

**PLANNING BOARD  
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK**

In the Matter of the Application of

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**CELLCO PARTNERSHIP  
d/b/a Verizon Wireless**

Proposed Wooden Pole – 110 Howland Avenue  
City of Beacon, Dutchess County, New York

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**APPLICATION FOR SPECIAL USE PERMIT and  
ROSENBERG WAIVER RELIEF and STATEMENT OF INTENT**

Submitted by:

Verizon Wireless  
Kathy Pomponio, Real Estate Manager  
1275 John Street Suite 100  
West Henrietta, New York 14586  
(585) 321-5435

EBI Engineering PC  
Alex Giannaras, P.E.  
36 British American Blvd, Suite 101  
Latham, New York 12110  
(518) 783-1630

Airosmith Development  
Andrea Armstrong, Site Acquisition Specialist  
32 Clinton Street  
Saratoga Springs NY 12866  
(518) 527-0011

Young/Sommer LLC  
Scott P. Olson, Esq.  
Executive Woods  
Five Palisades Drive  
Albany, New York 12205  
(518) 438-9907

Dated: November 23, 2018

## APPLICATION FOR SPECIAL USE PERMIT

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

### IDENTIFICATION OF APPLICANT

(For Official Use Only)

Date Initials

Name: Orange County-Poughkeepsie Limited Partnership <sup>d/b/a Verizon Wireless</sup>  
Address: 1275 JOHN ST., Suite 100  
West Henrietta, NY 14586  
Signature: [Signature] Scott Olson, Attorney  
Date: 11/19/18  
Phone: 518-527-6813

Application & Fee Rec'd

Initial Review

PB Public Hearing

Sent to City Council

City Council Workshop

City Council Public Hearing

City Council Approve/Disapprove

### IDENTIFICATION OF REPRESENTATIVE / DESIGN PROFESSIONAL

Name: YOUNG SOMMER LLC (ATTN: Scott Olson)  
Address: 5 PALMIST DR.  
ALBANY NY 12205

Phone: 518-527-6813

Fax: 518-438-9914

Email address: solson@youngsummer.com

### IDENTIFICATION OF SUBJECT PROPERTY:

Property Address: 110 HOWLAND AVE.

Tax Map Designation: Section 6054

Block 14 Lot(s) 347464

Land Area: Approx. 6 Acres

Zoning District(s) R1-20

### DESCRIPTION OF PROPOSED DEVELOPMENT:

Proposed Use: Installation and operation of Small Cell Facility

Gross Non-Residential Floor Space: Existing N/A Proposed N/A

TOTAL: N/A

Dwelling Units (by type): Existing N/A Proposed N/A

TOTAL: N/A

### ITEMS TO ACCOMPANY THIS APPLICATION

- Five (5) **folded** copies and One (1) digital copy of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.
- Five (5) **folded** copies and One (1) digital copy of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.
- Five (5) **folded** copies and One (1) digital copy of additional sketches, renderings or other information.
- An application fee, payable to the City of Beacon, computed per the attached fee schedule.
- An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

### **INFORMATION TO BE SHOWN ON SITE LOCATION SKETCH**

- a. Property lines, zoning district boundaries and special district boundaries affecting all adjoining streets and properties, including properties located on the opposite sides of adjoining streets.
- b. Any reservations, easements or other areas of public or special use which affect the subject property.
- c. Section, block and lot numbers written on the subject property and all adjoining properties, including the names of the record owners of such adjoining properties.

### **INFORMATION TO BE SHOWN ON THE SITE DEVELOPMENT PLAN**

- a. Title of development, date and revision dates if any, north point, scale, name and address of record owner of property, and of the licensed engineer, architect, landscape architect, or surveyor preparing the site plan.
- b. Existing and proposed contours at a maximum vertical interval of two (2) feet.
- c. Location and identification of natural features including rock outcrops, wooded areas, single trees with a caliper of six (6) or more inches measured four (4) feet above existing grade, water bodies, water courses, wetlands, soil types, etc.
- d. Location and dimensions of all existing and proposed buildings, retaining walls, fences, septic fields, etc.
- e. Finished floor level elevations and heights of all existing and proposed buildings.
- f. Location, design, elevations, and pavement and curbing specifications, including pavement markings, of all existing and proposed sidewalks, and parking and truck loading areas, including access and egress drives thereto.
- g. Existing pavement and elevations of abutting streets, and proposed modifications.
- h. Location, type and design of all existing and proposed storm drainage facilities, including computation of present and estimated future runoff of the entire tributary watershed, at a maximum density permitted under existing zoning, based on a 100 year storm.
- i. Location and design of all existing and proposed water supply and sewage disposal facilities.
- j. Location of all existing and proposed power and telephone lines and equipment, including that located within the adjoining street right-of-way. All such lines and equipment must be installed underground.
- k. Estimate of earth work, including type and quantities of material to be imported to or removed from the site.
- l. Detailed landscape plan, including the type, size, and location of materials to be used.
- m. Location, size, type, power, direction, shielding, and hours of operation of all existing and proposed lighting facilities.
- n. Location, size, type, and design of all existing and proposed business and directional signs.
- o. Written dimensions shall be used wherever possible.
- p. Signature and seal of licensed professional preparing the plan shall appear on each sheet.
- q. Statement of approval, in blank, as follows:

**Approved by Resolution of the Beacon Planning Board**  
**on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_**  
**subject to all conditions as stated therein**

\_\_\_\_\_  
**Chairman, City Planning Board**

\_\_\_\_\_  
**Date**

# APPLICATION PROCESSING RESTRICTION LAW

## Affidavit of Property Owner

Property Owner: Ability Beyond Disability; Verizon Wireless is Applicant

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

Orange County - Poughkeepsie Limited Partnership d/b/a Verizon Wireless; Verizon Wireless of the  
EMC LP; and Celco Partnership

List all properties in the City of Beacon that you hold a 5% interest in:

Verizon Wireless = 0

Applicant Address: 1275 John St., Suite 100, West Henrietta, NY 14586

Project Address: 110 Howland Avenue

Project Tax Grid # 6054-14-347464

Type of Application Special Use Permit

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Scott Olson, Attorney for Verizon Wireless, the undersigned <sup>Applicant</sup> owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon Y
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon N
3. ALL tax payments due to the City of Beacon are current Y
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon N
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon N
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current Y

Scott Olson, Attorney for Applicant  
Signature of Owner

Attorney

Title if owner is corporation

| Office Use Only:   | NO | YES | Initial |
|--|----|-----|---------|
| Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.) | —  | —   | —       |
| ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)               | —  | —   | —       |
| ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)              | —  | —   | —       |



**CITY OF BEACON  
SITE PLAN SPECIFICATION FORM**

Name of Application: Howland Micro - Verizon Wireless

| PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.  |     |    |
|--|-----|----|
|  | YES | NO |
| The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual or firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:                    | ✓   |    |
| <b>LEGAL DATA</b>  |     |    |
| Name and address of the owner of record.   | ✓   |    |
| Name and address of the applicant (if other than the owner).   | ✓   |    |
| Name and address of person, firm or organization preparing the plan.   | ✓   |    |
| Date, north arrow, and written and graphic scale.  | ✓   |    |
| <b>NATURAL FEATURES</b>  |     |    |
| Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.  | N/A |    |
| Approximate boundaries of any areas subject to flooding or stormwater overflows.   | ✓   |    |
| Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features. | N/A |    |
| <b>EXISTING STRUCTURES, UTILITIES, ETC.</b>  |     |    |
| Outlines of all structures and the location of all uses not requiring structures.<br>Paved areas, sidewalks, and vehicular access between the site and public streets.   | ✓   |    |
| Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.  | N/A |    |
| Other existing development, including fences, retaining walls, landscaping, and screening.   | ✓   |    |
| Sufficient description or information to define precisely the boundaries of the property.  | ✓   |    |
| The owners of all adjoining lands as shown on the latest tax records.  | ✓   |    |
| The locations, names, and existing widths of adjacent streets and curb lines.  | ✓   |    |
| Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the properties.  | ✓   |    |

| PROPOSED DEVELOPMENT  | YES   | NO |
|---|-------|----|
| The location, use and design of proposed buildings or structural improvements.  | ✓     |    |
| The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.   | ✓     |    |
| Any proposed division of buildings into units of separate occupancy.  | ✓     |    |
| The location, direction, power, and time of use for any proposed outdoor lighting.  | ✓     |    |
| The location and plans for any outdoor signs.   |       | ✓  |
| The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.     | ✓     |    |
| Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.                         | N/A   |    |
| The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc. | N/A   |    |
| Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.  | N/A   |    |
| Any contemplated public improvements on or adjoining the property.  | N/A   |    |
| Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.                         | N/A   |    |
| Elevations of all proposed principal or accessory structures.   | ✓ N/A |    |
| Any proposed fences or retaining walls.   | ✓     |    |
| MISCELLANEOUS   |       |    |
| A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.                                  | ✓     |    |
| Erosion and sedimentation control measures.   | N/A   |    |
| A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.                    | N/A   |    |
| An indication of proposed hours of operation.   | N/A   |    |
| If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.  | ✓     |    |

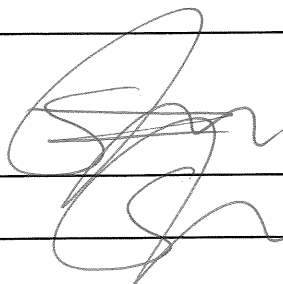
For all items marked "NO" above, please explain below why the required information has not been provided:

The proposal involves the installation and operation of a new small cell facility (i.e. a new wooden utility pole) on privately-owned property. The project is minor in nature and similar to existing utility poles located within the surrounding area.

Applicant/Sponsor Name:

Signature:

Date:



Verizon Wireless

Attorney for Applicant

11/19/18

**FOR OFFICE USE ONLY**

Application #

**CITY OF BEACON****1 Municipal Plaza, Beacon, NY****Telephone (845) 838-5000 • <http://cityofbeacon.org/>****ENTITY DISCLOSURE FORM**

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any person(s))

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

**SECTION A**

Name of Applicant: Orange County - Poughkeepsie Limited Partnership d/b/a Verizon Wireless  
Address of Applicant: 1275 John Street, Suite 100, West Henrietta, NY 14586  
Telephone Contact Information: c/o Scott Olson, Esq., 518-438-9907 Ext. 258

**SECTION B. List all owners of record of the subject property or any part thereof.**

| Name           | Residence or Business Address  | Telephone Number | Date and Manner title was acquired | Date and place where the deed or document of conveyance was recorded or filed. |
|----------------|--------------------------------|------------------|------------------------------------|--|
| Ability Beyond | 4 Berkshire Blvd<br>Bethel, CT | TBD              | 12/3/10<br>Deed                    | Dutchess County<br>Clerk's Office  |
| DiABility      | 06801                          |                  |                                    | 1/5/11   |
|                |                                |                  |                                    |  |

**SECTION B.** Is any owner of record an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐

YES

☒

NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

| Agency | Title | Date of Hire, Date Elected, or Date Appointed | Position or Nature of Relationship |
|--------|-------|---|------------------------------------|
|        |       |   |                                    |
|        |       |   |                                    |
|        |       |   |                                    |

**SECTION C.** If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application.

**SECTION D.** Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐

YES

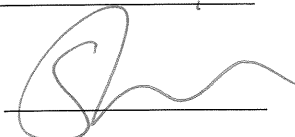
☒

NO

I, Scott Olson being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.

*to the best  
of my knowledge*

(Print) Scott Olson, Attorney for Verzin Winkler

(Signature) 

DOCUMENTATION OF PUBLIC UTILITY STATUS  
and  
OVERVIEW OF ROSENBERG DECISION

In *Cellular Tel. Co. v. Rosenberg*, 82 N.Y.2d 364 (1993), the New York Court of Appeals determined that cellular telephone companies are public utilities. The Court held that proposed cellular telephone installations are to be reviewed by zoning boards pursuant to the traditional standard afforded to public utilities, rather than the standards generally required for the necessary approvals:

It has long been held that a zoning board may not exclude a utility from a community where the utility has shown a need for its facilities. There can be no question of [the carrier's] need to erect the cell site to eliminate service gaps in its cellular telephone service area. The proposed cell site will also improve the transmission and reception of existing service. Application of our holding in *Matter of Consolidated Edison* to sitings of cellular telephone companies, such as [the applicant], permits those companies to construct structures necessary for their operation which are prohibited because of existing zoning laws and to provide the desired services to the surrounding community. . . . Moreover, the record supports the conclusion that [the applicant] sustained its burden of proving the requisite public necessity. [The applicant] established that the erection of the cell site would enable it to remedy gaps in its service area that currently prevent it from providing adequate service to its customers in the . . . area.

*Rosenberg*, 82 N.Y.2d at 372-74 (citing *Consolidated Edison Co. v. Hoffman*, 43 N.Y.2d 598 (1978)).

This special treatment of a public utility stems from the essential nature of its service, and the fact that a public utility transmitting facility must be located in a particular area in order to provide service. For instance, water towers, electric switching stations, water pumping stations and telephone poles must be in particular locations (including within residential districts) in order to provide the utility to a specific area:

[Public] utility services are needed in all districts; the service can be provided only if certain facilities (for example, substations) can be located in commercial and even in residential districts. To exclude such use would result in an impairment of an essential service.

Anderson, *New York Zoning Law Practice*, 3d ed., p. 411 (1984) (hereafter "Anderson"). See also, *Cellular Tel. Co. v. Rosenberg*, 82 N.Y.2d 364 (1993); *Payne v. Taylor*, 178 A.D.2d 979 (4th Dep't 1991).

Accordingly, the law in New York is that a municipality may not prohibit facilities, including towers, necessary for the transmission of a public utility. In *Rosenberg*, 82 N.Y.2d at 371, the court found that "the construction of an antenna tower... to facilitate the supply of cellular telephone service is a 'public utility building' within the meaning of a zoning ordinance." See also *Long Island Lighting Co. v. Griffin*, 272 A.D. 551 (2d Dep't 1947) (a municipal corporation may not prohibit the expansion of a public utility where such expansion is necessary to the maintenance of essential services).

**DOCUMENTATION OF PERSONAL WIRELESS SERVICE FACILITY STATUS  
and  
FEDERAL TELECOMMUNICATIONS ACT OF 1996**

In addition to being considered a public utility under New York decisional law, Verizon Wireless is classified as a provider of “personal wireless services” under the federal Telecommunications Act of 1996 (the “TCA”).

As stated in the long title of the Act, the goal of the TCA is to “promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.” *Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56 (1996)*.

The TCA mandates a process designed to achieve competitive telecommunications markets. In keeping with the central goals of the TCA, the authors specify in Section 253(a) that “[n]o State or local statute or regulation...may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.” *TCA Section 253(a), emphasis added*.

Section 332(c) of the TCA preserves the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction and modification of personal wireless service facilities, subject to several important limitations:

- the “regulation of the placement...of personal wireless service facilities by any State or local government or instrumentality thereof shall not unreasonably discriminate among providers of functionally equivalent services” (*TCA §332(c)(7)(B)(i)(I)*);
- the “regulation of the placement...of personal wireless service facilities by any State or local government or instrumentality thereof shall not prohibit or have the effect of prohibiting the provision of personal wireless services” (*TCA §332(c)(7)(B)(i)(II)*);
- Applications must be processed within a reasonable period of time, and any decision to deny a request for placement of personal wireless service facilities must be in writing and supported by substantial evidence contained in a written record (*TCA §§332(c)(7)(B)(ii) and (iii)*); and
- regulations based upon the perceived environmental effects of radio frequency emissions are prohibited, so long as the proposed personal wireless service facility complies with FCC regulations concerning such emissions (*TCA §332(c)(7)(B)(iv)*).

A reference copy of the Telecommunications Act of 1996 is included herewith.



## TELECOMMUNICATIONS ACT OF 1996

JANUARY 31, 1996. Ordered to be printed

Mr. BLILEY, from the committee of conference,  
submitted the following

### CONFERENCE REPORT

[To accompany S. 652]

The committee of conference on the disagreeing votes of the two Houses on the amendments of the House to the bill (S. 652), to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition, and for other purposes, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the Senate recede from its disagreement to the amendment of the House to the text of the bill and agree to the same with an amendment as follows:

In lieu of the matter proposed to be inserted by the House amendment, insert the following:

#### SECTION 1. SHORT TITLE; REFERENCES.

(a) *SHORT TITLE.*—This Act may be cited as the “Telecommunications Act of 1996”.

(b) *REFERENCES.*—Except as otherwise expressly provided, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Communications Act of 1934 (47 U.S.C. 151 et seq.).

#### SEC. 2. TABLE OF CONTENTS.

*The table of contents for this Act is as follows:*

*Sec. 1. Short title; references.*

*Sec. 2. Table of contents.*

*Sec. 3. Definitions.*

22-327

Federal Communications Commission  
Library

~~The owner shall provide written notification of such action to any entity that has obtained an attachment to such conduit or right-of-way so that such entity may have a reasonable opportunity to add to or modify its existing attachment. Any entity that adds to or modifies its existing attachment after receiving such notification shall bear a proportionate share of the costs incurred by the owner in making such pole, duct, conduit, or right-of-way accessible.~~

~~Any entity that obtains an attachment to a pole, conduit, or right-of-way shall not be required to bear any of the costs of rearranging or replacing its attachment if such rearrangement or replacement is required as a result of an additional attachment or the modification of an existing attachment sought by any other entity.~~

#### SEC. 704. FACILITIES SITING; RADIO FREQUENCY EMISSION STANDARDS.

(a) NATIONAL WIRELESS TELECOMMUNICATIONS SITING POLICY.—Section 332(c) (47 U.S.C. 332(c)) is amended by adding at the end the following new paragraph:

“(7) PRESERVATION OF LOCAL ZONING AUTHORITY.—

“(A) GENERAL AUTHORITY.—Except as provided in this paragraph, nothing in this Act shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities.

“(B) LIMITATIONS.—

“(i) The regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof—

“(I) shall not unreasonably discriminate among providers of functionally equivalent services; and

“(II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services.

“(ii) A State or local government or instrumentality thereof shall act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time after the request is duly filed with such government or instrumentality, taking into account the nature and scope of such request.

“(iii) Any decision by a State or local government or instrumentality thereof to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record.

“(iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.

"(v) Any person adversely affected by any final action or failure to act by a State or local government or any instrumentality thereof that is inconsistent with this subparagraph may, within 30 days after such action or failure to act, commence an action in any court of competent jurisdiction. The court shall hear and decide such action on an expedited basis. Any person adversely affected by an act or failure to act by a State or local government or any instrumentality thereof that is inconsistent with clause (iv) may petition the Commission for relief.

"(C) DEFINITIONS.—For purposes of this paragraph—

"(i) the term 'personal wireless services' means commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services;

"(ii) the term 'personal wireless service facilities' means facilities for the provision of personal wireless services; and

"(iii) the term 'unlicensed wireless service' means the offering of telecommunications services using duly authorized devices which do not require individual licenses, but does not mean the provision of direct-to-home satellite services (as defined in section 303(v))."

(b) RADIO FREQUENCY EMISSIONS.—Within 180 days after the enactment of this Act, the Commission shall complete action in ET Docket 93-62 to prescribe and make effective rules regarding the environmental effects of radio frequency emissions.

(c) AVAILABILITY OF PROPERTY.—Within 180 days of the enactment of this Act, the President or his designee shall prescribe procedures by which Federal departments and agencies may make available on a fair, reasonable, and nondiscriminatory basis, property, rights-of-way, and easements under their control for the placement of new telecommunications services that are dependent, in whole or in part, upon the utilization of Federal spectrum rights for the transmission or reception of such services. These procedures may establish a presumption that requests for the use of property, rights-of-way, and easements by duly authorized providers should be granted absent unavoidable direct conflict with the department or agency's mission, or the current or planned use of the property, rights-of-way, and easements in question. Reasonable fees may be charged to providers of such telecommunications services for use of property, rights-of-way, and easements. The Commission shall provide technical support to States to encourage them to make property, rights-of-way, and easements under their jurisdiction available for such purposes.

#### **RIERS.**

Section 332(c) (47 U.S.C. 332(c)) is amended by adding at the end the following new paragraph:

"(8) MOBILE SERVICES ACCESS.—A person engaged in the provision of commercial mobile services, insofar as such person is engaged, shall not be required to provide equal access to common carriers for the provision of telephone toll services. If

portionate share of the costs incurred by the owner in making such conduit or right-of-way accessible.

*Conference agreement*

The conference agreement adopts the Senate provision with modifications. The conference agreement amends section 224 of the Communications Act by adding new subsection (e)(1) to allow parties to negotiate the rates, terms, and conditions for attaching to poles, ducts, conduits, and rights-of-way owned or controlled by utilities. New subsection 224(e)(2) establishes a new rate formula charged to telecommunications carriers for the non-useable space of each pole. Such rate shall be based upon the number of attaching entities. The conferees also agree to three additional provisions from the House amendment. First, subsection (g) requires utilities that engage in the provision of telecommunications services or cable services to impute to its costs of providing such service an equal amount to the pole attachment rate for which such company would be liable under section 224. Second, new subsection 224(h) requires utilities to provide written notification to attaching entities of any plans to modify or alter its poles, ducts, conduit, or rights-of-way. New subsection 224(h) also requires any attaching entity that takes advantage of such opportunity to modify its own attachments shall bear a proportionate share of the costs of such alterations. Third, new subsection 224(i) prevents a utility from imposing the cost of rearrangements to other attaching entities if done solely for the benefit of the utility.

SECTION 704—FACILITIES SITING; RADIO FREQUENCY EMISSION STANDARDS

*Senate bill*

No provision.

*House amendment*

Section 108 of the House amendment required the Commission to issue regulations within 180 days of enactment for siting of CMS. A negotiated rulemaking committee comprised of State and local governments, public safety agencies and the affected industries were to have attempted to develop a uniform policy to propose to the Commission for the siting of wireless tower sites.

The House amendment also required the Commission to complete its pending Radio Frequency (RF) emission exposure standards within 180 days of enactment. The siting of facilities could not be denied on the basis of RF emission levels for facilities that were in compliance with the Commission standard.

The House amendment also required that to the greatest extent possible the Federal government make available to use of Federal property, rights-of-way, easements and any other physical instruments in the siting of wireless telecommunications facilities.

*Conference agreement*

The conference agreement creates a new section 704 which prevents Commission preemption of local and State land use decisions and preserves the authority of State and local governments over

zoning and land use matters except in the limited circumstances set forth in the conference agreement. The conference agreement also provides a mechanism for judicial relief from zoning decisions that fail to comply with the provisions of this section. It is the intent of the conferees that other than under section 332(c)(7)(B)(iv) of the Communications Act of 1934 as amended by this Act and section 704 of the Telecommunications Act of 1996 the courts shall have exclusive jurisdiction over all other disputes arising under this section. Any pending Commission rulemaking concerning the preemption of local zoning authority over the placement, construction or modification of CMS facilities should be terminated.

When utilizing the term "functionally equivalent services" the conferees are referring only to personal wireless services as defined in this section that directly compete against one another. The intent of the conferees is to ensure that a State or local government does not in making a decision regarding the placement, construction and modification of facilities of personal wireless services described in this section unreasonably favor one competitor over another. The conferees also intend that the phrase "unreasonably discriminate among providers of functionally equivalent services" will provide localities with the flexibility to treat facilities that create different visual, aesthetic, or safety concerns differently to the extent permitted under generally applicable zoning requirements even if those facilities provide functionally equivalent services. For example, the conferees do not intend that if a State or local government grants a permit in a commercial district, it must also grant a permit for a competitor's 50-foot tower in a residential district.

Actions taken by State or local governments shall not prohibit or have the effect of prohibiting the placement, construction or modification of personal wireless services. It is the intent of this section that bans or policies that have the effect of banning personal wireless services or facilities not be allowed and that decisions be made on a case-by-case basis.

Under subsection (c)(7)(B)(ii), decisions are to be rendered in a reasonable period of time, taking into account the nature and scope of each request. If a request for placement of a personal wireless service facility involves a zoning variance or a public hearing or comment process, the time period for rendering a decision will be the usual period under such circumstances. It is not the intent of this provision to give preferential treatment to the personal wireless service industry in the processing of requests, or to subject their requests to any but the generally applicable time frames for zoning decision.

The phrase "substantial evidence contained in a written record" is the traditional standard used for judicial review of agency actions.

The conferees intend section 332(c)(7)(B)(iv) to prevent a State or local government or its instrumentalities from basing the regulation of the placement, construction or modification of CMS facilities directly or indirectly on the environmental effects of radio frequency emissions if those facilities comply with the Commission's regulations adopted pursuant to section 704(b) concerning such emissions.

The limitations on the role and powers of the Commission under this subparagraph relate to local land use regulations and are not intended to limit or affect the Commission's general authority over radio telecommunications, including the authority to regulate the construction, modification and operation of radio facilities.

The conferees intend that the court to which a party appeals a decision under section 332(c)(7)(B)(v) may be the Federal district court in which the facilities are located or a State court of competent jurisdiction, at the option of the party making the appeal, and that the courts act expeditiously in deciding such cases. The term "final action" of that new subparagraph means final administrative action at the State or local government level so that a party can commence action under the subparagraph rather than waiting for the exhaustion of any independent State court remedy otherwise required.

With respect to the availability of Federal property for the use of wireless telecommunications infrastructure sites under section 704(c), the conferees generally adopt the House provisions, but substitute the President or his designee for the Commission.

It should be noted that the provisions relating to telecommunications facilities are not limited to commercial mobile radio licensees, but also will include other Commission licensed wireless common carriers such as point to point microwave in the extremely high frequency portion of the electromagnetic spectrum which rely on line of sight for transmitting communication services.

~~SECTION 705 MOBILE SERVICE DIRECT ACCESS TO LONG DISTANCE CARRIERS~~

*Senate bill*

Subsection (b) of section 221 of the Senate bill, as passed, states that notwithstanding the MFJ or any other consent decree, no CMS provider will be required by court order or otherwise to provide long distance equal access. The Commission may only order equal access if a CMS provider is subject to the interconnection obligations of section 251 and if the Commission finds that such a requirement is in the public interest. CMS providers shall ensure that its subscribers can obtain unblocked access to the interexchange carrier of their choice through the use of interexchange carrier identification codes, except that the unblocking requirement shall not apply to mobile satellite services unless the Commission finds it is in the public interest.

*House amendment*

Under section 109 of the House amendment, the Commission shall require providers of two-way switched voice CMS to allow their subscribers to access the telephone toll services provider of their choice through the use of carrier identification codes. The Commission rules will supersede the equal access, balloting and prescription requirements imposed by the MFJ and the AT&T-McCaw consent decree. The Commission may exempt carriers or classes from the requirements of this section if it is consistent with the public interest, convenience, and necessity, and the

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## Federal Communications Commission

### Wireless Telecommunications Bureau

#### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY  
CELLCO PARTNERSHIP  
1120 SANCTUARY PKWY, #150 GASA5REG  
ALPHARETTA, GA 30009-7630

| Call Sign                         | File Number |
|-----------------------------------|-------------|
| WQJQ689                           |             |
| Radio Service                     |             |
| WU - 700 MHz Upper Band (Block C) |             |

FCC Registration Number (FRN): 0003290673

|   |   |                                      |                           |
|---|---|--------------------------------------|---------------------------|
| <b>Grant Date</b><br>11-26-2008         | <b>Effective Date</b><br>03-26-2013     | <b>Expiration Date</b><br>06-13-2019 | <b>Print Date</b>         |
| <b>Market Number</b><br>REA001          | <b>Channel Block</b><br>C               | <b>Sub-Market Designator</b><br>0    |                           |
| <b>Market Name</b><br>Northeast         |   |                                      |                           |
| <b>1st Build-out Date</b><br>06-13-2013 | <b>2nd Build-out Date</b><br>06-13-2019 | <b>3rd Build-out Date</b>            | <b>4th Build-out Date</b> |

#### Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

#### Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

ULS License

# **AWS (1710-1755 MHz and 2110-2155 MHz) License - WQPZ962 - Cellco Partnership**

|           |         |               |  |
|-----------|---------|---------------|--|
| Call Sign | WQPZ962 | Radio Service | AW - AWS (1710-1755 MHz and 2110-2155 MHz) |
| Status    | Active  | Auth Type     | Regular                                    |

## **Rural Service Provider Bidding Credit**

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

## **Reserved Spectrum**

Reserved Spectrum

## **Market**

|           |                    |                              |   |
|-----------|--------------------|------------------------------|---|
| Market    | REA001 - Northeast | Channel Block                | E   |
| Submarket | 13                 | Associated Frequencies (MHz) | 001740.00000000-001745.00000000-002140.00000000-002145.00000000 |

## **Dates**

|           |            |              |            |
|-----------|------------|--------------|------------|
| Grant     | 08/23/2012 | Expiration   | 11/29/2021 |
| Effective | 11/30/2017 | Cancellation |            |

## **Buildout Deadlines**

|     |     |
|-----|-----|
| 1st | 2nd |
|-----|-----|

## **Notification Dates**

|     |     |
|-----|-----|
| 1st | 2nd |
|-----|-----|

## **Licensee**

|     |            |      |                     |
|-----|------------|------|---------------------|
| FRN | 0003290673 | Type | General Partnership |
|-----|------------|------|---------------------|

## **Licensee**

|   |   |
|---|---|
| Cellco Partnership<br>5055 North Point Pkwy, NP2NE Network Engineering<br>Alpharetta, GA 30022<br>ATTN Regulatory | P:(770)797-1070<br>F:(770)797-1036<br>E:LicensingCompliance@VerizonWireless.com |
|---|---|

## **Contact**

|  |   |
|--|---|
| Cellco Partnership<br>Licensing Manager<br>5055 North Point Pkwy, NP2NE Network Engineering<br>Alpharetta, GA 30022<br>ATTN Regulatory | P:(770)797-1070<br>F:(770)797-1036<br>E:LicensingCompliance@VerizonWireless.com |
|--|---|



### Ownership and Qualifications

Radio Service      Mobile  
Type

Regulatory Status    Common Carrier    Interconnected    Yes

### Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?    No

Is the applicant an alien or the representative of an alien?    No

Is the applicant a corporation organized under the laws of any foreign government?    No

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?    No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?    **Yes**

The Alien Ruling question is not answered.

### Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

### Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

### Demographics

Race

Ethnicity

Gender

ULS License

## 700 MHz Upper Band (Block C) License - WQJQ689 - Cellco Partnership

**PA** This license has pending applications: 0008249766

|           |         |               |                                   |
|-----------|---------|---------------|-----------------------------------|
| Call Sign | WQJQ689 | Radio Service | WU - 700 MHz Upper Band (Block C) |
| Status    | Active  | Auth Type     | Regular                           |

### Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

### Reserved Spectrum

Reserved Spectrum

### Market

|           |                    |                              |   |
|-----------|--------------------|------------------------------|---|
| Market    | REA001 - Northeast | Channel Block                | C   |
| Submarket | 0                  | Associated Frequencies (MHz) | 000746.00000000-<br>000757.00000000-<br>000776.00000000-<br>000787.00000000 |

### Dates

|           |            |              |            |
|-----------|------------|--------------|------------|
| Grant     | 11/26/2008 | Expiration   | 06/13/2019 |
| Effective | 08/28/2018 | Cancellation |            |

### Buildout Deadlines

|     |            |     |            |
|-----|------------|-----|------------|
| 1st | 06/13/2013 | 2nd | 06/13/2019 |
|-----|------------|-----|------------|

### Notification Dates

|     |            |     |  |
|-----|------------|-----|--|
| 1st | 06/20/2013 | 2nd |  |
|-----|------------|-----|--|

### Licensee

|     |            |      |                     |
|-----|------------|------|---------------------|
| FRN | 0003290673 | Type | General Partnership |
|-----|------------|------|---------------------|

### Licensee

|   |   |
|---|---|
| Cellco Partnership<br>5055 North Point Pkwy, NP2NE Network Engineering<br>Alpharetta, GA 30022<br>ATTN Regulatory | P:(770)797-1070<br>F:(770)797-1036<br>E:LicensingCompliance@VerizonWireless.com |
|---|---|

### Contact

|   |   |
|---|---|
| Verizon Wireless<br>Licensing Manager<br>5055 North Point Pkwy, NP2NE Network Engineering | P:(770)797-1070<br>F:(770)797-1036<br>E:LicensingCompliance@VerizonWireless.com |
|---|---|

Alpharetta, GA 30022  
ATTN Regulatory

**Ownership and Qualifications**

Radio Service      Mobile  
Type

Regulatory Status   Common Carrier   Interconnected   Yes

**Alien Ownership**

The Applicant answered "No" to each of the Alien Ownership questions.

**Basic Qualifications**

The Applicant answered "No" to each of the Basic Qualification questions.

**Tribal Land Bidding Credits**

This license did not have tribal land bidding credits.

**Demographics**

Race

Ethnicity

Gender



PROJECT NO.: 20161509173  
SITE NAME:  
HOWLAND MICRO



48 HOURS PRIOR TO DIGGING  
CONTRACTOR TO NOTIFY ALL  
UTILITY COMPANIES TO LOCATE  
ALL UNDERGROUND UTILITIES.

Know what's **below**.  
Call before you dig.

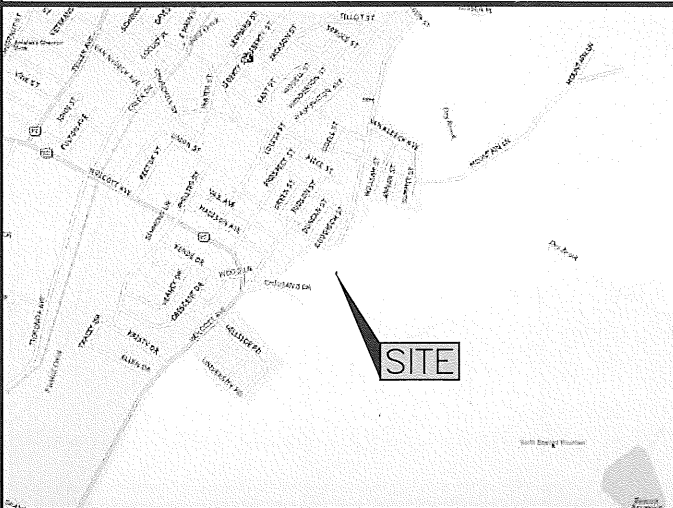
## DRAWING INDEX

[illegible]

## CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LOCAL CODES:

1. IBC2015 WITH LATEST NEW YORK STATE AMENDMENTS
2. NFPA 70-14 (NEC 2014)
3. TIA-222-G-05 WITH LATEST ADDENDA

VICINITY MAP  
NTS.

START AT 1275 JOHN S GO STRAIGHT (NE) ON JOHN ST. IN 0.61 MI TURN RIGHT (E) ON TO  
 BAILEY RD. IN 1.03 MI TURN RIGHT (SSW) ON TO SR 15 (W HENRIETTA RD). IN 1.04 MI TURN  
 LEFT (E) ON TO LEHIGH STATION RD. IN 0.49 MI TURN RIGHT (SSW) ON TO I-390 S RAMP. IN  
 0.27 MI KEEP RIGHT (SW) ON TO I-90 E (NEW YORK STATE THWY) RAMP 12B. IN 0.57 MI KEEP  
 LEFT (E) ON I-90 E (NEW YORK STATE THWY) RAMP. IN 72.90 MI KEEP RIGHT (N) ON TO  
 I-690 E RAMP 39. IN 0.92 MI KEEP RIGHT (ESE) ON I-690 E RAMP. IN 8.91 MI KEEP  
 RIGHT (SSE) ON TO I-81 S RAMP 13. IN 76.37 MI KEEP LEFT (ESE) ON TO SR 17 RAMP 2E.  
 IN 113.42 MI KEEP RIGHT (ENE) ON TO I-84 E RAMP 121. IN 22.57 MI KEEP RIGHT (E) ON TO  
 SR 9D (NORTH RD) IN 1.01 MI TURN RIGHT (SE) ON TO SR 9D (NORTH RD). IN 0.48 MI  
 LEFT (S) ON TO NORTH AVE. IN 0.26 MI KEEP RIGHT (SSW) ON TO SR 9D  
 (WOLCOTT AVE). IN 0.49 MI KEEP LEFT (SE) ON TO BEEKMAN ST. 1.57 MI. IN 0.20 MI GO  
 STRAIGHT (ENE) ON TO SR 9D (WOLCOTT AVE). IN 1.11 MI TURN LEFT (ENE) ON TO HOWLAND  
 AVE. IN 0.26 MI FINISH AT 110 HOWLAND AVE, BEACON, NY. 05:22:36 302.11 MI.

## PROJECT INFORMATION

SITE TYPE: UTILITY POLE  
SITE NAME: HOWLAND MICRO  
SITE ADDRESS: 110 HOWLAND AVENUE  
BEACON, NY 12508  
COUNTY: DUTCHESS  
ZONING DISTRICT: R1-20  
COORDINATES: LATITUDE: 41° 29' 40.66" N (NAD 83)  
LONGITUDE: 73° 57' 19.85" W (NAD 83)  
GROUND ELEVATION: 251± A.M.S.L. (NAVD88)  
PROPERTY OWNER: ABILITY BEYOND DISABILITY  
4 BERKSHIRE BLVD.  
BETHEL, CT 06801  
  
APPLICANT: ORANGE COUNTY  
POUGHKEEPSIE LIMITED PARTNERSHIP  
D/B/A  
VERIZON WIRELESS  
1275 JOHN ST.  
SUITE 100  
WEST HENRIETTA NY 14586

**APPLICANT:**

**verizon**<sup>✓</sup>  
275 JOHN ST.  
SUITE 100  
WEST HENRIETTA NY 14586

PREPARED BY:  
EBI ENGINEERING PC

21 B Street | Burlington, MA 01803  
Tel: (781) 273-2500 | Fax: (781) 273-3311  
[www.ebiconsulting.com](http://www.ebiconsulting.com)

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## SUBMITTALS

[illegible]

EBI JOB NO: 8118000249

## SITE INFO

**HOWLAND MICRO**  
PROJECT NO.: **20161509173**  
LOCATION CODE: **432846**  
**110 HOWLAND AVENUE**  
**BEACON, NY 12508**  
**DUTCHESS COUNTY**

**SHEET TITLE:**

# TITLE SHEET

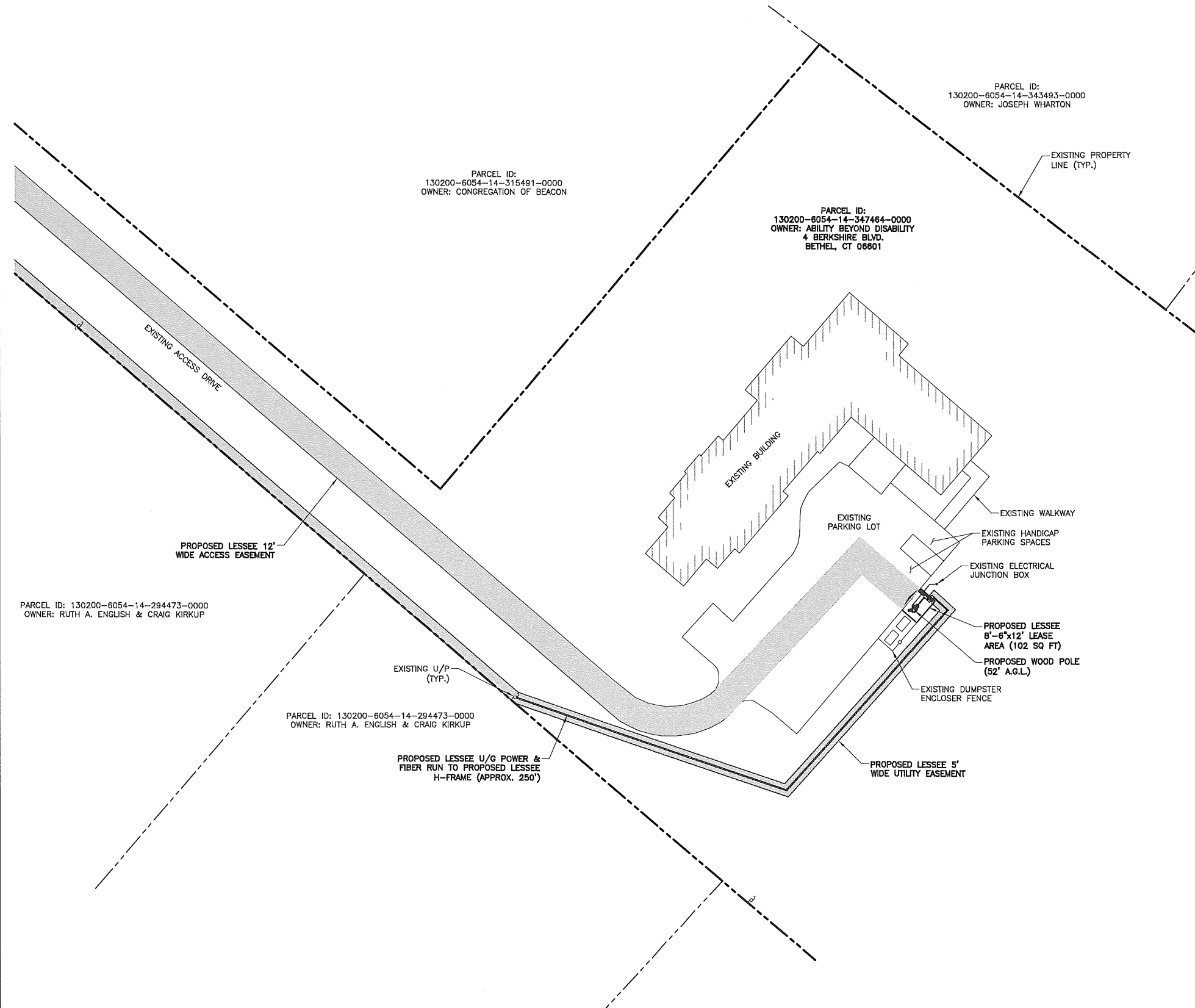
DRAWN BY  
SM

CHECKED  
AG

DATE: 11/12/18

**SHEET NO:**

# T-1



PARCEL NO: 130200-6054-14-347464-0000  
OWNER: OWNER: ABILITY BEYOND DISABILITY  
4 BERKSHIRE BLVD  
BETHEL, CT 06801  
LAND AREA: 6.00 ACRES

**SITE COORDINATES (SOURCE: RFDS DATED 04/03/17):**  
LATITUDE: 41° 29' 40.66" N (NAD 83)  
LONGITUDE: 73° 57' 19.85" W (NAD 83)  
ELEVATION: 251± FEET



SCALE: 1" = 50'

APPLICANT:  
**verizon**  
275 JOHN ST.  
SUITE 100  
WEST HENRIETTA NY 14586  
PREPARED BY:  
**EBI ENGINEERING PC**  
21 B Street | Burlington, MA 01803  
Tel: (781) 273-2500 | Fax: (781) 273-3311  
www.ebiconsulting.com

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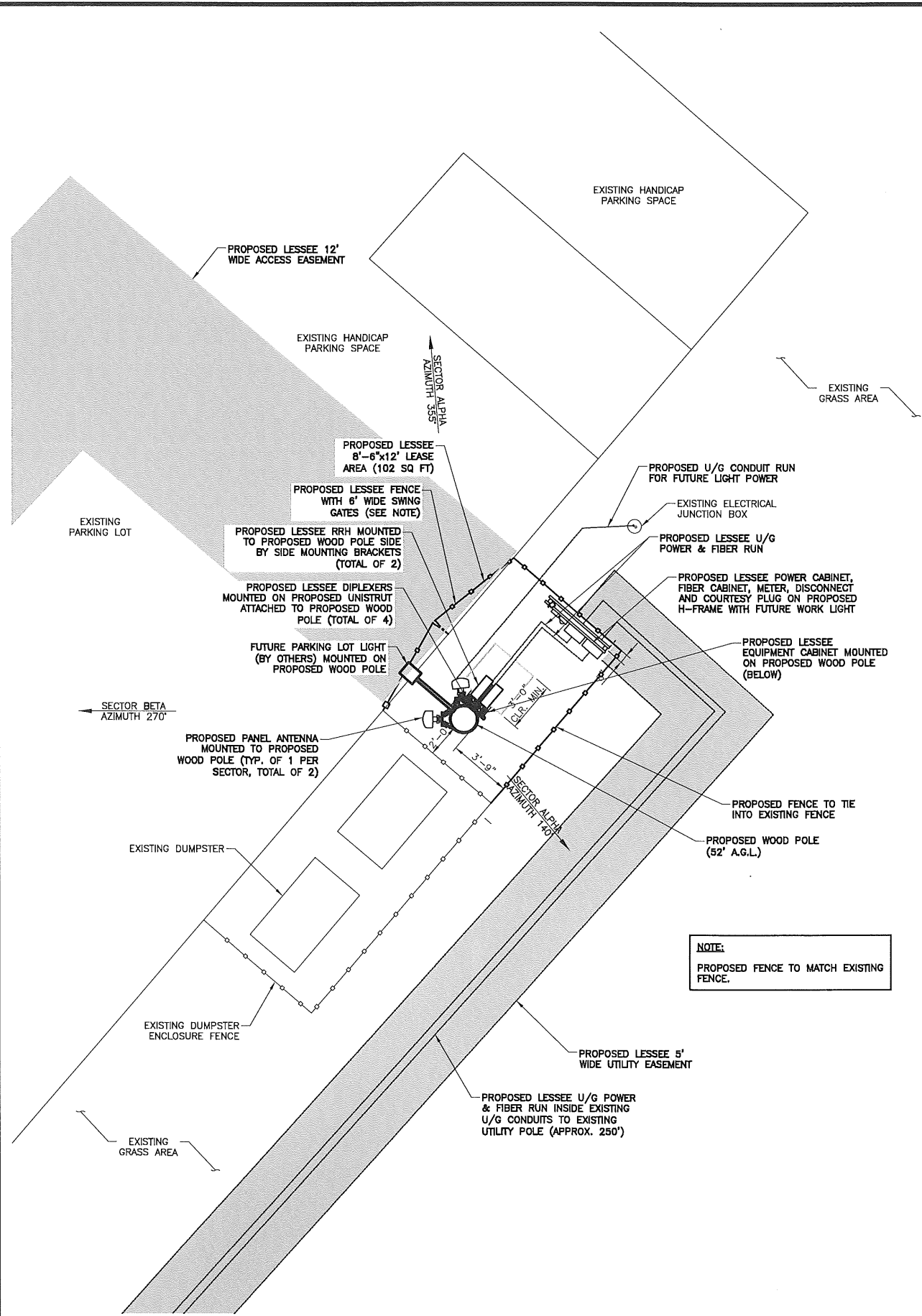
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| SUBMITTALS |          |             |    |
|------------|----------|-------------|----|
| NO.        | DATE     | DESCRIPTION | BY |
| A          | 11/12/18 | 90% ISSUE   | SM |
|            |          |             |    |
|            |          |             |    |
|            |          |             |    |
|            |          |             |    |
|            |          |             |    |
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|            |          |             |    |
|            |          |             |    |
|            |          |             |    |

EBI JOB NO: **8118000249**  
SITE INFO:  
**HOWLAND MICRO**  
PROJECT NO.: **20161509173**  
LOCATION CODE: **432846**  
**110 HOWLAND AVENUE**  
**BEACON, NY 12508**  
**DUTCHESS COUNTY**

SHEET TITLE:  
**SITE PLAN**

|                   |                         |
|-------------------|-------------------------|
| DRAWN BY:<br>SM   | SHEET NO:<br><b>Z-1</b> |
| CHECKED BY:<br>AG |                         |
| DATE:<br>11/12/18 |                         |



| SYMBOLS & ABBREVIATIONS |                                |
|-------------------------|--------------------------------|
| — G —                   | GROUND WIRE                    |
| — E —                   | ELECTRIC                       |
| — T —                   | TELCO SERVICE                  |
| — OH —                  | OVER HEAD UTILITY              |
| — X —                   | FENCE                          |
| (E)                     | EXISTING                       |
| (P)                     | PROPOSED                       |
| A.F.F.                  | ABOVE FINISHED FLOOR           |
| A.G.L.                  | ABOVE GROUND LEVEL             |
| A.M.S.L.                | ABOVE MEAN SEA LEVEL           |
| E.Q.                    | EQUAL                          |
| GALV.                   | GALVANIZED                     |
| MAX.                    | MAXIMUM                        |
| MIN.                    | MINIMUM                        |
| MGB                     | MASTER GROUND BAR              |
| EGB                     | EQUIPMENT GROUND BAR           |
| N.T.S.                  | NOT TO SCALE                   |
| O.C.                    | ON CENTER                      |
| SCH.                    | SCHEDULE                       |
| TYP.                    | TYPICAL                        |
| U/G                     | UNDERGROUND                    |
| U/P                     | UTILITY POLE                   |
| V.I.F.                  | VERIFY IN FIELD                |
| DET # SHT               | DETAIL REFERENCE               |
| DET # SHT               | DETAIL SECTION REFERENCE       |
| ELEV. 350'-0"           | SURFACE ELEVATION              |
| SECT # SHT              | SECTION REFERENCE              |
| SECT # SHT              | ELEVATION REFERENCE            |
| ---                     | PROPERTY LINE - SUBJECT PARCEL |
| ---                     | PROPERTY LINE - ABUTTERS       |
| ---                     | ZONING DISTRICT BOUNDARY LINE  |
| ---                     | TOWN BOUNDARY LINE             |
| [Hatched Box]           | EXISTING BUILDINGS             |

PARCEL NO: 6258-01-081999-0000  
OWNER: CROSS COURT ASSOCIATES  
204 NEW HACKENSACK RD  
WAPPINGERS FALLS, NY 12590  
LAND AREA: 6.00 ACRES



SCALE: 1/8" = 1'-0"

1. THE PROJECT CONCERNS THE INSTALLATION/OPERATION AND MAINTENANCE OF AN UNMANNED PUBLIC UTILITY/PERSONAL WIRELESS SERVICE FACILITY.
2. THE PROPOSED DEVELOPMENT IS UNMANNED AND DOES NOT REQUIRE A MEANS OF WATER SUPPLY OR SEWAGE DISPOSAL, OR HANDICAPPED ACCESS.
3. THE PROPOSED DEVELOPMENT IS MINIMAL, AND WILL CREATE NEGLIGIBLE ADDITIONAL STORMWATER RUNOFF AND WILL THEREFORE NOT IMPACT THE EXISTING STORMWATER DRAINAGE SYSTEM.
4. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE, ANY SOLID WASTE RECEPTACLES, OR PLUMBING.
5. ADEQUATE PARKING EXISTS FOR ONE VEHICLE FOR MAINTENANCE OR EMERGENCY SERVICE ONCE A MONTH.
6. THERE ARE NO NEW STREETS, CURBS, SIDEWALKS OR WALKWAYS PROPOSED.
7. THERE ARE NO COMMERCIAL SIGNS PROPOSED FOR THIS INSTALLATION.
8. EXISTING UTILITIES (LOCATION, SIZES AND INVERTS) SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT CERTIFIED AS TO THE ACCURACY OF THEIR LOCATION OR COMPLETENESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES AND STRUCTURES IN THE PATH OF, OR CLOSELY PARALLEL TO, OR UNDER, THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS OR DAMAGE OCCURRING AS A RESULT OF INCORRECTLY LOCATED UTILITIES. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITY OWNERS IN AMPLE TIME FOR THEM TO LOCATE AND MARK THEIR FACILITIES. THE CONTRACTOR SHALL ALSO NOTIFY UNDERGROUND UTILITY WORK LOCATION SERVICE AT LEAST 48 HOURS IN ADVANCE OF COMMENCING ANY WORK.

2 GENERAL NOTES

1. ALL SITE WORK SHALL BE INDICATED ON THE DRAWING.
2. RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
3. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW WAY FROM THE EQUIPMENT AND TOWER AREAS.
4. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
5. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISH SURFACE APPLICATION.
6. ALL EXISTING ACTIVE SEWER WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS, EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES.
7. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH EXECUTION OF THE WORK, SUBJECT TO THE APPROVE OF ENGINEERING.
8. THE AREA DISTURBED DUE TO CONSTRUCTION ACTIVITY SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED, AND COVERED WITH MULCH.
9. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE GUIDELINES FOR EROSION AND SEDIMENT CONTROL, AND COORDINATED WITH THE TOWN.
10. CONTRACTOR SHALL NOTIFY UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION AT TELEPHONE NUMBER 1-800-962-7962 PRIOR TO EXCAVATION AT SITE.
11. ALL EXCAVATION WORK WITHIN 36" OF EITHER SIDE OF UNDERGROUND UTILITIES MUST BE DONE BY HAND EXCAVATION METHODS.

3 SITE NOTES

APPLICANT:  
**verizon**  
275 JOHN ST.  
SUITE 100  
WEST HENRIETTA NY 14586

PREPARED BY:  
**EBI ENGINEERING PC**  
21 B Street | Burlington, MA 01803  
Tel: (781) 273-2500 | Fax: (781) 273-3311  
www.ebiconsulting.com

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EBI JOB NO:  
**8118000249**

SITE INFO:  
**HOWLAND MICRO**  
PROJECT NO.: **20161509173**  
LOCATION CODE: **432846**  
**110 HOWLAND AVENUE**  
**BEACON, NY 12508**  
**DUTCHESS COUNTY**

SHEET TITLE:  
**OVERALL SITE PLAN**

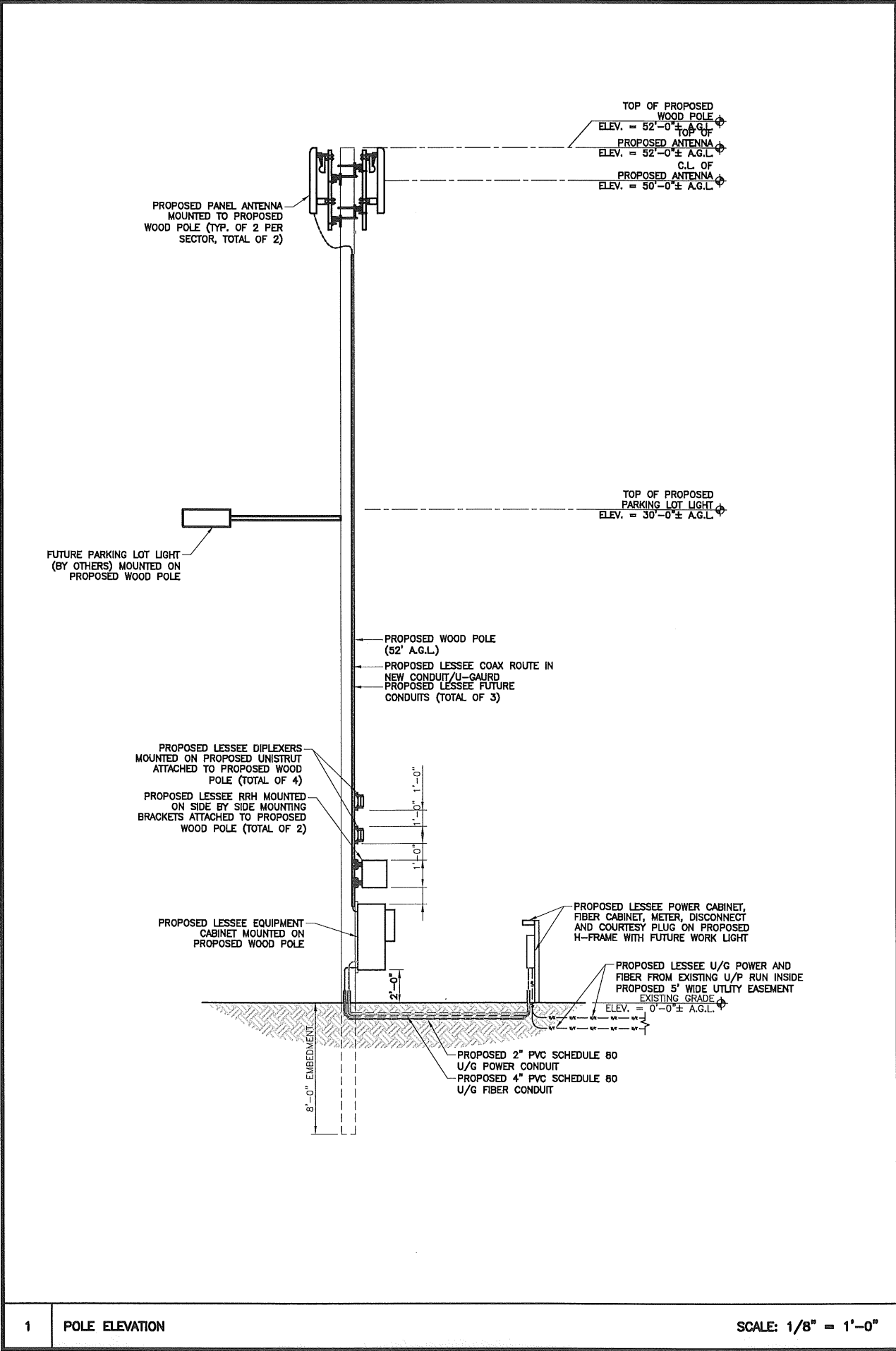
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SM

CHECKED BY:  
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DATE:  
11/12/18

SHEET NO:  
**Z-2**

1 OVERALL SITE PLAN



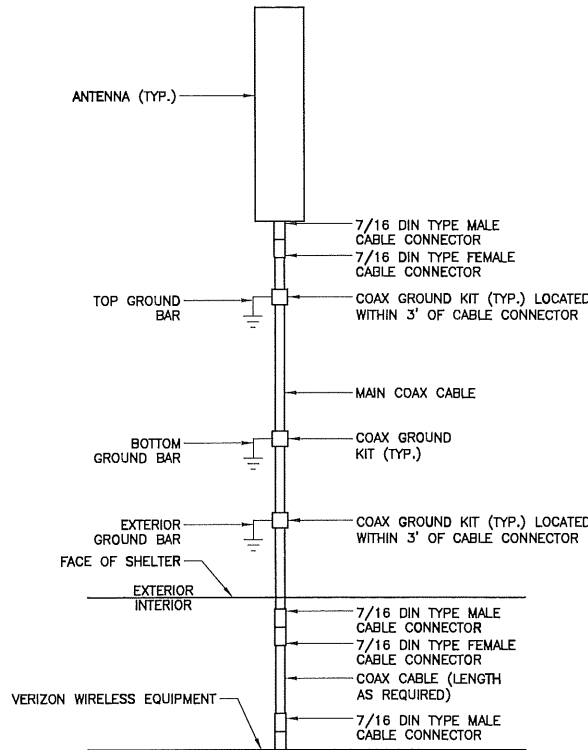
- DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFIRM TO ANSI/TIA/EIA-222-G-05 WITH LATEST ADDENDA "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES". NOTE: SEE CODE FOR COUNTY SPECIFIC DESIGN WIND SPEEDS.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- DAMAGE GALVANIZE SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH DOUBLE NUTS AND SHALL BE INSTALLED SNUG TIGHT.
- DESIGN RESPONSIBILITY OF ANTENNA MOUNTING BRACKETS, SUPPORTS AND ALL COMPONENTS THEREOF AND ATTACHMENT THERETO SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER. MFR SHALL PROVIDE THE THE OWNER DRAWINGS DETAILING ALL COMPONENTS OF THE ASSEMBLY, INCLUDING CONNECTIONS, DESIGN LOADS, AND ALL OTHER PERTINENT DATA. MFR SHALL ALSO PROVIDE THE OWNER WITH A STATEMENT OF COMPLIANCE INDICATING THAT THE ANTENNA SUPPORTS HAVE BEEN DESIGNED IN ACCORDANCE WITH TIA/EIA-222-G STANDARDS. ALL SUBMISSIONS SHALL BEAR THE STAMP AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STAT THE WORK IS BEING PERFORMED.

2 ANTENNA MOUNTING NOTES

4 ANTENNA CABLE SCHEMATIC

- VERIZON WILL COLOR CODE AND TAG THE COAX AT BOTH THE TOP OF THE TOWER AND INSIDE THE CELL SITE BUILDING AT THE CABLE ENTRY PART. THE MARKING SYSTEM WILL COMPRISE OF COLOR TAPE WITH A MINIMUM WIDTH OF 3/4 INCHES, 7 MIL. VINYL PLASTIC TAPE, SCOTCH 35 OR EQUIVALENT.
- THE TAGGING WILL BE DONE WITH METAL "DOG" TAGS. A TAG WILL BE PLACED ON THE COAX AT THE ANTENNA AND ON THE COAX IN THE CELL SITE BUILDING. THE TAG WILL IDENTIFY THE ANTENNA NUMBER AND FUNCTION; TX, RX ETC.
- THE ENTRY PORT ASSIGNMENT SHOULD BE FOLLOWED WHERE POSSIBLE. THIS STANDARD ASSUMES THAT THE ENTRY PORT CONSISTS OF THREE ROWS OF FOUR PORTS. WITH THE FIRST ROW BEING NUMBERED FROM 1-6 FROM LEFT TO RIGHT. THE SECOND ROW IS NUMBERED 7-12 (LEFT TO RIGHT) AND THE THIRD ROW IS 13-18 (LEFT TO RIGHT).
- A SITE SPECIFIC COAX COLOR SHEET TO BE PROVIDED BY CELLULAR EQUIPMENT ENGINEER.

3 STANDARD ANTENNA COLOR CODES



APPLICANT:  
**verizon**  
275 JOHN ST.  
SUITE 100  
WEST HENRIETTA NY 14586

PREPARED BY:  
**EBI ENGINEERING PC**  
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EBI JOB NO:  
**8118000249**

SITE INFO:  
**HOWLAND MICRO**  
PROJECT NO.: **20161509173**  
LOCATION CODE: **432846**  
**110 HOWLAND AVENUE**  
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**DUTCHESS COUNTY**

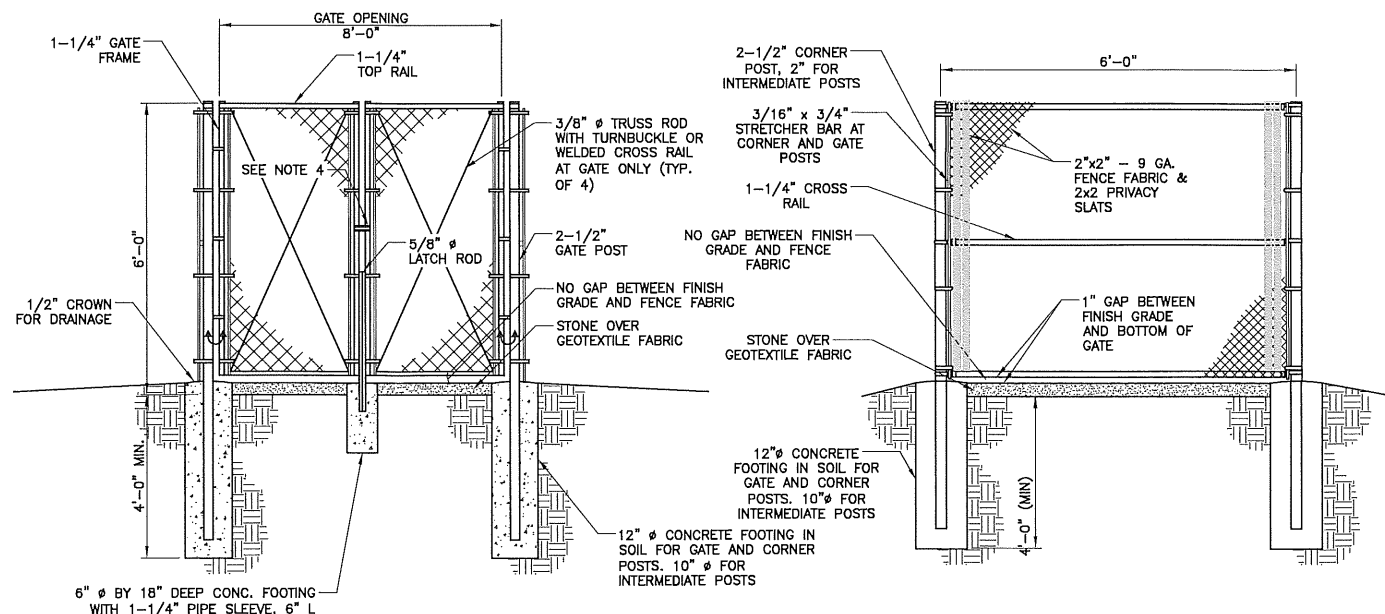
SHEET TITLE:  
**POLE ELEVATION, DETAILS & NOTES**

DRAWN BY:  
SM

CHECKED BY:  
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DATE:  
11/12/18

SHEET NO:  
**Z-3**



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The technical drawings illustrate the dimensions and components of the RL22021 battery unit. The **TOP VIEW** shows a rectangular unit with a width of 26 inches and a depth of 45.1 inches. It features an **AC LOAD CENTER** on the left side and a **HEAT EXCHANGER** on the right side. The **FRONT VIEW** shows a unit with a total height of 38.5 inches and a width of 26 inches. It is divided into three main sections: an **AC LOAD CENTER** (5.0 inches high), an **EQUIPMENT COMPARTMENT** (15.5 inches high), and a **BATTERY COMPARTMENT** (18.0 inches high). The battery compartment contains 10 battery cells. A **HEAT EXCHANGER** is located on the right side of the equipment compartment. The **SIDE VIEW** shows a unit with a height of 6.9 inches and a width of 20 inches. It features a **HEAT EXCHANGER** on the left side and four circular components (likely terminals or connectors) on the right side.

**TOP VIEW**

26"

45.1"

AC LOAD CENTER

HEAT EXCHANGER

**FRONT VIEW**

26"

38.5"

15.5"

5.0"

AC LOAD CENTER

EQUIPMENT COMPARTMENT

BATTERY COMPARTMENT

HEAT EXCHANGER

**SIDE VIEW**

6.9"

20"

HEAT EXCHANGER

DIMENSIONS: 54"Hx26"Wx20"D  
 WEIGHT: RL22021DB1 - 175 LBS.  
 WEIGHT: RL22021DB2 - 235 LBS.

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**SITE INFO:**

**HOWLAND MICRO**

**PROJECT NO.: 20161509173**

**LOCATION CODE: 432846**

**110 HOWLAND AVENUE**  
**BEACON, NY 12508**  
**DUTCHESS COUNTY**

SHEET TITLE:

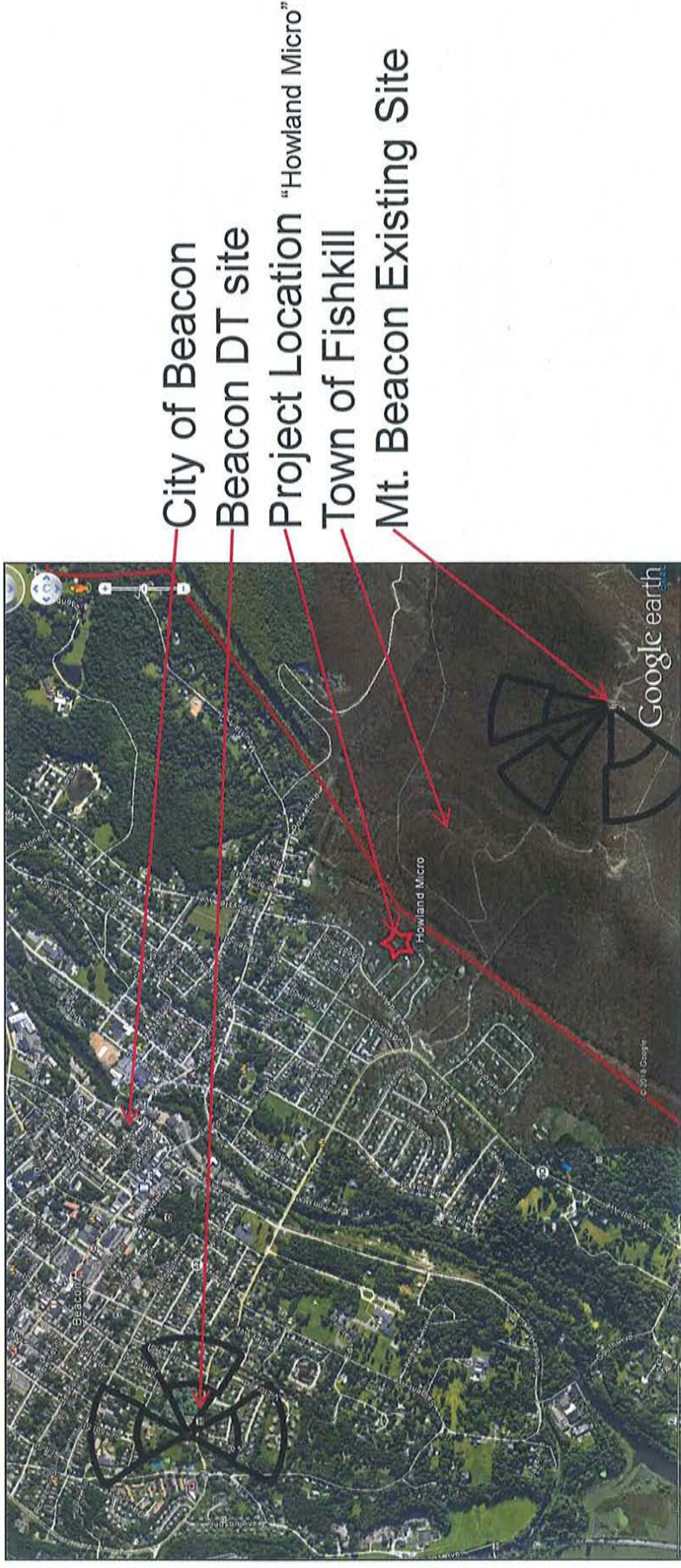
DETAILS & NOTES

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# Verizon Wireless Communications Facility

## Engineering Necessity Case – “Howland Micro”



Prepared by: Michael R. Crosby

Project: The project is the installation and operation of a telephone pole mounted wireless telecommunications site in the City of Beacon (the “Project Facility”).





# Introduction

The purpose of this subsequent analysis is to summarize and communicate the technical radio frequency (RF) information used in the justification of this new site.

Coverage and/or capacity deficiencies are the two main drivers that prompt the need for a new wireless communications facility/site. All sites provide a mixture of both capacity and coverage for the benefit of the end user.

**Coverage** can be defined as the existence of signal of usable strength and quality in an area, including but not limited to in-vehicles or in-buildings.

The need for improved coverage is identified by RF Engineers that are responsible for developing and maintaining the network. RF Engineers utilize both theoretical and empirical data sets (propagation maps and real world coverage measurements). Historically, coverage improvements have been the primary justification of new sites.

**Capacity** can be defined as the amount of traffic (voice and data) a given site can process before significant performance degradation occurs.

When traffic volume exceeds the capacity limits of a site serving a given area, network reliability and user experience degrades. Ultimately this prevents customers from making/receiving calls, applications cease functioning, internet connections time out and data speeds fail. This critical condition is more important than just a simple nuisance for some users. Degradation of network reliability and user experience can affect emergency responders and to persons in a real emergency situation can literally mean life or death.



# Project Need Overview

The project area, located within the City of Beacon is currently served by two sites. These sites are overloaded requiring capacity relief. Additionally the project area is impacted by the significant terrain difference between these two serving sites relative to the project area. This excessive difference in terrain combined with distance and area morphology prevents effective capacity and coverage capability of Verizon's RF signals in this area.

The primary serving site is **Mt. Beacon** located in the neighboring town of Fishkill, which is approximately six tenths of a mile south east (of the project location) situated on a mountain top tower located off Mt. Beacon Monument Rd (near Breakneck Ridge Trail). While this site provides coverage (on low band 700MHz) throughout the project area, it does so from such a great difference in elevation (1,200' + difference) that the site is not capable of efficiently or effectively providing the necessary capacity due to Mt. Beacon itself causing excessive interference in and around the project area. This site also provides high band (AWS) service to portions of the project area but again due to the excessive difference in elevation combined with distance to objectives Mt. Beacon is not capable of efficiently or effectively providing the necessary capacity relief and actually degrades area performance and capacity capabilities due to excessive interference in and around the project area (caused by overlapping/overshooting footprint). In order to mitigate the overlapping footprint and improve interference and capacity conditions, Mt. Beacon requires deactivation as it can no longer function properly as an LTE serving site for this area. Regardless of the need to deactivate Mt. Beacon (LTE), additional capacity is currently required even with Mt. Beacon on the air.

The second serving site is **Beacon DT** which is co-located on the roof of a multi-story apartment building off Rt. 9D near South Ave. This site is also requiring capacity relief. While this site is more appropriate for the area than Mt. Beacon, by itself it can not provide the necessary coverage and capacity required to serve the project area.

There are other Verizon sites in this general area but due to distance and terrain they also do not provide any significant overlapping coverage in the area in question that could allow for increased capacity and improved coverage from other sources.

The primary objectives for this project are to increase capacity and improve high band coverage in the Howland Ave, Rt. 9D area including but not limited to portions of Howland, Wolcott Ave, Tioronda Ave, Union St, Depuyster Ave, East Main Street as well as the surrounding residential and commercial areas. In order to offload capacity from Mt. Beacon and Beacon DT a new dominant server must be created. This new dominant coverage will effectively offload the existing overloaded sites as well as provide improved high band in building coverage.

Following the search for co-locatable structures to resolve the aforementioned challenges none were found. As a result, Verizon proposes the current application to attach it's antennas to a new 52' tall telephone pole located on Verizon property. Verizon's antennas will utilize 50' for the ACL (Antenna Center Line) with a top of antenna height of 52'. This solution will provide the necessary coverage and capacity improvements needed.

# Wireless LTE (Voice and Data) Growth

Each year Verizon experiences substantial increases in data volume including VoLTE (Voice over LTE) that its customers utilize. Data traffic grew 65% between Q3 2016 and Q3 2017 (Ericsson Mobility Report, November 2017)

Machine to Machine communications will also increase the data burden on wireless networks. During the next five years increasingly more services that improve our safety and make our lives easier will become available via the wireless infrastructure, such as:

- Autonomous vehicular communications including automatic 911 notification when airbag deploys.
- Medical monitors that alert caretakers of patient related issues.
- Home alarms that notify people when their child arrives home from school.
- Smart street lights that notify the city when they are not working.
- City garbage cans that let people know when they need to be emptied.
- Tracking watches that can aid in finding lost Alzheimer patients, children, etc.



# Explanation of Wireless Capacity



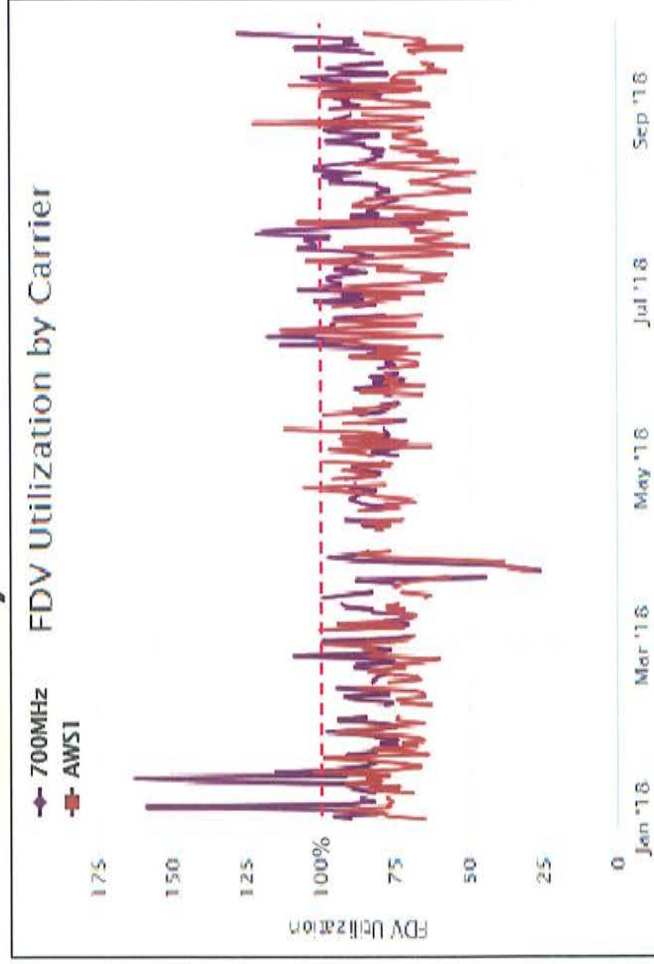
**Capacity** in this analysis is evaluated with up to three metrics further explained below. These metrics assist in determining actual usage for a given site as well as are used to project when a site is expected to run out of capacity (i.e. reach a point of exhaustion where it can no longer process the volume of voice and data requested by local wireless devices, thus no longer providing adequate service).

- Forward Data Volume ("FDV"), is a measurement of usage (data throughput) on a particular site over a given period of time.
- Average Schedule Eligible User ("ASEU"), is a measurement of the loading of the control channels and systems of a given site.
- Average Active Connections ("AvgAC") is a measurement of the number of devices actively connected to a site in any given time slot.

Verizon Wireless uses proprietary algorithms developed by a task force of engineers and computer programmers to monitor each site in the network and accurately project and identify when sites will approach their capacity limits. Using a rolling two-year window for projected exhaustion dates allows enough time, in most cases, to develop and activate a new site. It is critical that these capacity approaching sectors are identified early and the process gets started and completed in time for new solutions (sites) to be on air before network issues impact the customers.



# Capacity Utilization FDV (Mt. Beacon Gamma)



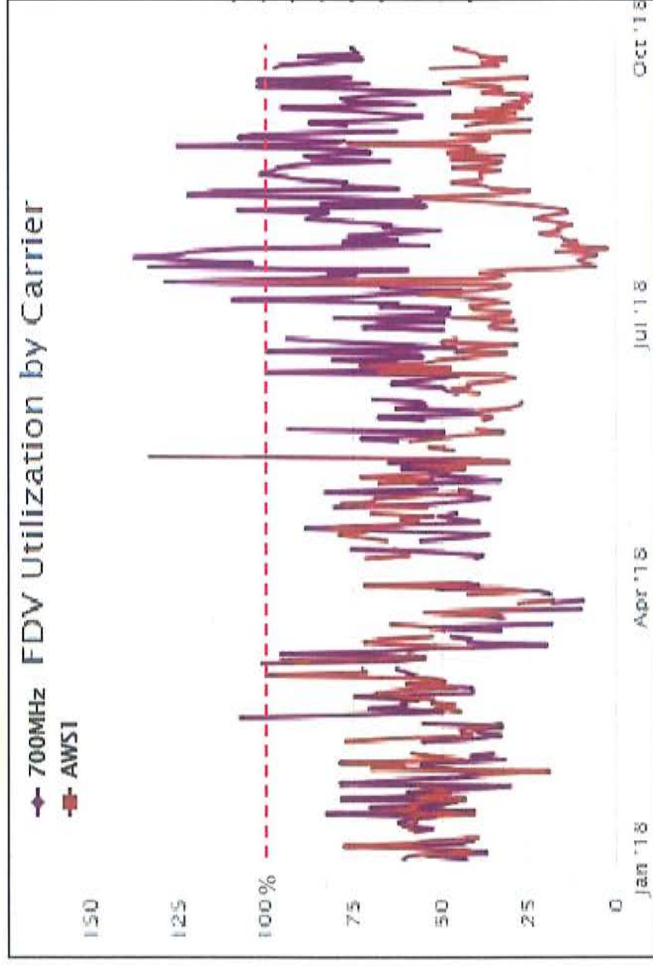
**Summary:** This graph shows FDV (Forward Data Volume) which is a measurement of the customer data usage that this sector currently serves. As this limit is approached, data rates slow to unacceptable levels, potentially causing unreliable service for Verizon Wireless customers.

The purple line represents the daily max busy hour 700MHz utilization on the **Gamma** sector of the **Mt. Beacon** site. The dark red line represents the daily max busy hour 2100MHz (AWS) utilization on the **Gamma** sector of the **Mt. Beacon** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

Displaying the FDV separately by carrier reveals the inability of high band (AWS) to resolve the capacity issues from existing sites described in this case. High band (AWS/PCS) propagation characteristics prevent proper FDV utilization between carriers in coverage challenged areas like the **Electric Blanket** project area. Network densification is required.

**Detail:** The existing **Mt. Beacon Gamma** sector shown above has exceeded it's capability of supporting FDV requirements as shown by the purple line exceeding the max utilization threshold (red dashed line). While customers served by AWS (high band – dark red line) are not as likely to experience this issue they have recently been subject to this condition as shown by the dark red line exceeding max utilization threshold as well. Keep in mind those customers in weaker RF areas which are more dependent on the low band (700MHz – purple line) continue to experience this issue. Cell edge (weak/variable) conditions create the disparity between high and low bands due to propagation challenges which are more impacted by high band (AWS). FDV is one of three metrics used in this presentation to evaluate capacity capability in this area.

# Capacity Utilization FDV (Beacon DT Beta)



**Summary:** This graph shows FDV (Forward Data Volume) which is a measurement of the customer data usage that this sector currently serves. As this limit is approached, data rates slow to unacceptable levels, potentially causing unreliable service for Verizon Wireless customers.

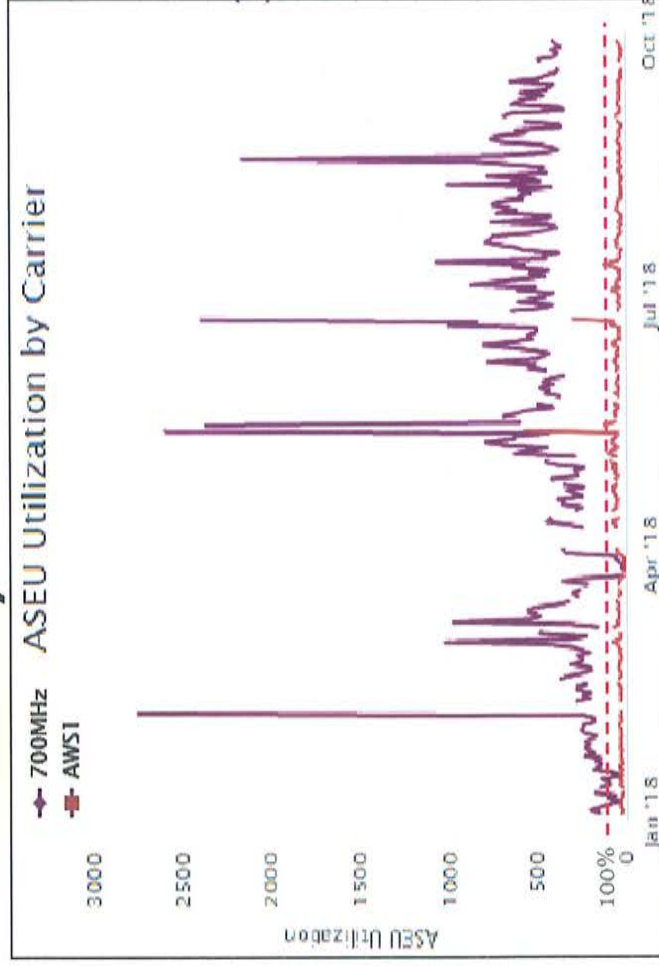
The purple line represents the daily max busy hour 700MHz utilization on the **Alpha** sector of the **Beacon DT** site. The dark red line represents the daily max busy hour 2100MHz (AWS) utilization on the **Beta** sector of the **Beacon DT** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

Displaying the FDV separately by carrier reveals the inability of high band (AWS) to resolve the capacity issues from existing sites described in this case. High band (AWS/PCS) propagation characteristics prevent proper FDV utilization between carriers in coverage challenged areas like the **Howland Micro** project area. Network densification is required.

**Detail:** The existing **Beacon DT Beta** sector shown above has recently exceeded it's capability of supporting FDV requirements as shown by the purple and dark red lines exceeding the max utilization threshold (red dashed line). FDV is one of three metrics used in this presentation to evaluate capacity capability in this area.



# Capacity Utilization ASEU (Mt. Beacon Gamma)



**Summary:** This graph shows ASEU (Average Schedule Eligible User). ASEU is a measurement of the loading of the control channels and systems of a given site. The ASEU load is heavily impacted by distant users or those in poor RF conditions.

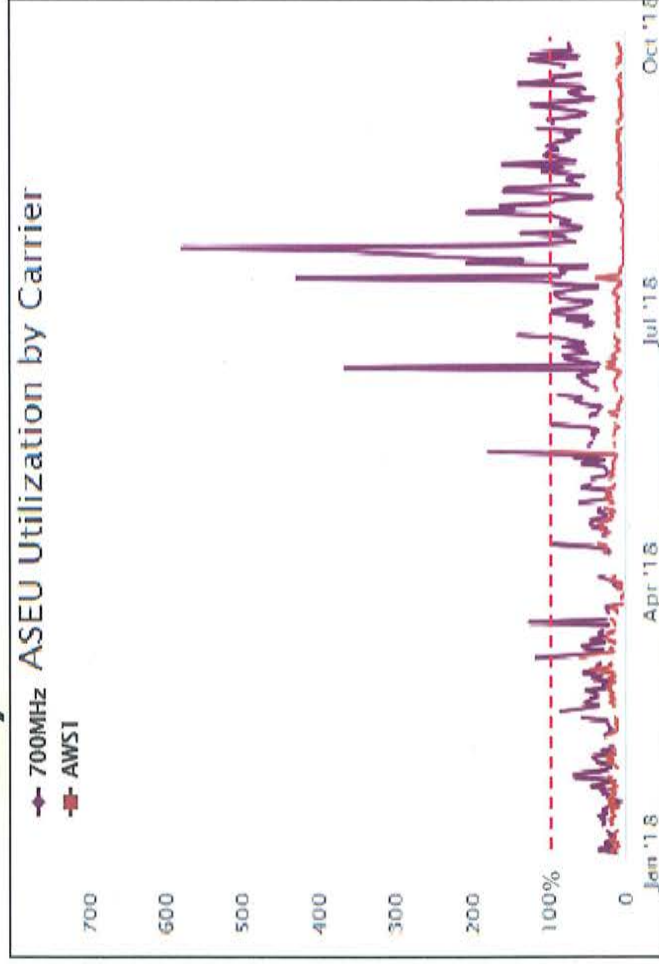
The purple line represents the daily max busy hour 700MHz utilization on the **Gamma** sector of the **Mt. Beacon** site. The dark red line represents the daily max busy hour 2100MHz (AWS) utilization on the **Gamma** sector of the **Mt. Beacon** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

Displaying the ASEU separately by carrier reveals the inability of high band (AWS) to resolve the capacity issues from existing sites described in this case. High band (AWS/PCS) propagation characteristics prevent proper ASEU utilization between carriers in coverage challenged areas like the **Electric Blanket** project area. Network densification is required.

**Detail:** The existing **Mt. Beacon Gamma** sector cannot support the data traffic demand throughout the extents of the excessively large area it covers. **Mt. Beacon Gamma** is already overloaded, as shown by the purple actual use line exceeding the red dashed exhaustion threshold line. Cell edge (weak/variable) conditions create the disparity between high and low bands due to propagation challenges which more significantly impact high band (AWS). The **Mt. Beacon** site is too far away to effectively serve this portion of the City of Beacon.



# Capacity Utilization ASEU (Beacon DT Beta)



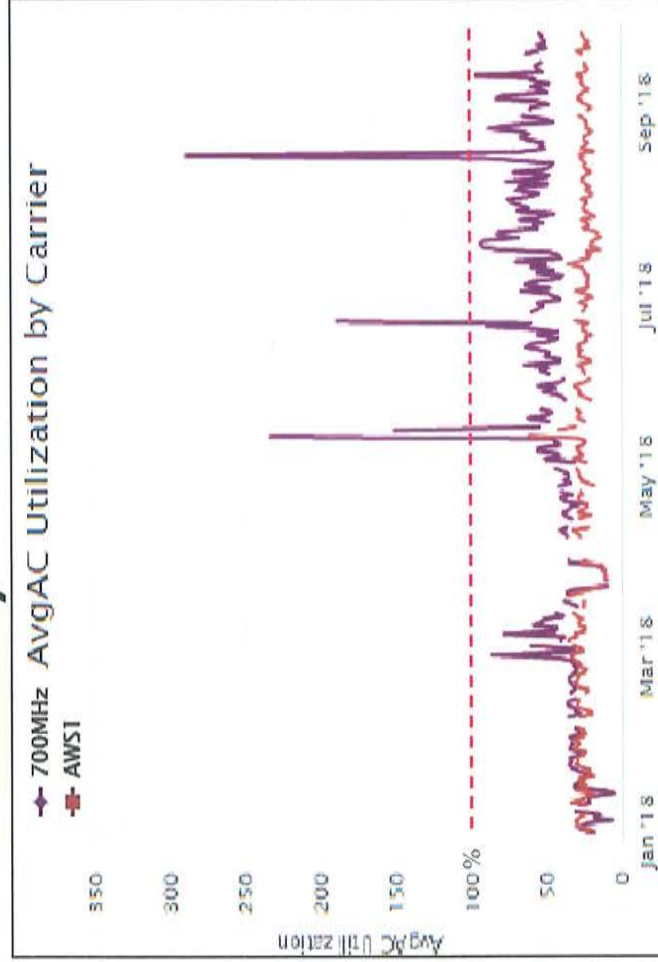
**Summary:** This graph shows ASEU (Average Schedule Eligible User). ASEU is a measurement of the loading of the control channels and systems of a given site. The ASEU load is heavily impacted by distant users or those in poor RF conditions.

The purple line represents the daily max busy hour 700MHz utilization on the **Beta** sector of the **Beacon DT** site. The dark red line represents the daily max busy hour 2100MHz (AWS) utilization on the **Beta** sector of the **Beacon DT** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

Displaying the ASEU separately by carrier reveals the inability of high band (AWS) to resolve the capacity issues from existing sites described in this case. High band (AWS/PCS) propagation characteristics prevent proper ASEU utilization between carriers in coverage challenged areas like the **Howland Micro** project area. Network densification is required.

**Detail:** The existing **Beacon DT Beta** sector cannot support the data traffic demand throughout the extents of the area it covers. **Beacon DT Beta** is already overloaded, as shown by the purple actual use line exceeding the red dashed exhaustion threshold line. Cell edge (weak/variable) conditions create the disparity between high and low bands due to propagation challenges which more significantly impact high band (AWS). The **Beacon DT** site requires network densification throughout it's serving footprint.

# Capacity Utilization AvgAC (Mt. Beacon Gamma)



**Summary:** This graph shows AvgAC (Average Active Connections). AvgAC utilization by carrier is a measurement of max active connection capacity per sector in any given time slot. When this limit is reached, no additional devices will be able to connect to the site, resulting in connection failures and dropped calls.

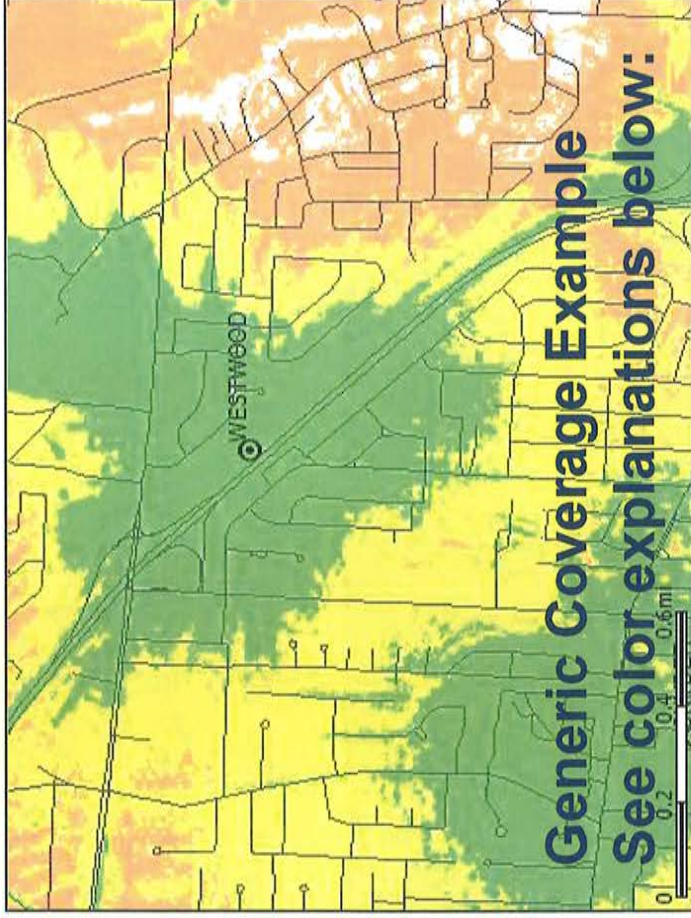
The purple line represents the daily max busy hour 700MHz utilization on the **Gamma** sector of the **Mt. Beacon** site. The dark red line represents the daily max busy hour 2100MHz (AWS) utilization on the **Gamma** sector of the **Mt. Beacon** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

This graph helps to reveal foliage impact affecting variable coverage areas which result with a decline in AWS utilization while 700MHz utilization increases at the time of increased springtime foliage. This further complicates capacity offload capability for high band carriers. Network densification is required.

**Detail:** The existing **Mt. Beacon Gamma** sector cannot support the number of users in the excessively large area it covers and has already reached overloaded conditions recently, as shown by the daily max busy hour utilization line peaking above the red dashed exhaustion threshold line.



# Explanation of Wireless Coverage



Coverage is best shown via coverage maps. RF engineers use computer simulation tools that take into account terrain, vegetation, building types, and site specifics to model the RF environment. This model is used to simulate the real world network and assist engineers to evaluate the impact of a proposed site (along with industry experience and other tools).

Most Verizon Wireless sites provide 3G CDMA at 850 MHz and 4G LTE at 700 MHz. As capacity requirements increase, higher frequency PCS (1900 MHz) and AWS (2100 MHz) carriers are added. In some mountaintop situations the high band AWS and PCS carriers are not effective due to excessive distance from the user population.

Coverage provided by a given site is affected by the frequencies used. Lower frequencies propagate further distances, and are less attenuated by clutter than higher frequencies. To provide similar coverage levels at higher frequencies, a denser network of sites is required (network densification).

Note the affect of clutter on the predicted coverage footprint above

Green = -85dBm RSRP, typically serves suburban residential and light commercial buildings (stronger coverage levels may be needed for proper evaluation in urban applications or where more substantial building construction exists)

Yellow = -95dBm RSRP, typically serves most rural/suburban-residential and in car applications

Orange = -105dBm RSRP, rural highway coverage, subject to variable conditions including fading and seasonality gaps

White = <-105dBm RSRP, variable to no reliable coverage gap area

More detailed, site-specific coverage slides are later in the presentation

\*Signal strength requirements vary as dictated by specific market conditions



# Explanation of this Search Area



## Howland micro Search Area

To resolve the coverage and capacity deficiencies previously detailed, Verizon Wireless is seeking to add one new 'micro' cell facility within or as near as possible to this centrally and strategically located area to improve wireless service capacity and coverage. By offloading Beacon DT and displacing traffic from Mt. Beacon with the proposed site, adequate and reliable service will be provided. The new **Howland micro** site will provide dominant and dedicated signal to portions of Beacon helping to improve not only the area roads but also adjacent populated areas.

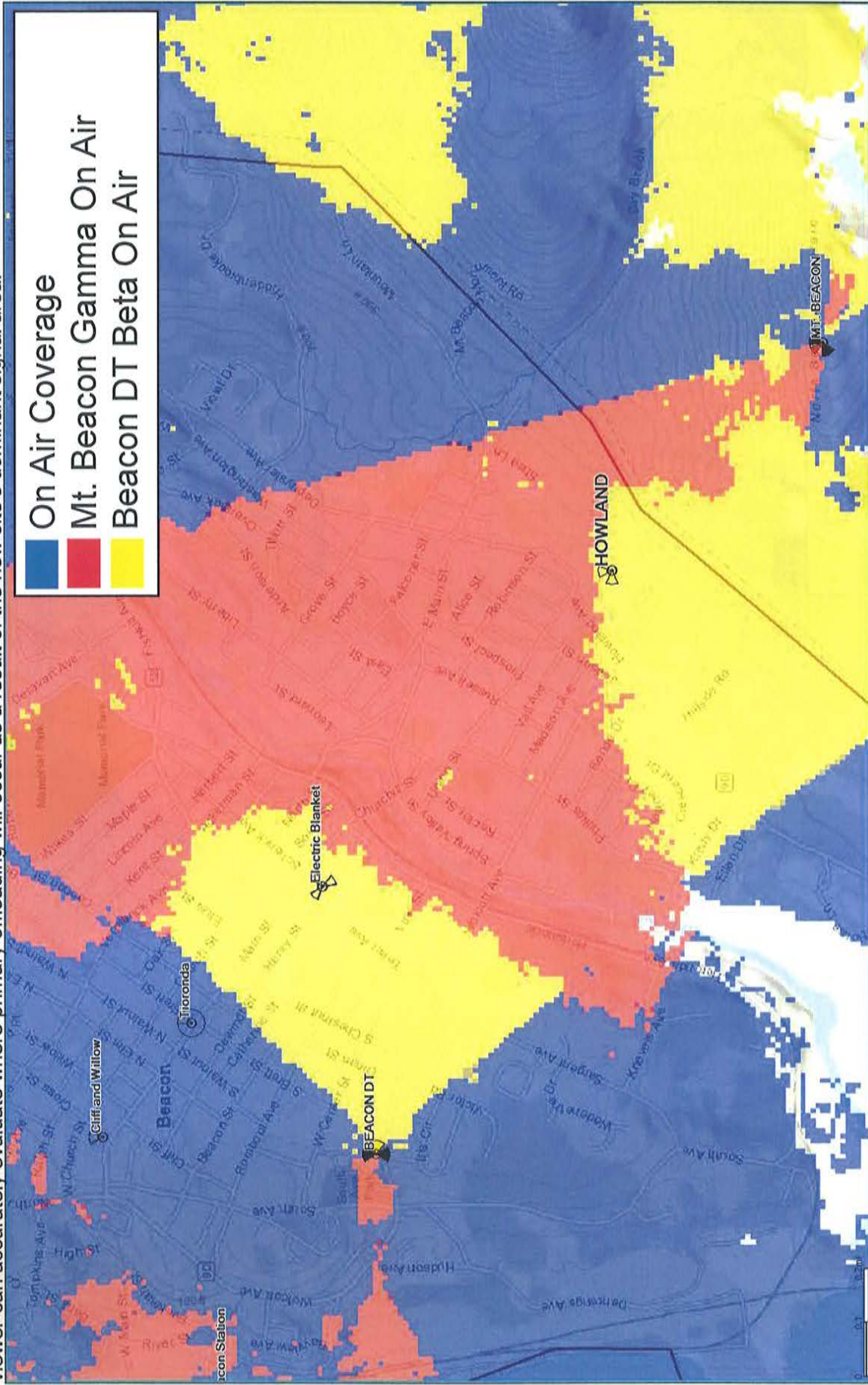
A **Search Area** is the geographical area within which a new site is targeted to solve a coverage or capacity deficiency. Three of the factors taken into consideration when defining a search area are topography, user density, and the existing network.

- **Topography** must be considered to minimize the obstacles between the proposed site and the target coverage area. For example, a site at the bottom of a ridge will not be able to cover the other side from a certain height.
- In general, the farther from a site the **User Population** is, the weaker the RF conditions are and the worse their experience is likely to be. These distant users also have an increased impact on the serving site's capacity. In the case of a multi sector site, centralized proximity is essential to allow users to be evenly distributed and allow efficient utilization of the site's resources.
- The existing **Network Conditions** also guide the design of a new site. Sites placed too close together create interference due to overlap and are an inefficient use of resources. Sites that are too tall or not properly integrated with existing sites cause interference and degrade service for existing users.
- Existing co-locatable structures inside the search area as well as within a reasonable distance of the search area are submitted by site acquisition and reviewed by RF Engineering. If possible RF will make use of existing or nearby structures before proposing to build new towers.



# Existing 700MHz Best Server -95dBm RSRP

Best Server plots depict the actual best server or dominant footprint of each sector in question. The following map shows one threshold so the viewer can accurately evaluate where primary offloading will occur as a result of the new site's dominant signal area.

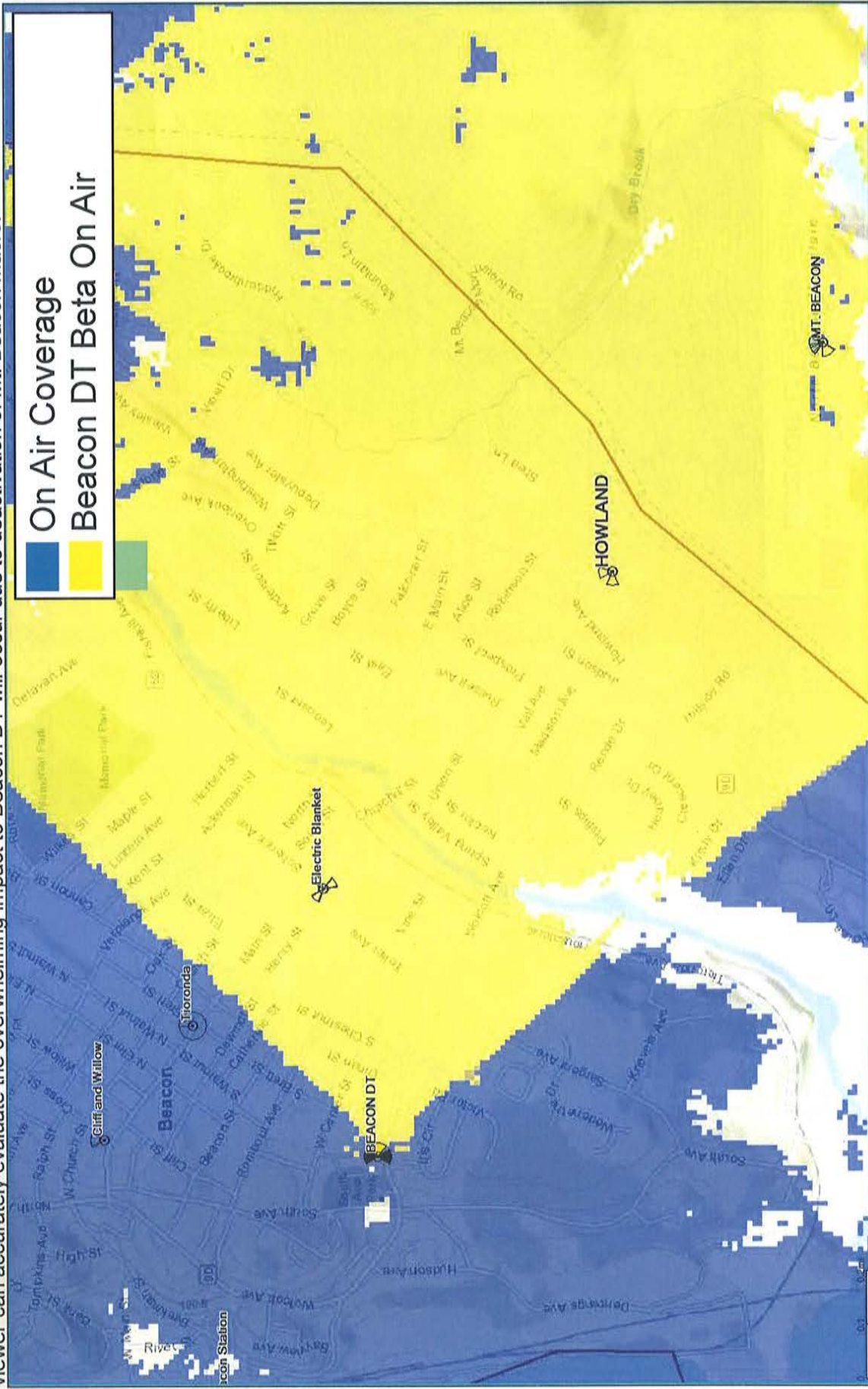


The map above represents coverage from existing sites/cells, with the cells in need of capacity offload in red (Mt. Beacon Gamma) and yellow (Beacon DT Beta). Blue coverage is from other on air sites/sectors.



# Mt. Beacon LTE OFF 700MHz Best Server -95dBm RSRP

Best Server plots depict the actual best server or dominant footprint of each sector in question. The following map shows one threshold so the viewer can accurately evaluate the overwhelming impact to Beacon DT will occur due to deactivation of Mt. Beacon macro.

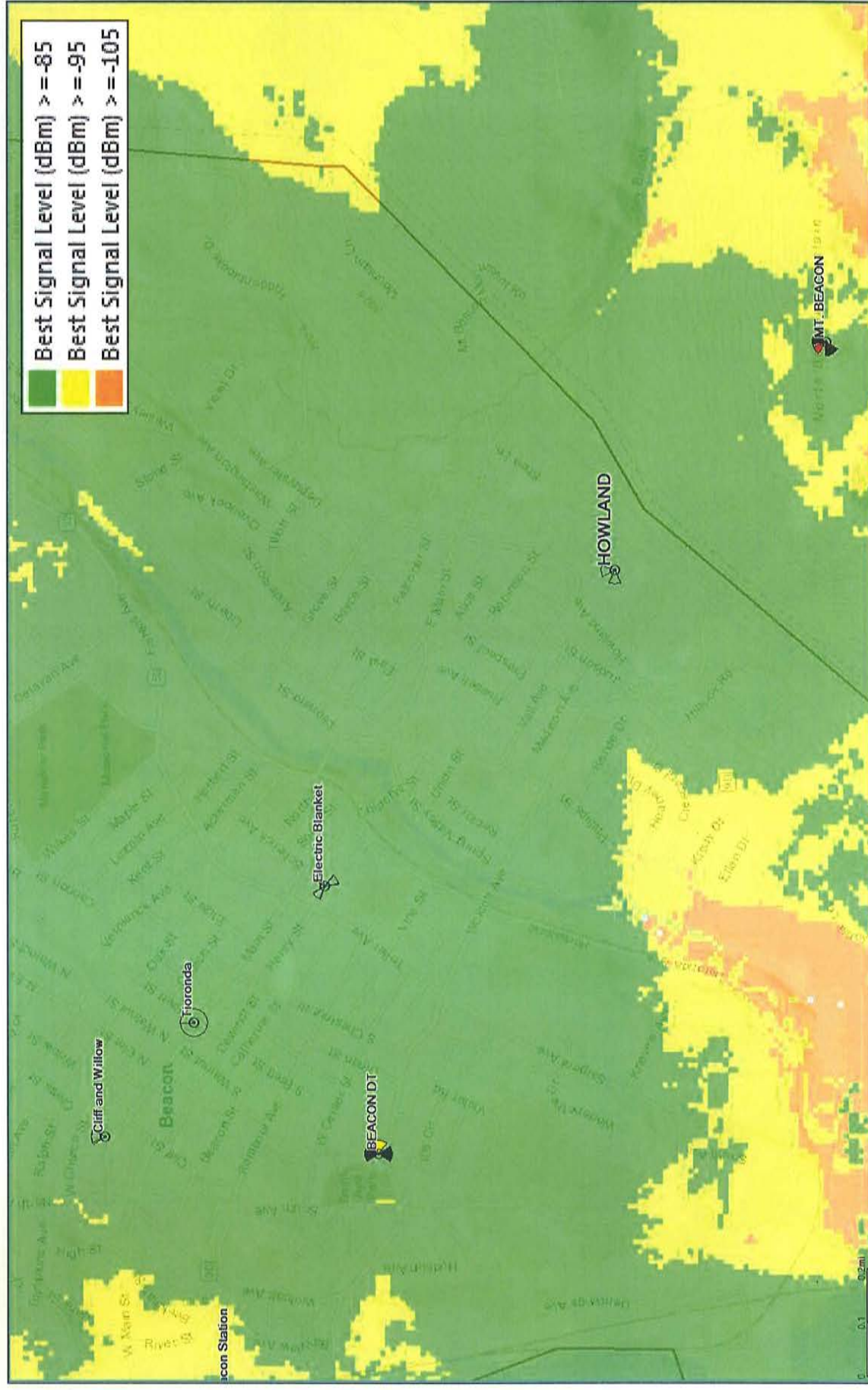


The map above removes the footprint of the existing Mt. Beacon site. There is no low band carriers (700/850MHz) planned for the proposed Howland site. Later in this document are slides showing where the proposed high band carriers (AWS/PCS) will provide offload.



# Existing 700MHz Coverage

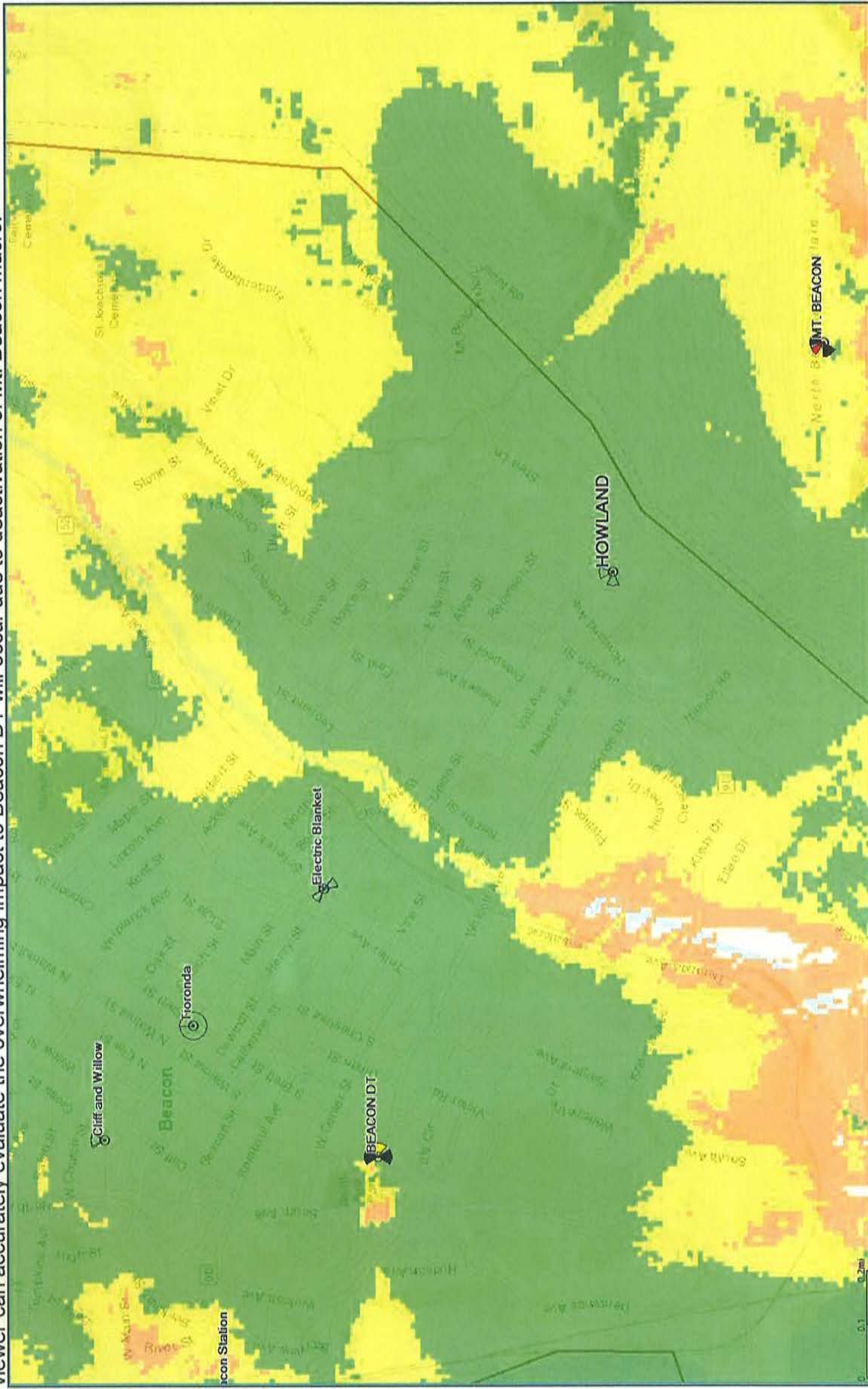
This coverage map shows existing low band RF conditions in and around the Howland Micro site area.





# Mt. Beacon LTE OFF 700MHz Best Server -95dBm RSRP

Best Server plots depict the actual best server or dominant footprint of each sector in question. The following map shows one threshold so the viewer can accurately evaluate the overwhelming impact to Beacon DT will occur due to deactivation of Mt. Beacon macro.

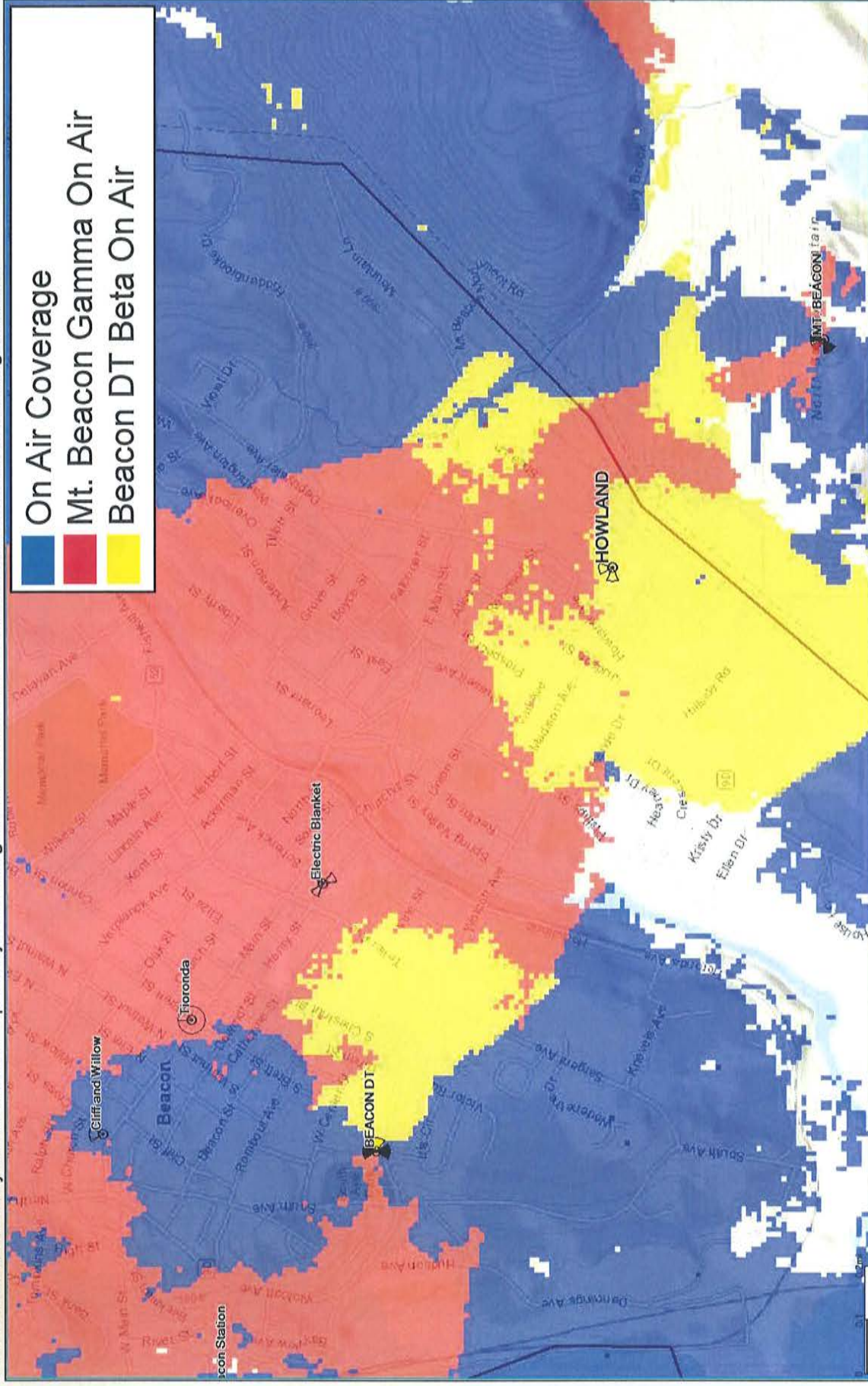


The map above removes the footprint of the existing Mt. Beacon site. There is no low band carriers (700/850MHz) planned for the proposed Howland site. Later in this document are slides showing where the proposed high band carriers (AWS/PCS) will provide offload.



# Existing 2100MHz Best Server -95dBm RSRP

Best Server plots depict the actual best server or dominant footprint of each sector in question. The following map shows one threshold so the viewer can accurately evaluate where primary offloading will occur as a result of the new site's dominant signal area.

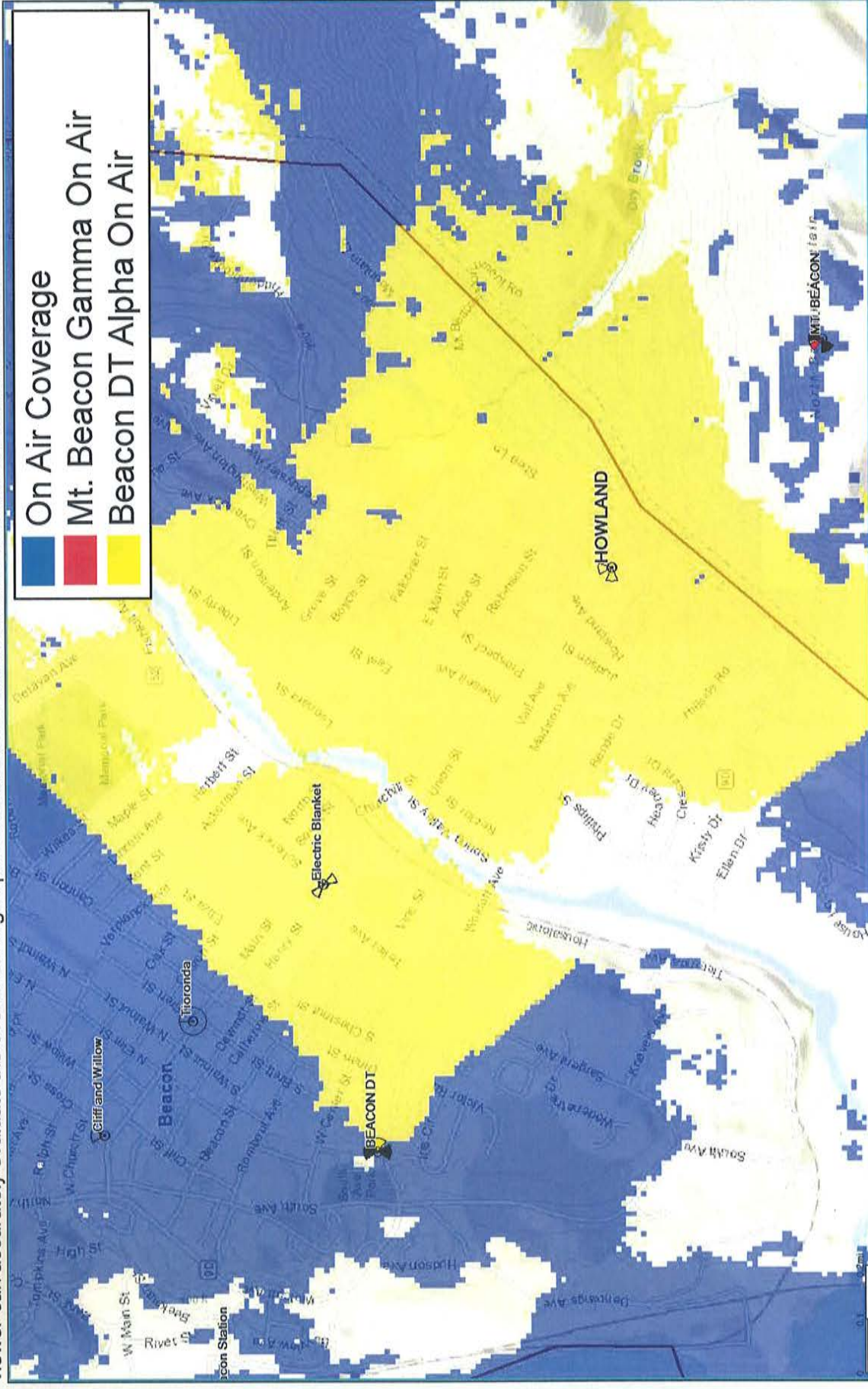


The map above represents coverage from existing sites/cells, with the cells in need of capacity offload in red (Mt. Beacon Gamma) and yellow (Beacon DT Beta) Blue coverage is from other on air sites/sectors.



# Proposed 2100MHz Best Server -95dBm RSRP

Best Server plots depict the actual best server or dominant footprint of each sector in question. The following map shows one threshold so the viewer can accurately evaluate the overwhelming impact to Beacon DT will occur due to deactivation of Mt. Beacon macro.

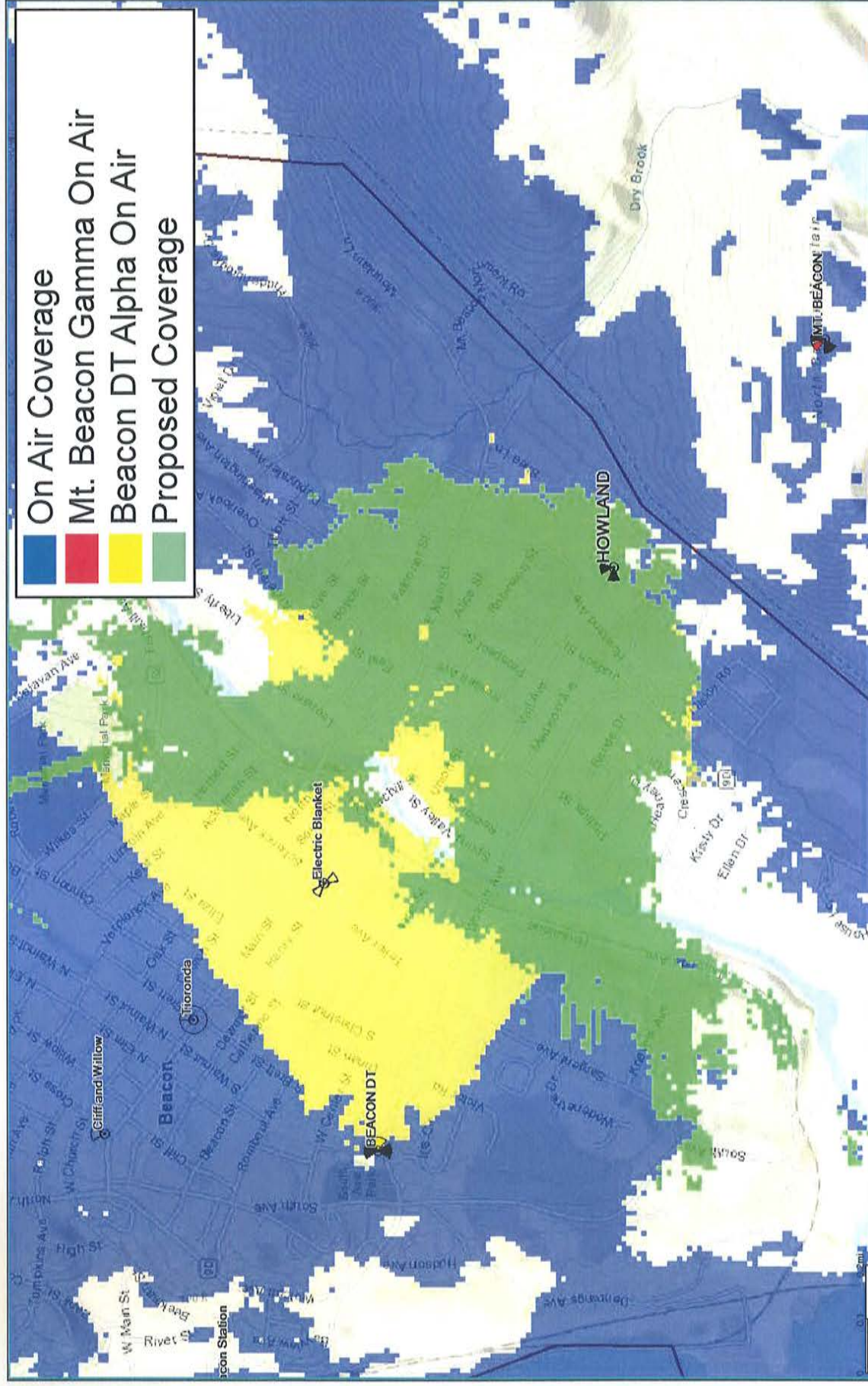


The map above removes the (red) footprint of Mt. Beacon.



# Proposed (Mt. Beacon Gamma Off) 2100MHz Best Server -95dBm RSRP

Best Server plots depict the actual best server or dominant footprint of each sector in question. The following map shows one threshold so the viewer can accurately evaluate where primary offloading will occur as a result of the new site's dominant signal area (at 50' ACL).

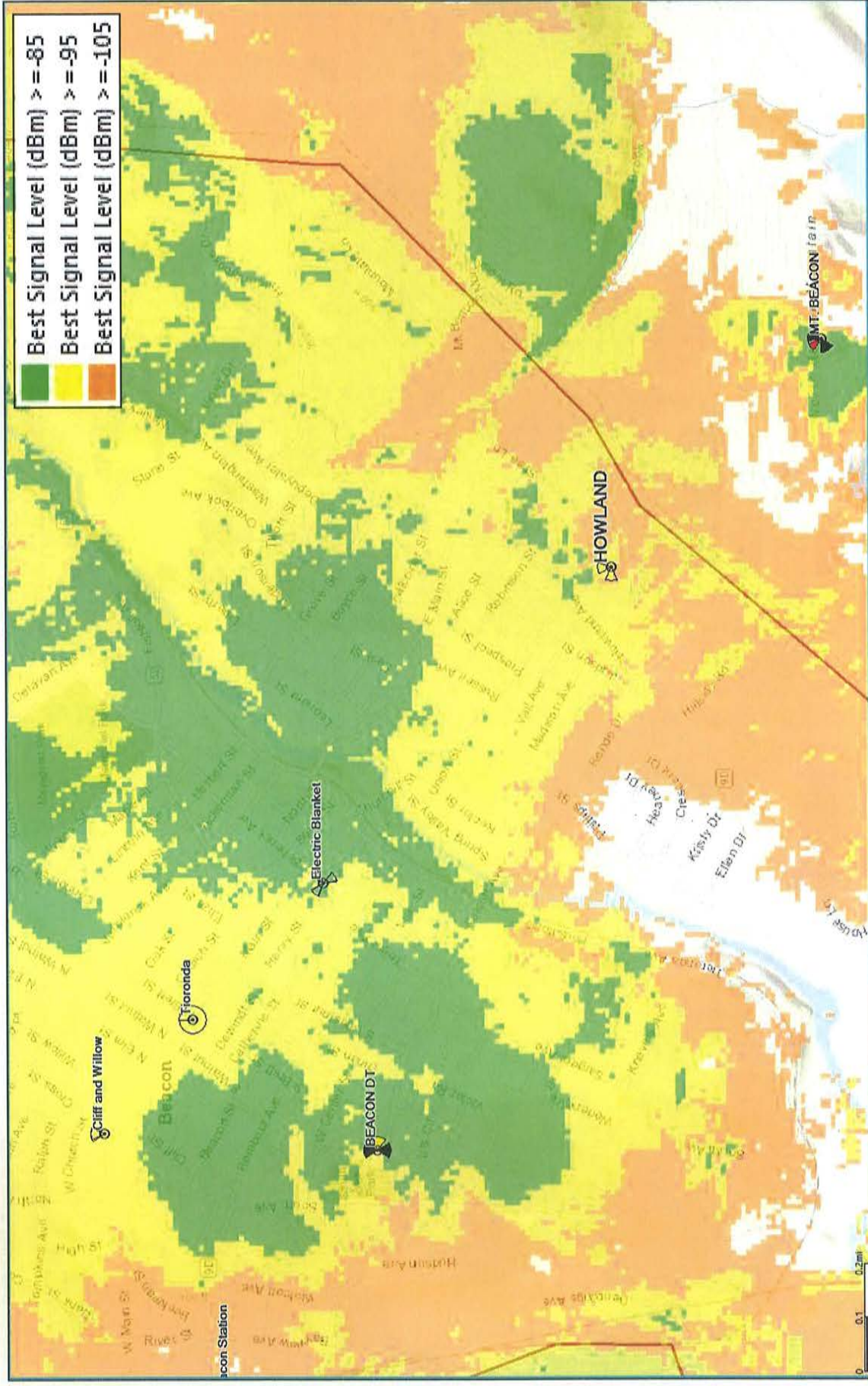


The map above removes the (red) footprint of Mt. Beacon Gamma as it is planned to be shut off due to excessive interference and inability to serve the intended area. The green best server footprint represents the proposed Howland coverage area. Activation of Howland will be a coordinated event along with additional containment of Beacon DT in order to maintain sector dominance and proper network performance.



# Existing 2100MHz Coverage

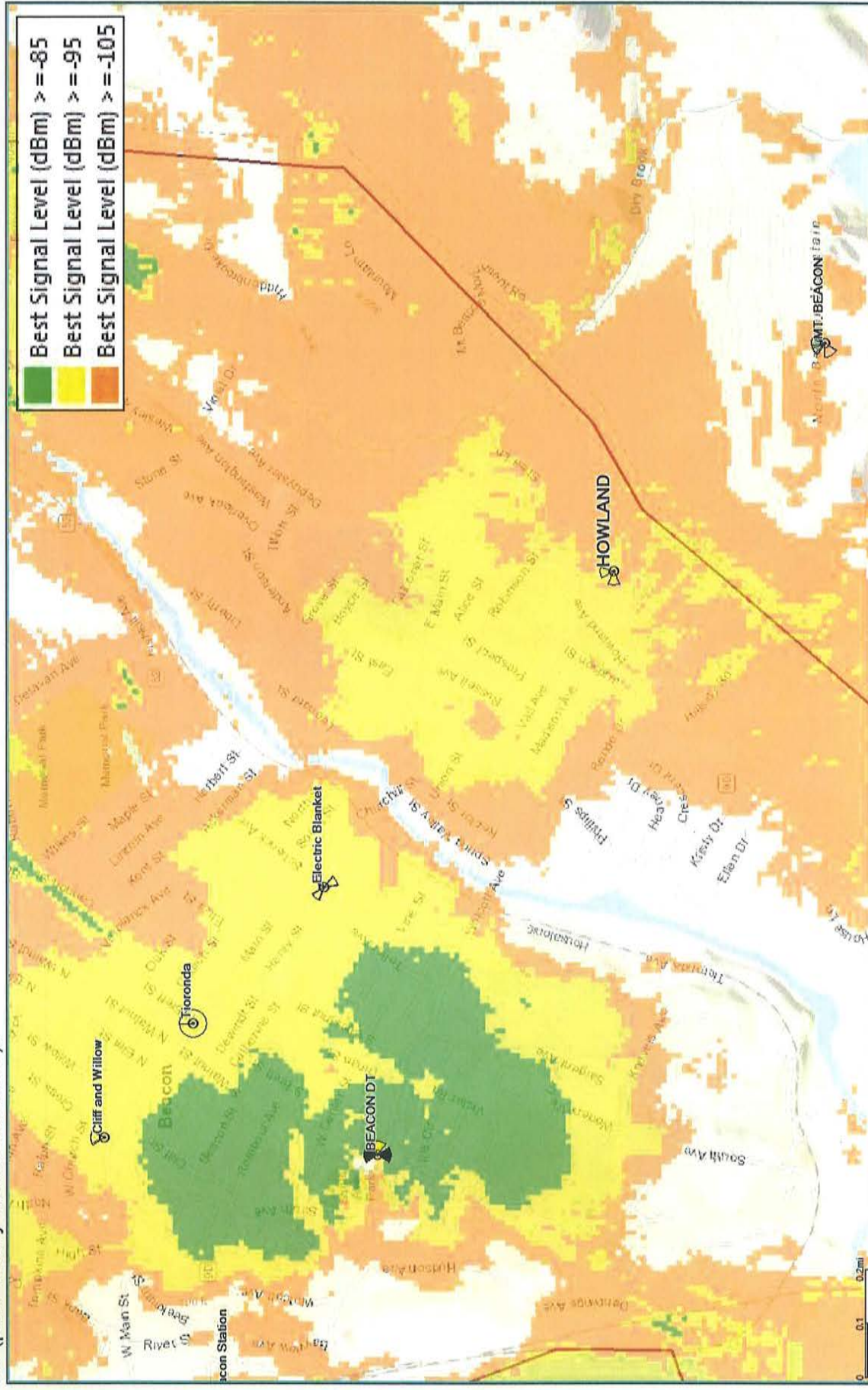
This coverage map shows existing high band RF conditions in and around the Electric Blanket site area.





## Existing 2100MHz Coverage (Mt. Beacon Gamma Off Air)

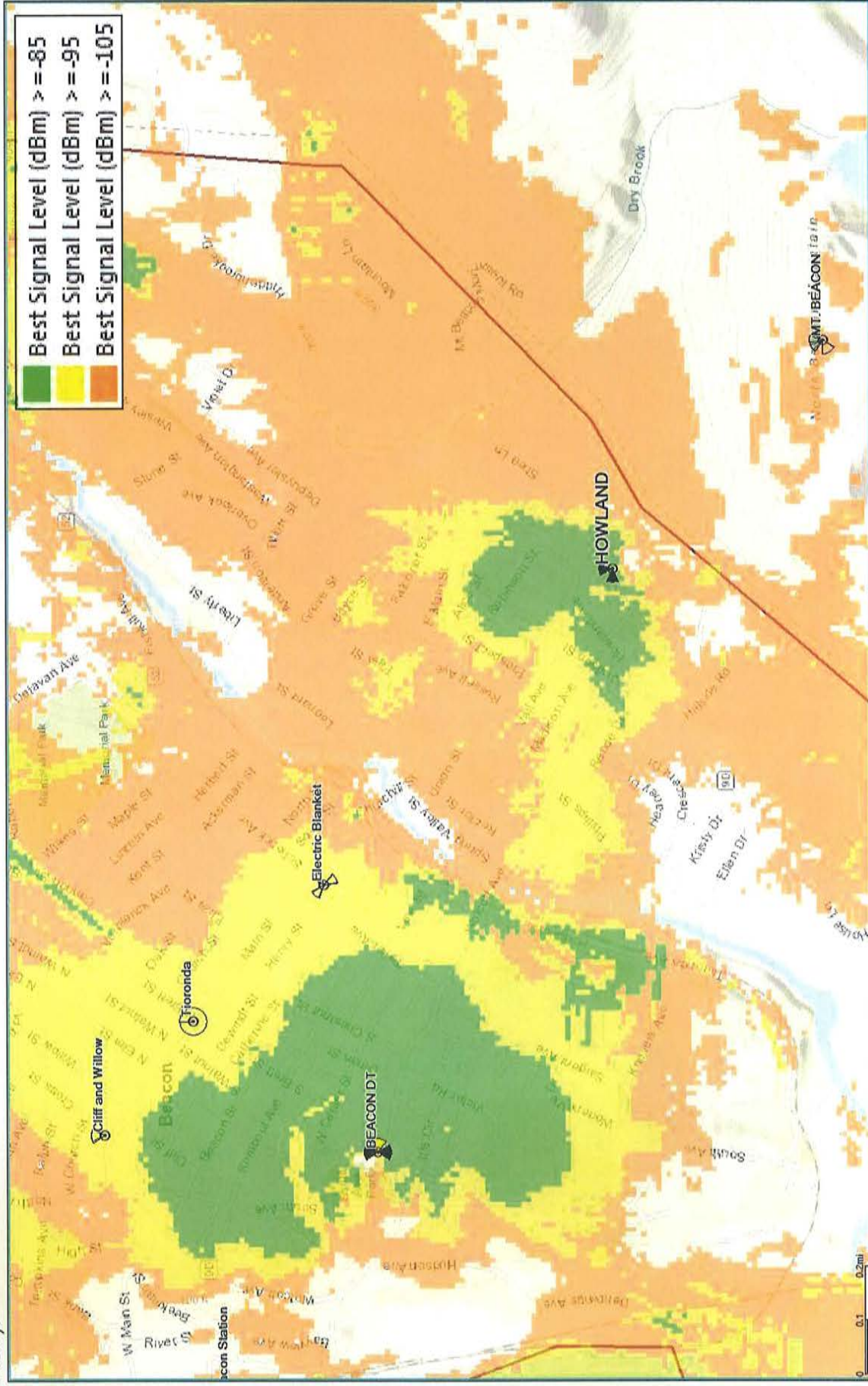
This coverage map shows future high band RF conditions in and around the Howland Micro site area after Mt. Beacon Gamma is off air (prior to any new activations).





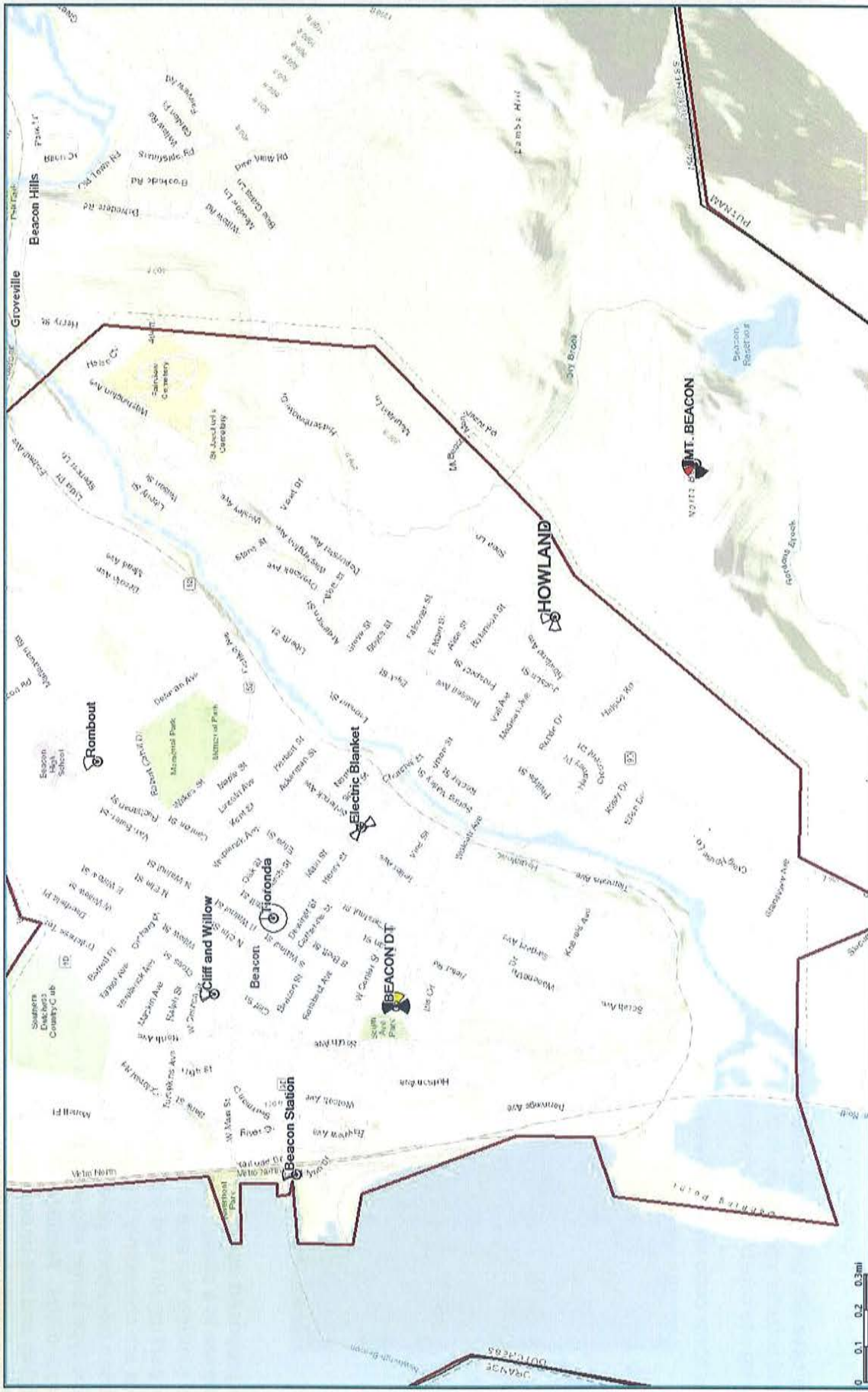
# Proposed 2100MHz Coverage

This coverage map shows proposed high band RF conditions (Mt. Beacon off air) in and around the Howland Micro site area (at 50' ACL).



# Other sites in development

This map shows the approximate locations of other sites at various stages of development including Beacon Station, Rombout, Cliff and Willow, Tioronda and Beacon, and Willow, Tioronda and Electric Blanket.





# Site Selection Analysis and Steath Design

The following candidates were considered throughout the process of developing the Howland ring:

- A. 41.494749°, -73.955751° (Ability Beyond Disability Roof Co-Lo) RF Rejected, ACL too low, obscured by local clutter
- B. 41.494518°, -73.955562° (Ability Beyond Disability Telephone Pole) RF Approved at 50' ACL

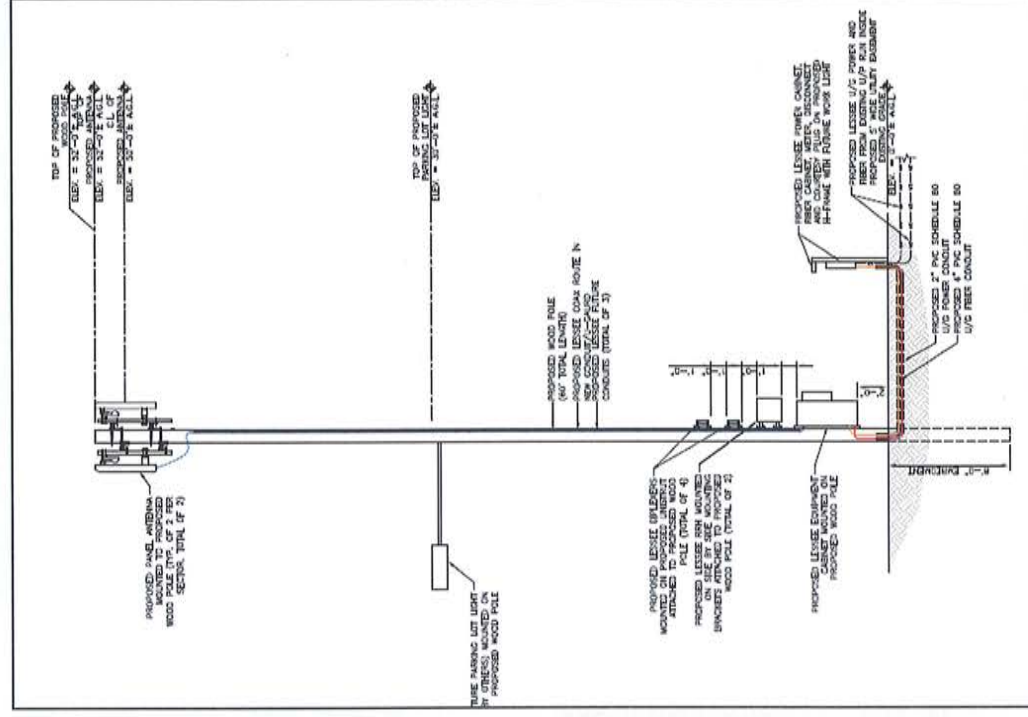
As is the case with other micro sites the search area provided to Site Acquisition (SACQ) by RF Engineering is relatively limited in size which in turn limits the number of potential candidates, in this case there were two. Due to the small nature of the target area, coordination with other sites in design, interest in maximizing site capabilities while limiting the number of solutions required limits the areas where this site will work as identified below.

The new town code was reviewed and there were no city owned or higher priority potential sites available to co-locate on in this area.



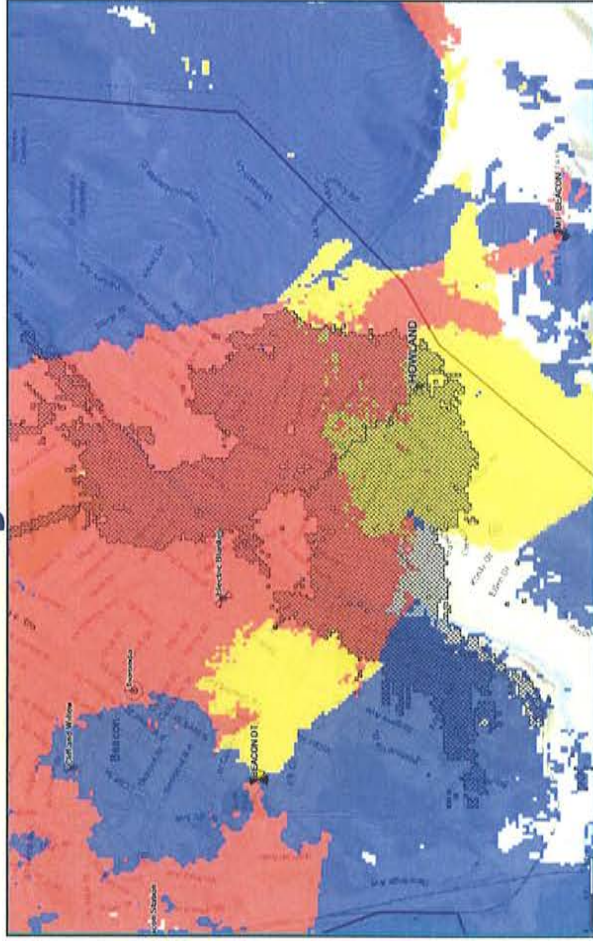
Search Area

The proposed use of a wooden telephone pole to mount the required antennas is a stealth proposal. The antennas are flush mounted to the pole limiting the size of the antenna array. This pole can also be utilized as a parking lot light structure as shown in the elevation view. Telephone poles are commonly utilized in this area of the city and by use of a wooden telephone pole versus a steel monopole, self support or other lattice type tower allows the proposed application to blend into the surroundings. Additionally since it is located between the adjacent building and the unpopulated hillside it is out of the way with no skyline profile. It will blend into the hillside by design achieving stealth.





# RF Justification Summary



The proposed site at 50' improves coverage and capacity within the entire shaded area shown above. The significant gaps within these areas which currently result with overburdened low band conditions as shown on slides 8&9 will be significantly improved and are expected to be resolved in conjunction with other area activations planned which will allow for deactivation of Mt. Beacon Gamma sector.

The network was analyzed to determine whether there is sufficient **RF coverage and capacity** in the City of Beacon. It was determined that there are significant gaps in adequate LTE service for Verizon Wireless in the 700 and 2100MHz frequency bands. In addition to the coverage deficiencies, Verizon Wireless' network does not have sufficient capacity (low band or high band) to handle the existing and projected LTE voice and data traffic in the area near and neighboring the proposed Howland micro facility ("targeted service improvement area"). Based on the need for additional coverage and capacity while considering the topography and wide area requiring service, any further addition of capacity to long distance existing sites does not remedy Verizon's significant gap in reliable service. Therefore, the proposed facility is also needed to provide "capacity relief" to the existing nearby Verizon Wireless sites, allowing the proposed facility and those neighboring sites to adequately serve the existing and projected capacity demand in this area.

With the existing network configuration there are significant gaps in service which restricts Verizon Wireless customers from originating, maintaining or receiving reliable calls and network access. It is our expert opinion that the proposed height will satisfy the coverage and capacity needs of Verizon Wireless and its subscribers in this portion of Beacon and the Howland micro project area. The proposed location depicted herein satisfies the identified service gaps and is proposed at the minimum height necessary for adequate service.

*Michael R. Crosby*

Michael R. Crosby  
Engineer IV – RF Design  
Verizon Wireless

VERIZON WIRELESS MAINTENANCE AND INSPECTION PLAN  
HOWLAND MICRO FACILITY

Verizon Wireless will maintain the approved communications facility located at 110 Howland Avenue, Beacon, New York in a safe manner and in compliance with all applicable conditions any necessary approvals granted from the City of Beacon, as well as all applicable and permissible codes, ordinances and regulations, including any and all applicable city, county, state and federal laws, rules and regulations.

The approved communications facility will be unmanned, and will be visited by Network Operations personnel for routine maintenance and inspection purposes approximately one to three times per year (as needed). Verizon Wireless will maintain the tower and any roads or surrounding areas under its control in a good and safe condition. A records log will be kept at the site to keep track of any issues identified at the site visits.

The site will also be hard wired to Verizon Wireless Network Operation Center ("NOC"), which is manned twenty-four hours a day, seven days a week, 365 days a year. If there is a significant issue at the facility, it will trigger an alarm at the NOC and an appropriate response will be provided.

Any items requiring maintenance or repair will be addressed in a prompt and workman-like manner by qualified professions.

November 19, 2018

**MILLENNIUM ENGINEERING, P.C.**

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November 6, 2018

Attn: Naveen Gupta, RF Design Engineer  
Verizon Wireless  
1275 John Street, Suite# 100  
West Henrietta, NY 14586

**Re: RF Safety FCC Compliance of Proposed Communications Facility**  
**Site Name: Howland Micro, Proposed 52' Wooden Lightpole**  
**110 Howland Avenue, Beacon, NY 12508 (City of Beacon, Dutchess County)**  
**Latitude 41° 29' 40.44" N, Longitude 73° 57' 19.92" W (NAD83), G.E. 274' A.M.S.L.**

Dear Mr. Gupta,

I have performed an analysis to provide an independent determination and certification that the proposed Verizon Wireless communications facility at the above referenced property will comply with Federal Communications Commission (FCC) exposure limits and guidelines for human exposure to radiofrequency electromagnetic fields (Code of Federal Regulation 47 CFR 1.1307 and 1.1310). As a registered professional engineer, I am under the jurisdiction of the State Registration Boards in which I am licensed to hold paramount the safety, health, and welfare of the public and to issue all public statements in an objective and truthful manner.

The proposed communications facility consists of a proposed 52' wooden lightpole at the above referenced property. The proposed Verizon Wireless antenna configuration from the information furnished to me consists of (1) 1900/2100 MHz (LTE) dualband antenna (CommScope NHH-45A-R2B or equivalent) on each of two faces (total of 2 antennas) spaced with azimuths of 335/270 degrees on the horizontal plane at a centerline of 50' above ground level and no mechanical downtilt. Transmitting from these antennas will be (1) 1900 MHz LTE wideband channel and (1) 2100 MHz LTE wideband channel per face. The proposed Verizon Wireless antennas will be mounted at the top of the proposed pole at a centerline of 2' below the top of the pole and 20' above the proposed parking lot light.

The following assumptions are made for reasonable upper limit radiofrequency operating parameters for the proposed facility due to the Verizon Wireless antennas alone:

- (1) 1900/2100 MHz (LTE) dualband transmit antenna per face at 0-10 degrees mechanical downtilt
- (1) 1900 MHz LTE wideband channel/face at 4x40W max power/face before cable loss/antenna gain
- (1) 2100 MHz LTE wideband channel/face at 4x40W max power/face before cable loss/antenna gain
- The facility would be at or near full capacity during busy hour

Using the far-field power density equations from FCC Bulletin OET 65, the power density at any given distance from the antennas is equal to  $0.360(ERP)/R^2$  where R is the distance to the point at which the exposure is being

calculated. The given equation is a conversion of the OET 65 power density equation for calculating power density given the distance in feet and the result in metric units ( $\text{mW}/\text{cm}^2$ ). This calculated power density assumes the location is in the main beam of the vertical pattern of the antenna. After making an adjustment for the reduction in power density due to the vertical pattern of the transmit antenna, the calculated ground level power density is well below 1 % of the FCC general population exposure limit at any distance from the antenna system of Verizon Wireless.

The 1900 MHz (PCS) "C4/C5 Block" transmit frequencies (1980-1990 MHz), which Verizon Wireless is licensed by the FCC to operate, have an uncontrolled/general population maximum permissible exposure (MPE) FCC limit of  $1000 \mu\text{W}/\text{cm}^2$  or  $1 \text{ mW}/\text{cm}^2$ . The 2100 MHz (AWS) "B Block", "C Block" and "D Block" transmit frequencies (2120-2130, 2130-2135, 2135-2140 MHz), which Verizon Wireless is also licensed by the FCC to operate, have an uncontrolled/general population MPE FCC limit of  $1000 \mu\text{W}/\text{cm}^2$  or  $1 \text{ mW}/\text{cm}^2$ . Therefore, the exposure at ground level at any distance from the structure would substantially below 1 % of the FCC general population exposure limits due to the Verizon Wireless antenna alone. The extremely low ground exposure levels are due to the elevated positions of the antennas on the structure and the low power which these systems operate. See Figures 1 and 2 in back of this report which discuss the relationship between height, proximity or distance, and orientation to level of electromagnetic field exposure.

I have performed a near-field analysis to determine the exposure levels directly in front of the proposed Verizon Wireless antennas for the safety of occupational workers. **The calculated exposure is below the FCC occupational exposure limits at 3 feet directly in front of the antennas.** As a general rule, occupational workers should maintain a distance of 3 feet from all transmitting antennas.

**In summary, the proposed communications facility will comply with all applicable exposure limits and guidelines adopted by the FCC governing human exposure to radiofrequency electromagnetic fields (FCC Bulletin OET 65).** Federal law (FCC Rule Title 47 CFR 1.1307 and 1.1310) sets the national standard for compliance with electromagnetic field safety. The FCC exposure limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP) and, over a wide range of frequencies, the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI). **Thus, there is full compliance with the standards of the IRPA, FCC, IEEE, ANSI, and NCRP.**

### General Information on Electromagnetic Field Safety

Verizon Wireless facilities transmit and receive low power electromagnetic fields (EMF) between base station antennas and handheld portable cell phones. The radiofrequency energy from these facilities and devices is non-ionizing electromagnetic energy. Non-ionizing, unlike X-Rays or other forms of potentially harmful energy in the microwave region, is not cumulative over time nor can the energy change the chemical makeup of atoms (e.g. strip electrons from ions). "Non-ionizing" simply means that the energy is not strong enough to break ionic bonds.

Safe levels of electromagnetic fields were determined by numerous worldwide organizations, such the International Committee for Non-Ionizing Radiation Protection, a worldwide multi-disciplinary team of researchers and scientists studying the effects of non-ionizing radiofrequency energy such as that emitted by base stations or cell phones. The FCC did not arbitrarily establish their own standards, but rather adopted the recommendations of all leading organizations that set standards and research the subject such as the Institute of Electrical and Electronics Engineers (IEEE), American National Standards Institute (ANSI), and National Council on Radiation Protection and Measurements (NCRP).

When Verizon Wireless, or any commercial wireless communications licensee, is located on an antenna structure such as a self-supporting lattice type tower, lattice tower, guyed tower, watertank, etc. the antennas are typically

10 meters or more above ground level (10 meters = 32.81 feet). With the relatively low power and elevated positions of the antennas on the structure with respect to ground level, the maximum ground level exposure can rarely approach 1 % of the applicable FCC exposure limit regardless of how many sets of antennas are collocated on the structure. For this reason, the FCC considers the facilities "categorically excluded" from routine evaluation at antenna heights above 10 meters (or above 32.81 feet). Categorical exclusion exempts a site from routine on-site evaluation. However, the facility is not excluded from compliance with the federal exposure limits and guidelines. The types of facilities used by Verizon Wireless typically elevated on antenna structures (away from access to close proximity, i.e. greater than 10 meters or 32.81 feet) simply cannot generate ground level exposure levels that approach the limits under any circumstances.

From a regulatory perspective, the FCC has sole jurisdiction over the regulation of electromagnetic fields from all facilities and devices. The FCC has established guidelines and limits over emissions and exposure to protect the general public. The FCC also has certain criteria that trigger when an environmental evaluation must be performed. The criteria are based on distance from the antennas (accessibility) and transmit power levels.

### **CONCLUSIONS:**

**1) The proposed communications facility will comply with electromagnetic field safety standards by a substantial margin (well below 1 %) in all publicly accessible areas. This includes the base of the proposed structure and any areas in proximity to the proposed structure.**

**2) Verizon Wireless takes appropriate measures to ensure that all telecommunications facilities (including this proposed facility) comply with applicable exposure limits and guidelines adopted by the FCC governing human exposure to radiofrequency electromagnetic fields (FCC Bulletin OET 65).**

**3) In cases where such compliance exists, the subject of electromagnetic field safety is preempted.** The Telecommunications Act of 1996 states that: "No state or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [FCC's] regulations concerning such emissions." Telecommunications Act of 1996, § 332[c][7][B][iv].

Respectfully,

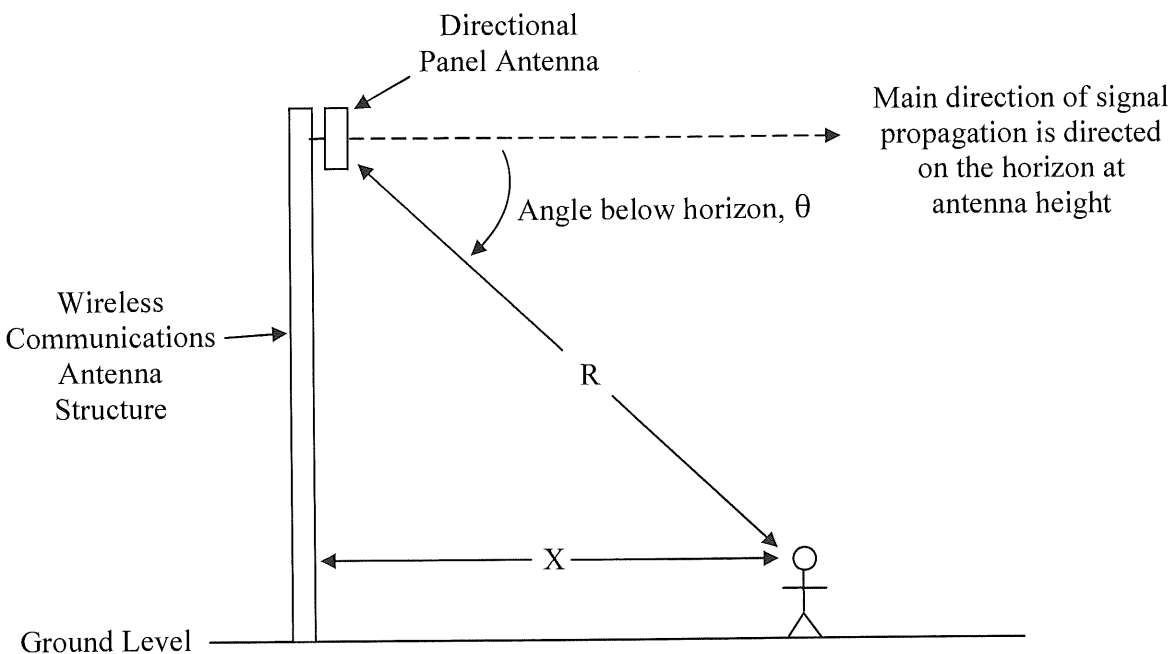


Paul Dugan, P.E.  
Registered Professional Engineer  
New York License Number 79144



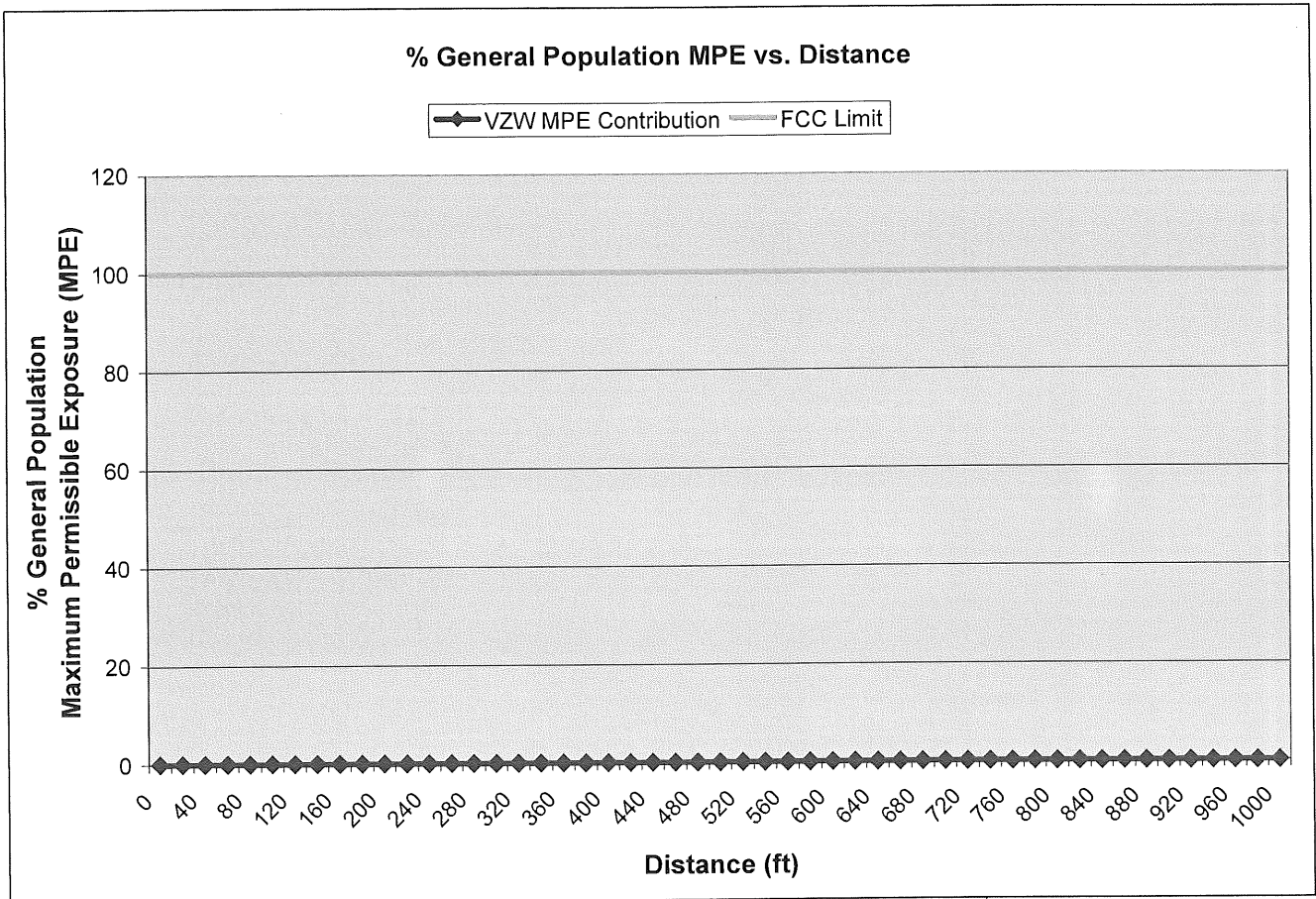


**FIGURE 1: Diagram of Electromagnetic Field Strength as a Function of Distance and Antenna Orientation**



The above diagram illustrates the conceptual relationship of distance and orientation to directional panel antennas used in wireless communications. At the base of the structure ( $x = 0$ ), the distance  $R$  is a minimum when the angle of the direction of propagation  $\theta$  is a maximum. As one moves away from the antenna structure, the horizontal distance  $X$  increases as well as the distance  $R$  to the antennas while the angle below the horizon decreases. For this reason, electromagnetic fields from these facilities remain fairly uniform up to a few hundred feet and continue to taper off with distance. As noted in the report, the electromagnetic fields from these types of facilities are hundreds of times below safety standards at any distance from the antenna structure, making them essentially indistinguishable relative to other sources of electromagnetic fields in the environment due to the elevated heights of the antennas and the relatively low power at which these systems operate.

**FIGURE 2: Graph of MPE Contribution vs. Distance**



The above graph represents the contribution of Verizon Wireless to the composite electromagnetic field exposure level at any distance from the base of the structure. The contribution of Verizon Wireless will remain well under 1% of the FCC general population maximum permissible exposure (MPE) at any distance as shown.

## DECLARATION OF ENGINEER

Paul Dugan, P.E., declares and states that he is a graduate telecommunications consulting engineer (BSE/ME Widener University 1984/1988), whose qualifications are a matter of record with the Federal Communications Commission (FCC). His firm, Millennium Engineering, P.C., has been retained by Verizon Wireless to perform power density measurements or calculations for an existing or proposed communications facility and analyze the data for compliance with FCC exposure limits and guidelines for human exposure to radiofrequency electromagnetic fields.

Mr. Dugan also states that the calculations or measurements made in the evaluation were made by himself or his technical associates under his direct supervision, and the summary letter certification of FCC compliance associated with the foregoing document was made or prepared by him personally. Mr. Dugan is a registered professional engineer in the Jurisdictions of Pennsylvania, New Jersey, Delaware, Maryland, Virginia, New York, Connecticut, District of Columbia, West Virginia and Puerto Rico with 30 years of engineering experience. Mr. Dugan is also an active member of the Association of Federal Communications Consulting Engineers, the National Council of Examiners for Engineering, the National Society of Professionals Engineers, the Pennsylvania Society of Professional Engineers, and the Radio Club of America. Mr. Dugan further states that all facts and statements contained herein are true and accurate to the best of his own knowledge, except where stated to be in information or belief, and, as to those facts, he believes them to be true. He believes under penalty of perjury the foregoing is true and correct.



Paul Dugan, P.E.

Executed this the 6<sup>th</sup> day of November, 2018.

**PAUL DUGAN, P.E.**  
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Malvern, Pennsylvania 19355

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**EDUCATION:** Widener University, Chester, Pennsylvania  
**Master of Business Administration**, July 1991  
**Master of Science, Electrical Engineering**, December 1988  
**Bachelor of Science, Electrical Engineering**, May 1984

**PROFESSIONAL ASSOCIATIONS:** **Registered Professional Engineer** in the following jurisdictions:

Pennsylvania, License Number PE-045711-E  
New Jersey, License Number GE41731  
Maryland, License Number 24211  
Delaware, License Number 11797  
Virginia, License Number 36239  
Connecticut, License Number 22566  
New York, License Number 079144  
District of Columbia, License Number PE-900355  
West Virginia, License Number 20258  
Puerto Rico, License Number 18946

Full member of **The Association of Federal Communications Consulting Engineers**  
([www.afcce.org](http://www.afcce.org)) January 1999 to Present  
**Elected to serve on the Board of Directors for 2006-2007**

Full member of **The National Society of Professional Engineers** ([www.nspe.org](http://www.nspe.org)) and the  
**Pennsylvania Society of Professional Engineers** ([www.pspe.org](http://www.pspe.org)) June 2003 to Present  
Currently serving on the Board of Directors of the Valley Forge Chapter and as South East Region Vice-Chair for the "Professional Engineers in Private Practice" Executive Committee

Actively participate in **Chester County ARES/RACES** (CCAR [www.w3eoc.org](http://www.w3eoc.org)) which prepares and provides emergency backup communications for Chester County Department of Emergency Services, March 2005 to Present

Full member of **The National Council of Examiners for Engineering**  
([www.ncees.org](http://www.ncees.org)) May 2001 to Present

Full Member of **The Radio Club of America**  
([www.radio-club-of-america.org](http://www.radio-club-of-america.org)) December 2003 to present

**PROFESSIONAL EXPERIENCE:** Millennium Engineering, P.C., Malvern, Pennsylvania  
Position: **President**, August 1999 to Present ([www.millenniumeng.com](http://www.millenniumeng.com))

Verizon Wireless, Plymouth Meeting, Pennsylvania  
Position: **Cellular RF System Design/Performance Engineer**, April 1990 to August 1999

Communications Test Design, Inc., West Chester, Pennsylvania  
Position: **Electrical Engineer**, May 1984 to April 1990

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November 6, 2018

Attn: Naveen Gupta, RF Design Engineer  
Verizon Wireless  
1275 John Street, Suite# 100  
West Henrietta, NY 14586

**Re: Non-Interference Certification of Proposed Communications Facility**  
**Site Name: Howland Micro, Proposed 52' Wooden Lightpole**  
**110 Howland Avenue, Beacon, NY 12508 (City of Beacon, Dutchess County)**  
**Latitude 41° 29' 40.44" N, Longitude 73° 57' 19.92" W (NAD83), G.E. 274' A.M.S.L.**

Dear Mr. Gupta,

I have performed an analysis to provide an independent interference evaluation and certification that the proposed Verizon Wireless communications facility at the above referenced property will comply with Federal Communications Commission (FCC) licensed operating parameters and that the system will be free of disruptive radiofrequency interference or cause interference to other wireless systems. As a registered professional engineer, I am under the jurisdiction of the State Registration Boards in which I am licensed to hold paramount the safety, health, and welfare of the public and to issue all public statements in an objective and truthful manner.

The proposed communications facility consists of a proposed 52' wooden lightpole at the above referenced property. The proposed Verizon Wireless antenna configuration from the information furnished to me consists of (1) 1900/2100 MHz (LTE) dualband antenna (CommScope NHH-45A-R2B or equivalent) on each of two faces (total of 2 antennas) spaced with azimuths of 335/270 degrees on the horizontal plane at a centerline of 50' above ground level and no mechanical downtilt. Transmitting from these antennas will be (1) 1900 MHz LTE wideband channel and (1) 2100 MHz LTE wideband channel per face. The proposed Verizon Wireless antennas will be mounted at the top of the proposed pole at a centerline of 2' below the top of the pole and 20' above the proposed parking lot light.

In Dutchess County, Verizon Wireless is licensed by the FCC to transmit in the 1900 MHz (PCS) "C4/C5 Block" transmit frequencies (1980-1990 MHz) and the 2100 MHz (AWS) "B Block", "C Block" and "D Block" transmit frequencies (2120-2130, 2130-2135, 2135-2140 MHz).

Verizon Wireless, other commercial wireless communications licensees, broadcast facilities, public safety communications systems, and utility companies collocate routinely with some basic precautions and there will be no interference issues with the proposed antennas. The licensees that collocate on these types of structures all must operate within their licensed operating parameters. A commercial wireless communications antenna system operates at a frequency and power level authorized by the FCC and, with proper precautions, will not interfere with antenna systems of other commercial wireless services, public safety telecommunications, airport navigation, broadcast radio and television, cordless phones, computers, etc., or other community office or



residential household appliances. The different operating frequencies and relatively low power that commercial wireless communications antenna systems operate allow these systems to co-exist in close proximity.

When two or more wireless communications systems co-exist on the same structure or in very close proximity, there is the potential for many forms of interference between systems, such as intermodulation distortion. For the proposed facility subject to this application, no other base station antennas are in close proximity for which to model for intermodulation.

There is nothing commercial wireless communications licensees could gain by operating (intentionally or inadvertently) outside of their licensed operating parameters. The network equipment used by the licensees is designed to operate at certain frequencies and power levels and sharp filtering is designed into the transmit/receive paths to ensure a clean radio system. The technicians who visit the facility for routine maintenance generally perform FCC testing to ensure proper operation of the facility and the systems are monitored remotely twenty-four hours a day, seven days per week. Furthermore, radios are designed so that virtually any type of radio equipment malfunction would cause the radio to shut down.

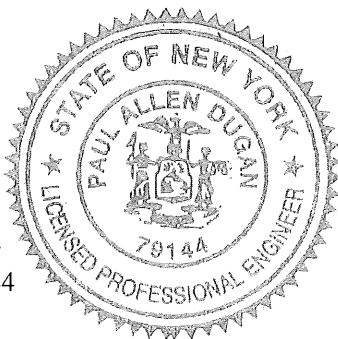
The FCC has remediation processes to help protect the community. If a complaint is filed with the FCC, the FCC would investigate the complaint and notify the licensee to resolve any issues whether actual or perceived. Failure to comply or negligence on the part of the licensee may result in stiff fines.

**In summary, the proposed communications facility will not cause any disruptive interference with any transmitter or receiver that will co-exist at, on or near the same communications structure.**

Respectfully,



Paul Dugan, P.E.  
Registered Professional Engineer  
New York License Number 79144



## DECLARATION OF ENGINEER

Paul Dugan, P.E., declares and states that he is a graduate telecommunications consulting engineer (BSE/ME Widener University 1984/1988), whose qualifications are a matter of record with the Federal Communications Commission (FCC). His firm, Millennium Engineering, P.C., has been retained by Verizon Wireless to perform a collocation interference analysis for an existing or proposed communications facility.

Mr. Dugan also states that the calculations or measurements made in the evaluation were made by himself or his technical associates under his direct supervision, and the summary letter certification of FCC compliance associated with the foregoing document was made or prepared by him personally. Mr. Dugan is a registered professional engineer in the Jurisdictions of Pennsylvania, New Jersey, Delaware, Maryland, Virginia, New York, Connecticut, District of Columbia, West Virginia and Puerto Rico with over 30 years of engineering experience. Mr. Dugan is also an active member of the Association of Federal Communications Consulting Engineers, the National Council of Examiners for Engineering, the National Society of Professionals Engineers, the Pennsylvania Society of Professional Engineers, and the Radio Club of America. Mr. Dugan further states that all facts and statements contained herein are true and accurate to the best of his own knowledge, except where stated to be in information or belief, and, as to those facts, he believes them to be true. He believes under penalty of perjury the foregoing is true and correct.

A handwritten signature in black ink, appearing to read "Paul Dugan", is written over a horizontal line.

Paul Dugan, P.E.

Executed this the 6<sup>th</sup> day of November, 2018.

**PAUL DUGAN, P.E.**  
132 Jaffrey Road  
Malvern, Pennsylvania 19355

Cell: 610-220-3820  
Fax: 610-644-4355  
Email: [pauldugan@comcast.net](mailto:pauldugan@comcast.net)  
Web Page: [www.millenniumeng.com](http://www.millenniumeng.com)

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**EDUCATION:** Widener University, Chester, Pennsylvania  
**Master of Business Administration**, July 1991  
**Master of Science, Electrical Engineering**, December 1988  
**Bachelor of Science, Electrical Engineering**, May 1984

**PROFESSIONAL ASSOCIATIONS:** **Registered Professional Engineer** in the following jurisdictions:

Pennsylvania, License Number PE-045711-E  
New Jersey, License Number GE41731  
Maryland, License Number 24211  
Delaware, License Number 11797  
Virginia, License Number 36239  
Connecticut, License Number 22566  
New York, License Number 079144  
District of Columbia, License Number PE-900355  
West Virginia, License Number 20258  
Puerto Rico, License Number 18946

Full member of **The Association of Federal Communications Consulting Engineers**  
([www.afcce.org](http://www.afcce.org)) January 1999 to Present  
**Elected to serve on the Board of Directors for 2006-2007**

Full member of **The National Society of Professional Engineers** ([www.nspe.org](http://www.nspe.org)) and the  
**Pennsylvania Society of Professional Engineers** ([www.pspe.org](http://www.pspe.org)) June 2003 to Present  
Currently serving on the Board of Directors of the Valley Forge Chapter and as South East Region Vice-Chair for the "Professional Engineers in Private Practice" Executive Committee

Actively participate in **Chester County ARES/RACES** (CCAR [www.w3eoc.org](http://www.w3eoc.org)) which prepares and provides emergency backup communications for Chester County Department of Emergency Services, March 2005 to Present

Full member of **The National Council of Examiners for Engineering**  
([www.ncees.org](http://www.ncees.org)) May 2001 to Present

Full Member of **The Radio Club of America**  
([www.radio-club-of-america.org](http://www.radio-club-of-america.org)) December 2003 to present

**PROFESSIONAL EXPERIENCE:** Millennium Engineering, P.C., Malvern, Pennsylvania  
Position: **President**, August 1999 to Present ([www.millenniumeng.com](http://www.millenniumeng.com))

Verizon Wireless, Plymouth Meeting, Pennsylvania  
Position: **Cellular RF System Design/Performance Engineer**, April 1990 to August 1999

Communications Test Design, Inc., West Chester, Pennsylvania  
Position: **Electrical Engineer**, May 1984 to April 1990

# Short Environmental Assessment Form

## Part 1 - Project Information

### Instructions for Completing

**Part 1 - Project Information.** The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

|   |                          |  |   |    |     |                                     |                          |
|---|--------------------------|--|---|----|-----|-------------------------------------|--------------------------|
| <b>Part 1 - Project and Sponsor Information</b>   |                          |  |   |    |     |                                     |                          |
| Orange County-Poughkeepsie Limited Partnership d/b/a Verizon Wireless   |                          |  |   |    |     |                                     |                          |
| Name of Action or Project:<br>Howland Micro   |                          |  |   |    |     |                                     |                          |
| Project Location (describe, and attach a location map):<br>110 Howland Avenue, Beacon, Dutchess County, NY  |                          |  |   |    |     |                                     |                          |
| Brief Description of Proposed Action:<br>Construct a proposed 52 foot wooden pole with two proposed antennas within a 102 square foot lease area for telecommunications equipment. Verizon Wireless proposes to utilize the existing paved access road. Utility conduits are to extend underground along the perimeter of the paved parking area for approximately 250 feet to an existing utility pole.  |                          |  |   |    |     |                                     |                          |
| Name of Applicant or Sponsor:<br>Verizon Wireless   |                          | Telephone:<br>E-Mail: kathy.pomponio@verizonwireless.com |   |    |     |                                     |                          |
| Address:<br>1275 John Street, Suite 100   |                          |  |   |    |     |                                     |                          |
| City/PO:<br>West Henrietta  |                          | State:<br>NY   | Zip Code:<br>14586  |    |     |                                     |                          |
| 1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation?<br>If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.  |                          |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">YES</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> | NO | YES | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| NO  | YES                      |  |   |    |     |                                     |                          |
| <input checked="" type="checkbox"/>   | <input type="checkbox"/> |  |   |    |     |                                     |                          |
| 2. Does the proposed action require a permit, approval or funding from any other governmental Agency?<br>If Yes, list agency(s) name and permit or approval:  |                          |  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">NO</td> <td style="text-align: center;">YES</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> | NO | YES | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| NO  | YES                      |  |   |    |     |                                     |                          |
| <input checked="" type="checkbox"/>   | <input type="checkbox"/> |  |   |    |     |                                     |                          |
| 3.a. Total acreage of the site of the proposed action?  |                          | 6 acres  |   |    |     |                                     |                          |
| b. Total acreage to be physically disturbed?  |                          | <1 acres   |   |    |     |                                     |                          |
| c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?  |                          | <1 acres   |   |    |     |                                     |                          |
| 4. Check all land uses that occur on, adjoining and near the proposed action.<br><input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban)<br><input checked="" type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____<br><input type="checkbox"/> Parkland |                          |  |   |    |     |                                     |                          |

|  |  |   |                                 |
|--|--|---|---------------------------------|
| 5. Is the proposed action,<br>a. A permitted use under the zoning regulations?   | NO<br><input type="checkbox"/>   | YES<br><input checked="" type="checkbox"/>                  | N/A<br><input type="checkbox"/> |
| b. Consistent with the adopted comprehensive plan?   | <input type="checkbox"/>   | <input checked="" type="checkbox"/>                         | <input type="checkbox"/>        |
| 6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?  | NO<br><input type="checkbox"/>   | YES<br><input checked="" type="checkbox"/>                  |                                 |
| 7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?<br>If Yes, identify: _____  | NO<br><input checked="" type="checkbox"/>  | YES<br><input type="checkbox"/>                             |                                 |
| 8. a. Will the proposed action result in a substantial increase in traffic above present levels?   | NO<br><input checked="" type="checkbox"/>  | YES<br><input type="checkbox"/>                             |                                 |
| b. Are public transportation service(s) available at or near the site of the proposed action?  | <input type="checkbox"/>   | <input checked="" type="checkbox"/>                         |                                 |
| c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?   | <input type="checkbox"/>   | <input checked="" type="checkbox"/>                         |                                 |
| 9. Does the proposed action meet or exceed the state energy code requirements?<br>If the proposed action will exceed requirements, describe design features and technologies:<br>Minimal increase of energy _____  | NO<br><input type="checkbox"/>   | YES<br><input checked="" type="checkbox"/>                  |                                 |
| 10. Will the proposed action connect to an existing public/private water supply?<br><br>If No, describe method for providing potable water: _____  | NO<br><input checked="" type="checkbox"/>  | YES<br><input type="checkbox"/>                             |                                 |
| 11. Will the proposed action connect to existing wastewater utilities?<br><br>If No, describe method for providing wastewater treatment: _____   | NO<br><input checked="" type="checkbox"/>  | YES<br><input type="checkbox"/>                             |                                 |
| 12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?<br>b. Is the proposed action located in an archeological sensitive area?  | NO<br><input checked="" type="checkbox"/><br><input checked="" type="checkbox"/> | YES<br><input type="checkbox"/><br><input type="checkbox"/> |                                 |
| 13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?<br>b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?<br>If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____                                      | NO<br><input checked="" type="checkbox"/><br><input checked="" type="checkbox"/> | YES<br><input type="checkbox"/><br><input type="checkbox"/> |                                 |
| 14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:<br><input type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input type="checkbox"/> Agricultural/grasslands <input type="checkbox"/> Early mid-successional<br><input type="checkbox"/> Wetland <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Suburban                          |  |   |                                 |
| 15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?   | NO<br><input checked="" type="checkbox"/>  | YES<br><input type="checkbox"/>                             |                                 |
| 16. Is the project site located in the 100 year flood plain?   | NO<br><input checked="" type="checkbox"/>  | YES<br><input type="checkbox"/>                             |                                 |
| 17. Will the proposed action create storm water discharge, either from point or non-point sources?<br>If Yes,<br>a. Will storm water discharges flow to adjacent properties? <input type="checkbox"/> NO <input type="checkbox"/> YES<br><br>b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?<br>If Yes, briefly describe: <input type="checkbox"/> NO <input type="checkbox"/> YES | NO<br><input checked="" type="checkbox"/>  | YES<br><input type="checkbox"/>                             |                                 |



|   |   |   |
|---|---|---|
| 18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)?<br>If Yes, explain purpose and size: _____<br>_____<br>_____ | NO<br><br><br><input checked="" type="checkbox"/> | YES<br><br><br><input type="checkbox"/> |
| 19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?<br>If Yes, describe: _____<br>_____<br>_____   | NO<br><br><br><input checked="" type="checkbox"/> | YES<br><br><br><input type="checkbox"/> |
| 20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?<br>If Yes, describe: _____<br>_____<br>_____   | NO<br><br><br><input checked="" type="checkbox"/> | YES<br><br><br><input type="checkbox"/> |
| <b>I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</b><br><br>Applicant/sponsor name: <u>Verizon Wireless</u> Date: <u>November 13, 2018</u><br>Signature: <u>Elaine Langer</u>         |   |   |

























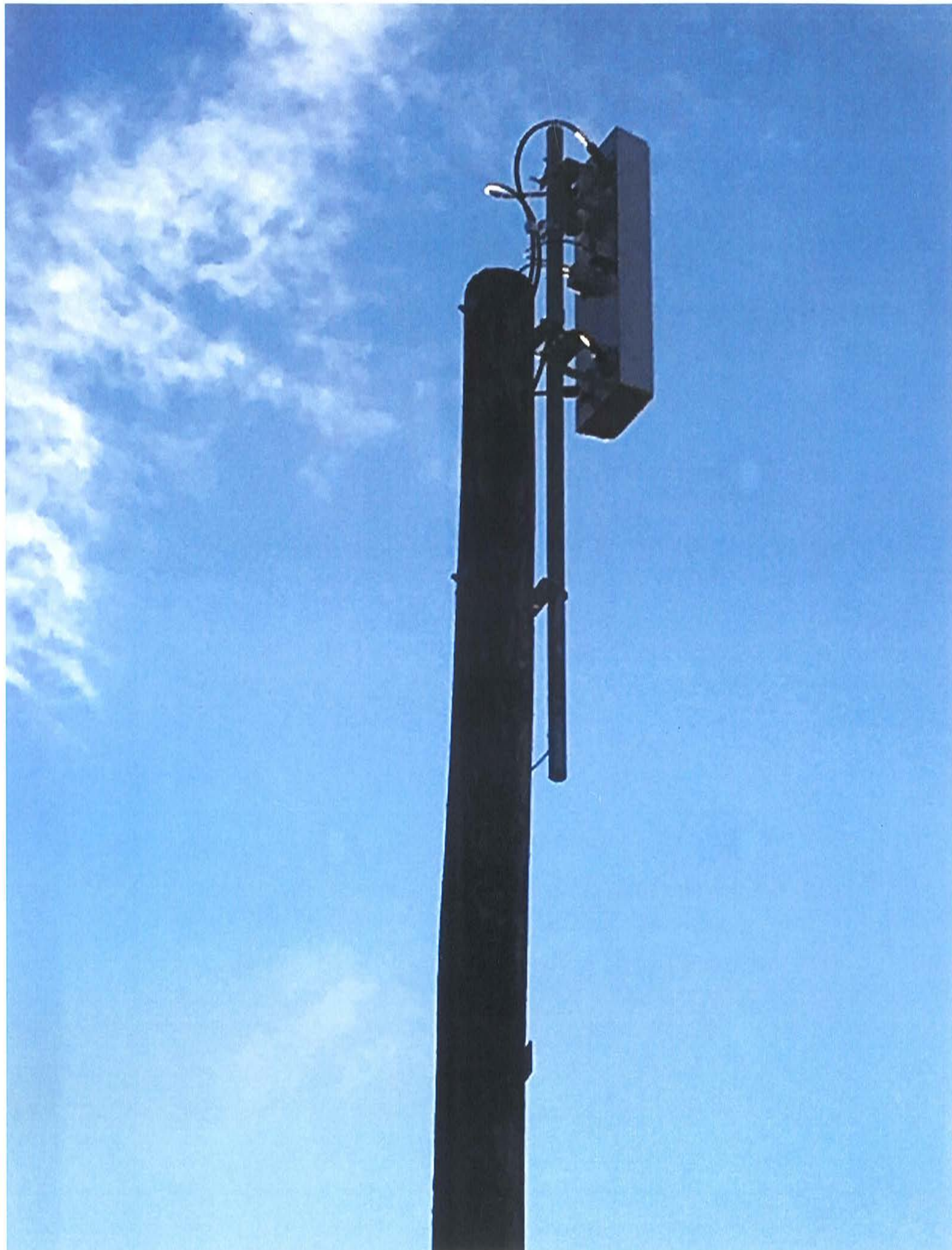












SITE NAME: Howland Micro  
SITE NUMBER: NY 20161509173  
ATTY/DATE: YS / Sept. 5, 2018

### LEASE AGREEMENT

This Lease Agreement (the "Agreement") made this 29<sup>th</sup> day of October, 2018, between **Ability Beyond Disability**, a New York Non-Stock Corporation with a mailing address at 4 Berkshire Boulevard, Bethel, Connecticut 06801 hereinafter designated LESSOR and **Orange County-Poughkeepsie Limited Partnership d/b/a Verizon Wireless** with its principal offices at One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 (telephone number 866-862-4404), hereinafter designated LESSEE. LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party."

### WITNESSETH

In consideration of the mutual covenants contained herein and intending to be legally bound hereby, the Parties hereto agree as follows:

1. PREMISES. LESSOR hereby leases to LESSEE approximately one hundred two (102) square feet of space (the "Ground Space") located at 110 Howland Avenue, City of Beacon, County of Dutchess, State of New York, (the existing Building and such real property are hereinafter sometimes collectively referred to as the "Property"), for the installation, operation and maintenance of communications equipment; together with such additional space for the installation, operation and maintenance of wires, cables, conduits and pipes (the "Cabling Space") running between and among the Ground Space to all necessary electrical and telephone utility sources located on the Property; together with the non-exclusive right of ingress and egress from a public right-of-way, seven (7) days a week, twenty four (24) hours a day provided the Lessor is provided at least 24 hours prior written notice except for in the case of an emergency, over the Property and to and from the Premises (as hereinafter defined) for the purpose of installation, operation and maintenance of LESSEE's communications facility. The Ground Space and Cabling Space are hereinafter collectively referred to as the "Premises" and are as shown on Exhibit "A" attached hereto and made a part hereof. In the event there are not sufficient electric and telephone, cable or fiber utility sources located on the Property, LESSOR agrees to grant LESSEE or the local utility provider the right to install such utilities on, over and/or under the Property necessary for LESSEE to operate its communications facility, provided the location of such utilities shall be as reasonably designated by LESSOR. LESSOR agrees to grant LESSEE, Verizon New York, Inc., or any other local utility or fiber provider the right to install such utilities or fiber in, on, over and/or under the Premises necessary for LESSEE to operate the Communication Facilities, as amended herein.

2. CONDITION OF PROPERTY. LESSOR shall deliver the Premises to LESSEE in a condition ready for LESSEE's construction of its improvements and clean and free of debris.

3. TERM; RENTAL.

This Agreement shall be effective as of the date of execution by both Parties (the "Effective Date"), provided, however, the initial term shall be for five (5) years and shall commence on the earlier of the first day of the month following: (i) the day that LESSEE commences installation of the equipment on the Premises or (ii) two (2) years from the date of full execution of this Agreement (the "Commencement Date") at which time rental payments shall commence and be due at a total annual rental of [REDACTED] to be paid in advance annually on the Commencement Date and on each anniversary of it in advance, to Lessor or to such other person, firm or place as LESSOR may, from time to time, designate in writing at least thirty (30) days in advance of any rental payment date by notice given in accordance



with Paragraph 17 below. LESSOR and LESSEE acknowledge and agree that initial rental payment shall not actually be sent by LESSEE until ninety (90) days after the Commencement Date. LESSOR and LESSEE agree that they shall acknowledge in writing the Commencement Date.

Upon agreement of the Parties, LESSEE may pay rent by electronic funds transfer and in such event, LESSOR agrees to provide to LESSEE bank routing information for such purpose upon request of LESSEE.

LESSOR hereby agrees to provide to LESSEE certain documentation (the "Rental Documentation") including without limitation: (i) documentation evidencing LESSOR's good and sufficient title to and/or interest in the Property and right to receive rental payments and other benefits hereunder; (ii) a completed Internal Revenue Service Form W-9, or equivalent for any party to whom rental payments are to be made pursuant to this Agreement; and (iii) other documentation requested by LESSEE and within fifteen (15) days of obtaining an interest in the Property or this Agreement, any assignee(s), transferee(s) or other successor(s) in interest of LESSOR shall provide to LESSEE such Rental Documentation. All documentation shall be acceptable to LESSEE in LESSEE's reasonable discretion. Delivery of Rental Documentation to LESSEE shall be a prerequisite for the payment of any rent by LESSEE and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any rental payments until Rental Documentation has been supplied to LESSEE as provided herein.

Within thirty (30) days of a written request from LESSEE, LESSOR or any assignee(s) or transferee(s) of LESSOR agrees to provide updated Rental Documentation. Delivery of Rental Documentation to LESSEE shall be a prerequisite for the payment of any rent by LESSEE to such party and notwithstanding anything to the contrary herein, LESSEE shall have no obligation to make any rental payments until Rental Documentation has been supplied to LESSEE as provided herein.

4. ELECTRICAL. LESSEE shall furnish and install an electrical meter at the Premises for the measurement of electrical power used by LESSEE's installation. LESSEE shall be permitted at any time during the Term, to install, maintain and/or provide access to and use of, as necessary (during any power interruption at the Premises), a temporary power source, and all related equipment and appurtenances within the Premises, or elsewhere on the Property in such locations as reasonably approved by LESSOR. LESSEE shall have the right to install conduits connecting the temporary power source and related appurtenances to the Premises.

5. EXTENSIONS.

a. Provided the Lessee is not in default of its obligations hereunder, this Agreement shall automatically be extended for four (4) additional five (5) year terms unless LESSEE terminates it at the end of the then current term by giving LESSOR written notice of the intent to terminate at least three (3) months prior to the end of the then current term. The initial term and all extensions shall be collectively referred to herein as the "Term".

b. EXTENSION RENTALS. Beginning on the annual anniversary of the Commencement Date, and continuing each year thereafter that this Agreement is in effect, the annual rental shall be equal to [REDACTED] of the annual rental payable with respect to the immediately preceding year.

6. USE; GOVERNMENTAL APPROVALS. LESSEE shall use the Premises for the sole purpose of constructing, maintaining, repairing and operating a communications facility and uses incidental thereto.

LESSEE shall have the right to replace, repair, add or otherwise modify its utilities, equipment, antennas and/or conduits or any portion thereof and the frequencies over which the equipment operates, whether the equipment, antennas, conduits or frequencies are specified or not on any exhibit attached hereto, during the Term. Notwithstanding the foregoing, the LESSEE shall not be able to increase the size of the equipment, or the number of antennas and/or conduits shown in Exhibit A without the written consent of the LESSOR, which consent may be withheld at the LESSOR's sole and absolute discretion. It is understood and agreed that LESSEE's ability to use the Premises is contingent upon its obtaining after the execution date of this Agreement all of the certificates, permits and other approvals (collectively the "Governmental Approvals") that may be required by any Federal, State or Local authorities' structural analysis which will permit LESSEE use of the Premises as set forth above. LESSOR shall cooperate with LESSEE in its effort to obtain such approvals and shall take no action which would adversely affect the status of the Property with respect to the proposed use thereof by LESSEE. In the event that (i) any of such applications for such Governmental Approvals should be finally rejected; (ii) any Governmental Approval issued to LESSEE is canceled, expires, lapses, or is otherwise withdrawn or terminated by governmental authority; and (iii) LESSEE determines that such Governmental Approvals may not be obtained in a timely manner, LESSEE shall have the right to terminate this Agreement. Notice of LESSEE's exercise of its right to terminate shall be given to LESSOR in accordance with the notice provisions set forth in Paragraph 17 and shall be effective upon the mailing of such notice by LESSEE, or upon such later date as designated by LESSEE. All rentals paid to said termination date shall be retained by LESSOR. Upon such termination, this Agreement shall be of no further force or effect except to the extent of the representations, warranties and indemnities made by each Party to the other hereunder. Otherwise, the LESSEE shall have no further obligations for the payment of rent to LESSOR.

7. INDEMNIFICATION. Subject to Paragraph 8, below, each Party shall indemnify and hold the other harmless against any claim of liability or loss from personal injury or property damage resulting from or arising out of the negligence or willful misconduct of the indemnifying Party, its employees, contractors or agents, except to the extent such claims or damages may be due to or caused by the negligence or willful misconduct of the other Party, or its employees, contractors or agents.

8. INSURANCE.

a. The Parties hereby waive and release any and all rights of action for negligence against the other which may hereafter arise on account of damage to the Premises or to the Property, resulting from any fire, or other casualty of the kind covered by standard fire insurance policies with extended coverage, regardless of whether or not, or in what amounts, such insurance is now or hereafter carried by the Parties, or either of them. These waivers and releases shall apply between the Parties and they shall also apply to any claims under or through either Party as a result of any asserted right of subrogation. All such policies of insurance obtained by either Party concerning the Premises or the Property shall waive the insurer's right of subrogation against the other Party.

b. LESSOR and LESSEE each agree that at its own cost and expense, each will maintain commercial general liability insurance with limits not less than [REDACTED] for injury to or death of one or more persons in any one occurrence and [REDACTED] for damage or destruction to property in any one occurrence. LESSOR and LESSEE each agree that it will include the other Party as an additional insured.

9. LIMITATION OF LIABILITY. Except for indemnification pursuant to Paragraphs 7 and 21, neither Party shall be liable to the other, or any of their respective agents, representatives, employees for

any lost revenue, lost profits, loss of technology, rights or services, incidental, punitive, indirect, special or consequential damages, loss of data, or interruption or loss of use of service, even if advised of the possibility of such damages, whether under theory of contract, tort (including negligence), strict liability or otherwise.

10. ANNUAL TERMINATION. Notwithstanding anything to the contrary contained herein, provided LESSEE is not in default hereunder beyond applicable notice and cure periods, LESSEE shall have the right to terminate this Agreement upon the annual anniversary of the Commencement Date provided that three (3) months prior notice is given to LESSOR.

11. INTERFERENCE. LESSEE agrees to install equipment of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to any equipment of LESSOR or other lessees of the Property which existed on the Property prior to the date this Agreement is executed by the Parties. In the event any after-installed LESSEE's equipment causes such interference, and after LESSOR has notified LESSEE in writing of such interference, LESSEE will take all commercially reasonable steps necessary to correct and eliminate the interference, including but not limited to, at LESSEE's option, powering down such equipment and later powering up such equipment for intermittent testing. In no event will LESSOR be entitled to terminate this Agreement or relocate the equipment as long as LESSEE is making a good faith effort to remedy the interference issue. LESSOR agrees that LESSOR and/or any other tenants of the Property who currently have or in the future take possession of the Property will be permitted to install only such equipment that is of the type and frequency which will not cause harmful interference which is measurable in accordance with then existing industry standards to the then existing equipment of LESSEE. The Parties acknowledge that there will not be an adequate remedy at law for noncompliance with the provisions of this Paragraph and therefore, either Party shall have the right to equitable remedies, such as, without limitation, injunctive relief and specific performance.

12. REMOVAL AT END OF TERM. LESSEE shall, upon expiration of the Term, or within ninety (90) days after any earlier termination of the Agreement, remove its equipment, conduits, fixtures and all personal property and restore the Premises to its original condition, reasonable wear and tear and casualty damage excepted. LESSOR agrees and acknowledges that all of the equipment, conduits, fixtures and personal property of LESSEE shall remain the personal property of LESSEE and LESSEE shall have the right to remove the same at any time during the Term, whether or not said items are considered fixtures and attachments to real property under applicable laws. If such time for removal causes LESSEE to remain on the Premises after termination of this Agreement, LESSEE shall pay rent at the then existing monthly rate or on the existing monthly pro-rata basis if based upon a longer payment term, until such time as the removal of the antenna structure, fixtures and all personal property are completed.

13. RIGHT OF FIRST REFUSAL (COMMUNICATIONS EASEMENT). If LESSOR elects, during the Term to grant to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE, or a larger portion thereof, for the purpose of operating and maintaining communications facilities or the management thereof, with or without an assignment of this Agreement to such third party, LESSEE shall have the right of first refusal to meet any bona fide offer of transfer on the same terms and conditions of such offer. If LESSEE fails to meet such bona fide offer within thirty (30) days after written notice thereof from LESSOR, LESSOR may grant the easement or interest in the Property or portion thereof to such third person in accordance with the terms and conditions of such third-party offer.



14. RIGHTS UPON SALE. Should LESSOR, at any time during the Term decide (i) to sell or transfer all or any part of the Property or the Building thereon to a purchaser other than LESSEE, or (ii) to grant to a third party by easement or other legal instrument an interest in and to that portion of the Building and/or Property occupied by LESSEE, or a larger portion thereof, for the purpose of operating and maintaining communications facilities or the management thereof, such sale or grant of an easement or interest therein shall be under and subject to this Agreement and any such purchaser or transferee shall recognize LESSEE's rights hereunder under the terms of this Agreement. In the event that LESSOR completes any such sale, transfer, or grant described in this paragraph without executing an assignment of this Agreement whereby the third party agrees in writing to assume all obligations of LESSOR under this Agreement, then LESSOR shall not be released from its obligations to LESSEE under this Agreement, and LESSEE shall have the right to look to LESSOR and the third party for the full performance of this Agreement.

15. QUIET ENJOYMENT AND REPRESENTATIONS. LESSOR covenants that LESSEE, on paying the rent and performing the covenants herein, shall peaceably and quietly have, hold and enjoy the Premises. LESSOR represents and warrants to LESSEE as of the execution date of this Agreement, and covenants during the Term that LESSOR is seized of good and sufficient title and interest to the Property and has full authority to enter into and execute this Agreement. LESSOR further covenants during the Term that there are no liens, judgments or impediments of title on the Property, or affecting LESSOR's title to the same and that there are no covenants, easements or restrictions which prevent or adversely affect the use or occupancy of the Premises by LESSEE as set forth above.

16. ASSIGNMENT. This Agreement may be sold, assigned or transferred by the LESSEE without any approval or consent of the LESSOR to the LESSEE's principal, affiliates, subsidiaries of its principal or to any entity which acquires all or substantially all of LESSEE's assets in the market defined by the Federal Communications Commission in which the Property is located by reason of a merger, acquisition or other business reorganization. As to all other parties, this Agreement may not be sold, assigned or transferred without the prior written consent of the LESSOR, which such written consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of LESSEE shall constitute an assignment hereunder.

17. NOTICES. All notices hereunder must be in writing and shall be deemed validly given if sent by email, certified mail, return receipt requested or by commercial courier, provided the courier's regular business is delivery service and provided further that it guarantees delivery to the addressee by the end of the next business day following the courier's receipt from the sender, addressed as follows (or any other address that the Party to be notified may have designated to the sender by like notice):

LESSOR: Ability Beyond Disability  
c/o David Slater or Pam Creaturo  
4 Berkshire Boulevard  
Bethel, Connecticut 06801  
Email: David.Slater@abilitybeyond.org or  
Pam.Creaturo@abilitybeyond.org

LESSEE: Orange County-Poughkeepsie Limited Partnership  
d/b/a Verizon Wireless  
180 Washington Valley Road  
Bedminster, New Jersey 07921  
Attention: Network Real Estate  
Email: Barbara.clark@verizonwireless.com

Notice shall be effective upon actual receipt or refusal as shown on the receipt obtained pursuant to the foregoing.

18. RECORDING. LESSOR agrees to execute a Memorandum of this Agreement which LESSEE may record with the appropriate recording officer. The date set forth in the Memorandum of Lease is for recording purposes only and bears no reference to commencement of either the Term or rent payments.

19. DEFAULT. In the event there is a breach by a Party with respect to any of the provisions of this Agreement or its obligations under it, the non-breaching Party shall give the breaching Party written notice of such breach. After receipt of such written notice, the breaching Party shall have thirty (30) days in which to cure any breach, provided the breaching Party shall have such extended period as may be required beyond the thirty (30) days if the breaching Party commences the cure within the thirty (30) day period and thereafter continuously and diligently pursues the cure to completion. The non-breaching Party may not maintain any action or effect any remedies for default against the breaching Party unless and until the breaching Party has failed to cure the breach within the time periods provided in this Paragraph. Notwithstanding the foregoing to the contrary, it shall be a default under this Agreement if LESSOR fails, within five (5) days after receipt of written notice of such breach, to perform an obligation required to be performed by LESSOR if the failure to perform such an obligation interferes with LESSEE's ability to conduct its business; provided, however, that if the nature of LESSOR's obligation is such that more than five (5) days after such notice is reasonably required for its performance, then it shall not be a default under this Agreement if performance is commenced within such five (5) day period and thereafter diligently pursued to completion.

20. REMEDIES. In the event of a default by either Party with respect to a material provision of this Agreement, without limiting the non-defaulting Party in the exercise of any right or remedy which the non-defaulting Party may have by reason of such default, the non-defaulting Party may terminate the Agreement and/or pursue any remedy now or hereafter available to the non-defaulting Party under the Laws or judicial decisions of the state in which the Premises are located. Further, upon a default, the non-defaulting Party may at its option (but without obligation to do so), perform the defaulting Party's duty or obligation on the defaulting Party's behalf, including but not limited to the obtaining of reasonably required insurance policies. The costs and expenses of any such performance by the non-defaulting Party shall be due and payable by the defaulting Party upon invoice therefor. If LESSEE undertakes any such performance on LESSOR's behalf and LESSOR does not pay LESSEE the full undisputed amount within thirty (30) days of its receipt of an invoice setting forth the amount due, LESSEE may offset the full undisputed amount due against all fees due and owing to LESSOR under this Agreement until the full undisputed amount is fully reimbursed to LESSEE.

21. ENVIRONMENTAL.

a. LESSOR will be responsible for all obligations of compliance with any and all environmental and industrial hygiene laws, including any regulations, guidelines, standards, or policies of

any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene conditions or concerns as may now or at any time hereafter be in effect, that are or were in any way related to activity now conducted in, on, or in any way related to the Building or Property, unless such conditions or concerns are caused by the LESSEE.

b. LESSOR shall hold LESSEE harmless and indemnify LESSEE from and assume all duties, responsibility and liability at LESSOR's sole cost and expense, for all duties, responsibilities, and liability (for payment of penalties, sanctions, forfeitures, losses, costs, or damages) and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding which is in any way related to: a) failure to comply with any environmental or industrial hygiene law, including without limitation any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene concerns or conditions as may now or at any time hereafter be in effect, unless such non-compliance results from conditions caused by LESSEE; and b) any environmental or industrial hygiene conditions arising out of or in any way related to the condition of the Building or Property or activities conducted thereon, unless such environmental conditions are caused by LESSEE.

c. LESSEE shall hold LESSOR harmless and indemnify LESSOR from and assume all duties, responsibility and liability at LESSEE's sole cost and expense, for all duties, responsibilities, and liability (for payment of penalties, sanctions, forfeitures, losses, costs, or damages) and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding which is in any way related to: a) failure to comply with any environmental or industrial hygiene law, including without limitation any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene concerns or conditions as may now or at any time hereafter be in effect, to the extent that such non-compliance results from conditions caused by LESSEE; and b) any environmental or industrial hygiene conditions arising out of or in any way related to the condition of the Property or activities conducted thereon, to the extent that such environmental conditions are caused by LESSEE.

22. CASUALTY. In the event of damage by fire or other casualty to the Building or Premises that cannot reasonably be expected to be repaired within forty-five (45) days following same or, if the Property is damaged by fire or other casualty so that such damage may reasonably be expected to disrupt LESSEE's operations at the Premises for more than forty-five (45) days, then LESSEE may, at any time following such fire or other casualty, provided LESSOR has not completed the restoration required to permit LESSEE to resume its operation at the Premises, terminate this Agreement upon fifteen (15) days prior written notice to LESSOR. Any such notice of termination shall cause this Agreement to expire with the same force and effect as though the date set forth in such notice were the date originally set as the expiration date of this Agreement and the Parties shall make an appropriate adjustment, as of such termination date, with respect to payments due to the other under this Agreement. Notwithstanding the foregoing, the rent shall abate during the period of repair following such fire or other casualty in proportion to the degree to which LESSEE's use of the Premises is impaired.

23. APPLICABLE LAWS. During the Term, LESSOR shall maintain the Property, the Building, Building systems, common areas of the Building, and all structural elements of the Premises in compliance with all applicable laws, rules, regulations, ordinances, directives, covenants, easements, zoning and land use regulations, and restrictions of record, permits, building codes, and the requirements of any applicable fire insurance underwriter or rating bureau, now in effect or which may hereafter come into effect (including, without limitation, the Americans with Disabilities Act and laws regulating hazardous



substances) (collectively "Laws"). LESSEE shall, in respect to the condition of the Premises and at LESSEE's sole cost and expense, comply with (a) all Laws relating solely to LESSEE's specific and unique nature of use of the Premises; and (b) all building codes requiring modifications to the Premises due to the improvements being made by LESSEE in the Premises. It shall be LESSOR's obligation to comply with all Laws relating to the Building in general, without regard to specific use (including, without limitation, modifications required to enable LESSEE to obtain all necessary building permits).

24. MISCELLANEOUS. This Agreement contains all agreements, promises and understandings between the LESSOR and the LESSEE regarding this transaction, and no oral agreement, promises or understandings shall be binding upon either the LESSOR or the LESSEE in any dispute, controversy or proceeding. This Agreement may not be amended or varied except in a writing signed by all parties. This Agreement shall extend to and bind the heirs, personal representatives, successors and assigns hereto. The failure of either party to insist upon strict performance of any of the terms or conditions of this Agreement or to exercise any of its rights hereunder shall not waive such rights and such party shall have the right to enforce such rights at any time. This Agreement and the performance thereof shall be governed interpreted, construed and regulated by the laws of the state in which the Premises is located without reference to its choice of law rules.

IN WITNESS WHEREOF, the Parties hereto have set their hands and affixed their respective seals the day and year first above written.

**LESSOR: Ability Beyond Disability**

By: *Lori I. Pasqualini*

Name: *Lori I. Pasqualini*

Its: *CFO*

Date: *9/24/2018*

WITNESS

*Pam Creature*

**LESSEE: Orange County-Poughkeepsie Limited Partnership d/b/a Verizon Wireless**

**By: Verizon Wireless of the East LP, its general partner**

**By: Cellco Partnership, its general partner**

By: *Richard Polatas*

Name: Richard Polatas

Its: Director Network Field Engineering

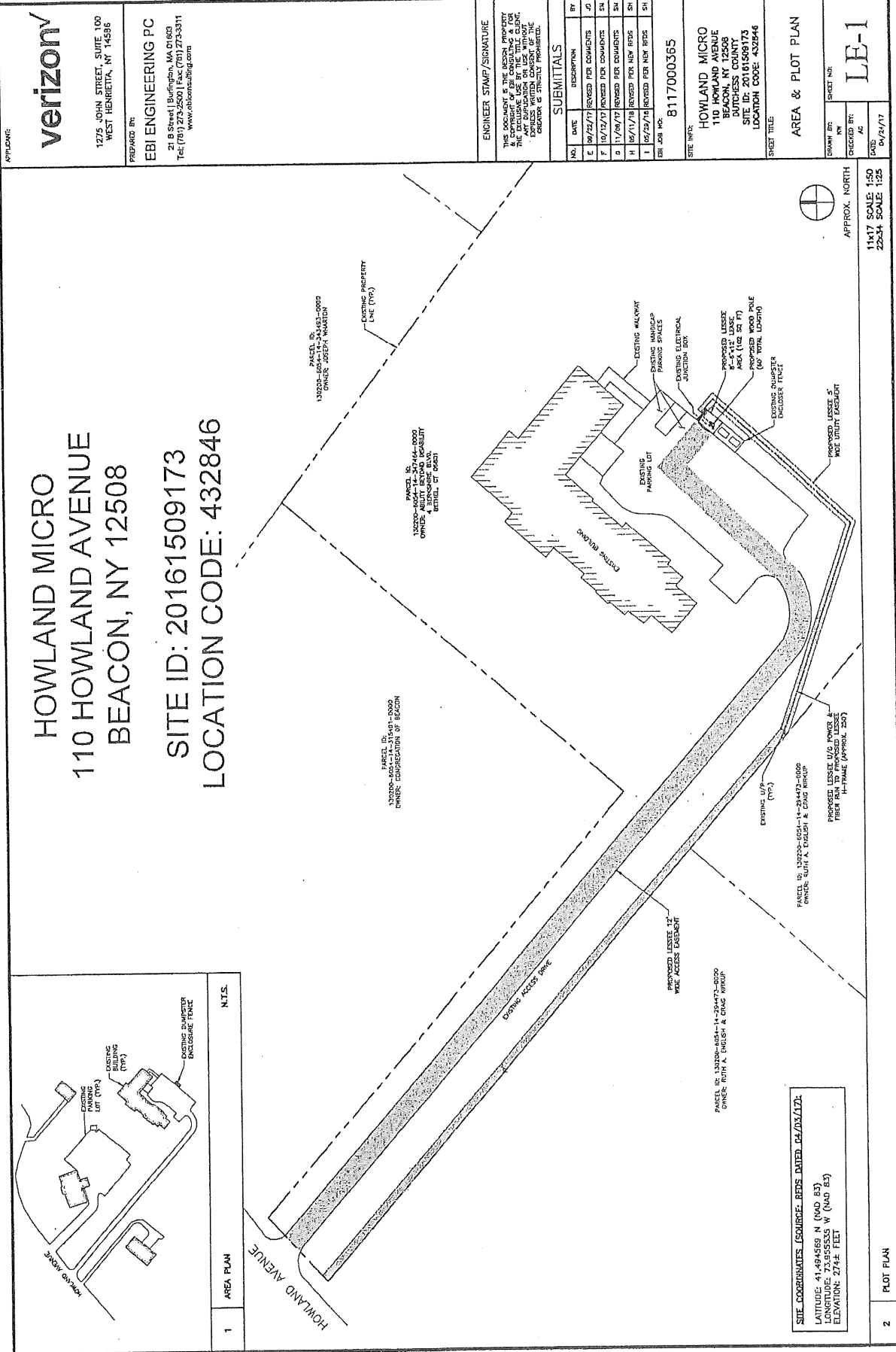
Date: *10/29/18*

WITNESS

*Barbara Clark*

**EXHIBIT "A"**

**SITE PLAN OF GROUND SPACE  
AND CABLING SPACE**







APPLICANT:

**verizon**

1275 JOHN STREET, SUITE 100  
WEST HENRIETTA, NY 14586

PREPARED BY:

**EBI ENGINEERING PC**  
21 B Street | Burlington, MA 01803  
Tel: (781) 273-5500 | Fax: (781) 273-3311  
www.ebiengineering.com

ENGINEER STAMP/SIGNATURE

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**SUBMITTALS**

| REV | DATE     | DESCRIPTION          | BY |
|-----|----------|----------------------|----|
| E   | 09/22/17 | REVISED PER COMMENTS | AD |
| F   | 10/12/17 | REVISED PER COMMENTS | SM |
| G   | 11/09/17 | REVISED PER COMMENTS | SM |
| H   | 05/11/18 | REVISED PER NEW PDS  | SM |
| I   | 05/29/18 | REVISED PER NEW PDS  | SM |
| EN  | AND INC. |                      |    |

SHEET NO: **8117000365**

**HOWLAND MICRO**  
110 HOWLAND AVENUE  
BEACH, NY 12508  
DUTCHESS COUNTY  
SITE ID: 20161599173  
LOCATION CODE: 432946

SHEET TITLE

**POLE ELEVATION**

DRAWN BY: **NY**

CHECKED BY: **AD**

DATE: **04/24/17**

**LE-3**

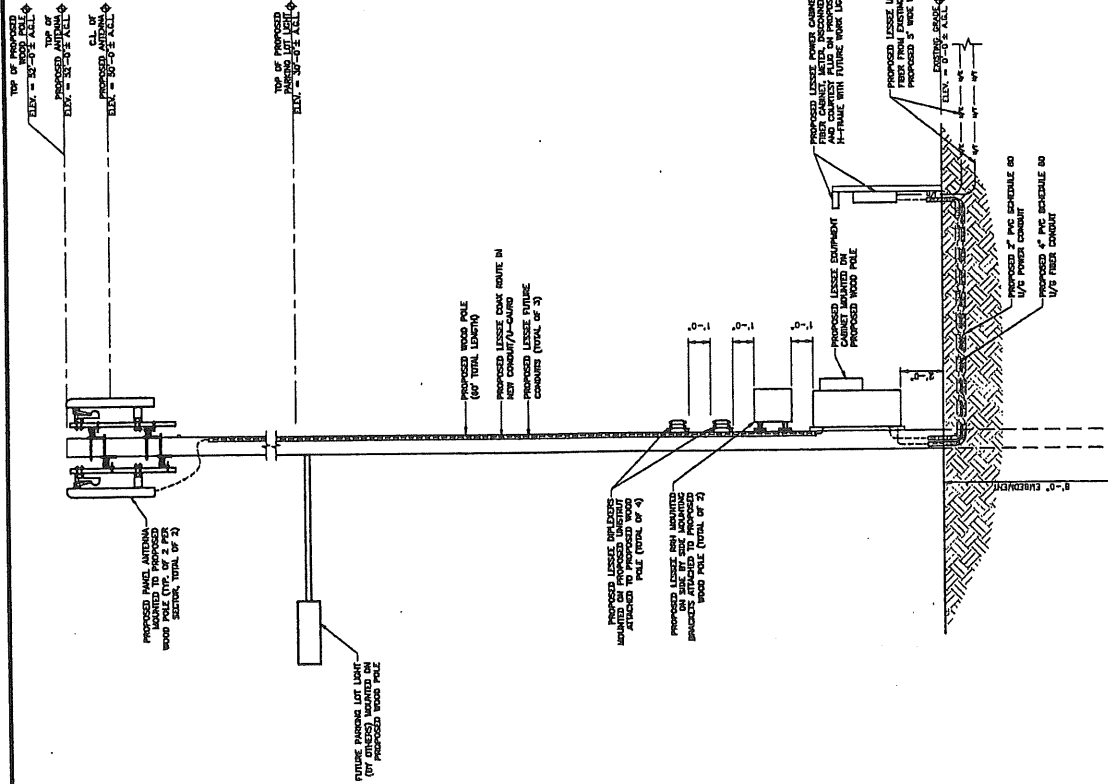
11417 SCALE: 3/16" = 1'-0"  
22534 SCALE: 3/8" = 1'-0"

POLE ELEVATION

1

**NOTES**

1. THIS LEASE IS SCHEMATIC IN NATURE & IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION OF THE PROPOSED FACILITY. THE PROPOSED FACILITY WILL BE FINALIZED UPON COMPLETION OF A SITE SURVEY & FACILITY DESIGN.
2. AN ANALYSIS OF THE CAPACITY OF THE PROPOSED STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS NOT BEEN PERFORMED BY EBI CONSULTING. DRAWINGS ARE SUBJECT TO CHANGE, PENDING THE OUTCOME OF A STRUCTURAL ANALYSIS.



CITY COUNCIL of the CITY of BEACON,  
DUTCHESS COUNTY, NEW YORK

In the Matter of the Special Use Permit and Site Plan Review Application of

---

ORANGE COUNTY-POUGHKEEPSIE LIMITED PARTNERSHIP d/b/a Verizon Wireless

Premises: 110 Howland Avenue  
Beacon, Dutchess County, New York

---

STATEMENT OF INTENT and  
APPLICATION FOR SPECIAL USE PERMIT and  
ROSENBERG WAIVER RELIEF

I. Introduction

ORANGE COUNTY-POUGHKEEPSIE LIMITED PARTNERSHIP d/b/a Verizon Wireless ("Verizon Wireless" or the "Applicant") proposes to install a new fifty-two foot (52') wooden utility pole, two antennae and related equipment located at the above-referenced address ("Project").

Verizon Wireless is considered a public utility under New York decisional law (*Cellular Telephone Company v. Rosenberg*, 82 N.Y.2d 364 (1993)) [Exhibit 1], and a provider of "personal wireless services" under the federal Telecommunications Act of 1996 (the "TCA") [Exhibit 2]. Verizon Wireless' equipment will be in operation twenty-four (24) hours a day, seven (7) days a week, three hundred sixty-five (365) days a year. A copy of the applicable Verizon Wireless FCC licenses is included herewith Exhibit 3.

In *Rosenberg*, this State's highest Court determined that the ordinary variance standard is inapplicable and a cellular telephone company applying for a variance need only show that (1) the variance is "required to render safe and adequate service," and (2) there are "compelling reasons, economic or otherwise," for needing the variance. *Cellular Telephone Company v. Rosenberg*, 82 N.Y.2d 364, 372 (1993). Verizon Wireless respectfully submits this Statement of Intent in support of its application for Special Use Permit approval, and all necessary Town Board waivers under the *Rosenberg* standard.

The proposed Project involves installation and operation of two (2) small antennae and related equipment on a new wooden utility pole. The specific improvements proposed are detailed on the Zoning/Site Plans prepared by EBI Consulting included herewith as Exhibit 4.

II. Purpose of Howland Micro Communications Facility

The purpose of the Project is to provide "hotspot" coverage for its advanced 4<sup>th</sup> Generation Long Term Evolution (4G LTE) services to an area in the City of Beacon that is currently experiencing network capacity issues.



Enclosed in Exhibit 5 is a RF Analysis prepared by a qualified radio frequency consultant which analysis describes in detail the need for this new site at this location. This analysis also includes a discussion concerning the methodology of identifying the proposed location for the Project and how it complies with the siting priorities in the newly enacted small cell local law.

### III. Additional Supporting Materials

1. Public Necessity of Facility. The Applicant has provided expert proof in the form of a report from its Radio Frequency (RF) Design Engineer depicting the area within which Verizon Wireless' communications facility needs to be located (the "search area") in order to provide adequate and safe service to certain areas in the City of beacon. This report clearly demonstrates that (i) there is an inadequate and unsafe level of service in the targeted area of the City of Beacon, and (ii) a new communications facility is necessary to provide an adequate and safe level of hand-held wireless service to this area. See, Exhibit 5.

As noted above and in Exhibits 2 and 3, Verizon Wireless is recognized as a public utility under New York law and a provider of personal wireless services under the federal Telecommunications Act of 1996. This project is a public necessity in that it is required to render adequate and safe coverage (mobile and in-building) to a significant portion of the City of Beacon. This, combined with the federal mandate to expeditiously deploy advanced wireless services across the nation and Verizon Wireless' FCC licenses to provide such services in the City of Beacon, demonstrates that Verizon Wireless' facility is a public necessity. Without the construction of the communications facility proposed, the public would be deprived of an essential means of communication, which, in turn, would jeopardize the safety and welfare of the community and traveling public.

2. The Application conforms with all applicable regulations promulgated by the Federal Communications Commission, the Federal Aviation Administration and other federal agencies. The proposed facility will not increase the height of the existing utility pole and will not require FAA lighting.
3. As set forth above, Verizon Wireless and the proposed facility are considered public utilities for purposes of zoning under existing New York decisional law.
4. Operation of the facility will not involve any objectionable noise, fumes, vibration or other characteristics.
5. The facility will be operated on a 24/7 basis 365 days a year with minimal maintenance required. Adequate access and parking have been incorporated into the facility design.

6. The facility will not increase or otherwise impact any existing traffic patterns, nor will it impair pedestrian or vehicular safety or overload existing roads. Additionally, the facility will be fully accessible to fire, police and other emergency vehicles.
7. Because the facility will be unmanned, it will not involve the use of any public water, drainage or sewer system, or any other municipal facility, or degrade any act or for, natural resource or ecosystem.
8. No tower marking and/or lighting will be required under Federal Aviation Administration (FAA) regulations.
9. A copy of Verizon Wireless' tower maintenance plan for this site is attached in Exhibit 6.
10. A certification from a New York licensed professional engineer (Paul Dugan, P.E. of Millennium Engineering, P.C.) entitled "RF Safety FCC Compliance of Proposed Communications Facility" is included at Exhibit 7, to document that Verizon Wireless' proposed transmissions will be: (a) in full compliance with the current FCC RF emissions guidelines (NIER); and (b) categorically excluded from local regulation under applicable federal law.
11. Exhibit 8 includes a Non-Interference report prepared by Millennium Engineering, which confirms that the proposed installation will not result in interference with existing uses, including radio, television and other broadcast signals.
12. To assist the city fulfill its obligations under the NYS Environmental Quality Review Act ("SEQRA"), a Short Environmental Assessment Form ("EAF") has been prepared by Tectonic Engineering and is provided in Exhibit 9.
13. Photographs of the existing property, including the specific location where the proposed facility will be located are provided in Exhibit 10.

#### IV. Conclusion

Approval of the Project will enable Verizon Wireless to provide an adequate and safe level of wireless telephone service to the area of the City of Beacon and surrounding environs, within the confines of applicable technological and land use limitations. Such approval will also be in the public interest, in that it will allow Verizon Wireless to comply with its statutory mandate to build out its network and provide local businesses, residents and public service entities with safe and reliable wireless communications services. Based upon the foregoing, Verizon Wireless respectfully submits that this project complies in all material respects with the Special Use Permit and Site Plan Review requirements of the City of Beacon's Zoning Code, and any potential impact on the community created by this approval may properly be considered to be minimal and of no significant adverse effect.

If you should have any questions or require any additional information, I can be reached at (518) 438-9907, Ext. 258.

Thank you for your consideration.

Respectfully submitted,  
ORANGE COUNTY-POUGHKEEPSIE LIMITED  
PARTNERSHIP d/b/a Verizon Wireless



Scott P. Olson, Esq.  
Regional Local Counsel

Dated: November 21, 2018