

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

|                                     |   |                       |
|-------------------------------------|---|-----------------------|
| IN RE:                              | : |                       |
|                                     | : |                       |
| A PETITION OF CELLCO PARTNERSHIP    | : | SUB-PETITION NO. 1133 |
| D/B/A VERIZON WIRELESS FOR A        | : | 281 HARTFORD TURNPIKE |
| DECLARATORY RULING ON THE NEED TO   | : | VERNON, CT            |
| OBTAIN A SITING COUNCIL CERTIFICATE | : |                       |
| FOR THE INSTALLATION OF A SMALL     | : |                       |
| CELL TELECOMMUNICATIONS FACILITY    | : |                       |
| ON THE ROOF OF THE BUILDING AT 281  | : |                       |
| HARTFORD TURNPIKE, VERNON,          | : |                       |
| CONNECTICUT                         | : | MAY 15, 2015          |

SUB-PETITION FOR DECLARATORY RULING:  
ELIGIBLE FACILITIES REQUEST FOR MODIFICATIONS  
THAT WILL NOT SUBSTANTIALLY CHANGE THE  
PHYSICAL DIMENSIONS OF AN EXISTING BASE STATION

I. Introduction

Pursuant to Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, codified at 47 U.S.C. § 1455(a) (“Section 6409(a)”) and the October 21, 2014 Report and Order (FCC-14-533) issued by the Federal Communications Commission (“FCC”) (the “FCC Order”), Cellco Partnership d/b/a Verizon Wireless (“Cellco”) hereby petitions the Connecticut Siting Council (the “Council”) for a declaratory ruling (“Sub-Petition”) that the installation of a new “small cell” telecommunications facility on the roof of an office building (Vernon Professional Building) at 281 Hartford Turnpike (Route 30) in Vernon, Connecticut (the “Property”) constitutes an Eligible Facilities Request (“EFR”) under the FCC Order. Cellco has designated this site as its “Rockville SC7 Facility”.

II. Factual Background

The Property is a 2.3-acre parcel in Vernon’s Commercial zone and is surrounded by

commercial uses along Hartford Turnpike (Route 30) and Talcottville Road (Route 83). The Property is owned by Boston Vernon II LLC (“Owner”). See Attachment 1 – Site Vicinity Map and Site Schematic (Aerial Photograph). AT&T Wireless and Sprint currently maintain antennas and associated equipment on the roof of this building. Under the terms of the FCC Order, the building roof-top, therefore, constitutes an existing wireless “base station”.<sup>1</sup> Based on title information, it appears that both Sprint and AT&T have been on the roof of the building since approximately 1996. Planning and Zoning Commission files related to the Sprint and AT&T installations, however, were not available for review.

### III. Proposed Rockville SC7 Facility

Cellco is licensed to provide wireless telecommunications services in the 850 MHz, 1900 MHz, 700 MHz and 2100 MHz frequency ranges in Vernon and throughout the State of Connecticut. Initially, the proposed Rockville SC7 Facility described above will provide wireless service in Cellco’s 2100 MHz frequency range only and is designed to off-load network wireless traffic from Cellco’s existing Talcottville cell site.

The proposed Rockville SC7 Facility would consist of a small tower attached to the building in the northwest corner of the roof. A single canister-type antenna and a Remote Radio Head (“RRH”) would be attached to the tower. The top of Cellco’s tower and antenna will extend 8.4 feet above the roof of the building (approximately 64.5 feet above ground level (“AGL”)). The top of Cellco’s canister antenna will remain below the height of the existing Sprint antennas (approximately 67.5 feet AGL) and at approximately the same height as the AT&T antennas (approximately 64.3 feet AGL).

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<sup>1</sup> Pursuant to the FCC Order the definition of “base station” includes any “structure that currently supports or houses an antenna, transceiver, or other associated equipment . . .”. FCC Order para. 172.

Equipment associated with the Rockville SC7 Facility will be located inside a cabinet, mounted on a steel platform in the southerly portion of the roof. Power and telephone service will extend from existing service inside the building. Project Plans for the Rockville SC7 Facility are included in Attachment 2. Specifications for the “small cell” antenna (Commscope Model NH360QS-DG-F0M) and RRHs (Model 2X60-AWS) along with a Structural Evaluation Letter, confirming that the building can support Cellco’s base station modifications are included in Attachment 3.

#### IV. Discussion

##### A. The Proposed Modification Will Not Cause a Substantial Change to the Physical Dimensions of the Existing Base Station

Section 6409(a) provides, in relevant part, that “a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” Pursuant to the FCC Order, the proposed modification does not substantially change the physical dimensions of the base station if the following criteria are satisfied.

1. *The proposed modified facility will not increase the height of the base station by more than ten (10) percent or ten (10) feet, whichever is greater.* Cellco’s proposed tower will extend only 8.4 feet above the roof of the building and will not extend above the height of the tallest existing base station antenna owned and operated by Sprint.

2. *The proposed facility modification will not protrude from the edge of the structure more than six (6) feet.* Cellco’s proposed tower and equipment cabinet will be located on the roof of the building and will not protrude from the edge of the structure.

3. *The proposed facility does not involve installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four*

*cabinets.* Cellco intends to install a single equipment cabinet to house its small cell equipment.

4. *The proposed facility does not entail any excavation or deployment outside the current site of the base station.* All of Cellco's small cell improvements will be located on the roof of the building. No excavation or site development will occur on the ground and all improvements will within the limits of the Property.

5. *The proposed facility does not defeat the existing concealment elements of the base station.* Neither the AT&T nor Sprint installations at the existing base station incorporate any screening or concealment elements. Cellco's installation would not, therefore, defeat any such concealment elements.

6. *The proposed facility complies with conditions associated with the prior approval of construction or modification of the base station.* Both the Sprint and AT&T roof-top facilities at the Property were approved by the Town of Vernon. None of the elements of Cellco's proposed small cell facility conflict with any of the existing wireless base station improvements and appear to be consistent with the previous Town of Vernon approvals.

B. FCC Compliance

Radio frequency ("RF") emissions from Cellco's proposed installation will be far below the standards adopted by the FCC. Included in Attachment 4 is a worst-case RF emissions calculation for Cellco's proposed base station modifications.

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

On May 15, 2015, a copy of this Sub-Petition was sent to Vernon's Mayor Daniel A. Champagne, Vernon's Town Planner Brianan Nolan and the Owner of the Property. *See Attachment 5.* A copy of this Sub-Petition was also sent to the owners of land that abuts the Property. A sample abutter's cover letter and the list of those abutting landowners who were sent

notice of the filing of the Sub-Petition is included in Attachment 6.

V. Conclusion

Based on the information provided above, Cellco respectfully submits that the proposed modification of the existing base station at the Property constitutes an “eligible facilities request” under Section 6409(a) and the FCC Order.

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**

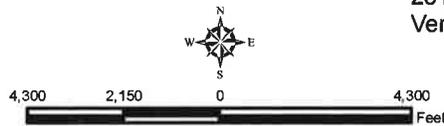


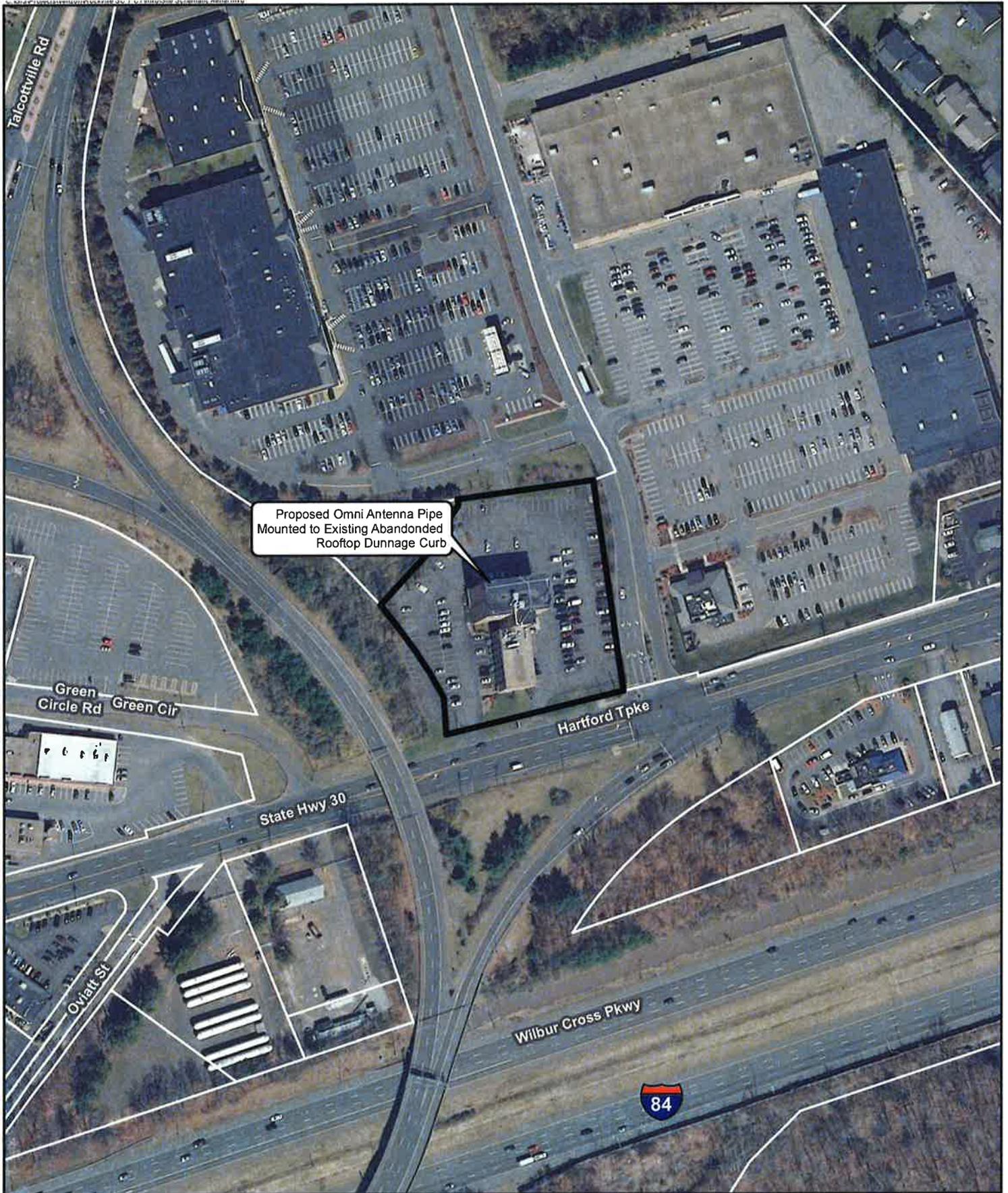
- Legend**
- ✖ Proposed Verizon Wireless Facility
  - ⊠ Surrounding Verizon Wireless Facilities
  - ▭ Municipal Boundary
  - 🌊 Waterbody

**Site Vicinity Map**

Proposed Small Cell Installation  
 Rockville SC 7 CT  
 281 Hartford Turnpike  
 Vernon, Connecticut

Base Map Source: 2012 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 4,300 feet  
 Map Date: February 2015





Proposed Omni Antenna Pipe  
Mounted to Existing Abandoned  
Rooftop Dunnage Curb

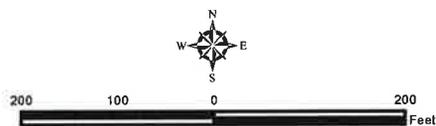
**Legend**

-  Subject Property
-  Approximate Parcel Boundary (CTDEEP GIS)

**Site Schematic**

Proposed Small Cell Installation  
Rockville SC 7 CT  
281 Hartford Turnpike  
Vernon, Connecticut

*Map Notes:*  
Base Map Source: 2012 Aerial Photograph (CTECO)  
Map Scale: 1 inch = 200 feet  
Map Date: February 2015



# **ATTACHMENT 2**

# Cellco Partnership

d.b.a. **verizon** wireless

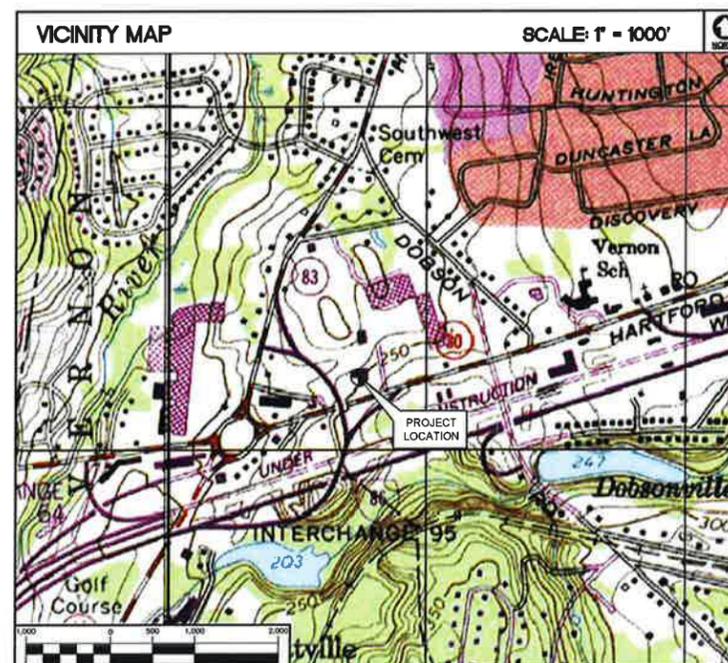
## WIRELESS COMMUNICATIONS FACILITY

ROCKVILLE SC7  
281 HARTFORD TURNPIKE  
VERNON, CT 06066

| SITE DIRECTIONS  |  |
|--|--|
| <b>FROM:</b> 99 EAST RIVER DRIVE<br>EAST HARTFORD, CONNECTICUT | <b>TO:</b> 281 HARTFORD TURNPIKE<br>VERNON, CT 06066 |
| 1. Head east on E River Dr                                     | 253 ft   |
| 2. Turn left onto the CT-2 E ramp to Norwich                   | 0.2 mi   |
| 3. Merge onto I-84 E   | 9.9 mi   |
| 4. Take exit 64-65 for CT-30 N toward Vernon Center            | 0.5 mi   |
| 5. Turn left onto CT-30 S Destination will be on the right     | 259 ft   |

| GENERAL NOTES  |
|--|
| 1. PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELCO PARTNERSHIP. |

| PROJECT SCOPE  |
|--|
| 1. THE PROPOSED SCOPE OF WORK GENERALLY INCLUDES THE INSTALLATION OF A PROPOSED CELCO PARTNERSHIP EQUIPMENT CABINET AND ASSOCIATED AC PANEL MOUNTED ON STEEL DUNNAGE ATOP BUILDING ROOF.                       |
| 2. A TOTAL OF ONE (1) OMNI-DIRECTIONAL ANTENNA, AND ASSOCIATED APPURTENANCES ARE PROPOSED TO BE MOUNTED TO EXISTING ABANDONED ROOTOP DUNNAGE WITH AN ANTENNA CENTERLINE ELEVATION AT ±63.3' A.G.L.             |
| 3. ELECTRIC AND TELCO UTILITIES SHALL BE ROUTED FROM DEMARCS LOCATED WITHIN OR ADJACENT TO THE EXISTING BUILDING TO THE PROPOSED CELCO PARTNERSHIP EQUIPMENT CABINET MOUNTED ON PROPOSED ±8'x8' STEEL DUNNAGE. |
| 4. THERE WILL NOT BE ANY LIGHTING UNLESS REQUIRED BY THE FCC OR THE FAA.   |
| 5. THERE WILL NOT BE ANY SIGNS OR ADVERTISING ON THE ANTENNAS OR EQUIPMENT.  |



| PROJECT SUMMARY   |  |
|---|--|
| SITE NAME:  | ROCKVILLE SC7  |
| SITE ADDRESS:   | 281 HARTFORD TURNPIKE<br>VERNON, CT 06066  |
| LESSEE/TENANT:  | CELCO PARTNERSHIP<br>d.b.a. VERIZON WIRELESS<br>99 EAST RIVER DRIVE<br>EAST HARTFORD, CT 06108   |
| VERIZON SITE ACQUISITION CONTACT:   | HOLLIS REDDING<br>CELCO PARTNERSHIP<br>(860) 966-0989  |
| LEGAL/REGULATORY COUNSEL:   | KENNETH C. BALDWIN, ESQ.<br>ROBINSON & COLE LLP<br>(860) 257-8345                                |
| SITE COORDINATES:   | LATITUDE: 41°-49'-37.260" N<br>LONGITUDE: 72°-29'-36.637" W<br>GROUND ELEVATION: ±247.3 A.M.S.L. |
| COORDINATES AND GROUND ELEVATION REFERENCED FROM FAA 1-A SURVEY CERTIFICATION AS PREPARED FOR VERIZON WIRELESS, BY MARTINEZ COUCH AND ASSOCIATES L.L.C., DATED FEBRUARY 12, 2015. |  |

| SHEET INDEX |                                     |          |
|-------------|-------------------------------------|----------|
| SHT. NO.    | DESCRIPTION                         | REV. NO. |
| T-1         | TITLE SHEET                         | 2        |
| C-1         | ABUTTERS MAP                        | 2        |
| C-2         | PLAN, ELEVATION AND ANTENNA CONFIG. | 2        |

| REV. | DATE     | DRAWN BY | CHECK'D BY | DESCRIPTION                  |
|------|----------|----------|------------|------------------------------|
| 2    | 05/17/15 | GTP      | DMD        | ISSUED FOR CSC               |
| 1    | 03/05/15 | DMD      | CFC        | ISSUED FOR CSC               |
| 0    | 02/24/15 | DBA      | DMD        | ISSUED FOR CSC-CLIENT REVIEW |

PROFESSIONAL ENGINEER SEAL

Cellco Partnership  
d.b.a. Verizon Wireless

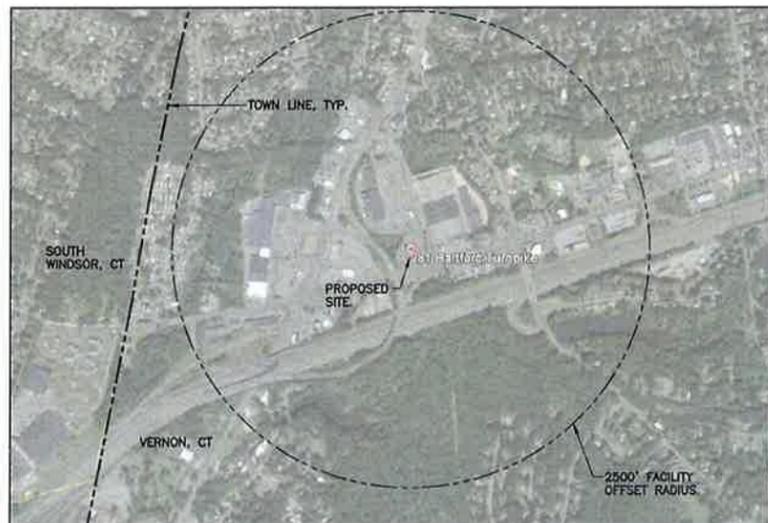
**CENTEK** engineering  
Centek on Solutions  
2031 488-0580  
2031 488-8887 Fax  
692 North Branford Road  
Branford, CT 06405  
www.CentekEng.com

Cellco Partnership d/b/a Verizon Wireless  
WIRELESS COMMUNICATIONS FACILITY  
**ROCKVILLE SC7**  
281 HARTFORD TURNPIKE  
VERNON, CT 06066

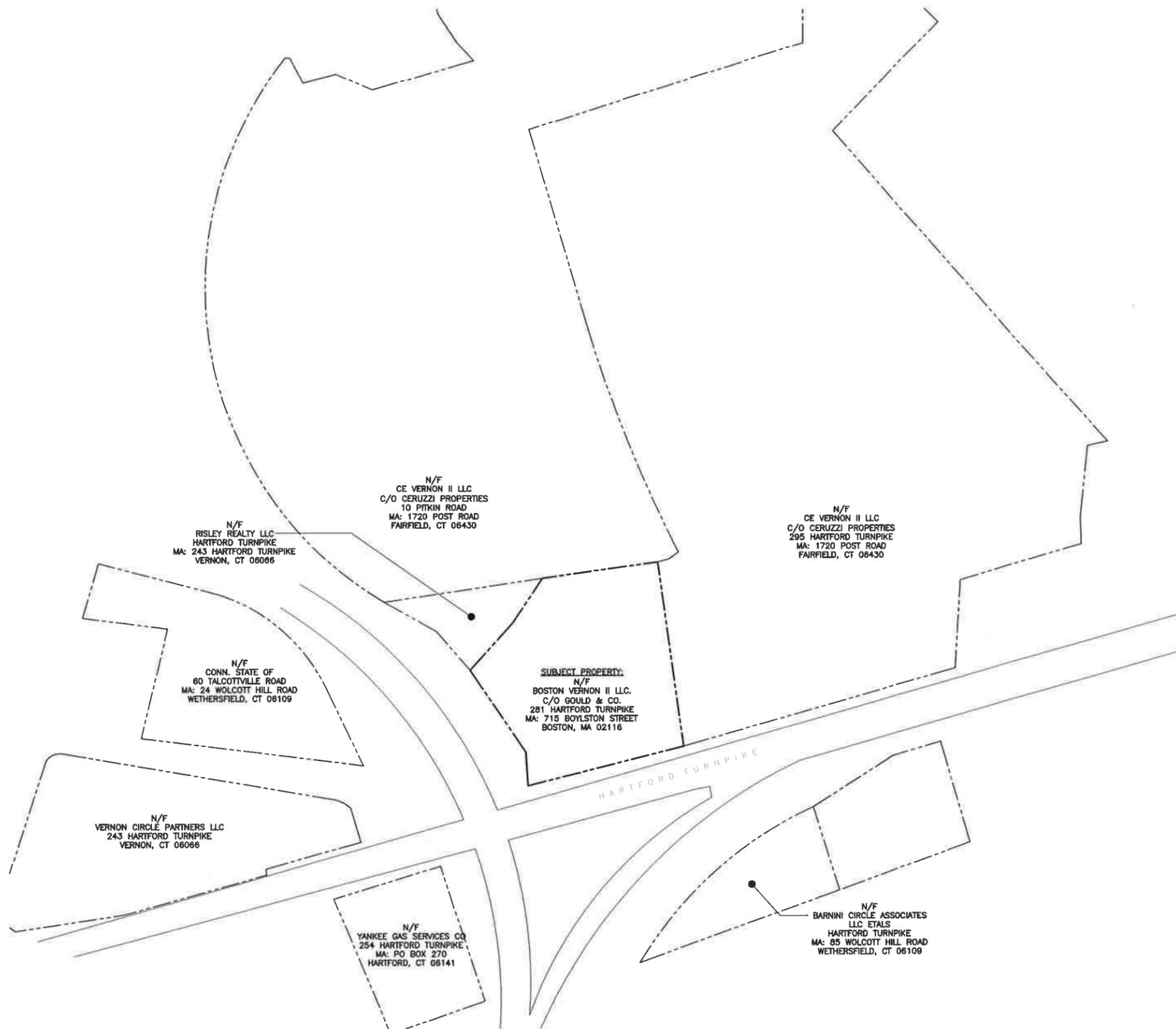
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SCALE: AS NOTED  
JOB NO. 14260.000

TITLE SHEET

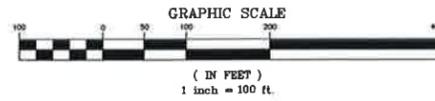
**T-1**  
Sheet No. 1 of 3



MUNICIPALITY NOTIFICATION LIMIT MAP



1 ABUTTERS MAP  
C-1 SCALE: 1" = 100'



| REV. | DATE     | DRAWN BY | CHECK'D BY | DESCRIPTION                  |
|------|----------|----------|------------|------------------------------|
| 2    | 05/11/15 | CJP      | DMD        | ISSUED FOR CSC               |
| 1    | 03/05/15 | DMD      | CFC        | ISSUED FOR CSC               |
| 0    | 02/24/15 | DRA      | DMD        | ISSUED FOR CSC-CLIENT REVIEW |

PROFESSIONAL ENGINEER SEAL

Cellco Partnership  
d.b.a. Verizon Wireless

**CENTEK** engineering  
Centek on Solutions™  
7031 489-0580  
7031 489-8397 Fax  
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Branford, CT 06405  
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Cellco Partnership d/b/a Verizon Wireless  
WIRELESS COMMUNICATIONS FACILITY  
**ROCKVILLE SC7**  
281 HARTFORD TURNPIKE  
VERNON, CT 06066

DATE: 02/23/15  
SCALE: AS NOTED  
JOB NO. 14260.000

ABUTTERS MAP

**C-1**  
Sheet No. 2 of 3



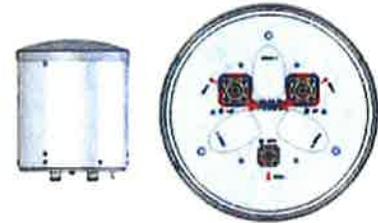
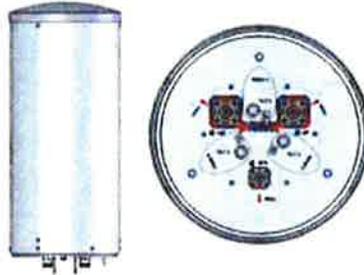
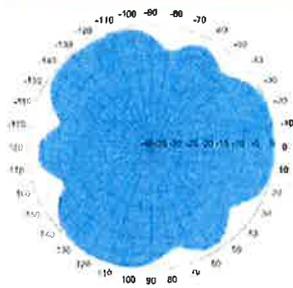
# **ATTACHMENT 3**

Metro Cell Antennas with Internal Diplexer and GPS Antenna

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

NH360QS-DG-F0M

NH360QT-DG-F0



ELECTRICAL SPECIFICATIONS

|                                      | 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 |
| Operating Frequency Range            | 698 - 896 and 1710 - 2170 MHz |            |             |             |             | 698 - 896 and 1710 - 2170 MHz |            |             |             |             |
| 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

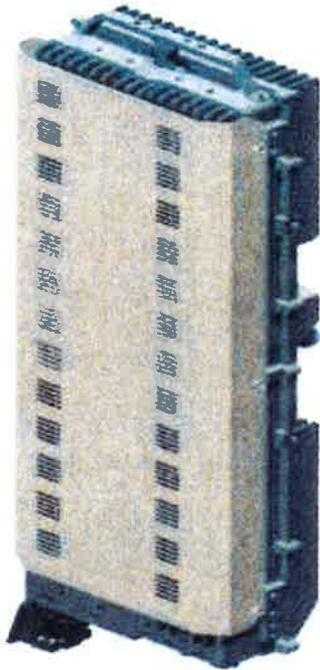
|                                  |                    |  |  |  |  |                    |  |  |  |  |
|----------------------------------|--------------------|--|--|--|--|--------------------|--|--|--|--|
| Connector Interface              | 7 - 16 DIN Female  |  |  |  |  | 7 - 16 DIN Female  |  |  |  |  |
| 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 |  |  |  |  |
|---------------------------------------|------------|--|--|--|--|-----------|--|--|--|--|

# ALCATEL-LUCENT WIRELESS PRODUCT DATASHEET RRH2X60-AWS FOR BAND 4 APPLICATIONS

The Alcatel-Lucent RRH2x60-AWS is a high power, small form factor Remote Radio Head operating in the AWS frequency band (3GPP Band 4) for LTE technology. It is designed with an eco-efficient approach, providing operators with the means to achieve high quality and high capacity coverage with minimum site requirements and efficient operation.



A distributed Node B expands the 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 a Node B to be installed separately, within the same site or several kilometers apart.

The Alcatel-Lucent RRH2x60-AWS 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.

#### SUPERIOR RF PERFORMANCE

The Alcatel-Lucent RRH2x60-AWS integrates all the latest technologies. This allows to offer best-in-class characteristics.

It delivers an outstanding 120 watts of total RF power thanks to its two transmit RF paths of 60 W each.

It is ideally suited to support multiple-input multiple-output (MIMO) 2x2 operation.

It includes four RF receivers to natively support 4-way uplink reception diversity. This improves the radio uplink coverage and this can be used to extend the cell radius commensurate with 2x2MIMO 2x60 W for the downlink.

It supports multiple discontinuous LTE carriers within an instantaneous bandwidth of 45 MHz corresponding to the entire AWS B4 spectrum.

The latest generation power amplifiers (PA) used in this product achieve high efficiency (>40%), resulting in improved power consumption figures.

#### OPTIMIZED TCO

The Alcatel-Lucent RRH2x60-AWS is designed to make available all the benefits of a distributed Node B, with excellent RF characteristics, with low capital expenditures (CAPEX) and low operating expenditures (OPEX).

The Alcatel-Lucent RRH2x60-AWS is a very cost-effective solution to deploy LTE MIMO.

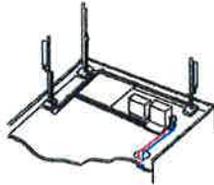
#### EASY INSTALLATION

The RRH2x60-AWS includes a reversible mounting bracket which allows for ease of installation behind an antenna, or on a rooftop knee wall while providing easy access to the mid body RF connectors.

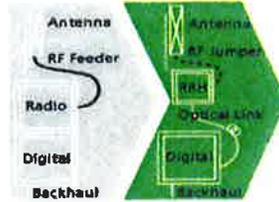
The limited space available in some sites may prevent the installation of traditional single-cabinet BTS equipment. However, many of these sites can host an Alcatel-Lucent RRH2x60-AWS installation, providing more flexible site selection and improved network quality along with greatly reduced installation time and costs.

The Alcatel-Lucent RRH2x60-AWS is a zero-footprint solution and is convection cooled without fans for silent operation, simplifying negotiations with site property owners and minimizing environmental impacts.

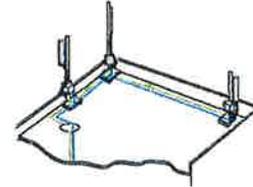
Installation can easily be done by a single person as the Alcatel-Lucent RRH2x60-AWS is compact and weighs about 20 kg, eliminating the need for a crane to hoist the BTS cabinet to the rooftop. A site can be in operation in less than one day.



Macro



RRH for space-constrained cell sites



Distributed

## FEATURES

- RRH2x60-AWS integrates two power amplifiers of 60W rating (at each antenna connector)
- Support multiple carriers over the entire 3GPP band 4
- RRH2x60-AWS is optimized for LTE operation
- RRH2x60-AWS is a very compact and lightweight product
- Advanced power management techniques are embedded to provide power savings, such as PA bias control

## BENEFITS

- MIMO LTE operation with only one single unit per sector
- Improved uplink coverage with built-in 4-way receive diversity capability
- RRH can be mounted close to the antenna, eliminating nearly all losses in RF cables and thus reducing power consumption by 50% compared to conventional solutions
- Distributed configurations provide easily deployable and cost-effective solutions, near zero footprint and

silent solutions, with minimum impact on the neighborhood, which ease the deployment

- RETA and TMA support without additional hardware thanks to the AISG v2.0 port and the integrated Bias-Tees. Bias-Tees support AISG DC supply and signaling.

## TECHNICAL SPECIFICATIONS

Specifications listed are hardware capabilities. Some capabilities depend on support in a specific software release or future release.

### Dimensions and weights

- HxWxD : 510x285x186mm (27 l with solar shield)
- Weight : 20 kg (44 lbs)

### Electrical Data

- Power Supply : -48V DC (-40.5 to -57V)
- Power Consumption (ETSI average traffic load reference) : 250W @2x60W

### RF Characteristics

- Frequency band: 1710-1755, UL / 2110-2155 MHz, DL (3GPP band 4)
- Output power: 2x60W at antenna connectors
- Technology supported: LTE
- Instantaneous bandwidth: 45 MHz
- Rx diversity: 2-way and 4-way uplink reception
- Typical sensitivity without Rx diversity: -105 dBm for LTE

### Connectivity

- Two CPRI optical ports for daisy chaining and up to six RRHs per fiber
- Type of optical fiber: Single-Mode (SM) and Multi-Mode (MM) SFPs
- Optical fiber length: up to 500m using MM fiber, up to 20km using SM fiber
- TMA/RETA : AISG 2.0 (RS485 connector and internal Bias-Tee)
- Six external alarms
- Surge protection for all external ports (DC and RF)

### Safety and Regulatory Data

- EMC : 3GPP 25113, EN 301 489-1, EN 301 489-23, GR 1089, GR 3108, OET-65
- Safety : IEC60950-1, EN 60825-1, UL, ANSI/NFPA 70, CAN/CSA-C22.2
- Regulatory : FCC Part 15 Class B, CE Mark – European Directive : 2002/95/EC (ROHS); 2002/96/EC (WEEE); 1999/5/EC (R&TTE)
- Health : EN 50385

### Environmental specifications

- Operating temperature: -40°C to 55°C including solar load
- Operating relative humidity: 8% to 100%
- Environmental Conditions : ETS 300 019-1-4 class 4.1E
- Ingress Protection : IEC 60529 IP65
- Acoustic Noise : Noiseless (natural convection cooling)

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.....Alcatel-Lucent

**AT THE SPEED OF IDEAS™**



March 5, 2015

Mr. John Tierney  
Verizon Wireless  
99 East River Drive  
East Hartford, Connecticut 06108

Re: Structural Feasibility Letter  
Verizon Wireless Site Rockville SC 7  
281 Hartford Turnpike  
Vernon, Connecticut 06066

CEN TEK Project No. 14260.000

Dear Mr. Tierney,

This letter is to confirm the structural feasibility of constructing the proposed wireless communications facility at the referenced property. No structural documentation of the existing building was available. Structural documentation of the existing equipment dunnage framing on the low roof was available. A site visit by Centek personnel was conducted on 09/29/2014 for the purpose of documenting existing structural member sizes and configurations. A preliminary structural analysis was prepared for use in making a final recommendation.

The host building is a 6-story steel framed structure currently utilized as commercial space. The proposed Verizon antenna will be mounted atop an existing post at the high roof level. Of particular concern was the existing equipment dunnage framing, at the low roof, to be utilized for support of the proposed Verizon equipment. New framing will be connected to the two existing W12x30 girders (spanning the north/south direction) above the finish roof. Both girders bear atop 4 inch diameter schedule 40 structural pipe at the south end of the dunnage. The east dunnage support pipe bears atop an existing structural steel roof beam while the west dunnage support pipe bears atop an existing structural steel column.

The weight of the Verizon equipment and steel dunnage frame along with applicable wind, snow and occupant loadings will be transferred to the structural bearing of the host building through the aforementioned framing. The framing capacities were verified utilizing the existing building dead and live loads in conjunction with the worst-case maximum dunnage reaction of 3.5 kips per connection.

Centek Engineering, Inc. will prepare sealed design documents for the proposed unmanned wireless communications facility located on the roof of the 6-story ( $\pm 56.1$  ft.) host building. The final design will comply with the requirements of the 2005 Connecticut State Building Code with most current supplements. Should modifications to the existing structure be warranted to accommodate the proposed installation, it is our opinion that they could be implemented without

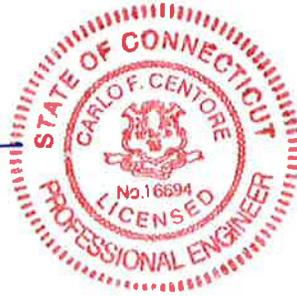
**CEN TEK** engineering, INC.  
Structural Certification Letter  
Verizon Wireless ~ Rockville SC 7  
281 Hartford Turnpike  
Vernon, Connecticut 06066

adverse effect to the existing facility operations. In conclusion, our preliminary analysis finds that the proposed Verizon Wireless facility will not adversely affect the structural integrity of the host building.

Respectfully Submitted by:



Carlo F. Centore, PE  
Principal ~ Structural Engineer



Prepared by:



Luigi V. Peronace,  
Structural Engineer

# **ATTACHMENT 4**

General Power Density

Site Name: Rockville SC 7, 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 AWS  | 2145                      | 1                | 320                    | 320               | 65.5                      | 0.0268   | 1.0   | 2.68%               |

**Total Percentage of Maximum Permissible Exposure**

2.68%

\*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 5**

May 15, 2015

*Via Certified Mail, Return Receipt Requested*

Daniel A. Champagne, Mayor  
Town of Vernon  
14 Park Place  
Vernon, CT 06066

Re: **Proposed Installation of a “Small Cell” Telecommunications Facility at 281  
Hartford Turnpike, Vernon, Connecticut**

Dear Mr. Champagne:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install a new “small cell” telecommunications facility at 281 Hartford Turnpike in Vernon (the “Property”). The “small cell” facility will consist of a small tower/mast in the northwest corner of the roof. Cellco will attach a single canister-type antenna and a remote radio head attached to the tower. The tower and antenna will extend approximately 8.4 feet above the roof of the building. Equipment associated with the “small cell” will be located inside a cabinet also located on the roof of the building. Cellco will be the third wireless carrier to install antennas on the roof of this building, joining Sprint and AT&T.

As presented in the Sub-Petition, the proposed “small cell” facility improvements at the Property constitute an eligible facility request pursuant to Section 6409(a) of the Federal Middle Class Tax Relief and Job Creation act of 2012 (47 U.S.C. § 1455(a)) and the October 21, 2014 Order of the Federal Communications Commission (FCC-14-533). A copy of the full Sub-Petition is attached for your review. Landowners whose property abuts the Property were also sent notice of this filing along with a copy of the Sub-Petition.

**Pursuant to the Council’s decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the attached Sub-Petition.**

13500730-v1

# Robinson + Cole

Daniel A. Champagne  
May 15, 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

Attachment

Copy to:

Hollis Redding  
Elizabeth Jamieson

May 15, 2015

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

Brianan Nolan, Town Planner  
Town of Vernon  
14 Park Place  
Vernon, CT 06066

**Re: Proposed Installation of a “Small Cell” Telecommunications Facility at 281  
Hartford Turnpike, Vernon, Connecticut**

Dear Mr. Nolan:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install a new “small cell” telecommunications facility at 281 Hartford Turnpike in Vernon (the “Property”). The “small cell” facility will consist of a small tower/mast in the northwest corner of the roof. Cellco will attach a single canister-type antenna and a remote radio head attached to the tower. The tower and antenna will extend approximately 8.4 feet above the roof of the building. Equipment associated with the “small cell” will be located inside a cabinet also located on the roof of the building. Cellco will be the third wireless carrier to install antennas on the roof of this building, joining Sprint and AT&T.

As presented in the Sub-Petition, the proposed “small cell” facility improvements at the Property constitute an eligible facility request pursuant to Section 6409(a) of the Federal Middle Class Tax Relief and Job Creation act of 2012 (47 U.S.C. § 1455(a)) and the October 21, 2014 Order of the Federal Communications Commission (FCC-14-533). A copy of the full Sub-Petition is attached for your review. Landowners whose property abuts the Property were also sent notice of this filing along with a copy of the Sub-Petition.

**Pursuant to the Council’s decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the attached Sub-Petition.**

13806263-v1

# Robinson + Cole

Brianan Nolan  
May 15, 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". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Attachment

Copy to:

Hollis Redding  
Elizabeth Jamieson

May 15, 2015

*Via Certified Mail, Return Receipt Requested*

Boston Vernon II LLC  
c/o Gould & Co.  
715 Boylston Street  
Boston, MA 02116

Re: **Proposed Installation of a “Small Cell” Telecommunications Facility on Property at 281 Hartford Turnpike, Vernon, Connecticut**

Dear Sir or Madam:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install a new “small cell” telecommunications facility at 281 Hartford Turnpike in Vernon (the “Property”). The “small cell” facility will consist of a small tower/mast in the northwest corner of the roof. Cellco will attach a single canister-type antenna and a remote radio head attached to the tower. The tower and antenna will extend approximately 8.4 feet above the roof of the building. Equipment associated with the “small cell” will be located inside a cabinet also located on the roof of the building. Cellco will be the third wireless carrier to install antennas on the roof of this building, joining Sprint and AT&T.

As presented in the Sub-Petition, the proposed “small cell” facility improvements at the Property constitute an eligible facility request pursuant to Section 6409(a) of the Federal Middle Class Tax Relief and Job Creation act of 2012 (47 U.S.C. § 1455(a)) and the October 21, 2014 Order of the Federal Communications Commission (FCC-14-533). A copy of the full Sub-Petition is attached for your review. Landowners whose property abuts the Property were also sent notice of this filing along with a copy of the Sub-Petition.

**Pursuant to the Council’s decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the attached Sub-Petition.**

13500746-v1

# Robinson + Cole

Boston Vernon II LLC  
May 15, 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". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Attachment

Copy to:

Hollis Redding  
Elizabeth Jamieson

# **ATTACHMENT 6**

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

May 15, 2015

*Via Certified Mail, Return Receipt Requested*

«Name\_and\_Address»

Re: **Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a “Small Cell” Telecommunications Facility at 281 Hartford Turnpike, Vernon, Connecticut**

Dear «Salutation»:

This firm represents Cellco Partnership d/b/a Verizon Wireless (“Cellco”). Today, Cellco filed a Sub-Petition for Declaratory Ruling (“Sub-Petition”) with the Connecticut Siting Council (“Council”) seeking approval to install a new “small cell” telecommunications facility at 281 Hartford Turnpike in Vernon (the “Property”). The “small cell” facility will consist of a small tower/mast in the northwest corner of the roof. Cellco will attach a single canister-type antenna and a remote radio head attached to the tower. The tower and antenna will extend approximately 8.4 feet above the roof of the building. Equipment associated with the “small cell” will be located inside a cabinet also located on the roof of the building. Cellco will be the third wireless carrier to install antennas on the roof of this building, joining Sprint and AT&T.

The small cell facility improvements constitute a eligible facility request pursuant to Section 6409(a) of the Federal Middle Class Tax Relief and Job Creation Act of 2012 (47 U.S.C. § 1455(a)) and the October 21, 2014 Order of the Federal Communications Commission (FCC-14-533). A copy of the full Sub-Petition is attached for your review.

**Pursuant to the Council’s decision in Petition No. 1133, comments or concerns regarding this proposal should be submitted to the Council within thirty (30) days of the date of the Sub-Petition.**

May 15, 2015  
Page 2

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 Sub-Petition, the Council's process for reviewing the Sub-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.

Sincerely,

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

Kenneth C. Baldwin

Attachment  
Copy to:  
Tim Parks

**CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS**

**ABUTTERS LIST  
MAP 02/BLOCK 0011/LOT 00013**

**281 HARTFORD TURNPIKE  
VERNON, CONNECTICUT**

|    | <u>Map/Block/Lot</u> | <u>Property Address</u> | <u>Owner and Mailing Address</u>  |
|----|----------------------|-------------------------|---|
| 1. | 02/0011/00018        | 10 Pitkin Road          | CE Vernon II LLC<br>c/o Ceruzzi Properties<br>1720 Post Road<br>Fairfield, CT 06430 |
| 2. | 02/0011/0016E        | Hartford Turnpike       | Risley Realty LLC<br>243 Hartford Turnpike<br>Vernon, CT 06066                      |
| 3. | 11/0011/00011        | 295 Hartford Turnpike   | CE Vernon II LLC<br>c/o Ceruzzi Properties<br>1720 Post Road<br>Fairfield, CT 06430 |
| 4. | 11/0013/00010        | Hartford Turnpike       | Barnini Circle Associates LLC, Et Al<br>85 Wolcott Road<br>Wethersfield, CT 06109   |
| 5. | 02/0013/002AA        | 254 Hartford Turnpike   | Yankee Gas Services Co.<br>P.O. Box 270<br>Hartford, CT 06141                       |
| 6. | 02/0010/00001        | 243 Hartford Turnpike   | Vernon Circle Partners LLC<br>243 Hartford Turnpike<br>Vernon, CT 06066             |
| 7. | 02/0011/00016        | 60 Talcottville Road    | State of Connecticut<br>24 Wolcott Hill Road<br>Wethersfield, CT 06109              |