51 Adler Street
Medway, MA 02053

Sean Conway
Principal Engineer-RE / Regulatory

May 8, 2025

Milton Select Board
c/o Office of the Town Administrator
Town Office Building
525 Canton Avenue
Milton, MA 02186

Re: Verizon Small Cell Wireless Facilities Application

Dear Select Board and Town Administrator,

Please find enclosed an application for approval to install one (1) small cell wireless facility on an existing utility pole within the public right of way. This submission includes the $500 application fee and supporting materials, in accordance with the Town of Milton's Application Requirements and Aesthetic Standards for Small Wireless Facility Installations, dated April 10, 2019.

Thank you for your attention to this matter. If you have any questions, please do not hesitate to contact me.

Sincerely,

Yours sincerely,

Sean Conway

Sean Conway
Principal Engineer-RE / Regulatory
[redacted]

Attachments: Application and Exhibits

verizon

VERIZON WIRELESS

SMALL CELL WIRELESS FACILITIES APPLICATION DATE SUBMITTED:

3/17/2025

PROPOSED LOCATION:

Site Name	Street Address	Pole #
MILTON_MA_SC01	150 Thacher Street	18

Milton Requirement: Applicant's name, address, phone number and email address.

Verizon Response: Verizon Wireless New England Network Real Estate ("Verizon")
51 Adler Street
Medway, MA 02053
c/o Sean Conway, Principal Engineer-RE/ Regulatory
[redacted]

Milton Requirement: Names, addresses, telephone numbers, and email addresses of anyone acting on behalf of the Applicant with respect to the application.

Verizon Response: Christopher Tracy | Vice President -Site Acquisiton
750 W Center St, Suite 301,
West Bridgewater, MA 02379
[redacted]

Milton Requirement: Provide detailed drawings and descriptions of the equipment to be installed, whether mounted on poles or on the ground, or otherwise.

Verizon Response: Please reference **Exhibit A, Location Plans,** attached hereto.

Milton Requirement: Provide Type of equipment.

Verizon Response: Please reference **Exhibit A, Location Plans,** attached hereto.

Milton Requirement: Provide specifications of equipment (including but not limited to dimensions and weight).

Verizon Response: Please reference **Exhibit A, Location Plans,** attached hereto. Please also reference **Exhibit J, Antenna Data Sheet.**

Milton Requirement: Provide equipment mount type and materials.

Verizon Response: Please reference **Exhibit A, Location Plans,** attached hereto.

Milton Requirement: Provide power source or sources for equipment, including necessary wires, cables, and conduits.

Verizon Response: Please reference **Exhibit A, Location Plans,** attached hereto.

Milton Requirement: Provide expected life of equipment.

Verizon Response: Approximately 2+ years.

Milton Requirement: Provide coverage area of equipment, including: amount of antennas, antenna model, antenna length, RRU count and power, antenna height and typical coverage area radius.

Verizon Response: Small cells typically have a range from ten meters to several hundred meters. Please reference **Exhibit A, Location Plans,** attached hereto for information regarding the proposed remote radio heads. Please also reference **Exhibit B, RF Emissions Letter**, attached hereto.

Milton Requirement: Provide call capacity of equipment, including Total RRUs, max bandwidth per RRU, MIMO per RRU, and backhaul rate per RRU.

Verizon Response: Verizon is proposing installation of a 4G antenna, which is 500 times faster than 3G. It will support high-definition mobile TV, video conferencing and more. When a mobile device is moving, such walking or driving using a cell phone, the top speed can be 10s of mbps, and when the mobile device is stationary, it can be 100s of mbps. Because users will be sharing available sector capacity among others, observable speed experiences by users will typically be in 10s -100s of mbps.

Milton Requirement: Provide hardening, including: if there is a battery backup, or generator back-up, and if there are multiple fiber paths to switch.

Verizon Response: There is no battery backup, and no generators or multiple fiber paths to switch for the proposed small cell.

Milton Requirement: Provide renderings and elevation of equipment.

Verizon Response: Please reference **Exhibit A, Location Plans,** attached hereto.

Milton Requirement: Provide detailed map with locations of the poles or other structures on which equipment is to be located, including specific pole identification number, if applicable, and the areas it will service.

Verizon Response: Please reference **Exhibit A, Location Plans,** attached hereto.

Milton Requirement: Provide detailed map illustrating existing and proposed small cell installations within 500' of the Application site or sites.

Verizon Response: Please reference **Exhibit C, 500' Map**, attached hereto. There are no existing Verizon small cell installations within 500' of Verizon's proposed installation, however Verizon has no information whether other service providers have proposed small cell installations to the Town within this area.

Milton Requirement: Provide a certification by a registered professional engineer that the pole or location will safely support the proposed equipment.

Verizon Response: Please reference **Exhibit D, Pole Structural Certification,** attached hereto.

Milton Requirement: Provide written consent of the utility pole, wireless support structure or facility owner to the installation.

Verizon Response: Please reference **Exhibit E, Eversource Pole License,** attached hereto.

Milton Requirement: Provide affidavit from a radio frequency engineer outlining the network/network service requirements in Milton and how the installations address that need in Milton. Said affidavit should characterize the current level of coverage and how the desired installations will change the current level of coverage, through or with coverage maps, including current and proposed coverage including a breakdown of "excellent" "good" and "poor" reception areas.

Verizon Response: Please reference **Exhibit F, RF Affidavit,** attached hereto. Please note that under the FCC's 2018 Declaratory Ruling, it is not necessary for an applicant to demonstrate a coverage gap for approval of small cell deployments, instead, any of a variety of activities related to provision of service are sufficient, including network densification, introduction of new services or otherwise improving service. *See FCC Declaratory Ruling and Third Report and Order*, WT Docket 17-79, FCC 18-133, at ¶¶ 37-42 (Sept. 27, 2018).

Milton Requirement: Provide insurance certificate.

Verizon Response: Please reference **Exhibit G, Certificate of Insurance,** attached hereto.

Milton Requirement: Provide description as to why the desired location is superior to similar locations, from a community perspective, including visual aspects and proximity to single family residences.

Verizon Response: Selecting a location for small cell infrastructure involves considering various factors, including local zoning requirements, state and federal regulations as well as aesthetic guidelines set by the municipality. Additionally, Verizon has specific criteria for optimal small cell placement to ensure effective wireless network performance. These criteria include, but are not limited to, factors like antenna height above ground level, proximity to other wireless infrastructure, the presence and density of tree cover, and access to power and fiber backhaul connections.

The location proposed by Verizon in this application stands out as superior to similar locations. It addresses a key coverage gap and will enhance the bandwidth and cellular quality for Verizon devices in the surrounding area. This location is within the public right-of-way and meets all of Eversource's requirements for pole attachments, such as being free of major electrical equipment. Furthermore, the proposed installation aligns with the Town's preference for collocating equipment on existing structures.

Milton Requirement: Provide description of efforts to collocate the equipment on existing structures, utility poles, wireless support structures or towers which currently exist or are under construction. A good faith effort to collocate is required and evidence of said efforts must be included within the application.

Verizon Response: All of the equipment is proposed to be collocated on an existing utility pole in the public right of way. Please reference **Exhibit A, Location Plans**, attached hereto.

Milton Requirement: Provide an affidavit from the applicant that it will maintain the installation in good repair and in accordance with FCC standards, and will remove any installations not in good repair, or not in use, within 60 days of being no longer in good repair or no longer in use.

Verizon Response: Please reference **Exhibit I, Project Engineer Affidavit,** attached hereto.

EXHIBIT A:
Location Plans

SITE NAME:

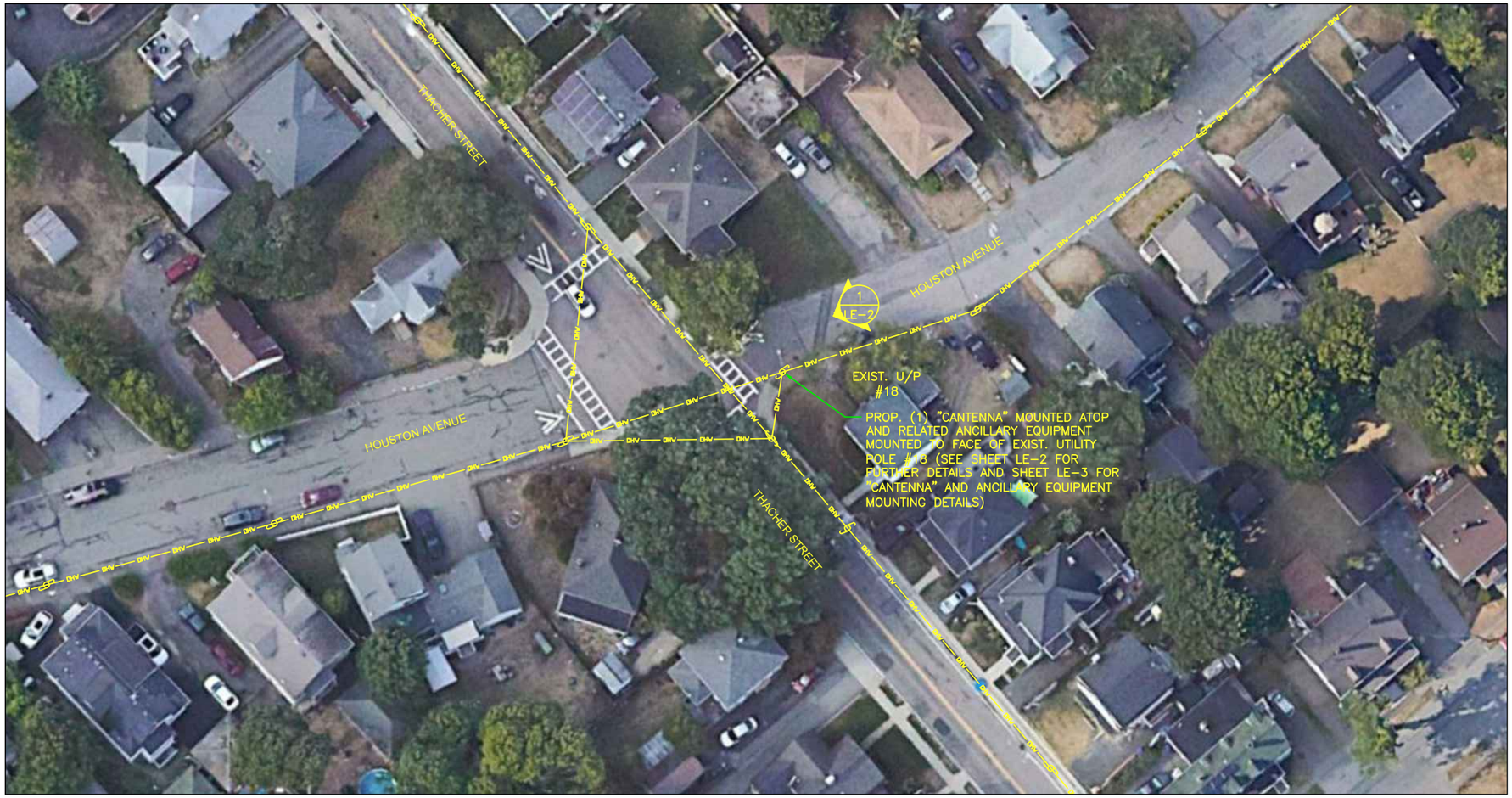
MILTON_MA_SC01

LOCATION CODE:

383780

SITE ADDRESS:

UTILITY POLE NO.: 18
150 THACHER STREET
MILTON, MA 02186



APPROX. NORTH

1 LOCATION PLAN/ARIAL IMAGE

SCALE: 1" = 50'

50 0 50 100 200

GRAPHIC SCALE: 1:50 (IN FEET)

	LATITUDE (NAD83)	LONGITUDE (NAD83)
POLE COORDINATES	N 42.259016°±	W 71.088044°±
	N 42° 15' 32.45"	W 71° 05' 16.95"
GROUND ELEVATION	39'± A.M.S.L. (NAVD88)	

SHEET INDEX	
SHEET NO.	SHEET DESCRIPTION
LE-1	KEY PLAN
LE-2	PHOTO DETAIL & ELEVATION
LE-3	EQUIPMENT PLAN, ANTENNA PLAN & MOUNTING DETAILS
LE-4	ANTENNA & EQUPMENT SPECS, WIRING DIAGRAM

LEASE EXHIBIT
(NOT FOR CONSTRUCTION)

PREPARED BY:

MasTec Network Solutions
1151 SE CARY PARKWAY, SUITE 101
CARY, NC 27518

PRESIDING POWER COMPANY:

EVERSOURCE

PROFESSIONAL STAMP:

SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	10/29/24	FOR REVIEW	AA

SITE INFO:

SITE NAME:
MILTON_MA_SC01

SITE ADDRESS:

U/P NO.: 18
150 THACHER STREET
MILTON, MA 02186

CHECKED BY:	DATE:
KB	10/29/24

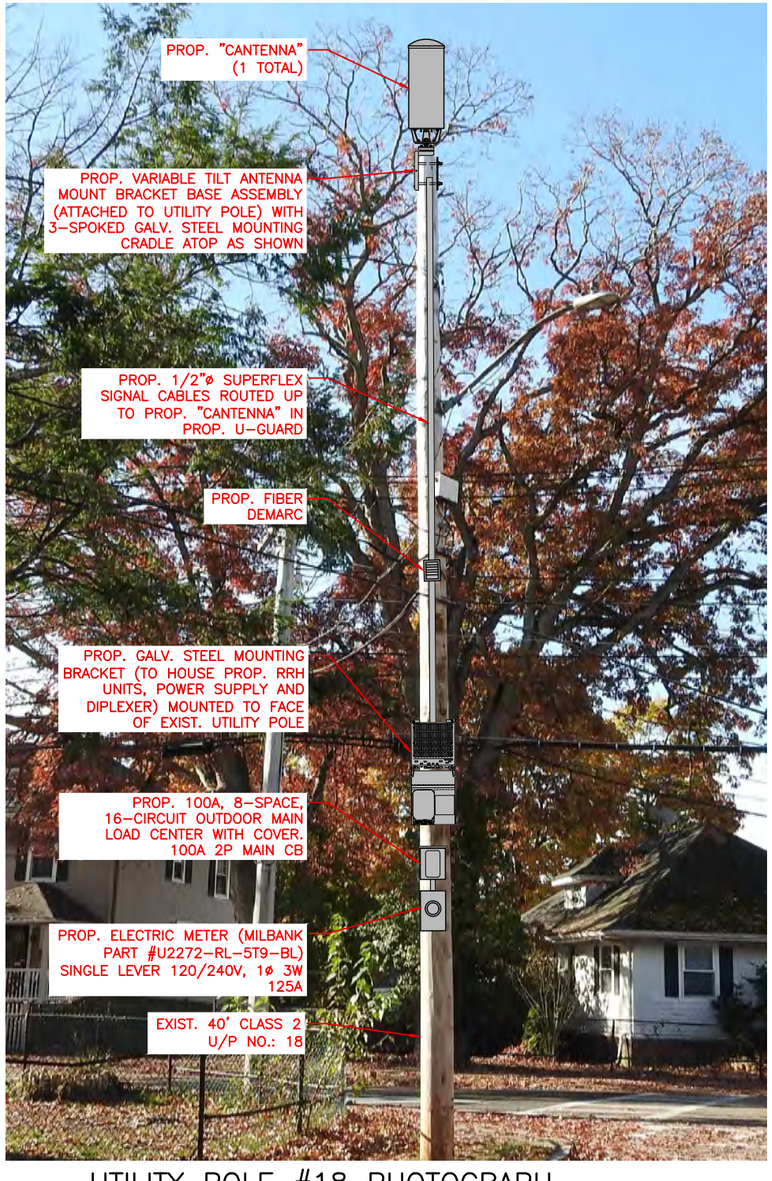
PROJECT NUMBER:
2040875

SHEET NUMBER:

LE-1

GENERAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION, SIZE AND ORIENTATION OF THE PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT INSTALLATION ON THE EXISTING UTILITY POLE AND ARE NOT SPECIFICALLY INTENDED FOR CONSTRUCTION.
2. VERIZON WIRELESS SHALL PLACE WEATHER RESISTANT PHENOLIC PLACARDS ON UTILITY POLE AND ANCILLARY EQUIPMENT TO IDENTIFY EQUIPMENT OWNERSHIP AND CONTACT INFORMATION TO BE UTILIZED IN THE CASE OF EMERGENCY.
3. AN ANALYSIS OF THE CAPACITY OF THE UTILITY POLE TO SUPPORT THE PROPOSED LOADING HAS NOT BEEN COMPLETED BY MASTEC AND THUS, THESE DRAWINGS ARE SUBJECT TO CHANGE PENDING THE OUTCOME OF A STRUCTURAL ANALYSIS (TO BE PERFORMED BY OTHERS).
4. VERIZON WIRELESS' GENERAL CONTRACTOR SHALL EXTEND EFFORTS TO ENSURE THAT ALL PROPOSED EQUIPMENT MEETS THE REQUIREMENTS OF THE EXISTING UTILITY COMPANY OR COMPANIES CURRENTLY OCCUPYING THE UTILITY POLE AND THE 2017 NATIONAL ELECTRICAL SAFETY CODE AND ALL APPLICABLE BUILDING CODE REQUIREMENTS.



1 UTILITY POLE #18 PHOTOGRAPH (EXIST. CONDITIONS/SCHEMATIC RENDERING)
SCALE: N.T.S.

ANTENNA AND MOUNT NOTE:

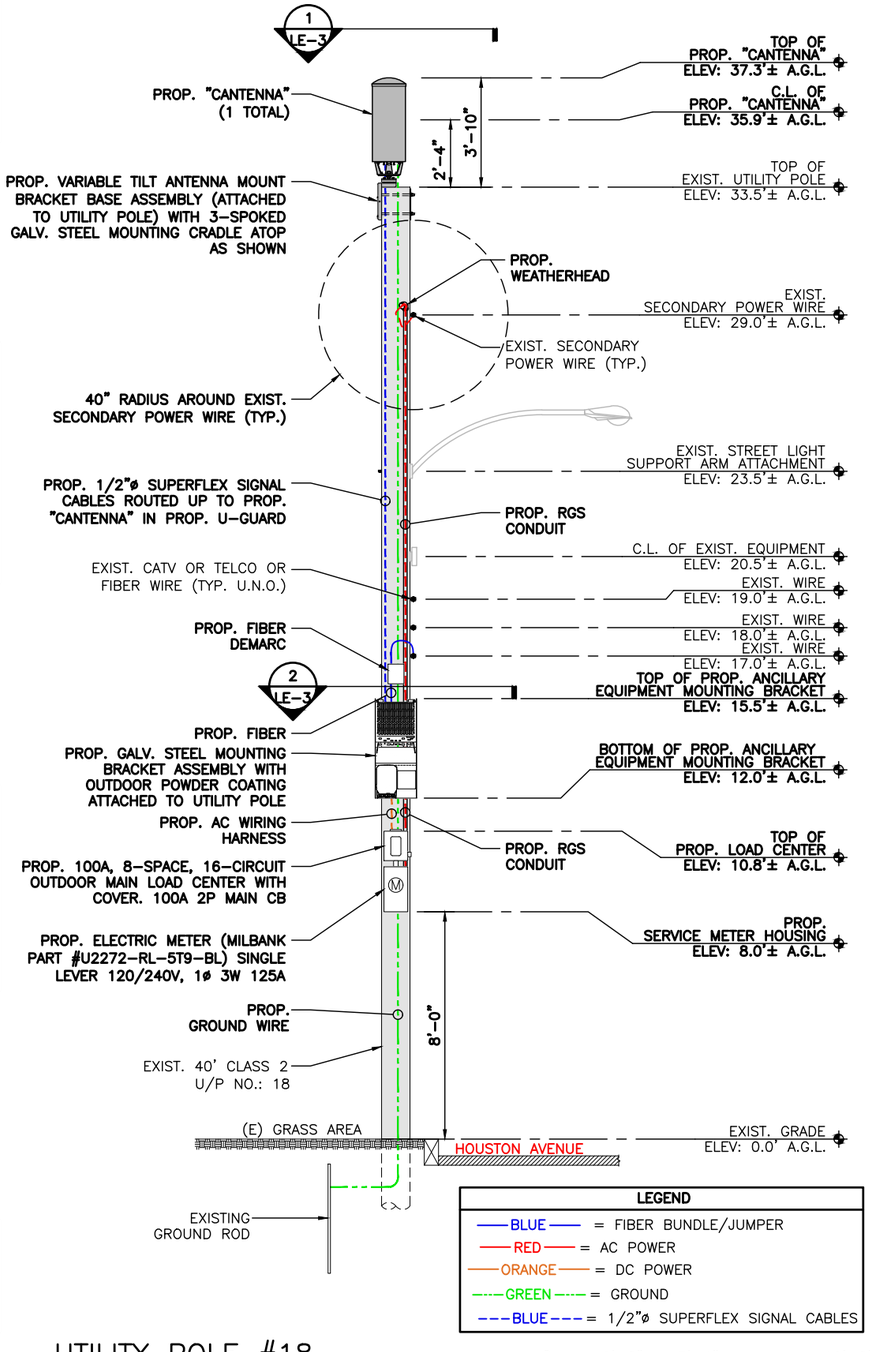
CONTRACTOR SHALL POSITION/ROTATE PROP. ANTENNA MOUNT/BRACKET IN SUCH A WAY SO AS TO NOT INTERFERE WITH EXIST. STREET LIGHT, PRIMARY POWER CROSSARM(S) (IF PRESENT), BRACKETS, BRACES, SECONDARY POWER SUPPORTS OR ANY OTHER MISCELLANEOUS APPURTENANCES AND RELATED SUPPORT BRACKETS ENCOUNTERED LOCATED ON THE EXIST. UTILITY POLE.

EQUIPMENT AND MOUNT NOTE:

CONTRACTOR SHALL POSITION/ROTATE PROP. EQUIPMENT AND ASSOCIATED MOUNT/BRACKETS IN SUCH A WAY SO AS TO NOT INTERFERE WITH EXIST. WIRES/PANELS ETC. OR ANY OTHER MISCELLANEOUS APPURTENANCES AND RELATED SUPPORT BRACKETS ENCOUNTERED LOCATED ON THE FACE OF THE EXIST. UTILITY POLE.

NOTE:

UTILITY POLE, EXIST. APPURTENANCES AND DETAILS OF PROP. INSTALLATION SHOWN SCHEMATICALLY.



2 UTILITY POLE #18 ELEVATION (PROP. CONDITIONS)
SCALE: 3/16" = 1'–0"

0 2'–8" 5'–4" 10'–8"
GRAPHIC SCALE: 3/16"=1'–0"

LEASE EXHIBIT
(NOT FOR CONSTRUCTION)

PREPARED BY:
MasTec Network Solutions
1151 SE CARY PARKWAY, SUITE 101
CARY, NC 27518

PRESIDING POWER COMPANY:
EVERSOURCE

PROFESSIONAL STAMP:

DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	10/29/24	FOR REVIEW	AA

SITE INFO:

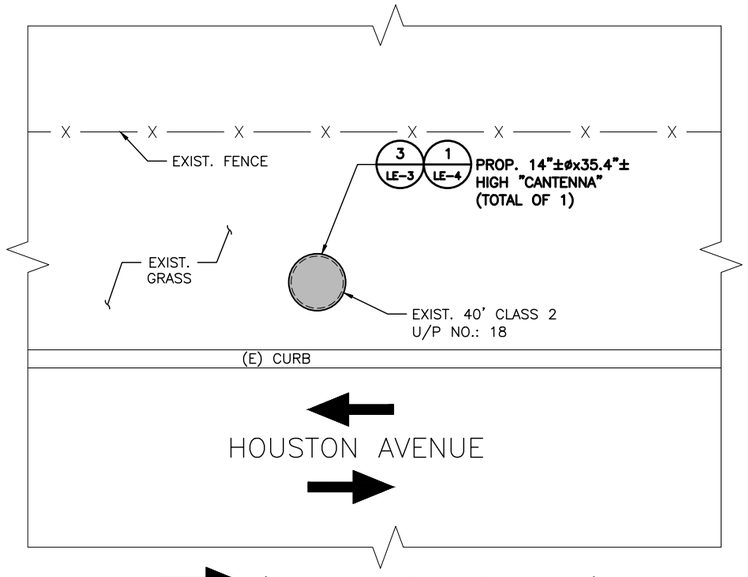
SITE NAME:
MILTON_MA_SC01

SITE ADDRESS:
U/P NO.: 18
150 THACHER STREET
MILTON, MA 02186

CHECKED BY: KB
DATE: 10/29/24

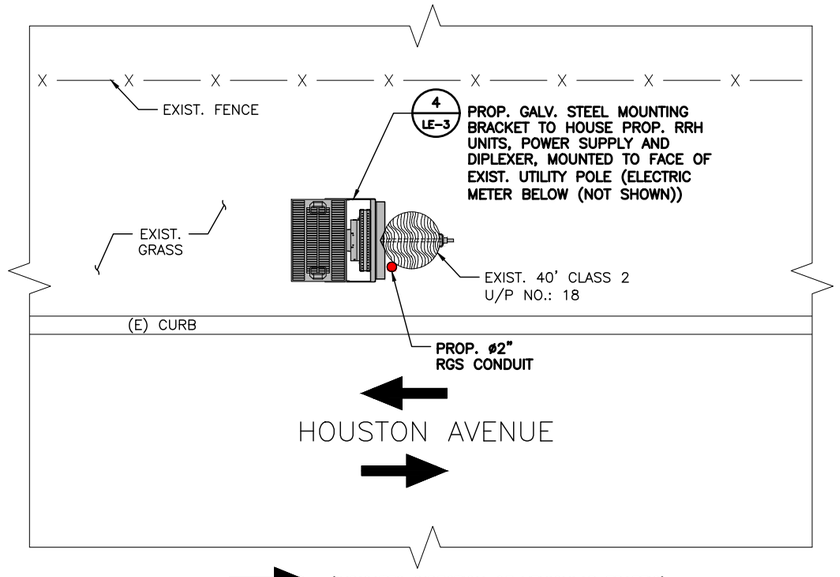
PROJECT NUMBER: 2040875

SHEET NUMBER:
LE-2



1 ANTENNA ORIENTATION PLAN

SCALE: N.T.S.

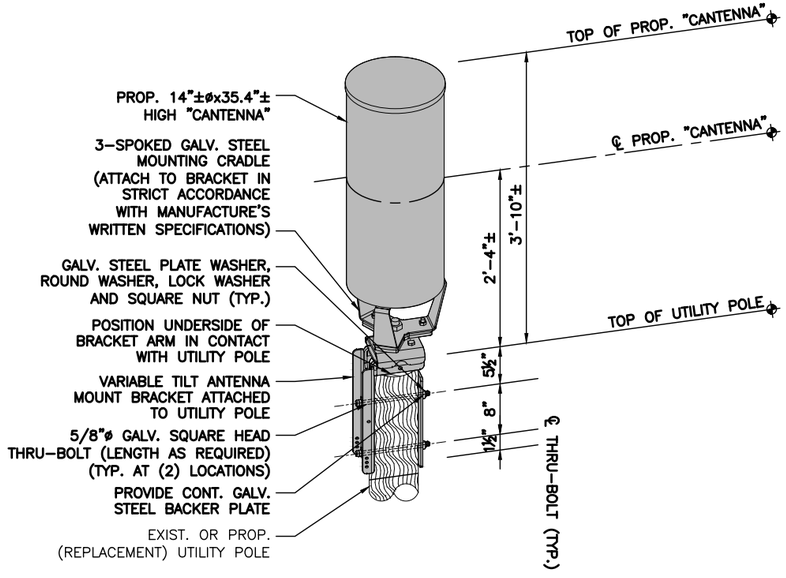


2 ANCILLARY EQUIPMENT ORIENTATION PLAN

SCALE: N.T.S.

NOTE:

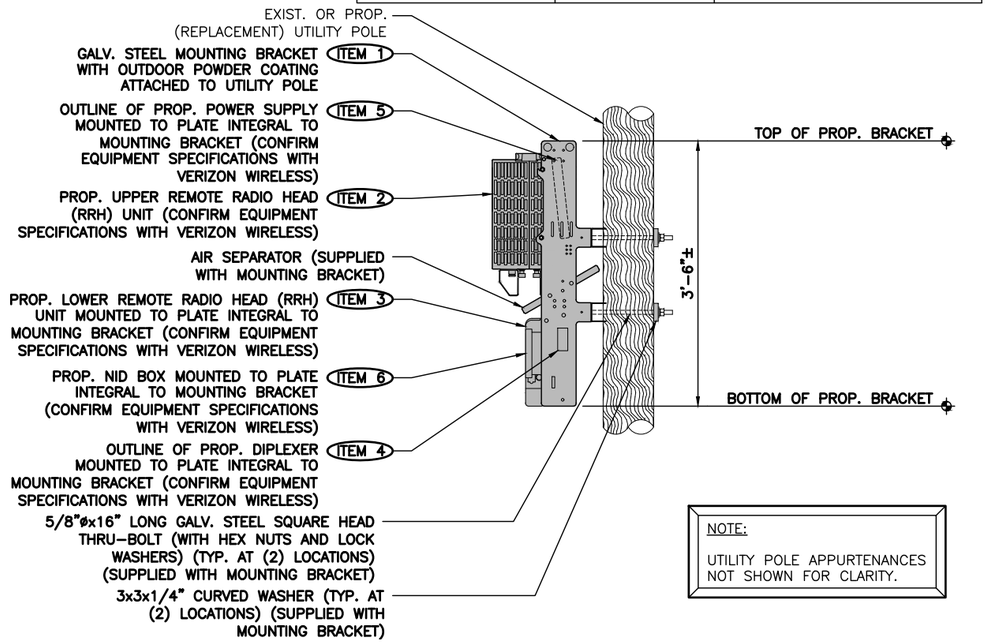
1. CONFIRM DOWNTILT REQUIREMENTS (IF ANY) AND AZIMUTH SPECIFICATIONS WITH VERIZON WIRELESS RF ENGINEER AT TIME OF CONSTRUCTIONS.
2. MOUNT SHALL BE INSTALLED IN SUCH A WAY TO ENSURE PLUMB INSTALLATION OF "CANTENNA".
3. UTILITY POLE APPURTENANCES NOT SHOWN FOR CLARITY.



3 'CANTENNA" MOUNTING DETAIL

SCALE: N.T.S.

ITEM ID (SEE DETAIL)	DESCRIPTION	WEIGHT (lbs)
1	MOUNTING BRACKET	32.2±
2	UPPER RRH UNIT	74.7±
3	LOWER RRH UNIT	15.4±
4	DIPLEXER	7.6±
5	POWER SUPPLY	25.6±
6	NID BOX	–
		TOTAL-155.5± (lbs) (SAY 160 lbs)



NOTE:

UTILITY POLE APPURTENANCES NOT SHOWN FOR CLARITY.

4 ANCILLARY EQUIPMENT MOUNTING BRACKET MOUN DETAIL

SCALE: N.T.S.

LEASE EXHIBIT
(NOT FOR CONSTRUCTION)

PREPARED BY:

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1151 SE CARY PARKWAY, SUITE 101
CARY, NC 27518

PRESIDING POWER COMPANY:

EVERSOURCE

PROFESSIONAL STAMP:

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SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	10/29/24	FOR REVIEW	AA

SITE INFO:

SITE NAME:
MILTON_MA_SC01

SITE ADDRESS:
U/P NO.: 18
150 THACHER STREET
MILTON, MA 02186

CHECKED BY:	DATE:
KB	10/29/24

PROJECT NUMBER:
2040875

SHEET NUMBER:
LE-3

SMALL CELL "CANTENNA"	
DIMENSIONS	14"±ø x 35.4"±H
WEIGHT	35.0± LBS
QUANTITY	TOTAL OF 1

1 TYPICAL "CANTENNA" SPECIFICATIONS
SCALE: N.T.S.

RRH SPECIFICATIONS	
DIMENSIONS	14.96"±H x 14.96"±W X 10.04"±D
WEIGHT	74.7± LBS
QUANTITY	TOTAL OF 1

RRH SPECIFICATIONS	
DIMENSIONS	8.7"±H x 11.8"±W X 3.6"±D
WEIGHT	15.4± LBS
QUANTITY	TOTAL OF 1

2 TYPICAL REMORE RADIO HEAD (RRH) UNIT DIMENSIONS
SCALE: N.T.S.

DIPLEXER	
DIMENSIONS	4.2"±H x 6.9"±W X 2.9"±D
WEIGHT	6.2± LBS
QUANTITY	TOTAL OF 1

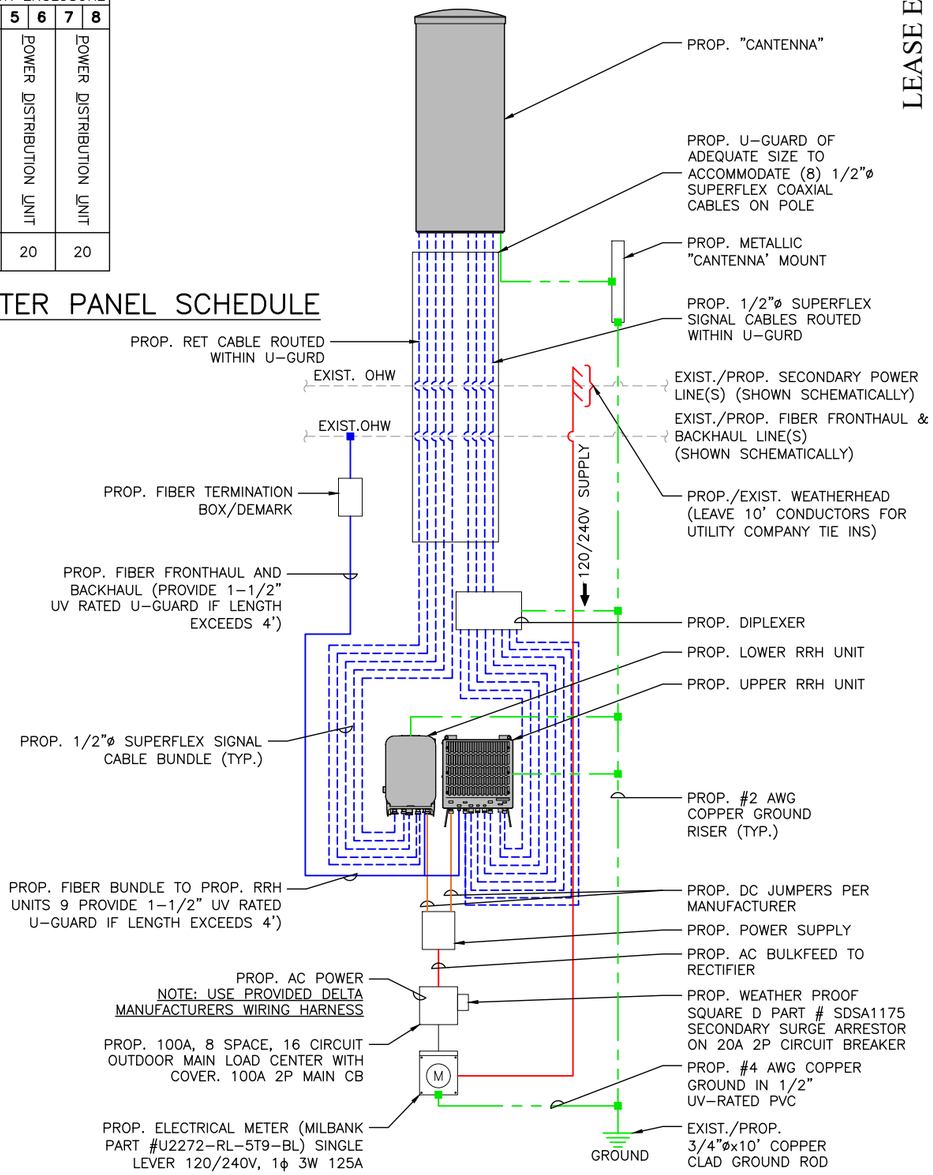
3 TYPICAL DIPLEXER DIMENSIONS
SCALE: N.T.S.

NID BOX	
DIMENSIONS	7.7"±H x 7.7"±W X 4.2"±D
WEIGHT	N/A
QUANTITY	TOTAL OF 1

4 TYPICAL NID BOX DIMENSIONS
SCALE: N.T.S.

PANEL SCHEDULE							
1ø, 3W, 100A 120/240V AC POWER TRANSFER LOAD CENTER IN NEMA 3R OUTDOOR ENCLOSURE							
CKT#	1	2	3	4	5	6	7	8
DESCRIPTION	MAIN BREAKER		SURGE ARRESTOR		POWER DISTRIBUTION UNIT		POWER DISTRIBUTION UNIT	
AMP	100		20		20		20	

5 ELECTRICAL LOAD CENTER PANEL SCHEDULE
SCALE: N.T.S.



ONE-LINE DIAGRAM NOTES:

1. PROVIDE WEATHER TIGHT SEAL CONNECTORS ON ALL CONNECTIONS EACH SIDE OF ENCLOSURE HOUSING.
2. COORDINATE ANY FURTHER MISCELLANEOUS WIRING AND CONDUIT REQUIREMENTS WITH VERIZON WIRELESS AND ELECTRIC COMPANY.

LEGEND	
BLUE	= FIBER BUNDLE/JUMPER
RED	= AC POWER
ORANGE	= DC POWER
GREEN	= GROUND
BLUE	= 1/2"ø SUPERFLEX SIGNAL CABLES

6 GENERAL WIRING DIAGRAM
SCALE: N.T.S.

LEASE EXHIBIT
(NOT FOR CONSTRUCTION)

PREPARED BY:

MasTec Network Solutions
1151 SE CARY PARKWAY, SUITE 101
CARY, NC 27518

PRESIDING POWER COMPANY:

EVERSOURCE

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SITE NAME:
MILTON_MA_SC01

SITE ADDRESS:
U/P NO.: 18
150 THACHER STREET
MILTON, MA 02186

CHECKED BY:	DATE:
KB	10/29/24

PROJECT NUMBER:
2040875

SHEET NUMBER:
LE-4

EXHIBIT B:

RF Emissions Letter

March 5, 2025

To: **Town of Milton**
Town Office Building
525 Canton Avenue
Milton, MA 02186

RE: Verizon Wireless Small Cell Site

Dear Town of Milton,

Verizon is installing an additional wireless telecommunications facility in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antenna and proximity of the work location.

In addition, Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell equipment on the FCC's website, which you can access via this link: http://www.fcc.gov/oet/rfsafety/rf-faqs.html.

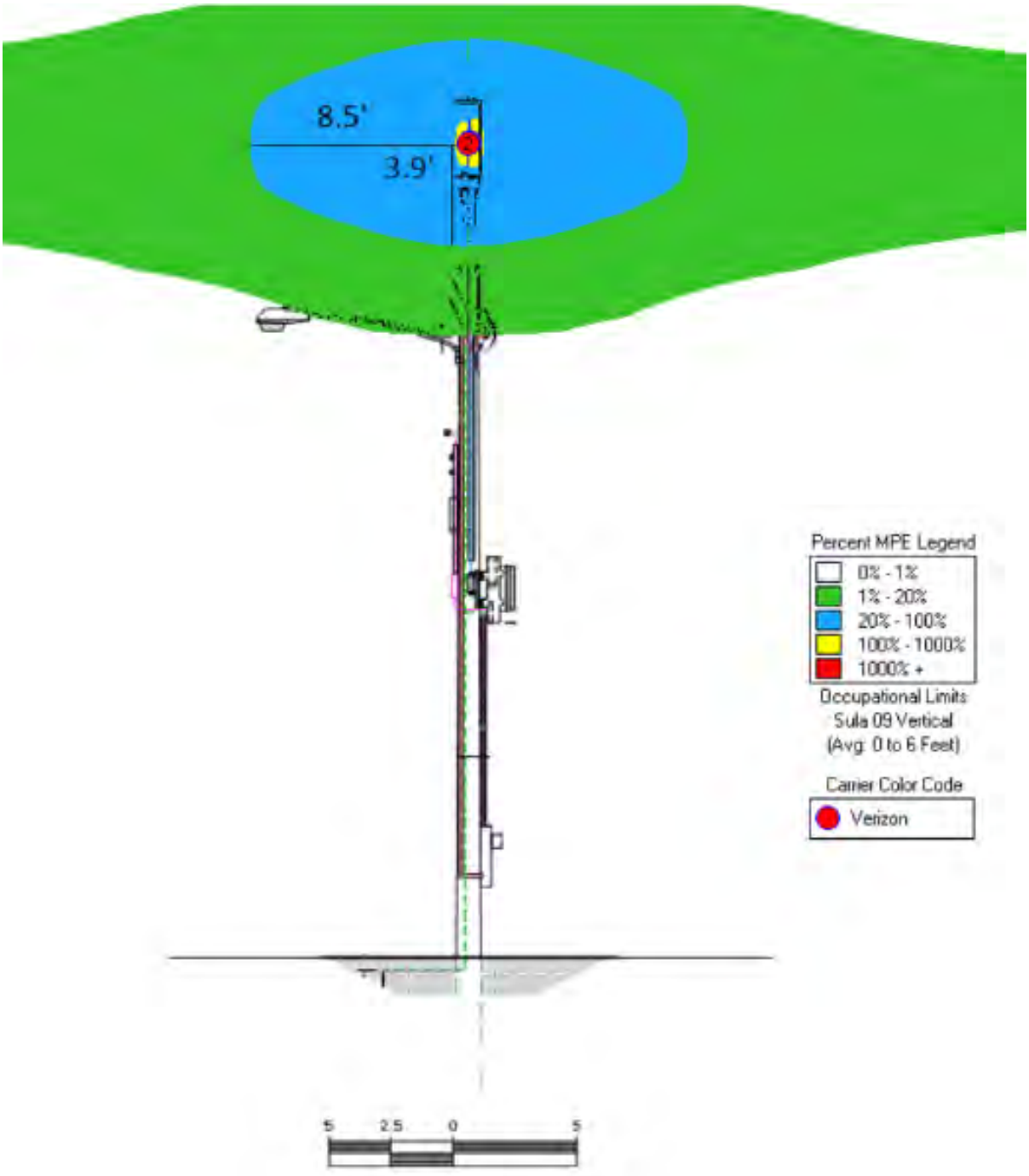
Questions related to compliance with federal regulations should be directed to VZWRFCompliance@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

Contact Name	Contact Email	Contact Phone
Brian Williams	**brian.williams@verizonwireless.com**	**508 713-2994**

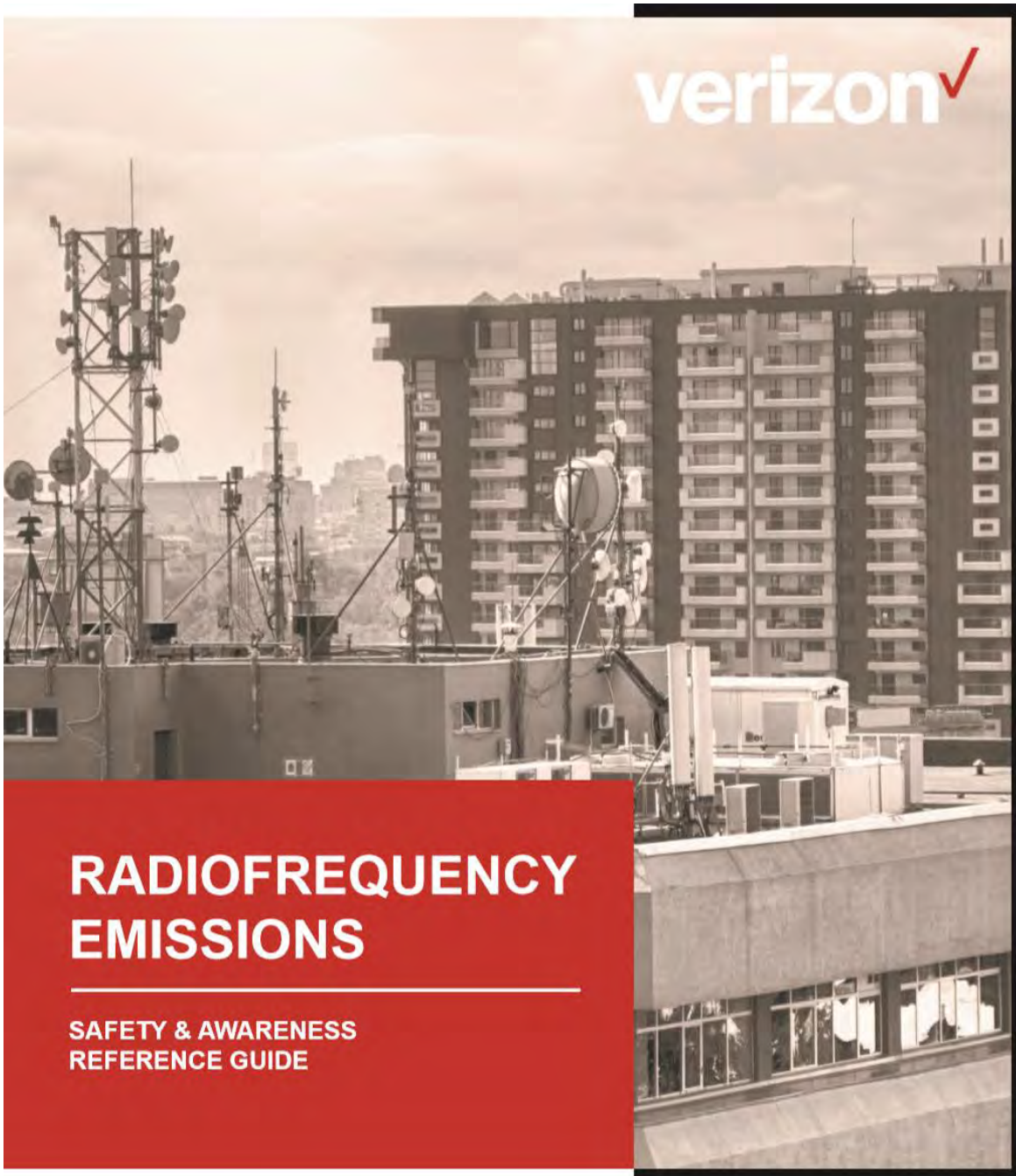
Sincerely,
Rabeya Ahmad
Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from the transmitting antenna on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-green areas.



Color	% Occupational MPE	Instructions
	0 to 20	Safe In Relation to VZW. Contact Other Carriers Before Entering This Area
	20 to 100	Contact VZW Before Accessing This Area
	Greater Than 100	
	Greater Than 1000	



verizon

RADIOFREQUENCY EMISSIONS

SAFETY & AWARENESS REFERENCE GUIDE

This handout is not intended to replace the FCC/OSHA mandated occupational requirement for RF Safety & Awareness Training

FEDERAL COMPLIANCE REQUIREMENTS

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed those standards, known as Maximum Permissible Exposure (MPE) limits, in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration.

The standards were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The FCC explains that its standards incorporate prudent margins of safety.

ENSURING COMPLIANCE WITH FCC GUIDELINES

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personnel exposures in excess of the FCC guidelines. Wireless Licensees are required by law to implement the following:

- Restrict access
- Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
- Place additional notification signage and visual in dicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.

CLASSIFICATIONS FOR EXPOSURE LIMITS

OCCUPATIONAL

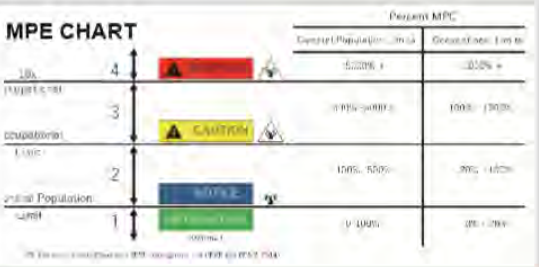
Persons are "exposed as a consequence of their employment" and are "fully aware of the potential for exposure and can exercise control over their exposure".

GENERAL POPULATION

Any persons that "may not be made fully aware of the potential for exposure or cannot exercise control over their exposure".

Those in this category do not require RF Safety & Awareness Training.

MPE CHART



EXPOSURE MANAGEMENT

- Assume that all antennas are active
- Obey all posted signs
- Do not stop in front of any antenna
- Recognize the type of antenna and approach at the safest angle
- Contact wireless operator to coordinate access if required
- Signage will indicate where potential RF conditions exist
- Understand pathways of safe egress
- If needed and possible wear personal protection equipment
- When using a personal monitor, remember the time averaging limits and monitor alarm thresholds if working in front of antennas
- If experiencing symptoms of heat exhaustion or nausea, remove yourself from the worksite and seek medical attention
- Power density decreases with distance so maintain distance between you and the antennas. The greater the distance you are from an antenna the bigger the reduction of RF exposure you will receive

verizon

PROPERTY OWNER RESPONSIBILITIES (M.E.N.U.)

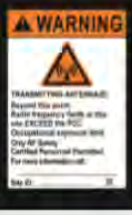
RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- **M**aintaining all necessary wireless licensee contact information.
- **E**nforcing restricted access (help maintain a Controlled Environment). Ensuring all building/maintenance personnel are trained in RF Safety, aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- **N**otifying all licensees when any non-carrier requests access to any area with antennas at least 24 hours in advance.
- **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.

NOTIFICATION SIGNS

A blue Notice sign is posted when levels (beyond posted signage) may exceed General Population MPE limits.

A yellow Caution sign is posted when levels (beyond posted signage) may exceed Occupational MPE limits.



A orange Warning sign is posted when levels (beyond posted signage) exceed 10 times the Occupational MPE limits.

TYPES OF ANTENNAS

MICROWAVE ANTENNA

- Highly directional antenna model used for point to point communications
- Approach from the rear and sides. Do not stand or walk in front of microwaves as they transmit at a high frequency.

PANEL ANTENNA

- Range from 1 to 8 feet in length
- Sled mounted or to a support structure on site (Rooftop)
- Approach these antennas from the rear.

OMNI ANTENNA

- Omni antennas have the appearance of a rod-shaped pole and radiate in a 360° pattern around the pole.
- At the antenna level, there is no approach angle that is safer than another. Typically, emissions directly below the antenna are less than in front of the antenna.

QUASI-OMNI ANTENNA

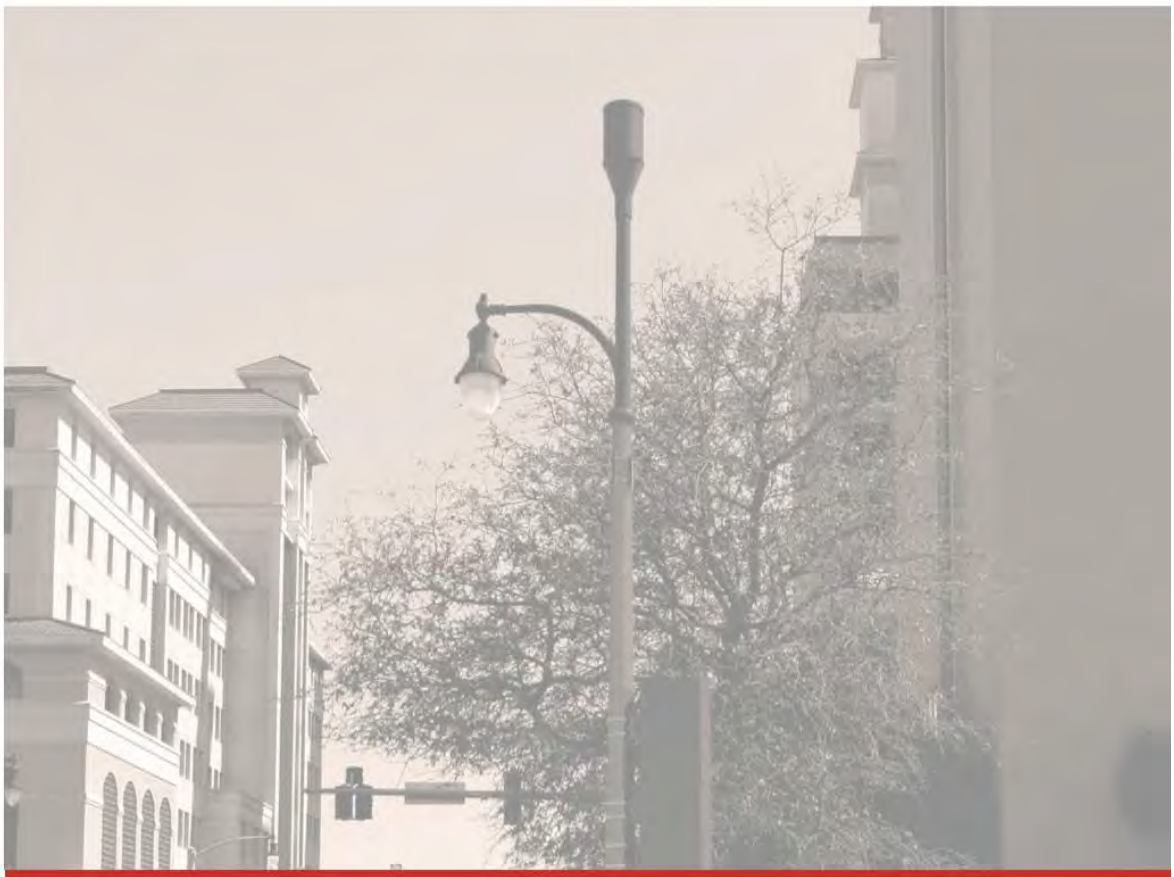
- Quasi-Omni antennas have the appearance of a cylinder and contain emitters that radiate in a 360°pattern around the pole.
- At the antenna level, there is no approach angle that is safer than another. Typically, emissions directly below the antenna are less than in front of the antenna.

YAGI ANTENNA

- Directional antenna model
- Approach from sides and rear.

RF SAFETY TRAINING CONTACTS

WATERFORD CONSULTANTS	www.waterfordconsultants.com
EBI	www.ebiconsulting.com
SITESAFE	www.sitesafe.com
DTECH COMMUNICATIONS	www.dtech.com



CONTACT US

Email: VZWRFCompliance@vzw.com
Subject: “ATTN:RF Compliance”

For Emergency Maintenance:
1-800-264-6620

verizon

EXHIBIT C:

500’ MAP

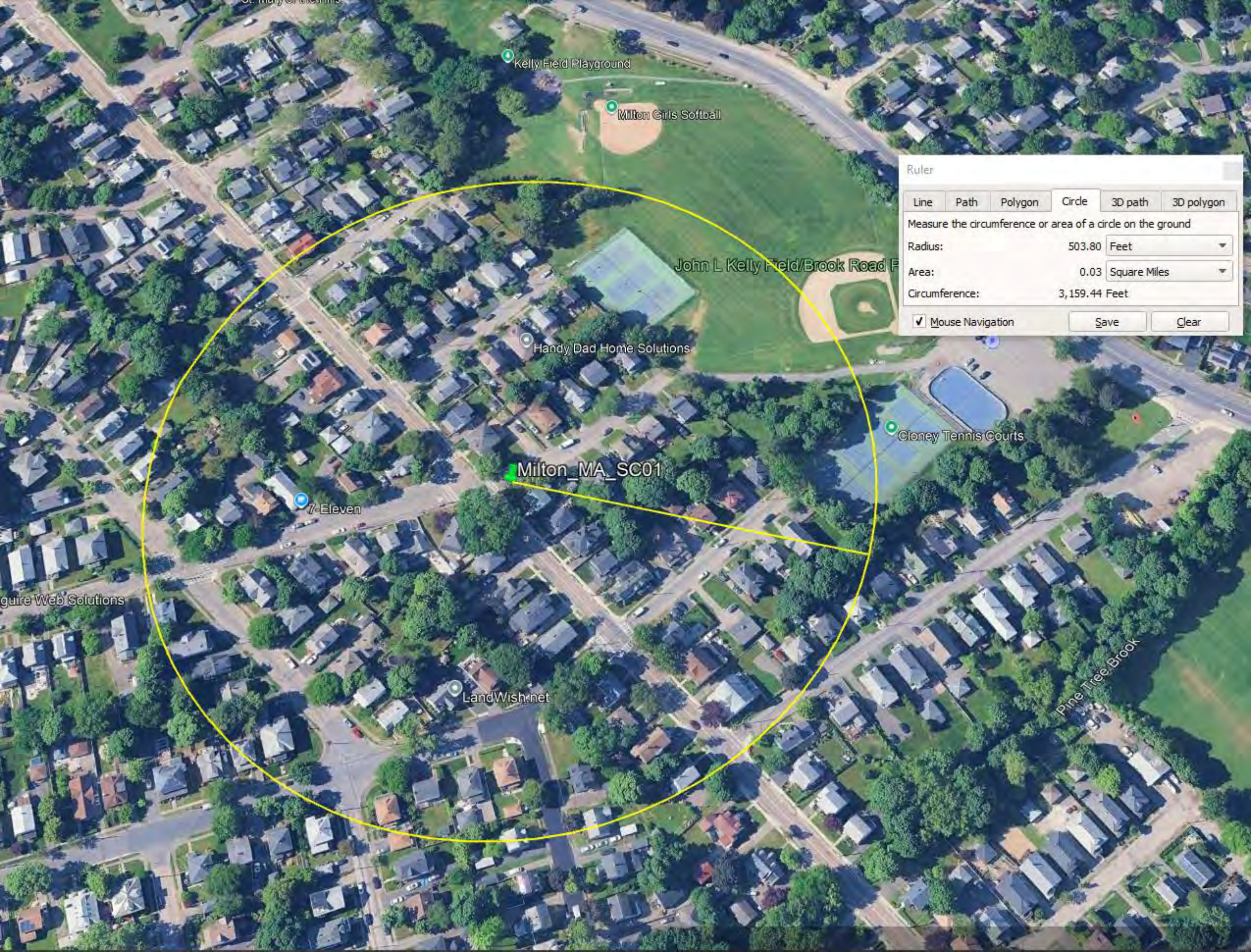

Kelly Field Playground
Milton Girls Softball
John L Kelly Field/Brook Road P
Handy Dad Home Solutions
Cloney Tennis Courts
Milton_MA_SC01
7-Eleven
guire Web Solutions
LandWish.net
Pine Tree Brook
Ruler
Line
Path
Polygon
Circle
3D path
3D polygon
Measure the circumference or area of a circle on the ground
Radius: 503.80 Feet
Area: 0.03 Square Miles
Circumference: 3,159.44 Feet
Mouse Navigation
Save
Clear

EXHIBIT D:

Pole Structural Certifications

April 1, 2025

MasTec Network Solutions
1151 SE Cary Pkwy Suite 101
Cary, NC 27518
Tel (919) 674-5895
MNS.Engineering@mastec.com

Subject:	**Wood Pole Structural Analysis**	
Project Information:	**Carrier:**	Verizon
	Site Name:	Milton_MA_SC01-A
	Location Code:	383780
	Project Number:	2040875
	Project Scope:	ESNAP Project
	Project Site:	Existing 40 ft Class 3 Wood Pole
Site Data:	**150 Thacher Street, Milton, MA 02186 Latitude 42.259016°, Longitude -71.088044°**	

MasTec Network Solutions is pleased to submit the **Wood Pole Structural Analysis** to determine the structural integrity of the above mentioned existing structure.

This analysis has been performed in compliance with the 2017 National Electric Safety Code (NESC) 250B and ANSI O5 utility pole standards. Based on our analysis we have determined the structural strength to have the following result:

Wood Pole Capacity Utilization	**48.3%**	**Sufficient**

We at Mastec Network Solutions appreciate the opportunity of providing continued specialty services. Please do not hesitate to contact our office should you have any questions.

Prepared By:
Cristi Carausu

Reviewed By:
Jacob Goralski, PE
MA CIVIL PE # 51688
EXPIRATION: 6/30/2026

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The purpose of this analysis is to determine the acceptability of proposed loading. Documents used for this analysis are stated in **Table 1**. This analysis has been performed in compliance with the applicable codes and parameters listed in **Table 2**.

Table 1: Referenced Documents

Company	Document Type	Reference	Date
MasTec	Construction Drawings	Project Number: 2040875	10/29/2024
MasTec	IKE Report	N/A	N/A
Verizon	RFDS	Project Name: Milton_MA_SC01-A	10/22/2024

Table 2: Design Basis

Codes and Standards	
NESC	NESC 17 (250B)
Utility Pole Standards	ANSI 05
Loading Parameters	
Construction Grade	B
Loading District	Heavy (I:0.5in, W:4psf)
Wind Speed	39.53 mph
Wind Pressure	4.00 psf
Pole Strength Factor	0.65

Based on our analysis, we have determined the Wood Pole Capacity Utilization to be **adequate** to support the final loading as described in **Table 3** and **Table 4** of this analysis report.

FINAL LOADING

The final appurtenance loading on the pole is shown below in **Table 3**. The final cable loading on the pole is shown below in **Table 4**. If the equipment listed below differs from actual field conditions, MasTec Network Solutions should be contacted to review the discrepancies.

Table 3: Appurtenance Loading

Elevation (ft)	Qty	Description	Notes
35.9	1	Proposed Cantenna	1
13.7	1	Proposed Ancillary Equipment Bracket	
10.6	1	Prop. Load Center	
8.5	1	Prop. Meter	

1. Please see **APPENDIX 1** for appurtenance detail information.

Table 4: Cable Loading

Elevation (ft)	Description	Notes
29.0	Exist. Secondary Power Wire	1
19.0	Exist. Comm. Wire	
18.0	Exist. Comm. Wire	
17.0	Exist. Comm. Wire	

1. Please see **APPENDIX 1** for cable detail information.

ANALYSIS RESULTS

O-CALC PRO, a commercially available software package for structural analysis of poles and pole components, was used to create a model of the wood pole and perform comprehensive pole loading analysis for various loading cases. Selected output from the analysis is included in **APPENDIX 1**. Please find below a summary of the structure analysis results.

Capacity percentages below 100% are considered acceptable for structure components.

Table 4: Structural Components

Structural Component	Capacity Percentage	Result	Notes
Pole Capacity Utilization	48.3%	Pass	1

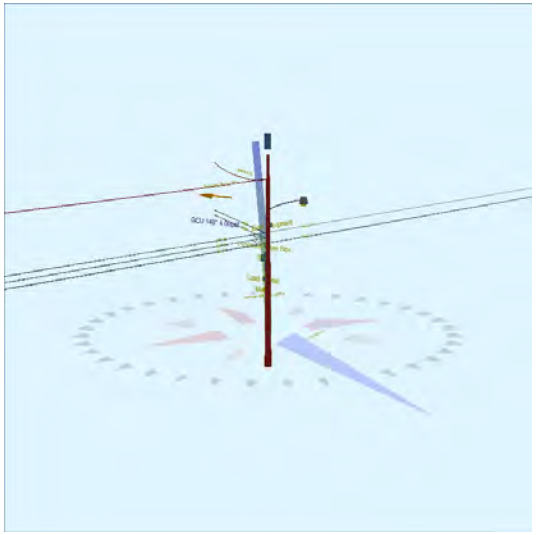
1. Please see **APPENDIX 1** for calculation details.

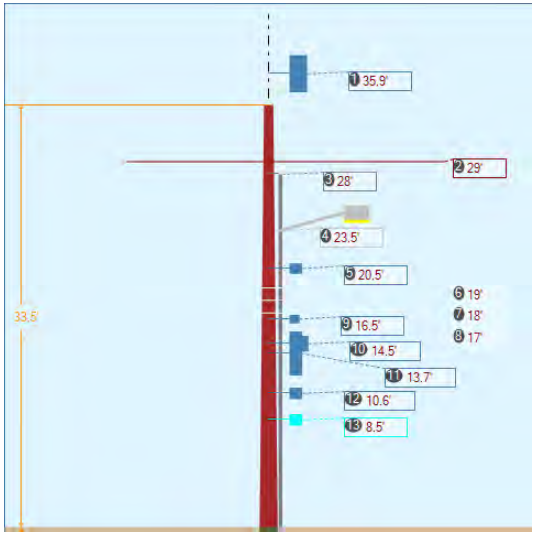
ASSUMPTIONS, LIMITATIONS AND DISCLAIMER

1) The structure was built in accordance with the designer's specifications and the structure has been maintained and is free of damage.
2) This Structural Analysis is not a condition assessment of the pole and foundation and is an evaluation of the theoretical structural capacity.
3) This analysis is based from the information supplied, and therefore, this report's results are as accurate as the supplied data.
4) MasTec Network Solutions makes no warranties, expressed and/or implied, in connection with this report, and disclaims any liability associated with material, fabrication, or erection of this pole. MasTec will not be held responsible from any consequential or incidental damages sustained by any person, firm, or organization as a result of the contents of this report. The maximum liability of MasTec pursuant to this report will be limited to the total fee received for compilation of this report.
5) It is the pole owner's responsibility to verify that the pole modeled and analyzed is the correct structure modeled.
6) The use of this report shall be limited to the purpose for which it was commissioned and may not be used for any other purposes without the written consent of MasTec Network Solutions.
7) The pole and foundation were constructed and have been maintained in accordance with manufacturer's specifications.
8) The configuration of appurtenances is as specified in Table 3. Please see **APPENDIX 1** for appurtenance detail information.
9) The cable type and attachment elevation are as specified in Table 4. Please see **APPENDIX 1** for cable detail information.
10) Please note that the soils report for the foundation were not available to us at the time of this analysis, therefore, the soil conditions have been assumed.

APPENDIX 1: O-CALC PRO ANALYSIS REPORT

Pole Num:	**N/A**	Pole Length / Class:	**40 / 3**	Code:	**NESC**	Structure Type:	**Unguyed Tangent**
Customer	**VZW**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Unguyed**
Location Code	**383780**	Setting Depth (ft):	**6.50**	Construction Grade:	**C**	Pole Strength Factor:	**0.85**
Site Name	**Milton_MA_SC01-A**	G/L Circumference (in):	**45.00**	Loading District:	**Heavy**	Transverse Wind LF:	**1.75**
Site Address	**150 Thacher Street, Milton, MA 02186**	G/L Fiber Stress (psi):	**8,000**	Ice Thickness (in):	**0.50**	Wire Tension LF:	**1.00**
Project Number	**2040875**	Allowable Stress (psi):	**6,800**	Wind Speed (mph):	**39.53**	Vertical LF:	**1.90**
Proposed RAD Center (AGL)	**35'-11"**	Fiber Stress Ht. Reduc:	**No**	Wind Pressure (psf):	**4.00**		
Latitude:	**42.259016 Deg**	Longitude:	**-71.088044 Deg**	Elevation:	**39 Feet**		





Pole Capacity Utilization (%)		Height (ft)	Wind Angle (deg)
Maximum	**48.3**	0.0	148.6
Groundline	**48.3**	0.0	148.6
Vertical	**4.0**	16.6	148.6

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	**78,213**	150.7	148.6
Groundline	**78,213**	150.7	148.6
GL Allowable	**163,499**		
Overturn	**146,309**		

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 150.7°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	332	8.1	**9,713**	12.4	**5.9**	**403**	76	0	**403**	**5.9**
Comms	3,430	84.0	**63,751**	81.5	**39.0**	**2,642**	559	3	**2,646**	**38.9**
GenericEquipments	54	1.3	**1,290**	1.7	**0.8**	**54**	328	2	**55**	**0.8**
Pole	211	5.2	**3,495**	4.5	**2.1**	**145**	2,525	16	**161**	**2.4**
Streetlights	25	0.6	**-271**	-0.4	**-0.2**	**-11**	180	1	**-10**	**-0.1**
Risers	32	0.8	**208**	0.3	**0.1**	**9**	1,277	8	**17**	**0.2**
Insulators	0	0.0	**27**	0.0	**0.0**	**1**	30	0	**1**	**0.0**
Pole Load	4,086	100.0	**78,213**	100.0	**47.8**	**3,242**	4,975	31	**3,272**	**48.1**
Pole Reserve Capacity			**85,286**		**52.2**	**3,559**			**3,528**	**51.9**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 150.7°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
<Undefined>	3,842	94.0	**74,510**	95.3	**45.6**	**3,088**	1,173	7	**3,095**	**45.5**
VZW	211	5.2	**3,495**	4.5	**2.1**	**145**	2,525	16	**161**	**2.4**
Charter	32	0.8	**208**	0.3	**0.1**	**9**	1,277	8	**17**	**0.2**
Totals:	4,086	100.0	**78,213**	100.0	**47.8**	**3,242**	4,975	31	**3,272**	**48.1**

Detailed Load Components:

Power		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Secondary	3/0 ACSR		29.00	6.38	0.5020	0.09	0.137	75.0	70.0	75.0	300	1,400	28	922	2,350
Secondary	3/0 ACSR		29.00	6.38	0.5020	0.01	0.137	30.0	185.0	30.2	300	7,190	11	127	7,329
											Totals:	**8,590**	**40**	**1,049**	**9,679**

Comm		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Overlashed Bundle	CATV .50		19.00	7.68	0.2420	0.30	0.104	75.0	70.0	75.0	1,830	5,595	18	495	6,109
CATV	CATV .50		18.98	7.68	0.2420		0.570	75.0	70.0	75.0			40	96	136
Overlashed Bundle	CATV .50		19.00	7.68	0.2420	0.05	0.104	30.0	185.0	30.0	1,770	27,795	9	75	27,879

CATV	CATV .50	18.96	7.68	0.2420		0.570	30.0	185.0	30.0			17	20	37
Overlashed Bundle	CATV .50	19.00	7.68	0.2420	0.07	0.104	90.0	250.0	90.0	1,830	-5,595	32	613	-4,950
Overlashed Bundle	CATV .50	18.00	7.78	0.2420	0.30	0.104	75.0	70.0	75.0	1,830	5,301	19	469	5,789
CATV	CATV .50	17.98	7.78	0.2420		0.570	75.0	70.0	75.0			40	91	131
Overlashed Bundle	CATV .50	18.00	7.78	0.2420	0.05	0.104	30.0	185.0	30.0	1,770	26,332	9	71	26,412
CATV	CATV .50	17.96	7.78	0.2420		0.570	30.0	185.0	30.0			17	18	36
Overlashed Bundle	TELE 1.0	17.00	7.89	0.2420	0.14	0.104	75.0	70.0	75.0	2,751	7,526	29	578	8,133
Telco	TELE 1.0	16.95	7.89	1.0000		0.400	75.0	70.0	75.0			43	218	261
Overlashed Bundle	TELE 1.0	17.00	7.89	0.2420	0.21	0.104	90.0	250.0	90.0	2,737	-7,487	35	694	-6,758
Telco	TELE 1.0	16.95	7.89	1.0000		0.400	90.0	250.0	90.0			51	261	313
										Totals:	**59,466**	**360**	**3,701**	**63,527**

GenericEquipment		**Owner**	**Height (ft)**	**Horiz. Offset (in)**	**Offset Angle (deg)**	**Rotate Angle (deg)**	**Unit Weight (lbs)**	**Unit Height (in)**	**Unit Depth (in)**	**Unit Diameter (in)**	**Unit Length (in)**	**Offset Moment* (ft-lb)**	**Wind Moment* (ft-lb)**	**Moment at GL* (ft-lb)**
Cylinder	Antenna		35.90	0.41	90.0	0.0	35.00	35.40	--	14.00	--	1	864	865
Box	Exist. Equipment		20.50	6.77	340.0	0.0	7.00	10.00	3.50	--	10.00	-7	156	149
Box	Proposed Fiber Box		16.50	7.19	60.0	0.0	7.00	8.00	3.50	--	8.00	0	36	36
Box	Prop. Equipment Bracket		13.70	6.73	60.0	0.0	50.00	42.00	2.00	--	10.00	-1	89	89
Box	RRH		14.53	17.08	53.9	0.0	59.52	14.96	6.82	--	14.96	-19	110	91
Box	Load Center		10.60	10.80	60.0	0.0	7.00	10.88	3.50	--	10.00	0	31	31
Box	Meter		8.50	11.02	60.0	0.0	7.00	10.88	3.50	--	10.00	0	25	25
											Totals:	**-26**	**1,312**	**1,285**

Streetlight		**Owner**	**Height (ft)**	**Horiz. Offset (in)**	**Offset Angle (deg)**	**Rotate Angle (deg)**	**Unit Weight (lbs)**	**Unit Height (in)**	**Unit Depth (in)**	**Unit Diameter (in)**	**Unit Length (in)**	**Offset Moment* (ft-lb)**	**Wind Moment* (ft-lb)**	**Moment at GL* (ft-lb)**
General	Streetlight - 6.0 ft. Arm 6.0 ft arm		23.50	4.71	322.0	322.0	95.00	24.00	20.00	3.00	72.00	-859	589	-270
											Totals:	**-859**	**589**	**-270**

Riser		**Owner**	**Height (ft)**	**Horiz. Offset (in)**	**Offset Angle (deg)**	**Rotate Angle (deg)**	**Unit Weight (lbs)**	**Unit Height (in)**	**Unit Depth (in)**	**Unit Diameter (in)**	**Unit Length (in)**	**Offset Moment* (ft-lb)**	**Wind Moment* (ft-lb)**	**Moment at GL* (ft-lb)**
Riser 10.0°	Riser	Charter	28.00	7.42	10.0	10.0	672.00	336.00	3.00	3.00	336.00	-397	605	207
											Totals:	**-397**	**605**	**207**

Insulator		**Owner**	**Height (ft)**	**Horiz. Offset (in)**	**Offset Angle (deg)**	**Rotate Angle (deg)**	**Unit Weight (lbs)**	**Unit Diameter (in)**	**Unit Length (in)**	**Offset Moment* (ft-lb)**	**Wind Moment* (ft-lb)**	**Moment at GL* (ft-lb)**
Spool	Spool 2.5"		29.00	0.00	140.0	50.0	1.00	2.50	2.12	1	7	8
Bolt	Three Bolt		19.00	0.00	150.0	60.0	5.00	3.00	0.00	6	0	6
Bolt	Three Bolt		18.00	0.00	150.0	60.0	5.00	3.00	0.00	6	0	6

Bolt	Single Bolt	17.00	0.00	140.0	140.0	5.00	3.00	0.00	6	0	6
								Totals:	**19**	**7**	**27**

Pole Buckling

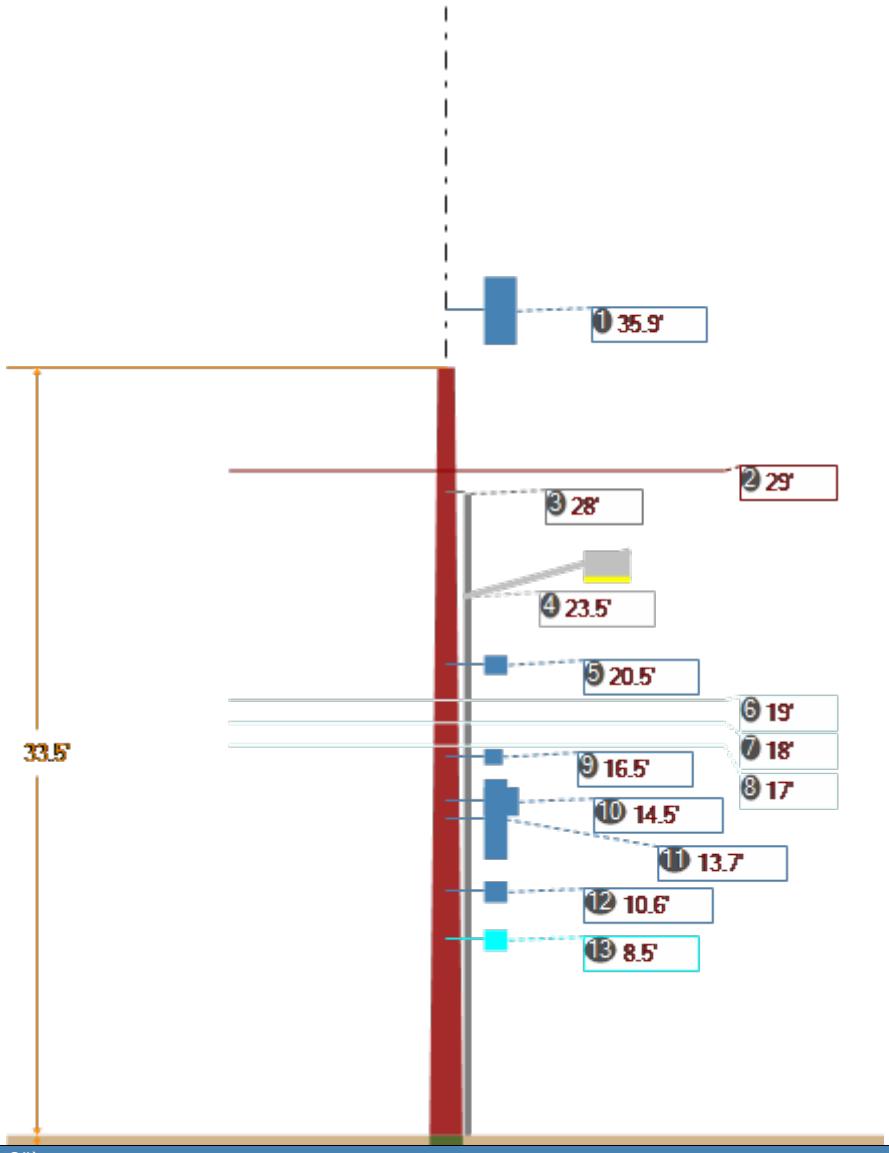
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
2.00	16.64	33.64	13.15	15.05	7.32	14.33	1.60e+6	60.00	57.00	33.50	123,598	**1243.66**	**25.00**

O-Calc® Pro Schematic View

Pole Identification: N/A

Report Created: 3/28/2025

File: Milton_MA_SC01-A.pplx



1 - 35.9' (430.8")
Equipment

2 - 29' (348")
Secondary 70° 75' 0.502" (3/0 ACSR)
Secondary 185° 30' 0.502" (3/0 ACSR)

3 - 28' (336")
Riser 10.0°

4 - 23.5' (282")
Streetlight - 6.0 ft. Arm 6.0 ft arm

5 - 20.5' (246")
Meter

6 - 19' (228")
6M 70° 75' Msgr:0.242"
6M 185° 30' Msgr:0.242"
6M 250° 90' Msgr:0.242"

7 - 18' (216") 6M 70° 75' Msgr:0.242" 6M 185° 30' Msgr:0.242"
8 - 17' (204") 6M 70° 75' Msgr:0.242" 6M 250° 90' Msgr:0.242"
9 - 16.5' (198") Proposed Fiber Box
10 - 14.5' (174.4") RRH
11 - 13.7' (164.4") Prop. Equipment Bracket
12 - 10.6' (127.2") Load Center
13 - 8.5' (102") Meter

EXHIBIT E:
Eversource Pole License

APPENDIX IV

Form 1

APPLICATION AND POLE ATTACHMENT LICENSE

Licensee Bell Atlantic Mobile d/b/a Verizon Wireless
Street Address One Verizon Way, Mail Stop 4A W100
City, State and Zip Basking Ridge, NJ 07920
Date 09/23/2015

In accordance with the terms and conditions of the Pole Attachment Agreement, application is hereby made for a license to make one (1) antenna attachments to poles and one (1) Power Supply(ies) and other attachments located in the municipality of Milton in the State of Massachusetts.

This request will be designated **Pole Attachment License Application Number MILTONMASC01-383780. Attached are my power supply specifications if applicable. The cable's strand size is .05 and weight per foot of cable is .02.**

X Communication Space ☐ **Power / Supply Space**

Licensee's Name (Print) Thomas J. Fields

Signature *Thomas J. Fields*

EVERSOURCE
Power Company

Title Site Acquisition Manager / New England

Tel. No. 781-983-1066

Fax No. N/A

E-mail tom.fields@nexius.com

**********************For licensor use, do not write below this line*******************

Pole Attachment License Application Number _____ is hereby granted to make the attachments described in this application to 1 attachments to JO[1] poles, _____ attachments to FO[2] poles, _____ attachments to JU[3] poles, _____ Power Supplies and _____ other attachments located in the municipality of _____, in the State of _____ as indicated on the attached Form 3.

Licensor's Name (Print) Steve Owens

Signature _____

_____ (AGREEMENT ID #)

Title Supervisor

Date 6/9/17

Tel. No. _____

The Licensee shall submit an original copy of this application to Verizon New England Inc. and NSTAR Electric Company d/b/a EVERSOURCE ENERGY.

EXHIBIT F:

RF Affidavit

verizon

AFFIDAVIT OF RADIO FREQUENCY ENGINEER

The undersigned, in support of the application to install a small wireless communications facility (SWF) consisting of one antenna and associated radio equipment on an existing utility pole located in the Town of Milton, Massachusetts, states the following:

1. My name is Brian Williams. I have a Bachelor of Engineering (Hons), Electrical & Electronics Engineering degree from the Heriot Watt University Edinburgh. I have been employed as a Radio Frequency (RF) Design / Optimization Engineer for (25) years, the last 3 years with Verizon Wireless. I am responsible for network design in the area of Massachusetts that includes the Town of Milton, MA.

2. Verizon Wireless is a federally licensed provider of wireless communications services with a national footprint.

3. The proposed small wireless facility is within an area where Verizon Wireless has identified a need to install additional facilities in order to provide reliable wireless service for customers and emergency responders and access to new technologies. The search area for the proposed facility was determined with reference to Verizon's existing network serving the Milton area and by identifying those areas in need of improved service. Furthermore, it was determined that the area served by the facility would interact well with those of existing and proposed facilities in the surrounding areas.

   The following table provides details of the proposed site:

Site Name	Street Address	Pole #	Site Latitude	Site Longitude
MILTON_MA_SC01	150 Thacher Street	U Pole 18	42.25901389	-71.08804167

4. Small cell deployments are intended to complement, not replace, macro (i.e., towers) network sites, and are typically target areas of heavy network usage (a.k.a "hotspots"). In doing so, small cells serve to offload the demand on the existing sites serving these hotspots. This not only improves service to the targeted area, but also improves overall system performance elsewhere in the network. In addition, small cells allow for Verizon's deployment of new technologies that will further enhance the network experience and reliability, including faster download time and lower latency.

5. Pursuant to its Federal Communications Commission (FCC) licenses, Verizon Wireless is required to ensure that all radio equipment operating at the proposed communications facilities and the resulting radio frequency exposure levels are compliant with FCC requirements as well as federal and state health and safety standards.

6. Providing wireless communications services is a benefit to the residents of the Town of Milton, as well as to mobile customers traveling through the area. The proposed facility reflects the location and design required to meet Verizon Wireless' network objectives with respect to capacity and coverage enhancement and deployment of new technologies. Without the proposed facility, Verizon Wireless will be unable to provide reliable wireless communication services in this area of Milton; therefore, Verizon Wireless respectfully requests that the Town of Milton act favorably upon the proposed facility.

Signed and sworn under the pains and penalties of perjury this 5th day of March, 2025.

Brian Williams

Brian Williams

Senior RF Design Engineer

Verizon Wireless

51 Adler Street

Medway, MA 0205

EXHIBIT G:

Certificate of Insurance

CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
03/04/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Aon Risk Services Northeast, Inc.
New York NY Office
One Liberty Plaza
165 Broadway, Suite 3201
New York NY 10006 USA

CONTACT NAME:
PHONE (A/C. No. Ext): (866) 283-7122 **FAX (A/C. No.):** (800) 363-0105
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A:	LM Insurance Corporation	33600
INSURER B:	Liberty Insurance Corporation	42404
INSURER C:	Liberty Mutual Fire Ins Co	23035
INSURER D:		
INSURER E:		
INSURER F:		

INSURED
Verizon Wireless, LLC
1095 Avenue of the Americas
New York NY 10036 USA

COVERAGES **CERTIFICATE NUMBER:** 570111167553 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	X COMMERCIAL GENERAL LIABILITY			TB2691550588144	06/30/2024	06/30/2025	EACH OCCURRENCE	$9,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$9,000,000
	X XCU Coverage is Included						MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$9,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$9,000,000
	X POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$9,000,000
	OTHER:							
C	AUTOMOBILE LIABILITY			AS2-691-550588-124	06/30/2024	06/30/2025	COMBINED SINGLE LIMIT (Ea accident)	$6,000,000
				AOS				
C	X ANY AUTO			AS2-691-550588-134	06/30/2024	06/30/2025	BODILY INJURY (Per person)	
	OWNED AUTOS ONLY / SCHEDULED AUTOS			NH - Primary			BODILY INJURY (Per accident)	
C	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY			TL2-691-550588-184	06/30/2024	06/30/2025	PROPERTY DAMAGE (Per accident)	
				NH - Excess				
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	
	DED RETENTION							
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WA569D550588094	06/30/2024	06/30/2025	X PER STATUTE OTH-ER	
	Y/N			AOS				
A	ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? N	N / A		WC5691550588084	06/30/2024	06/30/2025	E.L. EACH ACCIDENT	$1,000,000
	(Mandatory in NH)			WI, MN			E.L. DISEASE-EA EMPLOYEE	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE-POLICY LIMIT	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Small Cell Network Locations in Milton, MA. Town of Milton is included as Additional Insured with respect to the General Liability policy.

CERTIFICATE HOLDER

Town of Milton
525 Canton Ave.
Milton MA 02186 USA

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Northeast, Inc.

Holder Identifier :

Certificate No : 570111167553

AGENCY CUSTOMER ID: 570000027366

LOC #:

ADDITIONAL REMARKS SCHEDULE

AGENCY	NAMED INSURED
Aon Risk Services Northeast, Inc.	Verizon Wireless, LLC
POLICY NUMBER: See Certificate Number: 570111167553	
CARRIER: See Certificate Number: 570111167553 / NAIC CODE:	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

ADDITIONAL POLICIES If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
	WORKERS COMPENSATION							
B		N/A		WA769D550588074 MA	06/30/2024	06/30/2025		

EXHIBIT H:

Distance Maps

Distance Map

MILTON_MA_SC01
N 42.259016, W -71.088044

129

160

150

130

Milton_MA_SC01

Ruler

Line | Path | Polygon | Circle | 3D path | 3D polygon

Measure the distance between two points on the ground

Map Length: 33.54 Feet

Ground Length: 33.54

Heading: 114.04 degrees

Mouse Navigation | Save | Clear

Google Earth

EXHIBIT I:

Project Engineer Affidavit

AFFIDAVIT OF PROJECT ENGINEER

The undersigned, in support of the application to install a small wireless telecommunications facility consisting of an antenna and associated radio equipment on an existing wooden utility pole located in the public right of way in the Town of Milton, Massachusetts, states the following:

1. My name is Sean Conway. I am a Small Cell Project Network Engineer for Verizon Wireless in New England
2. Verizon Wireless is a federally licensed provider of wireless communications services with a national footprint.
3. Verizon Wireless certifies that it will be maintain the installations attached to the Eversource pole in Milton in good repair and in accordance to FCC standards.
4. Verizon Wireless certifies that it will remove any installation not in such good repair, or not in use, within 60 days of being taken out of service.

Signed and sworn under the pains and penalties of perjury this 3rd day of March, 20225

Sean Conway

_____

Sean Conway
Principal Engineer
Verizon Wireless
51 Adler Street
Medway, MA 02053

EXHIBIT J:

Antenna Data Sheet

Product Specifications

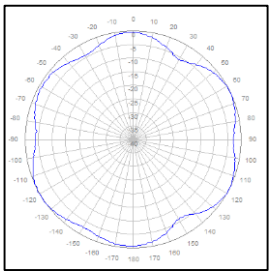
CX16OMI236-1C

NWAV™ X-Pol OMNI Cantenna | 16-Port | 2.98 cu. ft | 360°

16-Port 2 ft 360º Cantenna with RET-controlled from 1695–2700 MHz

(4) 698–960 MHz & (4) 1695–2700 MHz & (4) 3550–3700 MHz & (4) 5150–5925 MHz

- X-Pol, small cell, Hex-Port antenna
- Suitable for pole or building mount
- 4x4 MIMO low-band, 4x4 MIMO for each of AWS/PCS/CBRS/LAA
- Internal beam combining
- Dependent RET control for 1695–2700 MHz frequencies
- Suitable for LTE/UMTS/CDMA/GSM technologies
- Cost-effective solution for neutral host locations



Omni Clover

Electrical specification (min./max.)	Ports 1,2,3,4		Ports 5,6,7,8				
Frequency bands, MHz	698–798	824–960	1695–1880	1850–1990	1920–2180	2300–2500	2500–2700
Polarization	± 45°		± 45°				
Average gain over all tilts, dBi	3.5	3.5	9.0	9.2	9.9	10.1	9.9
Horizontal beamwidth (HBW), degrees[1]	360°		360°				
Vertical beamwidth, (VBW), degrees[1]	80°	65°	15.4°	14.4°	13.5°	12.0°	11.0°
Electrical downtilt (EDT) range, degrees	0° (FET)		2-8° (RET)				
X polar isolation, P2P, dB[1]	25	25	25	25	25	25	25
Maximum VSWR/return loss, dB	1.5:1/ -14.0		1.5:1/ -14.0				
Max PIM (3rd order 2x20 W carrier dBc)	-153		-153				
Maximum input power per port, watts	250		125				
Total Max Composite Power, watts	900						

Electrical specification (minimum/maximum)	Ports 9,10,11,12	Ports 13,14, 15,16				
Frequency bands, MHz	3550–3700	5150–5250	5250–5350	5470–5725	5725–5850	5850–5925
Polarization	± 45°	± 45°				
Average gain over all tilts, dBi	5.0	5.5	5.7	5.5	5.5	5.6
Horizontal beamwidth (HBW), degrees[1]	360°					
Vertical beamwidth (VBW), degrees[1]	28°	24°	24°	20°	14°	18°
Electrical downtilt (EDT) range, degrees	0° (FET)					
X polar isolation, P2P, dB[1]	25	25				
Max VSWR/return loss, dB	1.5:1/ -14.0	1.5:1/ -14.0				
PIM	N/A					
Maximum input power port	10	.5	0.125	.125	0.5	0.5

[1] Typical value over frequency and tilt

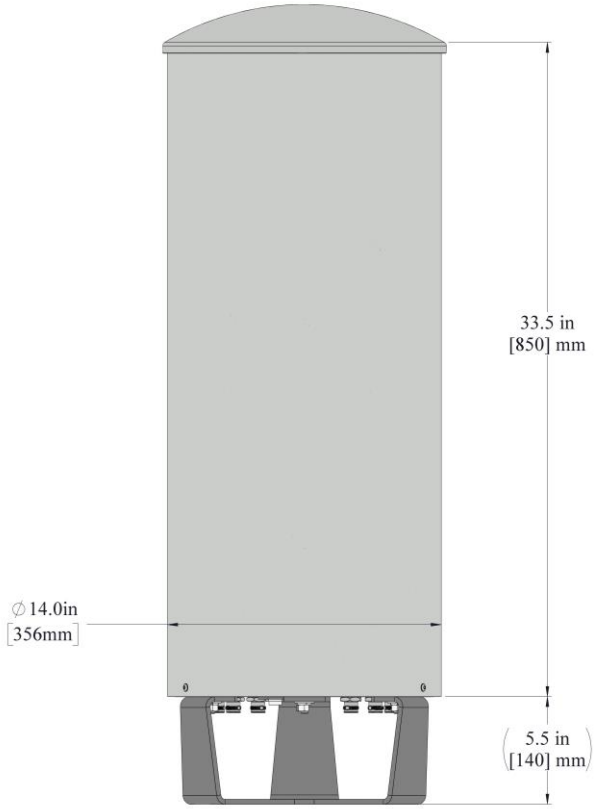
*USL at 5150-5925 MHz < -15dB at > 30° above horizon

CX16OMI236-1C

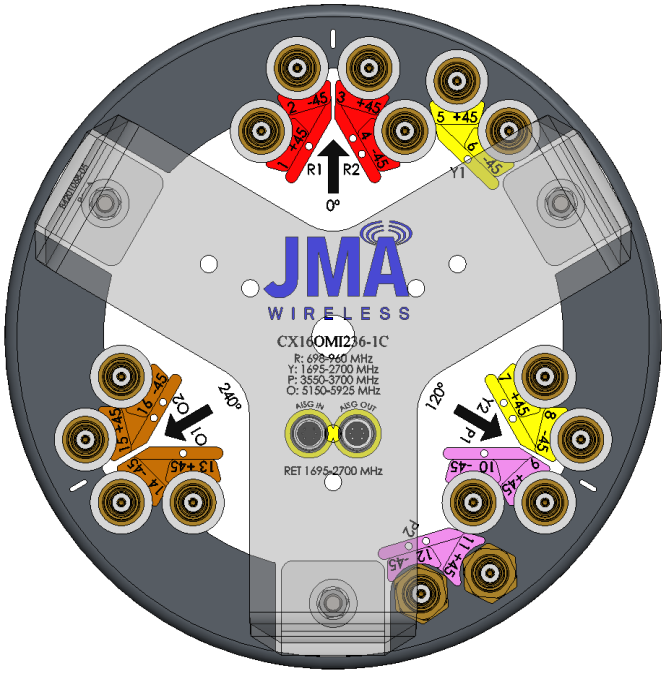
NWAV™ X-Pol OMNI Cantenna | 16-Port | 2.98 cu. ft | 360°

Mechanical specifications	
Dimensions height/diameter, inches (mm)	35.4/14 (947/355)
Volume (cubic feet)	2.98
No. of RF input ports, connector type and location	16 x 4.3-10 female, bottom
RF connector torque	96 lbf·in (10.85 N m or 8 lbf·ft)
Net antenna weight, lb (kg)	35 (15.9)
Rated wind survival speed, mph (km/h)	150 (241)
Frontal wind loading @ 160 km/h, lbf (N)	58.7 (261.2)
Equivalent flat plate @100 mph and Cd=2, sq. ft	1.17

Front view



Bottom view



Ordering information	
Antenna model	**Description**
CX16OMI236-1C	2F X-Pol 16P OMNI 360°, HB 2-8° RET, 4.3-10
Mounting bracket options	See small cell mounting bracket options http://info.jmawireless.com/ret-antenna-matrix

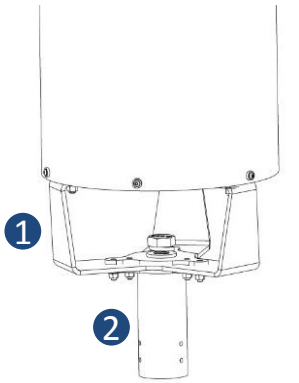
CX16OMI236-1C

NWAV™ X-Pol OMNI Cantenna | 16-Port | 2.98 cu. ft | 360°

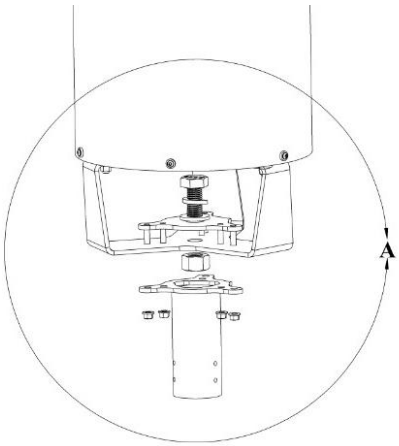
Notes on cylinder brackets:

- All CX* antennas come with the bottom mount bracket (marked as 1) factory installed (all factory testing is done with bracket attached)
- Hardware is included with each antenna to connect bottom bracket to different mounting systems
- JMA cylinder brackets are compatible with bottom mount via universal cantenna mount sleeve (marked as 2) included with JMA cylinder mounting systems.

Example bracket configuration

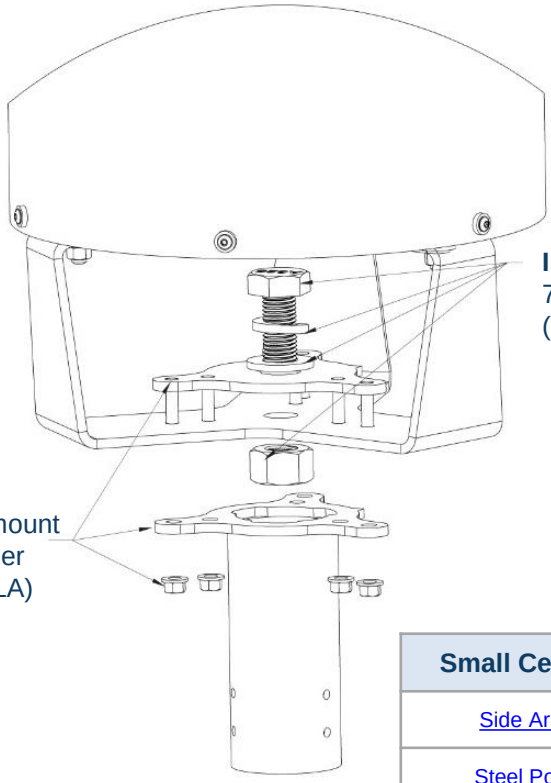


FINAL ASSEMBLY



EXPLODED VIEW

Mounting details



Included with antenna:
7/8"" bolt, washer, nut
(Torque to 202 lbf·ft)

Sold separately:
Universal cantenna mount sleeve for JMA cylinder brackets (SC-BKT-SLA)

Small Cell solutions and mounting systems	
Side Arm Mounting System	SC-BKT-SA-(color)
Steel Pole Mounting System	SC-BKT-SLA-(color)
Wide Diameter Pole	SC-BKT-WTPE-(color)
Rooftop Ballasted Mounting System	SC-BKT-RTB-(color)

CX16OMI236-1C

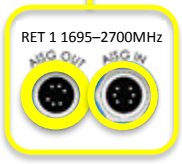
NWAV™ X-Pol OMNI Cantenna | 16-Port | 2.98 cu. ft | 360°

Remote electrical tilt (RET 1000) information	
RET location	Integrated into antenna
RET interface connector type	8-pin AISG connector per IEC 60130-9 (Hand tight only)
RET Connector torque	Min. .5 Nm to max 1.0 Nm (hand pressure & finger tight connector)
RET interface connector quantity	2 pairs of AISG male/female connectors
RET interface connector location	Bottom of the antenna
Total No. of internal RETs high bands	1
RET input operating voltage, vdc	10–30
RET max power consumption, idle state, W	≤ 2.0
RET max power consumption, normal operating conditions, W	≤ 13.0
RET communication protocol	AISG 2.0/ 3GPP

RET topology

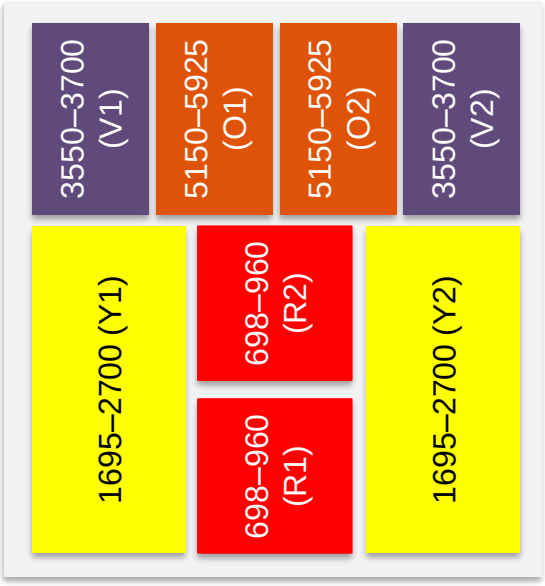
A single RET device controls all 3 sectors via the designated external AISG connector as shown below

RET device	Band	RF port
1	1695–2700	5–8



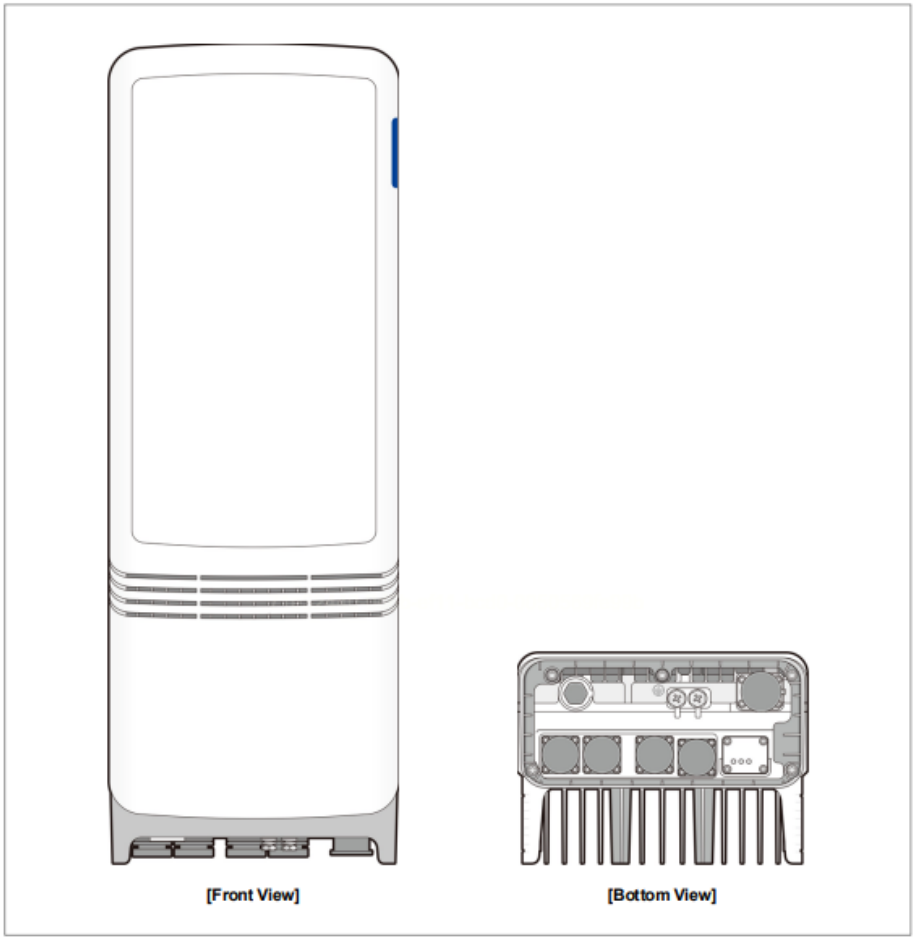
Array topology

Array ID	Band	RF Port
R1	698–960	1–2
R2	698–960	3–4
Y1	1695–2700	5–6
Y2	1695–2700	7–8
V1	3550–3700	9–10
V2	3550–3700	11–12
V3	5150–5925	13–14
V4	5150–5925	15–16



Three MT1602d antennas

Figure 1. MT1602d-48A/B Appearance



The following table outlines the name and description of the MT1602d-48A/B.

Volume / Dimension (W x H x D)	20.5L/220 x 583 x 160 mm (8.66 x 22.95 x 6.30 inches)
Weight	DC type: 14.02 kg (30.9 lb) or less (without a Bracket) AC type: 14.52 kg (32.0 lb) or less (without a Bracket)