

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
 :  
 :  
 A PETITION OF CELLCO PARTNERSHIP : PETITION NO. \_\_\_\_  
 D/B/A VERIZON WIRELESS FOR A :  
 DECLARATORY RULING ON THE NEED TO :  
 OBTAIN A SITING COUNCIL CERTIFICATE :  
 FOR THE INSTALLATION OF A SMALL :  
 CELL TELECOMMUNICATIONS FACILITY :  
 ON THE ROOF OF THE BUILDING AT 2 :  
 OCEAN AVENUE IN WEST HAVEN, :  
 CONNECTICUT : MARCH 2, 2015

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.”), Cellco Partnership d/b/a Verizon Wireless (“Cellco”) hereby petitions 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 establish a “small cell” wireless facility on the roof of the commercial building at 2 Ocean Avenue in West Haven, Connecticut (the “Property”). The Property is owned by Baykat, LLC (“Owner”). Cellco has designated this site as its “Woodmont SC2 Facility”.

II. Factual Background

The Property is a 3.08 acre parcel in West Haven’s Neighborhood Business zone and is surrounded by commercial and residential uses along Ocean Avenue, New Haven Avenue and

Jones Hill Road. The Property is also immediately north of a West Haven Town beach. *See Attachment 1 – Site Vicinity and Site Schematic Maps (Aerial Photograph).*

Cellco is licensed to provide wireless telecommunications services in the 850 MHz, 1900 MHz, 700 MHz and 2100 MHz frequency ranges in West Haven and throughout the State of Connecticut. Initially, the proposed Woodmont SC2 Facility described below will provide wireless service in Cellco's 700 MHz and 2100 MHz frequency ranges only. Cellco's 700 MHz and 2100 MHz coverage maps showing Cellco's service in West Haven and the surrounding towns today and the coverage footprint for the proposed Woodmont SC2 Facility are included in Attachment 2.

Cellco currently maintains six (6) cell sites within approximately 2.5 miles of the Property. Cellco's West Haven South cell site consists of antennas on the roof of the building at 200 Oak Street in West Haven. Cellco's West Haven SW cell site consists of antennas on a tower at 668 Jones Hill Road in West Haven. Cellco's Orange 4 cell site consists of antennas on a tower at 100 Red Cedar Road in Orange. Cellco's Milford South II cell site consists of antennas on a tower at 185 Research Parkway in Milford. Cellco's Old Gate cell site consists of antennas on a tower at 311 Old Gate Road in Milford. Cellco's Bayview cell site consists of antennas on a flagpole tower at 234 Melba Street in Milford. As depicted on the 2100 MHz coverage maps, Cellco maintains small gaps in its 2100 MHz wireless service in the area immediately around the Property. In addition, the Alpha sector of Cellco's Milford South II cell site is currently operating beyond its existing capacity limits (a/k/a exhausting). Commercial and residential uses in the area and public beaches in West Haven and Milford have also been identified as a data traffic concentration areas that contribute to existing capacity problems in the area. In an effort to resolve these capacity problems and provide customers with improved

wireless services in the area, Cellco proposes to install a mast-mounted small cell antenna on the chimney of the building at the Property.

### III. Proposed “Small Cell” Facility

The proposed Woodmont SC2 Facility would consist of a single canister-type antenna attached to a small mast/tower extending approximately five (5) feet above an existing brick chimney on the roof of the building. Equipment associated with the small cell antenna and a Remote Radio Head (“RRH”) will be installed on a steel platform on the east side of the building. The equipment cabinet will house all of Cellco’s small cell radio equipment and a battery back-up power supply system. Power and telephone service to the Woodmont SC2 Facility will extend from existing service inside the building. (See Cellco’s Project Plans included in Attachment 3). Specifications for the “small cell” antenna (Commscope Model NH360QS-DG-F0M) and RRH (Model LTE-700U ALU) are included in Attachment 4.

### IV. 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

Cellco respectfully submits that the installation of a small mast/tower supporting a single

“small cell” canister-type antenna and the placement of an equipment cabinet and RRH, on a steel platform on the east side of the building, will not involve a significant alteration in the physical and environmental characteristics of the Property. No new ground disturbance of any kind is necessary or proposed as a part of the Woodmont SC2 Facility installation.

2. Visual Effects

The small mast and canister-type antenna on the existing chimney would be visible only from nearby locations along Jones Hill Road and Ocean Avenue. (See Limited Visual Assessment and Photo-Simulations included in Attachment 5). Overall, the installation would not have a significant impact on aesthetics in the area.

3. FCC Compliance

Radio frequency (“RF”) emissions from the proposed installation will be far below the standards adopted by the Federal Communications Commission (“FCC”). Included in Attachment 6 is a General Power Density table, including a calculation that Cellco’s “small cell” facility will operate at 20.7% of the FCC safety standard.

4. FAA Summary Report

Included in Attachment 7 is a Federal Airways & Airspace Summary Report verifying that the new mast/tower and antenna installation on the roof of the building at the Property would not constitute an obstruction or hazard to air navigation and that notification to the FAA is not required.

B. Notice to the Town, Property Owner and Abutting Landowners

On March 2, 2015, a copy of this Petition was sent to Edward M. O’Brien, West Haven’s Mayor. Because the Property is located within 2500 feet of the West Haven/Milford Town line, a copy of the Petition was also sent to Milford’s Mayor Benjamin Blake. A copy of the Petition

was also sent to Baykat, LLC, the owner of the Property. Included in Attachment 8 is a copy of the letters sent to Mayors O'Brien and Blake and Baykat, LLC. Notice of Cellco's intent to file this Petition along with a set of project plans was sent to the owners of land that abuts the Property. A sample abutter's letter and the list of those abutting landowners who were sent notice of the filing of the Petition is included in Attachment 9.

V. 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 installation of a small cell wireless facility 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,

CELLCO PARTNERSHIP d/b/a VERIZON  
WIRELESS

By 

Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103-3597  
(860) 275-8200  
Its Attorneys

# **ATTACHMENT 1**



**Legend**

- Proposed Verizon Wireless Small Cell Facility
- Surrounding Verizon Wireless Facilities
- Municipal Boundary

**Site Vicinity Map**

Proposed Small Cell Installation  
 Woodmont SC 2 CT  
 2 Ocean Avenue  
 West Haven, Connecticut



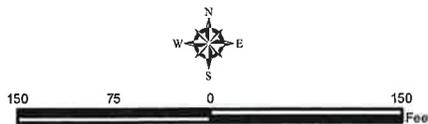


- Legend**
-  Subject Property
  -  Municipal Boundary

**Site Schematic**

Proposed Small Cell Installation  
 Woodmont SC 2 CT  
 2 Ocean Avenue  
 West Haven, Connecticut

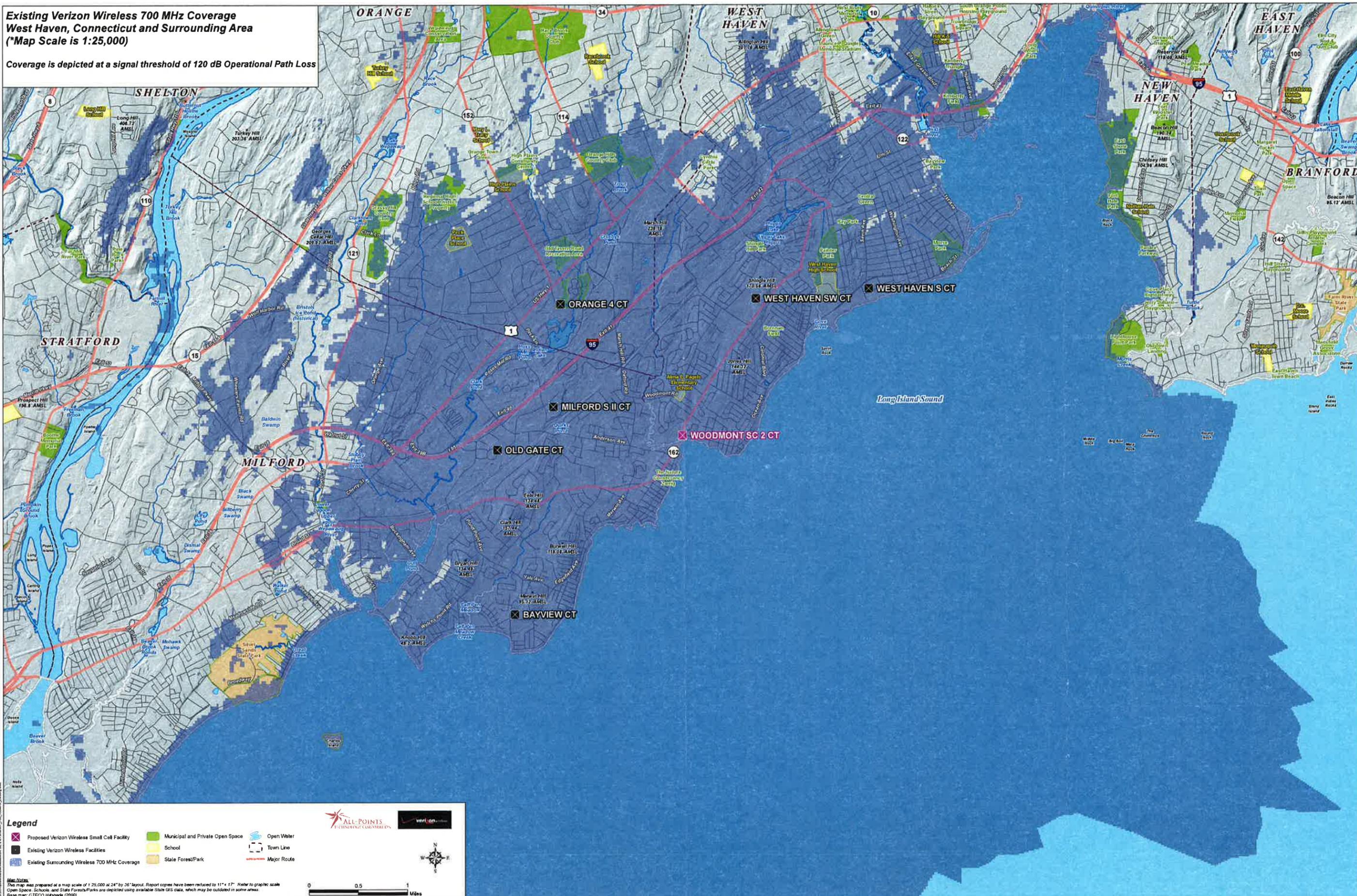
**Map Notes:**  
 Base Map Source: 2012 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 150 feet  
 Map Date: February 2015



# **ATTACHMENT 2**

**Existing Verizon Wireless 700 MHz Coverage  
West Haven, Connecticut and Surrounding Area  
(\*Map Scale is 1:25,000)**

Coverage is depicted at a signal threshold of 120 dB Operational Path Loss

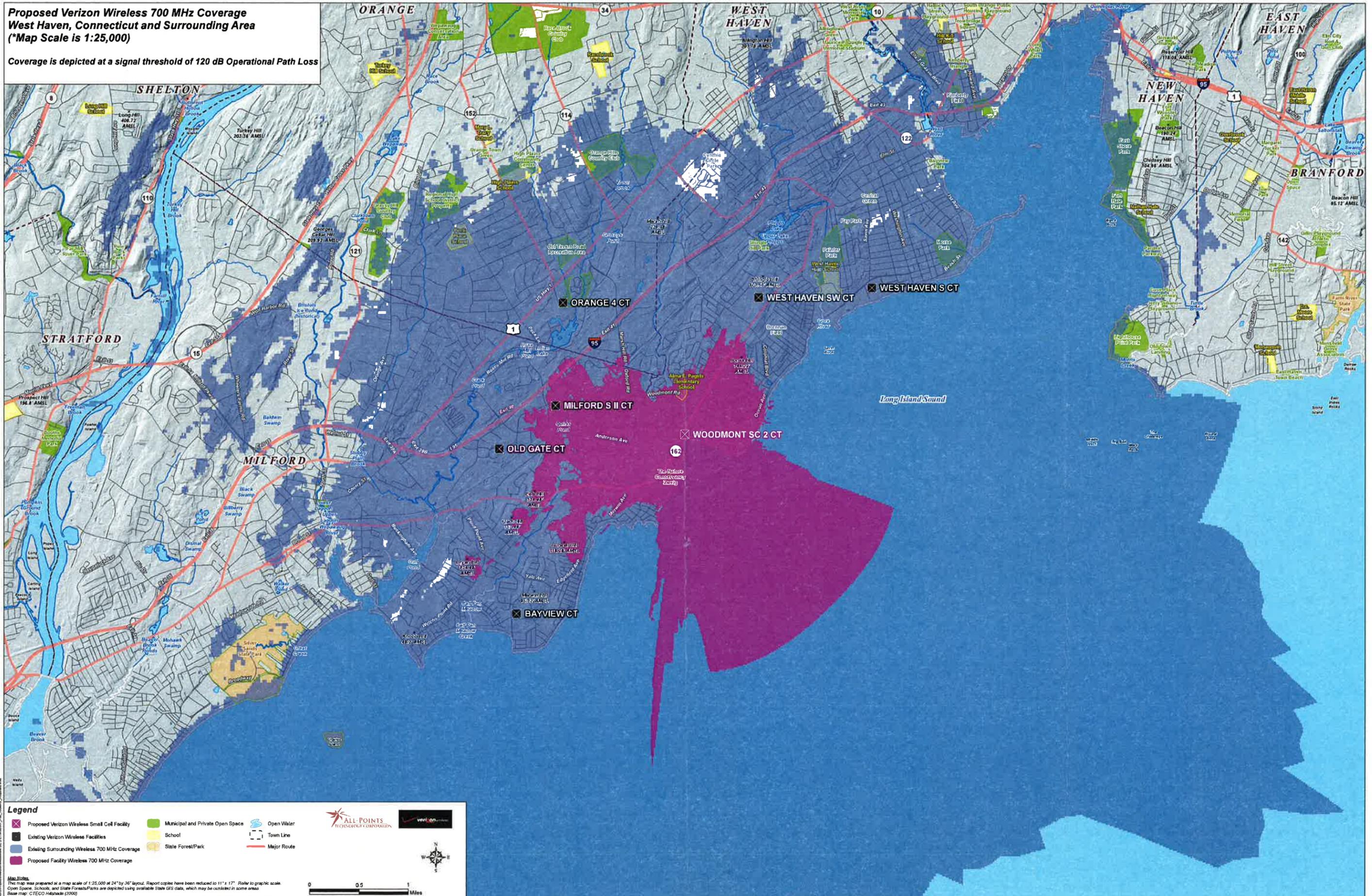


- Legend**
- X Proposed Verizon Wireless Small Cell Facility
  - Municipal and Private Open Space
  - Open Water
  - Existing Verizon Wireless Facilities
  - School
  - Town Line
  - Existing Surrounding Wireless 700 MHz Coverage
  - State Forest/Park
  - Major Route

**Map Notes**  
This map was prepared at a map scale of 1:25,000 at 24" by 36" layout. Report copies have been reduced to 11" x 17". Refer to graphic scale. Open Space, Schools, and State Forest/Parks are depicted using available State GIS data, which may be outdated in some areas. Base map: CTECO Hydrobase (2009)

**Proposed Verizon Wireless 700 MHz Coverage  
West Haven, Connecticut and Surrounding Area  
(\*Map Scale is 1:25,000)**

Coverage is depicted at a signal threshold of 120 dB Operational Path Loss



**Legend**

- ✕ Proposed Verizon Wireless Small Cell Facility
- Municipal and Private Open Space
- Open Water
- Existing Verizon Wireless Facilities
- School
- Town Line
- Existing Surrounding Wireless 700 MHz Coverage
- State Forest/Park
- Major Route
- Proposed Facility Wireless 700 MHz Coverage

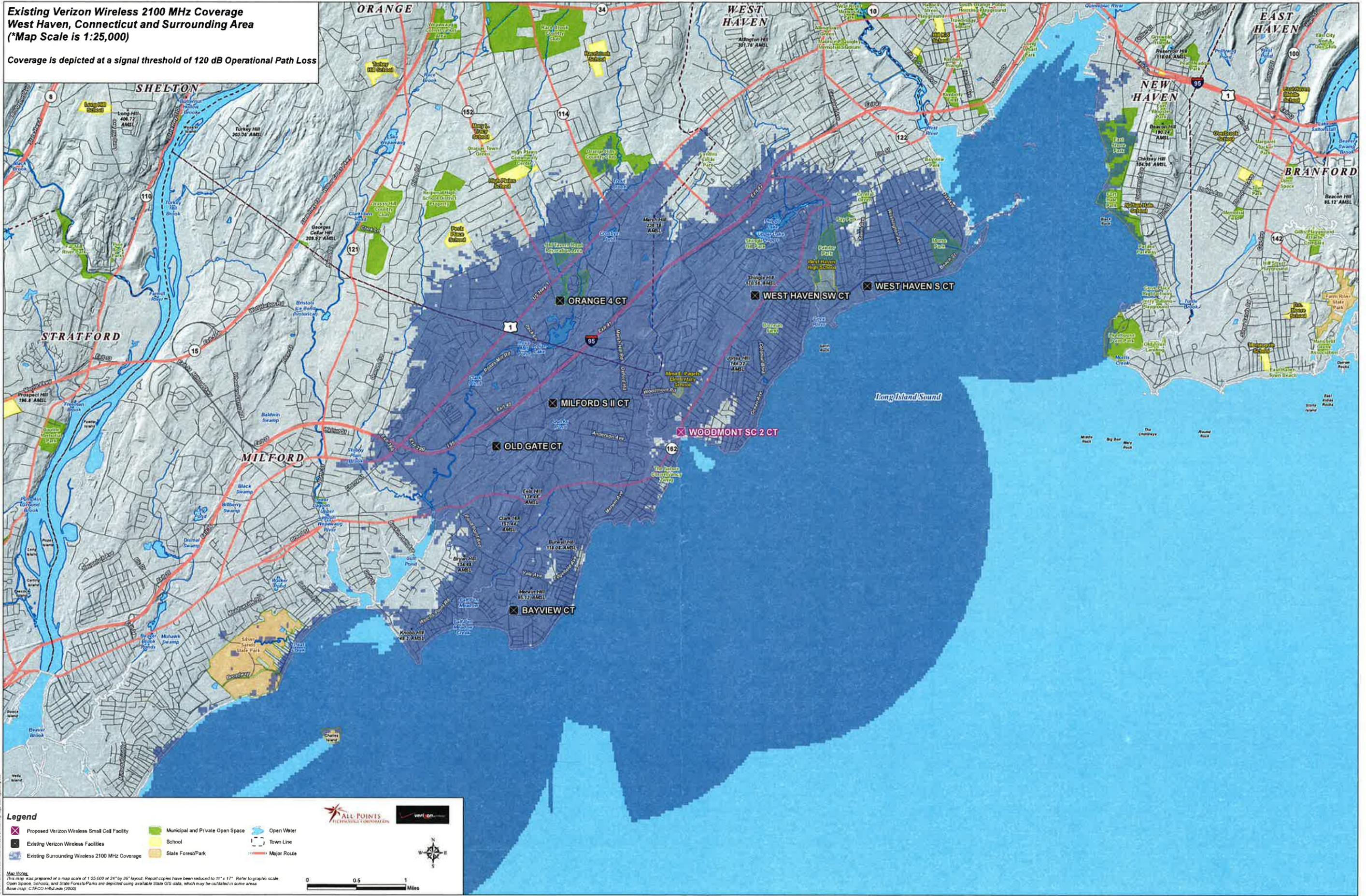
**Map Notes:**  
This map was prepared at a map scale of 1:25,000 at 24" by 36" layout. Report copies have been reduced to 11" x 17". Refer to graphic scale.  
Open Space, Schools, and State Forests/Parks are depicted using available State GIS data, which may be outdated in some areas.  
Base map: CTECO Hilsdale (2009)

**ALL-POINTS TECHNOLOGY CORPORATION**

0 0.5 1 Miles

**Existing Verizon Wireless 2100 MHz Coverage  
West Haven, Connecticut and Surrounding Area  
(\*Map Scale is 1:25,000)**

Coverage is depicted at a signal threshold of 120 dB Operational Path Loss



- Legend**
- X Proposed Verizon Wireless Small Cell Facility
  - Municipal and Private Open Space
  - Open Water
  - Existing Verizon Wireless Facilities
  - School
  - Town Line
  - State Forest/Park
  - Existing Surrounding Wireless 2100 MHz Coverage
  - Major Route

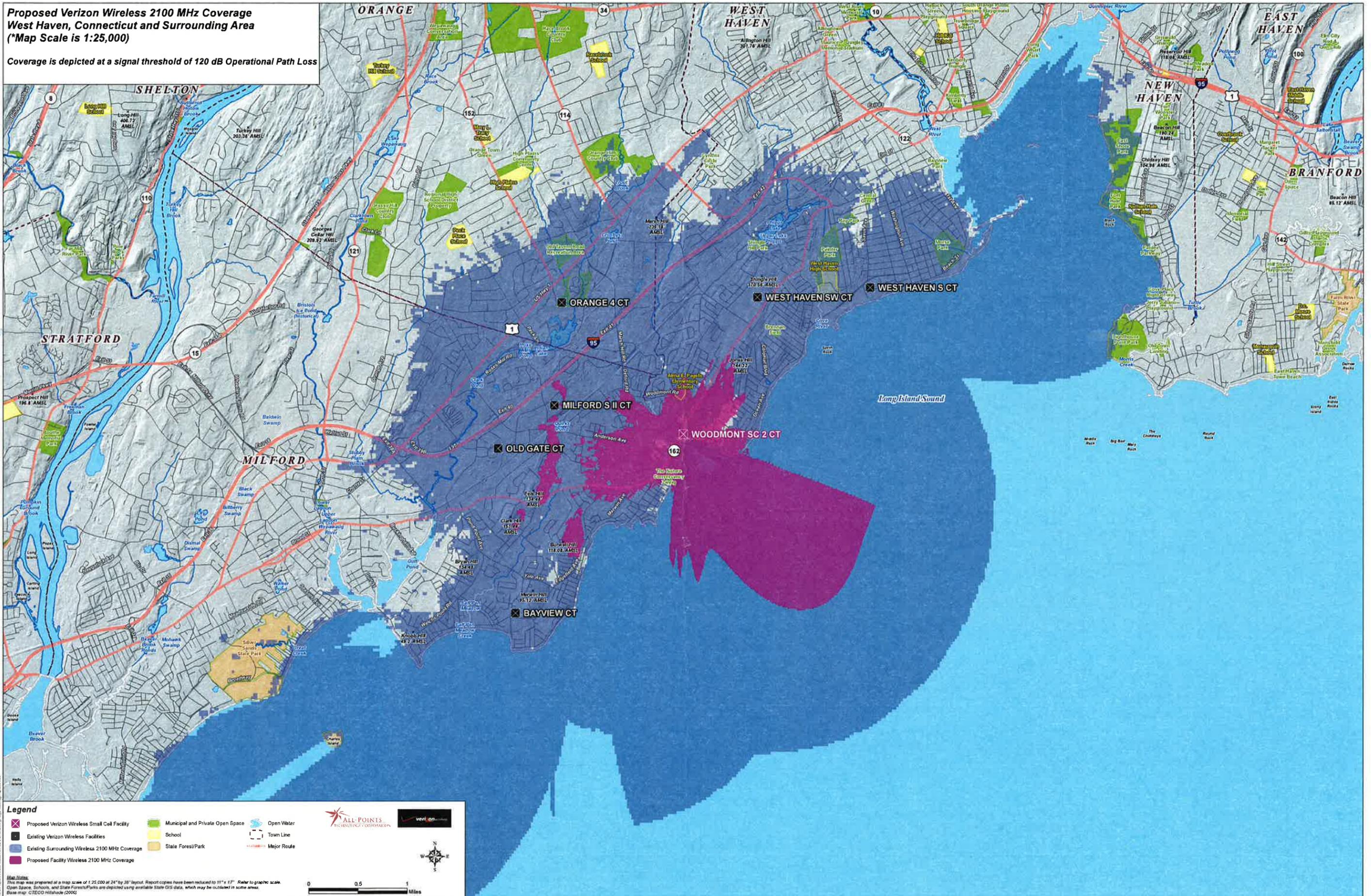
**Map Notes:**  
This map was prepared at a map scale of 1:25,000 at 24" by 36" layout. Report copies have been reduced to 11" x 17". Refer to graphic scale. Open Space, Schools, and State Forests/Parks are depicted using available State GIS data, which may be outdated in some areas. Base map: CTECO Hillshade (2000)

ALL POINTS  
TELECOMMUNICATIONS CORPORATION

verizon

**Proposed Verizon Wireless 2100 MHz Coverage  
West Haven, Connecticut and Surrounding Area  
(\*Map Scale is 1:25,000)**

Coverage is depicted at a signal threshold of 120 dB Operational Path Loss



**Legend**

- Proposed Verizon Wireless Small Cell Facility
- Existing Verizon Wireless Facilities
- Existing Surrounding Wireless 2100 MHz Coverage
- Proposed Facility Wireless 2100 MHz Coverage
- Municipal and Private Open Space
- School
- State Forest/Park
- Open Water
- Town Line
- Major Route

**Map Notes:**  
This map was prepared at a map scale of 1:25,000 at 24" by 36" layout. Report copies have been reduced to 11" x 17". Refer to graphic scale.  
Open Space, Schools, and State Forest/Parks are depicted using available State GIS data, which may be outdated in some areas.  
Base map: CT/ED Hillshade (2006)

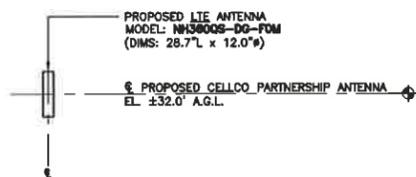
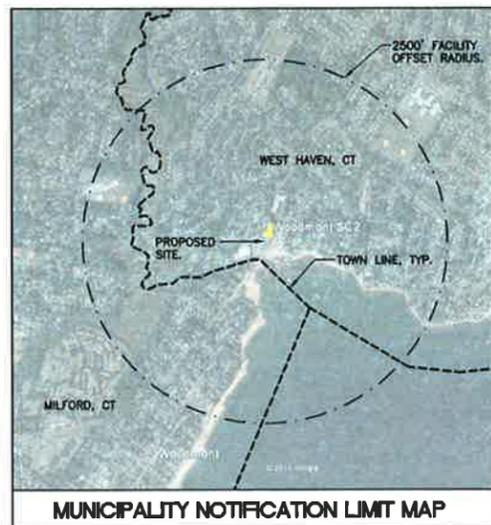
ALL POINTS  
PROFESSIONAL CORPORATION

verizon

0 0.5 1 Miles

# **ATTACHMENT 3**

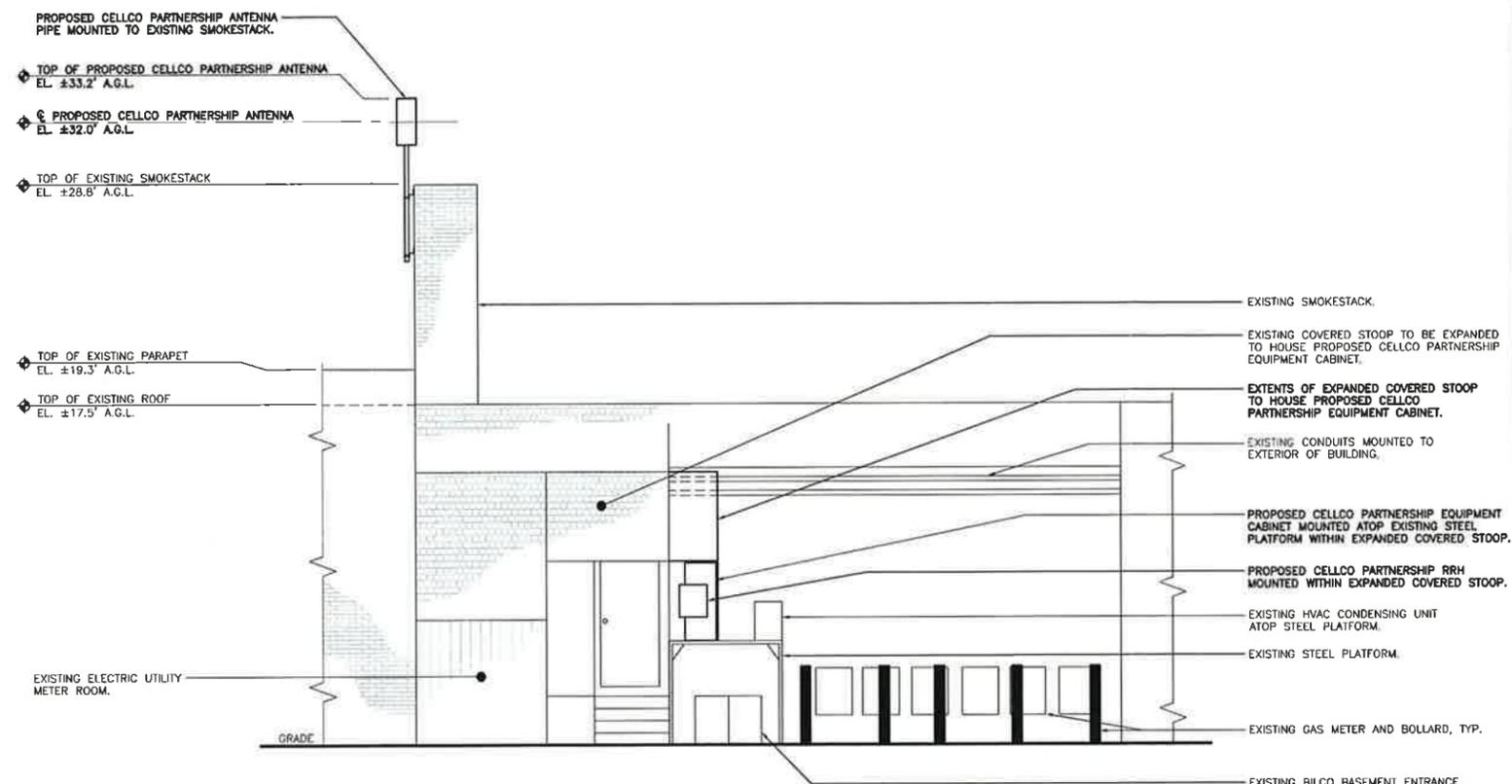




**RRH MOUNTING NOTE**

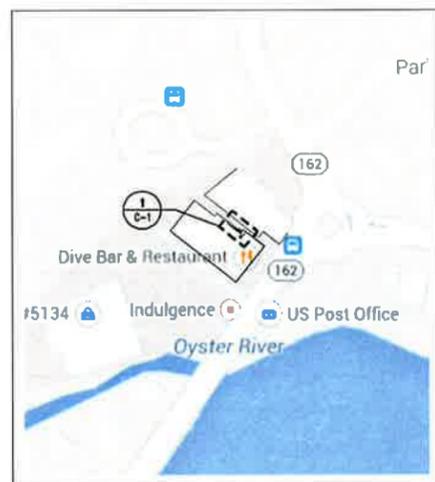
- LTE RRH (MODEL: ALL RRH 2x40-700) (DIMS: 20.0" L x 17.0" W x 10.0" D) (TYP. OF 1 PER SECTOR)
- WALL MOUNTED WITHIN PROPOSED EXPANDED COVERED STOOP.

**3 ANTENNA MOUNTING CONFIGURATION**  
SCALE: 1/4" = 1'

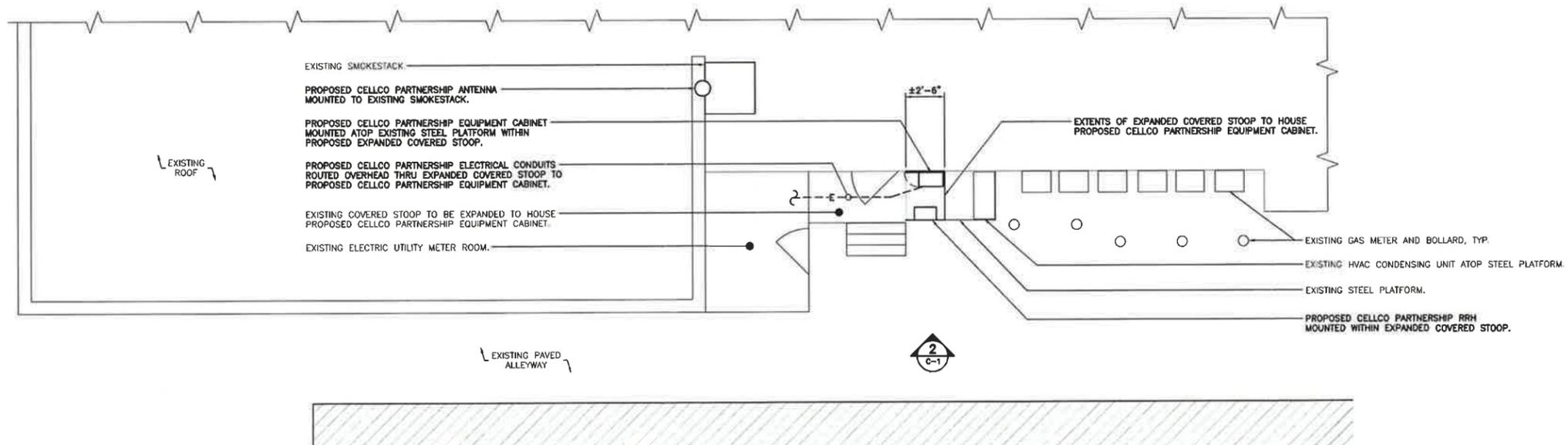


HEIGHTS SHOWN HEREIN REFERENCED FROM FAA 1-A SURVEY CERTIFICATION AS PREPARED FOR VERIZON WIRELESS, BY MARTINEZ COUCH AND ASSOCIATES LLC, DATED FEBRUARY 16, 2015, REVISED FEBRUARY 17, 2015.

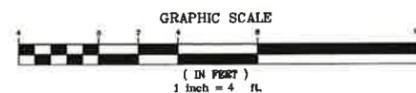
**2 EAST ELEVATION**  
SCALE: 1/4" = 1'



**KEY PLAN**  
SCALE: 1" = 150'



**1 PARTIAL SITE PLAN**  
SCALE: 1/4" = 1'



**NOTE**

- LOCATION OF PROPOSED CELLICO PARTNERSHIP ANTENNA SUBJECT TO STRUCTURAL REVIEW OF HOST BUILDING CONSIDERING EXISTING AND PROPOSED LOADINGS.
- ROUTING OF POWER AND TELCO CONDUITS SHOWN HEREIN IS TENTATIVE. FINAL ROUTING TO BE DETERMINED AT THE CONSTRUCTION DOCUMENT PHASE OF THE PROJECT.

PROFESSIONAL ENGINEER SEAL	ISSUED FOR CSC - CLIENT REVIEW
DATE: 02/25/15	DRAWN BY: CHK'D BY:
REV. 0	DATE: 02/25/15
 Cellco Partnership d/b/a Verizon Wireless	
 CENTEK engineering Continued on Solution	
WIRELESS COMMUNICATIONS FACILITY <b>WOODMONT SC2</b> 2 OCEAN AVENUE WEST HAVEN, CT 06516	
DATE: 02/25/15 SCALE: AS NOTED JOB NO. 14213.000 <b>PARTIAL SITE PLAN, ELEVATIONS, AND ANTENNA MOUNTING CONFIG.</b>	
<b>C-1</b> Sheet No. 2 of 2	

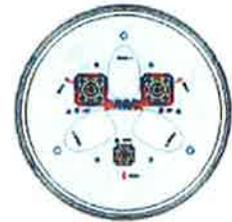
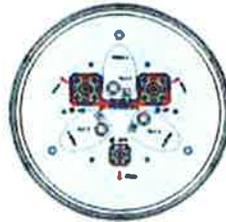
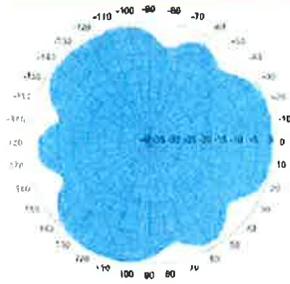
# **ATTACHMENT 4**

Metro Cell Antennas with Internal Diplexer and GPS Antenna

Dualband Quasi-Omni (360°), Metro Cell Antenna

NH360QS-DG-F0M

NH360QT-DG-F0



ELECTRICAL SPECIFICATIONS

Operating Frequency Range	698 - 896 and 1710 - 2170 MHz					698 - 896 and 1710 - 2170 MHz				
	698 - 806	806 - 896	1710 - 1880	1850 - 1990	1920 - 2170	698 - 806	806 - 896	1710 - 1880	1850 - 1990	1920 - 2170
Frequency Bands, MHz	698 - 806	806 - 896	1710 - 1880	1850 - 1990	1920 - 2170	698 - 806	806 - 896	1710 - 1880	1850 - 1990	1920 - 2170
Polarization	±45°	±45°	±45°	±45°	±45°	±45°	±45°	±45°	±45°	±45°
Gain, dBi	4.3	5.3	8.0	8.1	8.5	1.3	2.3	4.0	4.2	4.5
Beamwidth, Horizontal, degrees	360	360	360	360	360	360	360	360	360	360
Beamwidth, Vertical, degrees	30.0	24.0	16.0	15.0	14.0	60.0	55.0	32.5	30.0	28.5
USLS, dB	12	12	14	13	13	-	-	14	12	11
Beam Tilt, degrees	0	0	0-16	0-16	0-16	0	0	0	0	0
Isolation, dB	25	25	25	25	25	25	25	25	25	25
VSWR (Return Loss, dB)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)	1.5 (14.0)
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150
Input Power per Port, maximum, watts	250	250	250	250	250	250	250	250	250	250

MECHANICAL SPECIFICATIONS

Connector Interface	7 - 16 DIN Female	7 - 16 DIN Female
Connector Quantity, Location	2, Bottom	2, Bottom
GPS Connector Interface	4.1/9.5 DIN Female	4.1/9.5 DIN Female
GPS Connector Quantity, Location	1, Bottom	1, Bottom
Length, mm (inch)	730 (28.7)	360 (14.2)
Outer Diameter, mm (inch)	305 (12.0)	305 (12.0)
Wind Speed, maximum, km/h (mph)	241.4 (150)	241.4 (150)
Net Weight, kg (lb)	20.0 (44.1)	12.0 (26.5)

AVAILABILITY

Expected Ready Date for Manufacturing	March 2014	June 2014
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## Alcatel-Lucent RRH2x40-07-U

### REMOTE RADIO HEAD

The Alcatel-Lucent RRH2x40-07-U is a high-power, small form-factor Remote Radio Head (RRH) operating in the North American Digital Dividend / 700MHz frequency band (3GPP Band 13). The Alcatel-Lucent RRH2x40-07-U is designed with an eco-efficient approach, providing operators with the means to achieve high quality and capacity coverage with minimum site requirements.



A distributed eNodeB expands deployment options by using two components, a Base Band Unit (BBU) containing the digital assets and a separate RRH containing the radio-frequency (RF) elements. This modular design optimizes available space and allows the main components of an eNodeB to be installed separately, within the same site or several kilometres apart.

The Alcatel-Lucent RRH2x40-07-U is linked to the BBU by an optical-fiber connection carrying downlink and uplink digital radio signals along with operations, administration and maintenance (OA&M) information. The Alcatel-Lucent RRH2x40-07-U has two transmit RF paths, 40 W RF output power per transmit path, and is designed to manage up to two-way receive diversity. The device is ideally suited to support macro coverage, with multiple-input multiple-output (MIMO) 2x2 operation in up to 10 MHz of bandwidth.

The Alcatel-Lucent RRH2x40-07-U is designed to make available all the benefits of a distributed eNodeB, with excellent RF characteristics, with low

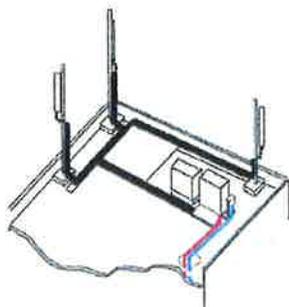
capital expenditures (CAPEX) and low operating expenditures (OPEX). The limited space available in some sites may prevent the installation of traditional single-cabinet BTS equipment or require costly cranes to be employed, leaving coverage holes. However, many of these sites can host an Alcatel-Lucent RRH2x40-07-U installation, providing more flexible site selection and improved network quality along with greatly reduced installation time and costs.

#### Fast, low-cost installation and deployment

The Alcatel-Lucent RRH2x40-07-U is a zero-footprint solution and operates noise-free, simplifying negotiations with site property owners and minimizing environmental impacts. Installation can easily be done by a single person because the Alcatel-Lucent RRH2x40-07-U is compact and weighs less than 23 kg (50 lb), eliminating the need for a crane to hoist the BTS cabinet to the rooftop. A site can be in operation in less than one day — a fraction of the time required for a traditional BTS.

## Excellent RF performance

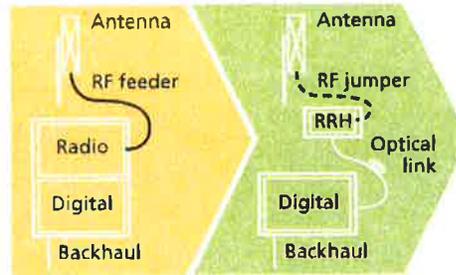
Because of its small size and weight, the Alcatel-Lucent RRH2x40-07-U can be installed close to the antenna. Operators can therefore locate the Alcatel-Lucent RRH2x40-07-U where RF engineering is deemed ideal, minimizing trade-offs between available sites and RF optimum sites. The RF feeder cost and installation costs are reduced or eliminated, and there is no need for a Tower Mounted Amplifier (TMA) because losses introduced by the RF feeder are greatly reduced. The Alcatel-Lucent RRH2x40-07-U provides more RF power while at the same time consuming less electricity.



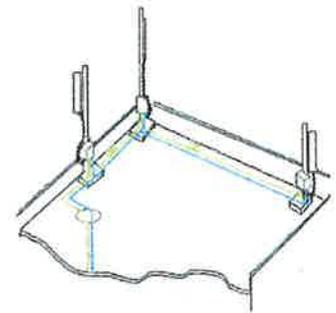
Macro

## Features

- Zero-footprint deployment
- Easy installation, with a lightweight unit can be carried and set up by one person
- Optimized RF power, with flexible site selection and elimination of a TMA
- Convection-cooled (fanless), noise-free, and heaterless unit
- Best-in-class power efficiency, with significantly reduced energy consumption



RRH for space-constrained cell sites



Distributed

## Benefits

- Leverages existing real estate with lower site costs
- Reduces installation costs, with fewer installation materials and simplified logistics
- Decreases power costs and minimizes environmental impacts, with the potential for eco-sustainable power options
- Improves RF performance and adds flexibility to network planning

## Technical specifications

### Physical dimensions

- Height: 390 mm (15.4 in.)
- Width: 380 mm (15 in.)
- Depth: 210 mm (8.2 in.)
- Weight (without mounting kit): less than 23 kg (50 lb)

### Power

- Power supply: -48V

### Operating environment

- Outdoor temperature range:
  - With solar load: -40°C to +50°C (-40°F to +122°F)
  - Without solar load: -40°C to +55°C (-40°F to +131°F)
- Passive convection cooling (no fans)

- Enclosure protection
  - IP65 (International Protection rating)

### RF characteristics

- Frequency band: 700 MHz; 3GPP Band 13
- Bandwidth: up to 10 MHz
- RF output power at antenna port:
  - 40 W nominal RF power for each Tx port
- Rx diversity: 2-way or 4-way
- Noise figure: below 2.5 dB typical
- ALD features
  - TMA
  - Remote electrical tilt (RET) support (AISG v2.0)

### Optical characteristics

#### Type/number of fibers

- Up to 3.12 Gb/s line bit rate
- Single-mode variant
  - One SM fiber (9/125 μm) per RRH2x, carrying UL and DL using CWDM (at 1550/1310 nm)
- Multi-mode variant
  - Two MM fibers (50/125 μm) per RRH2x: one carrying UL, the other carrying DL (at 850 nm)

### Optical fiber length

- Up to 500 m (0.31 mi), using MM fiber
- Up to 20 km (12.43 mi), using SM fiber

### Alarms and ports

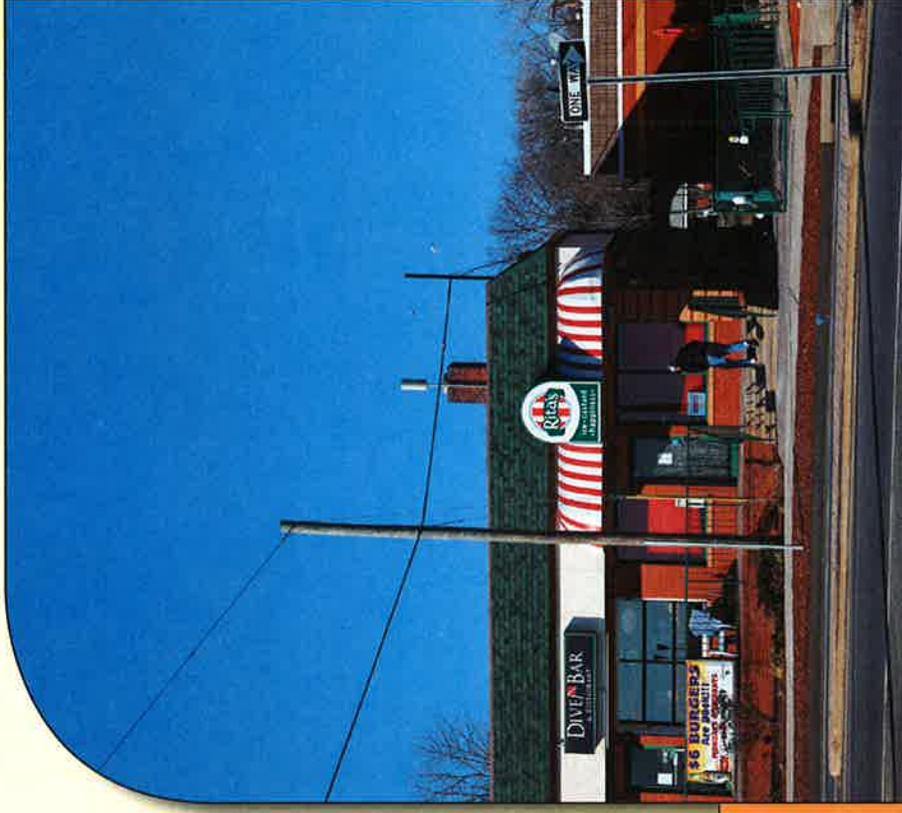
- Six external alarms
- Two optical ports to support daisy-chaining

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# **ATTACHMENT 5**

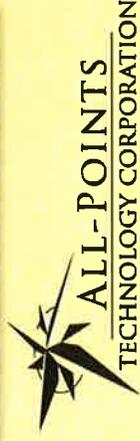
# Limited Visual Assessment and Photo-Simulations

WOODMONT SC 2  
2 OCEAN AVENUE  
WEST HAVEN, CT



Prepared in February 2015 by:  
All-Points Technology Corporation, P.C.,  
3 Saddlebrook Drive  
Killingworth, CT 06141

Prepared for Verizon Wireless



ALL-POINTS  
TECHNOLOGY CORPORATION

# LIMITED VISUAL ASSESSMENT & PHOTO-SIMULATIONS

At the request of Cellco partnership LLC d/b/a Verizon Wireless, All-Points Technology Corporation, P.C. ("APT") completed a limited visual assessment and prepared computer-generated photo-simulations depicting the proposed installation of a small cell wireless telecommunications Facility at 2 Ocean Avenue in West Haven, Connecticut (the "Property").

## Project Setting

The Property is located in the northwest corner of the intersection of Jones Hill Road and Ocean Avenue in a mixed commercial and residential area on the West Haven shoreline. The Property is currently improved with a single-story, multi-tenant commercial storefront building. The proposed Facility would include the installation of a single canister antenna mounted to a pipe mast affixed to an existing brick chimney. An equipment cabinet would be located on an elevated steel platform on the side of the building beneath a new stoop expansion.

## Methodology

On January 8, 2015 APT personnel conducted a field reconnaissance to photo-document existing conditions. Three (3) nearby locations were selected to represent where the existing building is visible and depict proposed conditions with the proposed small cell installation. At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body and Canon EF 24 to 105 millimeter ("mm") zoom lens, with lens set to 50 mm.

*"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 a 24x36 mm image, the normal focal length is about 50 mm."<sup>1</sup>*

Three-dimensional computer models were developed for the building and proposed small cell components from AutoCAD information. Photographic simulations were then generated to portray scaled renderings of the proposed installation. Using field data, site plan information and image editing software, the proposed Facility was scaled to the correct location and height, relative to the existing structure and surrounding area. For presentation purposes in this report, all of the photographs were produced in an approximate 7-inch by 10.5-inch format<sup>2</sup>. A photolog map and copies of the existing conditions and photo-simulations are attached.

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<sup>1</sup> Warren, Bruce. Photography, West Publishing Company, Eagan, MN, c. 1993, (page 70).

<sup>2</sup> When viewing in this format size, we believe it is important to provide the largest representational image while maintaining an accurate relation of sizes between objects within the frame of the photograph and depicting the subject in a way similar to what an observer might see, to the greatest extent possible.

## **Conclusions**

The visibility of the proposed small cell installation would be limited primarily to nearby locations along Jones Hill Road and Ocean Avenue where the building is visible today. The antenna would extend approximately three (3) feet above the top of the chimney. Additional rooftop infrastructure (smokestacks, utility masts, HVAC units) are located on other portions of the subject building and adjacent structures. The interior equipment cabinet would be placed in a location that is accessible to employees and tenants and not typically accessible to the general public. Based on the results of this assessment, it is APT's opinion that the proposed small cell installation by Verizon Wireless at the Property would not have a significant impact on aesthetics in the area.

## **Limitations**

This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen. The photo-simulations provide a representation of the Facility under similar settings as those encountered during the field reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the reconnaissance included mostly sunny skies and the photo-simulations presented in this report provide an accurate portrayal of the Facility during comparable conditions.

## **ATTACHMENTS**



**PHOTO LOG**

- Legend**
- Site
  - Photo Location
  - Municipal Boundary





**EXISTING**

PHOTO

1

LOCATION

**HOST PROPERTY**

ORIENTATION

**SOUTHEAST**

DISTANCE TO SITE

**+/- 133 FEET**



**PROPOSED**

PHOTO

1

LOCATION

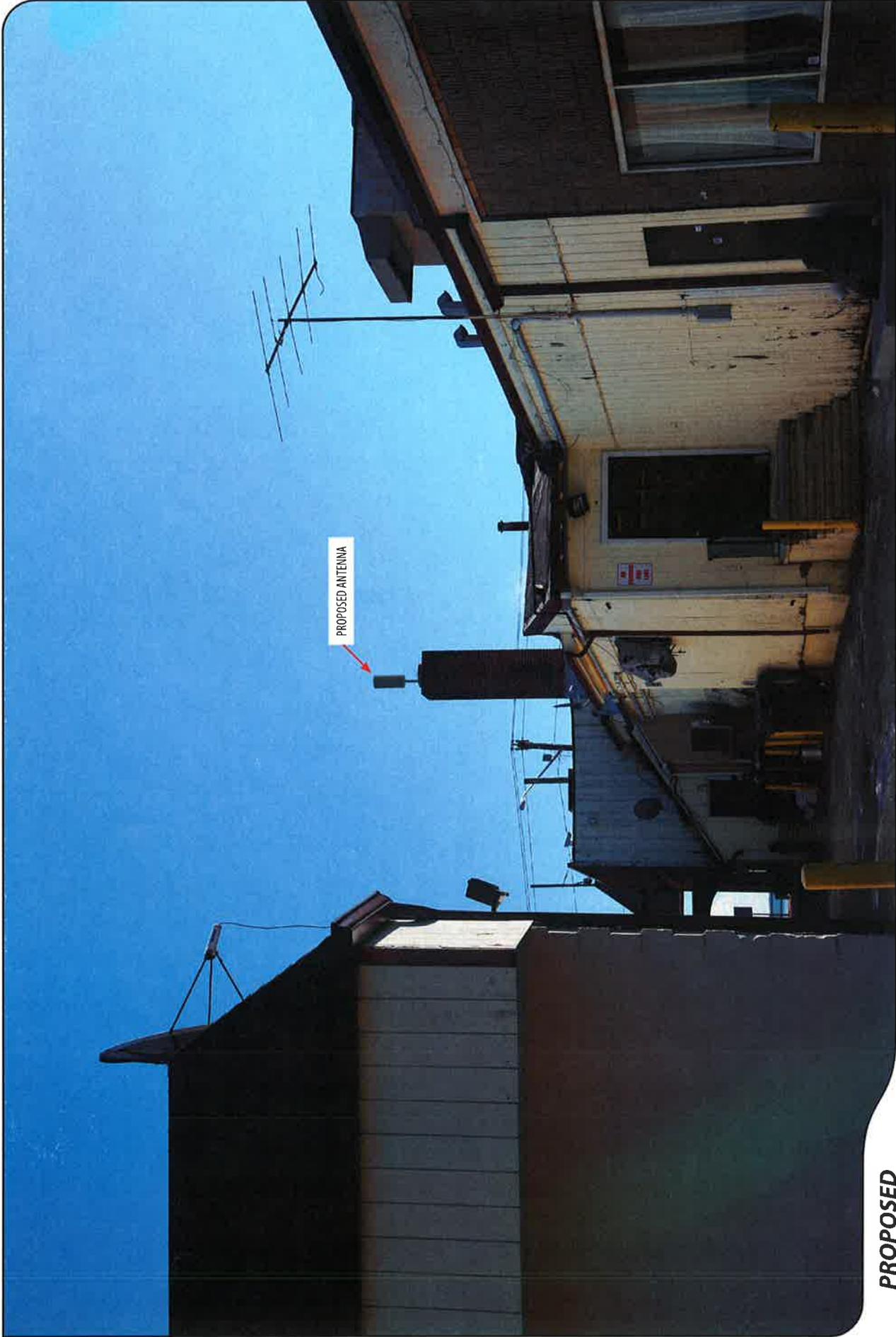
HOST PROPERTY

ORIENTATION

SOUTHEAST

DISTANCE TO SITE

+/- 133 FEET



**PROPOSED**

PHOTO

1

LOCATION

**HOST PROPERTY**

ORIENTATION

**SOUTHEAST**

DISTANCE TO SITE

**+/- 133 FEET**





**EXISTING**

PHOTO

2

LOCATION

**HOST PROPERTY**

ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

**+/- 226 FEET**



**ALL-POINTS**  
TECHNOLOGY CORPORATION



Veri.on



**PROPOSED**

PHOTO

2

LOCATION

**HOST PROPERTY**

ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

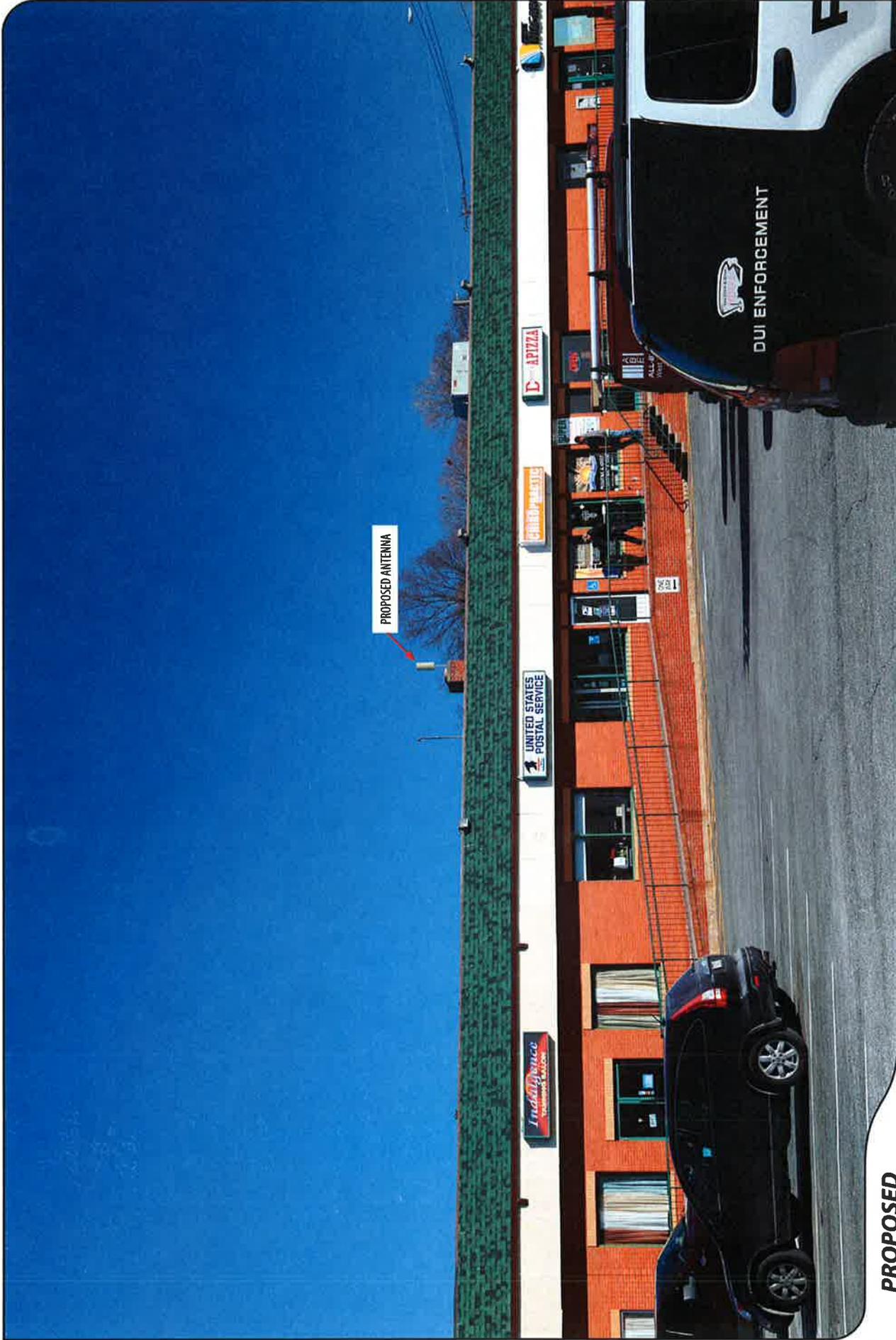
**+/- 226 FEET**



**ALL-POINTS**  
TECHNOLOGY CORPORATION



**verizon**  
ambius



**PROPOSED**

PHOTO

2

LOCATION

**HOST PROPERTY**

ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

**+/- 226 FEET**





**EXISTING**

PHOTO  
**3**

LOCATION  
**OCEAN AVENUE**

ORIENTATION  
**NORTHWEST**

DISTANCE TO SITE  
**+/- 182 FEET**





**PROPOSED**

PHOTO

3

LOCATION



**OCEAN AVENUE**

ORIENTATION

**NORTHWEST**

DISTANCE TO SITE

**+/- 182 FEET**





**PROPOSED**

PHOTO

3

LOCATION

OCEAN AVENUE

ORIENTATION

NORTHWEST

DISTANCE TO SITE

+/- 182 FEET





**EXISTING**

PHOTO

4

LOCATION

OCEAN AVENUE

ORIENTATION

WEST

DISTANCE TO SITE

+/- 309 FEET



**PROPOSED**

PHOTO

4

LOCATION

OCEAN AVENUE

ORIENTATION

WEST

DISTANCE TO SITE

+/- 309 FEET





**PROPOSED**

PHOTO

4

LOCATION

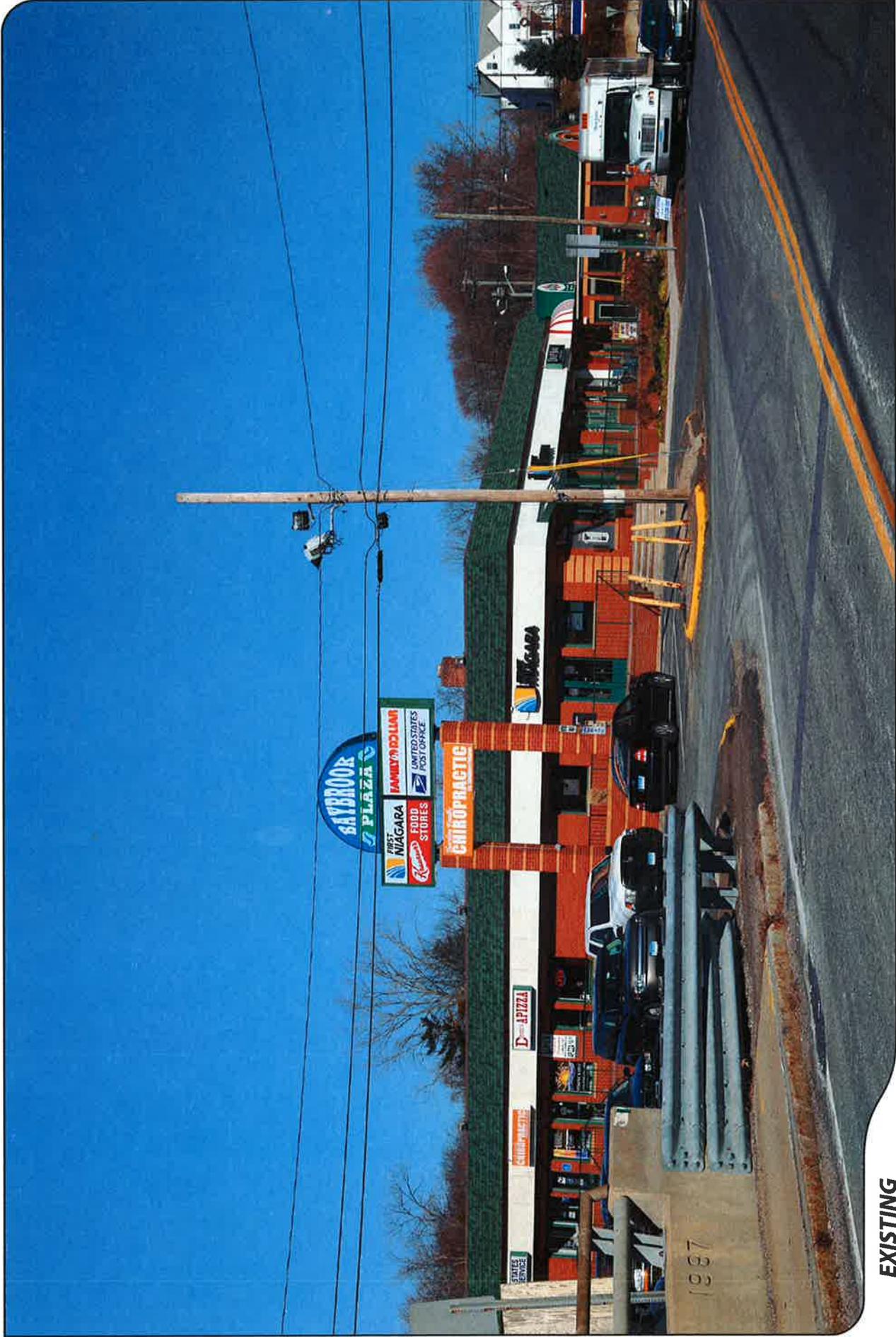
**OCEAN AVENUE**

ORIENTATION

**WEST**

DISTANCE TO SITE

**+/- 309 FEET**



**EXISTING**

PHOTO

5

LOCATION

OCEAN AVENUE

ORIENTATION

NORTHEAST

DISTANCE TO SITE

+/- 370 FEET





**PROPOSED**

PHOTO

5

LOCATION

**OCEAN AVENUE**

ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

**+/- 370 FEET**



**PROPOSED**

PHOTO

5

LOCATION

**OCEAN AVENUE**

ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

**+/- 370 FEET**



# **ATTACHMENT 6**

General Power Density

Site Name: **WOODMONT SC 2 CT**  
 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 700	746	1	134	134	32	0.0471	0.4973	9.46%
VZW AWS	2145	1	320	320	32	0.1124	1.0000	11.24%
<b>Total Percentage of Maximum Permissible Exposure</b>								<b>20.70%</b>

\*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm<sup>2</sup> = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

# **ATTACHMENT 7**

\*\*\*\*\*

\* Federal Airways & Airspace \*  
\* Summary Report: Alteration Of Existing Structure \*  
\* Antenna Structure \*

\*

\*\*\*\*\*

Airspace User: Your Name

File: WOODMONT\_SC2\_CT

Location: Woodmont, CT

Latitude: 41°-14'-10.39" Longitude:  
72°-59'-12.09"

SITE ELEVATION AMSL.....8 ft.  
STRUCTURE HEIGHT.....34 ft.  
OVERALL HEIGHT AMSL.....42 ft.

NOTICE CRITERIA

- FAR 77.9(a): NNR (DNE 200 ft AGL)
- FAR 77.9(b): NNR (DNE Notice Slope)
- FAR 77.9(c): NNR (Not a Traverse Way)
- FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for HVN
- FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for BDR
- FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required

NNR = Notice Not Required

PNR = Possible Notice Required (depends upon actual IFR procedure)  
For new construction review Air Navigation Facilities at

bottom

of this report.

If the proposed construction is an alteration to an existing structure, notice requirements may be superceded by the item exemptions listed below.

The location and analysis were based upon an existing structure. However, no existing aeronautical study number was identified. If the 'existing' structure penetrates an obstruction surface defined by CFR 77.17, 77.19, 77.21 or 77.23 (see below) it is strongly recommended the FAA be notified of the 'existing' structure to determine obstruction marking or lighting

requirements. It is not uncommon for the FAA to issue a Determination of No Hazard (DNH) for an existing structure and modify the airspace to accommodate the structure, should that be required. If the FAA issues a DNH enter the aeronautical study number (ASN) in the space provided on the Airspace Analysis Window Form and re-run Airspace.

No frequencies were identified in this alteration are included in the FAA's Co-Location Policy published in the Federal Register November 15, 2007.

Therefore, application of the Co-Location Policy notice exemption rule can not be applied.

Title 14 CFR Part 77.9(e), Notice Criteria Exception:  
The location and analysis were based upon an existing antenna structure with the alteration limited to the addition of an antenna with a height increase of more than one (1) foot. Title 14 CFR Part 77.9(e) (4) specifically prohibits application of this rule when adding an antenna to an existing antenna structure. If the increase in height of the existing antenna structure exceeds notice requirements, notice to the FAA is mandatory.

#### OBSTRUCTION STANDARDS

FAR 77.17(a) (1): DNE 499 ft AGL  
FAR 77.17(a) (2): DNE - Airport Surface  
FAR 77.19(a): DNE - Horizontal Surface  
FAR 77.19(b): DNE - Conical Surface  
FAR 77.19(c): DNE - Primary Surface  
FAR 77.19(d): DNE - Approach Surface  
FAR 77.19(e): DNE - Transitional Surface

#### VFR TRAFFIC PATTERN AIRSPACE FOR: HVN: TWEED-NEW HAVEN

Type: A RD: 28021.11 RE: 6.3

FAR 77.17(a) (1): DNE  
FAR 77.17(a) (2): DNE - Height No Greater Than 200 feet AGL.  
VFR Horizontal Surface: DNE  
VFR Conical Surface: DNE  
VFR Approach Slope: DNE  
VFR Transitional Slope: DNE

#### VFR TRAFFIC PATTERN AIRSPACE FOR: BDR: IGOR I SIKORSKY MEMORIAL

Type: A RD: 44567.3 RE: 6.5

FAR 77.17(a) (1): DNE

FAR 77.17(a) (2): DNE - Greater Than 5.99 NM.  
 VFR Horizontal Surface: DNE  
 VFR Conical Surface: DNE  
 VFR Approach Slope: DNE  
 VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)  
 FAR 77.17(a) (3) Departure Surface Criteria (40:1)  
 DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)  
 FAR 77.17(a) (4) MOCA Altitude Enroute Criteria  
 The Maximum Height Permitted is 500 ft AMSL

PRIVATE LANDING FACILITIES

ARP FAA	FACIL	BEARING	RANGE	DELTA
ELEVATION IFR	IDENT TYP NAME	To FACIL	IN NM	
	CT46 HEL MILFORD-ALEXANDER	266.99	2.04	+22
	No Impact to Private Landing Facility Structure is beyond notice limit by 7395 feet.			
	1CT2 HEL YALE NEW HAVEN HOSPITAL	29.54	4.66	-177
	No Impact to Private Landing Facility Structure 6 ft below heliport.			

AIR NAVIGATION ELECTRONIC FACILITIES

GRND	FAC	ST	DIST	DELTA	ST	LOCATION	
ANGLE	APCH	AT	FREQ	VECTOR	(ft)	ELEVA	
BEAR	IDNT	TYPE					
.07	HVN	VOR/DME	R	109.8	71.17	29492 +36	CT NEW HAVEN
-.09	HVN	ATCT	ON	A/G	68.95	29998 -49	CT TWEED-NEW HAVEN
	HVN	LOCALIZER	I	109.1	63.31	30663 +24	CT RWY 02
	TWEED-NEW	.04	16				
.04	BDR	VOR/DME	R	108.8	233.98	46857 +33	CT BRIDGEPORT
-.48	JWE	NDB	I	36	327.06	63479 -529	CT CLERA
-.12	MAD	VOR/DME	R	110.4	70.65	85758 -178	CT MADISON
-.02	CCC	VOR/DME	R	117.2	155.19	123134 -43	NY CALVERTON
-.07	OKX	RADAR WXL	Y		165.96	139242 -179	NY BRENTWOOD

	QVH	RADAR ARSR	Y	1326.9	147.72	154236	-309	NY RIVERHEAD
-.11								
	ISP	RADAR	ON	2735.	190.82	159429	-140	NY LONG ISLAND
MacAR		-.05						
	CMK	VOR/DME	I	116.6	275.78	164274	-652	NY CARMEL
-.23								
	FOK	TACAN	R	NA	146.12	175105	-8	NY SUFFOLK CO
0.00								
	DPK	VOR/DME	I	117.7	208.27	184062	-81	NY DEER PARK
-.03								
	HFD	VOR/DME	R	114.9	39.09	190448	-807	CT HARTFORD
-.24								
	HPN	RADAR	ON	2735.	253.23	209323	-468	NY WESTCHESTER
COUNT		-.13						

CFR Title 47, §1.30000-§1.30004

AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.

Movement Method Proof as specified in §73.151(c) is not required. Please review 'AM Station Report' for details.

Nearest AM Station: WAVZ @ 6660 meters.

Airspace® Summary Version 14.11.376

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02-19-2015  
 15:32:14

# **ATTACHMENT 8**

March 2, 2015

***Via Certified Mail, Return Receipt Requested***

Edward A. O'Brien, Mayor  
Town of West Haven  
355 Main Street  
P.O. Box 526  
West Haven, CT 06516-0526

**Re: Installation of a Small Cell Telecommunications Facility at 2 Ocean Avenue, West Haven, Connecticut**

Dear Mr. O'Brien:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Today, Cellco filed a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a "small cell" telecommunications facility at 2 Ocean Avenue in West Haven (the "Property").

The proposed "small cell" would consist of a single canister-type antenna and a small mast/tower attached to a brick chimney on the roof of the building. The new antenna will extend approximately five (5) feet above the top of the chimney and approximately 33 feet above grade. Equipment associated with the antenna and a Remote Radio Head ("RRH") will be located on an existing steel platform on the east side of the building. The equipment cabinet will house all of Cellco's small cell radio equipment and a battery back-up power supply system.

A copy of Cellco's Petition is attached for your review. Landowners whose property abuts 2 Ocean Avenue were also sent notice of this filing along with a copy of the Petition's project plans.

# Robinson+Cole

Edward A. O'Brien

March 2, 2015

Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kenneth C. Baldwin', written in a cursive style.

Kenneth C. Baldwin

KCB/kmd

Attachment

Copy to:

Sandy M. Carter

March 2, 2015

*Via Certified Mail, Return Receipt Requested*

Benjamin G. Blake, Mayor  
Town of Milford  
Parsons Complex  
70 West River Street  
Milford, CT 06460-3364

Re: **Installation of a Small Cell Telecommunications Facility at 2 Ocean Avenue, West Haven, Connecticut**

Dear Mr. Blake:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install a “small cell” telecommunications facility at 2 Ocean Avenue in West Haven (the “Property”).

The proposed “small cell” would consist of a single canister-type antenna and a small mast/tower attached to a brick chimney on the roof of the building. The new antenna will extend approximately five (5) feet above the top of the chimney and approximately 33 feet above grade. Equipment associated with the antenna and a Remote Radio Head (“RRH”) will be located on an existing steel platform on the east side of the building. The equipment cabinet will house all of Cellco’s small cell radio equipment and a battery back-up power supply system.

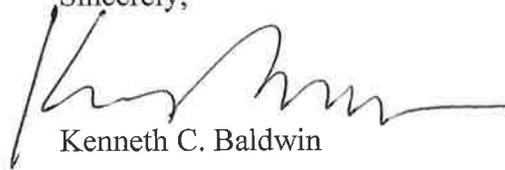
A copy of Cellco’s Petition is attached for your review. Landowners whose property abuts 2 Ocean Avenue were also sent notice of this filing along with a copy of the Petition’s project plans.

# Robinson+Cole

Benjamin G. Blake  
March 2, 2015  
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ken Baldwin', with a long horizontal flourish extending to the right.

Kenneth C. Baldwin

KCB/kmd  
Attachment  
Copy to:  
Sandy M. Carter

March 2, 2015

*Via Certified Mail, Return Receipt Requested*

Baykat LLC  
P.O. Box 16545  
West Haven, CT 06516

Re: **Installation of a Small Cell Telecommunications Facility at 2 Ocean Avenue,  
West Haven, Connecticut**

Dear Sir or Madam:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install a “small cell” telecommunications facility at 2 Ocean Avenue in West Haven (the “Property”).

The proposed “small cell” would consist of a single canister-type antenna and a small mast/tower attached to a brick chimney on the roof of the building. The new antenna will extend approximately five (5) feet above the top of the chimney and approximately 33 feet above grade. Equipment associated with the antenna and a Remote Radio Head (“RRH”) will be located on an existing steel platform on the east side of the building. The equipment cabinet will house all of Cellco’s small cell radio equipment and a battery back-up power supply system.

A copy of Cellco’s Petition is attached for your review. Landowners whose property abuts 2 Ocean Avenue were also sent notice of this filing along with a copy of the Petition’s project plans.

# Robinson+Cole

Baykat LLC  
March 2, 2015  
Page 2

Please contact me if you have any questions regarding this proposal.

Sincerely,



Kenneth C. Baldwin

KCB/kmd  
Attachment  
Copy to:  
Sandy M. Carter

# **ATTACHMENT 9**

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

March 2, 2015

*Via Certified Mail, Return Receipt Requested*

«Name\_and\_Address»

**Re: Notice of Intent to File a Petition for Declaratory Ruling with the Connecticut Siting Council for the Installation of a “Small Cell” Telecommunications Facility at 2 Ocean Avenue, West Haven, Connecticut**

Dear «Salutation»:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Petition for Declaratory Ruling (“Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install a new “small cell” telecommunications facility at 2 Ocean Avenue in West Haven (the “Property”). The proposed “small cell” facility would consist of a single canister-type antenna and a small mast/tower attached to a brick chimney on the roof of the building. The new antenna will extend approximately five (5) feet above the top of the chimney and approximately 33 feet above grade. Equipment associated with the small cell antenna and a single Remote Radio Head (“RRH”) will be located on an existing steel platform on the east side of the building. The equipment cabinet will house all of Cellco’s small cell radio equipment and a battery back-up power supply system. A set of Project Plans showing the location of Cellco’s proposed small cell and an aerial photograph of the Property are attached for your review.

This notice is being sent to you because you are listed as an owner of land that abuts the Property. If you have any questions regarding the Petition, the Council’s process for reviewing the proposed 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.

March 2, 2015  
Page 2

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

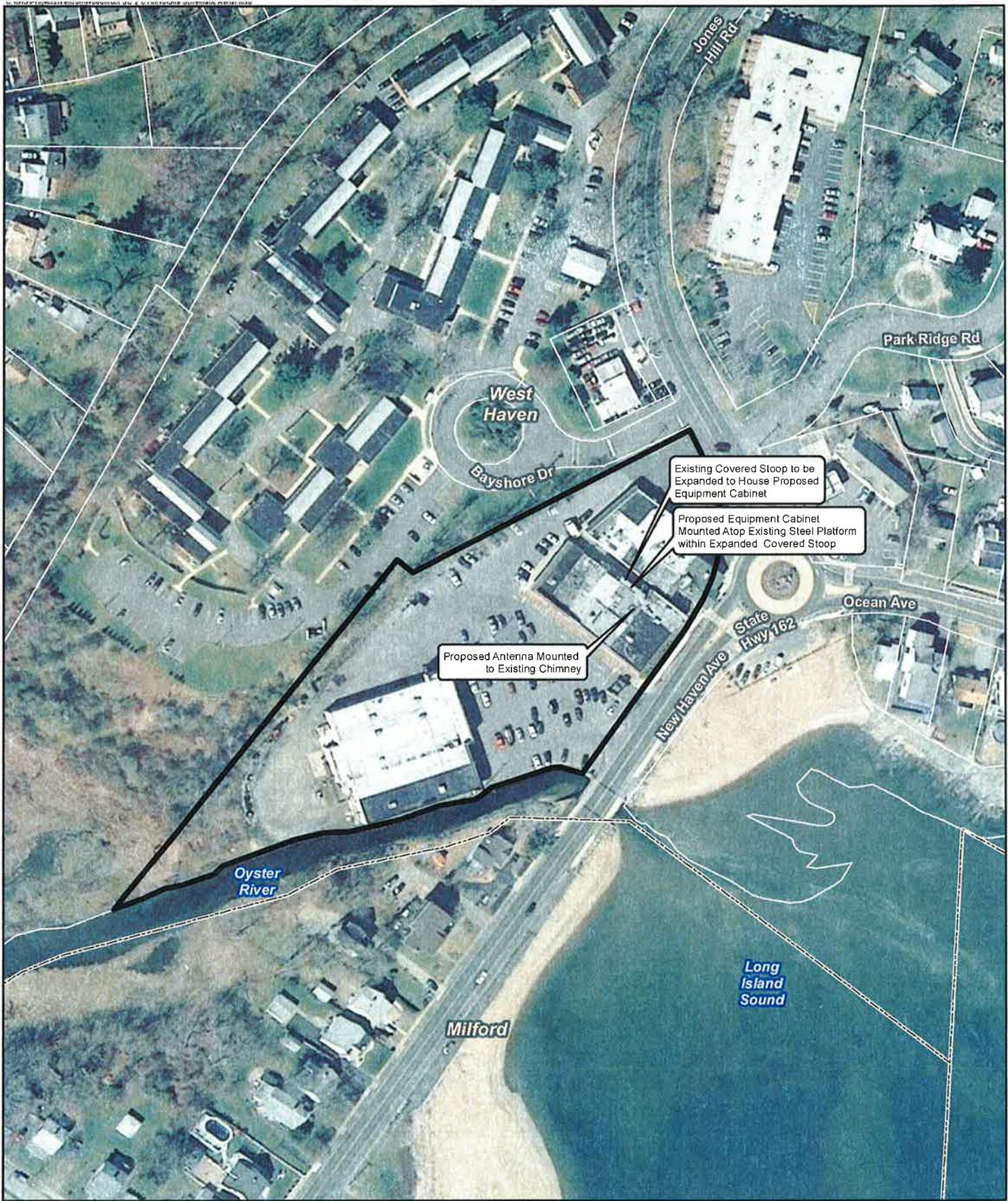
Attachments

Copy to:

Sandy M. Carter







**Legend**

-  Subject Property
-  Municipal Boundary

**Site Schematic**

Proposed Small Cell Installation  
 Woodmont SC 2 CT  
 2 Ocean Avenue  
 West Haven, Connecticut



**Map Notes:**  
 Base Map Source: 2012 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 150 feet  
 Map Date: February 2015



CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

ABUTTERS LIST  
MAP 2/LOT 2

2 OCEAN AVENUE  
WEST HAVEN, CONNECTICUT

WEST HAVEN

	<u>Map/Lot</u>	<u>Property Address</u>	<u>Owner and Mailing Address</u>
1.	2/1	25 Ocean Avenue	City of West Haven 355 Main Street West Haven, CT 06516
2.	3/1	5 Jones Hill Road	Carl R. Unger 15 Cynthia Drive Milford, CT 06461
3.	2/117	41 Jones Hill Road	Baybrook Arms Inc. 41 Jones Hill Road West Haven, CT 06516
4.	2/3	28 Jones Hill Road	State of Connecticut 80 Washington Street Hartford, CT 06606
5.	2/4	28 Jones Hill Road	Tim's Auto Center 28 Jones Hill Road West Haven, CT 06516
6.	2/5	34 Jones Hill Road	Housing Authority 15 Glade Street West Haven, CT 06516
7.	2/1A	1 Bayshore Drive	City of West Haven 35 Main Street West Haven, CT 06516
8.	3/3	74 Ocean Avenue	Donald E. McMillan, Jr. 74 Ocean Avenue West Haven, CT 06516
9.	3/510	63 Ocean Avenue	Louis Asard 63 Ocean Avenue West Haven, CT 06516

**MILFORD**

	<b><u>Map/Block/Lot</u></b>	<b><u>Property Address</u></b>	<b><u>Owner and Mailing Address</u></b>
10.	82/793/10	1668 New Haven Avenue	Lawrence N. Argraves 142 Foxwood Close Milford, CT 06460
11.	82/793/9	1652 New Haven Avenue	Nikki Lynn and Nicholas Zanni 1652 New Haven Avenue Milford, CT 06460
12.	82/793/8	1646 New Haven Avenue	Judith K. Rosehill 1646 New Haven Avenue Milford, CT 06460
13.	82/793/6	1634 New Haven Avenue	Elizabeth M. Morrin 1634 New Haven Avenue Milford, CT 06460
14.	82/793/7	1638 New Haven Avenue	Johann G. and Clara Schliesser, Trustees 1638 New Haven Avenue Milford, CT 06460
15.	82/793/7A	1642 New Haven Avenue	John R. and Patricia Bria 1642 New Haven Avenue Milford, CT 06460