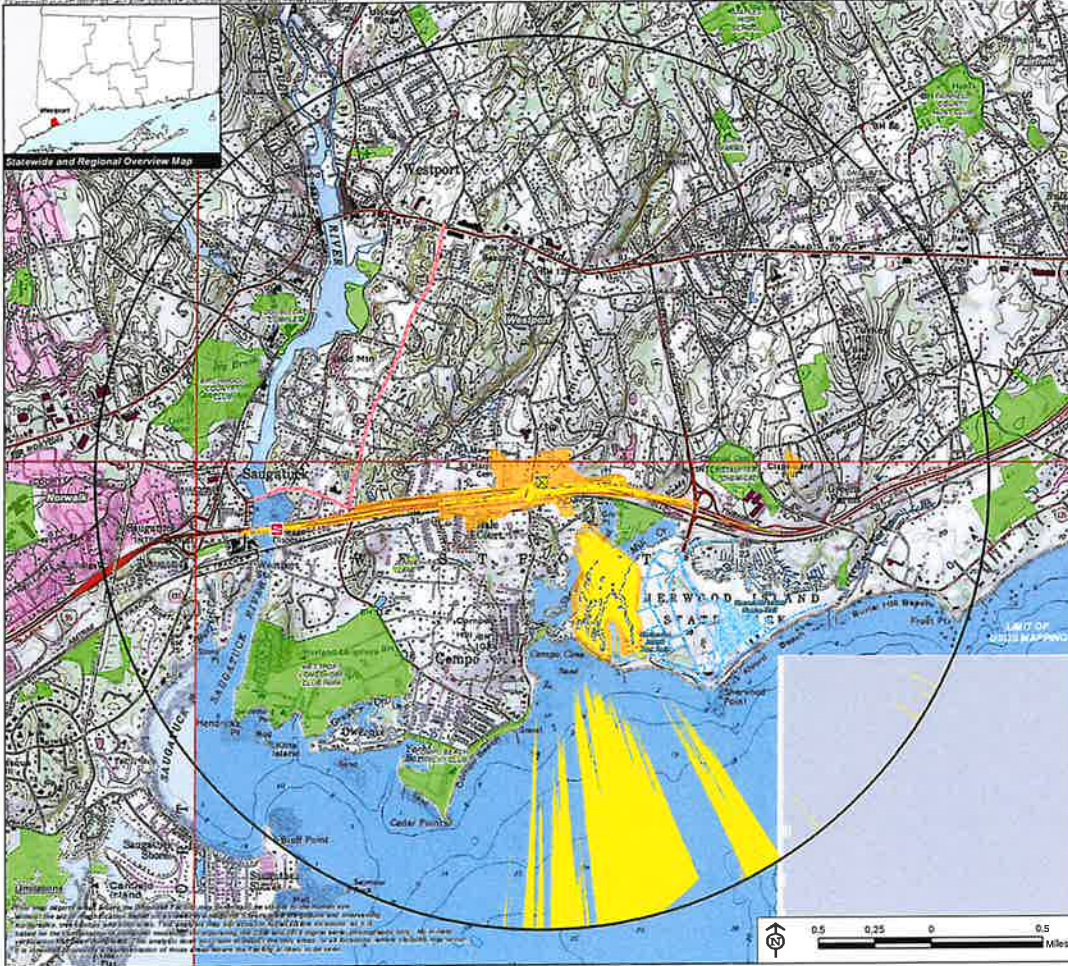
**Preliminary Viewshed Analysis Map**  
 Proposed Wireless Telecommunications Facility  
 CT1024/Westport  
 92 Greens Farms Road  
 Westport, Connecticut

Proposed facility height is 124 feet AGL.  
 Forest canopy height is derived from LIDAR data.  
 Study area encompasses a two-mile radius and includes 8,042 acres.  
 Information provided on this map has not been field verified.  
 Base Map Source: 2019 Aerial Photograph (CTECO)  
 Map Date: May 2021

- Legend**
- Proposed Site
  - Study Area (Circle Radius)
  - Predicted Year-Round Visibility (438 Acres +/- 403 acres occur over open water and/or associated total height trees)
  - Areas of Potential Seasonal Visibility (144 Acres)
  - Municipal Boundary
  - Trail
  - Scenic Highway
  - DEEP Boat Launches
  - Municipal and Private Open Space Property
  - State Forest/Park
  - Protected Open Space Property
  - Federal
  - Land Trust
  - Municipal
  - Private
  - State

**Data Sources:**  
**Physical Geography / Bathymetric Data**  
 A digital surface model (DSM) was created from the State of Connecticut 2019 LIDAR LAS data points. The DSM captures the natural and built features on the DSM's surface.  
**Municipal Open Space, State Recreation Area, Trail, County Recreation Area, and Town Boundary data** obtained from CT DEEP, State Roads, CT DOT State Scenic Highways (2015), Municipal Scenic Roads (compiled by APT).  
**Ownership Data: State & 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 State Books East & West.  
**Other**  
 CT DOT Scenic Ships (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.





**Preliminary Viewshed Analysis Map**  
 Proposed Wireless Telecommunications Facility  
 CT1024/Westport  
 92 Greens Farms Road  
 Westport, Connecticut

Proposed facility height is 124 feet AGL.  
 Forest canopy height is derived from LIDAR data.  
 Study area encompasses a two-mile radius and includes 8,042 acres.  
 Information provided on this map has not been field verified.  
 Base Map Source: USGS 7.5 Minute Topographic  
 Quadrangle Maps Norwalk North, CT (1975), Norwalk South, CT  
 (1984), Sherwood Point, CT (1971), and Westport, CT (1975)  
 Map Date: May 2021

**Legend**

- Quam
- Proposed Site
- Study Area (2-Mile Radius)
- Predicted Year-Round Visibility (438 Acres, +/- 408 acres occur over open water and/or associated tidal marsh areas)
- Areas of Potential Seasonal Visibility (144 Acres)
- Municipal Boundary
- Trail
- State Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Land
- Protected Open Space Property
- Federal
- Land Trust
- Municipal
- Private
- State

**Data Sources:**

**Original Data / 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 Area, Trail, County Recreation Area, and Town Bound any data obtained from CT DEEP State Roads, CTDOT State Static Highways (2015), Municipal Static Roads (compiled by MTT)  
**Proprietary Data Sources & Restrictions**  
 Connecticut Department of Energy and Environmental Protection (DEEP) DEEP Property (May 2001), Federal Open Space (1997), Municipal and Private Open Space (1997), DEEP Boat Launches (1994)  
 Connecticut Forest & Parks Association, Connecticut WMA, Boats Ecol & Wet.

**Other**

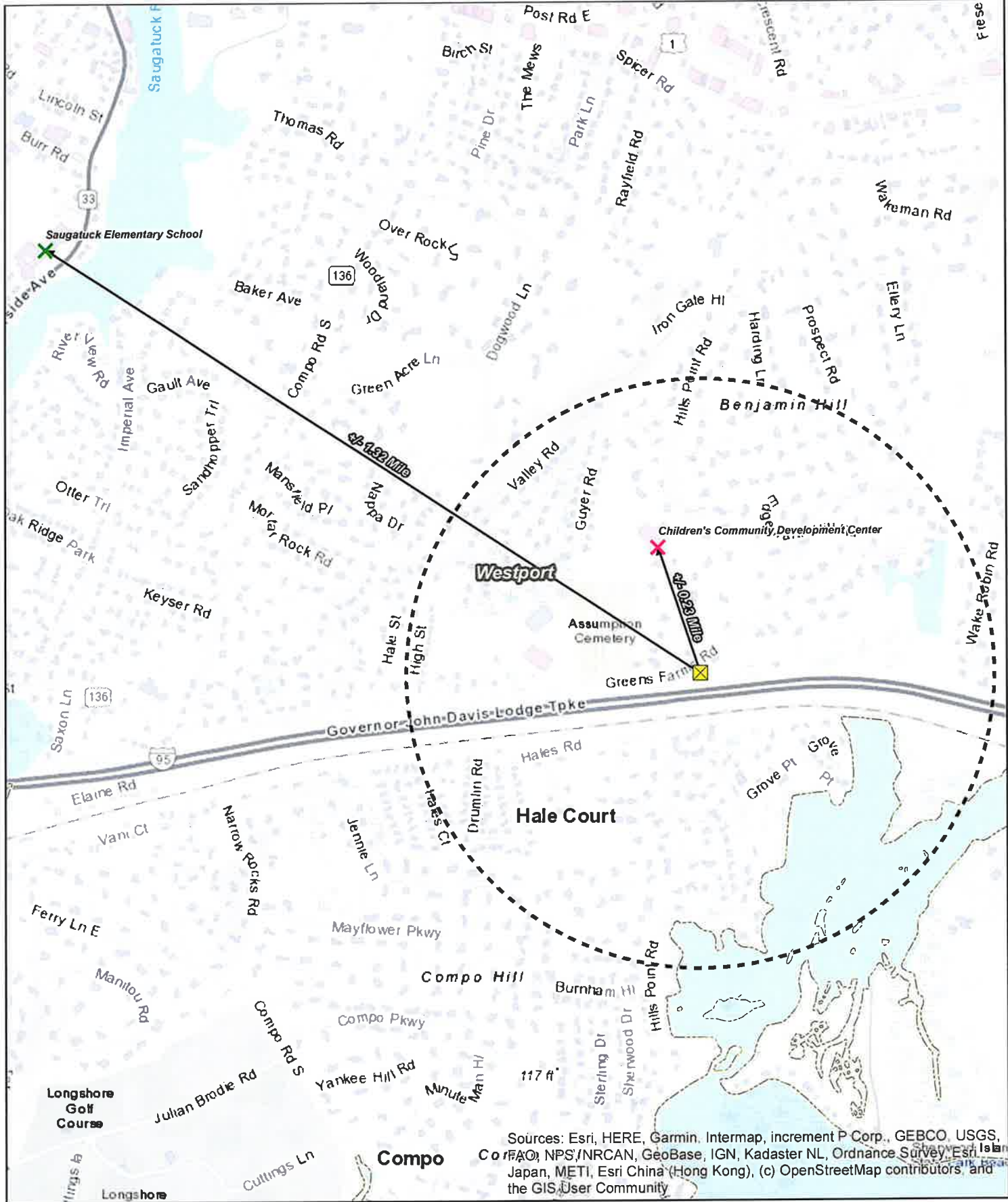
CTDOT Static Roads (based on Department of Transportation data)

**Notes**





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







**Legend**

-  Site
-  0.5-Mile Radius
- Schools/Childcare Locations**
-  Childcare
-  School

**Nearest Schools/Childcare Locations**

Proposed Wireless  
Telecommunications Facility  
Westport  
92 Greens Farms Road  
Westport, Connecticut







**PRELIMINARY HISTORIC  
RESOURCES DETERMINATION**

**May 17, 2021**

**Tarpon Towers II, LLC  
8916 77<sup>th</sup> Terrace East, Suite 103  
Lakewood Ranch, Florida 34202**

**Re: Proposed Telecommunications Facility  
92 Greens Farms Road  
Westport, Connecticut**

On behalf of Tarpon Towers II, LLC ("Tarpon"), All-Points Technology Corporation, P.C. ("APT") performed an evaluation with respect to the proposed Facility's potential effects on historic resources.

APT completed an independent review of the National Register of Historic Places ("NRHP") and SHPO files to determine if any listed sites, or sites eligible for listing, are located proximate to the referenced Site. The results of our review revealed that no such resources are located within a half mile of the Site.<sup>1</sup> Further, no state-registered sites are located proximate to the project Site. Several reported archaeological sites are located within the vicinity of the Project Site; however, they are all remote (none are located within 500 feet) and would not be affected by development of the proposed Facility. A cultural resource screening map is provided as an attachment to this memo.

As part of its obligations for compliance with the National Environmental Policy Act ("NEPA"), Tarpon will be submitting required documentation to the State Historic Preservation Office ("SHPO") for this agency's review and determination. The SHPO submission will be prepared by a qualified architectural historian that meets criteria developed by the Secretary of the Interior. That process has not yet been initiated.

Based on our research, it is APT's opinion that the proposed Facility would have no effect on historic properties or cultural sites listed or eligible for listing on the NRHP.

Sincerely,

Brian Gaudet  
Project Manager

Attachment

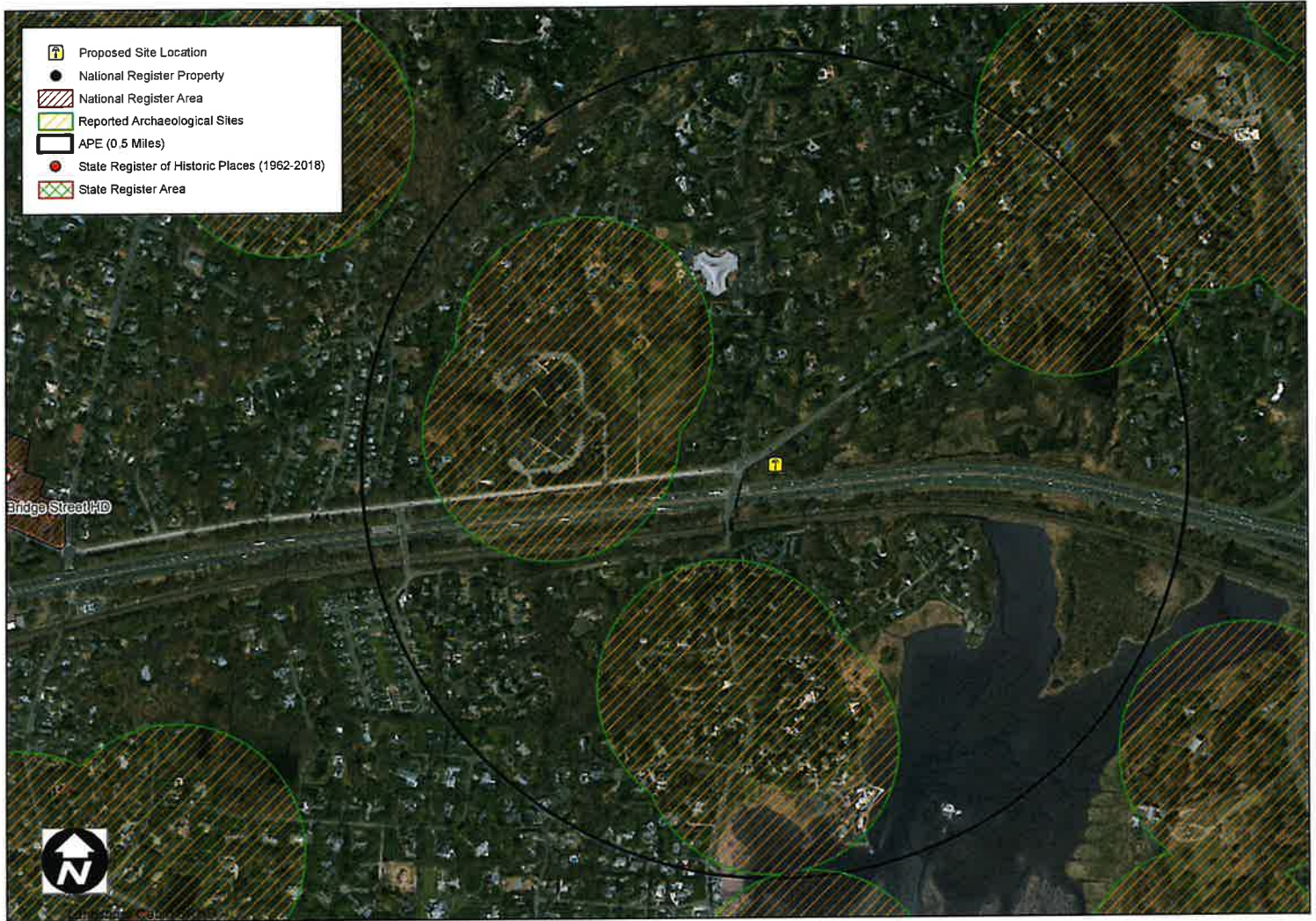
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<sup>1</sup> For towers under 200 feet tall, the Area of Potential Effect ("APE") has been established at 0.5 mile. This distance represents the APE established cooperatively by the Federal Communications Commission, Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers.

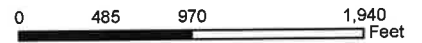
# Cultural Resource Screening Map

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Cultural Resources Screen  
**CT445200 Westport** 92 Green Farms , Westport, CT  
 April 15, 2021 \ USGS QUAD: Westport



Prepared for All-Points Technology Corp. by Heritage Consultants, 2021





April 26, 2021

Ms. Deb Leonardo  
All-Points Technology Corporation  
567 Vauxhall Street Extension – Suite 311  
Waterford, Connecticut 06385

**RE: Preliminary Archaeological Review of a Proposed Cellular Telecommunications Facility Located  
92 Greens Farms Road in Westport, Connecticut**

Ms. Leonardo:

Heritage Consultants, LLC (Heritage), is pleased to have this opportunity to provide All-Points Technology Corporation (All-Points) with the following archaeological review of a proposed telecommunications facility to be built at 92 Greens Farms Road in Westport, Connecticut (Figure 1). The scope of the proposed project consists of the construction of a 10.6 x 19.5 m (35 x 64 ft) fenced wireless communications compound with a 33.5 m (110 foot) tall steel monopole designed to accommodate a minimum of four carrier antenna array locations. Power and utilities to the facility will be routed underground from existing demarcation points on Greens Farms Road to the proposed wireless communications site. The current project entailed completion of a cultural resources summary based on the examination of data obtained from the Connecticut State Historic Preservation Office (CT-SHPO), as well as GIS data, including historical mapping, aerial photographs, and topographic quadrangles maintained by Heritage. This investigation is based upon project location information provided by All-Points. The objectives of this study were to gather and present data regarding previously identified cultural resources situated within 0.8 km (0.5 mi) of the proposed project area and to investigate the proposed project parcel in terms of its natural and historical characteristics so that the need for completing additional cultural resources investigations could be evaluated.

The parcel of land where the facility will be built is situated between Greens Farms Road to the north and Interstate 95 (Connecticut Turnpike) to the south. A private residence is located to the northeast and Hillspoint Road is to the west (Figure 1). A review of historical maps depicting the proposed project area shows that in the nineteenth century, the New York, New Haven and Hartford railroad was built just to the south of the facility area and ran from east to west (Figures 2 and 3). Both the 1856 and 1868 maps of the region containing the proposed facility location depict the project parcel as a vacant area surrounded by residences. This area was well-developed by the end of the nineteenth century, including a robust transportation network.

A review of the earliest available aerial image for this area, which dates from 1934, also shows the New York, New Haven, and Hartford Railroad to the south of the project area (Figure 4). The modern Greens Farms Road to the north and Hillspoint Road to the west are visible as well. In addition, a smaller road, a former stretch of Old Greens Farms Road, is depicted to the south of the current Greens Farms Road and once extended through the facility location. A small unnamed brook also extends from east to west to the south of the facility location and to the north of the above-referenced railroad. The subsequent aerial image, which was captured in 1951, shows a similar situation, though residences are visible to the

north and south of the facility area at this time (Figure 5). The next aerial image in the series, which dates from 2019, shows the area in its current modern state. Interstate 95 is clearly visible and parallels the railroad corridor to the north (Figure 6), and the portion of Old Greens Farms Road that was visible in earlier aerial images has been abandoned. The current Greens Farms Road was relocated to the north of the facility area. The 2019 aerial also show additional housing constructed to the north and south of the facility area.

Background research for the current project also included a review of previously identified archaeological sites and National Register of Historic Places properties/districts within 0.8 km (0.5 mi) of the proposed facility (Figures 7 and 8). This review revealed that while there are no known National Register of Historic Places districts or Connecticut State Register of Historic Places properties situated in the area, there are a total of five previously identified archaeological sites within 0.8 km (0.5 mi) of the project location. These include Sites 158-6, 158-16, 158-23, 158-55, and 158-60 (Table 1). They are discussed below.

Table 1. Archaeological Sites within 0.5 Mile from 92 Greens Farms Road in Westport, Connecticut

Site Number	Site Name	Time Period	National Register Eligibility	Notes
158-6	Donahue Site	Historical	Not Assessed	Destroyed by construction
158-16	Cutler Site	Prehistoric	Not Assessed	-
158-23	St. Mary's Cemetery	Prehistoric	Not Assessed	-
158-55	-	Prehistoric	Not Assessed	-
158-60	-	Prehistoric	Not Assessed	-

Site 158-6, which is also known as the Donahue Site, is located on private land at 152 Hillspoint Road in Westport, Connecticut. The site was reported in December of 1982 and again in September of 1983 by Ms. Peggy Daily and Ms. Lucinda McWeeney of Norwalk Community College in Norwalk, Connecticut. Mr. Lawrence Donahue, who was a previous owner of the land, surface collected the site in the late 1800s. A subsurface archaeological survey was conducted in August of 1983 by Ms. McWeeney. A total of six shovel test pits yielded "historic glass frags (sic), ceramic sherds, shell, ash, coal and metal fragments from 0 to 8 inches below the surface on the level near the house, and to a depth of 18 inches below the surface on the lower property (past the hayfield)." The parcel of land on which the Donahue Site was located had been farmed since the nineteenth century and was subdivided and "bulldozed" in 1983. The Donahue Site was destroyed by construction and no longer retains research potential. It has not been assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and will not be impacted by the proposed project.

Site 158-16, which is also known as the Cutler Site, and Site 158-23, which is also known as St. Mary's Cemetery Site, are located in Westport, Connecticut. Both sites were listed as dating from the prehistoric period and were given site names and numbers by the CT-SHPO; however, no locational information concerning these two sites is known and no information is recorded on their Historic Resources Inventory forms. They cannot be attributed to any specific time period, type, or function. Sites 158-16 and 158-23 have not been assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]).

Deb Leonardo  
April 26, 2021  
Page 3

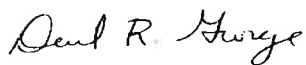
Sites 158-55 and 158-60 are also both located in Westport, however, they were not given site names. As with sites 158-16 and 158-23, no descriptive information was recorded on their respective Historic Resources Inventory Forms. They cannot be attributed to any specific time period, type or function and they have not been assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]).

In addition, soils located within the facility area were examined as part of this review. They belong to the Udorthents Urban Land Complex (Figure 9). This complex consists of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement. The complex is about 70 percent Udorthents, 20 percent Urban land, and 10 percent other soils. Udorthents are in areas that have been cut to a depth of 2 feet or more or are on areas with more than 2 feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material. Most cut areas were used as a source of fill material, but in some areas, such as the location of the proposed telecommunications facility expansion, were cut in order to level sites for buildings, recreational facilities, and roads. Most of the filled areas were built up and leveled for urban development, in this case, the former construction of Old Greens Farms Road and its later demolition, as well as by construction of I-95.

Pedestrian survey of the project area was completed on April 16, 2021. It included a thorough walk-down of the facility location and the surrounding area (Photos 1 through 5). During the walkover, it was observed that a wetland area was located in the southern portion of the proposed facility area and the parcel had been subjected to massive disturbance in the past likely due to the construction and removal of Old Greens Farms Road, as well as the installation of I-95. As noted above, the soils in the facility area are Udorthents soils and do not retain archaeological sensitivity. It is the professional opinion of Heritage that no additional archaeological examination of this area is recommended prior to construction.

If you have any questions regarding this Technical Memorandum, or if we may be of additional assistance with this or any other projects you may have, please do not hesitate to call me at 860-299-6328 or email me at [dgeorge@heritage-consultants.com](mailto:dgeorge@heritage-consultants.com). We are at your service.

Sincerely,



David R. George, M.A., R.P.A.

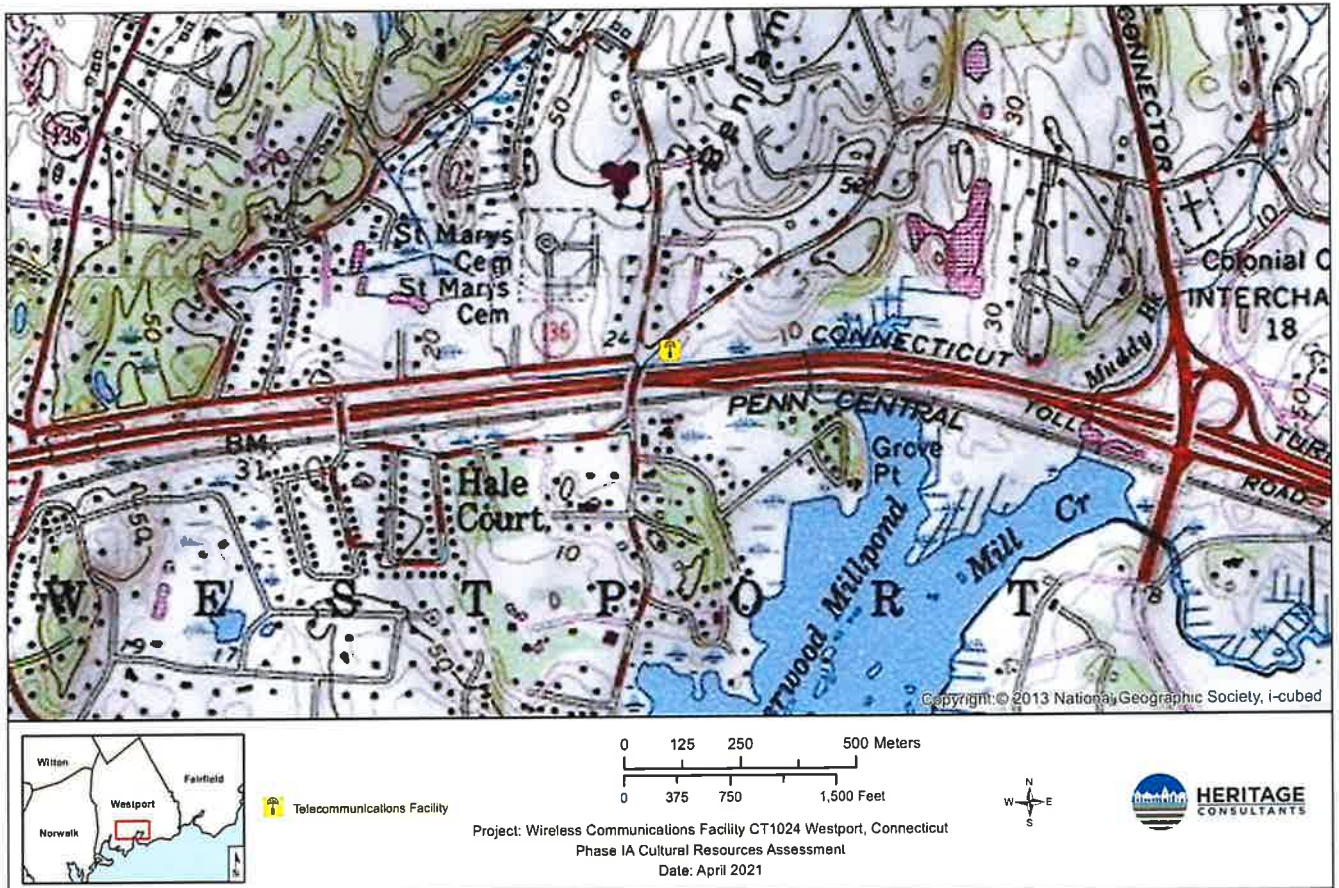


Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the proposed Facility in Westport, Connecticut.

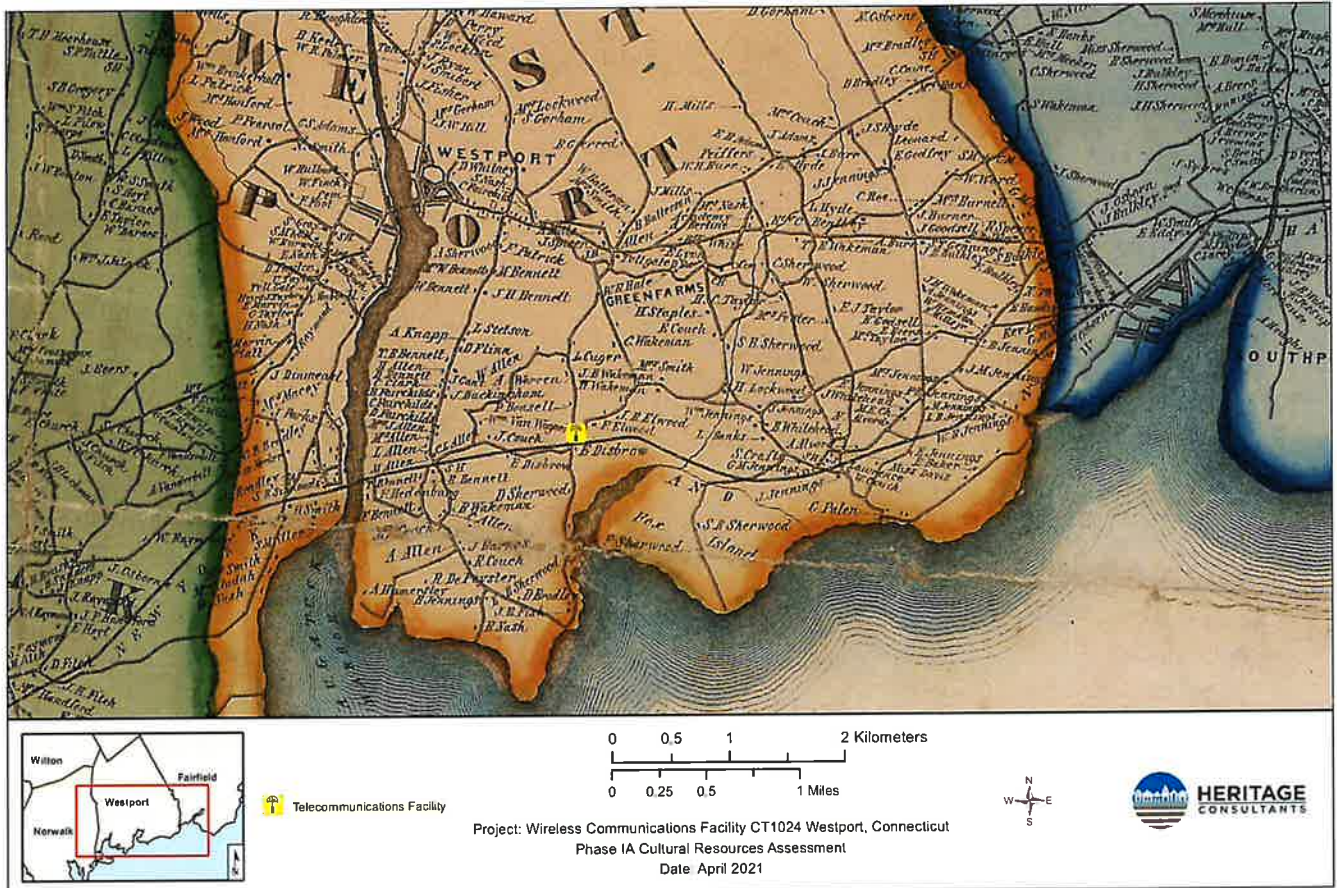


Figure 2. Excerpt from an 1856 historical map showing the proposed Facility in Westport, Connecticut.

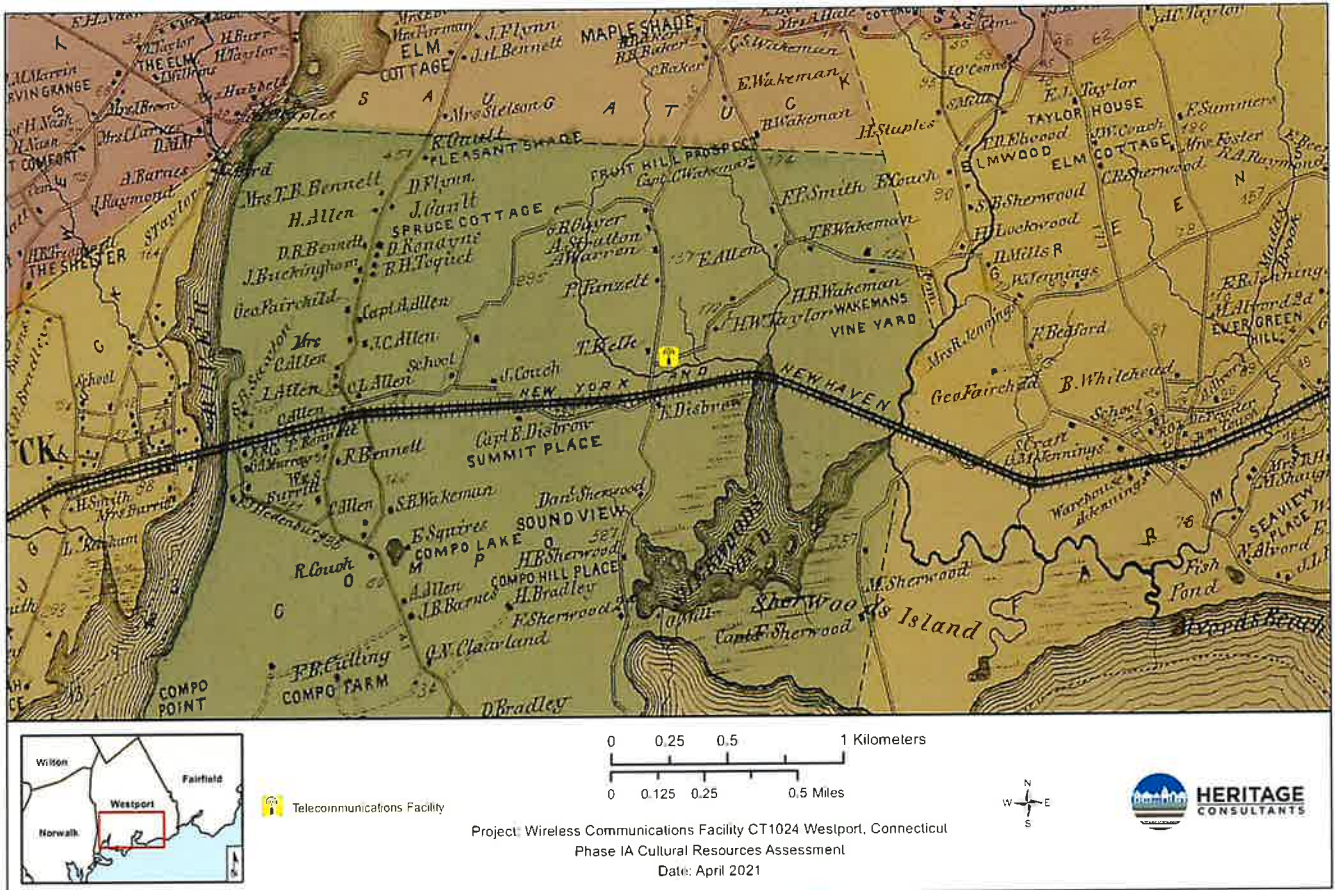


Figure 3. Excerpt from an 1868 historical map showing the proposed Facility in Westport, Connecticut.



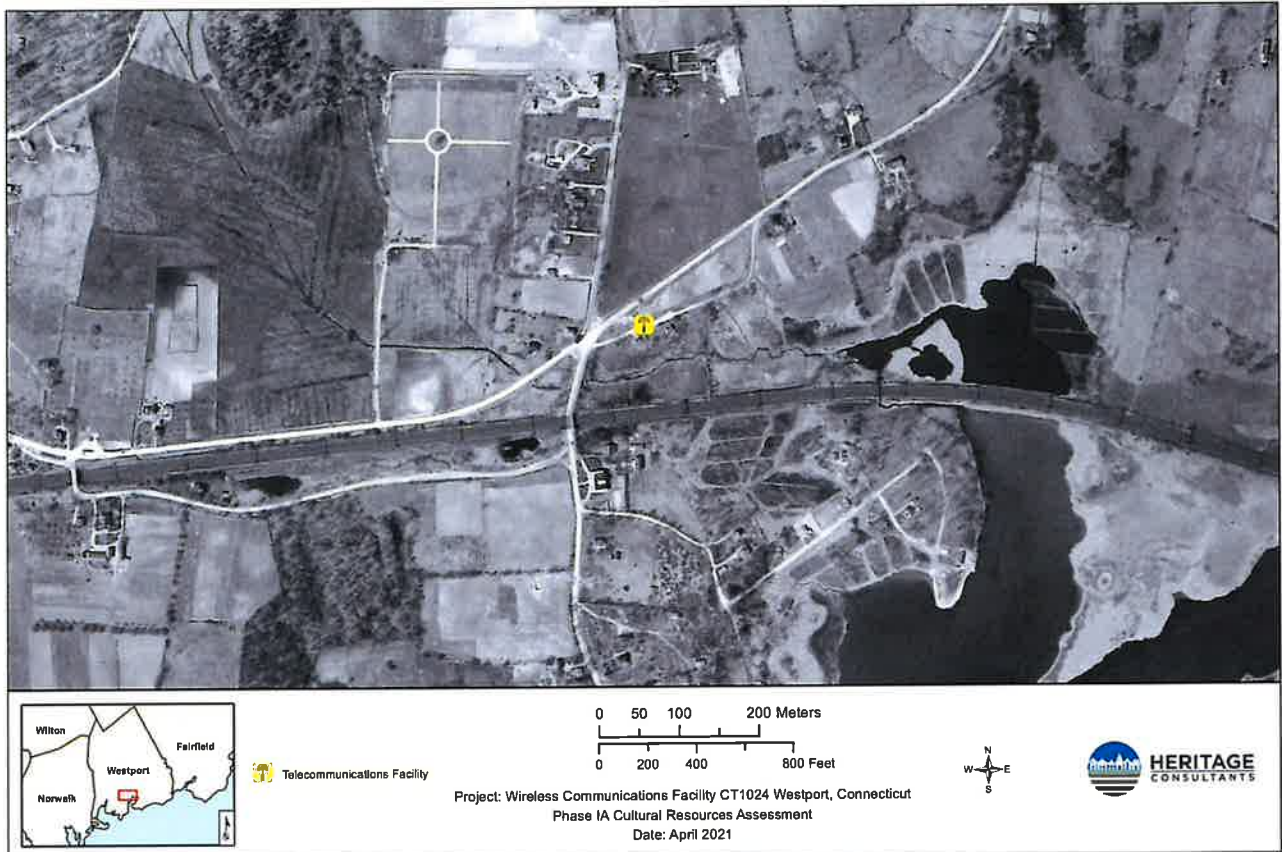


Figure 4. Excerpt from a 1934 aerial image showing the proposed Facility in Westport, Connecticut.



Figure 5. Excerpt from a 1951 aerial image showing the proposed Facility in Westport, Connecticut.



Figure 6. Excerpt from a 2019 aerial image showing the proposed Facility in Westport, Connecticut.

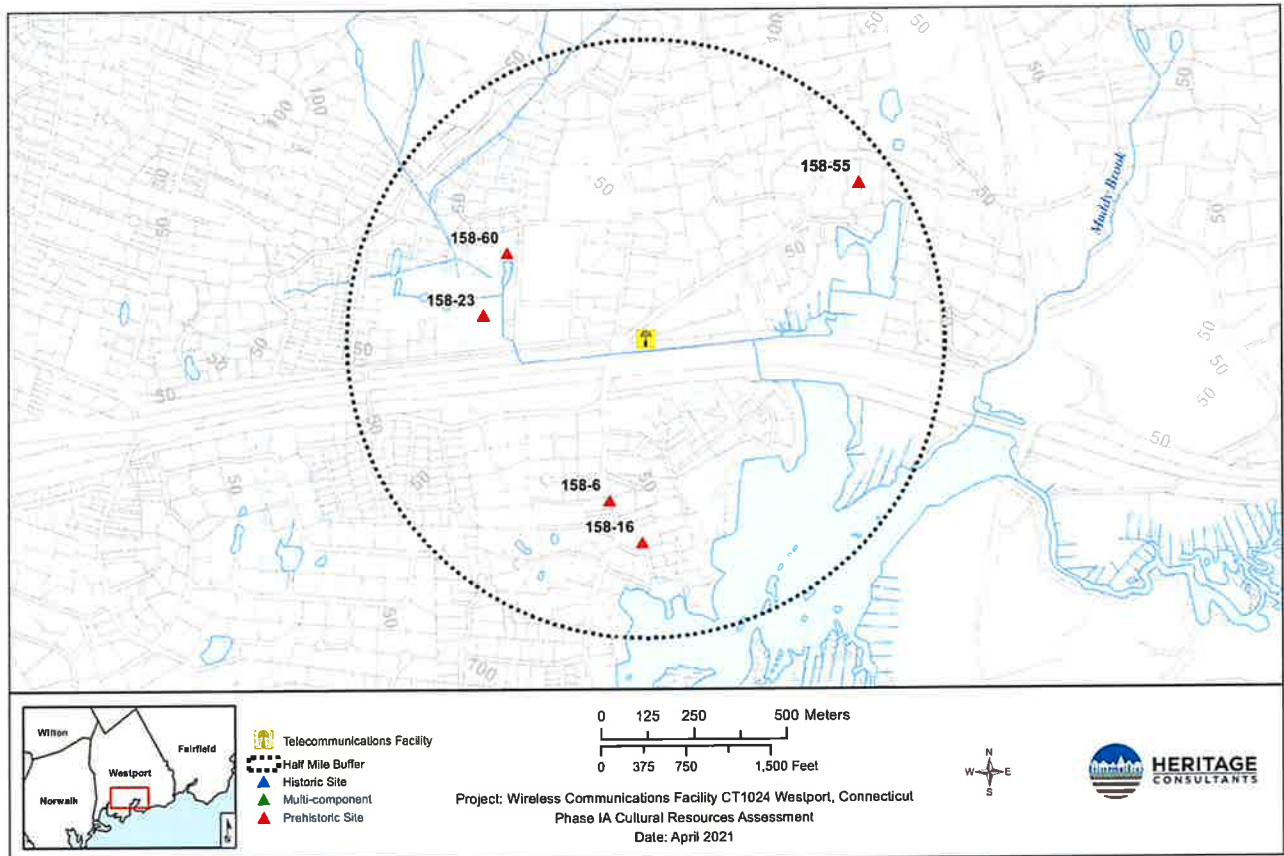


Figure 7. Digital map showing the location of previously identified archaeological sites within the vicinity of the Facility in Westport, Connecticut.

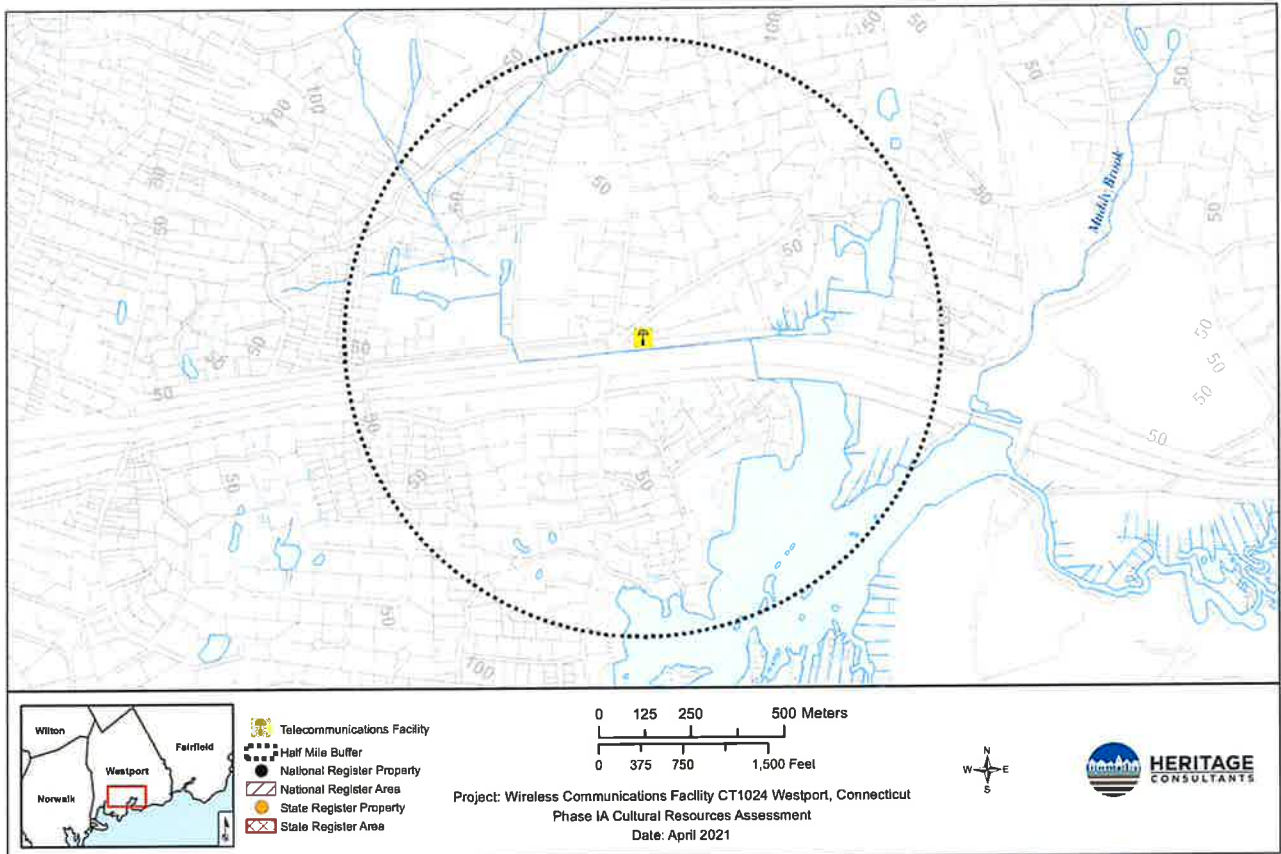


Figure 8. Digital map showing the location of previously identified National/State Register of Historic Places properties/districts within the vicinity of the Facility in Westport, Connecticut.

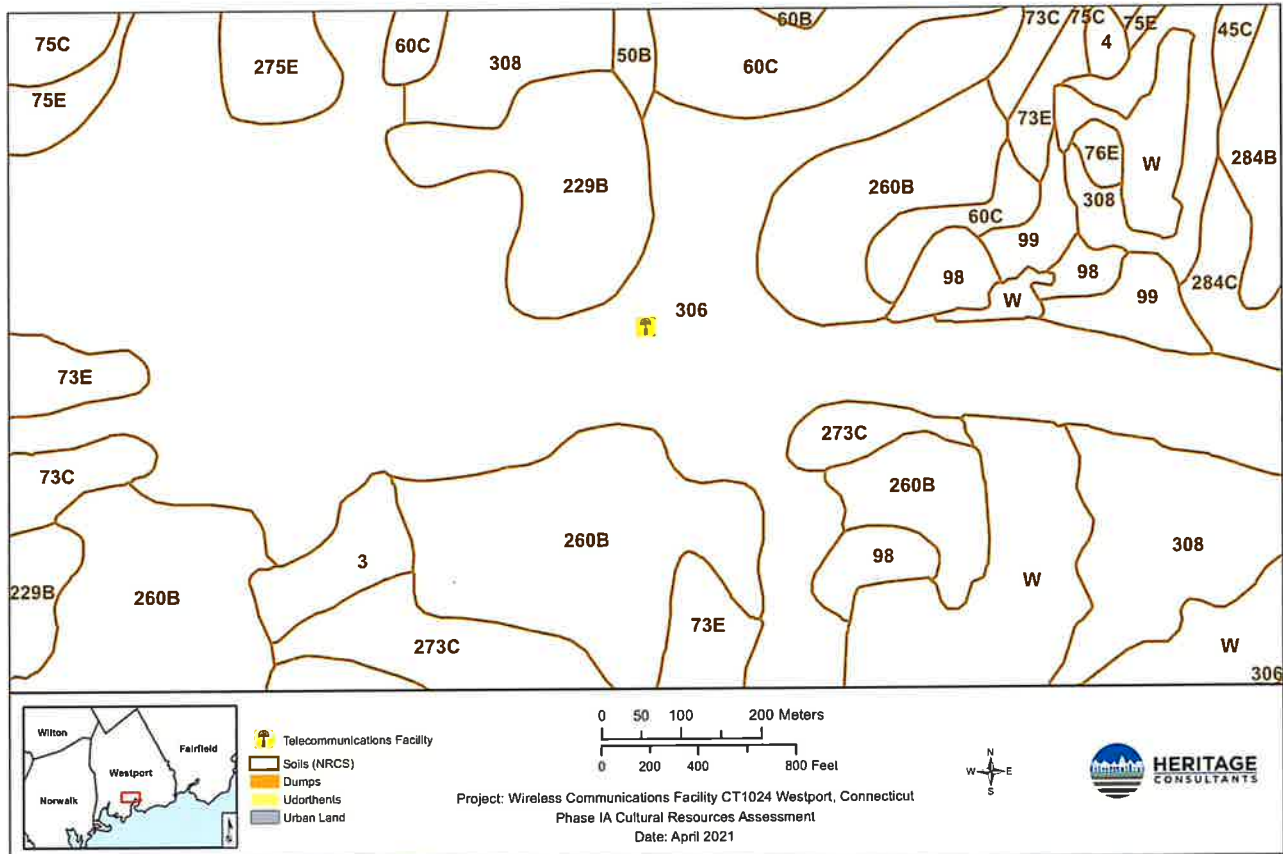


Figure 9. Digital map depicting the soil types present in the vicinity of the proposed Facility in Westport, Connecticut.



Photo 1. Overview photo of proposed access road for the proposed Facility in Westport, Connecticut. Photo taken facing south.



Photo 2. Overview photo of project area for the proposed Facility in Westport, Connecticut. Photo taken facing west.



**Photo 3.** Overview photo of project area for the proposed Facility in Westport, Connecticut. Photo taken facing north.



**Photo 4.** Overview photo of project area for the proposed Facility in Westport, Connecticut. Photo taken facing east.





Photo 5. Overview photo of project area for the proposed Facility in Westport, Connecticut. Photo taken facing south.