

Application For:

Utility Substation Special Permit

(Evolution)

Presented To: Town of Verona

Project Location: Foster Street Map & Lot 296.002-1-18.3 Verona, New York Oneida County

**Evolution Site Services, LLC** 

**Upstate Cellular Partnership** 

**Applicant:** 

Co-Applicant: Tenant

Co-Applicant: Landowner (Verizon Wireless) William G. Frech Living Trust (Landowner)

Date: October 20, 2015

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## 1. APPLICATION

Special Permit Application Form Abutters List – Landowners within 500 feet of the Property SEQR 617.20 - Appendix B - Short Environmental Assessment Form Landowner Authorization Letter Evidence of Property Interest – Memorandum of Lease

## SPECIAL PERMIT APPLICATION

Applicant Name & Address:

Evolution Site Services, LLC & Upstate Cellular Network

PO Box 2854

Pittsfield, MA 01202

Location of Property; West side of Foster Street

Nearest Intersecting Roads: Foster Corners Road & Railroad Street

Tax Map Number: \_\_\_\_\_296.002-1-18.3

Existing Zoning District: \_\_\_\_Rural Development

Purpose of Permit: \_\_\_\_\_Utility Substation / Communications Facility

Name & address of neighbors within 500 feet of property lines:

See Attached

Enclose a sketch of property lines, length, width, existing buildings, road frontage and any new construction.

Public Hearing Date: 11 9 15 Time: 7:15 Pm

## Durhamville – Foster Street Proposed Utility Substation / Communications Facility Abutters Within 500' of Subject Property 296.002-1-18.3

Map & Lot	Landowner
296.002-1-15.1	Jeffrey & Lois Stoffle, 3239 Foster Corners Road, Durhamville, NY 13054
296.002-1-15.2	Jeffrey & Lois Stoffle
296.002-1-15.3	John & Susan Smith, 5564 Canal St., Durhamville, NY 13054
296.002-1-17	Blencowe Living Trust, 3238 Foster Corners Rd., Durhamville, NY 13054
296.002-1-18.2	Thomas Newkirk, 5506 Canal St., Durhamville, NY 13054
296.002-1-19	John Decarr, 5478 Canal St., Durhamville, NY 13054
296.002-1-18.5	Jennifer Oehl, 326 Stone St., Oneida, NY 13421
296.002-1-18.4	Brandon Sodomick, 3272 Foster Corners Rd., Durhamville, NY 13054
296.002-1-18.1	Steven Catello, 5428 Canal St., Durhamville, NY 13054
296.002-1-23	William & Denise Rueckwald, 5555 Main St., Oneida, NY 13421
296.016-1-22.3	Martin Staple 5420 Canal Street, Durhamville, NY 13421
296.016-1-23	David & Margaret Byrne PO Box 1004 Waianae, HI 96792
297.001-1-1	Robert & Cynthia Calpeter, 3295 Foster Corners Rd., Durhamville, NY 13054
297.001-1-2.1	Old Erie Golf Club, Inc., 3387 Foster Corners Rd., Durhamville, NY 13054
297.001-1-14.4	Theresa Dattmore, 3300 Foster Corners Rd., Durhamville, NY 13054
297.001-1-2.8	Joseph Kazlauskas, 3394 Foster Corners Rd., Durhamville, NY 13054
297.001-1-6	Ruth Whittin 1411 Lemoyne Ave. Syracuse, NY 13208
297.01-1-7	Alan Chmura 3511 Foster Corners Rd. Durhamville, NY 13054
297.013-1-30	Michael Helmer, 3315 John St., Durhamville, NY 13054

## Abutters List Continued

Map & Lot	Landowner
297.013-1-31	David Byrne, PO Box 1004, Waianae, HI 96792
297.013-1-32	Ashley Sanvord, 5378 Railroad St., Durhamville, NY 13054
297.013-1-33.3	Paul & Nancy Kinney, 5371 Foster St., Durhamville, NY 13054
297.013-1-34.2	Dennis J Renninger, 5379 Foster St., Durhamville, NY 13054
297.013-1-34.1	Dennis J. Renninger
297.013-1-35	Dennis J. Renninger
297.013-1-36	Jeffey Petroski, 9242 Capron Rd., Lee Center, NY 13363
297.013-1-37	Hugh Wheeler, 5407 Foster St., Durhamville, NY 13054
297.013-1-38	Steven Catello, 5428 Canal St., Durhamville, NY 13054
297.013-1-39	Joseph Wimett, 5417 Foster St., Durhamville, NY 13054
297.013-1-40	Andrew Kirk, 5423 Foster St., Durhamville, NY 13054
297.013-1-41	Joseph Cimpi, 5427 Foster St., Durhamville, NY 13054
297.013-1-1	Olive & Edgar Byrne, 5434 Foster St., Durhamville, NY 13054
297.013-1-2	Olive Byrne
297.013-1-3	Paul Balke, 5428 Foster St., Durhamville, NY 13054
297.013-1-4	Paul Balke
297.013-1-6	Benjamin & Vera Vaccaro, 5420 Foster St., Durhamville, NY 13054
297.013-1-7	Edward Trombley III, 5414 Foster St., Durhamville, NY 13054
297.013-1-8	Betty Helmer, 5408 Foster St., Durhamville, NY 13054

### 617.20 Appendix B Short Environmental Assessment Form

#### **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.

Part 1 - Project and Sponsor Information				
Evolution Site Services, LLC				
Name of Action or Project:				
Durhamville Utility Substation / Communications Facility				
Project Location (describe, and attach a location map):				
West side of Foster Street, South of Foster Corners Road, North of Railroad Street (see	attached map)			
Brief Description of Proposed Action:				
The Applicant proposes to develop a new Utility Substation on a portion of a thirty-nine (39) acre undeveloped property. The Proposed Action will include a gravel driveway approximately One Thousand Two Hundred (1,200') feet long and approximately Twelve (12') feet wide, a Seventy-five by Seventy-five (75'x75') foot fenced in compound area, a One Hundred-Sixty (160') foot tall guyed lattice style tower, telephone and electric utilities, a Twelve by Thirty (12'x30') foot equipment shelter with a back up generator, associated antennas and equipment. Total disturbance will be less than one (1) acre.				
Name of Applicant or Sponsor:	Telephone: 413-447-7712			
Evolution Site Services, LLC / Christopher F. Ciolfi	E-Mail: chris@evosites.com			
Address:				
PO Box 2854				
City/PO:		Zip Code:		
Pittsfield		01202	YES	
resolute proposed denom only involve die registance despisen of a plan, food day, of animately,				
administrative rule, or regulation? 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.				
2. Does the proposed action require a permit, approval or funding from any of	other governmental Agency?	NO	YES	
If Yes, list agency(s) name and permit or approval: Planning Board (Special Permit) & Code Enforcement Officer (Building Permit & Certificate of Occupancy)				
3.a. Total acreage of the site of the proposed action?	39+- acres			
b. Total acreage to be physically disturbed? c. Total acreage (project site and any contiguous properties) owned	< 1 acres			
or controlled by the applicant or project sponsor?	<1 acres			
4. Check all land uses that occur on, adjoining and near the proposed action.				
Urban 🛛 Rural (non-agriculture) 🔲 Industrial 🖉 Comme				
	specify):			
Parkland				

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?			
b. Consistent with the adopted comprehensive plan?			$\checkmark$
6. Is the proposed action consistent with the predominant character of the existing built or natural		NO	YES
landscape?			
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Ar	ea?	NO	YES
If Yes, identify:	<u> </u>		
8. a. Will the proposed action result in a substantial increase in traffic above present levels?		NO	YES
8. a. will the proposed action result in a substantial increase in traffic above present revers:			
b. Are public transportation service(s) available at or near the site of the proposed action?			H
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed act	tion?		H
9. Does the proposed action meet or exceed the state energy code requirements?		NO	YES
If the proposed action will exceed requirements, describe design features and technologies:			
10. Will the proposed action connect to an existing public/private water supply?		NO	YES
If No describe method for merriding notable water			
If No, describe method for providing potable water:			
11. Will the proposed action connect to existing wastewater utilities?		NO	YES
11. Will the proposed action connect to existing wastewater dufines?			
If No, describe method for providing wastewater treatment:		$\overline{\mathbf{V}}$	
The proposed action is an unmanned Utility Facility - None Required			
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?		NO	YES
b. Is the proposed action located in an archeological sensitive area?			
b. Is the proposed action located in an archeological sensitive area:			
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contai	n	NO	YES
wetlands or other waterbodies regulated by a federal, state or local agency?			
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres:		$\mathbf{V}$	
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check a ☐ Shoreline ☐ Forest ☑ Agricultural/grasslands ☐ Early mid-successi	all that	apply:	
Urban Suburban			
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed		NO	YES
by the State or Federal government as threatened or endangered?			
16. Is the project site located in the 100 year flood plain?		NO	YES
17. Will the proposed action create storm water discharge, either from point or non-point sources?		NO	YES
If Yes, a. Will storm water discharges flow to adjacent properties?		$\mathbf{\nabla}$	
	ne)?		1
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drain If Yes, briefly describe:	15):		
		1	
	_	1	1

18. Does the proposed action include construction or other activities that result in the impoundment of	NO	YES
water or other liquids (e.g. retention pond, waste lagoon, dam)?		
If Yes, explain purpose and size:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed	NO	YES
solid waste management facility?		
If Yes, describe:		
	NO	YES
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or	NU	ILO
completed) for hazardous waste? If Yes, describe:		
I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE	BEST O	FMY
KNOWLEDGE		
Applicant/sponsor pame:Evolution Site Services, LLC / Christopher F. Ciolfi Date:		
Signature: Krittan P. Cierth -		

**Part 2 - Impact Assessment.** The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

		No, or small impact may occur	Moderate to large impact may occur
1.	Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?		
2.	Will the proposed action result in a change in the use or intensity of use of land?		
3.	Will the proposed action impair the character or quality of the existing community?		
4.	Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?		
5.	Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?		
6.	Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?		
7.	Will the proposed action impact existing: a. public / private water supplies?		
	b. public / private wastewater treatment utilities?		
8.	Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?		
9.	Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?		

	No, or small impact may occur	Moderate to large impact may occur
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?		
11. Will the proposed action create a hazard to environmental resources or human health?		

**Part 3 - Determination of significance. The Lead Agency is responsible for the completion of Part 3.** For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

that the proposed action may result in one or more pote environmental impact statement is required.	rmation and analysis above, and any supporting documentation,
Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

PRINT

### William G. Frech Living Trust 6071 Blackmans Corner Road Verona, NY 13478

September 14, 2015

Mr. Thomas Urtz – Planning Board Chairman Town of Verona Town Office Building 6600 Germany Rd Durhamville NY 13054

Re: Application for a Special Permit

Dear Chairman Urtz and members of the Planning Board:

I have entered into a lease agreement with Evolution Site Services, LLC for a portion of my property at Map 296.002-1-18.3 located on the west side of Foster Street. As sole Trustee of the William G. Frech Living Trust I have granted Evolution permission to apply for the required permits and approvals to develop and maintain a new utility substation / communications facility.

Sincerely,

Man Sprech TTE illiam G. Frech

Trustee

#### Memorandum/Notice of Lease

This Memorandum/Notice of Lease evidences that a Communications Site Lease (the "Lease") dated , 2015 was made and entered into by and written between the WILLIAM G. FRECH LIVING TRUST ("Lessor"), and EVOLUTION SITE SERVICES, LLC ("Lessee"), whose address is PO Box 2854 Pittsfield, MA 01202, and the terms and conditions of such Lease are incorporated herein by reference.

Such Lease provides in part that Lessor leases to Lessee a certain Site located at Foster Corners Road and Foster Street, Town of Verona, County of Oneida, State of New York, more particularly described in Exhibit A attached hereto (the "Site"). The Site is situated within a parcel of real property that is owned by Lessor and more particularly described in Exhibit A-1 attached hereto. Pursuant to the Lease, Lessor has also granted to Lessee an easement for a non-exclusive rights of access to the Site and to electric and telephone facilities to the Site commencing on  $\underline{m_{a_{r}}}$ , 2015, and ending on the fifth anniversary of the Rent Start Date, which term is subject to seven (X) five (5) year extension periods by Lessee.

Following the cancellation, termination or expiration of the Lease, upon request Lessee will make, execute and deliver to Lessor an instrument, in form and substance reasonably satisfactory to Lessor, in recordable form, releasing this Memorandum/Notice of Lease.

IN WITNESS WHEREOF, the parties have executed the Memorandum/Notice of Lease as of the day and year first above written.

Signed, sealed and delivered in the presence of:

DAVID MMALONE Printed Name:

Lessor: WIL By:

Name: William G. Frech Title: Trustee

Date: April 23 2015 Address: 6071 Blackmans Corner Road

Verona, NY 13478

Signed, sealed and delivered in the presence of:

Printed Name: Kristing A. Lalon /P

Lessee: EVOLUTION SITE SERVICES, LLC

By:

Name: Christopher F. Ciolfi Title: Manager and Principal

Date: 55 Address: PO Box 2854

Pittsfield, MA 01202

## 2. PROJECT OVERVIEW & APPLICANT INFORMATION

Evolution Site Services, LLC (Evolution) Upstate Cellular Partnership (Verizon Wireless) Verizon Wireless Site Justification & Co-Applicant Letter

## 2. PROJECT OVERVIEW & APPLICANT INFORMATION

## Introduction

Evolution Site Services, LLC, ("Evolution" or "Applicant"), William G. Frech Living Trust ("Landowner" or "Applicant") and Upstate Cellular Partnership ("Verizon Wireless" or "Applicant"), (collectively "Applicants"), propose the construction, operation and maintenance of an unmanned Utility Substation / Personal Wireless Service Facility ("Communications Facility" or "Facility") on a 10,000+- sq. ft. portion of land owned by William G. Frech Living Trust (the "Premises"). The Premises are located on the west side of Foster Street, east of NYS Route 46 in the Town of Verona, Oneida County, New York, Assessor's Map 296.002 Block 1 Lot 18.3, located in the Rural Development (RD) Zoning District as shown at Tab 7, on a portion of the Verona Zoning Map, with reference added by the Applicant.

Verizon Wireless is considered a public utility under New York decisional law (*Cellular Telephone Company v. Rosenberg, 82 N.Y.2d 364 (1993)*) and a provider of "personal wireless services" under the federal Telecommunications Act of 1996 (the "TCA"). Upon completion of the proposed Utility Substation / Personal Wireless Services Facility, Verizon's equipment will be in operation twenty-four (24) hours a day, seven (7) days a week, three hundred and sixty-five (365) days a year.

In accordance with Chapter 160, Article III, Section 160-17.A of the Zoning Law of the Town of Verona, the proposed Facility is permitted in the RD zoning district upon the issuance of a special use permit. The Verona Zoning Board of Appeals is authorized to approve this request due to the unusual nature of Communications Facilities and their unique siting requirements. Communication Facilities transmit their signals at very low power levels when compared with traditional radio or television broadcasts. These signals are height dependent and are negatively impacted by topography and vegetation. They are also required to interconnect with other existing and proposed Communications Facilities in the area to form a network or grid of cells, which further restricts the number of acceptable locations for new site placement.

## Purpose

The purpose of the Foster Street Facility is to make it possible for Verizon Wireless and future FCC licensed wireless service providers and wireless Internet service providers to improve their wireless services and provide a safe level of both emergency and nonemergency communication services (in-building and mobile) to the Town of Verona, including areas along Foster Street, Fosters Corners Road, Route 46 and Center Street, while integrating with Verizon 's existing wireless network in the area. The proposed Facility will allow Verizon to attach antennas to the tower structure at an acceptable height and place equipment within a fenced compound area for the provision of personal wireless services. To the extent practicable, signals from the proposed Facility must also connect with signals from other existing and proposed facilities in the Town of Verona to provide improved wireless services throughout the area. To demonstrate the benefits to the Town and how the proposed site will improve Verizon's wireless network, Verizon's Radio Frequency (RF) Engineer has prepared two propagation studies, or signal coverage maps, for your review. These studies are the result of computer modeling, taking into account local topography and vegetation together with existing, planned and proposed network coverage. Attached at Tab 3 is a propagation study (Exhibit 1) that demonstrates the existing and planned signal coverage being provided by Verizon to its customers along NYS Route 46 and throughout the Foster Street area, with the proposed site identified in the center of the map as "Durhamville". The second study demonstrates what the signal improvements will be in the area with the addition of the proposed Foster Street Communications Facility, Exhibit 2. A review of this information clearly demonstrates Verizon's need for a new facility and how the proposed project will increase the coverage and capacity and eliminate the significant gaps in coverage.

## **Facility Description**

In order to develop the proposed Facility, Evolution has entered into an agreement with William G. Frech Living Trust to lease a portion of the property on the west side of Foster Street, Map 296.002 Block 1 Lot 18.3 (see Tab 1 Memorandum of Lease). In an effort to minimize the visual impact of the tower to the surrounding area, while maximizing the usefulness of the proposed Facility, access to the site will begin on Foster Street adjacent to a mowed field. Evolution will follow and improve an existing farm road approximately one thousand three hundred feet (1,300') to a clearing on the southwest end of the property, in a mowed field. Within this area, Evolution will establish a seventy-five foot by seventy-five foot (75'x75') fenced in compound where all activities will be contained (see Tab 8 for proposed site development plans).

In addition to the fenced compound, the proposed Facility will consist of a single guyed, open lattice style tower, one hundred and sixty feet (160') tall. In accordance with Section 160-17.A the proposed design will minimize impacts upon sensitive environmental and natural resources and minimize disruption to agriculture and the environment. Due to the tower's overall height, one hundred and sixty-five feet (160' + 5' lightning rod), and its distance to the closest airport, the tower will not be a hazard to navigation and will not require FAA marking or lighting (see Tab 7 FAA Analysis). One of the advantages of utilizing a guyed tower is its slender profile. The face width of the tower will be approximately three feet (3) across from the base to the top (Tab 7). To minimize the need for additional tower structures in the area and provide the maximum benefit to the Town, the tower structure and the compound will be designed to accommodate the antenna and equipment needs for Verizon and multiple future wireless service providers. The compound will be finished with gravel surface to control weeds and enclosed by a chain link fence to prevent unauthorized access. The structural capacity of the proposed tower and the size of the proposed compound area will allow the opportunity for five (5) personal wireless service providers (carriers), including Verizon, to collocate at the Facility. The steel tower structure and the antenna mounting hardware will be galvanized steel and weather to a dull gray finish. All antennas will be of a light colored fiberglass or similar non-reflective material. No water or sanitary facilities will be required at the site. Utilities will be delivered to the site via new utility poles from Foster Street that will follow the access drive. Once near the site, the utilities will be run underground in conduits to a common meter center.

After construction has been completed, which typically takes between eight to ten (8-10) weeks, the Facility will be unmanned and require only periodic operational visits by trained

technicians. A technician will typically visit the site, on average, twice per month with a utility vehicle or pick-up truck.

Evolution and Verizon look forward to working with the Town to develop a project that will meet the needs of the Town and provide the improved wireless services Verizon's customers have come to expect. We believe that a special use permit for the proposed Facility is appropriate and would balance the interests of the Town, the public and the wireless carriers by providing enhanced wireless services to residents, visitors, business and government agencies in the Town of Verona.

## **Applicant Information**

**Evolution Site Services, LLC**, (Evolution) is a regional company that specializes in developing wireless communications facilities for a wide range of customers throughout New York and New England (www.evosites.com). Evolution's customers include providers of Personal Wireless Service Facilities such as Cellular Telephone service, Personal Communication Services (PCS), Radio Broadcast, and Wireless Internet. In order to facilitate its customers' needs, Evolution secures the necessary real estate for a new facility, obtains all necessary federal, state and local permits and approvals, coordinates and supervises construction activities, and then maintains and operates the completed installation. Over the past twenty plus years the principals at Evolution have worked closely with the personal wireless service providers to improve their regional networks.

Evolution is currently working with Verizon Wireless on developing new facilities throughout New York that will allow Verizon to continue improving the wireless services they offer their customers. In Verona along the heavily traveled New York State Route 46 and Route 31 corridors, Verizon has determined that due to increased customer demand their signal strength and network capacity is not adequate and therefore requires the proposed Facility.

**Upstate Cellular Partnership** (d/b/a Verizon Wireless) is bringing it all together for its customers, from the revolutionary iPhone to next-generation TV services and sophisticated solutions for multi-national businesses.

Verizon Wireless, is a wholly owned subsidiary of Verizon Communications Inc. Verizon Wireless provides wireless services to 123.5 million subscribers as of the second quarter of 2014.

For more than a century, they have consistently provided innovative, reliable, high-quality products and services and excellent customer care. Today, its mission is to connect people with their world, everywhere they live and work, and do it better than anyone else. They are fulfilling this vision by creating new solutions for consumers and businesses and by driving innovation in the communications and entertainment industry.

Verizon is recognized as one of the leading worldwide providers of IP-based communications services to businesses. They also have the nation's largest 4G network, covering 292 million people, and the nation's fastest 4G LTE network. They also have the largest international coverage of any U.S. wireless carrier, offering the most phones that work in the most countries. Verizon operates the nation's largest Wi-Fi network, including

more than 32,000 Verizon Wi-Fi Hot Spots at popular restaurants, hotels, bookstores and retailers, and provides access to more than 402,000 hotspots globally through roaming agreements.

As Verizon continues to break new ground and deliver new solutions, they're focused on delivering the high-quality customer service that is its heritage.

## **Key Facts**

Verizon is the largest communications holding company in the world by revenue. Operating globally under the Verizon brand, they are:

Proud to offer one of the world's most advanced and powerful global backbone networks, carrying 33 petabytes of data traffic on an average business day to nearly every continent and country, with up to 99.999 percent reliability.

Verizon is the nation's largest 4G network – and it's getting faster with 4G LTE – serving millions of customers and enabling them to travel and communicate seamlessly with the best worldwide wireless coverage – offering the most phones that work in the most countries. Offering voice coverage in more than 225 countries, data roaming in more than 205 countries and mobile broadband in more than 145 countries.

Verizon is the only U.S. national service provider to offer a 100 percent IP-based television service with Verizon U-verse TV, which provides an exciting alternative to cable with a better DVR, better features and apps and a better TV experience. In addition, Verizon launched the industry's first integrated Wireless Receiver, which lets customers move and watch their TV virtually anywhere in their home.

Verizon is one of the world's largest providers of IP-based communications services for businesses, with an extensive portfolio of Virtual Private Network (VPN), Voice over IP (VoIP) and other offerings — all backed by innovative security and customer support capabilities.

Verizon is a global leader in delivering a full portfolio of end-to-end reliability and highly secure network, voice, data and IP solutions to wholesale customers, and its service portfolio has been widely regarded by third parties as industry-leading.

## Overview

Verizon Wireless is working to improve the wireless coverage and capacity in Oneida County, Durhamville-Verona and throughout the areas it serves. As part of this program they have entered into an Agreement with Evolution to lease space on the proposed tower and within the compound area, provided the necessary permits and approvals can be secured. Verizon Wireless is considered a public utility under New York decisional law and a provider of "personal wireless services" under the federal Telecommunications Act of 1996 (the "TCA"). Once approved and developed, 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. Verizon Wireless will use the proposed Facility to work in conjunction with other existing and planned sites in the area to provide enhanced wireless service to the residents, businesses and visitors of Verona.

Evolution and Verizon examined many factors in their choice of the Subject Property as the location for the proposed Facility. These factors included important technical considerations, such as the ability of the signals from a facility at this location to "propagate" to the areas needing service and the ability of signals from this Facility to work with other existing and proposed facilities in the Verona area. Evolution also weighed the impact of this Facility on the scenic views enjoyed by Verona residents and visitors and the ability for a facility at this location to comply with the Town's Zoning Law. The potential for visual impact from the proposed Facility led Evolution to a location and proposed tower height that would minimize visual impacts, not require FAA lighting and still achieve the objectives for the intended target area.

Evolution has selected the Subject Property for a new facility in order to meet a need for the services it provides to its customers and the community. The Facility will be situated on a portion of a large (approximately 39.5 acres) agricultural property, away from the concentration of homes.

The proposed Facility will be located on the southwest side of Foster Street in a mowed area, east of the intersection with NYS Route 46 and south of Route 31. Adjacent uses to the Facility are primarily mowed fields, undeveloped woodlands, a golf course, local businesses and residential homes. Evolution believes that all feasible steps have been taken to minimize negative environmental effects of the proposed Facility by keeping the tree clearing to a minimum, avoiding any impact to environmentally sensitive areas, designing the compound for multiple users and utilizing a guyed, lattice style tower, while still providing improved service to the intended target areas in the Town. Additionally, because this Site will be unmanned and require only periodic operational visits once construction is complete and have no water or sanitary services, the long-term impact to the property and the environment around it will be extremely light.



September 2, 2015

Mr. Thomas Urtz – Planning Board Chairman Town of Verona Town Office Building 6600 Germany Rd Durhamville NY 13054

Re: Application for a Special Permit

Dear Chairman Urtz and members of the Planning Board:

Upstate Cellular Partnership, d/b/a Verizon Wireless ("Verizon"), is currently working throughout the state of New York, Oneida County and within the Town of Verona to improve the wireless services we offer our customers and the emergency personnel that depend on them. After an extensive analysis we have determined that Verizon currently has less than adequate wireless service in portions of the town, particularly in the Foster Street / Durhamville area. To improve our services in this area we have reviewed our existing facilities, within several miles, to determine whether any modifications could be made to eliminate the need for a new facility. We also reviewed the area for existing tall structures that could accommodate our equipment and achieve our objectives, without building a new facility. The results of this review concluded that a new facility including a new tower structure is required to improve the wireless services in the target area.

To facilitate our network improvements Verizon is working closely with Evolution Site Services to develop a new Utility Substation/Communications facility within our targeted area. Specifically, the proposed Facility on the Frech property on the West Side of Foster Street has been designed to accommodate our equipment needs and provide improved wireless services to Verizon Wireless' network. A new facility at this location will complement our existing wireless network in the area and vastly improve the wireless services for the residents and visitors of the Town of Verona. Verizon requests that it be considered a Co-Applicant to this Application and looks forward to the Board's grant of a special permit for a new Utility Substation/Communications Facility.

Sincerely,

Sarah Mayberry Stevens Principal Engineer – Real Estate/Regulatory – Upstate New York

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## 3. SITE JUSTIFICATION & RADIO FREQUENCY DATA

Site Search Summary Verizon Wireless Radio Frequency Analysis w/ Studies & RF Certification

## **3. SITE JUSTIFICATION & RADIO FREQUENCY DATA**

In an effort to continue improving its wireless services throughout Oneida County, Verizon, working with Evolution, has identified the need for improved wireless services throughout the Town of Verona. The proposed Facility on the Subject Property will improve the wireless services to the areas along portions of Foster Street, Foster Corners Road, NYS Route 46 and Route 31(see attached Signal Coverage Maps).

## Factors Involved In Searching For a New Site

The process of determining where the best location for a new facility to meet our customer's service needs in Verona was based on a defined set of guidelines for a specific service area. In such a process, there are numerous factors, both technical and non-technical, that must be weighed against one another.

## **Technical Requirements**

The site for a new Facility must be able to meet the identified service needs and work in conjunction with other existing and proposed facilities. Even if Evolution were able to secure the necessary permits for a particular site, if the proposed location does not meet strict technical requirements, the site will not be considered as a viable location.

Wireless technology relies upon radio signals to transmit messages between mobile users and a fixed base station, usually referred to as a "cell site". At the frequencies on which PCS, cellular and wireless services operate, the signals travel along the "line of sight", which means that the signal from the tower will only reach the mobile user if there is a clear, unobstructed sight line between the two. If there is an obstruction due to a variation in topography, a reduction of the signal occurs. Foliage types and density (the amount and type of trees) introduce additional attenuation - further reduce the signal strength - in the wireless environment. For this reason, a tower must be sufficiently high enough above the tree cover to limit this type of interference with the signal pattern. Therefore, the line of sight requirement leads to a natural preference for cell sites at higher elevations. In cities and urban areas, antenna height may be accomplished by locating cell sites on tall buildings or other tall structures. In rural locations, water tanks are often used to accomplish similar coverage objectives. Given the absence of suitable buildings or structures within the target area, the construction of a new facility, including a tower, is necessary.

The wireless technology that Verizon and other FCC licensed wireless service providers utilize is designed to operate at a low power output and re-use a limited number of channels and frequencies between all sites. For this reason, many sites are required to interconnect with each other to form a network or grid. As networks continue to mature and customer usage continues to expand, demands are placed on the network to add capacity and signal improvements. To facilitate these improvements the Applicant uses a combination of network analysis and software tools that compile signal strength reports or propagation studies (see Exhibits 1 & 2 Existing and Proposed Coverage maps). By analyzing the propagation studies, the Applicant is able to determine where a new facility is required and the antenna mounting height that will allow for improved wireless services

to the intended target area, in conjunction with the signals from other existing and proposed sites. Shifting the proposed site either north or south, east or west would cause this connection to be disrupted and alter the network design. For this reason, careful consideration has been given to the land characteristics when selecting the Site's final location.

Similarly, the height of the tower is a key factor that determines the overall viability of a site. A variety of factors, including physical antenna sizes, licensed frequencies and potential electronic interference, requires each tenant on the tower to offset their antennas from other tenants (vertical separation). In order for one communications facility to provide sufficient space for multiple FCC licensed carriers to mount their equipment and maintain vertical separation between users, a transmission tower of sufficient height above the tree line must be built. Based on a review of its existing network, together with detailed computer modeling, Verizon's radio frequency engineers have determined that there is a lack of capacity and a significant gap in coverage along the Foster Street, Route 46 corridor. In order to provide increased capacity and improved wireless service to the identified area, Verizon has determined that they will need to mount their antennas at a centerline height of one hundred fifty-six feet (156') above grade. Therefore, Evolution is proposing a one hundred-sixty foot (160') tall tower to allow for Verizon and future carriers to locate on the tower, thereby eliminating the need for multiple structures in the area. A structure of lower height will reduce the amount of coverage that will be provided to the area, produce holes in the expected coverage and make the site unable to achieve the design criteria. A reduced tower height would also limit the number of personal wireless service providers capable of using the Facility in the future, thereby opening the possibility of needing additional tower structures within the Town to provide competitive wireless services to the same target areas.

## Site Candidates

With this need confirmed, Evolution reviewed the area for existing towers and tall structures that could accommodate the installation of antennas without the need to develop a new tower. This search revealed eight (8) existing towers in the area, four (4) of which Verizon is already or soon to be located on and will be used to complement the proposed Facility, the remaining towers are located in areas that could not provide the required signal improvements to the intended target area and were therefore rejected from further consideration. After finding no suitable structures within the target area that could accommodate Verizon's needs, Evolution searched the area for large undeveloped parcels of land that could meet the desired coverage objective and comply with the local Code, while creating minimal environmental and visual impacts. Evolution utilized the Town of Verona Assessor's information and the Oneida County's GIS systems to identify properties and parcel boundaries within the Search Ring. Additional databases that contain area tower information were also analyzed. This information was reviewed to determine potential viable candidates as shown of the attached Site Search Candidates List. After a careful review of over eight (8) potential candidates within the target area, the decision was made to move forward with the proposed Site on the Subject Property. Candidate H, the Frech property is located off of Foster Street in the RD District away from a large concentration of homes, buffered by existing vegetation, in an actively maintained field with sufficient area to install utilities and develop the compound area to avoid any environmental impacts. Placing antennas at a centerline height of one

hundred and fifty six feet (156') above grade at the proposed location will achieve the desired capacity and coverage objectives for Verizon Wireless. Therefore Candidate H was selected as the approved candidate.

After analyzing multiple properties, contacting, meeting with and negotiating with several landowners, Evolution entered into a lease agreement for a portion of the Subject Property off of Foster Street, (see Tab 1 for a Lease Memorandum).

Based on the applicable zoning laws and the ability to meet our customer's needs, Evolution believes the proposed Site on the Subject Property is the best possible location for a new Utility Substation/Personal Wireless Service Facility to offer improved wireless services to the intended target areas of Verona, Durhamville, Foster Street, Route 46 and the Route 32 area.

Durhamville,	Durhamville, NY Site Search Candidate List	ndidate List		Evolut	Evolution Site Services, LLC	ces, LLC
Candidate	Street Name	Town	Latitude	Longitude	Type of Site	Real Estate & Engineering Review
H	Germany Rd.	Verona	43-10-16.2	75-38-48.4	Existing Tower	Existing light weight tower at Town Hall approximately 3.4 miles north of the proposed target area. The location of the tower is too 75-38-48.4 Existing Tower far north to provide required improvements to the target area. No modifications to this site would eliminate the need for the proposed Facility. Rejected from further consideration.
7	Route 49	Higginsville	43-13-03.5	75-35-26.3	Existing Tower	Existing self-support lattice tower 7.5 miles north of target area that Verizon is currently transmitting from. No modifications to this site would eliminate the need for the proposed Facility. Rejected from further consideration.
m	Patrick Rd.	Verona	43-06-29.8	75-35-34.3	Existing Tower	Existing self-support lattice tower approx. 3.9 miles east of the 75-35-34.3 Existing Tower proposed site. This location is too far from the target coverage area to meet RF objectives. Rejected from further consideration.
4	Fox Rd.	Verona	43-06-16.3	75-37-04.5	75-37-04.5 Existing Tower	Existing self-support lattice tower approx. 2.9 miles southeast of the proposed site. Verizon Wireless is currrently operating from this location. No alterations or site modifications would eliminate the need for the proposed Site. Rejected from further consideration.
Ŋ	Fitch St.	Oneida	43-05-32.5	75-40-12.1	Existing Tower	Existing self-support lattice tower approx. 2.3 miles south of the proposed site. Verizon Wireless is currrently operating from this location. No alterations or site modifications would eliminate the need for the proposed Site. Rejected from further consideration.
ى	Genesse St.	Oneida	43-04-41	75-38-55.4	Existing Tower	Existing self-support lattice tower approx. 3.4 miles south of the proposed site. The existing tower is owned by the State of NY, VZW is currently in discussions to locate on this facility. No alterations or site modifications would eliminate the need for the proposed Site. Rejected from further consideration.
٢	Route 365	Sherrill	43-05-57.5	75-36-25.3	75-36-25.3 Existing Tower	Existing self-support lattice tower approx. 3.5 miles southeast of the proposed site. This location is too far from the target coverage area to meet RF objectives. It is also too close to an existing VZW site and would cuase interference. Rejected from further consideration.
œ	No. Court St.	Wampsville	43-04-48.8	75-42-10.8	Existing Tower	Existing self-support lattice tower approx. 3.6 miles east of the 75-42-10.8 Existing Tower proposed site. This location is too far from the target coverage area to meet RF objectives. Rejected from further consideration.

Durhamville	Durhamville, NY Site Search Candidate List	ididate List		Evolutio	Evolution Site Services, LLC	ces, LLC
Candidate	Street Name	Town	Latitude	Longitude	Type of Site	Real Estate & Engineering Review
A	Irish Ridge Rd.	Durhamville	43-08-08.8	75-39-04.9 Raw Land	Raw Land	Former Airport property - Lacks coverage in high capacity zone within Durhamville village. Landowner not interested - Rejected from further consideration.
ß	Irish Ridge Rd.	Verona	43-08-24.7	75-38-59.9 F	Raw Land	Oneida Nation property - Lacks coverage in high capacity zone within Durhamville village. Landowner not interested - Rejected from further consideration.
J	Irish Ridge Rd.	Durhamville	43-08-03.3	75-39-30.8 Raw Land	3aw Land	Good coverage at Durhamville Village and to Route 31 north. Environmental concerns with wetland impacts. Rejected from further consideration.
۵	Irish Ridge Rd.	Durhamville	43-08-21.0	75-39-33.4 Raw Land	3aw Land	Good coverage at Durhamville Village and to Route 31 north. Environmental concerns with wetland impacts. Rejected from further consideration.
ш	Foster Street	Durhamville	43-07-25.9	75-39-33.5 Raw Land	Raw Land	Very good location to off load capacity issues from existing sites and provide coverage improvements to Route 31 and 46. Existing NYS DEC Regulated Freshwater Wetlands on property - property was rejected from further consideration to avoid environmental impacts.
ш	Miller Rd.	Durhamville	43-07-04.0	75-39-02.7 Raw Land	3aw Land	Candidate is too close to existing sites and too far from providing improved coverage to the Route 31 area. Rejected from further consideration.
U	Foster Corners Rd.	Durhamville	43-07-34.0	75-39-07.1 Raw Land	Raw Land	Proposed site is too far east to provide improvements to the intended target area. Access to the proposed site would require a stream crossing and environmental impacts. Rejected from further consideration.
т	Foster Street	Durhamville	43-07-30.2	75-40-00.9	Raw Land	Subject Property - Existing field on the west side of Foster Street. Proposed site will be located in the southeast corner of the property and utilize existing vegetation to minimize visual impacts. The proposed Site is an allowed use located in the RD District. Proposed Site allows coverage of the target area and meets RF's objectives. An environmental review has determined no wetlands will be impacted by the proposed development. Accepted



## Network Engineering 1275 John St. Suite # 100 West Henrietta, NY 14586

## RADIO FREQUENCY ("RF") ANALYSIS

#### DURHAMVILLE WIRELESS TELECOMMUNICATIONS FACILITY

#### TOWN OF VERONA, NEW YORK

Verizon Wireless plans to install, operate and maintain a new wireless telecommunications facility on the proposed Evolution Site Services, LLC tower on the Frech property located at Foster Street, in the Hamlet of Durhamville, Town of Verona, Oneida County NY (160± ft. guyed tower plus a 4± ft. lightning rod). This proposed facility (referred to internally as "**Durhamville**") is specifically intended to address a significant coverage gap in the Verizon Wireless network along Foster Street, Foster Corners Road, Route 46, Center Street and Route 31 in the Durhamville section of the Town of Verona.

This report documents the general methodology used by Verizon Wireless to select the location of new sites and includes a description of the objectives for the Durhamville project.

#### **Durhamville Communications Facility**

The purpose of the Project is to expand and improve Verizon Wireless advanced 700 MHz 4<sup>th</sup> Generation Long Term Evolution (4G LTE) services to the Durhamville area and western portion of the Town of Verona. More specifically, the proposed facility will extend coverage 2.3± miles along US-46, 2.5± miles along Route 31, .5± mile stretches along I-90, across several miles of local and community roads (e.g., Foster Street, Foster Corners Road, Irish Ridge Road, etc.), and into the housing community in the southwest section of the Town of Verona, farms, commercial and rural communities in the area.

The existing level of 4G coverage in the area originates from Verizon Wireless' existing wireless telecommunications facilities called "Fitch Street" and "Oneida" (existing self-support towers in the Towns of Oneida and Verona approximately 2.25 miles and 2.85 miles south and southeast, respectively), "Oneida Valley" (located 4.0± miles north on Route 31), and Canastota (located 4.2± miles west on Route 13). Due to the high network usage generated in and around Durhamville and the western section of the Town of Verona, and the technology limitations on number of simultaneous users these facilities are able to reliably serve, these surrounding facilities are not capable of serving the targeted Durhamville site coverage objective area. All other Verizon Wireless facilities are too far away and/or are blocked by surrounding terrain and vegetative clutter to provide reliable service to the Durhamville coverage area.

Due to the factors described above (heavy network usage in the Durhamville area, technology limitations, excessive distance, local vegetation, and widely-varying terrain), service from Verizon Wireless' neighboring facilities is insufficient in the southern and western portion of town, as shown in the coverage map attached at **Exhibit 1**. When viewing the map in **Exhibit 1**, the blue layer represents the area that is

currently served (or covered) at an acceptable level<sup>1</sup>, yellow areas represent future coverage from new inprocess Verizon Wireless facilities<sup>2</sup>, while the areas in white are void of reliable 4G LTE high speed voice and data services.

To provide a dominant (i.e., localized) level of advanced 4G LTE communications service to this area, construction of a new, locally-based wireless telecommunications facility is required. This project is part of a multi-million dollar comprehensive upgrade of the Verizon Wireless network in Oneida County, and serves as a suitable platform for future advanced wireless services expansion at the proposed site in and around Durhamville and the Town of Verona.

#### General Methodology – Network Design

Verizon Wireless' approach to cell site location begins with recognition that a particular geographic area, or "cell", cannot be sufficiently covered from the existing wireless telecommunications facilities in the surrounding network. Within the new cell, a search area is identified where the search area targets specific locations from which a new wireless facility is able to satisfy the coverage objectives of the cell.

Traditional search area objectives are to maximize coverage in population centers and / or along major transportation corridors. Wireless telecommunication sites must be close enough together to provide seamless coverage, but also properly spaced so as not to interfere with one another. In theory, this required spacing creates a "cellular" grid, or honeycomb-like pattern. This pattern, however, can be distorted as the actual coverage area of a particular wireless telecommunication site will vary due to factors such as population, topography and vegetation.

Wireless telecommunication transmissions are broadcast at a very low power level (compared to radio and TV). For this reason, wireless telecommunication signals can only travel so far, and are impeded by topography and vegetation. Hills or buildings, and even foliage can block the signal, which is why wireless telecommunications coverage can sometimes be better in the winter (when leaves are down) than in the summer. Due to these factors, not all locations within a search area will provide adequate coverage. A computer model must be used to analyze each prospective site to determine if it meets the applicable coverage objectives. The transmitting antennas must be placed above the trees and high enough to "see" over nearby hills or buildings. The search area is generally near the center of the defined coverage area, and varies in size with that of the coverage area.

Once the search area is defined, Verizon Wireless looks for a site within the search area that is both technically appropriate and sensible from a zoning, environmental and land use perspective. Subject to technical limitations, a site search generally involves consideration of the following: existing towers; other existing tall structures; industrial and commercial zones; agricultural zones; and lastly, residential zones. Municipal properties can be located within any zoning district; therefore, these properties are evaluated with respect to the surrounding properties.

<sup>&</sup>lt;sup>1</sup> Verizon Wireless' nation-wide standard for reliable 4G LTE wireless service for highway and rural morphologies is -105 dBm RSRP (where RSRP is Reference Signal Receive Power). Mobile devices operating within the -105 dBm RSRP coverage boundary can expect to realize advertised data speeds and reliable sustainable voice communications; network reliability and accessibility decreases dramatically for mobile devices operating in or traveling into RF environments outside (or weaker than) the -105 dBm RSRP coverage boundary (represented as white space in the provided coverage plots).

<sup>&</sup>lt;sup>2</sup> Verizon Wireless is in the process of developing 2 new sites in the area with expected 2015 commercial activation. Verizon Wireless' "Sand Hill Road" facility is proposed on Route 31 in the Town of Verona.

#### **Durhamville Search Area**

The existing and insufficient level of Verizon Wireless 4G LTE service in the Durhamville site's targeted coverage area in the Town of Verona is a direct result of a lack of localized wireless coverage. As modern 4G LTE wireless networks evolve and new smart phone apps and features require access to high speed data connections, the heavy usage demands on the network and a given group of cell sites drives the need to place wireless facilities closer together and close to (and ideally in the middle of) the high usage areas. As noted previously, the insufficient level of service that currently exists in targeted Durhamville area originates from Verizon Wireless' neighboring facilities within the Town of Verona and Oneida located between 2.25 miles and 2.85 miles from the proposed site. Due to heavy usage and lack of reliable wireless service from these surrounding facilities, it is necessary to construct a new wireless telecommunications facility in the Durhamville section of Verona to provide an adequate and safe level of service to the targeted Durhamville site's coverage area or "cell".

The search area for the Durhamville cell, as shown in the map at **Figure 1** below, is located in a mowed field elevated above floodplain levels and away from any state or federally designated wetland areas. The search area extends approximately <sup>3</sup>/<sub>4</sub> miles south of the Foster Corners Rd / Foster St intersection north approximately <sup>3</sup>/<sub>4</sub> miles along Irish Ridge Road. The search area is positioned such that a wireless facility of sufficient height is able to satisfy coverage and capacity (where capacity is a measure of the site's ability to successfully process the amount of customer wireless traffic generated in the area) objectives and reliably connect to neighboring facilities. The size and shape of the search area is driven primarily by topography, distance to neighboring cells, and existing coverage and network conditions.



Figure1. Durhamville Search Area Aerial Map.

#### Site Analysis Summary

As outlined previously, Verizon Wireless generally looks for collocation opportunities on existing towers or other structures of significant height (buildings, silos, etc.) before considering developing a new tower. Collocation is usually beneficial from a cost and time-to-deployment perspective and is strongly encouraged by most municipalities. Unfortunately there are no existing towers or structures of significant height in or near the search area that can be used to provide adequate service to the targeted coverage objective area. As a result, the Durhamville search area was analyzed to determine potential locations best-suited for development of a new wireless facility.

Upon review of the Durhamville search ring (in reference to the search area map provided at **Figure 1** above), there are relatively small residential lots in the south end of the search ring with large open farm fields and densely wooded areas in the northern portion of the search ring. From a coverage perspective, a new tower generally anywhere within the ring (red boundary shown in **Figure 1**) is capable of providing reliable service to the target area (although additional tower height may be required in some locations to compensate for decreased ground elevation). From a construction, environmental impact and land use perspective, Verizon Wireless generally targets large parcels when available to maintain a reasonable distance to adjacent properties, minimize visual impacts and avoid any local wetlands. Lastly, in addition to network improvements and land use considerations Verizon Wireless works closely with Evolution to review and conform with local zoning requirements. In accordance with the Town of Verona Zoning Ordinance, new wireless facilities, "Utility Substations", are a permitted use in the Rural Development Zoning District, with the receipt of a Special Permit.

With the preceding in mind, Evolution Site Services (at the request of and in conjunction with Verizon Wireless) contacted landowners with properties wholly within or that extend into the search area and appear feasible from a construction, access, and land use perspective. Due to the presence of Brandy Brook and NYS Regulated Wetlands, many of the properties within the Search Ring were not viable, therefore the site search focused on properties within the RD Zone, outside of the floodplain and able to avoid any wetland impact.

Ultimately the Frech property was selected due to its location in the tower-friendly Rural Development District, its large size (39.5+- Acres), proximity to commercial utilities along Foster Street, and the ability to place the proposed tower in an area that is easily accessible that also satisfied all property setback requirements. The chosen tower location offers sufficient ground elevation to satisfy coverage objectives and is buffered in most directions by mature vegetation which serves as natural screening to the lower portions of the tower structure and associated ground-based equipment shelter and compound. Lastly, the access and utility road, tower, and equipment compound can be developed with minimal disturbance - grading, mature tree removal, etc.- to the host property, and is proposed at a remote portion of the parcel (approximately 1300 ft. southwest of Foster St) such that the wireless facility and its operation will have minimal-to-no impact on daily functions on the host property.

By developing a new tower at the proposed height at the chosen Frech property location, coverage can be uniformly transmitted in all key directions including north and south along Foster Street and Route 46, east and west along Foster Corners Road and Route 31, and throughout and the residences and emergency and non-emergency vehicles passing thru the target coverage area.

Calculated coverage from Evolution Site Services proposed 160 ft. facility is illustrated at **Exhibit 2** (where the blue boundary is existing Verizon Wireless coverage, the yellow boundary is future 2015 coverage from sites currently in development, and the green boundary is proposed new coverage). As the results demonstrate, coverage from the proposed facility will successfully extend advanced 4G LTE services across the targeted coverage improvement areas along Route 46, Route 31, I-90, Foster Street, and to the homes, businesses, and traveling public within the target coverage area.

#### **Technical Information**

#### Frequency Modulation / Type of Service

The frequency, modulation and class of service of Verizon Wireless' radio equipment will be:

Frequencies:	<u>Cellular (B Band)</u> Tx 880.020 – 889.98 and 891.51 - 893.970 MHz Rx 835.020 – 844.98 and 846.51 - 848.970 MHz
	<u>Personal Communications Service (PCS)</u> Tx 1975.00 – 1990.00 MHz Rx 1895.00 – 1910.00 MHz
	<u>WU 700 MHz Upper Band (Block C)</u> Tx 746.00 – 757.00 MHz Rx 776.00 – 787.00 MHz
	<u>Advanced Wireless Services (AWS-1) (Block F)</u> Tx 2110.00 – 2155.00 MHz Rx 1710.00 – 1755.00 MHz
Modulation: Class of Service:	Long Term Evolution (LTE) Handheld Mobile Communications

#### Conclusion

In summary, Verizon Wireless is proposing to collocate on a new Utility Substation / Communications Facility on the proposed Evolution Site Services, LLC. 160 ft. (164 ft. when including a 4 ft. lightning rod) guyed tower on private property in the Town of Verona. By placing its antennas (centerline) at the 156 ft. level of this tower along with associated ground equipment, Verizon Wireless is able to satisfy all applicable coverage objectives for its Durhamville facility in the western portion of the Town of Verona, along Route 46, Route 31, brief stretches of I-90, and into the commercial and residential areas surrounding Durhamville.

Respectfully submitted by:

Justin Lad

Justin Lad Radio Frequency (RF) Design Engineer

Date: September 3<sup>rd</sup>, 2015

# Exhibit 1

4G LTE 700MHz Service.

Blue = Existing Yellow = Future



# Exhibit 2

4G LTE 700MHz Service

Blue = Existing, Green = Proposed, Yellow = Future





1275 John St. Suite # 100 West Henrietta, NY 14586

### Appendix "A" Categorical Exclusions Certification (Non-Ionizing Electromagnetic Radiation)

I have performed an analysis to determine if Verizon Wireless' wireless facility on the proposed Evolution Site Services, LLC Utility Substation / Communications Facility located at Foster Street, Durhamville, Verona NY complies with Federal Communications Commission (FCC) exposure limits and guidelines for human exposure to Radio Frequency (RF) electromagnetic fields (following the methods and procedures described in Code of Federal Regulations 47 CFR 1.1307 and 1.1310). Specifically, **Table 1** below depicts the applicable FCC test in the document entitled "Checklist for Local Government to Determine Whether A Facility is Categorically Excluded". This test determines if a site is categorically excluded from routine environmental processing for RF exposure:

SERVICE (TITLE 47 CFR RULE PART)	<b>EVALUATION REQUIRED IF:</b>
Cellular Radiotelephone Service (subpart H of part 22)	non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and total power of all channels > 1000 W ERP (1640 W EIRP).
	Building-mounted antennas: total power of all channels > 1000 W ERP (1640 EIRP)
Personal Communications Services (subpart E of part 24 for Broadband PCS)	<u>non-building-mounted antennas</u> : height above ground level to lowest point of antenna < 10 m <u>and</u> total power of all channels > 2000 W ERP (3280 W EIRP).
	Building-mounted antennas: total power of all channels > 2000 W ERP (3280 EIRP)
Wireless Communications Service (VZW holds 2 separate licenses in this class; one in Service Code WU and a 2 <sup>nd</sup> in Service Code AW) (part 27)	Total power of all channels > 1640 W EIRP

Table 1. Checklist for Local Government to Determine Wireless Facility Categorical Exclusion

The document specifies the following questions to determine categorical exclusion. The answers for Verizon Wireless' proposed Durhamville facility are provided in **bold print** following each question:

- Licensed Radio Service (see Table 1 above): Yes, as follows:
  - CL Cellular Radiotelephone Service,
  - CW-PCS Broadband,
  - WU 700 MHz Upper Band (Block C), and
  - AW AWS, 1710-1755/2110-2155 MHz Bands
- Structure Type (free-standing or building/roof-mounted): Free-Standing Tower.
- Antenna Type [omni-directional or directional (includes sectored)]: Directional
- Height above ground of the lowest point of the antenna (in meters): 46.33 m to bottom of antennas.
- 1.  $\underline{X}$  Check if all of the following are true: (<u>All are true</u>).
  - (a) This facility will be operated in the Multipoint Distribution Service, Paging and Radiotelephone Service, Mobile Radio Services Paging Operations, Private Land Mobile Radio Service Specialized Mobile Radio, Local Multipoint Distribution Service, or service regulated under Part 74, Subpart I (see question 12). (True)
  - (b) This facility will <u>not</u> be mounted on a building (see question 13). (**True**)
  - (c) The lowest point of the antenna will be at least 10 meters above the ground (see question 15). (True, lowest point of antennas is 46.33 meters above ground level)
- 2. If item 1 above is checked (verifying that sub-sections (a), (b) and (c) are each true), this facility is categorically excluded and is unlikely to cause exposure in excess of the FCC's guidelines. Since Item 1 above is checked, no further analysis is required, and the remainder of the checklist need not be completed.

In conclusion, based on the results using the FCC-specified criteria, Verizon Wireless/ Durhamville Communications Facility located at Foster Street in the Town of Verona is **Categorically Excluded** from routine environmental RF exposure review.

In compliance with the Town's requirements, Verizon Wireless will verify and/or add the appropriate RF emissions signage at the compound fence near the entrance gate.

Sincerely,

Justin Lad

9/3/2015

Justin Lad Engineer I – RF Design Engineer Verizon Wireless, Upstate NY

Date

## 4. ZONING & GENERAL PROVISIONS

## 4.0 ZONING & GENERAL PROVISIONS

The Applicants have prepared this Application in accordance with the Town of Verona, NY Zoning Ordinance, a copy of which was received from the Town's Assessor as amended through July 27, 2011. Based on a review of this information the proposed Utility Substation / Communications Facility complies in all material respects with the Town of Verona Zoning Ordinance including Articles IV, V & VI.

In accordance with Article VI - Administration and Enforcement §160-41.C35.B(1), Delegation, the Applicants have prepared this Application, along with all supporting information, to assist the Zoning Board of Appeals and the Code Enforcement Officer in reviewing this request for a new Utility Substation / Personal Wireless Service Facility.

In an effort to assist in the review of this request, the Applicant has restated sections of the Zoning Law and responded to each section in *italicized* font.

### Chapter 160 ARTICLE IV Supplemental Regulations

§ 160-26 Land Uses

B. Utility substation. Public utility substations and similar utility structures shall comply with the following:

(1) Any building shall be setback in conformance with the applicable district regulations.

The proposed Facility complies with the requirements of this Section.

(2) A facility without a building shall be surrounded by a fence, six (feet) in height, and the fence shall be set back in conformance with the applicable district regulations for residential required yards.

The proposed Facility will include an unmanned equipment shelter within a fenced in compound area.

(3) A landscaped area, at least 15 feet in width, of grass and evergreen plantings shall be maintained and surround the fence and/or building.

The proposed Facility will be located in a mowed field surrounded by grass. Mature vegetation currently exists on three sides of the Subject property (east, south and west) together with a hedgerow of trees on the north to aid in screening the base of the Facility. If required, the Applicant will work with the Board to place additional screening around the compound fence in compliance with this section.

## **ARTICLE V Special Review Standards and Procedures**

§ 160-35. Special permit standards.
A. Purpose. Special permit review seeks to ensure that certain permitted uses are established in a manner that is most appropriate and compatible to a site, neighborhood and zone district.

This Application has been prepared in accordance with the Town of Verona Zoning Ordinance together with additional state and federal regulations. The Applicants have selected a site and designed the proposed Utility Substation / Facility to provide improved wireless services to the area in a manner that is appropriate with the neighborhood and zoning district.

B. Authority. (See also Article VI, Administration and Enforcement.)

(1) Delegation. The Zoning Board of Appeals shall have the power to review and approve, approve with modifications or disapprove all special permit uses listed in the zone district regulations pursuant to New York State Town Law § 274-b and the provisions of this article.

In accordance with this Section, the Applicants have prepared this Application, along with all supporting information, to assist the Zoning Board of Appeals and the Code Enforcement Officer in reviewing this request for a new Utility Substation / Personal Wireless Service Facility.

(2) Compliance with review. No use, building or improvement requiring special permit review shall be occupied, enlarged, modified, altered or changed except in compliance with the procedures and standards of this article.

The Applicant has designed the proposed Facility and prepared this request for a special permit in accordance with this article.

(3) Relationship to site plan review and variances.

The Applicant has prepared the request for a special permit in accordance with the Town of Verona Zoning Ordinance, and will work with the Board to provide additional materials as may be requested to address site plan review or other questions, no variances are currently part of this request.

C. Procedure.

(1) Schedule of review. Special permits shall be reviewed pursuant to the applicable provisions of New York State Town Law § 274-b and Article V, § 160-38 (standard review procedures for all boards) of this zoning chapter.

(2) Submission requirements. An application for a special permit shall be submitted on forms provided by the Town and consistent with the provisions of § 160-38.

The Applicant has completed the required forms, which have been attached at Tab 1 of this Application Booklet.

D. Additional conditions upon special permit approval.

The Applicant will work with the Board to incorporate reasonable and necessary conditions into the proposed Facility.

E. Existing uses.

Not Applicable – There are no existing structures or uses on the Premises.

- F. Standards of review.
- (1) General standards (Part 1).
- (a) Compliance.

[1] The proposed use must comply with the applicable intent and regulations of the entire chapter, including the specific zone district in which it is located.

The Applicant has reviewed the Zoning Ordinance, selected a property and designed the proposed Facility in accordance with the entire chapter. The proposed use, Utility Substation, is listed as an allowed in the RD Rural Development, subject to a special permit.

[2] The proposed use must comply with other applicable Town, county, state or federal regulations.

The proposed use will comply with all applicable regulations including the National Environmental Policy Act, the State Environmental Quality Review Act and Federal Aviation Administration regulations.

(b) Conformance with Town Plan.

[1] The proposed use is located on a site and in an area of the Town that is consistent with the long-term development objectives for the area.

The proposed Facility will be located on the Subject Property, which is zoned RD - Rural Development, where Utility Substations are an allowed use, by special permit. The proposed use will improve the long-term wireless services for the safety and convenience of the residents, businesses, emergency personnel and visitors of Durhamville.

[2] The proposed use is appropriately located with respect to the existing pattern of streets and other facilities, including but not limited to water, sanitary lines and drainage systems and will not adversely affect the functioning of these facilities nor impede any planned improvements.

The proposed use will be accessed off of a straight section of road along Foster Street with site lines that will provide safe access and egress for vehicles. Currently there are existing overhead electric and telephone utilities servicing Foster Street that will be continued on new overhead utility poles to the Site. The proposed Facility will be unmanned and require no water or sanitary services. [3] The proposed use is compatible in size and character to the existing and/or planned pattern of land uses within the immediate area.

Existing uses in the area include residential properties, and local businesses, which will all benefit from having improved wireless services in the area. The proposed use will occupy a small portion, approximately ¼ acre of 39+ acres, of the Subject Property and be designed to be compatible in size and character with the immediate area.

(c) Scale of development.

[1] The proposed use is to be designed and developed in a manner that ensures the provision of necessary public facilities, improvements and landscaping to the site.

The proposed Facility will be unmanned and require only periodic site visits by trained operations personnel. The Facility will utilize electric and telephone facilities that are readily available on Foster Street, which will be used to improve the wireless utilities in the area. Improvements to the property will also include upgrading an existing farm road and clearing an area for a compound. Due to the Site's location, the Applicant proposes to utilize the existing site vegetation to comply with any landscaping requirements. However the Applicant will work with the Board to install additional landscaping as required.

[2] The scale and design of the proposed use is physically and visually compatible with the conditions of the site and surrounding properties.

The proposed use has been designed to be physically and visually compatible with the site conditions and surrounding area. The Applicant is proposing to include a guyed lattice tower with a narrow profile to provide substantial signal improvements while minimizing the Site's visual impacts on surrounding properties.

(d) Vehicular and pedestrian circulation. The nature and design of the proposed use ensures that there is safe and efficient vehicular and pedestrian movement within the site and in relationship to any streets serving the site. In making this determination, consideration shall be given, but not limited to the following:

The proposed Facility will be a Utility Substation and not open to the public.

[1] Location and adequacy of parking and loading facilities.

The proposed Facility will include a gravel access drive and a fenced in compound area. Adjacent to the compound will be parking for at least two (2) service vehicles while working at the Site (see **Tab 8**)

[2] Pedestrian rights-of-way.

The proposed Facility will not be accessed by or open to the general public or pedestrians. The entrance from Foster Street will not impede any existing pedestrian activities.

[3] Traffic regulatory devices.

The proposed Facility will generate approximately four vehicle trips per month and will not require traffic regulatory devices.

[4] Location, number, and design of points of ingress and egress.

The Subject Property's access is from Foster Street along a straight section of road. The proposed Facility will improve the existing intersection with Foster Street for ingress and egress to the Site.

[5] Accessibility by emergency vehicles with particular emphasis on access to structures, and provision for turning and free movement.

The grade of the improved access drive will be relatively flat and accessible by emergency vehicles. Turning radius will be sufficient to accommodate emergency vehicles for turning and free movement (**Tab 8**).

[6] Provision for snow storage.

There will be ample provisions for snow storage.

[7] Age and mobility of all persons for whose benefit the use is intended.

The proposed Facility will benefit residents, businesses and emergency agencies in the area by improving the wireless services for all ages. Improved wireless services are especially helpful in providing a sense of security for the elderly and persons with limited mobility.

[8] Speed limits upon and general character of public highways in proximity to and providing access to the subject site.

Foster Street is a straight, two-lane road approximately .85 miles long from Foster Corners Road to Broad Street. The posted speed limit adjacent to the Foster Street entrance is 35 miles per hour. Given the sight lines and speed limit vehicles accessing and exiting the site will be able to do so in a safe manner.

(e) Services and utilities.

[1] The proposed use is adequately served with water supply, wastewater disposal and drainage facilities in compliance with any applicable county or state codes and provides for the long-term needs of the use.

The proposed Facility will be unmanned and not require any water, wastewater or sanitary facilities. The access drive and compound area will be designed to shed stormwater in a sheet flow manner and not create any point source discharge that would contribute to erosion.

[2] The proposed use will be provided with adequate services or facilities for solid waste disposal, fire and police protection, utilities and other supporting services necessary for the use.

The proposed use and activities will not generate any solid waste. Any trash or surplus materials generated from the Site will be removed from the premises and disposed of properly. The proposed Facility will be monitored remotely from a Network Operations Control Center (NOCC) for fire and unauthorized access. Any alarms will be coordinated with trained technicians and the local emergency service providers.

Adequate electric and telephone services currently exist on Foster Street and will be delivered to the site via overhead utility poles.

(f) Environmental resources.

[1] The proposed use is located, designed and operated in a manner that avoids or minimizes any disturbance of significant natural or cultural resources.

The proposed Facility will be located in an existing mowed field and will not disturb any significant natural or cultural resources. In accordance with the National Environmental Policy Act (NEPA) the Applicant has initiated a review of the area for cultural resources and found none (see **Tab 5** for a Draft NEPA Checklist). Upon completion of the NEPA review an updated checklist will be provided to the Board.

[2] The proposed use is located and designed in a manner that is consistent with the site's soil capabilities to accommodate the use.

Utilizing the USDA Natural Resources Conservation Service (NRCS) Custom soil resources report, the Applicant found that the proposed Site is primarily Minoa fine sandy loam 750B, which is sufficient for the proposed use (see **Tab 5** for a soils map with reference added by the Applicant).

[3] The proposed use is to be developed in conformance with any applicable state or federal requirements regulating significant environmental resources.

The Applicant reviewed the Subject Property for significant environmental resources including threatened and endangered species and wetland areas and found none. The proposed access easement and lease area will not be located within a Federal or state-regulated freshwater wetland, watercourse, or water body (see **Tab 5** Diehlux Wetland Investigation letter).

[4] The proposed use provides drainage systems conforming to any area-wide drainage plans and controls stormwater run-off consistent with Town Plan recommendations.

The proposed Facility will include improving an existing farm road and a fenced in compound area with a gravel surface. Stormwater will be allowed to infiltrate into the gravel or flow in a sheet flow manner onto the Subject Property.

(g) Aesthetics.

[1] The proposed use includes use of building materials, screening and landscaping treatments of parking, drainage and storage areas that are consistent with existing development and any aesthetic standards developed by the town, and which minimize any adverse visual affects on surrounding properties or public rights-of-way.

The proposed Facility has been designed to minimize the visual impact to the surrounding area to the greatest extent practicable. Building materials will be of natural color and will blend into the surrounding area. Overall Facility design is consistent and similar in scope with other similar facilities in Town and the area. In order to minimize the visual impact of the support structure on surrounding properties and public rights-of-way, the Applicant is proposing a guyed lattice style tower with a narrow profile and a galvanized finish that will weather to a dull gray.

[2] Lighting and signage for the proposed use is appropriate in size, color and placement for the site and character of the surrounding area and has no adverse impact on surrounding properties.

The proposed tower structure and compound will not require or be equipped with any lighting. The proposed Verizon Wireless equipment shelter may have a switch-operated light adjacent to the door for use by technicians when visiting the site in non-daylight hours. The small service light should not have an adverse impact on surrounding properties.

(h) Emissions. The emission of any noise, smoke, heat or odor from the proposed use is within limits established by this ordinance, if any, and is minimized and directed away from surrounding properties; any mechanical elements associated with these emissions are installed and maintained in accordance with applicable health and safety codes and are adequately screened from view.

The proposed Facility will comply with the requirements of this section.

§ 160-38. Common review procedures and submission requirements.

A. Standard review procedures for all boards.

- (1) Conceptual review.
- (2) Codes compliance.

The Applicant met with the Code Enforcement Officer (CEO) on June 4, 2015 and the Zoning Board of Appeals on October 19, 2015 to review the concept of the proposed use and confirm the proposed use is allowed in the Rural Development Zoning District, subject to a Special Permit from the Zoning Board of Appeals.

Prior to filing a formal special permit request in accordance with Section 3 below, the applicant provided a copy of the draft application to the CEO for his review and comment.

(3) Filing.

(a) At least 10 days prior to a regularly scheduled Board meeting the applicant shall submit all documents required in § <del>160-36D</del> (160-38D), to the Town Codes Enforcement Officer/Town, Zoning, and Planning Board Secretaries/Town Clerk.

The Applicant filed two (2) copies of the Application together with all supporting materials with the CEO, Zoning Board and Town Clerk.

**§160-38.D.** Submissions. The following shall be submitted for all proposed variances, special permits and controlled site reviews.

(1) Survey showing property boundaries, existing buildings, and location and dimensions of easements and rights-of-way.

### See Site Development Plans prepared by Hudson Design Engineering, LLC at Tab 8.

(2) Existing site conditions plan may be prepared on a photocopy of the survey or on a plan comparable to proposed site plan showing buildings with dimensions and purpose, driveways, pavement areas, major trees with a circumference greater than six inches, contour elevations at no less than one-foot and not more than five-foot intervals, signs and any other improvements.

### See Site Development Plans prepared by Hudson Design Engineering, LLC at Tab 8.

(3) Proposed site plan: an original plan for the property at a scale of not less than one inch equals 20 feet and not more than one inch equals 100 feet showing all proposed changes to existing conditions, including any new buildings or improvements and contour changes. The site plan shall also include details for water supply and wastewater disposal, surface drainage, solid waste disposal, utility connection, fire hydrant locations; the plan shall also indicate location of driveways, parking, loading areas and paved pedestrian areas.

### See Site Development Plans prepared by Hudson Design Engineering, LLC at Tab 8.

(4) Improvement plans. The following detailed plans shall be submitted if deemed necessary by the Board to supplement the proposed site plan and will be submitted at a scale identical to the site plan unless otherwise specified by the Board.

### See Site Development Plans prepared by Hudson Design Engineering, LLC at Tab 8.

(a) Architectural plans shall include floor plans and building elevations indicating building dimensions, interior use(s) and type of construction materials.

See **Tab 7** for typical modular equipment shelter plans and specifications.

(b) Engineering plans shall include construction details on drainage, sewer and water systems, lighting and any mechanical or utility improvements to serve the site.

#### See Site Development Plans prepared by Hudson Design Engineering, LLC at Tab 8.

(c) Landscaping plans shall include details on type, composition and location of paving material; location, size and types of signage, location, number and type of plantings and fencing.

The proposed Facility will include improving an existing farm road with a gravel surface, approximately twelve (12') feet wide and clearing a compound area approximately seventy-five by seventy-five (75'x75') feet (**Tab 8**). No paving is proposed as part of this Application.

In accordance with OSHA and FCC regulations small (approx.12"x18" & 18"x24") notice signs will be attached to the compound fence. These signs will not be illuminated (see **Tab 7** for examples).

The Applicant has selected the location of the proposed Facility to be set back away from a concentration of homes and utilize existing vegetation as landscaping and screening. The Applicant is not proposing to install any additional plantings for landscaping.

A chain link fence approximately eight (8') feet high will enclose the proposed compound area. The fence will have a locked gate that will be accessed only by authorized, trained personnel and emergency service providers.

(5) Written information shall describe the proposed use(s), anticipated traffic volumes and parking and loading needs, anticipated construction and occupancy schedule, construction phase management of the site, including erosion control, equipment storage, and security arrangements.

Verizon Wireless is considered a public utility under New York decisional law (Cellular Telephone Company v. Rosenberg, 82 N.Y.2d 364 (1993)) and a provider of "personal wireless services" under the federal Telecommunications Act of 1996 (the "TCA"). Upon completion of the proposed Utility Substation / Personal Wireless Service Facility, Verizon's equipment will be in operation twenty-four (24) hours a day, seven (7) days a week, three hundred and sixty-five (365) days a year and provide improved wireless services to the Verona and Durhamville area.

Traffic volume generated from the proposed Facility will be very low. Upon completion the Site will be visited approximately once or twice per month generating approximately four (4) vehicle trips. There will be sufficient parking and loading areas adjacent to the compound to accommodate technicians while working at the site.

Upon receipt of all permits and approvals construction will be scheduled and coordinated. A new Facility typically takes approximately ten to twelve (10-12) weeks to complete, depending on weather.

Due to the existing topography, generally flat, the proposed activities will not contribute to erosion. Prior to commencing site development activities the Applicant and its contractors will review the area and install appropriate erosion control materials as required.

A locked chain link fence with barbed wire will enclose the proposed Facility to prevent unauthorized access. The Verizon Wireless equipment will also be monitored remotely for fire and access alarms.

(6) SEQR information shall be on forms provided by the Town; the board may, upon review, require a draft environmental impact statement (DEIS).

The Applicant has completed the SEQR forms and included it at **Tab 1** of this Application.

(7) Permits or approvals from other agencies for the proposed development shall be identified with the anticipated schedule of application.

The Federal Communications Commission (FCC) requires the Applicant to review the proposed project in accordance with the National Environmental Policy Act (NEPA). This review takes into account multiple state and federal agencies and reviews whether the proposed Facility would negatively impact endangered species, historic properties and Native American religious sites. This review is currently underway. Tab 5 shows a draft checklist of the agencies and areas under review, upon completion a final copy will be provided to the Board.

(8) Supplemental information. Upon review of the submissions the board may require information to be provided in greater detail or to submit additional material.

The Applicant will work with the Board to provide additional information as may be required.

(9) Fees will be required according to the schedule established by the Town Board.

The Applicant will pay the required fees as established by the Town.

(4) Determination of completeness and official submission date (typically meeting No. 1).

The Applicant will work with the Board to review the proposed Application and provide additional materials as may be required.

(5) Public hearing and notice.

The Applicant has attached at Tab 1 a list of landowners within 500 feet of the Subject Property, prepared with the assistance of the Town's Assessor and will work with the Board to provide the information necessary to complete the public notice requirement.

(6) Referrals. Referrals to other agencies shall be made by the reviewing board after the official submission date is established. To the extent practical, the reviewing board will ensure that referrals are completed within the time prior to a public hearing, if held.

The Applicant will work with the Board to provide the information necessary to complete the referral requirement.

(7) Evaluation of the site plan and documents (typically meeting No. 2).

The Applicant will work with the Board to review the Special Permit Application requirements.

(8) Decision (typically meeting No. 2 or No. 3)

The Applicant looks forward to working with the Board and receiving a favorable decision.

(9) Building or occupancy permits.

Upon receipt of all permits and approvals the Applicant will apply for a Building Permit, and upon completion of the proposed Facility an Occupancy Permit.

(10) Extension of review schedule or project approval.

The Applicant looks forward to receiving the required permits and approvals and commencing construction in a timely manner.

B. Modification to approved uses or structures.

#### Not currently applicable

C. Procedures and submissions for minor modifications.

#### Not currently applicable

D. Submissions. The following shall be submitted for all proposed variances, special permits and controlled site reviews.

#### See responses above

#### Conclusion

In accordance with Chapter 160 Articles IV, V and VI Sections 160-35 and 160-38 of the Town of Verona Zoning Ordinance, the Zoning Board of Appeals is authorized to approve this request for a Special Permit. Due to the unusual nature of Utility Substations / Personal Wireless Service Facilities and their unique siting requirements, communication facilities transmit their signals at very low power levels when compared with traditional radio or television broadcasts. These signals are height dependent and are negatively impacted by topography and vegetation. They are also required to interconnect with other existing and proposed communications facilities in the area to form a network or grid of cells, which further restricts the number of acceptable locations for new site placement.

The Applicants have analyzed the existing utility structures and communications facilities in the area together with numerous properties in the Town of Verona, in effort to secure a site that would provide adequate coverage and improved capacity to the target area, comply with the Zoning Ordinance and minimize environmental impacts. The proposed Utility Substation / Communications Facility will be located on a portion of a thirty-nine (39) acre undeveloped parcel away from a concentration of homes and exceeds all area and setback requirements. The location of the proposed Facility on the Subject Property will comply with the requirements of the local and federal laws, allow Verizon Wireless to provide improved wireless services to their coverage area, while minimizing visual and environmental impacts.

As discussed throughout this Application, the Applicants request the review by the Zoning Board of Appeals and Zoning Enforcement Officer and request the required approvals and recommendations to develop a new Utility Substation / Communications Facility that will accommodate Upstate Cellular Partnership (d/b/a Verizon Wireless) and future FCC licensed wireless service providers. As part of this Application, Verizon Wireless requests the necessary approvals to utilize the proposed Facility and tower to improve its wireless services and should be considered a co-Applicant.

The Applicants have identified a significant gap in wireless coverage in Verona/Durhamville along to the Foster Street, Canal Street, Fosters Corners Road and Irish Ridge Road and believe that the proposed location is appropriate for a new facility. Additionally, by approving this request, the Board will enable the proposed Facility to improve the wireless services for the safety and convenience of the Town of Verona, its residents, visitors and emergency service agencies. The Applicants look forward to reviewing the Request with the Zoning Board at their November meeting.

### 5. ENVIRONMENTAL REVIEW

Freshwater Wetlands, Watercourse & Water Body Investigation Letter NYS DEC Wetland & Endangered Species Map – With Site Reference Added Oneida County Ag Data Map – With Site Reference Added USDA / NRCS Soil Map – With Site Reference Added Federal Emergency Management Agency (FEMA) Floodplain Map – With Site Reference Added Draft National Environmental Policy Act (NEPA) Checklist Summary



# DIEHLUX, LLC

- Innovative Ecology -

June 29, 2015

Mr. Chris Ciolfi Evolution Site Services, LLC P.O. Box 2854 Pittsfield, MA 01202

### RE: EVO-14 DURHAMVILLE WIRELESS TELECOMMUNICATIONS SITE FOSTER STREET DURHAMVILLE, TOWN OF VERONA, ONEIDA COUNTY, NEW YORK FRESHWATER WETLANDS, WATERCOURSE & WATER BODY INVESTIGATION

Dear Chris:

The following represents our findings, recommendations, and conclusions upon completion of the freshwater wetlands, watercourse, and water body investigation services authorized by Evolution Site Services, LLC (Evosites), herein referred to as the "Client," on June 16, 2015. This service was performed to assist the Client with investigation of existing field conditions and potential environmental permitting and compliance requirements for the proposed installation of a wireless telecommunications facility located west of Foster Street in Durhamville, Town of Verona, Oneida County, New York (the Property). According to the lease exhibit prepared by Hudson Design Group, LLC on June 22, 2015, the proposed installation includes a 160 foot tall guyed tower and 12 x 30 foot ground-level equipment shelter within a 100 x 100 foot lease area accessed via a 12-foot wide gravel drive within a 30-foot wide access and utilities easement extending generally west from Foster Street (the Site). The proposed compound and access easement would be located along the southern boundary of the Property. A copy of the proposed lease exhibit is documented as Appendix I.

### A. Purpose

The purpose of this investigation was to determine the potential for regulated activities at the Site within state or federally-regulated freshwater wetlands, watercourses, or water bodies, as well as any environmental permitting requirements associated with Articles 15 and 24 of the New York State Environmental Conservation Law (ECL), as well as Sections 404 and 401 of the Clean Water Act. Generally, these environmental regulations pertain to the protection and preservation of wetlands, watercourses and water bodies throughout New York and/or the United States.

#### B. Preliminary Review

As part of the freshwater wetlands, watercourse and water body field investigation service, a preliminary review of the existing site conditions was performed prior to our site visit utilizing reasonably available data and mapping obtained from the following resources:

- United States Geological Survey (USGS) Topographic Map(s);
- County GIS Map(s), if available;
- New York State (NYS) Department of Environmental Conservation (DEC) Environmental Resource Mapper Freshwater Wetlands Map(s);
- United States Fish & Wildlife Services (USFWS) National Wetland Inventory (NWI) Map(s);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soils Map(s);
- Google Earth satellite imagery; and
- Project Documents, Plans, Reports, etc. (as provided by the Client or Client representative)

Copies of these maps and associated documents are included as Appendix II.

### C. Freshwater Wetlands Field Delineation

A field investigation of any upland/wetland, watercourse, or water body boundaries was completed within proximity of (+/- 100 feet) the proposed access road and lease area, including any proposed alternate access or utility easements. The field investigation was completed in accordance with the following technical manual(s):

- Environmental Laboratory. (1987). "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
- U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

### D. Field Findings

The subject Property consists of an irregularly-shaped parcel extending west from Foster Street. No structures exist within the subject Property. The subject Property consists primarily of an undeveloped, actively utilized agricultural field. The northern portion of the Property is bound by Brandy Brook. The general setting of the Property consists of active agricultural lands, surrounded by light rural residential development. Copies of aerial images are documented as Appendix I.

A wetlands, watercourse and water body field investigation was completed within and adjacent to the proposed Project area by a qualified wetlands biologist on June 19, 2015. The weather was partly cloudy, with an average temperature of 75° Fahrenheit. Field conditions and suitable plant growth were conducive to performing the fieldwork. Table 1 below outlines the findings of our investigation(s):

Table 1.

Resource(s)	Flagging	Location	Туре	Vegetation
None	N/A	N/A	N/A	Active agricultural

Site photographs are documented as Appendix III.

### E. Conclusions & Recommendations

As part of the wetlands investigation for this project site, we included an evaluation of Section 404 jurisdiction and permitting applicability, as well as potential regulatory or permitting requirements under Articles 15 and 24 of the NYS ECL, or local municipal government.

The following outlines our conclusions and recommendations regarding wetlands and watercourse permitting requirements for this proposed project:

- 1. The Town of Verona, New York, does not appear to have a separate Chapter for local regulation of wetlands, waterbodies or watercourses in their *Town Law Manual For Town Supervisors and Town Boards*. Therefore, no specific/separate local wetlands, watercourse, or water body permits should be required by the Town of Verona.
- 2. According to the NYS DEC Environmental Resource Map, no DEC-regulated freshwater wetlands or associated adjacent areas or "buffers" are located on, or within close proximity of, the proposed project area and/or areas of disturbance. The closest mapped state-regulated freshwater wetland, designated as SB-61, is located greater than 1.5 miles east of the Site. Therefore, no NYS DEC freshwater wetlands permitting is required pursuant to Article 24 of the NYS ECL.

Further, no NYS DEC-regulated watercourses or associated stream banks are located within the limits of the proposed Site. The closest watercourse, Brandy Brook, is classified by NYSDEC as a Class C watercourse and is located along the northern perimeter of the Property. This Class C watercourse is not regulated by NYSDEC in accordance with Article 15 of the NYS ECL. Copies of NYS DEC Environmental Resource maps are documented in Appendix I.

3. According to the U.S. Fish & Wildlife Service National Wetlands Inventory Map, no freshwater wetlands are located on, or within close proximity of, the proposed Site.

Mr. Chris Ciolfi RE: DURHAMVILLE, NY PROPERTY WETLANDS INVESTIGATION FINDINGS LETTER JUNE 29, 2015 PAGE 4 sed Site layout in the field, it appears that ourses will be impacted by the proposed

Based upon our visual interpretation of the proposed Site layout in the field, it appears that no Federal or state-regulated wetlands or watercourses will be impacted by the proposed activities. Therefore, no permits will be required by the U.S. Army Corps of Engineers or NYSDEC pursuant to Sections 401 or 404 of the Clean Water Act, or Articles 15 or 24 of the NYS ECL.

In conclusion, the proposed access easement and lease area will not be located within a Federal or state-regulated freshwater wetland, watercourse, or water body. Therefore, no further investigation regarding wetland, watercourse, or water body impacts is warranted at this time.

We appreciate the opportunity to be involved in your project and hope that you have found our services helpful. We are happy to assist with any required permit applications or follow up should the project sponsor choose to move forward as planned. Please contact us if you have any questions, comments, concerns or requests for additional information.

Respectfully Submitted,

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Colin A. Diehl President/Senior Ecologist

Attachments: Appendix I – Lease Exhibit (dated 6/22/15) Appendix II - Preliminary Site Review Data Appendix II – Site Photographs NYS DEC Wetland & Endangered Species Map - With Site Reference Added



Environmen





Federal Emergency Management Agency (FEMA) Floodplain Rate Maps # 36065C0656F & 36065C0518F With Reference Added by Applicant



CONTAINS: COMMUNITY

VERONA, TOWN OF

NUMBER 360561

### NEPA Categorical Exclusion Checklist (47 CFR Chapter 1, Part 1, Subpart I, § 1.1306 & 1.1307)

### "EVO-14 Durhamville" Foster Street Durhamville, NY 130547

Section	Environmental Sensitivity Area	Potential Impact	
		Yes	No
1	Wilderness Areas		✓
2	Wildlife Preserves		✓
3	Endangered Species		Pending
4	Historic Sites		Pending
5	Native American Religious Sites		Pending
6	Flood Plains		~
7	Surface Features (including Wetlands)		✓
8	High Intensity White Lights		✓
9	Radiofrequency Emissions		✓
10.	National Scenic Trails		✓

**Conclusion:** 

Evolution Site Services, LLC has satisfied the requirements set forth by the Federal Communications Commission (FCC)'s implementation of the National Environmental Policy Act (NEPA) except for the following pending items; Endangered Species Review- US Fish and Wildlife, New York State DEC

Historic Sites Review-New York State Historic Preservation Office

Native American Religious Sites- Consultation with federally recognized tribes with an interest in the site area.



### 6. VISUAL RESOURCE ASSESSMENT Existing Conditions Photos

### Durhamville, NY · Proposed Utility Substation · Existing Conditions



Proposed Entrance - Facing Northwest



Proposed Access Route - Facing West

### Durhamville, NY · Proposed Utility Substation · Existing Conditions



Proposed Access Route - Facing Northeast



Proposed Access Route - Facing West

### Durhamville, NY · Proposed Utility Substation · Existing Conditions



View From Proposed Site Facing Northwest



View From Proposed Site - Facing West

### Durhamville, NY • Proposed Utility Substation • Existing Conditions



Proposed Site - Facing East



Proposed Site - Facing Northeast

Durhamville, NY Proposed Utility Substation Existing Conditions



Aerial View 1



Durhamville, NY Proposed Utility Substation Existing Conditions



Aerial View 3



### 7. SUPPORTING INFORMATION

Verona Zoning Map - With Site Reference Added FCC TOWAIR Aviation Analysis Typical Guyed Lattice Tower Design Typical Panel Style Antennas Typical Modular Equipment Shelter – Photo & Plans Example of Required Site Signs



### **TOWAIR Determination Results**

#### \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### **DETERMINATION** Results

## Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

#### Your Specifications

NAD83 Coordinates	
Latitude	43-07-30.7 north
Longitude	075-40-01.2 west
Measurements (Meters)	
Overall Structure Height (AGL)	54.9
Support Structure Height (AGL)	48.8
Site Elevation (AMSL)	131.4

#### Structure Type

GTOWER - Guyed Structure Used for Communication Purposes

#### **Tower Construction Notifications**

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW



### PROPOSED GUYED LATTICE TOWER



### NOT FOR CONSTRUCTION



ALL REACTIONS ARE FACTORED





### **TYPICAL PANEL ANTENNA**

# X7C-FRO-840-V

X-Pol Antenna, 698-896MHz, 98.5", Fast Roll off 40° Azimuth Variable E-Tilt, RET/MET



### Designed to improve SNR

- Greatly increases LTE data rates
- Broadband radiator
- Macro Cell, high gain antenna
- Sutable for LTE/CDMA/UMTS/GSM
- AISG 2.0 RET or manual MET tilt control

### **Electrical Specifications**

Frequency Band, MHz	698-824	824-896
Horizontal Beamwidth, 3dB points	43°	36°
Gain, dBi	18.4	19.4
Vertical Beamwidth, 3dB points	9.3°	7.7°
Front-to-Back at 180°, dB	25	25
Upper Sidelobe Suppression, Typical, dB	-18	-18
Polarization	+/-45°	
Electrical Downtilt	0-6° or 4-10°	
VSWR/Return Loss, dB, Maximum	1.5:1/-14.0	
Isolation Between Ports, dB, Mimimum	28	
Intermodulation (2x20w), IM3, dBc, Maximum	-150	
Impedance, ohms	50	
Maximum Power Per Connector, CW	500 @ 800Mhz	
Lightning Protection	DC Ground	

# evolution



### Foster Street - Durhamville / Verona, NY

### Proposed Utility Substation - Communications Facility

Typical Modular Equipment Shelter



11/4/2013 2:37:35 PM, cmitchel, CONFIDENTIAL



<sup>11/4/2013 2:37:38</sup> PM, cmitchel, CONFIDENTIAL


<sup>11/4/2013 2:37:41</sup> PM, cmitchel, CONFIDENTIAL



11/4/2013 2:37:44 PM, cmitchel, CONFIDENTIAL

## EXAMPLE OF SITE SIGNS

## A NOTICE A

## **GUIDELINES FOR WORKING IN** RADIOFREQUENCY ENVIRONMENTS

- All personnel should have electromagnetic energy (EME) awareness training.
- ▲ All personnel entering this site must be authorized.
- ▲ Obey all posted signs.
- Assume all antennas are active.
- ▲ Before working on antennas, notify owners and disable appropriate transmitters,
- Maintain minimum 3 feet clearance from all antennas.
- Do not stop in front of antennas.
- A Use personal RF monitors while working near antennas.
- A
- Never operate transmitters without shields during normal operation.
- ▲ Do not operate base station antennas in equipment room.







## 8. PLANS AND SPECIFICATIONS Site Development Plans

## towers | site services evolution

# **EVO-14 DURHAMVILLE**

## OFF FOSTER STREET DURHAMVILLE, NY 01354

HUDSON DESIGN ENCINEERING, PLLC. 75 SUMMT STREET 21 AUMT NY 12565 TEL: 1-(978)-557-5533 FAX: 1-(978)-336-5586

PROJECT ENGINEER

CONSULTANT TEAM



LAWSON SURVEYING & MAPPING 16–18 REYNOLDS AVENUE ONEONTA, NY 13820 TEL: (607)–432–3300

SURVEYOR

START OUT GOIGS SOUTH ON DARRAH RD TOWARD STATE ROUTE 374/NY-374. COUR SOUTH ON DARRAH RD TOWARD STATE ROUTE 374/NY-374. COUR SOUTH ON DARRAH RD TORO STATE ROUTE 374/NY-374. CONTINUE TO FOLLOW NY-374. 4.4 MI. TURN RIGHT ONTO MILITARY TURNPIKE/NY-190. MILITARY TURNPIKE IS 0.1 MILES PAST BANKER RD 1.8 MI. TURN LEFT ONTO STATE ROUTE 3/NY-3.1.0 MI. TURN SLIGHT RIGHT TOWARD I-87/ALBANY/MONTREAL. 0.04 MI. TURN SLIGHT RIGHT TOWARD ALBANY/MONTREAL. 0.04 MI. TURN SLIGHT RIGHT TOWARD ALBANY/MONTREAL. 0.04 MI. TURN SLIGHT RIGHT TOWARD ALBANY/MONTREAL. 0.04 MI. TURN SLIGHT RIGHT AGUEC 0.0 0.3 MI. MERCE ONTO I-87 S/ADIRONDACK NORTHWAY S TURN RICHT ONTO NY-30/NY-8/STATE HIGHWAY 30. 9.7 MI. 43.2 MI. TURN RIGHT ONTO NY-30/NY-8/STATE HIGHWAY 30. 9.7 MI. TURN LIET ONTO NY-8/STATE ROUTE 8. 34.6 MI. TURN RIGHT ONTO STATE ROUTE 365/NY-365. CONTINUE TO FOLLOW NY-365. 11.6 MI. TURN RICHT ONTO RYVER RD/NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. 1.8 MI. MERCE ONTO NY-365. CONTINUE TO FOLLOW NY-365. MICHT ONTO RIGHT ONTO STATE ROUTE 31/NY-31. 33 MI. TURN LEFT 0.010 RISH RIGHT ONTO FOSTER S1. SITE WILL BE ON THE LEFT 0.03 MI. TAKE THE 1ST LEFT ONTO FOSTER S1. SITE WILL BE ON THE LEFT.

<b>PROJECT SUMMARY</b>		뿝	SHEET INDEX
SITE NAME:	EVO-14 DURHAMVILLE	SHT	
SITE ADDRESS:	OFF FOSTER STREET DURHAMVILLE NY 13054	ġ	DESCRIPTION
APPLICANT:	EVOLUTION SITE SERVICES, LLC.	T-1	TITLE SHEET
	P.O. BOX 2854 PITTSFIELD. MA 01202	с- 1- 0	ABUTTERS PLAN
CO-APPLICANT:	UPSTATE CELLULAR PARTNERSHIP	0-3 0-3	EXISTING CONDITIONS
	d/b/a VERIZON WIRELESS 1275 JOHN ST.	C-4	SITE PLAN
	WEST HENRIETTA, NC 14586	C-5	SITE PLAN
ZONING DISTRICT:	RD (RURAL DEVELOPMENT)	A-1	COMPOUND PLAN & ELEVATION
		A-2	ANTENNA PLAN AND DETAILS
<b>ZUNING JURISUICIIUN:</b> TOWN OF VERONA, NY	TOWN OF VERONA, NY	A-3	DETAILS AND NOTES
LATITUDE:	N 43°07'30.73"	S-1	FOUNDATION DETAILS SLAB ON
		<u>г</u> -1	UTILITY BACKBOARD DETAILS
LONGITUDE:	w 75 40' 01.22"	E-2	ELECTRICAL DETAILS AND DIAGRA
TAX MAP ID:	296.02-1-18.3	E-3	GROUNDING PLAN & NOTES
		E-4	GROUNDING DETAILS
PROPERTY OWNER:	WILLIAM G. FERCH LIVING TRUST 6071 BLACKMANS CORNER ROAD VERONA, NY 13478		
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GROUNDING PLAN & NOTES GROUNDING DETAILS
GROUNDING DETAILS

## **FOR ZONING**

TOWN OF VERONA, NY PLANNING BOARD

















BEFORE YOU DIG

**3 WORKING DAYS** DIG SAFE

CALL TOLL FREE 888-DIG-SAFE UNDERGROUND SERVICE ALERT







## DIRECTIONS TO SITE:









LEGEND PROPERTY LINE - SUBJECT PARCEL PROPERTY LINE - ABUTTERS ------- CONTOUR LINE ------- CONTOUR LINE ------ CONTOUR LINE

8:35. Itre North

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FEL: (978) 336-5553 FAX: (978) 336-5553

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(413) 447-7712 TEL PITTSFIELD, MA 01202 PO BOX 2854

towers | site services

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FOR ZONING

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-4" EMBEDMENT (MIN.)

4 8"(MIN.)

9) COMPLETE PERMANENT SEEDING AND LANDSCAPING.

10) NO STORM WATER FLOW SHALL BE DIVERTED TO ANY WETLANDS UNTIL A HEALTHY STAND OF GRASS HAS BEEN ESTABLISHED IN REGRADED AREAS.

11) AFTER GRASS HAS BEEN FULLY GERMINATED IN ALL SEEDED AREAS, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

13)

NO DISCHARCE SHALL BE DIRECTED TOWARDS ANY PROPOSED DITCHES, SWALES, OR PONDS UNTIL THEY HAVE BEEN PROPERLY STABILIZED.

ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA.

ALL STORM DRAINAGE OUTLETS WILL BE STABILIZE AND CLEANED AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.

EVO-14 DURHAMVILLE DURHAMVILLE, NY 13054

REGISTERED ENGINEER

AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED.

8 В

BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED OR MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION. NO AREA SHALL F LEFT UNSTABILIZED FOR A TIME PERIOD OF MORE THAN 30 DAYS.

6)

PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.

6 10)

ALL CATCH BASIN INLETS WILL BE PROTECTED WITH LOW POINT SEDIMENTATION BARRIER.

11)

BEGIN EXCAVATION FOR AND CONSTRUCTION OF TOWERS AND PLATFORMS.

8

DAILY, OR AS REQUIRED, CONSTRUCT, INSPECT, AND IF NECESSARY, RECONSTRUCT TEMPORARY BEEMS, DATUNS, DITCHES, SILT FENCES AND SEDIMENT TRAPS INCLUDING MULCHING AND SEEDING.

7

12)

אשיניטרוטראן LIMESTONE 2 TONS/ACRE OR 100 LBS/1,000 SF NITROGEN (N) 50 LBS/ACRE OR 1.1 LBS/10,000 SF PHOSPHATE (P205) 100 LBS/ACRE OR 2.2 LBS/10,000 SF POTASH (K20) 100 LBS/ACRE OR 2.2 LBS/10,000 SF (THIS IS EQUIVALENT TO 500 LBS/ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS/ACRE OF 5-10-10).

CONSTRUCT ROADWAYS AND PERFORM SITE GRADING, PLACING HAY BALES AND SILTATION FENCES AS REQUIRED TO CONTROL SOIL EROSION.

CONSTRUCT CLOSED DRAINAGE SYSTEM. PROTECT CULVERT INLETS AND CATCH BASINS WITH SEDIMENTATION BARRIERS.

4 5)

3) REMOVE AND STOCKPILE TOPSOIL. STOCKPILE SHALL BE SEEDED TO PREVENT EROSION.

G1/82/60

**DATE** 

 TALL FESCUE
 20 LBS/ACRE
 OR
 0.45 LBS/10,000 SF

 CREEPING RED FESCUE
 20 LBS/ACRE
 OR
 0.45 LBS/10,000 SF

 BIRDSFOOT TREFOIL
 8 LBS/ACRE
 OR
 0.20 LBS/10,000 SF

TREATMENT SWALE PLANTING SPECIFICATIONS

LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT TIME OF SEEDING AND INCORPORATED INTO THE SOIL. THE FOLLOWING RATES ARE RECOMMENDED:

0

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FOR REVIEW

DESCRIPTION

<sup>8</sup> 20 20

SLOPE MIX (SLOPES GREATER THAN 4:1) CREEPING RED FESCUE TALL FESCUE BIRDSFOOT TREEFOIL

GENERAL CONSTRUCTION SEQUENCE:

THIS IS A GENERAL CONSTRUCTION SEQUENCE OUTLINE SOME ITEMS OF WHICH MAY NOT APPLY TO PARTICULAR SITES.

1) CLEAR AND GRUB AREAS OF PROPOSED CONSTRUCTION 2) INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED.

**DETAILS AND NOTES** 

20 20 42 LBS./ACRE

LBS./ACRE











LEGE	GEND			ABB	ABBREVIAT
8	METER	0000	COPPER GROUND BAR	<b>∢</b> υ	AMPERE CONDUIT
ß	CIRCUIT BREAKER		GROUND CONDUCTOR BY CONTRACTOR	GND KWH	Ground KII OWATT HOI
	CADWELD TYPE CONNECTION BY CONTRACTOR		GROUND RING BY CONTRACTOR	•	POLE
	COAXIAL CABLE SHIELD GROUND KIT CONNECTION	$\otimes$	GROUND ROD WITH TEST WELL	NS	solid neutral Switch
•	COMPRESSION FITTING GROUND CONNECTION	۲	GROUND ROD	>	VOLT

