

Application to DHCD Submitted through CAMS

Patrick County

Patrick County Broadband Expansion

Application ID: 64507022019115510
Application Status: Pending
Program Name: Virginia Telecommunications Initiative 2020
Organization Name: Patrick County
Organization Address:
Profile Manager Name: Sandra Puckett
Profile Manager Phone: (276) 694-6094
Profile Manager Email: spuckett@co.patrick.va.us

Project Name: Patrick County Broadband Expansion
Project Contact Name: Bryce Simmons
Project Contact Phone: (276) 694-8367
Project Contact Email: bsimmons@co.patrick.va.us
Project Location: 106 Rucker Street
Stuart, VA 24171-1619
Project Service Area: Patrick County, Stuart Town

Total Requested Amount: \$798,283.00

Required Annual Audit Status: No Current Audits Found

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$798,283.00	\$540,450.00	\$1,338,733.00
Construction	\$798,283.00	\$200,000.00	\$998,283.00
Other: End User Equipment	\$0.00	\$340,450.00	\$340,450.00
Total:	\$798,283.00	\$540,450.00	\$1,338,733.00

Budget Narrative:

Patrick County is requesting \$798,283.00 in VATI funds to support a \$1,338,733.00 or 59.6% of the required money to build out Phase 1 of a new wireless project. The County and the Private Partner, RiverStreet Networks (RSN), is supplying 40.4% or \$540,450.00 in matching funds. Additionally, RSN has committed to providing an additional \$400,000.00 in matching funds if Phase 1 is fully funded. The cost of this project was derived from vendor and contractor quotes as well as engineering estimates based on similar projects that have been undertaken by RSN, their subsidiaries, and engineering partners. Additionally, RSN has committed to providing on end user equipment as part of this project. To capture the expected cost a historical Internet take rate of 30% was used. This was then split 70/30 between the two radio types based on their ability to provide coverage due to the frequency difference. Therefore the cost to connect 600 customer locations are included in the project cost. This was done in accordance with VATI Guidelines which states that "DHCD will award funding to applicants to provide last-mile services, including middle-mile networks, equipment, or other investments required to deliver last-mile service" and that the definition of "Last Mile" is "components of a network that provide broadband services to end-users premises or devices through an intermediate point of aggregation (e.g. remote terminal, fiber node, wireless tower, or other equivalent access point)." Furthermore, RSN is willing to supply the additionally CPE equipment required to connect more than 600 locations if a higher take rate is achieved.

Questions and Responses:

1. Project Area

Explain 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:

In May 2019, the Center for Innovative Technology (CIT) presented findings of a broadband survey to administrative staff of Patrick County. Based on the findings of the survey and reported data from the FCC, staff identified the communities of Patrick Springs, Meadows for Dan, and Woolwine as un-served areas within Patrick County. The County issued a Request for Proposal (RFP) on June 17, 2019 to form a public/private partnership with an internet service provider (ISP) to expand broadband services within the County. A Request for Information (RFI) was received as part of the RFP process to define potential service areas within the referenced communities. On July 2, 2019, RFP Amendment No. 2 was issued to generally define the areas of greatest population density

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within the referenced communities.

As defined in RFP Amendment No. 2:

The Patrick Springs service area, covers almost five square miles with most of the boundary resting on margins of individual parcels of land. The proposed Patrick Springs service area is generally bounded at the North by Animal Clinic Road, Tudor Orchard Road and VFW Road; the West by Poplar Drive and New Hope Church Road; the South by South Mayo Drive and Green Acres Lane; the East by Shelton Farm Drive, Mountain View Loop, and Dogwood Road.

The Woolwine service area covers over five square miles, and portions of its boundaries rest on individual parcels of land. The area is also bounded at the northwest by Charity Highway and Woolwine Highway; West by Mill House Road; Southwest by Jack's Creek Road, Morrison School Road, and Blue Grass Road; Southeast by Buffalo Creek; East by Elamsville Road and State Route 708; and Northeast by Ridge Road.

The Meadows of Dan service area covers over four square miles, and much of its boundaries rests on individual parcels of land as well as the southern border of Floyd County to the north. The area is also bounded at the northwest by State Route 600 and Turnip Patch Drive, West by Dairy Road, Southwest by Round Meadow Drive, South by Squirrel Spur Road and portions of Bent Road and Light Ridge Road, Southeast by Dan River, East by Dan River Road and Jeb Stuart Highway, and Northeast by Willis Road.

Per preliminary design efforts by River Street Networks:

Based on propagation maps provided by River Street Networks, line-of-sight service can be provided approximately 5 miles from a vertical asset. In Phase 1 of the project, existing towers on Bull Mountain and No Business Mountain will serve nearly all unserved areas of Patrick Springs and the well populated areas of Woolwine. A new tower constructed off Mountain View Drive will serve the unserved areas of Meadows of Dan.

2.

Describe your outreach efforts to identify existing providers in the selected project area. Provide a detailed explanation of how this information was compiled and the source(s). Provide a map and list of all existing providers (fixed and wireless) and speeds offered within the project area. Label Map: Attachment 2 – Existing Provider Map; label documentation: Attachment 3 – Documentation on CAF Funding Area.

Answer:

The CIT survey details current internet providers within Patrick County. For most residential customers in the proposed service areas, CenturyLink DSL, where available, and HughesNet Satellite are the only options for internet service. MiNet is the only known customer of the Mid-Atlantic Broadband fiber line that passes through the Patrick Springs service area; MiNet serves the Patrick Henry Community College site in Stuart. The speeds offered within the targeted project areas are below the 10/1 Mbps (Down/Up) FCC standard and is the basis for selection of these areas. No CAF II blocks were funded in Patrick County as evident by the FCC 903 Auction results showing no winning bidders in the County. Outside of the selected project area there are two additional service providers which according to their FCC filings do provide services greater than 10/1. There is a WISP, FastLink Communications, in the Claudville area of Patrick County. There is no current plan to serve the Claudville and Ararat areas through this project. Citizens COOP serves Primland Resort in the Vesta area of Patrick

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County and has selected business accounts in the Town of Stuart. Citizens COOP has indicated that buildout within Floyd County is priority and that expansion beyond the existing service area in Patrick County is not planned. The school system is currently served by CenturyLink through the E-Rate program. The coverage areas are shown on the attached provider map.

3. Project Need/Description

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 10 Mbps / 1 Mbps or less and with less than 10 percent service overlap within the project area. Describe any anticipated service overlap with current providers within the project area. Provide specific information as to how you determined the percentage overlap. Label Attachment: Attachment 4 – Documentation Unserved Area VATI Criteria.

Answer:

The anticipated service overlap will be minimal within the proposed project areas. CenturyLink and Citizens Coop are the only fixed internet service within the areas and no other service provider has been award CAF funding. During the CIT survey, it was confirmed that Comcast has no broadband service in Patrick County.

Additionally, since our wireless coverage area may overlap with Citizens fiber assets in the Meadows of Dan region we emailed them directly for clarification of their service areas and offering. According to Citizens, they do provide some services to a residential development between their ILEC footprint and Primland as well as a few homes along their fiber path where customers paid to have their residences connected as part of easement agreements. Additionally, they are receiving A-CAM and not CAF II funding for FTTH project in their ILEC footprint and some of that area is in Patrick County. Currently they have plans to build out services inside of their ILEC footprint around Meadows of Dan in 2021. Due to the sensitivity to overlap, we have put together Attachment 16 with documentation that Citizens provided us showing their ILEC areas and a close up of our Wireless coverage in those areas, Based on the extreme terrain in that area of the County, our propagation maps shows very spotty coverage that we feel will greatly inhibit our ability to provide services to customers North and West of the Hwy 58 near Meadows of Dan.

4. Provide the number of residential serviceable units in the project area(s). Describe the eligible premises that will be served by the proposed project and the basis for these projections.

Answer:

The areas of highest unserved populations were identified as part of RFP Amendment No. 2. Due to the remoteness of these communities from each other, a fixed wireless system would cover the roughly 18.5 miles between Meadows of Dan, Woolwine, and Patrick Springs. Using information collected by Patrick County Emergency Management for the West Piedmont Planning District Commission to update fire and emergency coverage maps, an address point within the project areas is being considered a serviceable customer if it falls within the propagation mapping. Due to the size of the service area, number of potential new customers, and lack of more technical software, it is not currently feasible to project an exact number of new customers. Preliminary estimates are provided using sound engineering judgement.

Patrick Springs Community: 1200+/- Addresses over 25 Sq.Miles

Meadows of Dan: 350+/- Addresses over 6 Sq.Miles

Woolwine: 400 Addresses +/- over 6.5 Sq.Miles

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Due to the nature of fixed wireless broadband, the number of serviceable units is difficult to precisely estimate; however, the CIT study identified that 54% of all Patrick County address points fall in an unserved area.

- Indicate the numbers of businesses and community anchor institutions the proposed project will pass in the project area. Also indicate the number of home-based businesses. Provide specific information.

Answer:

The proposed project will serve the following number of businesses, anchor institutions, and home based businesses based on propagation maps. Separation of of these facilities has been broken out into “Served” and “Unserved” based on FCC data.

Project Area	Businesses		Anchor Institutions		Home-based Businesses	
	Unserved	Served	Unserved	Served	Unserved	Served
Patrick Springs & Critz	21	2	4	1	23	12
Meadows of Dan	10	0	3	0	16	5

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Woolwine	4	2	3	0	5	2
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Businesses and anchor institutions were calculated using Google Earth and FCC shapefiles. Only businesses along main corridors have been estimated, remote offices off the main highways have not been counted due to time constraints. All anchor institutions are Fire, EMS, or public school properties. Home based business information was provided by CIT and includes only those locations that responded to the survey.

- Understanding that projected take rates are an estimate, provide the anticipated take rate for the proposed service within one year of project completion and describe the basis for the estimate. Also detail all actions (e.g. marketing activities, outreach plan) to be implemented to reach the identified potential serviceable units within the project area.

Answer:

Based on years of previous wireless deployments by RSN’s GTG and NC Wireless divisions, it is estimated that within the first year you should see a take rate of approximately 10% - 15%. This rate will drop off during the subsequent years and level off somewhere around 30% - 35% for the life of the product. However, there is the possibility of some sort of changes in the market and technology which could cause this take rate to increase or decrease. To assist with the acquisition of customers, RSN has extensive marketing campaign consisting of: postcards, banners, door hangers, billboards, radio spots, press releases, neighborhood signs, social media updates. Additionally, RSN uses a “Crowd Fiber” tool that is associated with its join.buildrdriverstreet.com . This tool allows the user or a CSR to enter the potential customer’s data into the portal and then map them so we can track interest by service areas. Additionally, if the information is being put in by an existing Internet user then we can capture their current bandwidth if they are willing to conduct a speed test that is part of the portal’s questionnaire. Furthermore, RSN will offer a “Cooperative Community Partner Discount” of \$10 to any; Government workers, first responders, medical and dental employees, real estate agents, farmers, etc.. RSN has additional savings to low income individuals and families.

- For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Will the wireless co-applicant own or lease the radio mast, tower, or other raised structure onto which the wireless infrastructure will be installed?

Answer:

The current plan is to lease space off of existing tower sites. However, RSN and the County are looking into the ownership of the fire tower on Bull Mountain. It currently appears to be the property of Patrick County and will remain such unless substantial investment in the property needs to be made so that it is suitable to support the point to multipoint and point to point radio equipment that needs to be installed there. If that is the case then the County and RSN will discuss future ownership or lease options at that time. All other radio equipment and fiber installed as part of this project will be owned by RSN and they will be responsible to maintain it in good working order.

- Provide the proposed download and upload speeds for the project area. Detail whether that speed is based on

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

Answer:

Currently two tiers of service are being discussed for the project area. The lowest tier of service will be speeds up to 25 Mbps down and 3 Mbps up. The highest tier of service will be speeds up to 50 Mbps down and 3 Mbps up. The lowest tier is priced at \$55 per month with no data caps. The highest tier is priced at \$80 per month with no data caps. Each tier has available a \$10 Coop Discount for; First Responders, Government Employees, Medical & Dental Staff, Real Estate Agents, Farmers, etc.. Additionally each tier has a "Low Income Lifeline Discount" of \$9.25 for those customers on some sort of financial assistance. The service will be provided over a PtMP (Point to Multi-Point) with fiber backbone to the Internet access point. In phase I of the project the fiber backbone will be extended to the center tower on the network and then uplink to towers to the East and West over a wireless backhaul point to point connection. Unfortunately, due to the nature of wireless Internet services the connectivity is a shared media. However, the network and equipment is being designed to ensure that each customer gets the maximum speeds available at all times.

9. 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. Also describe specific advantages of using this technology. Provide a detailed explanation on how this information was compiled and source(s). For wireless projects, provide a propagation map including the proposed project. Label Map: Attachment 5 – Propagation Map Wireless Project

Answer:

This project is to build out a new fiber link and wireless network infrastructure in Patrick County. We propose using a Fixed Wireless Network that is composed of three existing tower sites with a 6.5 mile fiber backbone connecting the center tower to an Internet peering location in Stuart, VA. The other towers to the East and West of the central tower will be uplinked via PTP (Point to Point) 6 Ghz Microwave link. Each of the three towers will be outfitted with Point to MultiPoint (PtMP) wireless equipment to up link the Customer's Premise Equipment (CPE). The PtMP and CPE equipment will be using 3 GHz and 5 GHz spectrum. The coverage area runs just North of Hwy 58 starting just east of Patrick Springs and Critz. It continues going North West past Stuart all the way to the Woolwine area. From there it turns a little South to provide some coverage near Vesta and Meadows of Dan. This newer 3 GHz equipment allows for higher bandwidth with far less interference than older 900 Mhz and 2.4 GHz frequency radios. RSN has experience using the identical 5 GHz equipment and similar 3 GHz equipment in the mountainous areas around Hickory, NC. The entire solution comes highly recommended by RSN's outside wireless engineering group which has seen it successfully deployed in many different environments.

10. Project Readiness

What is the current state of project development (e.g. planning, preliminary engineering, identifying easements/permits, final design, etc.)? Prepare a detailed project timeline or construction schedule which identifies specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Provide any Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) (drafts are allowable), letters of support, etc. The timeline should include all activities being completed within 12 months of contract execution with DHCD. Label Attachments: Attachment 6 – Timeline/Project Management Plan; Attachment 7 – Relationship between Applicant/Co-Applicant; Attachment 8 – Letters of Support;

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- i. If the partnership is formalized in a written agreement, provide a copy of that agreement.
- ii. If the partnership has not been formalized, provide a short description of the project management role, financial commitment, or other contribution to the project for the applicant, co-applicant, and any additional partners.
- iii. If applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality.

Answer:

The preliminary planning and engineering is almost completed. Once funding is approved, the project should be ready to secure permits and lease agreements for the different tower sites. Additionally, the fiber route can be staked out and easements can be secured from each of the property owners. Earlier this year, Patrick County issued an RFP to expand Broadband Internet. RiverStreet Networks was awarded that contract which called for both parties to submit \$100,000.00 each. This \$200,000.00 was then to be used as matching funds towards a VATI grant. If the VATI application is successful then Phase I of a wireless broadband deployment would begin. To help extend service beyond Phase I, RSN pledge an additional \$400,000.00 in matching funds for a future grant to support a Phase II buildout. To formalize the relationship and the understanding of both parties, RSN submitted a MOU dated 8/12/19. The MOU has been signed by RSN but it is currently undergoing some editing changes that were requested by the County. It is expected to have the MOU fully executed in the next couple of weeks.

11. Matching funds: Provide a description of the matching funds the applicant and co-applicant will invest in the proposed project (VATI funding cannot exceed 80 percent of total project cost). The Funding Sources Table must be completed. Label Attachments: Attachment 9 - Documentation of Match Funding; Attachment 10 – Funding Sources Table;

- i. For each element of matching funds in the description, indicate the type of match (e.g. cash, salary expense, or in-kind contribution).
- ii. Identify whether the applicant or co-applicant is responsible for providing each element of the proposed matching funds.
- iii. Include copies of vendor quotes or documented cost estimates supporting the proposed budget.

Answer:

Patrick County and RSN are both supplying \$100,000.00 of cash in matching funds for a total of \$200,000.00. Additionally, RSN has committed to buying the estimated \$340,450.00 worth of customer premise equipment required for each location to connect back to one of the tower sites. This application is requesting \$798,283.00 in State Funding to build out Phase I of a wireless broadband network in the County. Additionally if this application is funded, RSN has committed \$400,000.00 in matching funds for a Phase II expansion project. The documentation of RSN's matching funds is covered by their executed Patrick County Broadband RFP and draft MOU. Matching funds from Patrick County will be supplied by the Patrick County Economic Development Authority and Patrick County Tourism. Minutes from those respective organizations have been included as Attachment 9. The attachments covering the Derivation of Cost, Engineering Estimate, and Supplier Quotes provide a complete listing of all expenses broken down into labor and material categories.

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12. Applicant and Co-Applicant: A description of the public-private partnership involved in the project. Detail the local government assistance: Local government co-applicants should demonstrate assistance to project that will lower overall cost and further assist in the timely completion of construction, including assistance with permits, rights of way, easements, and other issues that may hinder or delay timely construction and increase cost. Provide detail if this project includes additional partners such as municipal providers, middle-mile providers, or investor-owned utilities

Answer:

The Patrick County Broadband Committee has worked extremely hard over the past year to gather information and to help facilitate a partnership with an internet service provider. The Patrick County Economic Development Authority (EDA) has agreed to be the project facilitator due to the recognized impact on economic development. On behalf of Patrick County, the EDA will assume responsibilities that include, but not be limited to, property research to identify critical project areas, permitting assistance for any federal, state, or local requirements, waiving of permit fees in designated Enterprise Zones, utilizing County owned facilities to serve as anchors, and facilitation of partner marketing efforts and potential workforce gaps. Bryce Simmons, PE, EDA Director will serve as the primary contact for the broadband project. Mr. Simmons comes from a project management and construction background and may serve as the “engineer of record” in the event of needed services. The Patrick County Broadband Committee will continue to provide volunteer services in identifying potential customers for expansion.

13. Identify key individuals, including name and title, who will be responsible for the management of the project. Provide a concise description of their role and responsibilities for the project. Present this information in table format.

Answer:

Name	Title	Project Duties
Bryce Simmons	Economic Development Director Pa	Project Leader and POC for County

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Eric Cramer	RSN CEO	Directs all activities of the Compar
Jody Call	RSN CTO	Responsible for the planning, impl
Kimberley Johnson	RSN CFO	Manages all accounting, financial a
Jody Souther	RSN VP of Network Engineering	Directs the activities of all outside
Amanda Perry	RSN VP of Sales & Marketing	Develops and executes the Compar

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Robert Taylor	RSN Business Development Mana	Liaison with the County and the pi
Joshua Strickland	RSN Wireless Operations Manage	Will bring his 23 years experience

14. Project Budget and Cost Appropriateness

Applicants shall provide a detailed budget as to how the grant funds will be utilized, including an itemization of equipment and construction costs and a justification of proposed expenses. Expenses should be substantiated by clear cost estimates. Label Attachment: Attachment 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Costs; Attachment 13 – Supporting Documentation of Cost Estimates.

Answer:

All costs for this project are based off of historical engineering estimates used on previous projects completed by RSN, their subsidiaries, and/or engineering partners as well as quotes provided by suppliers/contractors. A majority of the work will be completed by third party contractors who specialize in the installation of long haul fiber and radio equipment on towers.

All Quotes and Estimates that have been provided for this project have been redacted so that any supplier/contractor name and/or contact information is removed. This was done as per the request of the vendor/contractor. This is to ensure that any pricing that they have provided us as part of this project is not passed onto their competitors or used to get competitive pricing by other customers in the future.

Please note that Attachments 12 & 12B are separate due to formatting.

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. Finally, the

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three component scores are averaged together and converted to a 30-point scale to form a composite score. Please provide the following three pieces of information:

- a. Total State funding requested / Total Project cost
- b. Number of serviceable units
- c. Highest residential speed available

Answer:

a. Application is requesting \$798,283.00 in funds to support a \$1,338,733 wireless project. This requested amount is 59.6%. The cost to the State per location covered by this wireless project is \$409.38 . If funded, this could lead to another \$400,000.00 in private funding for future expansion of broadband Internet services in Patrick County.

b. Within the defined project areas, approximately 1,950 address points have been identified over 37.5 square miles. For this cost analysis, a reasonable estimate of 1,500 residential serviceable units over a 35 square mile service area is being used.

c. As stated previously, the plan is to offer speeds up to 25/3 Mbps and 50/3 Mbps.

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

Answer:

The applicant's representative, Bryce Simmons, has over ten years of experience in project and grant management. His experience includes funding management through multiple agencies including: USDA Rural Development, EPA, VDH, DEQ, DHCD, Tobacco Commission, ARRA, VTC, and others. Mr Simmons, is originally from Patrick County, but moved to the City of Danville, VA in 2008 to pursue a career in engineering. Mr. Simmons assumed the role of Patrick County Economic Development Director in May 2019.

RiverStreet Networks of Virginia is a wholly-owned subsidiary of Wilkes Telephone Membership Corporation (WTMC), a rural ILEC telephone company that provides services to various locations throughout North Carolina and most of the rural areas of Wilkes County, the location of the corporate office. It obtained a \$25M 75% BIP Stimulus grant/loan from the USDA in 2009. WTMC completed an 1100 mile system-wide Fiber-To-The-Home (FTTP) network using an active fiber design for all its exchanges. High-speed Broadband, Voice, and IPTV are available to 9200 subscribers in its Wilkes County service areas. This fiber network serves the four exchanges of Champion, Boomer, Lomax, and Clingman, which is tied together with a 250-mile transport fiber ring with multiple 10G connections. A MetaSwitch Softswitch with VOIP capability is located at the Champion office. IPTV is being routed from neighboring Skyline TMC via a redundant 10G fiber ring. A total of 20Gbps internet access is provided, using two different internet service providers (10Gbps from Citizens and 10Gbps from Spirit) via redundant fiber facilities. The broadband traffic is continuously monitoring the actual service levels of every customer, and all connections are upgraded before the 15% over-subscription is reached. The service goal of Wilkes is to maintain an over-subscription level of under 10% on an ongoing basis. This entire project was completed on budget and on time over five years. Additionally, another portion of RiverStreet Networks is Tri-County Telecom (TCT) merged its operation with WTMC's last year. TCT provides Broadband, Voice, and IPTV services over an all-fiber network to about 4,000 customers in parts of Beaufort, Hyde, and Washington Counties

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in Eastern North Carolina. This FTTH network was built with a \$12M 70%BIP Stimulus grant/loan from the USFA in 2009. Over 500 mile of distribution fiber was built over five years. In 2010 TriCounty received a 14.2 Million (75% Grant/25% Loan) through the Broadband Infrastructure Program (BIP), a program developed by the USDA Rural Utilities Service due to Federal Funded Appropriations via the American Recovery and Reinvestment Act of 2009. This facilitated the construction of more than 355 miles of Fiber Optic Cable to serve rural citizens of Northeastern Beaufort County and a small portion of Washington and Hyde Counties. This project was completed within five years.

17. Commonwealth Priorities

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. Please describe if the project fits into a larger locality or regional universal broadband plan.

Answer:

This is Patrick County's first request for funding to improve broadband service. There are a number of organizations and potential partners that would benefit from the proposed project. Bull Mountain is one of the most natural antennas in the region, which can be seen from its use by the Virginia State Police, the Department of Forestry, Appalachian Power, Patrick County Emergency Services, and the City of Danville. Fiber service to this location could benefit the region, including Franklin and Henry Counties in Virginia, and Stokes County in North Carolina.

An important reason that RiverStreet Networks was selected is due to their current work in Stokes County, North Carolina and CAF funding in Virginia. Patrick County believes that it could be instrumental in improving communications across the state line by filling in the "fiber gap".

Patrick County currently has a very good relationship with the West Piedmont Planning District Commission (WPPDC) and intends to utilize that organization. The planning district commission has already identified serving the Snow Creek area as a potential partnership between Franklin County and Patrick County.

Investment of \$1.3 million into Patrick County will be one of the largest projects in this area in a decade. This project will give traction to a new EDA Director, a new company working in Patrick County, and a discussion point in a very important local election.

18. Additional Information

Any other equitable factor that the applicant desires to include. Applicants are limited to four additional attachments. Label Additional Attachments as:

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

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e. Attachment 18 – XXXXXXXX

f. Attachment 19 – XXXXXXXX

Answer:

Attachment 16 - Citizens Coverage in Patrick County

Attachment 17 – VATI Marketing Information

Attachment 18 – Patrick County Conceptual Proposal

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMap93201912727.pdf

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

Attachment2ExistingProviderMap93201912845.pdf

Documentation that proposed project area is not designated for Connect America Funding (CAF)

Attachment3CAFFundingAreas93201912920.docx

Documentation that proposed project area is unserved based on VATI criteria

Attachment4DocumentationUnservedAreaVATICriteria93201913052.pdf

Propagation Map if Wireless Project

Attachment5PropagationMapWirelessProject193201913152.docx

Project Management Plan

Attachment6TimelineProjectManagementPlan93201914227.docx

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

Attachment7RelationshipbetweenApplicantCoApplicant93201914331.pdf

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Letters of Support

Attachment8LettersofSupport93201914357.pdf

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

Attachment9DocumentationofMatchFunding93201915231.pdf

Funding Sources Table

Attachment10FundingSourcesTable93201915322.docx

Derivation of Cost (Project Budget)

Attachment11PatrickCoDerivationofCostsWorksheet93201915441.xlsx

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

Attachment12DocumentationofSupportingCost93201940809.pdf

Supporting documentation for costs estimates

Attachment13SupportingDocumentationofCostEstimatespdf93201915609.pdf

Two most recent Form 477 submitted to FCC

Attachment14TwomostrecentForm477submittedtotheFCC93201915635.pdf

Copy of Public Notice

Attachment15PCPublicNotice93201915654.pdf

Optional

Attachment16CitizensCoverageinPatrickCounty93201920037.docx

Optional

Attachment17VATIMarketingInformation93201920656.pdf

Optional

Attachment18PatrickCountyConceptualProposal93201931544.pdf

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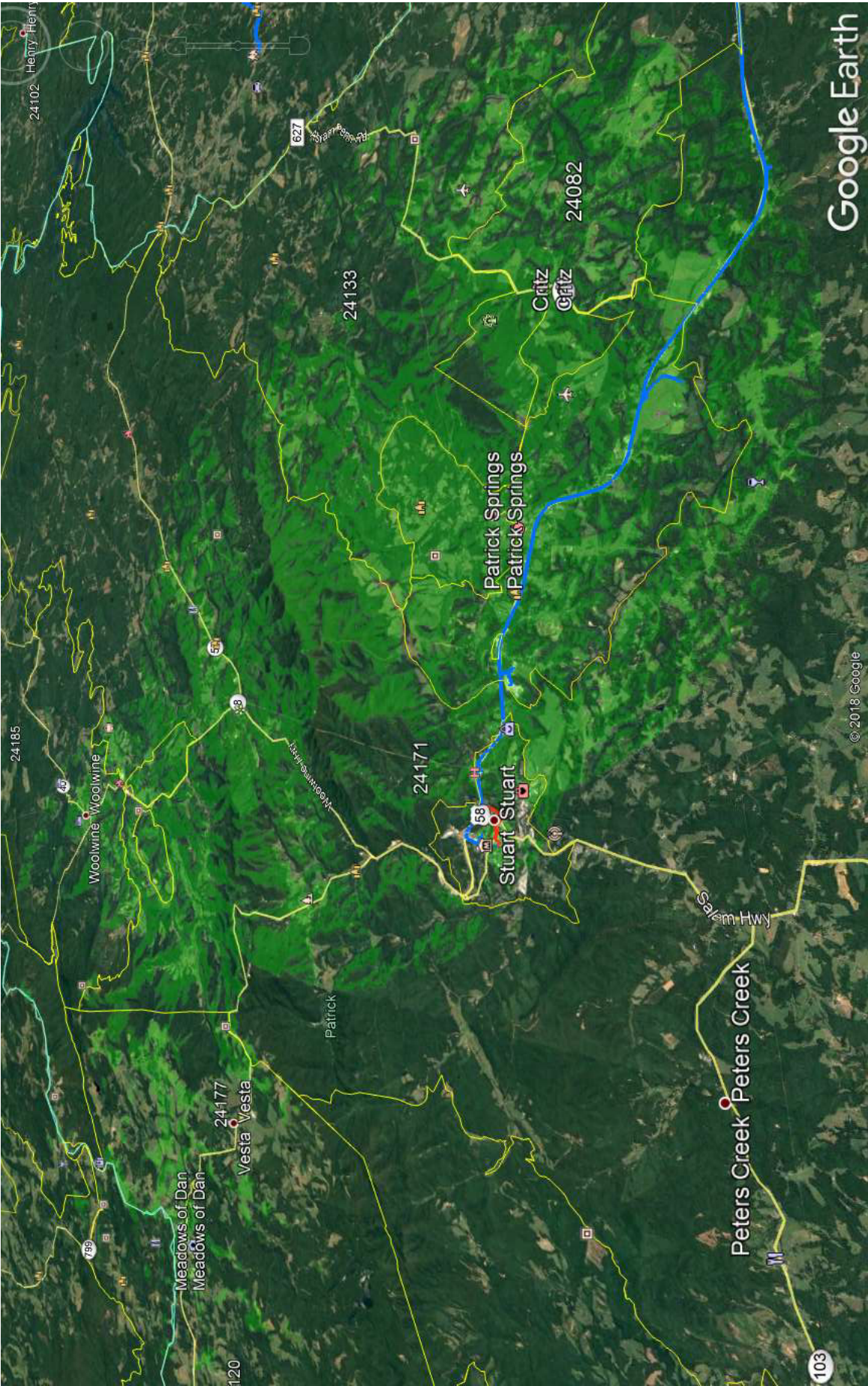
Optional

Attachment12BDocumentationofSupportingCost93201940822.xls

Notes:

Full copies of any redacted materials: FCC477, and Cost Estimates will be made available to the DHCD if required and FOIA exemption is granted.

Attachment 1 – Project Area Map

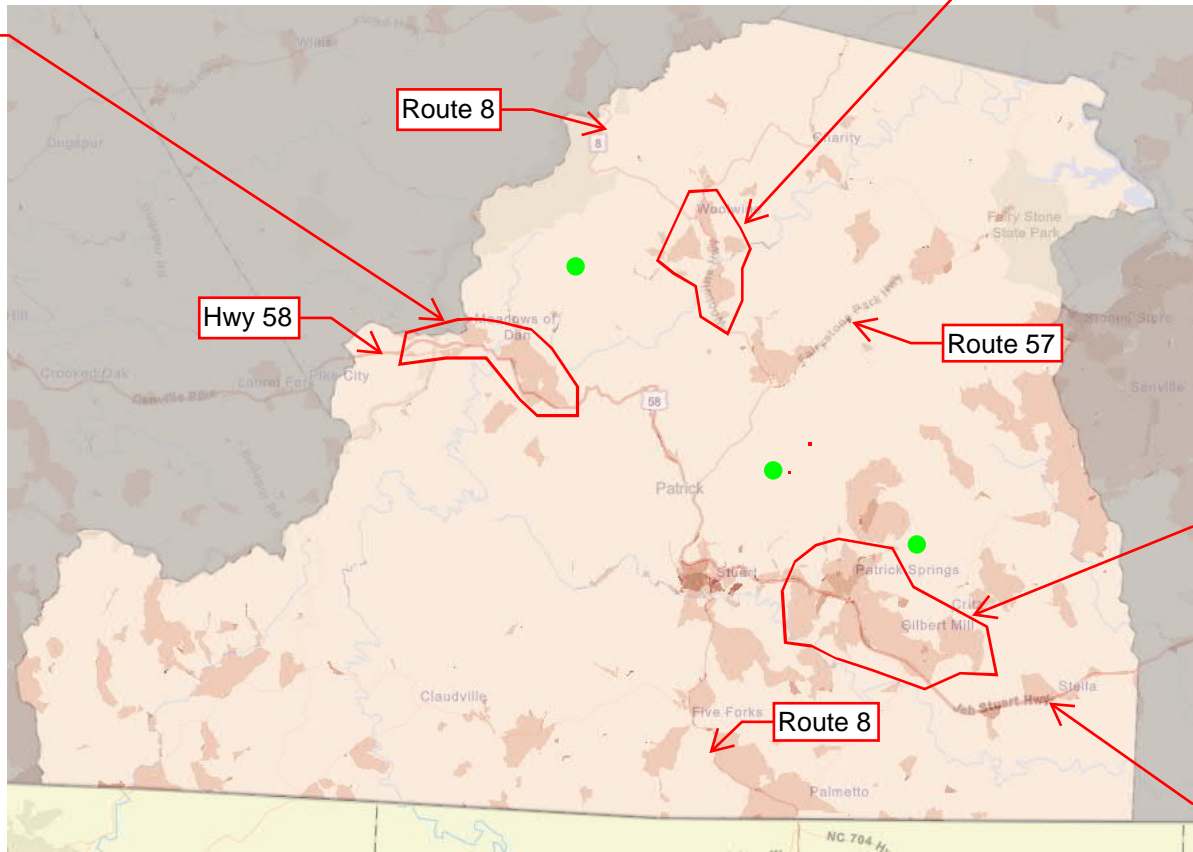


Patrick Population Density

Meadows of Dan Community

Woolwine Community

Population density is low across the county, with concentrations of low-moderate density along routes 5, especially near Stuart



Approximate Service Areas

Approximate Tower Location

Patrick Springs Community

Hwy 58

- 0 - 71
- 72 - 307
- 308 - 962
- 963 - 2623
- 2624 - 82301

Prepared by CIT

Note: This figure is for relative purposes and not for design.

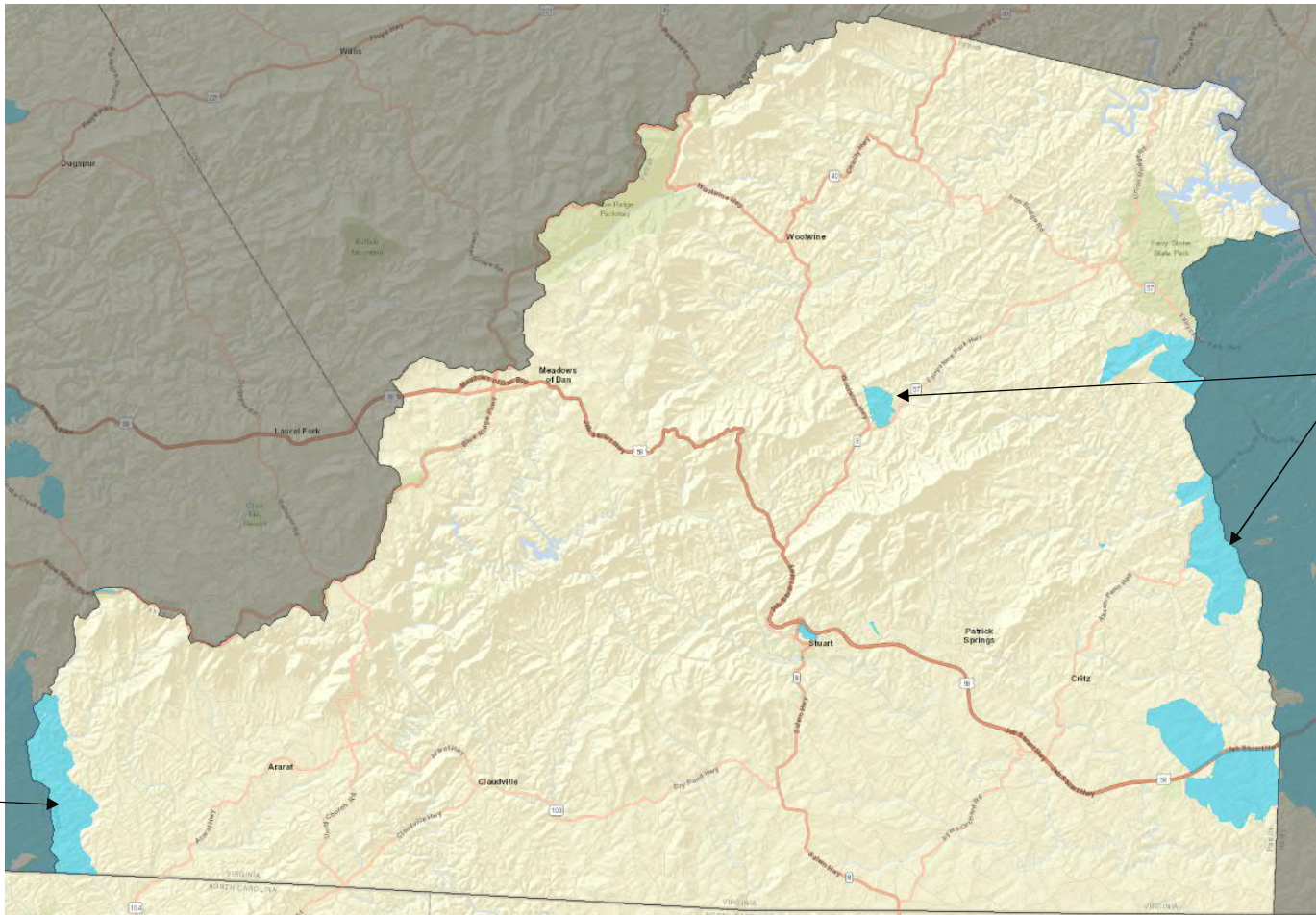
DSL Coverage

CenturyLink



Prepared by CIT

Cable Coverage



Charter

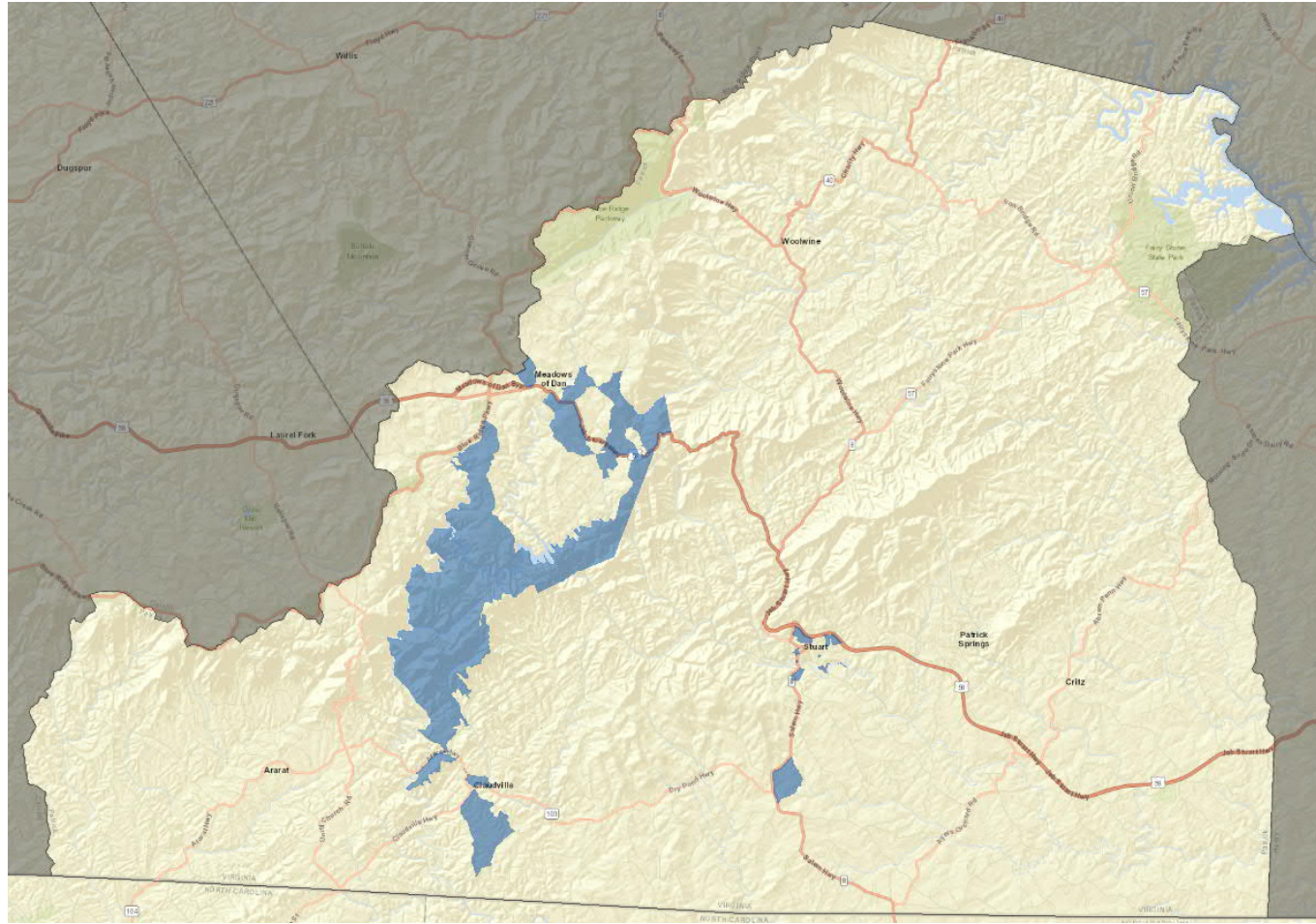
Comcast – confirmed no service in Patrick County

Prepared by CIT

Fiber Service

Not commercial fiber routes

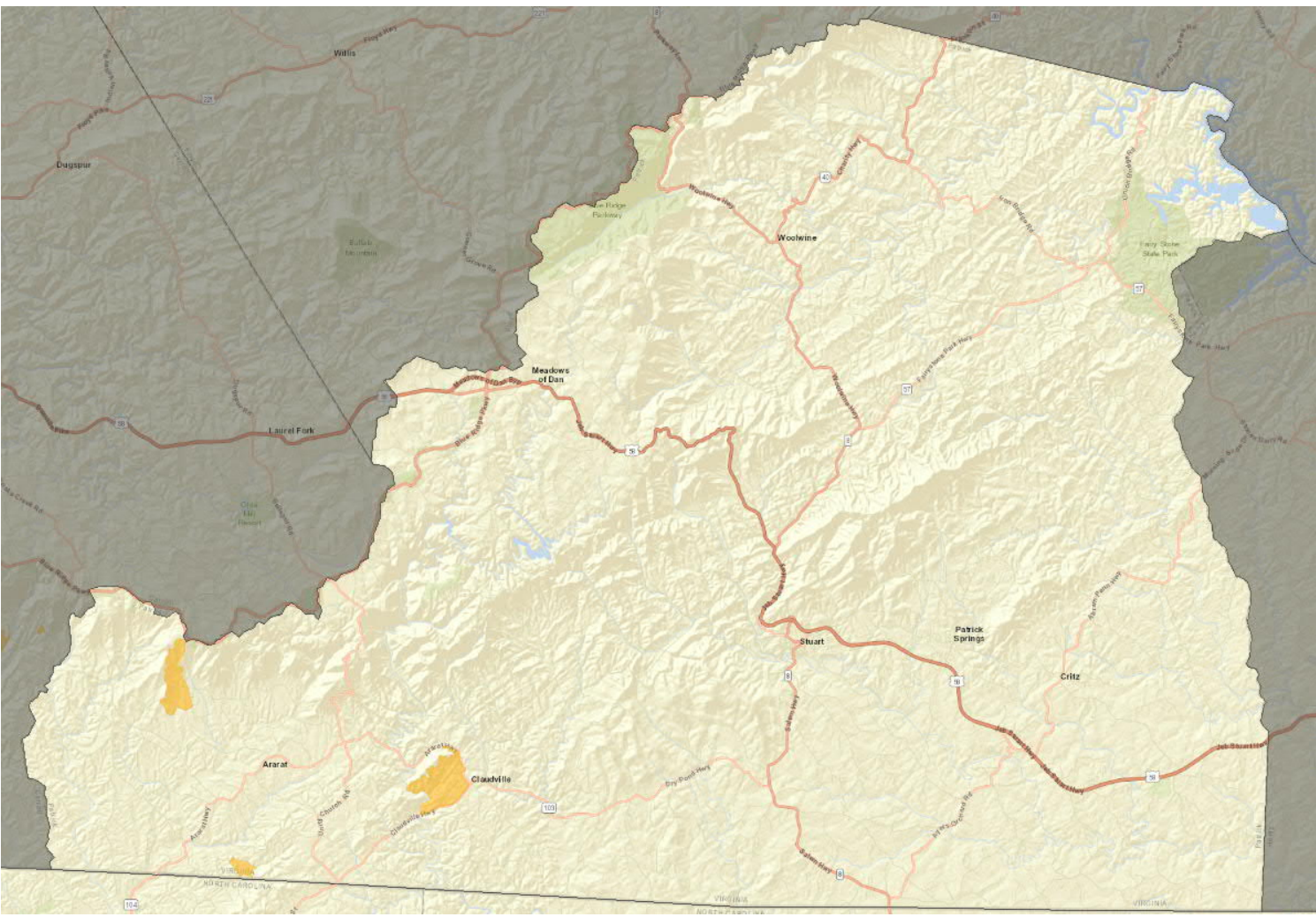
Citizens



Prepared by CIT

Fixed Wireless Service

Fastlink

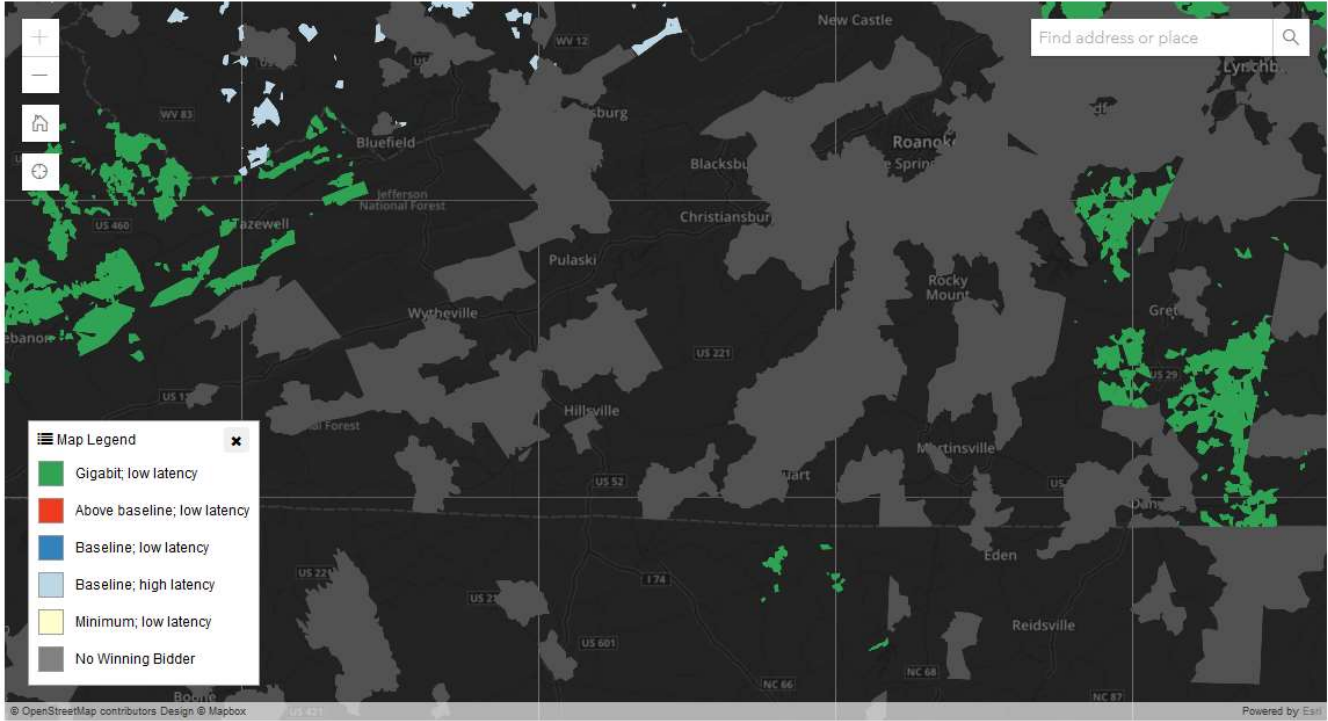


Prepared by CIT

Attachment 3 – CAF Funding Areas

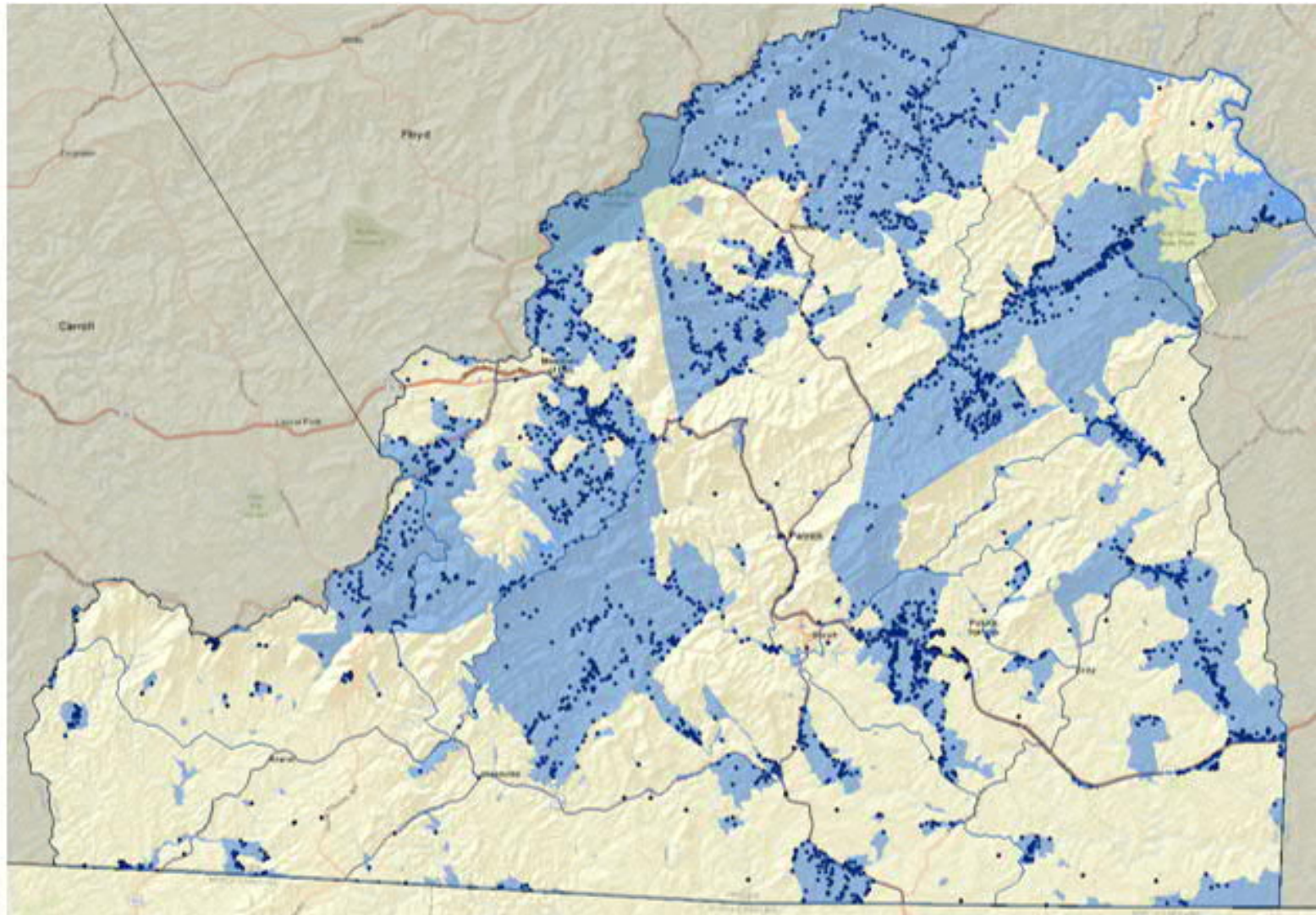
Connect America Fund Phase II: Auction 903 Results

Data as of 4/3/19



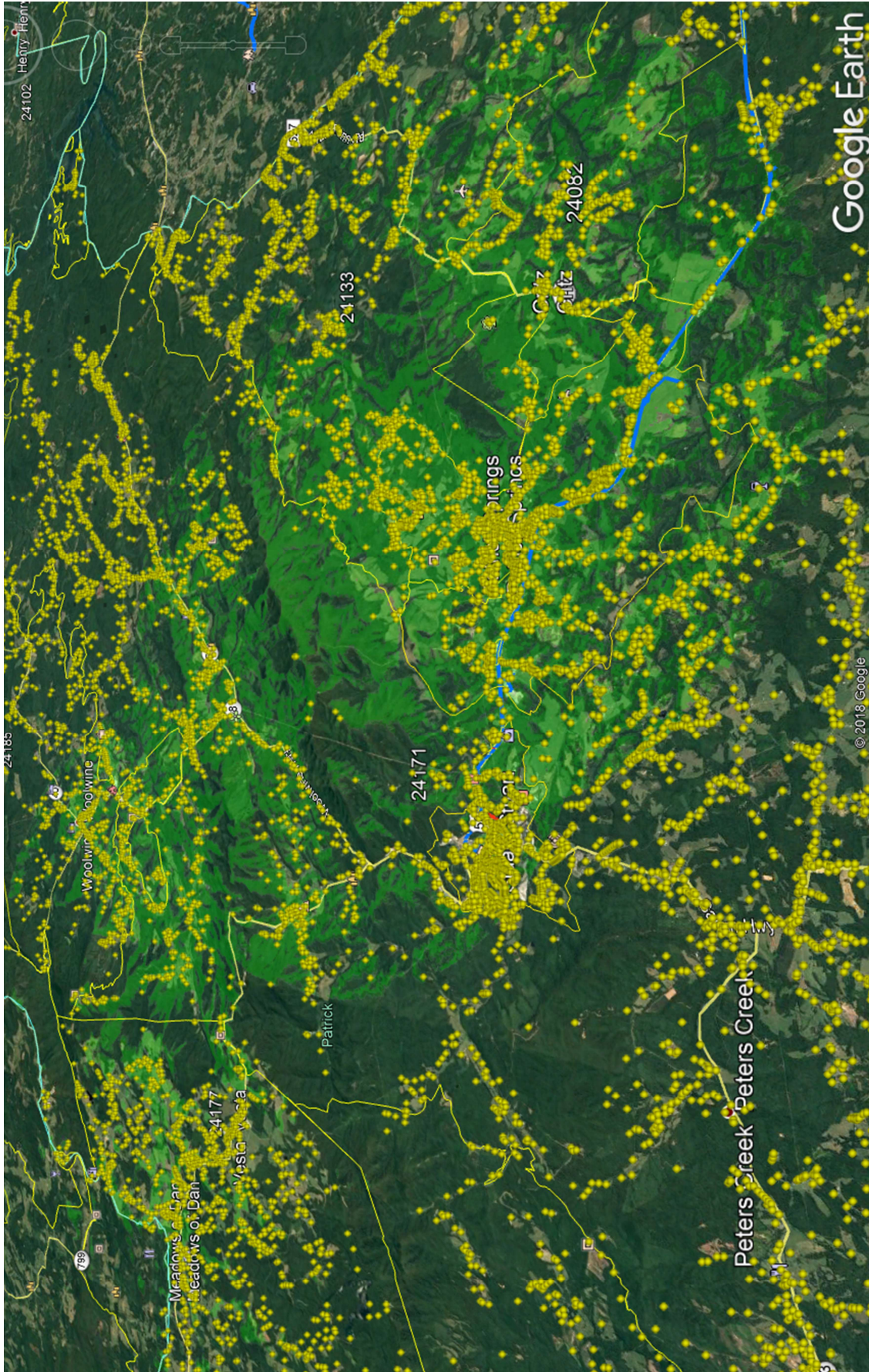
Patrick County areas with **speeds of 10 Mbps download by 1Mbps upload or less identified.**
Source FCC 477 (6/2017)

27% of Patrick County address points are in eligible Virginia funding areas.



Attachment 5 – Propagation Map Wireless Project

Light Green is Projected Coverage Areas & Yellow Dots are GIS Locations



MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU), hereinafter referred to as the Memorandum, entered into on , by and between Wilkes Telephone Membership Corporation and RiverStreet Communications of Virginia residing at 1400 River St, Wilkesboro, North Carolina 28697, hereinafter referred to as the "First Party," and Government of Patrick County, Virginia residing at _____ hereinafter referred to as the "Second Party," and collectively known as the "Parties" for the purpose of establishing and achieving various goals and objective relating to the partnership .

WHEREAS, the aforementioned Parties desire to enter into the herein described agreement in which they shall work together to accomplish the goals and objectives set forth;

AND WHEREAS, the Parties are desirous to enter an understanding, thus setting out all necessary working arrangements that both Parties agree shall be necessary to complete this partnership;

MISSION

The aforementioned partnership has been established with the following intended mission in mind:

To serve the unserved population of Patrick County, Virginia with Broadband

PURPOSE AND SCOPE

The Parties intend for this Memorandum of Understanding to provide the cornerstone and structure for any and all possibly impending binding contract which may be related to the partnership.

OBJECTIVES

The Parties shall endeavor to work together to develop and establish policies and procedures that will promote and sustain a market for Rural Fixed Wireless Broadband availability, and intend to maintain a product and/or services that meets or exceeds all business and industry standards.

RESPONSIBILITIES AND OBLIGATIONS OF THE PARTIES

It is the desire and the wish of the aforementioned Parties to this MOU Agreement that this document should not and thus shall not establish nor create any form or manner of a formal agreement or indenture, but rather an agreement between the Parties to work together in such a manner that would promote a genuine atmosphere of collaboration and alliance in the support of an effective and efficient partnership and leadership meant to maintain, safeguard and sustain sound and optimal managerial, financial and administrative commitment with regards to all matters related to the partnership through means of the following individual services .

SERVICES COOPERATION

Wilkes Telephone Membership Corporation and RiverStreet Communications of Virginia shall render and provide the following services that include, but are not limited to:

Fixed Wireless Broadband Internet.

Phase 1 (beginning 2020): Contribution of \$100,000 to match Patrick County's \$100,000 if VATI Grant is provided (asking for \$1,000,000)

Phase 2 (beginning 2021): Contribution of additional \$400,000 if Patrick County is successful in obtaining additional VATI Grants of \$1,000,000

Government Of Patrick County, Virginia shall render and provide the following services that include, but are not limited to:

Phase 1: \$100,000 Contribution

Phase 1: VATI Grant of \$1,000,000

Phase 2: VATI Grant of \$1,000,000

TIMELINE

The above outlined scope and objective shall be contingent on the Parties obtaining the necessary funds required for the partnership as described within any grant or business loan application, if any. Responsibilities under this Memorandum of Understanding may coincide with the grant period.

TERMS OF UNDERSTANDING

The term of this Memorandum of Understanding shall be for a period of 2 years from the aforementioned effective date and maybe extended upon written mutual agreement of both Parties.

AMENDMENT OR CANCELLATION OF THIS MEMORANDUM

This Memorandum of Understanding may be amended or modified at any time in writing by mutual consent of both parties.

In addition, the Memorandum of Understanding may be cancelled by either party with 120 days advance written notice, with the exception where cause for cancellation may include, but is not limited to, a material and significant breach of any of the provisions contained herein, when it may be cancelled upon delivery of written notice to the other party.

GENERAL PROVISIONS

The Parties acknowledge and understand that they must be able to fulfill their responsibilities under this Memorandum of Understanding in accordance with the provisions of the law and regulations that govern their activities. Nothing in the Memorandum is intended to negate or otherwise render ineffective any such provisions or operating procedures. The parties assume full responsibility for their performance under the terms of this Memorandum.

If at any time either party is unable to perform their duties or responsibilities under this Memorandum of Understanding consistent with such party's statutory and regulatory mandates, the affected party shall immediately provide written notice to the other party to establish a date for resolution of the matter.

LIMITATION OF LIABILITY

No rights or limitation of rights shall arise or be assumed between the Parties as a result of the terms of this Memorandum of Understanding.

ARBITRATION/MEDIATION DISPUTE RESOLUTION

The Parties to this Memorandum of Understanding agree that should any dispute arise through any aspect of this relationship, including, but not limited to, any matters, disputes or claims, the parties shall confer in good faith to promptly resolve any dispute. In the event that the parties are unable to resolve the issue or dispute between them, then the matter shall be mediated and/or arbitrated in an attempt to resolve any and all issues between the parties.

The parties agree that any claim or dispute that arises from for through this agreement, the relationship or obligations contemplated or outlined within this agreement, if not resolved through mediation, shall then go to and be resolved through final and binding arbitration. Any decision reached by the Arbitrator shall be final and binding and, if required, may be entered as a judgment in any court having jurisdiction.

In the event that any court having jurisdiction should determine that any portion of this Agreement to be invalid or unenforceable, only that portion shall be deemed invalid and not effective, while the balance of this Agreement shall remain in full effect and enforceable. This Agreement shall be interpreted and governed by and in accordance with the Federal Arbitration Act 9 U.S.C. §1-16.

NOTICE

Any notice or communication required or permitted under this Memorandum shall be sufficiently given if delivered in person or by certified mail, return receipt requested, to the address set forth in the opening paragraph or to such address as one may have furnished to the other in writing.

GOVERNING LAW

This Memorandum of Understanding shall be governed by and construed in accordance with the laws of the State of Virginia.

SEVERABILITY CLAUSE

In the event that any provision of this Memorandum of Understanding shall be deemed to be severable or invalid, and if any term, condition, phrase or portion of this Memorandum shall be determined to be unlawful or otherwise unenforceable, the remainder of the Memorandum shall remain in full force and effect, so long as the clause severed does not affect the intent of the parties. If a court should find that any provision of this Memorandum to be invalid or unenforceable, but that by limiting said provision it would become valid and enforceable, then said provision shall be deemed to be written, construed and enforced as so limited.

ASSIGNMENT

Neither party to this Memorandum of Understanding may assign or transfer the responsibilities or agreement made herein without the prior written consent of the non-assigning party, which approval shall not be unreasonably withheld.

ENTIRE UNDERSTANDING

The herein contained Memorandum of Understanding constitutes the entire understanding of the Parties pertaining to all matters contemplated hereunder at this time. The Parties signing this MOU desire or intend that any implementing contract, license, or other agreement entered into between the Parties subsequent hereto shall supersede and preempt any conflicting provision of this Memorandum of Understanding whether written or oral.

MOU SUMMARIZATION

FURTHERMORE, the Parties to this MOU have mutually acknowledged and agreed to the following:

- The Parties to this MOU shall work together in a cooperative and coordinated effort, and in such a manner and fashion to bring about the achievement and fulfillment of the goals and objectives of this partnership.
- It is not the intent of this MOU to restrict the Parties to this Agreement from their involvement or participation with any other public or private individuals, agencies or organizations.
- The Parties to this MOU shall mutually contribute and take part in any and all phases of the planning and development of this partnership, to the fullest extent possible.
- It is not the intent or purpose of this MOU to create any rights, benefits and/or trust responsibilities by or between the parties.
- The MOU shall in no way hold or obligate either Party to supply or transfer funds to maintain and/or sustain the partnership.
- Should there be any need or cause for the reimbursement or the contribution of any funds to or in support of the partnership, it shall then be controlled in accordance with Virginia governing laws, regulations and/or procedures.
- In the event that contributed funds should become necessary, any such endeavor shall be outlined in a separate and mutually agreed upon written agreement by the Parties or representatives of the Parties in accordance with current governing laws and regulations, and in no way does this MOU provide such right or authority.

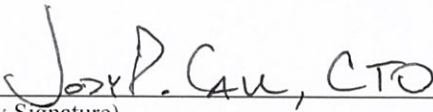
8/12/2019

- The Parties to this MOU have the right to individually or jointly terminate their participation in this Agreement provided that advanced written notice is delivered to the other party.
- Upon the signing of this MOU by both Parties, this Agreement shall be in full force and effect.

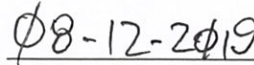
AUTHORIZATION AND EXECUTION

The signing of this Memorandum of Understanding does not constitute a formal undertaking, and as such it simply intends that the signatories shall strive to reach, to the best of their abilities, the goals and objectives stated in this MOU.

This Agreement shall be signed by Wilkes Telephone Membership Corporation and RiverStreet Communications of Virginia and Government of Patrick County, Virginia and shall be effective as of the date first written above.



(First Party Signature)



(Date)

Wilkes Telephone Membership Corporation and RiverStreet Communications of Virginia

(Second Party Signature)

Government of Patrick County, Virginia

(Date)



PATRICK COUNTY

VIRGINIA

Rickie E. Fulcher

Patrick Co. Supervisor (Peters Creek)

590 American Legion Road

Stuart, VA 24171

August 23, 2019

Virginia Department of Housing and
Community Development (DHCD)
600 E Main Street, Suite 300
Richmond, VA 23219

RE: Letter of Support for 2020 VATI Application for Patrick County

Dear Virginian and DHCD Staff,

Patrick County is in need of broadband expansion just to provide basic safety, health, and education services. Lack of reliable internet connection continues to stifle investment in our community and underserve residential demand. I approve of Patrick County's decision to partner with an Internet Service Provider (ISP) for broadband expansion.

I am writing in support of RiverStreet Communications of Virginia, Inc/RiverStreet Networks and their proposal for wireless broadband service in Patrick County. As a community, we recognize the importance of broadband to better serve all citizens. Additionally, such improvements will increase educational opportunities and economic growth in the County. The proposed investment in broadband infrastructure, utilizing VATI funds with matching County and RSN funds, would greatly improve the opportunities only faster broadband can return. Please consider the County's application for funding as we are in support of their efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "Rickie E. Fulcher", positioned above a horizontal line.



PATRICK COUNTY

VIRGINIA

(Name) Sandra P. Belcher

(Company/Title) Director of Tourism & Marketing

(Address) 106 Rucker Street
Sturat, VA 24171

August 23, 2019

Virginia Department of Housing and
Community Development (DHCD)
600 E Main Street, Suite 300
Richmond, VA 23219

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Sincerely,

 _____ (sign)



PATRICK COUNTY

VIRGINIA

(Name) Stephanie Brinegar Vipperman
(Company/Title) Commonwealth's Attorney of Patrick Co
(Address) P. O. Box 268
Stuart, VA 24171

August 23, 2019

Virginia Department of Housing and
Community Development (DHCD)
600 E Main Street, Suite 300
Richmond, VA 23219

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Sincerely,

Stephanie Brinegar Vipperman (sign)



PATRICK COUNTY VIRGINIA

(Name) Steve Allen
(Company/Title) Emergency Management
(Address) PO Box 466
Stuart, VA 24171

August 23, 2019

Virginia Department of Housing and
Community Development (DHCD)
600 E Main Street, Suite 300
Richmond, VA 23219

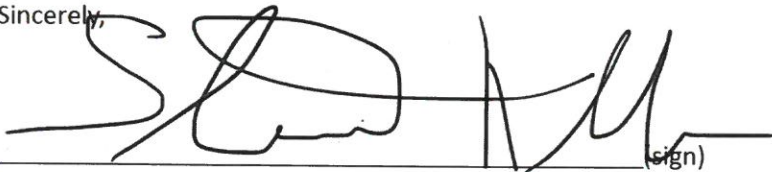
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Sincerely,



(sign)



West Piedmont Planning District Commission

P.O. Box 5268
Martinsville, VA 24115-5268
Phone: (276) 638-3987
Fax: (276) 638-8137
e-mail: staff@wppdc.org

Serving Franklin, Henry, Patrick, and Pittsylvania Counties - Cities of Danville and Martinsville - Town of Rocky Mount - Since 1970

August 23, 2019

Mr. Tom Rose, County Administrator
Patrick County
P. O. Box 466
Stuart, VA 24171

Dear Tom,

On behalf of the West Piedmont Planning District Commission, the Board of Commissioners would like to offer support for Patrick County's application to the Department of Housing and Community Development's Virginia Telecommunications Initiative (VATI). We understand this funding in the amount of \$1 million will assist with fixed wireless service in the communities of Patrick Springs, Meadows of Dan, and Woolwine. Further, we acknowledge that this is Phase I of a multi-phased process to improve the capacity in both unserved and underserved areas, utilizing a public-private partnership.

We recognize that the County is partnering with RiverStreet Networks to expand accessibility to broadband services in these first targeted areas and highly commend these efforts. We wish you every success in this initiative to enhance quality of life and advance economic vitality in these rural communities.

Sincerely,

David R. Hoback
Executive Director

cc: Bryce Simmons, Patrick County



P.O. Box 9
Laurel Fork, VA 24352
Phone (276) 398-2292
Fax (276) 398-3331

August 26, 2019

Bryce M. Simmons, PE
Economic Development Director
Rucker Street
Stuart, VA

Dear Mr. Simmons,

I am pleased to hear that Patrick County is partnering with RiverStreet Networks to pursue broadband funding for Patrick County. Access to highspeed Internet is vitally important to the economic growth and development of Southwest Virginia. As you know, companies will not locate to communities that are unable to utilize technology to its fullest extent possible. Further, lack of access to highspeed Internet impacts the health and welfare of community members.

I have worked in healthcare for the past 39 years in Southwest / Southside Virginia in the management of federally-funded Community Health Centers. The need for access to highspeed Internet has increased over time as technology has advanced and the demands on the various systems have expanded.

Tri-Area Community Health has three clinics and serves Carroll, Floyd, Franklin, and Patrick Counties. Just two years ago, we had 10 Mbps at our Laurel Fork site, 6 Mbps at our Floyd site, 3 Mbps at the Ferrum site, and 3 Mbps at our Corporate Office in Laurel Fork. This was insufficient to meet our needs, given our electronic health records system and practice management system, our efforts to use telehealth equipment with UVA and internally, our use of email and related systems, and use the Internet for staff and patient education. Fortunately, there have been some significant changes in our service area over the past two years. The broadband speed at Laurel Fork has increased to 50 Mbps, Floyd is up to 20 Mbps, Ferrum also is up to 20 Mbps, and the Corporate Office now is 20 Mbps. This is the type of speed that we believe would be necessary, at a minimum, in Patrick County to enhance healthcare access.

We believe that telehealth will be an increasingly important aspect of healthcare in the future, and will need faster connections as the technology continues to improve. For example, UVA provides access to 24 separate specialties for our low-income and uninsured families. This has helped reduce the transportation barrier for many of our patients. UVA has tracked the miles saved through the use of telemedicine consults and noted over 1.5 million miles that were saved by patients using telemedicine/telehealth technologies. Local rescue squads and EMTs now have units that can quickly administer life-saving drugs for stroke patients that can significantly improve their recovery time and quality of life. All residents could benefit from access to these telehealth services if highspeed is available throughout Patrick County.

Another health-related way that access to highspeed Internet can impact people's lives is through remote patient monitoring. For example, Tri-Area has been recognized for our Diabetes Quality Improvement Program, where we collaborate with an endocrinologist from UVA to follow uncontrolled diabetic patients in an intense six-month self-management process for their diabetes. The home monitoring of these patients is through the use of an electronic meter that measures the patient's blood glucose level throughout the day. The dietary intake and physical activity of the patient are monitored, as well as other medical factors. It graphs the data and sends it to a secure cloud that can be accessed by the endocrinologist, the patient, the Tri-Area providers, and members of the patient's care team. On average the patients that have completed this six-month program have lowered their HbA1c by 2.2 points (from a HbA1c of 9.9 in starting the program to a HbA1c of 7.7 on completion of the program).

The meter we use for the Diabetes Program was not the one the endocrinologist wanted to use. His preference was for a "real-time" monitor that would send the data to the secure cloud instantly. However, because many patients do not have access to highspeed Internet in their homes, we had to select another meter. This one sends a low-frequency signal to the patient's smartphone and when they reach a cell tower while traveling with their phone, it uploads the data to the cloud. It is not real-time, but it is the best we can do given the limited service in our area. Once Patrick County residents have access to highspeed Internet, they can benefit from state-of-the-art home monitoring programs and connect with medical providers from their homes.

Although my focus is on healthcare, I will note that highspeed Internet is crucial for schools and students throughout the educational system. In order for students to be competitive in the local job market and for jobs outside the area or for higher education, they must be able to access and utilize the internet in their homes.

I wish you much success in your attempts to improve broadband access in Patrick County. Please feel free to call on me if I can be of assistance. I fully support your efforts.

Sincerely,

A handwritten signature in blue ink that reads "Howard Chapman, Jr." with a stylized flourish at the end.

Howard Chapman, Jr.
Director of Programs and Development

RE: Letter in support of broadband

From: Steve Helms <shelms@primland.com>
Sent: Wed, Aug 28, 2019 at 5:18 pm
To: s-berry
Cc: Bryce Simmons, Phyllis Nester

Steve and Bryce,

Please consider this my letter of support. Let me know if you need it in a different format.

To Whom it may concern,

I write on behalf of Primland in support of Patrick County and RiverStreet Networks endeavors to provide Broadband access to the Citizens of Patrick County. We strongly support this grant application and the focus on providing Broad Band to our customers, employees and all citizens of Patrick County. Through this letter, we acknowledge that Patrick County is in desperate need of broadband improvements for tourism, economic development, county citizens quality of life, education, and employee recruitment and retention

Sincerely,

STEVE HELMS

Vice President
T 276.222.3814 F 276.222.3816

PRIMLAND

2000 Busted Rock Road
Meadows of Dan, VA 24120
T 276.222.3800

From: s-berry [mailto:smerry1@centurylink.net]
Sent: Wednesday, August 21, 2019 9:38 AM
To: Steve Helms <shelms@primland.com>
Cc: Bryce Simmons <bsimmons@co.patrick.va.us>
Subject: Letter in support of broadband

The supervisors approved a partnership with RiverStreet Networks to apply for grants and to make county-wide broadband improvements. Bryce, Director of Economic Development, is hard at work with RiverStreet on a grant application which is due September 3. He has requested some letters (e-mails) to attach to the application which detail how badly potential customers need broadband. I am sure availability of good broadband service in our area would help Primland with employee recruitment and retention and would be a positive for tourism in general. If you could take time to send him your thoughts that would be very helpful.

Thanks for your support.

Steve Terry

Broadband

From: Henry Mathieu <hmathieu1@aol.com>
Sent: Wed, Aug 21, 2019 at 1:34 pm
To: bsimmons@co.patrick.va.us
Cc: smterry1@centurylink.net

Bryce,

Steve Terry indicated that you need some information from residents here in Patrick County regarding the importance of broadband. It has been very disturbing that our phone and Internet service has been so bad. Just now we can not receive calls on our phone and it will not be fixed till Friday the 23rd. Last week we were completely without phone service for four days. We are up in age, 89 and 90, and need to have contact with friends and family members. It will soon be time to sell our home and there is no one that wants a home without dependable phone and Internet. They may have children that are in school and use it every day or more importantly work from home and need to be in touch with associates. In all of our years we have never had this poor of communications. We have lived at this location for over 27 years and it has never been as bad as it has been for the last several years. Communications with the outside world has never been more important then it is at this time for everyone. It is urgent that improvements be made now. Our hope is that we can enjoy a improved system before we are called home.

Sincerely,

Henry & Marie Mathieu

Economic Development Authority of Patrick County

Meeting of May 28, 2019
Second floor conference room

Present: Dale Puckett, Chair; Bill Clark, Vice-Chair; Glenn Roycroft; Ron Haley; Clayton Kendrick; Dr. Richard Cole

Also Present: Bryce Simmons, Economic Development Director; Debbie Foley, Former Economic Development Director; David Rose, Davenport & Company; Paul Jacobson, Sands Anderson; Sandra Stone, Treasurer

Absent: Brenda Roberson, Secretary

A meeting of the Economic Development Authority of Patrick County was held on Tuesday, May 28, 2019 in the second-floor conference room of the Patrick County Veteran's Memorial Building.

Mr. Puckett called the meeting to order. Introductions were made to familiarize the Economic Development Director and Bond Council. Mr. Rose led a discussion to update the authority on the budget analysis and proposed restructuring of Patrick County held debt.

RESOLUTION APPROVAL

The Resolution of the Economic Development Authority of Patrick County, Virginia was discussed with Bond Council. The Resolution allows the Economic Development Authority to assist the County in order to achieve the Debt Service Restructuring.

On motion by Ron Haley, seconded by Dr. Richard Cole and carried, the authority approved the Resolution as presented, with the condition that authority be able to review and recommend changes to the final bond restructuring documents.

Voting Aye: Dale Puckett, Glenn Roycroft, Clayton Kendrick, Bill Clark

Voting Nay: N/A

Abstaining: N/A

REGULAR MEETING

The regular agenda was presented for approval. On motion by Ron Haley, seconded by Bill Clark and carried, the authority approved the May 28, 2019 agenda.

Voting Aye: Dale Puckett, Glenn Roycroft, Clayton Kendrick, Dr. Richard Cole

Voting Nay: N/A

Abstaining: N/A

MINUTES

Approval of the March 28, 2019 minutes.

On motion by Glenn Roycroft, seconded by Bill Clark and carried, the authority approved the March 28, 2019 minutes.

Voting Aye: Dale Puckett, Dr. Richard Cole, Ron Haley, Clayton Kendrick
Voting Nay: N/A
Abstaining: N/A

Approval of the January 24, 2019 minutes. Having no quorum, the approval was tabled until June 27, 2019.

FINANCE REPORT (BILLS):

Debbie Foley presented the finance report. On motion by Glenn Roycroft, seconded by Dr. Richard Cole and carried, the authority approved the finance report and payment of bills for the month of May 2019.

Voting Aye: Dale Puckett, Bill Clark, Ron Haley, Clayton Kendrick
Voting Nay: N/A
Abstaining: N/A

PUBLIC COMMENT

There was no one in attendance for Public Comment

NEW BUSINESS

VACO INSURANCE RENEWAL

Debbie Foley presented the 2019-2020 Self Insurance Proposal for the Patrick County EDA from VACORP.

On motion by Bill Clark, seconded by Dr. Richard Cole and carried, the authority approved the proposal.

Voting Aye: Dale Puckett, Glenn Roycroft, Ron Haley, Clayton Kendrick
Voting Nay: N/A
Abstaining: N/A

BROADBAND ALLOCATION:

The Economic Development Authority has allocated \$40,000 from Authority funds to be used as a match for grant funding, specifically to be used for a viable broadband construction project.

On motion by Dr. Richard Cole, seconded by Glenn Roycroft and carried, the authority approved to allocate funds towards broadband expansion.

Voting Aye: Dale Puckett, Bill Clark, Clayton Kendrick, Ron Haley

Voting Nay: N/A
Abstaining: N/A

OLD BUSINESS

CLT UPDATE:

CLT Update: An email from the attorney was sent to members of the Authority regarding the individual bankruptcy proceedings of Crawford. Wren Williams is interested in proposing a garnishment of wages through the Circuit Court for CLT and Michael Devere and has initiated an engagement letter.

Clarification was given that Mr. Williams will perform the work Pro Bono and the only expenses incurred will be due to fees associated with collection of the debt, such as, filing fees and service by individual sheriffs.

SIGN - MARTIN FARM ROAD:

The completed sign was presented to the authority for approval. There were no objections. Mr. Simmons was instructed to notify maintenance for installation of the completed sign.

RESULTS LEASE:

Per an email from Ian Gunn to Debbie Foley on May 21, 2019, there were proposed changes to the lease renewal per the Results legal counsel.

On motion by Dr. Richard Cole, seconded by Dale Puckett and carried, the authority approved for Mr. Simmons to make the proposed lease changes and forward to Results.

Voting Aye: Glenn Roycroft, Ron Haley, Clayton Kendrick, Bill Clark
Voting Nay: N/A
Abstaining: N/A

CONTRIBUTION TO SVRA:

Withdraw contribution to Southern Virginia Regional Alliance.

On motion by Bill Clark, seconded by Ron Haley and carried, the authority approved to leave the Southern Virginia Regional Alliance.

Voting Aye: Dale Puckett, Glenn Roycroft, Clayton Kendrick, Dr. Richard Cole
Voting Nay: N/A
Abstaining: N/A

EXECUTIVE SESSION

On motion by Bill Clark, seconded by Clayton Kendrick and carried unanimously, the meeting was called into Executive Session under the appropriate codes of Virginia to discuss Real Estate [Section 2.2-3711 (A) (3)]; Legal matters [Section 2.2-3711(A) (7),]; Contracts [Section 2.2-3711 (A) (29)]; and Personnel [Section 2.2-3711 (A) (1)] 1950 Code of Virginia. A roll call was taken with unanimous vote.

Voting Aye: Dale Puckett, Glenn Roycroft, Ron Haley, Dr. Richard Cole
Voting Nay: N/A
Abstaining: N/A

RECONVENE

On motion by Bill Clark and seconded by Ron Haley and carried unanimously, the meeting was reconvened by the appropriate codes. A roll call vote was taken with unanimous vote that only the items listed above were discussed during Executive Session.

Voting Aye: Dale Puckett, Glenn Roycroft, Clayton Kendrick, Dr. Richard Cole
Voting Nay: N/A
Abstaining: N/A

ADJOURNMENT

Being no further business to discuss, on motion by Ron Haley, seconded by Dr. Richard Cole and carried unanimously, the meeting was adjourned.

Voting Aye: Dale Puckett, Bill Clark, Glenn Roycroft, Clayton Kendrick
Voting Nay: N/A
Abstaining: N/A



Chairman

6-27-19

Date

NEXT MEETING: June 27, 2019 at 7:00pm- Second floor conference room



Patrick County Tourism Advisory Council

Called meeting of August 15th, 2019 @ 6:00 pm

Present: Joanne Spangler, Chair; Bessie Weber, Vice-Chair

Also Present: Sandra Belcher, David Stanley, Debbie Spencer, Roger Gammons, Ingrid Caldwell, Patty Hazelwood, Wayne Kirkpatrick, Lisa Martin, Christie Fain, Amber, Chris Prutting, Britt Williams, William Sprawl, Bill Sprawl, Tom Rose

The Patrick County Tourism Advisory Council meeting was held Thursday, August 15th at 6:00 PM in the second floor conference room of the Patrick County Veterans Memorial Administration Building. Sandra Belcher gave the invocation.

AGENDA

Joanne Spangler called the meeting to order. The agenda was presented for approval. On a motion made by Debbie Spencer, seconded by Roger Gammons and carried, the Tourism Advisory Council approved the agenda.

MINUTES

The minutes of the meeting for June, 2019 were sent via email and presented along with minutes from a recent special session. On a motion by made Roger Gammons, seconded by Bessie Weber and carried, the Council approved both minutes.

PUBLIC COMMENT

Joanne Spangler opened public comment period.

Lisa Martin spoke about the Barn Quilt Trail's upcoming event, the Barn Quilt Bananza in conjunction with Stokes County on October 15th. This will coincide with the Apple Dumpling Festival in Patrick County as well as another festival happening in Stokes County. There will be buses going to and from the two festivals bringing Stokes County people to Patrick County and

vice-versa. They are currently trying to secure buses for the event. Lisa has been working with Jennifer Reece, a professor of Art and Entrepreneurship at UNC-G as well as an Air Shift facilitator who runs a program called Art to Market (small business marketing skills for creative makers - not limited to artists). This is a four-part series of classes. The schedule has already been created for this upcoming set of classes, which covers everything a creative entrepreneur needs to get themselves ready. The Chamber of Commerce has contributed \$500 to the program. Those who participate can have their products listed on the Proudly Patrick website as well as space in the popup market at Hometown Christmas. Lisa has come to ask for money for the program in order to make the class, normally \$35, free. The class is offered to anyone in Patrick County or surrounding areas that has a tangible product to sell. Only Patrick County Residents would be eligible for the free program, a spot on Proudly Patrick County, and space at Hometown Christmas. The program requires \$1,500 to run. The Reynolds Homestead is donating staff time and space, the Chamber is donating \$500, so Lisa is requesting \$1,000 from the Council to be able to offer the program free to Patrick County residents. There has been no marketing for the program yet.

Christie Fain and Amber spoke to the Council regarding the Caring Hearts Free Clinic of Patrick County's 3rd annual chilli cookoff: Bluegrass in the Blue Ridge Chili Cookoff being held on October 5th at the Stuart Farmers Market Pavillion. This year they are partnering with One Family Productions. Last year they saw 200-350 people in attendance. They advertise in surrounding areas and have had people as far as Raleigh come for the chilli tastings. This year they will be offering bands, beverages, etc to make the cook-off an even better event. One Family Productions has already secured two bands for the event. For marketing they are going to target parkway stops since the event will be near peak season in the Fall. Amber is asking the council for up to \$5,000 to put on the event. This would cover bands, advertising, and supplies for the cooks. They plan to advertise in the Enterprise and WHEO as well as purchasing an ad in the Patrick County Fair program. Entrance cost to the event will be \$15 which includes tastings of the chili, a collectors cup, and access to the bands. The cup will have the event logo on one side and the tourism logo on the other. Chris Prutting spoke about One Family Production's desire to host a bluegrass event for a long time and how the partnership with the Caring Hearts Free Clinic came to be. The event will be modeled after the First Fridays music series. There will be a lot of marketing focused on social media. One Family is providing a large tent in case of weather. They anticipate no parking issues as no other event will be happening downtown that day. Other sponsors of this event include Walmart, Brad Lawless Landscaping, and Little Caesars Pizza, adding up to \$1,000 for the event.

Britt Williams spoke on behalf of the Patrick County Young Professionals (PCYP) about their annual Spooktacular event held on Halloween evening on Mainstreet in Stuart. Last year saw well over 2,000 in attendance. A lot of the crowd came from areas in North Carolina. Using Facebook marketing data gathered from last year, a lot of the post engagement came from North Carolina. Imagine Circus will be returning this year including a new addition of "Mirror Man" who will lead a costume parade to replace the costume contest that was done in previous years. New additional entertainment this year is Infinity Acres who will be bringing their costumed lamas and walking them around the event. Face painting will be provided free of charge to attendees. The Patrick County Flag Corps will be on site to do a routine for the event. Britt went over their marketing plan for this year which closely reflects that of last year. PCYP will again be bringing in a photographer to capture the event. PCYP will be creating another Snapchat filter

to attract the teenage crowd. The graphics this year will not change dramatically so the graphics costs will be lower. Bull Mountain Arts will help in creating a “photo area” as opposed to the traditional photo booth including cutouts. The inflatables by Outdoor Entertainment will be returning. Abiding Grace church normally helps to run and monitor those blow ups but have not locked in their commitment for this year yet. PCYP will be reaching out to the Town of Stuart to ask for sponsorship in obtaining port-a-johns, police expenses, etc.

William and Bill Sprawl spoke to the Council regarding the Eagle Scout project of the Bull Mountain kiosk they are building along the Mayo River Rail Trail. They have placed a down payment on a telescope for the kiosk but require more funds in order to purchase it. They anticipate the telescope being in ground by late September. They are asking the Council for a donation to help pay for the telescope. They have already asked all the Fire & Rescue stations for donations and are short about \$1,000. The cost of the telescope has increased for last year as well. The Town of Stuart donated money last year but will not be donating any this year.

Joanne Spangler closed public comment.

MARKETING REPORT

David Stanley went over the 50 Days of Love campaign, saying he thought the marketing of that campaign went well. David worked a day at the Floydfest booth. He “quizzed” booth visitors and said not a single person did not know Floydfest was in Patrick County, therefore the marketing efforts made for Floydfest were working. David has been talking to Pat Sharkey of Floyd County Tourism about possible partnerships once they finish with their 50 Days of Love campaign. David created a 700 word ad-itorial for Blue Ridge Outdoors that focuses on the upcoming Meadows of Dan Folk Fair, the Peach Festival, and Front Porch Fest. He also created a similar piece in Blue Ridge Digest that was smaller. There are three digital ads and one print ad running with Blue Ridge Outdoors as well as an ad in Blue Ridge Digest. The current events calender ad is running in the Enterprise currently. David mentioned wanting to create another video since the first one was received so well. He wants to create a juxtaposition between the rustic cabins and large events and use the tag line “Big experiences, intimate moments, and everything in between.” David recommended we plan ahead for next year and send a video crew to capture Floydfest, Front Porch Fest, and any other events that should go into the B roll of the video. Chris Prutting said they were getting video of this year’s event and the Council can use that footage.

Sandra asks David if Facebook is giving way to Instagram in popularity. David explains that kids tend to focus on instagram but always move toward Facebook as they get older.

CHAMBER REPORT

Rebecca Adock sent in a written report of the Chamber. Sandra noted Rebecca, Bryce Simmons of the EDA, and Greg at the Library will meet the following Monday to discuss potential plans for the kiosk by the library. Sandra got a quote for copper roofing for the kiosk. The results of the meeting will be reported at the next Council meeting. Rebecca has left tickets for the Peach Festival for the Council members. Rebecca contacted the Virginia Tourism Corp. to have “Virginia is for Peach Lovers” created for the festival. Wayne Kirkpatrick asked what can be done about the kiosk at the library. Sandra said Suntrust has the keys and will not let her inside

because the roof is falling in and there is mold and water damage. Wayne asked if the building should be demolished and rebuilt and added that could be a potential special project of the Rotary Club as long as materials could be provided.

FINANCE/TOURISM REPORT

Sandra Belcher went over the expense reports in the packet. Sandra reported the balance of the Transient Occupancy Tax fund to be \$135,284.50. The Bryce Simmons of the EDA will include an EDA report and/or come to the Council meetings. Simmons is requesting the \$60,000 for broadband either by the end of the year or beginning of next year. Sandra noted there are a few parks who are active with their money including Mountain Top, Fairy Stone, and Patrick Springs. Sandra is about to send out an RFP through the Enterprise for the Meadows of Dan sidewalk and trail, the first line of which states that the Council is paying for the project which will be reimbursed by VDOT upon completion. Sandra recapped by noting the main major expenses coming up are EDA broadband payment, Meadows of Dan sidewalk and trail, sponsorships, and of course marketing.

Sandra reviewed the “What’s Happening in your Tourism Office” page of the packet including finishing up 50 Years of Love with reports, doing a FAM tour with the Blue Ridge Parkway Association, Stanburn Winery is hosting a Meet and Greet with BRPA director Tubby Kubick, and the Friends of Southwest Virginia have been working to start a coalition of the Blue Ridge Plateau consisting of all the localities of the Blue Ridge Plateau region.

Sandra reviews the “dream list” of the tourism office including updating the County brochure, creating a Patrick County magazine, updating both the tourism and County government websites, engage in new and different forms of marketing, paint and landscape the entryway signs, and landscaping the islands in town. Sandra asked the Council for volunteers for the Saturday booth at Front Porch Fest.

OLD BUSINESS

Sandra noted in the packet is the total expense report for the cruise-in. The Council discussed having the next cruise in in May. Sandra suggested moving the location to Meadows of Dan. Roger stated many of the classic car owners would not want to drive up the mountain. The Council discussed the positives and negatives of the event including the large crowd and lack of ice cream and prizes.

The Council discussed changing/adding to the sponsorship guidelines. David suggested the Council meet specifically to address this concern. David voiced his concern about mandating a quarterly limit on sponsorships, stating a limit could cause the Council to not approve sponsorships that could be important to the County. Roger noted the idea of quarterly limits was suggested because the previous quarter’s spending was so heavy that the Council almost ran out of money. It was suggested for the application to be presented to the Council sixty days before the event to allow for advertisement of the tourism logo. On a motion made by Roger Gammons, seconded by Bessie Weber and carried, the Council agreed to table the discussion until the next meeting where the Council will vote whether to implement quarterly sponsorships or to give the Council sixty days notice. Patty Hazelwood mentioned that putting a sixty day limit on

applications could prevent some smaller events from applying. Roger Gammons countered stating not having any restrictions could cause an overflow of applications.

Sandra stated she would ask Donna Shough to move the \$60,000 broadband funds to a separate account, like she did with the Covered Bridge Committee monies. Roger asked if there was a time limit to how long we would keep the Covered Bridge Committee money before we took it back. Sandra said there was no established time limit. Roger suggested the Council implement one. Sandra mentioned a conversation with a member of the Committee where they suggested Tourism fund the entire Covered Bridge Festival. Sandra denied the request.

NEW BUSINESS

Sandra reviewed the available subcommittees that have been done in the past by the Council as ways for Council members to be more involved in the department, such as writing press releases.

Sandra included the quotes for the Mainstreet speakers in the packets. Roger suggested going to the Town Council meeting before the Tourism Council makes any decisions to buy and/or install the speakers.

The Council discussed the application for the Art to Market program. The Council agreed that \$35 was a low cost to learn how to market. On a motion made by Bessie Weber, seconded by Wayne Kirkpatrick and carried, the Council agreed not to fund this application.

The Council discussed the application for the Bluegrass in the Blue Ridge Chili Cookoff. On a motion made by Bessie Weber, seconded by Ingrid Caldwell and carried, the Council agreed to sponsor the event with \$2,500.

The Council discussed the application for the 2019 Spooktacular. On a motion made by Roger Gammons, seconded by Wayne Kirkpatrick and carried, the Council agreed to sponsor the event with \$2,000.

The Council discussed the Eagle Scout Bull Mountain kiosk project. Wayne Kurkpatrick suggested the Council review the report of the project made by the Scout Master. Roger Gammons made a motion to deny the application. With no second the motion died. The Council agreed to table the application until the project report can be viewed.

A sponsorship application from Patrick Springs Park was presented to the Council. The Park is asking for \$1,000 to put on a cruise-in on August 31st. On a motion made by Wayne Kurkpatrick, seconded by Roger Gammons and carried, the Council agreed not to deny the application.

The Tourism Council agreed the next meeting will be held on Wednesday, September 11th at 6:00 PM in the second floor conference room of the Veterans Memorial Administration Building.

On a motion by Roger Gammons, seconded by Bessie Weber and carried, the Council went into executive session.

On a motion by Roger Gammons, seconded by Patty Hazelwood and carried, the Council agreed to increase Kim Rakes salary to \$800 a month for six months.

ADJOURNMENT

On a motion made by Roger Gammons, seconded by Patty Hazelwood and carried, with no further business to discuss, the Tourism Council voted to adjourn.

Attachment 10 - 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.).

<u>Source</u>	<u>Amount</u>	<u>%</u>	<u>Status</u>
REQUESTED VATI	\$ 798,283.00	59.6	PENDING
PATRICK COUNTY	\$ 100,000.00	7.5	APPROVED
RSN	\$ 100,000.00	7.5	APPROVED
RSN	\$340,450.00	25.4	APPROVED
	\$		
	\$		
	\$		
TOTAL	\$ 1,338,733.00	100 %	

CDBG Derivation of Cost

Vendor Quotes	Total	VATI	Non-VATI	Source of Estimate	Date
EXAMPLE					
Construction					
<i>200 LF of fiber @\$150/LF</i>	\$30,000	\$15,000	\$15,000	Company A	9/5/2016
<i>Tower</i>	\$100,000	\$80,000	\$20,000	Company B	9/5/2016
<i>Engineering</i>	\$20,000	\$0	\$20,000	ABC Engineering Firm	9/5/2016

30000

Product	Total	VATI	Non-VATI	Source of Estimate	Date
Peering Points, Fiber, & Testing/Engineering	\$635,697.66	\$435,697.66	\$200,000.00	Engineering Estimate	8/29/19
3 - Towers 3GHz & 5GHz PtMP Config	\$265,635.66	\$265,635.66	\$0.00	Vendor Quotes	8/1/19 8/28/19
2 - Towers PTP Uplink Connections	\$96,949.68	\$96,949.68	\$0.00	Vendor Quotes	8/1/19 8/28/19
3 GHZ @ 400 ea	\$271,660.00	\$0.00	\$271,660.00	Vendor Quote	8/29/19
5 GHZ @ 200 ea	\$68,790.00	\$0.00	\$68,790.00	Vendor Quote	8/29/19
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		
	\$ -	\$ -	\$ -		

Quote

#273614

8/29/2019

Bill To

Wilkes Telephone Membership
1400 River Street
Wilkesboro NC 28697
United States

Ship To

Jody
Ellerbe Telephone dba
Riverstreet Networks
254 Second St
PO Box 220
Ellerbe NC 28338
United States

TOTAL

\$34,395.00

Expires: 9/28/2019

Expires

9/28/2019

Memo

100 5GHZ CPE

Shipping Method**Sales Rep**

Jeff Holdenrid

Quantity	Item	Notes	Rate	Amount
100	C000000L065A Cambium Gigabit Surge Suppressor (30V)		\$40.00	\$4,000.00
25	C050045H022A Cambium 5 GHz 450b - High Gain - 4-pack - FCC		\$1,148.80	\$28,720.00
100	N000900L001C Cambium PoE Gigabit DC Injector, 15W Output at 30V, Energy Level 6 Supply		\$12.00	\$1,200.00
100	N000900L007A Cambium AC Line Cord - US		\$4.75	\$475.00
			Subtotal	\$34,395.00
			Tax (%)	\$0.00
			Total	\$34,395.00



273614

Quote

#273581

8/28/2019

I

Bill To

Wilkes Telephone Membership
1400 River Street
Wilkesboro NC 28697
United States

Ship To

Jody
Ellerbe Telephone dba
Riverstreet Networks
254 Second St
PO Box 220
Ellerbe NC 28338
United States

TOTAL

\$67,915.00

Expires: 9/27/2019

Expires
9/27/2019

Memo
100 CPE

Shipping Method

Sales Rep
Jeff Holdenrid

Quantity	Item	Notes	Rate	Amount
100	C000000L033A Cambium Gigabit Surge Suppressor (56V) (C000000L033A)		\$40.00	\$4,000.00
100	C030045C001A Cambium 3 GHz PMP 450i Connectorized Subscriber Module		\$543.20	\$54,320.00
100	N000000L034A Cambium POWER SUPPLY, 30W, 56V - Gbps support		\$22.00	\$2,200.00
100	N000045L002A Cambium Tilt Bracket Assembly (N000045L002A)		\$25.20	\$2,520.00
100	N000900L007A Cambium AC Line Cord - US		\$4.75	\$475.00
100	SMMB2A Cambium UNIVERSAL MOUNTING BRACKET, HEAVY DUTY		\$44.00	\$4,400.00

Subtotal \$67,915.00

Tax (%) \$0.00

Total \$67,915.00



LINK #1

Quote

#273565

8/28/2019

Bill To

Wilkes Telephone Membership
1400 River Street
Wilkesboro NC 28697
United States

Ship To

Jody
Ellerbe Telephone dba
Riverstreet Networks
254 Second St
PO Box 220
Ellerbe NC 28338
United States

TOTAL

\$48,474.84

Expires: 9/27/2019

Expires

9/27/2019

Memo

PTP ATC Tower to Mid
Atlantic

Shipping Method

Sales Rep

Jeff Holdenrid

Quantity	Item	Notes	Rate	Amount
2	C000082K172A Cambium PTP 820 Act.Key - PTP 820C HP & RFU-D HP 2nd Core Activation		\$2,160.00	\$4,320.00
2	C060082B220A Cambium PTP 820C-HP, Basic Radio, NON-MIMO,6 GHz		\$6,120.00	\$12,240.00
2	N000082L014A Cambium PTP 820 Glands_x5_KIT		\$23.20	\$46.40
4	N000082L048A Cambium PTP 820 Act.Key - MC-ABC, per Tx Chan		\$180.00	\$720.00
2	N000082L065A Cambium PTP 820 DC Connector		\$4.80	\$9.60
2	N000082L116A Cambium PTP 820 GROUND CABLE FOR IDU and ODU		\$12.00	\$24.00
4	N000082L125A Cambium: PTP 820 Act.Key - Capacity 500M Replacement for: N000082L086A, N000082L081A, N000082L035A, N000082L083A, N000082L078A, and N000082L033A		\$800.00	\$3,200.00
1	N000082L169A Cambium PTP 820 Outdoor_DC_cbl_2x14AWG_drum, 305m		\$640.00	\$640.00
2	N000082L169A Cambium PTP 820 Outdoor_DC_cbl_2x14AWG_drum, 305m		\$640.00	\$1,280.00
1	N060082L218A Cambium PTP 820C-HP/RFU-D-HP, Diplexer,L6 GHz, TR 252A, CH1W4, Hi,6179.415-6304.015MHz		\$1,920.00	\$1,920.00
1	N060082L219A Cambium PTP 820C-HP/RFU-D-HP, Diplexer,L6 GHz, TR 252A, CH1W4, Lo,5927.375-6051.975MHz		\$1,920.00	\$1,920.00
2	N060082L232A Cambium PTP 820C-HP/RFU-D-HP, Diplexer,U6 GHz,TR160A,Ch13W16,Hi,6827.5-6872.5MHz		\$1,920.00	\$3,840.00



Quote

#273565

8/28/2019

Quantity	Item	Notes	Rate	Amount
2	N000082L065A Cambium PTP 820 DC Connector		\$4.80	\$9.60
2	IP-20_FO_MM_LC2LC_ARM_100m CABLE,FO,DUAL LC/LC,100M,MM,55mm OPEN END,M28 GLAN		\$225.00	\$450.00
2	AC-DC-5A AC-DC Power Supply (110VAC to 48VDC at 5A)		\$145.12	\$290.24
150	Fiber_clamp_2cbl_4.0-7.0mm DUAL FEADER CLAMP FOR 4.0-7.0mm CABLE 2 WAY. Use with ARM Cable		\$3.30	\$495.00
1	Licensed Link Engineering, PCN and FCC Application Licensed Link Engineering, Coordination and FCC Application Description: Frequency Engineering & Frequency Coordination FCC Licensing Completion of Construction Applications Expedited Coordination (when necessary) Locations: Frequencies:		\$750.00	\$750.00
2	FCC Filing Fee New FCC Filing fee new site Per transmit point charge Locations: Frequencies:		\$660.00	\$1,320.00
1	Service-Install PTP install		\$14,000.00	\$14,000.00
1	Service-Preconfig Master Line Item for Preconfig for DRTS Job - Change per order		\$1,000.00	\$1,000.00

Subtotal \$48,474.84

Tax (%) \$0.00

Total \$48,474.84



273565

LINK #2

Quote

#273565

8/28/2019

Bill To

Wilkes Telephone Membership
1400 River Street
Wilkesboro NC 28697
United States

Ship To

Jody
Ellerbe Telephone dba
Riverstreet Networks
254 Second St
PO Box 220
Ellerbe NC 28338
United States

TOTAL

\$48,474.84

Expires: 9/27/2019

Expires
9/27/2019

Memo
PTP ATC Tower to Mid
Atlantic

Shipping Method

Sales Rep
Jeff Holdenrid

Quantity	Item	Notes	Rate	Amount
2	C000082K172A Cambium PTP 820 Act.Key - PTP 820C HP & RFU-D HP 2nd Core Activation		\$2,160.00	\$4,320.00
2	C060082B220A Cambium PTP 820C-HP, Basic Radio, NON-MIMO,6 GHz		\$6,120.00	\$12,240.00
2	N000082L014A Cambium PTP 820 Glands_x5_KIT		\$23.20	\$46.40
4	N000082L048A Cambium PTP 820 Act.Key - MC-ABC, per Tx Chan		\$180.00	\$720.00
2	N000082L065A Cambium PTP 820 DC Connector		\$4.80	\$9.60
2	N000082L116A Cambium PTP 820 GROUND CABLE FOR IDU and ODU		\$12.00	\$24.00
4	N000082L125A Cambium: PTP 820 Act.Key - Capacity 500M Replacement for: N000082L086A, N000082L081A, N000082L035A, N000082L083A, N000082L078A, and N000082L033A		\$800.00	\$3,200.00
1	N000082L169A Cambium PTP 820 Outdoor_DC_cbl_2x14AWG_drum, 305m		\$640.00	\$640.00
2	N000082L169A Cambium PTP 820 Outdoor_DC_cbl_2x14AWG_drum, 305m		\$640.00	\$1,280.00
1	N060082L218A Cambium PTP 820C-HP/RFU-D-HP, Diplexer,L6 GHz, TR 252A, CH1W4, Hi,6179.415-6304.015MHz		\$1,920.00	\$1,920.00
1	N060082L219A Cambium PTP 820C-HP/RFU-D-HP, Diplexer,L6 GHz, TR 252A, CH1W4, Lo,5927.375-6051.975MHz		\$1,920.00	\$1,920.00
2	N060082L232A Cambium PTP 820C-HP/RFU-D-HP, Diplexer,U6 GHz,TR160A,Ch13W16,Hi,6827.5-6872.5MHz		\$1,920.00	\$3,840.00



273565

Quote

#273565

8/28/2019

Quantity	Item	Notes	Rate	Amount
2	N000082L065A Cambium PTP 820 DC Connector		\$4.80	\$9.60
2	IP-20_FO_MM_LC2LC_ARM_100m CABLE,FO,DUAL LC/LC,100M,MM,55mm OPEN END,M28 GLAN		\$225.00	\$450.00
2	AC-DC-5A AC-DC Power Supply (110VAC to 48VDC at 5A)		\$145.12	\$290.24
150	Fiber_clamp_2cbl_4.0-7.0mm DUAL FEADER CLAMP FOR 4.0-7.0mm CABLE 2 WAY. Use with ARM Cable		\$3.30	\$495.00
1	Licensed Link Engineering, PCN and FCC Application Licensed Link Engineering, Coordination and FCC Application Description: Frequency Engineering & Frequency Coordination FCC Licensing Completion of Construction Applications Expedited Coordination (when necessary) Locations: Frequencies:		\$750.00	\$750.00
2	FCC Filing Fee New FCC Filing fee new site Per transmit point charge Locations: Frequencies:		\$660.00	\$1,320.00
1	Service-Install PTP install		\$14,000.00	\$14,000.00
1	Service-Preconfig Master Line Item for Preconfig for DRTS Job - Change per order		\$1,000.00	\$1,000.00
			Subtotal	\$48,474.84
			Tax (%)	\$0.00
			Total	\$48,474.84



PER Tower Location

Quote

#272336

8/1/2019

Bill To

Wilkes Telephone Membership
1400 River Street
Wilkesboro NC 28697
United States

Ship To

Jody
Ellerbe Telephone dba
Riverstreet Networks
254 Second St
PO Box 220
Ellerbe NC 28338
United States

TOTAL

\$88,545.22

Expires: 8/31/2019

Expires

8/31/2019

Memo

4-5G 450i and 4 3G 450M
with GPS sysnc

Shipping Method

Sales Rep

Jeff Holdenrid

Quantity	Item	Notes	Rate	Amount
32	01010419001 Cambium Coaxial Cable Grounding Kits for 1/4" and 3/8" Cable		\$19.66	\$629.12
1	C000000L066A Cambium cnPulse Sync Generator with CambiumSYNC		\$223.20	\$223.20
4	C000000L114A Cambium DC Surge Suppressor Kit (DC LPU Kit) with 2x 4-pin power connectors		\$304.00	\$1,216.00
1	C000000L500B Cambium CMM5 Controller		\$995.00	\$995.00
2	C000000L556B Cambium CMM5 Power and Sync Injector 56V		\$1,295.00	\$2,590.00
8	C000065L007B Cambium PTP 650/670 LPU and Grounding Kit (1 kit per ODU)		\$320.00	\$2,560.00
4	C030045A101A Cambium 3 GHz PMP 450m Integrated Access Point, 90 Degree		\$7,479.20	\$29,916.80
4	C050045A102A Cambium 5 GHz PMP 450m Integrated Access Point, 90 Degree (FCC)		\$5,879.20	\$23,516.80
1	N000000L054B Cambium Power Supply, AC, 56V, 240W		\$160.00	\$160.00
1	N000000L124A Cambium DC Power Connector Kit 16 AWG, pkt of 10		\$40.80	\$40.80
4	N000000L115A Cambium 4-Conductor 0.75mm x2 DC cable - 100m		\$839.20	\$3,356.80
1	N000000L125A Cambium CMM5 to cnPulse Shielded Cable - 20m		\$63.20	\$63.20
2	N000900L007A Cambium AC Line Cord - US		\$4.75	\$9.50
4	N000900L017A		\$25.00	\$100.00

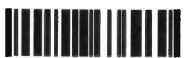


Quote

#272336

8/1/2019

Quantity	Item	Notes	Rate	Amount
8	WB3176A Cambium 328 ft (100 m) Reel Outdoor Copper Clad CAT5E (Recommended for PTP)		\$396.00	\$3,168.00
1	Service-Install Master Line Item for Install for DRTS Job - Change per order		\$14,000.00	\$14,000.00
1	main Network hardware Router/Switch		\$1,000.00	\$1,000.00
1	main Enclosure		\$5,000.00	\$5,000.00
			Subtotal	\$88,545.22
			Tax (%)	\$0.00
			Total	\$88,545.22



272336

Appalachian Utilities Inc.
PO Box 1498
Jefferson, NC 28640

May 20, 2019

RiverStreet Networks Stokes
1400 River Street
Wilkesboro, NC 28697

Outside Plant Project: County Phase 3

Invoice

Estimate - Billing #23

Gross Billing per Attached Unit Sheets 1 thru 3	\$ 127,534.14
Less Materials	<u>\$ (36,435.84)</u>
Sub-Total	\$ 91,098.30
Less 5% Retainage	<u>\$ (4,554.92)</u>
Net Invoice Amount	<u>\$ 86,543.39</u>

Total Invoice Amount Due

APPROVED: _____

DATE: _____

**Walnut Cove Exchange
Walnut Cove Remote
WO #15-OSPSTOK-102**

May 20, 2019

SECTION A - POLE UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
30-6 Pole		382.50	107.00	489.50	0.00

TOTAL, SECTION A 0.00

SECTION BA - BURIED PLANT HOUSING STUB POLE UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BA3		30.00	28.89	58.89	0.00

TOTAL, SECTION BA 0.00

SECTION BDO - BURIED PLANT FIBER OPTIC HOUSING ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BDO5	12	80.00	81.28	161.28	1,935.36
BDO7		120.00	407.68	527.68	0.00
BDO Pro12		102.00	159.43	261.43	0.00

TOTAL, SECTION BDO 1,935.36

SECTION BFO - BURIED FILLED FIBER OPTIC CABLE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BFO12		1.10	0.30	1.40	0.00
BFO24R	1,468	1.10	0.42	1.52	2,231.36
BFO24R (single plow)		2.00	0.42	2.42	0.00
BFO48R	2,056	2.00	0.56	2.56	5,263.36
BFO72R		2.00	0.63	2.63	0.00
BFO96R		2.00	0.88	2.88	0.00
BFO144R		2.00	1.11	3.11	0.00
BFO216R		2.00	1.44	3.44	0.00
BFO288R		2.00	2.14	4.14	0.00
BFO432R		2.00	2.43	4.43	0.00
BFO576R		2.00	3.24	5.24	0.00
BFO864R	6,354	2.00	4.80	6.80	43,207.20
BFO48LT		1.10	0.55	1.65	0.00
BFO144LT		1.10	1.11	2.21	0.00

TOTAL, SECTION BFO 50,701.92

SECTION BH - BURIED HANDHOLE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BHF (36x72x36)		555.00	1,479.31	2,034.31	0.00
BHF (30x52x43)RD	5	370.00	576.20	946.20	4,731.00
BHF (22x36x18)		168.00	326.74	494.74	0.00

TOTAL, SECTION BH 4,731.00

**Walnut Cove Exchange
Walnut Cove Remote
WO #15-OSPSTOK-102**

**SECTION BM - MISCELLANEOUS ASSEMBLY UNITS -
BURIED PLANT & SERVICE ENTRANCE INSTALLATIONS**

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BM2	12	20.00	23.88	43.88	526.56
BM2A	5	14.00	5.16	19.16	95.80
BM6M		3.00	1.00	4.00	0.00
BM53F		20.00	38.52	58.52	0.00
BM60(5x2") PIPE		0.00	5.00	5.00	0.00
BM60(4x2") PIPE		0.00	4.00	4.00	0.00
BM60(3x2") PIPE		0.00	3.00	3.00	0.00
BM60(2x2") PIPE		0.00	2.00	2.00	0.00
BM60(1x2") PIPE		0.00	1.00	1.00	0.00
BM60(1x2")PD	248	10.00	1.00	11.00	2,728.00
BM60(2x2")PD	1,059	12.50	2.00	14.50	15,355.50
BM60(3x2")PD		16.00	3.00	19.00	0.00
BM60(4x2")PD		19.00	4.00	23.00	0.00
BM60(5x2")PD	400	23.00	5.00	28.00	11,200.00
BM60(2x4")PD		20.00	8.00	28.00	0.00
BM60 (1x4")PD	1,818	16.00	4.00	20.00	36,360.00
BM71		9.00	0.00	9.00	0.00
BM72		15.00	0.00	15.00	0.00
BM73		18.00	0.00	18.00	0.00
BM81		20.00	20.47	40.47	0.00
BM82		25.00	27.07	52.07	0.00
BM CULV		225.00	0.00	225.00	0.00
BMLOC		80.00	0.00	80.00	0.00
BM MAXCELL		1.50	11.80	13.30	0.00
BM SK		1.50	3.85	5.35	0.00
BM WL		35.00	15.00	50.00	0.00
BM-WL(B)		38.00	20.00	58.00	0.00
BM WM		60.00	0.00	60.00	0.00

TOTAL, SECTION BM 66,265.86

SECTION CO - AERIAL FILLED FIBER OPTIC CABLE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
CO72R / 6M		1.80	0.88	2.68	0.00
CO288R / 6M		1.98	2.39	4.37	0.00
CO144LT / 6M		1.98	1.36	3.34	0.00
CO144R / E		1.12	1.11	2.23	0.00
CO72R / E		1.12	0.63	1.75	0.00

TOTAL, SECTION CO 0.00

SECTION PE - GUY ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
PE1-2G (5/16"EHS)		100.00	28.01	128.01	0.00

TOTAL, SECTION PE 0.00

SECTION PF - ANCHOR ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
PF1-3 (5/8"x7')		150.00	10.80	160.80	0.00

TOTAL, SECTION PF 0.00

**Walnut Cove Exchange
Walnut Cove Remote
WO #15-OSPSTOK-102**

**SECTION PM - MISCELLANEOUS ASSEMBLY UNITS -
UNDERGROUND AND AERIAL PLANT**

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
PM2		20.00	23.88	43.88	0.00
PM 2A		14.00	5.16	19.16	0.00
PM11		10.00	5.54	15.54	0.00
PM12		100.00	34.94	134.94	0.00
PM92S		50.00	45.99	95.99	0.00
PM92L		75.00	54.63	129.63	0.00

TOTAL, SECTION PM 0.00

SECTION SE - SERVICE ENTRANCE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
SEBO-4		0.95	0.23	1.18	0.00
SEAO-4		0.95	0.23	1.18	0.00
SEBO-12		0.95	0.28	1.23	0.00
SEAO-12		0.95	0.28	1.23	0.00

TOTAL, SECTION SE 0.00

SECTION UD - UNDERGROUND CONDUIT ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
UD (2-4")DB		8.00	8.06	16.06	0.00
UD (4-4")DB		12.00	16.12	28.12	0.00
UD (2x2")		6.00	2.00	8.00	0.00
UD (3-2")		7.00	3.00	10.00	0.00
UD (5x2")	300	8.00	5.00	13.00	3,900.00

TOTAL, SECTION UD 3,900.00

SECTION W - REARRANGEMENT UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
WC1		90.00	0.00	90.00	0.00
		0.00	0.00	0.00	0.00

TOTAL, SECTION W 0.00

SUMMARY SHEET

SECTION A	<u>0.00</u>
SECTION BA	<u>0.00</u>
SECTION BDO	<u>1,935.36</u>
SECTION BFO	<u>50,701.92</u>
SECTION BH	<u>4,731.00</u>
SECTION BM	<u>66,265.86</u>
SECTION CO	<u>0.00</u>
SECTION PE	<u>0.00</u>
SECTION PF	<u>0.00</u>
SECTION PM	<u>0.00</u>
SECTION SE	<u>0.00</u>
SECTION UD	<u>3,900.00</u>
SECTION W	<u>0.00</u>

TOTAL 127,534.14

May 20, 2019

Invoice

SECTION A - POLE UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
30-6 Pole		0.00	107.00	107.00	0.00

TOTAL, SECTION A 0.00

SECTION BA - BURIED PLANT HOUSING STUB POLE UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BA3		0.00	28.89	28.89	0.00

TOTAL, SECTION BA 0.00

SECTION BDO - BURIED PLANT FIBER OPTIC HOUSING ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BDO5	12	0.00	81.28	81.28	975.36
BDO7		0.00	407.68	407.68	0.00
BDO Pro12		0.00	159.43	159.43	0.00

TOTAL, SECTION BDO 975.36

SECTION BFO - BURIED FILLED FIBER OPTIC CABLE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BFO12		0.00	0.30	0.30	0.00
BFO24R	1,468	0.00	0.42	0.42	616.56
BFO24R (single plow)		0.00	0.42	0.42	0.00
BFO48R	2,056	0.00	0.56	0.56	1,151.36
BFO72R		0.00	0.63	0.63	0.00
BFO96R		0.00	0.88	0.88	0.00
BFO144R		0.00	1.11	1.11	0.00
BFO216R		0.00	1.44	1.44	0.00
BFO288R		0.00	2.14	2.14	0.00
BFO432R		0.00	2.43	2.43	0.00
BFO576R		0.00	3.24	3.24	0.00
BFO864R	6,354	0.00	4.80	4.80	30,499.20
BFO48LT		0.00	0.55	0.55	0.00
BFO144LT		0.00	1.11	1.11	0.00

TOTAL, SECTION BFO 32,267.12

SECTION BH - BURIED HANDHOLE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BHF (36x72x36)		0.00	1,479.31	1,479.31	0.00
BHF (30x52x43)RD	5	0.00	576.20	576.20	2,881.00
BHF (22x36x18)		0.00	326.74	326.74	0.00

TOTAL, SECTION BH 2,881.00

**SECTION BM - MISCELLANEOUS ASSEMBLY UNITS -
BURIED PLANT & SERVICE ENTRANCE INSTALLATIONS**

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
BM2	12	0.00	23.88	23.88	286.56
BM2A	5	0.00	5.16	5.16	25.80
BM6M		0.00	1.00	1.00	0.00
BM53F		0.00	38.52	38.52	0.00
BM81		0.00	20.47	20.47	0.00
BM82		0.00	27.07	27.07	0.00

TOTAL, SECTION BM 312.36

SECTION CO - AERIAL FILLED FIBER OPTIC CABLE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
CO72R / 6M		0.00	0.88	0.88	0.00
CO288R / 6M		0.00	2.39	2.39	0.00
CO144LT / 6M		0.00	1.36	1.36	0.00
CO144R / E		0.00	1.11	1.11	0.00
CO72R / E		0.00	0.63	0.63	0.00

TOTAL, SECTION CO 0.00

SECTION PE - GUY ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
PE 1-2G(5/16"EHS)		0.00	28.01	28.01	0.00

TOTAL, SECTION PE 0.00

SECTION PF - ANCHOR ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
PF 1-3(5/8"x7')		0.00	10.80	10.80	0.00

TOTAL, SECTION PF 0.00

SECTION PM - MISCELLANEOUS ASSEMBLY UNITS -
UNDERGROUND AND AERIAL PLANT

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
PM2		0.00	23.88	23.88	0.00
PM2A		0.00	5.16	5.16	0.00
PM11		0.00	5.54	5.54	0.00
PM12		0.00	34.94	34.94	0.00
PM92S		0.00	45.99	45.99	0.00
PM92L		0.00	54.63	54.63	0.00

TOTAL, SECTION PM 0.00

SECTION SE - SERVICE ENTRANCE ASSEMBLY UNITS

UNITS	# OF UNITS	UNIT PRICE			EXTENDED PRICE LABOR & MATERIALS
		LABOR	MATERIALS	LABOR & MATERIALS	
SEBO-4		0.00	0.23	0.23	0.00
SEAO-4		0.00	0.23	0.23	0.00
SEBO-12		0.00	0.28	0.28	0.00
SEAO-12		0.00	0.28	0.28	0.00

TOTAL, SECTION SE 0.00

TOTAL MATERIALS \$ 36,435.84

PC Engineering Estimate 08/29/19

Units	Final No. of units	Labor	Materials	Labor & Materials	Revised Price with new unit totals
30/6 Pole	4	\$ 382.50	\$ 107.00	\$ 489.50	\$ 1,958.00
BA3		\$ 30.00	\$ 28.89	\$ 58.89	\$ -
BDO5	8	\$ 80.00	\$ 81.28	\$ 161.28	\$ 1,290.24
BDO7		\$ 120.00	\$ 407.68	\$ 527.68	\$ -
BDO PRO 12		\$ 102.00	\$ 159.43	\$ 261.43	\$ -
BDO8000	1	\$ 150.00		\$ 150.00	\$ 150.00
BFO12		\$ 1.10	\$ 0.30	\$ 1.40	\$ -
BFO24R		\$ 2.00	\$ 0.42	\$ 2.42	\$ -
BFO48R		\$ 2.00	\$ 0.56	\$ 2.56	\$ -
BFO72R	34836	\$ 2.00	\$ 0.63	\$ 2.63	\$ 91,618.68
BFO96R		\$ 2.00	\$ 0.88	\$ 2.88	\$ -
BFO144R		\$ 2.00	\$ 1.11	\$ 3.11	\$ -
BFO216R		\$ 2.00	\$ 1.44	\$ 3.44	\$ -
BFO288R		\$ 2.00	\$ 2.14	\$ 4.14	\$ -
BFO432R		\$ 2.00	\$ 2.43	\$ 4.43	\$ -
BFO576R		\$ 2.00	\$ 3.24	\$ 5.24	\$ -
BFO864R		\$ 2.00	\$ 4.80	\$ 6.80	\$ -
BFO48LT		\$ 1.10	\$ 0.55	\$ 1.65	\$ -
BFO144LT		\$ 1.10	\$ 1.11	\$ 2.21	\$ -
BHF(36x72x36)		\$ 555.00	\$ 1,479.31	\$ 2,034.31	\$ -
BHF(30x52x43)RD		\$ 370.00	\$ 576.20	\$ 946.20	\$ -
BHF(22x36x18)	1	\$ 168.00	\$ 326.74	\$ 494.74	\$ 494.74
BM2	10	\$ 20.00	\$ 23.88	\$ 43.88	\$ 438.80
BM2A		\$ 14.00	\$ 5.16	\$ 19.16	\$ -
BM6M		\$ 3.00	\$ 1.00	\$ 4.00	\$ -
BM53F		\$ 20.00	\$ 38.52	\$ 58.52	\$ -
BM60(1x2")PD	2100	\$ 10.00	\$ 1.00	\$ 11.00	\$ 23,100.00

BM60(2x2")PD		\$	12.50	\$	2.00	\$	14.50	\$	-
BM60(3X2)PD		\$	16.00	\$	3.00	\$	19.00	\$	-
BM60(1-4")PD		\$	16.00	\$	4.00	\$	20.00	\$	-
BM60(2-4")PD		\$	20.00	\$	8.00	\$	28.00	\$	-
BM60(3-4")PD		\$	20.00	\$	13.50	\$	33.50	\$	-
BM71	2500	\$	9.00	\$	-	\$	9.00	\$	22,500.00
BM72		\$	15.00	\$	-	\$	15.00	\$	-
BM73		\$	18.00	\$	-	\$	18.00	\$	-
BM81		\$	20.00	\$	20.47	\$	40.47	\$	-
BM82		\$	25.00	\$	27.07	\$	52.07	\$	-
BMCULV	10	\$	225.00	\$	-	\$	225.00	\$	2,250.00
BMLOC		\$	80.00	\$	-	\$	80.00	\$	-
BMMAXCELL		\$	1.50	\$	11.80	\$	13.30	\$	-
BM-SK	10	\$	1.50	\$	3.85	\$	5.35	\$	53.50
BMWL	10	\$	35.00	\$	15.00	\$	50.00	\$	500.00
BMWL(B)	5	\$	38.00	\$	20.00	\$	58.00	\$	290.00
BMWM	10	\$	60.00	\$	-	\$	60.00	\$	600.00
UD(2-4")DB		\$	8.00	\$	8.06	\$	16.06	\$	-
UD(4-4")DB		\$	12.00	\$	16.12	\$	28.12	\$	-
PE1-2G(5/16"EHS)	4	\$	100.00	\$	28.01	\$	128.01	\$	512.04
PF1-3(5/8"x7')	4	\$	150.00	\$	10.80	\$	160.80	\$	643.20
PM2		\$	20.00	\$	23.88	\$	43.88	\$	-
PM2A	4	\$	14.00	\$	5.16	\$	19.16	\$	76.64
PM11	4	\$	10.00	\$	5.54	\$	15.54	\$	62.16
PM92S		\$	50.00	\$	45.99	\$	95.99	\$	-
PM92L		\$	75.00	\$	54.63	\$	129.63	\$	-
SEBO4		\$	0.95	\$	0.23	\$	1.18	\$	-
SEAO4		\$	0.95	\$	0.23	\$	1.18	\$	-
SEBO12	1800	\$	0.95	\$	0.28	\$	1.23	\$	2,214.00
SEAO12		\$	0.95	\$	0.28	\$	1.23	\$	-

NID			\$	50.00	\$	446.00	\$	496.00	\$	-
NID HOUSING			\$	50.00	\$	36.00	\$	86.00	\$	-
Drops			\$	75.00	\$	-	\$	75.00	\$	-
HBFO FB12	9		\$	104.50	\$	151.80	\$	256.30	\$	2,306.71
HBFO 144R-B6			\$	182.88	\$	226.48	\$	409.36	\$	-
HBFO 288R-D			\$	209.00	\$	392.84	\$	601.84	\$	-
HBFO 864R-600			\$	209.00	\$	429.85	\$	638.85	\$	-
HBFO 144LT-B6			\$	182.88	\$	226.48	\$	409.36	\$	-
HBFO 216LT-D			\$	209.00	\$	392.84	\$	601.84	\$	-
TRAY R-B	9		\$	-	\$	23.98	\$	23.98	\$	215.81
TRAY LT-B			\$	-	\$	15.25	\$	15.25	\$	-
TRAY R-D/600			\$	-	\$	35.96	\$	35.96	\$	-
TRAY LT-D			\$	-	\$	22.92	\$	22.92	\$	-
HO-1			\$	24.04	\$	-	\$	24.04	\$	-
HO-12	48		\$	130.63	\$	-	\$	130.63	\$	6,270.24
TII Mini Part number 228 12F WALL					\$	132.99	\$	132.99	\$	-
TII large Part number 229 12F WALL	2				\$	216.48	\$	216.48	\$	432.96
TII large Part number 230 24F WALL					\$	305.23	\$	305.23	\$	-
TII large Part number 231 24F RACK					\$	394	\$	394.00	\$	-
TII large Part number 232 12F RACK	2				\$	304.97	\$	304.97	\$	609.94
Remote Building Configuration	2		\$	41,000.00	\$	60,055.00	\$	101,055.00	\$	202,110.00
Central Tower Lease	50		\$	1,000.00			\$	50,000.00		\$50,000.00
East Tower Lease	50		\$	1,000.00			\$	50,000.00		\$50,000.00
West Toer Lease	50		\$	1,000.00			\$	50,000.00		\$50,000.00
Engineering, Testing & Mgmt.	50		\$	2,500.00	\$	-	\$	125,000.00		\$125,000.00

								Grand Total		\$ 635,697.66



(RETAIN FOR YOUR RECORDS)
Form 477 Filing Summary

FRN: 0003718426 Data as of: Dec 31, 2017 Operations: ILEC Submission Status: Original - Submitted Last Updated: Mar 1, 2018 14:51:45

Filer Identification

Section	Question	Response
Filer Information	Provider Name	WILKES TELEPHONE MEMBERSHIP CORP
	Holding Company Name	Wilkes Telephone Membership Corporation
	SAC ID	230510
	499 ID	803832
Data Contact Information	Data Contact Name	Tim Tribble
	Data Contact Phone Number	(336) 973-6164
	Data Contact E-mail	timtribble@myriverstreet.net
Emergency Operations Contact Information	Emergency Operations Name	Jody R. Call
	Emergency Operations Phone Number	(336) 973-6186
	Emergency Operations E-mail	Jodycall@myriverstreet.net
Certifying Official Contact Information	Certifying Official Name	Eric S. Cramer
	Certifying Official Phone Number	(336) 973-6112
	Certifying Official E-mail	ericcramer@myriverstreet.net

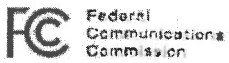
Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	WTMC FBBD.csv	Feb 13, 2018 15:16:47	1910
Fixed Broadband Subscription	WTMC FBBS.csv	Feb 16, 2018 13:57:48	96
Fixed Voice Subscription	WTMC FVS.csv	Feb 19, 2018 12:05:00	26

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
North Carolina	Wilkes Communications Inc.	Asymmetric xDSL	6
		Optical Carrier/Fiber to the End User	1904
Total			1910



(RETAIN FOR YOUR RECORDS)
Form 477 Filing Summary

FRN: 0003718426 | Data as of: Dec 31, 2018 | Operations: ILEC | Submission Status: Revised - Submitted | Last Updated: May 8, 2019 09:33:05

Filer Identification

Section	Question	Response
Filer Information	Provider Name	WILKES TELEPHONE MEMBERSHIP CORP
	Holding Company Name	Wilkes Telephone Membership Corporation
	SAC ID	230510
	499 ID	803832
Data Contact Information	Data Contact Name	Tim Tribble
	Data Contact Phone Number	(336) 973-6164
	Data Contact E-mail	timtribble@myriverstreet.net
Emergency Operations Contact Information	Emergency Operations Name	Jody R. Call
	Emergency Operations Phone Number	(336) 973-6166
	Emergency Operations E-mail	jodycall@myriverstreet.net
Certifying Official Contact Information	Certifying Official Name	Eric S Cramer
	Certifying Official Phone Number	(336) 973-6112
	Certifying Official E-mail	ericcramer@myriverstreet.net

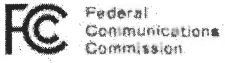
Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	WTMC FBBD.csv	May 8, 2019 08:17:31	1910
Fixed Broadband Subscription	WTMC FBBS new_Revised 05-02-19.csv	May 8, 2019 09:24:45	75
Fixed Voice Subscription	WTMC FVS new.csv	May 8, 2019 08:17:31	27

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
North Carolina	Wilkes Communications Inc.	Asymmetric xDSL	6
		Optical Carrier/Fiber to the End User	1904
Total			1910



(RETAIN FOR YOUR RECORDS)
Form 477 Filing Summary

FRN: 0028007763 Data as of: Dec 31, 2018 Operations: Non-ILEC Submission Status: Original - Submitted Last Updated: Mar 14, 2019 13:56:12

Filer Identification

Section	Question	Response
Filer Information	Company Name	Gamewood Technology Group, Inc. d/b/a RiverStreet Networks
	Holding Company Name	Wilkes Telephone Membership Corporation
	SAC ID	
	499 ID	830377
Data Contact Information	Data Contact Name	Deanna Wilborne
	Data Contact Phone Number	(434) 799-8407 ext: 128
	Data Contact E-mail	deannawilborne@myriverstreet.net
Emergency Operations Contact Information	Emergency Operations Name	Network Technical Support
	Emergency Operations Phone Number	(434) 799-8407 ext: 3
	Emergency Operations E-mail	support@gamewoodinc.com
Certifying Official Contact Information	Certifying Official Name	Eric Cramer
	Certifying Official Phone Number	(336) 973-6112
	Certifying Official E-mail	ericcramer@myriverstreet.net

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	2018-12-31-FBD.csv	Mar 12, 2019 20:05:55	192
	2018-12-31-ADSL-FBD.csv	Mar 11, 2019 19:03:51	10
	2018-12-31-kqva-fbd.csv	Mar 4, 2019 10:01:40	138
Fixed Broadband Subscription	2018-12-31-FBS.csv	Mar 12, 2019 20:10:26	171
	2018-12-31-ADSL-subscriptions.csv	Mar 11, 2019 19:05:55	10
	2018-12-31-kqva-fbs-raw-processed.csv	Mar 4, 2019 10:03:44	29
Fixed Voice Subscription	2018-12-31-VoIP-subscriptions.csv	Mar 13, 2019 15:11:14	9

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
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PATRICK COUNTY VIRGINIA

PUBLIC NOTICE

Patrick County, VA – 2020 Virginia Telecommunications Initiative

Patrick County, Virginia, nestled in the foothills of the Blue Ridge Mountains recognizes the pressing need for broadband connectivity for all potential stakeholders; including its approximately 18,000 residents, 10,200 housing units, 1,200 businesses, 7 public schools, public safety and first responders, and the County's administration. The County desires expansion of broadband access in unserved areas and improved capacity in underserved areas using a Public/Private partnership. The County understands the economics of expanding broadband in rural areas and is prepared to take action to improve private sector investment.

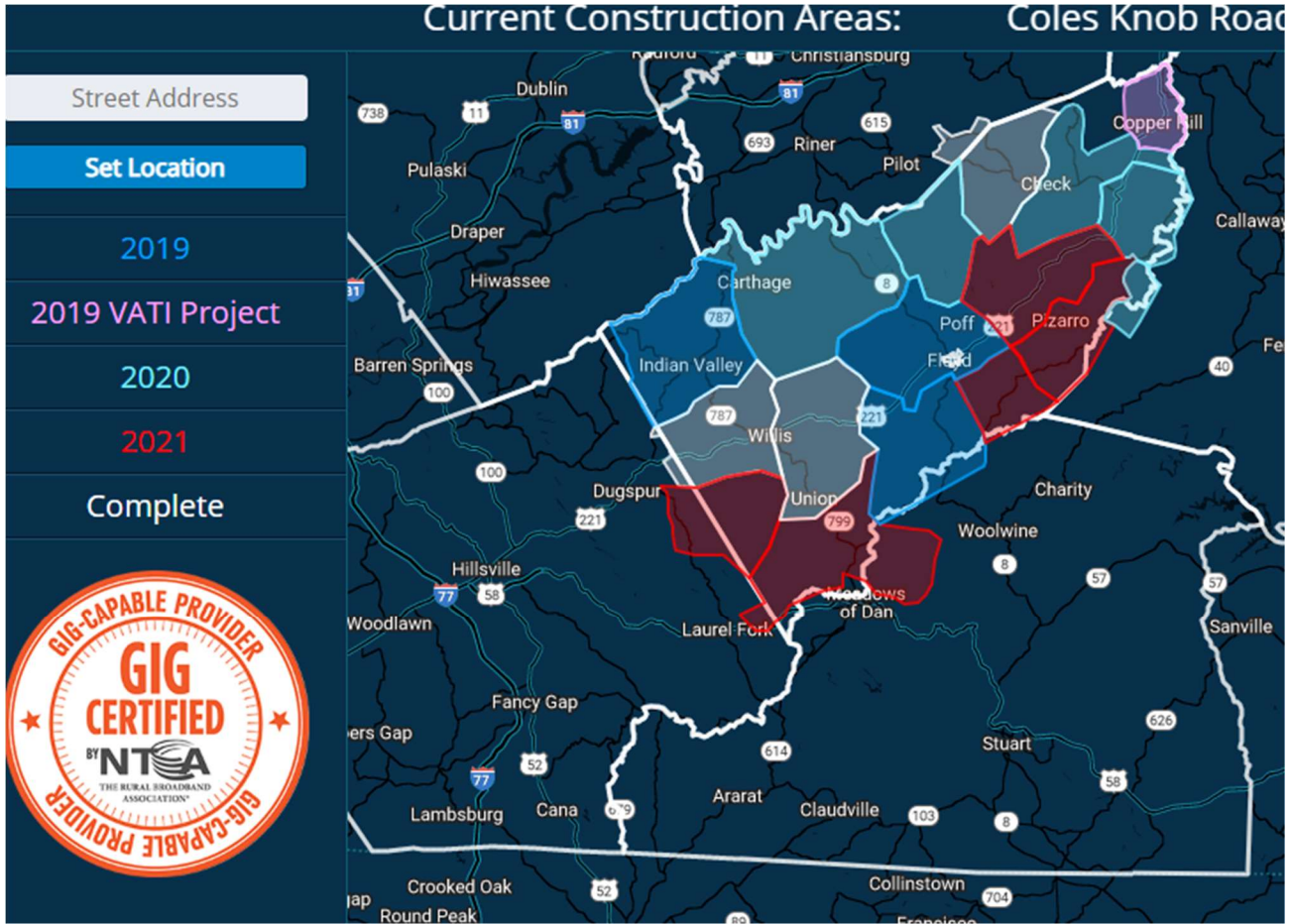
The local government of Patrick County, VA herewith gives notice of its intent to partner with RiverStreet Communications of Virginia, Inc. (RSCVA) dba RiverStreet Networks (RSN) to submit an application to the Virginia Department of Housing and Community Development (DHCD) for grant funding from the 2020 Virginia Telecommunication Initiative (VATI).

The purpose of the grant funding is to provide for the extension of broadband service to unserved areas of Patrick County as defined by the FCC. The first phase of the proposed broadband project will consist of identifying and securing primary backbone services, utilizing vertical assets to create a fixed wireless network, and create a network operations center (NOC) in Patrick County. Broadband service will be provided through RSN, which has been established to serve as an internet service provider (ISP). The proposed vertical assets to be used are located on Bull Mountain in Patrick Springs, on Busted Rock Road in Meadows of Dan, on Mountain View Road in Woolwine, and others as deemed necessary for the full network design. The project will meet or exceed the service level requirements established for the VATI program. The 2020 VATI grant application will be submitted to DHCD by the program's September 3rd, 2019 deadline.

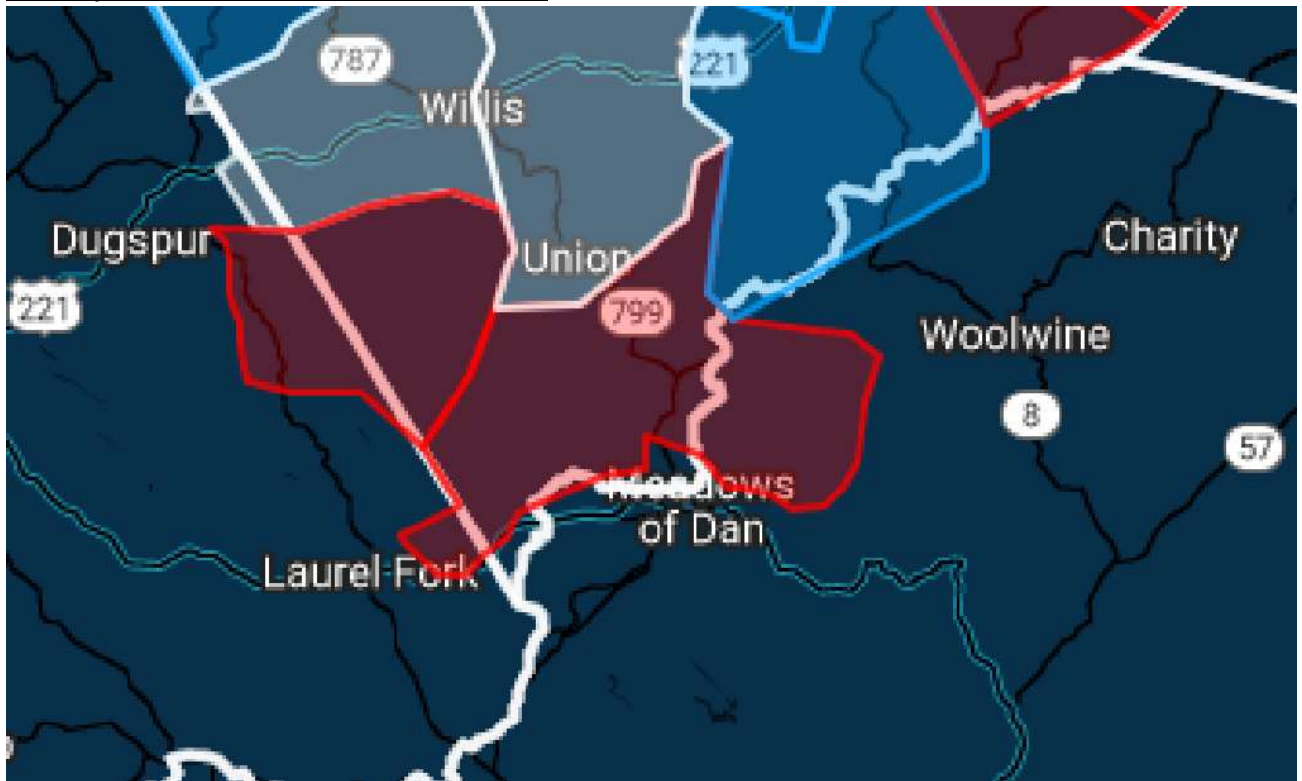
Comments are invited and will be received on this project until close of business August 23, 2019. They can be submitted in person or by mail to Bryce Simmons at 106 Rucker Street – or P.O. Box 466 – Stuart, VA 24171; by phone at (276) 694-8367 during usual business hours and by email to bsimmons@co.patrick.va.us. All comments will be considered and submitted with the application.

Attachment 16 – Possible Citizens Overlap area

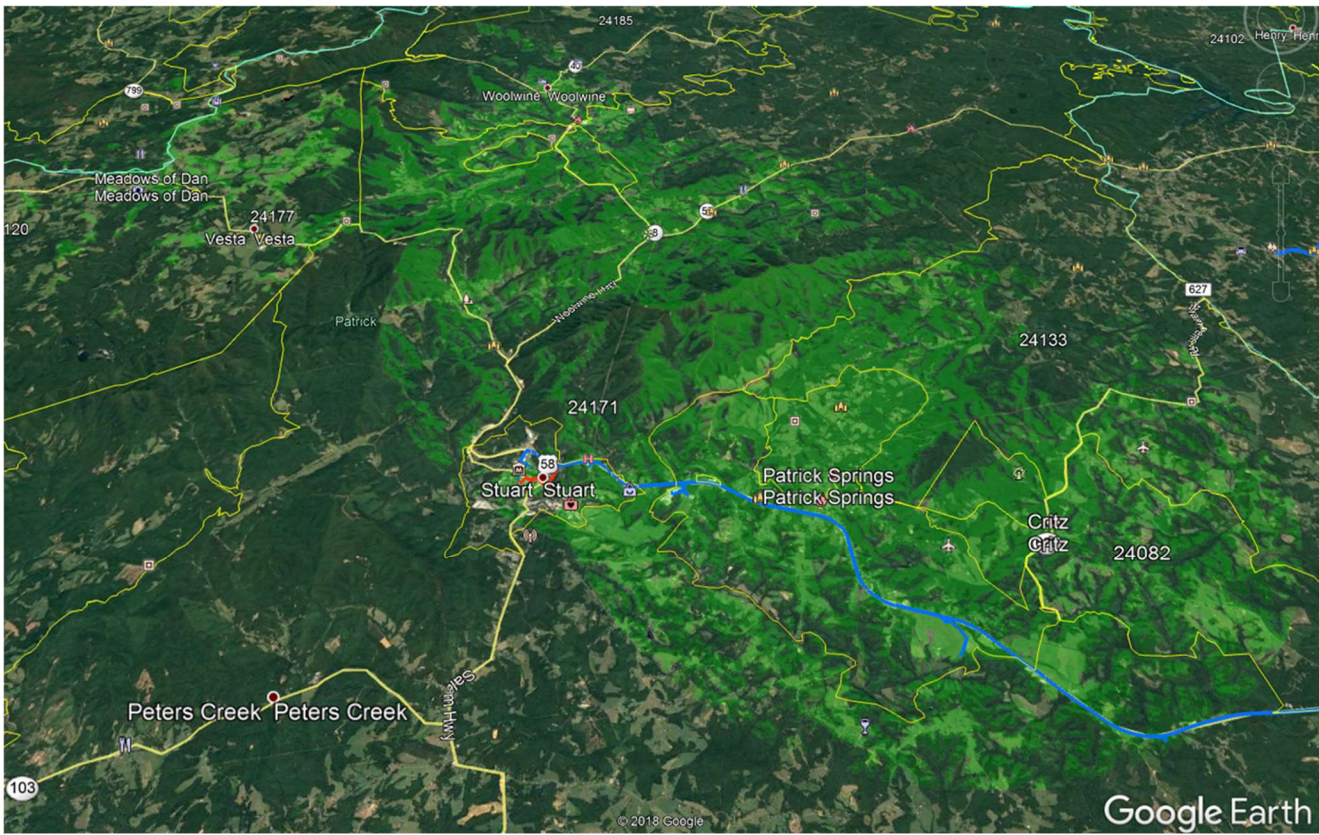
Citizen Supplied Map



Close up of Citizen ILEC area in Patrick County



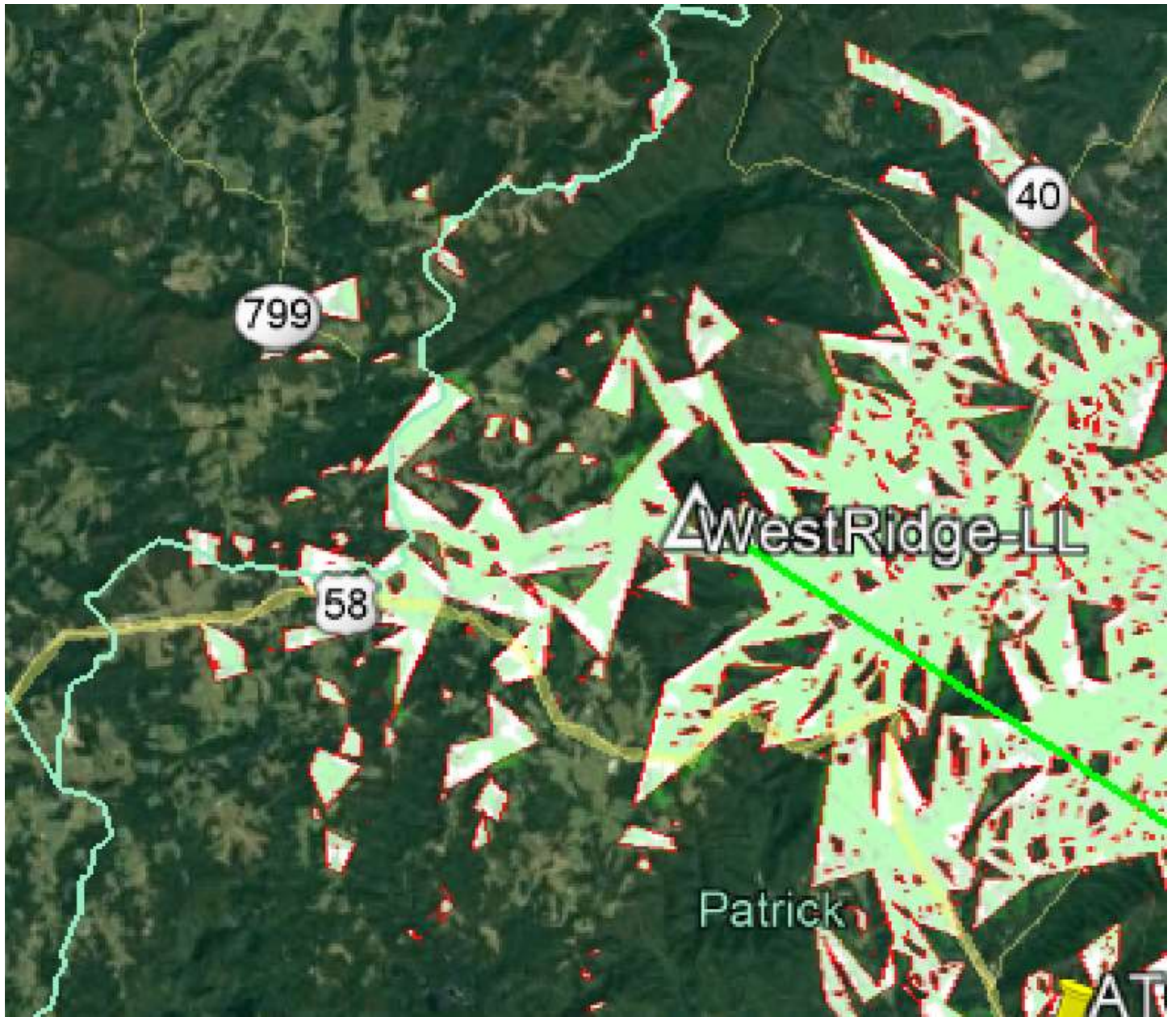
Wireless Project Area Map



Close Up of Wireless Project Map – Style 1



Close Up of Wireless Project Map – Style 2





MARKETING FOR SUCCESS

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - MARKETING

DIRECT MAIL - POSTCARD

DOOR HANGERS



**FULL
STREAM
AHEAD**

**RiverStreet
NETWORKS**



**FIBER
is here.**

**RiverStreet
NETWORKS**

**YOUR NEIGHBORHOOD IS NEXT IN LINE FOR
FIBER.**

RiverStreet Networks is building a fiber network in your area. Experience amazing, reliable technology that will change your life.

HIGH SPEED INTERNET
Up to 1 Gig (1,000 Mbps)

SECURITY
Peace of mind you can trust

VOICE
Crystal clear & reliable

**RESERVE
YOUR
SPOT
TODAY!**



**RiverStreet
NETWORKS**
844.238.0131 | rsinfo@rsnet.org
myriverstreet.net

**ALMOST
THERE...**

**We installed the fiber connection
outside your home today!**

There's just one more step left – installation inside. Contact us today to schedule an appointment for a RiverStreet technician to install the fiber connection inside your home. This includes switching all services from your current copper connection and ensuring the WiFi network is up and running.

But wait!

Don't forget to secure your home with the best security system in town. Call us for a free quote on a complete security solution with monitoring plans as little as \$20/mo.

**SOMETHING TO
CELEBRATE!**

In honor of our new office opening in Danbury, we are offering our Stokes customers a FREE Roku TV when you connect your home by bundling our internet TV and phone services! Bundle internet or TV with phone, and receive a free Roku stick!



FREE ROKU DEVICES WITH BUNDLE!

myriverstreet.net | 844.238.0131

*Offer only available to Stokes customers who sign up for internet, TV and phone services by bundling internet or TV with phone or internet. Offer ends 12/31/16.

**RiverStreet
NETWORKS**
105 Sheep Rock Rd Danbury, NC 27016

**RiverStreet
NETWORKS**
844.238.0131 | myriverstreet.net | 10/2016-12/16

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIP- MARKETING

POST CARD MAILING



Join the Crowd!
BRING FIBER TO YOUR AREA

What could fiber do for you?

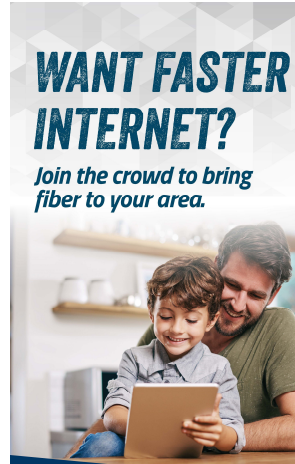
Your electric co-op, in partnership with RiverStreet Networks, wants to bring life-changing fiber internet to your neighborhood if there's demand for it. RiverStreet has decades of experience serving communities with fiber just like ours.

Fiber will deliver a faster, more reliable connection to stream, work from home, game and whatever else you use the internet for. So, join the crowd to bring fiber here. Tell your neighbors too!

Are you ready for fiber?
join.buildriverstreet.com

RiverStreet NETWORKS Powered by **YourLOGO?**

VERTICAL BANNER



WANT FASTER INTERNET?
Join the crowd to bring fiber to your area.

Reliable | Fast - 1,000 Mbps! | Unlimited
Imagine enough bandwidth for all your devices at once...

join.buildriverstreet.com

RiverStreet NETWORKS Powered by **YourLOGO?**

DOOR HANGERS



WANT FASTER INTERNET?
Join the crowd to bring fiber to your area.

Fiber will deliver a faster, more reliable connection to stream movies, work from home, game and whatever else you use the internet for.

- Reliable, high quality connection
- Faster connection speeds
- Enough bandwidth to use all your devices at once
- Unlimited Internet usage (no data caps!) ...and more!

Join the crowd to bring fiber here and tell your neighbors too!

join.buildriverstreet.com

RiverStreet NETWORKS Powered by **YourLOGO?**

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - MARKETING

BILLBOARDS



RADIO

Make memories with RiverStreet Networks and enjoy a free month with new internet or upgrade!

Because t'is the season to stream holiday favorites with family and friends! And you'll just have a better experience with RiverStreet Networks.

A free month of internet from RiverStreet Networks. With fiber optic technology everyone gets up to 1 gig.

Offer ends 12/31/2018. Call RiverStreet Networks now at 844-238-0131 or visit online at myriverstreet.net.

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - MARKETING

FAQs

FREQUENTLY ASKED QUESTIONS

About OPT-FI Fiber

Q This is the area for your question.

A This is the area for your answer. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum irure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et justo. Odo dignissim qui blandit praesent luptatum zzril delenit augue.

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A This is the area for your answer. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum irure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et justo. Odo dignissim qui blandit praesent luptatum zzril delenit augue.

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PRESS RELEASES

myriverstreet.net | 844.238.0131

Welcome to RiverStreet Networks

RiverStreet Management Services, dba RiverStreet Networks, a subsidiary of Wilkes Communications, would like to announce the completion of the acquisition of Peoples Mutual Telephone Company from Consolidated Communications Holdings as of July 31, 2018.

"We are very excited to have completed the acquisition of these Virginia properties. We believe that this addition to our existing service territories will line up well with our corporate goals," says Eric Cramer, President and CEO of RiverStreet Networks. "We are confident that our decades of experience will enable us to provide significant value to you. This marks the start of another exciting chapter in our efforts to be a state of the art telecommunications provider to some of the most rural parts of our surrounding areas."

RiverStreet Networks will work to transition management of Peoples from Consolidated Communications over the course of the next six to nine months. Local staff will become employees of RiverStreet Networks' parent company, Wilkes Communications, as part of this transaction. "Having local staff to rely on is a big part of the success of this transaction. They have the first-hand knowledge of the network and the customers which all helps to ensure that you receive the best care possible through the transition," adds Cramer.

Consolidated Communications has been contracted by RiverStreet Networks to provide interim customer service support so you will continue to contact Customer Service as you traditionally have. Once conversion is complete RiverStreet Networks will handle customer service at their headquarters. You will receive more information about this as the time draws closer. We look forward to working with you and are committed to being there every step of the way.

About RiverStreet Networks

Headquartered in Wilkesboro, NC, Wilkes Communications started in 1951 as a local cooperative to serve rural Wilkes County, NC. After completing an award-winning Fiber-to-the-Home network to all of its members, RiverStreet Networks was developed to offer the latest in technologies to areas outside of the traditional Cooperative market. After more than 65 years of providing telecommunications services and enhancing Wilkes County with an all active Fiber-to-the-Home network, RiverStreet Networks wanted to continue the trend of access to High-Speed Internet in Rural America by branching out.

Even with the telecommunications industry undergoing tremendous changes, we are dedicated to providing our customers with the latest in technological advancements and services available today. With decades of experience we stand behind our reputation as an industry leader and are ready to bring the same winning formula of excellent customer service combined with a state of the art suite of services to you. Customer satisfaction is a primary concern to us. In all that is happening in the Telecommunications Industry we aim to ensure that your needs are met, surpassing your expectations. RiverStreet Networks serves residential and commercial subscribers with offerings including: high speed Internet, digital television, voice, security, VoIP, and business systems.

1400 River St, Wilkesboro, NC 28697

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - UPDATED INTERNET PRICING



RiverStreet NETWORKS
A Division of Public Private Partnerships, Inc.

RESIDENTIAL PRICING

Reliable. Safe. Fast. High-speed Internet.

CHOOSE A PLAN THAT'S RIGHT FOR YOUR FAMILY

Streaming movies to downloading music—no matter how you stay connected, we have the perfect High Speed Internet package for you. Bundles include unlimited data, local phone features, and unlimited long distance. Start saving more when you bundle Internet and Phone Service with RiverStreet Networks. Choose a plan that best fits your family needs and we'll take care of the rest.

\$75	\$90	\$120
Per Month	Per Month	Per Month
Phone Service Included	Phone Service Included	Phone Service Included
25M/5M	50M/10M	100M/10M
<ul style="list-style-type: none"> ✓ Unlimited Data ✓ 15GB Email with storage ✓ 24/7 Tech Support ✓ 4 Email Accounts 	<ul style="list-style-type: none"> ✓ Unlimited Data ✓ 15GB Email with storage ✓ 24/7 Tech Support ✓ 4 Email Accounts 	<ul style="list-style-type: none"> ✓ Unlimited Data ✓ 15GB Email with storage ✓ 24/7 Tech Support ✓ 4 Email Accounts

844.238.0131 | myriverstreet.net



OPTI-FI

RESIDENTIAL PRICING

Keeping you connected

OPTI-FI YOUR HOME WITH A PLAN THAT'S RIGHT FOR YOUR FAMILY

OPTI-FI has a multitude of benefits that are tailored to fit every families needs. From streaming movies to live video chatting—no matter how you stay connected, we have the perfect High Speed Internet plan for you. With our advanced fiber optic network there's nothing off limits.

\$75	\$100	\$200
Per Month	Per Month	Per Month
100M/100M	250M/250M	1GIG/1GIG
<ul style="list-style-type: none"> ✓ Unlimited Data ✓ Free WIFI ✓ Free Phone Service ✓ 24/7 Tech Support 	<ul style="list-style-type: none"> ✓ Unlimited Data ✓ Free WIFI ✓ Free Phone Service ✓ 24/7 Tech Support 	<ul style="list-style-type: none"> ✓ Unlimited Data ✓ Free WIFI ✓ Free Phone Service ✓ 24/7 Tech Support

RiverStreet NETWORKS | Powered by **YourLOGO?**

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - INTERNET PRICING

FIBER BASELINE PRICING

100M / 100M - \$75+\$5 = \$80

Less Cooperative Discount

\$70.00

Less \$9.25 Low Income Lifeline discount

\$60.75

WIRELESS BASELINE PRICING

Up To 25M / 3M - \$50+\$5 = \$55

Less Cooperative Discount

\$45.00

Less \$9.25 Low Income Lifeline discount

\$35.75

The image displays three pricing cards for RiverStreet Networks. Each card is white with a blue border and a blue bar at the bottom. The cards are arranged in a row, with the middle card slightly offset to the right. The background is a light gray with a geometric pattern.

Service	Price (Per Month)	Features
100M/100M	\$75	Unlimited Data, Free WiFi, Free Phone Service, 24/7 Tech Support
250M/250M	\$100	Unlimited Data, Free WiFi, Free Phone Service, 24/7 Tech Support
1GIG/1GIG	\$200	Unlimited Data, Free WiFi, Free Phone Service, 24/7 Tech Support

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - INTERNET PRICING

FIBER BASELINE PRICING

100M / 100M - \$75+\$5 = \$80

Less Cooperative Discount

\$70.00

Less \$9.25 Low Income Lifeline discount

\$60.75

WIRELESS BASELINE PRICING

Up To 25M / 3M - \$50+\$5 = \$55

Less Cooperative Discount

\$45.00

Less \$9.25 Low Income Lifeline discount

\$35.75

WIRELESS TIER II PRICING

Up to 50M / 3M- \$70+\$5 = \$80

Less Cooperative Discount

\$70

Less \$9.25 Low Income Lifeline Discount

\$60.75

\$75 Per Month	\$100 Per Month	\$200 Per Month
100M/100M	250M/250M	1GIG/1GIG
✓ Unlimited Data	✓ Unlimited Data	✓ Unlimited Data
✓ Free WiFi	✓ Free WiFi	✓ Free WiFi
✓ Free Phone Service	✓ Free Phone Service	✓ Free Phone Service
✓ 24/7 Tech Support	✓ 24/7 Tech Support	✓ 24/7 Tech Support

AVERAGE COST OF 25/3 SERVICE BY POPULATION DENSITY

Decile	Max Population Density	Mean Lowest Price	Median Lowest Price
1	147,807	\$50.07	\$49.99
2	3,713.81	\$51.78	\$49.99
3	1,658.13	\$53.56	\$49.99
4	649.62	\$54.38	\$49.99
5	274.90	\$56.44	\$50.00
6	129.81	\$58.14	\$59.95
7	74.09	\$59.06	\$60.00
8	44.41	\$60.26	\$63.99
9	24.70	\$61.53	\$60.95
10	9.22	\$68.69	\$64.95

SOURCE: BROADBAND
NOW

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - BUNDLE PRICING

Voice Data Plans – Residential Bundle Pricing

Plan	Internet	Voice	SLC	Total
25/3	\$45.00	\$30.00	\$6.50	\$81.50
50/10	\$60.00	\$30.00	\$6.50	\$96.50
100/10	\$90.00	\$30.00	\$6.50	\$126.50
250/25	\$150.00	\$30.00	\$6.50	\$186.50

Data Only Plans – Residential (includes unlimited voice, features, wireless routing, tech support)

Plan	Internet	Voice	Reg Fee	Total
100/100	\$75.00	\$0.00	\$5.00	\$80.00
250/250	\$100.00	\$0.00	\$5.00	\$105.00
1000/1000	\$200.00	\$0.00	\$5.00	\$205.00

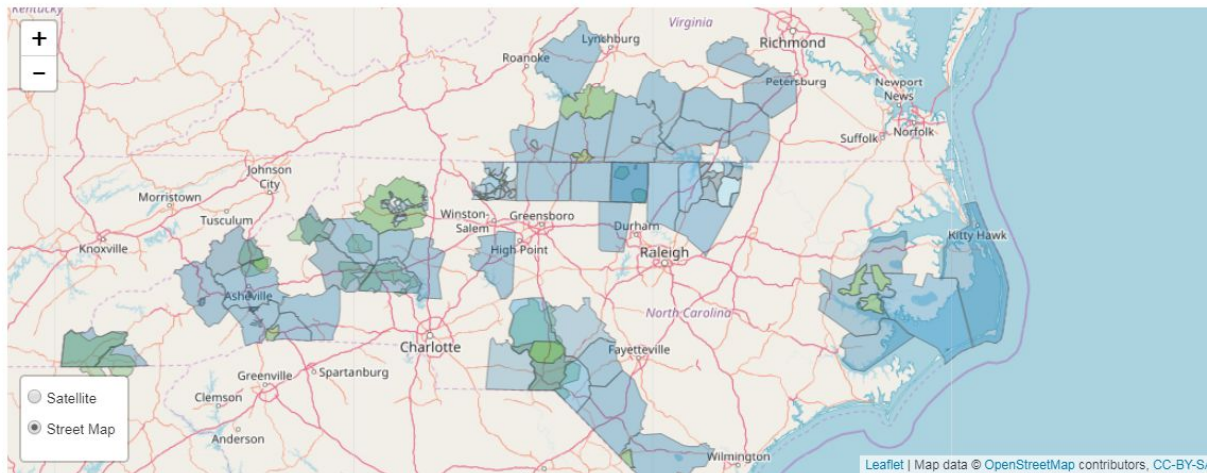
Plan	"Co-op" Discount	Disc Rate	Lifeline Discount*	Lowest Possible
100/100	-\$10.00	\$70.00	-\$9.25	\$60.75
250/250	-\$10.00	\$95.00	-\$9.25	\$85.75
1000/1000	-\$40.00	\$165.00	-\$9.25	\$155.75



Help extend fiber to your neighborhood!

Register your address, and we'll let you know if you can receive service. Become a supporter and spread the word!

Service Areas



Areas In Service

Areas where service is currently available.

ACTIVITY DASHBOARD



Eric

Dashboard

Map

Tasks

Addresses

Contacts

Sales

Products

Zones

Documents

Engagement

Users

Settings

Integrations

Support

Updates

7

0 this month

0 this year

Create new update

Emails

4,447

132 opened this month

224 opened last month

Create new email

Direct Mail

0

0 sent this month

0 sent last month

Create new mail

Leads

2,813

140 this month

190 last month

Contacts

2,251

25 this month

45 last month

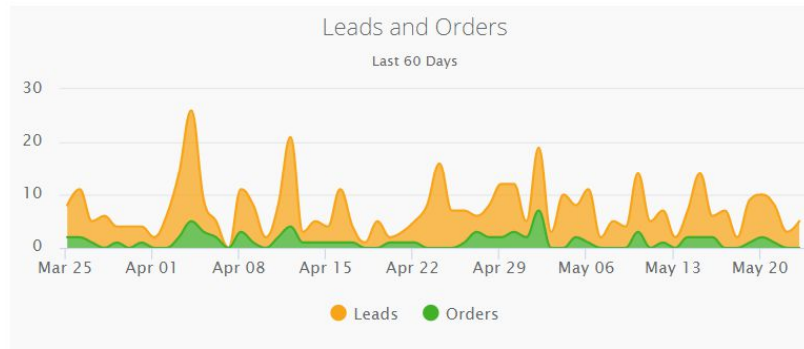
Orders

1,311

26 this month

41 last month

Key Trends



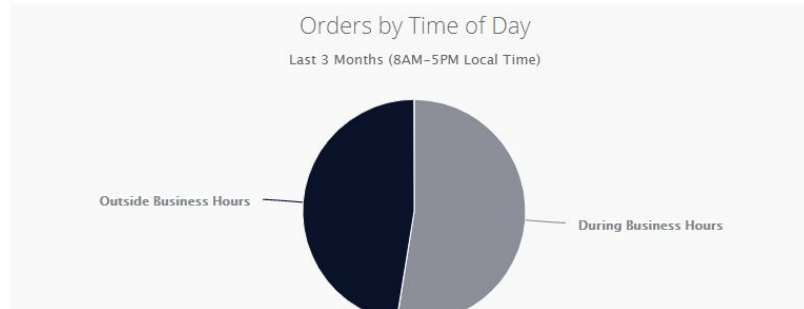
Lead-to-Order Conversion Rate

19%


Month to date













▼ -18%

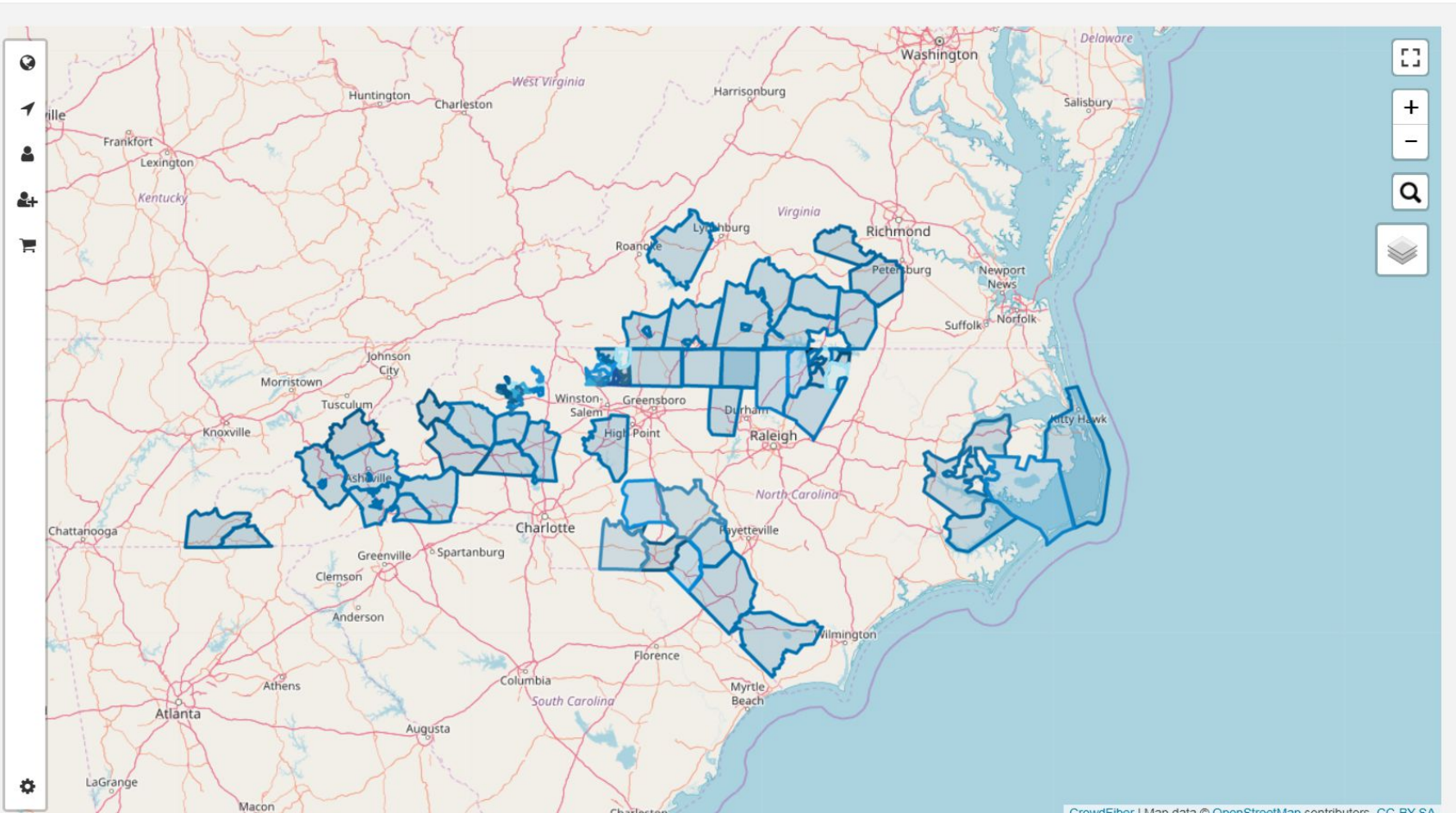
Compared to this time last month



PRE-REGISTRATION AREAS

 Eric

-  Dashboard
-  **Map**
-  Tasks
-  Addresses
-  Contacts
-  Sales <
-  Products
-  Zones
-  Documents
-  Engagement <
-  Users
-  **Support** <



CUSTOMER PRE-REGISTRATION MAPPING

The screenshot displays a web browser window with a URL: https://join.buildriverstreet.com/campaigns/riverstreet-networks-campaign/site_admin/map. The browser's address bar shows the URL, and the page title is "CUSTOMER PRE-REGISTRATION MAPPING".

The application interface includes a dark sidebar on the left with a user profile for "Eric" and a menu with the following items: Account Menu, Admin Home, Map (highlighted), Tasks, Addresses, Contacts, Orders, Products, Zones, Documents, Engagement, Users, and Settings. At the top of the main content area, there is a search bar with the placeholder text "Search for something...".

The central part of the screen is a map showing a geographical area with various features. Key locations labeled on the map include Asheville Regional Airport, Six Oaks Airport, Green River Gameland, Hendersonville, Transylvania County Airport, Hendersonville Airport, Fox Haven Plantation STOLport, Wheat Field, and Fairview Airport. Major roads are shown in red and orange, with route numbers such as US 74, US 74A, US 126, and US 176. The map is overlaid with numerous green circular markers and orange triangular markers, representing data points for customer pre-registration.

Map navigation controls are visible on the right side, including a search icon, a zoom in (+) button, a zoom out (-) button, a full-screen icon, and a layer selection icon. A green "Help" button is located in the bottom right corner of the map area. At the very bottom of the browser window, the system tray shows the time as 9:58 AM on 12/1/2018 and the text "CrowdFiber | Map data © OpenStreetMap contributors, CC-BY-SA".

CUSTOMER SERVICE AND SUPPORT

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - CUSTOMER SUPPORT

CUSTOMER SERVICE

- Average time to answer a call
34 seconds
- Average call duration 3.30
minutes

TECHNICAL SUPPORT

- Average After Hours Tech
Support call 10.10 mins
- Average RiverStreet Network
Support call time is 3.9 mins
- 76% first call trouble
resolution
- 24% escalated to our Tier II
or truck Roll
- Outages and duration > .40%
- 99.6% up-time

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - DISPATCH SUPPORT CALLS

RESIDENTIAL TROUBLE TICKETS

- Overall average duration from call to completion - 22 hours
- Time to clear a trouble of ticket - 1.25 hours
- Repeat troubles on Copper - 9.3%
- Repeat troubles on Fiber - 3.7%

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - NET PROMOTER SCORE

% RATED EXCELLENT

- Customer Service - 97%
- Install & Repair - 100%
- Tech Support - 96%

LIKELIHOOD TO RECOMMEND

- Customer Service - 88%
- Install & Repair - 90%
- Tech Support - 88%

RIVERSTREET NETWORKS

PUBLIC PRIVATE PARTNERSHIPS - KEY METRICS ON FIBER

BROADBAND CHURN RATE - .50%

GROSS WRITE OFFS - .21%

NET WRITE OFFS - .06%

ARPA - RESIDENTIAL \$103.54 / BUSINESS - \$241.61



CONCEPTUAL PROPOSAL

Patrick County Broadband Project

RFP

July 16, 2019

RiverStreet Networks: Executive Team (Jody Call, Joshua Strickland)
jodycall@myriverstreet.net – joshstrickland@myriverstreet.net

1 INTRODUCTION

1.1 EXECUTIVE SUMMARY OF OUR PROPOSAL

A joint venture of several subsidiaries of Wilkes Telephone Membership Corporation (WTMC) propose to combine their efforts to bring reliable broadband service to unserved and underserved areas of Patrick County. This joint venture will be led by one of WTMC's Virginia subsidiaries, RiverStreet Communications of Virginia, Inc. (RSCVA), which is a competitive local exchange company (CLEC) licensed to provide telecommunications services and authorized to do business in the Commonwealth of Virginia. Other WTMC subsidiary and affiliated entities to be involved in this joint venture include another Virginia broadband service provider, Gamewood Technology Group, Inc. (GTG), and its Virginia CLEC subsidiary Gamewood Telecom, Inc., as well as North Carolina Wireless, LLC (NCW), which is in the process of being acquired by RiverStreet Management Services, LLC (RiverStreet). RiverStreet is a wholly-owned WTMC subsidiary and holding company, which owns a family of actively and professionally managed communications enterprises. These entities do business under the name RiverStreet Networks, including RSCVA and GTG, committed to providing high quality advanced services to customers in rural markets where deployment and maintenance of telecommunications networks and services is challenging.

RiverStreet Networks and NCW began partnering in 2018 to combine Fiber-to-the-Home and Fixed Wireless technologies to reach underserved and unserved areas of North Carolina and Virginia. This relationship resulted in RiverStreet's agreement to acquire NC Wireless in 2019. NCW will play an integral role in fulfilling the requirements of this RFP if this consortium is awarded the project.

WTMC is a North Carolina non-profit, cooperative corporation organized under Chapter 117 of the North Carolina General Statutes. WTMC is a cooperative incumbent LEC and it has provided telecommunications services in four rural exchanges located in and around Wilkes County, North Carolina since 1951. WTMC's CLEC subsidiary Wilkes Communications, Inc. (WCI), began offering competitive communications and broadband services in areas around WTMC's service areas in 2006.

As a wholly-owned subsidiary of Wilkes Telephone Membership Corporation, RiverStreet Networks began as an extension of Wilkes Communications in Wilkes County, NC. After more than 61 years of providing telecommunications services, WTMC and WCI recently enhanced their respective networks in order to be able to provide Wilkes County customers with an all active, Gigabit, Fiber-to-the Home network. RiverStreet Networks is committed to continuing the trend of providing access to High Speed Internet in Rural America by branching out to underserved and unserved areas. Even with the telecommunications industry undergoing tremendous changes, RiverStreet Networks is dedicated to providing customers with the latest in technological advancements and services available today. Supported by WTMC's decades of experience, RiverStreet Networks enjoys a reputation as an industry leader and is ready to bring the same

winning formula of excellent customer service, combined with a state-of-the-art suite of services, to Patrick County.

NCW began operating as a privately held Internet and telecommunications service provider based in Hickory, North Carolina in 2003. NCW has worked closely over the years with the North Carolina Department of Commerce, various counties, and other organizations to explore ways to expand broadband services into underserved and unserved parts of North Carolina through a sustainable business model. Presently, NCW operates a Fixed Wireless Network providing Internet service throughout eight rural North Carolina counties. Notably, in 2016 with the support of the Person County Government and a grant selection process, NCW began a wireless broadband deployment project in Person County. At this point, two of four new tower sites are complete and a third will be completed in 2019. NCW's core product offering is Unlimited Use Internet Access; however, NCW also provides telephone / fax services as well as customized business packages for Enterprise Internet, Data, and Telecom Consolidation. NCW will secure any additional licensing or permitting that may be required in order for it to participate in this joint venture.

RiverStreet Networks' aim is to utilize current and future infrastructure funding mechanisms for deployment of next-generation broadband networks in unserved and underserved rural areas of Virginia and North Carolina. RiverStreet Networks has extensive, proven experience in fixed wireless deployments as it is serving more than 2,000 residential and business subscribers in the following counties in Virginia and North Carolina: Virginia – Pittsylvania and King and Queen; North Carolina – Person, Avery, Catawba, Montgomery, Richmond, Moore, Beaufort, and Hyde.

The technology to be used by the RiverStreet joint venture for the Patrick County project will include a hybrid of fiber optic and fixed wireless technologies. The RiverStreet joint venture commits to matching the funding to be provided by Patrick County and VATI Grants with its own capital to complement fixed wireless with fiber optic infrastructure for current and, more importantly, future broadband needs. The inclusion of fiber optic provides superior data rates when combined with fixed wireless because it allows 10 Gbps and higher rates at the tower or access point locations, which mitigates network congestion and eliminates the need to use wireless for backhaul to the Internet.

RiverStreet has continued to grow through a number of acquisitions and mergers. In 2014, three small, for-profit ILECs, including Saluda Mountain Telephone, Service Telephone, and Barnardsville Telephone, were acquired from TDS Telecom. In 2018, RiverStreet acquired Peoples Mutual Telephone Company, the ILEC serving in Gretna, VA. Later in 2018, RiverStreet acquired Ellerbe Telephone Company, the ILEC serving Ellerbe, NC, as well as GTG, which is based in Danville, VA. RiverStreet has since acquired Red's TV and Cable, Inc., based in Bath, NC and, as noted above, RiverStreet is in the process of acquiring NCW. In addition, in August, 2018 WTMC merged with one of the other eight independent telephone cooperatives in North Carolina, Tri-County Telephone Membership Corporation, with WTMC being the surviving entity. Through that merger, WTMC acquired Tri-County Communicators, d/b/a Tri-County Broadband,

in rural Eastern North Carolina, another transaction reflecting the RiverStreet family's ability to adapt to the ongoing changes in our industry.

Moving to one brand, Wilkes Telephone Membership Corporation | Wilkes Communications, Barnardsville Telephone Company, Service Telephone Company, Saluda Mountain Telephone Company, Ellerbe Telephone Company, Tri-County Telephone Membership Corporation | Tri-County Broadband, Peoples Mutual Telephone Company, Gamewood Technology Group, Red's TV and Cable, and NC Wireless all are combining into the RiverStreet Networks model. The overall mission is "To provide excellence in customer service while adding value to the customer and serving the unserved." The RiverStreet joint venture is well qualified to deliver reliable, affordable broadband service to Patrick County.

RiverStreet Networks has been providing Fiber-to-the-Home services since 2005 via an exclusively Active fiber network in its core market in and around Wilkes County, NC. During the acquisition of three former TDS ILEC properties, the company also dedicated itself to overbuilding these companies' antiquated copper-based networks to provide 1 Gbps services to each respective community. These networks are in the process of being migrated to fiber with Saluda Mountain occurring 2017-2019, Barnardsville in 2018-2020, and Service in 2019-2021. Concurrently, RiverStreet has been constructing a greenfield Fiber-to-the-Home network in Stokes County, NC, with hopes of passing at least 5,000 customers in 2019. All of these projects, including the original overbuild in Wilkes County, were predicated upon the recognized need to provide access to high-speed Internet services in rural areas.

In late-2018 and early-2019, RSCVA was awarded \$32 million in CAF Phase II (Connect America Funding) for 77 high-cost census block groups, with 13,518 locations, throughout the following Virginia counties: Bedford, Campbell, Pittsylvania, Halifax, Mecklenburg, Lunenburg, Charlotte, Brunswick, and King and Queen. This award and the networks which RSCVA will deploy with the CAF II funding and capital provided by WTMC will place RiverStreet Network's footprint adjacent to Patrick County and facilitates the strategic goal of expanding broadband services to rural Virginia. The timeline for the CAF II network build begins in 2019 and will take six years to complete.

In addition to the adjacency of the networks in Gretna, Danville, and the soon-to-be built CAF II locations, RiverStreet Networks has the network footprint established in Stokes County, NC, which is contiguous to Patrick County.

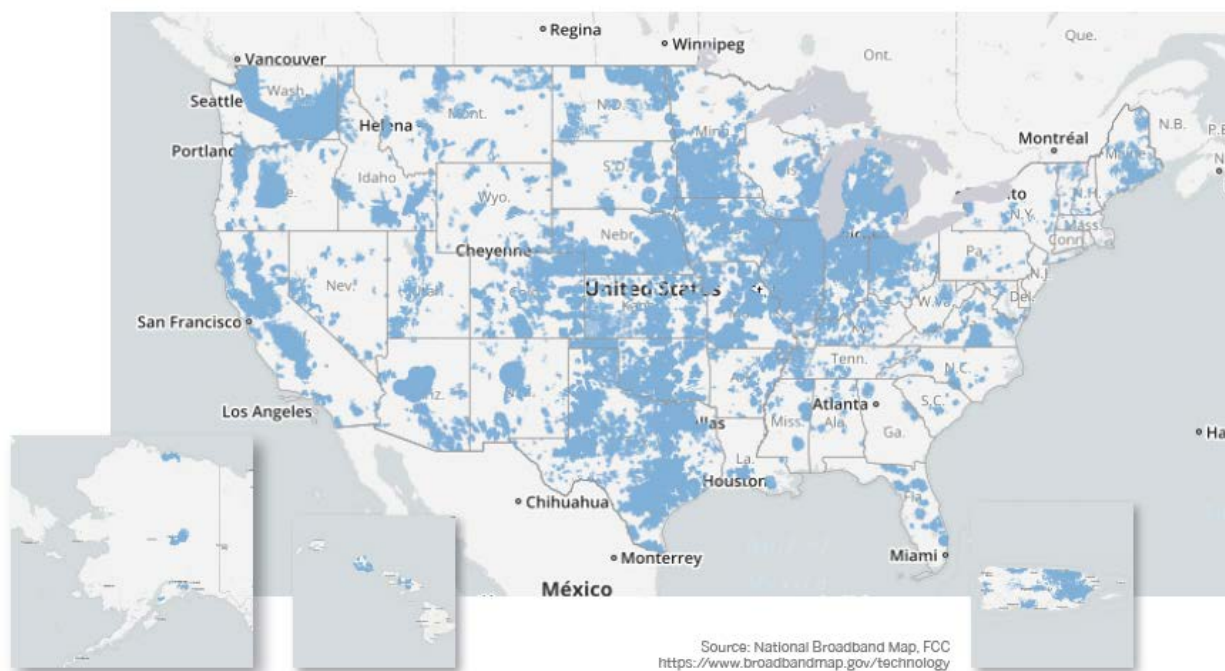
Areas in Northern Patrick County, which are in Citizens Telephone service footprint are currently being planned to be overbuilt with fiber-optic technology by Citizens Telephone within the next few years. There are adjacent, unserved areas RiverStreet would target to provide broadband.

When the FCC's RDOF (Rural Digital Opportunity Fund) is made available in 2022, RiverStreet will engage in the process to obtain additional funding in additional rural locations in Virginia, which was not available during the recent CAFII Auction. This process further aligns with RiverStreet

Networks' mission of providing broadband service to the underserved and unserved areas of Virginia and North Carolina.

Most recently, RiverStreet Networks entered into a business partnership with the North Carolina Electric Membership Corporation (NCEMC) to be the preferred provider of broadband across its members' statewide footprint. This partnership has the possibility of providing broadband to over half of the NCEMC's 1.2 million customers. RiverStreet will deploy a hybrid of fiber optic and fixed wireless infrastructure, just as it proposes for Patrick County in this response, to provide broadband to the NCEMC members' rural footprint.

FIGURE 1: U.S. Fixed Wireless Broadband Availability



1.2 HOW BROADBAND WIRELESS ACCESS WORKS?

In a typical BWA network, broadband content is received by the BWA provider from an external distribution point via fiber or microwave connections. From there, signals are delivered to BWA customers via wireless transmitters on towers. The towers are interconnected by licensed or unlicensed spectrum and can carry up to 5 to 10 Gbps of capacity. Customers receive the signals via antennas that are attached to the subscribers' premises. Therefore, the technology is called fixed wireless, as opposed to mobile/cellular wireless. Within the subscribers' premises, the signal is most commonly delivered via a Wi-Fi router or Ethernet cable to personal computers, TV monitors, and other stationary and mobile devices in the home or business.

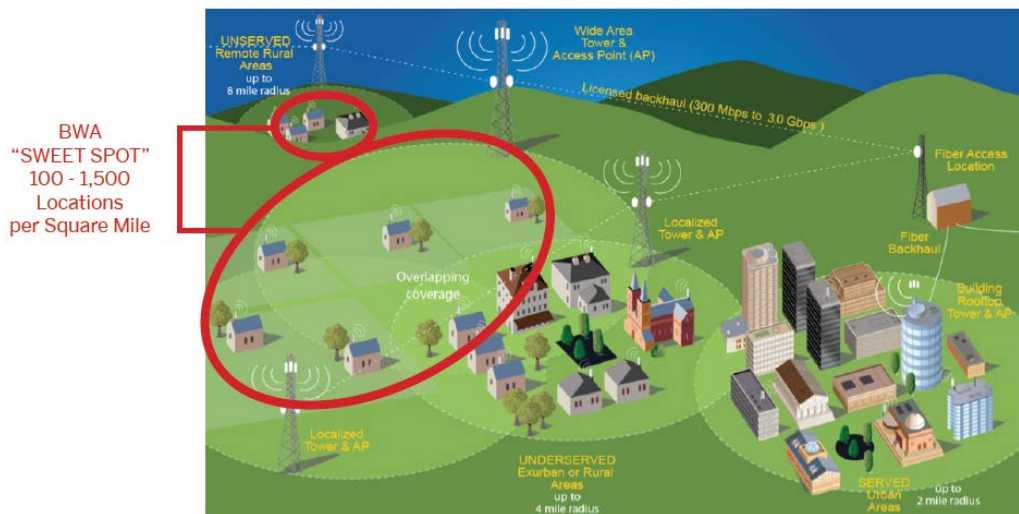
BWA providers typically employ a variety of licensed and unlicensed spectrum to deliver their services. For last-mile, point-to multipoint connections, unlicensed spectrum bands such as 900 MHz and 2.4 GHz were commonly used in the early years of the industry.

However, these bands have given way to 5 GHz, 3.65 GHz, and 2.5 GHz to accommodate increasing speed, coverage, and capacity needs. Unlicensed 5 GHz and licensed 6-24 GHz point-to-point connections are most commonly used to connect towers and serve high-volume enterprise customers, with FCC microwave licenses readily available at nominal cost.

Equipment designed for use in unlicensed spectrum bands is limited in power output to reduce

interference to other users, as mandated by the FCC, and is designed to perform well in environments with more potential for interference than equipment designed for use in exclusively licensed bands.

FIGURE 2: Typical BWA Network Architecture



The BWA “sweet spot”, where providers can offer the best service and economics, is often in exurban areas with 100 to 1,500 locations per square mile, such as those shown on the left side of Figure 2.

Source: *The Caramel Group 2017 BWA Industry Study*

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3 QUALIFICATIONS AND EXPERIENCE

3.1 POINT OF CONTACT

Jody Call (jodycall@myriverstreet.net), Bill Shillito (billshillito@myriverstreet.net), and Joshua Strickland (joshstrickland@myriverstreet.net)

North Carolina Wireless, LLC is a Wholly Owned Subsidiary of Wilkes TMC

3.2 ORGANIZATION AND LEGAL STRUCTURE

Wilkes TMC and its Wholly Owned Subsidiaries

(Legal Structure and Ownership Diagram see Attachments)

3.3 EXPERIENCE

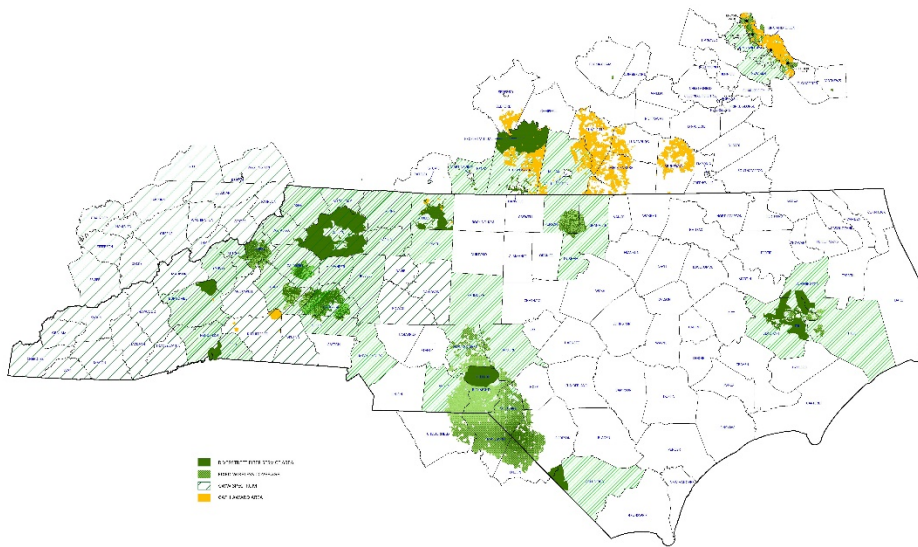
3.3.1 Key Team Members

Eric Cramer, Jody Call, Greg Coltrain, Kimberley Johnson, Amanda Perry, Jody Souther, Bill Shillito, and Joshua Strickland *(further details included in the attachments section)*

3.3.2 Wireless PtP and PtMP Network Experience

- **Hickory Area Network** - Established in Summer 2003 and in continued operation after multiple expansions and network-wide upgrades operating from 13 POP sites. This provides services to customers across 5 Counties based out of the Greater Hickory Area.
 - Technologies Used
 - Fixed Wireless PtMP, Fixed Wireless PtP, Hybrid Networks
 - Urban Services
 - We have provided various business-class services across a 5-county area to include PtMP Internet, PtP Services, Dedicated PtP Internet, Server Co-Location, Phone Services (VoIP and Copper Resale), Fax Services (IP based and Copper Resale), and Telecom Account Management.
 - Rural Services
 - We have provided various residential services across a 5-county area to include PtMP Internet, Phone Services (VoIP), and Fax Services (IP based).
 - PPP – We have a number of PPP projects in this area
 - City of Conover – Water Tank Access and Downtown Wi-Fi
 - City of Claremont – Water Tank Access to deploy into adjacent business parks
 - Catawba County – Communications tower access to extend last-mile services to homes and businesses in Rural SE Catawba County
- **Avery County Network** – A PPP Established in Summer 2013 and in continued operation after multiple expansions, operating from 8 pop (tower) sites.
 - Technologies Used - Fixed Wireless PtMP and PtP Licensed and Unlicensed

- o Rural Services
 - We have provided various residential services across a multi-county area to include PtMP Internet, Phone Services (VoIP), and Fax Services (IP based).
- **Person County Network**– A PPP Established in Fall 2017 and current construction with 2 of 4 primary towers lit with #3 occurring in 2019. This network was result of a matching grant for capital expenses provided by the County of Person.
 - o Technologies Used
 - Fixed Wireless PtMP with LTE, PtP Licensed and Unlicensed
 - o Rural Services
 - The vast majority of this network would be considered rural.



Confidential

NC / VA Service Footprint *(full size located in attachments section)*

3.4 SUBCONTRACTORS

RiverStreet Networks utilizes subcontractors for fiber construction and splicing. Those contractors include:

- Appalachian Utilities - Main Line construction - 125 Colvard Farm Road, Jefferson, NC 28640
- J&S Underground - Service Drops - 221 Guy Grouse Road, Traphill, NC 28685

NC Wireless utilizes the following subcontractors:

- Triangle Tower – Tower Construction and Antenna Installation
- Double Radius – Hardware VAR
- Waldrop Wireless Technicians - Tower Construction, Engineering and Antenna Installation

Gamewood Technology Group utilizes the following subcontractors:

- 360 Communications - Tower Climbing, Engineering, and Construction - 17375 US 70, Durant, OK 74701
- Piedmont Tower, Inc. - Tower Climbing, Engineering, and Construction - 115 E Eller Dr, Winston-Salem, NC 27107

** Further details about past projects and resumes of contractors can be provided upon request.*

3.5 FINANCIAL STATEMENT

Located within *(Attachments Section 7.4, Schedule 1)*

3.5.1 Certificate of Bankruptcy

Located within *(Attachments Section 7.4)*

3.6 VA CONFLICT OF INTEREST ACT

Based on our understanding, we do not believe anyone should be disqualified for conflict of interest under VA Code 2.2-3100 et seq.

3.7 CERTIFICATION OF GOOD STANDING

(certificate of good standing see attachments section)

4 CONCEPTUAL DESIGN

4.1 DESCRIPTION OF PROPOSED SYSTEM

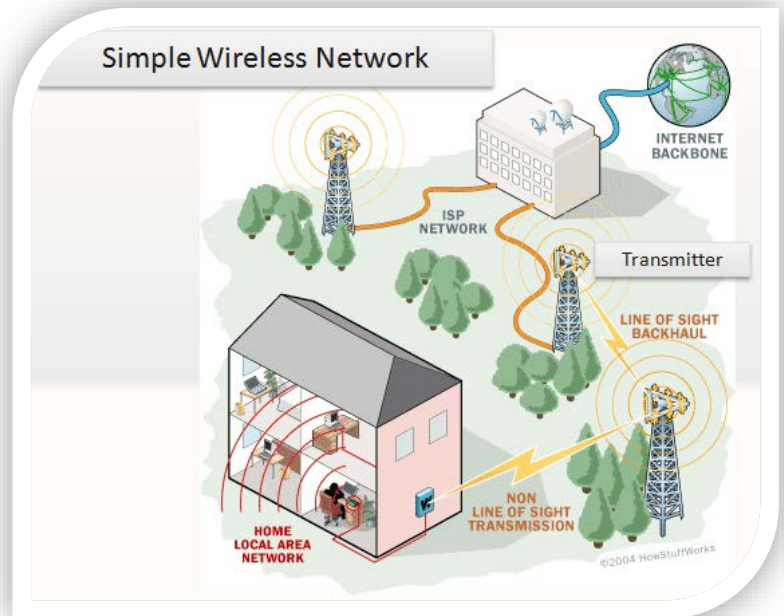
We propose a Fixed Wireless Network using a mix of 2.4GHz, CBRS 3.65GHz and 5 GHz bands (pending availability of spectrum within our business case).

A central aggregation point for the Patrick County region would be created whereby wireless and fiber backhaul can be aggregated on a Middle Mile network.

Tower sites (both new or existing) would be located strategically to serve the greatest number of homes/businesses in conjunction with input from stakeholders.

Our Investment

Wilkes TMC pledges to contribute \$100,000 to match Patrick County’s \$100,000 (to be considered Phase I) amount budgeted for the project. An additional \$2 million request through a VATI Grant is proposed for Phase II, with Wilkes TMC offering to match an additional 25% project funding if a VATI Grant is awarded. Wilkes TMC hopes to partner with Patrick County to write the VATI grant for Phase II and is open to considering Patrick’s time in the project as in-kind services.



4.1.1 Proposed Technologies

Below, the primary delivery technologies to be used on our Fixed Wireless Broadband network are broken down into Backhaul and Last Mile or (PtMP).

4.1.1.1 Backhaul

Remote sites will be connected back to a centralized location where Middle-Mile Fiber can be accessed to connect back to an IXP located in Virginia; likely Citizens Telephone and / or MBC.

Fiber backhaul will be utilized where cost effective via existing fiber assets or new fiber builds via investment from Wilkes TMC.

Licensed Fixed Wireless will be utilized otherwise.

Redundancy – We propose building a ring (fiber and / or licensed wireless) that will provide redundancy between our primary tower sites if financially feasible.

4.1.1.2 PtMP Last Mile

Our proposal is a hybrid of nLoS and LoS CBRS solution using either the 3.65GHz bands with LoS 5 GHz layered along with 2.4GHz as necessary. CBRS has licensing implications that will have to be coordinated.

In areas with densities and LoS opportunities, we may overlay 5GHz technologies to sell higher capacity services.

4.1.2 Design Capacities

Summary by technology as planned included below:

- nLoS Subscriber Unit: 40Mbps+ in highest modulation
- LoS Subscriber Unit: 100Mbps in highest modulation
- Fiber Backhaul: 10Gbps
- Wireless Backhaul – Gigabit: 1Gbps FDX
- Upstream Middle Mile Fiber:

Upstream connections will be 10 Gbps, fiber-optic, Ethernet direct or WDM (wave division multiplexed for multiple 10 Gbps waves) primary and secondary for fault tolerance.

- Datacenter ISP:

Connections to peering points and datacenters will be 2 - (primary and secondary) 10 Gbps Ethernet connections with a committed information rate (CIR) built to suit the bandwidth needs of the customer base. These rates are easily upgraded within hours or days. The system will be built to support multiple 10 Gbps wavelengths (WDM), if needed.

4.1.3 Example of Equipment Locations

PtMP CBRS Cabling Diagram (*see Attachments section*)

4.1.3.1 Towers and Tanks

Indoor Equipment – typically our indoor equipment takes up about 20 U of space in a typical 2 or 4 post rack and around 3' x 6' of floor space including buffer area. (*see attachments: photo section 7.2 for examples*)

Outdoor Equipment – typically our outdoor equipment is comprised of the following:

- 4-8x Antennas and Base Stations (at 200' – 250' height with 8'-10' of vertical space)
- 1-4x Parabolic Backhaul Antennas (at minimum height to accomplish Line of Sight to remote antennas requiring 4-8' of vertical space)
- Applicable mounts to correctly mate up to the tower

- Necessary Power and Ethernet cabling per Base Station
- Grounding hardware to specification

4.1.3.2 Other Vertical Structures

Similar indoor requirements as in (Towers and Tanks) above for full blown tower sites. Some sites have less equipment and in that case can be mounted into pole attached NEMA Enclosures or on a standard Concrete Pad. *(see Attachments section)*

4.1.4 Proposed Network Map

Peering: Will Peer at an IXP located in VA. Most likely with Citizens Telephone and / or MBC.

Interconnection and Peering

RiverStreet Networks has established interconnection agreements with the following companies and plans to partner with these providers to connect Patrick County customers to the Internet:

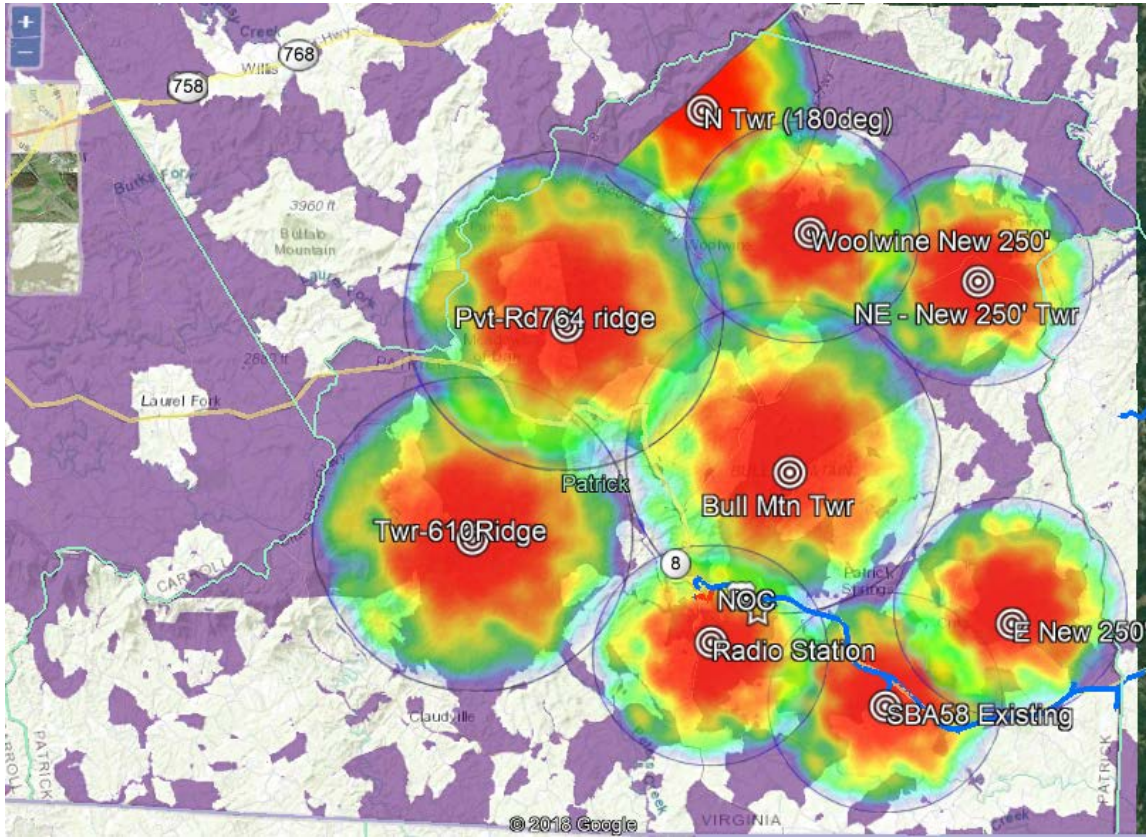
<ul style="list-style-type: none"> • Mid-Atlantic Broadband Communities • Cogent • QTS • Pixel Factory 	<ul style="list-style-type: none"> • Uniti • Zayo • Citizens Telephone Company
--	---

4.1.5 Predicted RF Coverage Maps

The coverage maps below are conceptual in nature using the information we have available to us in the timeframe set forth by the grant submission schedule. If awarded, we will be able to invest in further engineering providing more detail.

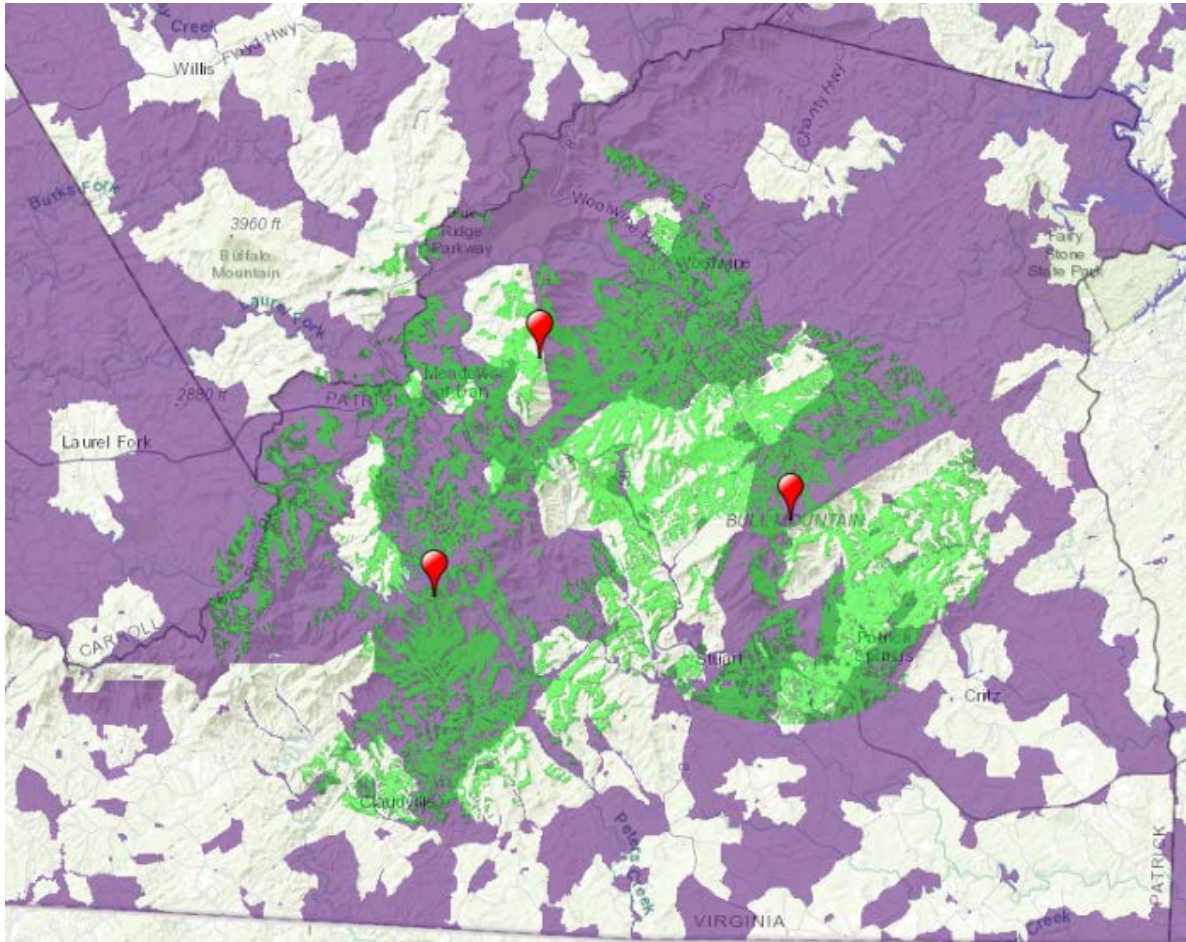
(Maps next page, additional in Attachments Section)

Consolidated Proposed Coverage Multi-Map (conceptual)



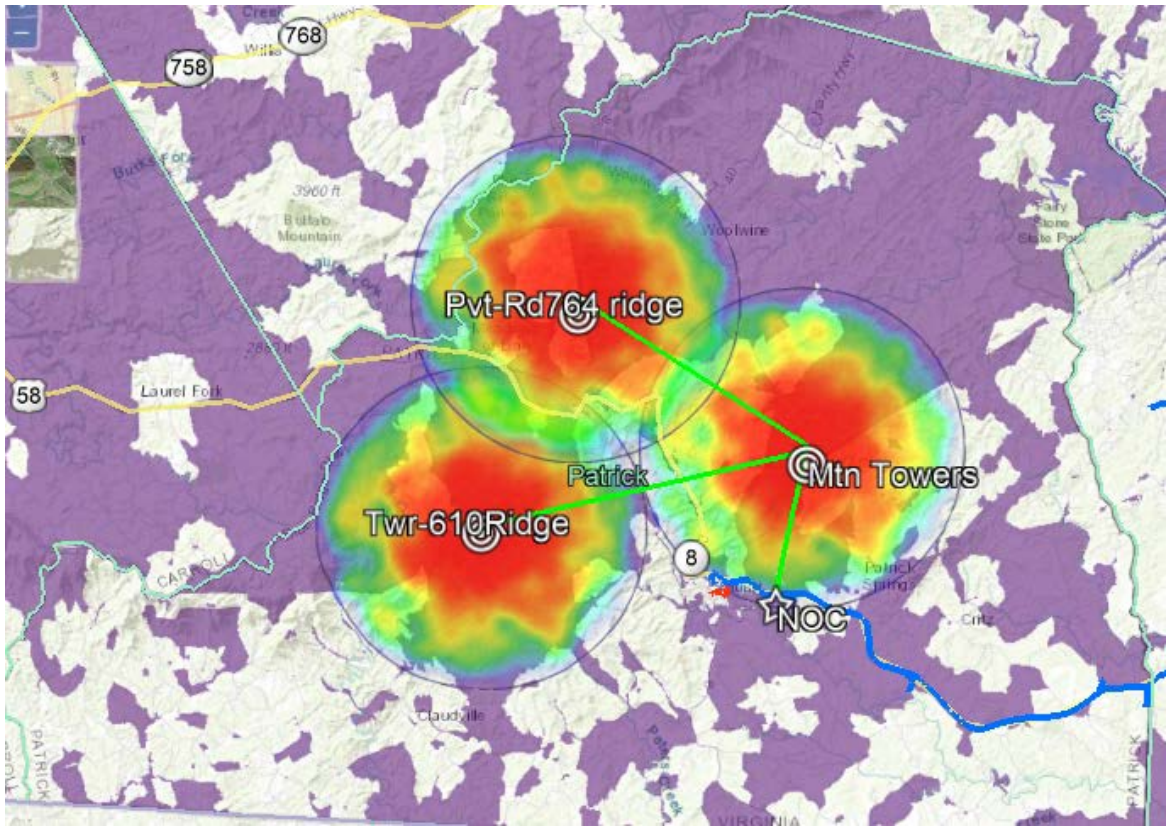
Phase I

Example of Service Area Projection for Phase 1 including 3 POP sites (RF modeling)



Purple areas are those indicated as unserved as of December 2017

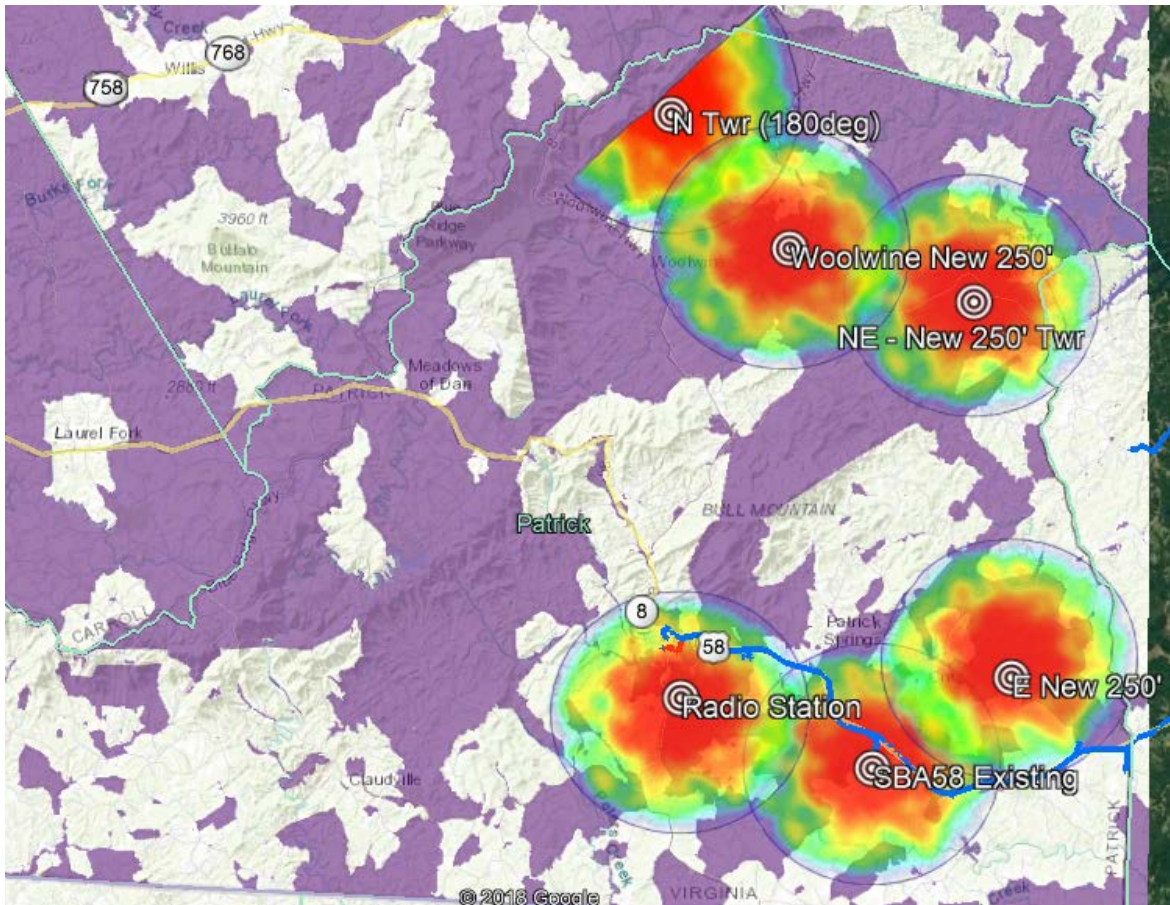
Conceptual Version of Phase I Service Area



Purple areas are those indicated as unserved as of December 2017

Phase II

Conceptual Version of Phase II Service Area



Purple areas are those indicated as unserved as of December 2017

Wireless Coverage Assumptions

Assumptions consider terrain, FCC power/antenna limits, ground clutter, buildup, tree type, and density averages, tower sectors at 200-250' AGL, subscriber endpoints up to 40' AGL. To reliably obtain broadband speeds, we limit max PtMP distances to 9km.

4.1.6 Equipment Warranties

Generally, networking and wireless hardware have 12-month warranties for manufacturer defects.

4.1.7 Acceptance Test Plan

General Speed Testing:

Hardwired Network Testing is to be conducted via multi stream TCP to the edge of our network (edge router) for speed and performance with supplemental testing done to a near (east-coast) off-site location via speedtest.net.

End Point Speed Testing:

At mutually agreed strategic locations located no further than 6-7 km LoS or 4km nLoS from the nearest access point, we can test speeds to determine proof of performance. Testing elevations will be no higher than 40' above ground level and conducted outside of peak service periods.

Testing is to be conducted via multi stream TCP to the edge of our network (edge router) for speed and performance with supplemental testing done to a near (east-coast) off-site location via speedtest.net.

Signal Strength RF Testing:

Once a tower or POP site is engineered, NCW will provide RF propagation maps by which we can test for expected signal levels with the following considered: FCC Limitations, Outside RF Interference, Terrain, Ground Clutter, Buildup, Trees, and Antenna Patterns/Gain. These would be Line of Sight tests ran against each sector installed at a tower or POP site up to 6-7km.

4.2 DESCRIPTION OF SERVICES

Broadband Internet and Voice Telephone where available in select areas.

Home, Small Office, and Business services will be available.

4.2.1 Standard Installation Example

Diagram located on right

Materials Included:

- Up to 100ft of outdoor-rated, shielded CAT5e Cable
- LightLeap Wireless Equipment, standard antenna and PoE Injector (Power over Ethernet)
- Standard J-arm, Antenna Stand-off and/or Mast (5ft)
- Antenna and/or Ethernet Grounding to CPE vendor spec
- Fiber drops typically NOT utilized in Wireless Deployments

Labor Included:

- Installation of Receiver on the roof, sidewall or structure attached to your home or demarcation point (cable runs between structures are non-standard)
- Ethernet entering your home via existing access hole or create new access via outside wall (special cable runs may be billed additional)
- Programming of a Single Router or Computer to access our network
- Show Proof of Connectivity and Performance (hard-wired)



Any non-standard installation labor or materials will be discussed with the account holder on-site by the installation contractor. These items are to be fully quoted and approved before work begins and to be paid directly to the installer.

4.3 DESCRIPTION OF PARTNERING AGREEMENT

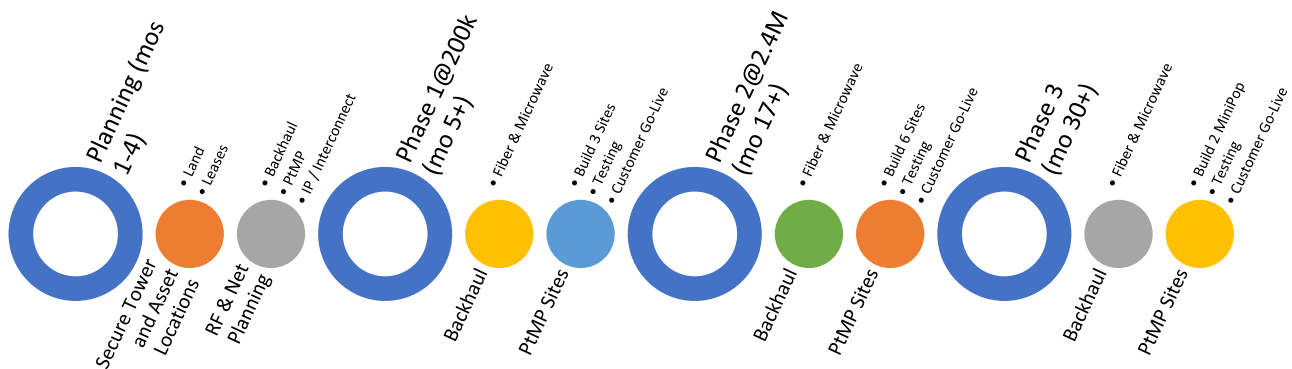
RiverStreet Networks plans to partner with Patrick County as follows:

1. Leveraging existing and new county-owned vertical assets and real estate to contain the equipment and facilities needed to deploy broadband.
2. RiverStreet may be able to provide infrastructure and connectivity between county offices, campus locations, fire and safety locations, educational locations, or anchor institutions.
3. RiverStreet Networks is committed to supporting the people and organizations that aim to make the communities we serve a strong place to live and work. In an effort to ensure the future is as strong as the past, RiverStreet Networks gives back to the communities it

serves. An example is through scholarship programs. Since the creation of this offering in 2002, the organization has awarded over \$250,000 to local high school seniors. We expect to extend this support to Patrick County.

4.4 TIMELINE AND PHASES

Summary: 3 year (36mos) Project Timeline



4.5 OWNERSHIP, LEGAL LIABILITY, AND OPERATION ASSUMPTIONS

Gamewood Technology Group and RiverStreet Communications of Virginia are two wholly-owned subsidiaries of Wilkes Telephone Membership Corporation, both operating as state-wide Competitive Local Exchange Carriers (CLEC) licensed in the state of Virginia. Wilkes Telephone Membership Corporation is an Independent Telephone Cooperative operating in the state of North Carolina. North Carolina Wireless is currently under a management agreement with Wilkes Telephone Membership Corporation and has agreed to a letter of intent for purchase by Wilkes Telephone Membership Corporation in July of this year. All entities will operate in conjunction to accomplish the project in Patrick County via the specified timeline.

Legal liability and obligation will reside with the parent company, Wilkes Telephone Membership Corporation, as it will be funding the \$100,000 cash infusion for the project and any additional funding to match 25% of VATI Grants. Gamewood provides the state license, and North Carolina Wireless will provide the engineering and construction obligation with assistance from RiverStreet Communications of Virginia. The network will be managed and maintained by RiverStreet Communications of Virginia and do business as RiverStreet Networks.

(See Legal Structure in Attachments Section)

5 COST ESTIMATES

5.1 DESIGN AND IMPLEMENTATION ESTIMATES

5.1.1 Phase I (\$100k Patrick Co + \$100K Wilkes TMC)

Site	Backhaul	Construction	Land & Lease	HW & Materials	Climbs	Eng. & Testing	Qty	Subtotal	
Existing Site									
CBRS Deploy + LoS	\$15,000		\$30,000	\$55,000	\$15,000	\$25,000	0	\$0	
LoS Deploy (2.4 & 5)	\$10,000		\$20,000	\$20,000	\$15,000	\$20,000	1	\$85,000	
Small LoS Deploy (2.4 & 5)	\$10,000		\$5,000	\$10,000	\$2,500	\$15,000	2	\$85,000	
NOC/Interconnect	\$15,000		\$10,000			\$5,000	1	\$30,000	
New Tower / Land									
CBRS Deployment + LoS	\$15,000	\$250,000	\$20,000	\$55,000	\$15,000	\$25,000	0	\$0	
LoS Deployment (2.4 & 5)	\$15,000	\$250,000	\$20,000	\$20,000	\$15,000	\$20,000	0	\$0	
Fiber Backhaul per mi	\$35,000						0		
Totals								\$200,000	
								\$200,000	Total
								\$100,000	Contribution
								\$100,000	Grant

5.1.2 Phase II (\$2.1M Vati + \$400k+ Wilkes TMC)

Site	Backhaul	Construction	Land & Lease	HW & Materials	Climbs	Eng. & Testing	Qty	Subtotal	
Existing Site									
CBRS Deploy + LoS	\$15,000		\$30,000	\$55,000	\$15,000	\$25,000	1	\$140,000	
LoS Deploy (2.4 & 5)	\$10,000		\$20,000	\$20,000	\$15,000	\$20,000	1	\$85,000	
Small LoS Deploy (2.4 & 5)	\$10,000		\$5,000	\$10,000	\$2,500	\$15,000	2	\$85,000	
NOC/Interconnect	\$15,000		\$10,000			\$5,000	0	\$0	
New Tower / Land									
CBRS Deployment + LoS	\$15,000	\$250,000	\$20,000	\$55,000	\$15,000	\$25,000	3	\$1,140,000	
LoS Deployment (2.4 & 5)	\$15,000	\$250,000	\$20,000	\$20,000	\$15,000	\$20,000	1	\$340,000	
Fiber Backhaul per mi	\$35,000						20	\$700,000	
Totals								\$2,490,000	
								\$2,490,000	Total
								\$400,000	Contribution
								\$2,090,000	Grant

5.2 EXAMPLE COST OF SERVICES OFFERED TO PUBLIC

- Minimum Contract Period: Monthly
 - No contract or term for Installations with standard build and engineering costs.
- Monthly Service Rates:
 - Residential: 25/3 @ \$35 per month
 - Small Office: 25/3 @ \$45 per month
 - Enterprise: 25/3 @ (to be quoted)
- Cost for CPE: Standard CPE Included
- Shipping Costs: None anticipated
- On-Site Service Installation Costs: None for Standard Installations
- Activation Fees: None for Standard Installations
- Cancellation Fees: None for Standard Installations

6 DEFINITIONS AND TERMS

AP - Access Point

BGP – Border gateway protocol, is a standardized exterior gateway protocol designed to exchange routing and reachability information among autonomous systems (AS) on the Internet. The protocol is often classified as a path vector protocol but is sometimes also classed as a distance-vector routing protocol.

CBRS - is a 150 MHz wide broadcast band of the 3.5 GHz band (3550 MHz to 3700 MHz) used for wireless communication and as of April 2020 will be managed using the SAS.

CPE - Customer premise equipment

Drop – the true last-mile, often feet of limited count fiber build out from the handhold or splice closure to the customer demarcation point.

IXP – Internet Exchange Point or a datacenter where multiple networks have facilities for interconnection.

LoS – Line of Sight, terminology used for Wireless Connections where there are no obstructions and no Fresnel zone issues. This is required for high modulations to provide fastest levels of throughput and system efficiency.

Micro-Cell - a localized version of a *POP* that is often on a smaller vertical asset such as a utility pole, grain elevator or rooftop. Typically network equipment is mounted within a NEMA type enclosure attached to the structure.

Minimum Requirements for Repeater or Micro-Cell – in order to accomplish sustainability NCW recommends a minimum threshold of service revenues to justify installation of this type of way-point.

NCW - North Carolina Wireless, LLC. a corporate entity licensed to do business in the state of North Carolina.

nLoS – Near line of sight, terminology used for Wireless Connections where there the tower can't be seen by the eye, typically these are light obstructions such as leaves or trees. nLoS does not include situations where terrain or hills are directly in the way.

OSPF - Open Shortest Path First is a routing protocol for Internet Protocol (IP) networks. It uses a link state routing (LSR) algorithm and falls into the group of interior routing protocols, operating within a single autonomous system (AS). It is defined as **OSPF** Version 2 in RFC 2328 (1998) for IPv4.

POP - Point of presence, generally seen as a major aggregation point for PtMP services and is often a tower but also can be a building or any major vertical asset for co-location.

PPP – Public Private Partnership

PtMP - Point to Multi-point, typical scenario where many end-users connect to a single access point sharing time and resources on that hardware.

PtP - Point to point, typically used for backhauling or enterprise customers

Repeater - somewhat similar to a *micro-cell* however it is typically co-located at a customer's location (home or business) and the owner is registered as an affiliate receiving a monthly residual for end-users who are serviced via the repeater.

SAS – spectrum access system - spectrum is managed and assigned on a dynamic, as-needed basis across three tiers of access. This takes into account location, time and availability.

UE – User Equipment

7 ATTACHMENTS

7.1 KEY MANAGEMENT PERSONNEL

President and CEO - Eric Cramer

Directs all activities of the company, cooperative network either directly or through subordinate managers. Interprets and implements board directed policies. Plans, directs and oversees all lines of business. Determines objectives, establishes operating procedures, and ensures the success of the organization within guidelines and authority established by the board. Ensures that all operations comply with applicable federal, state and local regulations. Represents organization with regulatory agencies, legislative bodies and industry associations. Evaluates new business opportunities and recommends new services to board. Oversees budget process and all long-term investments. Prepares financial forecasts, acquisition analysis and merger planning. Analyzes financials and presents to the board of directors. Oversees the strategic planning process by serving as the organizational expert in regulatory and financial management aligned with all business segments.

Jody Call - Chief Technology Officer

Responsible for the planning, implementation and administration of the company's broadband and IT Infrastructure, security and systems. Develops strategies for delivering leading edge services to a wide range of subscribers. Develops short- and long-range business plans. Develops budgets, authorizes expenditures and oversees projects to ensure business plan objectives are met. Researches new products, services and technologies. Evaluates market demand and makes recommendations to top management. Works with vendors to implement appropriate systems. Oversees the service, maintenance and upgrades to the network infrastructure. Directs activities of network operations installation/repair and support through subordinate managers. Directs telco plant operations, including managing the installation, replacement, removal and maintenance of transmission equipment and switching facilities. May direct activities of purchasing and network operations. Coordinates organization's safety program by ensuring implementation of safety policies and procedures. Completes and files accident reports. Conducts safety training and inspections.

Greg Coltrain - Vice President of Business Development

Gathers competitive information on products and services and makes recommendations for new business development activities. Maintains knowledge of industry changes and developments and directs efforts to identify, research and capitalize on business trends. Informs and educates community, state and industry leaders about the company's services, achievements and plans. Attracts media coverage of telco activities. Networks with state utility commission members and other industry leaders. Acts as a liaison between the telco and state and community groups to advance and promote local economic development projects. Manages project design, development and economic analysis and project lifecycle with the executive team. Seeks out potential partnerships, joint ventures, new product lines, and other business opportunities. Plans, directs and coordinates activities for existing or newly assigned regional projects to ensure that project goals are accomplished within the prescribed time frame. This would include but is not limited to developing supporting documentation, the management of all stakeholder facing activities and new program support as required. Manages changes in project scope and goals, and revises project plans. Manages budgets and timelines.

Chief Financial Officer - Kimberley Johnson

Duties include managing all accounting, financial and regulatory operations. Facilitates budget process and oversees audit functions. Develops financial policies and processes. Manages all accounting and financial operations. Specific responsibilities typically include receipts and disbursements, accounting and financial record keeping and reporting, short-term investments and management of cash flow, and tax return preparation. May negotiate terms of purchase and arrange for any necessary financing of major equipment and supplies. May research, recommend and administer long-term investments. Analyzes financial reports. Contributes to strategic planning process by serving as an organizational expert in financial management. May file all company compliance reports. Directs all human resources activities for the corporation, including recruiting and hiring, developing personnel policies and procedures, administering the collective bargaining agreement, maintaining personnel records, and ensuring compliance with federal, state, and local employment laws. Serves in an advisory role to members of the management team, providing professional advice on a wide range of human resource management related topics and activities.

Amanda Perry - Vice President of Sales and Marketing

Drafts, develops and executes marketing plans and strategies. Defines service plans for market segments. Conducts continuing appraisal of selling prices and market penetration. Maintains company's competitive position. Directs all marketing and sales activities through subordinate managers. Develops marketing and sales plans and oversees implementation of marketing and sales strategies and objectives. Develops sales forecasts and quotas. Directs the activities of the commercial department. Promotes and oversees sales of CPE and other equipment. Establishes and implements the company's public relations policy. Ensures that sales staff is informed of proper service and equipment charges. Forecasts system and subscriber growth. Advises operations and engineering departments on service area needs. May establish and administer credit policies for new subscribers. May ensure the accuracy of billing data and the security of customer accounts. May establish collection procedures and direct collection activities.

Jody Souther - Vice President of Network Engineering

Directs activities of outside plant and engineering, through subordinate managers. Develops short and long-range business plans. Develops budgets, authorizes expenditures and oversees projects to

ensure business plan objectives are met. Directs telco plant operations, including managing the construction, replacement, removal and maintenance of aerial and buried cable. Ensures that telco personnel understand RUS and Industry specifications, safety procedures and preventive maintenance operations, including bonding and grounding of digital switching equipment installations. Develops and maintains records to allow reference, analysis and monitoring of all plant components and equipment. Recommends major improvements to plant and equipment. Initiates or recommends purchases of equipment, tools and supplies.

Bill Shillito – NC Wireless, President

Experience of 16 years in WISP Industry. Retired Major from US Army, combat veteran. MBA at Harvard Business School and MBA Public Administration. Lead team member for enterprise sales, community planning and VIP customer relationships. Quotes NRE and MRC on non-standard accounts. Primary AR/AP. Special Projects and Project Management. Escalated non-standard Sales opportunities and backs up all departments as needed.

Joshua Strickland – NC Wireless, Partner/Co-Founder

Experience of 16 years in WISP Industry, 23 years in ISP and Service Provider Industry. BS of Computer Science from Lenoir Rhyne University. Grants, PPP Relationships (state and local) and new market development. Establishes vision and analysis of business case for new network expansions and mapping. Special projects usually with an emphasis on R&D, process optimization and training. Billing lead, backup AR. Escalated Technical issues and backs up all departments as needed.

7.2 TOWER AND POP PHOTOS

Ground Level HW Examples

A. Pole Mounted NEMA Cabinet in Avery Co NC



B. 2-Post Tower Rack in Person Co NC



C. Secured Rack Enclosure in Air Shaft





Backhaul (dual) via Water Tank

Base Station and Antenna HW Examples

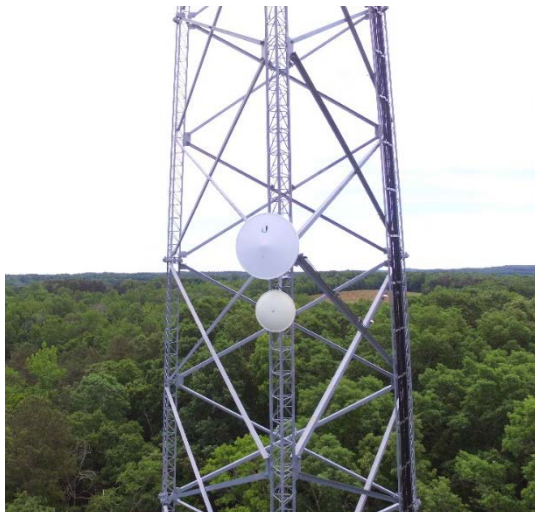
Tower Deployment in Person Co NC



CBRS 3.65GHz Sector and Base Station Display



Redundant Backhaul Antennas (parabolic)



7.3 CPE AND ENDPOINT PHOTOS



7.4 FINANCIAL DOCUMENTS (CONFIDENTIAL)

	2018 Consolidating Information										Consolidated				
	Wilkes Telephone Membership Corporation		Wilkes Communications, Inc.		Tri-County Telephone Membership Corporation		Tri-County Communications, Inc.		RiverStreet Management Services, LLC		RiverStreet Communications of NC, Inc.		Eliminating Entries	2018	December 31 2017
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017					
ASSETS															
Current assets:															
Cash and temporary investments	\$ 491,655	\$ 107,647	\$ 1,229,940	\$ 23,987	\$ 1,347,100	\$ 265,399	\$ 3,465,728	\$ 10,659,616							
Telecommunications accounts receivable (less allowances of \$562,193 in 2018 and \$126,887 in 2017)	1,311,676	4,421,467	339,918	480,134	412,218	(\$ 27,525,382)	2,063,812	1,305,254							
Accounts receivable - affiliates	20,428,486	648,074	2,042,967	88,998	152,328	(6,792)	1,831,419	1,017,750							
Other accounts receivable	2,696,922	24,239	88,998	29,297	1,076,880	28,800	2,725,722	12,229,678							
Investment in debt and equity securities	2,467,016	65,000	139,168	29,297	484,661	6,402	3,126,544	1,479,914							
Materials and supplies	740,873	4,618,373	356,905	533,418	125,075	72,475	1,360,326	466,112							
Prepayments	28,784,702	4,618,373	4,197,894	533,418	3,627,062	337,484	14,573,551	27,158,324							
Noncurrent assets:															
Notes receivable - affiliates	68,378	(53,290)	8,922,781	116,218	10,521,739	(10,521,739)	-	-							
Deferred charges	14,689,059	185,184	194,081	32,471	141,976	459,039	256,983	131,373							
Goodwill	22,800,102	16,192	9,116,862	148,689	30,229,403	(42,244,622)	19,424,923	3,411,941							
Investment in debt and equity securities	1,761,462	148,086	194,081	32,471	141,976	459,039	644,223	1,399,767							
Equity investments	39,319,001	14,397,403	22,043,406	102,356	75,186,545	7,783,256	228,700,904	142,773,945							
Investments - affiliates	55,125	(12,252)	243,821	4,023,047	4,132,518	390,198	5,122,289	10,332,927							
Other investments and notes receivable	105,569,603	14,385,151	22,287,227	3,872,138	52,367,515	396,670	233,878,318	153,161,997							
Property and equipment	265,648	7,251,471	17,228,078	150,909	26,951,548	7,776,784	138,269,006	77,524,539							
Plant in service	105,690,376	7,153,680	5,059,149	150,909	26,951,548	7,776,784	95,609,312	75,637,458							
Plant under construction	57,153,134	7,153,680	5,059,149	150,909	26,951,548	7,776,784	95,609,312	75,637,458							
Less, accumulated depreciation	48,537,242	7,153,680	5,059,149	150,909	26,951,548	7,776,784	95,609,312	75,637,458							
	\$ 116,640,945	\$ 11,900,139	\$ 18,373,905	\$ 833,016	\$ 60,808,013	\$ 8,573,307	\$ 147,359,321	\$ 122,800,694							

WILKES TELEPHONE MEMBERSHIP CORPORATION AND SUBSIDIARIES
CONSOLIDATING BALANCE SHEETS

Schedule 1

**NORTH CAROLINA
WILKES COUNTY**

CERTIFICATION

Raymond A. Parker, being first duly sworn, deposes and says:

I am an attorney licensed to practice law in the State of North Carolina. I currently serve as General Counsel of Wilkes Telephone Membership Corporation, and all of its subsidiary companies both in the State of North Carolina and in the State of Virginia.

I do hereby certify that neither Wilkes Telephone Membership Corporation, nor any of its subsidiary companies, have filed any petition in bankruptcy within the last ten years.

This 4th day of June, 2019.

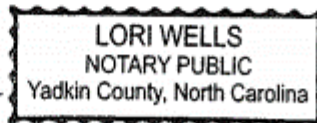


Raymond A. Parker, Attorney
131 Colony Lane
Elkin, NC 28621
NC State Bar #6321

Sworn to and subscribed before me, this 4th day of June, 2019.

 _____, Notary Public
Signature

Lori Wells
Printed Name



My commission expires: April 03, 2024

7.5 CERTIFICATES



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That RiverStreet Communications of Virginia, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is October 2, 2015;

That the period of its duration is perpetual; and

That the corporation is in existence and in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
June 6, 2019*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1906065416

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Gamewood Technology Group, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is November 5, 2010;

That the period of its duration is perpetual; and

That the corporation is in existence and in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
June 6, 2019*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1906065409



NORTH CAROLINA Department of the Secretary of State

CERTIFICATE OF EXISTENCE (Limited Liability Company)

I, Elaine F. Marshall, Secretary of State of the State of North Carolina, do hereby certify that

NORTH CAROLINA WIRELESS, LLC

is a limited liability company duly formed, and existing under the laws of the State of North Carolina, having been formed on 30th day of May, 2003

I FURTHER certify that, as of the date of this certificate, (i) the said limited liability company is not dissolved under the terms of its articles of organization, (ii) the said limited liability company's articles of organization are not suspended for failure to comply with the Revenue Act of the State of North Carolina, (iii) that said limited liability company is not administratively dissolved for failure to comply with the provisions of the North Carolina Limited Liability Company Act, (iv) that this office has not filed any decree of judicial dissolution, articles of dissolution, articles of merger, or articles of conversion for said limited liability company.



Scan to verify online.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Raleigh, this 6th day of June, 2019.

Elaine F. Marshall

Secretary of State

Certification# 105134529-1 Reference# 15442568- Page: 1 of 1
Verify this certificate online at <http://www.sosnc.gov/verification>



NORTH CAROLINA Department of the Secretary of State

CERTIFICATE OF EXISTENCE

I, **ELAINE F. MARSHALL**, Secretary of State of the State of North Carolina, do hereby certify that

WILKES TELEPHONE MEMBERSHIP CORPORATION

is a corporation duly created, organized and existing under the laws of the State of North Carolina, having been incorporated pursuant to the provisions of Chapter 117, Public Laws of North Carolina, by Certificate of Incorporation dated the 24th day of August, 1951.

I **FURTHER** certify that the said Wilkes Telephone Membership Corporation is an active North Carolina corporation, and that the said corporation has not filed a Certificate of Dissolution and continues to be in existence in this State as of the date of this certificate.



Scan to verify online.

Certification# 105027625-1 Reference# 15405352- Page: 1 of 1
Verify this certificate online at <http://www.sosnc.gov/verification>

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Raleigh, this 16th day of May, 2019.

Elaine F. Marshall


Secretary of State

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500


EXPIRES ON
06-30-2020

NUMBER
2705107938

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
"CLASSIFICATIONS" ESC FAS



GAMEWOOD TECHNOLOGY GROUP INC
165 DEER RUN ROAD
DANVILLE, VA 24540



Jimmy W. DeBorja
Jr. | Director | Director

Status can be verified at <https://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS) DPOR-LIC (02/2017)

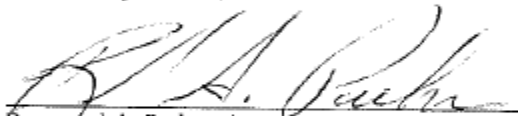
**NORTH CAROLINA
CERTIFICATION
WILKES COUNTY**

Raymond A. Parker, being first duly sworn, deposes and says:

I am an attorney licensed to practice law in the State of North Carolina. I currently serve as General Counsel of Wilkes Telephone Membership Corporation, and all of its subsidiary companies both in the State of North Carolina and in the State of Virginia.

I do hereby certify that Wilkes Telephone Membership Corporation and all of its subsidiary companies are in "Good Standing" and that none of these companies are currently debarred or suspended from business by any Federal, State or local government entity.

This 7th day of June, 2019.



Raymond A. Parker, Attorney
131 Colony Lane
Elkin, NC 28621
NC State Bar #6321

Sworn to and subscribed before me, this 7th day of June, 2019.

Lori Wells _____, Notary Public
Signature

Lori Wells _____
Printed Name

My commission expires: April 03, 2024

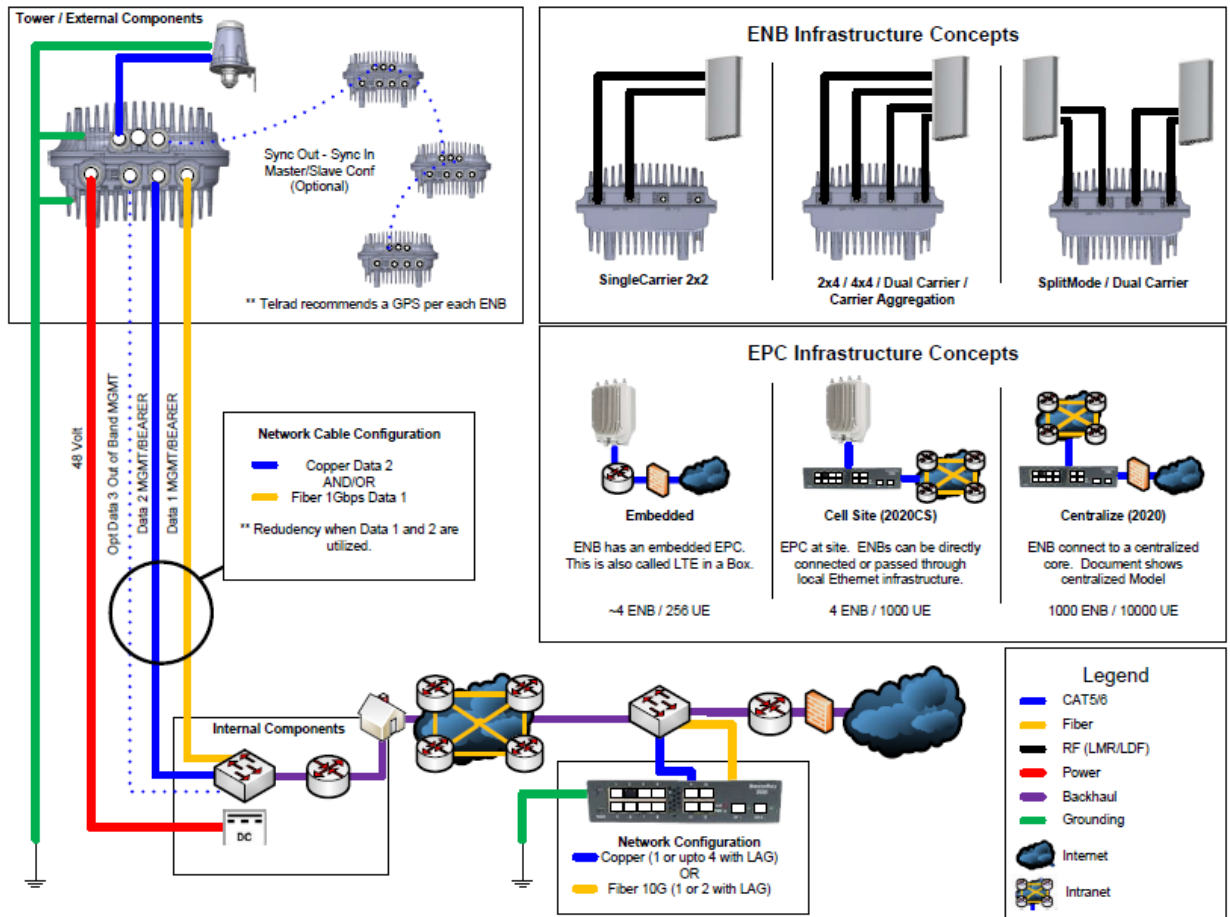


7.6 SPIN, FRN, EIN (CONFIDENTIAL)

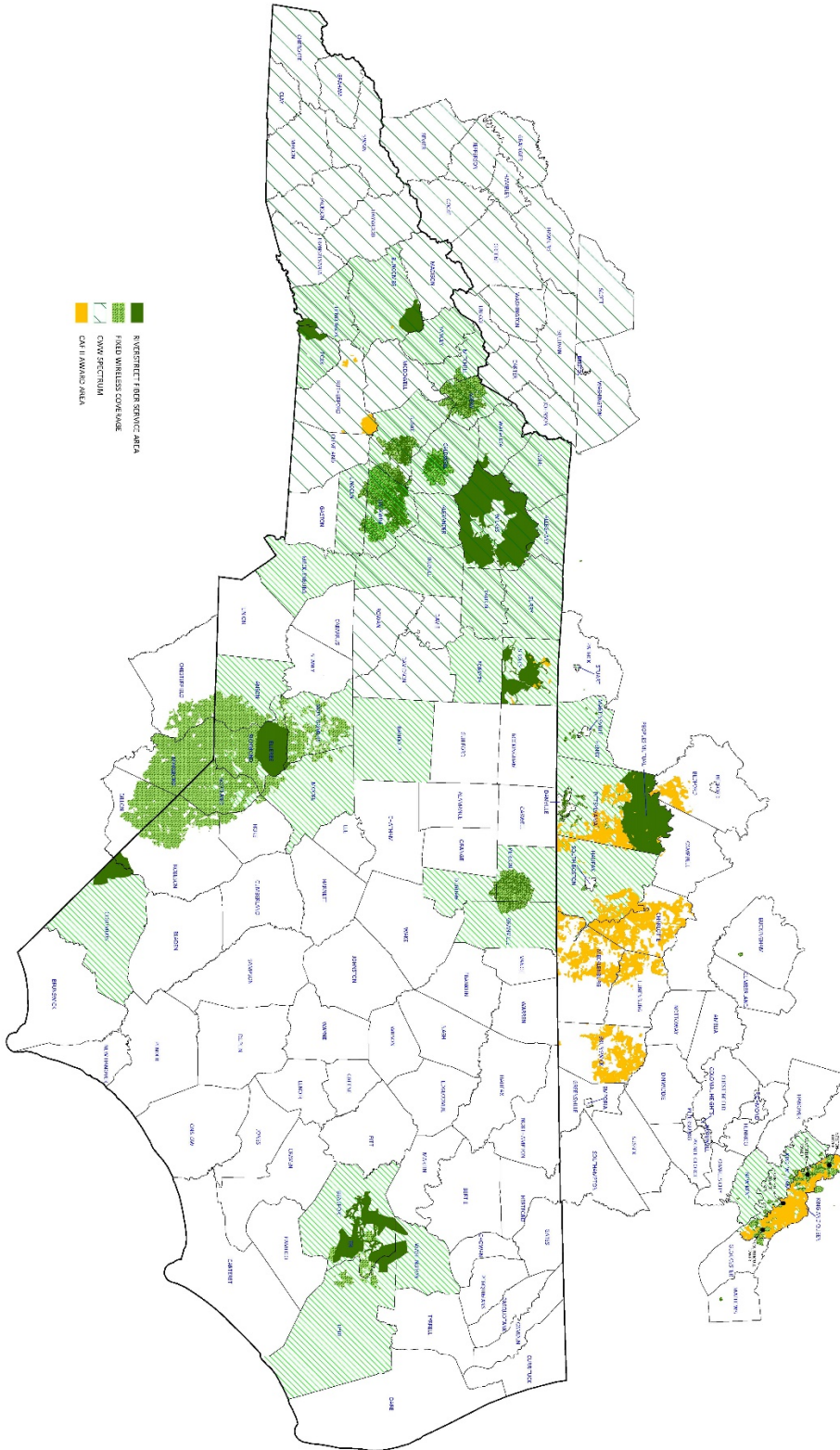
<u>Company Name</u>	<u>SPIN</u>	<u>EIN</u>	<u>FRN</u>
Gamewood Technology Group, Inc.	143035639	54-2005853	0028007763
RiverStreet Communications of VA	143048598	81-0784170	0025165903
Wilkes Telephone Membership Corp.	143001505	56-0652482	0003718426

7.7 DIAGRAMS

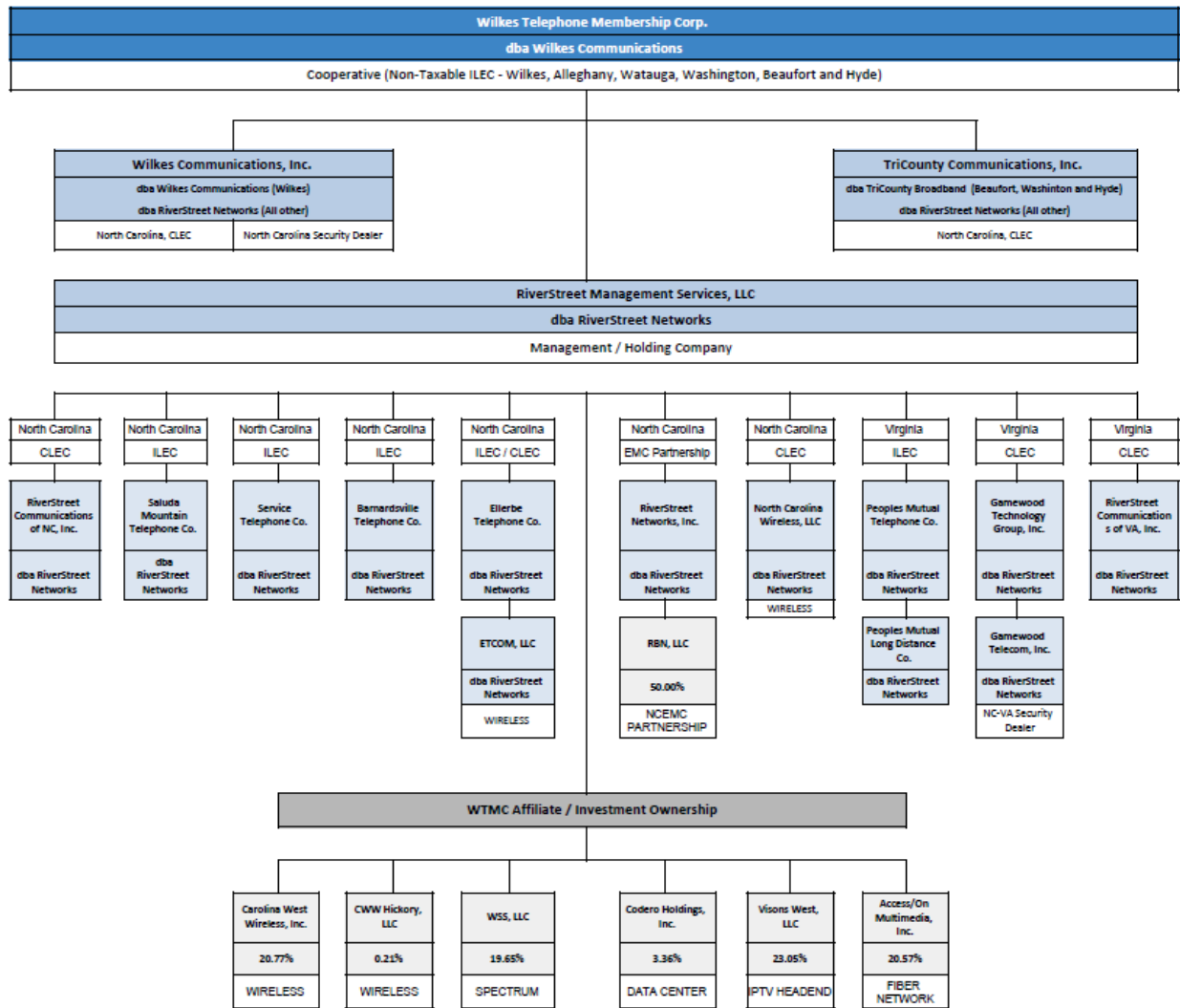
PtMP nLoS CBRS Cabling Diagram



Confidential



7.8 LEGAL STRUCTURE (CONFIDENTIAL)



7.9 SIGNATURE OF AUTHORIZED REPRESENTATIVE

RiverStreet Communications of Virginia, Inc.

a Virginia Corporation

1400 River Street

Wilkesboro, NC 28697

336-973-3103

Jody R. Call: Chief Technology Officer, Authorized Representative

Date: 07-15-2019

Gamewood Technology Group, Inc.,

a Virginia Corporation (address same as above)

Jody R. Call: Chief Technology Officer, Authorized Representative

Date: 07-15-2019

Gamewood Telecom, Inc.,

a Virginia Corporation (address same as above)

Jody R. Call: Chief Technology Officer, Authorized Representative

Date: 07-15-2019

7.9 SIGNATURE OF AUTHORIZED REPRESENTATIVE

Wilkes TMC

Updated: 15-Jul-19

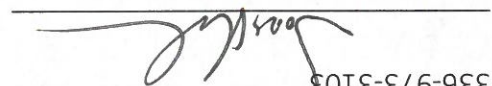
RiverStreet Communications of Virginia, Inc.

a Virginia Corporation

1400 River Street

Wilkesboro, NC 28697

336-973-3103



Jody R. Call: Chief Technology Officer, Authorized Representative

Date: 07-15-2019

Gamewood Technology Group, Inc.

a Virginia Corporation (address same as above)



Jody R. Call: Chief Technology Officer, Authorized Representative

Date: 07-15-2019

Gamewood Telecom, Inc.

a Virginia Corporation (address same as above)



Jody R. Call: Chief Technology Officer, Authorized Representative

Date: 07-15-2019