

# Application to DHCD Submitted through CAMS

Gloucester County

Gloucester County Regional Fixed Wireless Project 2021

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**Application ID:** 75707302020081724  
**Application Status:** In Progress - DHCD  
**Program Name:** Virginia Telecommunications Initiative 2021  
**Organization Name:** Gloucester County  
**Organization Address:** P.O. Box 329 / 6467 Main Street/  
Gloucester, VA 23061  
**Profile Manager Name:**  
**Profile Manager Phone:**  
**Profile Manager Email:**

**Project Name:** Gloucester County Regional Fixed Wireless Project 2021  
**Project Contact Name:** Carol Steele  
**Project Contact Phone:** (804) 693-4042  
**Project Contact Email:** csteele@gloucesterva.info  
**Project Location:** 6489 Main Street  
Gloucester, VA 23061-6102  
**Project Service Area:** Gloucester County, Mathews County, Middlesex County

**Total Requested Amount:** \$478,654.00  
**Required Annual Audit Status:** No Current Audits Found

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## Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
<b>Telecommunications</b>	<b>\$478,654.00</b>	<b>\$542,536.00</b>	<b>\$1,021,190.00</b>
Construction	\$442,654.00	\$242,657.00	\$685,311.00
Construction Related Soft Costs	\$36,000.00	\$299,879.00	\$335,879.00
<b>Total:</b>	<b>\$478,654.00</b>	<b>\$542,536.00</b>	<b>\$1,021,190.00</b>

## Budget Narrative:

Please refer to the Attachment 11 Derivation of Cost for budget details - per tower. The grant will provide access to 640 homes and businesses in Gloucester, Mathews and Middlesex. The Counties and co-applicant are providing 53% of the project budget

## Questions and Responses:

### 1. Project Description and Need

Describe why and how the project area(s) was selected. Describe the proposed geographic area including specific boundaries of the project area (e.g. street names, local and regional boundaries, etc.). Attach a copy of the map of your project area(s). Label map: Attachment 1 – Project Area Map.

### Answer:

The neighboring counties of Gloucester, Mathews and Middlesex are located on the Middle Peninsula of Virginia along the Chesapeake Bay and its tributaries. With a total population of nearly 60,000 (approximately 38,000, 9,000 and 11,000 respectively), the area is mostly rural with more suburban concentrated areas in Gloucester. The total region is 750 square miles and contains numerous creeks and rivers providing breathtaking views, bountiful agricultural lands and long winding country lanes and driveways.

The spacious and sprawling topography creates a challenge for each county's cable television/internet provider. Accessibility to broadband is restricted to cluster developments and commercial zones. The homes and businesses that don't have broadband service available are more rural, agricultural and/or coastal. Fixed wireless technology was selected for its ability to reach these remote and less dense locations as well as for its significantly reduced capital cost.

The counties have similar broadband needs. There are pockets of unserved areas scattered throughout the region. It would take millions of dollars to reach these homes and businesses with fiber. We decided to collaborate on a regional fixed wireless project which allows us to share use of vertical assets for point to point connections and have a larger potential customer base which helps to attract and maintain a qualified and credible Internet Service Provider (ISP).

The Counties have spent many hours and resources evaluating needs, communicating with residents, identifying

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public assets and unserved locations. The selected sites for the grant, shown on Attachment 1 – Project Area Map were chosen from among the unserved locations in each county based on their proximity to existing towers and the ability to meet the VATI overbuild restriction.

Each locality contributed financially to a study conducted by Broadband Telecom that reviewed unserved homes and vertical assets to create a plan that would reach all VATI eligible sites. Unfortunately, at the time that Broadband Telecom was contracted with for assistance, the final VATI grant criteria had not been determined. The plan provided by Broadband Telecom included a 25% overbuild criterion. The plan was revised jointly by Open Broadband, LLC, the partnering Internet service partner, and the County GIS staff. Because there are no other sites that meet the VATI grant criteria, the selection process was mathematical. The use of other vertical assets would cross served areas and create an overlap of greater than 10%.

2. List existing providers in the proposed project area and the speeds offered. Please do not include satellite. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

**Answer:**

At the current time, the only provider of broadband that meets federal and state definition of 25/3 Mbps in Gloucester County is Cox Communications. Cox offers up to 940 Mbps in certain areas of Gloucester County. Atlantic Broadband is the only broadband provider in Mathews and Middlesex Counties and their highest level of service is 100 Mbps. Internet searches were conducted on service providers in the area and the results are included on Attachment 14 – Information on Other Internet Providers for details on the providers for each county. Spectrum, another cable company that offers broadband, appears on searches for Middlesex and Gloucester, but they are not available. A service map shows that they are not accessible in our region.

In addition to the satellite providers that VATI has indicated to exclude, there are a few fixed wireless providers in the area, but their capacities are very limited and do not reach the minimum of 25/3 Mbps. Phone calls were made to the advertised vendors and it was confirmed that the fastest speed available in the region is 6 Mbps. Virginia Broadband LLC which is listed on the internet search pages is actually run in the area by Middle Peninsula Gateway who has a maximum speed of 6 Mbps.

3. Describe if any areas near the project have received funding from federal grant programs, including but not limited to Connect America Funds II (CAF II), ACAM, ReConnect, and Community Connect. If there have been federal funds awarded near the project, provide a map verifying the proposed project area does not conflict with these areas. Describe if there are Rural Digital Opportunity Fund (RDOF) eligible census blocks located in the proposed project area. Label Map: Attachment 2 – Documentation on Federal Funding Area.

**Answer:**

No federal funding for broadband has been provided in any of the counties. Attachment 2 shows a map of the CAF II awards with no funding granted in Gloucester, Mathews or Middlesex County. King and Queen County which is adjacent to the project area was a recipient.

There are several locations in each of the three counties that are eligible for the upcoming Rural Digital Opportunity Fund (RDOF) Auction. Maps of these tracts are included in Attachment 2 - Documentation on Federal Funding Area. We are not aware of anyone that is planning to bid on RDOF eligible sites in the project area. We contacted the FCC and were told by their representative that the information is not available to localities prior to the public announcements that will occur sometime in late 2020 or possibly 2021. Our project partner,

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Open Broadband, LLC shared with us that they did not register for the auction and will not be participating.

4. Overlap: 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 of 25/3 mbps or less and with less than 10% service overlap within the project area. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 3 – Documentation Unserved Area VATI Criteria.

**Answer:**

Atlantic Broadband provided service line maps for Mathews County indicating which homes had service. The Director of Planning, Zoning and Wetlands for Mathews County, who also serves as their GIS specialist, created an additional buffer extending 400' from the cable lines to avoid overlap in service. Atlantic Broadband recently agreed to extend free hook-up to structures within 400' in place of their previous 200' distance. Using the information provided, a map for Mathews County was created showing all addresses out of the range from existing lines and the proposed 400' buffer.

The Middlesex GIS Department was also provided service lines from Atlantic Broadband and incorporated the same new 400' buffer. Including the additional footage ensured that homes would not be counted as unserved if they fell within 400' of an existing line. It's possible that in some cases homes might be within 400' of the cable line but still not be serviceable because of where connectivity to service can occur. Using this method to determine which houses were left as unserved may have undercounted some but avoided overlapping the project area with Atlantic Broadband.

Gloucester County submitted a request to Cox Communications that was part of the Franchise agreement to provide the locations for their service lines. After they provided the information, staff spent many hours reviewing the maps and using the Cox address check system to verify unserved sites. Some of the addresses indicated on the Cox website that they were not eligible for service, but the Cox map showed that cable was in place. The County created a list of 54 addresses that had conflicting information from Cox and asked that they review them. Cox reviewed the sites and verified they were in their service area and the homes were dropped from the unserved list. With their removal, a 9% overlap exists, which falls with the grant's requirements.

The application submitted by Gloucester last year took a different approach of fixed wireless service only being provided to addresses within polygons. Based on losing the challenge and needing to include the entire range of the antenna it reduced the ability for the eligible homes from approximately 2,000 homes to 133 in the entire County. Without criteria changes in the future, these are the only homes of the nearly 2,600 unserved that will qualify for VATI. The County provided a map and list of the 133 homes to Cox Communications and at the time of the grant submission is awaiting a confirmation that they have reviewed them and that the addresses are accurately labeled as unserved and served.

As noted in the answer to Question #2, the cable companies are the only internet providers in the region that meet the 25/3 Mbps minimum service requirement. The only possibility of overlap was with Atlantic Broadband and Cox Communications. Staff from each county worked closely with the cable representatives to avoid any problems with the grant process and a potential challenge. In addition, the cable company staff were introduced to representatives from Open Broadband to open the lines of communication about providing the fiber backhaul that will be required for the project. Open Broadband requested a quote from both companies.

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Attachment 15 – Service Area Information provides a list of all addresses in the service areas (per tower), the number of served and unserved addresses. The number of unserved was divided by the total number of addressed structures to determine the overlap percentage. Each of the three service areas are under the maximum of a 10% overbuild.

5. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 10 Megabits per second download and 1 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 4 – Passings Form
  - a. Of the total number of passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area. Describe the methodology used for these projections.
  - b. Provide the number of serviceable units in the project area that have 10/1 mbps or less. Describe the methodology used for these projections.

**Answer:**

A. Out of the 640 passes in the proposed project area, the vast majority, 603, are residential structures. There are also 32 home-based business, four (4) non-home based businesses and one (1) non-residential site (church). There aren't any community anchors because the areas are the more remote and public utilities and infrastructure aren't available to support larger facilities.

The residential sites are popular with people who want larger lots, to live in a more country setting or along the shores of rivers and creeks in each county. There are also a number of farms that at the current time do not have addresses. Farmers are utilizing cellular data for their equipment but the need for farms to be connected to broadband is recognized by the federal government and one that could be considered by the State in the future.

Homebased businesses have become more popular in the last few years and with situations like the COVID-19 Pandemic, home related businesses and teleworking are expected to see additional growth. The Middle Peninsula and in particular Gloucester County are known as being bedroom communities with most employers leaving the counties for work. The lack of broadband has been a major issue not only for our students in 2020, but for the many people who were sent home or given the option to work from home and didn't have internet service.

We believe that the emphasis on connecting businesses and community anchors is not of the same importance as it was in the past. Every home is vital and could potentially be considered a place of work.

Businesses were identified with the assistance from each of the Commissioner of Revenue's Offices and a detailed review of the area revealed the church. Exact addresses and business names are listed on Attachment 15.

B. All of the unserved in all three counties (640 sites) have a service level under 10/1 level. As stated earlier, 6/1 Mbps is the maximum available from the alternate fixed wireless service that has a small footprint in Mathews and Middlesex. It should be noted that a Request for Proposal for this project which could have meant a major expansion for an existing business was sent to local and regional providers and none replied.

6. For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the

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wireless infrastructure will be installed.

**Answer:**

The Gloucester tower is owned by the County and, with the Board of Supervisors approval, Open Broadband, LLC will be provided use of the tower at no charge for three years. The Mathews tower is a commercial tower and the rental fee is divided between grant funds and a county match. The tower in Middlesex is located on county property and the county has rights to use it at no charge. Middlesex will contract with Open Broadband, LLC to allow three years of use at no charge. A community tower will be erected in each county on public lands for free public WiFi service. These towers will also be owned by each of the prospective counties.

7. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 25/3 mbps.

**Answer:**

Open Broadband offers internet service speeds starting at 25 Mbps and going up to 1000 Mbps. Since most users will be non-line-of-sight, the 25/3 Mbps service will be the service offering available to most of the residents. With clear line-of-sight, Open Broadband can deliver symmetrical speeds up to 300 Mbps within 5 miles of an antenna and symmetrical gigabit (1000 Mbps) service for clear line-of-sight customers within 2500 feet of an antenna. Where possible they offer service in symmetrical model.

Fixed Wireless service leverages a variety of spectrums, depending upon the area being covered. These options include licensed LTE/CBRS 3.5 GHz, non-licensed bands of 2.4 GHz, and potentially the use of licensed 2.5 GHz LTE, 5 GHz, 24 GHz, and 60-70 GHz and licensed bands at 11GHz and 80 GHz.

In areas with heavy vegetation, Open Broadband will use lower frequencies (2.4 GHz or LTE/CBRS at 3.5 GHz or 2.5 GHz) which is the reason for the target of only 25/3 Mbps in those areas. Much of the region falls into this category.

**Residential, Monthly Rates:**

25 Mbps down /3 Mbps up - \$49.99 (plus \$135 installation)

25 Mbps down /25 Mbps up - \$59.99 (plus \$135 installation)

50 Mbps down /50 Mbps up \$69.99 (plus \$135 installation)

100 Mbps down /100 Mbps up \$99.99 (plus \$135 installation)

200 Mbps down /200 Mbps up \$139.99 (plus \$135 installation)

1000 Mbps down /1000 Mbps up quoted individually

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Business and Government Monthly Rates:

25 Mbps down /25 Mbps up - \$80 (plus \$150 installation)

50 Mbps down /50 Mbps up \$120 (plus \$150 installation)

100 Mbps down /100 Mbps up \$150 (plus \$150 installation)

200 Mbps down /200 Mbps up \$225 (plus \$150 installation)

1000 Mbps down /1000 Mbps up \$575 (plus \$150 installation)

8. **Network Design:** 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 would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 5 – Propagation Map Wireless Project.

**Answer:**

Open Broadband, LLC uses a hybrid technology of fiber and fixed-wireless. It consists of the following components:

- Data Center with multi-carrier BGP routed internet upstream connections.
- Leased point-to-point fiber circuit(s) from the data center to tower sites in Gloucester County. Fiber circuits will be ordered from one of the available carriers: Cox Communications, Atlantic Broadband, Spectrum, Segra, Mid-Atlantic, etc. Fiber backhaul to the data center allows for growth.
- Fixed Wireless antennas operating in various frequencies, including 24 GHz and 11GHz for backhaul and 5 GHz and below for customer connections. This includes the licensed 3.5-3.7GHz spectrum used by LTE and CBRS spectrum, and selected use of 2.4GHz where applicable. It is this service that allows for Non-Line-of-Site (NLoS) service through trees. Very few companies offer or are even familiar with LTE, and for a project like this, it will be required. Symmetrical speeds can be provided on 5 GHz and above radios, and Open Broadband, LLC has the majority of clients using service at 25 Mbps, 50 Mbps, and 100 Mbps speeds. To a lesser degree there will be customers using this service for symmetrical 200 Mbps, 300 Mbps, and 1000 Mbps. In non-line-of-sight applications they use 3.65 GHz and/or 2.4 GHz spectrum, which operates most efficiently today at 25 Mbps x 3 Mbps. Open Broadband, LLC purchases these radios "off-the-shelf" from the manufacturers. As radio technology continues to improve they will upgrade the fixed-wireless radios to faster speeds. It is hopeful that the radio manufacturers will develop symmetric 100 Mbps service in the 3.65 GHz (CBRS) spectrum in the future.

Open Broadband, LLC primarily uses a fixed-wireless last-mile, and fiber to the tower network design as it

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is the most cost effective, quickest to install technology that results in the fastest speeds and lowest cost to consumers. Wireless alone can have limitations on bandwidth and network expansion. A hybrid approach takes the best of each technology, using fiber for high bandwidth to the data center, while using last mile fixed-wireless to quickly turn up just those users who subscribe to the service.

The network is designed with the following specifications:

- Data Center: SSAE 16 compliant, PCI DSS compliant, and HIPAA compliant. The data center is staffed 24x7x365 and has a 99.999% network uptime guarantee.
- Fiber circuits are on carrier backbones with a 99.999% network uptime guarantee.
- Fixed-wireless antennas are rated for 99.99% uptime.
- Fixed-wireless circuits are designed to withstand typical weather patterns including heavy rain, winds, and snow.
- 11GHz fixed-wireless backhaul circuits are licensed links to avoid interference. Consumer connections in the 3.5 – 3.7 GHz and 2.4GHz spectrum are designed to work through, or around obstructions such as heavy foliage.

Open Broadband, LLC's dedicated fixed-wireless connections are 128-bit encrypted

## 9. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 6 – Timeline/Project Management Plan; Attachment 7 – MOU/MOA between Applicant/Co-Applicant.

### Answer:

Work on the Fixed Wireless Regional Broadband Project has been going on for many months. After staff spoke about options and interest, the three counties jointly hired a consultant to help determine if a regional grant was possible. As noted previously, Broadband Telecom was contracted to assist. They provided information which was shared during presentations to the three Boards of Supervisors who in turn all signed resolutions of support to pursue the grant (see Attachment 7). A Request for Proposal was then issued for a co-applicant Internet Service Provider. Open Broadband, LLC was selected by representatives from all three counties. A Memorandum of Understanding was signed between the County and Open Broadband LLC (see Attachment 7).

Staff and key volunteers worked closely in assessing the county addresses and preparing the grant application. Zoom meetings were held regularly to keep everyone informed of the progress. Once a budget was created, the Boards voted on commitment the match dollars (see Attachment 7).

Open Broadband is registered with the State Corporation Commission to be able to conduct business in Virginia and is ready to proceed with their first project in Virginia. They routinely communicate with the Counties and provided materials needed for the grant application. They have also initiated conversations with both Cox Communications and Atlantic Broadband to obtain quotes for the fiber backhaul.

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We are staged and ready to begin work on the project upon notification of award.

10. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note the a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant's cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. Label Attachments: Attachment 8 - Funding Sources Table; Attachment 9 – Documentation of Match Funding.

**Answer:**

Please see attachments.

11. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project.

**Answer:**

In addition to providing an in-kind match for administration of the grant, each County will provide staff to assist with items such as creating GIS maps, updating websites to promote information on broadband availability, making social media posts and creating materials for public education and marketing. The Gloucester County Department of Community Engagement and Public Information will take the lead role with marketing. Their participation and the examples listed are not included in the grant match. Open Broadband has expressed their willingness to participate in public forums to promote the project and the counties will host the meetings.

Our citizen boards play a key role for driving the expansion of broadband and will help to disseminate information and act as resources for the public who may have questions about the project. Members are also looking into potential philanthropic funding sources such as the *FCC's Lifeline Program* that may help citizens afford the monthly connection fee.

The three public libraries will conduct programs and activities that will help people to be able to utilize the internet and reduce the digital divide. Gloucester County staff have spoken with representatives of the Three Rivers Health District, Riverside Walter Reed Hospital and the Gloucester Mathews Care Clinic about supporting telemedicine programs once service is established. A presentation was made before the Gloucester Resource Council, a networking organization for non-profits, public agencies and businesses that serve community needs, to initiate their involvement in addressing the digital divide. The lack of broadband was noted as a major hinderance in their ability to deliver services to their clients. The Resource Council is supportive of the grant and sees it as vital to helping people throughout our region.

It's not possible to put a dollar figure on the leverage value of the items mentioned above that involve both county staff and volunteers. The impact of the additional support will be substantial to making the project a success.

12. Marketing: Describe the broadband adoption plan.

a. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and

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describe the basis for the estimate.

b. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

**Answer:**

A. Promotion of the potential project has already begun. Many members of the public are aware of the initiative because of the discussions and presentations held at broadband committee/board meetings and at the Board of Supervisors meetings. The local media has produced several articles that received front page coverage about the plans to expand broadband in the region. The publicity generated more interest from citizens who have been emailing and calling to inquire if they will receive service if the grant is awarded. The COVID-19 Pandemic has also heightened the public's awareness and interest in the project.

The Gloucester Department of Community Engagement and Public Information will coordinate the marketing effort and provide materials to the other two localities to share on websites and with media sources. They will work with Open Broadband to establish a marketing plan with target dates for social media blasts, press releases, radio interviews, public speaking engagements, public forums, etc.

Each community has conducted public outreach including citizen surveys to promote the proliferation of broadband and to help project the take rate. Gloucester County conducted a direct mail survey in 2019 to all of the homes who do not have access to broadband. The survey's 46% response rate is a very high rate for a mail survey and indicative of the interest in broadband services. 88% responded that they want broadband.

The questionnaire also asked about people's willingness to pay for broadband at varying thresholds. 30% stated they were willing to pay as much as \$80 per month for service. Another 26% said they will pay up to \$60 per month. Only 4% stated they could not afford to pay for the services. With average take rates in the past being in the 30 to 50%, we anticipate surpassing those numbers easily. An anticipated minimum take rate of 60% is predicted. The affordability of the service along with an ever growing need for broadband, especially due to COVID-19, could mean a much higher rate may be possible.

B. All of the Counties are concerned about digital literacy and will be addressing the issue individually and collectively. The three libraries have already teamed up on a planning for program that will help the people who will gain access to broadband via the grant (see Attachment 10 – Letters of Support). In Gloucester County, members of the Gloucester Resource Council will be asked to officially adopt the project for their 2021 Work Plan. A subcommittee was formed to address how they can assist.

Mathews County has a draft Digital Literacy Plan that their Broadband Advisory Board is working on. Several former teachers are very interested in assisting the efforts. The Chair of the Mathews Broadband Board made us aware of the Lifeline funding program which will be pursued to see if relief can be offered to applicable residents to help them afford the monthly service fee.

All of the Counties are represented by the Three Rivers Health District. Initial discussions with the Director and additional providers of medical services in the region were held to talk about how important training will be to advance the use of Telemedicine. We will explore federal, state and private grants to help obtain equipment for those who cannot afford it and to train people how to use computers for telehealth services.

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There are a number of non-profit foundations including the local Community Foundations and the Treakle Foundation that will be asked to provide funds and/or establish scholarships. As soon as we know that service will become a reality, additional concentrated efforts will begin. We want to see the highest take rates as possible and do not want lack of funding to be a stumbling block once access is available.

13. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co-applicant’s history and experience with managing grants and constructing broadband communication facilities. Please attach any letters of support from stakeholders. If applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality. Attachment 10 – Letters of Support.

**Answer:**

Name	Title	Role
Carol Steele	Gloucester County Interim Deputy County Administrator	Overall Administrator of the Project; represent Gloucester County and handle administrative tasks including arrangements for tower use and overseeing the marketing effort.
Julie Kay/Judy Rowe	Mathews County Deputy County Administrator/Chairperson Broadband Board	Representing Mathews County and handle additional administrative tasks required to obtain lease with owner of private cell tower
Kevin Gentry	Middlesex County Director of Information Technology	Representing Middlesex County and handle administrative tasks including arrangements for tower use.
Alan Fitzpatrick	Open Broadband, LLC Chief Executive Officer	Overall Administration of Project representing the vendor
Kent Winrich	Open Broadband, LLC Chief Technical Officer	Design and Technical Support for Project

Gloucester County has received and managed numerous State and Federal grants as well as funds from non-profit organizations. The County successfully administered a VATI grant in 2017-18. The County Board of Supervisors has a Grants Management Policies and Procedures document that must be followed. The County’s administrative representative, Carol Steele, has more than 30 years’ experience in grant administration and has written and managed many grants from programs under \$1,000 to projects over \$1 million.

Open Broadband, LLC was selected for grants in Caswell and Vance County North Carolina and an ARC broadband grant for Alexander County, North Carolina. They also have been involved in a number of other broadband projects in North Carolina and are now expanding their business to Virginia. Open Broadband provides residential and business internet from 25Mbps to 1000 Mbps, and public Wi-Fi Zones for towns, universities, and parks. They provide service to various municipal entities.

Please see Attachment 16 - Bios for additional information on the key individuals working on the project.

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## 14. Project Budget and Cost Appropriateness

**Budget:** Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. **Label Attachments:** Attachment 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Cost Estimates.

**Answer:**

Please see attached documents.

## 15. The cost benefit index is comprised of three factors: (i) state share for the total project cost, (ii) state cost per unit passed, and (iii) the internet speed. From these statistics, individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:

- a. Total VATI funding request
- b. Number of serviceable units
- c. Highest residential speed available in proposed project area

**Answer:**

- A. Total VATI Funding Request (State Share) - \$478,654
- B. Total Number of Units 640 - State Share \$747.90 per unit
- C. Internet Speed up to 1000 Mbps

## 16. Commonwealth Priorities

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:

- a. How the proposed project fits into a larger plan to achieve universal broadband coverage for the locality. Explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage.
- b. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.
- c. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.
- d. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.

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## Answer:

A. The project is seen as first step towards ubiquitous coverage in the region. The partnership of the three counties with a provider who desires to serve our area and grow their business is a great starting point. The counties have completed assessments of addresses to know exactly who has coverage and who does not. The new and strengthened relationships between the governmental entities and community boards has provided better communication and will facilitate planning in the future. The counties will continue to share information and work together to help expansion regionally. This is a much better situation than previously with each county tacking the problem on their own.

Currently, Gloucester has approximately 2,600 unserved homes and businesses which represents 14% of the County. A master plan is under development that will determine how best to serve the remaining locations using a regional approach. For example, Open Broadband may add additional antennas in the future to the Mathews tower that will be able to reach unserved homes in Gloucester. The plan will focus on utilizing existing County vertical assets to keep expenses down. The County is also working with Verizon who is in the process of erecting three new cell towers in Gloucester and has requested lease space on two of the County-owned towers. Negotiations are on-going for the potential use of one of their towers which is a strategically located for expanding broadband service. That tower could also serve sites in both Middlesex and Mathews.

Mathews County has a 21% of unserved residents and businesses. If both of their VATI applications are funded, they will be down to 11%. Mathews recently contracted with Broadband Telecom to create a master plan for broadband service. As mentioned above, broadcasting from towers can impact more than one county. Their plan will take this into consideration which is important since they do not currently own any vertical assets that can be used to provide broadband to their residents and business owners.

14% of Middlesex County doesn't have access to broadband. This project will reduce that number to 10%. The County will work with the others to determine how many additional of their homes and businesses can be reached from the neighboring communities and create a plan to reach the remaining balance. Again, sharing resources and working collectively on plans is crucial. The overall regional plan will keep capital costs to a minimum, speed delivery of service and help Open Broadband to be a thriving business with a much larger customer base.

B. While the number of businesses may be small, the impact on home-based operations will be significant. Owners will have opportunities that are severely restricted by access to only cellular data or in some cases non-existent. It's anticipated that the counties will see a growth in home-based business based on new access to the internet. This could provide new revenues to the County and benefit everyone as the areas see economic improvements. As mentioned before, we are in a different situation with the Covid-19 Pandemic. Every home that houses employees could be seen as a potential business location. The need for broadband to every home has never been more important.

C. From time to time, Gloucester, Mathews and Middlesex have worked together on other regional projects but this is a unique opportunity for all three to share the same business partner. The success of Open Broadband will rely on connectivity and the customer base in all three localities. Other regions who work together usually have a regional broadband authority running operations. This situation is different in that three local governments and supporting citizens groups have all come together.

D. Digital equity for our citizens starts with everyone having the service available to their home. This project will

# Application to DHCD Submitted through CAMS

Gloucester County

Gloucester County Regional Fixed Wireless Project 2021

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address the most remote homes and greatly reduce the geographic digital divide. The citizen's groups are excited about entering into the next phase of resolving inequities by helping to make sure people know how to use the internet, have proper training and access to equipment. We will be exploring multiple funding options including telemedicine grants, the FCC Lifeline program, soliciting for non-profits and agencies to support the less fortunate to be able to afford the monthly service bill and possess the equipment that they need.

## 17. Additional Information

17. Provide any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

- a. Attachment 13 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 14 – XXXXXXXX
- c. Attachment 15 – XXXXXXXX
- d. Attachment 16 – XXXXXXXX
- e. Attachment 17 – XXXXXXXX

### Answer:

Attachment 14 - Information on Other Internet Providers

Attachment 15 - Service Area Information

Attachment 16 - Bios

### Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMap817202054849.pdf

Documentation of Federal Funding (CAF/ACAM/USDA, etc...) in and/or near proposed project area.

Attachment2DocumentationofFederalFunding8172020105802.docx

Documentation that proposed project area is unserved based on VATI criteria

Attachment3DocumentationUnservedAreaVATICriteria817202030225.docx

Passings Form (Please use template provided)

Attachment4PassingsForm817202013141.docx

# Application to DHCD Submitted through CAMS

Gloucester County

Gloucester County Regional Fixed Wireless Project 2021

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Propagation Map if Wireless Project

Attachment5PropogationMap8172020103432.docx

Timeline/Project Management Plan

Attachment6TimelineProjectManagmentPlan817202055625.xlsx

MOU/MOA between applicant/co-applicant (can be in draft form)

Attachment7MOUbetweenApplicantandCoApplicant817202023428.pdf

Funding Sources Table

Attachment8FundingSourcesTable817202024853.docx

Documentation for match funding

Attachment9DocumentationofMatchFunding817202055706.xlsx

Letters of Support

Attachment10LettersofSupport817202041125.pdf

Derivation of Cost (Project Budget)

Attachment11DerivationofCosts817202054214.xlsx

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

Attachment12DocumentationSupportingProjectCostEstimates8172020105840.pdf

Two most recent Form 477 submitted to FCC

Attachment13477forms817202051352.pdf

Optional

Attachment14InformationonOtherInternetProviders817202055751.docx

Optional

Attachment15ServiceAreaInformation817202013322.xlsx

# Application to DHCD Submitted through CAMS

Gloucester County

Gloucester County Regional Fixed Wireless Project 2021

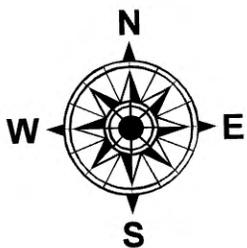
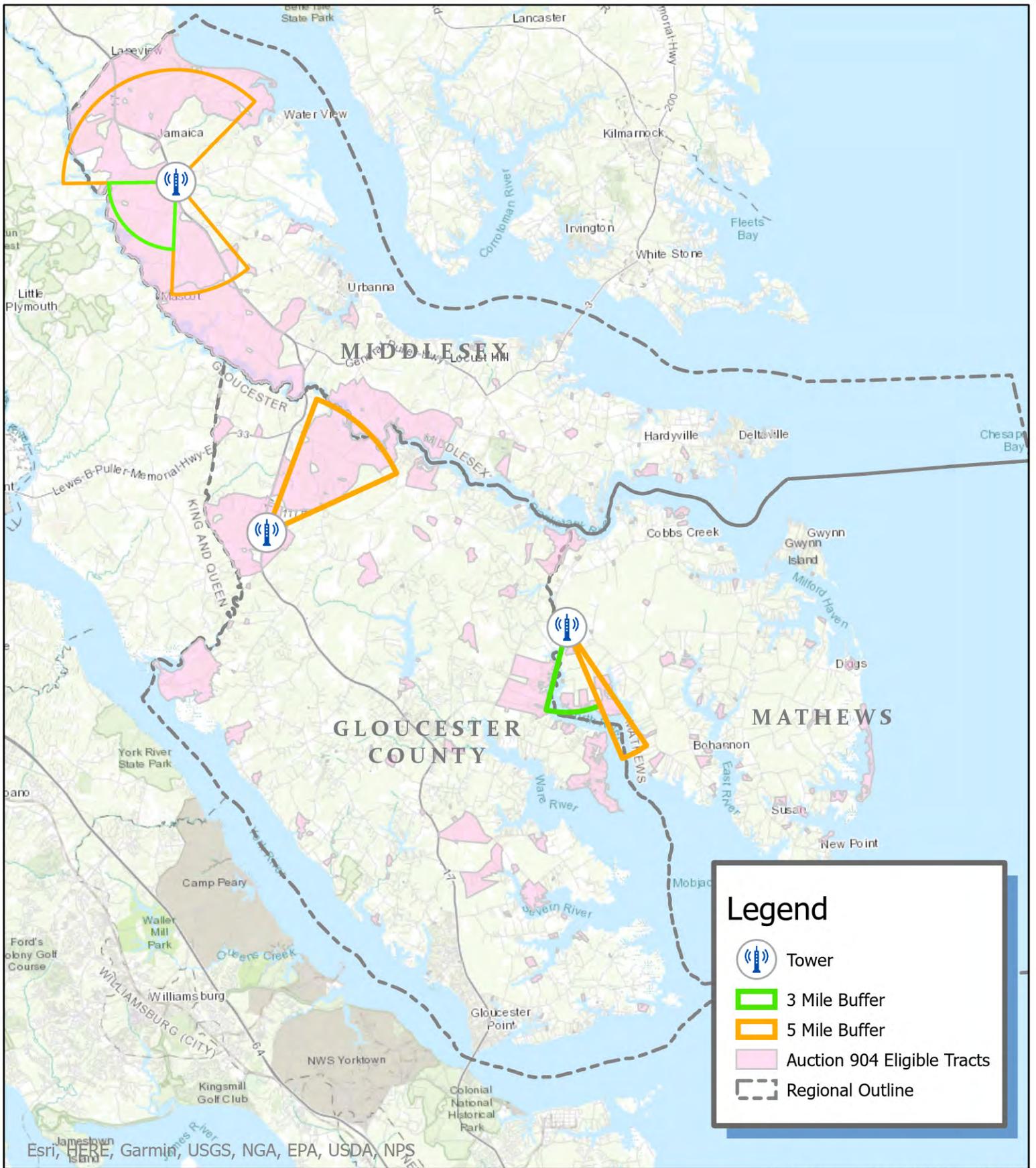
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Optional

Attachment16Bios817202060750.pdf

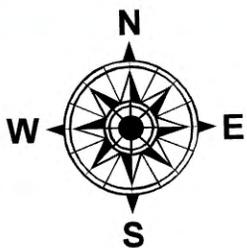
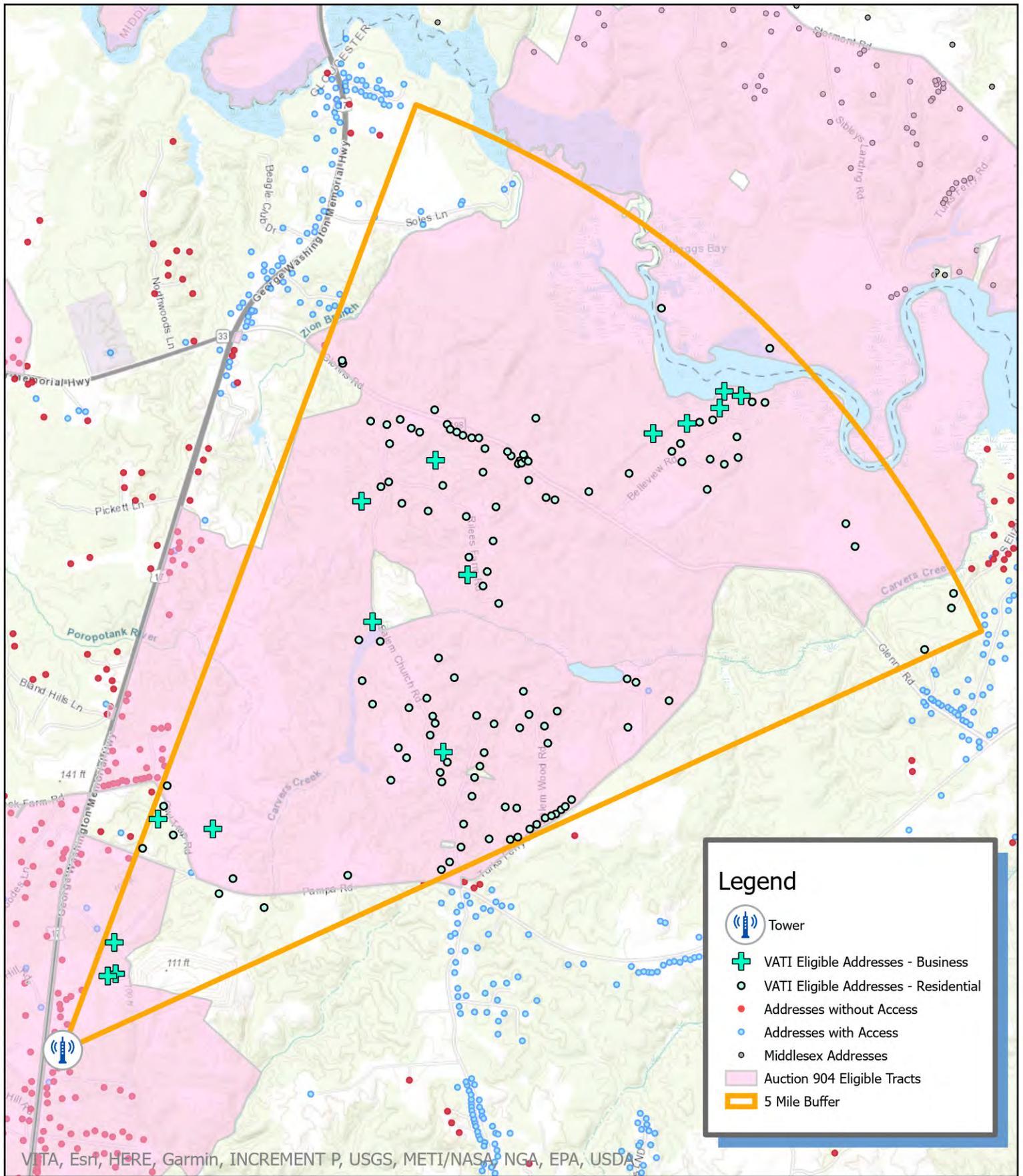
**Notes:**

Open Broadband, LLC is in the process of filing an additional FCC form and only had one available at the time of submission. As soon as the 2019 form is available, it will be sent to DHCD.

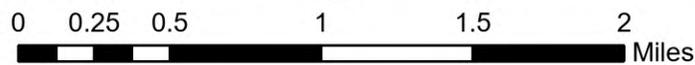


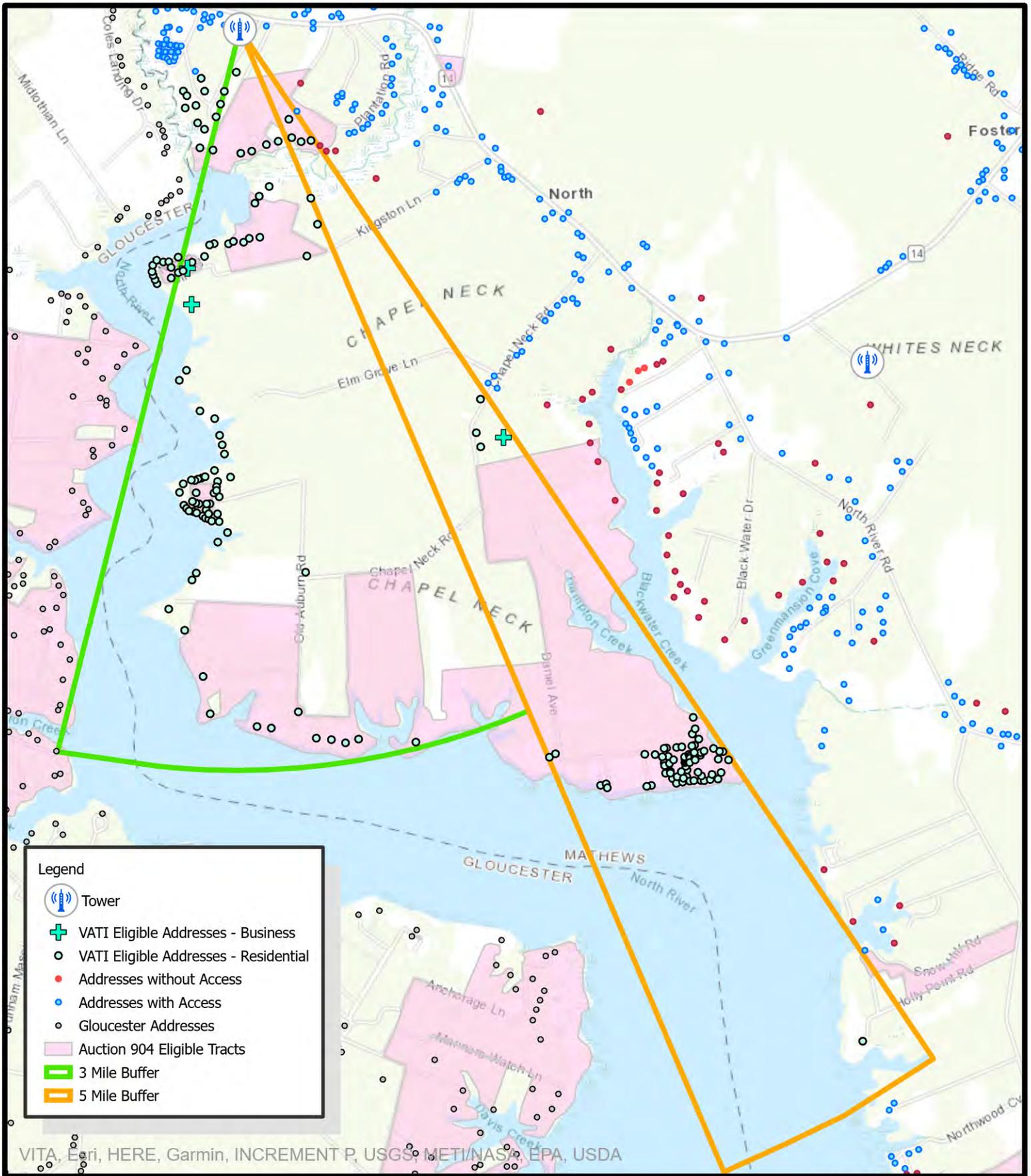
# Attachment 1 Project Area Map





# Gloucester County, Virginia Waste Management Tower

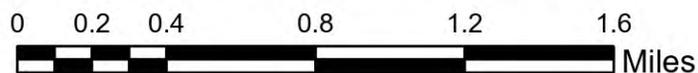
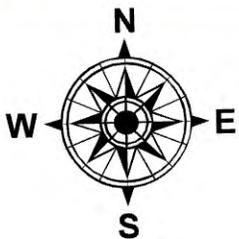


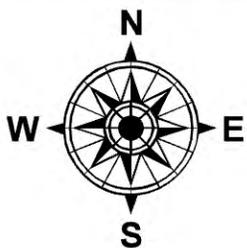
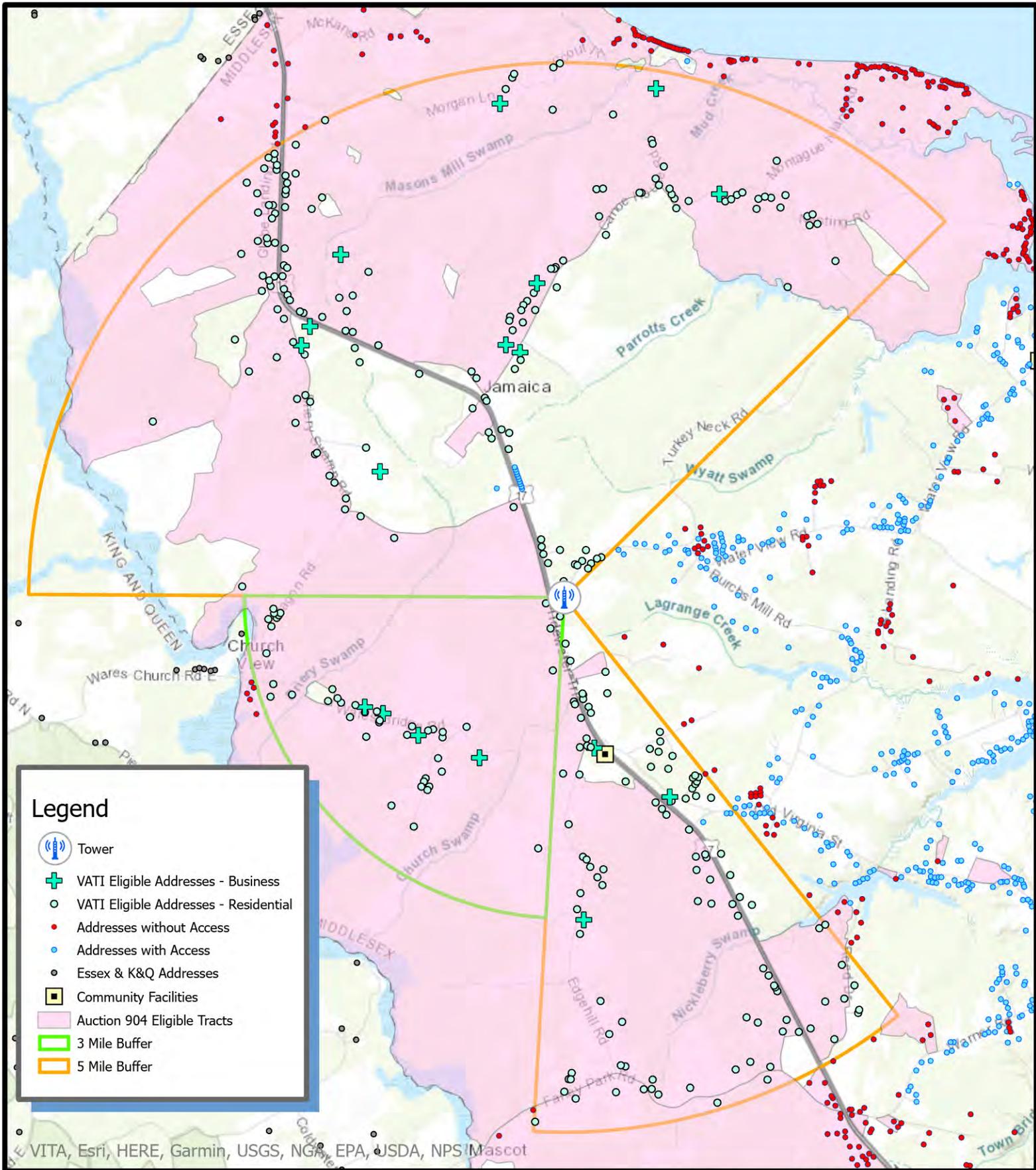


Date: 8/17/2020 4:40 PM

# Mathews County, Virginia

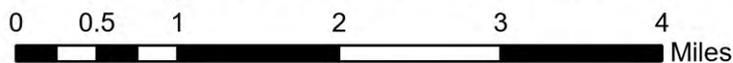
## North Tower





# Middlesex County, Virginia

## Jamaica Tower



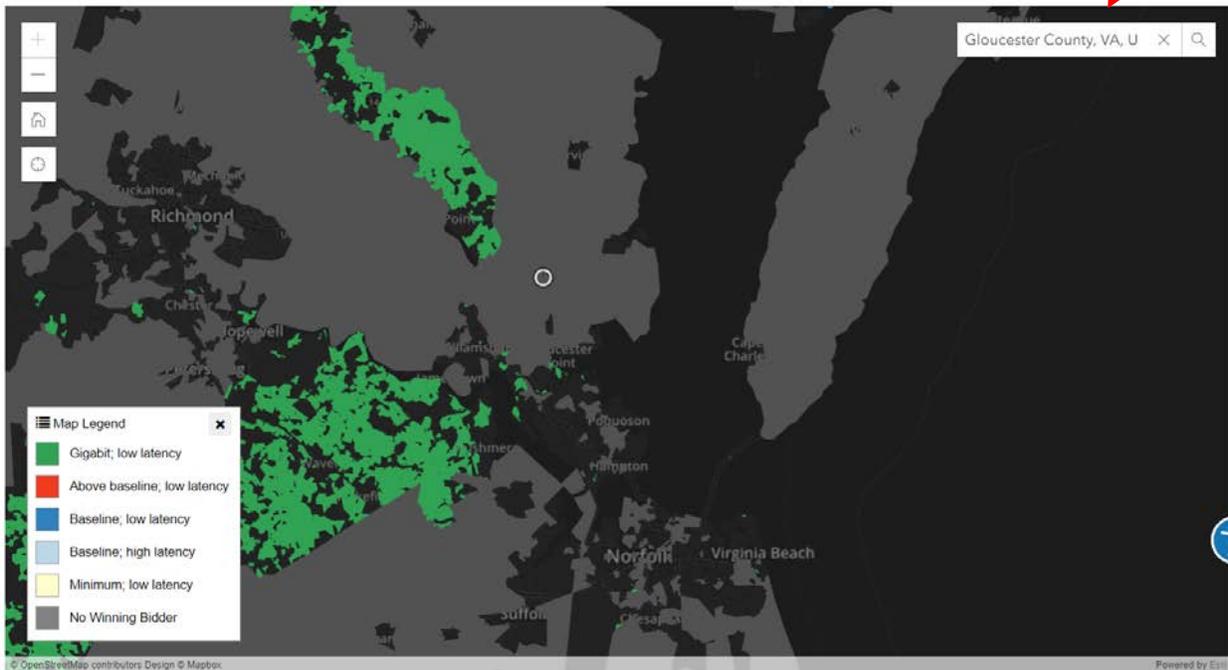
## Attachment 2 – Documentation of Federal Funding (CAF/ACAM/USDA, etc.)

There are no federal broadband current projects within the three counties. King and Queen County, also located on the Middle Peninsula, received Connect America Fund II (CAF II) funds. A regional map is below as a reference for the County lines that do not appear on the FCC maps. A small circle is located over the corresponding county on those maps.

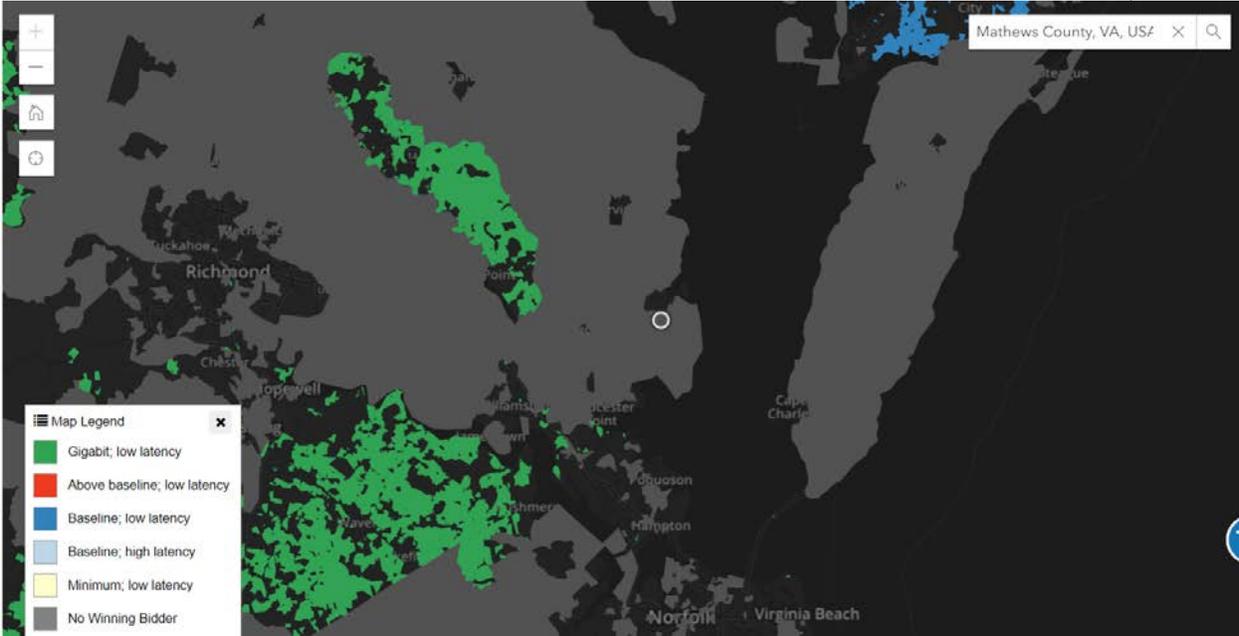


### Connect America Fund II (CAF II) Auction 903 Results:

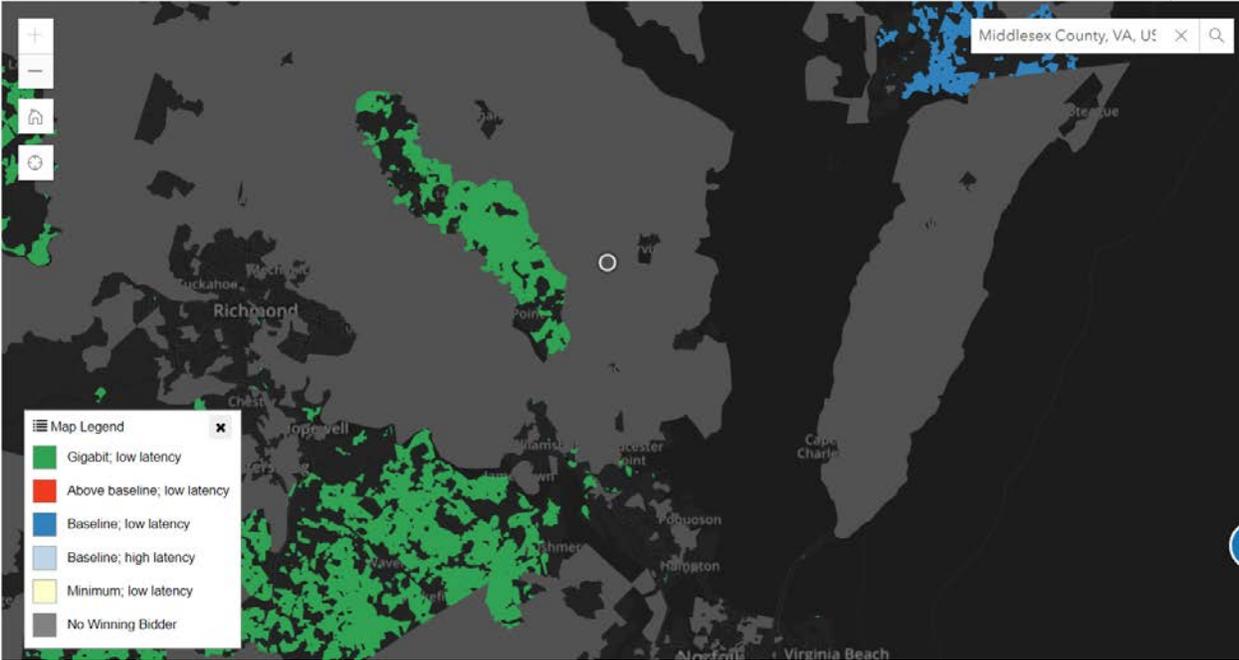
#### Gloucester County Search



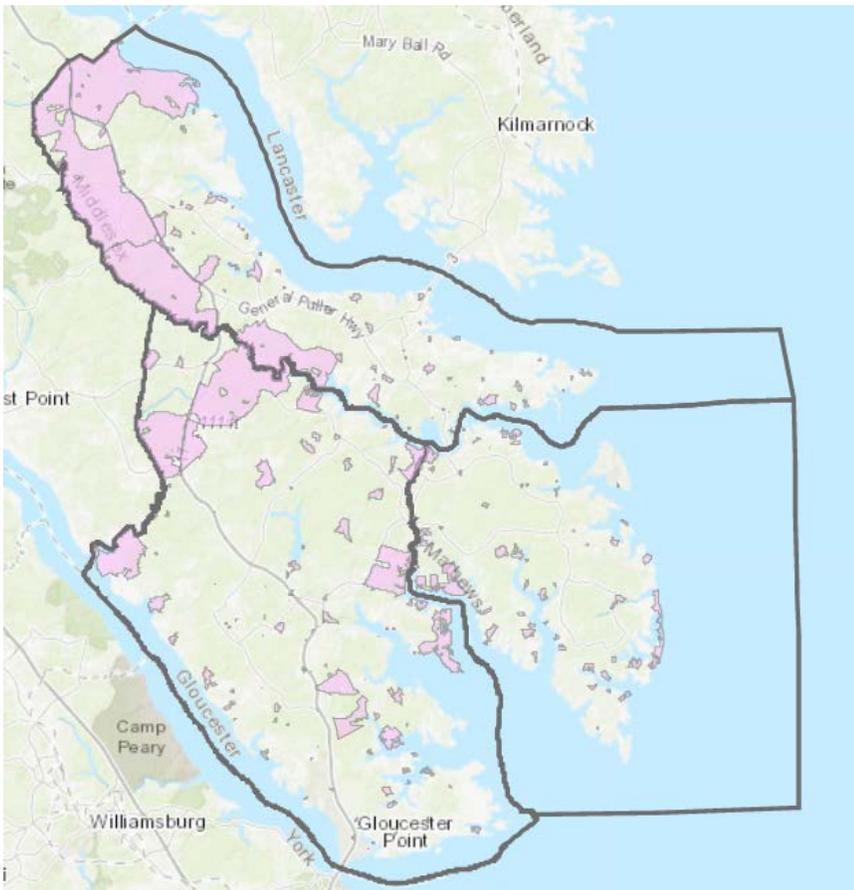
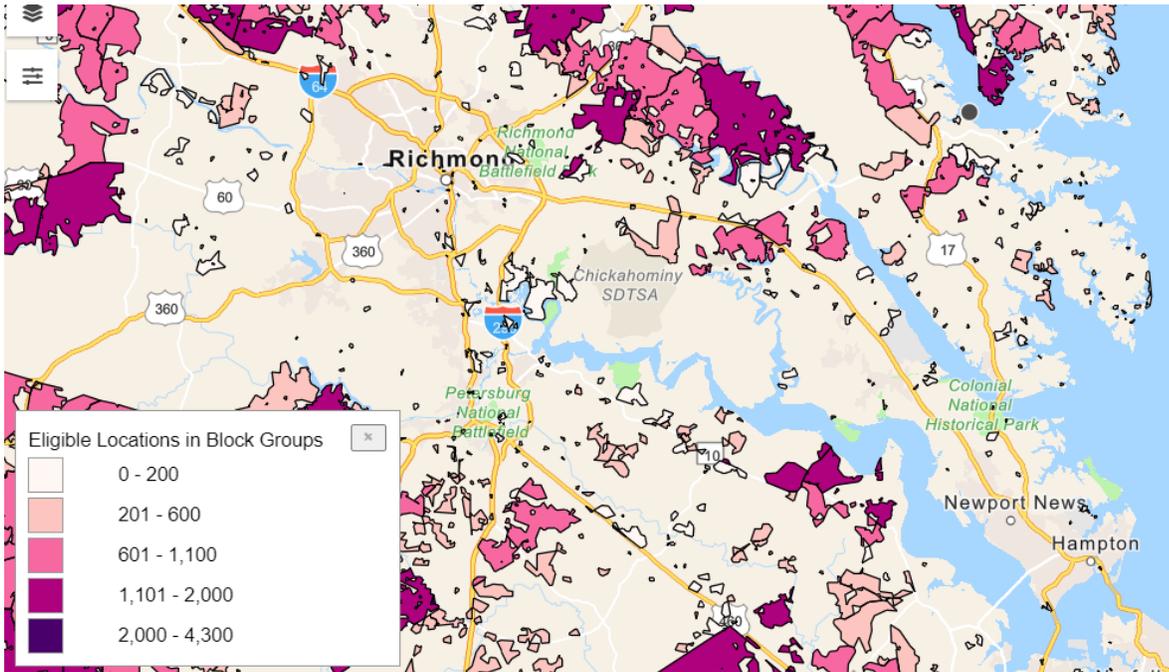
### Mathews County Search



### Middlesex County Search



**RDOF Auction 904 Updated Eligible Areas – published by the FCC on 6/25/20**



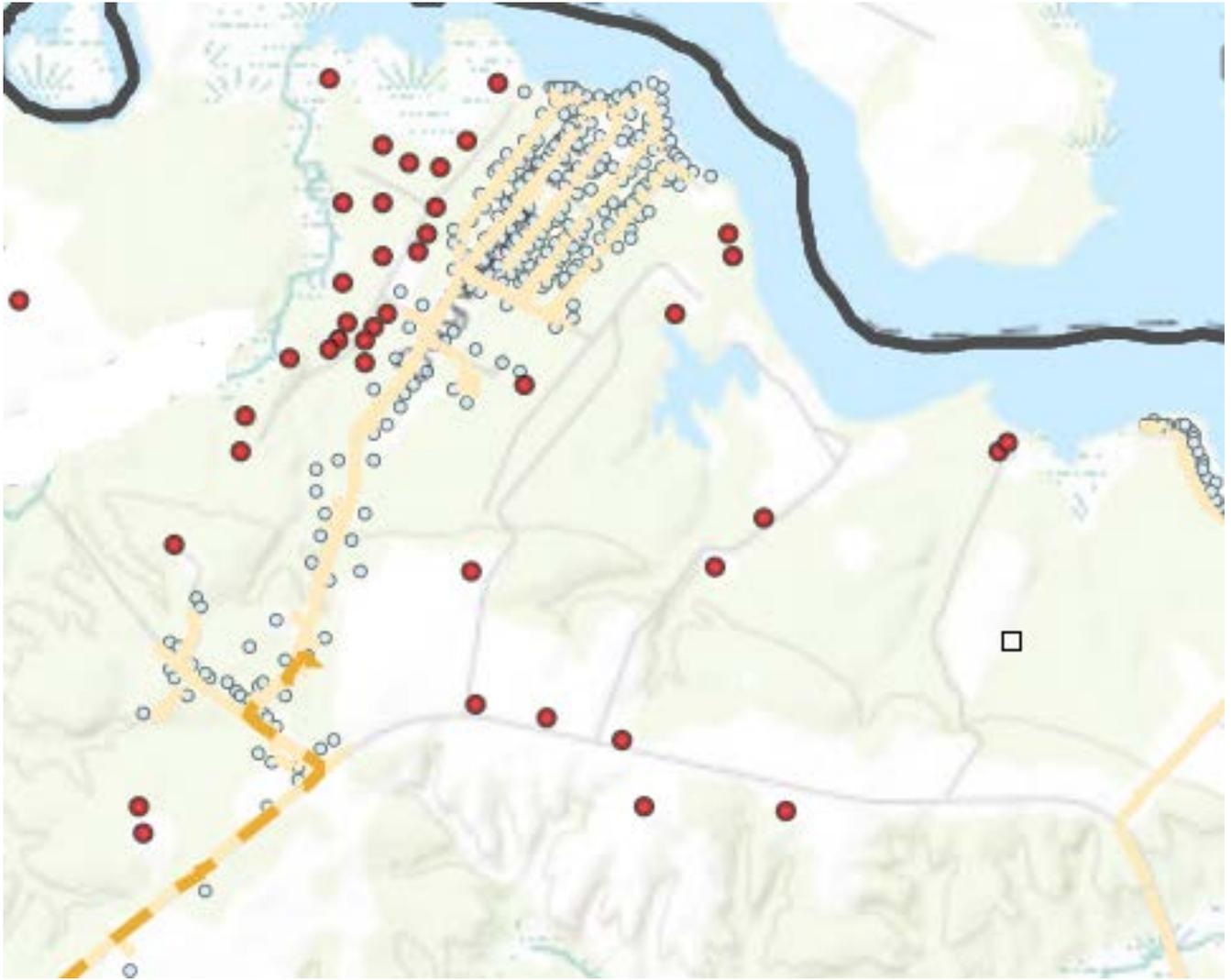
County lines indicated - Auction areas in pink.

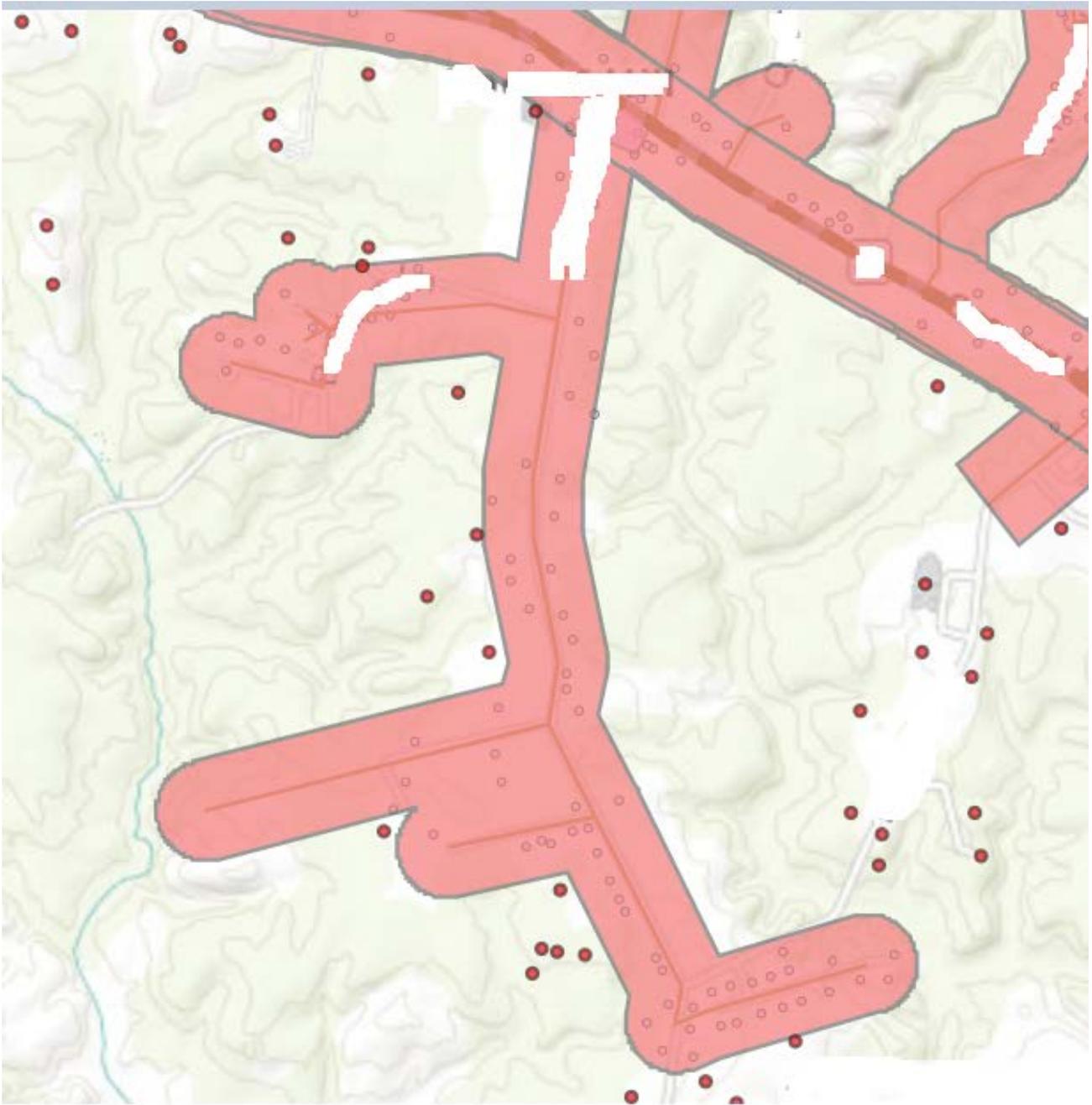
### **Attachment 3 – Documentation Unserved Area VATI Criteria**

This images below show a portion of maps that were used to avoid overlapping existing service providers. The first map is located in Gloucester County. The Cox Communications service map is overlaid with the County's GIS map. Fiber and cable are indicated by the hashed lines and solid lines, respectively. The light blue dots are addresses that have service available to them through Cox while the red ones are unserved.

The second map is from Middlesex County with the Atlantic Broadband services lines shown. The pinkish shaded area is the 400' service buffer with structures shown in a light that can access service. The red "dots" outside of the buffer are unserved homes/businesses. The fiber is the broader dashed line and cable is the thinner line along the secondary roads. Because both maps are proprietary, the road names were covered.

Intense reviews were map of the county maps with the service provider layers added. Addresses near vertical assets were studied to form different potential service areas until the overlap requirement could be met. As indicated on the service Area map in Attachment #1, different ranges will be used to avoid hitting areas with existing coverage. Open Broadband confirmed that they can use the proper equipment to limit access. As an example, the Mathews map includes an antenna that will only reach 11 degrees. They also can direct antennas to limit them to three mile range. The Excel Tables in Attachment #15 list served and unserved addresses.





## 2021 Virginia Telecommunication Initiative (VATI) Passing Form

Type of Passings	Total Number in Project Area	Number with Speeds at 10/1 or below in Project Area
<b>Residential</b>	603	603
<b>Businesses (non-home based)</b>	4	4
<b>Businesses (home-based)</b>	32	32
<b>Community Anchors</b>	0	0
<b>Non-residential</b>	1	1
<b>Total Number of Passings</b>	640	640

**Note:** The Total Number of Passings **MUST** be equal to the Residential, Business (non-home based), Non-residential and Community Anchors sum.

### Definitions

**Passing** – any structure that can receive service.

**Business** – An organization or entity that provides goods or services in order to generate profit. Businesses based in residential homes can count if they are a registered business (BPOL, LLC, etc.).

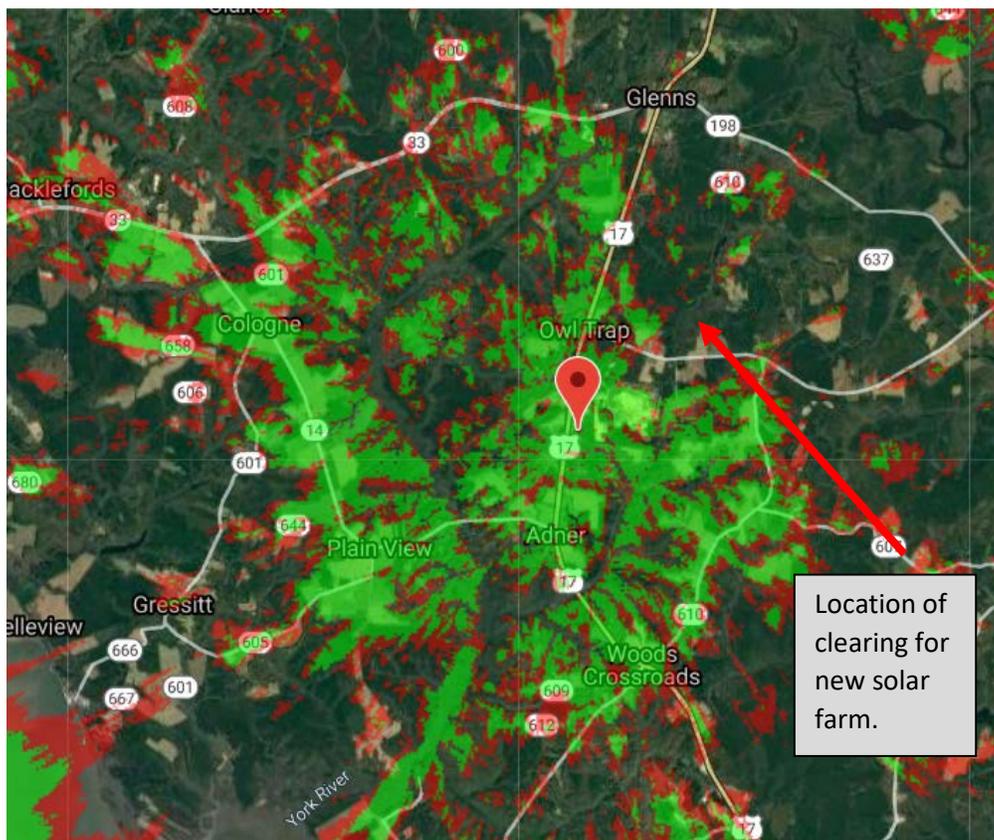
**Community Anchor** - schools, libraries, medical and health care providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by vulnerable populations, including low-income, unemployed, and the aged.

**Non-Residential Passing** – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.

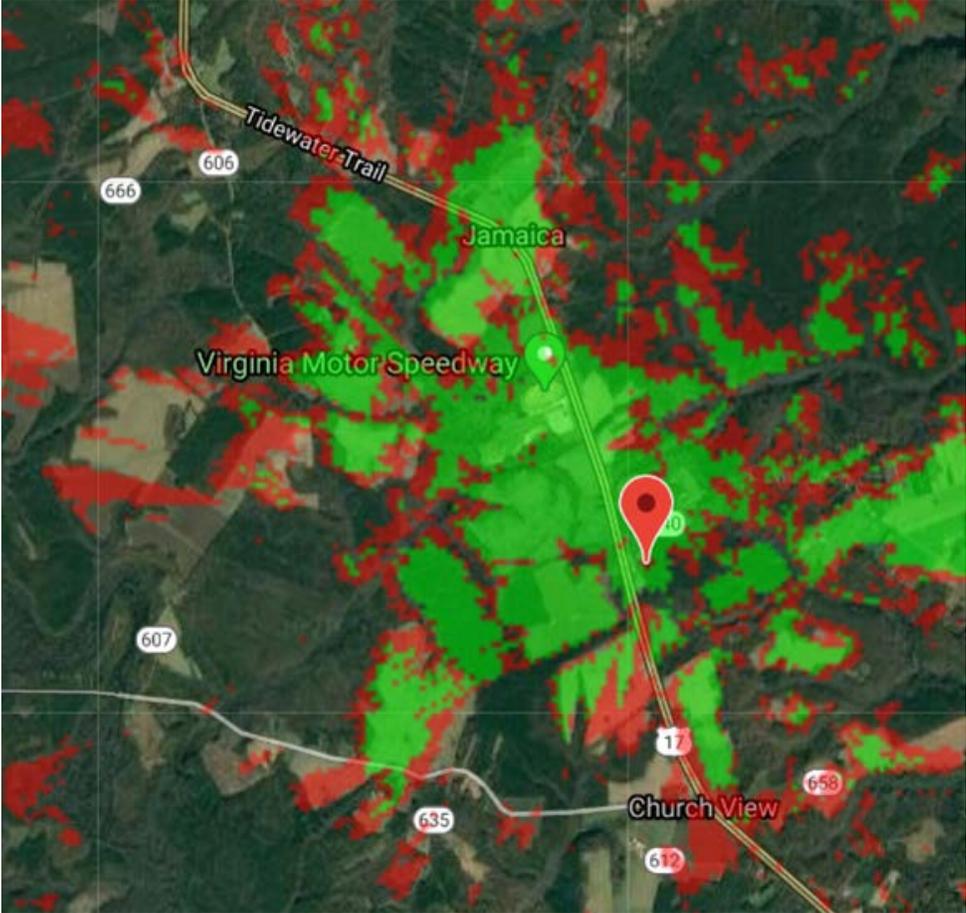
## ATTACHMENT 5 Propagation Maps

Open Broadband, LLC is in the process of creating propagation maps for each tower. They will continue their work and will have additional materials for review to supplement the draft maps below.

An initial propagation map of the Gloucester tower is below. It shows 360 degree coverage that will not be used for the project. The image indicates that the different spectrum and/or different equipment will be required to reach the service area. A major factor here is the amount of tree cover. This will be changing shortly as a large solar farm (1,800 acres) is being built on the east side of Route 17, within the service area. The removal of timber will greatly enhance the coverage capacity.

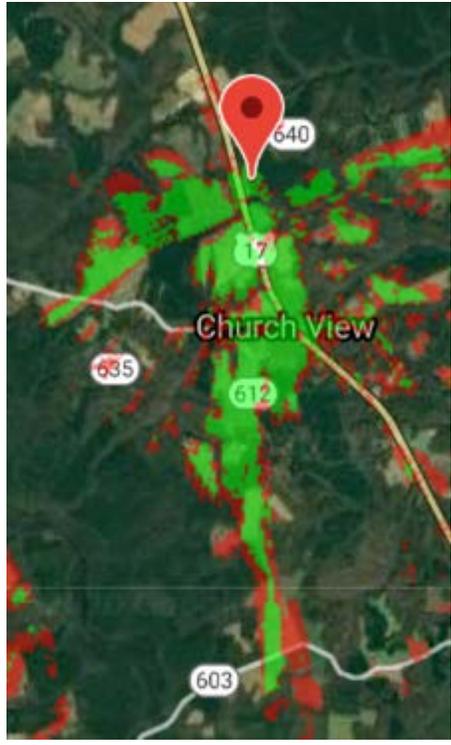


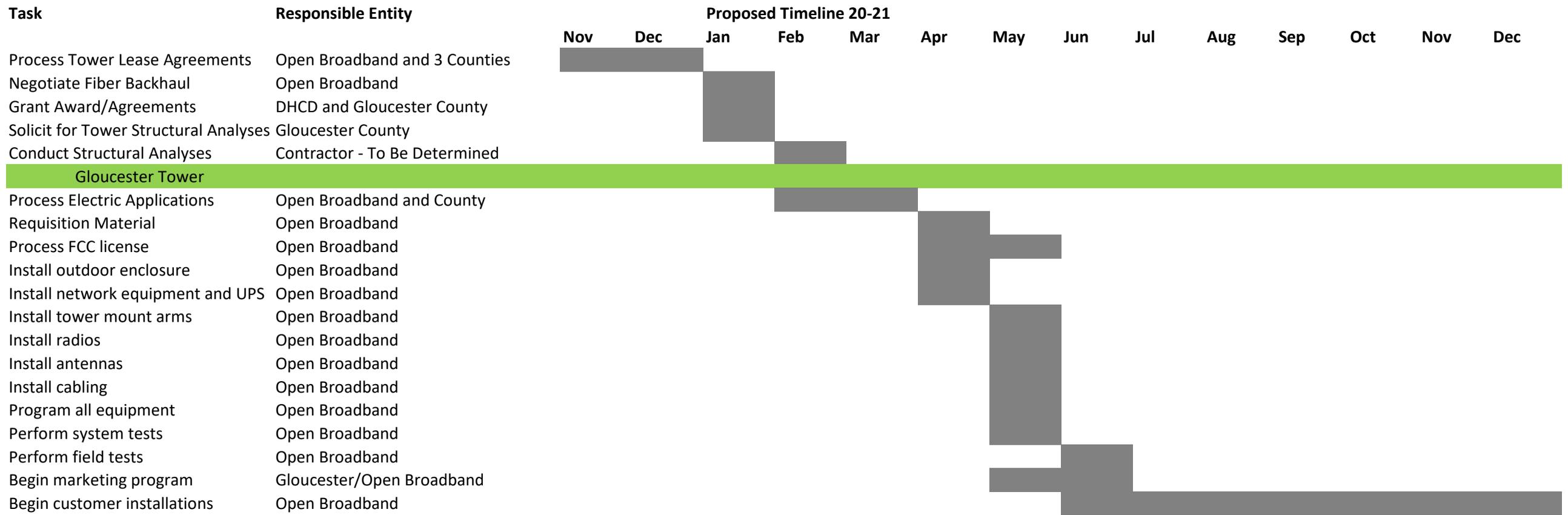
The propagation maps below show different options for the Middlesex Tower. In the first image, the tower location and the Virginia Motor Speedway serve as a reference points for comparing to the service area map. The Speedway and the 10 homes directly across Route 17 which are shown in blue in the project map are south of the word Jamaica. The second picture below shows an adjustment to the east of Route 17 to avoid overlapping with Atlantic Broadband.

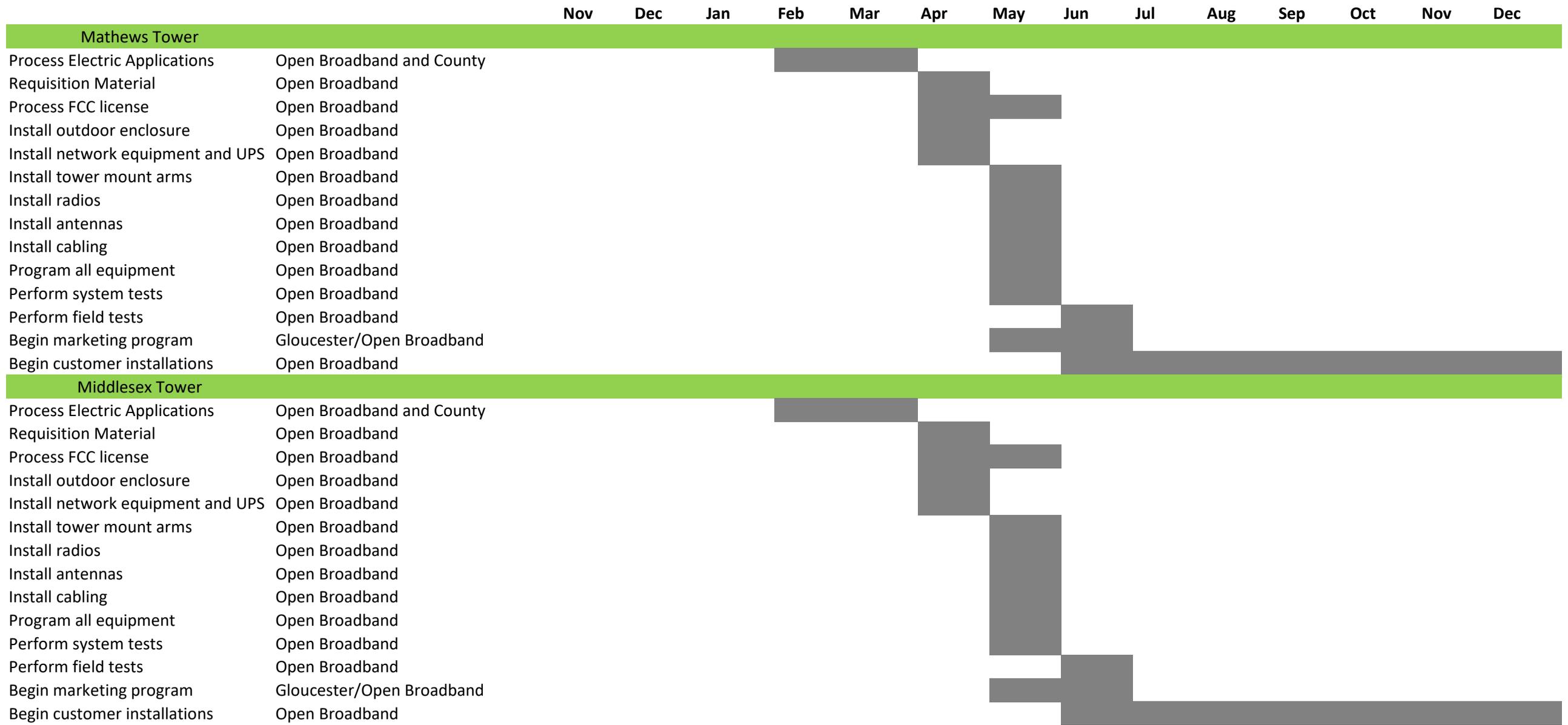




The last two images provide different options which indicate that homes in the Church View area need additional coverage. More work is needed to complete the propagation maps. Determining where neighborhood poles are needed to supplement the reach will occur as well as siting the public WiFi poles.







## **Attachment 7 – MOU between Applicant/Co-Applicant**

1. Copy of MOU between Gloucester County and Open Broadband, LLC
2. Open Broadband LLC, State Corporation Commission Registration
3. Copy of Agreement for Regional VATI application
  - a. Mathews County May 26, 2020
  - b. Middlesex County – June 2, 2020
  - c. Gloucester County – June2, 2020
4. Copy of Funding Commitment
  - a. Mathews County July 28, 2020
  - b. Middlesex County – August 4, 2020
  - c. Gloucester County – August 5, 2020

## COUNTY OF GLOUCESTER



### MEMORANDUM OF UNDERSTANDING

The Memorandum of Understanding (MOU) is made the 21 day of July, 2020 between the County of Gloucester, Virginia, herein referred to as the "County" whose principal office is located at 6489 Main Street, Gloucester Virginia 23061, and Open Broadband LLC, P.O. Box 723, Waxhaw, NC 28173, hereinafter referred to as the "Provider."

On July 6, 2020, Provider submitted a Proposal in response to Request for Proposal #20-017-CJ-1 titled Broadband Services Provider issued June 12, 2020.

It is mutually understood and agreed by the parties hereto that the Provider will perform services and tasks as required as a co-applicant with the County to compete for the 2021 Virginia Telecommunications Initiative (VATI) grant issued by the Virginia Department of Housing and Community Development (DHCD). The County VATI grant application is a regional project that will address unserved areas throughout the counties of Gloucester, Mathews and Middlesex providing access to broadband using fixed wireless technology.

The services and tasks furnished by the Provider to the County will be at no cost to the County.

As a co-applicant for the VATI grant the Provider agrees to:

- Provide the network design, engineering, equipment specifications, project budget, company background information and all other provider related grant submission requirements.
- Design the network according to the grant criteria to reach the greatest number of homes and businesses feasible.
- Communicate routinely with the County representatives at least weekly and present information in a timely manner so that the application process will meet the deadlines listed below.
- Pledge a minimum of 10% cash match cost share for the VATI project; amount to be determined when the design and equipment specifications are agreed upon by the County representatives.
- Include "community hot spots" at parks, libraries, etc. in the network plan where citizens can obtain free wireless connections to the internet. Locations and quantity of hot spots to be determined with input from the County representatives.
- Follow all provider related requirements listed in the State guidelines which are detailed in the attached VATI Program Guidelines and Criteria.
- Should the County be awarded the grant, the Provider will be expected to sign a contract with the County to provide the service as stated in the grant application.

Additionally, in an effort to expand broadband ubiquitously beyond what VATI funds can be used for, the Provider will design and submit an equipment list and budget in order to reach all, or as many as possible, unserved homes and businesses in all three counties.

AF

The Provider will submit a list of in-kind and cash contributions they are willing to contribute in order to reduce outside revenue sources needed to reach structures not included in the VATI grant application

As an applicant for VATI, County agrees to:

- Provide a revised address list to the one shared in the Request for Proposal of unserved homes and businesses in all three counties.
- Provide ESRI shape files for vertical assets, community facilities and unserved addresses.
- Each county will provide a cash match with the amount to be determined when the design and equipment specifications are agreed upon by the County representatives and approved by the respective Boards of Supervisors. See attached resolutions from all three counties.
- Gloucester County will be responsible for writing the grant narrative and submitting it to DHCD by the deadline of August 17<sup>th</sup> at 11:59 p.m.

#### **VATI Grant Schedule**

The schedule is very aggressive in order to meet the schedules for the Boards of Supervisors of each County and receive approval of matching funds. As soon as the MOU is complete, work should begin immediately on reviewing unserved areas, designing the network, determining costs and writing the grant narrative.

#### Deadlines:

July 24 - Network information, numbers served and budget due for Board packets

July 28 - Mathews Board meeting - staff will present information

August 4 - Gloucester and Middlesex Board meetings - staff will present information

August 5 - Revise and complete grant narrative

August 6 - Submit grant application to County Finance/Attorney

August 17 (or earlier) - Submit Grant

This MOU may be terminated by the County at any time and for any reason, upon 10 days written notice to the Provider, with no further liability to the County.

AF

IN WITNESS WHEREOF: The parties have caused this MOU to be duly executed intending to be bound thereby.

County of Gloucester

Provider

By: 

By: 

Title: County Administrator

Title: CEO

Date: July 22, 2020

Date: 7/21/20

APPROVED AS TO FORM:

By: 

Title: Gloucester County Attorney

Date: 7/20/2020

# Commonwealth of Virginia



## STATE CORPORATION COMMISSION

Richmond, July 14, 2020

This certificate of registration to transact business in Virginia is this day issued for

### **Open Broadband, LLC**

a limited liability company organized under the laws of North Carolina and the said limited liability company is authorized to transact business in Virginia, subject to all Virginia laws applicable to the company and its business.



STATE CORPORATION COMMISSION

Attest:

A handwritten signature in cursive script, appearing to read "Bernard J. Stoy".

Interim Clerk of the Commission



**AT A MEETING OF THE BOARD OF SUPERVISORS OF MATHEWS COUNTY, VIRGINIA, HELD ELECTRONICALLY ON TUESDAY, MAY 26, 2020, AT 6:00 P. M.:**

**A RESOLUTION TO AUTHORIZE THE COUNTY ADMINISTRATOR TO EXECUTE A JOINT APPLICATION WITH GLOUCESTER AND MIDDLESEX COUNTIES FOR FUNDS FROM THE VIRGINIA TELECOMMUNICATIONS INITIATIVE FOR A REGIONAL BROADBAND PROJECT**

**WHEREAS**, Mathews, Gloucester and Middlesex Counties lack adequate broadband coverage for residents and businesses; and

**WHEREAS**, the Virginia Telecommunications Initiative (VATI) provides grant funds to provide broadband service to localities and regions in the State; and

**WHEREAS**, the Mathews Board of Supervisors has declared broadband expansion as one of its top priorities; and

**WHEREAS**, according to the VATI grant scoring criteria, applications impacting larger areas may earn more points; and

**WHEREAS**, there may be more interest by potential Internet Service Providers (ISPs) to a region rather than one county; and

**WHEREAS**, the Mathews Board of Supervisors is willing to pledge funds towards a required match for the grant; and

**WHEREAS**, the Mathews Broadband Advisory Board is unanimous in their support of this regional VATI application; and

**WHEREAS**, The Middlesex County Board of Supervisors will confirm their participation in the proposed regional broadband project on Tuesday, June 2, 2020; and

**WHEREAS**, The Gloucester County Board of Supervisors will confirm their interest in the broadband project and their ability to facilitate obtaining an ISP and processing the grant application on behalf of the region on Tuesday, June 2, 2020.

**NOW, THEREFORE, BE IT RESOLVED** by the Mathews County Board of Supervisors that the County Administrator of Mathews County is hereby authorized to act on behalf of the County to work in partnership with Gloucester and Middlesex Counties to prepare an application for VATI grant funds.

**BE IT FUTHER RESOLVED** by the Mathews County Board of Supervisors that the VATI application required match will be met in part by a pledge by the Mathews County Board of Supervisors with the final amount to be approved by the Board before the grant application is submitted.

ON MOTION OF MELISSA MASON, AND SECONDED BY MICHAEL ROWE, THIS RESOLUTION WAS ADOPTED BY THE FOLLOWING ROLL CALL VOTE:

Amy Dubois, Chair	Aye;
Michael Rowe, Vice Chair	Aye;
Paul Hudgins, Supervisor	Aye;
Melissa Mason, Supervisor	Aye;
Jackie Ingram, Supervisor	Aye

# Middlesex County Board of Supervisors



## RESOLUTION

At an electronic meeting of the Middlesex County Board of Supervisors held on June 2, 2020 at 3:00 p.m.: On a motion duly made by Supervisor Mansfield and seconded by Supervisor Kimbrough, the following Resolution was adopted by the following vote:

Wayne H. Jessie, Sr.	Aye
Peter W. Mansfield	Aye
John B. Koontz, Jr.	Aye
Reginald A. Williams, Sr.	Aye
Lud H. Kimbrough, III	Aye

### **A RESOLUTION TO AUTHORIZE THE COUNTY ADMINISTRATOR TO EXECUTE A JOINT APPLICATION WITH GLOUCESTER AND MATHEWS COUNTIES FOR FUNDS FROM THE VIRGINIA TELECOMMUNICATIONS INITIATIVE FOR A REGIONAL BROADBAND PROJECT**

**WHEREAS**, Middlesex, Gloucester and Mathews Counties lack adequate broadband coverage for residents and businesses; and

**WHEREAS**, the Virginia Telecommunications Initiative (VATI) provides grant funds to provide broadband service to localities and regions in the State; and

**WHEREAS**, the Middlesex Board of Supervisors has declared broadband expansion as one of its top priorities; and

**WHEREAS**, according to the VATI grant scoring criteria, applications impacting larger areas may earn more points; and

**WHEREAS**, there may be more interest by potential Internet Service Providers (ISPs) to a region rather than one county; and

**WHEREAS**, the Middlesex Board of Supervisors is willing to pledge funds towards a required match for the grant; and

**WHEREAS**, the Middlesex Broadband Authority is unanimous in its support of this regional VATI application; and

**WHEREAS**, the Mathews County Board of Supervisors confirmed their participation in the proposed regional broadband project on Tuesday, May 26, 2020; and

**WHEREAS**, the Gloucester County Board of Supervisors will confirm their interest in the broadband project and their ability to facilitate obtaining an ISP and processing the grant application on behalf of the region on Tuesday, June 2, 2020.

**NOW, THEREFORE, BE IT RESOLVED** by the Middlesex County Board of Supervisors that the County Administrator of Middlesex County is hereby authorized to act on behalf of the County to work in partnership with Gloucester and Mathews Counties to prepare an application for VATI grant funds.

**BE IT FURTHER RESOLVED** by the Middlesex County Board of Supervisors that the VATI application required match will be met in part by a pledge by the Middlesex County Board of Supervisors. Once the amount is finalized, it must be approved by the Middlesex County Board of Supervisors before the grant is submitted.

A Copy Teste:

A handwritten signature in black ink, appearing to read "Matt Walker".

Matt Walker, County Administrator

**AT A REGULAR MEETING OF THE BOARD OF SUPERVISORS OF GLOUCESTER COUNTY, VIRGINIA, HELD ELECTRONICALLY ON TUESDAY, JUNE 2, 2020, AT 7:00 P. M.: ON A MOTION MADE BY MR. SMITH, AND SECONDED BY MR. CHRISCOE, THE FOLLOWING RESOLUTION WAS ADOPTED BY THE FOLLOWING VOTE:**

Phillip N. Bazzani, yes;  
Ashley C. Chriscoe, yes;  
Michael W. Hedrick, yes;  
Christopher A. Hutson, yes;  
Robert J. Orth, yes;  
Kevin M. Smith, yes;  
Michael R. Winebarger, yes;

**A RESOLUTION TO AUTHORIZE THE COUNTY ADMINISTRATOR TO EXECUTE A JOINT APPLICATION WITH MATHEWS AND MIDDLESEX COUNTIES FOR FUNDS FROM THE VIRGINIA TELECOMMUNICATIONS INITIATIVE FOR A REGIONAL BROADBAND PROJECT**

**WHEREAS**, Gloucester, Mathews and Middlesex Counties lack adequate broadband coverage for residents and businesses; and

**WHEREAS**, the Virginia Telecommunications Initiative (VATI) provides grant funds to provide broadband service to localities and regions in the State; and

**WHEREAS**, the Gloucester Board of Supervisors has declared broadband expansion as one of its top priorities and pledged capital improvement funds to meet grant requirements for matching grant programs; and

**WHEREAS**, according to the VATI grant scoring criteria, applications impacting larger areas may earn more points; and

**WHEREAS**, there may be more interest by potential Internet Service Providers (ISPs) to a region rather than one county; and

**WHEREAS**, the proposed grant application will be reviewed according to the County's grant policy; and

**NOW, THEREFORE, BE IT RESOLVED** by the Gloucester County Board of Supervisors that the County Administrator of Gloucester County is hereby authorized to act on behalf of the County to apply for VATI grant funds through a collaborative application with Mathews and Middlesex Counties.

A Copy Teste:



J. Brent Fedors, County Administrator



**Mathews County Board of Supervisors**

Regular Meeting

Harry M. Ward Auditorium

9889 Buckley Hall Rd.,

Mathews, VA 23109

**Tuesday, July 28, 2020 at 6:00 PM**

**ORDER**

**ABROADBAND ADVISORY BOARD: REGIONAL VATI APPLICATION  
PROJECT – MIDDLESEX AND GLOUCESTER**

**MOTION:** On Motion of Melissa Mason, seconded by Paul Hudgins, the Mathews County Board of Supervisors voted 5-0-0 to support a regional application between Middlesex, Gloucester and Mathews, for Virginia Telecommunications Initiative grant funding for broadband expansion, and to provide a local match up to \$90,000 in support of this effort. Roll Call vote as follows:

Amy Dubois, Chair – Aye  
Michael Rowe, Vice Chair – Aye  
Paul Hudgins, Supervisor – Aye  
Melissa Mason, Supervisor – Aye  
Jackie Ingram, Supervisor - Aye

DocuSigned by:  
*Mindy Conner*  
57A81C33C80C48D

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Melinda Conner, County Administrator

Cc: Mrs. Judy Rowe, Chair, Mathews County Broadband Advisory Board  
Ms. Carol Steele, Interim County Administrator, Gloucester County

# Middlesex County Board of Supervisors



## RESOLUTION

**AT A MEETING OF THE BOARD OF SUPERVISORS OF MIDDLESEX COUNTY, VIRGINIA, HELD ON TUESDAY, AUGUST 4, 2020, AT 3:00 P.M., VIA ELECTRONIC MEETING: ON A MOTION MADE BY MR. KIMBROUGH AND SECONDED BY MR. MANSFIELD THE FOLLOWING RESOLUTION WAS ADOPTED BY THE FOLLOWING VOTE:**

Wayne H. Jessie, Sr.	aye
John B. Koontz, Jr.	aye
Peter W. Mansfield	aye
Lud H. Kimbrough, III	aye
Reginald A. Williams, Sr.	aye

### **A RESOLUTION TO COMMIT MATCHING FUNDS TO THE VIRGINIA TELECOMMUNICATIONS INITIATIVE GRANT APPLICATION FOR REGIONAL FIXED WIRELESS BROADBAND SERVICE IN MIDDLESEX, MATHEWS AND GLOUCESTER**

**WHEREAS**, on June 2, 2020, the Middlesex Board of Supervisors authorized the Middlesex Broadband Authority to act on behalf of the County to apply for the Virginia Telecommunications Initiative (VATI) grant funds through a collaborative application with Mathews and Gloucester Counties; and

**WHEREAS**, homes and businesses in all three counties that qualify for grant funds have been identified; and

**WHEREAS**, a Memorandum of Understanding between Gloucester County and Open Broadband, LLC has been signed with Open Broadband, LLC serving as the Internet Service Provider (ISP) and partner on the grant application; and

**WHEREAS**, the VATI grant requires a cash match by both the ISP and the applicant; and

**WHEREAS**, Open Broadband has pledged a match exceeding the 10% cash grant requirement; and

**WHEREAS**, each County is required to provide a match that covers the expenses for the homes and businesses in their locality; and

**NOW, THEREFORE, BE IT RESOLVED** by the Middlesex County Board of Supervisors that \$72,877 of the appropriated Capital Funds is to be used as a match for the 2021 VATI grant application for regional fixed wireless broadband service in Middlesex, Gloucester and Mathews.

**BE IT FURTHER RESOLVED** that upon completion of preparing the grant application, the application is to be reviewed by the County Attorney before the County Administrator is authorized to sign it.

**A Copy Teste:**

A handwritten signature in black ink, appearing to read "Matthew L. Walker". The signature is written in a cursive style with a large initial "M".

Matthew L. Walker, County Administrator

**AT A REGULAR MEETING OF THE GLOUCESTER COUNTY BOARD OF SUPERVISORS, HELD AT T.C. WALKER EDUCATION CENTER AUDITORIUM, 6099 T.C. WALKER ROAD, GLOUCESTER, VIRGINIA ON WEDNESDAY, AUGUST 5, 2020, AT 7:00 P.M., ON A MOTION MADE BY MR. HUTSON, AND SECONDED BY MR. CHRISCOE, THE FOLLOWING RESOLUTION WAS ADOPTED BY THE FOLLOWING VOTE:**

Phillip N. Bazzani, yes;  
Ashley C. Chriscoe, yes;  
Michael W. Hedrick, yes;  
Christopher A. Hutson, yes;  
Robert J. Orth, yes;  
Kevin M. Smith, absent;  
Michael R. Winebarger, yes;

**A RESOLUTION TO COMMIT MATCHING FUNDS TO THE VIRGINIA TELECOMMUNICATIONS INITIATIVE GRANT APPLICATION FOR REGIONAL FIXED WIRELESS BROADBAND SERVICE IN GLOUCESTER, MATHEWS AND MIDDLESEX**

**WHEREAS**, on June 2, 2020, the Gloucester Board of Supervisors authorized the County Administrator to act on behalf of the County to apply for the Virginia Telecommunications Initiative (VATI) grant funds through a collaborative application with Mathews and Middlesex Counties; and

**WHEREAS**, homes and businesses in all three counties that qualify for grant funds have been identified; and

**WHEREAS**, a Memorandum of Understanding between Gloucester County and Open Broadband, LLC has been signed with Open Broadband, LLC serving as the Internet Service Provider (ISP) and partner on the grant application; and

**WHEREAS**, the VATI grant requires a cash match by both the ISP and the applicant; and

**WHEREAS**, Open Broadband has pledged a match exceeding the 10% cash grant requirement; and

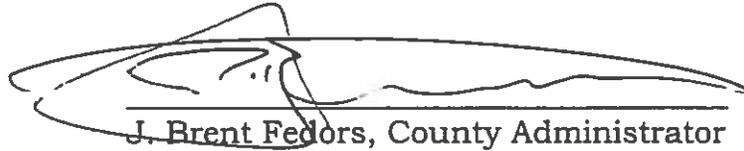
**WHEREAS**, each County is required to provide a match that covers the expenses for the homes and businesses in their locality; and

**WHEREAS**, the appropriated Gloucester County Capital Improvement Budget includes \$500,000 in funds available for broadband expansion.

**NOW, THEREFORE, BE IT RESOLVED** by the Gloucester County Board of Supervisors that \$72,791 of the appropriated Capital Funds is to be used as a match for the 2021 VATI grant application for regional fixed wireless broadband service in Gloucester, Mathews and Middlesex.

**BE IT FURTHER RESOLVED** that upon completion of preparing the grant application, the application is to be reviewed by the Finance Department and the County Attorney before the County Administrator is authorized to sign it.

A Copy Teste:



J. Brent Fedors, County Administrator

VATI FUNDING SOURCES TABLE

Please fill in the chart below with a description of the project funding source (local, federal, state, private, other), the amount from that source, the percentage of total project funding that source represents, and a description of the current status of the funds (pending, secured, etc.).

Source	Amount	%	Status
REQUESTED VATI	478,654	46.87%	Pending
OPEN BROADBAND, LLC	\$ 229,244	22.45%	PLEDGED
COUNTY IN-KIND	\$ 90,000	8.81%	PLEDGED
COUNTY CASH MATCH	\$ 223,292	21.87%	PLEDGED
	\$		
	\$		
	\$		
<b>TOTAL</b>	<b>\$1,021,190</b>	<b>100 %</b>	

### Attachment 9 - Documentation of Match Funds

Attachment 9 - Documentation of Match Funds			
County In-Kind			
Name			In-Kind Contribution
Gloucester County	Provision County owned tower for (3) years	Landfill Tower	\$ 36,000
Middlesex County	Provision County owned tower for (3) years	Middlesex Jamaica Tower	\$ 36,000
Gloucester County	Project Mgmt & Coordination (1-year)	Administrative Tasks	\$ 6,000
Middlesex County	Project Mgmt & Coordination (1-year)	Administrative Tasks	\$ 6,000
Mathews County	Project Mgmt & Coordination (1-year)	Administrative Tasks	\$ 6,000
		Sub Total	\$ 90,000
Provider In-Kind			
Open Broadband, LLC	Project Mgmt & Coordination (1-year)	Administrative Tasks	\$ 18,000
		Sub Total	\$ 18,000
		<b>Total All In-Kind Contributions</b>	<b>\$ 108,000</b>
County Cash			
Name			Cash Contributions
Mathews County	Rent - Private Leased Tower for (3) years		\$ 36,000
Gloucester County	Tower Equipment		\$ 44,676
Middlesex County	Tower Equipment		\$ 65,891
Mathews County	Tower Equipment		\$ 32,725
Gloucester County	Tower Improvements	Landfill Tower	\$ 20,000
Mathews County	Community Tower Pole		\$ 8,000
Gloucester County	Community Tower Pole		\$ 8,000
Middlesex County	Community Tower Pole		\$ 8,000
		Sub Total	<b>\$ 223,292</b>
Provider Cash			
Open Broadband, LLC	Tower Lease Contribution - Electrical Bills	All Three Towers	\$ 5,400
Open Broadband, LLC	Tower Equipment	All Three Towers	\$ 50,865
Open Broadband, LLC	Construction Labor		\$ 4,500
Open Broadband, LLC	Operation of WiFi Poles		\$ 6,479
Open Broadband, LLC	Fiber and Data Center BW (3) years		\$ 144,000
		Sub Total	<b>\$ 211,244</b>
		<b>Total Cash Contributions</b>	<b>\$ 434,536</b>

County Contributions Total						
Gloucester County	\$	72,676	\$	42,000	\$	114,676
Middlesex County	\$	73,891	\$	42,000	\$	115,891
Mathews County	\$	76,725	\$	6,000	\$	82,725
Total	\$	223,292	\$	<b>90,000</b>	\$	<b>313,292</b>
Provider Total	\$	18,000	\$	<b>211,244</b>	\$	<b>229,244</b>
					<b>Total Match</b>	<b>\$ 542,536</b>
<i>Please See Attachment #7 for documentation of county cash contributions</i>						

## **Attachment 10 – Letters of Support**

1. Gloucester County Administrator
2. Mathews County Administrator
3. Delegate Keith Hodges
4. Middle Peninsula Planning District Commission
5. Gloucester Library
6. Gloucester Telecommunications Committee
7. Mathews Broadband Advisory Board
8. Gloucester Public Schools
9. Mathews Public Schools
10. Full Service School Program

**Note: It is our understanding that additional support letters were sent directly to the Department of Housing and Community Development.**



**Gloucester County  
Administrator's Office**

Telephone 804-693-4042

6489 Main Street, Gloucester, Virginia 23061

Fax 804-693-6004

August 14, 2020

Tamarah Holmes, Ph.D., Director  
Department of Housing and Community Development  
Office of Broadband  
600 E Main St #300, Richmond, VA 23219

Dear Dr. Holmes:

Gloucester County is pleased to submit the Gloucester Regional Fixed Wireless Broadband Project application for your consideration. We joined with the neighboring localities to develop a better solution for the many unserved homes in our communities. Gloucester is taking the lead with project administration and fiscal management and will be fulfilling the role of the applicant.

If funded, more than 600 homes and businesses will have access to broadband delivered by a new internet service provider. This will be the first step towards achieving the goal of ubiquitous broadband coverage throughout the region. The three counties face the same challenge of having a cable television service that provides broadband only in more populated areas leaving voids along the waterfront, around agricultural and forest lands and other less dense development. Reaching these sites through traditional means is cost prohibitive for any business. Fixed wireless technology is the answer for our needs and thankfully vertical assets are in place which greatly reduces the overall project cost.

The three Boards of Supervisors have conveyed their strong support for the project with matching funds that exceed the minimum requirement for the grant. In addition, each locality has an active citizen's broadband/telecommunications board/committee that are completely behind the project and eager to assist in helping to market the project if the grant is awarded.

Gloucester County has extensive experience managing grants, with values multiple times that of this request. The Co-applicant, Open Broadband, LLC is very competent and has a successful history of projects in the State of North Carolina. We are fortunate to have them interested in expanding to Virginia. Please do not hesitate to contact me if you have any concerns or questions about our proposal.

Sincerely,

J. Brent Fedors  
County Administrator

## County Administration



August 13, 2020

Tamarah Holmes, Ph.D.  
**Director**  
**Department of Housing and Community Development**  
**Office of Broadband**  
600 E Main St #300, Richmond, VA 23219

Dear Dr. Holmes:

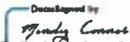
Mathews County seeks assistance from the Department of Housing and Community Development to meet the critical need for broadband service in our rural coastal community. Please accept this letter of support for a Virginia Telecommunication Initiative (VATI) grant from Mathews County in partnership with Middlesex County, Gloucester County, and Open Broadband. This project is designed to provide 180 passes, including home-based businesses and remote learners, with a fixed wireless solution.

The Mathews Board of Supervisors recognizes the need for broadband in our community to support education, health care, and our economic base. To this end, the Board voted unanimously to provide a local match up to \$90,000 to support this project.

As a community, Mathews understands the importance of broadband in our daily lives at home and at work. The Board of Supervisors appointed the Mathews Broadband Advisory Board in June 2019 to seek solutions for unserved and under-served areas in our county. The pandemic has significantly amplified this need. Our excellent school system cannot educate our children remotely without broadband. Our aging citizens cannot receive tele-health services without broadband. Our shrinking economic base cannot expand without broadband. Quite simply, the lack of broadband creates a crisis in Mathews that we lack the resources to address without support from your agency.

Please let me know if either I, or Board of Supervisors Chair Amy Dubois [adubois@mathewscountyva.gov](mailto:adubois@mathewscountyva.gov), or Broadband Advisory Board Chair Judy Rowe [judyrowemath@gmail.com](mailto:judyrowemath@gmail.com), can provide any further support for this application. On behalf of the Board of Supervisors and the residents of Mathews County, I appreciate your assistance and your serious consideration of this application.

Sincerely,

Developed by  
  
**Melinda Conner**  
County Administrator

804.725.7172 office  
804.725.7805 fax  
[mathewscountyva.gov](http://mathewscountyva.gov)

50 Brickbat Road | P.O. Box 839 | Mathews, VA 23109

**BE HERE**  
**MATHEWS**



COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

M. KEITH HODGES  
POST OFFICE BOX 928  
URBANNA, VIRGINIA 23175

NINETY-EIGHTH DISTRICT

COMMITTEE ASSIGNMENTS:  
COUNTIES, CITIES AND TOWNS  
HEALTH, WELFARE AND INSTITUTIONS  
COMMUNICATIONS, TECHNOLOGY  
AND INNOVATION

August 3, 2020

Tamarah Holmes, Ph.D  
Director, Office of Broadband  
Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear Dr. Holmes:

In my district, counties are struggling to expand their broadband service area to incorporate rural communities that have been left on the wrong side of the digital divide. In this day and time, the needs for high speed internet are great and well documented. All communities are struggling in the age of the pandemic but those bereft of adequate broadband, face an even greater challenge. With telework becoming the norm, kids returning to school remotely, and doctors opting to meet with at-risk patients online, it is a given that access to broadband is a critical element of modern life. We know that the Virginia Telecommunication Initiative (VATI) is an important factor in closing those gaps and financing worthy projects throughout the Commonwealth. By partnering with our local counties and providers, we can do together what we could never do alone.

With this in mind, I am pleased to offer my enthusiastic support to the application of Middlesex, Mathews, Caroline, and Lancaster counties for a regional VATI project to extend broadband access to meet this critical demand. In keeping with the governor's overarching mission of universal coverage, this project promises to connect hundreds of homes in our area, at a time when it's needed most. I can't think of a better investment of state resources than to expand broadband services to our rural communities.

This regional effort represents the very best of Virginia and demonstrates what we can accomplish when we work as a team. I wholeheartedly support their efforts.

Sincerely yours,

M Keith Hodges



## MIDDLE PENINSULA PLANNING DISTRICT COMMISSION

August 14, 2020

### COMMISSIONERS

#### **Essex County**

*Vacant*  
*Hon. Edwin E. Smith, Jr.*  
*Hon. John C. Magruder*  
*Mr. Michael A. Lombardo*

#### **Town of Tappahannock**

*Hon. Roy M. Gladding*

#### **Gloucester County**

*Hon. Ashley C. Chriscoe*  
*(Vice-Chairman)*  
*Dr. William G. Reay*  
*Hon. Michael R.*  
*Winebarger*

#### **King and Queen County**

*Hon. Sherrin C. Alsop*  
*Hon. R. F. Bailey*  
*Mr. Thomas J.*  
*Swartzwelder*  
*(Chairman)*

#### **King William County**

*Hon. David E. Hansen*  
*Hon. Travis J. Moskalski*  
*(Treasurer)*  
*Mr. Eugene J. Rivara*

#### **Town of West Point**

*Hon. James Pruett*

#### **Mathews County**

*Hon. George C. Morrow*  
*Mr. Thornton Hill*  
*Mr. Michael C. Rowe*  
*Ms. Melinda Conner*

#### **Middlesex County**

*Mr. Gordon E. White*  
*Hon. Wayne H. Jessie, Sr.*  
*Mr. Matthew L. Walker*  
*Hon. Kathy H. Swinehart*

#### **Town of Urbanna**

*Hon. Diane Gravatt*  
*Ms. Holly Gailey*

#### **Secretary/Director**

*Mr. Lewis L. Lawrence*

Ms. Carol Steele  
Interim Deputy County Administrator  
6489 Main Street  
Gloucester, VA 23061

Dear Ms. Carol Steele,

The Middle Peninsula Planning District Commission is pleased to support the Gloucester, County Regional Fixed Wireless Project application for a Virginia Telecommunications Initiative (VATI) grant to provide broadband to unserved areas in Gloucester, Mathews and Middlesex. The addition of intranet services will benefit both residents and businesses, providing a better quality of life and more economic vitality to the area.

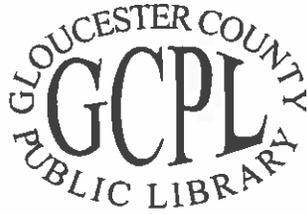
Much of the unserved areas in the region are along the waterfronts where working watermen make their living. Not only do the areas not have broadband, but some of the sites have no cell coverage or spotty coverage at best. Broadband access will allow watermen to communicate with their markets, check for pricing and make distribution plans which will create greater efficiency and generate additional sales revenue. Establishing access along the waterfronts will provide assistance to one of Virginia's oldest and vital industries and to many residents alike.

The Middle Peninsula needs ubiquitous broadband service to maintain and improve housing markets, develop new businesses, utilize telehealth services and ensure our children are properly educated, able to keep up with their studies and remain competitive with students from other regions.

The Planning District Commission supports you and the other partners on this much needed regional broadband effort. If you have any additional questions please feel free to contact me by phone at 804-758-2311 or by email at [l.lawrence@mppdc.com](mailto:l.lawrence@mppdc.com).

Sincerely,

Lewis Lawrence



**TO:** Carol Steele, Interim Deputy Administrator  
**FROM:** Diane Rebertus, Library Services Director  
**DATE:** August 6, 2020  
**RE:** Digital Equity Effort and VATI Broadband Grant

We are pleased to announce an initiative to help overcome the digital divide in Gloucester County. Starting mid-year to early fall 2021, computer classes will be offered to residents who will receive Internet through the VATI broadband grant.

In an effort to ensure that Gloucester County grant recipients have the tools they need to maneuver the Internet and reap information knowledgeably, Library instructors will offer beginner user computer classes. Our objective is to help residents overcome the digital divide.

Neighboring localities will offer classes and one-on-one tutoring sessions for their residents who are grant recipients as well. Mathews Memorial Library in Mathews County, VA and Middlesex Public Libraries in Middlesex County, VA plan to review and refashion their current Internet instruction to ensure that they provide training to these new users of the broadband service.

One hundred thirty-three (133) homes in Gloucester County will benefit from this grant, along with one hundred eighty (180) homes in Mathews County and three hundred fifty-five (355) homes in Middlesex County.

As a special incentive and to encourage participation, the Gloucester County Friends of the Library will provide door prizes for broadband recipients that participate in the classes.

To ensure that this information is shared with the widest range of outlets and reaches the most people, we will advertise on the local radio channel, the local newspaper, social media, press releases, word of mouth and sharing with local non-profit groups.

We look forward to helping residents receive the instruction and training that they might need in order to reap the full benefits of this new broadband service in our County. Reading is fundamental but knowing how to successfully maneuver the Internet is fundamental as well.

**Gloucester Telecommunications Committee**

c/o Gloucester County Administration

6489 Main Street

Gloucester, VA 23061

August 9, 2020

Tamarah Holmes, Ph.D  
Director, Office of Broadband  
Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear Dr. Holmes:

I am writing in support of the Gloucester, Mathews, Middlesex Regional Fixed Wireless broadband grant through the Virginia Telecommunications Initiative (VATI). The Gloucester County Telecommunications Committee voted unanimously in support of the application which will provide much needed service access to residents and businesses who are unserved. The need for broadband has never been more evident than during the Coronavirus Pandemic.

Each of the three school systems have elected to start the school year with distance learning. It's highly probable that distance learning will be utilized in one form or another for the entire year. The students who don't have broadband access need a permanent solution. The temporary use of MiFi's will not work for some because of poor cell service and using cell data is cost prohibitive.

In addition to the problems with the lack of access to broadband for families who have school aged children, there are many others who need broadband to be able telework, for higher education studies and for businesses that need to utilize internet sales and services. The proposed VATI application will provide nearly 700 locations in Gloucester, Mathews and Middlesex access to broadband and will have a tremendous impact for the region.

Our committee and the local government are completely behind the application and have made commitment of a financial contribution along with staff resources. Members of the Telecommunications Committee will help promote both the grant and the digital equity program.

Thank you for your consideration. We hope that these much needed funds will be provided and that our region can take a significant step towards solving the lack of broadband access dilemma.

Sincerely,

*C. Grover on behalf of Michael Jenkins*  
Michael Jenkins,  
Chairperson

Tamarah Holmes, Ph.D  
Director, Office of Broadband  
Department of Housing & Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

10 August 2020



*Created by  
a Resolution from  
Mathews County  
Board of Supervisors  
June, 2019*

**Judy Rowe  
Chair**

**Nancy Welch  
Vice-Chair**

**Cynthia Hayes  
Secretary**

**Edith Turner  
Media Reporter**

**Rob Quartel**

**Chuck Huntley**

**Greg Lewis**

**Bill Vrooman**

**Wyatt Hutson**

**Amy Dubois  
Board of Supervisors,  
Liaison**

Dear Dr. Holmes,

The mandate of the Mathews Broadband Advisory Board is to find ways to provide accessible, affordable, reliable, universal, high-speed broadband to our county.

The lack of access to broadband in our county creates outrageous discrimination among our students. About 10% have no access and overall 30 - 35% have insufficient broadband to complete their assignments or to get online help. This inequity must be erased. Mathews is joining Gloucester and Middlesex Counties in a Virginia Telecommunications Grant application with a fixed wireless provider, Open Broadband LLC, that would provide access to service for 180 addresses.

The eight stakeholder groups that we have brought together with our Advisory Board include several who would telework from home, if they could. Instead they are renting space in the courthouse area where they can get sufficient broadband to do their jobs. This is costly.

We have been receiving calls from second home owners who want to make Mathews their primary home. One international lawyer and one home business husband and wife have contacted us in the past three weeks to ask for help. Because they lack access to broadband they are also finding it difficult to rent these homes. The impact on home values and home sales is now an issue. Realtors report that clients do not want to see a house without access to broadband.

Affordability has two sides in Mathews: connection costs and monthly fees. Quotes of up to \$50K for a connection are not acceptable for anyone. A grant would remove this financial obstacle in the service area. Learning recently that no low cost/low income packages are available, our BAB is working with Senator Warner's office to provide the appropriate public information on the Lifeline Program for broadband assistance through the FCC.

One of our residents told us she has a pacemaker, monitored through VCU Medical Center. The newest telemonitoring technology will not work with her broadband service. The hospital is searching for solutions. Meanwhile there is no way to know if she is at risk. With our high percentage of senior citizens, telemedicine is even more crucial to the health and well being of our residents.

With many miles of shoreline along the Chesapeake Bay the water industry is an important part of the economies of our three counties. Numerous acres of farmland stretch across them, too. Having access to the latest technology available for these two industries, the men and women who work in them would benefit greatly.

Sincerely,  
Mathews Broadband Advisory Board  
Judy Rowe, Chair     judyrowemath@gmail.com



Walter R. Clemons, Ph.D., Division Superintendent  
Gloucester County Public Schools  
The Thomas Calhoun Walker Education Center  
6099 T.C. Walker Road  
Gloucester, Virginia 23061  
804-693-1425 or 0298 (0)  
[wclemons@gc.k12.va.us](mailto:wclemons@gc.k12.va.us)

August 10, 2020

Tamarah Holmes, Ph.D.  
Director, Office of Broadband  
Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear Dr. Holmes:

As Superintendent of Gloucester County Public Schools, I am writing in support of the Gloucester, Mathews and Middlesex Fixed Wireless Regional Broadband grant application through the Virginia Telecommunications Initiative (VATI) program. Gloucester County Public Schools, as many school districts throughout the State and the nation, will have a modified schedule this year that requires distance learning. Our school year will begin with a 100% virtual start for at least the first nine weeks of school and will include some level of distance learning throughout the entire school year. As a result, broadband is mandatory for distance learning to be successful and create equitable learning opportunities for all of our students.

The lack of broadband access is a substantial problem in Gloucester and the region. There are over 600 students in Gloucester who have no access to service and many of them do not have reliable cellular service which restricts their ability to utilize MiFi's and smart devices to reach the Internet. Digital inequity must be resolved with ubiquitous, reliable and affordable broadband service.

The regional application will provide service to 29 current students in Gloucester; 23 of which qualify for free or reduced lunches. While we wish the number of students included in the application was higher, we support every effort to provide access to broadband. In addition, the 133 sites in Gloucester that will gain access to broadband include employees of our school division as well as other community members and businesses who will greatly benefit from this endeavor.

We hope that the Commonwealth will not only fund our regional project but continue to address the lack of broadband until all Virginians are served. In closing, thank you for your time and for your consideration of this request. Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Walter R. Clemons".

Walter R. Clemons, Ph.D.  
Division Superintendent

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# MATHEWS COUNTY PUBLIC SCHOOLS

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www.mathews.k12.va.us

Nancy B. Welch, Ed.S.  
Division Superintendent

Lesley R. Hunley, M.Ed., MPA  
Assistant Superintendent

August 4, 2020

Tamarah Holmes, Ph.D  
Director, Office of Broadband  
Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear Dr. Holmes,

A coalition of three Virginia counties (Mathews, Middlesex and Gloucester) are seeking resources to provide broadband services to their resident citizens for tele-medical, educational services and local small business.

The coalition has applied for, local government funds, and private sector resources for a regional Virginia Telecommunication Initiative (VATI) project to extend broadband access to a significant portion of the region's currently unserved residents and businesses.

Mathews County is in desperate need for broadband services to support public access to education Pk-12. Due to the COVID-19 Global Pandemic, face-to-face instructional opportunities have been limited since Friday, March 13, 2020. Mathews County Public Schools will reopen to students on Monday, August 31, 2020 in a virtual modality due to continued and growing concerns related to the virus that causes COVID-19. The school division has been successful in obtaining Chromebooks for all students, a limited amount of hotspots and Kajeet units for Smart Bus (Wi-Fi access) rollouts in our community. Although these supports are in place, Mathews County, very simply, does not have a signal available in many areas to implement the hotspots and Smart Bus devices.

During the 2019-2020 school term, Mathews County Public Schools served 1,006 students. Forty-six percent of the student population are considered financially disadvantaged. Continuing access to public education is critical, especially for those who are clearly at a distinct financial disadvantage when compared to their peers. All classes and support services (speech & language, school counseling, ELL, etc.) will be delivered online. Our third party partners who provide professional counseling services and specialized instructions for the hearing impaired have also successfully provided services virtually; however, many families must travel to areas that provide free Wi-Fi to access a suitable connection. In the end, not all students have equitable access to public education services.

Prior to the mandatory school closings, Mathews County Public Schools provided a robust dual enrollment program, workforce development, Advance Placement and other online courses. With the exception of one course, welding, all transferred into the virtual environment with limited disruption. To maintain access to such programs in this day and time, universal coverage is essential. Equity to educational services should be the norm, not the exception.

Mathews County Public Schools fully supports the VATI grant to expand broadband access to public education and support services.

Sincerely,



Nancy B. Welch, Ed.S.  
Division Superintendent





## Gloucester Department of Community Engagement and Public Information

6382 Main Street  
Gloucester, Va. 23061

804.693.5730 • [www.gloucesterva.info](http://www.gloucesterva.info)

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Bethel Coordinator  
2991 Hickory Fork Rd., Gloucester VA 23061  
804-693-0654/vlewis@gc.k12.va.us

August 8, 2020

On behalf of the Bethel, Peasley and Petsworth Full Service School programs, I'd like to endorse the Fixed Wireless Regional Broadband grant from the Department of Housing and Community Development's Virginia Telecommunications Initiative (VATI) program.

The Full Service School program is an award-winning collaboration between Gloucester's human service agencies. The prevention program works with identified at-risk families to provide them with wrap-around services that include mental health.

The onset of the Covid-19 pandemic mandated that all services provided to these families be virtual, including mental health which proves difficult for families without consistent internet access. Additionally, the 2020-21 school year opens on-line and the families with low digital literacy will struggle to succeed. The absence of reliable internet connectivity puts the families at an even greater risk. The need for broadband is imperative.

If the grant is funded, Full Service School managers will ensure families can participate in the public library's free computer literacy classes.

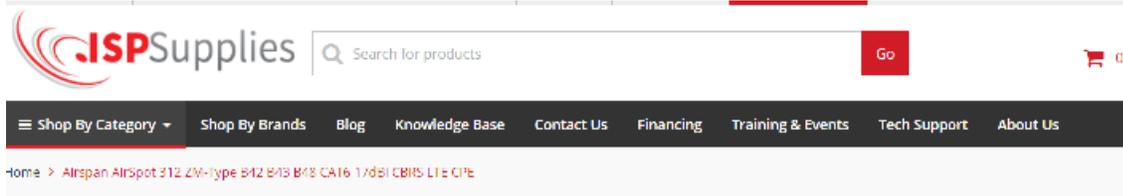
Access to broadband connectivity will help level the playing field for some of Gloucester's most at-risk families. We support the grant application digital literacy efforts to ensure these most vulnerable children receive all of the services and benefits they deserve.

Valerie J. Lewis  
Bethel Full Service School Program Manager  
Gloucester County Community Policy and Management Team Full Service School Coordinator

TOTAL PROJECT SUMMARY		Unserviced Addresses									
		133	Gloucester Landfill Tower								
		327	Middlesex Jamaica Tower								
		180	Matthews Tower								
		<b>640</b>	<b>Total</b>								
										<b>Non-VATI County Details</b>	
<b>Equipment (1-year)</b>			<b>Total</b>	<b>VATI</b>	<b>Non VATI OpenBB</b>	<b>Non VATI County</b>	<b>Source of Estimate</b>	<b>Non-Vati</b>	<b>Gloucester Total</b>	<b>Mathews Total</b>	<b>Middlesex Total</b>
	Gloucester Landfill Tower	\$	136,068	\$ 78,524	\$ 12,868	44,676	OpenBB	\$ 57,544	\$ 44,676	\$ -	\$ -
	Middlesex Jamaica Tower	\$	198,443	\$ 109,089	\$ 23,463	65,891	OpenBB	\$ 89,354		\$ -	\$ 65,891
	Matthews Tower	\$	139,346	\$ 92,087	\$ 14,534	32,725	OpenBB	\$ 47,259	\$ -	\$ 32,725	\$ -
	<b>Equipment Total</b>	\$	<b>473,857</b>	\$ <b>279,700</b>	\$ <b>50,865</b>	<b>\$ 143,292</b>		\$ 194,157	\$ -	\$ -	\$ -
<b>Construction Labor</b>			<b>Total</b>	<b>VATI</b>	<b>OpenBB</b>	<b>County</b>					
	Gloucester Landfill Tower	\$	28,408	\$ 26,908	\$ 1,500	0	OpenBB	\$ 1,500	\$ -	\$ -	\$ -
	Middlesex Jamaica Tower	\$	28,408	\$ 26,908	\$ 1,500	0	OpenBB	\$ 1,500	\$ -	\$ -	\$ -
	Matthews Tower	\$	28,408	\$ 26,908	\$ 1,500	0	OpenBB	\$ 1,500	\$ -	\$ -	\$ -
	<b>Labor Total</b>	\$	<b>85,224</b>	\$ <b>80,724</b>	\$ <b>4,500</b>	<b>\$ -</b>		\$ 4,500	\$ -	\$ -	\$ -
<b>Tower Lease (3-years)</b>			<b>Total</b>	<b>VATI</b>	<b>OpenBB</b>	<b>County</b>					
	Gloucester Landfill Tower	\$	37,800	\$ -	\$ 1,800	\$ 36,000	OpenBB	\$ 37,800	\$ 36,000		
	Middlesex Jamaica Tower	\$	37,800	\$ -	\$ 1,800	\$ 36,000	OpenBB	\$ 37,800			\$ 36,000
	Matthews Tower	\$	73,800	\$ 36,000	\$ 1,800	\$ 36,000	OpenBB	\$ 37,800		\$ 36,000	
	<b>Tower Total</b>	\$	<b>149,400</b>	\$ <b>36,000</b>	\$ <b>5,400</b>	<b>\$ 108,000</b>		\$ 113,400			
<b>Existing Tower Improvements</b>											
	Improvements - Gloucester Landfill Tower	\$	60,860	\$ 40,860	\$ -	\$ 20,000	DesignNine	\$ 20,000	\$ 20,000		
	<b>Tower Improvements Total</b>	\$	<b>60,860</b>	\$ <b>40,860</b>	\$ -	<b>\$ 20,000</b>		<b>\$ 20,000</b>			
<b>New Neighborhood Poles</b>			<b>Total</b>	<b>VATI</b>	<b>OpenBB</b>	<b>County</b>					
	New neighborhood poles to mount antennas	\$	41,370	\$ 41,370	\$ -	\$ -	DesignNine 30%	\$ -			
	(3) New poles for Public wifi access	\$	24,000		\$ -	\$ 24,000	OpenBB	\$ 24,000	\$ 8,000	\$ 8,000	\$ 8,000
	Public Wifi poles ( 3-years operation)	\$	6,479		\$ 6,479		OpenBB	\$ 6,479			
	<b>Total Neighborhood Poles</b>	\$	<b>71,849</b>	\$ <b>41,370</b>	\$ <b>6,479</b>	<b>\$ 24,000</b>		\$ 30,479			
<b>Project Mgmt &amp; Coordination (1-year)</b>			<b>Total</b>	<b>VATI</b>	<b>OpenBB</b>	<b>County</b>					
	Landfill Tower	\$	12,000	\$ -	\$ 6,000	\$ 6,000	OpenBB	\$ 12,000	\$ 6,000		
	Middlesex Jamaica Tower	\$	12,000	\$ -	\$ 6,000	\$ 6,000	OpenBB	\$ 12,000			\$ 6,000
	Matthews Tower	\$	12,000	\$ -	\$ 6,000	\$ 6,000	OpenBB	\$ 12,000		\$ 6,000	
	<b>PM Total</b>	\$	<b>36,000</b>	\$ -	\$ <b>18,000</b>	<b>\$ 18,000</b>		\$ 36,000			
<b>Fiber and Data Center BW (3-years)</b>			<b>Total</b>	<b>VATI</b>	<b>OpenBB</b>	<b>County</b>					
	3-years (\$4000/mo * 36)	\$	144,000	\$ -	\$ 144,000	\$ -	OpenBB	\$ 144,000			
			<b>Total</b>	<b>VATI</b>	<b>OpenBB</b>	<b>County</b>					
	<b>Grand Total</b>	\$	<b>1,021,190</b>	\$ <b>478,654</b>	\$ <b>229,244</b>	<b>\$ 313,292</b>		\$ 542,536	\$ <b>114,676</b>	\$ <b>82,725</b>	\$ <b>115,891</b>
			<b>Percent of Project</b>	<b>46.87%</b>	<b>22.45%</b>	<b>30.68%</b>			<b>In-Kind Contributions in Blue</b>		



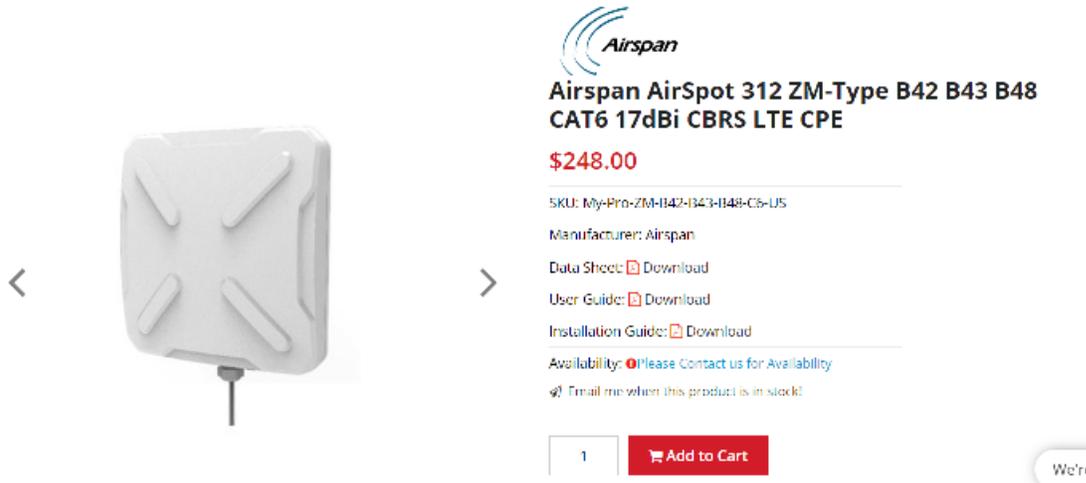
## Attachment 12 –Documentation Supporting Project Costs



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Home > Airspan AirSpot 312 ZM-Type B42 B43 B48 CAT6 17dBi CBRS LTE CPE



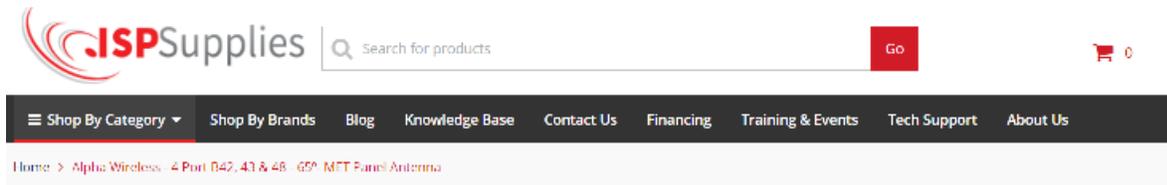
**Airspan**

### Airspan AirSpot 312 ZM-Type B42 B43 B48 CAT6 17dBi CBRS LTE CPE

**\$248.00**

SKU: My-Pro-ZM-B42-B43-B48-C6-US  
Manufacturer: Airspan  
Data Sheet: [Download](#)  
User Guide: [Download](#)  
Installation Guide: [Download](#)  
Availability: ● Please Contact us for Availability  
 Email me when this product is in stock!

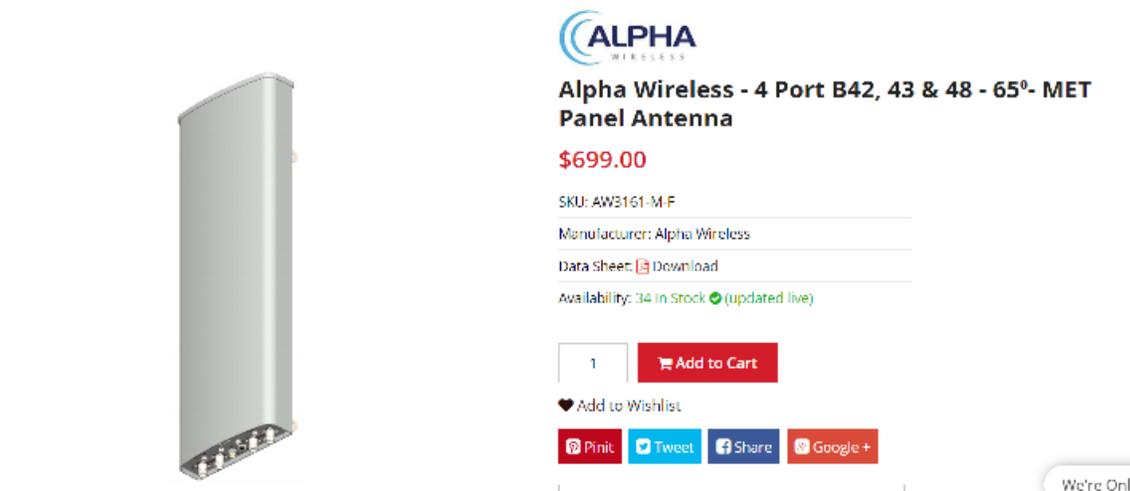
1 [Add to Cart](#) [We're Online](#)



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Home > Alpha Wireless - 4 Port B42, 43 & 48 - 65°- MET Panel Antenna



**ALPHA WIRELESS**

### Alpha Wireless - 4 Port B42, 43 & 48 - 65°- MET Panel Antenna

**\$699.00**

SKU: AW3161-M-F  
Manufacturer: Alpha Wireless  
Data Sheet: [Download](#)  
Availability: ● 34 In Stock (updated live)

1 [Add to Cart](#) [Add to Wishlist](#)

[Pin it](#) [Tweet](#) [Share](#) [Google +](#) [We're Online](#)



### Airspan AirHarmony 4200 3550 - 3700 MHz (B48), Connectorized 2x Fiber + 2x Copper, PoE, DC

**\$7,490.00**

SKU: HAR42-CN-U48-B06DP

Manufacturer: Airspan

Data Sheet: [Download](#)

Installation Guide: [Download](#)

Availability: ● Please Contact us for Availability

[Email me when this product is in stock!](#)

1



### Ubiquiti 5GHz Rocket ac Gen2 airPrism metal

**\$249.00**

SKU: RP-5AC-GEN2-US

Manufacturer: Ubiquiti Networks

Data Sheet: [Download](#)

Quick Start Guide: [Download](#)

Availability: 129 In Stock ● (updated live)

1



**RF ELEMENTS**

### RF Elements UltraHorn TP 5-24 Ultimate Noise Rejecting Point-to-Point Antenna

**\$435.00**

SKU: UH-TP-5-24

Manufacturer: RF Elements

Data Sheet: [Download](#)

Availability: 51 In Stock (updated live)

(click to select)

TPA-RBC RF Elements TwistPort™ Adaptor for RouterBoard <b>\$63.00</b>	<input type="text" value="1"/>
TPA-PAF	<input type="text" value=""/>



**MikroTik**

### MikroTik Cloud Core Router CCR1009-7G-1C-1S+PC

**\$495.00**

SKU: CCR1009-7G-1C-1S+PC

Manufacturer: MikroTik

Data Sheet: [Download](#)

User Guide: [Download](#)

Block Diagram: [Download](#)

Availability: Please Contact Us for Availability

Email me when this product is in stock!



## Ubiquiti 48-Port 500W Managed PoE+ Gigabit Switches With SFP

**\$899.00**



SKU: ES-48-500W

Manufacturer: Ubiquiti Networks

Data Sheet: [Download](#)

Quick Start Guide: [Download](#)

Availability: **1 In Stock** ✔ (updated live)

[Add to Cart](#)[♥ Add to Wishlist](#)

## Tycon Power Weatherproof Steel Outdoor Enclosure, 23x24x16"

**\$332.45** ~~\$349.95~~

SKU: ENC-STL-24x24x16

Manufacturer: Tycon Systems

Data Sheet: [Download](#)

Availability: **1 In Stock** ✔ (updated live)

**Add ons** (click to select)

ENC-STL-RMK

Back mount system for Tycon Systems ENC-STL-24x24x16

**\$44.00** ~~\$47.50~~

**RF ELEMENTS™**

### RF Elements 30° Symmetrical Horn TP Antenna Gen2

**\$143.00**

SKU: HC3-TP-S30

Manufacturer: RF Elements

Data Sheet: [Download](#)Installation Guide: [Download](#)Availability: 147 In Stock [\(updated live\)](#)[Add to Cart](#)[Add to Wishlist](#)**RF ELEMENTS™**

### RF Elements TwistPort™ Adaptor for Rocket 5ac Prism and AirFiber 5X-HD

**\$57.00**

SKU: TPA-PAF

Manufacturer: RF Elements

Data Sheet: [Download](#)Availability: 230 In Stock [\(updated live\)](#)[Add to Cart](#)[Add to Wishlist](#)[Pin it](#) [Tweet](#) [Share](#) [Google +](#)

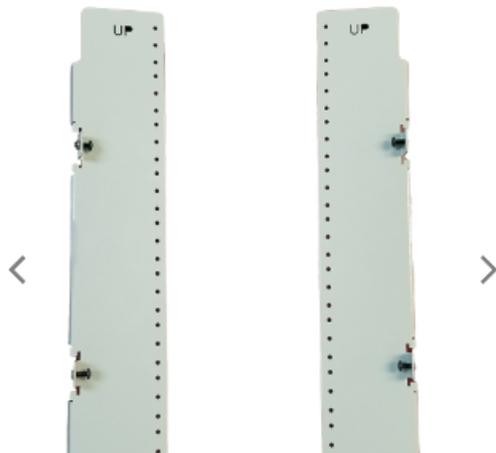


Search for products

Go



Home > Rack mount system for Tycon Systems ENC-STL-24x24x16



### Rack mount system for Tycon Systems ENC-STL-24x24x16

\$32.88 ~~\$47.50~~

SKU: ENC-STL-RMK

Manufacturer: ISP Supplies

Availability: 28 In Stock (updated live)

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Home > Ubiquiti airFiber 11GHz Full Duplex PTP 1.2+Gbps Integrated Radio Low Band



### Ubiquiti airFiber 11GHz Full Duplex PTP 1.2+Gbps Integrated Radio Low Band

SKU#: AF11-Complete-LB

2 In stock

Ubiquiti airFiber 11GHz full duplex PTP 1.2+Gbps integrated radio is the first modular airFiber radio system purpose-built for the 11 GHz licensed frequency market that breaks free from the congested 5 GHz band.

\$1,472.50 ~~Instant savings: \$26.50~~

1 Add to Cart



#### RELATED PRODUCTS



Ubiquiti airFiber 11FX Modular High-Band Duplexer

\$188.00

2 are required to make a link between tower sites



### Shireen 1000ft, Outdoor shielded Cat6

\$206.00 ~~\$264.00~~

SKU: DC-2021

Manufacturer: Shireen

Data Sheet: [Download](#)

Availability: 12 In Stock (updated live)

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[Back to results](#)



### Tripp Lite Metered PDU, 10 Outlets (8 C13, 2 C19), 200-240V, C20/L6-20P Adapter, 3.2-3.8kW, 12 ft. Cord, 1U Rack-Mount Single-Phase PDU, TAA (PDUMH20HV)

Visit the [Tripp Lite Store](#) [14 ratings](#) | [4 answered questions](#)

**Best Deal**  
List Price: ~~\$255.00~~  
Price: **\$164.18** ✓prime & FREE Returns  
You Save: **\$71.62 (28%)**

Available at a lower price from other sellers, potentially without free Prime shipping.

- 208/240 & 230V metered 1U horizontal mount Power Distribution Unit (PDU)
- 20A maximum capacity (Agency de-rated to 16A)
- Includes L6-20P and C20 line cord options (detachable via C20 inlet)
- 10 total output receptacles (8 C13 and 2 C19)
- Outlets are arranged in a single unbroken, metered load bank

### XLD WiMAX Tower Mounts (Standoff 16.5" Rd 2.5"-10.75" Ang 2"-8")



Price: **\$491.00**

Qty:

[Add to Cart](#)

SKU: CWT01.LL  
Size: 16-1/2" Stand Off

Description    Specs/Instructions

- CWT01-LL • XLD WiMax Tower Mounts.
- Kit is one sector • Weight - 138 lbs. • Stand Off - 16-1/2"
- Fits round legs 2-1/2" to 10-3/4" Equal angle legs 2" to 8".
- Antenna mounting pipes stand 16-1/2" off of tower on standard kit, 32-1/2" on long version.



### Antenna Mounting Pipes - 2-3/8" x 126"



Price: **\$65.49**

Qty:

[Add to Cart](#)

SKU: P2126  
Size: 2-3/8" x 126"

Description    Specs/Instructions

- P2126 • Antenna Mounting Pipes.
- 2-3/8" x 126"

- [VIEW ALL BULK PIPE & ANGLE](#)
- [VIEW ALL HARDWARE](#)
- [VIEW COMPLETE PRODUCT CATALOG](#)

## SAS Pricing



For fixed wireless.

\$2.25 per residence per month, taxes not included.



For mobility, private-LTE, IoT,  
and other use cases.

Priced per radio, please [contact us](#) for details.



# Estimate

EST-22280

6/18/2020

Bill To	Ship To	TOTAL
Alan Fitzpatrick Open Broadband, LLC 201 N High St Waxhaw NC 28173	Kent Winnich Open Broadband, LLC 22780 Gheen Rd Salisbury NC 28147	<b>\$16,811.84</b> US Dollar

Expires	Sales Rep	Shipping Method
7/18/2020	Ortega, Daniel <a href="mailto:djan@ispsupplies.com">djan@ispsupplies.com</a>	UPS® Ground

Qty	Item	Rate	Tariff Fee	Amount
1	<b>FWA_Small</b> Small FWA core including LTE EPC (MaxUsers 2000) with annual support	\$2,660.00		\$2,660.00
0	<b>MECABAS</b> 1 Raemis Site MEC Data (Requires one instance of ABASSGW)	\$2,512.00		\$0.00
5	<b>FWA_USR100</b> 100 User License Bundle	\$2,022.00		\$10,110.00
0	<b>MECUSR100</b> 100 User License Bundle for MEC	\$1,256.00		\$0.00
1	<b>SUPMNT</b> Annual Support and Maintenance 1X Maintenance Due for renewal annual	\$1,149.30		\$1,149.30
1	<b>NS-CBRS-DP-5-X509</b> Netspan CBRS Domain Proxy Licence, 5 years validity	\$560.00		\$560.00
1	<b>NS-CBRS-DP</b> Netspan CBRS Domain Proxy License	\$280.00		\$280.00
1	<b>ASPlus</b> Airsan Technical Support Services 1-4 24/7 with User GUI	\$952.70		\$952.70

Thank you for your business with ISP Supplies!

Please review this estimate for any errors, corrections or adjustments that are needed.

Please contact your sales rep with any questions or concerns.

<b>Subtotal</b>	\$15,712.00
<b>Discount Total</b>	
<b>Shipping Cost</b>	\$0.00
<b>Total Tax (7%)</b>	\$1,099.84
<b>Total</b>	<b>\$16,811.84</b>

## Consumables at Premise

(quantity varies by location, and may or may not be needed at all sites)



Roll over image to zoom in

### THE CIMPLE CO Single Coaxial Cable Clips, Cat6, Electrical Wire Cable Clip, 1/4 in (6 mm) Screw Clip and Fastener, Black (100 Pieces per Bag)

Brand: THE CIMPLE CO  
 ★★★★★ 369 ratings | 17 answered questions  
 Amazon's Choice for 'the cimple co'

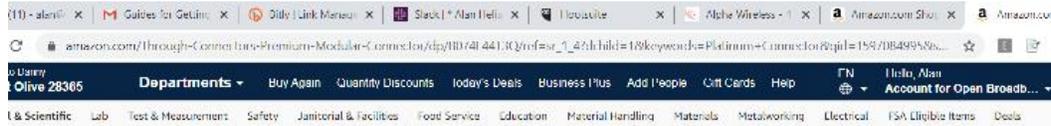
List Price: \$11.99  
 Business Price: \$9.97 + \$2.00 shipping  
 You Save: \$2.02 (16%)

Size: 100 Pack Size Chart

10 Pack \$6.97 prime	50 Pack \$8.47 prime	100 Pack \$9.97
----------------------------	----------------------------	--------------------

Color: Black

- Specifically designed with strong, yet soft, plastic material that won't damage coaxial, data, electrical, or other wire and cables. Additionally, by using a special PE UV material, no electrical shorts are created (as seen with staples or metal clips).
- Added ridges 'lock' the clip in place, allowing it to automatically adjust to a wide variety of cable and wire sizes. Allows for near 360 degrees of grip, so that the cable will not slide back and forth for most sizes.
- High Quality, Outdoor Rated, UV Protected PE Clip and Long-Life Yellow Zinc plated screw anchors are designed to be strong and easy to install. They are pre-installed into the clip, saving time and making installation much easier.
- Twin mounting head allow for the use of either a 1/4" hex drive bit, or a standard #2 Phillips head drill bit. A standard #2 Phillips head screwdriver may also be used to install the clips.
- Package of 100 Black Clips. Clips allow for an additional 16-30AWG wire to be attached to provide the ultimate fast and easy connection of coaxial and



Protect your team with infection prevention essentials [LEARN MORE](#)

results



### ITBEBE 100 Pieces Gold Plated end Pass Through RJ45 CAT6 Connectors 8P8C 3 Micron 3u 3 Prong Premium Modular UTP Plug Connector

Visit the itbebe.com Store  
 ★★★★★ 1,280 ratings | 43 answered questions

Was: \$35.99  
 Business Price: \$34.99 prime & FREE Returns  
 You Save: \$1.00 (2%)

Buy more, save more

10 units \$33.24 Save 7%	100 units \$29.74 Save 17% <b>LOWEST PRICE</b>
--------------------------------	---

Size: Cat6/ 100 pieces

Cat5/ 5e/ 50 Pieces \$18.00 prime	Cat5/5e 50/50 Pieces \$24.99 prime	Cat5/5e 100 Pieces \$28.99 prime
Cat6/6a 50 Pieces \$18.99 prime	Cat6/6a 100 Pieces \$33.99 prime	Cat6/ 50 Pieces \$18.99 prime
CAT6 50/50 Pieces \$27.99	Cat6/ 100 pieces \$34.99	

4-star supplies for work BusinessPlus selection

Accessories & Supplies > Cord Management > Cable Ties



ezlap.com/...

### 500 Pcs 11" Inch Black Nylon Cable Zip Ties 50 Lbs Tensile Strength Heavy Duty

Brand: Teclon  
 ★★★★★ 67 ratings

Best Deal

Price: \$18.95 ✓prime & FREE Returns

Buy more, save more

5 units  
**\$16.95** **LOWEST PRICE**  
 Save 10%

- 5 bags of 100 Black 11" Nylon Cable Ties for a total of 500 pcs
- 50 lbs test tensile rating Used for numerous applications
- Curved tip is easy to pick from flat surfaces and allows faster initial threading to speed installation
- Quantity: 500 Pieces
- 11" Black Nylon Cable Ties

Compare with similar items

New (2) from \$18.95 ✓prime FREE Shipping

Report incorrect product information.

**Unlimited talk, text & data**  
 10% back for Prime members  
 Shop now >



Roll over image to zoom in

hacorn.com/...

### GE 6 Outlet Surge Protector, 15 Ft Extension Cord, Power Strip, 800 Joules, Flat Plug, Twist-to-Close Safety Covers, White, 50768

Visit the GE Store  
 ★★★★★ 10,891 ratings | 136 answered questions

Amazon's Choice for "power strip flat plug 15 ft"

Checking Prices...

Price: \$18.99 ✓prime & FREE Returns

Available at a lower price from other sellers, potentially without free Prime shipping.

Color: White



Size: 15 Ft [Size Chart](#)

2 ft 3 Ft 3 ft 4 Ft 6 Ft 8 ft 10 ft **15 Ft**

20 Ft

Style: One Pack

**One Pack** Two Pack

- Expand your power – 6 grounded and protected 3-prong outlets provide power from a distance — perfect for creating a centralized hub for your electronics at your home, office, workshop or garage
- Versatile Cord – Extra-long 15ft. power cord comprised of 14-gauge SJT cable housed in a durable PVC insulation and jacket with a space-saving flat plug at the end to allow unit to fit snugly to the wall. This heavy-duty cord is strong enough to last a lifetime and pliable enough to easily fully extend
- Protection – 800 Joules protection rating safeguards your electronics from



## Ubiquiti ETH-SP-G2 Surge Suppressor/Protector

Brand: Ubiquiti Networks

★★★★☆ 111 ratings | 16 answered questions

Best Deal

Price: **\$12.49** & **FREE Shipping**

Not eligible for Amazon Prime. Available with free Prime shipping from other sellers on Amazon.

- Weight (Approximate): 1.10 lb

Compare with similar items

New (38) from **\$12.30** + **FREE Shipping**

Offers also available from **certified small and diverse sellers**. Details

Report incorrect product information.



## Ubiquiti Networks POE-24-12W-G PoE Injector, 12W, Black

Brand: Ubiquiti Networks

★★★★☆ 150 ratings | 23 answered questions

List Price: \$22.99

Business Price ~ **\$12.96** ✓prime & **FREE Returns**

You Save: **\$10.03** (43%)

Color: **Black**

- Provides Earth grounding and Surge protection
- Helps protect against ESD attacks
- Powers ubiquiti PoE devices
- Country Of Origin : China

Compare with similar items

New & Used (30) from **\$12.19** ✓prime **FREE Shipping**

Offers also available from **certified small and diverse sellers**. Details

Report incorrect product information.





(RETAIN FOR YOUR RECORDS)  
Form 477 Filing Summary

FRN: 0026202879 | Data as of: Dec 31, 2018 | Operations: Non-ILEC | Submission Status: Original - Submitted | Last Updated: Mar 7, 2019 16:52:56

## Filer Identification

Section	Question	Response
<b>Filer Information</b>	Provider Name	Open Broadband, LLC
	Holding Company Name	Open Broadband, LLC
	SAC ID	
	499 ID	
<b>Data Contact Information</b>	Data Contact Name	Kent Winrich
	Data Contact Phone Number	(919) 924-3389
	Data Contact E-mail	kent@openbb.net
<b>Emergency Operations Contact Information</b>	Emergency Operations Name	Kent Winrich
	Emergency Operations Phone Number	(919) 924-3389
	Emergency Operations E-mail	kent@openbb.net
<b>Certifying Official Contact Information</b>	Certifying Official Name	Kent Winrich
	Certifying Official Phone Number	(919) 924-3389
	Certifying Official E-mail	kent@openbb.net

## Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	CompletedMerge.csv	Mar 7, 2019 16:46:28	11484
Fixed Broadband Subscription	TowerCoverage_477_Broadband_Subscriber_Data (2).csv	Mar 7, 2019 16:46:52	41

## Fixed Broadband Deployment

### Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
North Carolina	Open Broadband LLC	Terrestrial Fixed Wireless	11361
South Carolina	Open Broadband LLC	Terrestrial Fixed Wireless	123
<b>Total</b>			<b>11484</b>

### Fixed Broadband Subscriptions by State, Technology and End-user Type

Fixed Broadband Subscription

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
North Carolina	Terrestrial Fixed Wireless	41	107	20	127
<b>Total</b>		<b>41</b>	<b>107</b>	<b>20</b>	<b>127</b>

Fixed Broadband Subscriptions by Bandwidths and End-user Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
10.000	25.000	2	0	2
15.000	25.000	1	0	1
25.000	2.000	1	0	1
25.000	25.000	52	10	62
25.000	60.000	0	1	1
50.000	50.000	42	3	45
60.000	60.000	3	0	3
75.000	75.000	1	0	1
100.000	100.000	5	2	7
200.000	200.000	0	2	2
1000.000	1000.000	0	2	2
<b>Total</b>		<b>107</b>	<b>20</b>	<b>127</b>

Fixed Broadband Subscriptions by Technology, Bandwidths and End-user Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Terrestrial Fixed Wireless	10.000	25.000	2	0	2
	15.000	25.000	1	0	1
	25.000	2.000	1	0	1
	25.000	25.000	52	10	62
	25.000	60.000	0	1	1
	50.000	50.000	42	3	45
	60.000	60.000	3	0	3
	75.000	75.000	1	0	1
	100.000	100.000	5	2	7
	200.000	200.000	0	2	2
	1000.000	1000.000	0	2	2
<b>Total</b>			<b>107</b>	<b>20</b>	<b>127</b>



## Attachment 14 – Information on Other Internet Providers

Multiple web searches were conducted to try and locate provider sin the region. Infomration below are screenshots from [www.HighSpeedInternet.com](http://www.HighSpeedInternet.com).

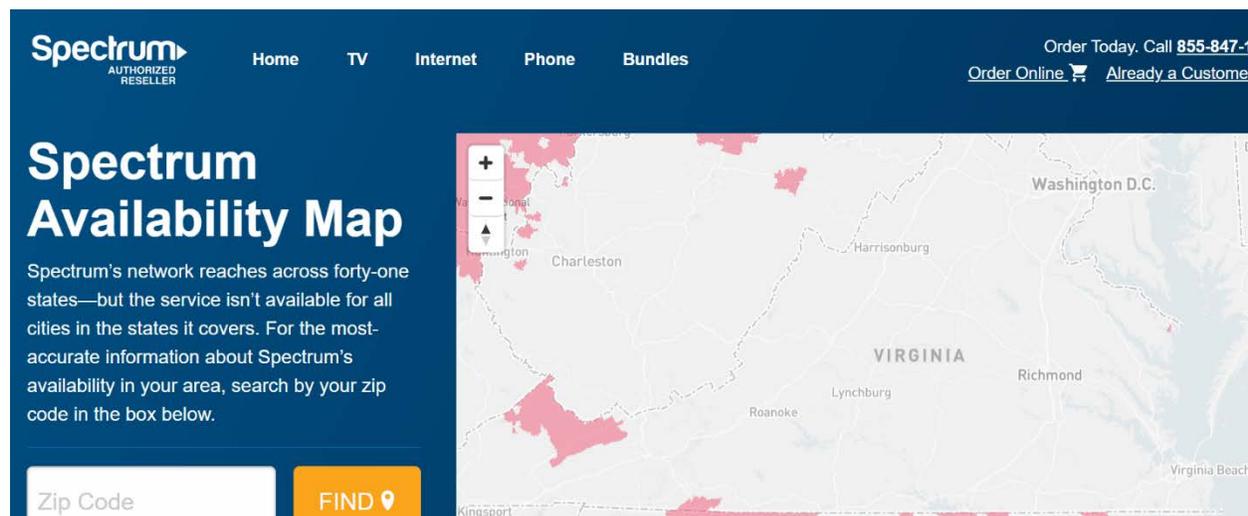
### Gloucester County Providers

Note that when further research is done (see below), Spectrum is not available in Gloucester County.

## Summary of Gloucester Courthouse internet providers

Provider	Type	Download speeds up to	User Rating
<a href="#">Cox Communications</a>	Cable	940 Mbps	3.0/5
<a href="#">Spectrum</a>	Cable	100 Mbps	3.0/5
<a href="#">Viasat</a>	Satellite	25 Mbps	2.0/5
<a href="#">HughesNet</a>	Satellite	25 Mbps	2.5/5
<a href="#">Northern Neck Wireless Internet Services, LLC</a>	Fixed Wireless	2 Mbps	N/A

Availability and speeds displayed are not guaranteed and are subject to change.



**Spectrum**  
AUTHORIZED RESELLER

Home TV Internet Phone Bundles

Order Today. Call 855-847-1  
Order Online Already a Customer

## Spectrum Availability Map

Spectrum's network reaches across forty-one states—but the service isn't available for all cities in the states it covers. For the most-accurate information about Spectrum's availability in your area, search by your zip code in the box below.

Zip Code  **FIND**

Map showing service availability in Virginia, including cities like Washington D.C., Richmond, Lynchburg, Roanoke, Harrisonburg, and Charleston.

Mathews County Providers

# Summary of Mathews internet providers

Provider	Type	Download speeds up to	User Rating
Viasat	Satellite	25 Mbps	2.0/5
HughesNet	Satellite	25 Mbps	2.5/5
VIRGINIA BROADBAND, LLC	Fixed Wireless	10 Mbps	N/A
Northern Neck Wireless Internet Services, LLC	Fixed Wireless	15 Mbps	N/A
Double Dog	Fixed Wireless	15 Mbps	N/A

Availability and speeds displayed are not guaranteed and are subject to change.

The screenshot shows the website for Middle Peninsula Gateway Communications. At the top, there is a navigation menu with links for Home, Video Services, Internet Services, New 4G Service, About, Contact, Request Signal Check, and Service Outage Page. The main banner features the text "Wireless High Speed Internet Where You Need It Most" next to a smartphone displaying a scenic view of a lake. Below the banner, there is a "Service Plans" section with three options:
 

- BASIC**: \$44.95 Monthly, UP TO 2mbps. Description: "Our Basic Wireless service package is great for the basic user who offers access fast enough to quickly load web pages, send and receive email messages with attachments and to easily stream standard resolution videos. It is not intended for users who want to stream television shows or movies regularly. Our Basic Wireless service package offers unlimited usage, which means you can use it as much as you want as long as you want within the 100 Mbps limit. All users are still bound by our acceptable usage policy which prohibits the use of illegal file sharing programs."
- BUSINESS**: \$64.95 Monthly, UP TO 4mbps. Description: "Our Business Wireless service package is great for the heavier user who needs to browse multiple computers to browse and send email at the same time. It offers access fast enough to stream movies. While it is capable of streaming movies, it is not intended for users who want stream movies on multiple devices simultaneously. Our Business Wireless service package offers unlimited usage as well and is ideal for small offices or home offices with 3 computers or fewer. It supports VPN (Virtual Private Networking) for most users who have a need to connect to office networks and limited VOIP (Voice Over IP) services."
- ADVANTAGE**: \$94.95 Monthly, UP TO 6mbps. Description: "Our Advantage Wireless service package is our best package yet! It is ideal for the heavy user who and game, large families, and the work from home business. It offers access fast enough to stream movies and television services, including high definition videos. It is also fast enough for most VOIP (Voice Over IP) services, video conferencing and more advanced VPN (Virtual Private Networking) applications. The Advantage Wireless service package offers unlimited usage as well. All users are still bound by our acceptable usage policy, which prohibits the use of illegal file sharing programs."

 A note at the bottom states: "Install Fee of \$150 applies to all Standard packages."

Middle Peninsula Gateway Communications was not included on any of the searches. The information from their website indicates that they do not offer service at the minimum required speed.

## Middlesex County Providers

Note that when further research is done (see below), Spectrum is not available in Middlesex and that Earthlink does not meet the minimum speed criteria.

## Summary of Middlesex internet providers

Provider	Type	Download speeds up to	User Rating
AT&T	Fiber	1000 Mbps	3.0/5
CenturyLink	DSL	80 Mbps	2.5/5
Spectrum	Cable	940 Mbps	3.0/5
EarthLink	DSL & Fiber	1000 Mbps	3.5/5
Viasat	Satellite	25 Mbps	2.0/5
HughesNet	Satellite	25 Mbps	2.5/5

Availability and speeds displayed are not guaranteed and are subject to change.

SALUDA, VIRGINIA (23149)

## TV AND INTERNET PLANS IN 23149

Compare all the latest deals from EarthLink, Verizon High Speed Internet, Cox Communications, Viasat Internet (formerly Exede), HughesNet and 4 other providers in 23149.

Enter Zip Code  Search

**EARTHLINK - INTERNET ONLY**

Based on 1 verified users. 15 mbps **\$24.95** /MONTH [\(866\) 769-0186](tel:8667690186) [CHOOSE DEAL](#)

**PROVIDERS**

- EarthLink
- Verizon High Speed Internet
- Atlantic Broadband

**Spectrum** AUTHORIZED RESSELLER

Home TV Internet Phone Bundles

Order Today. Call **855-847-1**  
Order Online [Already a Customer](#)

## Spectrum Availability Map

Spectrum's network reaches across forty-one states—but the service isn't available for all cities in the states it covers. For the most-accurate information about Spectrum's availability in your area, search by your zip code in the box below.

Zip Code  [FIND](#)

MIDDLESEX COUNTY SERVICE AREA				Structure Type				Service Level	Business License/Community Anchor Name
Middlesex Addresses				Residential	Business	Non-Residential	Community Anchor	Below 10/1	
<b>Gloucester Landfill Tower</b>									
1000	SIBLEYS LANDING	RD	Unservd	X				X	
1036	MEGGS BAY	RD	Unservd	X				X	
<b>Jamaica Middlesex Tower</b>									
187	BAGBY	LN	Unservd	X				X	
300	BAY PORT	RD	Unservd		HB			X	BAY PORT COMPANY LLC
150	BAY PORT	RD	Unservd	X				X	
443	BETHEL CHURCH	RD	Unservd	X				X	
501	BETHEL CHURCH	RD	Unservd	X				X	
1475	BRIERY SWAMP	RD	Unservd	X				X	
55	BRIERY SWAMP	RD	Unservd	X				X	
963	BRIERY SWAMP	RD	Unservd	X				X	
1948	BRIERY SWAMP	RD	Unservd	X				X	
1253	BRIERY SWAMP	RD	Unservd	X				X	
1176	BRIERY SWAMP	RD	Unservd		HB			X	CRAZY CLOVER BUTCHER SHOP-RTL
1659	BRIERY SWAMP	RD	Unservd	X				X	
1845	BRIERY SWAMP	RD	Unservd	X				X	
2240	BRIERY SWAMP	RD	Unservd	X				X	
2289	BRIERY SWAMP	RD	Unservd	X				X	
2095	BRIERY SWAMP	RD	Unservd	X				X	
1849	BRIERY SWAMP	RD	Unservd	X				X	
1605	BRIERY SWAMP	RD	Unservd	X				X	
2584	BRIERY SWAMP	RD	Unservd	X				X	
2641	BRIERY SWAMP	RD	Unservd	X				X	
2660	BRIERY SWAMP	RD	Unservd		HB			X	HARTENBACH INC
2717	BRIERY SWAMP	RD	Unservd	X				X	
2857	BRIERY SWAMP	RD	Unservd	X				X	
2249	BRIERY SWAMP	RD	Unservd	X				X	

2454	CANOE HOUSE	RD	Unservd	X				X	
2424	CANOE HOUSE	RD	Unservd	X				X	
2242	CANOE HOUSE	RD	Unservd	X				X	
2151	CANOE HOUSE	RD	Unservd	X				X	
1967	CANOE HOUSE	RD	Unservd	X				X	
1955	CANOE HOUSE	RD	Unservd	X				X	
340	CANOE HOUSE	RD	Unservd	X				X	
412	CANOE HOUSE	RD	Unservd			HB		X	ABOUT TIME LAWNCARE
1737	CANOE HOUSE	RD	Unservd	X				X	
1605	CANOE HOUSE	RD	Unservd	X				X	
1536	CANOE HOUSE	RD	Unservd	X				X	
1175	CANOE HOUSE	RD	Unservd	X				X	
1111	CANOE HOUSE	RD	Unservd	X				X	
1093	CANOE HOUSE	RD	Unservd	X				X	
1091	CANOE HOUSE	RD	Unservd	X				X	
996	CANOE HOUSE	RD	Unservd	X				X	
937	CANOE HOUSE	RD	Unservd			HB		X	GIBSON AIR SYSTEMS INC
761	CANOE HOUSE	RD	Unservd	X				X	
539	CANOE HOUSE	RD	Unservd	X				X	
537	CANOE HOUSE	RD	Unservd	X				X	
473	CANOE HOUSE	RD	Unservd			HB		X	BRIDLE CREEK VETERINARY SERVICE
1735	CANOE HOUSE	RD	Unservd	X				X	
535	CANOE HOUSE	RD	Unservd	X				X	
392	CANOE HOUSE	RD	Unservd	X				X	
216	COUNTRY	RD	Unservd	X				X	
266	COUNTRY	RD	Unservd	X				X	
316	COUNTRY	RD	Unservd	X				X	
291	COUNTRY	RD	Unservd	X				X	
168	COUNTRY	RD	Unservd	X				X	
1262	CROXTONS	RD	Unservd	X				X	
669	CROXTONS	RD	Unservd	X				X	
372	CROXTONS	RD	Unservd	X				X	
1445	DRAGON	RD	Unservd	X				X	
733	DRAGON	RD	Unservd	X				X	

479	DRAGON	RD	Unservd	X				X	
520	DRAGON	RD	Unservd	X				X	
514	DRAGON	RD	Unservd	X				X	
536	DRAGON	RD	Unservd	X				X	
552	DRAGON	RD	Unservd	X				X	
531	DRAGON	RD	Unservd	X				X	
557	DRAGON	RD	Unservd	X				X	
438	DRAGON	RD	Unservd	X				X	
200	DRAGON	RD	Unservd	X				X	
284	EDGEHILL	RD	Unservd	X				X	
340	EDGEHILL	RD	Unservd	X				X	
400	EDGEHILL	RD	Unservd	X				X	
1128	EDGEHILL	RD	Unservd	X				X	
1236	EDGEHILL	RD	Unservd		HB			X	JESSIE CONSTRUCTION
1293	EDGEHILL	RD	Unservd	X				X	
1425	EDGEHILL	RD	Unservd	X				X	
1624	EDGEHILL	RD	Unservd	X				X	
1626	EDGEHILL	RD	Unservd	X				X	
1622	EDGEHILL	RD	Unservd	X				X	
1636	EDGEHILL	RD	Unservd	X				X	
1688	EDGEHILL	RD	Unservd	X				X	
2364	EDGEHILL	RD	Unservd	X				X	
2339	EDGEHILL	RD	Unservd	X				X	
2559	EDGEHILL	RD	Unservd	X				X	
1978	EDGEHILL	RD	Unservd	X				X	
1662	EDGEHILL	RD	Unservd	X				X	
1785	EDGEHILL	RD	Unservd	X				X	
630	FARLEY PARK	RD	Unservd	X				X	
677	FARLEY PARK	RD	Unservd	X				X	
752	FARLEY PARK	RD	Unservd	X				X	
1246	FARLEY PARK	RD	Unservd	X				X	
864	FARLEY PARK	RD	Unservd	X				X	
1095	FARLEY PARK	RD	Unservd	X				X	
1680	FARLEY PARK	RD	Unservd	X				X	

1697	FARLEY PARK	RD	Unservd	X				X	
1722	FARLEY PARK	RD	Unservd	X				X	
1900	FARLEY PARK	RD	Unservd	X				X	
1934	FARLEY PARK	RD	Unservd	X				X	
1947	FARLEY PARK	RD	Unservd	X				X	
1654	FARLEY PARK	RD	Unservd	X				X	
2637	FARLEY PARK	RD	Unservd	X				X	
2254	FARLEY PARK	RD	Unservd	X				X	
2260	FARLEY PARK	RD	Unservd	X				X	
2299	FARLEY PARK	RD	Unservd	X				X	
2354	FARLEY PARK	RD	Unservd	X				X	
2258	FARLEY PARK	RD	Unservd	X				X	
1045	GLEBE LANDING	RD	Unservd	X				X	
620	GLEBE LANDING	RD	Unservd	X				X	
652	GLEBE LANDING	RD	Unservd	X				X	
645	GLEBE LANDING	RD	Unservd	X				X	
379	GLEBE LANDING	RD	Unservd	X				X	
1246	GLEBE LANDING	RD	Unservd	X				X	
1288	GLEBE LANDING	RD	Unservd	X				X	
1251	GLEBE LANDING	RD	Unservd	X				X	
1175	GLEBE LANDING	RD	Unservd	X				X	
987	GLEBE LANDING	RD	Unservd	X				X	
894	GLEBE LANDING	RD	Unservd	X				X	
833	GLEBE LANDING	RD	Unservd	X				X	
900	GLEBE LANDING	RD	Unservd	X				X	
727	GLEBE LANDING	RD	Unservd	X				X	
99	GLEBE LANDING	RD	Unservd	X				X	
285	GLEBE LANDING	RD	Unservd	X				X	
122	H&H	LN	Unservd	X				X	
204	H&H	LN	Unservd	X				X	
281	JAMAICA	LOOP	Unservd	X				X	
203	JAMAICA	LOOP	Unservd	X				X	
141	JAMAICA	LOOP	Unservd	X				X	
339	JAMAICA	LOOP	Unservd	X				X	

93	JAMAICA	LOOP	Unservd	X				X	
118	MILL POND	RD	Unservd	X				X	
82	MILL POND	RD	Unservd	X				X	
638	MINK FIELD	RD	Unservd	X				X	
805	MINK FIELD	RD	Unservd	X				X	
499	MINK FIELD	RD	Unservd	X				X	
130	MINK FIELD	RD	Unservd	X				X	
255	MINK FIELD	RD	Unservd	X				X	
395	MINK FIELD	RD	Unservd	X				X	
472	MINK FIELD	RD	Unservd	X				X	
490	MINK FIELD	RD	Unservd	X				X	
532	MINK FIELD	RD	Unservd	X				X	
545	MINK FIELD	RD	Unservd	X				X	
187	MONTAGUE ISLAND	RD	Unservd	X				X	
1786	MORGAN	LN	Unservd	X				X	
1756	MORGAN	LN	Unservd	X				X	
1654	MORGAN	LN	Unservd		HB			X	BRENDA D MORGAN - TITLE RSRCH
249	MOSS SWAMP	RD	Unservd	X				X	
241	MOSS SWAMP	RD	Unservd	X				X	
287	MOSS SWAMP	RD	Unservd	X				X	
375	MOSS SWAMP	RD	Unservd	X				X	
961	MOUNT ZION	RD	Unservd	X				X	
871	MOUNT ZION	RD	Unservd	X				X	
791	MOUNT ZION	RD	Unservd	X				X	
720	MOUNT ZION	RD	Unservd	X				X	
411	MOUNT ZION	RD	Unservd	X				X	
483	MOUNT ZION	RD	Unservd	X				X	
690	MOUNT ZION	RD	Unservd		HB			X	SLATER'S MAINTENANCE SRVCS LLC
1412	NESTING	RD	Unservd	X				X	
1526	NESTING	RD	Unservd	X				X	
868	NESTING	RD	Unservd	X				X	
1096	NESTING	RD	Unservd	X				X	
704	NESTING	RD	Unservd	X				X	
325	NESTING	RD	Unservd	X				X	

928	NESTING	RD	Unservd	X				X	
1492	NESTING	RD	Unservd	X				X	
1436	NESTING	RD	Unservd	X				X	
1020	NESTING	RD	Unservd	X				X	
1087	NESTING	RD	Unservd	X				X	
1415	NESTING	RD	Unservd	X				X	
1453	NESTING	RD	Unservd	X				X	
628	NESTING	RD	Unservd	X				X	
936	NESTING	RD	Unservd	X				X	
744	NESTING	RD	Unservd	X				X	
169	NESTING	RD	Unservd	X				X	
127	NESTING	RD	Unservd	X				X	
109	NESTING	RD	Unservd	X				X	
652	NESTING	RD	Unservd	X				X	
561	NESTING	RD	Unservd			HB		X	SELANIX
12	NESTING	RD	Unservd	X				X	
226	NESTING	RD	Unservd	X				X	
74	OLD VIRGINIA	ST	Served						
286	OLD VIRGINIA	ST	Served						
314	OLD VIRGINIA	St	Served						
440	REED	DR	Unservd	X				X	
442	REED	DR	Unservd	X				X	
638	REED	DR	Unservd	X				X	
193	REED	DR	Unservd	X				X	
171	REED	DR	Unservd	X				X	
483	REED	DR	Unservd	X				X	
485	REED	DR	Unservd	X				X	
1136	SCOUT	TRL	Unservd	X				X	
759	SCOUT	TRL	Unservd	X				X	
707	SCOUT	TRL	Unservd	X				X	
707	SCOUT	TRL	Unservd	X				X	
116	THE POINT	LN	Unservd	X				X	
160	THE POINT	LN	Unservd	X				X	
178	THE POINT	LN	Unservd	X				X	

212	THE POINT	LN	Unservd	X				X	
193	THE POINT	LN	Unservd	X				X	
209	THE POINT	LN	Unservd	X				X	
781	TIDEWATER	TRL	Unservd	X				X	
987	TIDEWATER	TRL	Unservd	X				X	
1172	TIDEWATER	TRL	Unservd	X				X	
1202	TIDEWATER	TRL	Unservd	X				X	
1215	TIDEWATER	TRL	Unservd	X				X	
1249	TIDEWATER	TRL	Unservd	X				X	
1301	TIDEWATER	TRL	Unservd	X				X	
1365	TIDEWATER	TRL	Unservd	X				X	
1375	TIDEWATER	TRL	Unservd	X				X	
1401	TIDEWATER	TRL	Unservd	X				X	
1419	TIDEWATER	TRL	Unservd	X				X	
1475	TIDEWATER	TRL	Unservd	X				X	
1528	TIDEWATER	TRL	Unservd	X				X	
1560	TIDEWATER	TRL	Unservd	X				X	
1740	TIDEWATER	TRL	Unservd	X				X	
1783	TIDEWATER	TRL	Unservd	X				X	
1915	TIDEWATER	TRL	Unservd	X				X	
1917	TIDEWATER	TRL	Unservd	X				X	
1986	TIDEWATER	TRL	Unservd	X				X	
1991	TIDEWATER	TRL	Unservd	X				X	
2020	TIDEWATER	TRL	Unservd	X				X	
2024	TIDEWATER	TRL	Unservd	X				X	
2097	TIDEWATER	TRL	Unservd	X				X	
2135	TIDEWATER	TRL	Unservd	X				X	
2153	TIDEWATER	TRL	Unservd	X				X	
2317	TIDEWATER	TRL	Unservd	X				X	
2341	TIDEWATER	TRL	Unservd	X				X	
2428	TIDEWATER	TRL	Unservd			HB		X	DAVIS QUALITY IMPROVEMENTS
2475	TIDEWATER	TRL	Unservd	X				X	
2806	TIDEWATER	TRL	Unservd	X				X	
2836	TIDEWATER	TRL	Unservd	X				X	

2947	TIDEWATER	TRL	Unservd	X				X	
3308	TIDEWATER	TRL	Unservd	X				X	
3815	TIDEWATER	TRL	Unservd	X				X	
3820	TIDEWATER	TRL	Unservd	X				X	
3845	TIDEWATER	TRL	Unservd	X				X	
4058	TIDEWATER	TRL	Unservd	X				X	
4077	TIDEWATER	TRL	Unservd	X				X	
4114	TIDEWATER	TRL	Unservd	X				X	
4123	TIDEWATER	TRL	Unservd	X				X	
4235	TIDEWATER	TRL	Unservd	X				X	
4377	TIDEWATER	TRL	Served						
4397	TIDEWATER	TRL	Served						
4411	TIDEWATER	TRL	Served						
4426	TIDEWATER	TRL	Served						
4427	TIDEWATER	TRL	Served						
4447	TIDEWATER	TRL	Served						
4467	TIDEWATER	TRL	Served						
4487	TIDEWATER	TRL	Served						
4501	TIDEWATER	TRL	Served						
4527	TIDEWATER	TRL	Served						
4541	TIDEWATER	TRL	Served						
4935	TIDEWATER	TRL	Unservd	X				X	
4979	TIDEWATER	TRL	Unservd	X				X	
5051	TIDEWATER	TRL	Unservd	X				X	
5135	TIDEWATER	TRL	Unservd	X				X	
5141	TIDEWATER	TRL	Unservd	X				X	
5402	TIDEWATER	TRL	Unservd	X				X	
5421	TIDEWATER	TRL	Unservd	X				X	
5523	TIDEWATER	TRL	Unservd	X				X	
5594	TIDEWATER	TRL	Unservd	X				X	
5729	TIDEWATER	TRL	Unservd	X				X	
5854	TIDEWATER	TRL	Unservd	X				X	
5863	TIDEWATER	TRL	Unservd	X				X	
5997	TIDEWATER	TRL	Unservd	X				X	

6119	TIDEWATER	TRL	Unservd	X				X	
6129	TIDEWATER	TRL	Unservd	X				X	
6144	TIDEWATER	TRL	Unservd	X				X	
6157	TIDEWATER	TRL	Unservd	X				X	
6170	TIDEWATER	TRL	Unservd	X				X	
6175	TIDEWATER	TRL	Unservd	X				X	
6237	TIDEWATER	TRL	Unservd	X				X	
6271	TIDEWATER	TRL	Unservd	X				X	
6274	TIDEWATER	TRL	Unservd	X				X	
6870	TIDEWATER	TRL	Unservd	X				X	
7108	TIDEWATER	TRL	Unservd	X				X	
7182	TIDEWATER	TRL	Unservd	X				X	
7254	TIDEWATER	TRL	Unservd	X				X	
7424	TIDEWATER	TRL	Unservd	X				X	
7658	TIDEWATER	TRL	Unservd	X				X	
7667	TIDEWATER	TRL	Unservd	X				X	
7676	TIDEWATER	TRL	Unservd	X				X	
7782	TIDEWATER	TRL	Unservd	X				X	
7784	TIDEWATER	TRL	Unservd	X				X	
7908	TIDEWATER	TRL	Unservd	X				X	
7911	TIDEWATER	TRL	Unservd	X				X	
8055	TIDEWATER	TRL	Unservd	X				X	
8070	TIDEWATER	TRL	Unservd	X				X	
8075	TIDEWATER	TRL	Unservd	X				X	
8156	TIDEWATER	TRL	Unservd	X				X	
8600	TIDEWATER	TRL	Unservd	X				X	
8664	TIDEWATER	TRL	Unservd	X				X	
8750	TIDEWATER	TRL	Unservd	X				X	
8770	TIDEWATER	TRL	Unservd	X				X	
8800	TIDEWATER	TRL	Unservd	X				X	
9134	TIDEWATER	TRL	Unservd	X				X	
9145	TIDEWATER	TRL	Unservd	X				X	
10	UNION SHILOH	LN	Unservd	X				X	
284	UNION SHILOH	LN	Unservd	X				X	

292	UNION SHILOH	LN	Unservd	X				X	
190	UNION SHILOH	LN	Unservd	X				X	
3	UNION SHILOH	LN	Unservd	X				X	
295	UNION SHILOH	LN	Unservd		HB			X	OFF ROAD TRAINING INC
289	UNION SHILOH	LN	Unservd	X				X	
35	WARES BRIDGE	RD	Unservd	X	HB			X	SOUTHERN SIGHS INN/LANDGRAFF CONSULT
77	WARES BRIDGE	RD	Unservd	X				X	
94	WARES BRIDGE	RD	Unservd	X				X	
51	WARES BRIDGE	RD	Unservd	X				X	
1667	WARES BRIDGE	RD	Unservd	X				X	
1673	WARES BRIDGE	RD	Unservd	X				X	
867	WARES BRIDGE	RD	Unservd		HB			X	CHRISTOPHER POWELL-CARPENTER
1046	WARES BRIDGE	RD	Unservd	X				X	
1159	WARES BRIDGE	RD	Unservd	X				X	
1321	WARES BRIDGE	RD	Unservd	X				X	
1377	WARES BRIDGE	RD	Unservd		HB			X	M & M JUST DO IT SERVICE
1355	WARES BRIDGE	RD	Unservd	X				X	
1690	WARES BRIDGE	RD	Unservd		HB			X	THE MULLINS SISTERS
1750	WARES BRIDGE	RD	Unservd	X				X	
1697	WARES BRIDGE	RD	Unservd	X				X	
1844	WARES BRIDGE	RD	Unservd	X				X	
1848	WARES BRIDGE	RD	Unservd		HB			X	JULIE SAPP
1920	WARES BRIDGE	RD	Unservd	X				X	
1471	WARES BRIDGE	RD	Unservd	X				X	
1937	WARES BRIDGE	RD	Unservd	X				X	
2032	WARES BRIDGE	RD	Unservd	X				X	
2048	WARES BRIDGE	RD	Unservd	X				X	
2567	WARES BRIDGE	RD	Unservd	X				X	
2379	WARES BRIDGE	RD	Unservd	X				X	
2092	WARES BRIDGE	RD	Unservd	X				X	
2126	WARES BRIDGE	RD	Unservd	X				X	
1473	WARES BRIDGE	RD	Unservd	X				X	
492	WATER VIEW	RD	Unservd	X				X	
319	WATER VIEW	RD	Unservd	X				X	

60	WATER VIEW	RD	Unservd	X				X	
458	WATER VIEW	RD	Unservd	X				X	
27	WATER VIEW	RD	Unservd	X				X	
406	WATER VIEW	RD	Unservd	X				X	
423	WATER VIEW	RD	Unservd	X				X	
357	WATER VIEW	RD	Unservd	X				X	
317	WATER VIEW	RD	Unservd	X				X	
165	WATER VIEW	RD	Unservd	X				X	
362	WATER VIEW	RD	Unservd	X				X	
<b>TOTALS for UNSERVED STRUCTURES</b>				<b>310</b>	<b>17</b>	<b>0</b>		<b>327</b>	
<b>Service Area - Summary</b>					17 Home Based Businesses				
					0 Commercial Business				
					0 Non-Residential				
					0 Community Anchor				
<b>TOTAL MIDDLESEX COUNTY ADDRESSES</b>				<b>341</b>					
TOTAL UNSERVED				327					
TOTAL SERVED				13					
<b>OVERLAP PERCENT</b>				<b>4%</b>					
<b>TOTAL ADDRESSES IN SERVICE AREA</b>				<b>339</b>					
TOTAL UNSERVED				325					
TOTAL SERVED				13					
<b>OVERLAP PERCENT</b>				<b>4%</b>					



Carol Steele has served as the Assistant County Administrator for Gloucester County since February 2018. She is currently serving as the Interim Deputy County Administrator. Prior to serving in Administration, Carol was the Director of the Parks, Recreation and Tourism Department for Gloucester County for over 30 years. Her wide range of experiences as a Department Head, Adjunct Instructor for Old Dominion University for 14 years and representing the County on numerous Boards and Committees prepared her for her administrative role.

Upon her promotion, Carol was given the special assignment of addressing broadband expansion in the County. The need to have ubiquitous, affordable, reliable broadband with unlimited data was designated as one of the top priorities by the Board of Supervisors. Carol immersed herself in training programs and reading materials to learn more about funding sources, technical options for rural areas and worked diligently to better understand the needs of the County. She assisted with the 2018 VATI application and prepared the 2019 and 2020 regional application. Her work has led to numerous networking and advocacy opportunities. The expansion of broadband in Gloucester has become a passion of hers as is making sure that everyone can afford service which she will be working on after broadband access is initiated.

Carol received a Bachelor of Science degree from Radford University and a Master of Science from Virginia Commonwealth University. She is a graduate of the Senior Executive Institute held at the Darden School of Business, University of Virginia and holds a graduate certificate in Non-profit Management from Virginia Commonwealth University. She is a member of the VATOA, VLGMA and ICMA.

In two resolutions in June 2019, the Mathews Broadband Advisory Board was created and Judy Rowe was appointed Chair. As an advocate for students in Mathews County, she has pleaded equity for students who lacked broadband access. Surveys by the MCPS proved that 30-35% of families had none to very limited access to the Internet. Having brought the first computer into the school system, she campaigned over many years for more and more technology that would benefit her students. In working with gifted learners, she mentored a young boy who needed online math courses through Johns-Hopkins Center for Talented Youth (CTY). Upon retirement she has tutored and taught both K-12 and GED students in math, facilitating online learning in several arenas. When asked to help Mathews Coalition-4-Kids find access to online programs like the Homework Help Program, through Virginia Public Library, she applied for and got a grant to run late buses and open computer labs to give students access.

Until December 2018 Judy spoke monthly to both the Board of Supervisors and the School Board, begging them to take action against this outrageous discrimination. Nothing happened. Promises from politicians never materialized. Asked to help get a pay raise for teachers, she made broadband a bigger issue to show that it could also produce much needed revenue for the county to help the schools. In December 2018, BOS members tried to prevent her speaking and many people offered to help: the Sheriff, the Superintendent of Schools and an internet entrepreneur. They brought together knowledgeable, tech savvy and persistent stakeholders in eight categories to support the effort along with technology directors, from the schools, the county and the library. Judy is a passionate champion of the need for universal broadband in Mathews County.

At Middlesex County, Director of Information Technology Kevin Gentry is responsible for the day to day operations and long-term planning for the County's data systems. He has worked for them since 2006, assuming the Director role in 2011. The nature of small government IT departments necessitates that the director must have a hand in every facet of operations and that is certainly the case in Middlesex. He has overseen sweeping upgrades in the County's technology infrastructure including project managing two 911 phone upgrades. He also served on the committee to upgrade the County's public safety radio system. In 2018, he oversaw the successful deployment of a Voice-Over-IP (VOIP) phone upgrade to replace the County's 25-year-old telephone system. The target of a random State Police/FBI technology audit in 2019, Middlesex County received top marks for its security posture and network integrity.

In his capacity as Executive Director of the Middlesex Broadband Authority, Kevin has been a tireless advocate for bringing internet services to the citizens of Middlesex. In addition to working on funding numerous projects, he has done outreach in the community to find out where the demand is most critical and provided innovative ways to finance small deployments. One such program, Middlesex Surfs, was conceived to provide low interest loans to families who lack the capital investment for installation of broadband. Whether it's staying up late to answer emails from concerned citizens or going down to meet with neighborhood communities, Kevin sees the need for broadband firsthand. In going to meet with various social groups like the Kiwanis or the Rotary or local churches, it's clear that Middlesex is in a very tenuous position when it comes to the digital divide. He has made it a personal mission to get critical broadband resources to the citizens of Middlesex County.

Kevin also served as the president of the Middle Peninsula's theater group, The Court House Players, from 2014 to 2016. He serves as an advisor to the Middlesex Museum. He has two sons, Kevin Jr. and Nick. Kevin resides in Middlesex County, Virginia.

Alan Fitzpatrick is a founder and Chief Executive Officer for Open Broadband LLC, a privately owned ISP, organized in the state of North Carolina in 2016. Open Broadband, LLC is also licensed to operate in the State of Virginia. Before he and Kent Winrich formed Open Broadband, LLC, Alan had more than 20 years of experience holding positions such as the Chief Operations Officer for DC74 Data Centers and as a Global Vice President of the Network for ACN and Senior Vice President of Engineering for US LEC.

Alan's concern for how technology advances and is available to everyone is demonstrated by his founding of CharlotteHeartsGigabit.com, one of the leading advocacy groups in the country on promoting gigabit broadband. He also formed NC Hearts Gigabit, an equivalent statewide group, and was a founding member of the Charlotte Digital Inclusion Alliance.

He served as a speaker at numerous professional events such as Gigabit City Summit and Gigabit Cities Live, Broadband Communities conferences, and Connect(x) Wireless Conference. He also co-hosted a Gigabit Hackathon, emceed an ethical hacking competition, and authored a number of articles for Skinny Wire Magazine.

Alan graduated from Vanderbilt University with an MBA, and from Purdue University with a BS in Industrial Engineering. In his spare time, he teaches entrepreneurship and technology courses in the undergraduate and graduate programs at Johnson & Wales University and Central Michigan University.

**Kent Winrich**, CTO, has over 25-years' experience (LinkedIn profile: <https://www.linkedin.com/in/kentwinrich>):

- Director of Broadband and Infrastructure at Fibrant (City of Salisbury municipal network), providing internet service from 10Mb to 10Gb to residential, educational and business customers in Salisbury NC.
- Senior Engineer at Hibernia Media. Responsible for the complete European Fiber Optic Network for Hibernia, from Dublin to Moscow, working with large data users, and provided service from 50Meg to 100Gigs. Kent led the worldwide engineering team as well as planning for bandwidth needs throughout Europe.
- Head of Broadcast Services at Vidyo. The VidyoCast division of Vidyo offered broadcast quality video encoding over the open internet. He was responsible for all connectivity and engineering worldwide, and performed in countries such as India, New Zealand, Peru, Singapore, South Africa, and throughout Europe and the US.
- Director of Engineering at Clear Channel. Kent was in charge of all transmission facilities from high power AM stations, to FM to Microwave, as well as all real estate assets and all things technical. He was also responsible for interacting with the FCC to ensure all FCC rules were followed and was responsible for every FCC license.
- Kent also has experience at BAE Systems, where he was stationed at Ft Bragg, performing propagation predictions, antenna design, as well as training soldiers on RF and electrical theory.