

December 23, 2019

*Via Hand Delivery*

Brenda L. Kupchick, First Selectwoman  
Town of Fairfield  
Sullivan Independence Hall  
725 Old Post Road  
Fairfield, CT 06824

Re: **Submission of Technical Information Concerning a Proposal to Construct a Wireless Telecommunications Facility at Sacred Heart University, Fairfield, Connecticut**

Dear Ms. Kupchick:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”), in its proposal to construct a new wireless telecommunications facility in the northwest corner of the 80.1 acre Sacred Heart University (“SHU”) campus at 5151 Park Avenue, Fairfield, Connecticut (the “Property”). The proposed wireless facility would replace Cellco’s existing wireless facility currently located on the roof of Pierre Toussaint Hall (“Toussaint Hall”) on the SHU campus. The proposed telecommunications facility is known as Cellco’s “Plattsville Relo Facility”.

This Technical Report is submitted pursuant to Connecticut General Statutes (“Conn. Gen. Stat.”) § 16-50l(g), which establishes local input requirements for the siting of a wireless telecommunications facility under the exclusive jurisdiction of the Connecticut Siting Council (the “Council”). This statutory provision requires the submission of technical information to officials in the municipality where the proposed facility will be located and any municipality within 2,500 feet of the proposed facility location. Portions of the Town of Easton (“Easton”), the Town of Trumbull (“Trumbull”) and the City of Bridgeport (“Bridgeport”) are located within 2,500 feet of the Property. Easton and Bridgeport officials have also been provided with a copy of this filing.

Correspondence and/or communications regarding the information contained in this report should be addressed to:

# Robinson + Cole

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December 23, 2019  
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Anthony Befera  
Manager – Real Estate & Project Implementation  
Cellco Partnership d/b/a Verizon Wireless  
20 Alexander Drive  
Wallingford, CT 06492

A copy of all such correspondence or communications should also be sent to Cellco's attorneys:

Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103-3597

Cellco intends to submit an application to the Council for a Certificate of Environmental Compatibility and Public Need ("Certificate") for the construction, maintenance and operation of a wireless telecommunications facility in the northwest portion of the Property. The Plattsville Relo Facility would provide improved wireless service to the SHU campus and the surrounding area, portions of Routes 15 and 59 and local roads in the area and to residential, commercial and institutional land uses in the vicinity of the Property. The Plattsville Relo Facility will also interact with Cellco's existing cell sites in Fairfield, Bridgeport and Trumbull, Connecticut. See Site Schematic included in Attachment 1. Coverage plots showing Cellco's existing wireless service in the area, with its existing SHU roof-top facility and with the proposed Plattsville Relo Facility at 700 MHz and 2100 MHz are included in Attachment 2.

## **Cell Site Information**

Cellco proposes to install a 130-foot monopole tower within a 50' x 50' fenced compound and 50' x 80' leased area in the northwest portion of the Property, immediately west of a new SHU maintenance building. Cellco would install nine (9) panel-type antennas and remote radio heads on a platform at the top of the tower. Equipment cabinets associated with Cellco's antennas and a propane-fueled backup generator would be located within the fenced compound. Access to the Plattsville Relo Facility would extend from Jefferson Road along an existing driveway to the proposed tower site. Utilities would extend from existing utility service (UICO Pole #5591) on the Property approximately 100 feet to the north of the tower location. Included in Attachment 3 is a proposed Site Plan, Compound Plan and tower elevation drawing.

## **Connecticut Siting Council Jurisdiction**

Municipal jurisdiction over the siting of the proposed telecommunications facility

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described in this report is pre-empted by provisions of the Public Utilities Environmental Standards Act (“PUESA”), Conn. Gen. Stat. § 16-50g *et seq.* The PUESA gives exclusive jurisdiction over the location, type and modification of telecommunications towers, to the Council (Conn. Gen. Stat. § 16-50x(a); 16-50i(a)(6)). Accordingly, the telecommunications facility described in this report is exempt from the Town’s land use (zoning and inland wetlands) regulations.

Upon receipt of an application, the Council will assign a docket number and, following a completeness review, set the schedule for the docket, including a hearing date. At that time, the Town may choose to become an intervenor or party in the proceeding. Other procedures followed by the Council include serving the applicant and other participants with interrogatories, holding a pre-hearing conference, and conducting a public hearing. The public hearing would be held at a location in the Town. Following the public hearing, the Council will issue findings of fact, an opinion and a decision and order. Prior to construction, the Council will also require the Applicant to submit a development and management plan (“D&M Plan”) which is, in essence, a final site development plan showing the details of the facility incorporating any conditions imposed by the Council. These procedures are also outside the scope of the Town’s jurisdiction and are governed by the Connecticut General Statutes, the Regulations of Connecticut State Agencies, and the Council’s Rules of Practice. If the Council approves the cell site described in this report, Cellco will submit to the Building Official an application for approval of a local building permit. Under Section 16-50x of the General Statutes, which provides for the exclusive jurisdiction of the Council, the building official must honor the Council’s decision.

### **Municipal Consultation Process**

Pursuant to Section 16-50j of the General Statutes, Town officials are entitled to receive technical information regarding the proposed telecommunications facility at least ninety (90) days prior to the filing of an application with the Council. This Technical Report is provided to the Town in accordance with these provisions and includes information on the need for improved reliable wireless service in the area; the location of existing wireless facilities in and around the area; details of the proposed facility; the location of alternative sites considered and rejected; the location of schools and commercial day care facilities in the area and the aesthetic impacts of the facility on those schools and day care facilities, if any; a description of the site selection process; and a discussion of potential environmental effects associated with the proposed facility.

Not later than sixty (60) days after the initial consultation meeting, the municipality may, in cooperation with Cellco, hold a public information hearing on the facility proposal. If such a hearing is held, the applicant must notify all abutting landowners and publish notice of the hearing in a newspaper of general circulation in the municipality, at least fifteen (15) days prior to the hearing.

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Not later than thirty (30) days after the initial consultation meeting, the municipality may present the prospective applicant with alternative sites, including municipal parcels, for its consideration. If not previously considered, these alternatives will be evaluated and discussed in its application to the Council.

Pursuant to Section 16-50(e) of the General Statutes, Cellco must provide a summary of the Town's comments and recommendations, if any, to the Council within fifteen (15) days of the filing of an application.

### **Need for the Proposed Wireless Facility**

The principal need for the Plattsville Relo Facility is to replace the wireless service that Cellco will lose when its existing SHU roof-top facility is removed.<sup>1</sup> The proposed Plattsville Relo Facility described in this Technical Report is needed so that Cellco can continue to provide enhanced wireless voice and data services in northeast Fairfield, including the SHU campus and portions of Easton, Trumbull, and Bridgeport, Connecticut. The Plattsville Relo Facility will also provide wireless service "coverage" along portions of Routes 15 and 59, underserved areas of Easton and Trumbull to the north of the Merritt Parkway and the area immediately surrounding the Property in its 700 and 2100 MHz frequency ranges.

### **Environmental Effects**

In our experience, the primary impact of a wireless facility such as the proposed Plattsville Relo Facility is visual. The visual impact of the proposed Plattsville Relo Facility tower will vary from place to place around the site location, depending upon factors such as vegetation, topography, distance from the tower, and the location of buildings or other structures (utility infrastructure) in the sight-line of the cell site.

To more fully assess the visual impact of the Plattsville Relo Facility, Cellco's consultant, All-Points Technology Corporation ("APT") has prepared a Preliminary Visual Assessment for the proposed tower location. This preliminary assessment indicates that a majority of the year-round visibility of the proposed tower would be limited to portions of the SHU campus immediately adjacent to the south and east of the proposed tower location. Some year round visibility may also extend to the athletic fields at Notre Dame High School, residential areas to the north of the tower site and to the commuter parking lot to the west. (See

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<sup>1</sup> Cellco's lease term for the existing SHU roof-top facility has expired. While Cellco has been permitted to maintain its antennas at this location, subject to the "hold over" provisions of its current lease, SHU has made clear that it intends to remove all wireless facilities from the roof of Toussaint Hall. SHU is, however, working cooperatively with Cellco to develop a replacement tower on the Property.

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Attachment 4). A more detailed visual assessment, including a seasonable visual analysis and photosimulations of the tower, is being prepared and will be included in Cellco's Certificate application to the Council.

Pursuant to the provisions of Conn. Gen. Stat. § 16-50p(a)(3)(G), new telecommunications facilities must be located at least 250 feet from buildings containing schools (defined in C.G.S. §10-154a) and commercial day care facilities (defined in C.G.S. §19a-77(a)(1)) unless the location selected is acceptable to the Town's chief elected official or the Council finds that the facility will not have a substantial adverse effect on the aesthetics or scenic quality of the neighborhood where the school or commercial day care use is located. The proposed Plattsville Relo Facility is not located within 250 feet of any building containing a school or commercial day care facility.

Based on field surveys, Cellco has determined that the construction of the Plattsville Relo Facility will have no direct impact on inland wetlands or watercourses, within or near either of the tower compound. Cellco anticipates that all other physical environmental effects associated with the proposed facility would be minimal.

## **Radio Frequency Emissions**

The Federal Communications Commission ("FCC") has adopted a standard (the "Standard") for exposure of radio frequency ("RF") emissions from telecommunications base stations like the Plattsville Relo Facility. To ensure compliance with the Standard, Cellco has performed a worst-case RF emissions calculation for the proposed facility according to the methodology described in FCC Office of Science and Technology Bulletin No. 65 ("OST Bulletin 65"). This calculation is a conservative, worst-case approximation of RF emissions at the closest accessible point to the antenna (i.e., the base of the tower), and assumes that all antennas are transmitting simultaneously, on all channels, at full power. The worst-case calculated RF emissions level would be 51.5% of the FCC Standard for the proposed 130-foot tower. (See Attachment 5). Actual RF emissions levels from this facility will be far less than this "worst-case" approximation.

## **Scenic Natural Historic or Recreational Impacts**

To further assess the environmental impacts of the proposed facility, Cellco will be working with its consultant team to prepare a National Environmental Policy Act ("NEPA") Environmental Screening Checklist (the "NEPA Checklist") and other related environmental reviews to determine if the facility will have any significant adverse environmental effects. The NEPA Checklist will include information from the Environmental and Geographic Information Center of the Connecticut Department of Energy and Environmental Protection ("DEEP"), the U.S. Fish and Wildlife Service ("USFWS") and the State Historic Preservation Officer

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("SHPO"). Copies of the DEEP, USFWS and the SHPO determinations will also be submitted as a part of the Council's Certificate Application.

## **Site Search Process**

After notifying Cellco of its intent to remove all wireless equipment from the roof of Toussaint Hall, SHU offered to host a replacement facility (tower) elsewhere on its campus. Cellco's search for a suitable cell site location to replace the existing Toussaint Hall roof-top facility focused, initially, on locations on the SHU West Campus off Easton Turnpike and then on several different locations on the Property. No other alternative parcels in the vicinity of SHU were evaluated. A list of the alternative sites investigated by Cellco and SHU is included in the Site Search Summary (Attachment 6).

## **Tower Sharing**

As stated above, Cellco intends to build a tower that is capable of supporting its antennas and those of other wireless telecommunications providers, the surrounding municipalities, and emergency service providers, if a need exists.<sup>2</sup> The provision to share the tower is consistent with the intent of the General Assembly when it adopted Conn. Gen. Stat. § 16-50aa and with Council policy. The availability of space on the proposed tower may reduce, if not eliminate, the need for additional towers in the area for the foreseeable future.

## **Conclusion**

This Technical Report is submitted in accordance with Conn. Gen. Stat. § 16-50l which requires Cellco to supply the Town with information regarding its proposed Plattsville Relo Facility. This report includes information regarding the site selection process, public need, and the potential environmental impacts of the facility. Cellco submits that its proposed Plattsville Relo Facility would not have any significant adverse environmental effects. Moreover, Cellco submits that the public need for high quality wireless service, and a competitive framework for providing such service has been determined by the FCC to be in the public interest and that such public need far outweighs any perceived environmental effects of the proposed facility.

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<sup>2</sup> In addition to Cellco, Toussaint Hall supports T-Mobile and AT&T antennas. Each of these carriers will be notified of Cellco's intent to pursue this tower application.

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Please contact me if you have any additional questions regarding the proposed facility.

Sincerely,



Kenneth C. Baldwin

KCB/kmd  
Enclosures  
Copy to:

Matthew Wagner, Chair, Fairfield Town Plan and Zoning Commission  
Kevin J. Gumper, Chair, Fairfield Inland Wetlands Agency/Conservation Commission  
David Bindelglass, Easton First Selectman  
Robert Maquat, Chair, Easton Planning and Zoning Commission  
Dori Wolten, Chair, Easton Conservation Commission/Inland Wetlands Agency  
Joseph P. Ganim, Mayor, City of Bridgeport  
Melville T. Riley, Jr., Acting Chair, Bridgeport Planning and Zoning Commission/Inland  
Wetlands Agency  
Vicki A. Tesoro, First Selectman, Town of Trumbull  
Fred Garrity, Jr., Chairman, Trumbull Planning and Zoning Commission  
Richard H. Girouard, Chairman, Trumbull Inland Wetlands & Watercourses Commission  
Dr. John J. Petillo, President, Sacred Heart University  
Michael D. Larobina, J.D., LL.M., Secretary and General Counsel, Sacred Heart  
University  
John W. Cannavino, Esq.  
Anthony Befera  
Aleksy Tyurin  
Shiva Gadasu

# **ATTACHMENT 1**





**Legend**

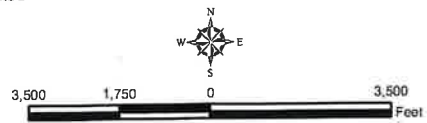
- Proposed Verizon Wireless Facility
- Surrounding Verizon Wireless Facilities
- Existing Verizon Wireless Plattville Facility - To Be Relocated
- Municipal Boundary

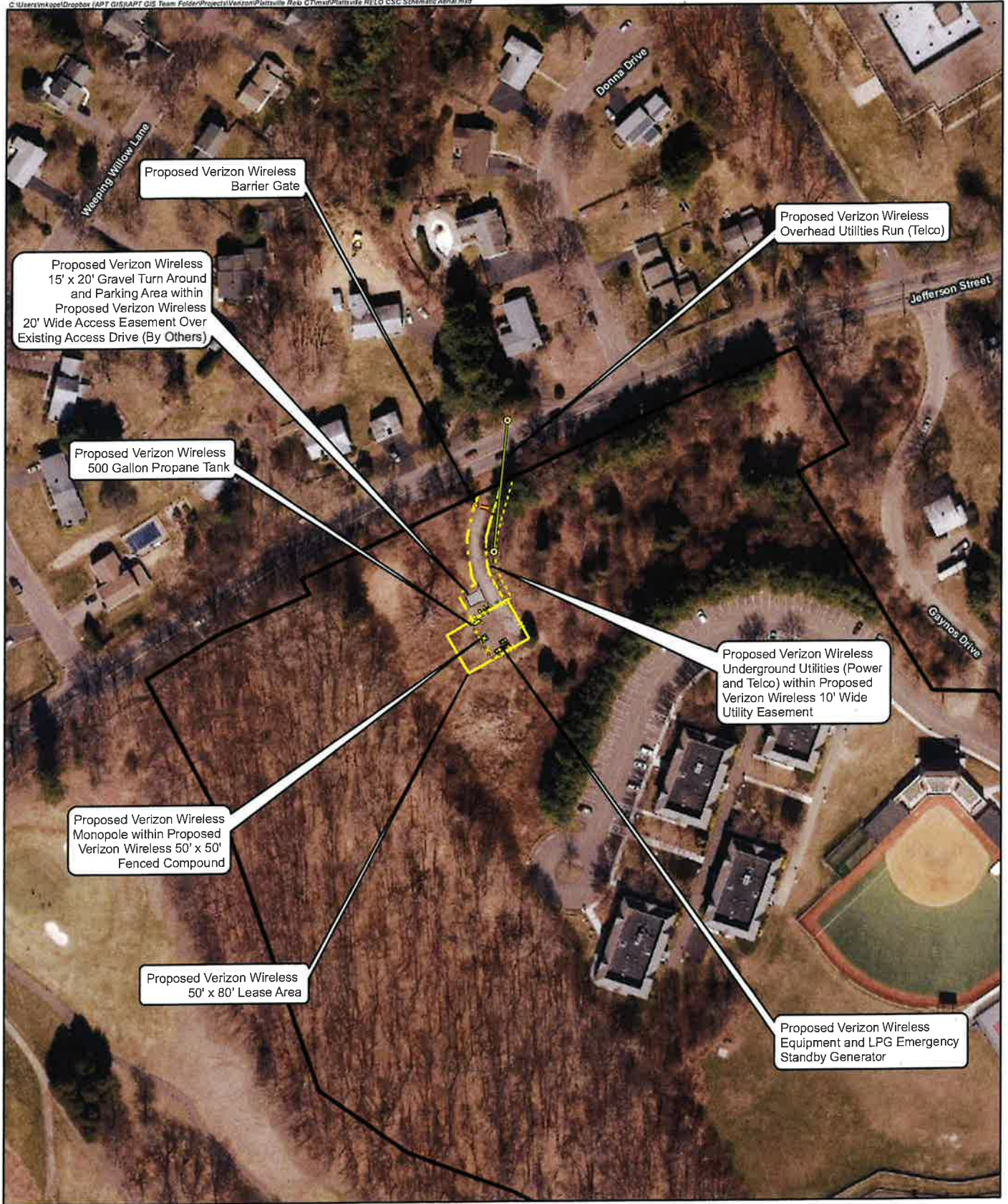
**Site Vicinity Map**

Proposed Wireless Telecommunications Facility  
 Plattville Relo CT  
 5151 Park Avenue  
 Fairfield, Connecticut



Base Map Source: ESRI World Imagery  
 Map Scale: 1 inch = 3,500 feet  
 Map Date: December 2019





**Legend**

- Proposed Verizon Wireless Lease Area
- Proposed Verizon Wireless Equipment Compound
- Proposed Verizon Wireless Equipment
- Proposed Verizon Underground Utilities
- Proposed Verizon Wireless Overhead Utilities
- Proposed Verizon Wireless Gate
- Proposed Verizon Wireless Access Easement
- Proposed Verizon Wireless Utility Easement
- Existing Utility Pole (By Others)
- Subject Property

**Map Notes:**  
 Base Map Source: 2018 CT ECO Imagery  
 Map Scale: 1 inch = 150 feet  
 Map Date: December 2019



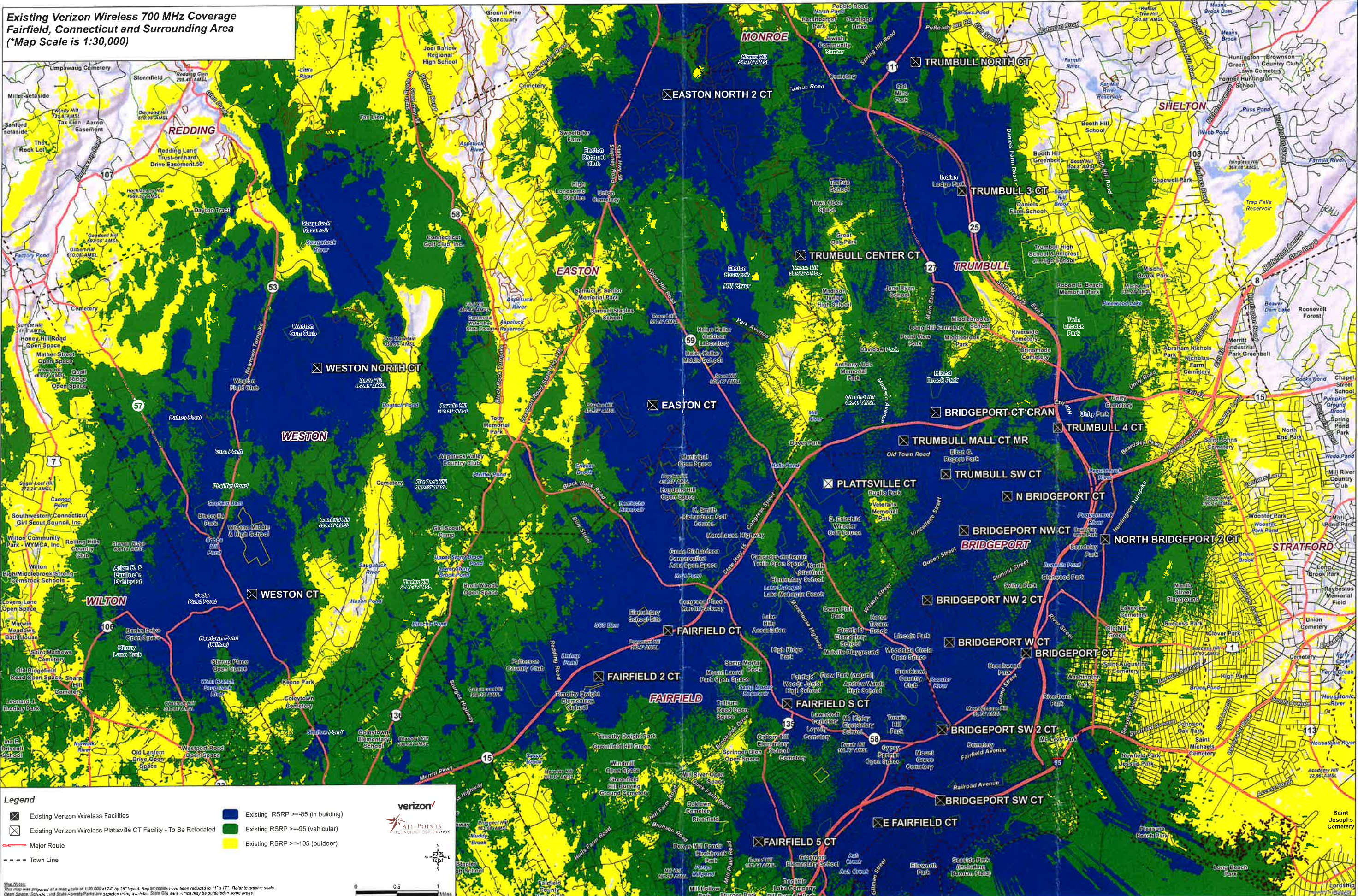
**Site Schematic**

Proposed Wireless Telecommunications Facility  
 Plattsville Relo CT  
 5151 Park Avenue  
 Fairfield, Connecticut



# **ATTACHMENT 2**

**Existing Verizon Wireless 700 MHz Coverage  
Fairfield, Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**



**Legend**

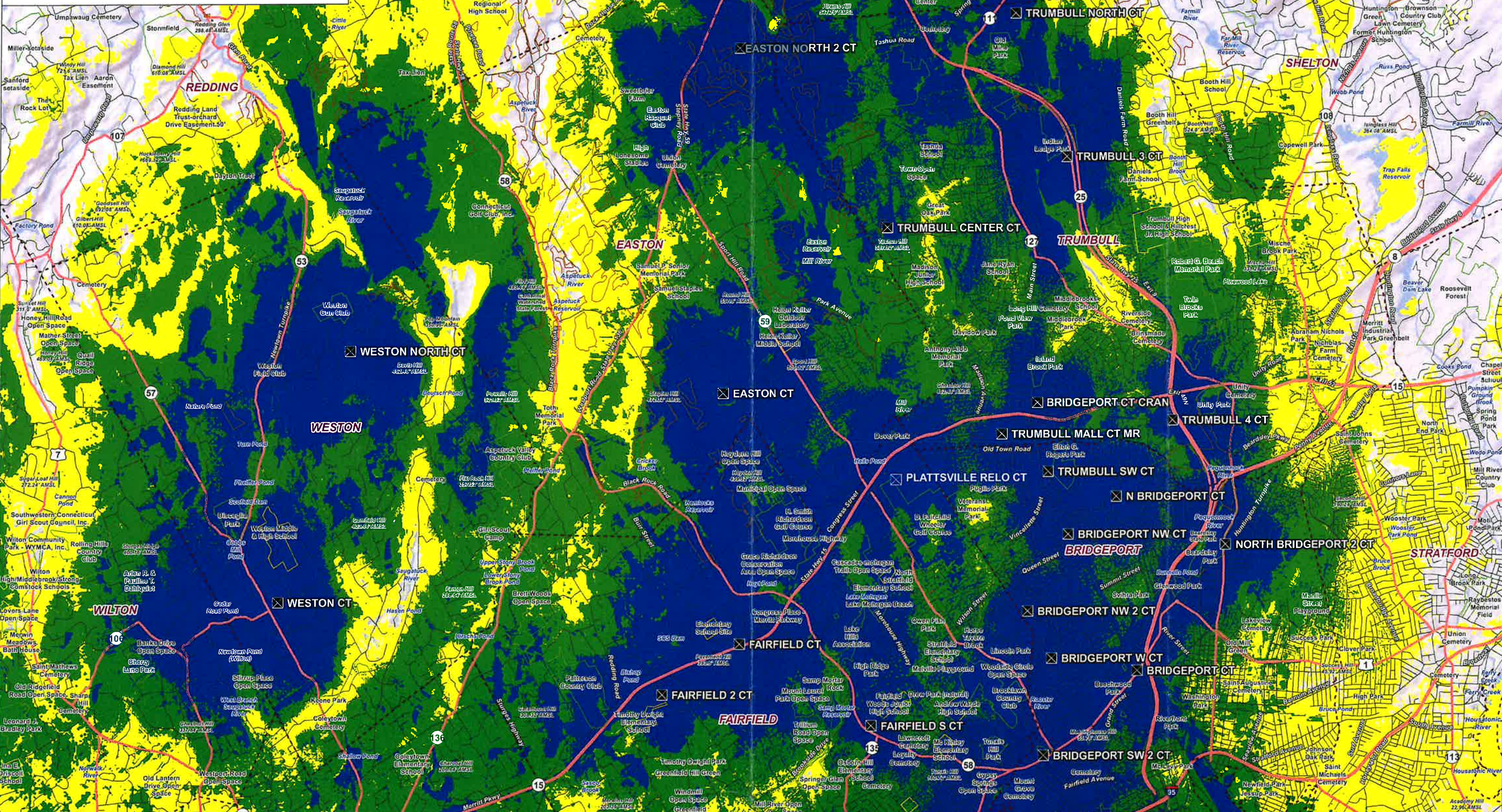
- Existing Verizon Wireless Facilities
- Existing Verizon Wireless Plattsville CT Facility - To Be Relocated
- Major Route
- Town Line
- Existing RSRP >= -85 (in building)
- Existing RSRP >= -95 (vehicular)
- Existing RSRP >= -105 (outdoor)

**verizon**  
ALL-POINTS  
RESOLUTION SERVICE CENTER

Map Date: This map was prepared at a map scale of 1:30,000 at 24" by 36" layout. Resolution has been reduced to 11" x 17". Refer to graphic scale for 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 700 MHz Coverage  
Fairfield, Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**



**Legend**

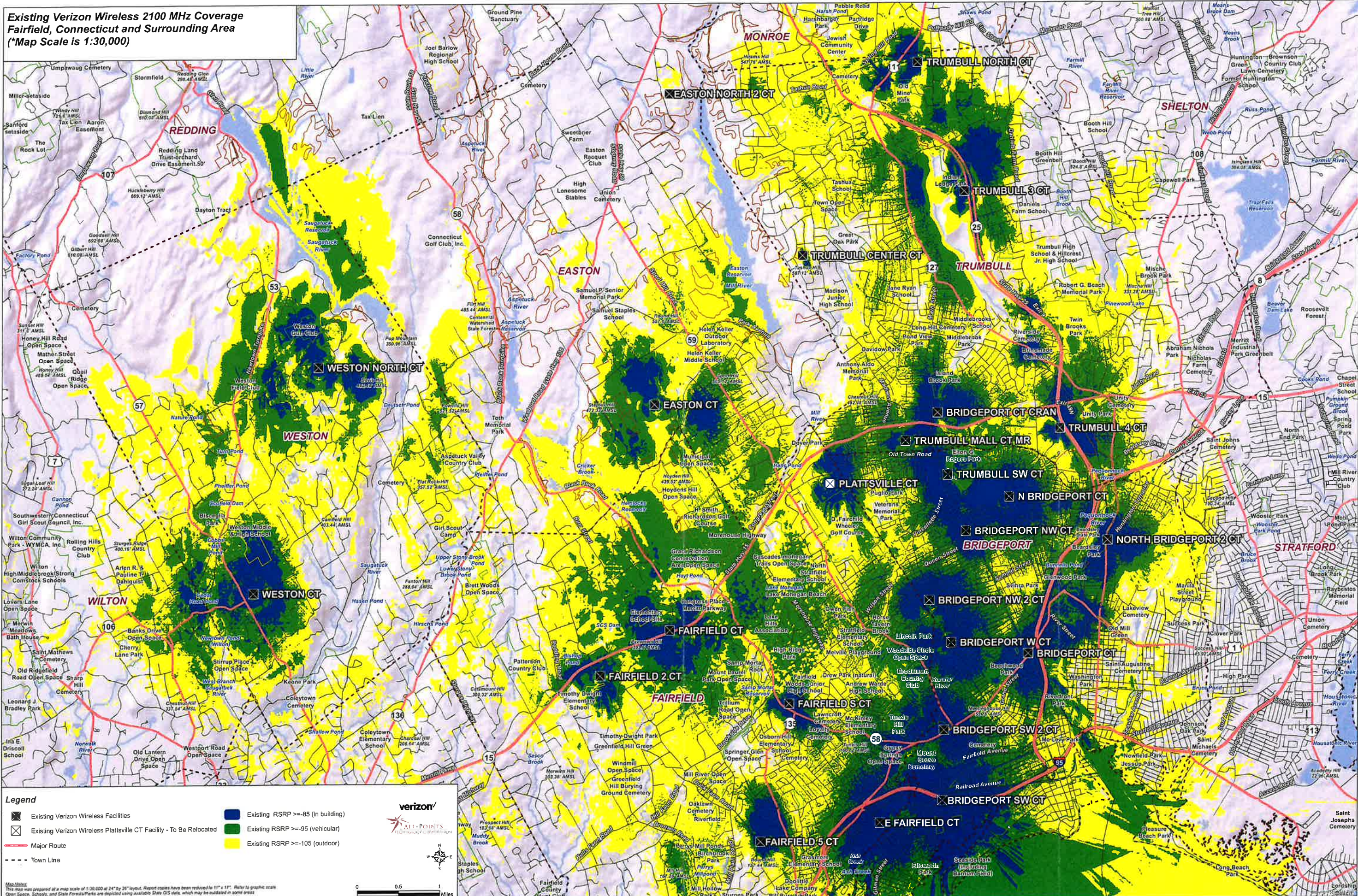
- Proposed Verizon Wireless Facility
- Existing and Proposed RSRP >= 85 (in building)
- Existing Verizon Wireless Facilities
- Existing and Proposed RSRP >= 95 (vehicular)
- Major Route
- Existing and Proposed RSRP >= 105 (outdoor)
- - - Town Line

**Map Notes:**  
This map was prepared at a map scale of 1:30,000 at 24" by 36" layout. Reprint copies have been reduced to 11" x 17". Refer to graphic scale.  
Open Spaces, Schools, and State Forests/Parks are depicted using available State GIS data, which may be outdated in some areas.  
Base Map: ESRI Shaded Relief

**verizon**  
ALL-POINTS  
COVERAGE

0 0.5 1 Miles

**Existing Verizon Wireless 2100 MHz Coverage  
Fairfield, Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**

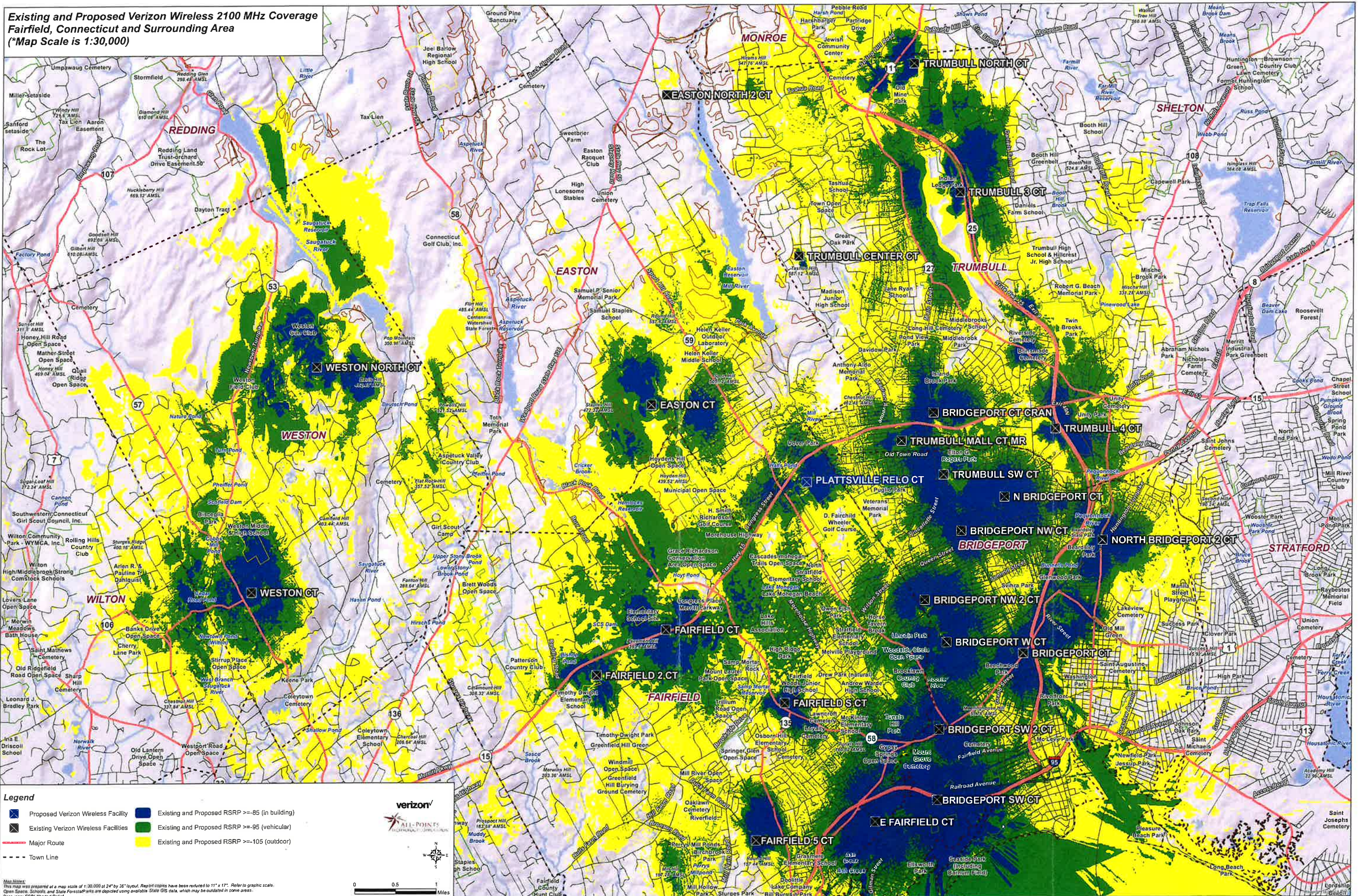


- Legend**
- Existing Verizon Wireless Facilities
  - Existing Verizon Wireless Plattsville CT Facility - To Be Relocated
  - Major Route
  - Town Line
  - Existing RSRP >= -85 (in building)
  - Existing RSRP >= -95 (vehicular)
  - Existing RSRP >= -105 (outdoor)



Map Notes:  
This map was prepared at a map scale of 1:30,000 at 24" by 36" layout. Report copies have been reduced to 11" x 17". Refer to graphic scale.  
Open Spaces, Schools, and State Forests/Parks are depicted using available State GIS data, which may be outdated in some areas.  
Data Source: ESRI, State Roadway

**Existing and Proposed Verizon Wireless 2100 MHz Coverage  
Fairfield, Connecticut and Surrounding Area  
(\*Map Scale is 1:30,000)**



Map Notes:  
This map was prepared at a map scale of 1:30,000 at 24" by 36" layout. Reprint copies have been reduced to 11" x 17". Refer to graphic scale.  
Open Space, Schools, and State Forests are depicted using available State GIS data, which may be outdated in some areas.  
Base map: ESRI Shaded Relief

# **ATTACHMENT 3**



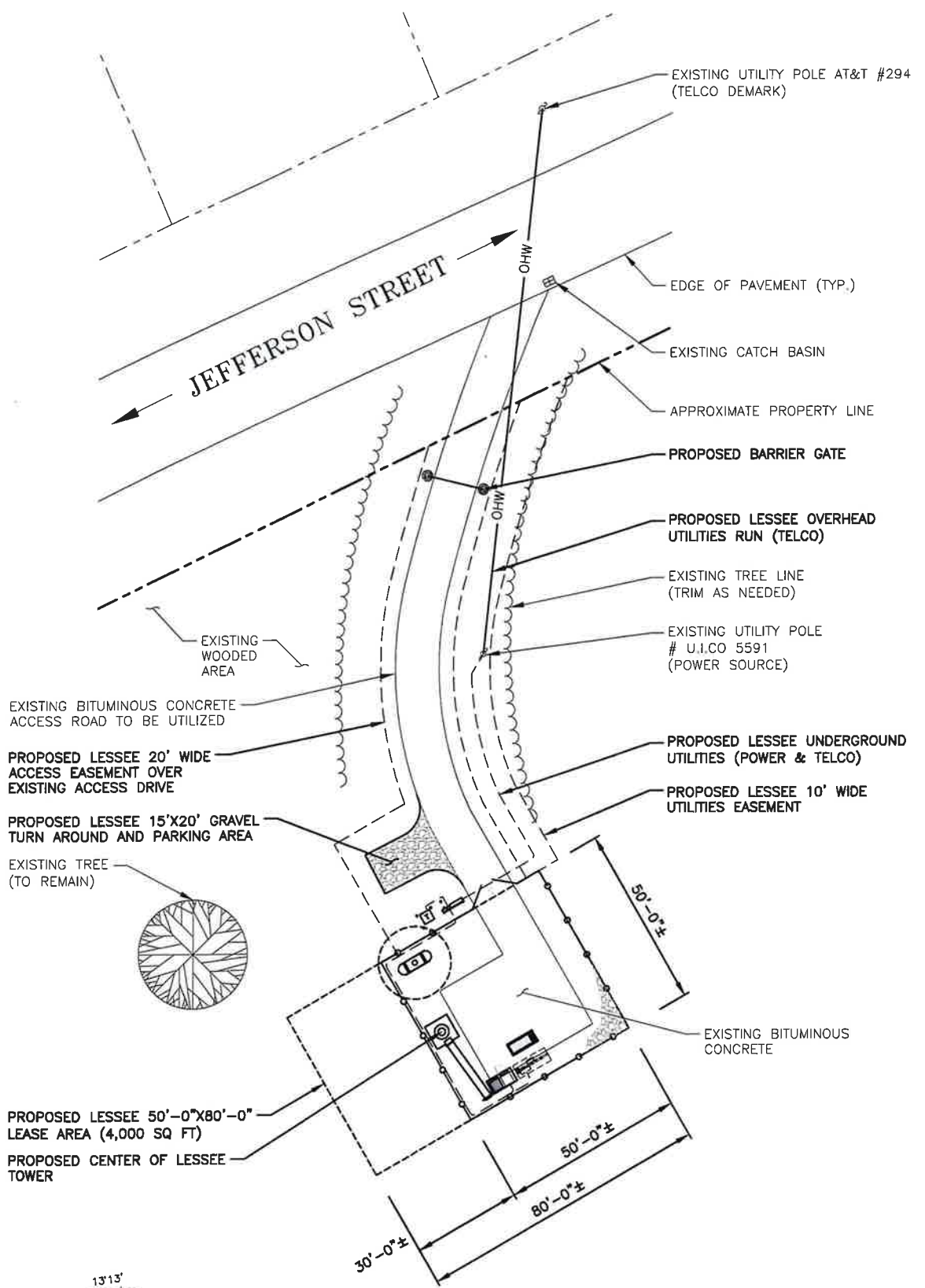
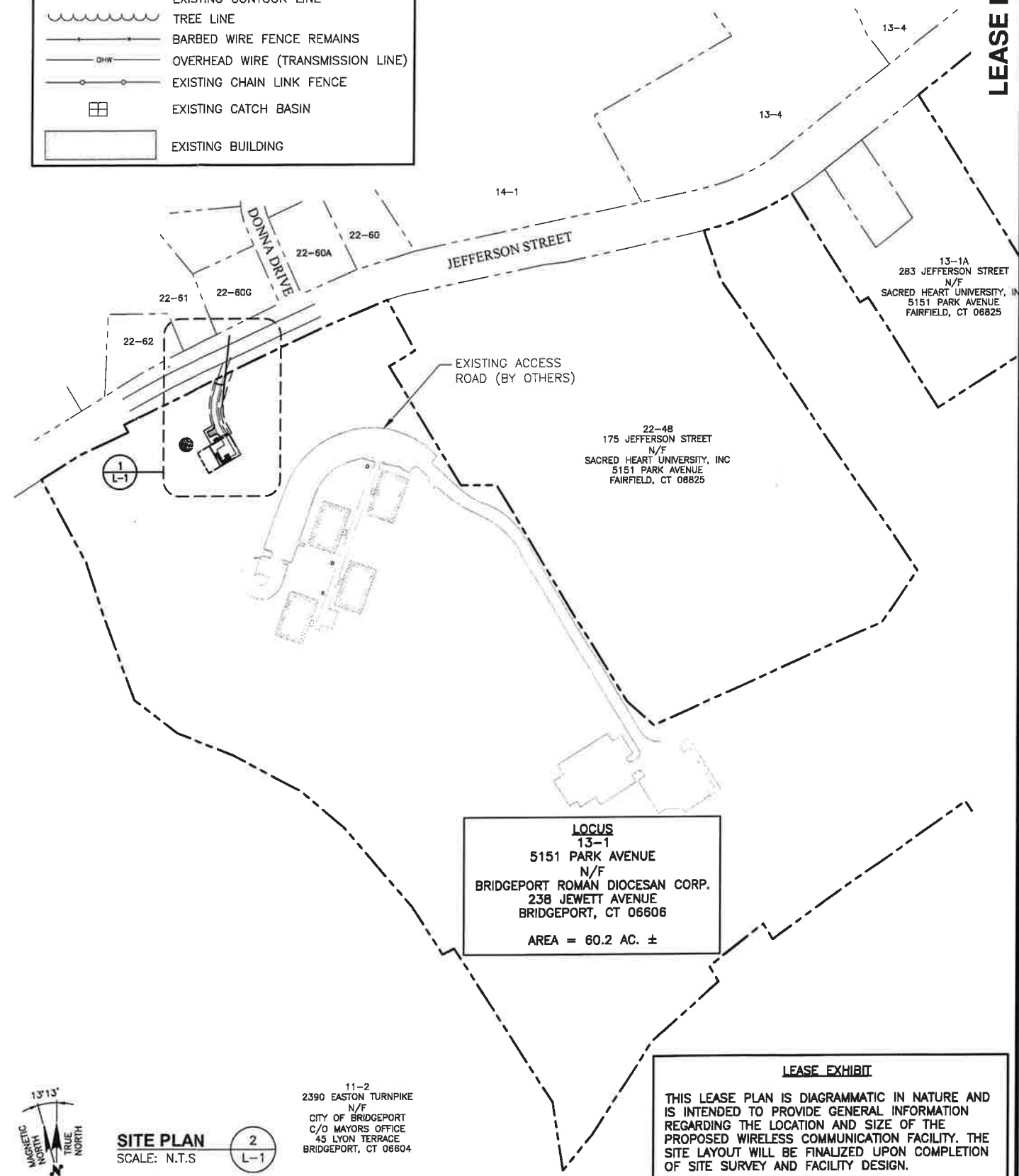


45 BEECHWOOD DRIVE N. ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586

LEASE EXHIBIT

**LEGEND**

- PROPERTY LINE - SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- EXISTING CONTOUR LINE
- TREE LINE
- BARBED WIRE FENCE REMAINS
- OVERHEAD WIRE (TRANSMISSION LINE)
- EXISTING CHAIN LINK FENCE
- EXISTING CATCH BASIN
- EXISTING BUILDING



**ENLARGED SITE PLAN** 1 L-1

22x34 SCALE: 1"=20'-0"  
11x17 SCALE: 1"=40'-0"

GRAPHIC SCALE: 0 10 20 40 60 FEET

MAGNETIC NORTH 13°13' TRUE NORTH

**SITE PLAN** 2 L-1

SCALE: N.T.S.

11-2  
2390 EASTON TURNPIKE  
N/F  
CITY OF BRIDGEPORT  
C/O MAYORS OFFICE  
45 LYON TERRACE  
BRIDGEPORT, CT 06604

MAGNETIC NORTH 13°13' TRUE NORTH

**LOCUS**  
13-1  
5151 PARK AVENUE  
N/F  
BRIDGEPORT ROMAN DIOCESAN CORP.  
238 JEWETT AVENUE  
BRIDGEPORT, CT 06606  
AREA = 60.2 AC. ±

**LEASE EXHIBIT**

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

APPROXIMATE TOWER COORDINATES: LAT: N41° 13' 19.28" LONG: W73° 14' 54.60"

CHECKED BY: JX

APPROVED BY: DPH

**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
1	11/27/19	REVISED SITE LOCATION	OS
0	12/07/18	ISSUED FOR REVIEW	KAM

SITE NAME:  
**PLATTSVILLE  
RELO CT**

SITE ADDRESS:  
5151 PARK AVENUE  
FAIRFIELD, CT 06825

SHEET TITLE  
**SITE PLANS**

SHEET NUMBER  
**L-1**

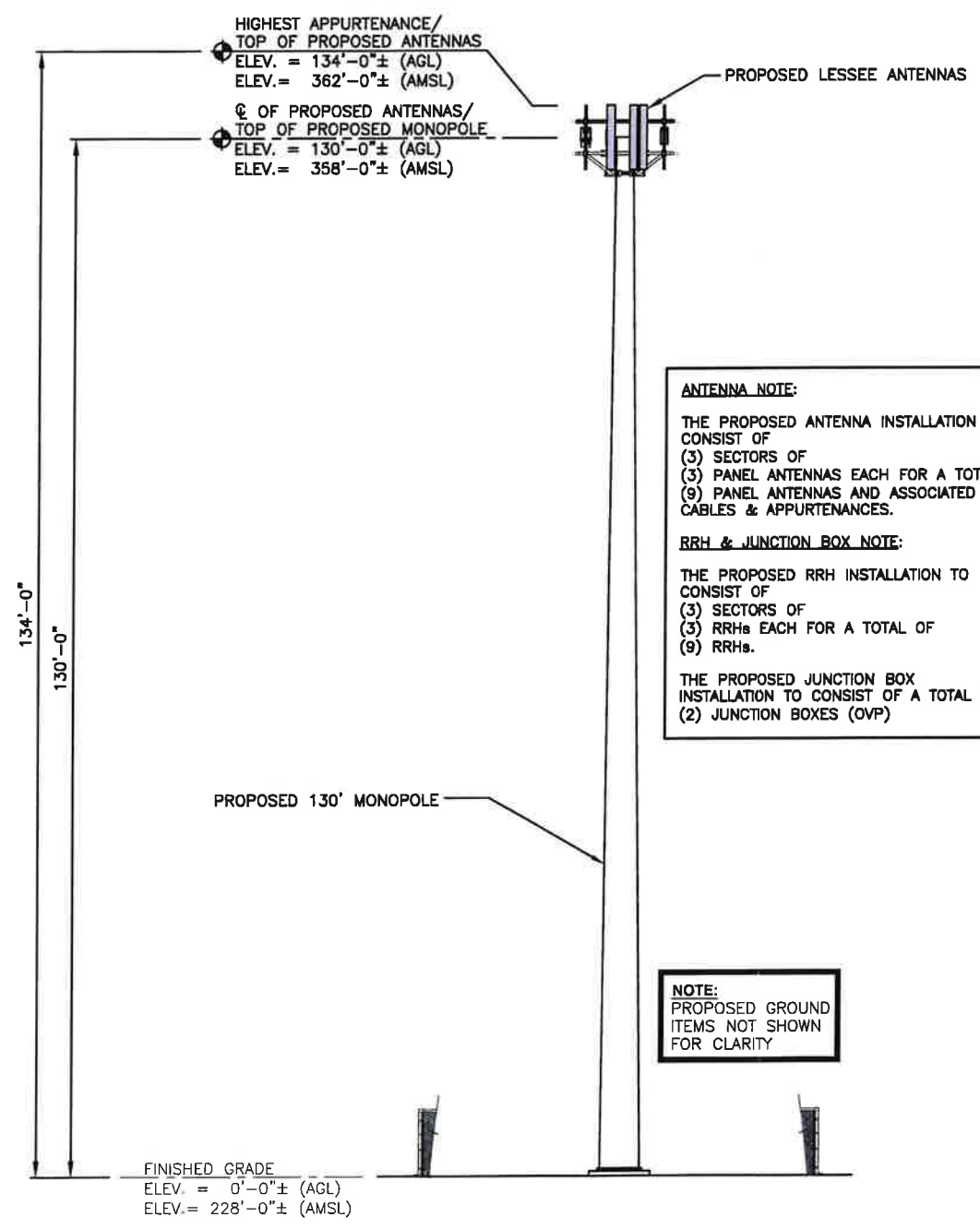
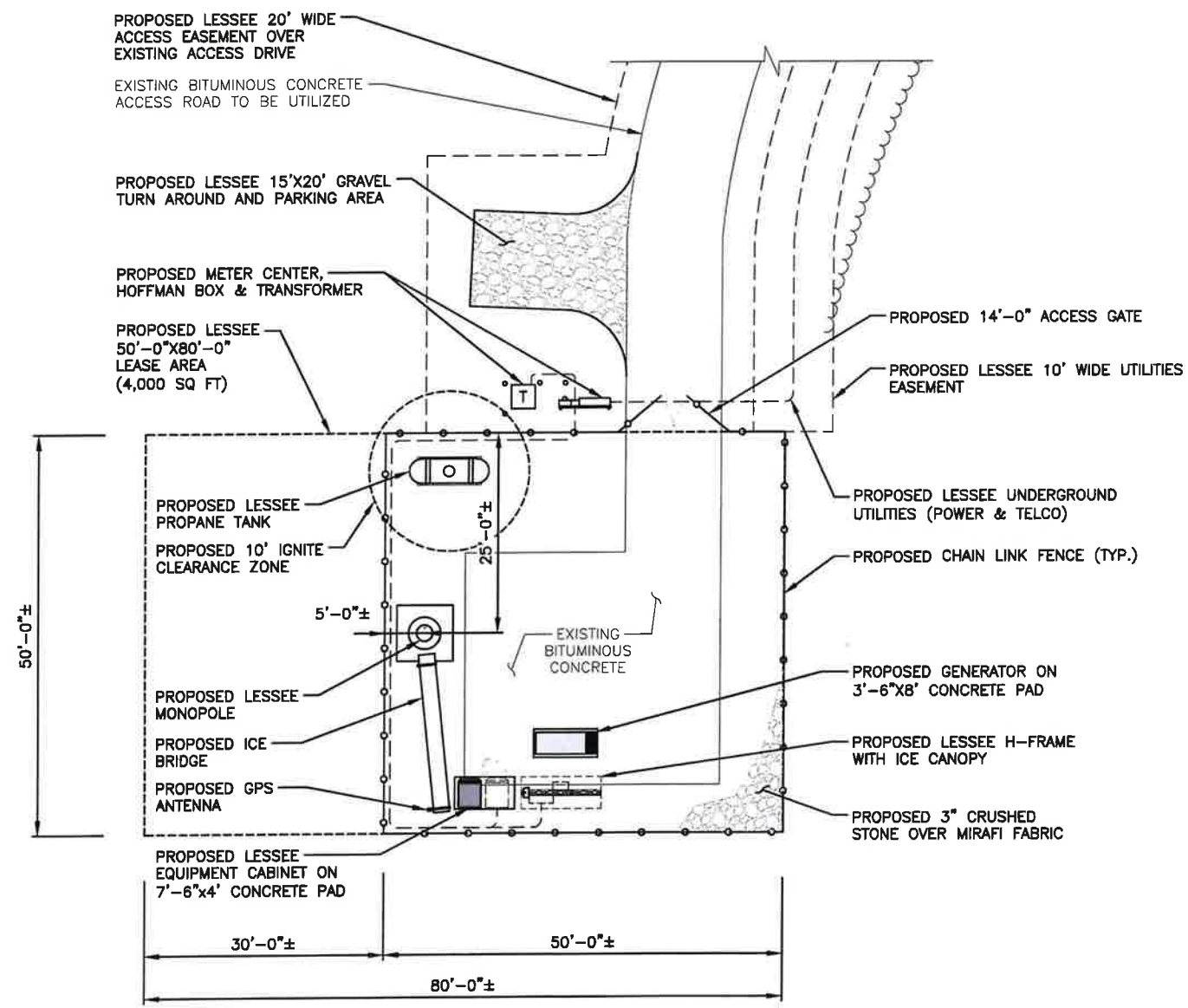
LEASE EXHIBIT

**LEASE EXHIBIT**  
 THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

PREPARED FOR: CELCO PARTNERSHIP D.B.A.



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

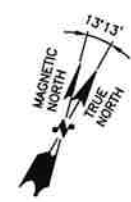


**ANTENNA NOTE:**  
 THE PROPOSED ANTENNA INSTALLATION TO CONSIST OF (3) SECTORS OF (3) PANEL ANTENNAS EACH FOR A TOTAL OF (9) PANEL ANTENNAS AND ASSOCIATED CABLES & APPURTENANCES.

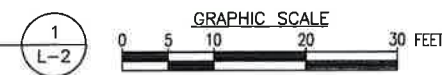
**RRH & JUNCTION BOX NOTE:**  
 THE PROPOSED RRH INSTALLATION TO CONSIST OF (3) SECTORS OF (3) RRHs EACH FOR A TOTAL OF (9) RRHs.

THE PROPOSED JUNCTION BOX INSTALLATION TO CONSIST OF A TOTAL OF (2) JUNCTION BOXES (OVP)

**NOTE:**  
 PROPOSED GROUND ITEMS NOT SHOWN FOR CLARITY

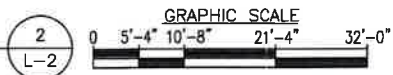


**COMPOUND PLAN**  
 22x34 SCALE: 1"=10'-0"  
 11x17 SCALE: 1"=20'-0"



**ELEVATION**

22x34 SCALE: 3/32"=1'-0"  
 11x17 SCALE: 3/64"=1'-0"



CHECKED BY: JX

APPROVED BY: DPH

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	11/27/19	REVISED SITE LOCATION	OS
0	12/07/18	ISSUED FOR REVIEW	KAM

SITE NAME:  
**PLATTSVILLE RELO CT**

SITE ADDRESS:  
 5151 PARK AVENUE  
 FAIRFIELD, CT 06825

SHEET TITLE  
**COMPOUND PLAN & ELEVATION**

SHEET NUMBER  
**L-2**

# **ATTACHMENT 4**



## **PRELIMINARY VISUAL ASSESSMENT**

To: Verizon Wireless  
20 Alexander Drive  
Wallingford, CT 06492

Date: December 16, 2019

Re: Plattsville Relo CT  
Proposed Telecommunications Facility  
5151 Park Avenue  
Fairfield, Connecticut

From: Michael Libertine

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Verizon Wireless has identified a proposed location for development of a replacement wireless telecommunications facility (the "Facility") at 5151 Park Avenue in Fairfield, Connecticut (the "Host Property"). The proposed Facility is being developed to relocate existing Verizon Wireless equipment from a building located on the main campus of Sacred Heart University ("SHU" or the "University"). The main campus of the University is comprised of two (2) parcels of land that total  $\pm 80.1$  acres. The Host Property of the proposed Facility consists of a  $\pm 60.2$ -acre parcel that is developed with multiple buildings and infrastructure associated with SHU.

The proposed replacement Facility would include a 130-foot tall monopole and associated ground-mounted equipment located in a 50-foot by 50-foot fenced compound (the "Site"). The tops of the proposed panel antennas would extend to heights of 134' above ground level ("AGL"). The proposed Facility would be located on the northwestern portion of the campus near the University's new maintenance facility. An existing paved driveway extends southward onto the Host Property from Jefferson Street and terminates adjacent to the Site.

The Host Property is located west of Park Avenue and south of Jefferson Street in the northeastern portion of Fairfield. Fairchild Wheeler Golf Course borders the Host Property to the west and south. Notre Dame Catholic High School is located across Jefferson Street north of the Site. The Merritt Parkway (Connecticut State Route 15 or the "Parkway") is located approximately 1,200 feet north of the Site. The Parkway is a National Scenic Byway that is listed on the National Register of Historic Places. Exit 46 from the northbound side of the Parkway and an adjacent commuter park and ride lot are located approximately 1,300 feet west of the Site. In addition to the institutionally-developed properties, land use in the immediate vicinity consists of primarily densely-spaced, residentially-developed properties.

At the request of Verizon Wireless, All-Points Technology Corporation, P.C. ("APT") has prepared initial viewshed mapping to provide a preliminary evaluation of the visibility associated with the proposed Facility. To conduct this assessment, a predictive computer model was developed specifically for this project using ESRI's ArcMap Geographic Information System ("GIS")<sup>1</sup> software and available GIS data. The predictive model provides an initial estimate of potential visibility throughout a pre-defined Study Area, in this case a two-mile radius surrounding the proposed Facility location. The predictive model incorporates Project and Study Area-specific data, including the Facility location, its ground elevation and the proposed Facility height, as well as the surrounding topography, existing vegetation, and structures (the primary features that can block direct lines of sight). The Study Area

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

includes portions of the neighboring municipalities of Easton (to the north and west), Trumbull (to the northeast), and Bridgeport (to the east and southeast).

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

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

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

The preliminary viewshed mapping results indicate that predicted year-round visibility associated with the proposed Facility could include up to approximately 21 acres (less than 1% of the 8,042-acre Study Area). The majority of the predicted year-round visibility would be on portions of the Sacred Heart University campus. Predicted year-round visibility also extends over the athletic fields of Notre Dame Catholic High School (located north of Jefferson Street, north of the Site) with some year-round visibility shown extending into select locations in the residential neighborhood of Weeping Willow Lane and Donna Drive north of the Site. Predicted year-round visibility is also shown extending into the commuter park and ride lot adjacent to northbound Exit 46 of the Parkway farther to the

---

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

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

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

west. A small area of potential year-round visibility is shown extending onto the Parkway immediately east of the Route 59 – Easton Turnpike overpass over the Parkway.

The maps provided as attachments offer a preliminary basis for understanding the extent of visibility that may occur throughout the Study Area, but they do not address the character of those potential views. Note that the results of the computer model have not been field verified. Our experience is that the computer model's sensitivity typically results in the initial mapping to be over-predictive of the Facility's viewshed.

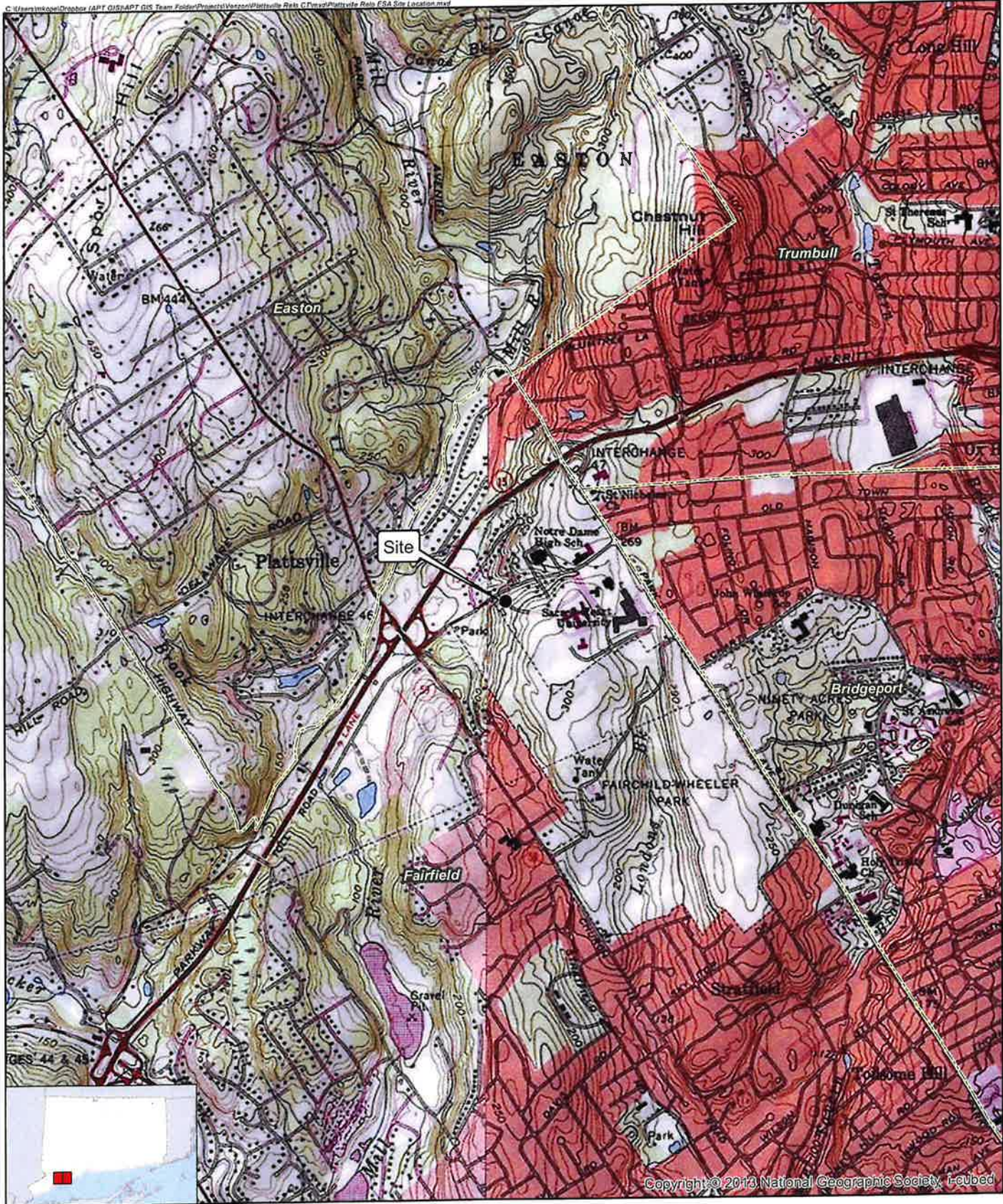
The initial results presented herein will be field-verified in the near future via a balloon test and reconnaissance to supplement and fine tune the results of the preliminary computer modeling and assessing seasonal views (i.e., when the leaves are off the deciduous trees). The reconnaissance activities will consist of floating a brightly-colored, approximately four-foot diameter, helium-filled balloon tethered at the proposed monopole height at the Site. Once the balloon is raised into position, APT will perform a Study Area reconnaissance by driving publicly-accessible local and State roads and inventorying those locations where the balloon is seen above/through the trees. Visual observations will be used to evaluate the results of the preliminary viewshed mapping and identify any discrepancies in the initial modeling. During the field activities, APT will also photo-document areas where the balloon/crane can be seen (as well as locations where it is not visible) and will prepare photographic simulations from several vantage points to depict scaled renderings of the proposed Facility. This information will be included in Verizon Wireless' application to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need.

**ALL-POINTS TECHNOLOGY CORPORATION, P.C.**

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**ATTACHMENTS**



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**Legend**

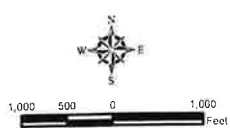
- Site
- Municipal Boundary

**Figure 1 - Site Location Map**

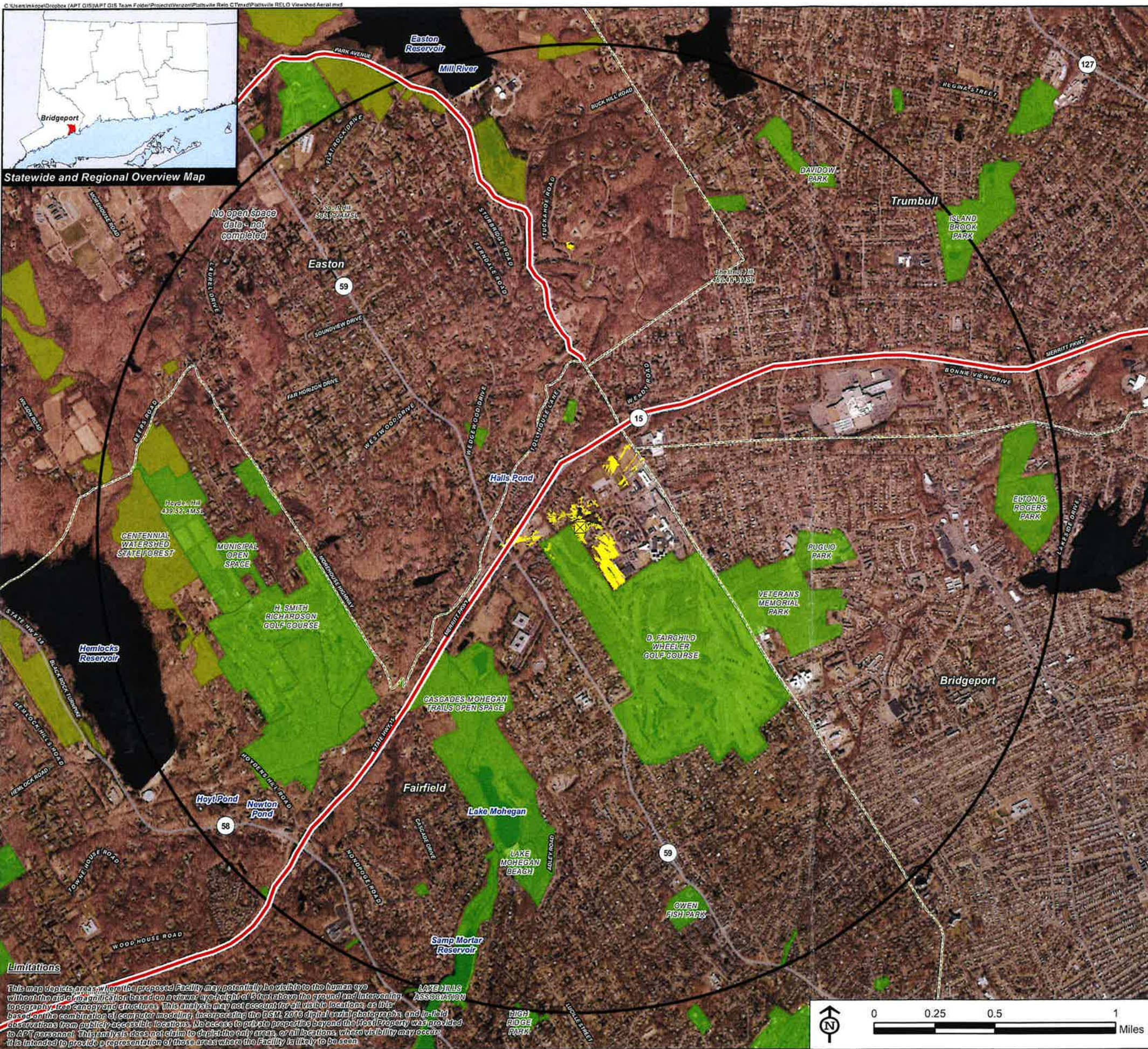
Proposed Wireless  
 Telecommunications Facility  
 Plattville Relo CT  
 5151 Park Avenue  
 Fairfield, Connecticut



**Map Notes:**  
 Base Map Source: USGS 7.5 Minute Topographic  
 Quadrangle Maps, Bridgeport, CT (1064) and Westport, CT (1975)  
 Map Scale: 1:24,000  
 Map Date: December 2019







### Preliminary Viewshed Analysis Map

Proposed Wireless Telecommunications Facility  
 Plattville RELO CT  
 5151 Park Avenue  
 Fairfield, Connecticut

Proposed facility height is 130 feet AGL.  
 Forest canopy height is derived from LiDAR data.  
 Study area encompasses a two-mile radius and includes 8,042 acres.  
 Base Map Source: 2016 Aerial Photograph (CTECO)  
 Map Date: December 2019

#### Legend

- Proposed Site
  - Study Area (2-Mile Radius)
  - Predicted Year-Round Visibility (21 Acres)
  - Municipal Boundary
  - Trail
  - Scenic Highway
  - DEEP Boat Launches
  - Municipal and Private Open Space Property
  - State Forest/Park
- Protected Open Space Property**
  - Federal
  - Land Trust
  - Municipal
  - Private
  - State

#### Data Sources:

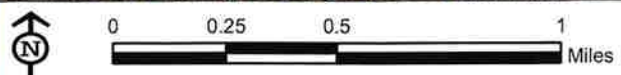
**Physical Geography / Background Data**  
 A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.  
 Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP.  
 Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

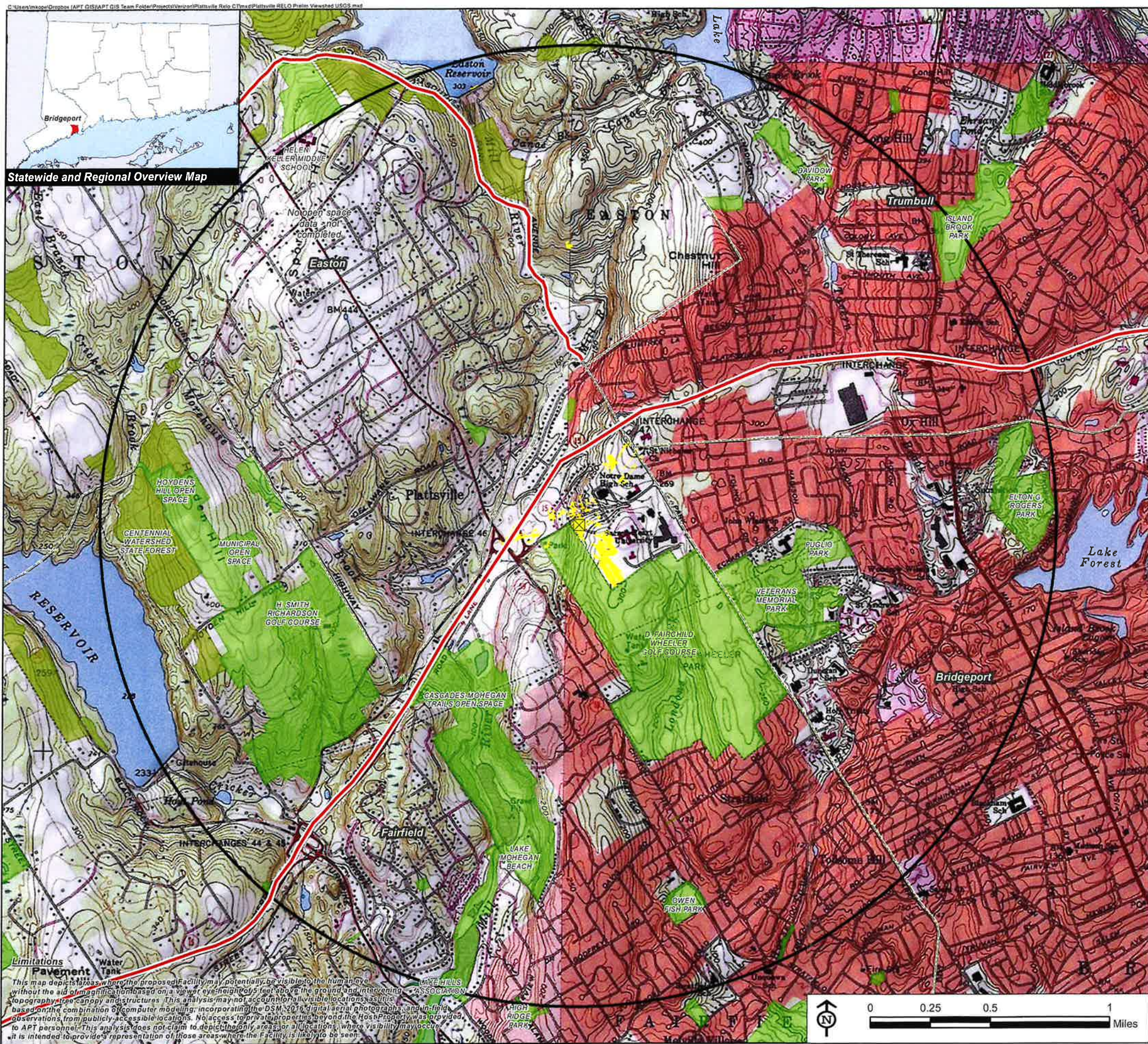
**Dedicated Open Space & Recreation Areas**  
 Connecticut Department of Energy and Environmental Protection (DEEP): DEEP Property (May 2007); Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)  
 Connecticut Forest & Parks Association, Connecticut Walk Books East & West

**Other**  
 CTDOT Scenic Strips (based on Department of Transportation data)

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

**Limitations**  
 This map depicts areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye height of 6 feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating the DSM, 2016 digital aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties beyond the host property was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur. It is intended to provide a representation of those areas where the Facility is likely to be seen.





**Statewide and Regional Overview Map**



**Limitations**  
 This map depicts areas where the proposed facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye height of 5 feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations as this is based on the combination of computer modeling, incorporating the DSM 2016 digital aerial photography, and in-field observations from publicly accessible locations. No access to private property beyond the host property was provided to APT personnel. This analysis does not claim to depict the only areas or locations where visibility may occur, it is intended to provide a representation of those areas where the facility is likely to be seen.



**Preliminary Viewshed Analysis Map**

Proposed Wireless Telecommunications Facility  
 Plattville RELO CT  
 5151 Park Avenue  
 Fairfield, Connecticut

Proposed facility height is 130 feet AGL.  
 Forest canopy height is derived from LiDAR data.  
 Study area encompasses a two-mile radius and includes 8,042 acres.  
 Base Map Source: USGS 7.5 Minute Topographic Quadrangle Maps, Botsford, CT (1984), Bridgeport, CT (1984), Long Hill, CT (1984) and Westport, CT (1975)  
 Map Date: December 2019

**Legend**

- Proposed Site
- Study Area (2-Mile Radius)
- Predicted Year-Round Visibility (21 Acres)
- Municipal Boundary
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park
- Protected Open Space Property**
- Federal
- Land Trust
- Municipal
- Private
- State

**Data Sources:**

**Physical Geography / Background Data**  
 A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.  
 Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP.  
 Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

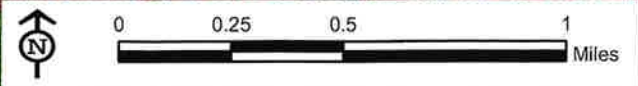
**Dedicated Open Space & Recreation Areas**  
 Connecticut Department of Energy and Environmental Protection (DEEP); DEEP Property (May 2007); Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)  
 Connecticut Forest & Parks Association, Connecticut Walk Books East & West

**Other**

CTDOT Scenic Strips (based on Department of Transportation data)

**Notes**

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



# **ATTACHMENT 5**

Site Name: PLATTSVILLE CT RELO  
 Cumulative Power Density

Operator	Operating Frequency (MHz)	Number of Trans.	ERP Per Trans. (watts)	Total ERP (watts)	Distance to Target (feet)	Calculated Power Density (mW/cm <sup>2</sup> )	Maximum Permissible Exposure* (mW/cm <sup>2</sup> )	Fraction of MPE (%)
VZW PCS	1970	4	1617	6466.36	130	0.1376	1.0	13.76%
VZW Cellular CDMA	869	3	498	1494	130	0.0318	0.5793333333	5.49%
VZW Cellular LTE	880	4	498	1992	130	0.0424	0.5866666667	7.23%
VZW AWS	2145	4	1643	6571.4	130	0.1398	1.0	13.98%
VZW 700	746	4	648	2593.32	130	0.0552	0.4973333333	11.10%
VZW CBRS	3550	0	50	0	130	0.0000	2.3666666667	0.00%

**Total Percentage of Maximum Permissible Exposure**

51.55%

\*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-199

MHz = Megahertz  
 mW/cm<sup>2</sup> = milliwatts per square centimeter  
 ERP = Effective Radiated Power

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

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

# **ATTACHMENT 6**

Cellco Partnership d/b/a Verizon Wireless  
Plattsville Relo Facility

Sacred Heart University  
5151 Park Avenue  
Fairfield, Connecticut

Site Search Summary

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the submission of a statement that describes “the narrowing process by which other possible sites were considered and eliminated.” In accordance with this requirement, descriptions of the general site search process, the identification of the applicable search area and the alternative locations considered for development of the proposed Cellco Partnership d/b/a Verizon Wireless (“Cellco”) telecommunications facility on the main campus at Sacred Heart University (SHU), 5151 Park Avenue in Fairfield (the “Property”) are provided below.

Site Search Process

Cellco currently operates a wireless telecommunications facility on the roof of the Pierre Toussaint residence hall (“Toussaint Hall”) on the SHU campus. Cellco identifies this facility as its Plattsville cell site. Cellco is one of four (4) carriers who maintain antennas and related equipment on the roof of Toussaint Hall. Each carrier has entered into a separate roof-top sub-lease agreement with Message Center Management (MCM), the designated roof-top manager. Cellco’s lease agreement with MCM has expired. Cellco has been permitted to maintain and operate its Plattsville cell site subject to the hold-over provision of its current lease. The remaining roof-top wireless facility lease agreements will expire by 2021. SHU has made it clear to Cellco that it does not intend to renew and/or extend any of the wireless facility leases for the use of Toussaint Hall beyond their current term.

Cellco and SHU have been exploring options for a wireless facility to replace the Toussaint Hall roof-top facility since 2018. Because this is a replacement facility, the “search ring” or “search area” is centered on the SHU Main Campus. Cellco explored the use of several roof locations on the SHU Main Campus. None of the existing campus buildings, however were tall enough to provide coverage comparable to the existing Toussaint Hall facility or the proposed Plattsville Relo Facility.

Cellco maintains seventeen (17) existing telecommunications facilities within approximately four (4) miles of the existing Plattsville cell site. Eight (8) of these existing facilities interact with the existing Plattsville cell site and will interact, in a similar fashion with the new Plattsville Relo Facility.<sup>1</sup> The location of these existing facilities are shown on the coverage plots in Attachment 2.

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<sup>1</sup> Cellco’s first-tier neighboring site that will interact with the Plattsville Relo Facility include Easton CT, Fairfield CT, Fairfield S CT, Bridgeport NW 2 CT, Bridgeport NW, Trumbull SW, Bridgeport CRAN CT and Trumbull Center CT.

If existing towers or structures are not available nor technically feasible, other locations are investigated where the construction of a new tower is required to satisfy Cellco's wireless service objectives. The list of available locations may be further reduced if, after preliminary negotiations, the property owners withdraw a site from further consideration. From among the remaining locations, the proposed sites are selected by eliminating those that have greater potential for adverse environmental effects and fewer benefits to the public (i.e., those requiring taller towers, possibly with lights; those with substantial adverse environmental impacts, or in densely populated residential areas; and those with limited ability to share space with other public or private telecommunications service providers). It should be noted that in any given site search, the weight afforded to factors considered in the selection process will vary depending upon the availability and nature of sites within the search area.

### Identification of the Plattsville Relo Search Area

The primary purpose of the proposed Plattsville Relo Facility is to replace service that Cellco will lose when its existing Plattsville cell site on the roof of Toussaint Hall is removed. The Plattsville Relo Facility will provide reliable wireless service to the SHU Main Campus and a portion of the SHU West Campus, portions of the Merritt Parkway, State Route 59 and local roads in the area, and to residential and commercial uses in the vicinity of SHU. In addition, the Plattsville Relo Facility will provide wireless service to existing gaps to the north in the Towns of Easton and Trumbull.

### Sites Investigated

1. **SHU West Campus:** Cellco investigated four (4) alternative tower locations on the SHU West Campus (formerly the General Electric Corporate Headquarters).
  - A. Tower location in the southerly portion of the SHU West Campus, adjacent to an existing United Illuminating ("UI") electric substation.
  - B. Tower location in the westerly portion of the SHU West Campus adjacent to the Merritt Parkway.
  - C. Tower location to the north of the UI substation near the existing site access driveway.
  - D. Tower location to the north of the UI substation near the existing site access driveway.

None of the West Campus alternatives provided Cellco with a viable single site option to replace the existing Plattsville cell site.
2. **SHU Main Campus:** Cellco investigated five (5) alternative tower locations on the SHU Main Campus.
  - A. Tower location in the westerly portion of the SHU Main Campus to the west of the existing softball field and tennis courts. This portion of the SHU campus was acquired from the City of Bridgeport and was conveyed subject to a development restriction.

- B. Tower location at the southwest corner of the Pitt Recreation Center in the southerly portion of the Main Campus. SHU rejected this location as it would interfere with existing uses in and around the Pitt Center and the SHU football field.
- C. Tower location in the southeast corner of the Pitt Center. SHU rejected this location as being disruptive to existing activities and infrastructure around the Pitt Center.
- D. Tower location to the east of the Pitt Center in an open lawn area. SHU rejected this location as it has plans to develop this portion of the campus.
- E. Tower location in the northwest portion of the Main Campus was selected as the Plattsville Relo Facility location. Access to the tower site would extend from Jefferson Street. A tower at this location would meet Cellco's wireless service objectives.





**Legend**

- A Site Investigated
- Subject Property (SHU West Campus)
- Municipal Boundary

**Sites Investigated (SHU West Campus):**

- A Adjacent to an existing United Illuminating ("UI") electric substation
- B Adjacent to the Merritt Parkway
- C North of UI substation near the existing site access driveway
- D North of UI substation near the existing site access driveway

**Site Search Summary Map  
Sacred Heart University (SHU)  
West Campus**

Proposed Wireless  
Telecommunications Facility  
Plattsville Relo CT  
5151 Park Avenue  
Fairfield, Connecticut





**Legend**

- A Site Investigated
- Subject Property (SHU Main Campus)
- Municipal Boundary

**Sites Investigated (SHU Main Campus):**

- A West of the existing softball field and tennis courts
- B Southwest corner of the Pitt Recreation Center
- C Southeast corner of the Pitt Center
- D East of the Pitt Center in an open lawn area
- E Proposed Plattville Relo CT Facility

**Site Search Summary Map  
Sacred Heart University (SHU)  
Main Campus**

Proposed Wireless  
Telecommunications Facility  
Plattville Relo CT  
5151 Park Avenue  
Fairfield, Connecticut



**Map Notes:**  
Base Map Source: 2016 Aerial Photograph (CT ECO)  
Map Scale 1 inch = 400 feet  
Map Date: December 2019

