

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE:

A PETITION OF CELLCO PARTNERSHIP  
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  
AT 1280 HARTFORD TURNPIKE, VERNON,  
CONNECTICUT

PETITION NO. \_\_\_\_\_

JUNE 2, 2017

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 install a “small cell” telecommunications facility at 1280 Hartford Turnpike in Vernon, Connecticut (the “Property”). The Property is owned by Tena Realty LLC and is used for commercial purposes. Cellco refers to the proposed facility as its “Rockville SC5 Facility”.

II. Factual Background

The Property is an approximately 0.93-acre parcel in Vernon’s Commercial (C) zone district. See Attachment 1 – Site Vicinity and Site Schematic Maps (Aerial Photograph). Cellco is licensed to provide wireless telecommunications services in the 700 MHz, 850 MHz, 1900

MHz and 2100 MHz frequency ranges in Vernon and throughout the State of Connecticut.

Initially, the proposed Rockville SC5 Facility will provide wireless service in Cellco's 700 MHz frequency range only.

A. Proposed Rockville SC5 Facility

The proposed Rockville SC5 Facility would consist of a small tower mast attached in the northerly portion of the roof of the building. The tower will support a single canister antenna (Model NH-65PS-DG MHz) and a remote radio head ("RRH") (Model B13-RRH4x30). An equipment cabinet would be installed on the ground behind the building and will be screened by a chain link fence. The tower mast and antenna will extend to a height of approximately 25'-4" above ground level (AGL); approximately 8'-7" above the roof. (See Cellco's Project Plans included in Attachment 2). Power and telephone service to the Rockville SC5 Facility will extend from existing service at the Property. Specifications for the Rockville SC5 Facility antenna and RRH are included in Attachment 3.

III. 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 tower mast attached to the roof, supporting a canister antenna and RRH and the installation of associated radio and electrical equipment on the ground, will not involve a significant alteration in the physical and environmental characteristics of the Property. No tree removal is required and only minimal ground disturbance is needed to install the proposed facility. There are no wetland areas on the Property and, therefore, no wetlands will be impacted by the installation.

2. Visual Effects

The visibility of the proposed “small cell” facility would be limited to locations within approximately 270 feet, to the southwest, 150 feet to the northeast and 100 feet to the south of the building. (See Visual Assessment & Photo-Simulations (“Visual Assessment”) included in Attachment 4). The radio and electrical equipment would be screened by a fence adjacent to the building. Based on the results of a Visual Assessment, Cellco has determined that the proposed “small cell” facility will not have an adverse visual impact on the views of the building or the character of the existing community.

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 5 is a worst-case MPE calculation for Cellco’s “small cell” antenna at a centerline height of 24 feet AGL. This calculation indicates that the Rockville SC5 Facility will operate well within (40.05% of the standard) the RF emission standards established by the FCC.

4. FAA Summary Report

Included in Attachment 6 of this Petition is a Federal Airways & Airspace Summary

Report verifying that the new replacement pole described above would 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 June 2, 2017, a copy of this Petition was sent to Vernon Mayor Daniel M. Champagne and Tena Realty LLC, the owner of the Property. Notice of Cellco's intent to file the Petition was also sent to the owners of land that abuts the Property. Included in Attachment 7 is a copy of the letter sent to Mayor Champagne and Tena Realty LLC. Included in Attachment 8 is a sample abutter's letter and the list of those abutting landowners who were sent notice of the filing of the Petition.

IV. 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 tower/mast used to support a "small cell" wireless antenna and related radio equipment 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

- X Proposed Verizon Wireless Small Cell Facility
- X Surrounding Verizon Wireless Facilities
- ~ Watercourse (CTDEEP)
- ~ Open Water (CTDEEP)
- Municipal Boundary

#### Site Vicinity Map

Proposed Wireless  
Telecommunications Facility  
Rockville SC 5 CT  
1280 Hartford Turnpike  
Vernon, Connecticut




verizon







#### Legend

-  Approximate Subject Property
-  Proposed Equipment Lease Area
-  Approximate Parcel Boundary (CTDEEP GIS)

Map Notes:  
 Base Map Source: 2016 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 100 feet  
 Map Date: April 2017



#### Site Schematic

Proposed Wireless  
 Telecommunications Facility  
 Rockville SC 5 CT  
 1280 Hartford Turnpike  
 Vernon, Connecticut





# **ATTACHMENT 2**



# verizon

## WIRELESS COMMUNICATIONS FACILITY

### ROCKVILLE SC 5 CT

### 1280 HARTFORD TURNPIKE

### VERNON, CT 06066

#### DRAWING INDEX

T-1 TITLE SHEET

C-1 ABUTTERS MAP

C-2 PARTIAL SITE PLAN & SOUTH ELEVATION

C-3 DETAILS

#### SITE DIRECTIONS

**START: 99 EAST RIVER DRIVE**  
**EAST HARTFORD, CONNECTICUT 06108**

**END: 1280 HARTFORD TURNPIKE**  
**VERNON, CONNECTICUT 06066**

- |   |         |
|---|---------|
| 1. HEAD NORTHEAST ON E RIVER DRIVE                    | 335 FT  |
| 2. TURN LEFT ONTO CT-2 E RAMP TO NORWICH              | 0.2 MI  |
| 3. MERGE ONTO 1-84 E                                  | 14.0 MI |
| 4. TAKE EXIT 67 FOR CT-31                             | 0.2 MI  |
| 5. TURN LEFT ONTO RESERVOIR ROAD                      | 0.4 MI  |
| 6. TURN LEFT ONTO CT-30 S DESTINATION WILL BE ON LEFT | 308 FT  |



**LOCATION MAP**  
SCALE : 1" = 500'-0"

#### SITE INFORMATION

VZ SITE NAME: ROCKVILLE SC 5 CT  
VZ LOCATION CODE: 308036  
VZ PROJECT CODE: 20141111030  
LOCATION: 1280 HARTFORD TURNPIKE  
VERNON, CT 06066

PROJECT SCOPE: PROPOSED INSTALLATION CONSISTS OF ONE (1) ROOFTOP MOUNTED DUAL-BAND QUASI-OMNI METRO CELL ANTENNA, ONE (1) REMOTE RADIO HEAD (RRH) & ONE (1) MAIN DISTRIBUTION BOX (MDB) IN ADDITION TO AN 8'-0"x8'-0" EQUIPMENT LEASE AREA LOCATED AT GRADE.

ASSESSORS TAX I.D: 46-68-56

LATITUDE: 41° 51' 31.40" N (41.858722° N)

LONGITUDE: 72° 25' 59.20" W (72.433111° W)

GROUND ELEVATION: 538± AMSL

PROPERTY OWNER: TENA REALTY LLC  
1280 HARTFORD TURNPIKE  
VERNON, CT 06066

APPLICANT: CELLCO PARTNERSHIP  
d/b/a VERIZON WIRELESS  
99 EAST RIVER DRIVE  
EAST HARTFORD, CT 06108

LEGAL/REGULATORY COUNSEL: ROBINSON & COLE, LLP  
KENNETH C. BALDWIN, ESQ.  
280 TRUMBULL STREET  
HARTFORD, CT 06103

ENGINEER CONTACT: ALL-POINTS TECHNOLOGY CORP.  
3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419  
(860) 663-1697

Cellco Partnership d/b/a

**verizon**

99 EAST RIVER DRIVE  
EAST HARTFORD, CT 06108

**ALL-POINTS**  
TECHNOLOGY CORPORATION

3 SADDLEBROOK DRIVE PHONE (860)-663-1697  
KILLINGWORTH, CT 06419 FAX: (860)-663-0935  
WWW.ALLPOINTSTECH.COM

#### APPROVALS

LANDLORD: \_\_\_\_\_ DATE: \_\_\_\_\_

RF ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_

#### CSC DRAWINGS

NO	DATE	REVISION
0	04/03/17	FOR REVIEW: JRM
1	05/02/17	PER VZ COMMENTS: JRM
2	05/12/17	PER VZ COMMENTS: JRM
3	05/31/17	PER VZ COMMENTS: JRM
4		
5		
6		

#### DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.  
COMP: ALL-POINTS TECHNOLOGY  
CORPORATION, P.C.  
ADD: 3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419

OWNER: TENA REALTY LLC  
ADDRESS: 1280 HARTFORD TURNPIKE,  
VERNON, CT 06066

#### VERIZON AT ROCKVILLE SC 5 CT

SITE 1280 HARTFORD TURNPIKE,  
ADDRESS: VERNON, CT 06066

APT FILING NUMBER: CT-141-SC8810

LOCATION CODE: 308036

PROJECT CODE: 20141111030

VZW CM: JT DRAWN BY: THK

DATE: 04/03/17 CHECKED BY: JRM

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1



ABUTTERS MAP REFERENCE:

1. "TOWN OF VERNON GIS, AROGIS VIEWER FOR FLEX," TOWN OF VERNON, 8 PARK PLACE, VERNON, CT 06066; PARCEL ID: 46-0068-00056
2. "LAND USE PUBLIC NOTIFICATION," TOWN OF VERNON, 8 PARK PLACE, VERNON, CT 06066; PARCEL ID: 46-0068-00056

Cellco Partnership d/b/a

verizon

99 EAST RIVER DRIVE  
EAST HARTFORD, CT 06108



3 SADDLEBROOK DRIVE PHONE: (860)-663-1697  
KILLINGWORTH, CT 06419 FAX: (860)-663-0935  
WWW.ALLPOINTS TECH.COM

APPROVALS

LANDLORD: DATE:

RF ENGINEER: DATE:

CSC DRAWINGS

NO	DATE	REVISION
0	04/03/17	FOR REVIEW: JRM
1	05/02/17	PER VZ COMMENTS: JRM
2	05/12/17	PER VZ COMMENTS: JRM
3	05/31/17	PER VZ COMMENTS: JRM
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.  
COMP: ALL-POINTS TECHNOLOGY  
CORPORATION, P.C.  
ADD: 3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419

OWNER: TENA REALTY LLC  
ADDRESS: 1280 HARTFORD TURNPIKE,  
VERNON, CT 06066

VERIZON AT  
ROCKVILLE SC 5 CT

SITE 1280 HARTFORD TURNPIKE,  
ADDRESS: VERNON, CT 06066

APT FILING NUMBER: CT-141-SC8810

LOCATION CODE: 308036

PROJECT CODE: 20141111030

VZW CM: JT DRAWN BY: THK

DATE: 04/03/17 CHECKED BY: JRM

SHEET TITLE:

ABUTTERS MAP

SHEET NUMBER:

C-1

APPROVALS

LANDLORD: \_\_\_\_\_ DATE: \_\_\_\_\_  
RF ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_

CSC DRAWINGS

NO	DATE	REVISION
0	04/03/17	FOR REVIEW: JRM
1	05/02/17	PER VZ COMMENTS: JRM
2	05/12/17	PER VZ COMMENTS: JRM
3	05/31/17	PER VZ COMMENTS: JRM
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 3 SADDLEBROOK DRIVE  
KILLINGWORTH, CT 06419

OWNER: TENA REALTY LLC  
ADDRESS: 1280 HARTFORD TURNPIKE,  
VERNON, CT 06066

VERIZON AT  
ROCKVILLE SC 5 CT

SITE 1280 HARTFORD TURNPIKE,  
ADDRESS: VERNON, CT 06066

APT FILING NUMBER: CT-141-SC8810

LOCATION CODE: 308036

PROJECT CODE: 2014111030

VZW CM: JT DRAWN BY: THK

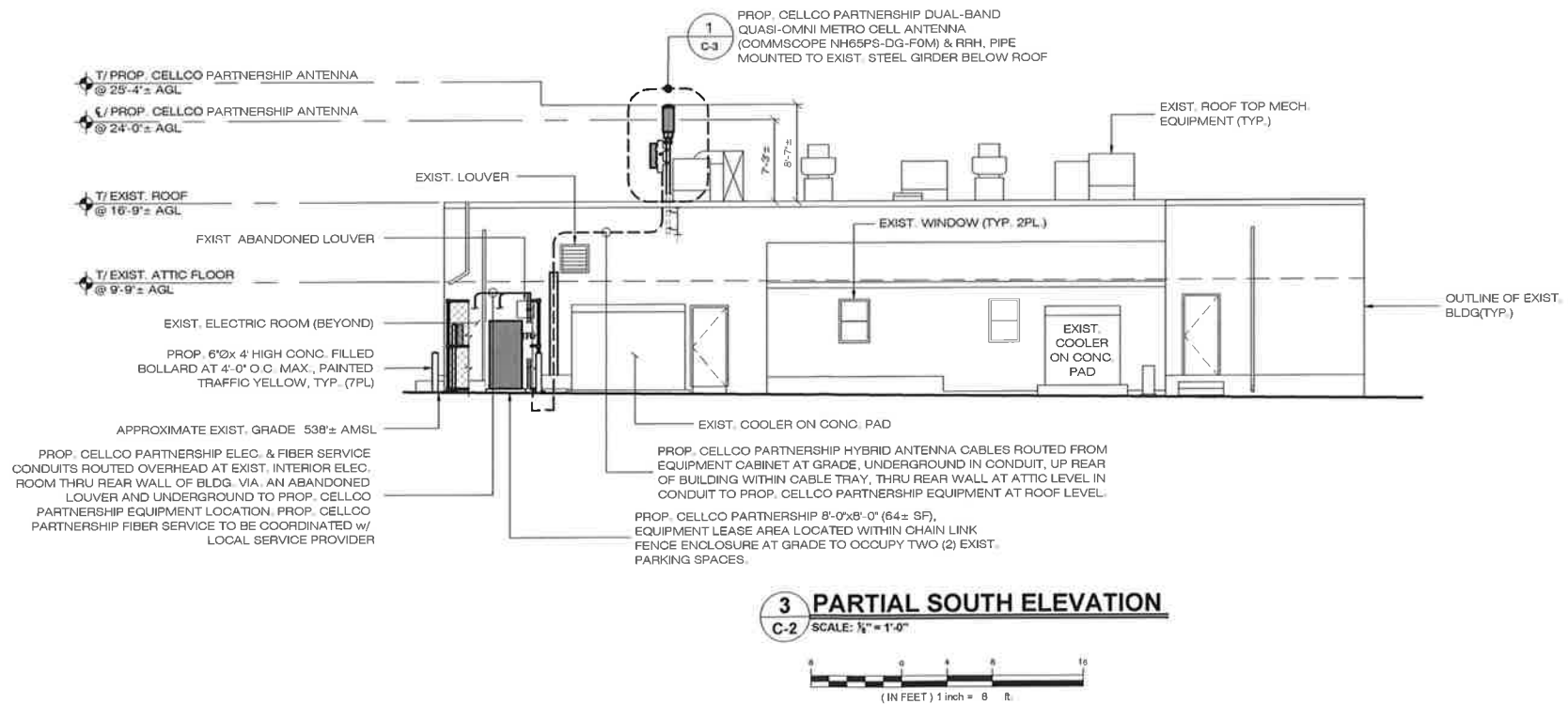
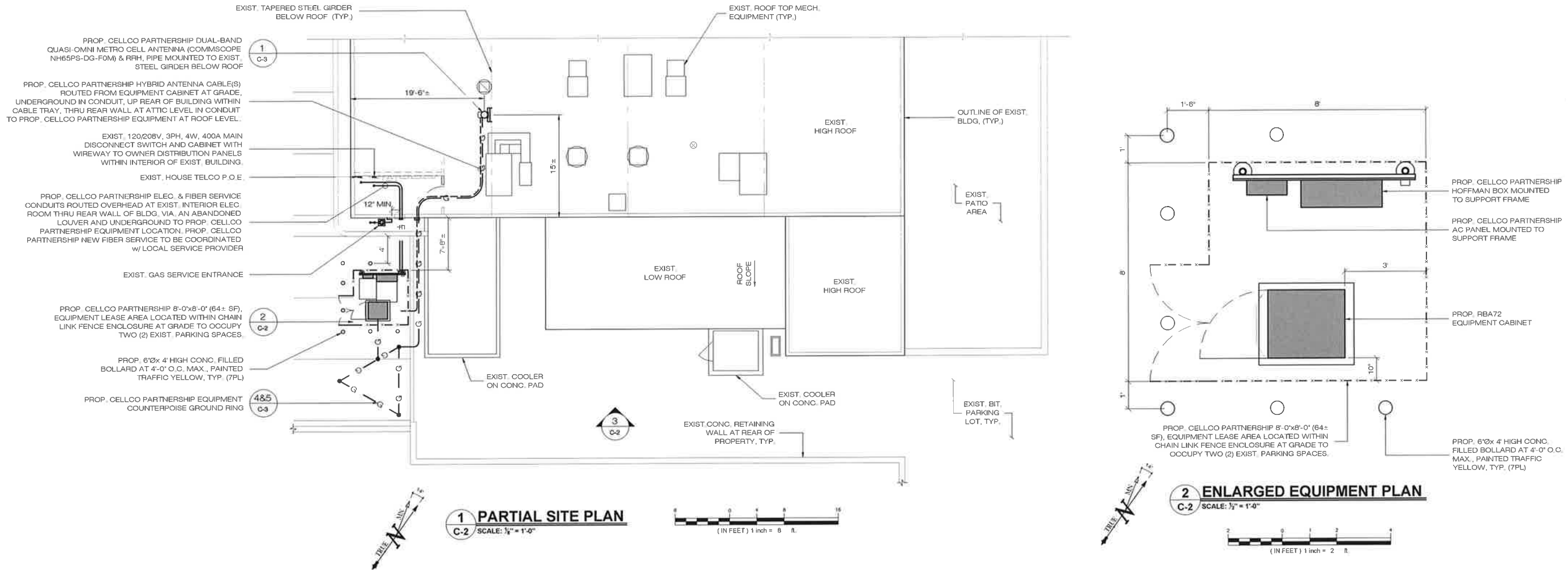
DATE: 04/03/17 CHECKED BY: JRM

SHEET TITLE:

**PARTIAL SITE  
PLAN & SOUTH  
ELEVATION**

SHEET NUMBER:

**C-2**





CSC DRAWINGS		
NO	DATE	REVISION
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1	05/02/17	PER VZ COMMENTS: JRM
2	05/12/17	PER VZ COMMENTS: JRM
3	05/31/17	PER VZ COMMENTS: JRM
4		
5		
6		

**PROF: SCOTT M. CHASSE P.E.**  
**COMP: ALL-POINTS TECHNOLOGY**  
**CORPORATION, P.C.**  
**ADD: 3 SADDLEBROOK DRIVE**  
**KILLINGWORTH, CT 06419**

OWNER: TENA REALTY LLC  
ADDRESS: 1280 HARTFORD TURNPIKE ,  
VERNON, CT 06066

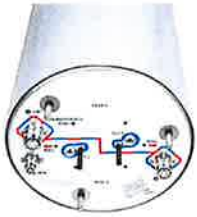
DATE: 04/03/17	CHECKED BY: JRM
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## DETAILS

**C-3**



# **ATTACHMENT 3**



## NH65PS-DG-FOM

**Multiband Bi-Directional Metro Cell Antenna, 698-896 and 1710-2180 MHz with fixed tilt in the low band and manual tilt in the high band. Contains internal diplexer and GPS antenna.**

### Electrical Specifications

Frequency Band, MHz	698-806	806-896	1710-1880	1850-1990	1920-2180
Gain, dBi	6.4	7.0	9.0	9.3	9.3
Beamwidth, Horizontal, degrees	70	69	62	58	56
Beamwidth, Vertical, degrees	37.0	34.5	14.7	13.9	13.3
Beam Tilt, degrees	0	0	0-16	0-16	0-16
USLS (First Lobe), dB	17	17	12	12	11
CPR at Boresight, dB	15	18	19	21	18
CPR at Sector, dB	8	5	7	8	8
Isolation, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	125	125	125	125	125
Polarization	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

### Electrical Specifications, BASTA\*

Frequency Band, MHz	698-806	806-896	1710-1880	1850-1990	1920-2180
Gain by all Beam Tilts, average, dBi	6.6	6.9	9.3	9.5	9.5
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.8	±0.8	±0.7	±0.8
Gain by Beam Tilt, average, dBi			0 °   9.7 8 °   9.4 16 °   8.6	0 °   10.0 8 °   9.6 16 °   8.8	0 °   9.9 8 °   9.5 16 °   8.9
Beamwidth, Horizontal Tolerance, degrees	±4.4	±6.7	±5.6	±5.4	±6
Beamwidth, Vertical Tolerance, degrees	±3.2	±1.9	±1.3	±0.8	±1.2
USLS, beampeak to 20° above beampeak, dB	18	18	12	13	12
CPR at Boresight, dB	15	19	20	22	19
CPR at Sector, dB	9	5	8	8	8

\* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

### General Specifications

Operating Frequency Band	1710 - 2180 MHz   698 - 896 MHz
Antenna Type	Sector
Band	Multiband
Brand	DualPol®
Internal GPS frequency band	1575.42 MHz
Internal GPS VSWR	2.0
Performance Note	Outdoor usage

### Mechanical Specifications



NH65PS-DG-F0M

RF Connector Quantity, total	2
RF Connector Quantity, low band	1
RF Connector Quantity, high band	1
RF Connector Interface	7-16 DIN Female
Color	Light gray
GPS Connector Interface	4.1-9.5 DIN Female
GPS Connector Quantity	1
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radiator Material	Aluminum   Low loss circuit board
Radome Material	ASA, UV stabilized
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, maximum	167.0 N @ 150 km/h 37.5 lbf @ 150 km/h
Wind Speed, maximum	241 km/h   150 mph

Dimensions

Length	728.0 mm   28.7 in
Outer Diameter	305.0 mm   12.0 in
Net Weight	11.5 kg   25.4 lb

Packed Dimensions

Depth	407.0 mm   16.0 in
Length	998.0 mm   39.3 in
Width	427.0 mm   16.8 in
Shipping Weight	16.2 kg   35.7 lb

Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system



\* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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# ALCATEL-LUCENT B13 RRH4X30-4R

Alcatel-Lucent B13 Remote Radio Head 4x30-4R is the newest addition of Remote Radio Head to the extended product line of Alcatel-Lucent's distributed Base Station solutions, aimed at facilitating smooth RF site acquisition and related civil engineering.

**Supporting 2Tx/4Tx MIMO and 4-way Rx diversity**, Alcatel-Lucent B13 RRH4x30-4R allows operators to have a compact radio solution to deploy LTE in the 700U band (700 MHz, 3GPP band 13), providing them with the means to achieve high capacity, high quality and high coverage with minimum site requirements.

The Alcatel-Lucent B13 RRH4x30-4R product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x60 W or 4x30 W RF output power. It supports also 4-way Rx diversity and up to 10MHz instantaneous bandwidth.

The Alcatel-Lucent B13 RRH4x30-4R is a near zero-footprint solution and operates noise free, simplifying negotiations with site property owners and minimizing environmental impacts.

Its compactness and slim design makes the Alcatel-Lucent B13 RRH4x30-4R easy to install close to the antenna: operators can therefore locate this Remote Radio Head where RF design conditions are deemed ideal, minimizing trade-offs between available sites and RF optimum sites, together with reducing the RF feeder needs and installation costs.

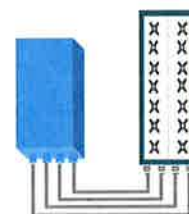


## FEATURES

- Supporting LTE in 700 MHz band (700U, 3GPP band 13)
- LTE 2Tx or 4Tx MIMO (SW switchable)
- Output power: Up to 2x60W or 4x30W
- 10MHz LTE carrier with 4Rx Diversity
- Convection-cooled (fan-less)
- Supports AISG 2.0 ALD devices (RET, TMA) through RS485 or RF ports

## BENEFITS

- Compact to reduce additional footprint when adding LTE in 700U band
- MIMO scheme operation selection (2Tx or 4Tx) by software only
- Improves downlink spectral efficiency through MIMO4
- Increases LTE coverage thanks to 4Rx diversity capability and best in class Rx sensitivity
- Flexible mounting options: Pole or Wall



4x30W with 4T4R  
or  
2x60W with 2T4R

Can be switched between  
modes via SW w/o site  
visit

## TECHNICAL SPECIFICATIONS

Features & performance	
<b>Number of TX/RX paths</b>	4 duplexed (either 4T4R or 2T4R by SW)
<b>Frequency band</b>	U700 (C) (3GPP bands 13): DL: 746 - 756 MHz / UL: 777 - 787 MHz
<b>Instantaneous bandwidth - #carriers</b>	10MHz – 1 LTE carrier (In 10MHz occupied bandwidth)
<b>LTE carrier bandwidth</b>	10 MHz
<b>RF output power</b>	2x60W or 4x30W (by SW)
<b>Noise figure – RX Diversity scheme</b>	2 dB typ. (<2.5 dB max) – 2 or 4 way Rx diversity
<b>Sizes (HxWxD) in mm (in.)</b>	550 x 305 x 230 (21.6" x 12.0" x 9") (with solar shield)
<b>Volume in L</b>	38 (with solar shield)
<b>Weight in kg (lb) (w/o mounting HW)</b>	26 (57.2) (with solar shield)
<b>DC voltage range</b>	-40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption
<b>DC power consumption</b>	550W typical @100% RF load ( in 2Tx or 4TX mode)
<b>Environmental conditions</b>	-40°C (-40°F) / +55°C (+131°F) IP65
<b>Wind load (@150km/h or 93mph)</b>	Frontal: <200N / Lateral : <150N
<b>Antenna ports</b>	4 ports 7/16 DIN female (50 ohms) VSWR < 1.5
<b>CPRI ports</b>	2 CPRI ports (HW ready for Rate7, 9.8 Gbps) SFP single mode dual fiber
<b>AISG interfaces</b>	1 AISG2.0 output (RS485) Integrated Smart Bias Tees (x2)
<b>Misc. Interfaces</b>	4 external alarms (1 connector) – 4 RF Tx & 4 RF Rx monitor ports - 1 DC connector (2 pins)
<b>Installation conditions</b>	Pole and wall mounting.
<b>Regulatory compliance</b>	3GPP 36.141 / 3GPP 36.113 / GR-1089-CORE / GR-3108-CORE / UL 60950-1 / FCC Part 27

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# **ATTACHMENT 4**

# Visual Assessment & Photo-Simulations

ROCKVILLE SC 5  
1280 HARTFORD TURNPIKE  
VERNON, CT 06066



Prepared in May 2017 by:  
All-Points Technology Corporation, P.C.  
3 Saddlebrook Drive  
Killingworth, CT 06419

Prepared for Verizon Wireless



# **VISUAL ASSESSMENT & PHOTO-SIMULATIONS**

At the request of Cellco partnership LLC d/b/a Verizon Wireless, All-Points Technology Corporation, P.C. ("APT") completed this visual assessment and prepared computer-generated photo-simulations depicting the proposed installation of a small cell wireless telecommunications facility ("Facility") at 1280 Hartford Turnpike (Connecticut Route 30) in Vernon, Connecticut (the "Host Property").

## **Project Setting**

The Host Property is located on the southern side of Hartford Turnpike approximately 331 feet southwest of the intersection of Hartford Turnpike and Reservoir Road/Grove Street (CT Route 31) and north of Sunrise Drive. See *Figure 1 – Site Schematic Map*. The surrounding land use is a mix of commercial and residential development with Interstate 84 located approximately 0.30 mile to the south. The Host Property is currently developed with a paved parking area and a commercial building housing Beni's Restaurant.

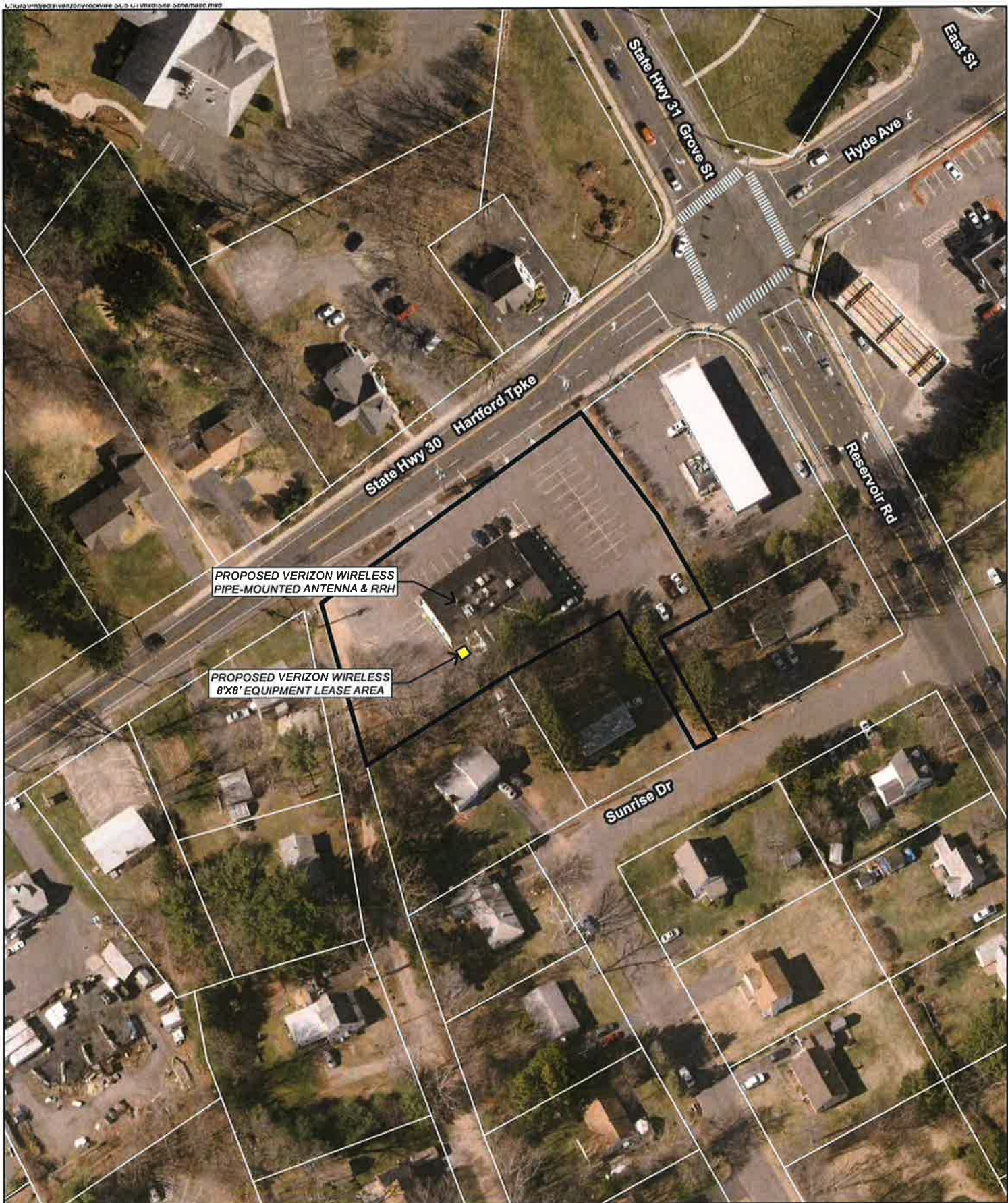
The proposed Facility would include one (1) dual-band quasi-omni metro cell antenna with remote radio head ("RRH") and associated appurtenances attached to a pipe mast mounted to the roof of the eastern section of the existing building. The height of the proposed small cell antenna is  $\pm 25.2$  feet above ground level ("AGL"). The top of the antenna would rise approximately 8.4 feet above the existing roof line. A proposed  $\pm 8$ -foot by  $\pm 8$ -foot equipment area, surrounded by an 8-foot high chain link fence with privacy screening and concrete bollards, would be constructed approximately 8 feet away from the existing building's southwest corner in the existing parking lot. Utilities would be routed to the existing building using a combination of both above and underground connections. The proposed Facility components locations are illustrated in *Figure 2 – Proposed Equipment Location and Elevation Map*.

## **Methodology**

On April 13, 2017, APT personnel conducted field reconnaissance and photo-documented existing conditions. 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 using a focal length of 50 mm for consistency.

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. A photolog map and copies of the existing conditions and photo-simulations are attached.

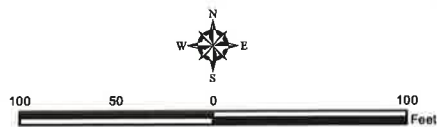




#### Legend

- Approximate Subject Property
- Proposed Equipment Lease Area
- Approximate Parcel Boundary (CTDEEP GIS)

**Map Notes:**  
 Base Map Source: 2016 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 100 feet  
 Map Date: April 2017



#### Site Schematic

Proposed Wireless  
 Telecommunications Facility  
 Rockville SC 5 CT  
 1280 Hartford Turnpike  
 Vernon, Connecticut







## Photograph Locations

Five (5) of the six (6) photo-locations were simulated and present generally unobstructed view lines towards at least a portion of the proposed installation(s). The table below summarizes characteristics of the photographs and simulations presented in the attachment to this report including a description of each location, view orientation, and the distance from where the photo was taken relative to the proposed Facility. The photo locations are depicted on the photo-log map provided as an attachment to this report.

View	Location	Orientation	Distance to Site
1	Green Road	Northeast	±147 Feet
2	Hartford Turnpike	Southeast	±200 Feet
3	Hartford Turnpike	South	±97 Feet
4	Hartford Turnpike	Southwest	±245 Feet
5	Hartford Turnpike	Southwest	±269 Feet
6	Sunrise Drive*	Northwest	±241 Feet

*\*Not visible from this location*

## Conclusions

The visibility of the proposed Facility would be limited to locations surrounding the Host Property within ±270 feet to the southwest, ±150 feet to the northeast and ±100 feet to the south. Views beyond these areas would be obstructed by existing structures and vegetation. Combined with the location and size of the proposed small cell antenna, sight lines to the proposed Facility would be significantly limited. Any views associated with the proposed equipment area would be limited as the compound would be surrounded by privacy screening.

Based on the results of this assessment, it is our opinion that the proposed installation of the Verizon Wireless communications Facility will not have an adverse visual impact on existing views of this building or the character of the community.

## Limitations

The photo-simulations provide a representation of the Facility under similar settings as those encountered during the reconnaissance. They are however static in nature and do not necessarily fairly characterize the prevailing views from all locations within a given area. 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.

## **ATTACHMENTS**



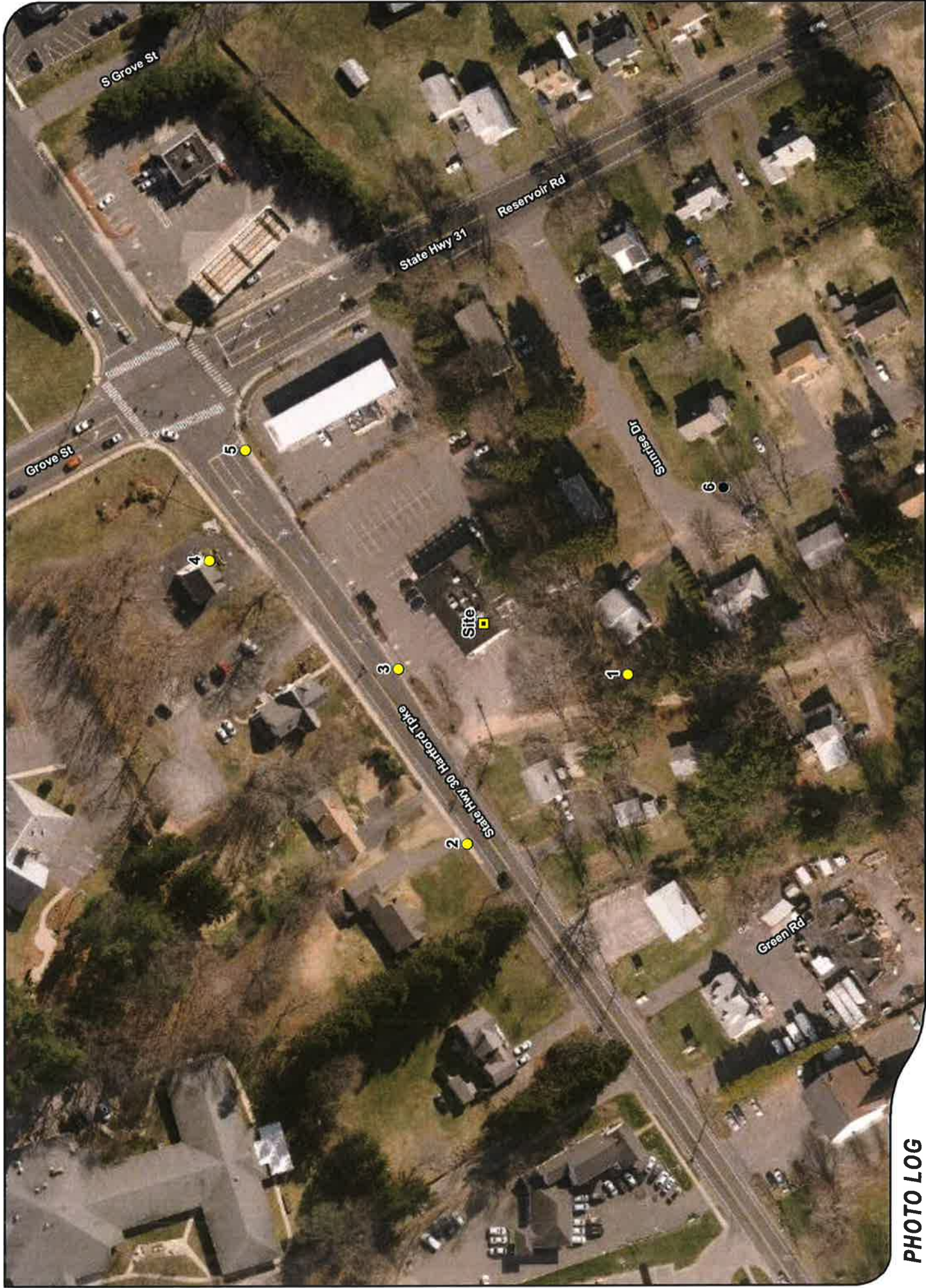


PHOTO LOG

Legend

- Site
- Visible
- Not Visible







PHOTOGRAPHED ON 4/13/2017

**EXISTING**

PHOTO

1

LOCATION

**GREEN ROAD**

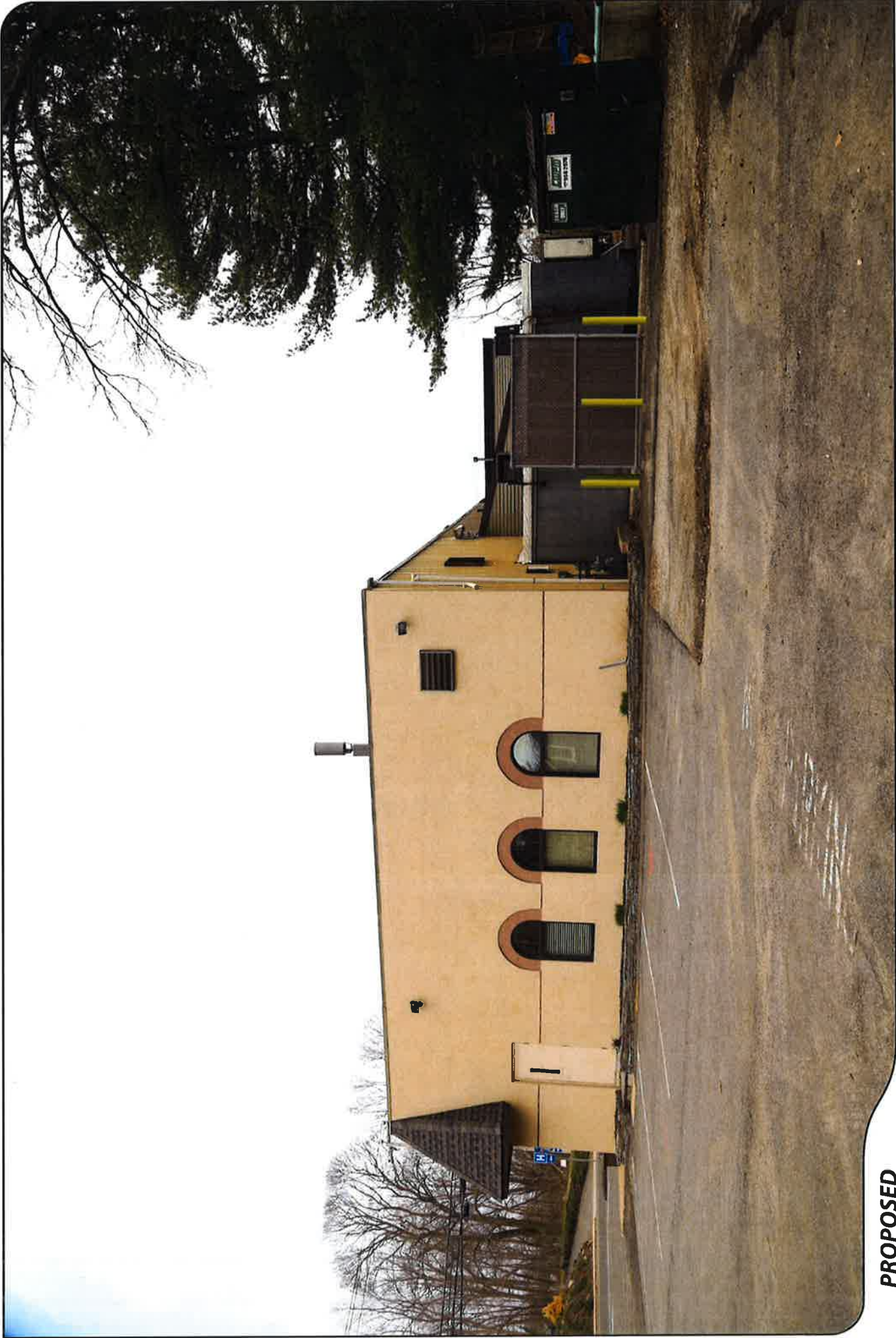
ORIENTATION

**NORTHEAST**

DISTANCE TO SITE

**+/- 147 FEET**





**PROPOSED**

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
1	GREEN ROAD	NORTHEAST	+/- 147 FEET





**EXISTING**

PHOTO

2

LOCATION

**HARTFORD TURNPIKE**

ORIENTATION

**SOUTHEAST**

DISTANCE TO SITE

**+/- 200 FEET**



**verizon**





**PROPOSED**

PHOTO

2

LOCATION

**HARTFORD TURNPIKE**

ORIENTATION

**SOUTHEAST**

DISTANCE TO SITE

**+/- 200 FEET**





PHOTOGRAPHED ON 4/13/2017

**EXISTING**

PHOTO

3

LOCATION

**HARTFORD TURNPIKE**

ORIENTATION

**SOUTH**

DISTANCE TO SITE

**+/- 97 FEET**







**PROPOSED**

PHOTO

3

LOCATION

HARTFORD TURNPIKE

ORIENTATION

SOUTH

DISTANCE TO SITE

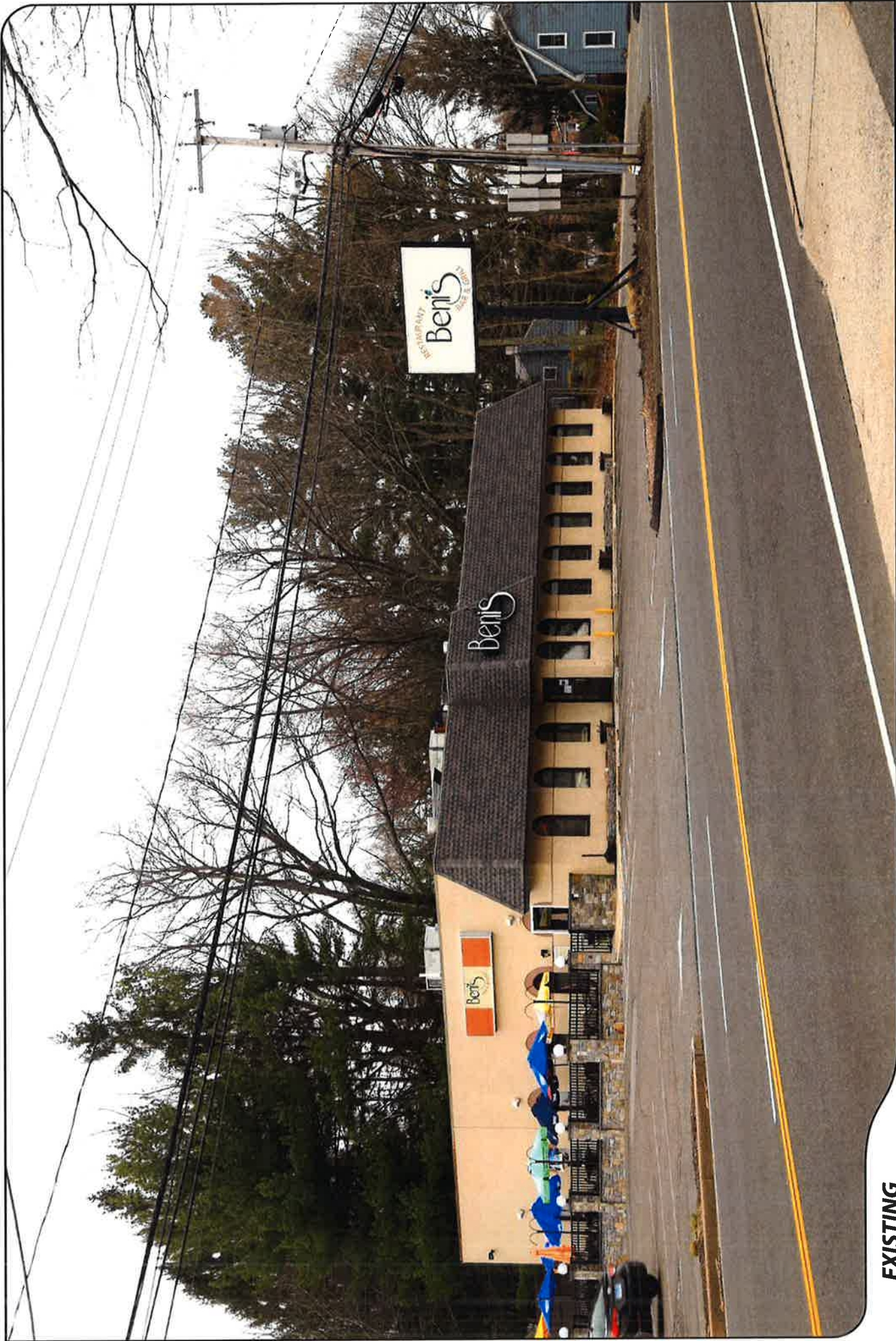
+/- 97 FEET



ALL-POINTS  
TECHNOLOGY CORPORATION







# **EXISTING**

PHOTO

4

LOCATION

HARTFORD TURNPIKE

ORIENTATION

SOUTHWEST

DISTANCE TO SITE

+/- 245 FEET



**verizon**

PHOTOGRAPHED ON 4/13/2017





**PROPOSED**

PHOTO

4

LOCATION

HARTFORD TURNPIKE

ORIENTATION

SOUTHWEST

DISTANCE TO SITE

+/- 245 FEET





PHOTOGRAPHED ON 4/13/2017

**EXISTING**

PHOTO

5

LOCATION

**HARTFORD TURNPIKE**

ORIENTATION

**SOUTHWEST**

DISTANCE TO SITE

**+/- 269 FEET**





**PROPOSED**

PHOTO

5

LOCATION

HARTFORD TURNPIKE

ORIENTATION

SOUTHWEST

DISTANCE TO SITE

+/- 269 FEET





NOT VISIBLE FROM THIS LOCATION

EXISTING

PHOTO

6

LOCATION

SUNRISE DRIVE

ORIENTATION

NORTHWEST

DISTANCE TO SITE

+/- 241 FEET



# **ATTACHMENT 5**

# General Power Density

Site Name: Rockville SC 5, 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^2)	Maximum Permissible Exposure* (mW/cm^2)	Fraction of MPE (%)
VZW PCS	1970	0	470	0	24	0.0000	1.0	0.00%
VZW Cellular	869	0	422	0	24	0.0000	0.5793333333	0.00%
VZW AWS	2145	0	934	0	24	0.0000	1.0	0.00%
VZW 700	746	1	319	319	24	0.1992	0.4973333333	40.05%

## Total Percentage of Maximum Permissible Exposure

40.05%

\*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^2 = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

# **ATTACHMENT 6**

ROCKVILL\_SC5\_CT.txt  
 \*\*\*\*\*  
 \* Federal Airways & Airspace \*  
 \* Summary Report: Existing Structure \*  
 \* Non-Antenna Structure \*  
 \*\*\*\*\*

Airspace User: Your Name

File: ROVILL\_SC5\_CT

Location: Stafford Springs, CT

Latitude: 41°-51'-31.16" Longitude: 72°-25'-59.46"

SITE ELEVATION AMSL.....537 ft.

STRUCTURE HEIGHT.....25 ft.

OVERALL HEIGHT AMSL.....562 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 7B9  
 FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for 7B6  
 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.

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.

The below analysis reflects the aeronautical conditions that exist as of the date stamped on this analysis.

Notice to the FAA is not required at the analyzed location and height for slope, height or Straight-In procedures. Please review the 'Air Navigation' section for notice requirements for offset IFR procedures and EMI.

#### 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: 7B9: ELLINGTON

Type: A RD: 24303.61 RE: 253.3

FAR 77.17(a)(1): DNE



ROCKVILL\_SC5\_CT.txt  
 FAR 77.17(a)(2): Does Not Apply.  
 VFR Horizontal Surface: DNE  
 VFR Conical Surface: DNE  
 VFR Approach Slope: DNE  
 VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: 7B6: SKYLARK AIRPARK  
 Type: A RD: 45238.22 RE: 125  
 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 1600 ft AMSL

#### PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
02CT	HEL	STRANGERS POINT	352.16	3.7	+22	
No Impact to Private Landing Facility Structure is beyond notice limit by 17482 feet.						
CT09	AIR	HECKLER FIELD	150.95	3.83	-231	
No Impact to VFR Transitional Surface. Below surface height of 283 ft above ARP.						
CT15	AIR	WYSOCKI FIELD	339.1	5.56	+172	
No Impact to VFR Transitional Surface. Below surface height of 456 ft above ARP.						

#### AIR NAVIGATION ELECTRONIC FACILITIES

APCH BEAR	FAC	ST	DIST	DELTA	GRND
IDNT	TYPE	AT	FREQ	VECTOR	(ft) ELEVA ST LOCATION ANGLE
----	BDL	RADAR	ON	293.3	73852 +326 CT BRADLEY INTL .25
No Impact. Existing Structures Do Not Require Notice based upon EMI. The FAA takes into account and adjusts radar facilities for reflection, clutter and false targets. The studied location is within 20 NM of an Air Traffic Radar facility. The calculated Radar Line-of-Sight (LOS) distance is: 48 NM. This location and height is within the Radar Line-Of-Sight.					
	BDL	VORTAC	D	109.0 293.43	75724 +402 CT BRADLEY .30
	HFD	VOR/DME	R	114.9 201.43	85189 -287 CT HARTFORD -.19
	CEF	VORTAC	R	114.0 348.45	126053 +321 MA WESTOVER .15
	BAF	VORTAC	R	113.0 325.26	134651 +295 MA BARNES .13

ROCKVILL_SC5_CT.txt									
ORW	VOR/DME	I	110.0	133.06	161760	+252	CT	NORWICH	.09
PUT	VOR/DME	R	117.4	77.4	164198	-90	CT	PUTNAM	-.03
MAD	VOR/DME	R	110.4	199.56	210787	+342	CT	MADISON	.09
CTR	VOR/DME	I	115.1	318.54	210951	-1038	MA	CHESTER	-.28
ORH	RADAR WXL	Y		45.2	214391	-441	MA	WORCESTER	-.12
PVD	RADAR	Y	2735.	102.72	233139	-4	RI	THEODORE FRANCIS	0.00

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: WCTF @ 4353 meters.

Airspace® Summary Version 17.3.436

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04-28-2017  
 10:15:37



# **ATTACHMENT 7**

June 2, 2017

*Via Certificate of Mailing*

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

Re: **Proposed Installation of a Wireless Telecommunications Facility at  
1280 Hartford Turnpike, Vernon, Connecticut**

Dear Mr. Champagne:

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 wireless telecommunications facility at 1280 Hartford Turnpike in Vernon (the “Property”). The facility will consist of a small tower mast attached to the building and supporting a canister antenna and a remote radio head. The top of the antenna would extend to a height of approximately 25’-4” above grade, approximately 8’-7” above the top of the roof. Equipment associated with the antenna will be on the ground behind the building, and will be screened by a fenced enclosure.

A full copy of the Petition is attached for your review. In accordance with Council requirements, abutting landowners were also sent notice of this filing and a copy of the Petition.

16008073-v1

# Robinson+Cole

Daniel M. Champagne, Mayor  
June 2, 2017  
Page 2

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

Sincerely,



Kenneth C. Baldwin

Attachment



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

June 2, 2017

*Via Certificate of Mailing*

Tena Realty LLC  
1280 Hartford Turnpike  
Vernon, CT 06066

Re: **Proposed Installation of a Wireless Telecommunications Facility at  
1280 Hartford Turnpike, Vernon, Connecticut**

Dear Sirs:

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 wireless telecommunications facility at 1280 Hartford Turnpike in Vernon (the "Property"). The facility will consist of a small tower mast attached to the building and supporting a canister antenna and a remote radio head. The top of the antenna would extend to a height of approximately 25'-4" above grade, approximately 8'-7" above the top of the roof. Equipment associated with the antenna will be on the ground behind the building, and will be screened by a fenced enclosure.

A full copy of the Petition is attached for your review. In accordance with Council requirements, abutting landowners were also sent notice of this filing and a copy of the Petition.

16355677-v1

# Robinson + Cole

Tena Realty LLC  
June 2, 2017  
Page 2

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

Sincerely,



Kenneth C. Baldwin

Attachment

# **ATTACHMENT 8**



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

June 2, 2017

*Via Certificate of Mailing*

«Name\_and\_Address»

**Re: Notice of Intent to File a Petition for Declaratory Ruling with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility at 1280 Hartford Turnpike, Vernon, 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 wireless telecommunications facility at 1280 Hartford Turnpike in Vernon (the “Property”). The facility will consist of a small tower mast attached to the building and supporting a canister antenna and a remote radio head. The top of the antenna would extend to a height of approximately 25’-4” above grade, approximately 8’-7” above the top of the roof. Equipment associated with the antenna will be on the ground behind the building, and will be screened by a fenced enclosure. A full copy of the Petition is attached for your review.

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

June 2, 2017  
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 extending to the right.

Kenneth C. Baldwin

Attachment

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

**ABUTTERS LIST**

**1280 HARTFORD TURNPIKE  
VERNON, CONNECTICUT**

	<b><u>Property Address</u></b>	<b><u>Owner and Mailing Address</u></b>
1.	1285 Hartford Turnpike	ESS Vernon Properties LLC 1031 Hartford Turnpike Vernon, CT 06066
2.	1277 Hartford Turnpike	Kevin N. Lotrek 331 Merrow Road Tolland, CT 06084
3.	1269 Hartford Turnpike	Nathan V.E. Woodruff 1269 Hartford Turnpike Vernon, CT 06066
4.	1265 Hartford Turnpike	Christopher Moore 1265 Hartford Turnpike Vernon, CT 06066
5.	1270 Hartford Turnpike	Cary and Patricia Crandall 1270 Hartford Turnpike Vernon, CT 06066
6.	11 Green Road	Bradford and Alyce Crandall 2 Green Road Vernon, CT 06066
7.	15 Sunrise Drive	Michael and David Kirk 15 Sunrise Drive Vernon, CT 06066
8.	11 Sunrise Drive	David J. Serkosky 11 Sunrise Drive Vernon, CT 06066
9.	12 Sunrise Drive	Joseph and Sheila Zelensky 12 Sunrise Drive Vernon, CT 06066



	<b><u>Property Address</u></b>	<b><u>Owner and Mailing Address</u></b>
10.	21 Reservoir Road	Edward and Linda Soucier 21 Reservoir Road Vernon, CT 06066
11.	3 Sunrise Drive	Patrick S. Hill 3 Sunrise Drive Vernon, CT 06066
12.	1292 Hartford Turnpike	Alliance Retail LLC 15 Northeast Industrial Road Branford, CT 06405
13.	1289 Hartford Turnpike	Town of Vernon 14 Park Place Vernon, CT 06066