

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
: :
A PETITION OF CROWN CASTLE AND : PETITION NO. ____
CELLCO PARTNERSHIP D/B/A VERIZON :
WIRELESS FOR A DECLARATORY RULING :
ON THE NEED TO OBTAIN A SITING :
COUNCIL CERTIFICATE FOR THE :
MODIFICATION OF AN EXISTING :
TELECOMMUNICATIONS FACILITY AT 41 :
PADANARAM ROAD, DANBURY, :
CONNECTICUT : FEBRUARY 2, 2023

PETITION FOR A DECLARATORY RULING:
INSTALLATION HAVING NO
SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

I. Introduction

Pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies (“R.C.S.A.”), Crown Castle (“Crown”) in cooperation with AT&T Wireless (“AT&T”), T-Mobile and Cellco Partnership d/b/a Verizon Wireless (“Cellco”) (collectively the “Petitioners”) hereby petition the Connecticut Siting Council (the “Council”) for a declaratory ruling (“Petition”) that no Certificate of Environmental Compatibility and Public Need (“Certificate”) is required under Section 16-50k(a) of the Connecticut General Statutes (“C.G.S.”) to modify the existing wireless telecommunications facility at 41 Padanaram Road (Route 37) in Danbury, Connecticut (the “Property”).¹ The proposed facility modifications involve replacing the existing 80-foot wood laminate tower on the Property with a new 145-foot

¹ With reference to certain exhibits attached to this Petition, please note that this site location is identified by Crown as Site ID# 823531- Danbury Padanaram Road; by Cellco as its Danbury NW2 cell site; and by AT&T as CT1443.

steel monopole tower; moving the tower approximately 84 feet to the northwest; installing new AT&T and Cellco antennas on the replacement tower; relocating T-Mobile antennas from the existing tower onto the replacement tower; and establish a new 30-foot by 75-foot fenced facility compound to accommodate AT&T, T-Mobile and Cellco's ground-based wireless equipment. AT&T and Cellco will each also install their own diesel-fueled backup generators within the facility compound adjacent to their respectful equipment areas.

If approved, the modified facility would allow AT&T and Cellco to provide customers and emergency service providers with new wireless service in north-central Danbury. The modified facility will also provide T-Mobile customers with improved wireless service by increasing T-Mobile's antennas centerline height 80 feet above ground level ("AGL") on the existing tower to 118 feet AGL on the replacement tower. (*See Site Schematic included in Attachment 1*).

II. Factual Background

In June of 2005, the Council approved Petition No. 712, a request of Omnipoint Communications ("T-Mobile"), to replace an existing 60-foot tall wooden utility pole, with an 80-foot tall wood laminate tower located in the southeast portion of the Property. T-Mobile installed antennas and related equipment at the top of the 80-foot tower and ground-mounted equipment associated within a 15-foot by 15-foot fenced compound around the base of the tower. A copy of the Council's Petition No. 712 Staff Report is included in Attachment 2.

The Property is owned by Robert Kaufman (the "Property Owner") and is the home of M&M Precast, a concrete manufacturing facility in Danbury's CN-20 Commercial zone district. The Property is surrounded by other commercial land uses along Padanaram Road (Route 37) to the north, south and west and residential uses to the east. The lease between the Property owner,

Robert Kaufman and Omnipoint Communications was assigned to Crown on October 30, 2014.

III. Need for Improved Wireless Service

Both AT&T and Cellco have identified a need for improved wireless service in northern portions of Danbury. Both AT&T and Cellco are licensed by the Federal Communications Commission to provide service in Danbury and throughout the State of Connecticut.

A. Cellco

Cellco's wireless service in northern portions of Danbury is currently provided by ten (10) existing macro-cell facilities and five (5) small cell facilities in the general vicinity of the Property. Cellco's proposed (Danbury NW2) facility will provide coverage to significant gaps in wireless service along Routes 37 and 39 to the north and west of the Property including local roads in the area and capacity relief to Cellco's existing Danbury (Alpha and Gamma sectors), Germantown (Alpha sector), Bethel North (Alpha and Gamma sectors), and Danbury 2 (Alpha sector) facilities all of which are currently operating in exhaust. Coverage plots depicting Cellco's existing wireless service in the Danbury area and service with the addition of the Danbury NW2 facility in each of Cellco's operating frequencies are included in Attachment 3.

B. AT&T

AT&T's wireless service in northern portions of Danbury is currently provided by eighteen (18) existing cell sites in the general vicinity of the Property. The proposed AT&T facility (CT 1443) will provide service to significant coverage deficiency along Routes 37 (Padanaram Road) and 39, East Hayestown Road and East Pembroke Road. A complete Radio Frequency Analysis Report is included in Attachment 4.

IV. Proposed Padanaram Road Facility Modifications

To accommodate Cellco's and AT&T's need for improved wireless service in northern

Danbury, Crown proposes to remove the existing 80-foot tower and replace it with a new 145-foot steel monopole tower. The replacement tower will be located approximately 84 feet to the northwest of the existing tower site. If the Petition is approved, AT&T will install antennas at a centerline height of 140 feet AGL. Cellco will install antennas at a centerline height of 118 feet AGL. T-Mobile, antennas will be relocated from the existing tower to the new tower and placed at a height of 128 feet AGL.

Crown will establish a new 30-foot by 75-foot fenced facility compound around the base of the new tower. Cellco, AT&T and T-Mobile will install ground-based equipment and back-up generators (AT&T and Cellco only) on concrete pads within the compound area. Project plans for the modified wireless facility showing the proposed site improvements and the location of the AT&T, T-Mobile and Cellco equipment, are included in Attachment 5.

V. Discussion

A. The Proposed Facility Modifications Will Not Have A Substantial Adverse Environmental Effect

The Public Utility Environmental Standards Act (the "Act"), C.G.S. § 16-50g et seq., provides for the orderly and environmentally compatible development of telecommunications towers in the state to avoid "a significant impact on the environment and ecology of the State of Connecticut." C.G.S. § 16-50g. To achieve these goals, the Act established the Council, and requires a Certificate of Environmental Compatibility and Public Need for the construction of cellular telecommunication towers "that may, as determined by the council, have a substantial adverse environmental effect". C.G.S. § 16-50k(a).

1. Physical Environmental Effects

Crown respectfully submits that the proposed facility modifications described in this Petition will not involve a significant alteration in the physical and environmental characteristics

of the Property or the surrounding area and will not, therefore have a substantial adverse environmental effect.

a. Wetland

According to the Natural Resource Conservation Service, Web Soil Survey and Nation Cooperative Soil Survey, there are no wetlands in the area the Crown intends to use for the relocated tower site or anywhere on the Property. The closest wetland area is more than 1000 feet to the west, across Padanaram Road and associated with Padanaram Brook. No impact on wetland resources therefore are anticipated. *See Attachment 6.*

b. Floodplain Impact Analysis

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the proposed facility compound would be located within a Flood Zone X, an area determined to be outside the 100-year and 500-year flood areas. *See FEMA National Flood Hazard Layer FIRMette included in Attachment 7.*

c. Site Clearing, Grading and Access

Vehicular and utility access to the new facility compound will extend from Padanaram Road along an existing site access driveway used to access the M&M Precast building and material storage areas. This Petitioners' site access driveway will not require any additional tree clearing, regrading or physical modification. The existing (and proposed) access driveway extends from Padanaram Road to the existing tower site. Tree clearing and minor regrading will be necessary within the 30-foot x 75-foot facility compound to establish a level compound area. (*See Attachment 5 Plan Sheet SP-1*)

2. Visual Effects

As discussed in numerous prior Council filings, visual impact of a tower is often the most

significant and, in many cases, the only discernible environmental effect associated with such facilities. To assess these conditions, Virtual Site Simulations, LLC (“VSS”) prepared a Viewshed Analysis Package (the “Viewshed Report”) for the proposed 145-foot tower at the Property. The Viewshed Report includes an analysis of visual impact of the proposed facility, the methodology for the analysis, leaf-on and leaf-off viewshed maps and a series of photographs/photo-simulations from 33 different locations around the tower site.

The Viewshed Report concludes that the 145-foot replacement tower is estimated to be visible, year-round, from approximately 62.5 acres or 3.11% of the one-mile radius study area. Most of these year-round views (of the upper portion of the replacement tower) occur in open fields and areas without trees around the Danbury High School to the west of the Property and from commercial parcels along Padanaram Road to the west and southwest of the Property. Predicted seasonal visibility would occur from an additional 76.6 acres within one mile of the new tower. No views are anticipated from Candlewood Town Park or Hatters Park. A copy of the Viewshed Report is included in Attachment 8.

3. Compliance with Radio Frequency Emissions Standards

Cumulative radio frequency (“RF”) emissions from the proposed replacement tower will not exceed the Maximum Permissible Exposure (“MPE”) standards adopted by the Federal Communications Commission (“FCC”). Included in Attachment 9 is a Calculated Radio Frequency Emissions Report (the “RF Report”) for the replacement tower at the Property, including AT&T, T-Mobile and Cellco antennas. The RF Report confirms that the replacement facility will operate well within the FCC safety standards.

4. FAA Summary Report

Included in Attachment 10 of this Petition is an Airspace Safety Analysis and Compliance

(ASAC) Site Specific Evaluation verifying that the new 145-foot replacement tower at the Property would not constitute an obstruction or hazard to air navigation and does not require notification to the FAA.

In sum, the effect of the replacement facility on the environment would be minimal and limited, rather than significant. This stands in contrast to typical proposals for new towers that frequently must be located on properties with no other approved towers, or with no development at all. Thus, the proposed replacement would not present a substantial adverse environmental effect and is not a modification for which the General Assembly intended to require a Certificate under C.G.S. § 16-50k(a).

B. Notice to the City of Danbury, Property Owner and Abutting Landowners

On February 2, 2023, a copy of this Petition was sent to Danbury's Mayor Dean Esposito, Planning and Zoning Director Sharon B. Calitro and Robert Kaufman, the Property owner. Included in Attachment 11 are copies of the letters sent to Mayor Esposito, Ms. Calitro and Robert Kaufman.

Notice of Cellco's intent to file the Petition together with a copy of the Petition was also sent to those owners whose land directly abuts the Property. A sample abutter's notice letter, and the list of those abutting landowners who were sent notice and a copy of the Petition is included in Attachment 12.

C. A Conclusion That the Proposed Facility Modifications Will Not Have a Substantial Adverse Environmental Effect Would Be Consistent With Siting Council Precedent

The Council has previously determined, under similar circumstances, that the replacement of an existing tower with a taller structure to be shared by multiple carriers would have no substantial adverse environmental effect, does not require a Certificate and, most

importantly, is preferable to the construction of a new tower in a particular area. See Council's recent decisions in Petition No. 1521 and Petition No. 1461.

VI. Conclusion

Based on the information provided above, Cellco respectfully requests that the Council issue a determination in the form of a declaratory ruling that the replacement of an existing 80-foot tower with a new 145-foot tower on the same parcel, on 84 feet from the existing tower, the installation of AT&T, T-Mobile and Cellco antennas on the replacement tower and the installation of ground-based equipment within a new facility compound will not have a substantial adverse environmental effect and does not require the issuance of a Certificate of Environmental Compatibility and Public Need pursuant to § 16-50k of the General Statutes.

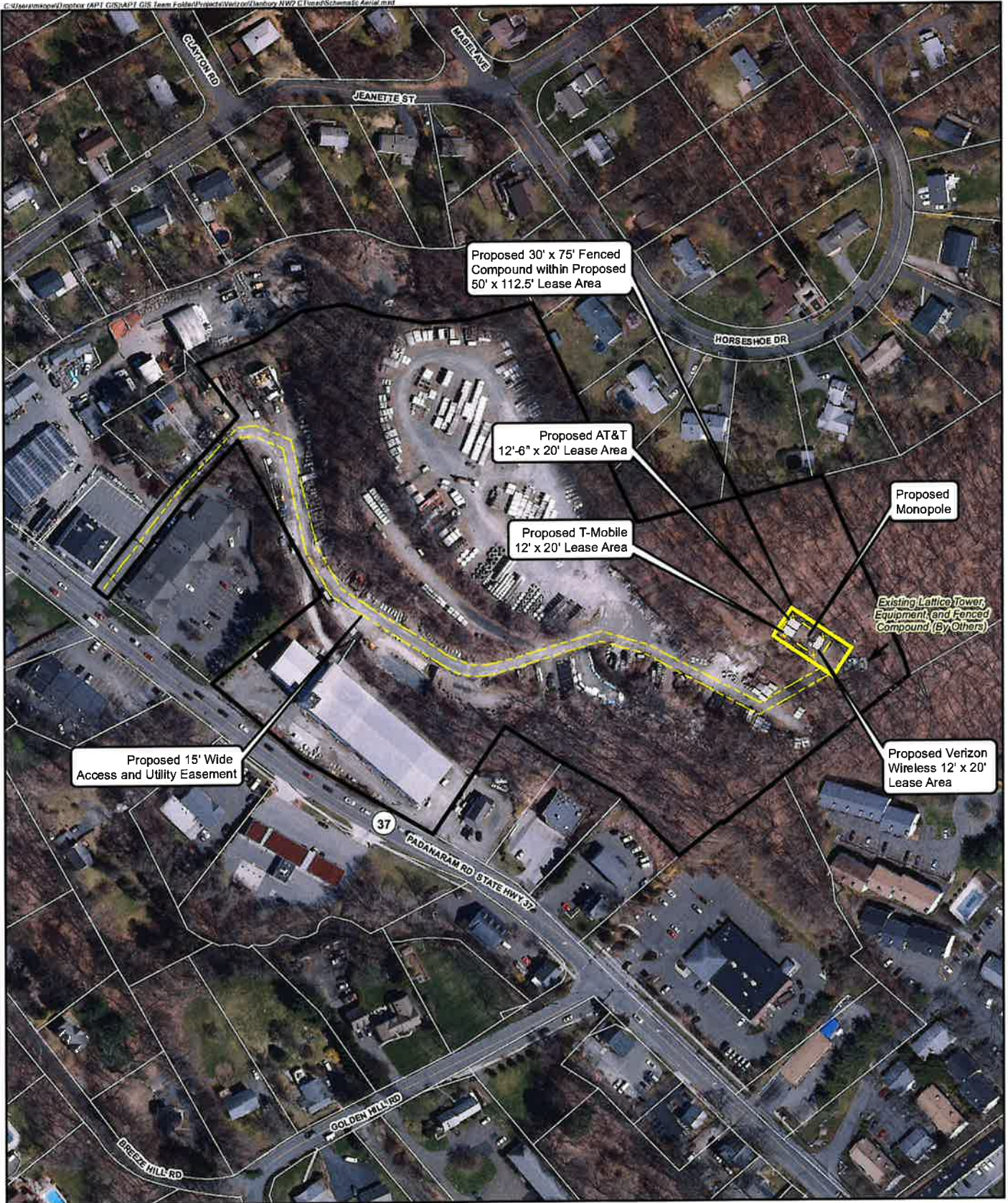
Respectfully submitted,

CROWN CASTLE

By 

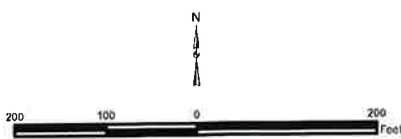
Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200
Attorney for the Petitioners

ATTACHMENT 1



- Legend**
- Proposed Lease Area
 - Proposed Equipment Compound
 - Proposed Access Easement
 - Proposed Equipment Lease Area
 - Proposed Equipment
 - Subject Property
 - Approximate Parcel Boundary

Map Notes:
 Base Map Source: 2019 CT Aerial Imagery (CTECO)
 Map Scale: 1 inch = 200 feet
 Map Date: December 2022



Site Schematic
 Proposed Wireless
 Telecommunications Facility
 Danbury Padanaram Road
 41 Padanaram Road
 Danbury, Connecticut



ATTACHMENT 2

Petition No. 712
Omnipoint (T-Mobile)
Danbury, Connecticut
Staff Report
April 27, 2005

T-Mobile seeks to replace an existing 60-foot tall wooden utility pole, on which whip antennas were formerly attached to dispatch concrete trucks, with an 80-foot tall wood laminate pole to which a platform with twelve antennas would be mounted. The antennas would be mounted with a center line of 80 feet; the tops of the antennas would reach 83 feet. The new pole would be designed to accommodate one additional carrier. At the time of its petition submittal, T-Mobile also notified all abutting property owners of its plans.

On April 26, 2005, Council member Ed Wilensky and staff analyst David Martin visited the site of the petition at 41 Pandanaram Road (Route 37) in Danbury. Stephen Humes, Jackie Slaga, Dan O'Connor, and Jeffrey York were present at the field review representing T-Mobile.

The existing pole is located near the top of a small ridge line that parallels Pandanaram Road. The lower portions of the ridge between the pole site and Pandanaram Road are occupied by a concrete plant (at street level) and several graded off levels that are used for the storage of various concrete products. A graveled access road switches back and forth up the side of the ridge to eventually reach the pole, which is in a small cleared area surrounded by mature deciduous trees that appear to be 65 to 70 feet high.

T-Mobile would install a 15-foot by 15-foot fence compound next to the proposed replacement pole to house its ground equipment which would consist of equipment cabinets on two concrete pads. In its petition, T-Mobile states the compound would be enclosed by a six-foot high chain link fence topped with three strands of barbed wire. During the field review, T-Mobile representatives stated they would be amenable to installing an eight-foot fence without the barbed wire. Utilities would be brought underground to the compound from a utility pole to be placed somewhere lower on the ridge. Underground utilities would be preferable to overhead lines because of the truck traffic and the use of booms to pick up and move the concrete products.

From the pole site, the ridge continues to rise to the north and east. Although there is a residential area just over the crest of the ridge, no houses are visible from the base of the existing pole. Mr. Wilensky and David Martin drove the residential road nearest the ridge line and could not see the existing tower from this location.

To the south of the existing pole, the ridge falls steeply away to a condominium development. The condominium units nearest to the pole site face the side of the ridge and would not be able to see the replacement pole. Units closer to Pandanaram Road may have some views of the higher proposed tower. Mr. Wilensky and David Martin drove through the condominium development but could not see the existing tower.

To the west of the site, Danbury High School is visible on the side of an opposite ridge. There are a few residences also visible on the opposite ridge. However, existing vegetation and distance should make any visual presence of the proposed, higher tower minimal.

View of Existing Pole



View From Pole, Looking Toward Roof Of Nearest Condominiums



Closer View of Condominium Roof from Edge of Ridge



Looking West From Pole Site

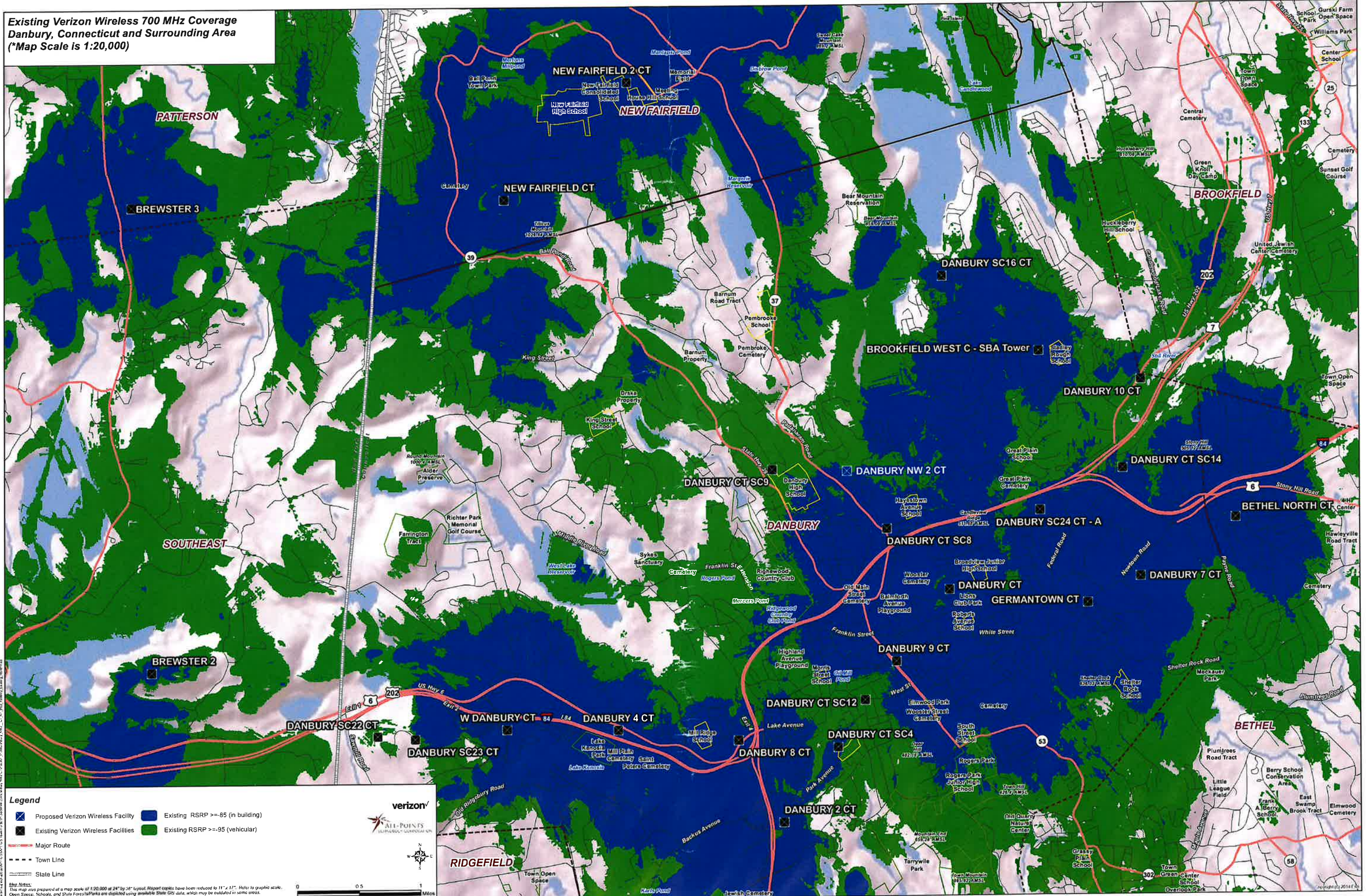


Looking Northeast From Site, Existing Pole In Foreground



ATTACHMENT 3

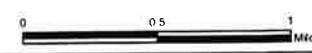
**Existing Verizon Wireless 700 MHz Coverage
Danbury, Connecticut and Surrounding Area
(*Map Scale is 1:20,000)**



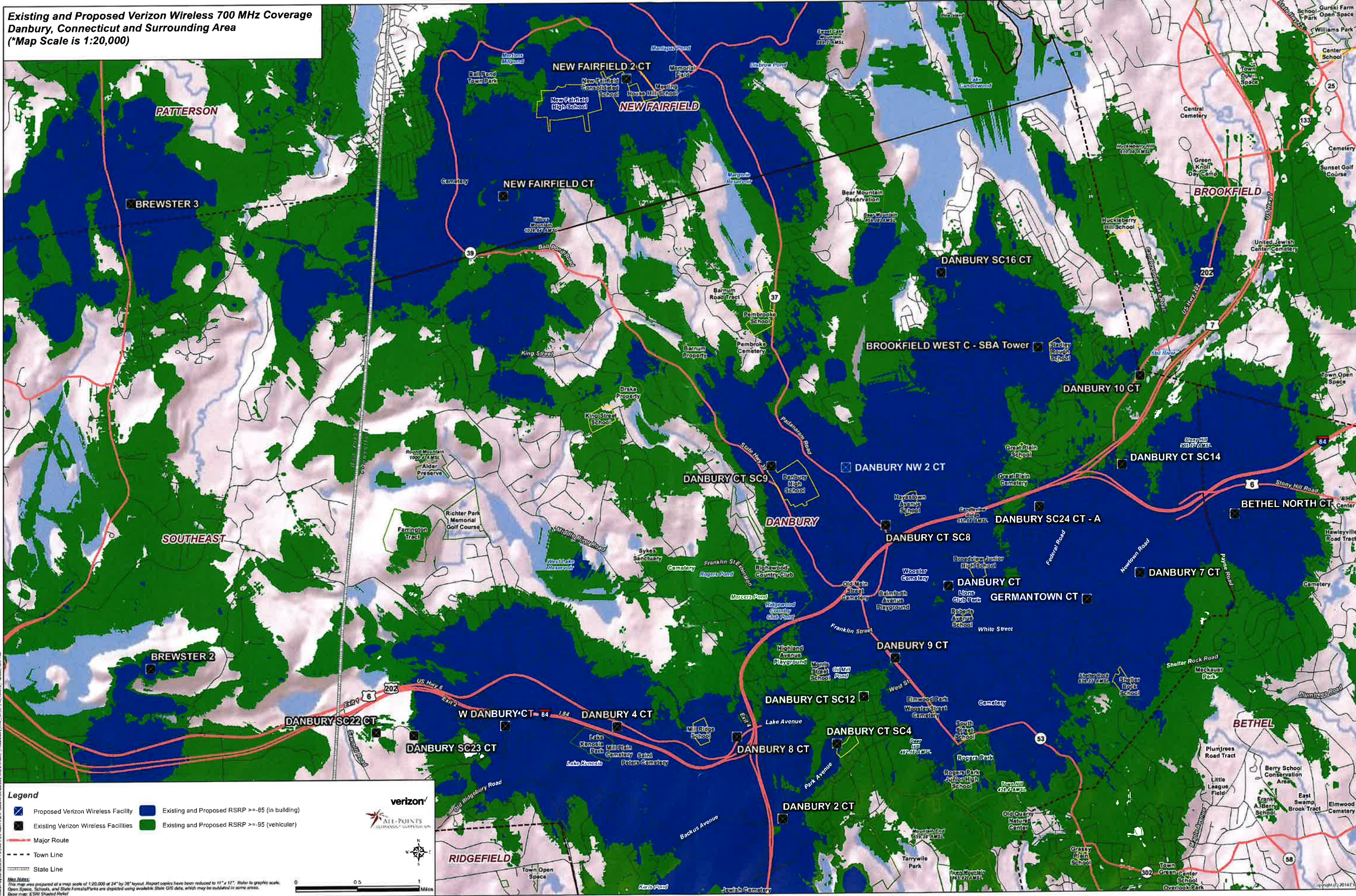
- Legend**
- Proposed Verizon Wireless Facility
 - Existing Verizon Wireless Facilities
 - Existing RSRP >= -85 (in building)
 - Existing RSRP >= -95 (vehicular)



Map Notes:
This map was prepared at a map scale of 1:20,000 at 24" by 36" layout. Report credits have been reduced to 11" x 17". Refer to graphic scale.
Open Space, Schools, and State Parks are depicted using available State GIS data, which may be outdated in some areas.
Base map: ESRI Shaded Relief



**Existing and Proposed Verizon Wireless 700 MHz Coverage
Danbury, Connecticut and Surrounding Area
(*Map Scale is 1:20,000)**



Legend

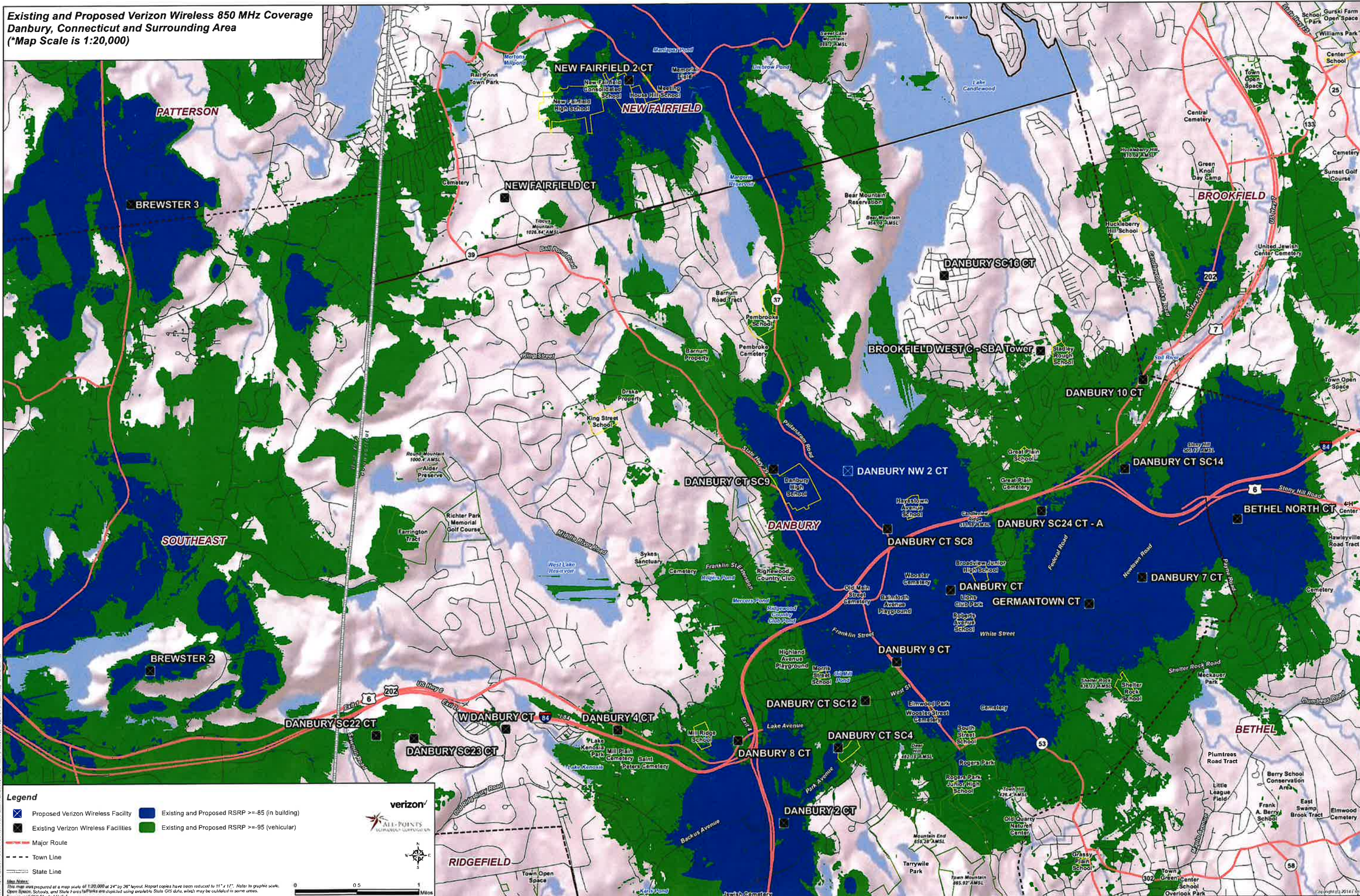
- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facilities
- Major Route
- Town Line
- State Line
- Existing and Proposed RSRP >= -85 (in building)
- Existing and Proposed RSRP >= -95 (vehicular)

verizon
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ULTIMATE'S SERVICE

Map Notes:
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Open Space, Schools, and State Forests/Parks are depicted using available State GIS data, which may be outdated in some areas.
Base map: ESRI Shaded Relief

0 0.5 1 Miles

**Existing and Proposed Verizon Wireless 850 MHz Coverage
Danbury, Connecticut and Surrounding Area
(*Map Scale is 1:20,000)**

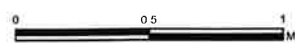


Legend

- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facilities
- Existing and Proposed RSRP >= -85 (in building)
- Existing and Proposed RSRP >= -95 (vehicular)
- Major Route
- Town Line
- State Line

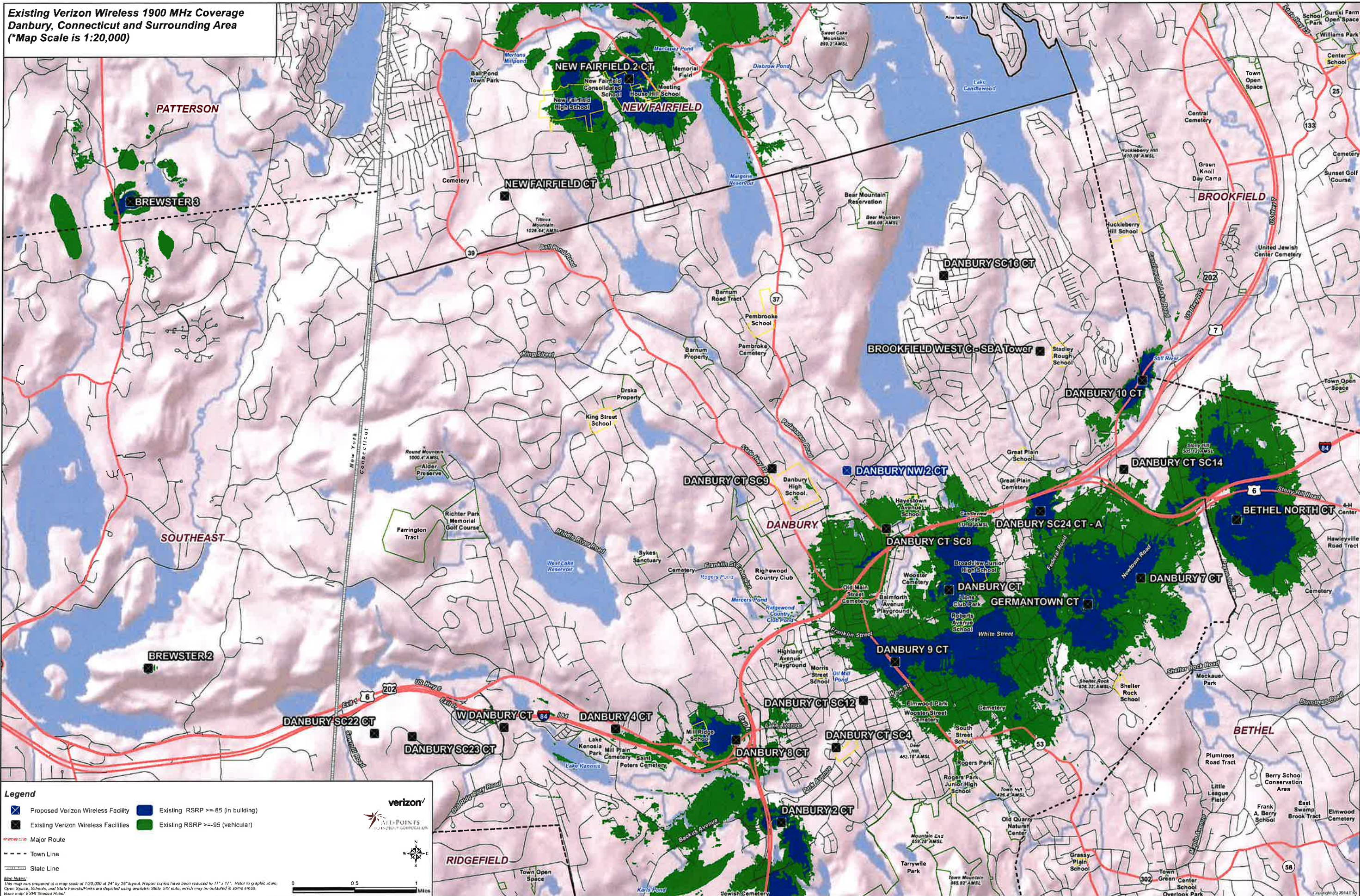
Verizon
ALL-POINTS
UNIVERSAL COVERAGE

Map Notes:
This map was prepared at a map scale of 1:20,000 at 24" by 36" layout. Report copies have been reduced to 11" x 17". Refer to graphic scale.
Open Street, Schools, and State Forests/Parcs are depicted using available State GIS data, which may be outdated in some areas.
Base map: ESRI Shaded Relief



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**Existing Verizon Wireless 1900 MHz Coverage
Danbury, Connecticut and Surrounding Area
(*Map Scale is 1:20,000)**



Legend

- Proposed Verizon Wireless Facility
- Existing RSRP >= 85 (in building)
- Existing Verizon Wireless Facilities
- Existing RSRP >= 95 (vehicular)
- Major Route
- - - Town Line
- State Line

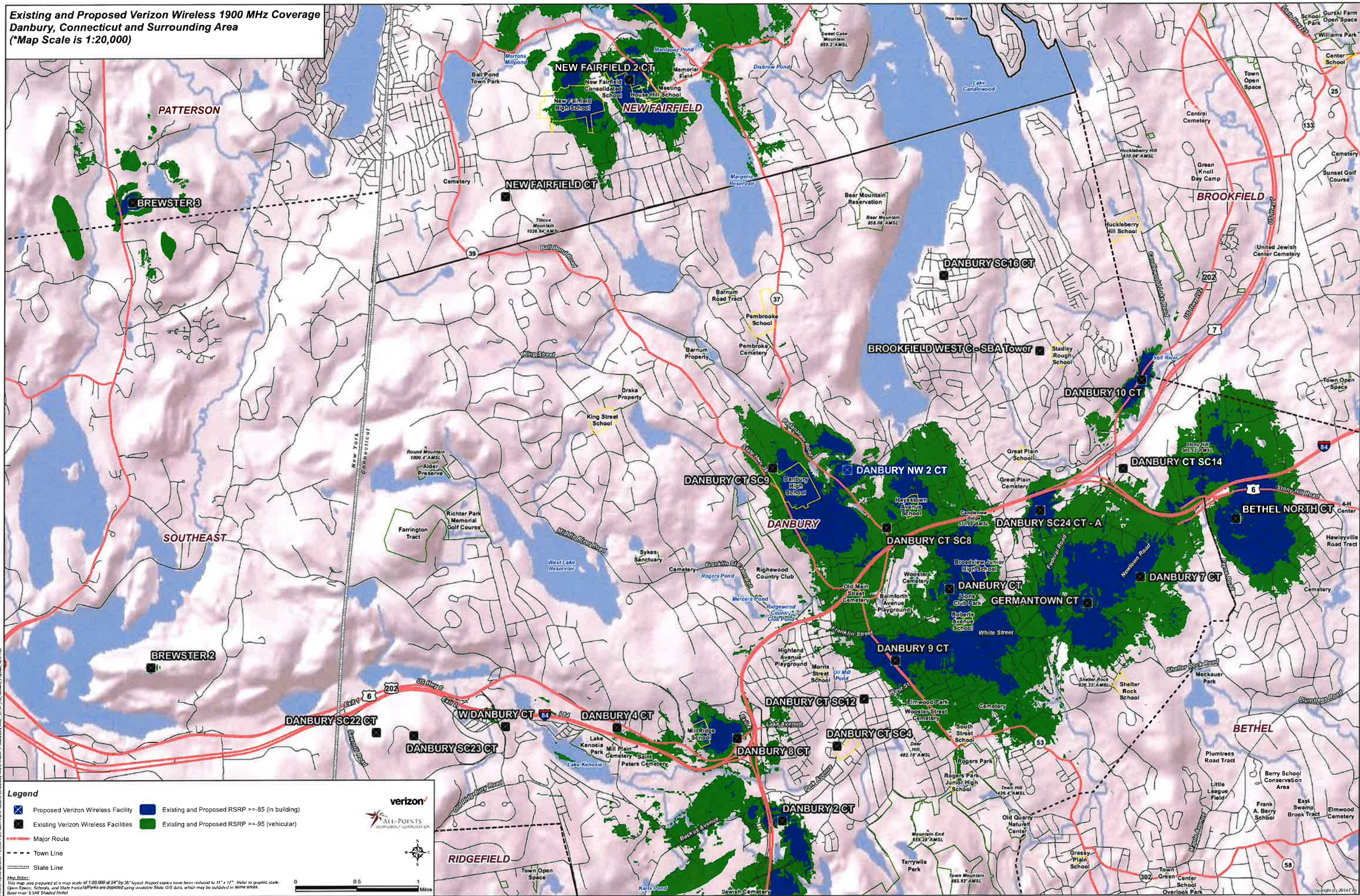
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Scale: 0 0.5 1 Miles

Verizon
ALL-POINTS
LTD. CO. OF CONNECTICUT

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**Existing and Proposed Verizon Wireless 1900 MHz Coverage
Danbury, Connecticut and Surrounding Area
(*Map Scale is 1:20,000)**



Legend

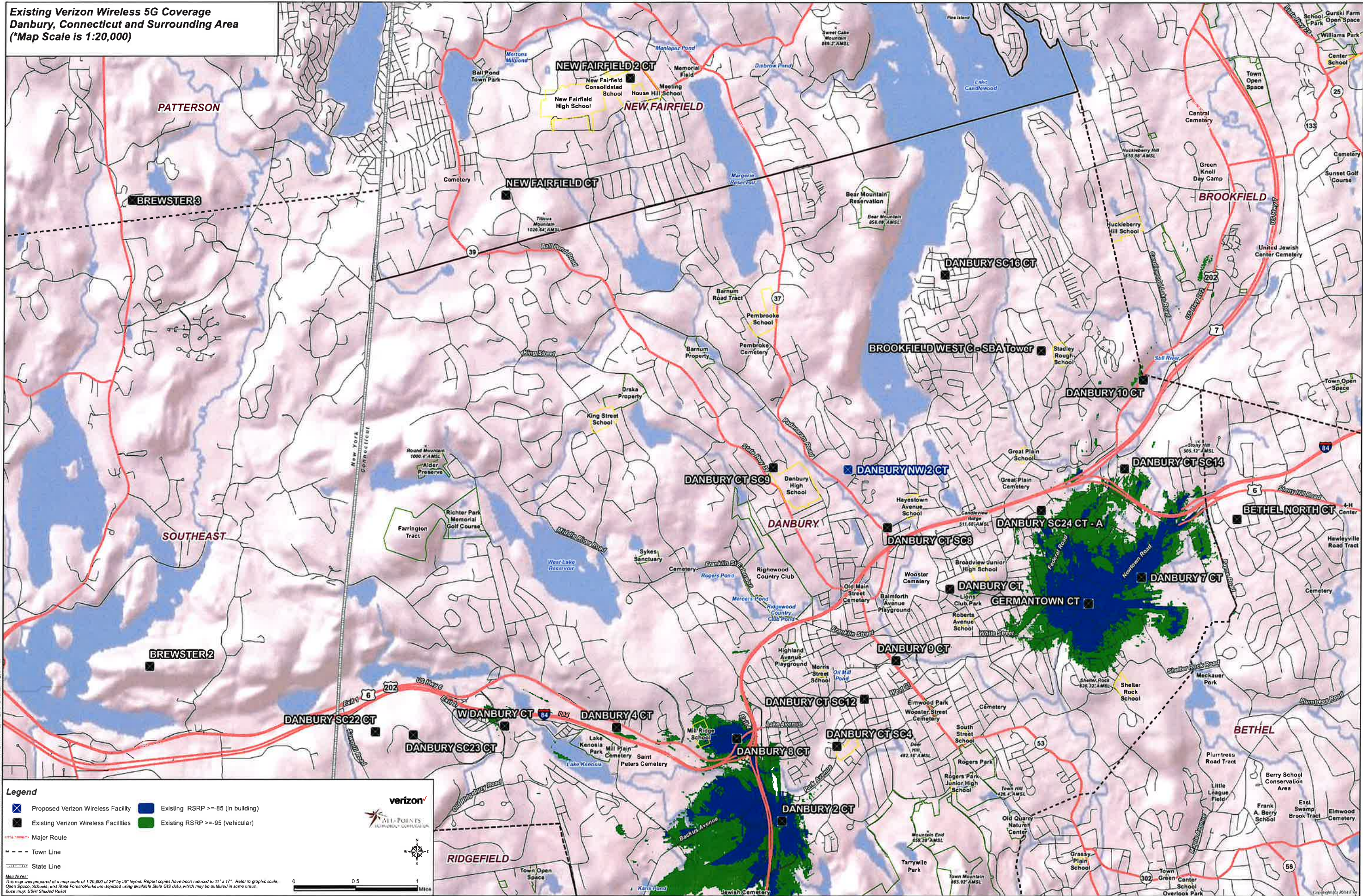
- Proposed Verizon Wireless Facility
- Existing and Proposed RSRP >= -85 (in building)
- Existing Verizon Wireless Facilities
- Existing and Proposed RSRP >= -95 (vehicular)
- Major Route
- - - Town Line
- State Line

Map Notes:
This map was prepared at a map scale of 1:20,000 at 24" by 36" layout. Report coordinates have been reduced to 11" x 17". Refer to graphic scale. Open Space, Schools, and State Forests/Parks are depicted using available State GIS data, which may be outdated in some areas. Base map: ESRI Shadow Relief.

Scale: 0 0.5 1 Miles

Logos: verizon, ALL-POINTS COMMUNICATIONS

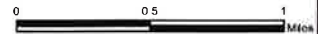
**Existing Verizon Wireless 5G Coverage
Danbury, Connecticut and Surrounding Area
(*Map Scale is 1:20,000)**



- Legend**
- Proposed Verizon Wireless Facility
 - Existing RSRP >= -85 (in building)
 - Existing Verizon Wireless Facilities
 - Existing RSRP >= -95 (vehicular)
 - Major Route
 - Town Line
 - State Line



Map Notes:
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ATTACHMENT 4

Radio Frequency Analysis Report

CT1443

41 Padanaram Road, Danbury, CT 06811



at&t

January 19, 2023



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

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

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1. Overview

C Squared Systems was retained by New Cingular Wireless PCS, LLC (“AT&T”) to evaluate the proposed installation and operation of wireless facility at 41 Padanaram Road in Danbury to allow AT&T to install its antennas at 140 feet AGL.

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

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

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

2. Technology Advances & Design Evolution

AT&T provides digital voice and data services using advanced 4th Generation (4G) services over LTE technology in the 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz frequency bands as allocated by the FCC. 5th Generation (5G) services are also being selectively rolled out on available frequencies in the 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz bands. These data networks are used by mobile devices for fast web browsing, media streaming, and other applications that require broadband connections. The mobile devices that benefit from these advanced data networks are not limited to basic handheld phones, but also include devices such as smartphones, PDA’s, tablets, and laptop air-cards. 4G LTE services and devices have enabled AT&T customers to have even faster connections to people, information, and entertainment.

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

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

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

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

3. AT&T Coverage and Capacity Objective

There is a significant coverage deficiency in the existing AT&T wireless communications network along Padanaram Road, State Highway 39, East Hayestown Road and East Pembroke Road as well as other roads in the area and in the vicinity of the proposed location, referred to herein as the "targeted area". A deficiency in coverage is evidenced by the inability to adequately and reliably transmit/receive quality calls and/or utilize data services offered by the network. Seamless reliable coverage provides users with the ability to successfully originate, receive, and maintain quality calls and data applications throughout a service area. Appropriate overlapping coverage is required for users to be able to move throughout the service area and reliably "hand-off" between cells to maintain uninterrupted connections.

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

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

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

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

- Attachment 1: "*CT1443 Area Terrain Map*" details the terrain features around the area of deficient service being targeted by the proposed site in Danbury. These terrain features play a key role in determining site designs and dictating the unique coverage achieved from a given location. This map is included to provide a visual representation of the ridges and valleys that must be considered when siting a wireless facility. The green and blue shades correspond to lower elevations, whereas the orange, red and white shades indicate higher elevations.
- Attachment 2: "*CT1443 Neighbor Site Data*" provides site specific information of existing neighboring sites used to perform the coverage analysis provided in Attachments 3 and 4.
- Attachment 3: "*CT1443 Existing 700 MHz LTE Coverage*" for the Current AT&T Network depicts 700 MHz LTE coverage from existing sites and demonstrates that there are currently gaps in 700 MHz LTE coverage effecting service within the targeted area. The coverage shown is where the signal strengths are: > -83 dBm (minimum level required reliable, high quality service and performance at 700 MHz) and, > -93 dBm (minimum required for adequate level of service at 700 MHz). In an effort to provide the required levels of coverage to these areas, AT&T is proposing to install a wireless facility at the Padanaram Road location.
- Attachment 4: "*CT1443 Existing 700 MHz LTE Coverage with Proposed Site*" shows how this proposed site would fill in the existing coverage gaps and improve AT&T's 700 MHz LTE network.
- Attachment 5: Connecticut DOT Average Annual Daily Traffic Data – Danbury shows the available vehicular traffic volume data for the subject area from the Connecticut Department of Transportation. These data show as many as 20,800 vehicles per day passing through Padanaram Road in the vicinity of the proposed facility.

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

	Incremental Coverage from Proposed Site (700 MHz)	
Population:²	(≥ -83 dBm)	4409
	(≥ -93 dBm)	2504
<hr/>		
Business Pops:³	(≥ -83 dBm)	119
	(≥ -93 dBm)	86
<hr/>		
Area (mi²):	(≥ -83 dBm)	1.68
	(≥ -93 dBm)	1.73
<hr/>		
Roadway (mi):	Main (-93 dBm):	0.97
	Secondary (-93 dBm):	8.48
	Total (-93 dBm):	9.45

Table 1: Coverage Statistics

² Population figures are based upon 2020 US Census Block Data

³ Employee population counts are based upon the 2019 U.S. Census Bureau LEHD database.

4. Pertinent Site Data

Table 2 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			
CT0968	303 Boxwood Lane	Danbury	41.3950	-73.4867	98	Self-Support	On-Air
CT5072	18 Old Ridgebury Road	Danbury	41.3886	-73.514999	105	Rooftop	On-Air
CT2156	119 Mill Plain Road	Fairfield	41.3932	-73.5264	50	Self-Support	On-Air
CTL5054	900 Ridgebury Road	Ridgefield	41.3739	-73.5130	39	Rooftop	On-Air
CTL05070	83 Wooster Heights Road	Danbury	41.3773	-73.4716	64	Rooftop	On-Air
CT2133	Moses Mountain	Danbury	41.3595	-73.4655	63	Self-Support	On-Air
CT2124	39 West Street	Danbury	41.3929	-73.4541	63	Building-Side Mount	On-Air
CT5073	24 Hospital Avenue	Danbury	41.4051	-73.4462	133	Rooftop	On-Air
CT5513	11 Francis J Clarke Cirde	Bethel	41.3601	-73.4250	127	Monopole	On-Air
CT2873	15 Great Pasture Road	Danbury	41.3830	-73.4222	140	Monopole	On-Air
CT2157	48 Newtown Road	Danbury	41.4034	-73.4244	100	Monopole	On-Air
CT5176	7 Stony Hill Road	Bethel	41.4158	-73.4017	145	Rooftop	On-Air
CT2125	6 Fairfield Drive	Newtown	41.4255	-73.3741	152	Monopole	On-Air
CT2312	52 Stadley Roug Road	Danbury	41.4329	-73.4318	107	Monopole	On-Air
CT5075	2 Huckleberry Hill Road	Brookfield	41.4526	-73.4039	57	Stealth Structure	On-Air
CT5535	179-181 Clapboard Ridge Road	Danbury	41.4333	-73.4925	62	Stealth Structure	On-Air
CT5534	16 Titicus Mountain Road	New Fairfield	41.4509	-73.5161	160	Self-Support	On-Air
CT2070	302 Ball Pond Road	New Fairfield	41.4647	-73.4970	135	Monopole	On-Air
CT1443	41 Padanaram Road	Danbury	41.4198	-73.4604	140	Monopole	Proposed

Table 2: AT&T Mobility Site Information Used in Coverage Analysis⁴

⁴ Some sites listed in this table are outside the plot view but are included for completeness of information.

5. Conclusion

AT&T has identified an area of deficient coverage affecting a significant portion of Danbury CT, including key traffic corridors through the residential and business/retail areas of the Town. The proposed extension to the existing Danbury facility will bring the needed fill-in coverage to significant portions of Padanaram Road, State Highway 39, East Hayestown Road and East Pembroke Road as well as other roads in the area and to the vicinity of the proposed location.

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

6. Statement of Certification

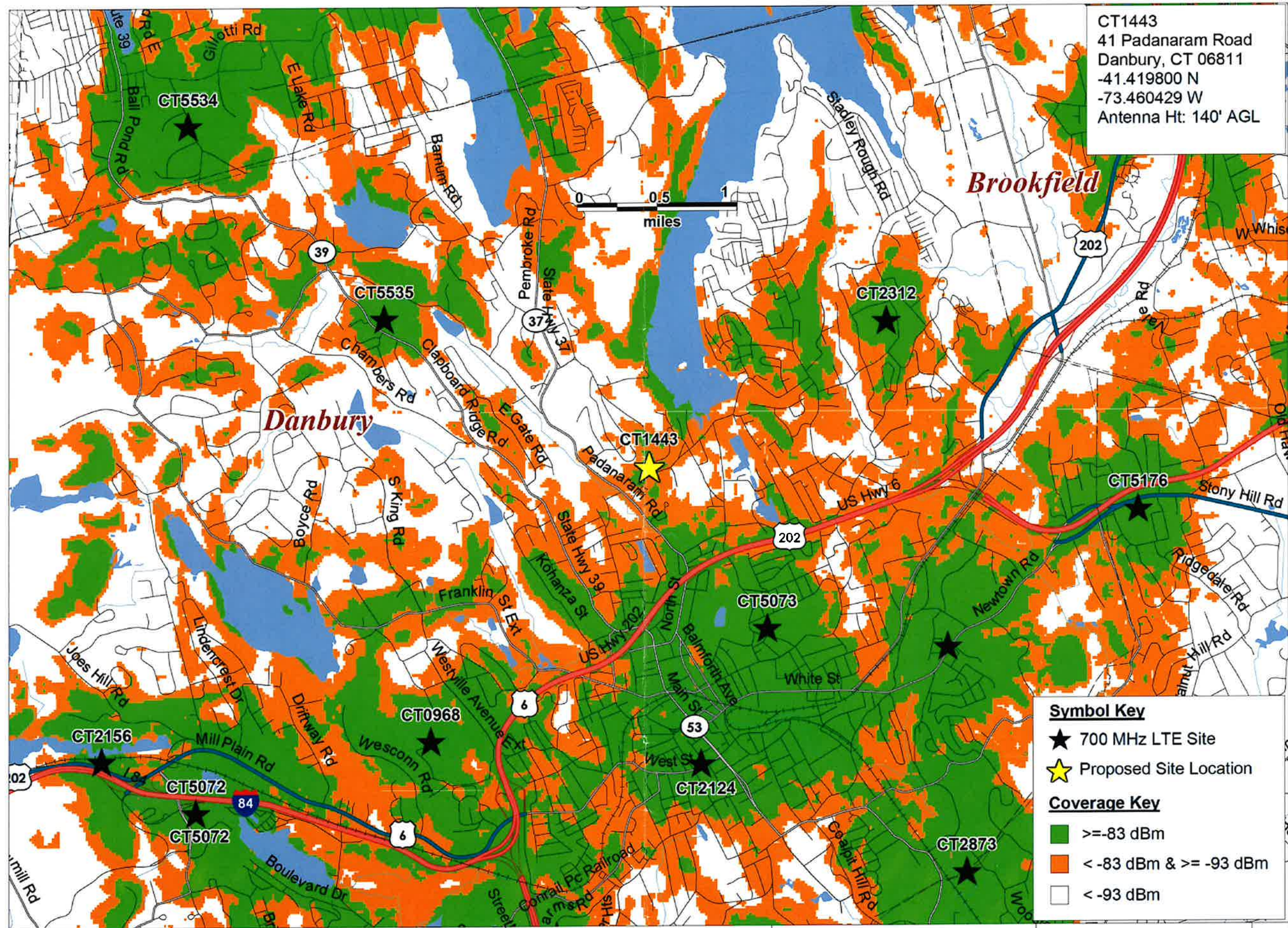
I certify to the best of my knowledge that the statements in this report are true and accurate.



Martin J. Lavin
C Squared Systems, LLC

January 19, 2023

Date



CT1443
 41 Padanaram Road
 Danbury, CT 06811
 -41.419800 N
 -73.460429 W
 Antenna Ht: 140' AGL

Symbol Key
 ★ 700 MHz LTE Site
 ☆ Proposed Site Location

Coverage Key
 ■ ≥ -83 dBm
 ■ < -83 dBm & ≥ -93 dBm
 □ < -93 dBm

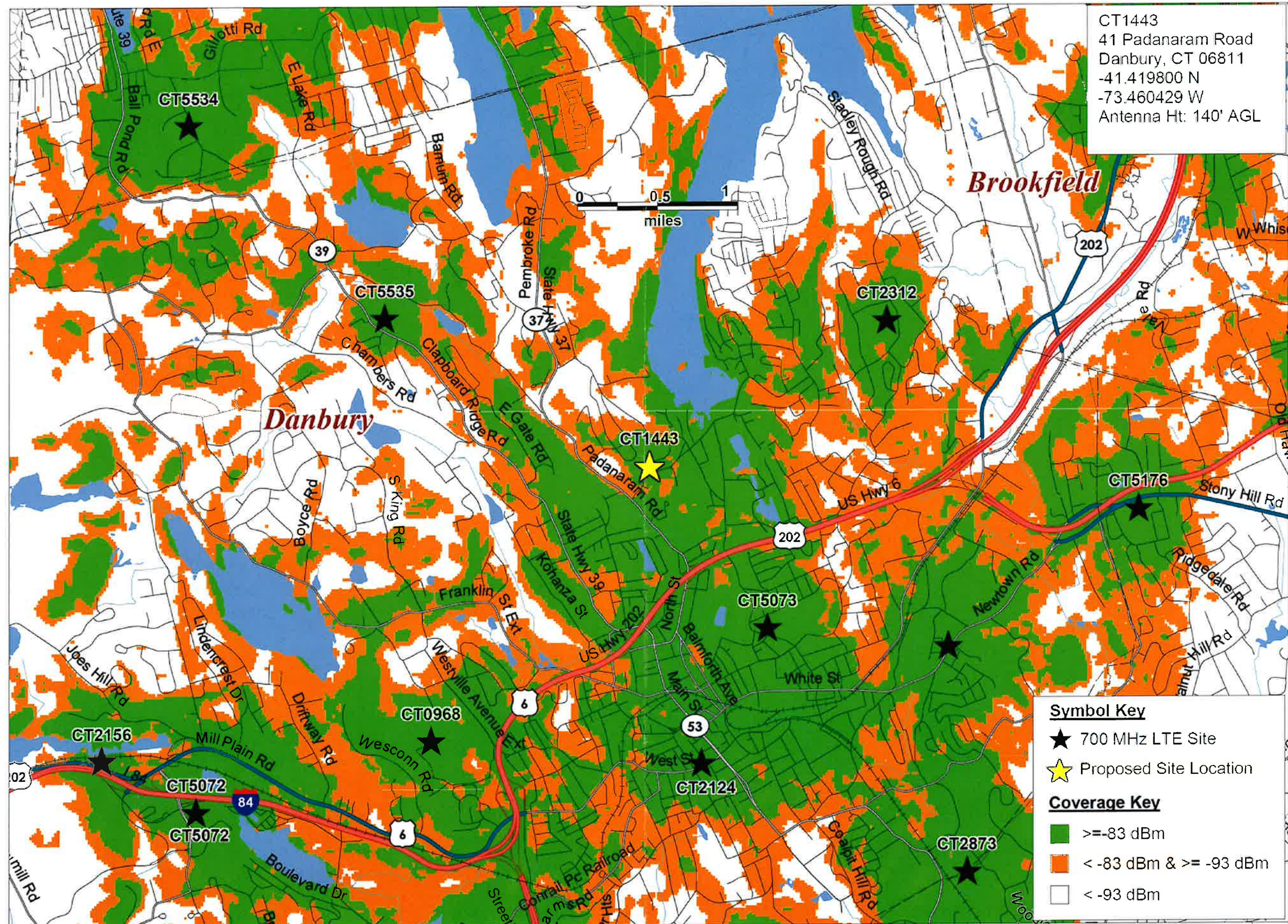
Existing Coverage
 700 MHz LTE

CT1443

41 Padanaram Road
 Danbury, CT 06811



PREPARED ON _____
 DATE: 10/06/2022
 REV 0



CT1443
 41 Padanaram Road
 Danbury, CT 06811
 -41.419800 N
 -73.460429 W
 Antenna Ht: 140' AGL

Symbol Key
 ★ 700 MHz LTE Site
 ☆ Proposed Site Location

Coverage Key
 ■ ≥ -83 dBm
 ■ < -83 dBm & ≥ -93 dBm
 □ < -93 dBm

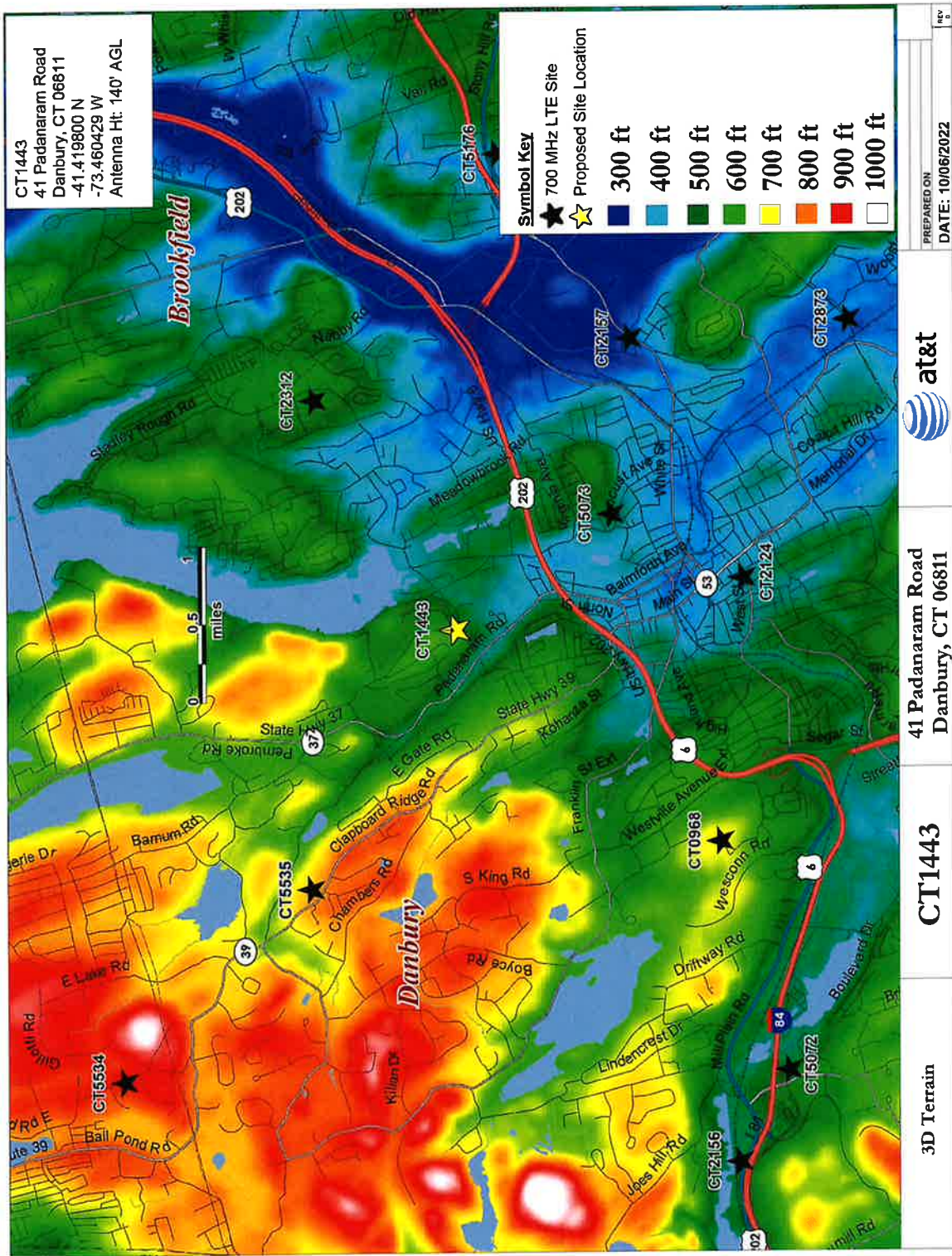
Existing & Proposed Coverage
 700 MHz LTE

CT1443
 41 Padanaram Road
 Danbury, CT 06811

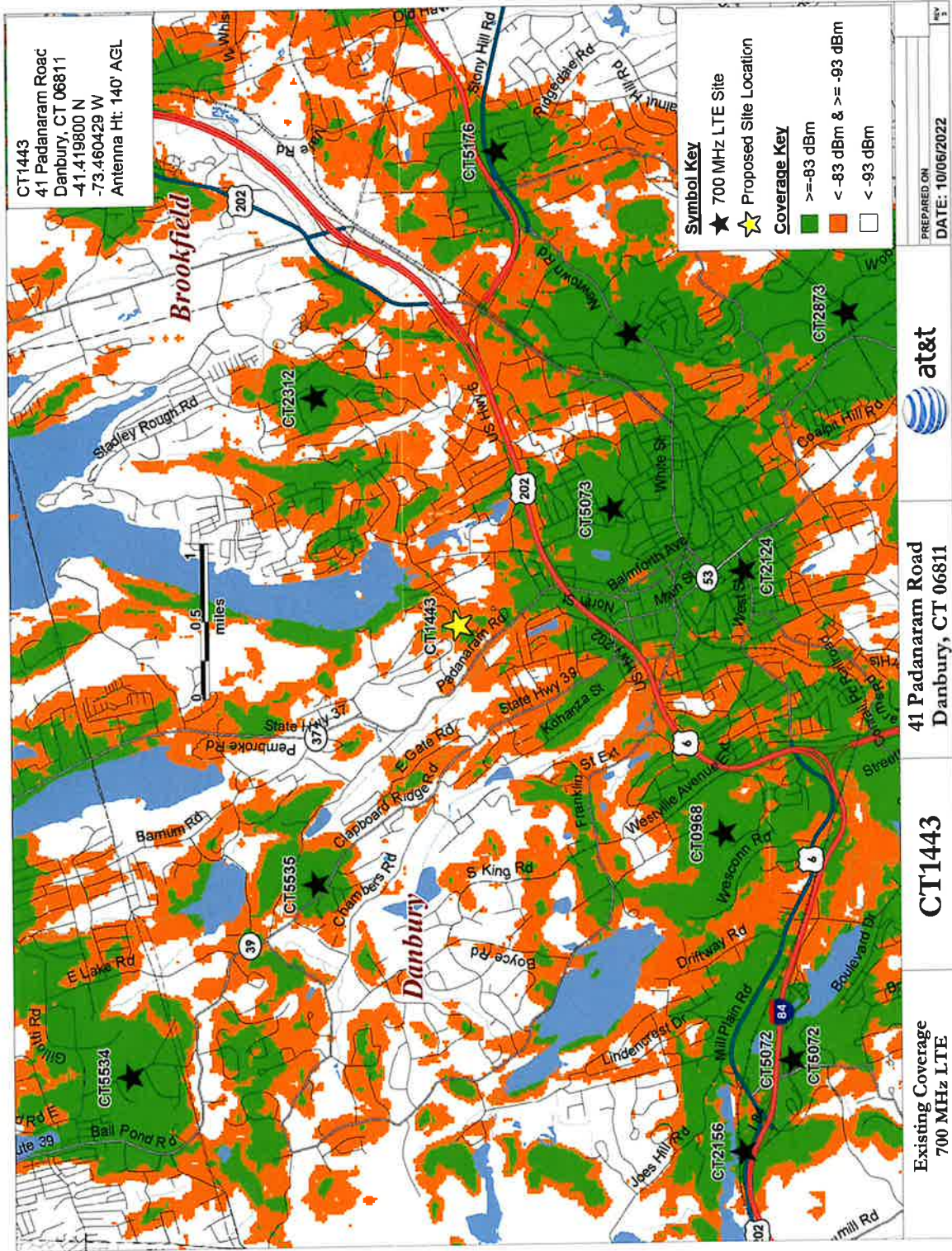


PREPARED ON _____
 DATE: 10/06/2022

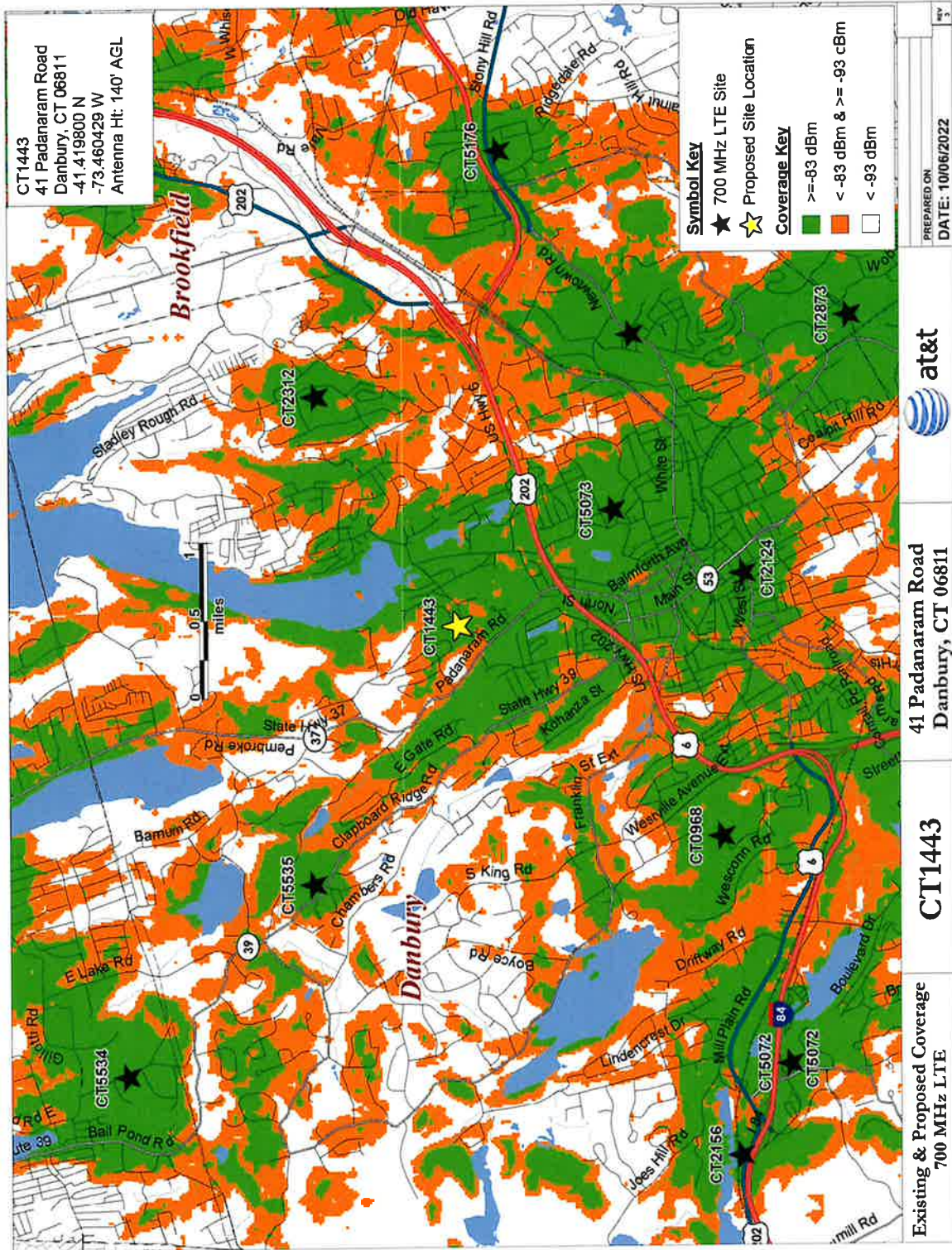
7. Attachments



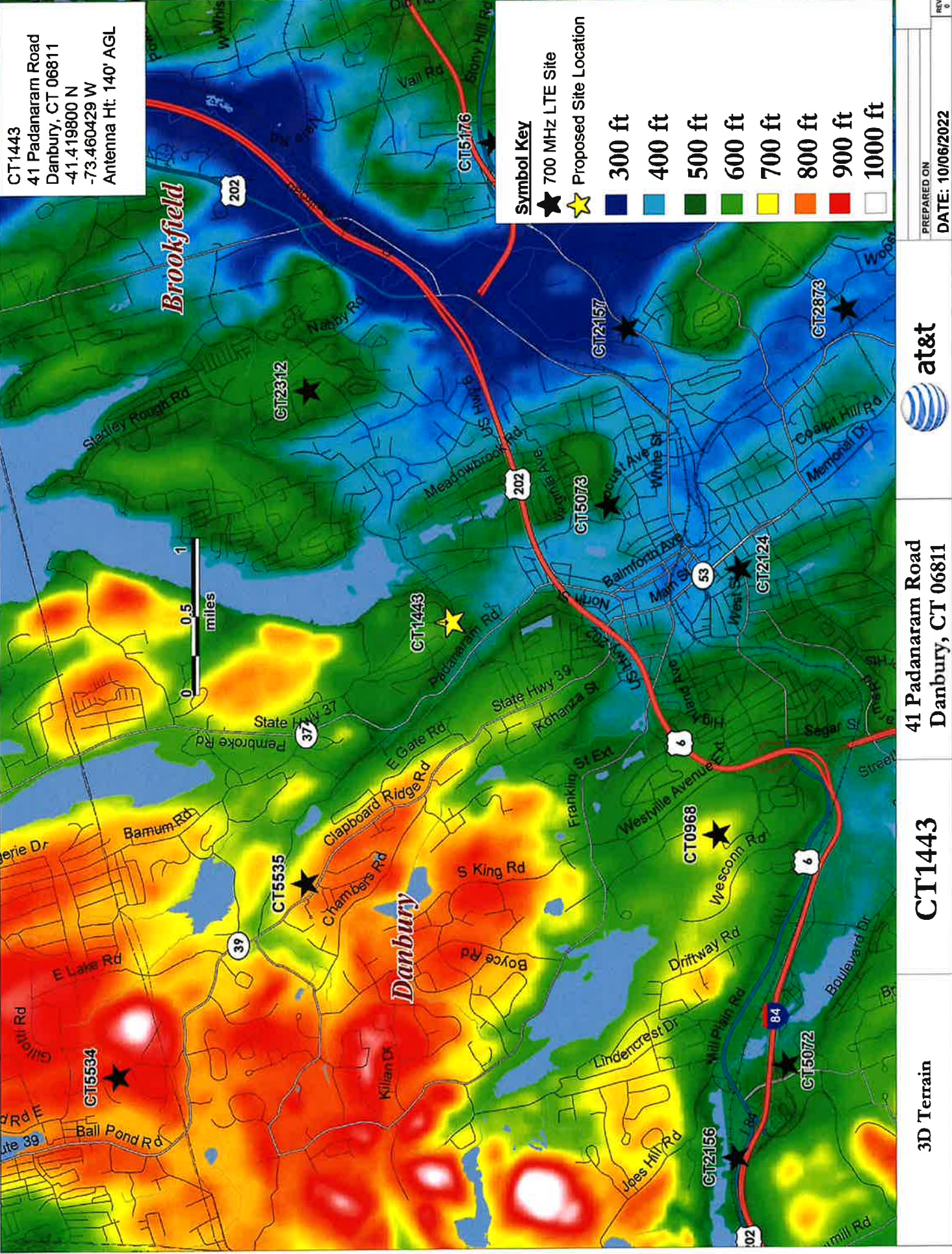
Attachment 1: CT1443 - Area Terrain Map



Attachment 3: CT1443 - Existing 700 MHz LTE Coverage” for the Current AT&T Network



Attachment 4: CT1443 - Existing 700 MHz LTE Coverage with Proposed Site” for the AT&T Network



CT1443
 41 Padanaram Road
 Danbury, CT 06811
 -41.419800 N
 -73.460429 W
 Antenna Ht: 140' AGL

Symbol Key	
★	700 MHz LTE Site
☆	Proposed Site Location
Dark Blue	300 ft
Light Blue	400 ft
Green	500 ft
Light Green	600 ft
Yellow	700 ft
Orange	800 ft
Red	900 ft
White	1000 ft

PREPARED ON _____
 DATE: 10/06/2022
 rev 3



41 Padanaram Road
 Danbury, CT 06811

CT1443

3D Terrain

ATTACHMENT 5

PROJECT INFORMATION

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY (NSB A PROPOSED 145'-0" A.G.L. TALL MONOPOLE. PROPOSED WALK-IN CABINET, AND GENERATOR WILL BE INSTALLED AT GRADE INSIDE A EXISTING FENCED-IN COMPOUND. PROPOSED NINE PANEL ANTENNAS AND ASSOCIATED EQUIPMENT WILL BE INSTALLED AT A HEIGHT OF 140' 0" A.G.L.):

SITE ADDRESS: 41 PADANARAM RD
DANBURY, CT 06811

APPLICANT: CROWN CASTLE
500 WEST CUMMINGS PARK, SUITE 3600
WOBBURN, MA 01801

SITE OWNER: ROBERT KAUFMAN
41 PADANARAM ROAD
DANBURY, CT 06811

LATITUDE: 41.41903 N, 41° 25' 08.52" N

LONGITUDE: 73.46221 W, 73° 27' 43.96" W

TYPE OF SITE: MONOPOLE/ WALK-IN CABINET

TOWER HEIGHT: 145'-0"±



SITE NAME: DANBURY PADANARAM ROAD

CROWN BU: 823531

PROJECT: NSB

DRAWING INDEX

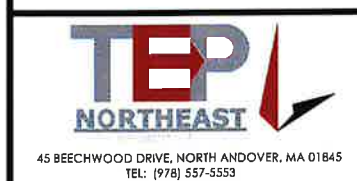
VICINITY MAP

GENERAL NOTES

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	3
C-1	ABUTTERS PLAN	3
C-2	EXISTING CONDITIONS PLAN	3
A-1	COMPOUND PLAN	3
A-2	ELEVATION	3
A-3	DETAILS	3
A-4	COMPOUND DETAILS	3
A-5	COMPOUND DETAILS	3

DIRECTIONS TO SITE:
HEAD NORTHWEST TOWARD CENTRAL AVE. TURN RIGHT TOWARD CENTRAL AVE. TURN RIGHT ONTO CENTRAL AVE. SLIGHT RIGHT TO MERGE ONTO I-87 S TOWARD NEW YORK THRUWAY. MERGE ONTO I-87 S. USE THE RIGHT LANE TO TAKE EXIT 1E-W FOR I-90 E TOWARD BOSTON. MERGE ONTO I-87 S/I-90 W. TAKE EXIT 23 - 1 TO MERGE ONTO I-87 S TOWARD NEW YORK. TAKE EXIT 21 TOWARD NY-23/CATSKILL/CAIRO. TURN LEFT ONTO MAIN ST. TURN LEFT ONTO THE RAMP TO HUDSON. MERGE ONTO NY-23 E. AT THE TRAFFIC CIRCLE, TAKE THE 2ND EXIT ONTO NY-23 E/NY-96 N. CONTINUE TO FOLLOW NY-23 E. CONTINUE STRAIGHT ONTO NY-82 S. SLIGHT RIGHT TO MERGE ONTO TACONIC STATE PARKWAY. MERGE ONTO TACONIC STATE PARKWAY. TAKE EXIT 47 A FOR NY-55 E TOWARD PAWLING. TURN RIGHT ONTO NY-55 E/STATE RTE 55 E. MERGE ONTO NY-22 S VIA THE RAMP TO BREWSTER. TURN LEFT ONTO HAVILAND HOLLOW RD. TURN RIGHT ONTO E BRANCH RD. CONTINUE ONTO FAIRFIELD DR. ENTERING CONNECTICUT. TURN RIGHT ONTO CT-39 S/BALL POND RD. TURN LEFT ONTO PADANARAM RD. DESTINATION WILL BE ON THE LEFT

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. 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 NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.



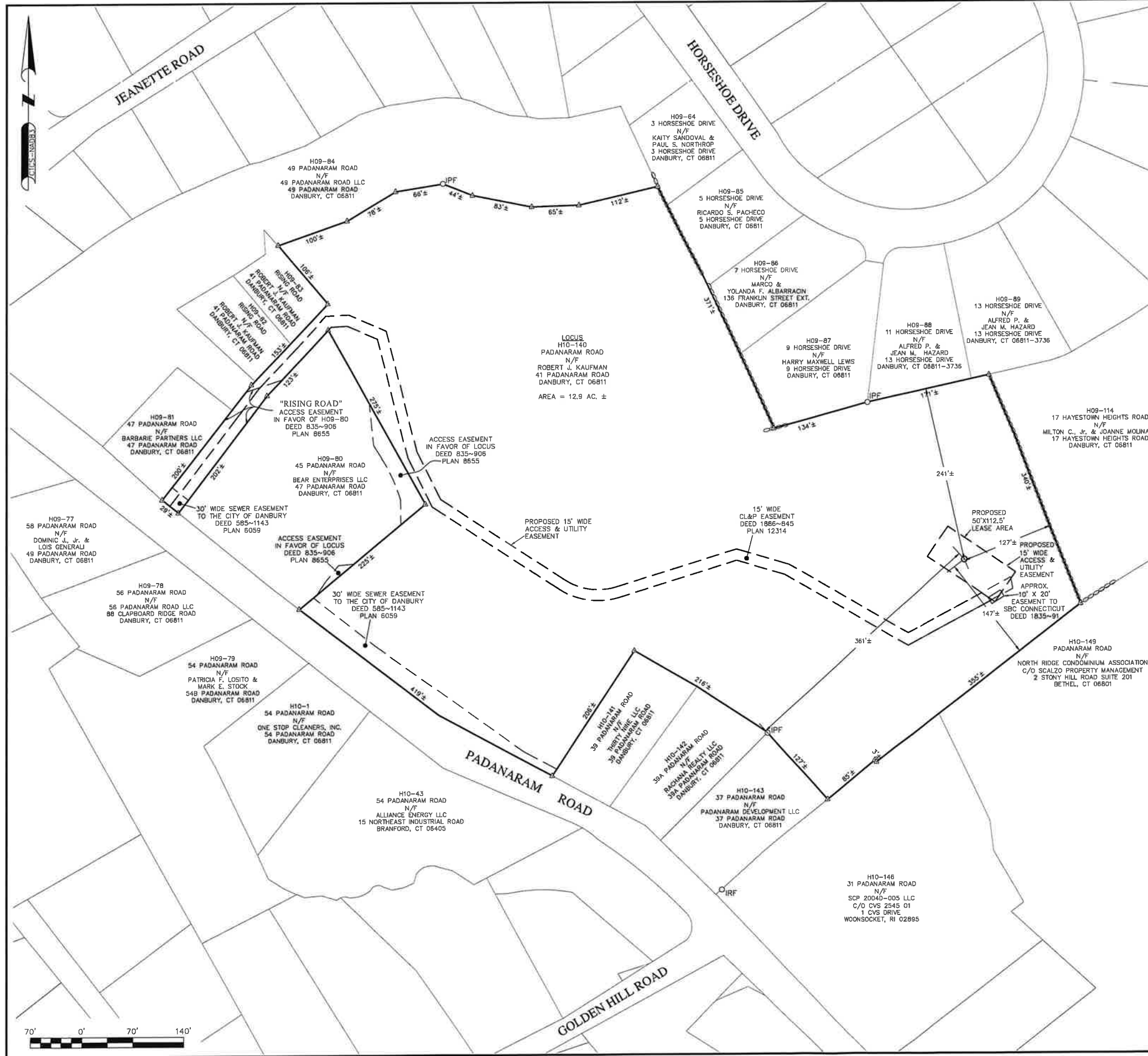
CROWN BU: 823531
SITE NAME: DANBURY PADANARAM ROAD

41 PADANARAM RD
DANBURY, CT 06811
FAIRFIELD COUNTY

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	01/27/23	ISSUED FOR REVIEW	CC	JC	DPH
2	11/04/22	ISSUED FOR REVIEW	CC	JC	DPH
1	10/04/22	ISSUED FOR REVIEW	MJ	JC	DPH
0	08/23/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: AR

CROWN CASTLE		
TITLE SHEET		
(NSB)		
SITE NUMBER	DRAWING NUMBER	REV.
CT1443	T-1	3



LEGEND

———	PROPERTY LINE - SUBJECT PARCEL
———	ABUTTERS PROPERTY LINE
- - - - -	EASEMENT LINE
○	IRON PIPE FOUND
△	CALCULATED POINT
N/F	NOW OR FORMERLY
H10-140	ASSESSOR'S ID
⊙	TOWER CONTROL POINT

- SITE SPECIFIC NOTES:**
- FIELD SURVEY DATE: 6/28/2022-6/29/2022
 - HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)
 - VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
 - OWNER: ROBERT J. KAUFMAN
41 PADANARAM ROAD
DANBURY, CT 06811
 - SITE NAME: DANBURY RT 39
 - SITE ADDRESS: 39 PADANARAM ROAD
DANBURY, CT 06811
FAIRFIELD COUNTY
 - APPLICANT: CROWN CASTLE
500 WEST CUMMINGS PARK, SUITE 3600
WOBURN, MA 01801
 - TAX ID: H10-140
 - DEED REFERENCE: BOOK 470 PAGE 94
 - PLAN REFERENCE: PLAN 12314
PLAN 6059
PLAN PREPARED FOR ROBERT J. KAUFMAN BY
SYDNEY A. RAPP JR. & ASSOC. DATED 3/16/1992
 - ZONING DISTRICT: RA-20
 - THE HORIZONTAL DATUM AND VERTICAL DATUM WERE DERIVED FROM A DUAL FREQUENCY GPS SURVEY.
 - ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE 1-800-322-4844 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
 - ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, THE PROPOSED IMPROVEMENTS ON THIS PROPERTY ARE LOCATED IN AN AREA DESIGNATED AS ZONE X (UNSHADED), AREAS OF MINIMAL FLOOD HAZARD, MAP NO. 09001G 0137 F, EFFECTIVE DATE: 6/18/2010.
 - FIELD SURVEY BY EDM TOTAL STATION & RTK GPS.

CROWN CASTLE
500 WEST CUMMINGS PARK, SUITE 3600
WOBURN, MA 01801

HG HUDSON
Design Group LLC
45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586

NORTHEAST SURVEY
CONSULTANTS
3 Ferry Street
Easthampton, MA 01027
(413) 203-5144
northeastsurvey.com

CHECKED BY: BCF

APPROVED BY: CCG

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	11/2/2022	ISSUED FOR REVIEW	JDC

SITE NUMBER:
CT1443
SITE NAME:
DANBURY RT 39
SITE ADDRESS:
41 PADANARAM ROAD
DANBURY, CT 06811
FAIRFIELD COUNTY

SHEET TITLE
ABUTTERS
PLAN

SHEET NUMBER
C-1

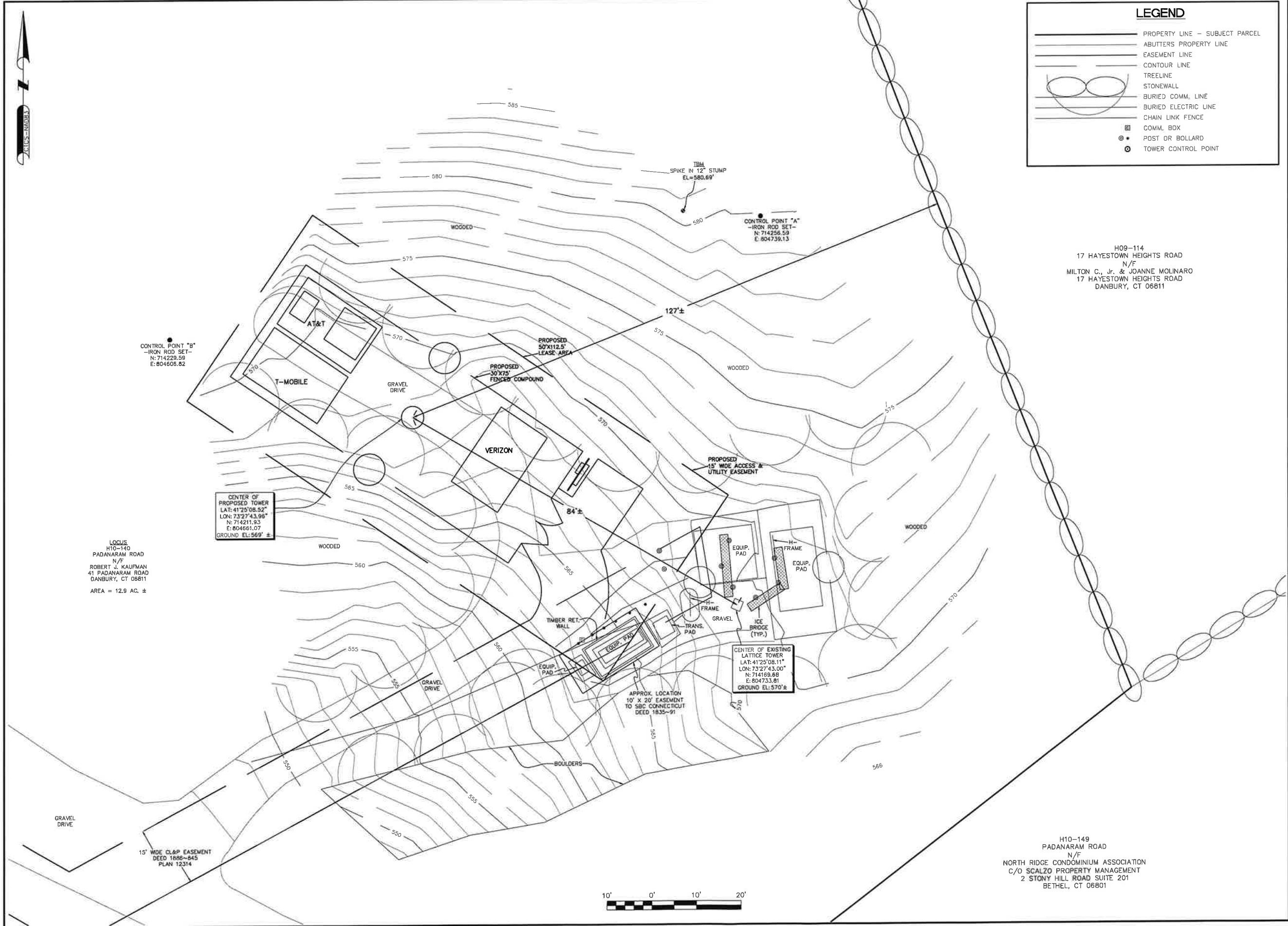
THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS INC. ON SEPTEMBER 26, 1997.

TYPE OF SURVEY: IMPROVEMENT LOCATION SURVEY
BOUNDARY SURVEY CATEGORY: DEPENDENT RESURVEY
CLASS OF ACCURACY: HORIZONTAL CLASS D
VERTICAL CLASS V-2
TOPOGRAPHIC CLASS T-2
PURPOSE OF SURVEY: PROPOSED CELLULAR UTILITIES

THIS DOCUMENT AND COPIES THEREOF ARE VALID ONLY IF THEY BEAR THE LIVE SIGNATURE AND EMBOSSED SEAL OF THE DESIGNATED PROFESSIONAL. UNAUTHORIZED ALTERATIONS RENDER ANY DECLARATION NULL AND VOID.

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

CHARLES G. GIDMAN, P.L.S. #70103



LEGEND

- PROPERTY LINE - SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- EASEMENT LINE
- CONTOUR LINE
- TREELINE
- STONEWALL
- BURIED COMM. LINE
- BURIED ELECTRIC LINE
- CHAIN LINK FENCE
- COMM. BOX
- POST OR BOLLARD
- TOWER CONTROL POINT

H09-114
17 HAYESTOWN HEIGHTS ROAD
N/F
MILTON C., JR. & JOANNE MOLINARO
17 HAYESTOWN HEIGHTS ROAD
DANBURY, CT 06811

CROWN CASTLE
500 WEST CUMMINGS PARK, SUITE 3600
WOBBURN, MA 01801

HG
HUDSON
Design Group LLC

45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5586

NORTHEAST SURVEY
CONSULTANTS

3 Ferry Street
Studio 1 East
Easthampton, MA 01027
(413) 203-5144
northeastsurvey.com

CHECKED BY: BCF

APPROVED BY: CCG

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	11/2/2022	ISSUED FOR REVIEW	JDC

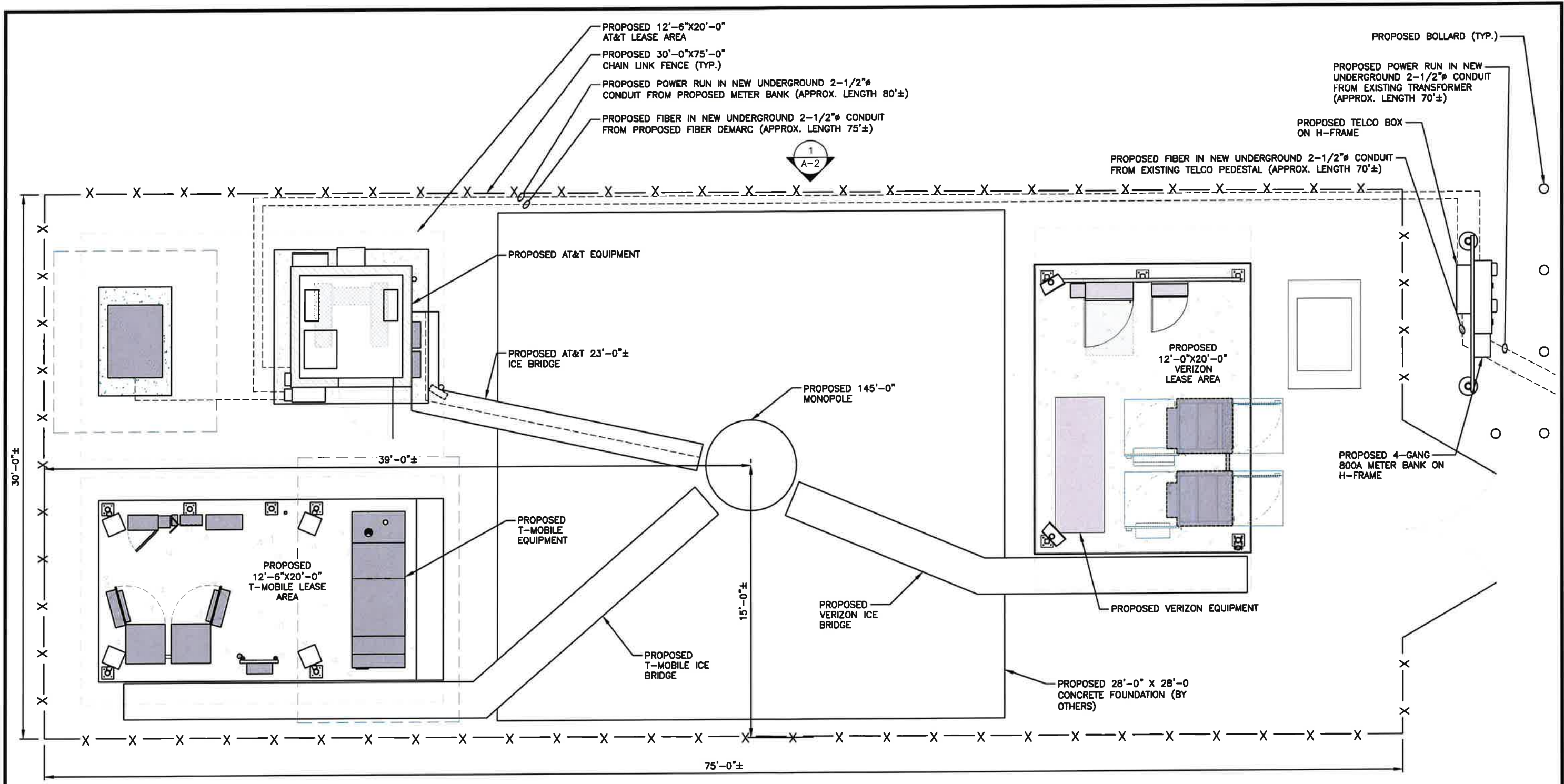
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CT1443
SITE NAME:
DANBURY RT 39
SITE ADDRESS:
41 PADANARAM ROAD
DANBURY, CT 06811
FAIRFIELD COUNTY

SHEET TITLE
EXISTING
CONDITIONS
PLAN

SHEET NUMBER
C-2

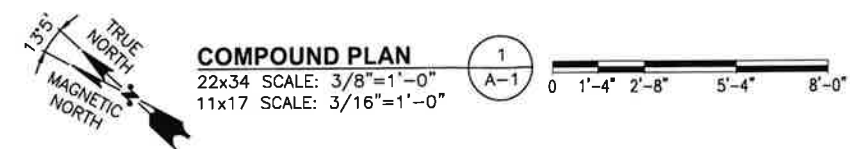
H10-149
PADANARAM ROAD
N/F
NORTH RIDGE CONDOMINIUM ASSOCIATION
C/O SCALZO PROPERTY MANAGEMENT
2 STONY HILL ROAD SUITE 201
BETHEL, CT 06801





NOTE:
 PROPOSED POWER, TELCO, & GROUNDING TO COME FROM EXISTING SOURCES (ROUTING TO BE DETERMINED)

NOTE:
 REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



TEP
 NORTHEAST
 45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553

CROWN CASTLE
 CROWN CASTLE
 500 WEST CUMMINGS PARK, SUITE 3600
 WOBURN, MA 01801

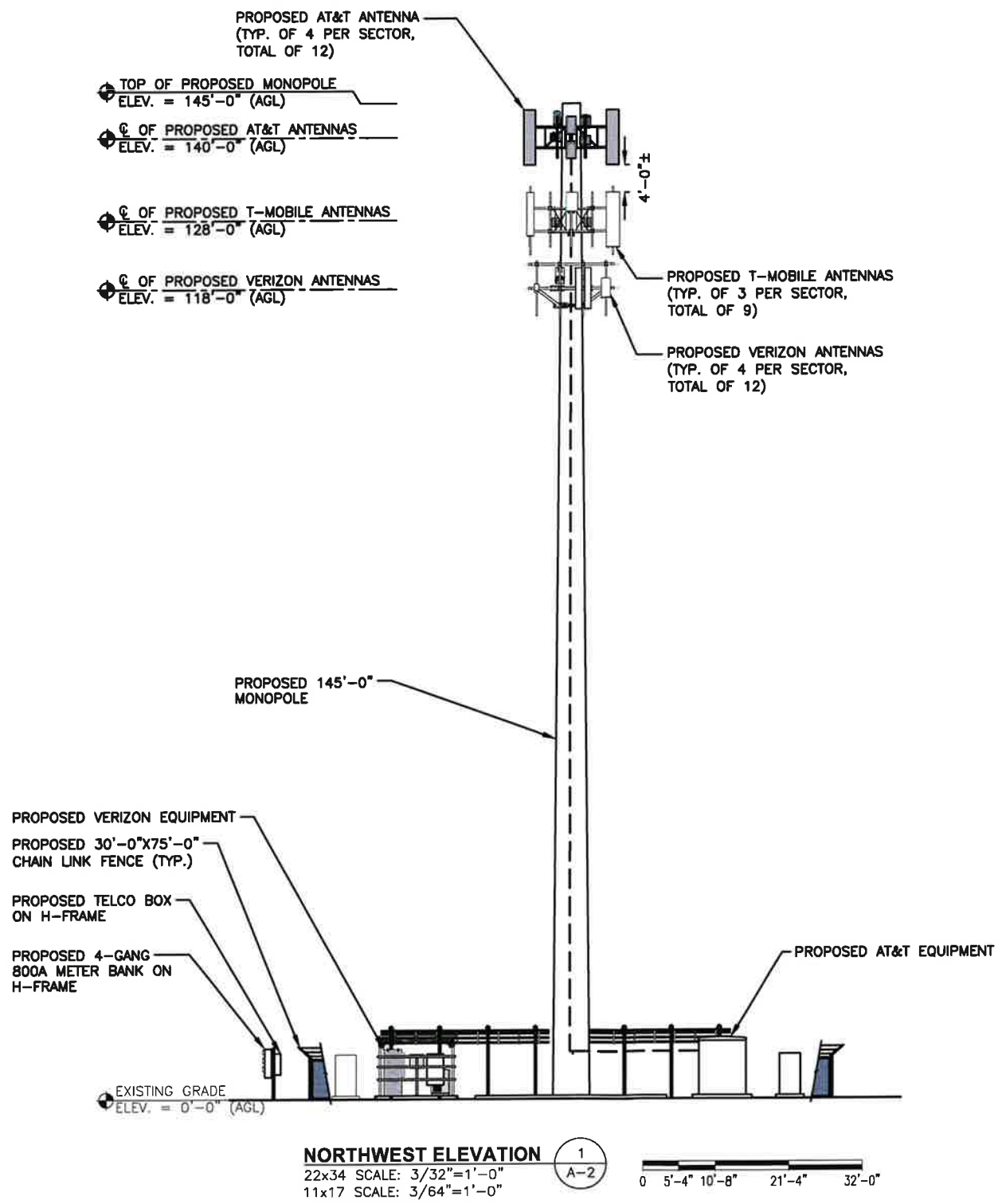
CROWN BU: 823531
 SITE NAME: DANBURY PADANARAM ROAD
 41 PADANARAM RD
 DANBURY, CT 06811
 FAIRFIELD COUNTY

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	01/27/23	ISSUED FOR REVIEW	CC	JC	DPH
2	11/04/22	ISSUED FOR REVIEW	CC	JC	DPH
1	10/04/22	ISSUED FOR REVIEW	MJ	JC	DPH
0	08/23/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: AR

CROWN CASTLE		
COMPOUND PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1443	A-1	3

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



NORTHWEST ELEVATION 1
22x34 SCALE: 3/32"=1'-0"
11x17 SCALE: 3/64"=1'-0" A-2
0 5'-4" 10'-8" 21'-4" 32'-0"



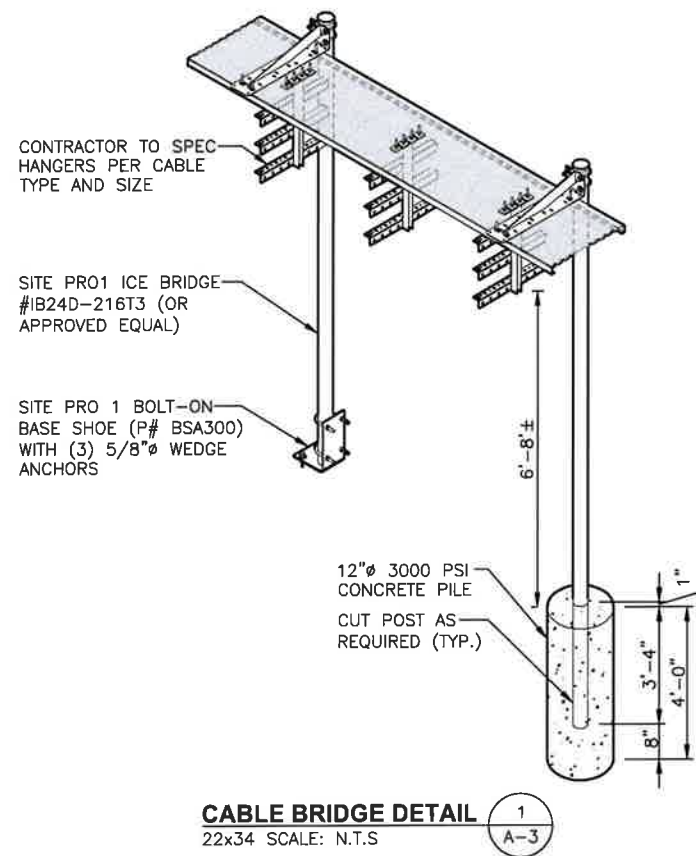
CROWN BU: 823531
SITE NAME: DANBURY PADANARAM ROAD

41 PADANARAM RD
DANBURY, CT 06811
FAIRFIELD COUNTY

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	01/27/23	ISSUED FOR REVIEW	CC	JC	DPH
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1	10/04/22	ISSUED FOR REVIEW	MJ	JC	DPH
0	06/23/22	ISSUED FOR REVIEW	MJ	JC	DPH

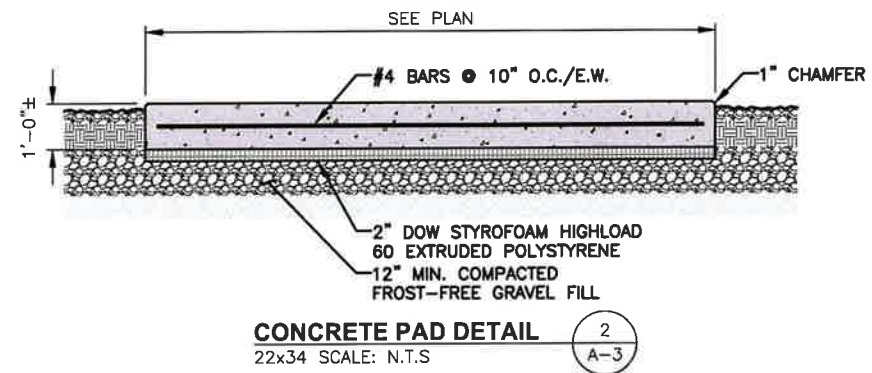
SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: AR

CROWN CASTLE		
ELEVATION (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1443	A-2	3



FOUNDATION NOTES & CONCRETE SPECIFICATIONS:

- FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
- UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
- CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
- REINFORCING BAR TO BE ASTM A615 GRADE 60.
- WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
- COORDINATE WITH MANUFACTURER OF PREFABRICATED SHELTER FOR LOCATION OF ATTACHMENTS TO BASE SLAB.
- ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
- ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.



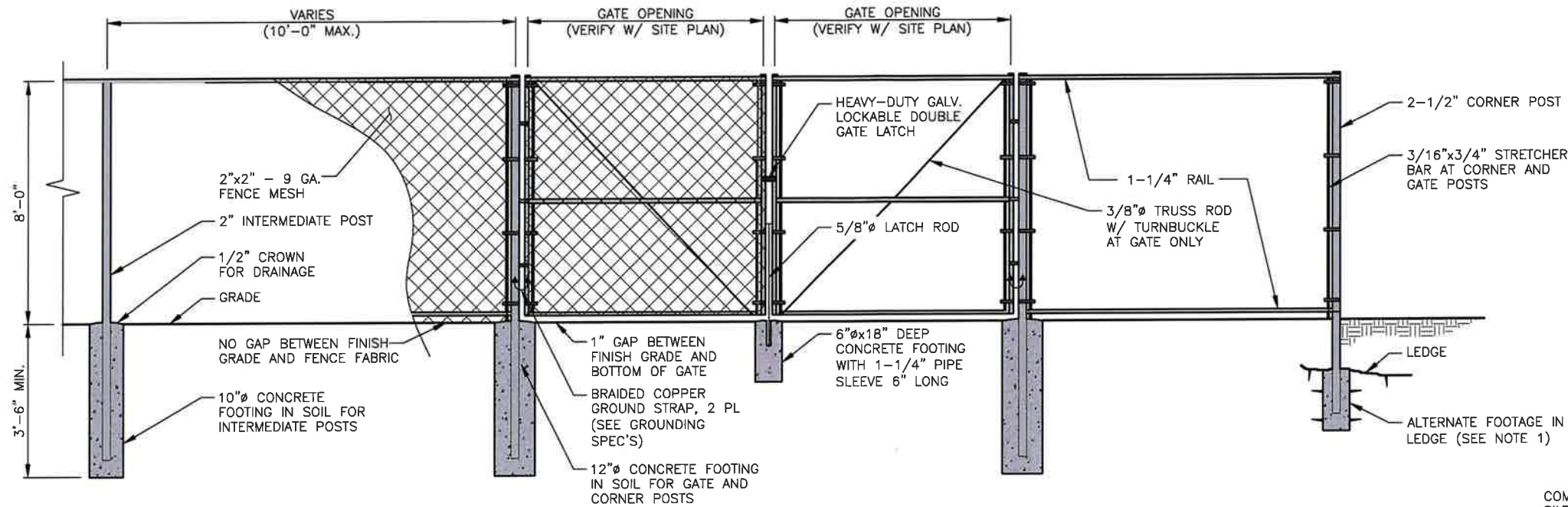
NO.	DATE	REVISIONS	BY	CHK	APP'D
3	01/27/23	ISSUED FOR REVIEW	CC	JC	DPH
2	11/04/22	ISSUED FOR REVIEW	CC	JC	DPH
1	10/04/22	ISSUED FOR REVIEW	MJ	JC	DPH
0	08/23/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: AR

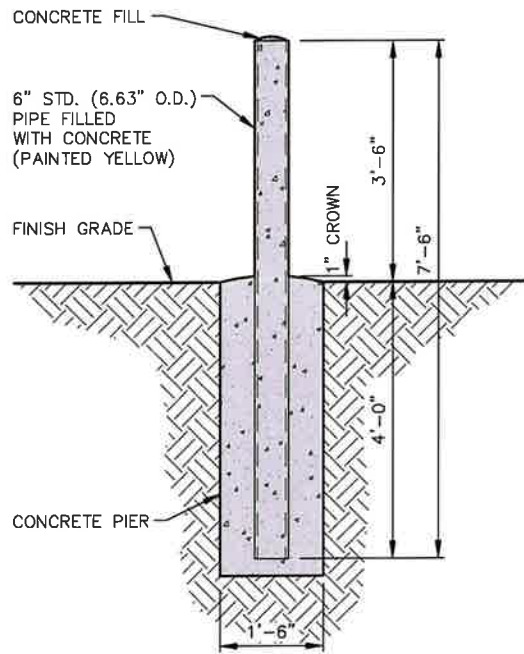
CROWN CASTLE		
DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1443	A-3	3

FENCE NOTES

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.
2. ATTACH EACH GATE WITH 1-1/2" PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.



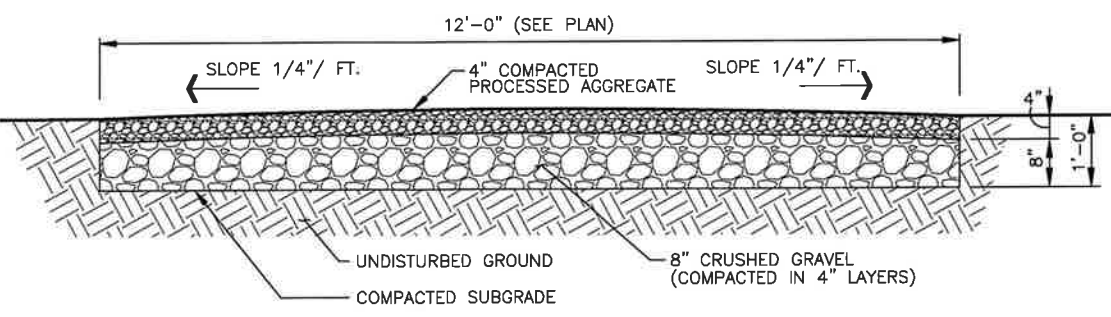
CHAINLINK FENCE DETAIL 1
SCALE: N.T.S. A-4



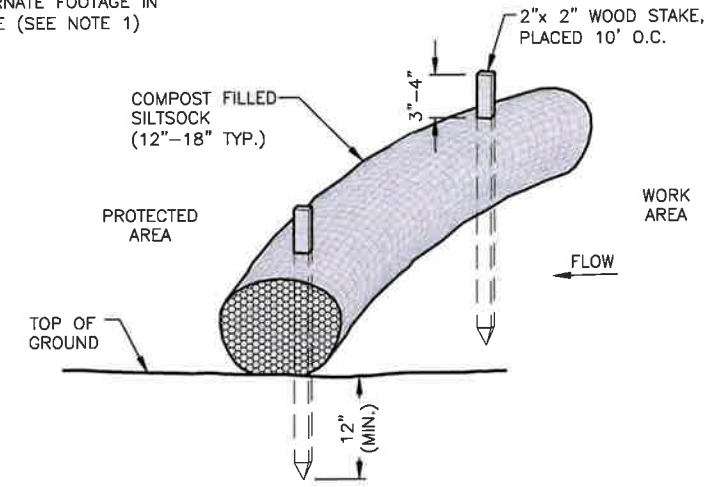
CONCRETE FILLED BOLLARD 2
22x34 SCALE: N.T.S. A-4

CRUSHED GRAVEL	
SIEVE	% PASSING BY WEIGHT
5"	100
3 1/2"	90-100
1 1/2"	55-95
1/4"	25-60
#10	15-45
#40	5-25
#100	0-10
#200	0-5

PROCESSED AGGREGATE	
SIEVE	% PASSING BY WEIGHT
2 1/4"	100
2"	95-100
3/4"	50-75
1/4"	25-45
#40	5-20
#100	2-12



GRAVEL ACCESS DRIVE 3
SCALE: N.T.S. A-4



- NOTES:**
1. SILT SOCK SHALL BE FILTREXX SILT SOCKS, OR APPROVED EQUAL.
 2. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
 3. SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
 4. SEE SPECIFICATIONS FOR SOCK SIZE, AND COMPOST FILL, REQUIREMENTS.

SILT SOCK DETAIL 4
SCALE: N.T.S. A-4



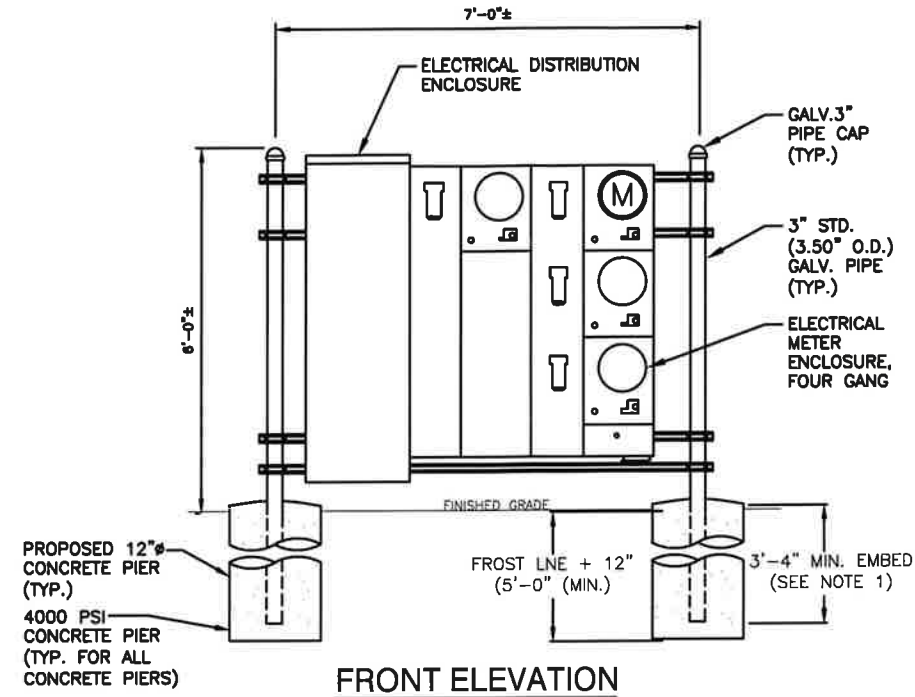
CROWN BU: 823531
SITE NAME: DANBURY PADANARAM ROAD

41 PADANARAM RD
DANBURY, CT 06811
FAIRFIELD COUNTY

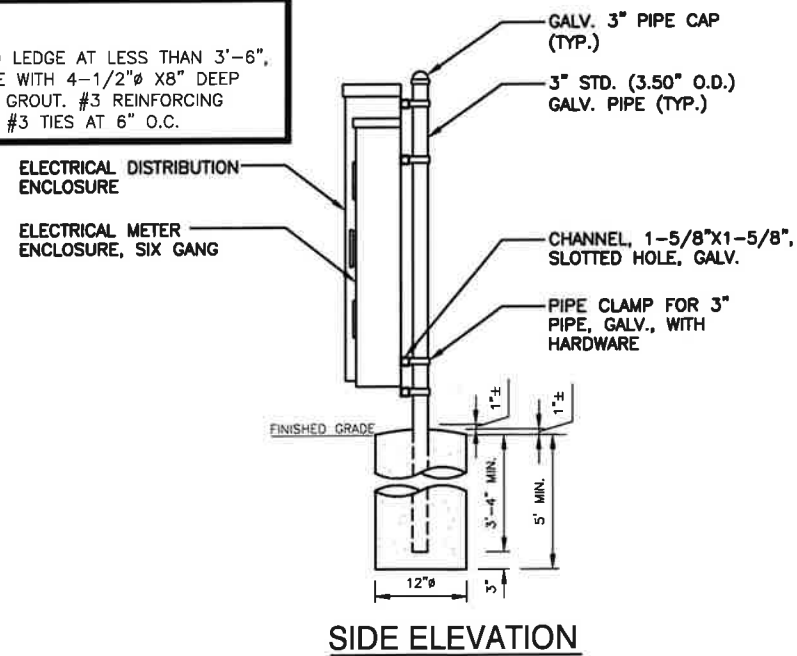
NO.	DATE	REVISIONS	BY	CHK	APP'D
3	01/27/23	ISSUED FOR REVIEW	CC	JC	DPH
2	11/04/22	ISSUED FOR REVIEW	CC	JC	DPH
1	10/04/22	ISSUED FOR REVIEW	MJ	JC	DPH
0	08/23/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: AR

CROWN CASTLE		
COMPOUND DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1443	A-4	3



NOTE:
 1.) FOR BURIED LEDGE AT LESS THAN 3'-6", CORE LEDGE WITH 4-1/2"Ø X 8" DEEP HOLES AND GROUT. #3 REINFORCING STEEL WITH #3 TIES AT 6" O.C.



ELECTRICAL METER BOARD ELEVATION 1
 SCALE: N.T.S. A-5



45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553



CROWN CASTLE
 500 WEST CUMMINGS PARK, SUITE 3600
 WOBURN, MA 01801

CROWN BU: 823531
 SITE NAME: DANBURY PADANARAM ROAD

41 PADANARAM RD
 DANBURY, CT 06811
 FAIRFIELD COUNTY

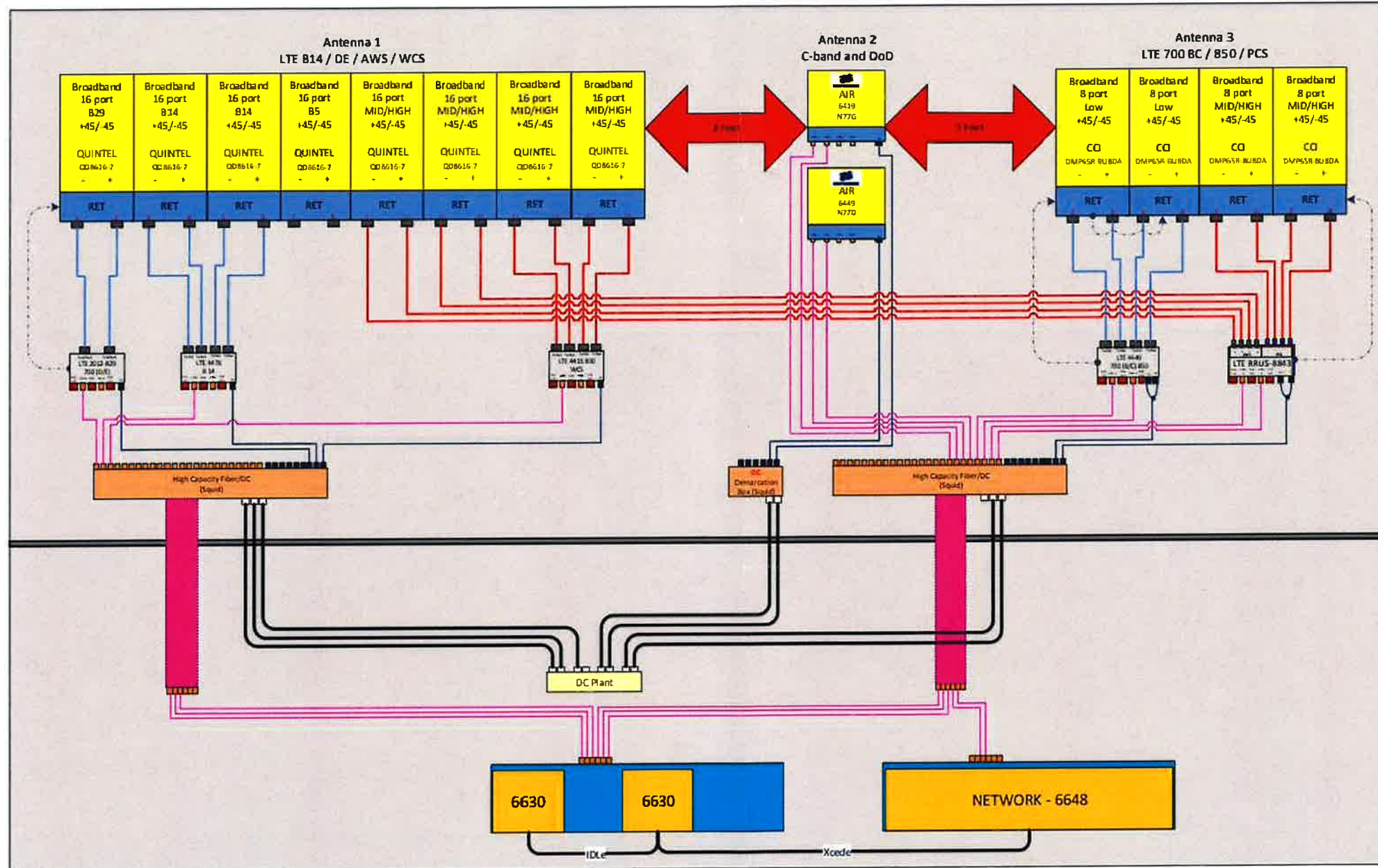
NO.	DATE	REVISIONS	BY	CHK	APP'D
3	01/27/23	ISSUED FOR REVIEW	CC	JC	DPH
2	11/04/22	ISSUED FOR REVIEW	CC	JC	DPH
1	10/04/22	ISSUED FOR REVIEW	MJ	JC	DPH
0	08/23/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: AR

CROWN CASTLE

COMPOUND DETAILS
 (NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT1443	A-5	3



RF PLUMBING DIAGRAM 1
SCALE: N.T.S. RF-1

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	01/27/23	ISSUED FOR REVIEW	CC	JC	DPH
2	11/04/22	ISSUED FOR REVIEW	CC	JC	DPH
1	10/04/22	ISSUED FOR REVIEW	MJ	JC	DPH
0	08/23/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: AR

CROWN CASTLE		
RF PLUMBING DIAGRAM (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1443	RF-1	3

ATTACHMENT 6

Wetlands - CT896/M&M Concrete Pole



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

September 19, 2022

- Wetlands**
- Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine

Soil Map—State of Connecticut






























Map Scale: 1:720 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Soil Map may not be valid at this scale.

MAP LEGEND

-  Area of Interest (AOI)
-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points
- Special Point Features**
 -  Blowout
 -  Borrow Pit
 -  Clay Spot
 -  Closed Depression
 -  Gravel Pit
 -  Gravelly Spot
 -  Landfill
 -  Lava Flow
 -  Marsh or swamp
 -  Mine or Quarry
 -  Miscellaneous Water
 -  Perennial Water
 -  Rock Outcrop
 -  Saline Spot
 -  Sandy Spot
 -  Severely Eroded Spot
 -  Sinkhole
 -  Slide or Slip
 -  Sodic Spot
- Water Features**
 -  Streams and Canals
- Transportation**
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
 -  Aerial Photography
-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
 Survey Area Data: Version 22, Sep 12, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 5, 2018—Oct 30, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	0.3	56.7%
86D	Paxton and Montauk fine sandy loams, 15 to 35 percent slopes, extremely stony	0.3	43.3%
Totals for Area of Interest		0.6	100.0%

ATTACHMENT 7

National Flood Hazard Layer FIRMette



73°28'3"W 41°25'2"N

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

Legend

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A, V, AE9
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes, Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS

- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

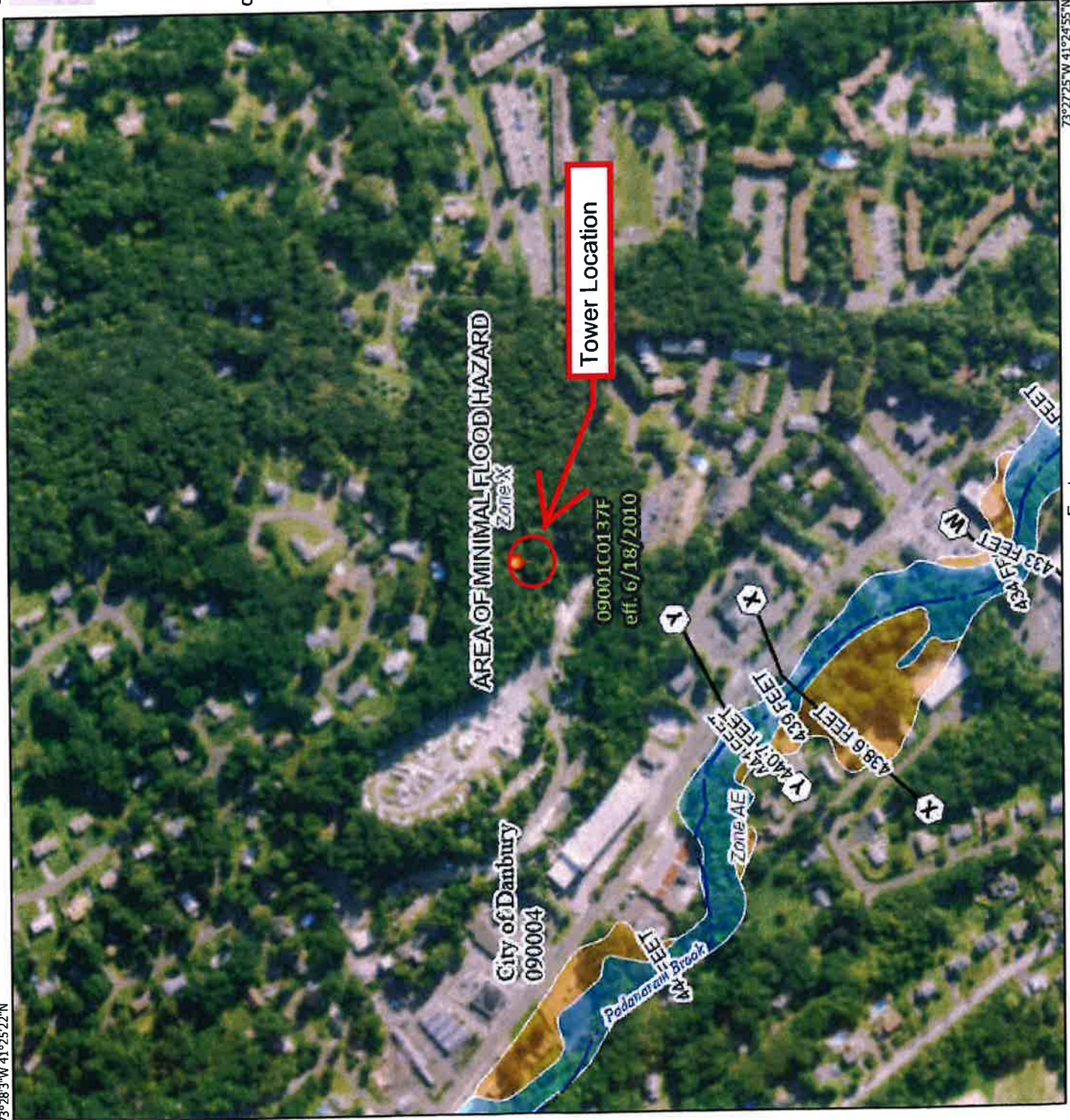
OTHER FEATURES

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



73°27'25"W 41°24'55"N

1:6,000

Feet



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/19/2022 at 3:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ATTACHMENT 8

Viewshed Analysis Package

Proposed Wireless Telecommunications Facility:

CT1443 Danbury RT 39
39 Padnaram Rd
Danbury, CT 06811



- Documentation Photos taken 11/15/22

Viewshed analysis maps and representations contained herein depict where proposed facility may potentially be visible based on the best data available and site conditions at the time data was collected. This study does not claim to depict all locations from where the facility may be potentially visible.



Introduction

At the request of TEP Northeast, LLC and Crown Castle Inc. LLC, Virtual Site Simulations, LLC (VSS) was contracted to provide a Viewshed Analysis Report for a proposed telecommunications Facility CT1443 (BU#823531) located at 41 Padanaram Road, Danbury, CT 06811. Hereafter referred to as "the Site". The proposed tower facility would consist of an approximate 145 Ft. above ground level ("AGL") Monopole type antenna structure. Associated unmanned equipment will be contained within an approximately 30 ft x 75 ft fenced gravel equipment compound surrounding the base of the proposed tower. Site will be accessed via a 15 ft wide gravel drive through an easement from Padanaram Road along an existing drive/precast concrete storage area.

Site Description and Setting

The proposed Monopole type telecommunications facility is located on the 12.9+/- Acre property designated by the tax assessor as parcel tax ID H10-140 and owned by Robert J. Kaufman, 500 West Cummings Park, Suite 3600, Woburn MA 01801. The site is currently used as a precast concrete manufacturing/storage facility, M&M Precast, Danbury Ct. The Site is approximately .73 miles due northwest of Interstate 84 at Exit 6, RT 37 New Fairfield offramp. The site is located within a commercial/retail area with surrounding residential properties. The subject property is currently zoned RA-20. The Proposed facility location is within an existing triangular shaped area along the eastern most edge of the property, adjacent to an existing Lattice type tower structure.

Development immediately to the south and southwest is commercial/retail along Padanaram Road. The surrounding area is a mix of single-family residential homes, apartment buildings and condominiums. Danbury High School is approximately .32 miles to the west at its nearest point. Candlewood Town Park and Hatters Park are approximately .59 miles to the east. Lower Pine Cove is located approximately .5 miles to the northeast. The Hayestown Avenue Elementary School is approximately .59 miles to the southeast. Immanuel Lutheran Preschool/Daycare is approximately .83 Miles to the south-southwest. There are no CT Blue Blazed Trails within the study area. There are no schools or licensed daycare facilities within 250 ft of the proposed facility.

Methodology

A One-mile radius surrounding the site is defined as the study area for this Viewshed Analysis. The Viewshed Analysis was conducted within the predefined study area using two different methods: computer modeling and on-site observation. Each method was used to verify the results of the other, providing the best possible prediction of locations that will have views of the proposed telecommunications facility.

Note: Balloon Test was conducted during leaf-off conditions therefore leaf-on viewshed results were un-verified.

Computer Modeling – Viewshed Analysis

A combination of Image based, Lidar based, and Digital Elevation Model (“DEM”) based data was used to perform this analysis. A number of different software packages were used to create the 3d models necessary to perform this analysis. Most notably ESRI ArcGIS platform was used to interpret Lidar data and perform image analysis in order to simulate Leaf on and Leaf off DSM conditions. The primary software used for the viewshed analysis was IVSview® VVS, LLC’s proprietary Interactive Viewshed Analysis Tool. This software allows the user to perform viewshed analysis on imported maps and datasets in “real time” and on multiple levels at the same time. These real-time calculations determine not only know if the tower will be seen, but also how much of the tower will be visible from those locations.

The maps and datasets used are documented in the “documentation” page at the end of this report. The maps and datasets are imported as layers within the software mapping program. Once imported, spatial analysis tools are used to evaluate each position within those layers from which the proposed facility may be visible. These tools allow for the input of: viewing reference height (assumed to be 5 Ft AGL) and tower height (in this case 145 ft. AGL). The tools also take into account any layers that have been imported that may affect viewing location (i.e. topography, tree canopy, ground cover, buildings, roads etc.). Lidar data was used to create a Digital Surface Model (DSM) of the existing topography. Existing tree canopy height and Building heights were not

averaged or assumed but calculated from lidar data within the DSM. Image analysis was used to classify the existing tree cover for both leaf on and leaf off conditions. The Image analysis results were then used to create two different DSM's. IVSview® analysis tool was then applied, and visibility models were created. The results of this computer model were then graphically layered on topographic and aerial maps.

These maps can be found in Attachment A.

On-site Observation & Documentation

A balloon test was conducted on Tuesday, November 15, 2022, and used as the visual reference for site observations from random locations throughout the study area. Note: The balloon test was conducted at 145 Ft AGL. The balloon test consisted of flying a 3 Ft. diameter helium filled balloon to the top elevation of the proposed tower. Balloon diameter was measured using a custom set of calipers. A red balloon was used to provide the best contrast between it and surrounding sky or vegetation. The balloon was tethered to the location of the proposed tower, and its elevation was set by measuring the length of the tether. The elevation was verified using the Lieca DISTO D2 Laser distometer.

Balloon test accuracy is very wind dependent. The balloon test was therefore scheduled on a day with wind conditions below the accepted threshold of 10mph. A preliminary viewshed analysis was done using the method outlined above to determine what areas were predicted to have views of the proposed site and to verify the computer model. Drive-by visual reconnaissance of the Study Area was then conducted using the preliminary viewshed analysis as a guide. Locations where the Balloon was visible and not visible were photo documented and a GPS track of reconnaissance areas was made. Reconnaissance areas were limited to public areas/roads, no private property was used in the on-site observations of this test.

Photo documentation of this test was accomplished using a Nikon P900 16Mp digital camera set to use a 50mm focal length^{1 2}. The Nikon P900 was chosen because it has built-in XMP metadata files that embed the GPS location, light conditions and bearing to target within the image source data file. These photos document the necessary location and bearing data to ensure the accuracy of simulation location. This documentation was then incorporated into a computer model prediction. The on-site observations were used to adjust model assumptions made in 3d model as necessary.

Photographic Documentation

A number of photographs were chosen from the on-site documentations photos and used to prepare photorealistic simulations of the proposed telecommunications facility. GPS coordinates and bearing information recorded within the XMP metadata file of the documentation photos was used to generate virtual camera positions within a 3d model. The balloon in the documentation photos was used as a spatial reference to verify the proportions and height of the proposed tower. Site plan information, field observations and 3D models were then used in these simulations to portray relative scale and location of the proposed structure. The photo simulations were then created using a combination of the 3d model and photo rendering software. These simulations and the existing site photographs provided for reference are attached.

Thirty-Three (33) photographs were used for simulations and documentation. These simulations and documentation photos are plotted on the viewshed analysis map attached and shown in the Photo Simulation Package (Attachment B)

¹ "The lens that most closely approximates the view of the unaided human eye is known as the normal focal length lens. For the 35 mm camera format, which gives an 24 x 35mm image, the normal focal length is about 50mm" Warren Bruce Photography, West Publishing Company, Egan, MN c 1993 (page 70)

² 50 mm focal length is based on 35mm film photography. Since Digital photographic sensors are not the same size as 35mm film ALL digital photography focal lengths must be corrected

Image No	Address	Distance	Orientation	Visibility	Visibility FT
1	10 Horseshoe Dr	476.74 Feet	North	Obscured	NA
2	54 Padanaram Rd	0.15 Miles	South-West	Obscured	NA
3	38 Padanaram Rd	0.2 Miles	South	Year Round	45
4	21 Rose Ln	0.21 Miles	East	Not Visible	NA
5	18 Jeanette Rd	0.21 Miles	North	Not Visible	NA
6	10 Jeanette Rd	0.24 Miles	North-West	Not Visible	NA
7	58 Padanaram Rd	0.26 Miles	West	Year Round	60
8	41 E Pembroke Rd	0.29 Miles	North-East	Not Visible	NA
9	10 Mabel Ave	0.29 Miles	North-West	Year Round	15
10	47 E Pembroke Rd	0.33 Miles	North	Not Visible	NA
11	48 Beckerle St	0.34 Miles	South-West	Year Round	55
12	31 Jeanette Rd	0.37 Miles	North	Not Visible	NA
13	5 Ezra Rd	0.41 Miles	South	Year Round	65
14	1 Padanaram Rd	0.43 Miles	South-East	Year Round	70
15	21A Beckerle St	0.46 Miles	South-West	Not Visible	NA
16	1 E Pembroke Rd	0.52 Miles	East	Not Visible	NA
17	CG9G+6X Danbury	0.55 Miles	West	Year Round	80
18	11 Lakeside Rd	0.55 Miles	South	Not Visible	NA
19	43 CT-39	0.57 Miles	West	Year Round	80
20	44 E Hayestown Rd	0.58 Miles	East	Not Visible	NA
21	39 Mabel Ave	0.62 Miles	North-West	Not Visible	NA
22	73 Padanaram Rd	0.66 Miles	North-West	Not Visible	NA
23	27 Tamarack Ave	0.68 Miles	South-East	Not Visible	NA
24	36 Clapboard Ridge Rd	0.68 Miles	South-West	Year Round	65
25	15 E Gate Rd	0.71 Miles	West	Not Visible	NA
26	87 Rowan St	0.73 Miles	South-East	Year Round	55
27	13 Sherry Ln	0.73 Miles	East	Not Visible	NA
28	30 Clapboard Ridge Rd	0.73 Miles	South-West	Not Visible	NA
29	6 Cedar St	0.79 Miles	North-East	Year Round	50
30	49 E Hayestown Rd	0.8 Miles	North-East	Year Round	55
31	32 Valerie Ln	0.87 Miles	East	Not Visible	NA
32	16 Hillside Rd	0.9 Miles	North-East	Not Visible	NA
33	432 Main St	0.97 Miles	South	Not Visible	NA

Visibility Analysis Results

The results of the of viewshed analysis for the proposed telecommunications facility are provided on the visibility analysis maps attached at the end of this report within Attachment A. The maps are provided in two ways, one showing proposed total visibility by height (IVS) as an overview and a second set of maps comparing leaf on leaf off conditions (single color for each).

Predicted estimate of year-round views (Summer, leaf on condition) of the proposed tower facility are from approximately 62.5 acres or approximately 3.11 % of the 1-mile radius study area. Approximately 30 % of these views are predicted to be of the upper 25% (36.5 ft) of the proposed tower. The majority of the predicted views are contained within open field/areas without trees in and around the Danbury High School (27.4 acres 43.8%) to the west and commercial parking lots and businesses along Padanaram Road to the east and southeast (15.8 acres 25 %). There are some views predicted from lower Pine Cove on its western edge (9.2 acres). These specific views are predicted to be of the uppermost portion of the tower. The nearest predicted year-round views (<1000 ft) are predicted from homes along Horseshoe Drive and Mabe Avenue Immediately to the north and northwest of the site. These specific views are predicted to be of the uppermost portion (top 25 %) of the tower. Other year-round views are predicted in the residential area directly across the small valley to the southwest of the site along Golden Hill Road and some portions of Terrace Street. The remaining acres of predicted year-round views mainly occur in small pockets of visibility scattered within the residential areas .25 miles to the south and west.

Predicted seasonal views (Winter, leaf off condition) of the proposed facility are from an additional 79.6 acres. Total predicted seasonal views 142.1 acres (7.07% of study area). These additional seasonal views mostly occur along the edges of the year-round visibility, with areas of additional seasonal visibility scattered within the residential areas surrounding the site. Additional views from these specific areas are predicted to be partially obscured by existing tree cover and surrounding structures.

No year-round views are predicted from the Candlewood Town Park and Hatters Park.

Documentation

Sources used for Visibility Analysis located at:

CT1443 Danbury
41 Padanaram Road
Danbury, CT 06811

Maps and datasets /consulting documents:

United States Geological Survey - USGS Topographical quadrangles (2011-2012)

National Resource Conservation Service -NAIP aerial photography (2010, 2012)

CRCOG Ortho-imagery – (2018)

UCONN- Center for Land Use Education and Research
- LiDAR data (2018)

DEEP- Connecticut Department of Energy and Environmental Protection
- Open Space (2010)
- DEEP Property (2017)

United States Census (2010) – Landmark Polygon Features

Connecticut Forest & Park Association (CFPA) – Blue Blazed Trails (2016)

Connecticut.Gov eLicensing Website – Child Daycare & Group Daycare Homes Roster (2022)

Environmental Systems Research Institute Inc (ERSI) – CT state boundaries/counties (2010)

Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo

Limitations:

This report and the analysis herein does not claim to depict all locations, or the only locations from which the proposed facility will be visible; it is intended to provide a representation of those areas where proposed facility is likely to be visible.

Attachment A - Viewshed Mapping Package

Proposed Wireless Telecommunications Facility:

CT1443 Danbury RT 39
39 Padnaram Rd
Danbury, CT 06811

- Proposed new 145 ft AGL antenna structure
- Balloon test and viewshed verification completed 11/15/22

Package prepared by:

Virtual Site Simulations, LLC
24 Salt Pond Road
Suite C3
South Kingstown, Rhode Island 02879

www.VirtualSiteSimulations.com
www.ThinkVSSFirst.com



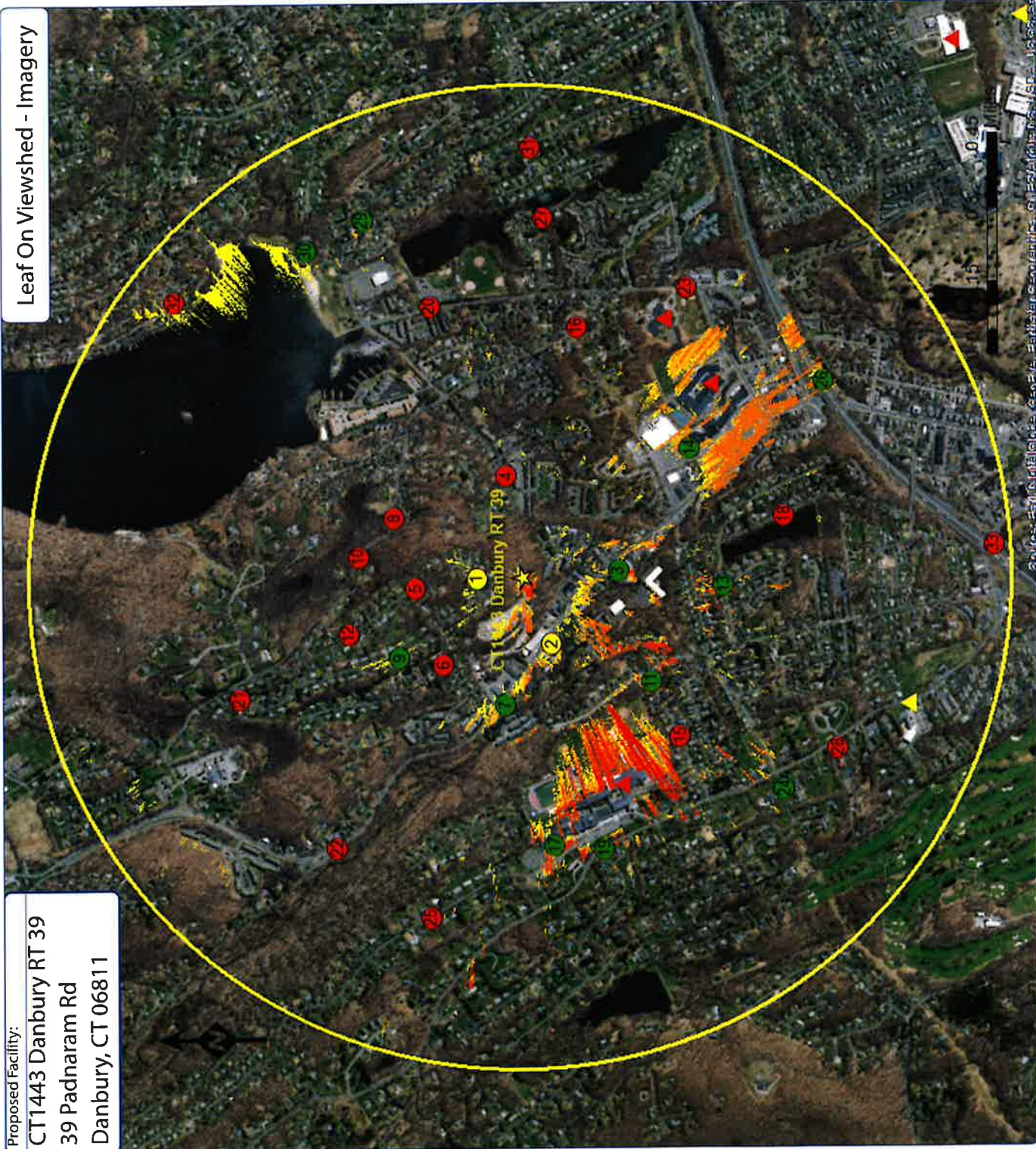
Viewshed analysis maps and representations contained herein depict where proposed facility may potentially be visible based on the best data available and site conditions at the time data was collected. This study does not claim to depict all locations from where the facility may be potentially visible.



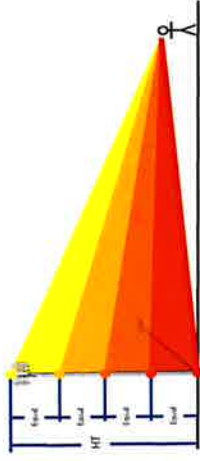
at&t

Leaf On Viewshed - Imagery

Proposed Facility:
 CT1443 Danbury RT 39
 39 Padnaram Rd
 Danbury, CT 06811



IVSview® Color Legend



- ☆ Facility Location ○ 1 Mile Radius
- Photo location -Balloon visible- Year Round
- ⊗ Photo location -Balloon visible- Seasonal
- ⊗ Photo location -Balloon NOT visible
- ▲ School Facilities ▲ Daycare Facilities

Tower Visibility		
Color	Location	% Vis Acres
Yellow	Top 25%	0.92% 18.6
Orange	Top 50%	0.68% 13.7
Red-Orange	Top 75%	0.93% 18.8
Red	Top 100%	0.42% 8.5
	Base	0.15% 3.0
	TOTAL	3.11% 62.5 Acres

Statistics:

PROJ_DESC=Geographic (Lat/Long) / WGS84 / arc degrees
 PROJ_DATUM=WGS84.PROJ_UNITS=arc degrees
 PIXEL_WIDTH=0.0000013 arc degrees (+/- .6 ft)
 PIXEL_HEIGHT=0.0000014 arc degrees(+/- .6 ft)
 RADIUS (FT)= 1 Mile
 TRANSMITTER_HEIGHT (FT-AGL)= 145
 RECEIVER_HEIGHT (FT-AGL)= 5 FT
 PERCENT_VISIBLE (%)= 3.11%

Notes:

- map compiled by VSS, LLC on : 11/15/22
- Tower location(lat/long NAD 83): 41.4191 -73.46216
- Data Sources noted on documentation page attached

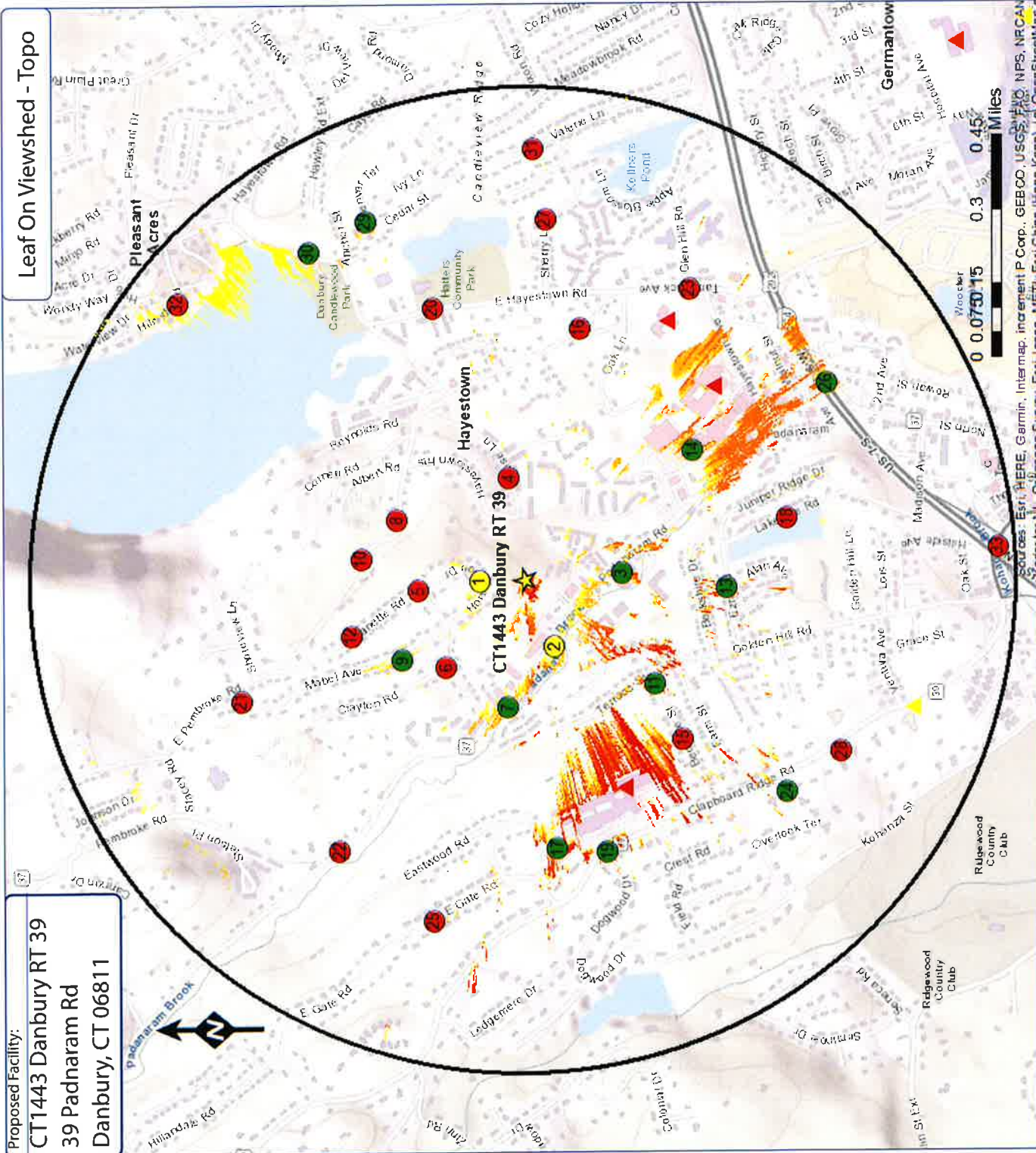


VSS-IVS-Interactive Viewshed Analysis output maps contained herein depict where proposed facility may potentially be visible based on the best and newest data publicly available at the time the data was collected. VSS does not claim to depict all locations from where the facility may potentially be visible and calculated output should be confirmed via site testing as needed.

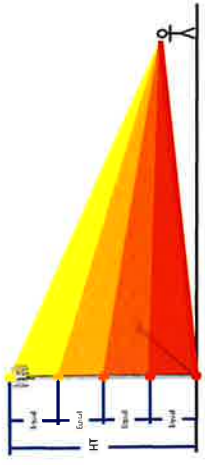


Leaf On Viewshed - Topo

Proposed Facility:
CT1443 Danbury RT 39
39 Padnartram Rd
Danbury, CT 06811



IVSview® Color Legend



- ☆ Facility Location ○ 1 Mile Radius
- Photo location - Balloon visible- Year Round
- ⊗ Photo location - Balloon visible- Seasonal
- ⊗ Photo location - Balloon NOT visible
- ▲ School Facilities ▲ Daycare Facilities

Tower Visibility		
Color	Location	% Vis Acres
Yellow	Top 25%	0.92% 18.6
Orange	Top 50%	0.68% 13.7
Red-Orange	Top 75%	0.93% 18.8
Red	Top 100%	0.42% 8.5
Dark Red	Base	0.15% 3.0
TOTAL		3.11% 62.5 Acres

Statistics:
 PROJ_DESC=Geographic (Lat/Long) / WGS84 / arc degrees
 PROJ_DATUM=WGS84_PROJ_UNITS=arc degrees
 PIXEL_WIDTH=0.000013 arc degrees (+/- .6 ft)
 PIXEL_HEIGHT=0.000014 arc degrees(+/- .6 ft)
 RADIUS (FT)= 1 Mile
 TRANSMITTER_HEIGHT (FT-AGL)= 145
 RECEIVER_HEIGHT (FT-AGL)= 5 FT
 PERCENT_VISIBLE (%)=3.11%

Notes:
 - map compiled by VSS, LLC on : 11/15/22
 - Tower location(lat/long NAD 83): 41.4191 -73.46216
 - Data Sources noted on documentation page attached

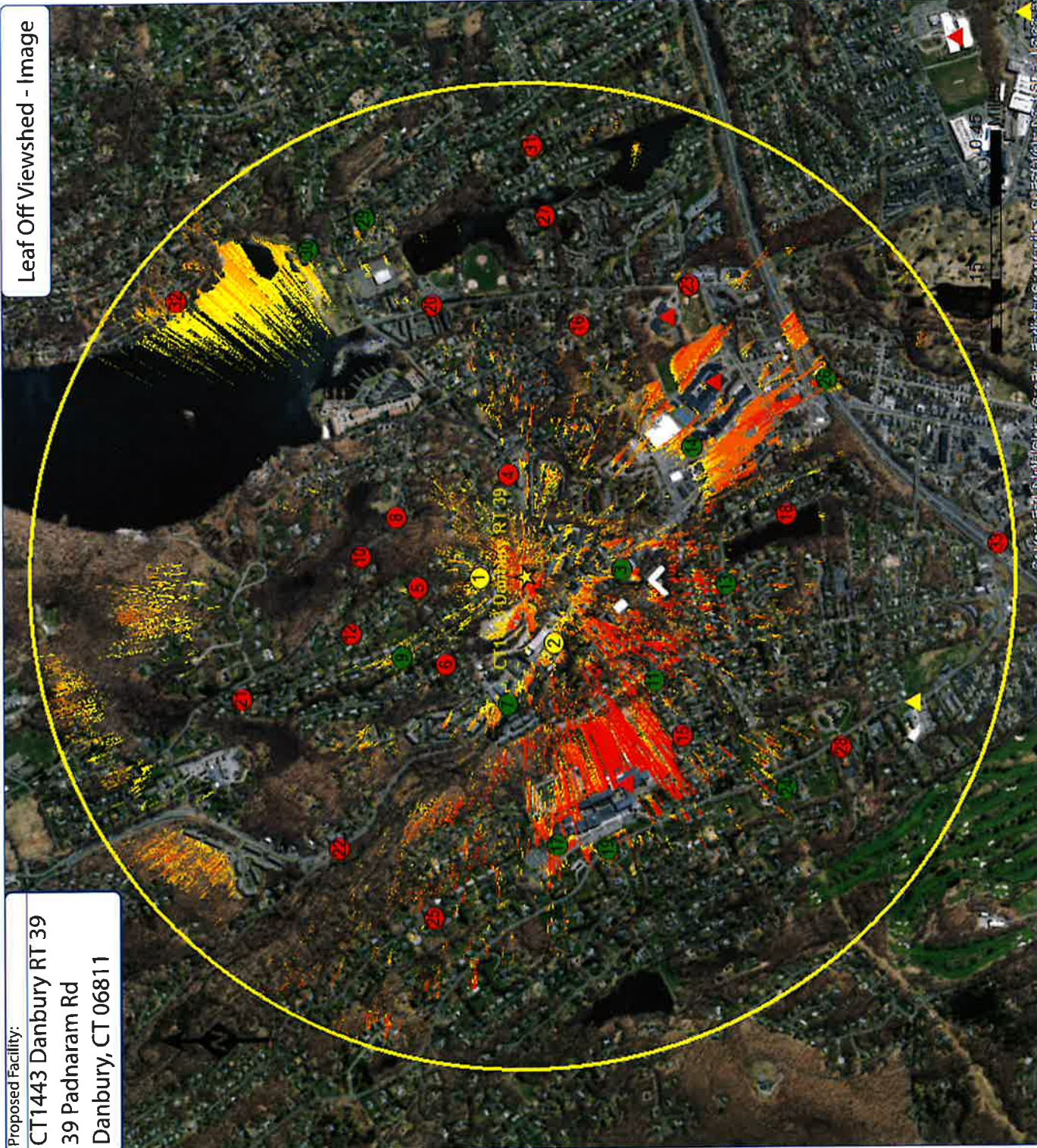


VSS-IVS-Interactive Viewshed Analysis output maps contained herein depict where proposed facility may potentially be visible based on the best and newest data publicly available at the time the data was collected. VSS does not claim to depict all locations from where the facility may potentially be visible and calculated output should be confirmed via site testing as needed.

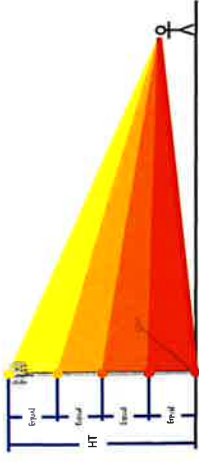
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Leaf Off Viewshed - Image

Proposed Facility:
 CT1443 Danbury RT 39
 39 Padnaram Rd
 Danbury, CT 06811



IVSview® Color Legend



- ☆ Facility Location ○ 1 Mile Radius
- Photo location - Balloon visible- Year Round
- ⊗ Photo location - Balloon visible- Seasonal
- ⊗ Photo location - Balloon NOT visible
- ▲ School Facilities ▲ Daycare Facilities

Tower Visibility		
Color	Location	% Vis Acres
Yellow	Top 25%	1.97% 39.5
Orange	Top 50%	1.63% 32.8
Red-Orange	Top 75%	1.57% 31.5
Red	Top 100%	1.18% 23.7
Red	Base	0.73% 14.6
TOTAL		7.07% 142.1 ACRES

Statistics:
 PROJ_DESC=Geographic (Lat/Long) / WGS84 / arc degrees
 PROJ_DATUM=WGS84 PROJ_UNITS=arc degrees
 PIXEL_WIDTH=0.0000013 arc degrees (+/- .6 ft)
 PIXEL_HEIGHT=0.0000014 arc degrees(+/- .6 ft)
 RADIUS (FT)= 1 Mile
 TRANSMITTER_HEIGHT (FT-AGL)= 145
 RECEIVER_HEIGHT (FT-AGL)= 5 Ft
 PERCENT_VISIBLE (%)= 7.07%

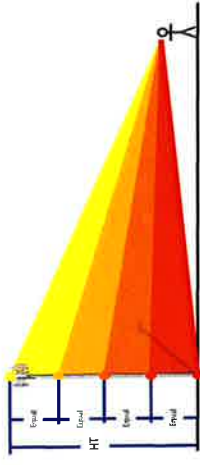
Notes:
 - map compiled by VSS, LLC on : 11/15/22
 - Tower location(lat/long NAD 83): 41.4191 -73.46216
 - Data Sources noted on documentation page attached

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 TOWER ENGINEERING PROFESSIONALS
 VSS
 VSS, LLC dba at&t Tower Engineering Professionals

VSS-IVS- Interactive Viewshed Analysis output maps contained herein depict where proposed facility may potentially be visible based on the best and newest data publicly available at the time the data was collected. VSS does not claim to depict all locations from where the facility may potentially be visible and calculated output should be confirmed via site testing as needed.



IVSview® Color Legend

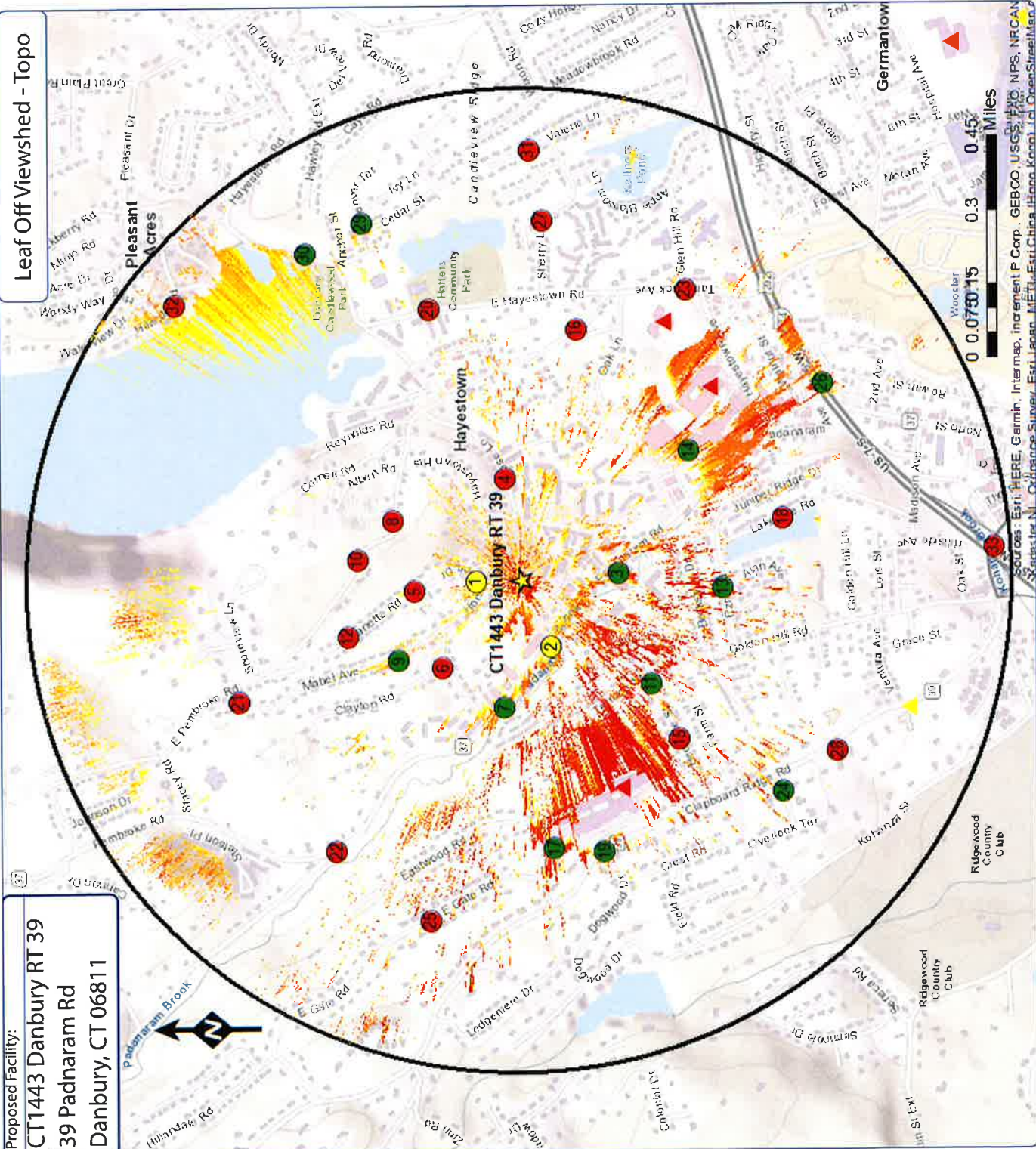


- ☆ Facility Location ○ 1 Mile Radius
- Photo location - Balloon visible - Year Round
- ⊗ Photo location - Balloon visible - Seasonal
- Photo location - Balloon NOT visible
- ▲ School Facilities ▲ Daycare Facilities

Tower Visibility	
Color	% Vis Acres
Yellow	Top 25% 1.97% 39.5
Orange	Top 50% 1.63% 32.8
Red-Orange	Top 75% 1.57% 31.5
Red	Top 100% 1.18% 23.7
Base	0.73% 14.6
TOTAL	7.07% 142.1 Acres

Statistics:
 PROJ_DESC=Geographic (Lat/Long) / WGS84 / arc degrees
 PROJ_DATUM=WGS84 PROJ_UNITS=arc degrees
 PIXEL_WIDTH=0.000013 arc degrees (+/- .6 ft)
 PIXEL_HEIGHT=0.000014 arc degrees (+/- .6 ft)
 RADIUS (FT)= 1 Mile
 TRANSMITTER_HEIGHT (FT-AGL)= 145
 RECEIVER_HEIGHT (FT-AGL)= 5 Ft
 PERCENT_VISIBLE (%)= 7.07%

Notes:
 - map compiled by VSS, LLC on : 11/15/22
 - Tower location (lat/long NAD 83): 41.4191 -73.46216
 - Data Sources noted on documentation page attached

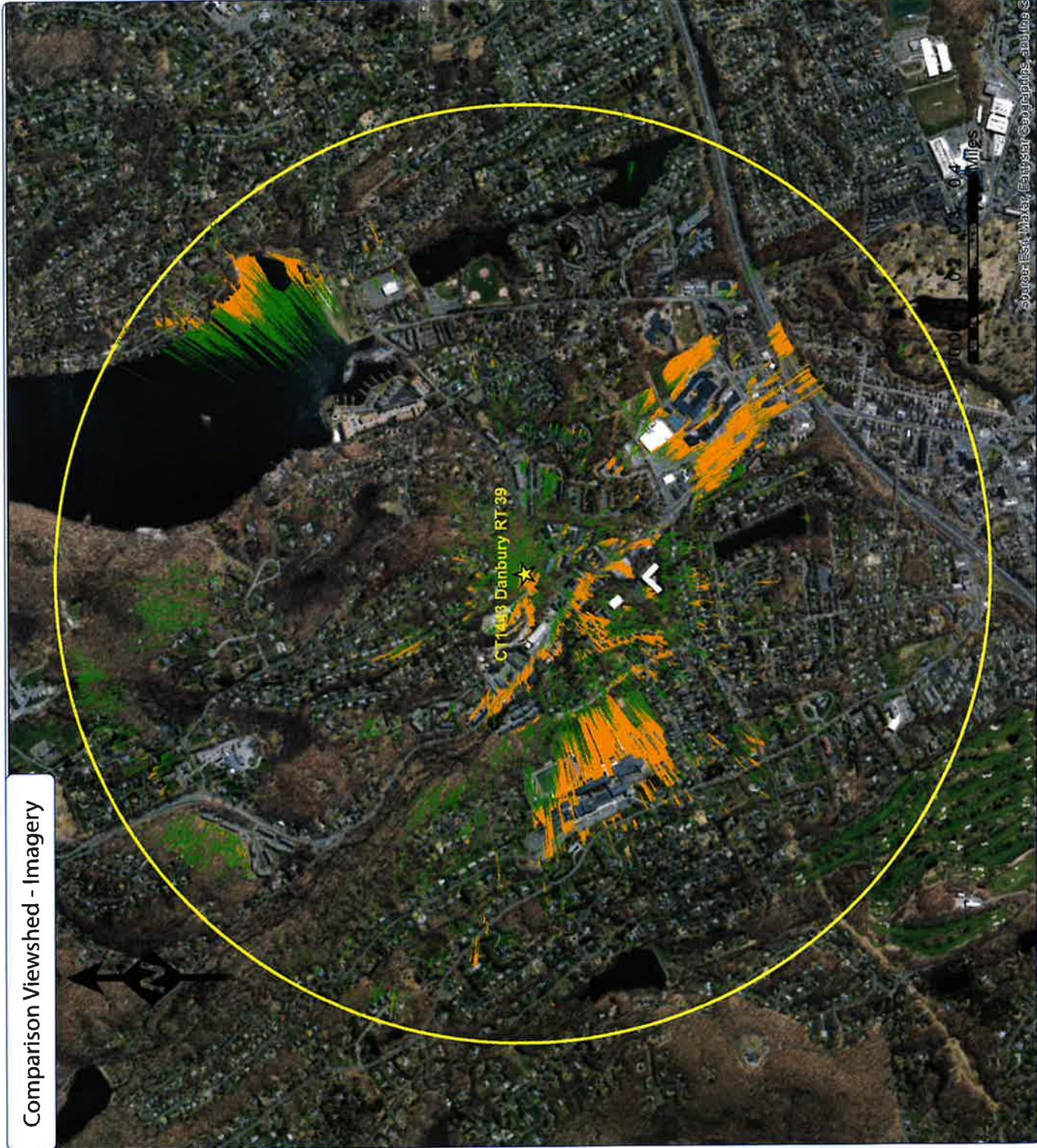


Leaf Off Viewshed - Topo

Proposed Facility:
 CT1443 Danbury RT 39
 39 Padnaram Rd
 Danbury, CT 06811

VSS-IVS- Interactive Viewshed Analysis output maps contained herein depict where proposed facility may potentially be visible based on the best and newest data publicly available at the time the data was collected. VSS does not claim to depict all locations from where the facility may potentially be visible and calculated output should be confirmed via site testing as needed.

Comparison Viewshed - Imagery



Proposed Facility:

CT1443 Danbury RT 39

39 Padnaram Rd

Danbury, CT 06811



Facility Location



1 Mile Radius



Leaf-On Tower Visibility

3.11 % Visible 62.5 Acres



Leaf-Off Tower Visibility

7.07 % Visible 142.1 Acres

Statistics:

PROJ_DESC=Geographic (Lat/Long) / WGS84 / arc degrees
 PROJ_DATUM=WGS84 PROJ_UNITS=arc degrees
 PIXEL_WIDTH=0.0000013 arc degrees (+/- .6 ft)
 PIXEL_HEIGHT=0.0000014 arc degrees(+/- .6 ft)
 RADIUS (FT)= 1 Mile
 TRANSMITTER_HEIGHT (FT-AGL)= 145
 RECEIVER_HEIGHT (FT-AGL)= 5 Ft
 PERCENT_VISIBLE (%)=

Notes:

- map compiled by VSS, LLC on : 11/15/22
- Tower location(lat/long NAD 83): 41.4191 -73.46216
- Data Sources noted on documentation page attached




Viewshed analysis maps and representations contained herein depict where proposed facility may potentially be visible based on the best data available and site conditions at the time data was collected. This study does not claim to depict all locations from where the facility may be potentially visible.




Proposed Facility:

CT1443 Danbury RT 39
39 Padnaram Rd
Danbury, CT 06811

★ Facility Location ○ 1 Mile Radius

 Leaf-On Tower Visibility
3.11 % Visible 62.5 Acres

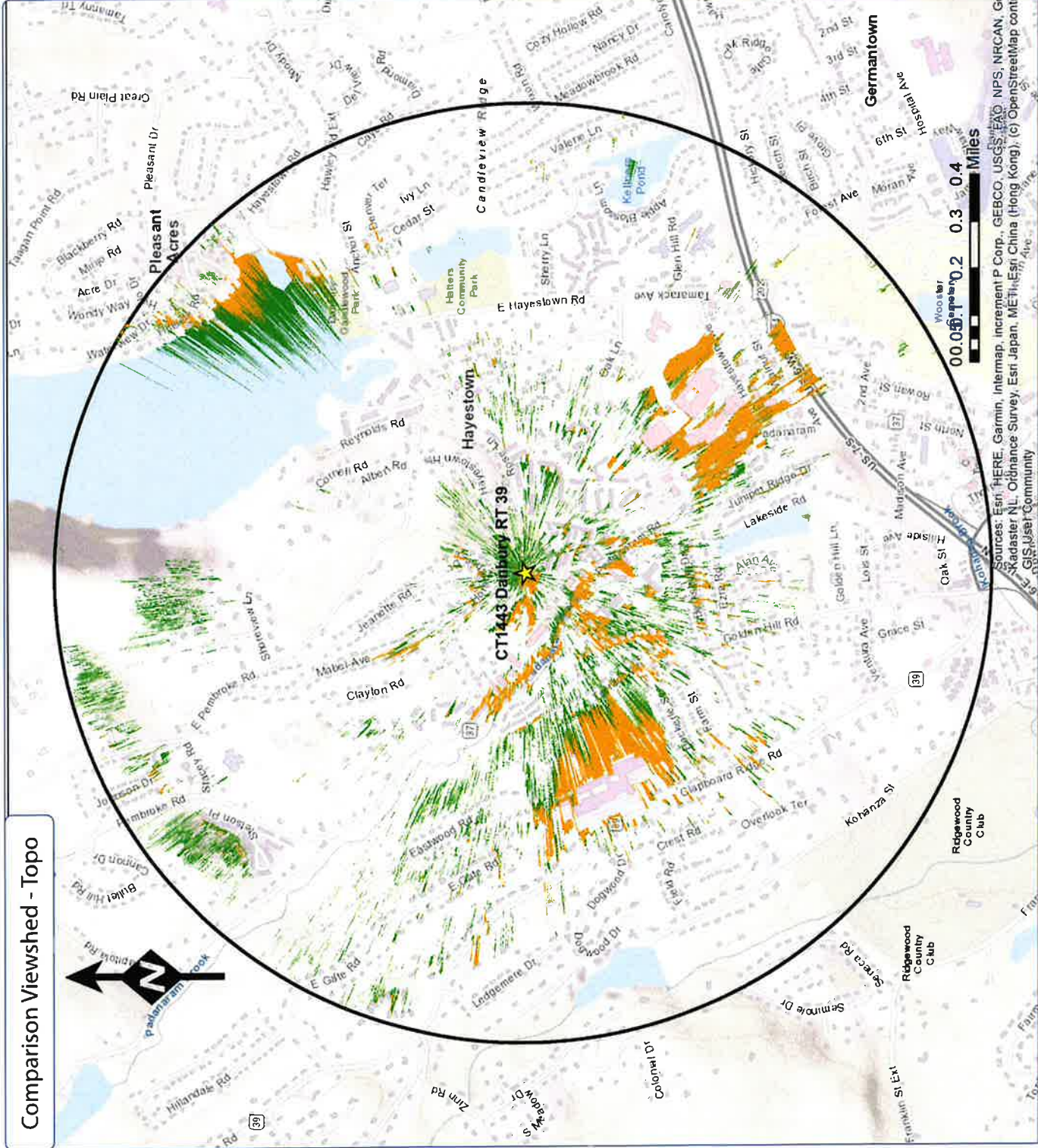
 Leaf-Off Tower Visibility
7.07 % Visible 142.1 Acres

Statistics:

PROJ_DESC=Geographic (Lat/Long) / WGS84 / arc degrees
 PROJ_DATUM=WGS84 PROJ_UNITS=arc degrees
 PIXEL_WIDTH=0.000013 arc degrees (+/- .6 ft)
 PIXEL_HEIGHT=0.000014 arc degrees(+/- .6 ft)
 RADIUS (FT)= 1 Mile
 TRANSMITTER_HEIGHT (FT-AGL)= 145
 RECEIVER_HEIGHT (FT-AGL)= 5 Ft
 PERCENT_VISIBLE (%)=

Notes:

- map compiled by VSS, LLC on : 11/15/22
- Tower location(lat/long NAD 83): 41.4191 -73.46216
- Data Sources noted on documentation page attached




VSS
Vance Shepard Parks Services

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Viewshed analysis maps and representations contained herein depict where proposed facility may potentially be visible based on the best data available and site conditions at the time data was collected. This study does not claim to depict all locations from where the facility may be potentially visible.



Attachment B - Photographic Simulation Package



Proposed Wireless Telecommunications Facility:

CT1443 Danbury RT 39
39 Padnaram Rd
Danbury, CT 06811

- Balloon Test Conducted 11/15/22

Package prepared by:

Virtual Site Simulations, LLC
24 Salt Pond Road
Suite C3
South Kingstown, Rhode Island 02879

www.VirtualSiteSimulations.com
www.ThinkVSSFirst.com

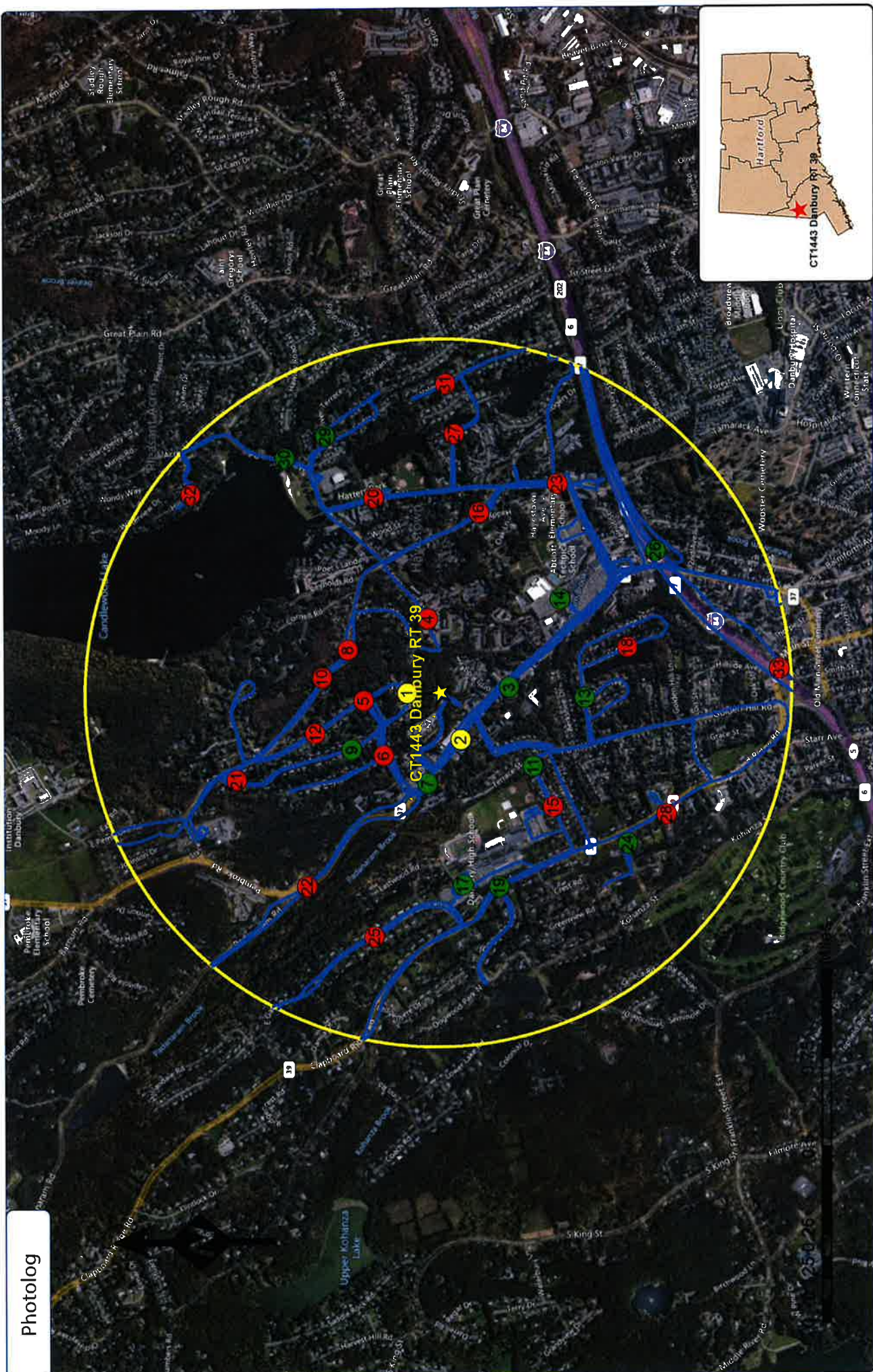
Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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Wireless Telecommunications Facility:

CT1443 Danbury RT 39
 39 Padnaram Rd
 Danbury, CT 06811

Legend:

- ★ Facility Location
- 1 Mile Radius
- Reconnaissance Track Log
- Photo location - Balloon visible
- Photo location - Year Round Visibility
- Photo location - Balloon visible
- Photo location - Obscured Visibility
- Photo location - Balloon NOT visible

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
1	Horseshoe Dr	41.42041 -73.46218	476.74 Feet	North	179	Obscured

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
1	Horseshoe Dr	41.42041 -73.46218	476.74 Feet	North	179	Obscured

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
2	Padanaram Rd	41.4182 -73.46472	0.15 Miles	South-West	65	Obscured

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
2	Padanaram Rd	41.4182 -73.46472	0.15 Miles	South-West	65	Obscured

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing

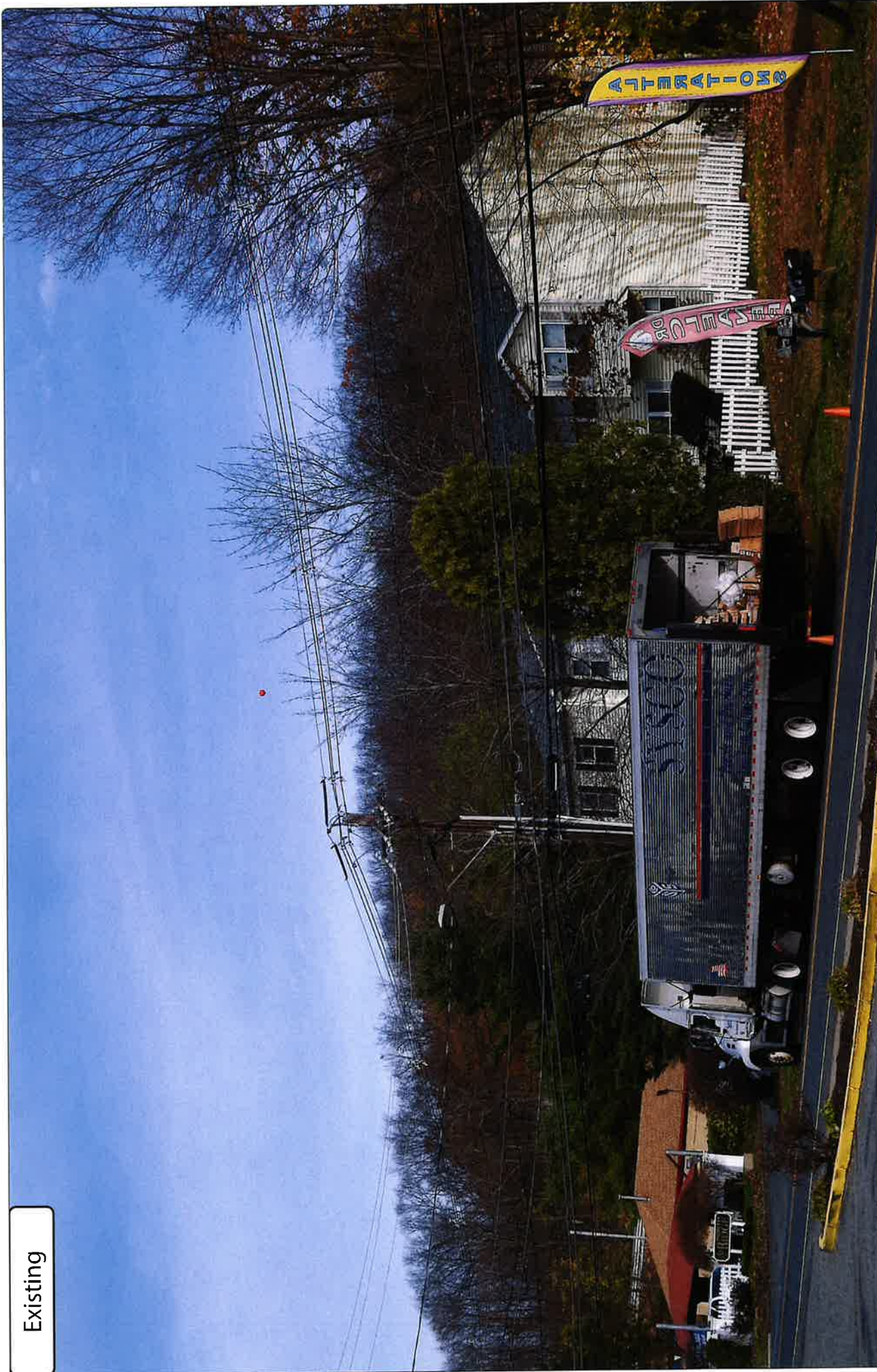


Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
3	Padanaram Rd	41.41623 -73.46184	0.2 Miles	South	355	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation

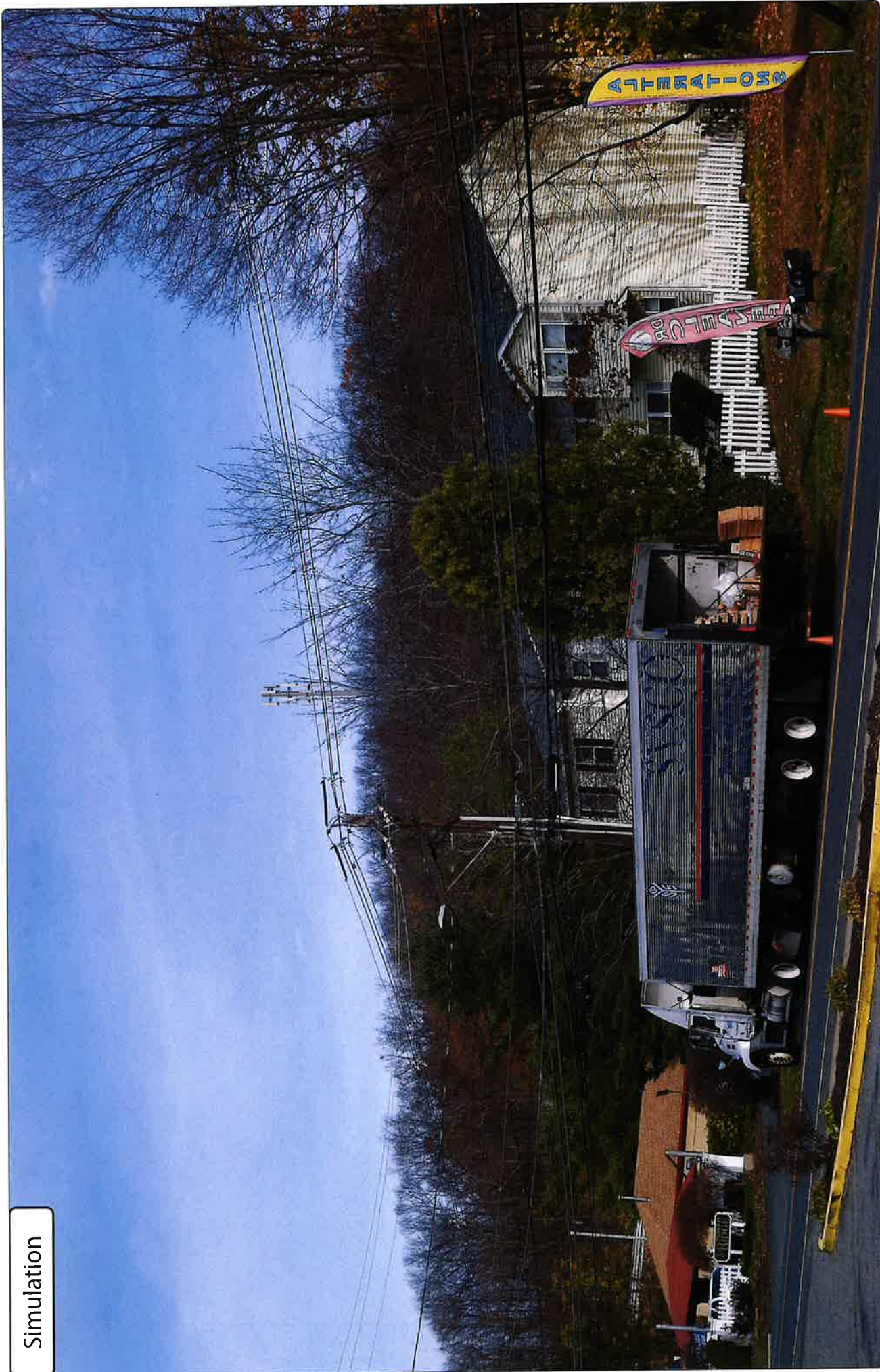


Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
3	Padanaram Rd	41.41623 -73.46184	0.2 Miles	South	355	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
4	Rose Ln	41.41957 -73.45814	0.21 Miles	East	261	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
5	Jeanette Rd	41.42219 -73.46259	0.21 Miles	North	174	Not Visible

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
6	Jeanette Rd	41.42136 -73.46557	0.24 Miles	North-West	132	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



VSS



Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
7	Padanaram Rd	41.41954 -73.46709	0.26 Miles	West	97	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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Simulation

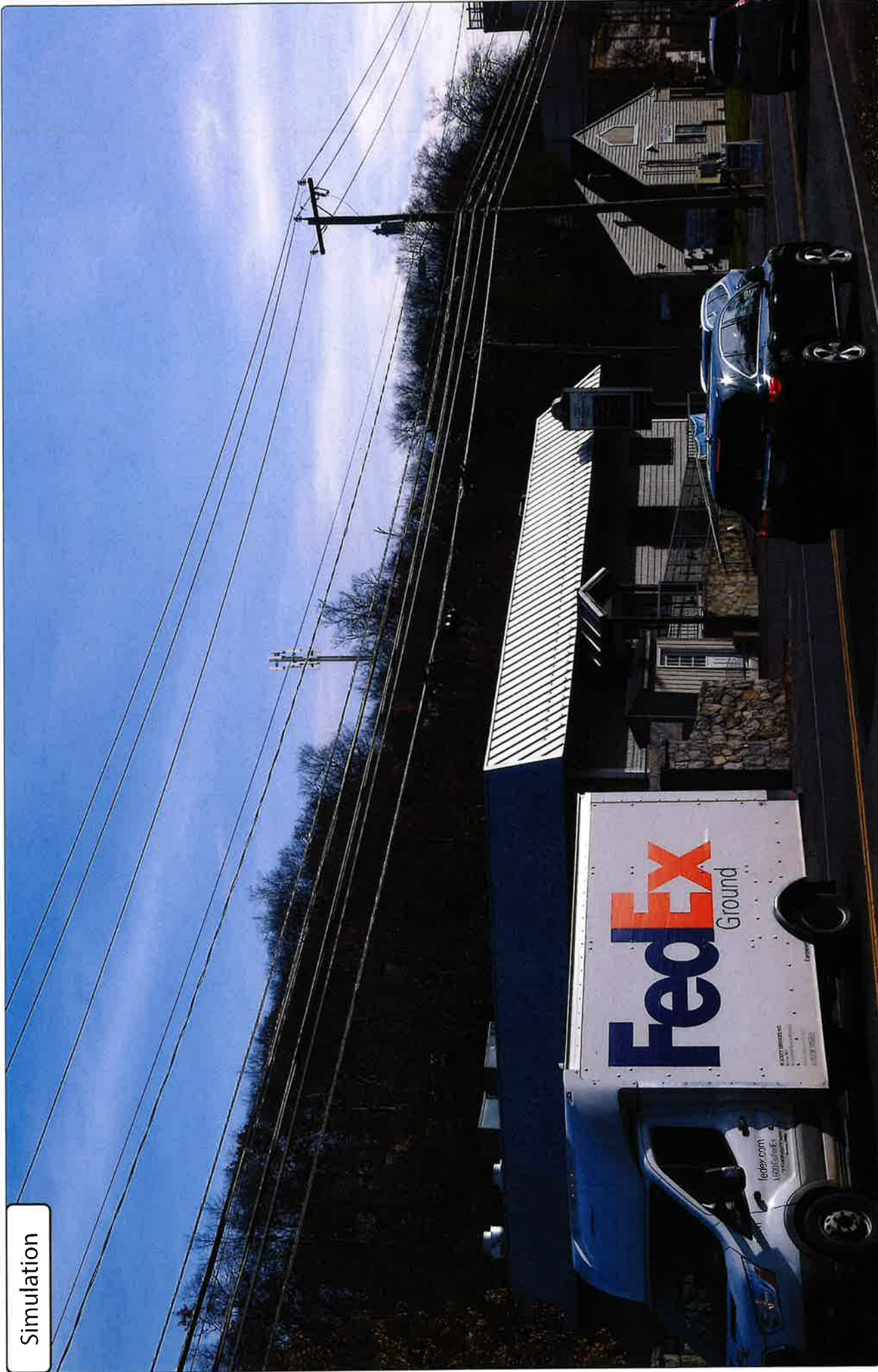


Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
7	Padanaram Rd	41.41954 -73.46709	0.26 Miles	West	97	Year Round

Site: CT1443 Danbury RT 39

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VSS



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Existing

Balloon not visible from this location

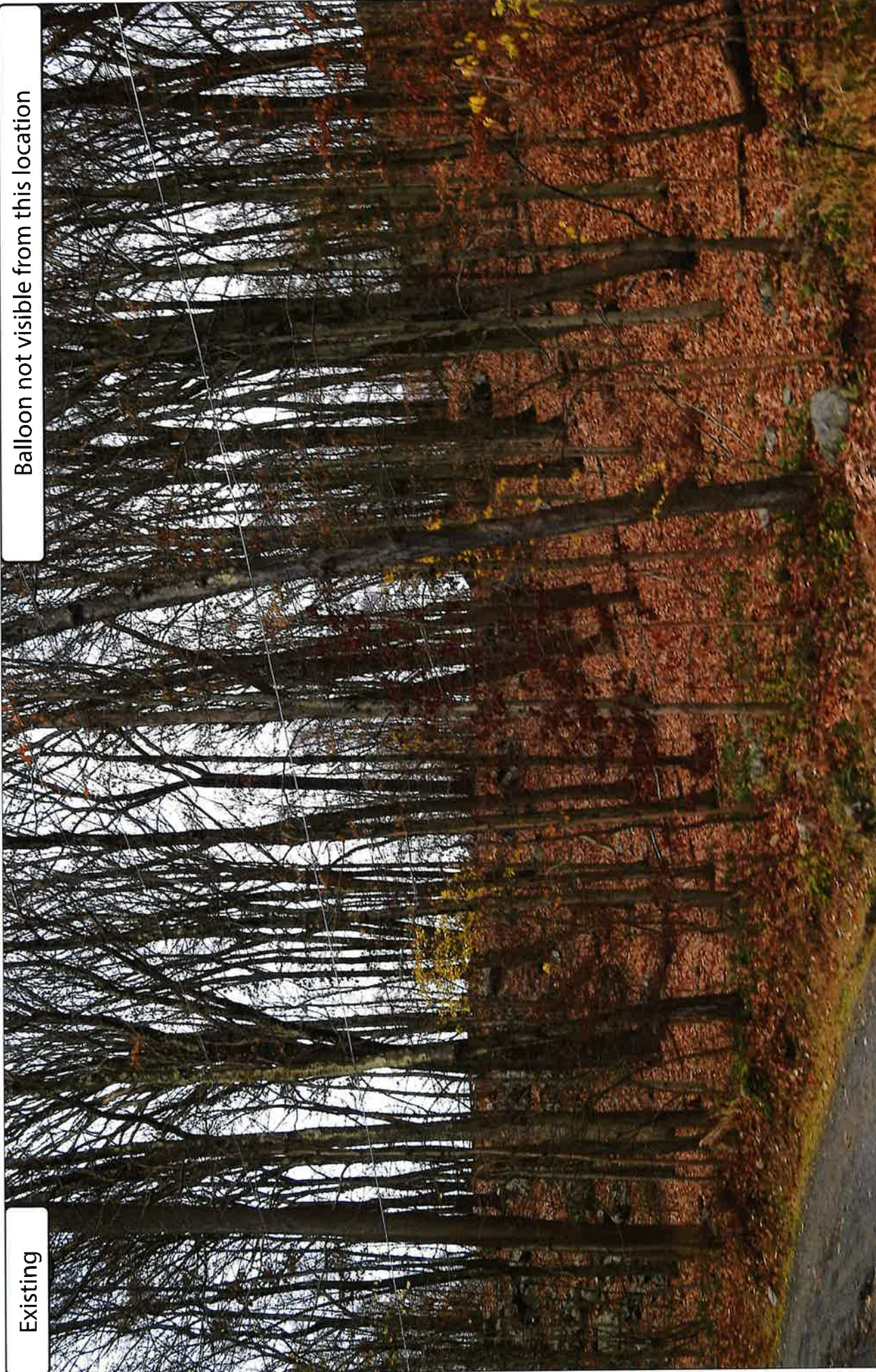


Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
8	E Pembroke Rd	41.42285 -73.45982	0.29 Miles	North-East	205	Not Visible

Site: CT1443 Danbury RT 39



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Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
9	Mabel Ave	41.42267 -73.46525	0.29 Miles	North-West	147	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
9	Mabel Ave	41.42267 -73.46525	0.29 Miles	North-West	147	Year Round

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
10	E Pembroke Rd	41.4239 -73.46134	0.33 Miles	North	187	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
11	Beckerle St	41.41524 -73.46616	0.34 Miles	South-West	38	Year Round

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
11	Beckerle St	41.41524 -73.46616	0.34 Miles	South-West	38	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing

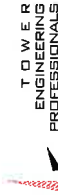
Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
12	Jeanette Rd	41.42418 -73.46437	0.37 Miles	North	162	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
13	Ezra Rd	41.41315 -73.46241	0.41 Miles	South	2	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
13	Ezra Rd	41.41315 -73.46241	0.41 Miles	South	2	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
14	Padanaram Rd	41.41418 -73.45706	0.43 Miles	South-East	322	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
14	Padanaram Rd	41.41418 -73.45706	0.43 Miles	South-East	322	Year Round

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing

Balloon not visible from this location

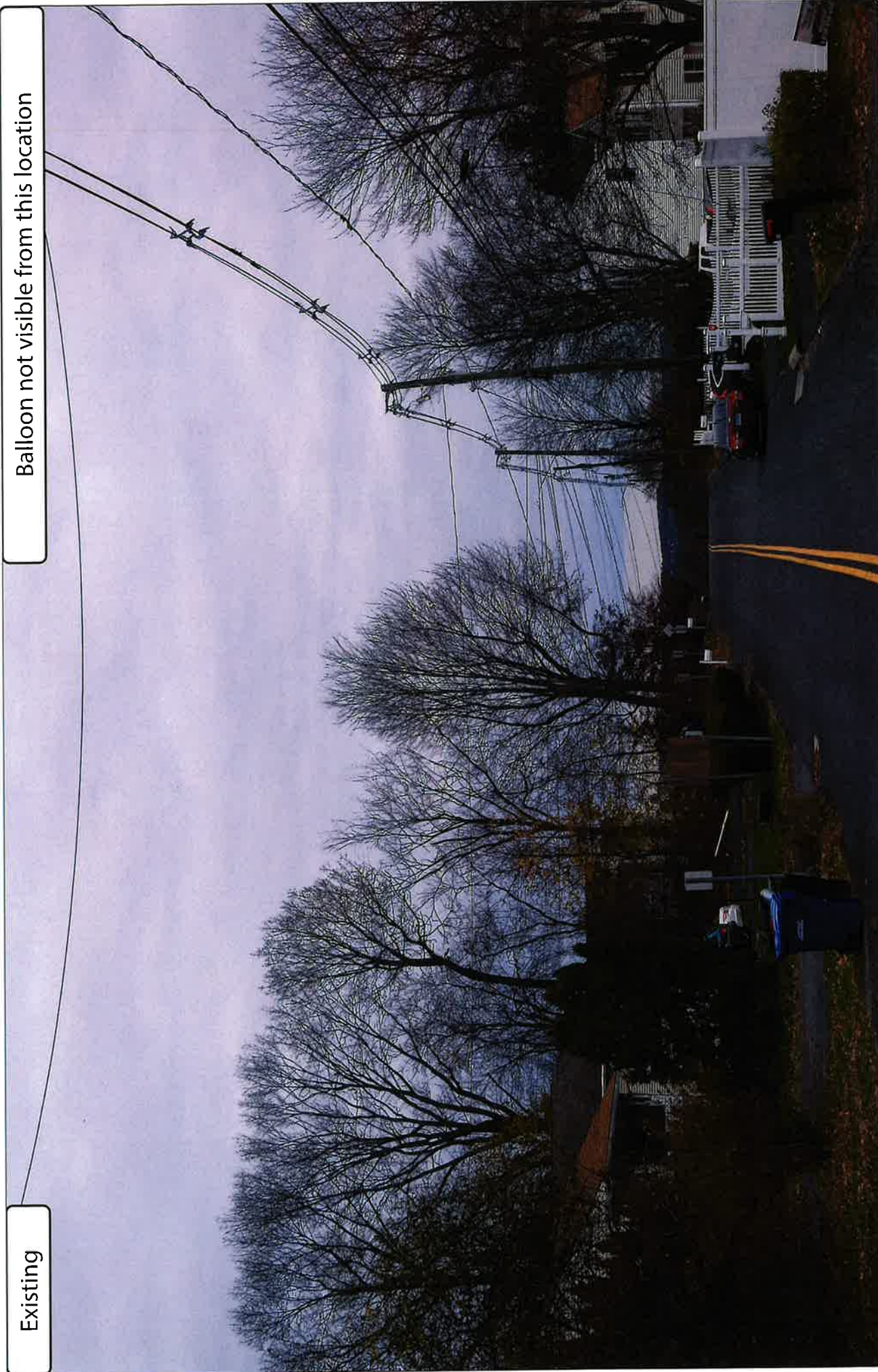


Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
15	Beckerle St	41.41441 -73.46835	0.46 Miles	South-West	45	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
16	E Pembroke Rd	41.41752 -73.45235	0.52 Miles	East	282	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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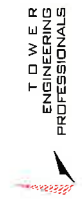
Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
17	Danbury	41.41807 -73.47261	0.55 Miles	West	82	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
17	Danbury	41.41807 -73.47261	0.55 Miles	West	82	Year Round

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
18	Lakeside Rd	41.41139 -73.45967	0.55 Miles	South	346	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
19	CT-39	41.4166 -73.4727	0.57 Miles	West	72	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
19	CT-39	41.4166 -73.4727	0.57 Miles	West	72	Year Round

Site: CT1443 Danbury RT 39



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Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
20	E Hayestown Rd	41.42184 -73.45154	0.58 Miles	East	251	Not Visible

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing

Balloon not visible from this location

Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
21	Mabel Ave	41.42737 -73.46691	0.62 Miles	North-West	157	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution





Existing

Balloon not visible from this location

Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
22	Padanaram Rd	41.42448 -73.4727	0.66 Miles	North-West	124	Not Visible

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing

Balloon not visible from this location

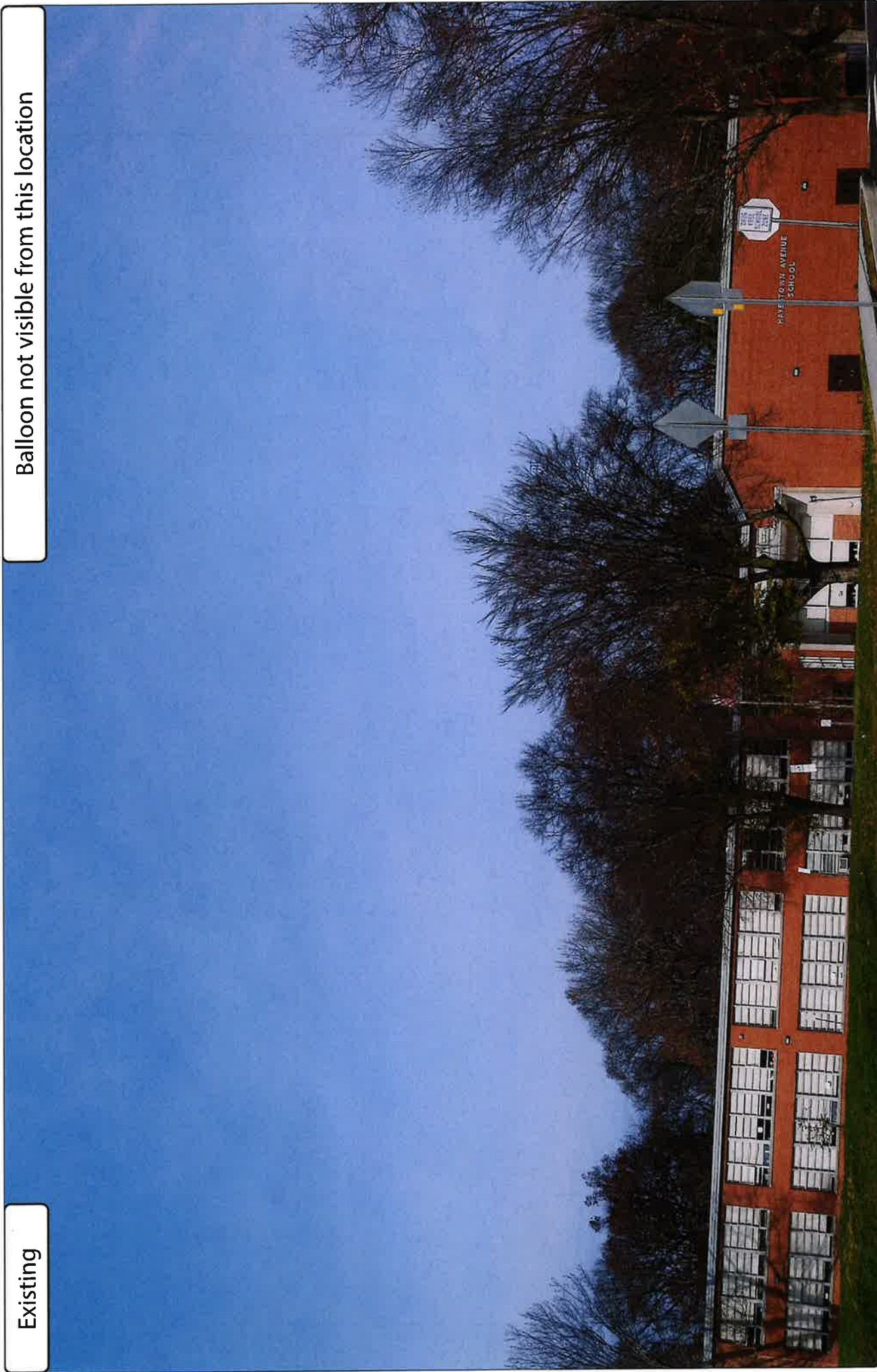


Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
23	Tamarack Ave	41.41431 -73.45079	0.68 Miles	South-East	299	Not Visible

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
24	Clapboard Ridge Rd	41.41132 -73.47034	0.68 Miles	South-West	38	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
24	Clapboard Ridge Rd	41.41132 -73.47034	0.68 Miles	South-West	38	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution





Existing

Balloon not visible from this location

Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
25	E Gate Rd	41.42169 -73.47544	0.71 Miles	West	105	Not Visible

Site: CT1443 Danbury RT 39



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Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
26	Rowan St	41.41026 -73.45442	0.73 Miles	South-East	327	Year Round

Site: CT1443 Danbury RT 39

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Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
26	Rowan St	41.41026 -73.45442	0.73 Miles	South-East	327	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



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Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
27	Sherry Ln	41.41853 -73.44806	0.73 Miles	East	273	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



at&t

Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
28	Clapboard Ridge Rd	41.40973 -73.46874	0.73 Miles	South-West	28	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
29	Cedar St	41.42383 -73.4482	0.79 Miles	North-East	246	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
29	Cedar St	41.42383 -73.4482	0.79 Miles	North-East	246	Year Round

Site: CT1443 Danbury RT 39



Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

Existing



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
30	E Hayestown Rd	41.42548 -73.44939	0.8 Miles	North-East	236	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Simulation



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
30	E Hayestown Rd	41.42548 -73.44939	0.8 Miles	North-East	236	Year Round

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
31	Valerie Ln	41.41892 -73.44535	0.87 Miles	East	271	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



at&t

Existing

Balloon not visible from this location



Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
32	Hillside Rd	41.42933 -73.45137	0.9 Miles	North-East	218	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution on



Existing

Balloon not visible from this location

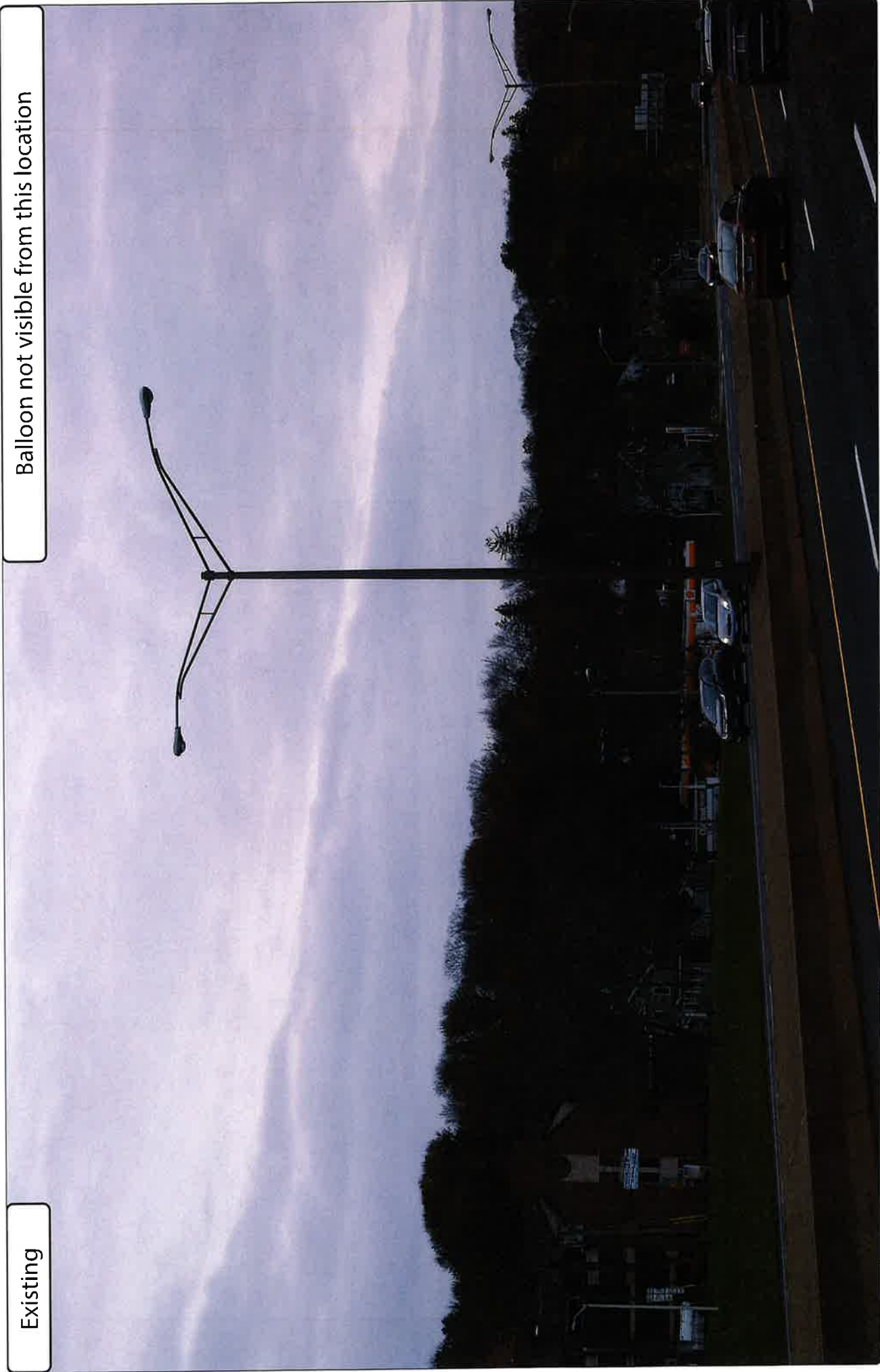


Photo #	Approximate Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
33	Main St	41.40514 -73.4608	0.97 Miles	South	356	Not Visible

Site: CT1443 Danbury RT 39

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



ATTACHMENT 9



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

Calculated Radio Frequency Emissions Report



CT1443
41 Padanaram Rd, Danbury, CT 06811

January 19, 2023

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of AT&T, Verizon and T-Mobile antenna arrays to be mounted at 140' AGL on a proposed monopole tower located at 41 Padanaram Rd in Danbury, CT. The coordinates of the tower are 41° 25' 08.52" N, 73° 27' 43.96" W.

AT&T is proposing the following:

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

This report considers the planned antenna configuration for AT&T¹, Verizon and T-Mobile² to derive the resulting % MPE of its proposed installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

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

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

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment C 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 C contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

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

¹ As referenced to AT&T's Radio Frequency Design Sheet updated 02/01/2022.

² Verizon & T-Mobile's antenna configuration was provided by Crown Castle, dated 9/23/2022.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{PowerDensity} = \left(\frac{\text{EIRP}}{\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

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

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. 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 take into account 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. Antenna Inventory

Table 1 below outlines AT&T, Verizon and T-Mobile's proposed antenna configuration for the site. The associated data sheets and antenna patterns for these specific antenna models are included in Attachments C.

Operator	Sector / Call Sign	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
AT&T	Alpha / 90°	763	160	14.9	4944	QD8616-7	72	0	8.0	140
		2100	240	17.5	13496		62			
		739	160	15.1	5177	DMP65R-BU8D	75			
		850	160	16	6370		64			
	1900	160	17.8	9641	68					
	Beta / 210°	763	160	14.9	4944	QD8616-7	75	0	8.0	140
		2100	240	17.5	13496		64			
		739	160	15.1	5177	DMP65R-BU8D	67			
		850	160	16	6370		62			
	1900	160	17.8	9641	62					
	Gamma / 330°	763	160	14.9	4944	QD8616-7	75	0	8.0	140
		2100	240	17.5	13496		64			
739		160	15.1	5177	DMP65R-BU8D	67				
850		160	16	6370		62				
1900	160	17.8	9641	62						
Verizon	Alpha / 90°	751	160	14.4	4407	MX0FRO660-03	60.5	0	6.0	118
		850	160	14.0	4019		53			
		2100	160	18.2	10572		55.5			
		3700	200	23.35	43254	VZ-MT6407-77A	100			
	Beta / 210°	751	160	14.4	4407	MX0FRO660-03	60.5	0	6.0	118
		850	160	14.0	4019		53			
		2100	160	18.2	10572		55.5			
		3700	200	23.35	43254	VZ-MT6407-77A	100			
	Gamma / 330°	751	160	14.4	4407	MX0FRO660-03	60.5	0	6.0	118
		850	160	14.0	4019		53			
		2100	160	18.2	10572		55.5			
		3700	200	23.35	43254	VZ-MT6407-77A	100			
T-Mobile	Alpha / 90°	600	160	15.7	7431	APXVAA4L24_43-U-NA20	70	0	8.0	128
		700	160	15.9	77801		68			
		1900	160	19.8	19100		61			
		2100	160	18.0	12619	AIR 32 B2A B66AA	61			
	Beta / 210°	600	160	15.7	7431	APXVAA4L24_43-U-NA20	70	0	8.0	128
		700	160	15.9	77801		68			
		1900	160	19.8	19100		61			
		2100	160	18.0	12619	AIR 32 B2A B66AA	61			
	Gamma / 330°	600	160	15.7	7431	APXVAA4L24_43-U-NA20	70	0	8.0	128
		700	160	15.9	77801		68			
		1900	160	19.8	19100		61			
		2100	160	18.0	12619	AIR 32 B2A B66AA	61			

Table 1: Proposed Antenna Inventory^{3 45}

³ Antenna heights are in reference to the Hudson Design Group LLC. Construction Drawings, dated 10/04/2022.

⁴ In cases where specific antenna pattern is not available, similar antenna is used based on the dimension, gain and horizontal and vertical beamwidths of the antenna.

⁵ Transmit power assumes 0 dB of cable loss.

5. Calculation Results

The calculated power density results are shown in Figure 1 below. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.

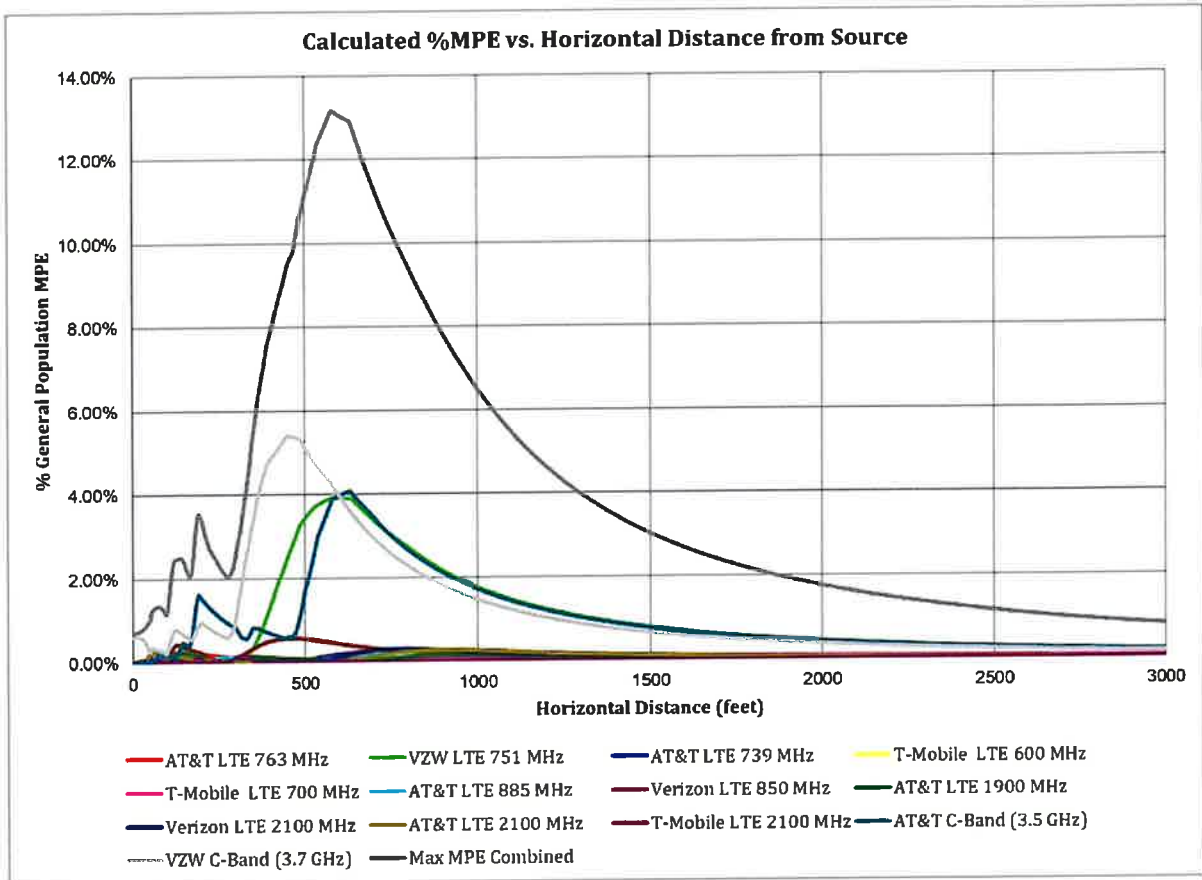


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (13.15% of the General Population limit) is calculated to occur at a horizontal distance of 581 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1500 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 581 feet from the site (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six-foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm ²)	Limit (mW/cm ²)	% MPE
AT&T C-Band (3.5 GHz)	2	108.5	140.0	581	0.038963	1.000	3.90%
AT&T LTE 1900 MHz	1	160.0	140.0	581	0.000597	1.000	0.06%
AT&T LTE 2100 MHz	1	240.0	140.0	581	0.000171	1.000	0.02%
AT&T LTE 739 MHz	1	160.0	140.0	581	0.000768	0.493	0.16%
AT&T LTE 763 MHz	1	160.0	140.0	581	0.000851	0.509	0.17%
AT&T LTE 885 MHz	1	160.0	140.0	581	0.000623	0.590	0.11%
T-Mobile LTE 600 MHz	1	160.0	128.0	581	0.000054	0.400	0.01%
T-Mobile LTE 700 MHz	1	160.0	128.0	581	0.000024	0.467	0.01%
T-Mobile LTE 2100 MHz	1	160.0	128.0	581	0.000144	1.000	0.01%
Verizon LTE 2100 MHz	1	160.0	118.0	581	0.000910	1.000	0.09%
Verizon LTE 850 MHz	1	160.0	118.0	581	0.002636	0.567	0.47%
VZW C-Band (3.7 GHz)	1	200.0	118.0	581	0.042330	1.000	4.23%
VZW LTE 751 MHz	1	160.0	118.0	581	0.019635	0.501	3.92%
						Total	13.15%

Table 2: Maximum Percent of General Population Exposure Values

6. Conclusion

The above analysis verifies that RF exposure levels from the site with AT&T, Verizon and T-Mobile's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **13.15% of the FCC limit (General Population/Uncontrolled)**. This maximum cumulative percent of MPE value is calculated to occur 581 feet away from the site.

7. 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 ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



Report Prepared By:

Ram Acharya
RF Engineer I
C Squared Systems, LLC

January 19, 2023
Date



Reviewed/Approved By:

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

January 19, 2023
Date

Attachment A: References

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

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

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

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

(A) Limits for Occupational/Controlled Exposure⁶

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

(B) Limits for General Population/Uncontrolled Exposure⁷

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

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

Table 3: FCC Limits for Maximum Permissible Exposure

⁶ 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.

⁷ 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.

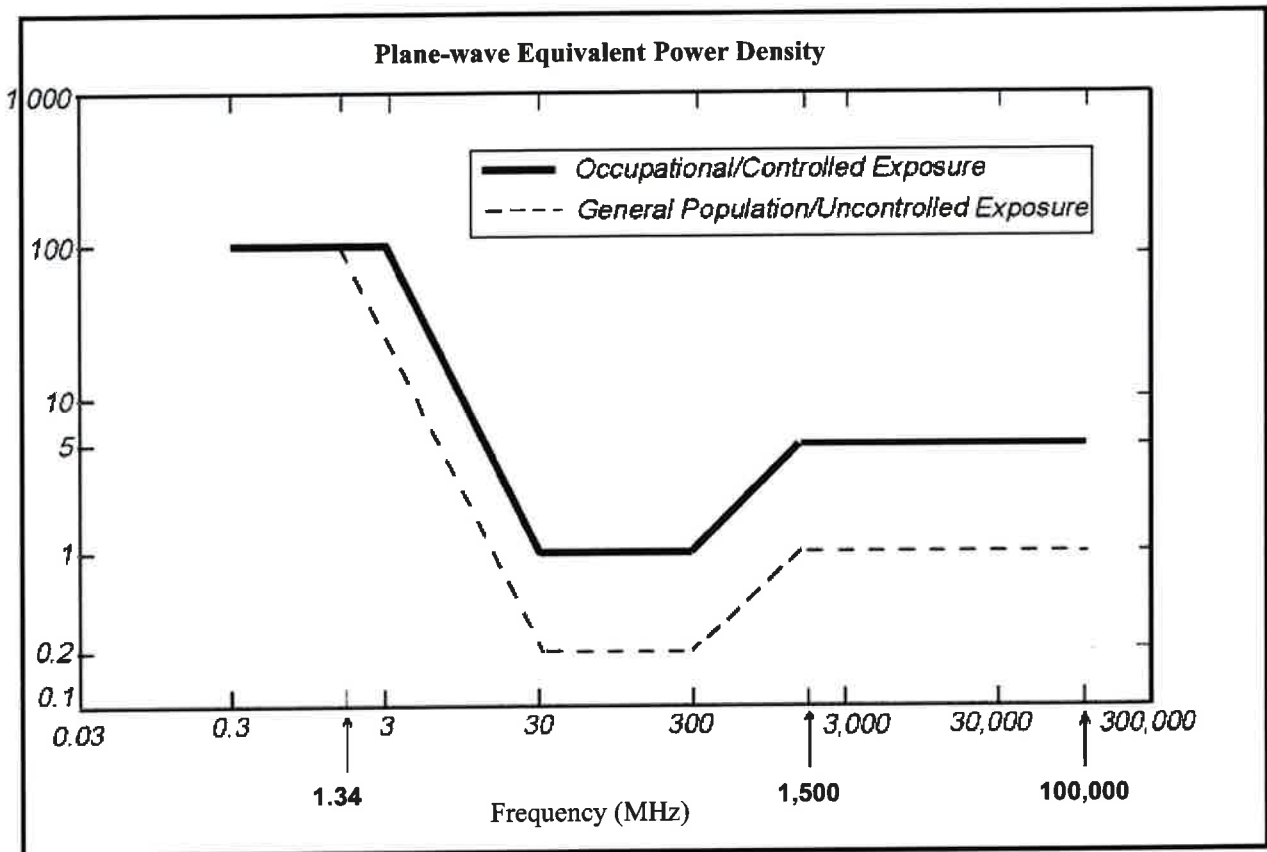
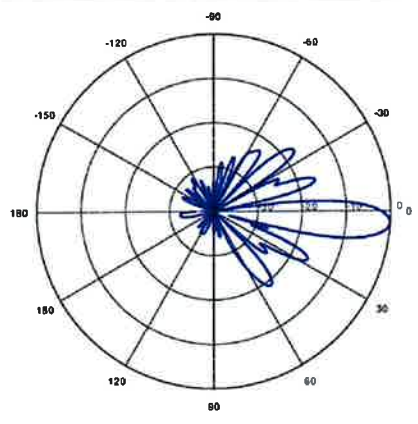
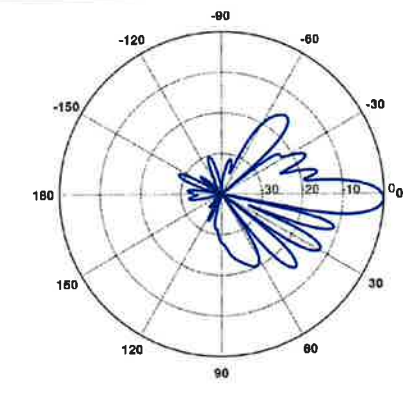
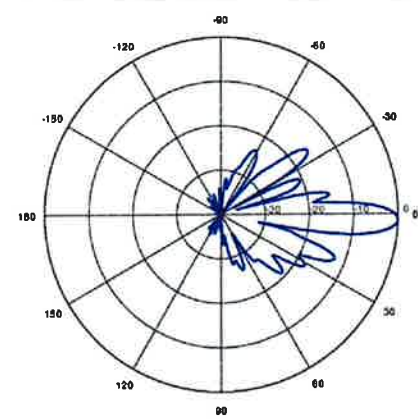
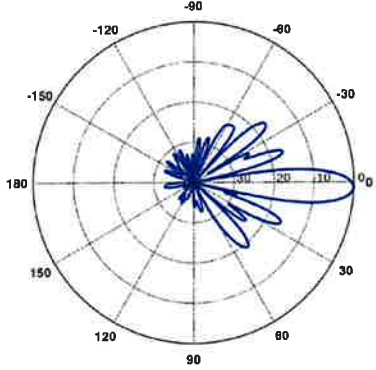
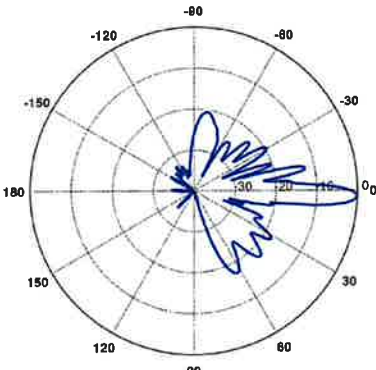


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

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

<p>739 MHz</p> <p>Manufacturer: CCI Model #: DMP65R-BU8DA Frequency Band: 698-798 MHz Gain: 15.1 dBi Vertical Beamwidth: 9.5° Horizontal Beamwidth: 75° Polarization: ±45° Dimensions (L x W x D): 96.0" x 20.7" x 7.7"</p>	
<p>763 MHz</p> <p>Manufacturer: Quintel Model #: QD8616-7 Frequency Band: 758 – 798 MHz Gain: 15.2 dBi Vertical Beamwidth: 9.1° Horizontal Beamwidth: 67° Polarization: ±45° Dimensions (L x W x D): 96.0" x 22" x 9.6"</p>	
<p>885 MHz</p> <p>Manufacturer: CCI Model #: DMP65R-BU8D Frequency Band: 824-896 MHz Gain: 16.0 dBi Vertical Beamwidth: 8.0° Horizontal Beamwidth: 64° Polarization: ±45° Dimensions (L x W x D): 96.0" x 20.7" x 7.7"</p>	

<p>1900 MHz</p> <p>Manufacturer: CCI Model #: DMP65R-BU8D Frequency Band: 1850 - 1990 MHz Gain: 17 dBi Vertical Beamwidth: 5.1° Horizontal Beamwidth: 68° Polarization: Dual Linear 45° Dimensions (L x W x D): 96.0" x 20.7" x 7.7"</p>	
<p>2100 MHz</p> <p>Manufacturer: Quintel Model #: QD8616-7 Frequency Band: 2110 - 2180 MHz Gain: 17.5 dBi Vertical Beamwidth: 5.5° Horizontal Beamwidth: 62° Polarization: ±45° Dimensions (L x W x D): 96.0" x 22" x 9.6"</p>	

ATTACHMENT 10

AIRPORT/HELIPORT INFORMATION

Nearest public use or Government Use (DOD) facility: Danbury Municipal.

This structure will be located 2.9 NM or 18094 FT from the airport on a bearing of 197 degrees true to the airport.

Nearest private use landing facility is: Danbury Hospital.

This structure will be located 1.1 NM from the helipad on a bearing of 137 degrees true to the helipad.

STUDY FINDINGS

FAA FAR Part 77 paragraph 9 (FAR 77.9): (Construction or Alteration requiring notice.) (These are the imaginary surfaces that the FAA has implemented to provide general criteria for notification purposes.)

This structure does require notification to the FAA.

FAA FAR Part 77 paragraph 17(FAR 77.17): (Standards for Determining Obstructions.)(These are the imaginary surfaces that the FAA has implemented to protect aircraft safety. If any of these surfaces are penetrated, the structure may pose a Hazard to Air Navigation.)

This structure does not exceed these surfaces.

**FCC Notice Requirements:
(FCC Rules, Part 17)**

This structure does require notification to the FAA or FCC based on these rules.

**FAA EMI:
(The FAA protects certain air navigational aids, radio transmitters, and RADAR facilities from possible interference. The distance and direction are dependent on the type of facility being evaluated. Some of these transmission and receiver facilities are listed in the National Flight Data Center (NFDC) database.)**

This site would not affect any FAA air navigational aids or transmitters.

Military Airspace:

(This would include low level visual and instrument routes along with operations areas and special use airspace.)

This structure will not affect this airspace.

AM Facilities:

(The FCC protects AM radio stations from possible interference for a distance of 3.0 km for directional facilities, and 1.0 km for non-directional facilities. New changes to the FCC critical distances are calculated based on the AM transmission Movement Method Proof evaluation.)

This site was evaluated against the FCC's AM antenna database using the Movement Method proof calculations and no further action is required.

MARKING AND LIGHTING

FAA Advisory Circular 70/7460-1:

Marking and lighting is not required for this structure.

RECOMMENDATIONS

This site was evaluated in accordance with the requirements specified by the FAA under Federal Aviation Rules part 77, and found not to be a hazard to air navigation.

ATTACHMENT 11

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

February 2, 2023

Via Certificate of Mailing

Dean Esposito, Mayor
City of Danbury
155 Deer Hill Avenue
Danbury, CT 06810

Re: **Crown Castle and Cellco Partnership d/b/a Verizon Wireless – Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Modification of an Existing Telecommunications Facility at 41 Padanaram Road, Danbury, Connecticut**

Dear Mayor Esposito:

This firm represents the Crown Castle (“Crown”). Today, Crown in cooperation with Cellco Partnership d/b/a Verizon Wireless “Cellco”, AT&T Wireless (“AT&T”) and T-Mobile filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to modify the existing wireless telecommunications facility at 41 Padanaram Road in Danbury (the “Property”). The modifications involve the removal of the existing 80-foot wood laminate tower and the installation of a new 145-foot steel monopole tower. The new replacement tower would be located approximately 84 feet to the northwest of the existing tower and would support antennas owned and operated by AT&T, T-Mobile and Cellco. Equipment associated with antennas would be located on the ground near the base of the tower within the new 30-foot by 75-foot facility compound. Once construction of the new tower is complete, the existing 80-foot lattice tower would be removed from the Property.

Robinson+Cole

Dean Esposito, Mayor
February 2, 2023
Page 2

A copy of the full Petition is attached for your review. If you have any questions regarding this Petition, please contact me or the Siting Council directly at (860) 827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Attachment

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

February 2, 2023

Via Certificate of Mailing

Sharon Colitro, AICP
Director of Planning and Zoning
City of Danbury
155 Deer Hill Avenue
Danbury, CT 06810

Re: **Crown Castle and Celco Partnership d/b/a Verizon Wireless – Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Modification of an Existing Telecommunications Facility at 41 Padanaram Road, Danbury, Connecticut**

Dear Ms. Colitro:

This firm represents the Crown Castle (“Crown”). Today, Crown in cooperation with Cellco Partnership d/b/a Verizon Wireless “Cellco”, AT&T Wireless (“AT&T”) and T-Mobile filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to modify the existing wireless telecommunications facility at 41 Padanaram Road in Danbury (the “Property”). The modifications involve the removal of the existing 80-foot wood laminate tower and the installation of a new 145-foot steel monopole tower. The new replacement tower would be located approximately 84 feet to the northwest of the existing tower and would support antennas owned and operated by AT&T, T-Mobile and Cellco. Equipment associated with antennas would be located on the ground near the base of the tower within the new 30-foot by 75-foot facility compound. Once construction of the new tower is complete, the existing 80-foot lattice tower would be removed from the Property.

Robinson+Cole

Sharon Colitro
February 2, 2023
Page 2

A copy of the full Petition is attached for your review. If you have any questions regarding this Petition, please contact me or the Siting Council directly at (860) 827-2935.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Attachment

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

February 2, 2023

Via Certificate of Mailing

Robert Kaufman
41 Padanaram Road
Danbury, CT 06811

Re: Crown Castle and Cellco Partnership d/b/a Verizon Wireless – Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Modification of an Existing Telecommunications Facility at 41 Padanaram Road, Danbury, Connecticut

Dear Mr. Kaufman:

This firm represents the Crown Castle (“Crown”). Today, Crown in cooperation with Cellco Partnership d/b/a Verizon Wireless “Cellco”, AT&T Wireless (“AT&T”) and T-Mobile filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to modify the existing wireless telecommunications facility at 41 Padanaram Road in Danbury (the “Property”). The modifications involve the removal of the existing 80-foot wood laminate tower and the installation of a new 145-foot steel monopole tower. The new replacement tower would be located approximately 84 feet to the northwest of the existing tower and would support antennas owned and operated by AT&T, T-Mobile and Cellco. Equipment associated with antennas would be located on the ground near the base of the tower within the new 30-foot by 75-foot facility compound. Once construction of the new tower is complete, the existing 80-foot lattice tower would be removed from the Property.

Robinson+Cole

Robert Kaufman
February 2, 2023
Page 2

A copy of the full Petition is attached for your review. If you have any questions regarding this Petition, please contact me or the Siting Council directly at (860) 827-2935.

Sincerely,

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Kenneth C. Baldwin

Attachment

ATTACHMENT 12

KENNETH C. BALDWIN

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and New York

February 2, 2023

Via Certificate of Mailing

«Name_and_Address»

Re: Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Modification of an Existing Telecommunications Facility at 41 Padanaram Road, Danbury, Connecticut

Dear «Salutation»:

This firm represents the Crown Castle (“Crown”). Today, Crown in cooperation with Cellco Partnership d/b/a Verizon Wireless “Cellco”, AT&T Wireless (“AT&T”) and T-Mobile filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to modify the existing wireless telecommunications facility at 41 Padanaram Road in Danbury (the “Property”). The modifications involve the removal of the existing 80-foot wood laminate tower and the installation of a new 145-foot steel monopole tower. The new replacement tower would be located approximately 84 feet to the northwest of the existing tower and would support antennas owned and operated by AT&T, T-Mobile and Cellco. Equipment associated with antennas would be located on the ground near the base of the tower within the new 30-foot by 75-foot facility compound. Once construction of the new tower is complete, the existing 80-foot lattice tower would be removed from the Property.

This notice is being sent to you because you are identified on the Town Assessor’s records as an owner of land that abuts the Property. If you have any questions regarding the Petition, the Council’s process for reviewing the Petition or the details of the filing itself, please feel free to contact me at the number listed above. You may also contact the Council directly at 860-827-2935.

Robinson+Cole

February 2, 2023
Page 2

Sincerely,

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Kenneth C. Baldwin

Attachment

CROWN CASTLE INTERNATIONAL CORP.

ABUTTING PROPERTY OWNERS

**41 PADANARAM ROAD
DANBURY, CONNECTICUT**

	Property Address	Owner's and Mailing Address
1.	47 Padanaram Road	Barbarie Partners LLC 47 Padanaram Road Danbury, CT 06811
2.	49 Padanaram Road	49 Padanaram Road LLC 49 Padanaram Road Danbury, CT 06811
3.	Rising Road	Robert J. Kaufman 41 Padanaram Road Danbury, CT 06811
4.	Rising Road	Robert J. Kaufman 41 Padanaram Road Danbury, CT 06811
5.	45 Padanaram Road	Bear Enterprises LLC 47 Padanaram Road Danbury, CT 06811
6.	58 Padanaram Road	Lois and Dominic Generali, Jr. 49 Padanaram Road Danbury, CT 06811
7.	56 Padanaram Road	56 Padanaram Road LLC 88 Clapboard Ridge Road Danbury, CT 06811
8.	54 Padanaram Road	Patricia Losito and Mark Stock 54B Padanaram Road Danbury, CT 06811
9.	54 Padanaram Road	One Stop Cleaners Inc. 54 Padanaram Road Danbury, CT 06811

	Property Address	Owner's and Mailing Address
10.	54 Padanaram Road	Alliance Energy LLC 15 Northeast Industrial Road Branford, CT 06405
11.	39 Padanaram Road	Thirty Nine LLC 39 Padanaram Road Danbury, CT 06811
12.	39A Padanaram Road	Rachana Realty LLC 39A Padanaram Road Danbury, CT 06811
13.	37 Padanaram Road	Padanaram Development LLC 37 Padanaram Road Danbury, CT 06811
14.	31 Padanaram Road	SCP 2004D-005 LLC c/o CVS 2545 01 1 CVS Drive Woonsocket, RI 02895
15.	Padanaram Road (Condominium)	North Ridge Condominium Association c/o Scalzo Property Management 2 Stony Hill Road, Suite 201 Bethel, CT 06801
16.	17 Hayestown Heights Road	Joanne and Milton Molinaro Jr. 17 Hayestown Heights Road Danbury, CT 06811
17.	13 Horseshoe Drive	Alfred and Jean Hazard 13 Horseshoe Drive Danbury, CT 06811
18.	11 Horseshoe Drive	Alfred and Jean Hazard 13 Horseshoe Drive Danbury, CT 06811
19.	9 Horseshoe Drive	Harry Maxwell Lewis 9 Horseshoe Drive Danbury, CT 06811
20.	7 Horseshoe Drive	Marco and Yolanda Albarracin 136 Franklin Street Extension Danbury, CT 06811

	Property Address	Owner's and Mailing Address
21.	5 Horseshoe Drive	Ricardo Pacheco 5 Horseshoe Drive Danbury, CT 06811
22.	3 Horseshoe Drive	Kaitly Sandoval and Paul Northrop 3 Horseshoe Drive Danbury, CT 06811
23.	52-52A Padanaram Road	Roberta C. Anderson P.O. Box 33 New Fairfield, CT 06812