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 MITCHELL COLLEGE, 40 DEBIASI	:	
DRIVE, NEW LONDON, CONNECTICUT	:	JUNE 21, 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 wireless telecommunications facility at Mitchell College located at 40 Debiasi Drive in New London, Connecticut (the "Property"). Cellco refers to the proposed facility as its "New London South Facility".

II. Factual Background

The Property is an approximately 18.95-acre parcel in New London's Institutional 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 New London and throughout the State of Connecticut. Initially, the proposed New London South Facility will provide wireless service in Cellco's 1900 and 2100 MHz frequency ranges only.

A. Proposed New London South Facility

Cellco proposes to attach two (2) tower masts in the northerly portion of the roof of the Yarnall Athletic Center and Bookstore ("Yarnall Building") building. The towers will support a total of four (4) antennas (two (2) antennas (Model HBXX-6516 DS MHz) on each mast), and four (4) remote radio heads ("RRHs") (two (2) RRHs (Model B25-RRH4x30 and Model B66A RRH4x45) on each mast). Equipment associated with the antennas would be located on a 8.5' x 9.5' platform with a canopy roof. The equipment platform will be surrounded by an eight-foot tall vinyl fence. The towers and antennas will be enclosed within faux chimney structures. The top of each chimney will extend to a height of approximately 51'-6" above ground level (AGL); approximately 10' above the roof of the building. (*See* Cellco's Project Plans included in Attachment 2). Power and telephone service to the New London South Facility will extend from existing service at the Property. Specifications for the New London South Facility antennas and RRHs 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 two (2) small tower masts concealed within faux chimney structures and a steel equipment platform within a fence enclosure 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 facility's equipment platform. No wetlands will be impacted by the installation of the proposed New London South Facility.

2. Visual Effects

The visibility of the proposed New London South Facility would be limited to locations on the Property and the immediately abutting parcel to the east and northeast, all within 0.25 miles of the Yarnall Building, including much of the Mitchell College campus. (*See* Visual Assessment & Photo-Simulations ("Visual Assessment") included in Attachment 4). The equipment platform and related radio and electric equipment would be screened by a vinyl fence. (*See* Attachment 4 – Photo-Simulation No. 5). Based on the results of a Visual Assessment, Cellco has determined that the proposed 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 comply with the maximum permissible exposure (MPE) the standards adopted by the Federal Communications Commission ("FCC"). Included in Attachment 5 are Far Field calculations of worst-case MPE levels for the Cellco antennas described above. This calculation indicates that the facility will

operate well within the RF emission standards established by the FCC (7.85% of the standard at 1900 MHz and 22.30% of the standard for 2100 MHz).

4. Federal Airways & Airspace Summary Report

Included in Attachment 6 of this Petition is a Federal Airways & Airspace Summary Report verifying that the proposed tower masts described above would not constitute an obstruction or hazard to air navigation and that notification to the Federal Aviation Administration (FAA) is not required.

B. Notice to Mayor, Property Owner and Abutting Landowners

On June 21, 2017, a copy of this Petition was sent to New London Mayor Michael Passaro and Mitchell College, the owner of the Property. Notice and a copy of Cellco's 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 Passaro and Mitchell College. Included in Attachment 8 is a sample abutter's letter and the list of those abutting landowners who were sent notice and a copy of the filing.

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 wireless antennas 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

- Proposed Verizon Wireless Facility
- Surrounding Verizon Wireless Facilities
- Municipal Boundary
- Watercourse (CTDEEP)
- Waterbody (CTDEEP)

Base Map Source: CT 2016 Aerial Imagery (CTECO)
Map Scale: 1 inch = 3,000 feet
Map Date: May 2017

3,000 1,500 0 3,000
Feet

Site Vicinity Map

Proposed Wireless Telecommunications Facility
New London South
40 Debiasi Drive
New London, Connecticut

verizon

ALL-POINTS TECHNOLOGY CORPORATION

Legend

- Proposed Verizon Wireless Equipment
- Approximate Subject Property
- Approximate Parcel Boundary (CTDEEP GIS)

Site Schematic

Proposed Wireless Telecommunications Facility
New London South
40 Debiasi Drive
New London, Connecticut

verizon

200 100 0 200 Feet

Map Notes:
Base Map Source: CT 2016 Aerial Imagery (CTECO)
Map Scale: 1 inch = 200 feet
Map Date: June 2017

ALL-POINTS TECHNOLOGY CORPORATION

ATTACHMENT 2

verizon

WIRELESS COMMUNICATIONS FACILITY

NEW LONDON SOUTH
40 DEBIASI DRIVE
NEW LONDON, CT 06320

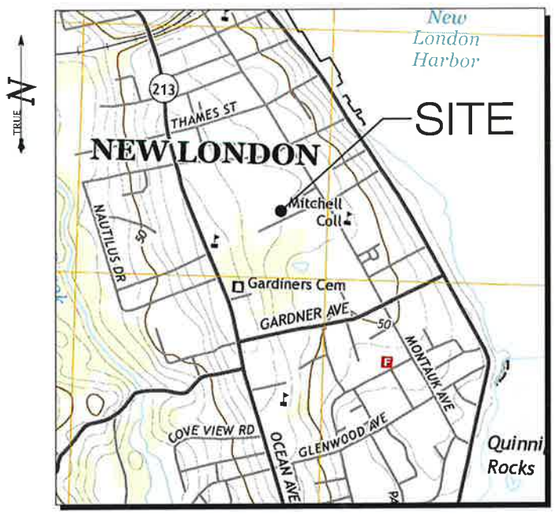
SITE DIRECTIONS

START: 99 EAST RIVER DRIVE
EAST HARTFORD, CONNECTICUT 06108

END: 40 DEBIASI DRIVE
NEW LONDON, CT 06320

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 I-84 E	374 FT
4.	TAKE EXIT 55 FOR CT-2 E	0.4 MI
5.	CONTINUE ONTO CT-2 E	23.4 MI
6.	KEEP LEFT AT FORK TO CONTINUE ON CT-2 E	12.5 MI
7.	TAKE EXIT 28 S FOR I-395 S / CT-2A S	0.3 MI
8.	MERGE ONTO CT-2A E / I-395 S	8.1 MI
9.	USE LEFT LANE TO EXIT 5 ONTO CT-32 S	1.3 MI
10.	MERGE ONTO CT-32 S	4.2 MI
11.	CONTINUE ONTO EUGENE O'NEILL DRIVE	0.6 MI
12.	CONTINUE ONTO GREEN STREET	427 FT
13.	TURN LEFT ONTO TILLEY STREET	197 FT
14.	TURN RIGHT ONTO BANK STREET	0.2 MI
15.	USE THE LEFT 2 LANES TO TURN LEFT ONTO HOWARD STREET	0.5 MI
16.	AT THE TRAFFIC CIRCLE, TAKE 3RD EXIT ONTO SHAW STREET	0.1 MI
17.	AT THE TRAFFIC CIRCLE, TAKE 1ST EXIT ONTO PEQUOT AVENUE	0.8 MI
18.	TURN RIGHT ONTO PLANT STREET, DESTINATION WILL BE ON LEFT	0.3 MI

DRAWING INDEX



LOCATION MAP
SCALE : 1" = 1000'-0"

SITE INFORMATION

VZ SITE NAME: NEW LONDON SOUTH
VZ LOCATION CODE: 20141062971
VZ PROJECT CODE: 296935
LOCATION: 40 DEBIASI DRIVE
NEW LONDON, CT 06320

PROJECT SCOPE: PROPOSED INSTALLATION CONSISTS OF A TOTAL OF FOUR (4) PANEL ANTENNAS, (4) RRHs & (2) SDBs WITHIN TWO (2) ROOFTOP MOUNTED FRP ENCLOSURES IN ADDITION TO A 9'-0"x10'-0" EQUIPMENT LEASE AREA LOCATED AT GRADE

ASSESSORS TAX I.D: F21-44-35

LATITUDE: 41° 19' 42.02" N (41.328339° N)

LONGITUDE: 72° 05' 55.73" W (72.098814° W)

GROUND ELEVATION: 71'± AMSL

PROPERTY OWNER: MITCHELL COLLEGE
437 PEQUOT AVENUE
NEW LONDON, CT 06320

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., P.C.
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	05/22/17	FOR REVIEW: JRM
1	06/19/17	PER VZ COMMENTS: JRM
2		
3		
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: MITCHELL COLLEGE
ADDRESS: 437 PEQUOT AVENUE,
NEW LONDON, CT 06320

VERIZON AT
NEW LONDON SOUTH

SITE ADDRESS: 40 DEBIASI DRIVE
NEW LONDON, CT 06320

APT FILING NUMBER: CT-141-NB9230

LOCATION CODE: 20141062971

PROJECT CODE: 296935

VZW CM: JPT | DRAWN BY: THK

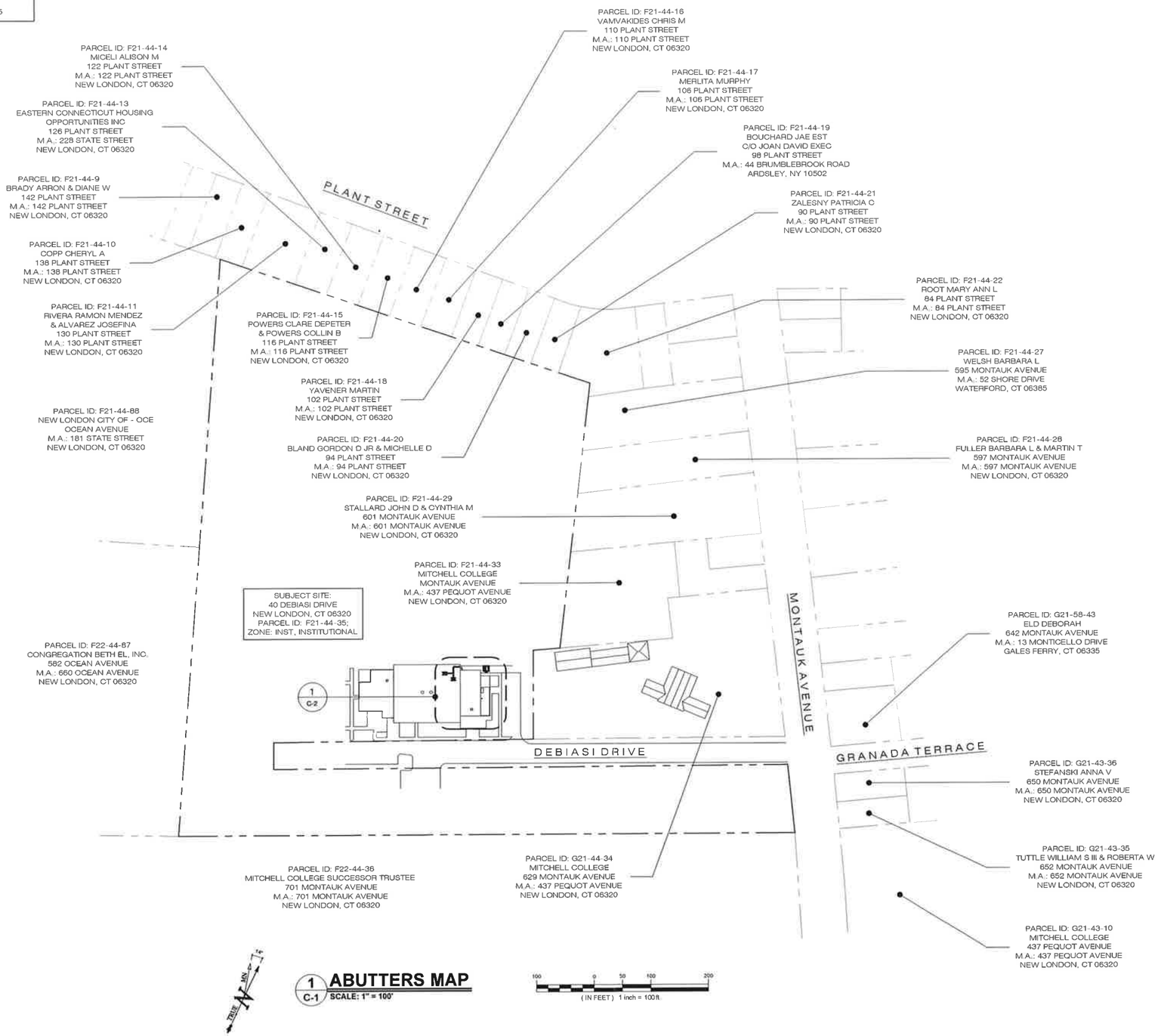
DATE: 05/22/17 | CHECKED BY: JRM

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

ABUTTERS MAP REFERENCE:

1. "MITCHELL COLLEGE RESIDENCE HALL, EXISTING CONDITIONS L-101 & L-102," PREPARED BY EDM ARCHITECTURE, ENGINEERING & MANAGEMENT, 45 S MAIN STREET, UNIONVILLE, CT 06085, DATED: 11/14/07, SCALE 1"=20'
2. "SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS, APPGEO GIS MAP," SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS, 5 CONNECTICUT AVENUE, NORWICH, CT 06360; PARCEL ID: 95-F21-44-35



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	05/22/17	FOR REVIEW: JRM
1	06/19/17	PER VZ COMMENTS: JRM
2		
3		
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: MITCHELL COLLEGE
ADDRESS: 437 PEQUOT AVENUE , NEW LONDON, CT 06320

VERIZON AT
NEW LONDON SOUTH

SITE ADDRESS: 40 DEBIASI DRIVE NEW LONDON, CT 06320

APT FILING NUMBER: CT-141-NB9230

LOCATION CODE: 20141062971

PROJECT CODE: 296935

VZW CM: JPT | DRAWN BY: THK

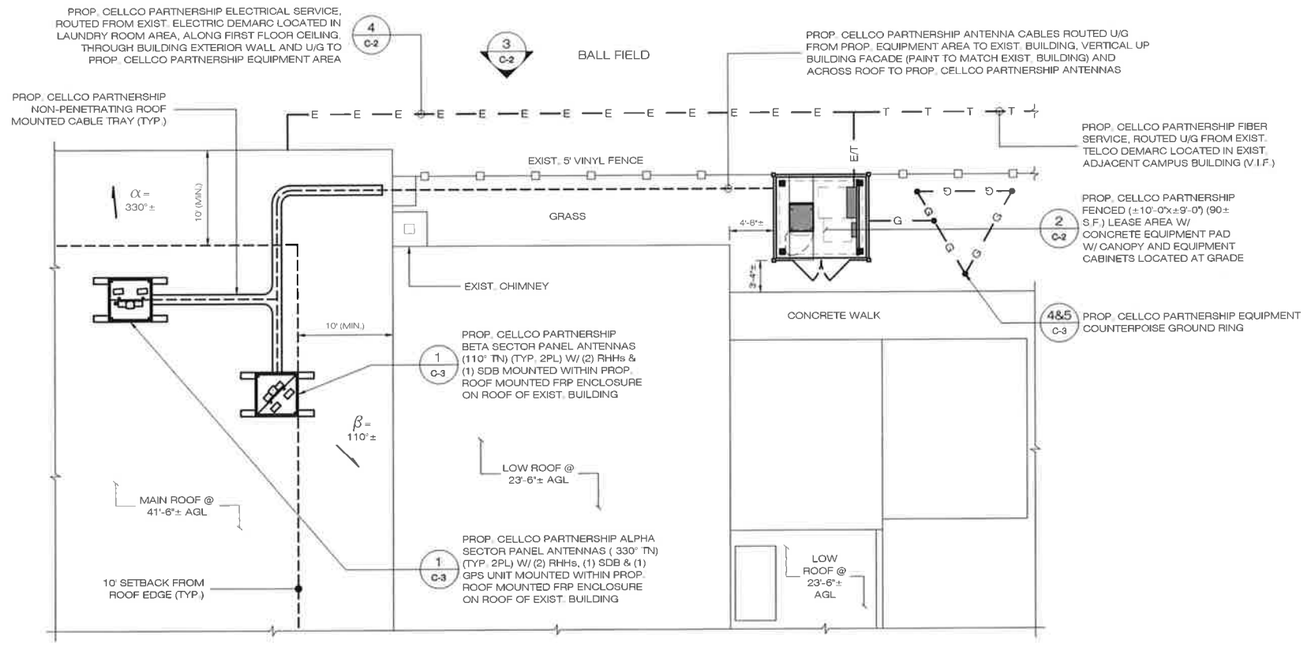
DATE: 05/22/17 | CHECKED BY: JRM

SHEET TITLE:

ABUTTERS MAP

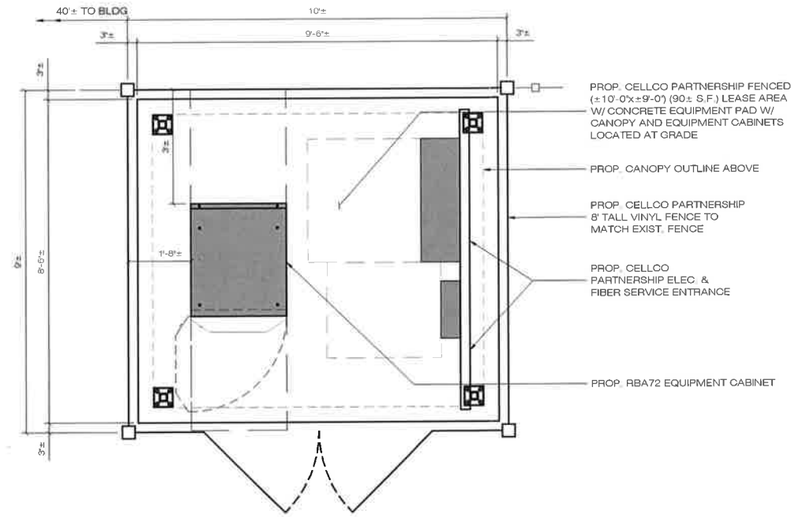
SHEET NUMBER:

C-1



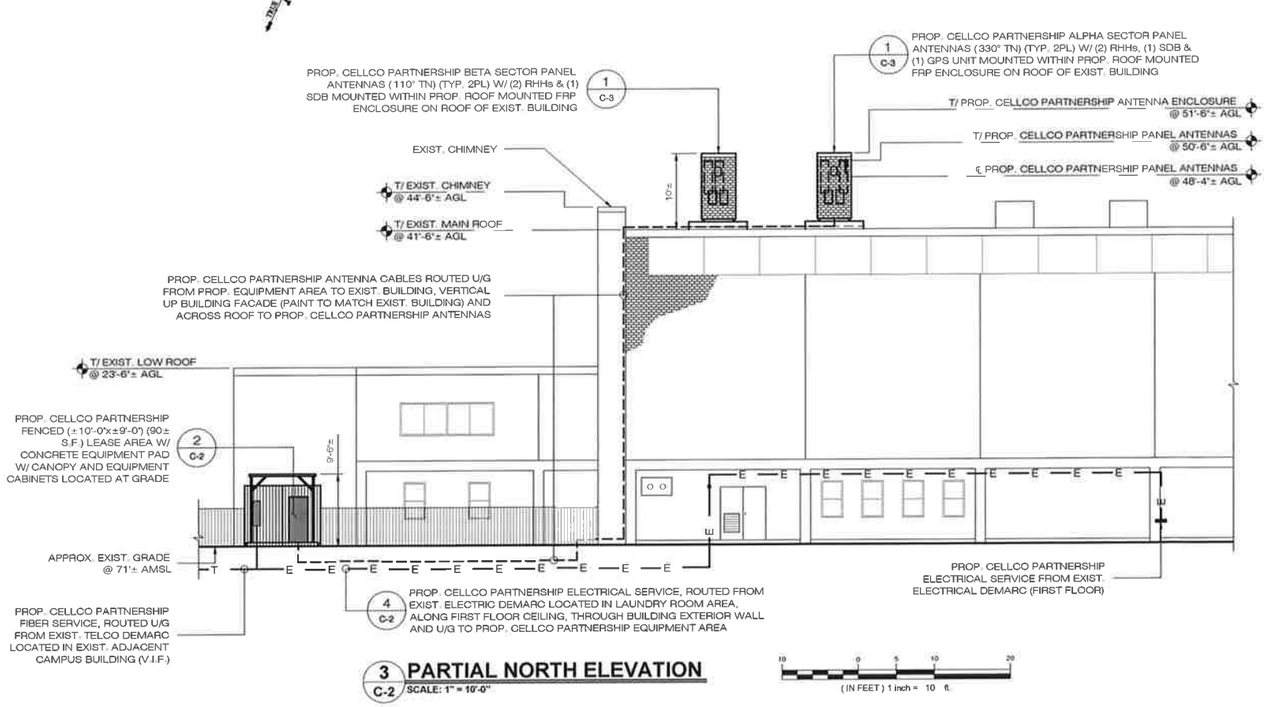
1 C-2 PARTIAL ROOF PLAN
SCALE: 1/16" = 1'-0"

(IN FEET) 1 inch = 8 ft.



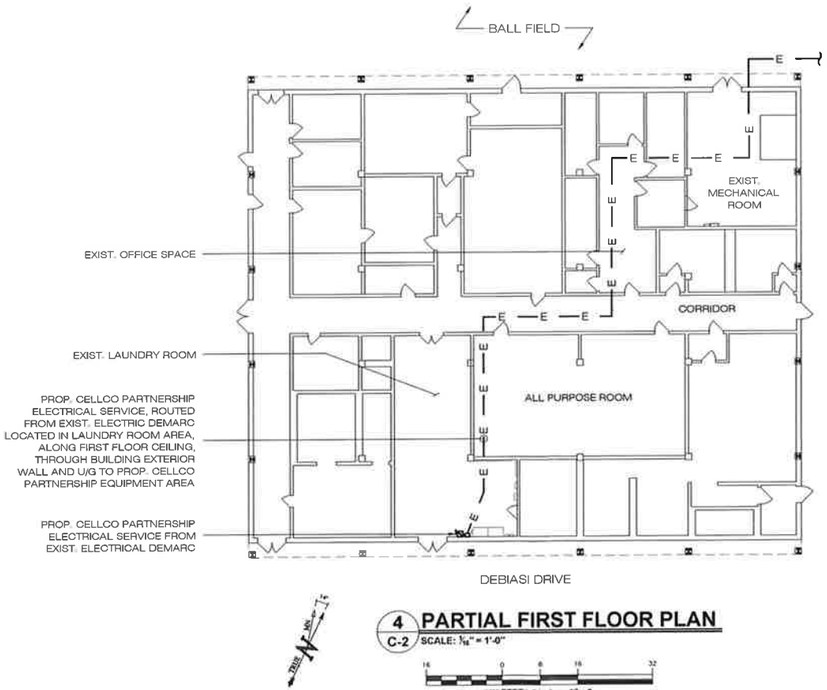
2 C-2 ENLARGED EQUIPMENT PLAN
SCALE: 1/2" = 1'-0"

(IN FEET) 1 inch = 2 ft.



3 C-2 PARTIAL NORTH ELEVATION
SCALE: 1" = 10'-0"

(IN FEET) 1 inch = 10 ft.



4 C-2 PARTIAL FIRST FLOOR PLAN
SCALE: 1/16" = 1'-0"

(IN FEET) 1 inch = 16 ft.

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	05/22/17	FOR REVIEW: JRM
1	06/19/17	PER VZ COMMENTS: JRM
2		
3		
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: MITCHELL COLLEGE
ADDRESS: 437 PEQUOT AVENUE, NEW LONDON, CT 06320

VERIZON AT NEW LONDON SOUTH

SITE ADDRESS: 40 DEBIASI DRIVE NEW LONDON, CT 06320

APT FILING NUMBER: CT-141-NB9230

LOCATION CODE: 20141062971

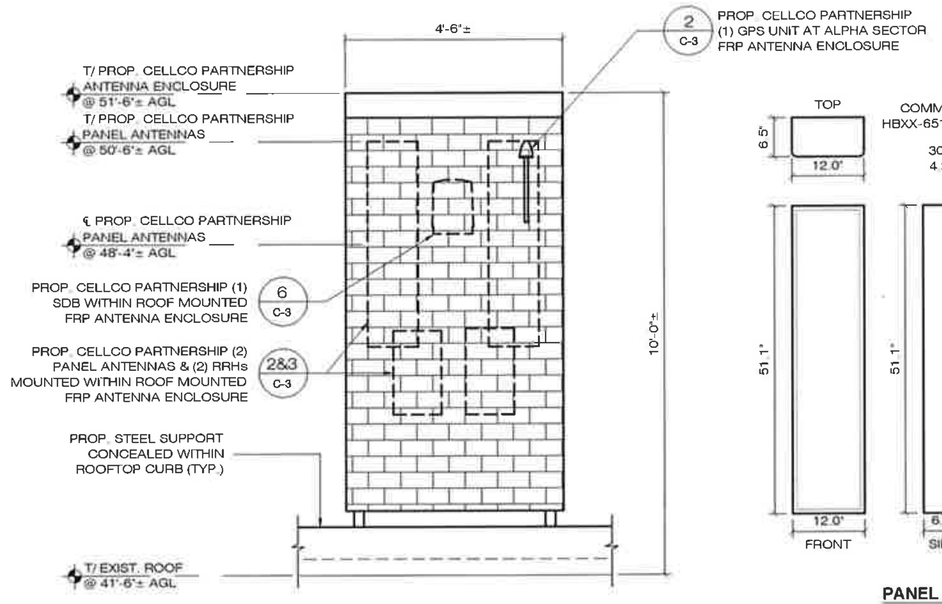
PROJECT CODE: 296935

VZW CM: JPT | DRAWN BY: THK

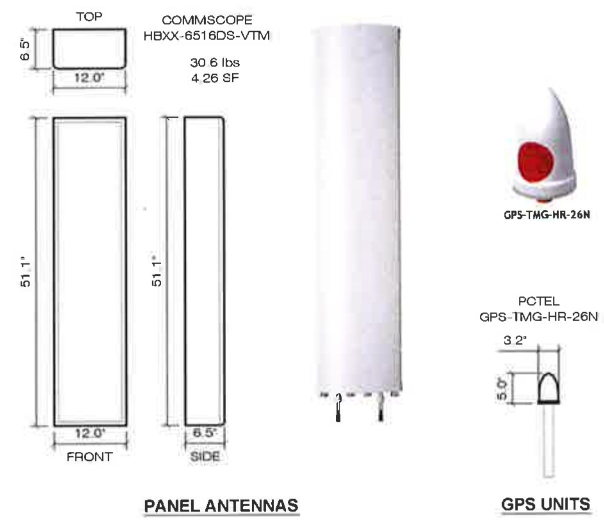
DATE: 05/22/17 | CHECKED BY: JRM

SHEET TITLE:
PARTIAL ROOF, FIRST FLOOR, & EQUIPMENT PLAN & ELEVATION

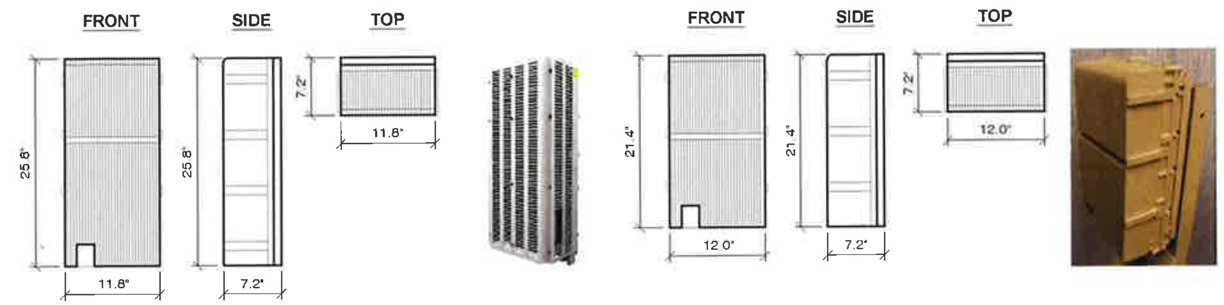
SHEET NUMBER:
C-2



1 C-3 TYPICAL FRP ANTENNA ENCLOSURE
SCALE: ½" = 1'-0"



2 C-3 ANTENNA DETAIL
SCALE : ½" = 1'-0"

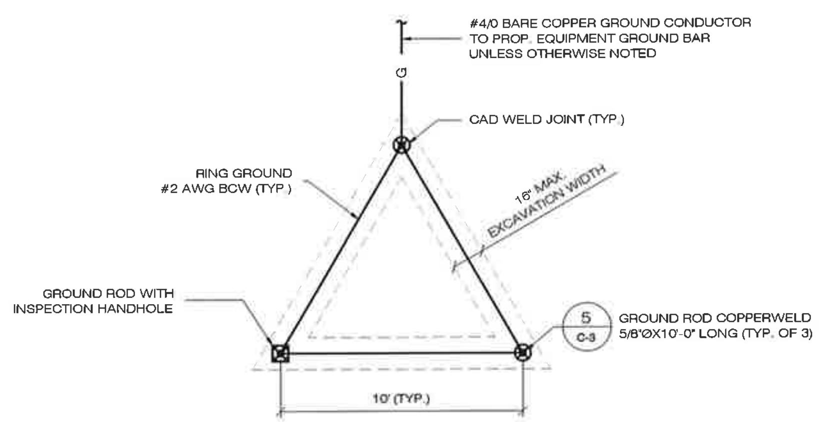


ALCATEL LUCENT B66a RRH (OR EQUAL)
RRH 4x45W (2x90W)
REMOTE RADIO HEAD (RRH)
WxDxH=11.8"x7.2"x25.8" (56.8 Lbs + BRACKET = 72.8lbs TOTAL)

ALCATEL LUCENT B25 RRH (OR EQUAL)
RRH 2x60W PCS
REMOTE RADIO HEAD (RRH)
WxDxH=12.0"x7.2"x21.4" (51.0 Lbs)

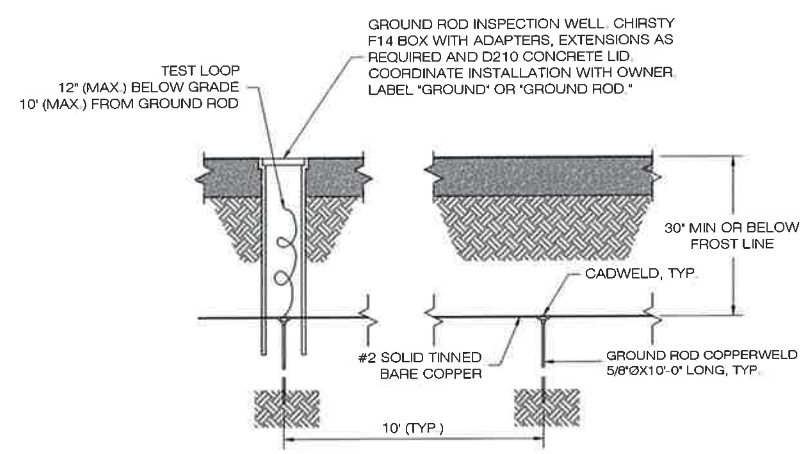
NOTES:
1. DIMENSIONS SUBJECT TO CHANGE BASED UPON AVAILABILITY AT TIME OF CONSTRUCTION.
2. MANUFACTURER'S RECOMMENDED RRH CLEARANCES: FRONT: 36"; SIDES: 12"; BOTTOM: 24"
3. SFPs ARE PROTOCOL SPECIFIC. THE CONNECTIONS BETWEEN RRHs AND BBUs ARE CPRI CONNECTIONS, AND REQUIRE CPRI SFP (ON BOTH ENDS). THE CONNECTIONS BETWEEN BBUs AND 7705 ARE ETHERNET AND REQUIRE ETHERNET SFP (ON BOTH ENDS.)

3 C-3 RRH DETAILS
SCALE: 1" = 1'-0"

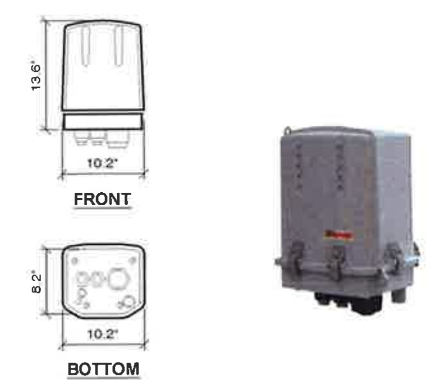


NOTE:
1. EXCAVATED SOILS FOR THE GROUND ROD TRIAD SHALL BE USED AS TRENCH BACKFILL

4 C-3 COUNTERPOISE DETAIL
SCALE: N.T.S.



5 C-3 GROUND ROD
SCALE: N.T.S.



RAYCAP RxxDC-4291-PF-48
OR RAYCAP RxxDC-1064-PF-48
SECTOR DISTRIBUTION BOX (SDB)
WxDxH =10.15"x8.15"x13.58" (8.9 Lbs)

6 C-3 SDB DETAIL
SCALE: 1" = 1'-0"

Cellco Partnership d/b/a
verizon
99 EAST RIVER DRIVE
EAST HARTFORD, CT 06108

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

APPROVALS
LANDLORD: ______ DATE: ______
RF ENGINEER: ______ DATE: ______

CSC DRAWINGS

NO	DATE	REVISION
0	05/22/17	FOR REVIEW: JRM
1	06/19/17	PER VZ COMMENTS: JRM
2		
3		
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: MITCHELL COLLEGE
ADDRESS: 437 PEQUOT AVENUE, NEW LONDON, CT 06320

VERIZON AT NEW LONDON SOUTH
SITE ADDRESS: 40 DEBIASI DRIVE NEW LONDON, CT 06320
APT FILING NUMBER: CT-141-NB9230
LOCATION CODE: 20141062971
PROJECT CODE: 296935
VZW CM: JPT | DRAWN BY: THK/JM
DATE: 05/22/17 | CHECKED BY: JRM

SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER:
C-3

ATTACHMENT 3

Product Specifications

COMMSCOPE®

HBXX-6516DS-VTM | HBXX-6516DS-A2M

Single Band Quad Port Antenna, 1710–2180 MHz, 65° horizontal beamwidth, RET compatible

- Each DualPol® array can be independently adjusted for greater flexibility
- Excellent gain, VSWR, front-to-back ratio, and PIM specifications for robust network performance
- Ideal choice for site collocations and tough zoning restrictions
- Great solution to maximize network coverage and capacity

Electrical Specifications

Frequency Band, MHz	**1710–1880**	**1850–1990**	**1920–2180**
Gain, dBi	17.7	18.0	18.0
Beamwidth, Horizontal, degrees	67	66	64
Beamwidth, Vertical, degrees	7.5	7.0	6.6
Beam Tilt, degrees	0–10	0–10	0–10
USLS (First Lobe), dB	18	18	18
Front-to-Back Ratio at 180°, dB	30	30	30
CPR at Boresight, dB	22	22	21
CPR at Sector, dB	8	9	9
Isolation, dB	30	30	30
VSWR | Return Loss, dB	1.4 | 15.6	1.4 | 15.6	1.4 | 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350
Polarization	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	**1710–1880**	**1850–1990**	**1920–2180**
Gain by all Beam Tilts, average, dBi	17.2	17.2	17.5
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.3	±0.5
Gain by Beam Tilt, average, dBi	0 ° | 17.0	0 ° | 17.1	0 ° | 17.4
	5 ° | 17.3	5 ° | 17.4	5 ° | 17.7
	10 ° | 17.0	10 ° | 17.0	10 ° | 17.2
Beamwidth, Horizontal Tolerance, degrees	±2.7	±2.3	±3.5
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4	±0.4
USLS, beampeak to 20° above beampeak, dB	18	19	19
Front-to-Back Total Power at 180° ± 30°, dB	26	26	26
CPR at Boresight, dB	22	22	22
CPR at Sector, dB	9	9	9

* 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

Antenna Type	Sector
Band	Single band
Brand	DualPol®
Operating Frequency Band	1710 – 2180 MHz
Performance Note	Outdoor usage

Product Specifications

HBXX-6516DS-VTM | HBXX-6516DS-A2M

Mechanical Specifications

Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Low loss circuit board
Radome Material	PVC, UV resistant
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, total	4
Wind Loading, frontal	419.0 N @ 150 km/h 94.2 lbf @ 150 km/h
Wind Loading, lateral	113.0 N @ 150 km/h 25.4 lbf @ 150 km/h
Wind Loading, rear	488.0 N @ 150 km/h 109.7 lbf @ 150 km/h
Wind Speed, maximum	241 km/h | 150 mph

Dimensions

Depth	166.0 mm | 6.5 in
Length	1297.0 mm | 51.1 in
Width	305.0 mm | 12.0 in
Net Weight, without mounting kit	13.9 kg | 30.6 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 2.0 Actuator	HBXX-6516DS-A2M

Packed Dimensions

Depth	292.0 mm | 11.5 in
Length	1427.0 mm | 56.2 in
Width	402.0 mm | 15.8 in
Shipping Weight	23.5 kg | 51.8 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

Included Products

600899A-2 — Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

ALCATEL-LUCENT B25 RRH4X30

Alcatel-Lucent Band 25 Remote Radio Head 4x30W is the new 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 B25 RRH4x30 allows operators to have a compact radio solution to deploy LTE in the PCS band (1.9 GHz, 3GPP band 25), providing them with the means to achieve high capacity, high quality and high coverage with minimum site requirements.

The Alcatel-Lucent B25 RRH4x30 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, LTE carriers from 3 MHz up to 20 MHz and up to 65 MHz instantaneous bandwidth.

The Alcatel-Lucent B25 RRH4x30 is a near zero-footprint solution and operates noise free, simplifying negotiations with site property owners and minimizing environmental impacts.

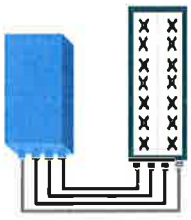
Its compactness and slim design makes the Alcatel-Lucent B25 RRH4x30 easy to install close to the antenna: operators can therefore locate this Remote Radio Head where RF design conditions are deemed ideal, minimizing trade-offs between available sites and RF optimum sites, together with reducing the RF feeder needs and installation costs.

FEATURES

- Supporting LTE in 1.9 GHz band (PCS, 3GPP band 2 & 25)
- LTE 2Tx or 4Tx MIMO (SW switchable)
- Output power: Up to 2x60W or 4x30W
- Ready for 3, 5, 10, 15 or 20MHz LTE carrier operation with 4Rx Diversity
- Ready to support up to 4 carriers anywhere in 65MHz instantaneous bandwidth
- Convection-cooled (fan-less)
- Supports AISG 2.0 devices (RET, TMA) through RS485 or RF ports

BENEFITS

- Compact to reduce additional footprint when adding LTE in PCS band
- MIMO scheme operation selection (2Tx or 4Tx) by software only
- Full flexibility for multiple carriers operation over entire PCS spectrum
- Improves downlink spectral efficiency and cell edge throughput through MIMO4
- Increases LTE coverage thanks to 4-way Rx 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

Alcatel·Lucent

Features & performance	
Number of TX/RX paths	4 duplexed (either 4T4R or 2T4R by SW)
Frequency band	3GPP bands 2 & 25 (PCS-G) DL: 1930 - 1995 MHz UL: 1850 - 1915 MHz
Instantaneous bandwidth - #carriers	65MHz – Up to 4 LTE carriers (in 40MHz occupied bandwidth)
LTE carrier bandwidth	3, 5, 10, 15 or 20 MHz
RF output power	2x60W or 4x30W (by SW)
Noise figure (3GPP band 2) **RX Diversity scheme**	2.0 dB typ. (<2.5 dB max) 2 or 4 way Rx diversity
Sizes (HxWxD)(w/ solar shield) in mm (in.) **Volume (w/ solar shield) in L** **Weight (w/ solar shield) in kg (lb)**	538 x 304 x 182 (21.2" x 12.0" x 7.2") 30 24 (53)
DC voltage range **DC power consumption**	-40.5 to -57V at full performance, -38 to -57V with relaxation on power consumption 580W typical @100% RF load
Environmental conditions **Wind load (@150km/h or 93mph)**	-40°C (-40°F) /+55°C (+131°F) IP65 Frontal: <200N / Lateral :<150N
Antenna ports	4 ports 7/16 DIN female (50 ohms) VSWR < 1.5 (> 14dB)
CPRI ports	2 CPRI ports (HW ready for Rate7 / 9.8 Gbps)
AISG interfaces	1 AISG2.0 output (RS485), +24V/2A DC power Integrated Smart Bias Tees (x2)
Misc. Interfaces	1 external alarms connector (4 alarms) 4 RF Tx & 4 RF Rx monitor ports 1 DC connector (2 pins)
Installation conditions	Pole and wall mounting
Regulatory compliance	3GPP 36.141 / 3GPP 36.113 / GR-1089-CORE / GR-3108-CORE / UL 60950-1 / FCC Part 27

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.

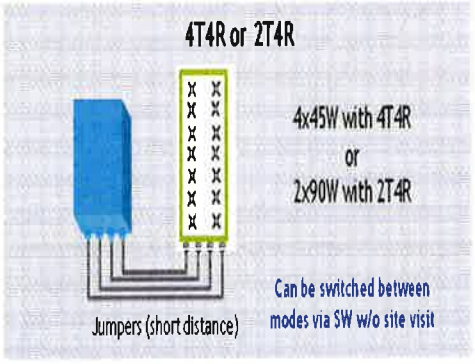
The Alcatel-Lucent B66a RRH4x45 product has four transmit RF paths, offering the possibility to **select, via software only, 2Tx or 4Tx MIMO configurations** with either 2x90W or 4x45W RF output power. It also supports 4-way Rx diversity at the 70 MHz instantaneous bandwidth.

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

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

NEW LONDON SOUTH
40 DEBIASI DRIVE
NEW LONDON, CT 06320

Prepared in May 2017 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 4 wireless telecommunications facility ("Facility") at 40 Deblasi Drive in New London, Connecticut (the "Host Property").

Project Setting

The Host Property is located east of Ocean Avenue (State Highway 213) and west of Montauk Avenue on the campus of Mitchell College. *See Figure 1 – Site Schematic Map.* Beyond the school grounds, the surrounding land use is primarily residential. The Host Property is currently developed with multiple structures and recreational fields associated with the college.

The proposed Facility would include four (4) panel antennas and remote radio heads split over two sectors on the roof of the northeastern-most campus building. All of the rooftop mounted equipment would be surrounded by radio frequency transparent enclosures designed to resemble chimneys. The faux chimneys would be painted to match the existing building façade and extend approximately 10 feet above the roof. Associated support equipment would be placed within a 9-foot by 10-foot ground lease area at grade off the building's northeast corner. The ground equipment would be enclosed by a white, vinyl-clad fence and protected by an overhead canopy. Utilities would be routed to the existing building via underground connections. The proposed Facility components locations are illustrated in *Figure 2 – Proposed Equipment Location and Elevation Map.*

Methodology

On April 23, 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

- Proposed Verizon Wireless Equipment
- Approximate Subject Property
- Approximate Parcel Boundary (CTDEEP GIS)

Site Schematic

Proposed Wireless Telecommunications Facility
New London South
40 Debiasi Drive
New London, Connecticut

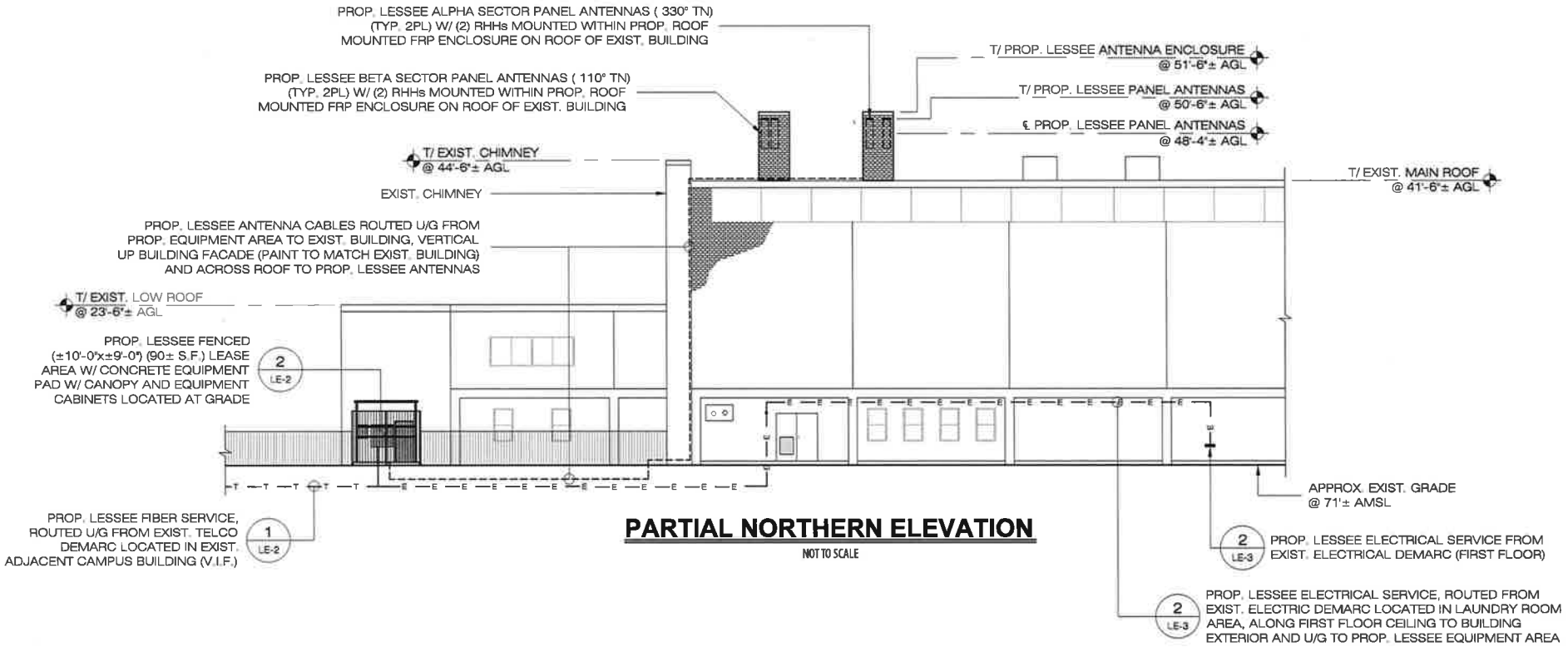
verizon

N
W E
S

200 100 0 200
Feet

Map Notes:
Base Map Source: CT 2016 Aerial Imagery (CTECO)
Map Scale: 1 Inch = 200 feet
Map Date: May 2017

ALL-POINTS TECHNOLOGY CORPORATION



PARTIAL NORTHERN ELEVATION

NOT TO SCALE

FIGURE 2: PROPOSED ELEVATION PLAN

Photograph Locations

Five (5) of the seven (7) 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	Host Property*	Northeast	±356 Feet
2	Host Property*	North	±253 Feet
3	Host Property	Northwest	±301 Feet
4	Michael's Dairy Parking Lot	Southwest	±353 Feet
5	Host Property	Southwest	±144 Feet
6	Host Property	South	±350 Feet
7	Toby May Park	Southeast	±0.20 Mile

**Not visible from this location*

Conclusions

The visibility of the proposed Facility would be limited to locations on the Host Property and immediately abutting properties to the east and northwest, all within less than 0.25 mile and from locations where the existing building can be seen today. Enclosing the proposed installations within faux chimneys would create an appearance that the Facility is an original part of the building construction.

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 | Year-Round Visibility | Not Visible

N W E S

300 150 0 300 Feet

1 inch = 300 feet

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 5/26/2017

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
1	**HOST PROPERTY**	**NORTHEAST**	**+/- 356 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 5/26/2017

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
2	**HOST PROPERTY**	**NORTH**	**+/- 253 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 5/26/2017

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
3	**HOST PROPERTY**	**NORTHWEST**	**+/- 301 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
3	**HOST PROPERTY**	**NORTHWEST**	**+/- 301 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 5/26/2017

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4	**MICHAEL'S DAIRY PARKING LOT**	**SOUTHWEST**	**+/- 353 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
4	**MICHAEL'S DAIRY PARKING LOT**	**SOUTHWEST**	**+/- 353 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 5/26/2017

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
5	**HOST PROPERTY**	**SOUTHWEST**	**+/- 144 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
5	**HOST PROPERTY**	**SOUTHWEST**	**+/- 144 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 5/26/2017

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
6	**HOST PROPERTY**	**SOUTH**	**+/- 350 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
6	**HOST PROPERTY**	**SOUTH**	**+/- 350 FEET**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 5/24/2017

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
7	**TOBY MAY PARK**	**SOUTHEAST**	**+/- 0.20 MILE**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE
7	**TOBY MAY PARK**	**SOUTHEAST**	**+/- 0.20 MILE**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

ATTACHMENT 5

Far Field Approximation
with downtilt variation

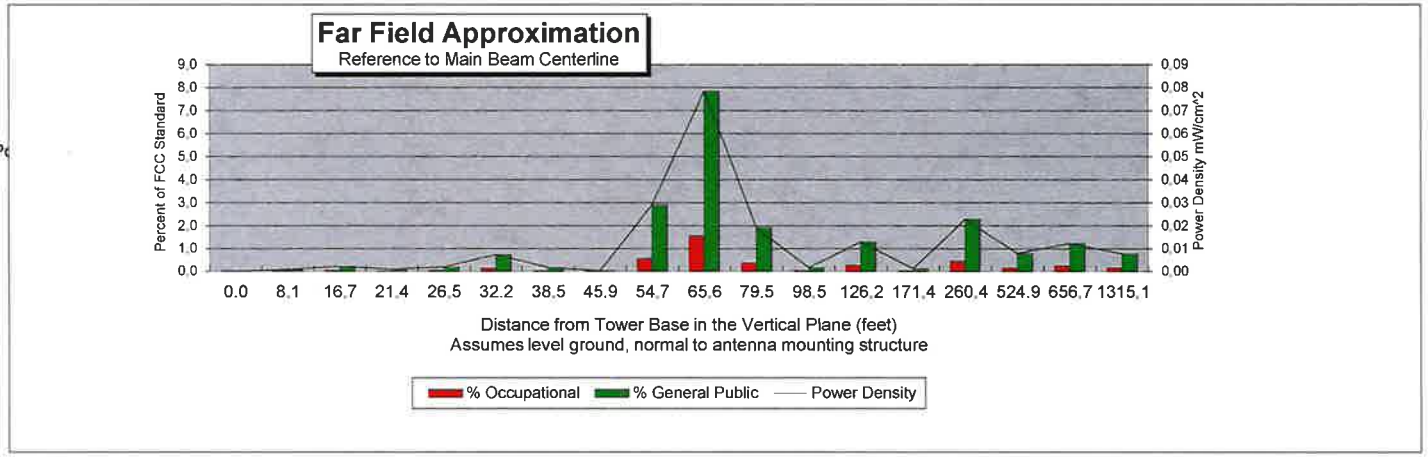
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	New London South, CT
Site #:	
Date:	06/19/17
Name:	Ray Paradis
File Name:	New London SOuth, CT - FF Pc

Operating Freq. (MHz)	**1971.0**
Antenna Height (ft):	**48.9**
Antenna Gain (dBi):	**17.1**
Antenna Size (in.):	**50.9**
Downtilt (degrees):	**0.0**
Feedline Loss (dB):	**2.0**
Power @ J4 (w):	**2451.0**
Number of channels:	**1**



Calc Angle	90.0	80.0	70.0	65.0	60.0	55.0	50.0	45.0	40.0	35.0	30.0	25.0	20.0	15.0	10.0	5.0	4.0	2.0	
Solve for r, dx to antenna	45.9	46.6	48.9	50.7	53.0	56.1	59.9	64.9	71.4	80.1	91.8	108.7	134.3	177.4	264.5	526.9	658.3	1315.9	
Distance from Antenna Structure Base in Horizontal plane	0.0	8.1	16.7	21.4	26.5	32.2	38.5	45.9	54.7	65.6	79.5	98.5	126.2	171.4	260.4	524.9	656.7	1315.1	
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	
dB down from centerline (referenced to centerline)	55.98	40.3	35.43	39.23	35.29	28.8	34.96	41.07	20.67	15.36	20.29	29.81	18.68	27.25	10.34	8.98	5.12	1.14	
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.08	0.02	0.00	0.01	0.00	0.02	0.01	0.01	0.01	
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.6	1.6	0.4	0.0	0.3	0.0	0.5	0.2	0.2	0.2	
Percent of General Population Standard	0.0	0.1	0.2	0.1	0.2	0.7	0.2	0.0	2.9	7.8	1.9	0.2	1.3	0.1	2.3	0.8	1.2	0.8	

Antenna Type HBXX-6516DS-A2M
Max% 7.85%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Pc
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

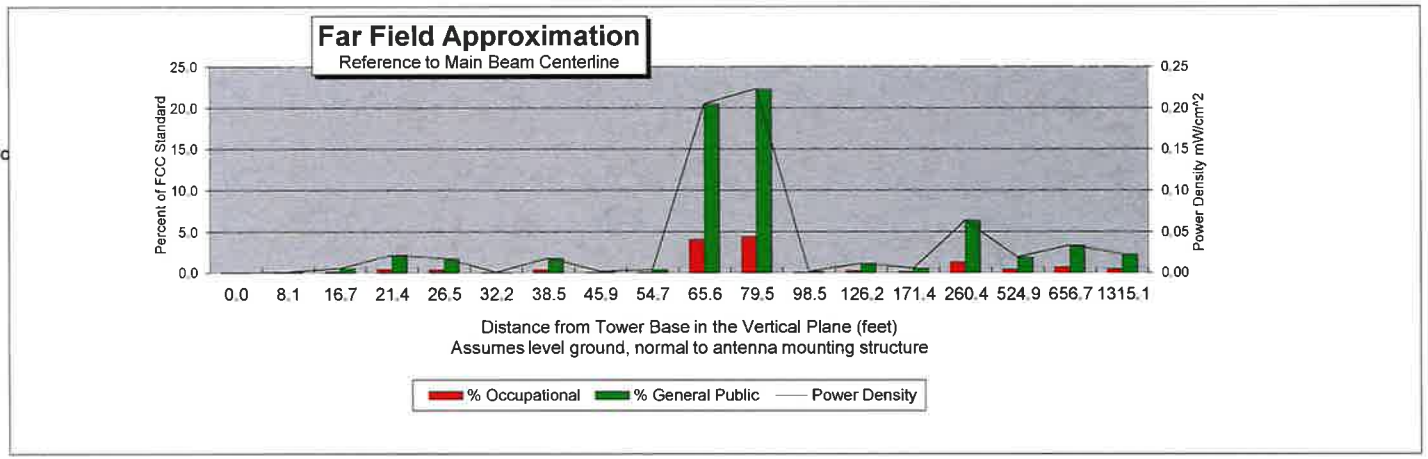
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	New London South, CT
Site #:	
Date:	06/19/17
Name:	Ray Paradis
File Name:	New London South, CT - FF Pc

Operating Freq. (MHz)	**2145.0**
Antenna Height (ft):	**48.9**
Antenna Gain (dBi):	**17.8**
Antenna Size (in.):	**50.9**
Downtilt (degrees):	**0.0**
Feedline Loss (dB):	**2.0**
Power @ J4 (w):	**6029.0**
Number of channels:	**1**



Calc Angle	90.0	80.0	70.0	65.0	60.0	55.0	50.0	45.0	40.0	35.0	30.0	25.0	20.0	15.0	10.0	5.0	4.0	2.0
Solve for r, dx to antenna	45.9	46.6	48.9	50.7	53.0	56.1	59.9	64.9	71.4	80.1	91.8	108.7	134.3	177.4	264.5	526.9	658.3	1315.9
Distance from Antenna Structure Base in Horizontal plane	0.0	8.1	16.7	21.4	26.5	32.2	38.5	45.9	54.7	65.6	79.5	98.5	126.2	171.4	260.4	524.9	656.7	1315.1
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2
dB down from centerline (referenced to centerline)	68.5	44.4	36.3	29.5	30.1	50.8	28.93	39.38	34.62	15.78	14.22	35.19	23.99	24.84	10.47	9.81	5.35	1.04
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.02	0.02	0.00	0.02	0.00	0.00	0.20	0.22	0.00	0.01	0.01	0.06	0.02	0.03	0.02
Percent of Occupational Standard	0.0	0.0	0.1	0.4	0.3	0.0	0.4	0.0	0.1	4.1	4.5	0.0	0.2	0.1	1.3	0.4	0.7	0.5
Percent of General Population Standard	0.0	0.1	0.5	2.2	1.7	0.0	1.8	0.1	0.3	20.5	22.3	0.1	1.1	0.5	6.4	1.9	3.3	2.3

Antenna Type HBXX-6516DS-A2M
Max% 22.30%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Pc
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

ATTACHMENT 6

```
**************************************************
*            Federal Airways & Airspace          *
*        Summary Report: Existing Structure      *
*              Non-Antenna Structure             *
**************************************************

Airspace User: Your Name

File: NEW_LONDON_SOUTH_CT

Location:  New London, CT

Latitude:  41°-19'-41.87"          Longitude: 72°-05'-55.68"

SITE ELEVATION AMSL.....70 ft.
STRUCTURE HEIGHT.........52 ft.
OVERALL HEIGHT AMSL.....122 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.

  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: GON: GROTON-NEW LONDON
Type: A   RD: 12697.36   RE: 8.7
  FAR 77.17(a)(1):          DNE
```

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

The structure is within VFR - Traffic Pattern Airspace Climb/Descent Area. Structures exceeding the greater of 350' AAE, 77.17(a)(2), or VFR horizontal and conical surfaces will receive a hazard determination from the FAA. Maximum AMSL of Climb/Descent Area is 359 feet.

VFR TRAFFIC PATTERN AIRSPACE FOR: 0B8: ELIZABETH FIELD
Type: A RD: 32408.37 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 1000 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
69CT	HEL	THE SHORE	95.98	4.81	+111	

No Impact to Private Landing Facility
Structure is beyond notice limit by 24226 feet.

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	86.59	12884	+113	CT	GROTON	.50	
GON	ATCT	Y	A/G	85.09	14624	+35	CT	GROTON-NEW LONDON	.14	
GON	LOCALIZER	U	111.3	78.38	17482	+115	CT	RWY 05 GROTON-NEW	.38	48
ORW	VOR/DME	I	110.0	18.13	87470	-188	CT	NORWICH	-.12	
SEY	VOR/DME	R	117.8	112.36	155241	+22	RI	SANDY POINT	.01	
HTO	VORTAC	I	113.6	201.86	160768	+100	NY	HAMPTON	.04	
MAD	VOR/DME	R	110.4	267.95	163080	-98	CT	MADISON	-.03	
HFD	VOR/DME	R	114.9	312.98	167630	-727	CT	HARTFORD	-.25	
PVD	RADAR	Y	2735.	43.61	198072	-444	RI	THEODORE FRANCIS	-.13	
QVH	RADAR ARSR	Y	1326.9	224.52	230514	-229	NY	RIVERHEAD	-.06	

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: WXLM @ 6722 meters.

Airspace® Summary Version 17.3.436

04-28-2017
09:32:40

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

June 21, 2017

Via Certificate of Mailing

Michael Passaro, Mayor
City of New London
181 State Street
New London, CT 06320

Re: **Proposed Installation of a Wireless Telecommunications Facility at Mitchell College, 40 Debiasi Drive, New London, Connecticut**

Dear Mayor Passaro:

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 wireless telecommunications facility at Mitchell College, 40 Debiasi Drive in New London (the "Property"). The facility will consist of two (2) tower/masts attached to the roof of the building and supporting two (2) antennas each. The tower/masts would be screened by radio frequency transparent faux chimney enclosures. The top of the antenna enclosures would extend to a height of approximately 51'-6" above grade, approximately 10' above the top of the roof. Equipment associated with the antennas will be on the ground, behind the building within an 8' tall 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.

16581157-v1

Robinson+Cole

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

Sincerely,

Kenneth C. Baldwin

Attachment

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

June 21, 2017

Via Certificate of Mailing

Mitchell College
437 Pequot Avenue
New London, CT 06320

Re: **Proposed Installation of a Wireless Telecommunications Facility at Mitchell College, 40 Debiasi Drive, New London, Connecticut**

Dear Sir or Madam:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Today, Cellco filed a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a new wireless telecommunications facility at Mitchell College, 40 Debiasi Drive in New London (the "Property"). The facility will consist of two (2) tower/masts attached to the roof of the building and supporting two (2) antennas each. The tower/masts would be screened by radio frequency transparent faux chimney enclosures. The top of the antenna enclosures would extend to a height of approximately 51'-6" above grade, approximately 10' above the top of the roof. Equipment associated with the antennas will be on the ground, behind the building within an 8' tall 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.

16581190-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

June 21, 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 Mitchell College, 40 Debiasi Drive, New London, 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 wireless telecommunications facility at Mitchell College, 40 Debiasi Drive in New London (the "Property"). The facility will consist of two (2) tower/masts attached to the roof of the building and supporting two (2) antennas each. The tower/masts would be screened by radio frequency transparent faux chimney enclosures. The top of the antenna enclosures would extend to a height of approximately 51'-6" above grade, approximately 10' above the top of the roof. Equipment associated with the antennas will be on the ground, behind the building within an 8' tall 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 City 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

40 DEBIASI DRIVE
NEW LONDON, CONNECTICUT

	Property Address	**Owner's and Mailing Address**
1.	629 Montauk Avenue	Mitchell College 437 Pequot Avenue New London, CT 06320
2.	Montauk Avenue	Mitchell College 437 Pequot Avenue New London, CT 06320
3.	601 Montauk Avenue	John D. and Cynthia M. Stallard 601 Montauk Avenue New London, CT 06320
4.	597 Montauk Avenue	Barbara and Martin Fuller 597 Montauk Avenue New London, CT 06320
5.	595 Montauk Avenue	Barbara L. Welsh 52 Shore Drive Waterford, CT 06385
6.	84 Plant Street	Mary Ann L. Root 84 Plant Street New London, CT 06320
7.	90 Plant Street	Patricia C. Zalesny 90 Plant Street New London, CT 06320
8.	94 Plant Street	Michelle and Gordon D. Bland, Jr. 94 Plant Street New London, CT 06320
9.	98 Plant Street	Jae Bouchard Estate c/o Joan David, Exec. 44 Brumblebrook Road Ardsley, NY 10502

	Property Address	Owner's and Mailing Address
10.	102 Plant Street	Martin Yavener 102 Plant Street New London, CT 06320
11.	106 Plant Street	Murphy Merlita 106 Plant Street New London, CT 06320
12.	110 Plant Street	Chris M. Vamvakides 110 Plant Street New London, CT 06320
13.	116 Plant Street	Clare Depeter Powers and Collin Powers 116 Plant Street New London, CT 06320
14.	122 Plant Street	Alison M. Miceli 122 Plant Street New London, CT 06320
15.	126 Plant Street	Eastern Connecticut Housing Opportunities Inc. 228 State Street New London, CT 06320
16.	130 Plant Street	Josefina Alvarez and Ramon Mendez Rivera 130 Plant Street New London, CT 06320
17.	138 Plant Street	Cheryl A. Copp 138 Plant Street New London, CT 06320
18.	142 Plant Street	Arron and Diane W. Brady 142 Plant Street New London, CT 06320
19.	Ocean Avenue	City of New London – OCE 181 State Street New London, CT 06320
20.	582 Ocean Avenue	Congregation Beth EL Inc. 660 Ocean Avenue New London, CT 06320

	Property Address	Owner's and Mailing Address
21.	701 Montauk Avenue	Mitchell College Successor Trustee 701 Montauk Avenue New London, CT 06320
22.	437 Pequot Avenue	Mitchell College 437 Pequot Avenue New London, CT 06320
23.	652 Montauk Avenue	Roberta and William S. Tuttle III 652 Montauk Avenue New London, CT 06320
24.	650 Montauk Avenue	Anna Stefanski 650 Montauk Avenue New London, CT 06320
25.	642 Montauk Avenue	Deborah Eld 13 Monticello Drive Gales Ferry, CT 06335