

# Application to DHCD Submitted through CAMS

County of Albemarle

Albemarle Comcast VATI 2018

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**Application ID:** 48409112017141344  
**Application Status:** Pending  
**Program Name:** Virginia Telecommunications Initiative  
**Organization Name:** County of Albemarle  
**Organization Address:** 401 McIntire Road, Room 149  
Charlottesville, VA 22902-4579  
**Profile Manager Name:** Betty Burrell  
**Profile Manager Phone:** (434) 296-5855  
**Profile Manager Email:** bburrell@albemarle.org

**Project Name:** Albemarle Comcast VATI 2018  
**Project Contact Name:** Michael Culp  
**Project Contact Phone:** (434) 296-5891  
**Project Contact Email:** mculp@albemarle.org  
**Project Location:** 788 Greenwood Road  
Greenwood, VA 22943-1608  
**Project Service Area:** Albemarle County

**Total Requested Amount:** \$473,366.00  
**Required Annual Audit Status:** Accepted

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## Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
<b>Telecommunications</b>	<b>\$473,366.00</b>	<b>\$202,817.00</b>	<b>\$676,183.00</b>
Construction	\$473,366.00	\$202,817.00	\$676,183.00
<b>Total:</b>	<b>\$473,366.00</b>	<b>\$202,817.00</b>	<b>\$676,183.00</b>

## Budget Narrative:

Comcast's Construction and Design team managed projects that added thousands of HFC miles to Comcast's regional network in 2015-16. This team estimates that the total cost to complete the VATI project depicted on the attached map is \$676,237 and will comprise approximately 9.5 miles of new construction in total. The cost anticipates internal and contract labor costs of \$513,940 and material and supply costs of \$162,297. Comcast agrees to provide \$202,871 of the total, with the remaining \$473,366 being requested from DHCD. Any cost overruns during construction will be borne by Comcast.

## Questions and Responses:

### 1. Project Area

A map and description of the proposed geographic area including specific boundaries of the project area e.g.; street names, local and regional boundaries, etc. Explain why and how the project area(s) was selected. Attach a copy of your Map(s)

#### Answer:

The geographic area for this proposed project is in the Greenwood area of western Albemarle County. It includes Greenwood Station Road north of Interstate 64 through Greenwood and around Newtown Road, under I-64 to Brooksville Road, plus portions of Greenwood Road, Corville Farm Road, Clifton Trail, and Beagle Gap Road. A map is attached to this application. The project area was selected after consultation between Albemarle County and Comcast, and it meets the eligibility criteria established by the Virginia General Assembly and the Department of Housing and Community Development ("DHCD") for a Virginia Telecommunication Initiative ("VATI") award.

### 2.

Describe population both in terms of absolute numbers within the project area and the likely users that will be served by the proposed project. Indicate the numbers of residential, businesses and community anchor institutions

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the proposed project will pass in the project area, as well as the estimated number of potential subscribers and the anticipated “take rate”. Describe the basis for these projections.

**Answer:**

There are a total of 178 residential and commercial locations within the proposed service area in western Albemarle County. Comcast proposes to expand its network so that each of these 178 locations is serviceable. Comcast further proposes to apply the same construction standards to the locations included in this project so that any location within 250’ of the road center will be connected to Comcast’s network without a customer contribution. There are 135 homes that are within the 250’ distance from the road center, and there are up to 28 homes that are located in excess of the 250’. While these homes would be serviceable, customers may be required to make a contribution in aid of the construction to the home. However, distance is not the only factor in determining whether a customer contribution would be necessary. Factors such as necessary underground trenching, distance from certain electronics on the network, and easement requirements, among other factors would be considered. Comcast would provide each home with a contribution estimate, if any, prior to construction. Projections for overall subscriber levels are also dependent on several factors and even an initial prediction may change as the project progresses.

Albemarle County operates the Greenwood Community Center within the project area through its Parks & Recreation Department. The Community Center could serve as a general meeting point and multi-use facility for local residents, but it is currently limited by a lack of Internet connectivity. As highlighted later in this application, the Community Center’s functionality could greatly increase after completion of the project.

According to Albemarle County’s Quarterly Census of Employment and Wages, businesses in the project area include the local United States Post Office, a Busy Brooms franchise, Cordell Landscaping, Cavalier Window Cleaning, Damar Farms, Morning Glory Gardeners, and the Greenwood Country Store, which sells antiques. A depiction of the businesses in the service can be seen in the attachment labeled Project Area Businesses. Comcast offers small and medium-sized businesses Internet services that accommodate significant bandwidth and networking needs, as well as a variety of voice services and plans that include multiple lines and calling features. In addition, upon completion of this project, Comcast customers who subscribe to an Xfinity Internet package will have access to Xfinity WiFi hotspots, including those that would be newly added to the Greenwood area, for no additional cost. Moreover, these Greenwood area customers would be able to access any of Comcast’s hotspots throughout Virginia and across the country. Comcast has the country’s largest WiFi network, including 18 million hotspots nationwide and over 500,000 in Virginia. Even non-subscribers of Xfinity Internet can gain WiFi hotspot access using a WiFi On Demand pass.

3. Has the locality where the proposed project area is located been designated to receive funding through Connect America? The applicant must provide supporting documentation proving the VATI project area is NOT to be served by Connect America Funding.

**Answer:**

The project area is not within the Connect America funding model. A map of the Connect America service areas,

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showing that the proposed project is outside of that area, is attached to this application. Also attached is a letter verifying that Connect America funding is not being used in the project area.

4. Discuss the benefits to the community. For example, the applicant should discuss how broadband availability will help foster economic development and how the use of broadband applications is relevant to residents, businesses, telemedicine, teleworking/telecommuting, public schools, distance learning, e-commerce, e-government, public safety, tourism, entertainment, etc.

**Answer:**

The benefits of the proposed project to the community are significant. First and foremost, construction to the Greenwood area of Albemarle County will provide broadband access to a community unlikely to receive it without a VATI grant. There are no contractual or legal requirements for Comcast to extend its network to this area. Even though Comcast seeks to expand its network absent contractual or legal requirements, such expansion opportunities are only considered when they are economically feasible. This project's overall construction cost coupled with the low population density of the area do not meet Comcast's financial model for expansion; that is, it would not provide a sufficient return on investment for Comcast to proceed. An award of a VATI grant for the project would alter the economics sufficiently for Comcast to expand into the area.

In addition to the general benefits of increased broadband access for the residents and businesses in the project area, including the ability to apply for jobs online, receive educational support and distance learning opportunities, and increase economic development, Albemarle County expects to derive specific benefits from gaining Internet access at the Greenwood Community Center. These benefits include the ability to: hold public meetings; host online training sessions and other learning for citizens; provide WiFi access to Albemarle County Police on patrol to supplement regular, non-operational administrative communications; allow county maintenance workers to upload and download work related materials, and access the county's electronic time tracking system; and provide a community WiFi hotspot for citizens. Once Internet access is available at the Greenwood Community Center, the center will be better able to serve the needs of the community. Moreover, since Comcast will offer its nationally acclaimed broadband adoption program, Internet Essentials, in the project area, low-income families that meet the eligibility requirements will have access to low-cost broadband service. In order to help more families get online to access all the Internet has to offer students and families, in 2011 Comcast introduced Internet Essentials to qualified low-income households. Since the program's inception, over 4 million low-income Americans have been connected to the Internet, many for the first time. Studies have indicated that 95% of enrolled parents said Internet Essentials had a positive impact on their child's grades and 51% said the program helped someone in their family find a job. According to Albemarle County Public Schools, as of September 2017, there are approximately 60 students in the proposed project area that attend Albemarle County Public Schools whose families may qualify for Internet Essentials. Internet Essentials includes an economy Internet product currently priced at \$9.95 per month (excluding applicable fees and taxes), an opportunity to purchase a refurbished Dell laptop or desktop computer for \$149.99, and access to free digital literacy training. Albemarle County will also benefit when the type of businesses identified in the Thomas Jefferson Partnership for Economic Development Target Market Study locate or remain in the county. These businesses will support and spur creation of other local businesses, create jobs, and

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generally continue to strengthen the tax and economic base of the community. The full report is linked here: [http://www.albemarle.org/upload/images/forms\\_center/departments/Economic\\_Development/forms/TargetMarketsReportRegion.pdf](http://www.albemarle.org/upload/images/forms_center/departments/Economic_Development/forms/TargetMarketsReportRegion.pdf)

Access to broadband has been identified as one of the key attributes for business retention, and broadband deployment may enable the project area to attract prospective business from the four core industry clusters likely to benefit from that broadband:

- The Bioscience and Medical Devices/Health Services industry group is primarily driven by start-ups and commercialization opportunities emerging from research activities at the University of Virginia (“UVA”), including the UVA Center for Telehealth.
- Business and Financial Services are experiencing rapid increases in the use of electronic payments through mobile technologies, return of foreign outsourced services to the US, and compliance with regulatory provisions associated with healthcare and pension plans. Many of these employees in Albemarle County work primarily from home. Providing broadband in the rural areas will assist in retention and recruitment.
- Information Technology and Defense Security industries can build upon two large federal defense and intelligence installations located in Albemarle County along with more than ten federal contractors. Long time employers like GE and Northrop Grumman are well positioned to expand and recruit select sectors for the industry group.
- Agribusiness, Food Processing and Related Technology rely on close proximity between agricultural production and the local and regional markets such as Richmond, Washington DC Metro, Norfolk, and Raleigh-Durham. The cluster includes wineries, breweries, perishable prepared food manufacturing, growers, and value-added foods.

## 5. Need

To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An unserved area is defined as an area with speeds <10 Mbps/1 Mbps. Provide a list of the broadband service providers, if any, currently serving the area the applicant proposes to serve and the available broadband speeds, including the source of the information.

### Answer:

The proposed project area is unserved based on data available through the Federal Communication Commission’s most recent publicly available Form 477 data and direct information from broadband providers. These two sources were used to create the attached schematic of existing providers of broadband service in Albemarle County. The map highlights the geographic areas above and below the 10 Mbps / 1 Mbps threshold. Areas with speeds below the threshold are colored white and include the project area. In addition to the data noted above, Albemarle County collected feedback from many of the residents in the project area who express their need for access to broadband. Residents’ Internet speed tests and testimonials are included as an attachment to this application, however one resident’s reply is noteworthy and partially quoted below:

Sent: September 21, 2017 by U.S. Postal Mail Subject: Greenwood Broadband

“Hello, Received your e-mail but can only respond by postal service since my dial up does not allow me to stay on

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the internet long enough to only get a few seconds of time to respond with outgoing e-mails.”

Comcast appreciates this opportunity to meet the broadband needs of such consumers in Albemarle County. Comcast has changed the Internet experience for millions of customers by providing the nation’s fastest, most reliable Internet and in-home WiFi speed. Its broadband service aligns with phone and video services to create new ways for customers to access beneficial communications tools and content at their convenience.

## 6. Project Description

A statement whether the proposed project is targeting the “last mile,” “middle mile,” or “backbone” portion of the broadband infrastructure. This statement should also indicate whether the facilities involved would be owned, rented or leased.

### Answer:

The project in this application will involve constructing “last mile” broadband infrastructure, and will provide connectivity to the households and businesses within the service area represented in the attached map. Comcast will own, operate, and maintain the network it constructs pursuant to this application.

Comcast has built a fiber backbone at the core of its network that stretches across the country with more than 600,000 route miles of fiber-optic and coaxial plant nationwide – using the industry’s most advanced optics/lasers and Internet Protocol (“IP”) routing technologies. Dozens of converged regional area networks interconnect to create this fiber backbone that delivers video, voice, and high-speed Internet services to tens of millions of customers throughout the country. IP technology ties all of this together, creating a highly scalable connectivity platform or “IP core.” Comcast has been building fiber into its networks incrementally over the past decade. In 2015, Comcast introduced Gigabit Pro, the industry’s first residential fiber-to-the-home 2 Gigabit-per-second (“Gbps”) service ever offered by an Internet service provider in the United States.

Comcast’s hybrid fiber coaxial (“HFC”) network model offers the most flexibility and the best economics now and into the future. The company can surgically add speed, capacity, and fiber to its networks in a smart and economically feasible way.

Its existing HFC network will deliver speeds up to 1 Gbps to residential customers. These speeds are among the fastest and most widely available and include access to the nation’s largest WiFi network of more than 18 million hotspots. Combined with the company’s recently launched Xfinity xFi platform, a new and personalized home WiFi experience, Comcast would provide its Greenwood customers the fastest speeds, the best WiFi coverage, and ultimate WiFi control in their homes.

7. Provide a description of the broadband service to be provided, including estimated download and upload speeds, whether that speed is based on dedicated or shared bandwidth, and the technology that will be used. This description should be illustrated by a map or schematic diagram, as appropriate.

### Answer:

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The broadband infrastructure Comcast would put in place in Greenwood would offer all customers six residential and nine business broadband options that exceed the minimum requirements for VATI, as noted in the tables below:

Residential Tier	Speeds up to
Performance	25 Mbps down / 5 Mbps up
Performance Pro	100 / 5
Blast!	200 / 10
Extreme Pro	400 / 10
Gig	1000 / 35
Gigabit Pro	2000 / 2000

Business Tier	Speeds up to
Starter	16 Mbps down / 3 Mbps up
Deluxe 25	25 / 10
Deluxe 50	50 / 10
Deluxe 75	75 / 15
Deluxe 100	100 / 20
Deluxe 150	150 / 20
Deluxe 250	250 / 25
Business Internet 500	500 / 35
Business Internet 1G	1000 / 35

Comcast will utilize DOCSIS technology in building the network. DOCSIS technology is an international telecommunications standard that permits the addition of high-bandwidth data transfer to an existing cable TV system. It is employed by many cable television operators, including Comcast, to provide Internet access over an existing HFC infrastructure. The industry continues to deliver great speeds over DOCSIS 3.0, and is moving purposefully toward increased adoption of DOCSIS 3.1, which Comcast began deploying in Albemarle County earlier this year. DOCSIS 3.1 enables Comcast to bring broadband speeds of up to almost 1 Gbps to a service area.

8. Provide a description of the network system design used to deliver broadband service from the network's primary Internet point(s) of presence to end users, including the network components that already exist and the ones that

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would be added by the proposed project. Also describe specific advantages of using this technology.

**Answer:**

Comcast proposes to complete the construction of the area with a HFC solution, emanating from the closest facility to the project. Fiber optic cables would be constructed to the service area, commonly referred to as a serving node, where optical signals would be converted to electrical or radio frequency for distribution on the coaxial network.

## 9. Other Service Providers

Provide a list of all wireless broadband service providers in or near the proposed project area. Provide an estimate of the customers within the proposed project area that are served by these providers and the speeds of the service provided. Provide a detailed explanation of how this information was compiled and the source(s).

**Answer:**

A portion of western Albemarle County may be serviced by the wireless broadband service provider SCS Broadband / Acelanet, LLC. Albemarle County requested clarification of the possible coverage in or near the project area but has not received a definitive response from the provider. Based on the best information currently available, Comcast and Albemarle County understands that the area has no broadband access. As further support, Albemarle County submitted a public notice on its website and in the Daily Progress newspaper on September 30, 2017, to which it received no replies. It read: "Albemarle County is soliciting public comment for several potential Broadband Projects as part of one or more application(s) for Virginia Telecommunication Initiative Grant Funds. The potential projects are as follows: 1. Greenwood Station Road North of I64 through Greenwood and around to Newtown Road, under I64 to Brooksville Road, plus portions of Greenwood Road, Corville Farm Road, Clifton Trail, and Beagle Gap Road. 2. Dick Woods Road from the intersection of Smith Road North to Nelson County, portions of Critzers Shop Road and Handley Way. 3. Signal Hill and Beacon Hill along Batesville Road. 4. Craigs Store Road from the Nelson County border to include portions of Castle Rock Road. 5. Howardsville, north to Mt. Alto Road. 6. Warren and Hatton along Hatton Ferry Road.

For additional information, contact Michael Culp at (434) 296-5814. Written comments may be addressed to the County's Office of Information Technology, 401 McIntire Road, Room 134, Charlottesville, VA 22902, via email to [broadband@albemarle.org](mailto:broadband@albemarle.org), or in person during normal business hours, no later than October 31, 2017."

10. Provide a list of all facilities-based landline telecommunications providers in or near the proposed project area. Describe the extent to which any facilities-based landline telecommunications providers are currently offering a digital subscriber line (DSL) or cable broadband service. Provide an estimate of the customers within the proposed project area that are served by these providers and the speeds of service provided. Provide a detailed explanation of how this information was compiled and the source(s).

**Answer:**

CenturyLink provides DSL service in western Albemarle County, but not within the proposed project area. Please see the attached letter from CenturyLink and Internet speed map for additional information. Albemarle County

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submitted a public notice on its website and in the Daily Progress newspaper on September 30, 2017. It read: "Albemarle County is soliciting public comment for several potential Broadband Projects as part of one or more application(s) for Virginia Telecommunication Initiative Grant Funds. The potential projects are as follows: 1. Greenwood Station Road North of I64 through Greenwood and around to Newtown Road, under I64 to Brooksville Road, plus portions of Greenwood Road, Corville Farm Road, Clifton Trail, and Beagle Gap Road. 2. Dick Woods Road from the intersection of Smith Road North to Nelson County, portions of Critzers Shop Road and Handley Way. 3. Signal Hill and Beacon Hill along Batesville Road. 4. Craigs Store Road from the Nelson County border to include portions of Castle Rock Road. 5. Howardsville, north to Mt. Alto Road. 6. Warren and Hatton along Hatton Ferry Road. For additional information, contact Michael Culp at (434) 296-5814. Written comments may be addressed to the County's Office of Information Technology, 401 McIntire Road, Room 134, Charlottesville, VA 22902, via email to [broadband@albemarle.org](mailto:broadband@albemarle.org), or in person during normal business hours, no later than October 31, 2017."

## 11. Project Timeline

What is the current state of project development (i.e. planning, preliminary engineering, final design, etc.). Prepare a detailed project timeline or construction schedule, which identifies specific tasks, staff, contractor responsible(s), collection of data, etc., and estimated start and completion dates. The timeline should include all activities being completed by June 20, 2018.

### Answer:

The Greenwood project is in the preliminary engineering phase. Final design and construction shall commence upon the award of the grant by DHCD and shall continue to completion on or before June 30, 2018. This schedule is aggressive but Comcast is confident it can complete the proposed work before the deadline. Workflow is included in the attached project management plan. The specific initial tasks include project engineering and right of way preparation. These projects are designed to place all new facilities underground, thus avoiding time consuming and expensive negotiations with the local electric cooperative. While make-ready work and pole application agreements will be avoided, Comcast will need to obtain the necessary permits from the Virginia Department of Transportation ("VDOT") to place facilities underground in the VDOT right of way and will need support from the county insuring that necessary power supplies are coordinated and installed with the local electric company. Comcast will ask Albemarle County officials to assist in obtaining these permits and power supplies expeditiously. This coordination will need to begin immediately upon notice of the grant award. Also upon receipt of the grant, Comcast will make contact with all "nonstandard drop" customers to determine if they will be interested in Comcast services and if they would allow Comcast to perform work on their private property. Material procurement and some pre-construction work will occur during this period and will enable Comcast to proceed with actual construction as soon as VDOT issues the right of way permits. Activation of all HFC plant will be completed by both in-house Comcast employees and select contract personnel. The final quality control inspection of all new infrastructure will be completed by Comcast employees to insure all new construction meets

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or exceeds FCC standards. Notice to potential customers of service availability will occur on a rolling basis as construction is completed. As noted above, an additional notice of service availability will be provided not later than 20 days prior to the Completion Date.

12. **Project Budget-** *Applicants shall provide a detailed budget as to how the grant funds will be utilized, including an itemization of equipment and construction costs and a justification of proposed expenses.*

**Answer:**

Comcast's Construction and Design team managed projects that added thousands of HFC miles to Comcast's regional network in 2015-16. This team estimates that the total cost to complete the VATI project depicted on the attached map is \$676,237 and will comprise approximately 9.5 miles of new construction in total. The cost anticipates internal and contract labor costs of \$513,940 and material and supply costs of \$162,297. Comcast agrees to provide \$202,871 of the total, with the remaining \$473,366 being requested from DHCD. Any cost overruns during construction will be borne by Comcast. Comcast's construction estimates are determined through a detailed project analysis that includes a field survey, an analysis of permitting costs (internal or external), a network impact study to determine necessary hub site preparation and possible infrastructure requirements, and a financial evaluation for overall build costs and likely return-on-investment. When contract labor is utilized, costs are accrued according to the fee schedule in the contract. This design and construction process is standard within the telecommunications industry. The precise amount to be spent on contract labor versus in house resources will be determined when the grant is approved and the work commences. The allocation of work will depend on the level of construction activity at that time. Any contracted engineering and design work outlined in this proposal will be performed by Comcast's contractor Precision Valley Communications of Vermont LLC with offices located at 36 Precision Drive, Suite 200, North Springfield, VT 05150. Any contracted network construction will be performed by Comcast's contractor Fiber Technologies Solutions, LLC with offices located at 4901 Waller Road, Richmond, Virginia 23230. A copy of the contract between Comcast and its contractors can be made available for confidential review upon award of this grant.

13. Provide a brief summary showing the revenue source, including estimated VATI grant funds and matching funds, for each expenditure itemized above.

**Answer:**

Comcast and DCHD would be the only two revenue sources for the Greenwood project. The amount sought through a VATI grant is the difference between the total cost of construction and the capital investment Comcast can make according to its financial models. The grant funds received would be used in conjunction with the contribution of labor and material from Comcast to complete the project.

A breakdown of costs is attached below.

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Name	Locations	Mileage	HP/Mile	Total Cost	Comcast Cost	Requested Gap Funding	VATI Gap Funding %
Greenwood	178	9.5	18.7	\$676,237	\$202,871	\$473,366	70%

14. Matching funds: Provide a description of the matching funds the applicant and co-applicant will invest in the proposed project, (VATI funding cannot exceed 80% of total project cost)

- i. For each element of matching funds in the description, indicate the type of match (cash, salary expense, or in-kind contribution).
- ii. Identify whether the applicant or co-applicant is responsible for providing each element of the proposed matching funds.

**Answer:**

Comcast, the co-applicant, upon award of the VATI grant will be responsible for any matching funds and will provide the labor and materials to complete the provision of services to the area delineated in the attached map. The total value of the labor and materials provided by Comcast is \$202,871. VATI requested funding of \$473,366 would represent approximately 70% of the total project cost.

A breakdown of costs is attached below.

Name	Locations	Mileage	HP/Mile	Total Cost	Comcast Cost	Requested Gap Funding	VATI Gap Funding %
Greenwood	178	9.5	18.7	\$676,237	\$202,871	\$473,366	70%

**Albemarle County offered to submit this application with a commitment of up to 5.8% of the total project cost through its Grant Leveraging Fund.** The offer was extended to demonstrate equal treatment by the county to all co-applicants. While Comcast appreciates such a level playing field, it will not require

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additional funds beyond those available through the VATI program as a contingency to its partnership with Albemarle County or to complete construction of the Greenwood project.

## 15. Applicant and Co-Applicant

Provide a brief description of the public-private partnership involved in the project.

- i. If the partnership is formalized in a written agreement provide a copy of that agreement.
- ii. If the partnership has not been formalized, provide a short description of the project management role, financial commitment, or other contribution to the project for the applicant and co-applicant and any additional partners.

### Answer:

The staff of Albemarle County coordinated this partnership arrangement with Comcast. The project area was selected in part because of a need for service and the absence of any contractual or legal requirements for Comcast, or any other provider, to extend service there. Comcast and Albemarle County are working on a formal agreement to make review of work and processing of payments as efficient as possible. Comcast anticipates submitting invoices at the mid-point of the project and at project completion. The partners have agreed in principle on the following responsibilities:

- Albemarle County intends to partner with Comcast as a co-applicant for a VATI grant to extend broadband service to unserved areas of Albemarle County.
- Albemarle County would complete the grant application (with Comcast's assistance); submit the completed application(s) to the Virginia DHCD; and manage the processing of work payments. Because Albemarle County will be the funded applicant in the event of award, the county would timely process all VATI related Comcast invoices that applied directly to the approved work plans, design, and statement of work. Any delays in completing the work as planned would be negotiated with DHCD as partners.
- Albemarle County also would provide services and support for any necessary citizen engagement activities, including but not limited to: processing applications for right of way in a manner consistent with all local, state, and federal law; advocating and describing the benefits of the project to those affected; and working with Comcast and other partner agencies (e.g. VDOT) and private industry (e.g. Dominion Power) to help coordinate construction and/or pole attachments.
- Comcast would provide accurate VATI construction plans; associated material and work invoices to match the construction plans; detailed descriptions of necessary right of way or pole attachments; and timely notice of other needs to Albemarle County.
- This general agreement proceeds from the notice of VATI award to the completion of the projects.

## 16. Identify key individuals, including name and title, who will be responsible for the management of the project.

Describe their role and responsibilities for the project. *If information is provided in a table format, please upload*

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*the document into attachments the document into the attachment section and note the title in the narrative response.*

**Answer:**

This information is provided in table format as the attachment labeled Key Individuals.

17.

A description of applicant and co-applicant's history or experience with managing grants and constructing broadband communications facilities in the Commonwealth of Virginia and elsewhere.

**Answer:**

Albemarle County has extensive experience managing federal and state grants. According to the County's FY 16 Comprehensive Annual Financial Report for fiscal year ending June 30, 2016, the County managed \$3.9 Million in Federal grants and awards as well as \$7.1 Million in State awards. These totals include grants in the areas of community development and housing, human services, public safety, and environmental services. Albemarle County's Information Technology Department was awarded and successfully completed a Virginia Telecommunication Planning Initiative Grant with DHCD in FY 16. Most recently, it was awarded and is working to complete a Virginia Telecommunications Initiative 2017 Grant.

Comcast is a leading communications provider in Virginia, offering video, high-speed Internet, home security, and phone services to residential customers under the Xfinity brand and also providing services to businesses through its Comcast Business suite of products. Comcast has invested in technology to build an advanced network that delivers among the fastest broadband speeds, and brings customers personalized video, communications, and home management offerings. Comcast has invested billions of dollars to create a network across the U.S. that makes broadband widely available, as part of its commitment to provide superior services to its customers.

Since 1996, Comcast has made nearly \$2.3 billion in capital investment in Virginia to offer reliably fast speeds even during peak use periods. The company has invested significant resources in both local and national Network Operations Centers ("XOC") to ensure continued proactive monitoring of network health, and has increased its Internet speeds for customers 17 times in 16 years.

In Virginia, Comcast employs over 2,100 people. The company maintains a large, locally based engineering technical operations team that works around the clock to maintain network reliability and to directly support the company's business and residential customers.

18. **Service**

Describe the Internet service offerings to be provided after completion of this project and your price structure for these services. The service offerings should include all relevant tiers.

**Answer:**

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Upon completion of the Greenwood area build, Comcast will be able to offer its full suite of products and services to residents in the proposed service area, including broadband services, voice, video, and home security. With respect to broadband service, Comcast's 1 Gigabit Internet service will use DOCSIS 3.1 technology to deliver the speeds through its HFC network. To enjoy the service, all customers need to do is install a DOCSIS 3.1 cable modem. Pricing for all relevant residential Xfinity Internet tiers is listed below.

Residential Tier	Xfinity Internet Service Only	With Xfinity TV or Voice Service
Performance	\$74.95	\$61.95
Performance Pro	\$84.95	\$71.95
Blast!	\$87.95	\$74.95
Extreme Pro	\$99.95	\$86.95
Gig	\$104.95	\$91.95
Gigabit Pro	\$299.95	\$299.95

Residential Xfinity Internet and Video customers will also have access to Xfinity X1. X1 is a video platform that delivers the simplest, fastest, and most complete way for customers to access all their entertainment on all of their screens. Features include Netflix access for those with a Netflix streaming membership, YouTube access, advanced search and recommendations, and Xfinity apps for home and on the go. Xfinity X1 customers can also use the X1 Voice Remote for voice commands to change channels, search for shows, get recommendations, and more.

Comcast Business customers will have access to gig speeds through the newly-launched "Business Internet 1 Gig" product. Comcast's "Business Internet 1 Gig" and "Business Internet 500" speed tiers are now available to business customers using the company's existing network. Pricing for all relevant Comcast Business SMB Internet tiers is listed below.

Business Tier	Standalone Pricing
Starter	\$69.95
Deluxe 25	\$99.95
Deluxe 50	\$109.95

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Deluxe 75	\$149.95
Deluxe 100	\$199.95
Deluxe 150	\$249.95
Deluxe 250	\$349.95
Business Internet 500	\$399.95
Business Internet 1G	\$499.95

Residents and businesses in the proposed service area will be offered broadband services of the same quality and current price as those offered in other Comcast service areas. Comcast will not offer a separate rate applicable to only those customers within the project area included in this proposal. The customer will ultimately decide which service tier best suits their needs and preferences.

19. Any other equitable factor that the applicant desires to include.

**Answer:**

This project will provide needed broadband access and services at the County owned Greenwood Community Center; as such it improves public safety, lifelong learning, recreation, and other government services to be provided in the area.

**Attachments:**

Supporting Documentation of Cost Estimates

Attachment3SupportingDocumentationofCostEstimates20171031201793110.pdf

Map(s) of project area, including proposed infrastructure

Attachment4AlbemarleProjectMap20171031201793124.pdf

Map(s) of schematic of existing broadband providers (inventory of existing assets)

Attachment5SchematicOfExistingProviders20171031201793137.pdf

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Documentation of relationship between applicant and co-applicant (formal or informal)

Attachment6DocumentationOfRelationshipAlbemarleTENTATIVE20171031201793151.pdf

Documentation supporting project costs (i.e. vendor quotes)

Attachment9DocumentationOfSupportingProjectCostsAlbemarle20171031201793205.pdf

Two most recent Form 477 submitted to FCC

Attachment7Form477submittedbyComcast20171031201793215.pdf

Documentation for in-kind contribution, including value(s)

Attachment8DocumentationOfInKindContributionsAndValueAlbemarle20171031201793226.pdf

Documentation of source of match funding

Attachment10DocumentationofSourceofMatchFunding20171031201793241.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment11AlbemarleCAFMap20171031201793338.pdf

Documentation that the proposed project area is not designated for Connect American Funding (CAF) or does not have other state or federal resources for construction

Attachment12CenturyLinkCAFLetter20171031201793358.pdf

(Optional) || Greenwood, VA Broadband Survey Results

Attachment14Albemarle residents surveys redacted 20171031201793639.pdf

(Optional) || Greenwood, VA Public School Student Distribution

Greenwoodstudents1027201745040.pdf

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(Optional) || Census Block Letter

Attachment15CenturyLinkGreenwoodCensusBlockLetter20171031201793622.pdf

(Optional) || Key Individuals

q16keyindividuals10312017122114.pdf

(Optional) || Project Area Businesses

projectareabusineses1031201710822.pdf

Derivation of Costs

Attachment1DerivationofCostsWorksheetAlbemarle20171031201793432.pdf

Project Management Plan

Attachment2ProjectManagementPlanAlbemarle20171031201793558.pdf