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	:	
AT SAMUEL M. PERETZ PARK, 221 WEST	:	
MAIN STREET, NIANTIC, CONNECTICUT	:	DECEMBER 28, 2016

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 Samuel M. Peretz Park ("Peretz Park") located at 221 West Main Street, in East Lyme, Connecticut (the "Property"). The Property is an approximately 21 acre parcel owned by the Town of East Lyme ("Town"). Cellco refers to this proposed facility as its "Niantic SC6 Facility".

II. Factual Background

Cellco currently maintains four (4) macro-cell facilities in the Town of East Lyme, which provide, to a significant extent, reliable wireless service in westerly portions of East Lyme,

particularly along portions of West Main Street (Route 156) and local roads as well as existing commercial, residential, recreational (Rocky Neck State Park and Peretz Park) and institutional (York Correction Facility) land uses in the area. Reliable service in and around the Property, however, remains problematic especially during those times when Peretz Park and Rocky Neck State Park are actively used. In an effort to resolve these localized service problems, Cellco intends to install a "small cell" wireless facility at the Property. Included in Attachment 1 is a Site Vicinity Map showing the location of the Property and the surrounding cell sites and a Site Schematic showing the small cell facility location on the Property.

A. Cellco's Service

Cellco is licensed to provide wireless telecommunications services in the 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequency ranges in East Lyme and throughout the State of Connecticut. Initially, the proposed Niantic SC6 Facility will provide wireless service in Cellco's 2100 MHz frequency range only.

B. Proposed "Small Cell" Facility

Cellco proposes the installation of a "small cell" facility at Peretz Park. Project plans for the proposed Niantic SC6 Facility are included in Attachment 2. Cellco proposes to replace an existing 80-foot light pole adjacent to the existing athletic fields in the southerly portion of the Property with a new galvanized steel pole of equal height (approximately 80' above ground level ("AGL")). The new replacement pole would be capable of supporting the athletic field lights and Cellco's small cell equipment. The existing athletic field lights would be placed at the top of the replacement pole. Cellco would attach a single Model NH65PS 2100 MHz canister antenna and a remote radio head ("RRH") on a small mast at the top of the replacement light pole. The top of the canister antenna would extend to a height of 87.42 feet AGL. Cellco's radio equipment and a

back-up battery cabinet would be located within an 8' x 8' fenced enclosure near the East Lyme Fire Department parcel to the west of the replacement light pole. (*See* Attachment 2, Sheet T-1). Electric and telephone service would extend underground from existing service along West Main Street to the equipment compound and underground from the equipment compound to the replacement pole location, then inside the pole to the antenna and RRH. Specifications for the "small cell" 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 replacement of an existing athletic field light pole, and the installation of "small cell" antenna, RRH and equipment cabinets on the ground, will not involve a significant alteration in the physical and environmental characteristics of the Property. Cellco's new steel replacement pole will be installed in the same location and at the same height as the existing light pole. Service lines between the antennas and Cellco's radio equipment will be installed underground or inside the new steel pole reducing, to a significant extent, impacts associated with the facility. No tree removal is required and only minimal ground disturbance is

needed to install the replacement pole, cable conduit and related equipment. There are no wetland areas on the Property that will be impacted by the installation of the proposed small cell facility.

2. Visual Effects

The visibility of the proposed "small cell" facility would be limited to locations within Peretz Park and along nearby portions of West Main Street. The scale of the antennas and RRH relative to the size of the light bank at the top of the pole is modest and not overly obtrusive. 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 character of the existing community. (See Visual Assessment and Photo-Simulations included in Attachment 4).

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 86 feet AGL. This calculation indicates that the Niantic small cell facility will operate well within (3.80% 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 First Selectman, Property Owner and Abutting Landowners

On December 28, 2016, a copy of this Petition was sent to East Lyme First Selectman, Mark C. Nickerson.[1] 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 First Selectman Nickerson. 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 replacement pole used to support athletic field lights and 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,

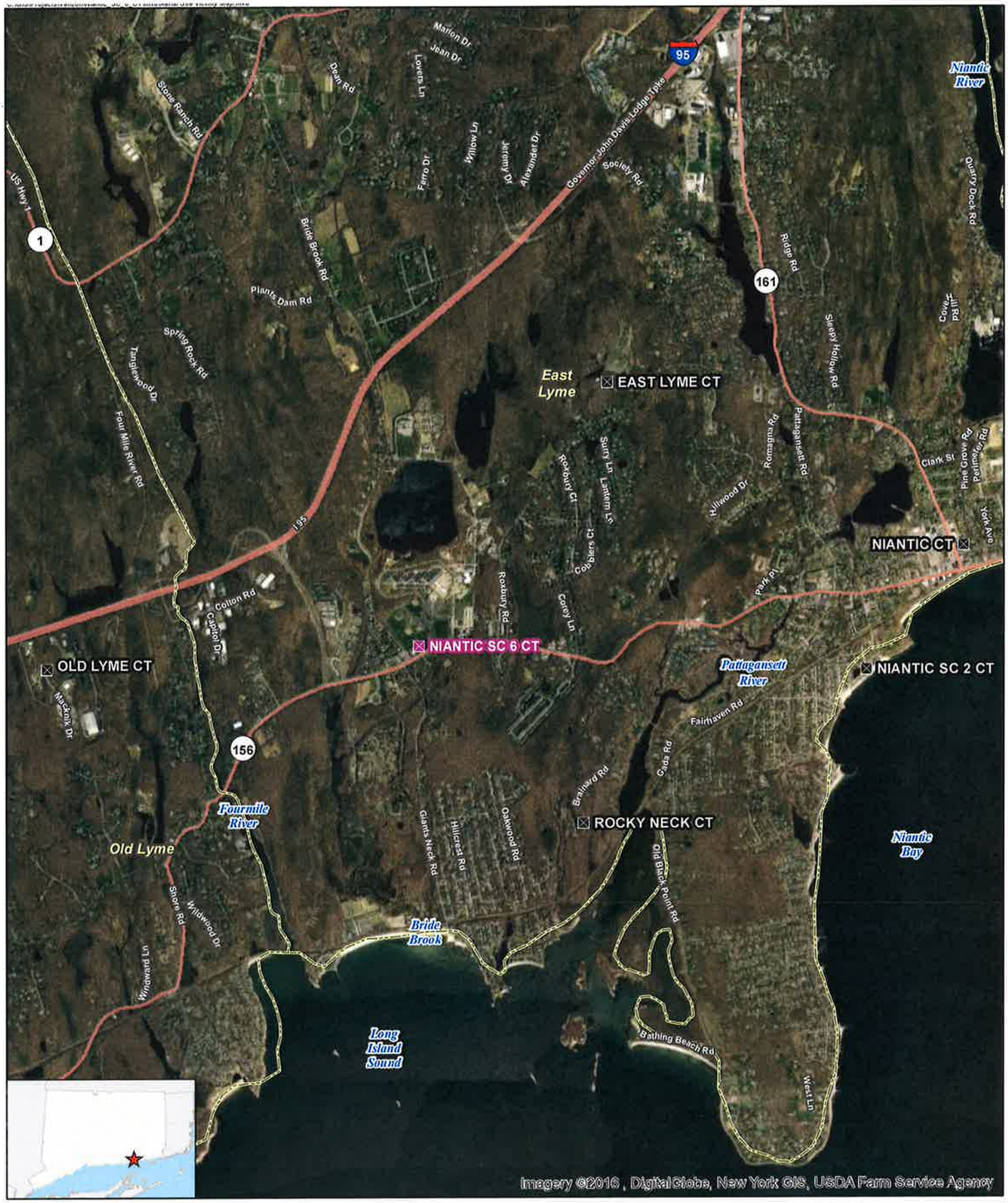
CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS

By _____

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

[1] As mentioned above, the Town of East Lyme is the owner of the Property.

ATTACHMENT 1



Legend

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

Site Vicinity Map

Proposed Small Cell Installation
Niantic SC 6 CT
221 West Main Street
East Lyme, Connecticut

verizon

Base Map Source: ESRI World Imagery (Microsoft, 3/28/2011)
Map Scale: 1 inch = 3,000 feet
Map Date: November 2016

3,000 1,500 0 3,000 Feet

ALL-POINTS TECHNOLOGY CORPORATION

Legend

- Proposed +/-80' Tall Replacement Light Pole
- Proposed Underground Power and Telco
- Proposed Lease Area
- Subject Property

Site Schematic

Proposed Small Cell Installation
Niantic SC 6 CT
221 West Main Street
East Lyme, Connecticut

verizon

Map Notes:
Base Map Source: 2016 Google Imagery
Map Scale: 1 inch = 200 feet
Map Date: October 2016

N W E S

200 100 0 200 Feet

ALL-POINTS TECHNOLOGY CORPORATION

ATTACHMENT 2

verizon

WIRELESS COMMUNICATIONS FACILITY
NIANTIC SC6
221 WEST MAIN STREET
EAST LYME, CT 06357

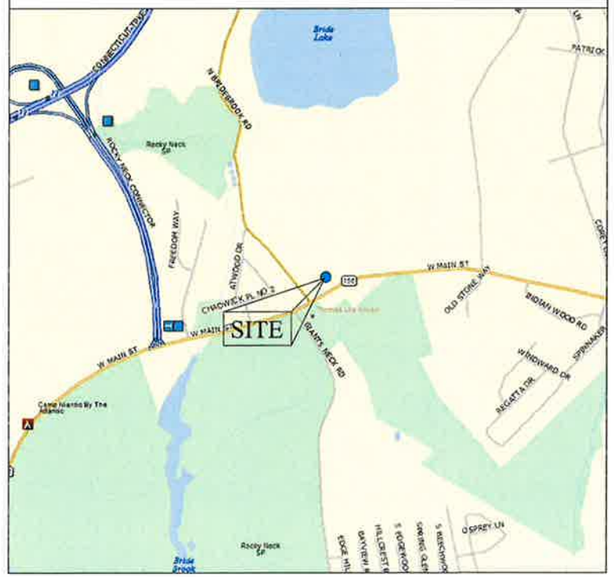
GENERAL NOTES

1. PROPOSED ANTENNA LOCATIONS & HEIGHTS PROVIDED BY CELLCO PARTNERSHIP

PROJECT SCOPE

1. THE PROPOSED SCOPE OF WORK GENERALL INCLUDES THE INSTALLATION OF (1) ANTENNA ASSOCIATED CABLES & APPURTENANCES MOUNTED TO PROPOSED REPLACEMENT LIGHT POLE.
2. A PAD MOUNTED TRANSFORMER, ELECTRICAL METER & PIPE BOLLARDS WILL BE INSTALLED WITHIN THE EXISTING STREET R.O.W.
3. POWER & TELCO UTILITIES DEPICTED HEREIN ARE TENTATIVE. FINAL ROUTING TO BE DETERMINED DURING THE CONSTRUCTION DOCUMENT PHASE OF PROJECT.
4. THE PROPOSED WIRELESS FACILITY INSTALLATION WILL BE DESIGNED IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2016 CONNECTICUT SUPPLEMENT.

VICINITY MAP



PROJECT SUMMARY

SITE NAME:	NIANTIC SC6
SITE ADDRESS:	221 WEST MAIN STREET EAST LYME, CT 06357
APPLICANT:	CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
VZW SITE ACQ. CONTACT:	JIM SMITH CELLCO PARTNERSHIP (860) 275-8345
LEGAL/REGULATORY COUNSEL:	KENNETH C BALDWIN, ESQ. ROBINSON & COLE (860) 275-8345
TOWER COORDINATES:	LATITUDE: 41° 19' 08.16" N LONGITUDE: 72° 14' 15.86" W GROUND ELEVATION: 31'± A.M.S.L. SITE COORDINATES & GROUND ELEVATION REFERENCED FROM FAA 2C SURVEY CERTIFICATION AS PREPARED BY CENTEK ENGINEERING INC., DATED OCTOBER 18, 2016

SHEET INDEX

PREPARED BY:

NEXIUS
TRANFORM YOUR BUSINESS...THROUGH WIRELESS

A&E OFFICE:
7A LYBERTY WAY
WESTFORD, MA 01886
1 (972) 755-1882

APPLICANT:

CELLCO PARTNERSHIP d/b/a
verizon

99 EAST RIVER DRIVE
EAST HARTFORD, CT 06108

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	12/22/16	ISSUED FOR CSC	JM
B	12/23/16	REV. ABUTTERS LIST & RRH	JM

SITE INFO:

SITE NAME:
NIANTIC SC6

SITE ADDRESS:
211 WEST MAIN STREET
EAST LYME, CT 06357

SHEET TITLE:
TITLE SHEET

NEXIUS PROJ. NO:
VZ11509

CHECKED BY:
KB

SHEET NUMBER:
T-1

NORTH BRIDEBROOK ROAD

N/F
10.0 2
CONNECTICUT STATE OF
NCI JB GATES PRISON
199 W MAIN ST
NIANTIC, CT 06357

N/F
09.4 38
TUTTLE SHARON
24 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
09.4 37
RIQUIER DANIEL & SANDRA S
20 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
09.4 36
WASIK RICHARD R
18 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
09.4 35
SMART YUMIKO JULIE
16 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
09.4 34
WILSON STEPHEN A
14 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
09.4 33
HANSON SCOTTE & SHERLEEN A
12 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
10.3 4
ROCKWELL JOHN P
10 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
10.3 3
PAAR HENRY A
8 N BRIDE BROOK RD
NIANTIC, CT 06357

N/F
10.3 2
NIANTIC BAY LLC
6 N BRIDE BROOK RD
MA: 229 W MAIN ST
NIANTIC, CT 06357

WEST MAIN STREET

N/F
10.3 1
NIANTIC BAY INN INC
229-2 W MAIN ST
MA: 229 W MAIN ST
NIANTIC, CT 06357

N/F
10.0 2-1
EAST LYME TOWN OF
FIRE SUB STATION
227 W MAIN ST
MA: PO BOX 519
NIANTIC, CT 06357

N/F
10.3 14
EAST LYME TOWN OF
W MAIN ST
MA: PO BOX 519
NIANTIC, CT 06357

N/F
10.3 19-1
JAMES P & JENNIFER V LATHROP
220 W MAIN ST
NIANTIC, CT 06357

N/F
10.3 19
BREWSTER TAMMY LYNN
218 W MAIN ST
NIANTIC, CT 06357

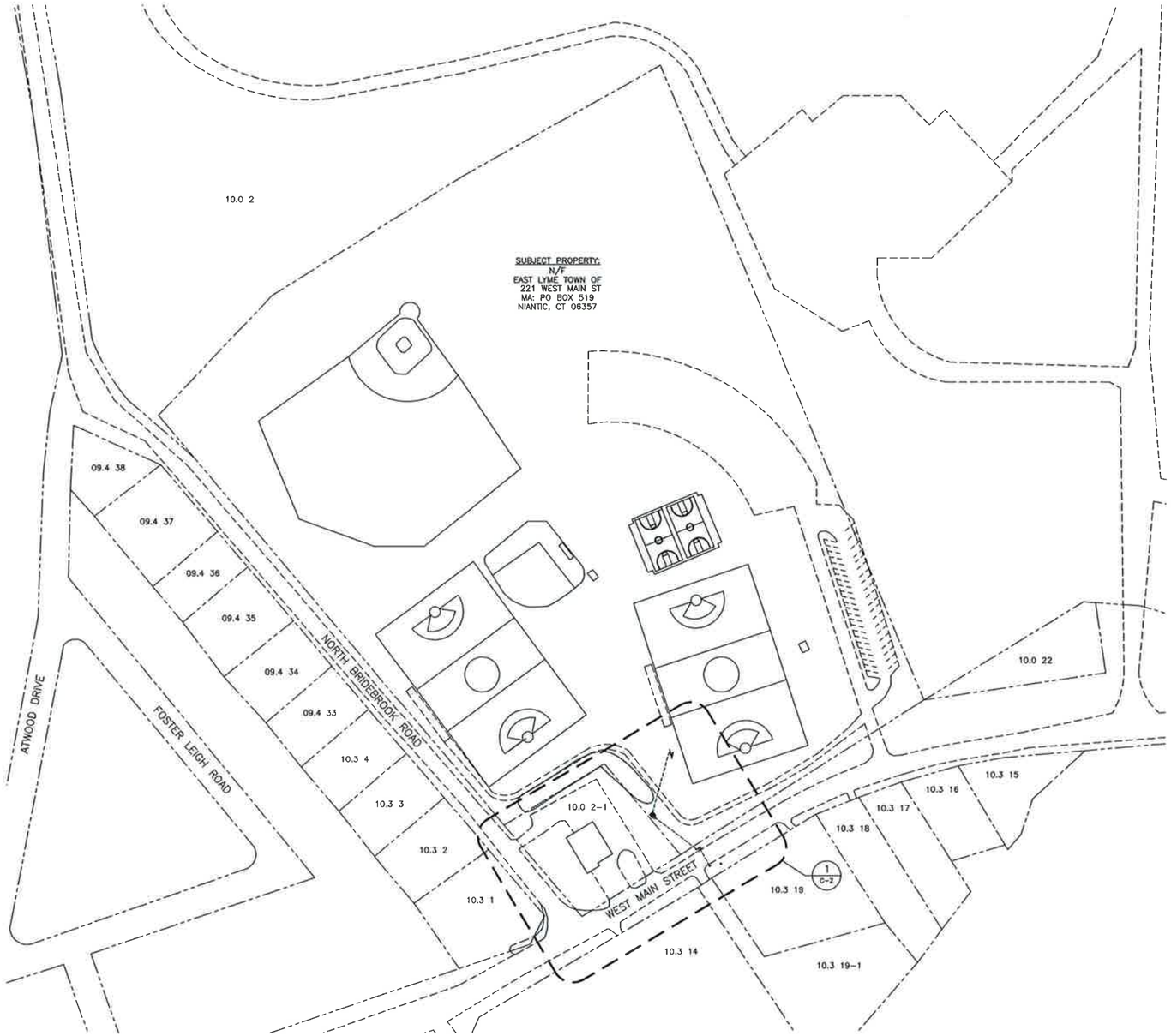
N/F
10.3 18
FEDERAL NATIONAL MORTGAGE ASSOC.
P.O. BOX 650043
DALLAS, TX 75265-0043

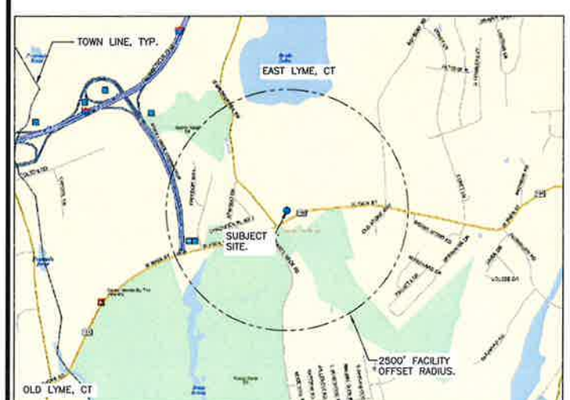
N/F
10.3 17
BOISELLE JENNIFER & LANCE
212 W MAIN ST
MA: 214 W MAIN ST
NIANTIC, CT 06357

N/F
10.3 16
KARDYS BARBARA JANE
210 W MAIN ST
MA: PO BOX 557
NIANTIC, CT 06357

N/F
10.3 15
STRICKLAND JOAN B
208 W MAIN ST
NIANTIC, CT 06357

N/F
10.0 22
EAST LYME TOWN OF
W MAIN ST
MA: PO BOX 519
NIANTIC, CT 06357





MUNICIPALITY NOTIFICATION LIMIT MAP

MAP REFERENCE NOTE:

PROPERTY LINES AND PROPERTY OWNER INFORMATION SHOWN HEREIN ARE REFERENCED FROM THE TOWN OF EAST LYME GIS DATA BASE. SITE FEATURES SHOWN HEREIN ARE REFERENCED FROM AVAILABLE MAPPING ON GOOGLE EARTH PRO.

PREPARED BY:

NEXIUS
TRANFORM YOUR BUSINESS...THROUGH WIRELESS

A&E OFFICE:
7A LYBERTY WAY
WESTFORD, MA 01886
1 (972) 755-1882

APPLICANT:

CELLCO PARTNERSHIP d/b/a

verizon

99 EAST RIVER DRIVE
EAST HARTFORD, CT 06108

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	12/22/16	ISSUED FOR CSC	JM
B	12/23/16	REV. ABUTTERS LIST & RRH	JM

SITE INFO:

SITE NAME:
NIANTIC SC6

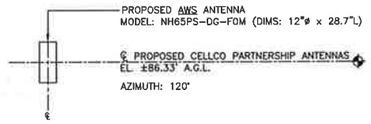
SITE ADDRESS:
211 WEST MAIN STREET
EAST LYME, CT 06357

SHEET TITLE:
ABUTTERS MAP

NEXIUS PROJ. NO:
VZ11509

SHEET NUMBER:
C-1

CHECKED BY:
KB

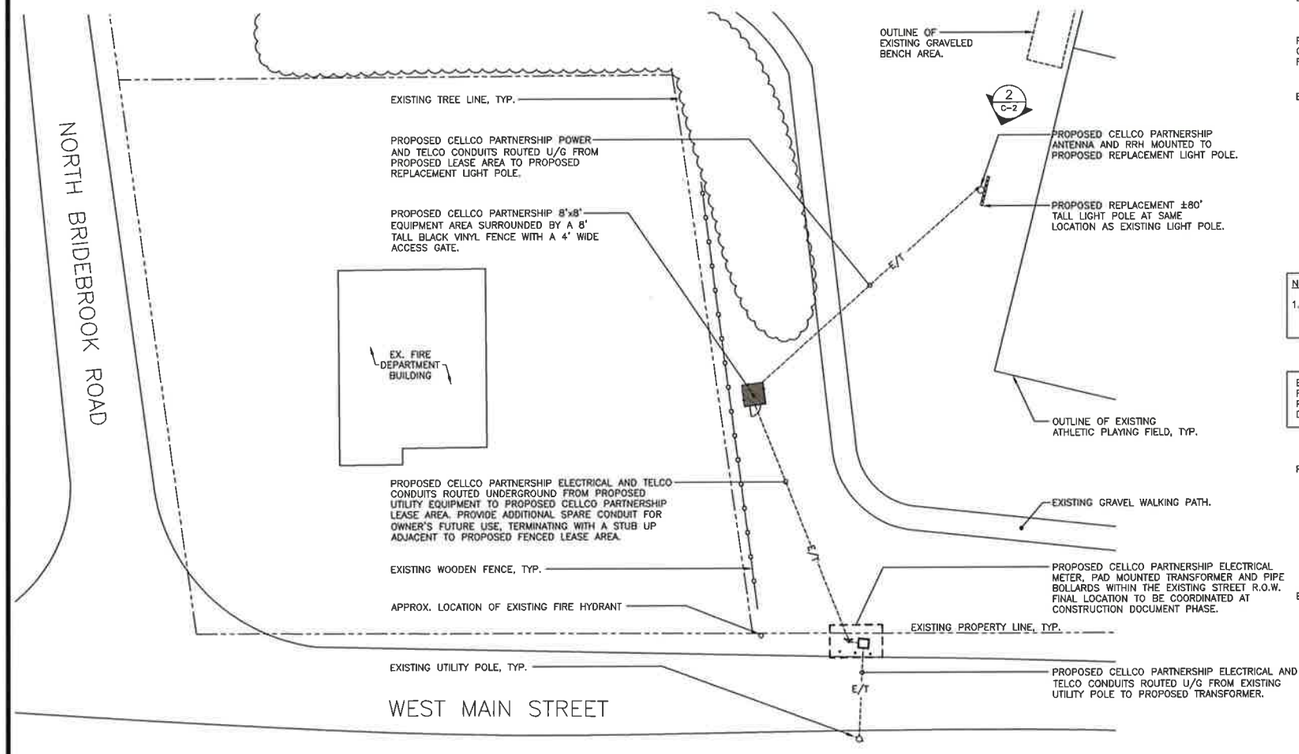


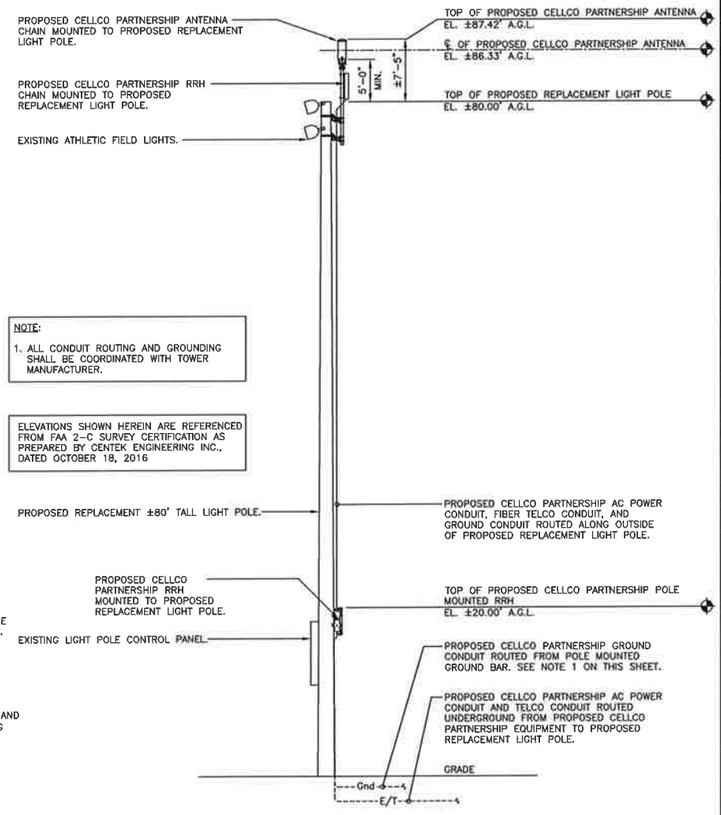
RRH MOUNTING NOTE

- AWS RRH MODEL: ALU RRH4x45-AWS (DIMS: 25.8"L x 11.8"W x 7.2"D) (TOTAL OF 1)

ANTENNA AND RRH MOUNTED TO PROPOSED REPLACEMENT LIGHT POLE.

3 / C-2 **TYP. ANTENNA MOUNTING CONFIGURATION**
NOT TO SCALE





NOTE:
1. ALL CONDUIT ROUTING AND GROUNDING SHALL BE COORDINATED WITH TOWER MANUFACTURER.

ELEVATIONS SHOWN HEREIN ARE REFERENCED FROM FAA 2-C SURVEY CERTIFICATION AS PREPARED BY CENTEK ENGINEERING INC., DATED OCTOBER 18, 2016

PREPARED BY:
NEXIUS
TRANFORM YOUR BUSINESS...THROUGH WIRELESS
A&E OFFICE:
7A LYBERTY WAY
WESTFORD, MA 01886
1 (972) 755-1882

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

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	12/22/16	ISSUED FOR CSC	JM
B	12/23/16	REV. ABUTTERS LIST & RRH	JM

SITE INFO:

SITE NAME:
NIANTIC SC6

SITE ADDRESS:
211 WEST MAIN STREET
EAST LYME, CT 06357

SHEET TITLE:
PARTIAL SITE PLAN, ELEVATION & ANTENNA CONFIG.

NEXIUS PROJ. NO:
VZ11509

CHECKED BY:
KB

SHEET NUMBER:
T-1

ATTACHMENT 3

Product Specifications

COMMSCOPE®

NH65PS-DG-F0M

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	0 ° | 10.0	0 ° | 9.9
			8 ° | 9.4	8 ° | 9.6	8 ° | 9.5
			16 ° | 8.6	16 ° | 8.8	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

Product 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

Agency	Classification
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

ALCATEL-LUCENT B66A RRH4X45

The Alcatel-Lucent B66a Remote Radio Head 4x45 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. Its operational range covers beyond that of B4 (AWS) and B10 (AWS+).

Supporting 2Tx/4Tx MIMO and 2-way/4-way Rx diversity, the Alcatel-Lucent B66a RRH4x45 allows operators to have a compact radio solution to deploy LTE in the 2100 band (3GPP band 4, 10, and 66), providing them with the means to achieve high capacity, high quality, high reliability, large instantaneous bandwidth, and high coverage with minimum site requirements.

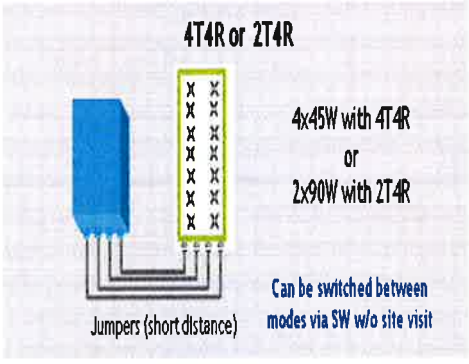
The Alcatel-Lucent B66a RRH4x45 product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x90W or 4x45W RF output power. It also supports 4-way Rx diversity at the 70 MHz instantaneous bandwidth.

The Alcatel-Lucent B66a RRH4x45 is a compact (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 B66a RRH4x45 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 2110 - 2180 MHz band/DL, 1710-1780MHz/UL (3GPP band 4, 10, and 66a)
- LTE 2Tx or 4Tx MIMO (SW selectable)
- Configuration: 2T2R/2T4R/4T4R
- Output power: Up to 2x90W or 4x45W (SW configurable)
- 70MHz 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 AWS 1-3 band
- Selection of MIMO configuration (2Tx or 4Tx) by software only
- Improves downlink spectral efficiency through 4Tx MIMO
- Increases LTE coverage thanks to 4Rx diversity capability and best in class Rx sensitivity
- Flexible mounting options: Pole or Wall

TECHNICAL SPECIFICATIONS

Features & Performance	
Number of TX/RX paths	4 duplexed (either 4T4R or 2T4R selectable by SW)
Frequency band	AWS 1-3, B4/B66a DL: 2110-2180 MHz / UL: 1710-1780 MHz
Instantaneous bandwidth - #carriers	70 MHz – 4 LTE MIMO carriers (in 70 MHz occupied bandwidth)
LTE carrier bandwidth	5, 10, 15, 20 MHz
RF output power	2x90W or 4x45W (selectable by SW)
Noise figure – RX Diversity scheme **Receiver Sensivity (FRC A1-3)**	2 dB typical (<2.5 dB max) – 2 or 4 way Rx diversity -104.5 dBm maximum
Sizes (HxWxD) in mm (in.) **Volume in Liters** **Weight in kg (lb) (w/o mounting HW)**	655x299x182 (25.8x11.8x7.2) (with solar shield) 640x290x160 (25.2x11.4x6.3) (without solar shield) 35.5 (with solar shield) 29.7 (without solar shield) 25.8kg (56.8lb) (with solar shield)
DC voltage range **DC power consumption**	Nominal: -48V, -40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption 750W typical @100% RF load (in 2Tx or 4Tx mode); Add 58W for 2A*29V for AISG
Environmental conditions **Wind load (@150km/h or 93mph)**	-40°C (-40°F) /+55°C (+131°F) UL50E Type 4 Enclosure 250N (56lb) Frontal/150N (34lb) Lateral
Antenna ports	4 ports 4.3-10 female (50 ohms) VSWR < 1.5
CPRI ports	2 CPRI ports (HW ready for Rate 7, 9.8 Gbps) SFP: SMDF (HW supports also SMSF and MMDF)
AISG interfaces	1 AISG 2.0 output (RS485) Integrated Smart Bias Tees (x2)
Misc. Interfaces	4 external alarms (1 connector) 1 DC connector (2 pins)
Installation conditions	Pole and wall mounting
Regulatory compliance	3GPP 36.141 / 3GPP 36.113 / GR-487 / GR-1089-CORE / GR-3108-CORE / UL 60950-1 / FCC Part 27 / FCC Part 15 / GR-3178-CORE

ATTACHMENT 4

Visual Assessment & Photo-Simulations

NIANTIC SC6
221 WEST MAIN STREET
EAST LYME, CT 06357

Prepared in November 2016 by:
All-Points Technology Corporation, P.C.
3 Saddlebrook Drive
Killingworth, CT 06419

Prepared for Verizon Wireless

ALL-POINTS
TECHNOLOGY CORPORATION

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 at 221 West Main Street in East Lyme, Connecticut (the "Property").

Project Setting

The Property is located north of the intersection of West main Street and North Bridebrook Road and is developed with multiple recreational athletic fields associated with Samuel M. Peretz Park. The proposed Verizon Wireless Facility design includes replacing an existing 80-foot tall light pole with a new, steel monopole (of the same height) and affixing a pipe-mast to its top to house a single antenna and remote radio head ("RRH"). The existing athletic field lights would also be re-mounted to the new pole. The proposed antenna would extend approximately 7.5 feet above the top of the replacement pole. Electrical power, fiber/telco and grounding conduit would be mounted to the exterior of the pole and be routed underground to an 8-foot by 8-foot fence-enclosed equipment area; the 8-foot tall fence would include black privacy screening. An electrical meter, pad-mounted transformer and protective bollards would be installed north of West Main Street.

Methodology

On October 18 and November 2, 2016, APT personnel conducted field reconnaissance and photo-documented existing conditions. Five (5) nearby locations were selected to depict existing and proposed 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, with the lens set to 50 mm to present a consistent field of view.

Three-dimensional computer models were developed for the building and proposed Facility components from AutoCAD information. Photographic simulations were then generated to portray scaled renderings of the proposed replacement pole and Facility installation, fence-enclosed equipment area and road-side utilities. 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.

The simulations are static in nature and do not necessarily fairly characterize the prevailing views from all locations within a given area. They provide a representation of the proposed Facility under similar settings as those encountered during the field reconnaissance. Views of the Facility can change substantially throughout the seasons as well as the time of day, and are dependent on weather and other atmospheric conditions including but not necessarily limited to haze, fog, and clouds; the location, angle and intensity of the sun; light conditions, and the specific viewer location.

Conclusions

The visibility of the proposed installation would be generally consistent with existing conditions, as the subject light pole can be seen from several locations within Samuel M. Peretz Park and nearby portions of West Main Street. The scale of the antenna and RRH relative to the light banks is modest and although they are unmistakable electronic components, they are not overly intrusive. The use of a single light pole that is part of a large lighting system for the complex minimizes the potential visual footprint by eliminating the need for a new independent monopole to house the Facility.

Based on the results of this assessment, it is our opinion that the proposed Verizon Wireless small cell installation will not have an adverse visual impact on the character of the community.

ATTACHMENTS

PHOTO LOG

Legend

Site ● Photo Location

200 100 0 200 Feet

1 inch = 200 feet

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
1	SAMUEL M. PERETZ PARK	SOUTHWEST	+/- 432 FEET

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
1	**SAMUEL M. PERETZ PARK**	**SOUTHWEST**	**+/- 432 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
2	**SAMUEL M. PERETZ PARK**	**SOUTHEAST**	**+/- 0.11 MILE**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
2	**SAMUEL M. PERETZ PARK**	**SOUTHEAST**	**+/- 0.11 MILE**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
3	**SAMUEL M. PERETZ PARK**	**EAST**	**+/- 347 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
3	SAMUEL M. PERETZ PARK	EAST	+/- 347 FEET

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4	**WEST MAIN STREET**	**NORTH**	**+/- 243 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4	**WEST MAIN STREET**	**NORTH**	**+/- 243 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4A	**WEST MAIN STREET**	**NORTH**	**+/- 243 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4A	**WEST MAIN STREET**	**NORTH**	**+/- 243 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
5	**WEST MAIN STREET**	**NORTHWEST**	**+/- 247 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
5	**WEST MAIN STREET**	**NORTHWEST**	**+/- 247 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

ATTACHMENT 5

Site Name: Niantic SC 6, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	0	470	0	86	0.0000	1.0	0.00%
VZW Cellular	869	0	422	0	86	0.0000	0.579333333	0.00%
VZW AWS	2145	1	782	782	86	0.0380	1.0	3.80%
VZW 700	746	0	1050	0	86	0.0000	0.497333333	0.00%

Total Percentage of Maximum Permissible Exposure 3.80%

*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

```
**************************************************
*            Federal Airways & Airspace          *
*         Summary Report: New Construction       *
*              Antenna Structure                 *
**************************************************

Airspace User: Your Name

File: NIANTIC_SC_6A_CT

Location:  Fenwick, CT

Latitude:  41°-19'-8.16"          Longitude: 72°-14'-15.87"

SITE ELEVATION AMSL.....31 ft.
STRUCTURE HEIGHT.....88 ft.
OVERALL HEIGHT AMSL.....119 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 GON
  FAR 77.9:    NNR FAR 77.9 IFR Straight-In Notice Criteria for 0B8
  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.

  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: GON: GROTON-NEW LONDON
Type: A   RD: 51002.71   RE: 8.7
  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

VFR TRAFFIC PATTERN AIRSPACE FOR: 0B8: ELIZABETH FIELD
Type: A   RD: 60319.89   RE: 7
  FAR 77.17(a)(1):         DNE
  FAR 77.17(a)(2):         Does Not Apply.
  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 1500 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
5CT7		AIR MILE CREEK	249.19	2.82	+89	
		No Impact to Private Landing Facility. DNE 200 ft AGL within 3 NM of Airport.				
CT78		SEA LORD CREEK	290.2	5.65	+119	
		No Impact to VFR Transitional Surface. Below surface height of 465 ft above ARP.				

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND APCH ANGLE BEAR
GON	VOR/DME	R	110.8	85.26	51197	+110	CT	GROTON	.12
ORW	VOR/DME	I	110.0	36.99	108442	-191	CT	NORWICH	-.1
MAD	VOR/DME	R	110.4	269.00	124851	-101	CT	MADISON	-.05
HFD	VOR/DME	R	114.9	324.24	144844	-730	CT	HARTFORD	-.29
HTO	VORTAC	I	113.6	188.46	147341	+97	NY	HAMPTON	.04
HVN	VOR/DME	R	109.8	263.17	179120	+113	CT	NEW HAVEN	.04
SEY	VOR/DME	R	117.8	107.09	190161	+19	RI	SANDY POINT	.01
QVH	RADAR ARSR	Y	1326.9	217.54	202678	-232	NY	RIVERHEAD	-.07
FOK	TACAN	R	NA		211.66	206258	+69	NY	SUFFOLK CO	.02
CCC	VOR/DME	R	117.2	227.28	209809	+34	NY	CALVERTON	.01
PVD	RADAR	Y	2735.	49.88	228253	-447	RI	THEODORE FRANCIS	-.11
KOKX	RADAR WXL	Y		226.05	238908	-76	NY	NEW YORK	-.02

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: WLIS @ 12665 meters.

11-01-2016
09:31:51

ATTACHMENT 7

Robinson + Cole

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

December 28, 2016

Via Certificate of Mailing

Mark C. Nickerson, First Selectman
Town of East Lyme
108 Pennsylvania Avenue
Niantic, CT 06357

Re: **Proposed Installation of a Wireless Telecommunications Facility at Samuel M. Peretz Park, 221 West Main Street, Niantic, Connecticut**

Dear Mr. Nickerson:

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 Samuel M. Peretz Park, 221 West Main Street in East Lyme (the "Property"). The facility will consist of one (1) canister antenna and one (1) remote radio head (RRH) attached to the top of an 80-foot tall replacement light pole adjacent to the existing athletic field. The existing light pole to be replaced is also 80 feet tall. The top of the antenna would extend to a height of approximately 87.42' above grade, approximately 7.5' above the top of the replacement pole. Equipment associated with the facility will be located on the ground within an 8' x 8' 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.

15663081-v1

Robinson+Cole

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

December 28, 2016

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 Samuel M. Peretz Park, 221 West Main Street, Niantic, 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 Samuel M. Peretz Park, 221 West Main Street in East Lyme (the "Property"). The facility will consist of one (1) canister antenna and one (1) remote radio head (RRH) attached to the top of an 80-foot tall replacement light pole adjacent to the existing athletic field. The existing light pole to be replaced is also 80 feet tall. The top of the antenna would extend to a height of approximately 87.42' above grade, approximately 7.5' above the top of the replacement pole. Equipment associated with the facility will be located on the ground within an 8' x 8' fenced enclosure. A copy of Cellco's 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.

Sincerely,

Kenneth C. Baldwin

Attachment

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

ABUTTING PROPERTY OWNERS

221 WEST MAIN STREET
EAST LYME, CONNECTICUT

	Property Address	Owner's and Mailing Address
1.	199 West Main Street	State of Connecticut NCI JB Gates Prison 199 West Main Street Niantic, CT 06357
2.	24 North Bridebrook Road	Sharon Tuttle 24 West Main Street Niantic, CT 06357
3.	20 North Bridebrook Road	Daniel and Sandra S. Riguier 20 West Main Street Niantic, CT 06357
4.	18 North Bridebrook Road	Richard R. Wasik 18 West Main Street Niantic, CT 06357
5.	16 North Bridebrook Road	Julie Smart Yomiko 16 West Main Street Niantic, CT 06357
6.	14 North Bridebrook Road	Stephen A. Wilson 14 West Main Street Niantic, CT 06357
7.	12 North Bridebrook Road	Sherleen A. and Scott E. Hanson 12 North Bridebrook Road Niantic, CT 06357
8.	10 North Bridebrook Road	John P. Rockwell 10 North Bridebrook Road Niantic, CT 06357
9.	8 North Bridebrook Road	Henry A. Paar 8 North Bridebrook Road Niantic, CT 06357

	Property Address	Owner's and Mailing Address
10.	6 North Bridebrook Road	Niantic Bay LLC 229 West Main Street Niantic, CT 06357
11.	229-2 West Main Street	Niantic Bay Inn Inc. 229 West Main Street Niantic, CT 06357
12.	227 West Main Street	Town of East Lyme Fire Sub Station P.O. Box 519 Niantic, CT 06357
13.	West Main Street	Town of East Lyme East Lyme Historical Society P.O. Box 519 Niantic, CT 06357
14.	220 West Main Street	James P. and Jennifer V. Lathrop 220 West Main Street Niantic, CT 06357
15.	218 West Main Street	Federal National Mortgage Association P.O. Box 650043 Dallas, TX 75265-0043
16.	214 West Main Street	Jennifer and Lance Boiselle 214 West Main Street Niantic, CT 06357
17.	212 West Main Street	Jennifer and Lance Boiselle 214 West Main Street Niantic, CT 06357
18.	210 West Main Street	Barbara Jane Kardys P.O. Box 557 Niantic, CT 06357
19.	208 West Main Street	Joan B. Strickland 208 West Main Street Niantic, CT 06357
20.	West Main Street	Town of East Lyme P.O. Box 519 Niantic, CT 06357