Application to DHCD Submitted through CAMS

Craig County

VATI 2026_Craig County Broadband

Application ID:	134210092026135741
Application Status:	Pending
Program Name:	Virginia Telecommunication Initiative 2026
Organization Name:	Craig County
Organization Address:	108 Court Street New Castle, Va 24127
Profile Manager Name:	Dan Collins
Profile Manager Phone:	
Profile Manager Email:	hokiedc@lumos.net

Project Name:	VATI 2026_Craig County Broadband
Project Contact Name:	Dan Collins
Project Contact Phone:	(540) 864-5010
Project Contact Email:	dcollins@craigcountyva.gov
Project Location:	108 Court Street New Castle, VA 24127-0308
Project Service Area:	Craig County, New Castle Town

Total Requested Amount: $9,855,114.00

Required Annual Audit Status: Accepted

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Administration	**$100,000.00**	**$0.00**	**$100,000.00**
Administration	$100,000.00	$0.00	$100,000.00
Construction	**$8,733,959.00**	**$2,308,699.00**	**$11,042,658.00**
Construction	$8,733,959.00	$2,308,699.00	$11,042,658.00
Construction Related Soft Costs	**$1,021,155.00**	**$279,229.00**	**$1,300,384.00**
Construction Related Soft Costs	$1,021,155.00	$279,229.00	$1,300,384.00
Total:	**$9,855,114.00**	**$2,587,928.00**	**$12,443,042.00**

Budget Narrative:

Questions and Responses:

1. **Cost Efficiency**

   Budget: Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. *Label Attachments: Attachment 1 – Derivation of Costs (please use the template provided); Attachment 2 - Documentation of Supporting Cost Estimates.*

Answer:

The total project cost is $12,443,042 , allocated among construction, construction-related soft costs, and administration as follows:

Budget Category	Amount
Construction	$11,042,658
Construction-Related Soft Costs	$1,300,384
Administration	$100,000

Total Project Costs	
	$12,443,042

The project budget is further delineated across seven (7) service areas, with the following cost allocations:

Service Area	Budgeted Cost
Route 42 Corridor	$3,689,364.19
Upper Craig's Creek	$2,167,103.83
Maggie	$1,617,195.36
Dick's Creek (658 to 311)	$2,381,450.59
Simmonsville C1	$723,923.83
Simmonsville C2	$699,164.34
Simmonsville C3	$738,051.85
Total Service Area Costs	$12,016,254.00

In addition to the service area costs, the project includes the following in-kind match contributions:

In-Kind Match Contribution

	Amount
Craig Creek Transport	$344,908.00
Newport to Rt 42 Corridor/Maggie	$81,880.00
Total In-Kind Match	$426,788.00

The service area costs and in-kind contributions are detailed in Attachment 1 – Derivation of Costs and supported by Attachment 2 – Documentation of Supporting Cost Estimates .

Construction costs include buried fiber, aerial fiber, common transport fiber, drops and Optical Network Terminals (ONTs), access/switching equipment, and electronic site equipment. Construction-related soft costs include engineering and other project-related expenses associated with design, staking, and permitting (CRSC-Engineering). Administration costs support the management and oversight of the project.

The budget identifies the allocation of eligible project costs between Virginia Telecommunications Initiative (VATI) grant funds and PemTel's matching contribution. The Craig Transport and Newport Feeds contributions are identified as in-kind match. The cost estimates were prepared by Mid-South Consulting Engineers using historical costs from active projects and current material costs to develop reasonable estimates for the proposed work.

Attachment 1 – Derivation of Costs provides the detailed budget breakdown by service area, project activity, and funding source. Attachment 2 – Documentation of Supporting Cost Estimates includes the supporting cost estimates and documentation used to substantiate the proposed budget.

2. The cost benefit index comprises state cost per unit passed. Individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:

   a. Total VATI funding request

   b. Number of serviceable units

Answer:

a. Total VATI funding request--$9,855,114

b. Number of serviceable units—1,094

$9,008.33/passing

3. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note that a minimum 20% match is required to be eligible for VATI, the co-applicant must provide 10% of the required match. If the co-applicant cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate provider investment. If applicants and co-applicants are seeking to include prior expended funds as matching funds, Attachment 5 must be completed. *Label Attachments: Attachment 3 - Funding Sources Table (please use template provided); Attachment 4 – Documentation of Match Funding; Attachment 5 – Prior Expended Match Form (please use template provided).*

Answer:

Craig County is requesting $9,855,114 in VATI funds which is 79% of total project costs. Of the requested $9,855,114 in VATI funds, $8,733,959 will go toward construction, $1,021,155 for construction related soft costs, and $100,000 for grant administration.

PemTel, the ISP, is also contributing $2,587,928 which is 21% of total project costs (see award letters in Attachment 2). Of this $2,587,928, $2,308,699 will go toward construction, and the remaining $279,229 is for construction related soft costs.

See the following:

Attachment 3 – Funding Sources Table

Attachment 4 – Documentation of match funding

Attachment 5– Prior Expended Match Form

4. Total Passings: Provide the number of total serviceable units in the project area. For projects with more than one service area, each service area must have delineated passing information. *Label Attachment: Attachment 6 – Passings Form.*

a. Of the total number of VATI passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.

b. If applicable, provide the number of passings that will require special construction costs, defined as a one-time fee above normal service connection fees required to provide broadband access to a premise. Describe the methodology used for these projections.

c. If applicable, provide the number of passings included in the application that will receive broadband access because special construction costs have been budgeted in the VATI application. Describe the methodology used for determining which passings with special construction costs were budgeted in the application.

d. Provide the number of passings in the project area that have 25/3 Mbps or less. Describe the methodology used for these projections.

Answer:

1. **Total VATI Passing**—1,094 with 943 Residential, 195 Businesses (including 147 businesses, 47 home based businesses and 6 non-residential), and 3 Community Anchors.
2. **Special construction costs and customer charges**

   PemTel anticipates that zero passings will require an additional customer paid special construction fee above normal service connection charges under the proposed project.

   Based on PemTel's experience with previous grant-funded, loan-funded and privately financed rural builds, approximately 10% or fewer of passings have required nonstandard construction. The exact locations cannot be established at the high-level design stage. PemTel has absorbed these additional costs for customers in its previous grant areas and intends to follow the same approach for this project. New locations will be served through fiber infrastructure, consistent with PemTel's previous deployments.

3. **Passings supported by budgeted special construction allowances**

For planning purposes, PemTel estimates that approximately 60 passings on the current 595-location VATI application list may require nonstandard construction. This projection applies PemTel's historical upper-end incidence of 10% to the application passing count and rounds the resulting 59.5 locations to 60. It is a planning estimate rather than a confirmed list of individual premises.

The proposed project budget includes a $380,000 rock construction allowance, representing 4,000 feet at $95 per foot, and $1,122,406.17 in remaining contingency. The contingency provides a reserve for unforeseen construction requirements beyond the quantities and allowances already budgeted. These are project-wide allowances and are not assigned exclusively to the estimated 60 passings.

Individual requirements will be determined during detailed engineering and staking, considering connection distance, terrain, rock conditions, crossings and other departures from standard installation requirements. PemTel intends to accommodate these requirements within the project funding plan rather than assess additional special construction charges to grant-area customers.

d. Existing broadband availability

Based on the service-area assessment reported by PemTel and Craig County Administration, 1,090 of the 1,094 passings in the broader project service area have access to broadband service at 25 Mbps download and 3 Mbps upload or less. The remaining four passings are reported to have access to service at 100 Mbps download and 20 Mbps upload.

FCC Broadband Serviceable Location Fabric data provided the location reference for the assessment. Existing service availability was evaluated using PemTel's knowledge of its network and local broadband infrastructure, together with Craig County Administration's knowledge of service conditions in the area. These figures describe the broader project service area; the VATI application location roster is maintained separately.

5. **For wireless projects only:** Please explain the ownership of the proposed wireless infrastructure. Please describe if the co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed. Also, provide an estimate of the number of simultaneous subscribers that can be served in an area at the chosen speed.

Answer:

N/A

6. Network Design: Provide a description of the network system design used to deliver broadband service from the network's primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. Provide information on how capacity for scalability, or expansion, of how the network can adapt to future needs. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. **For wireless projects**, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. *Label Map: Attachment 7 – Propagation Map Wireless Project.*

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Answer:

Network Description: The proposed project consists of 45 miles buried, 122 miles aerial, and 18 miles common area transport fiber for 185 miles, excluding drops. The buried fiber will be built within previously disturbed public highway rights-of-way, and the aerial fiber will be built on existing pole lines. The distribution will consist of 167 miles of fiber with a dedicated fiber to each premise from one of the seven PON splitter locations in the proposed service areas.

Splitter cabinets will be mounted on the state rights-of-way and preexisting PemTel easements. Calix XGS-PON access equipment will be added to preexisting cabinets in the Highway 42 areas and two new cabinets will be added one for the Rt 658 and one for the Craig's Creek locations.

Transport fibers will be used to feed the splitter cabinets located throughout the service area from the various equipment locations. Redundant 10G transport rings will transport the broadband service from each access equipment location to the primary internet points at the Newport Central office then back to the Pembroke Host office via redundant paths. At the Pembroke office, the broadband is aggregated and transported to GCR (10G) and the Citizens Telephone Cooperative (10G).

Internet traffic is carried by MBC and Citizens then managed by NRTC. The existing 20 Gbps of internet capacity will be increased as required. The existing local 10G redundant transport rings will be increased to 100G when needed. The proposed Calix XGS-PON access equipment will provide up to 1Gbps synchronous broadband with the capability of doing 10Gbps synchronous and voice to every premise.

Scalability:

Splitter cabinets will be mounted on the state rights-of-way and preexisting PemTel easements. Calix XGS-PON access equipment be added to preexisting cabinets in the Highway 42 areas and two new cabinets will be added one for the Rt 658 and one for the Craig's Creek location.

Transport fibers will be used to feed the splitter cabinets located throughout the service area from the various equipment locations. Redundant 10G transport rings will transport the broadband service from each access equipment location to the Newport Central office and then back to the primary internet point at the Pembroke Host office. At the Pembroke office, the broadband is aggregated and transported to GCR (10G) and the Citizens Telephone Cooperative (10G).

Internet traffic is carried by MBC and Citizens then managed by NRTC. The existing 20 Gbps of internet capacity will be increased as required. The existing local 10G redundant transport ring will be increased to 100G when needed. The proposed Calix XGS-PON access equipment will provide up to 1Gbps synchronous broadband with the capability to deliver 10 Gbps synchronous and voice to every premise. The construction of dedicated fiber to each premise ensures that future increases in bandwidth will be available as the need arises.

Scalability:

Splitter cabinets will be mounted on the state rights-of-way and preexisting PemTel easements. Calix XGS-PON access equipment will be added to the current equipment cabinets in the Highway 42 areas and two new cabinets will be added one for the Rt 658 and one for the Craig's Creek locations.

Transport fibers will be used to feed the splitter cabinets located throughout the service area from the various equipment locations. Redundant 10/100G transport rings will transport the broadband service from each access equipment location to Newport and then back to the primary internet point at the Pembroke Host office. At the Pembroke office, the broadband is aggregated and transported to GCR (10G) and the Citizens Telephone Cooperative (10G).

Internet traffic is carried by MBC and Citizens then managed by NRTC. The existing 20 Gbps of internet capacity will be increased as required. The existing local 10G redundant transport ring will be increased to 100G when needed. The proposed Calix XGS-PON access equipment will provide up to 1Gbps synchronous broadband with the capability to deliver 10 Gbps synchronous and voice to every premise.

Scalability: PemTel's proposal for broadband expansion in Craig County is designed with scalability at its core, ensuring

the network can grow in reach and bandwidth to meet future demands. Key elements of this scalable approach include:

Advanced G-PON Network Deployment: Utilizing Gigabit-capable Passive Optical Network

(PON) technology, PemTel plans to provide high-speed broadband service with bandwidths up to 10 Gbp. This technology is ideal for the proposed rural service areas, offering significant capacity for future expansion.

Strategic Network Integration: The new service areas will seamlessly integrate with existing networks through a dual 10G ERPS ring extension. This setup, supported by a robust Cisco redundant router system, is scalable up to 100 Gbps, with budget plans on replacing the routers in 2027 with new terabyte Cisco routers capable of doing 400 Gbps per port ensuring longevity and adaptability of the infrastructure.

Enhanced Network Reliability and Speed: The design includes service rings and redundant uplinks for increased network reliability. With fiber optics, network failover can occur rapidly, and the system's speed is only limited by the connecting hardware, which can evolve to speeds over 10 Gbps and beyond.

Complete PON Build-Out with Calix Technology: Aiming for a 100% build-out in the proposed area using Calix XGS-PON, PemTel's design allows for easy upgrades to even faster technologies like 100G PON with minimal equipment changes.

In summary, PemTel's plan effectively addresses the need for a scalable, reliable, and future-proof broadband networks in Craig County, ensuring it can adapt and expand to meet evolving community needs. PemTel has a proven track record with fiber grant builds on the Local, State, and Federal levels and has built some of the most robust networks in Craig, Giles and Montgomery Counties.

7. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the co-applicant's tiered price structure for all speed offerings in the proposed project area, including all speed offerings. Please note, DHCD reserves the right to request verified speed tests distributed throughout a service area at times of peak network usage from a co-applicant's existing network to verify a co-applicant's capability to provide broadband service at speeds at or above 100/20 Mbps. Describe the co-applicant's methodologies for conducting speed tests.

Answer:

The proposed Calix XGS-PON FTTP equipment will provide up to a symmetrical 10Gbps of broadband, VOIP, and Over-The-Top Video from each customer location in the service area to the existing Pembroke Host office. The broadband internet is then aggregated and routed via redundant facilities as described in Item 6 above. The construction of dedicated fiber to each premise and using XGS-PON architecture ensures that future increases in bandwidth will be available as the need arises. Voice is being provided from an existing softswitch located at the Pembroke office.

Rate Table with Rates:

MAX DOWNLOAD SPEED

MAX UPLOAD SPEED

MONTHLY RATE WHEN COMBINED WITH ACTIVE TELEPHONE

LONG DISTANCE MINUTES OF USE INCLUDED WITH PLAN

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MONTHLY RATE WITHOUT ACTIVE TELEPHONE

RES

25

3

$69.95

0

$79.95

RES

100

100

$74.95

0

$84.95

RES

500

500

$89.95

0

$99.95

RES

1GB

1GB

$104.95

0

$114.95

*BUS

100

100

$114.95

100

$124.95

*BUS

500

500

$179.95

200

$189.95

*BUS

1GB

1GB

$274.95

300

$284.95

*BUS Internet plans include priority service

** BUS Internet plans purchased alongside telephone service include nationwide long distance minutes at no additional charge.

Speed testing is conducted in accordance with USAC's Performance Testing requirements.

These tests are run monthly on a sample of subscribers selected by USAC at random. Tests are performed between 6:00 pm and 12:00 am with tests running hourly to assure that services are meeting the minimum service standards. Current testing standards are set to assure speeds of at least 100/20. Testing is performed by Calix.

Testing can be performed by PemTel upon request from the Central Office on an individual

Customer basis. Customers may also run speed tests using the Command IQ app or by visiting www.speedtest.net.

8. **Project Readiness**

Describe the current state of project development, including but not limited to planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants are encouraged to extensively discuss, where applicable, easements relating to railroad crossings, federally owned lands and parks, partnerships with the Virginia Department of Transportation, and mobile home parks. Applicants must include Memorandums of Understanding (MOUs)or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). *Label Attachments: Attachment 8 – Timeline/Project Management Plan; Attachment 9 – MOU/MOA between Applicant/Co-Applicant.*

Please note that applicants are required to complete their network construction within 18 months. Points will be awarded based on the number of months the applicant commits to completing the network build in the specified locality, with shorter timelines receiving higher scores.

Answer:

The design of this project is consistent with other successful fiber-to-the-home deployments that PemTel has undertaken and completed in the past. The process typically begins by finalizing a field design. Activities that coincide with field design include material purchase and acquisition of required permits and easements. Shortly after, the remote site is installed, remote equipment is installed, and remote equipment testing occurs. As this is completed, the distribution and transport of fiber, along with fiber splicing and testing begins. Finally, drops are installed and tested. Customers are connected, and speeds are tested. This project is expected to take approximately One and half (1.5) years to complete since there are a significant number of proposed subscribers and the area is mountainous and rural. PemTel has completed the final field design and field staking for the Craig County Project Area. For more information regarding the proposed project timeline and responsible persons, please refer to Attachment 8a-Timeline or 8-Timeline/Project Management Plan. A draft MOU (Attachment 9-MOU/MOA between Applicant/Co-Applicant) has been provided for this grant application. If the VATI grant is awarded, Craig County and PemTel will enter a formal agreement/contract upon a funding announcement for the proposed project.

9. Has the applicant or co-applicant received any VATI grants? If so, provide a list of these grants, with a detailed summary of the status of each.

Answer:

Co-Applicant: Pembroke Telephone Cooperative (PemTel)

PemTel has extensive experience managing grant-funded broadband projects and constructing fiber-optic infrastructure. The Cooperative has received funding through the Appalachian Regional Commission (ARC), VATI, and the U.S. Department of Agriculture Rural Utilities Service (USDA-RUS). Its current VATI award is summarized below.

VATI 2024 Giles County Route 100/Route 42 Corridor Broadband Project

- Project location: White Gate, Wilburn Valley, Staffordsville, and Broad Hollow areas of Giles County, Virginia.
- Contractual construction commitment: 103 miles of fiber-optic infrastructure.
- Service commitments: 629 serviceable units, including 9 businesses and 3 community anchor institutions (CAIs).
- Planned service speeds: Up to 1,000 Mbps symmetrical upload and download speeds.
- Contract deadline: January 21, 2026.

Project status: The project is in the final stages of construction. PemTel has completed approximately 95 miles of fiber construction and established 562 passings toward its contractual commitment of 629 serviceable units. Approximately 8 additional miles of fiber remain to be placed, with most of the remaining work consisting of fiber splicing and customer drops. The project is progressing toward completion, with construction and remaining installation activities focused on fulfilling the project's service commitments.

This project demonstrates PemTel's experience managing a VATI-funded broadband infrastructure project, coordinating fiber construction and installation, tracking progress against contractual milestones, and expanding high-speed broadband access to unserved and underserved rural communities.

Together, Craig County's grant administration experience and PemTel's established record of managing and constructing grant-funded broadband infrastructure provide a strong foundation for implementing the proposed project.

10. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co-applicant’s history and experience with managing grants and constructing broadband communication facilities.

Answer:

Craig County has experience applying for state broadband funding through the Virginia Telecommunications Initiative (VATI), having submitted multiple applications, although these applications were not funded. The County has administered grants for other purposes and brings experience with grant administration, local coordination, and public infrastructure needs.

The co-applicant, Pembroke Telephone Cooperative (PemTel), has extensive experience managing grant-funded projects and constructing broadband communication facilities. PemTel has secured and administered funding through the Appalachian Regional Commission (ARC), Virginia Telecommunication Imitative Grant (VATI) from the Virginia Department of Housing and Community Development (DHCD), and USDA Rural Utilities Service (RUS) loan programs to support broadband infrastructure development and expansion.

Additionally, PemTel is implementing the VATI 2024 Giles County Broadband Project, which is nearing construction completion within its original project timeline and without contract extensions. This project demonstrates experience coordinating broadband construction, managing project schedules, and delivering grant-funded infrastructure.

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11. Provide a CSV attachment for Directly Affected Project Passings. *Label attachment: Attachment 10 - CSV of Affected Locations.*

    Type "N/A" in the narrative response box.

Answer:

N/A

12. Provide any other information that the applicant desires to include. Applicants are limited to four additional attachments. *Label Additional Attachments as: Attachment 11 – XXXXXXX; Attachment 12 – XXXXXXX; Attachment 13 – XXXXXXX.*

Answer:

Attachment #11_Letters of Support

Attachment #12_RFP and Award Letter

Attachment #13_Marketing Plan

Attachments:

Derivation of Costs Form

Attachment1DerivationofCostCraigCo_10292026113830.pdf

Funding Sources Table

Attachment3FundingSourcesTableCraigCo_10292026113903.pdf

Prior Expended Match Form, if applicable

Attachment5PriorExpendedMatchFormCraigCo_10292026122610.pdf

Documentation of Match Funding

Attachment4DocumentationofMatchFunding_10292026122648.pdf

Project Timeline

Attachment8aTimelineCraigCo_10292026122715.xlsx

(Optional) - Attachment || Documentation supporting project costs

Attachment2DocumentationSupportingCostEstimatesCraigCo_1029202615508.pdf

(Optional) - Attachment || Passings Form

Attachment6PassingsFormCraigCo_1029202651205.pdf

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(Optional) - Attachment || Project Management Plan with Timeline

Attachment8TimelineProjectMgmtPlanCraigCo_1029202620217.pdf

(Optional) - Attachment || CVS of Affected Locations

Attachment10CSVofAffectedLocationsCraigCo_1029202622042.pdf

(Optional) - Attachment || MOU between Craig County and PemTel

Attachment9MOUCraigCo_1029202621532.pdf

(Optional) - Attachment || Letters of Support

Attachment11LettersofSupportCraigCo_1029202622351.zip

(Optional) - Attachment || Craig County RFP and Award Letter

Attachment12AwardLTRRFP_1029202622511.pdf

(Optional) - Attachment || PemTel Marketing Plan

Attachment13MARKETINGPLANCraigCo_1029202622953.pdf

Craig County Narrative Response Revisions

Question 6: **Network Design: Provide a description of the network system design used to deliver broadband service from the network's primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. Provide information on how capacity for scalability, or expansion, of how the network can adapt to future needs. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 7 – Propagation Map Wireless Project.**

Network Description: The proposed project consists of 45 miles of buried, 122 miles of aerial, and 18 miles of common area transport fiber for 185 miles, excluding drops. The buried fiber will be built within previously disturbed public highway rights-of-way, and the aerial fiber will be built on existing pole lines. The distribution will consist of 167 miles of fiber with a dedicated fiber to each premise from one of the seven PON splitter locations in the proposed service areas.

Splitter cabinets will be mounted on the state rights-of-way and preexisting PemTel easements. Calix XGS-PON access equipment be added to preexisting cabinets in the Highway 42 areas and two new cabinets will be added one for the Rt. 658 and one for the Craig's Creek location. Transport fibers will be used to feed the splitter cabinets located throughout the service area from the various equipment locations. Redundant 10G transport rings will transport the broadband service from each access equipment location to the Newport Central office and then back to the primary internet point at the Pembroke Host office. At the Pembroke office, the broadband is aggregated and transported to GCR (10G) and the Citizens Telephone Cooperative (10G).

Internet traffic is carried by MBC and Citizens then managed by NRTC. The existing 20 Gbps of internet capacity will be increased as required. The existing local 10G redundant transport ring will be increased to 100G when needed. The proposed Calix XGS-PON access equipment will provide up to 1Gbps synchronous broadband with the capability to deliver 10 Gbps synchronous and voice to every premise. The construction of dedicated fiber to each premise ensures that future increases in bandwidth will be available as the need arises.

Scalability: PemTel's proposal for broadband expansion in Craig County is designed with scalability at its core, ensuring the network can grow in reach and bandwidth to meet future demands. Key elements of this scalable approach include:

-Network monitoring: Proposed area being intergraded into PemTels new and current state-of-the-art network that is monitored 365 24/7 to ensure network reliability. This is not only done by PemTels experienced network team but also by multiple outside sources. These partnerships not only monitor network outage issues but other issues that could appear such as low fiber light levels, cyber-attacks or bottleneck issues for example that could occur preventing any interruption of service to the end user.

- Advanced G-PON Network Deployment: Utilizing Gigabit-capable Passive Optical Network (PON) technology, PemTel plans to provide high-speed broadband service with bandwidths up to 10 Gbp. This technology is ideal for the proposed rural service areas, offering significant capacity for future expansion.

- Strategic Network Integration: The new service areas will seamlessly integrate with existing networks through a dual 10G ERPS ring extension. This setup, supported by a robust Cisco redundant router system, is scalable up to 100 Gbps, with budgeted plans replacing the routers in 2027 with new terabyte Cisco routers capable of doing 400 Gbps per port ensuring longevity and adaptability of the infrastructure. (see CIW-Summary budgeted Access and Routing Equipment table shown).

USDA Rural Development
U.S. DEPARTMENT OF AGRICULTURE

CIW - Summary

Network and Access Equipment	Total Cost
Access Equipment	$ 649,400
Others (Specify)	$ 50,000
Routing Equipment	$ 120,000
Total Network and Access Equipment	**$ 819,400**

- Enhanced Network Reliability and Speed: The design includes service rings and redundant uplinks for increased network reliability. With fiber optics, network failover can occur rapidly, and the system's speed is only limited by the connecting hardware, which can evolve to speeds over 10 Gbps and beyond.

- Complete PON Build-Out with Calix Technology: Aiming for a 100% build-out in the proposed area using Calix XGS-PON, known for its efficiency in fiber-to-the home

networks, PemTel's design allows for easy upgrades to even faster technologies like 100G PON with minimal equipment changes.

- High Subscriber Take Rate and Future-Proofing: Anticipating a 70% take rate, the network is designed with additional capacity for both expected and unexpected growth, underscoring PemTel's commitment to future-proofing its infrastructure.

- Proven Expansion Model: The scalability of Calix technology optical networks, successfully replicated and expanded nationwide, demonstrates PemTel's ability to scale up efficiently.

- Active Stakeholder Engagement: PemTel's history of collaboration with local stakeholders, including County Government, residents, and businesses, supports a demand-driven approach to network scaling.

In summary, PemTel's plan effectively addresses the need for a scalable, reliable, and future-proof broadband networks in Craig County, ensuring it can adapt and expand to meet evolving community needs. PemTel has a proven track record delivering what it has promised when it comes to fiber grant builds on the Local, State, and Federal levels and has built some of the most robust networks in Craig, Giles and Montgomery Counties.

Question 9: **Has the applicant or co-applicant received any VATI grants? If so, provide a list of these grants, with a detailed summary of the status of each.**

Co-Applicant: Pembroke Telephone Cooperative (PemTel)

PemTel has extensive experience managing grant-funded broadband projects and constructing fiber-optic infrastructure. The Cooperative has received funding through the Appalachian Regional Commission (ARC), VATI, and the U.S. Department of Agriculture Rural Utilities Service (USDA-RUS). Its current VATI award is summarized below.

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- **Contractual construction commitment:** 103 miles of fiber-optic infrastructure.
- **Service commitments:** 629 serviceable units, including 9 businesses and 3 community anchor institutions (CAIs).
- **Planned service speeds:** Up to 1,000 Mbps symmetrical upload and download speeds.
- **Contract deadline:** January 21, 2026.

Project status: The project is in the final stages of construction. PemTel has completed approximately 95 miles of fiber construction and established 562 passings toward its contractual commitment of 629 serviceable units. Approximately 8 additional miles of fiber remain to be placed, with most of the remaining work consisting of fiber splicing and customer drops. The project is progressing toward completion, with construction and remaining installation activities focused on fulfilling the project's service commitments.

This project demonstrates PemTel's experience managing a VATI-funded broadband infrastructure project, coordinating fiber construction and installation, tracking progress against contractual milestones, and expanding high-speed broadband access to unserved and underserved rural communities.

Together, Craig County's grant administration experience and PemTel's established record of managing and constructing grant-funded broadband infrastructure provide a strong foundation for implementing the proposed project.

Craig County has submitted applications for the Virginia Telecommunications Initiative (VATI) but has not received a VATI award. Although these applications were not funded, the

County has experience applying for competitive broadband funding and administering state and federal grants for other purposes. This experience provides a foundation for coordinating

grant-funded infrastructure projects, managing public funds, and fulfilling grant administration requirements.

Product	Total	VATI	Non-VATI	Source of Estimate
EXAMPLE				
Construction				
200 LF of fiber @$150/LF	$30,000	$15,000	$15,000	Company A
Tower	$100,000	$80,000	$20,000	Company B
Engineering	$20,000	$0	$20,000	ABC Engineering Firm

Product	Total	VATI	Non-VATI	Source of Estimate
CRSC-Eng for Design, Field Staking & Permits,	$ 1,300,384	$ 1,021,155	$ 279,229	*Mid-South Consulting Eng*
Construction	$ 11,042,658	$ 8,733,959	$ 2,308,699	*Mid-South Consulting Eng*
Admin	$ 100,000	$ 100,000	$ -	*NRVRC*
Totals	$ 12,443,042	$ 9,855,114	$ 2,587,928	
Percentage		79%	21%	

Date
9/5/16
9/5/16
9/5/16

Date
10/21/26
10/22/26
10/23/26

Pembroke Tel - VATI project

Final project budget and engineering package

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Project	Proposed build	Proposed grant match	Planning passings	Original match passings	Total project passings
42 Corridor	$3,689,364.19	-	359	-	359
Upper Craig's Creek	$2,167,103.83	-	195	-	195
Maggie	$1,617,195.36	-	98	-	98
Dick's Creek 658 to 311	$2,381,450.59	-	224	-	224
Simmonsville C1	-	$723,923.83	-	66	66
Simmonsville C2	-	$699,164.34	-	90	90
Simmonsville C3	-	$738,051.85	-	62	62
Prior Craig transport	-	$344,908.00	-	-	-
Prior Newport feeds	-	$81,880.00	-	-	-
TOTAL	**$9,855,113.98**	**$2,587,928.02**	**876**	**218**	**1,094**

Combined cost	Proposed-build cost / total project passing	Modeled new grant (80%)	New cash contribution (20%)
$12,443,042.00	$9,008.33	$7,884,091.18	$1,971,022.80

$9,855,113.98 proposed build / 1,094 total project passings = $9,008.33 per passing. The numerator includes application administration and excludes original match costs.

Pembroke Tel’s Craig County program brings the proposed fiber expansions, transport connections and original match projects into one coordinated application package. Area budgets, engineering maps and location schedules support a clear view of the investment and the communities it is planned to serve.

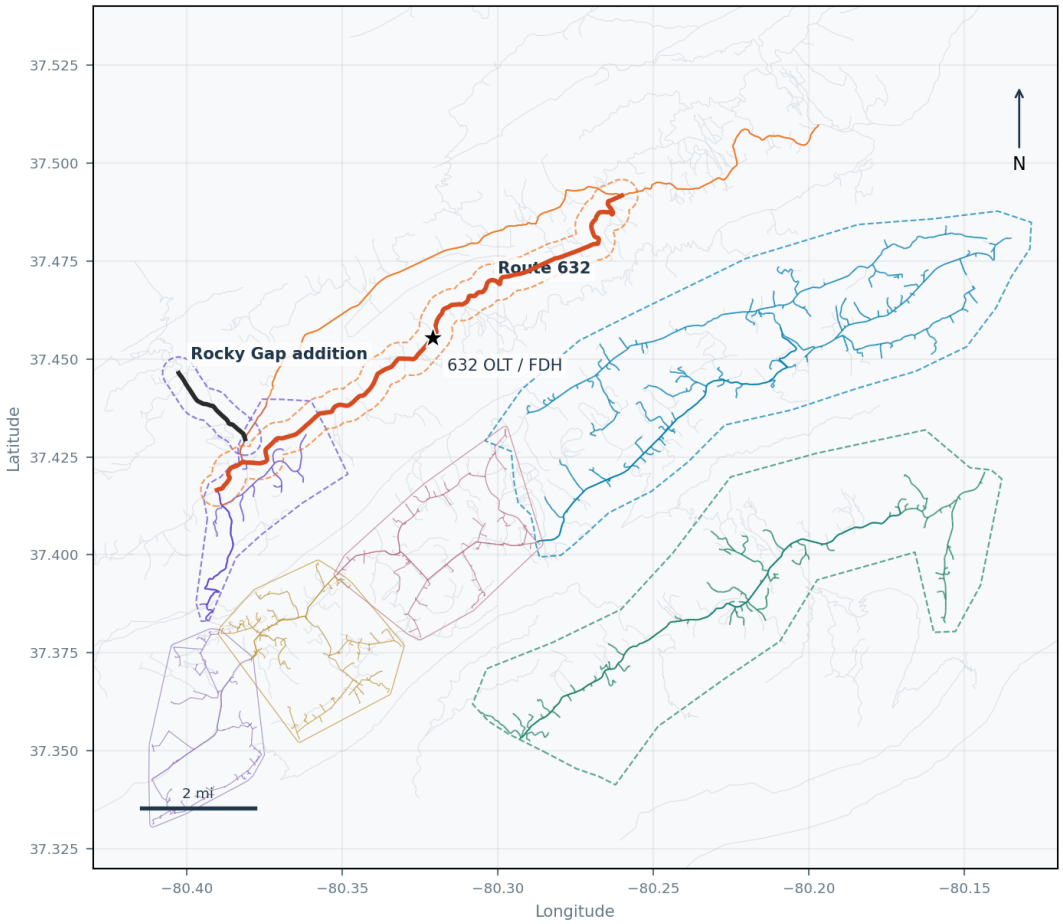
Included: 438 drops at 50% take; 4,000 ft BM71 at $95/ft; $25,000 traffic control; $20,000 ROW clearing; aerial strand at $0.79/ft; $100,000 application administration.

Engineering, design, staking and permitting: $921,155.26, including $150,000 allocated from contingency. Remaining contingency: $1,122,406.17. Administration remains $100,000. Totals use unrounded calculations; funding shares remain modeled.

All project areas

Proposed projects and original grant-match projects

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- 42 Corridor
- Upper Craig's Creek
- Maggie
- 658 / 311
- Simmonsville C1
- Simmonsville C2
- Simmonsville C3
- Maggie addition
- Route 632 addition
- Planning boundary

Proposed build

$9,855,113.98

Proposed grant match

$2,587,928.02

Total project passings

1,094

Cost / total project passing

$9,008.33

Proposed grant match

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Original project costs and source passing counts

Project / item	Construction	Engineering	Total	Length (ft)	Original passings
Simmonsville C1	$676,353.83	$47,570.00	$723,923.83	-	66
Simmonsville C2	$616,633.34	$82,531.00	$699,164.34	-	90
Simmonsville C3	$697,831.85	$40,220.00	$738,051.85	-	62
Craig CO96 aerial	$42,000.00	$0.00	$42,000.00	8,980	-
Craig BFO96 buried	$194,000.00	$0.00	$194,000.00	39,430	-
Craig engineering	$0.00	$108,908.00	$108,908.00	-	-
Newport-Simmonsville CO48	$56,960.00	$0.00	$56,960.00	32,000	-
Newport-Craig CO48	$24,920.00	$0.00	$24,920.00	14,000	-
TOTAL	$2,308,699.02	$279,229.00	$2,587,928.02	-	218

Proposed-build master BOM

Materials and construction

JSI
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Material / work	Quantity	Unit	Unit rate	Cost
BFO-24 cable material	537,148.42	ft	$0.5700	$306,174.60
BFO-48 cable material	99,861.04	ft	$0.7300	$72,898.56
BFO-96 cable material	161,941.56	ft	$1.1631	$188,354.23
BFO-144 cable material	328,113.88	ft	$1.4800	$485,608.54
BFO-288 cable material	12,677.53	ft	$2.7000	$34,229.34
Aerial cable installation	610,125.98	ft	$2.2500	$1,372,783.46
Plow cable installation	227,691.56	ft	$4.2000	$956,304.54
Bore cable installation	33,631.54	ft	$24.2000	$813,883.22
Aerial make-ready allowance	72,199.60	affected ft	$4.5000	$324,898.21
Conduit material	263,693.85	ft	$0.5500	$145,031.62
Reel and transport-end fusion allowance	4,056.00	fusion	$36.4200	$147,719.52
Handholes / peds installed	92.00	unit	$1,550.0000	$142,600.00
Splice closures installed	342.00	unit	$921.6000	$315,187.20
288 FDH cabinet installed	5.00	unit	$8,965.0400	$44,825.20
FDH fusion allowance	1,680.00	fusion	$36.4200	$61,185.60
1x32 splitters and jumpers	27.00	unit	$595.7000	$16,083.90
12-port FDT assembly allowance	474.00	unit	$1,083.6100	$513,631.14
OLT shelf / common	5.00	shelf	$687.5000	$3,437.50

Proposed-build master BOM

Materials and construction - continued

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ENGINEERING & GIS

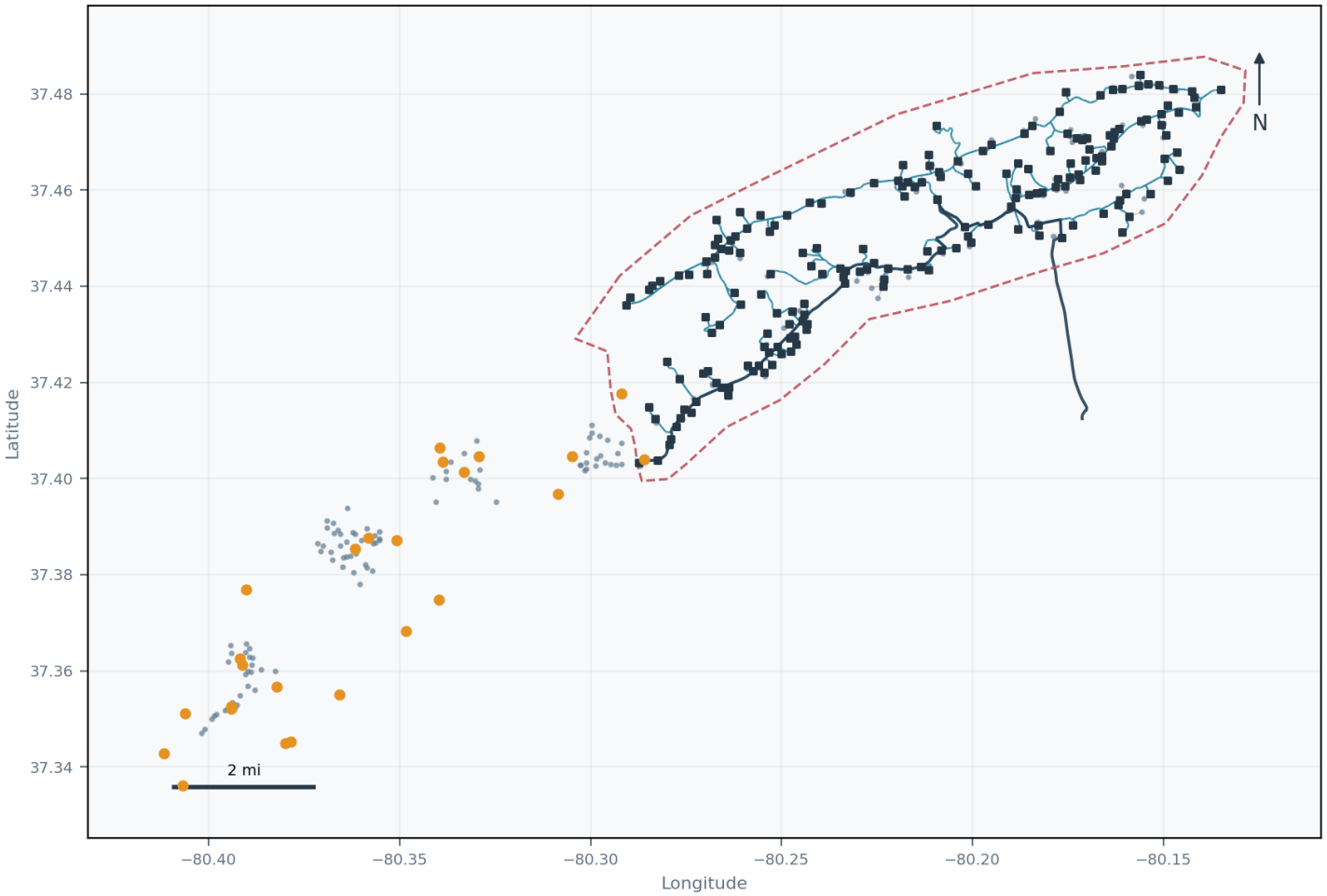
Material / work	Quantity	Unit	Unit rate	Cost
8-port XGS-PON card	5.00	card	$8,800.0000	$44,000.00
PON optics	27.00	optic	$1,000.0000	$27,000.00
Transport optics	22.00	optic	$1,000.0000	$22,000.00
Remote OLT cabinet	5.00	cabinet	$19,007.0000	$95,035.00
Remote site / power allowance	5.00	site	$15,000.0000	$75,000.00
FDT mainline fusion allowance	5,304.00	fusion	$36.4200	$193,171.68
ROW clearing allowance	100.00%	share	$20,000.0000	$20,000.00
Drop cable material	171,785.61	ft	$0.2400	$41,228.55
Drop installation	131,347.58	ft	$2.0000	$262,695.17
Drop fusion splices	876.00	fusion	$36.4200	$31,903.92
Drop cutover	438.00	connection	$100.0000	$43,800.00
NID material	438.00	connection	$58.0000	$25,404.00
NID installation	438.00	connection	$70.0000	$30,660.00
Cane material	128.00	connection	$4.4900	$574.72
Cane installation	128.00	connection	$29.1400	$3,729.92
ONT material	438.00	connection	$149.0000	$65,262.00
Aerial strand material allowance	481,330.68	route ft	$0.7900	$380,251.23
BM71 rock allowance	4,000.00	ft	$95.0000	$380,000.00
Traffic control allowance	100.00%	share	$25,000.0000	$25,000.00
DIRECT CONSTRUCTION				**$7,711,552.55**
Engineering, design, staking & permitting				**$921,155.26**
Contingency				**$1,122,406.17**
Application administration				**$100,000.00**
TOTAL PROPOSED BUILD				**$9,855,113.98**

Administration is a flat project-wide fee. Construction allowances apply to direct construction only. Totals are calculated before display rounding.

42 Corridor - HLD

JSI
ENGINEERING & GIS

Proposed project



Cable route

Transport

Project boundary

Mapped location

Hub / terminal

Visual drop

Count-only donut passing

Proposed cost

$3,689,364.19

Planning passings

359

Cost / planning passing

$10,276.78

42 Corridor - BOM

359 planning passings | $10,276.78 per area passing | 180 budgeted drops

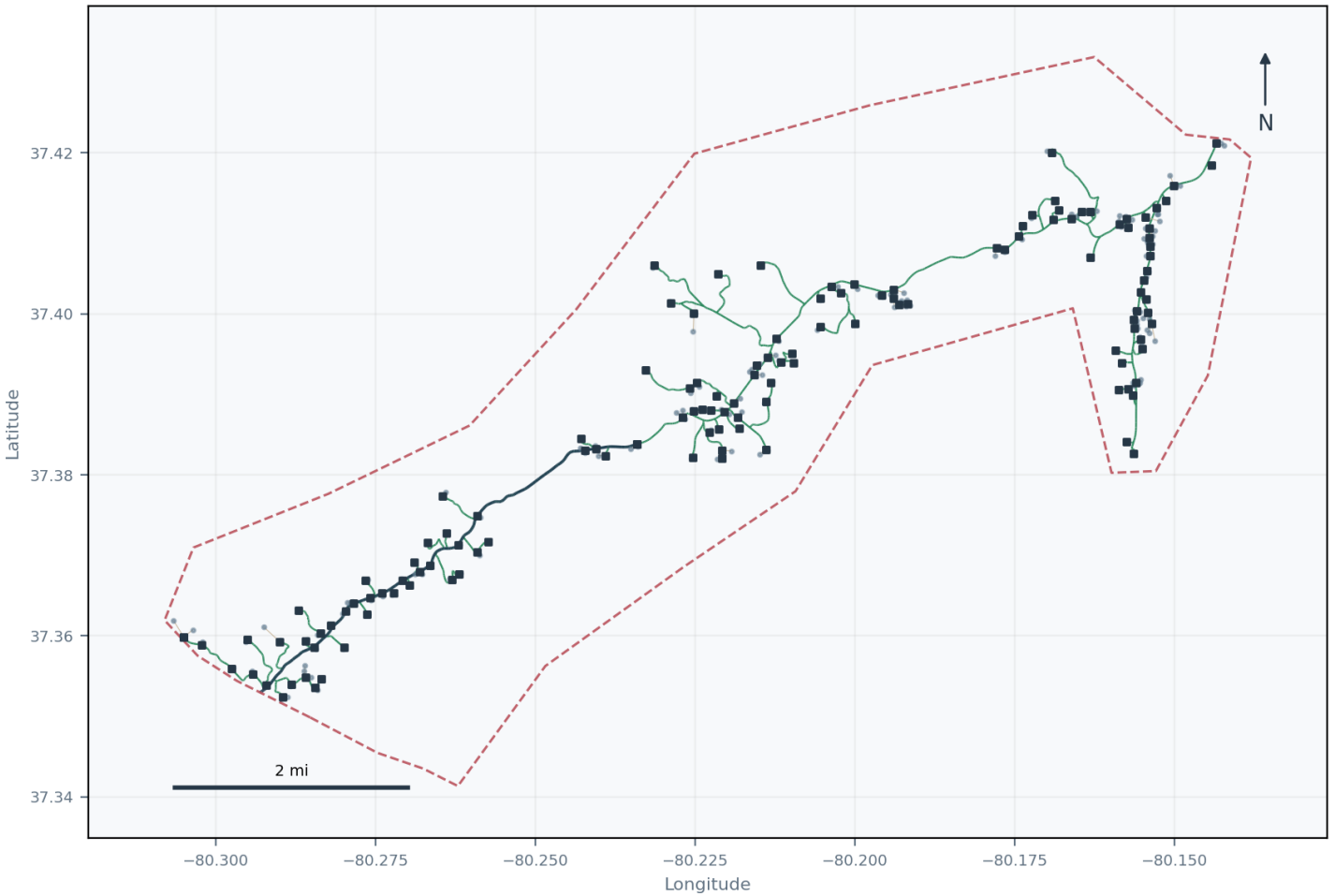
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Material / work	Quantity	Unit	Unit rate	Cost
BFO-24 cable material	267,292.31	ft	$0.5700	$152,356.62
BFO-48 cable material	46,101.01	ft	$0.7300	$33,653.74
BFO-96 cable material	81,909.90	ft	$1.1631	$95,269.41
BFO-144 cable material	66,833.12	ft	$1.4800	$98,913.01
BFO-288 cable material	802.64	ft	$2.7000	$2,167.14
Aerial cable installation	247,774.78	ft	$2.2500	$557,493.25
Plow cable installation	95,570.27	ft	$4.2000	$401,395.14
Bore cable installation	10,618.92	ft	$24.2000	$256,977.84
Aerial make-ready allowance	33,019.57	affected ft	$4.5000	$148,588.04
Conduit material	107,761.55	ft	$0.5500	$59,268.85
Reel and transport-end fusion allowance	1,320.00	fusion	$36.4200	$48,074.40
Handholes / peds installed	40.00	unit	$1,550.0000	$62,000.00
Splice closures installed	168.00	unit	$921.6000	$154,828.80
288 FDH cabinet installed	1.00	unit	$8,965.0400	$8,965.04
FDH fusion allowance	336.00	fusion	$36.4200	$12,237.12
1x32 splitters and jumpers	8.00	unit	$595.7000	$4,765.60
12-port FDT assembly allowance	190.00	unit	$1,083.6100	$205,885.90
OLT shelf / common	1.00	shelf	$687.5000	$687.50
8-port XGS-PON card	1.00	card	$8,800.0000	$8,800.00
PON optics	8.00	optic	$1,000.0000	$8,000.00
Transport optics	6.00	optic	$1,000.0000	$6,000.00
Remote OLT cabinet	1.00	cabinet	$19,007.0000	$19,007.00
Remote site / power allowance	1.00	site	$15,000.0000	$15,000.00
FDT mainline fusion allowance	2,280.00	fusion	$36.4200	$83,037.60
Drop cable material	39,900.88	ft	$0.2400	$9,576.21
Drop installation	30,508.28	ft	$2.0000	$61,016.56
Drop fusion splices	360.00	fusion	$36.4200	$13,111.20
Drop cutover	180.00	connection	$100.0000	$18,000.00
NID material	180.00	connection	$58.0000	$10,440.00
NID installation	180.00	connection	$70.0000	$12,600.00
Cane material	54.00	connection	$4.4900	$242.46
Cane installation	54.00	connection	$29.1400	$1,573.56
ONT material	180.00	connection	$149.0000	$26,820.00
Aerial strand material allowance	220,130.43	route ft	$0.7900	$173,903.04
BM71 rock allowance	1,000.00	ft	$95.0000	$95,000.00
Traffic control allowance	40.98%	share	$25,000.0000	$10,245.43
ROW clearing allowance	40.98%	share	$20,000.0000	$8,196.35
DIRECT CONSTRUCTION				**$2,884,096.80**
Engineering, design, staking & permitting				**$344,509.22**
Contingency				**$419,776.43**
Application administration				**$40,981.74**
TOTAL PROPOSED BUILD				**$3,689,364.19**

Upper Craig's Creek - HLD

JSI
ENGINEERING & GIS

Proposed project



Cable route

Transport

Project boundary

Mapped location

Hub / terminal

Visual drop

Proposed cost

$2,167,103.83

Planning passings

195

Cost / planning passing

$11,113.35

Upper Craig's Creek - BOM

195 planning passings | $11,113.35 per area passing | 97 budgeted drops

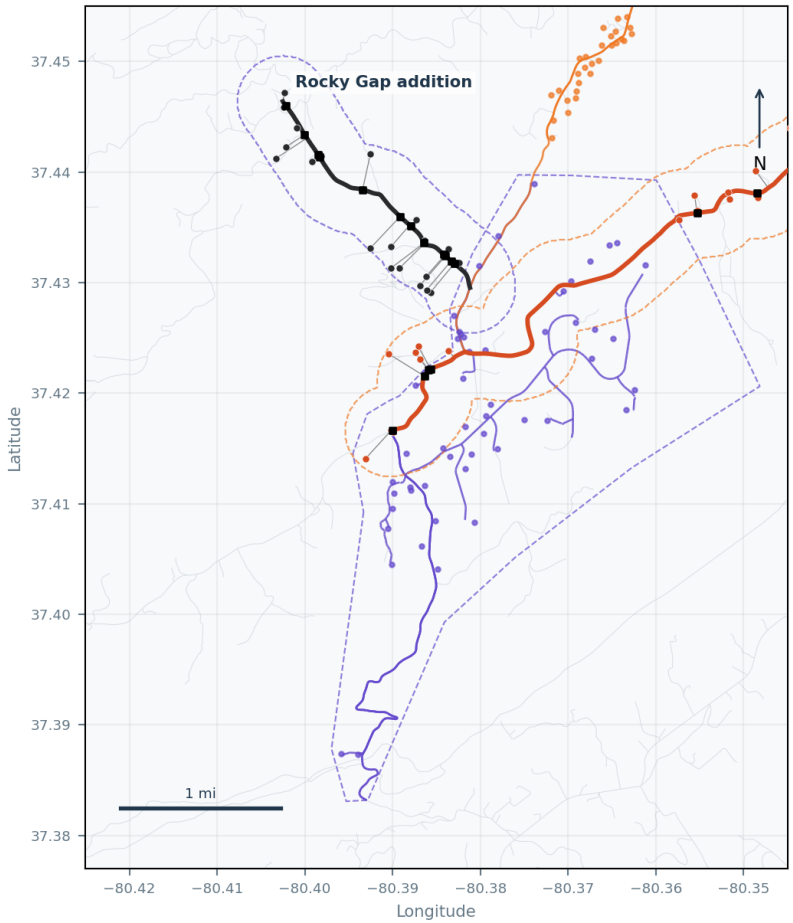
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ENGINEERING & GIS

Material / work	Quantity	Unit	Unit rate	Cost
BFO-24 cable material	145,802.98	ft	$0.5700	$83,107.70
BFO-48 cable material	13,247.22	ft	$0.7300	$9,670.47
BFO-96 cable material	31,703.41	ft	$1.1631	$36,874.24
BFO-144 cable material	47,915.22	ft	$1.4800	$70,914.52
BFO-288 cable material	11,874.89	ft	$2.7000	$32,062.20
Aerial cable installation	143,674.63	ft	$2.2500	$323,267.92
Plow cable installation	42,144.56	ft	$4.2000	$177,007.15
Bore cable installation	5,746.99	ft	$24.2000	$139,077.04
Aerial make-ready allowance	18,964.82	affected ft	$4.5000	$85,341.67
Conduit material	48,734.42	ft	$0.5500	$26,803.93
Reel and transport-end fusion allowance	552.00	fusion	$36.4200	$20,103.84
Handholes / peds installed	18.00	unit	$1,550.0000	$27,900.00
Splice closures installed	97.00	unit	$921.6000	$89,395.20
288 FDH cabinet installed	1.00	unit	$8,965.0400	$8,965.04
FDH fusion allowance	336.00	fusion	$36.4200	$12,237.12
1x32 splitters and jumpers	7.00	unit	$595.7000	$4,169.90
12-port FDT assembly allowance	133.00	unit	$1,083.6100	$144,120.13
OLT shelf / common	1.00	shelf	$687.5000	$687.50
8-port XGS-PON card	1.00	card	$8,800.0000	$8,800.00
PON optics	7.00	optic	$1,000.0000	$7,000.00
Transport optics	4.00	optic	$1,000.0000	$4,000.00
Remote OLT cabinet	1.00	cabinet	$19,007.0000	$19,007.00
Remote site / power allowance	1.00	site	$15,000.0000	$15,000.00
FDT mainline fusion allowance	1,596.00	fusion	$36.4200	$58,126.32
Drop cable material	24,031.09	ft	$0.2400	$5,767.46
Drop installation	18,374.22	ft	$2.0000	$36,748.43
Drop fusion splices	194.00	fusion	$36.4200	$7,065.48
Drop cutover	97.00	connection	$100.0000	$9,700.00
NID material	97.00	connection	$58.0000	$5,626.00
NID installation	97.00	connection	$70.0000	$6,790.00
Cane material	25.00	connection	$4.4900	$112.25
Cane installation	25.00	connection	$29.1400	$728.50
ONT material	97.00	connection	$149.0000	$14,453.00
Aerial strand material allowance	126,432.11	route ft	$0.7900	$99,881.36
BM71 rock allowance	1,000.00	ft	$95.0000	$95,000.00
Traffic control allowance	22.26%	share	$25,000.0000	$5,565.07
ROW clearing allowance	22.26%	share	$20,000.0000	$4,452.05
DIRECT CONSTRUCTION				**$1,695,528.51**
Engineering, design, staking & permitting				**$202,533.14**
Contingency				**$246,781.91**
Application administration				**$22,260.27**
TOTAL PROPOSED BUILD				**$2,167,103.83**

Maggie - HLD

Proposed project

JSI
ENGINEERING & GIS



- Retained Maggie
- Retained 658 / 311
- New Maggie 48F
- New Route 632 144F
- New passing
- Terminal / active site
- Visual drop
- Planning boundary

Proposed area cost

$1,617,195.36

Area planning passings

98

Area cost / passing

$16,501.99

Additional route passings

21

Maggie - BOM

98 planning passings | $16,501.99 per area passing | 49 budgeted drops

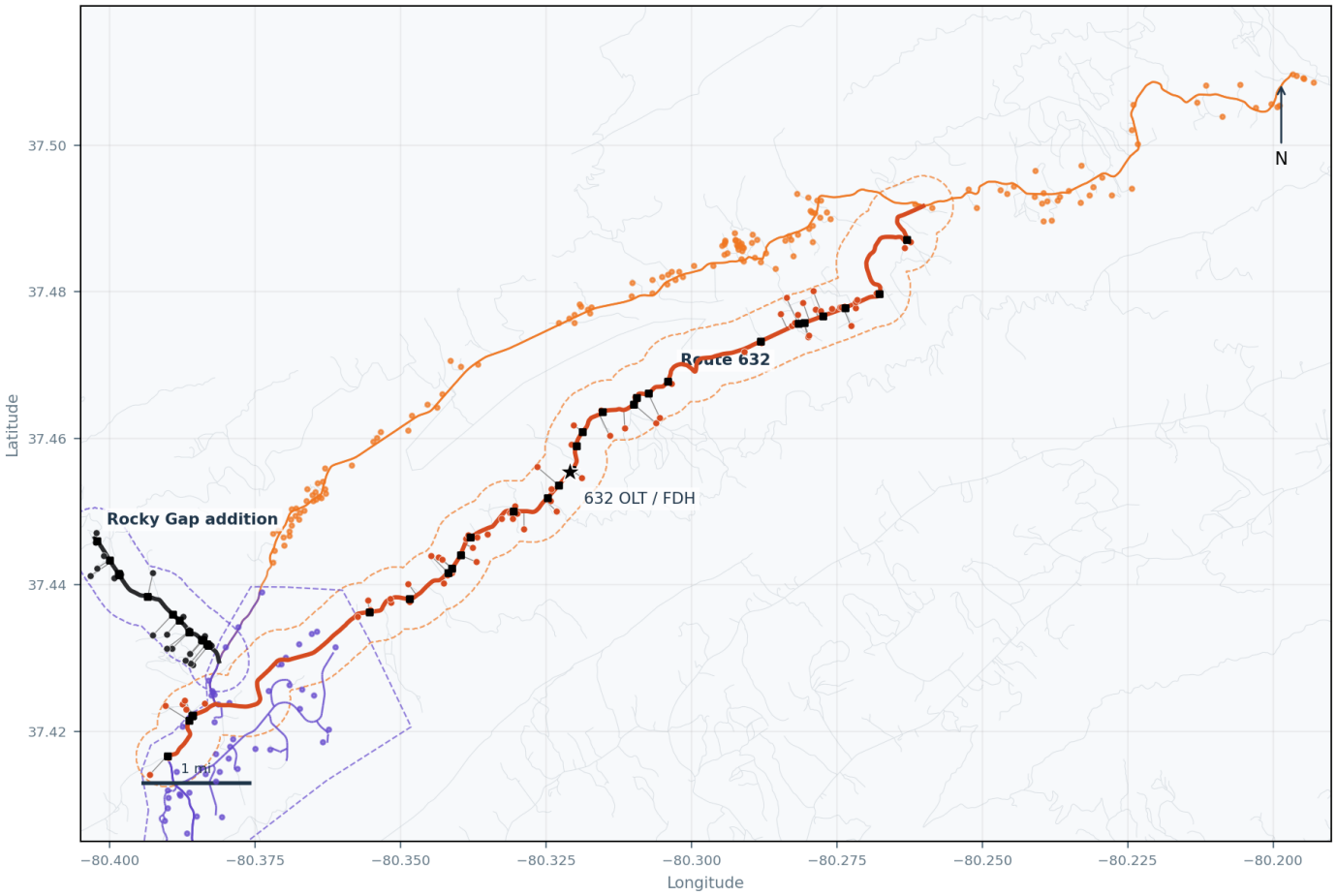
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ENGINEERING & GIS

Material / work	Quantity	Unit	Unit rate	Cost
BFO-24 cable material	96,972.90	ft	$0.5700	$55,274.55
BFO-48 cable material	19,350.60	ft	$0.7300	$14,125.93
BFO-96 cable material	7,907.84	ft	$1.1631	$9,197.61
BFO-144 cable material	23,210.79	ft	$1.4800	$34,351.96
BFO-288 cable material	0.00	ft	$2.7000	$0.00
Aerial cable installation	22,546.90	ft	$2.2500	$50,730.53
Plow cable installation	78,916.61	ft	$4.2000	$331,449.78
Bore cable installation	11,270.99	ft	$24.2000	$272,758.03
Aerial make-ready allowance	2,390.35	affected ft	$4.5000	$10,756.56
Conduit material	90,566.33	ft	$0.5500	$49,811.48
Reel and transport-end fusion allowance	336.00	fusion	$36.4200	$12,237.12
Handholes / peds installed	27.00	unit	$1,550.0000	$41,850.00
Splice closures installed	52.00	unit	$921.6000	$47,923.20
288 FDH cabinet installed	1.00	unit	$8,965.0400	$8,965.04
FDH fusion allowance	336.00	fusion	$36.4200	$12,237.12
1x32 splitters and jumpers	4.00	unit	$595.7000	$2,382.80
12-port FDT assembly allowance	56.00	unit	$1,083.6100	$60,682.16
OLT shelf / common	1.00	shelf	$687.5000	$687.50
8-port XGS-PON card	1.00	card	$8,800.0000	$8,800.00
PON optics	4.00	optic	$1,000.0000	$4,000.00
Transport optics	4.00	optic	$1,000.0000	$4,000.00
Remote OLT cabinet	1.00	cabinet	$19,007.0000	$19,007.00
Remote site / power allowance	1.00	site	$15,000.0000	$15,000.00
FDT mainline fusion allowance	549.00	fusion	$36.4200	$19,994.58
Drop cable material	26,756.64	ft	$0.2400	$6,421.59
Drop installation	20,458.17	ft	$2.0000	$40,916.35
Drop fusion splices	98.00	fusion	$36.4200	$3,569.16
Drop cutover	49.00	connection	$100.0000	$4,900.00
NID material	49.00	connection	$58.0000	$2,842.00
NID installation	49.00	connection	$70.0000	$3,430.00
Cane material	40.00	connection	$4.4900	$179.60
Cane installation	40.00	connection	$29.1400	$1,165.60
ONT material	49.00	connection	$149.0000	$7,301.00
Aerial strand material allowance	15,935.64	route ft	$0.7900	$12,589.16
BM71 rock allowance	1,000.00	ft	$95.0000	$95,000.00
Traffic control allowance	11.19%	share	$25,000.0000	$2,796.80
ROW clearing allowance	11.19%	share	$20,000.0000	$2,237.44
DIRECT CONSTRUCTION				**$1,269,571.66**
Engineering, design, staking & permitting				**$151,652.04**
Contingency				**$184,784.45**
Application administration				**$11,187.21**
TOTAL PROPOSED BUILD				**$1,617,195.36**

658 / 311 and Route 632 - HLD

Proposed project

JSI
ENGINEERING & GIS



- Retained Maggie
- Retained 658 / 311
- New Maggie 48F
- New Route 632 144F
- New passing
- Terminal / active site
- Visual drop
- Planning boundary

Proposed area cost

$2,381,450.59

Area planning passings

224

Area cost / passing

$10,631.48

Additional route passings

75

Dick's Creek 658 to 311 - BOM

224 planning passings | $10,631.48 per area passing | 112 budgeted drops

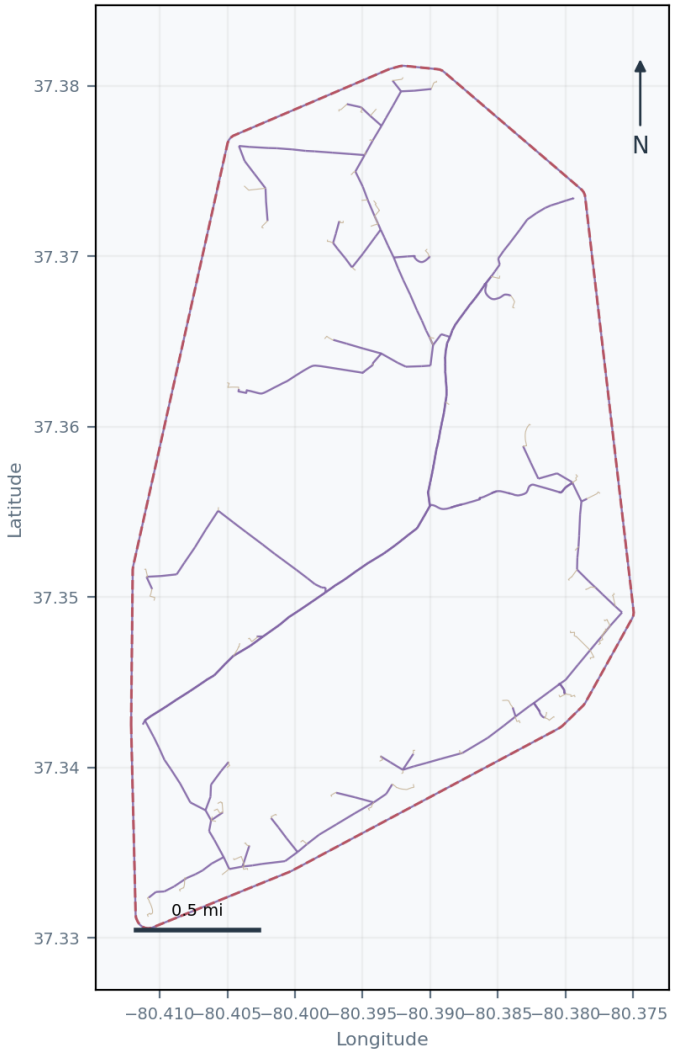
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ENGINEERING & GIS

Material / work	Quantity	Unit	Unit rate	Cost
BFO-24 cable material	27,080.22	ft	$0.5700	$15,435.73
BFO-48 cable material	21,162.21	ft	$0.7300	$15,448.41
BFO-96 cable material	40,420.41	ft	$1.1631	$47,012.98
BFO-144 cable material	190,154.76	ft	$1.4800	$281,429.04
BFO-288 cable material	0.00	ft	$2.7000	$0.00
Aerial cable installation	196,129.67	ft	$2.2500	$441,291.76
Plow cable installation	11,060.11	ft	$4.2000	$46,452.48
Bore cable installation	5,994.64	ft	$24.2000	$145,070.31
Aerial make-ready allowance	17,824.87	affected ft	$4.5000	$80,211.93
Conduit material	16,631.54	ft	$0.5500	$9,147.35
Reel and transport-end fusion allowance	1,848.00	fusion	$36.4200	$67,304.16
Handholes / peds installed	7.00	unit	$1,550.0000	$10,850.00
Splice closures installed	25.00	unit	$921.6000	$23,040.00
288 FDH cabinet installed	2.00	unit	$8,965.0400	$17,930.08
FDH fusion allowance	672.00	fusion	$36.4200	$24,474.24
1x32 splitters and jumpers	8.00	unit	$595.7000	$4,765.60
12-port FDT assembly allowance	95.00	unit	$1,083.6100	$102,942.95
OLT shelf / common	2.00	shelf	$687.5000	$1,375.00
8-port XGS-PON card	2.00	card	$8,800.0000	$17,600.00
PON optics	8.00	optic	$1,000.0000	$8,000.00
Transport optics	8.00	optic	$1,000.0000	$8,000.00
Remote OLT cabinet	2.00	cabinet	$19,007.0000	$38,014.00
Remote site / power allowance	2.00	site	$15,000.0000	$30,000.00
FDT mainline fusion allowance	879.00	fusion	$36.4200	$32,013.18
Drop cable material	81,097.01	ft	$0.2400	$19,463.28
Drop installation	62,006.92	ft	$2.0000	$124,013.83
Drop fusion splices	224.00	fusion	$36.4200	$8,158.08
Drop cutover	112.00	connection	$100.0000	$11,200.00
NID material	112.00	connection	$58.0000	$6,496.00
NID installation	112.00	connection	$70.0000	$7,840.00
Cane material	9.00	connection	$4.4900	$40.41
Cane installation	9.00	connection	$29.1400	$262.26
ONT material	112.00	connection	$149.0000	$16,688.00
Aerial strand material allowance	118,832.49	route ft	$0.7900	$93,877.67
BM71 rock allowance	1,000.00	ft	$95.0000	$95,000.00
Traffic control allowance	25.57%	share	$25,000.0000	$6,392.70
ROW clearing allowance	25.57%	share	$20,000.0000	$5,114.16
DIRECT CONSTRUCTION				**$1,862,355.58**
Engineering, design, staking & permitting				**$222,460.86**
Contingency				**$271,063.37**
Application administration				**$25,570.78**
TOTAL PROPOSED BUILD				**$2,381,450.59**

Simmonsville C1 - HLD

JSI
ENGINEERING & GIS

Proposed grant match



Cable route

Project boundary

Visual drop

Hub / terminal

Original construction
$676,353.83

Original engineering
$47,570.00

Original total
$723,923.83

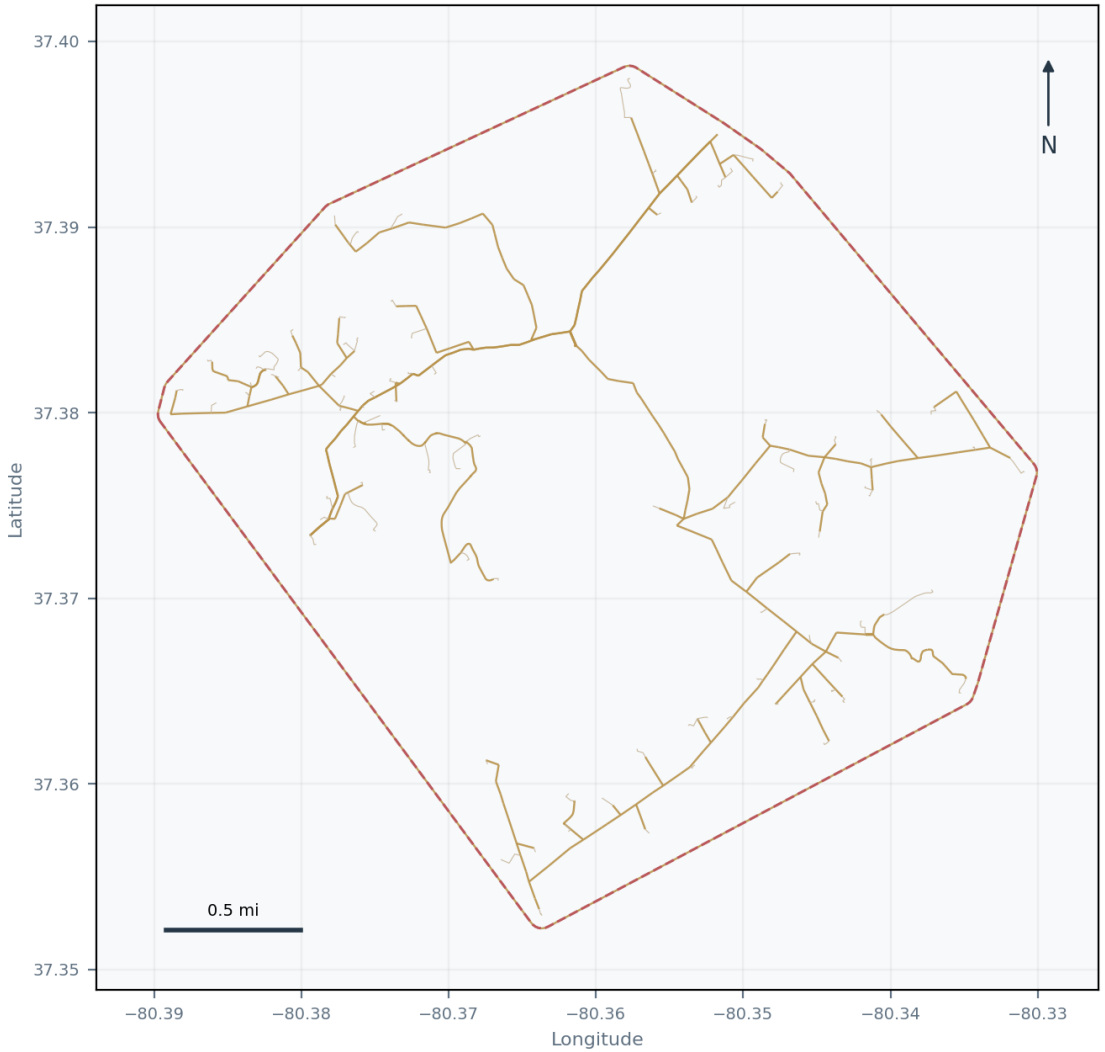
Original source passings
66

Original cost / passing
$10,968.54

Simmonsville C2 - HLD

JSI
ENGINEERING & GIS

Proposed grant match



Cable route

Project boundary

Visual drop

Hub / terminal

Original construction
$616,633.34

Original engineering
$82,531.00

Original total
$699,164.34

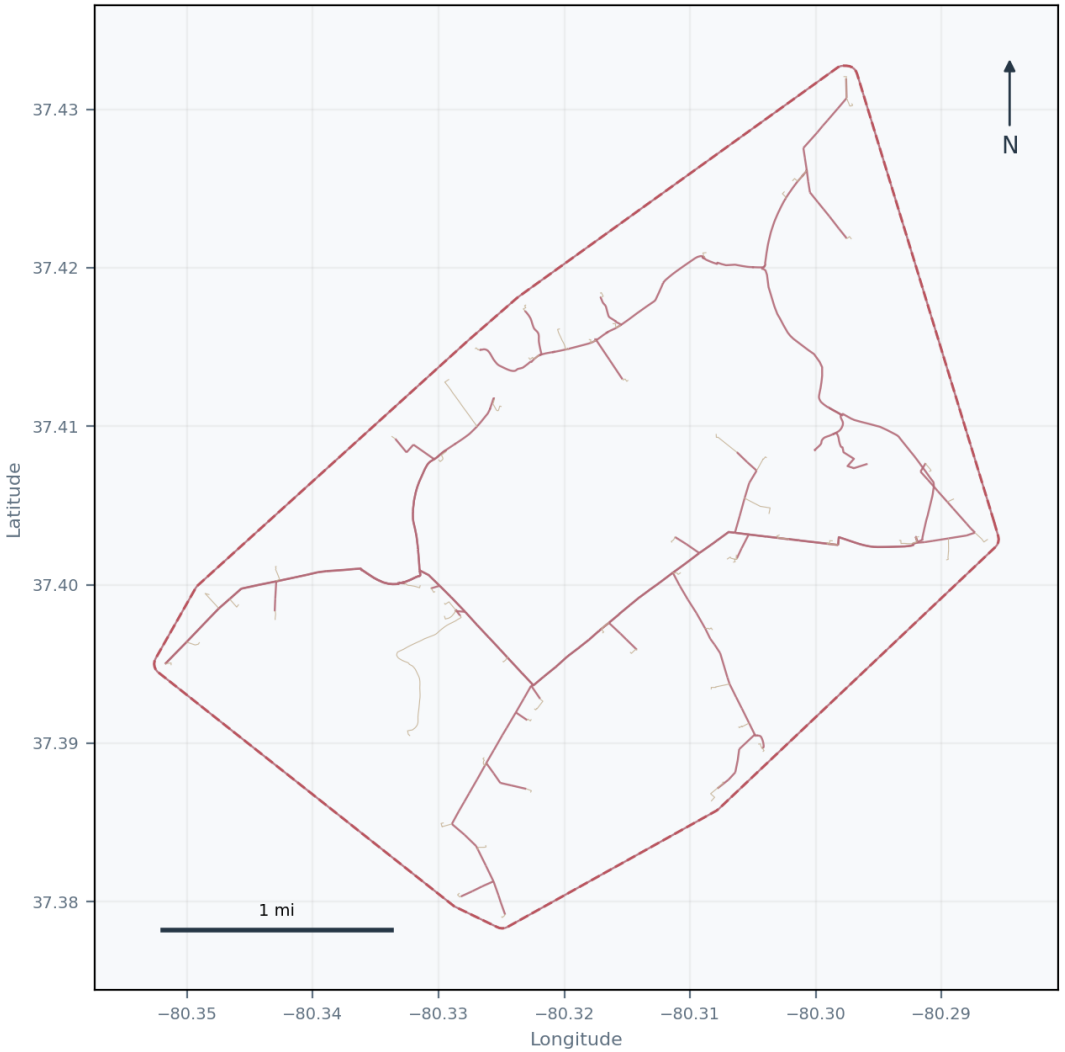
Original source passings
90

Original cost / passing
$7,768.49

Simmonsville C3 - HLD

JSI
ENGINEERING & GIS

Proposed grant match



Cable route

Project boundary

Visual drop

Hub / terminal

Original construction
$697,831.85

Original engineering
$40,220.00

Original total
$738,051.85

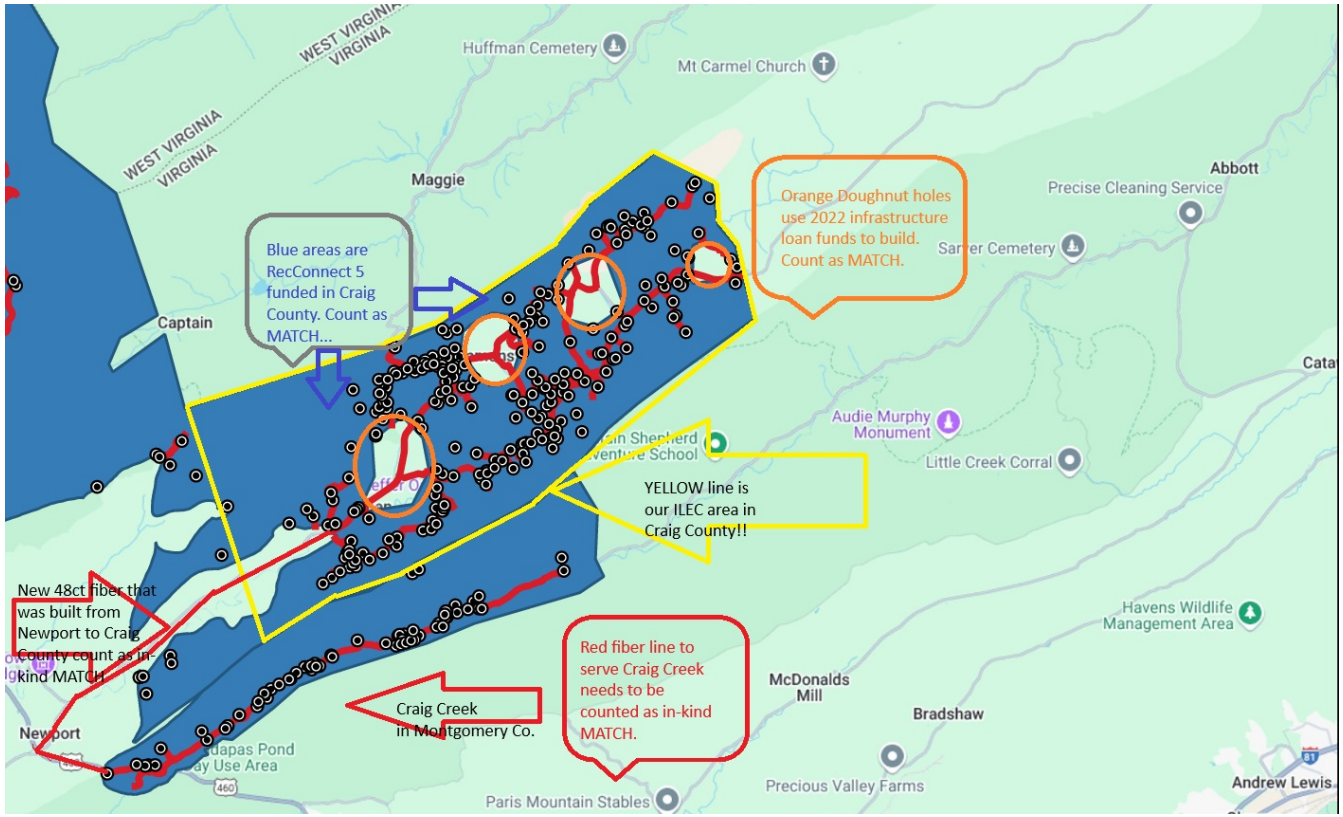
Original source passings
62

Original cost / passing
$11,904.06

Prior transport

JSI
ENGINEERING & GIS

Proposed grant match - source map



Craig transport and engineering
$344,908.00

Newport feeds
$81,880.00

TOTAL PRIOR TRANSPORT
$426,788.00

Craig CO96 aerial
8,980 ft

Craig BFO96 buried
39,430 ft

Newport CO48 feeds
46,000 ft

Source map - prior routes not georeferenced

Application passing schedules

Total project passings: 1,094

JSI
ENGINEERING & GIS

Project	R	B - provisional	CAI identified	VATI proposal	Mapped	Planning
42 Corridor	167	39	0	206	359	359
Upper Craig's Creek	146	20	0	166	195	195
Maggie	39	10	0	49	73	98
Dick's Creek 658 to 311	148	26	0	174	224	224
PROPOSED TOTAL	500	95	0	595	851	876

Project passing summary	Passings
Proposed planning passings	876
Original grant-match passings	218
TOTAL PROJECT PASSINGS	1,094

Application schedule	Records
Current Fabric IDs	590
Legacy ID exceptions	5
Supplemental eligibility / identity candidates	159

VATI proposal uses the supplied priority list. Additional 911/Fabric planning records are tracked separately. Original-match passings retain the supplied aggregate count.

Construction and application allowances

Subscriber take rate, project-wide fees and BM71 rate sensitivity

JSI
ENGINEERING & GIS

Proposed project	Passings	Drops	BM71 ft	Traffic control direct	ROW clearing direct	Application administration
42 Corridor	359	180	1,000	$10,245.43	$8,196.35	$40,981.74
Upper Craig's Creek	195	97	1,000	$5,565.07	$4,452.05	$22,260.27
Maggie	98	49	1,000	$2,796.80	$2,237.44	$11,187.21
Dick's Creek 658 to 311	224	112	1,000	$6,392.70	$5,114.16	$25,570.78
TOTAL	**876**	**438**	**4,000**	**$25,000.00**	**$20,000.00**	**$100,000.00**

Drops use a 50% take rate with whole-drop rounding across the proposed areas. Budget lengths use each area’s updated mapped mean, including an average-length allowance for count-only and unlocated planning passings.

ROW and traffic control are allocated by proposed passings. Engineering retains its 10% base, plus the $150,000 design/staking allocation. Contingency is the 15% base reserve less that allocation. Administration remains a flat $100,000.

Strand: 481,330.68 aerial route feet × $0.79/ft = $380,251.23 direct. The existing physical corridor quantity is retained, including its construction uplift; shared corridors receive one strand charge.

BM71 rate case	Rate / ft	Proposed-build total	Cost / total passing
Railhead adder	$15.00	$9,450,313.98	$8,638.31
Hoe ram adder	$45.00	$9,602,113.98	$8,777.07
Solid rock - active	**$95.00**	**$9,855,113.98**	**$9,008.33**

BM71 source: RC5 STFF Tab final 8 24 26.xlsx, BID SHEET E28:E30. Strand, ROW and administration: client instruction, 21 October 2026. Each case retains the current routes and passing denominator. Totals use unrounded calculations.

FINAL ENGINEERING AND RESERVE BUDGET

Engineering, design, staking & permitting	$921,155.26
Remaining contingency	$1,122,406.17

Design / staking allocation: client instruction, 22 October 2026. The transfer preserves the proposed project total.

Added-route engineering

Maggie / Rocky Gap and Route 632 to retained 658 / 311

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ENGINEERING & GIS

Engineering quantity	Maggie addition	Route 632 addition
New cable route (ft)	9,074	54,637
New physical corridor (ft)	9,052	42,264
Shared corridor (ft)	23	12,373
Additional unique passings	21	75
VATI priority additions	17	54
New 12-port terminals	12	28
New FDH cabinets	0	1
New remote OLT sites	0	1
Nominal PON reach bound (km)	14.01	8.73

Maggie: 48F road-aligned branch includes the connector to retained 658 fiber. Twenty-four upstream strands are reserved in the HLD; prior strand assignments were not supplied.

Route 632: one 144F cable carries transport and centralized-split distribution. A new midpoint OLT/FDH serves 75 additional passings. Transport strands 1-4 are reserved; only planned terminal outputs are assigned distribution fibers.

Existing geometry and IDs are retained. New terminals connect all planned passings; subscriber drops are budgeted at 50% take. Shared strand and duct are not repurchased; additional cable and placement remain priced.

Engineering basis: supplied OSM roads, VATI priority addresses, current v9 Fabric and county 911 points. Route numbering: VDOT Craig County road map (network 31 July 2023). Construction methods, active-site positions and upstream fiber reservations are HLD allowances.

VATI FUNDING SOURCES TABLE – TEMPLATE FOR APPLICANTS

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

Source	Amount	Percent	Status
REQUESTED VATI	$9,855,114	79.21%	Pending
PemTel	$2,587,928	20.79%	Secured
	$		
	$		
	$		
	$		
	$		
TOTAL	$ 12,443,042	100%	

VATI PRIOR EXPENDED MATCH FORM – TEMPLATE FOR APPLICANTS

Local Government expenditures incurred after October 7, 2025, one year prior to the application open date, are eligible to be included in the application as match funds. Incurred expenses must be related to the proposed VATI project and meet VATI criteria. Expenditures incurred by internet service providers within one year of the application date are also eligible to be included in the application as match funds. Please complete the table below to explain any prior expended funds which have been considered as matching funds in this application. Incurred expenses must also be directly related to the proposed VATI project and meet VATI criteria. DHCD staff reserves the right to make administrative determinations on the validity of matching funds and accept a proportion of the funds when necessary.

Prior Expended Match Table				
Expense Incurred By: (Local Government or Internet Service Provider)	Source: (Local, State, Federal, Other, Loan, etc.) Please list fund source (i.e. Local Fiscal Recovery Fund)	Amount:	Brief Description: (Construction, Administration Expenses, or Other)	How is this expense directly related to the proposed VATI project? If more space is needed, please describe in detail below the table with numbered references in the cells below.
$ 344,908	Federal-2024 ReConnect 5 Loan award. USDA	$10,063,100	Construction	The construction of this fiber infrastructure not only allowed PemTel to expand into unserved rural areas of the county, but also upgraded their equipment to advanced Gigabit PON technology that increased connection points to further expand broadband services into their 2026 VATI application if awarded. This project is directly adjacent to the project area proposed in the VATI 2026 Craig County Application.
$ 81,880	Federal-2022 RUS G-9 Infrastructure Loan	$5,000,000	Construction	The construction of this fiber transport was built to potentially serve the areas in Craig Co. that borders the proposed 2026 VATI grant if awarded.

Attachment 4 Passings Form

2026 Virginia Telecommunication Initiative VATI

Pembroke Telephone Cooperative and Craig County

Combined proposed and matching project areas

Type of Passings	Total Number of Passings in the Project Area[1]	Passings without Special Construction Costs Required[2]	Passings with Special Construction Costs Budgeted in the Application[3]	Number of Passings with Speeds at 25/3 Mbps or Below[4]
Residential	943	848	95	940
Businesses (non-home based)	95	86	9	94
Businesses (home-based)*	47	42	5	47
Community Anchors	3	3	0	3
Non-residential	6	5	1	6
Total	**1,094**	**984**	**110**	**1,090**

Note: Total passings = Residential + Businesses (non-home based) + Community Anchors + Non-residential.

*Home-based businesses are an estimated subset of residential passings (5%, rounded to 47). Farms, landscaping and tax/bookkeeping services are included in this estimate. They are counted once within the 1,094 total.

Planning basis: 1,090 supplied location records plus four unlocated planning entries. Residential includes 149 E911 records with estimated occupancy. Source B remains provisional. Special-construction figures use PemTel's 10% historical estimate. Speed allocations by type are estimated from PemTel's reported 1,090 at 25/3 or below and four at 100/20.

[1] Total structures in the combined project area that can receive service. Distinct service locations may share a mailing address.

[2] Structures expected to fall within standard service connection drop lengths and not require nonstandard equipment or additional fees above normal connection fees.

[3] Estimated structures with special construction costs covered within the application budget. PemTel intends to absorb these costs without additional special-construction charges to grant-area customers.

[4] Existing-speed counts follow the provider's reported aggregate. Individual address-level speeds are not established by this schedule.

*Non-Home-based Businesses was determined by version 9 of the CostQuest BSL data and other derived sources

Definitions

Passing - Any structure that can receive service. Multi-unit structures may be counted as more than one passing when individual connections and accounts are planned at that structure.

Business - An organization or entity that provides goods or services to generate profit. Businesses based in residential homes can count if they are a registered business, such as a BPOL or LLC.

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

Non-Residential Passing - Places of worship, federal, state or local facilities, or other potential customers that are neither a residence, business nor community anchor as defined above.

The home-based business figure is a planning estimate and does not certify individual registrations. Address checks and evidence are retained in the accompanying combined application workbook.

PROJECT MANAGEMENT PLAN
CRAIG COUNTY BROADBAND EXPANSION PROJECT
VIRGINIA TELECOMMUNICATIONS INITIATIVE 2026
VATI #2026-____

1. Project Description

The VATI 2026 Craig County Broadband Expansion Project has been funded through a grant from the Virginia Department of Housing and Community Development's (DHCD) Virginia Telecommunication Initiative (VATI) Program. The purpose of this Project is to extend broadband to five (5) locations in the Upper Craig's Creek, Maggie, Dick's Creek, Route 42 Corridor, and Simmonsville communities of Craig County through the construction of approximately 185 miles of distribution fiber including aerial fiber, buried fiber and common area transport fiber.

Project Scope of Work

This project includes making broadband services available through the utilization of fiber-to-the premise technology to 1094 unserved/underserved units, including residential units, business/non-residential and community anchors and in Craig County, as depicted by the project area map. The project will utilize XGN-PON equipment cable to deliver 10 Gbps symmetrical speeds to end users throughout the coverage area. Based on PON (passive optical network), the design of the network will be in a 32:1 split ratio for customer access, and speeds from 100Mbps to 1Gbps symmetrical will be initially offered.

The project utilizes PemTel's existing infrastructure located near the project areas, as well as new PemTel fiber, to provide the primary internet connections. This fiber point of presence provides connectivity to the network with initial capacities up to 10 Gbps. OLT cabinets are installed throughout the services territory that distributes to the service locations and interconnects to the middle mile fiber.

End users connect using XGS-PON ONT's capable of up to 10Gbps symmetrical speeds. Also provided to the customer is a Wi-Fi 6 capable wireless router with enhanced services, including parental controls and network security.

All the proposed fiber to the home (FTTH) and wireless infrastructure for this project shall be owned or leased by PemTel.

Schedule

See timeline on page 4.

Budget

Construction	$11,042,658
Construction Related Soft Costs (CRSC)	$1,300,384
Administration	$100,000
Total Project Costs	$12,443,042

2. Project Management Team

The Management Team shall consist of representatives from the New River Valley Regional Commission (NRVRC), Craig County, Pembroke Telephone Cooperative (PemTel), as the Internet Service Provider (ISP), and JSI Engineering.

As described in the Project Communication Plan, PemTel will provide a monthly report to the Management Team to ensure the effective and timely implementation of all Project components and to review progress against established Project milestones. The Management Team will review Project activities and propose adjustments to this Project Management Plan, as needed, to make certain the Project is professionally designed, within budget, and on track to achieve the proposed benefit. The Management Team will meet monthly for the duration of the Project. Any significant revisions to the Project activities or budget will be shared with the County and DHCD as appropriate and/or necessary.

3. Project Roles and Responsibilities

The following lists the individual members of the Project Management Team and outlines their roles and responsibilities for the pre-contract and implementation phases of the Project.

Name	Title	Role	History/Experience
Dan Collins	County Administrator, Craig County	Responsible Entity/Oversight	The County Administrator serves at the pleasure of the Board of Supervisors and is the County's Chief Administrative Officer, thereby charged with the development and implementation of all programs and policies. Responsibilities include developing and administering the County's budget, serving as a liaison with regional cooperative efforts, monitoring the County's financial health, and providing staff support to the Board of Supervisors while overseeing the daily operations of County government.
Amy Bryson	Executive Assistant/Deputy Clerk/Building Tech/Website Manager.	County-Financial Management	Amy has over 36 years in sales experience from real estate to commercial furniture. Her previous projects included large commercial furniture installations, specifically for government and hospitals. Her work included 13 floors of the Rueban Lawson Federal Building and Lewis Gale Montgomery Hospital, she managed order detailing, scheduling delivery installation of these multimillion-dollar projects. Her duties with Craig County include writing and submitting grant proposals, the DEQ litter grant for tire amnesty and the Virginia Tourism Corporation for Craig County's first public art piece, a wildlife mural in downtown New Castle.
Jason Dudding	General Manager, PemTel	Project Oversight	Michael Dudding has been employed at PemTel for 20 years and became General Manager in 2022. Prior to working at Pembroke Telephone, he worked for the largest cable provider in the US helping build and deliver high speed internet in large populated areas throughout Southwest Virginia and repairs in other areas of the US. He has extensive knowledge of the Central Office and Outside Plant Operations where he began his employment at Pembroke Telephone. Michael has overseen the modernization of PemTel' s facilities and brought them into the DSL and FTTH stage. Additionally, Michael has a remarkable knowledge of the local Telcom industry and serves as the cooperative's technical expert as well as serving with several associated organizations within the Telcom industry. (FCC)
Krista Howel	Bookkeeper	Co-applicant--Financial Management	Krista Howell has worked for PemTel for 21 years. She oversees the company's financial data by maintaining accounts payable and receivable, payroll, and daily financial entries and reconciliations. She performs accounting tasks such as monthly financial reporting, general ledger entries, and recording payments and adjustments. She works with state, local, and federal government officials with submitting the required documents for loan/grant payment processing.
Joseph Meredith	Plant Supervisor	Co-applicant (ISP) Representative	Joseph Meredith has worked for PemTel for 25 years and became Plant Supervisor in 2022. He oversees the completion of all plant projects by planning for and coordinating the manpower and equipment needed. He addresses any maintenance and security needs within the company as well as in the field. He works with management regarding RUS and related projects, consulting engineers, coordinates safety
Christopher Jones	Senior OSP Project Manager	Engineering services	Chris has over 20 years of experience in the telecommunications industry, with extensive experience managing broadband infrastructure projects, including fiber-optic network construction, engineering, and deployment. His background includes overseeing federally funded broadband projects under USDA Rural Utilities Service (RUS) and ReConnect programs, coordinating contractors, managing construction schedules and budgets, and ensuring compliance with project specifications. He currently manages multiple broadband deployment projects across Virginia, North Carolina, Ohio, Kentucky, and Illinois, with experience coordinating with utilities, government agencies, and telecommunications providers to deliver broadband infrastructure to underserved rural communities.
Ryan Waninger	Residential Engineer	Engineering services	Ryan has five years of experience in the telecommunications industry, with a strong background in broadband infrastructure construction and oversight, including USDA Rural Utilities Service (RUS) funded projects throughout Virginia and West Virginia. For the past 18 months, he has served as a Resident Engineer on a Virginia Telecommunication Initiative (VATI) broadband deployment project, providing construction oversight, contractor coordination, quality assurance, and verification of construction activities. His experience includes ensuring compliance with engineering plans, project specifications, and funding requirements while supporting the successful deployment of fiber-optic infrastructure in underserved rural communities.
Kevin Byrd	Executive Director	NRVRC Oversight	Kevin has over 21 years of community development experience at the town, county, and regional levels of government, along with private sector experience. He is currently in leadership roles with the National Association of Development Organizations, Virginia Association of Planning District Commissions, Round the Mountain, and Southwest Virginia's Artisan Network. Kevin assisted local partners with enabling legislation to establish the passenger rail station authority, which is supported by the Regional Commission under his leadership.
Christina Owens	Grant Administrator, NRVRC	Grant Administrator	Chris has over 19 years of combined private and public sector experience in grant and project management, including six years with the Virginia Department of Housing and Community Development. She has been involved in a wide variety of community and economic development projects and is currently providing grant management services for an $80M plus broadband deployment project that will servie Montgomery and Band County, and another $5M plus grant in Giles County

DHCD Telecommunication and Broadband Project Manager —The Telecommunication and Broadband Project Manager will provide technical assistance and general oversight to ensure the Project's compliance with VATI guidelines and DHCD policy and will conduct regular compliance reviews throughout the DHCD contract period. The Telecommunication and Broadband Project Manager may attend Project Management Team meetings as her/his schedule allows.

The Management Team has the authority to monitor project progress to ensure completion of activities in a timely manner, within budget, and with benefits being met. The Team will meet monthly during the duration of the planning project, for updates and to measure progress against the project timeline. If necessary, the Team will identify corrective measures to ensure the project remains on track for completion within the determined timeframe.

4. Communications Plan

NRVRC, in conjunction with PemTel, will keep the County informed via monthly management team meetings consisting of County representatives. Additionaly, the Board of Supervisors will be kept informed of both citizen inquiries and/or complaints and will receive regular updates by PemTel.

5. Process For Financial Management

The Project Manager, in coordination with the County's Finance Director, will review all invoices submitted to the County. The Grant Administrator will coordinate with the Project Manager and the County's Finance Director to compile all necessary documentation for remittance requests in accordance with the approved Pay for Performance budget. The Grant Administrator will prepare each remittance request in CAMS, with final review and submittal by the Project Manager or other eligible staff member.

6. Notifications

The timing and responsibility of notifications are described in the Communications Plan. NRVRC and/or PemTel will notify the Project Management Team of all meetings, as appropriate. The Lead Grant Administrator, or his designee, will notify both Boards of Supervisors of any significant revisions to the Project activities or budget.

7. Process for Design and Construction

PemTel will design and manage construction of its portions of the Project. The process for design, construction, reporting, remittance requests and oversight is described in the grant application or in various Contract Negotiation Record deliverables.

8. Project Outcomes (Closeout, 6-Month Post-Closeout and 12-Month Post-Closeout)

The Project proposes to achieve the following passings(s) and estimated subscriber percentages (including type):
At Closeout, the Project is planned to achieve 1094 total passings
PemTel, the NRVRC, and Craig County will follow the Project Communication and Marketing Plan to achieve the proposed benefit and will maintain appropriate documentation on file for five years after Project Closeout.

9. Certifying Officer(s)

The following Certifying Officers will be responsible for approving and signing any official grant-related documents or any document related to project implementation.

Kevin Byrd	Executive Director, Grant Administrator, NRVRC	Lead Commission Representative
Dan Collins	County Administrator, Craig County	County Representative
Jason Dudding	General Manager, PemTel	Co-applicant (ISP) Representative

Grantee Notification Address/Contact:

Dan Collins
County Administrator
Craig County
108 Court Street
New Castle, VA 24127
540-864-5010

10. Project Management Timeline

Project Name: 2026 VATI						Project Schedule: 18 Months 3/1/2027 - 9/1/2028			
Grantee Name: Craig County/Pembroke Telephone Co-op						Project Deliverables: 185 miles / 1094 Passings			
Milestones	**Metric Unit (Measurement of progress)**	**Number of Total Units**	**Start Date**	**Days to complete**	**End Date**	**Contribution to total project completion**	**Milestone Progress in Metric**	**Milestone Progress in Percentage**	**% Contribution to the project**
Engineering Design, Field Staking & Permits	Miles	185	3/1/27	300	12/26/27	10.7%		0%	0.00000%
Distribution & Transport Fiber Installation & Material with Eng	Miles	185	6/9/27	400	7/13/28	68.8%		0%	0.00000%
Common Fiber Installation & Material with Eng	Miles	185	7/9/27	200	1/25/28	2.7%		0%	0.00000%
Fiber Drops & ONT Installation & Materials	Locations Passed	1094	7/9/27	400	8/12/28	12.9%		0%	0.00000%
Installation & Materials of Access & Switching Equip	Per site	1	10/9/27	120	2/6/28	3.1%		0%	0.00000%
Installation & Materials of New Access Equipment Cabinet	Per Site	1	10/9/27	150	3/7/28	1.8%		0%	0.00000%
						100.00000%	Current Project Completion Percentage		0.00000%

VIRGINIA TELECOMMUNICATIONS INITIATIVE 2026
NRVRC – VATICPF#
Management Team – Signatures of Approval

I have read and do approve the Project Management Plan for the Craig County VATI 2026 Project.

_____	_____
Dan Collins, County Administrator, Craig County	Date
_____	_____
Jason Dudding, General Manager, PemTel	Date
_____	_____
Christopher Jones, engineer	Date
_____	_____
Kevin Byrd, Executive Director, Grant Administrator, NRVRC	Date
_____	_____
Christina Owens, Project Manager, NRVRC	Date

Project Name: 2026 VATI

Project Schedule: 18 Months 3/1/2027 - 9/1/2028

Grantee Name: Craig County/Pembroke Telephone Co-op

Project Deliverables: 185 miles / 1094 Passings

Milestones	Metric Unit (Measurement of progress)	Number of Total Units	Start Date	Days to complete	End Date	Contribution to total project completion	Milestone Progress in Metric	Milestone Progress in Percentage	% Contribution to the project
Engineering Design, Field Staking & Permits	Miles	185	3/1/27	300	12/26/27	10.7%		0%	0.00000%
Distribution & Transport Fiber Installation & Material with Eng	Miles	185	6/9/27	400	7/13/28	68.8%		0%	0.00000%
Common Fiber Installation & Material with Eng	Miles	185	7/9/27	200	1/25/28	2.7%		0%	0.00000%
Fiber Drops & ONT Installation & Materials	Locations Passed	1094	7/9/27	400	8/12/28	12.9%		0%	0.00000%
Installation & Materials of Access & Switching Equip	Per site	1	10/9/27	120	2/6/28	3.1%		0%	0.00000%
Installation & Materials of New Access Equipment Cabinet	Per Site	1	10/9/27	150	3/7/28	1.8%		0%	0.00000%
						100.00000%	**Current Project Completion Percentage**		**0.00000%**

Memorandum of Agreement
Between County of Craig and Pembroke Telephone Cooperative for the Expansion of Broadband in the County

This MEMORANDUM OF AGREEMENT ("agreement") entered into this _____ day of _____, 2026 by the County of Craig, Virginia, located at 108 Court St, New Castle, VA 24127 (the "County") and Pembroke Telephone Cooperative, located at 504 Snidow St. Pembroke, VA 24136 ("PemTel"). These are the "Parties" to this agreement which pertains to the application for 2026 Virginia Telecommunication Initiative ("VATI") funds granted by the Virginia Department of Housing and Community Development ("DHCD") pursuant to an Agreement between DHCD and the County for the expansion of broadband into the unserved areas of Craig County ("project") (see Project Area Map attached as Attachment 1).

Section 1--Funding and Scope of Work

Project Funds

Craig County is requesting funding in the amount of $9,855,114 from VATI funds (“DHCD Grant”) for the purpose of expanding broadband service to 1094 serviceable units, including 943 residents, 195 businesses and 3 community anchors for unserved areas throughout Craig County as depicted on the Project Area Map. The County is contracting with PemTel as the developer of the project. PemTel, who is in close coordination with the County, and DHCD, shall perform all professional services and construction needed to complete the project's development in full compliance with the terms of this agreement.

PemTel shall also provide 20.79% percent or $2,587,928 matching funds toward the project.

Budget

PemTel shall utilize the DHCD Grant and USDA RUS loan on eligible costs as outlined in the approved budget, which is hereby incorporated into this agreement and attached as Attachment 2. PemTel and the County shall prepare a detailed budget that outlines how the grant funds shall be utilized, including an itemization of materials, equipment, construction costs, and a justification of proposed expenses. Each service area shall have delineated budget information.

Project Scope of Work

This project includes making broadband services available through the utilization of fiber-to-the-premise technology to underserved 1094 units, including 943 Residents 3 community anchor and 195 business/non-residential units in Craig County, as depicted by the project area map. The project will utilize XGN-PON equipment cable to deliver 10Gbps symmetrical speeds to end users throughout the coverage area. Based on PON (passive optical network), the design of the network will be in a 32:1 split ratio for customer access, and speeds from 100Mbps to 1Gbps symmetrical will be initially offered.

The project utilizes existing PemTel fiber that is located near the project areas, as well as new PemTel fiber, to provide the primary internet connections. This fiber point of presence provides connectivity to the network with initial capacities up to 10Gbps. OLT cabinets are installed throughout the services territory that distributes to the service locations and interconnects to the middle mile fiber.

End users connect using XGS-PON ONT's capable of up to 10Gbps symmetrical speeds. Also provided to the customer is a Wi-Fi 6 capable wireless router with enhanced services, including parental controls and network security.

All the proposed fiber to the home (FTTH) and wireless infrastructure for this project shall be owned or leased by PemTel.

PemTel shall initiate the Field Engineering on March 2027, with the construction of the project beginning no later than 06/09/2027. The project is estimated to take eighteen (18) months, and PemTel shall complete the project on or before 09/1/2028. Subject to the Performance Measures herein, and specifically the provisions regarding Force Majeure if the project is not completed by that date and the County and DHCD have granted no written extension, all DHCD Grant funds and this agreement shall be terminated. PemTel shall return to the County all DHCD grant funds required by DHCD and all County Grant funds required by the County. The parties agree that a written extension of the time to perform shall not unreasonably be withheld.

PemTel shall carry out the following specific activities in the implementation of the project:

1) Oversee the performance of all vendors, general contractors, and subcontractors that are involved in the development of the project to assure compliance with this agreement and all applicable federal, state, and local laws and regulations, including the following, which shall be incorporated and made a part of this agreement:
    a) CDBG General Management Manual
    b) Project Management Plans/Project Plans
    c) Terms and Conditions in the Agreement between DHCD and the County
2) Process payments to vendors, contractors, and subcontractors in accordance with the approved budget in a commercially reasonable and timely manner.
3) Assure that funds provided under this agreement are only used for eligible purposes as outlined in the approved budget and must take proactive steps to prevent misuse and/or mismanagement of funds.

The County shall be responsible for hiring the New River Valley Regional Commission ("regional commission") to administer the DHCD Grant. The County and PemTel shall meet with the representative(s) for the Regional Commission serving as the Project Grant Administrator at least monthly to monitor the project's progress properly. The Project Management Plan shall be reviewed by PemTel, the County, and Grant Administrator to determine if the project is being implemented according to the Project Management Plan. The Project Management Plan shall be updated to recognize any deviation from the approved Plan, and DHCD shall be notified.

Performance Measures

The Project Management Plan (PMP) will serve as a guideline for the performance/timing of project. The project management team (PMT), consisting of representation of both parties, shall ensure that the PMP remains consistent with the progress of the project. In the event of delays, the PMT shall determine if the delays are beyond PemTel's control or the if delays are due to negligence. If deemed beyond PemTel's control, then the PMT shall navigate the issue and update/revise the PMP to be resubmitted into DHCD's Central Application and Management System (CAMS). If the PMT deems a delay as due to negligence,

then the County may notify PemTel in writing of any action to suspend or terminate subject to the provisions of Section 7—Suspension and Termination herein.

Force Majeure. PemTel may cancel, terminate, or suspend this Agreement and PemTel will have no liability for any failure to deliver or perform, or for any delay in delivering or performing any obligations, due to acts or omissions of County and/or its contractors, or due to Force Majeure. "**Force Majeure**" means any event or circumstance beyond PemTel's reasonable control, including but not limited to: (A) acts of God, such as natural disasters, drought, fire, flood, earthquake, tsunami; (B) war (declared or undeclared), riots, insurrection, rebellion, acts of the public enemy, acts of terrorism, sabotage, blockades, governmental authorities acts or inactions, embargoes; (C) disease, pandemics, epidemics; (D) currency restrictions; and (E) labor shortages or disputes, unavailability of components, materials, or parts, fuel, power, energy or transportation facilities; failures of suppliers or subcontractors to effect deliveries. In all such cases, the time for performance will be extended in an amount equal to the period necessary for PemTel to recover from the event, provided that PemTel will, as soon as reasonably practicable after it has actual knowledge of the beginning of any excusable delay, notify County of the delay and of the anticipated duration and consequence thereof; and, to the extent the Force Majeure impacts the pricing specified in the Memorandum of Agreement, as the case may be, PemTel will notify County of the revised pricing and its basis. Should the County reject any such Force Majeure-related pricing increase, the parties will resolve in accordance with the Memorandum of Agreement's dispute resolution process. PemTel will resume performance of its obligations hereunder with the least possible delay.

Section 2—Reimbursement of Expenses

The County shall provide the DHCD funds to PemTel on a pay-for-performance basis. PemTel shall perform the work first and then seek reimbursement from the County's grant administrator through the DHCD grant funds. It is expressly agreed and understood that the County's total amount to be paid to PemTel under this agreement should not exceed the DHCD grant.

The County's project manager shall process PemTel's claims for payment in a timely and reasonable manner upon determining that PemTel submitted all required and properly completed supporting documentation as required by DHCD and the County. All claims for reimbursement for work performed shall be in conformance with the latest approved budget and be supported by properly executed payrolls, time records, invoices, contracts, or vouchers evidencing in proper detail the nature and propriety of the claim for reimbursement.

A ten percent (10%) retainage shall be withheld from each payment by the County. The 95% of the retainage shall be disbursed within thirty (30) days once the County receives notice from DHCD that the project is complete and in conformity with DHCD grant requirements. An Additional 3% will be disbursed within thirty (30) days after the County receives the 6-month report due six (6) months after the closeout report. And the final 2% will be disbursed within thirty (30) days after the County receives the 12-month report due twelve (12) months after the closeout report. If the project is not constructed in conformity with the DHCD grant requirement, the County may use the retainage funds to complete any items identified by the County or DHCD should PemTel fail to do so.

Section 3—Initial Broadband Services, Offerings, and Marketing

PemTel agrees that the initial residential/business offerings for Broadband Services within the project area, once the project is completed, shall be as follows:

MAX DOWNLOAD	MAX UPLOAD	MONTHLY RATE **RESIDENTIAL**	MONTHLY RATE **BUSINESS**
100	100	$84.95	$124.95
500	500	$99.95	$189.95
1G	1G	$114.95	$284.95

Rates shown are for Broadband Internet service only. Broadband Internet service plans are discounted by $10.00 when also subscribing to telephone service

Marketing

PemTel agrees to market the residential and business broadband service once available in the project map area using the following:

- Newsletter Updates
- Social Media
- Direct Marketing (Letters and Phone Calls to Customers)
- Newspaper Ads
- Word of Mouth
- Mailers

NOTE: See Marketing Plan for more details.

Section 4—Insurance Requirements

1) PemTel shall maintain for the duration of construction, at PemTel's expense, insurance that includes "Occurrence" basis wording and is issued by a company or companies qualified to do business in the state of Virginia acceptable to the County. PemTel shall name the County as an additional insured on all liability policies and acknowledges that any insurance maintained by the County shall apply in excess of and not contribute to insurance provided under PemTel's policy to the extent County's insurance would apply. PemTel agrees to maintain insurance policies commensurate with all County contract requirements within the scope of this agreement as follows:
    a) Commercial Liability Insurance, including premises liability, bodily injury, and product/completed operations coverage with a combined single limit of $1,000,000.00 per occurrence, with a $3,000,000.00 aggregate, and
    b) Non-owned/hired automobile liability of $1,000,000.00 in aggregate.
    c) Worker's Compensation Covering statutory requirements of the State of Virginia and Employer's Liability of not less than $100,000.00.
    d) Equivalent insurance coverage for real property and equipment acquired with DHCD Grant Funds.

Acceptance or approval of insurance shall in no way modify or change the indemnity or hold harmless clauses in this agreement, which shall continue in full force and effect.

2) PemTel agrees to provide the County with Certificates of Insurance evidencing the above-required insurance before commencement of activity as part of this agreement, and thereafter with certificates evidencing renewals or replacements of said insurance policies at least fifteen (15) days before the expiration or cancellation of any such policies. The contractual liability arising out of the agreement shall be acknowledged on the Certificate of Insurance by the insurance company. The County shall be provided within thirty (30) days prior notice, in writing, of Notice of Cancellation or material change to the insurance and said notification shall be stated on the Certificate of Insurance. PemTel's subcontractors, if any, shall comply with the exact insurance requirements.

   PemTel shall be responsible for verifying insurance by those entities it hires. If said entities do not carry proper insurance, then PemTel shall have insurance protection from claims which may arise out of or as a result of the work, whether it be performed by PemTel, subcontractor, independent contractors, consultants, agents, supplier, and the like, whether directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.

   Insurance Notices and Certificates of Insurance shall be provided to:

   Dan Collins, County Administrator
   Craig County Administration
   108 Court Street
   New Castle, VA 24127
   dcollins@craigcountyva.gov

Section 5-Indemnification and Hold Harmless

PemTel agrees to indemnify and hold the County, its officials, board members, constitutional officers, and officers, agents, attorneys, and employees (each represented as "the County") harmless against and from all claims by or on behalf of any person, firm or corporation including but not limited to the grant provided by DHCD for the project, arising from the conduct or management of, or from any work or things done or omitted to be done on the project while this agreement obligations remain outstanding, including but not limited to (i) any condition of the project, (ii) any breach or default on the part of PemTel in the performance of any of its obligations under this agreement, (iii) any act of negligence of PemTel, or of its agents, contractors, servants, employees, or licensers, (iv) any act of negligence of any assignee or lessee of PemTel, or of any agents, contractors, servants, employees, or licensees of any assignee or lessee of PemTel, (v) any performance by the County as required under this agreement or as requested by PemTel, this paragraph shall also apply to any subcontractors of PemTel and (vi) for any repayment obligation the County may have to DHCD due to the County contracting with DHCD to be the Grantee for the $9,855,114 DHCD Grant Funds being provided to PemTel pursuant to this agreement for the project.

PemTel agrees to indemnify and save the County harmless from and against all costs and expenses incurred in or in connection with any such claim arising as aforesaid or in connection with any action or proceeding brought thereon. In case any such claim shall be made, or action brought based upon any such claim in respect of which indemnity may be sought against PemTel, upon receipt of notice in writing from the County setting forth the particulars of such claim or action, PemTel shall assume the defense thereof including the employment of counsel and the payment of all costs and expenses. In any such action, the County shall have the right to employ separate counsel mutually acceptable to the County and PemTel and to participate in the defense thereof; provided that if the County and PemTel participate in the defense thereof; provided that the County and PemTel cannot agree on mutually acceptable counsel, the

County shall have the exclusive right to select such counsel. The fees and expenses of such counsel reasonably incurred shall be at the expense of PemTel without regard to any authorization of such employment by PemTel.

Section 6—Compliance with Federal, State & Local Laws

PemTel covenants and warrants that it shall comply with all applicable laws, ordinances, codes, rules, and regulations of the state, local, and federal governments, including but not limited to those laws and regulations specifically listed in the Assurance/Certification Section of the Agreement between DHCD and the County.

PemTel agrees to comply with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 USC 1857(h)), section 508 of the Clean Water Act (33 USC 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).

Section7—Suspension and Termination

Subject to the Performance Measures herein, and specifically the provisions regarding Force Majeure, the County may suspend or terminate this agreement, in whole or part, if PemTel materially fails to comply with any terms of this agreement or any of the rules, regulations, or provisions related to DHCD grant funding of this agreement referred to herein. In the event that PemTel is in material noncompliance with any applicable rules or regulations, the County may withhold further payment of DHCD grant funds until such time as PemTel is found to comply by the County or is otherwise adjudicated to comply. The County will notify PemTel in writing and thirty (30) days in advance of any action to suspend or terminate before taking such action. If PemTel does not correct or, if immediate correction is not possible, commence and diligently continue action to correct any default of PemTel to comply with any of the provisions or requirements of this Memorandum of Agreement within thirty (30) calendar days after being notified in writing of such default by the County, then County may, by written notice to PemTel, without prejudice to any other rights or remedies which the County may have, terminate its further performance of this Memorandum of Agreement. If any termination occurs under this paragraph, County will be entitled to receive payment as if PemTel has cancelled the Agreement as per this paragraph immediately and without notice as a debt due. PemTel may nevertheless elect to complete its performance of this Agreement by any means it chooses. County agrees to be responsible for any additional costs incurred by PemTel in so doing. Upon termination of this Memorandum of Agreement, the rights, obligations and liabilities of the parties which will have arisen or been incurred under this Agreement prior to its termination will survive such termination.

1) This agreement shall be terminated and canceled without penalty if the PemTel Grant and/or the DHCD grant funding, upon which the parties are dependent, to pay for this service fails to be appropriated or otherwise made available in whole or in part.
2) If the County suspends or terminates this agreement in whole or in part due to any reason set forth above, the County will not be liable for any loss or damage to PemTel that results directly or indirectly from said suspension or termination.
3) The County shall not be responsible for or liable for language included or excluded in any of PemTel's subcontracts, purchase orders, and the like.
4) Upon a good faith suspension or termination by the County of this agreement, PemTel shall remit to the County within thirty (30) days of receipt of written notice the entire

amount of DHCD Grant funds that DHCD requires the County to return to DHCD under the agreement between DHCD and County.

Section 8—Remedies

In the event of any violation or breach of this agreement, including but not limited to, PemTel's misuse or misapplication of funds derived from this agreement, by PemTel's violation of any of the statutes, rules, and regulations of DHCD, either directly or indirectly, by PemTel and/or any of its agents or representatives, then PemTel, to the extent permitted by law, agrees to indemnify and hold County harmless from any requirement by the County to repay to DHCD the DHCD grant funds the County paid PemTel for this project or penalties and expenses, including attorneys' fees and costs of litigation, resulting from such action or omission by PemTel. In the event DHCD makes any claim to the County requiring the County to repay any portion of the DHCD Grant which would give rise to invoking the remedy provisions, as set forth in this section, then the County shall immediately notify PemTel in writing, providing the full details of the alleged violation. PemTel shall provide to the County within thirty (30) days of receiving written notice of the portion of the DHCD grant the County is required to repay DHCD pursuant to the agreement between DHCD and the County. Should PemTel fail to provide the funds to the County, the County may proceed to enforce repayment of the DHCD Grant by retaining any of the retainages still in possession of the County and/or exercise any, and all other rights, powers, or remedies the County may have under law. In the event of any violation or breach of this agreement by the County, including but not limited to, County's misuse or misapplication of funds derived from this agreement, by the County's violation of any of the statutes, rules, and regulations of DHCD, either directly or indirectly, by the County and/or any of its agents or representatives, then PemTel shall not be required to repay to DHCD the DHCD grant funds the County received for this project or penalties and expenses, including attorneys' fees and costs of litigation, to the extent that the repayment requirement results from such action or omission by the County.

The parties agree that any dispute, action, claim, cause of action, breach of contract, or other remedy or relief sought under the provisions of this agreement or any related project shall be controlled and decided by the laws of the State of Virginia. The parties further agree that the appropriate venue for any disputes shall be the Craig County Circuit Court or the US District Court, Western Division of Virginia, if applicable.

Section 9—Default-Loss of Grant Funds

If PemTel fails to fully perform and carry out any of the terms, covenants, and conditions of the agreement, PemTel shall be in default, and notice in writing shall be given to PemTel of such default by the County or an agent of the County. If PemTel fails to cure such default within thirty (30) days after written notice thereof from the County (unless such default is not capable of cure within such thirty (30) day period, in which case PemTel shall promptly commence and diligently prosecute to completion the cure of such default after written notice thereof from the County), the County may at its option terminate and cancel the agreement. The County may not terminate or cancel the agreement for so long as PemTel has promptly commenced and diligently prosecutes the completion of the cure of such default.

In the event of such termination, all DHCD Grant funds awarded to PemTel under this agreement shall be immediately revoked. Any approvals related to the project shall be immediately revoked and canceled. In such an event, PemTel will no longer be entitled to receive any compensation for work undertaken after the date of the termination of this agreement, as the DHCD Grant funds will no longer be available for this project.

Such termination shall not affect or terminate any of the rights of the County as against PemTel then existing, or which may thereafter accrue because of such default, and the foregoing provision shall be in addition to all other rights and remedies available to the County under the law.

The waiver of a breach of any term, covenant, or condition hereof shall not operate as a waiver of any subsequent breach of the same or any other term, covenant, or condition hereof.

Section 10—Reporting Responsibilities

1) Project Files PemTel shall keep a file on the project containing the information as required by DHCD.
2) Record Retention All records must be retained for five years after completion of the project.
3) Meeting Attendance PemTel will have a representative attend all meetings regarding the project scheduled by the County or DHCD unless the County is given notice of non-attendance 24 hours before the scheduled meeting time.
4) Requests of the County At the reasonable request of the County or DHCD, PemTel shall furnish such reports, budgets, certifications, and other documents required pursuant to Federal, State, or County rules, regulations, and policies that apply to the project and shall give specific answers to questions from the County of DHCD, from time to time, relative to PemTel's contracts and operations in connection with the project.

Section 11—Inspection, Monitoring & Access to Records

The County reserves the right to inspect, monitor, and observe work and services performed by PemTel at any and all reasonable times.

The County reserves the right, at the County's expense, to audit the records of PemTel for five years after the completion of the project. The County reserves the right to audit the records of PemTel at any time during this agreement's performance and for five years after final payment is made under this agreement.

If required, PemTel shall provide the County with a certified audit of PemTel's records representing the Fiscal Year during which the project becomes complete pursuant to the requirements of DHCD and OMB Circular A-133.

Access shall be granted upon reasonable notice to the County, DHCD, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of PemTel or its contractors which are directly pertinent to that specific contract to make audit, examination, excerpts, and transcriptions.

Section 12—General Conditions

1) All notices or other communications which shall or may be given under this agreement shall be in writing and shall be delivered by personal service, overnight delivery service, or by registered mail addressed to the other party at the address indicated herein or as the same may be changed from time to time. Such notice shall be deemed given to the day on which personally served, if by overnight delivery service, on the date of receipt of such notice; or, if by mail, on the fifth day after being posted or the date of actual receipt, whichever is earlier.

   County:

   County of Craig

ATTN: Dan Collins, County Administrator
108 Court Street
New Castle, VA 24127

PemTel:

Pembroke Telephone Cooperative
ATTN: Jason Dudding
504 Snidow St.
Pembroke, VA 24136

2) Titles and headings are for convenient reference and are not part of this agreement.

3) In the event of a conflict between the terms of this agreement and any terms or conditions contained in any attached documents, the term in this agreement shall rule.

4) No waiver or breach of any provision of this agreement shall constitute a waiver of a subsequent breach of the same or any other provision hereof, and no waiver shall be effective unless made in writing.

5) The parties hereto agree that this agreement shall be construed and enforced according to the laws of the Commonwealth of Virginia.

6) Should any provisions, paragraphs, sentences, words, or phrases contained in this agreement be determined by a court of competent jurisdiction to be invalid, illegal, or otherwise unenforceable under the laws of the State of Virginia, such provisions, paragraphs, sentences, words or phrases shall be deemed modified to the extent necessary to conform with such laws, or if not modifiable to conform with such laws, then same shall be deemed severable. In either event, this agreement's remaining terms and provisions shall remain unmodified and in full force and effect.

7) PemTel shall comply with the provisions of the Copeland Anti-Kick-Back-Act (18 USC 874).

8) PemTel shall comply with the provisions of sections 103 and 107 of the Contract Work Hours and Safety Standard Act (40 USC 327-330).

9) PemTel further warrants and agrees to include or cause to be included the criteria and requirements of paragraphs (7) through (8) of this section in every nonexempt subcontract. PemTel also agrees to take such action as the federal, state, or local government may direct to enforce aforesaid provisions.

10) The obligations undertaken by PemTel pursuant to this agreement shall not be delegated or assigned to any other person or County unless the County shall first consent to the performance or assignment of such service of any part thereof by another person or County unless Craig County shall first consent to the performance or assignment of such service or any part thereof by another person or County, which consent shall not be unreasonably withheld.

11) The agreement shall be binding upon the parties hereto, their heirs, executors, legal representative, successors, and assigns.

12) PemTel and its employees and agents shall be deemed independent contractors and not agents or employees of the County. They shall not attain any rights or benefits under the County's civil service or pension ordinances, or any rights generally afforded to a classified or unclassified employee of the County.

Section 13—Miscellaneous

1) Severability

Should any provision contained within this agreement be found, for any reason, to be invalid, illegal, or unenforceable, it shall not affect any other provision hereof, and this agreement shall be constructed as if such invalid, illegal, or unenforceable provision had never been contained herein.

2) Non-waiver of Rights

The County's failure to insist upon strict performance of any provision of this contract, or failure to exercise any right based upon breach, will not constitute a waiver of any rights under this agreement.

3) Amendments

Any amendment to this agreement must be in writing and signed by a duly authorized representative of each organization. Such amendment(s) shall not invalidate this agreement nor relieve or release the County or PemTel from its obligations under this agreement. However, the County may amend this agreement without PemTel to conform with federal, state, and local governmental guidelines, policies, and available funding amount or for other reasons. If such amendment(s) results in a change in the funding, the scope of services, or the schedule of the activities to be undertaken as part of this agreement, such modifications will be incorporated only by a written amendment signed by the County and PemTel.

This agreement represents the entire agreement between the parties and supersedes all prior representations, negotiations, or agreements, whether written or oral.

4) Counterparts

This agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all taken together shall constitute the same instrument.

WITNESS the following signatures and seals:

County of Craig, Virginia

By:_____

Dan Collins, County Administrator

Date:_____

Pembroke Telephone Cooperative

By:_____

Leon Law, Board President

Date:_____

October 15, 2026

Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, VA 23219-2430

Attention: Chandler Vaughan
Director, Virginia Office of Broadband

Subject: Letter of Support for Pembroke Telephone Cooperative (Pemtel)

Dear Mr. Vaughan:

Calix is pleased to support Pembroke Telephone Cooperative (Pemtel) in its application for a Virginia Telecommunication Initiative (VATI) grant to expand broadband access in underserved Virginia communities.

Calix is an AI platform company that enables service providers such as Pemtel to transform their operations and accelerate the delivery of differentiated subscriber experiences. Built on more than two decades of industry experience, the Calix One platform combines agentic AI, intelligent appliances, integrated managed services, Calix Success, and a partner community to help service providers simplify operations, innovate for residential, business, municipal, and multi-dwelling unit markets, and grow value for their subscribers and communities. More than 1,200 customers of all sizes use the Calix One platform, which has evolved over 15 years through an investment of more than $2 billion.

Calix has a strong working relationship with Pemtel on broadband access projects and remains committed to providing the hardware and software platforms, design, delivery, and technical support services needed to meet or exceed VATI requirements.

We appreciate the opportunity to support this important effort to bridge Virginia's digital divide.

Sincerely,

DocuSigned by:
Mark Johnson
CB9C8B5D270F4B3...

Mark Johnson
Vice President Sales
Mark.Johnson@calix.com

Cc: Michael Jason Dudding, Pemtel
Michelle Hibbett, Calix

3155 Olsen Drive - Suite 450
San Jose, CA 95117
T 408.514.3000
www.calix.com

8107 Plainwood Ave. Stonewood, WV 26301 | www.SupplySolutionsStore.com
P: 304.624.5072 F: 304.624.4810 email: sales@supply-solutions.biz

October 14, 2026

PemTel
504 Snidow Street
Pembroke, VA 24136
www.pemtel.net

To Whom it May Concern,

Supply Solutions is a stocking distributor of communications supplies and materials used in the construction of broadband communications networks throughout the nation. We have been working with PemTel for more than 12 years in supplying vital infrastructure materials in their quest to provide sustainable and effective broadband to their constituents. Supply Solutions works with our customer-partners, such as PemTel, to smooth the supply chain constraints of our industry. This is accomplished through intelligent purchasing and stocking processes as well as PemTel's practice of pre-purchasing materials which are stored at our facility to be delivered as needed. PemTel is an active participant in the process through proactive planning for materials needed to begin construction should they be awarded the requested funding.

Supply Solutions maintains purchasing agreements with key manufacturers to ensure availability and on-time delivery of products. Supply Solutions currently has more than 9 million feet of fiber cable on hand for our key partners, such as PemTel.

PemTel, together with Supply Solutions, is assured of on-time and on-budget delivery of vital materials and supplies in the buildout of its networks.

Best regards,



Ben H. Randolph
Manager, Altec Supply Solutions
P: 304.624.5072
E: brandolph@supply-solutions.biz

A QUANTA SERVICES COMPANY

Taylor's Construction, LLC - 1426 E Lee Hwy - Chilhowie, VA 24319 – 276-782-2060

October 15, 2026

Dr. Tamara Holmes
Director, DHCD Office of Broadband
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, VA 23219-2430

Dear Dr. Homes,

Taylor's Construction is pleased to express its strong support for the funding application submitted by Pembroke Telephone Cooperative (PemTel) for the expansion of broadband infrastructure and services in Craig County, Virginia.

Since 2022, Taylor's Construction has served as a prime contractor for PemTel. During this partnership, we have constructed more than 150 miles of fiber infrastructure, helping PemTel deliver reliable broadband service to communities that previously lacked access to these essential services. In addition to fiber construction, we have provided resources and support for storm restoration efforts, small plant extensions, and new service connections.

Our ongoing relationship with PemTel has not only improved connectivity for residents and businesses throughout the region but has also created opportunities for Taylor's Construction to continue employing local workers close to home while utilizing the services of small local contractors. This investment in broadband infrastructure generates meaningful economic benefits for the communities we serve.

Taylor's Construction is committed to continuing our partnership with PemTel and supporting its mission to expand broadband access. We will continue to provide the high standards of safety, quality, and craftsmanship that PemTel expects and demonstrates in its own operations.

We fully support PemTel's funding application and believe this project will deliver significant and lasting benefits to the residents and businesses of Craig County.

If you have any questions, please don't hesitate to contact me.

Sincerely,

Robert Taylor
President
Taylor's Construction, LLC.
(cell) 276-780-5079
bobby@taylors.zone

Board of Supervisors
Jessie Spence, Chair, New Castle District
Jordan Labiosa, Vice Chair, Craig City District
Carl Bailey, Potts Mountain District
Raymond Christian, Craig Creek District
Brian Lipes, Simmonsville District

County of Craig

108 Court Street
P.O. Box 308
New Castle, Virginia 24127

County Administrator
R.R. Dan Collins
540-864-5010

October 19, 2026

Virginia Telecommunication Initiative (VATI)
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, VA 23219

RE: Letter of Commitment – Pembroke Telephone Cooperative VATI Broadband Expansion Project

To Whom It May Concern:

On behalf of Craig County, Virginia, I am pleased to express the County's commitment to working collaboratively with Pembroke Telephone Cooperative in support of its application for funding through the Virginia Telecommunication Initiative (VATI) to expand broadband infrastructure and services within Craig County.

Craig County recognizes the critical importance of reliable, high-speed broadband access for our residents, businesses, educational institutions, and public safety agencies. Expanding broadband availability throughout our rural community remains an important priority for the County, particularly in areas that are currently unserved or underserved.

Craig County is committed to cooperating with Pembroke Telephone Cooperative in the planning, coordination, and implementation of the proposed broadband expansion project. This partnership is intended to facilitate the extension of broadband services into eligible areas of the County at no cost to Craig County.

The County will provide reasonable administrative support and coordination, as appropriate and within its authority, to assist in the successful implementation of the project.

We believe this initiative represents a valuable opportunity to improve connectivity, promote economic development, support educational opportunities, and enhance the quality of life for residents throughout Craig County.

Craig County fully supports Pembroke Telephone Cooperative's application for VATI funding and looks forward to working together to bring reliable, high-speed broadband access to more of our community.

Sincerely,



Trace Bellassai
Technology Committee Chairman
Craig County, Virginia

PUBLIC NOTICE REQUEST

FOR PROPOSALS

Fiber to the Home Broadband Internet Service

CRAIG COUNTY, VIRGINIA

The County of Craig hereby solicits proposals from qualified Offerors for broadband internet projects for any area of the county not currently receiving at a minimum 100mbps download and 20mbps upload speeds. The Craig County Broadband Committee would like to partner with such providers in securing grants and local funding. Broadband service must be fiber to the home. No other means of broadband delivery will be considered. Projects will be chosen by the broadband committee based on cost, time to project completion, number of passings included in the project, and guaranteed broadband speed of the completed project. Service providers may reach out to the Broadband Committee if they have any questions. Proposals are due no later than June 10th 2022, at 5pm. Proposals and questions can be directed to broadband@craigcountyva.gov. The County reserves the right to reject any bids and reserves the right to engage in negotiations with any providers, or other interested parties.

I*n accordance with Section 2.2-4302.2 of the Code of Virginia, Virginia Public Procurement Act.*

PemTel-Pembroke Telephone Cooperative

Response to
Craig County Fiber to the Home Broadband Internet Service Request for Proposal

Introduction

Pembroke Telephone Cooperative dba PemTel is responding to the Craig County Request for Proposal regarding **A Fiber to the Home Broadband Internet Service**.

The Pembroke Telephone Cooperative (PemTel), incorporated in 1967 and headquartered in Pembroke, Virginia, is a rural telephone company that provides voice and high-speed broadband in rural portions of Giles and Craig Counties, Virginia along U.S. Highway 460 between Pearisburg and Blacksburg and along Highway 42 between Newport and New Castle. PemTel currently provides services to Co-op members in two exchanges, Pembroke and Newport, and in the last few years increased its area of service to include additional areas in Southern Giles County with fiber to the home. This area is referred to as Green Valley, Bear Springs, and Springdale and provides high-speed broadband and voice to subscribers that have been added via the recently awarded Community Connect Grants from the USDA RUS program. The CC projects consisted of 15 miles of FTTH in Green Valley and 10 miles each in Bear Springs and Springdale. PemTel has also been building FTTH in other areas of its exchanges with ACAM money provided by the FCC program.

The majority of the PemTel area of the county is extremely rural and there are few existing Critical Community Facilities in the area. Vital broadband service will be provided to any Critical Community Facility including local schools, libraries, hospitals, police, and fire and rescue services that may move into the area. However, residing in this area there are emergency first responders, nurses, and teachers who assist and work for Critical Community Facilities. Both Community Connect grants required Community Centers and will provide free and open access to residents for the required period of time. PemTel renovates the buildings as required to be used as the Community Centers.

The existing service in the proposed CC grants consists primarily of services over a copper plant. Because of the rural nature, the available speed in the area did not meet the broadband requirement. These areas were in desperate need of this upgrade as are the two proposed new areas in Craig County. The proposed project will be built where possible as buried and in other areas, it will be aerial at a lesser cost but higher long-term maintenance.

The Craig County Broadband Committee would like to partner with such providers in securing grants and local funding.

PemTel would be more than willing to partner with Craig County in securing grants and local funding for two adjacent areas of the county. One is the south end of Hwy 42 which is located in an area now being served by older PemTel copper facilities, and the other is in the middle section of Hwy 42 to the top of the mountain presently being served by TDS.

Broadband service must be fiber to the home.

PemTel has only built last-mile fiber facilities for the last three years and all facilities going forward will be the same.

Projects will be chosen by the broadband committee based on cost, time to project completion, number of passings included in the project, and guaranteed broadband speed of the completed project.

PemTel has provided an attached cost estimate to build the two areas mentioned above. It proposes to build 37 miles in the Pembroke service area and pass 368 homes and businesses and also proposes to build 33 miles in the TDS service area and pass 227 homes and businesses. It proposes to have funds to connect 80% of the locations and would provide any additional funds if the penetration was higher. The network design would allow 1G symmetrical service to every location initially with the ability to upgrade to 10G symmetrical in the future as demand justifies the replacement of the home electronics.

The project is planned to be built in two phases over two years.

Pembroke Telephone Cooperative-PemTel

Craig County VATI

Project Title: PemTel 2022-25 for Craig County

Budget Summary

Project Costs, Budget and Match

Budget	Labor	Materials	Total Cost	Proposed Grant Funding	Proposed Match Funding 20%
Broadband System					
See attached sheets					
Electronic Equipment	$ 3,800	$ 160,500	$ 164,300	$ 131,440	$ 32,860
Outside Plant Construction	$ 2,062,876	$ 810,260	$ 2,873,136	$ 2,298,509	$ 574,627
Customer Premise Equipment (CPE)	$ 95,200	$ 214,200	$ 309,400	$ 247,520	$ 61,880
Engineering	$ 356,991	$ -	$ 356,991	$ 285,593	$ 71,398
Total Broadband System	$ 2,518,867	$ 1,184,960	$ 3,703,827	$ 2,963,062	$ 740,765

	Construction/ Installation	Materials	Total
PemTel TMC Matching Funds 20%	$ 503,773	$ 236,992	$ 740,765
Grant Funds 80%	$ 2,015,094	$ 947,968	$ 2,963,062
Total	$ 2,518,867	$ 1,184,960	$ 3,703,827

SUMMARY OF EXPENDITURES	Grant Funds	Matching Funds	Total
Easements(one-time fees)State R/W	$ -	$ -	$ -
Materials (fiber, equipment, etc.)	$ 947,968	$ 236,992	$ 1,184,960
Construction/Installation(Eng)	$ 2,015,094	$ 503,773	$ 2,518,867
Testing (Included in Installation)			
Other1			
TOTAL	$ 2,963,062	$ 740,765	$ 3,703,827

Subs Passed	595	Cost per Subs	$ 6,225

Please note:

Cost per location was derived by dividing the total cost of project by total subscribers passed
Cost estimates by unit were derived from previous projects of similar construction
The prices used reflect the fact that costs and lead times have recently been increasing

Electronic Equipment Costs

Electronic Equipment:

Craig County Area -

	Quantity	Labor	Mat	Labor Ext.	Mat. Ext.	Ext. Cost
Universal Aggregation & Core Router	1	$ 2,500	$ 80,000	$ 2,500	$ 80,000	$ 82,500
XGS PON Shelves	2	$ 100	$ 700	$ 200	$ 1,400	$ 1,600
8-Port XGS PON Card	4	$ 50	$ 11,750	$ 200	$ 47,000	$ 47,200
XGS SFP+ Class N1 Optics	32	$ 10	$ 790	$ 320	$ 25,280	$ 25,600
10G SFP+ Uplink	2	$ 100	$ 1,900	$ 200	$ 3,800	$ 4,000
Transport Jumpers	4	$ 5	$ 20	$ 20	$ 80	$ 100
144 Port Fiber Panel	1	$ 200	$ 2,300	$ 200	$ 2,300	$ 2,500
PON Fiber Jumpers	32	$ 5	$ 20	$ 160	$ 640	$ 800
		Exchange Total		**$ 3,800**	**$ 160,500**	**$ 164,300**
		Grand Total Electronic Equipment		**$ 3,800**	**$ 160,500**	**$ 164,300**

Outside Plant Costs (OSP)

PemTel Craig County Area Year 1						
Outside Plant Construction:						
Distribution Fiber	**Qty (kf)**	**Labor**	**Material**	**Labor Ext**	**Mat. Ext**	**Extended Cost**
Aerial Distribution Fiber 60%	122.56	$ 3,600	$ 2,000	$ 441,216	$ 245,120	$ 686,336
Buried Distribution Fiber 40%	72.35	$ 8,000	$ 2,000	$ 578,800	$ 144,700	$ 723,500
Total KF	**194.91**		**Subtotal**	**$ 1,020,016**	**$ 389,820**	**$ 1,409,836**
Total Distribution Miles	**36.91**				**Cost/Mile**	**$ 38,192**
PON Equip & Drops						
PON Cabinet	2	$ 6,000	$ 4,000	$ 12,000	$ 8,000	$ 20,000
Residence Subs	363					
Businesses Subs	5					
Total Subs	**368**					
Splitters 1x32	10	$ 50	$ 300	$ 500	$ 3,000	$ 3,500
Drops@80% @300 ft avg.	294	$ 200	$ 100	$ 58,800	$ 29,400	$ 88,200
Drop Miles	**16.70**		**Subtotal**	**$ 71,300**	**$ 40,400**	**$ 111,700**
		PemTel Area OSP Total		**$ 1,091,316**	**$ 430,220**	**$ 1,521,536**

TDS Craig County Area Year 2						
Outside Plant Construction:						
Distribution Fiber	**Qty (kf)**	**Labor**	**Material**	**Labor Ext**	**Mat. Ext**	**Extended Cost**
Aerial Distribution Fiber 60%	109.25	$ 3,600	$ 2,000	$ 393,300	$ 218,500	$ 611,800
Buried Distribution Fiber 40%	66.17	$ 8,000	$ 2,000	$ 529,360	$ 132,340	$ 661,700
Total KF	**175.42**		**Subtotal**	**$ 922,660**	**$ 350,840**	**$ 1,273,500**
Total Distribution Miles	**33.22**				**Cost/Mile**	**$ 38,331**
PON Equip & Drops						
PON Cabinet	2	$ 6,000	$ 4,000	$ 12,000	$ 8,000	$ 20,000
Residence Subs	224					
Businesses Subs	3					
Total Subs	**227**					
Splitters 1x32	10	$ 50	$ 300	$ 500	$ 3,000	$ 3,500
Drops@80% @300 ft avg.	182	$ 200	$ 100	$ 36,400	$ 18,200	$ 54,600
Drop Miles	**10.34**		**Subtotal**	**$ 48,900**	**$ 29,200**	**$ 78,100**
		TDS Area OSP Total		**$ 971,560**	**$ 380,040**	**$ 1,351,600**

Total Drop Miles	**27.05**			
Total Distribution Miles	**70.14**	**OSP Grand Total**	**$ 2,062,876**	**$ 810,260**	**$ 2,873,136**
Total Density subs per mile of distribution	**8.48**		**Cost per Subs Passed**	**$ 4,829**
Total Locations with Proposed Service	**476**			
Total Locations Passed	**595**			

Customer Premise Equipment Costs

Customer Premise Equipment (CPE)(Year 1 - Qtr 4):	Quantity	Labor	Mat.	Labor Ext.	Mat. Ext.	Ext. Cost
ONT w/UPS Battery Backup (Installed)	200	$ 100	$ 325	$ 20,000	$ 65,000	$ 85,000
WiFi Router & Switch	200	$ 100	$ 125	$ 20,000	$ 25,000	$ 45,000
			Subtotal	**$ 40,000**	**$ 90,000**	**$ 130,000**

Customer Premise Equipment (CPE)(Year 2 - Qtr 1):	Quantity	Labor	Mat.	Labor Ext.	Mat. Ext.	Ext. Cost
ONT w/UPS Battery Backup (Installed)	200	$ 100	$ 325	$ 20,000	$ 65,000	$ 85,000
WiFi Router & Switch	200	$ 100	$ 125	$ 20,000	$ 25,000	$ 45,000
CPE Equipment Total			**Subtotal**	**$ 40,000**	**$ 90,000**	**$ 130,000**

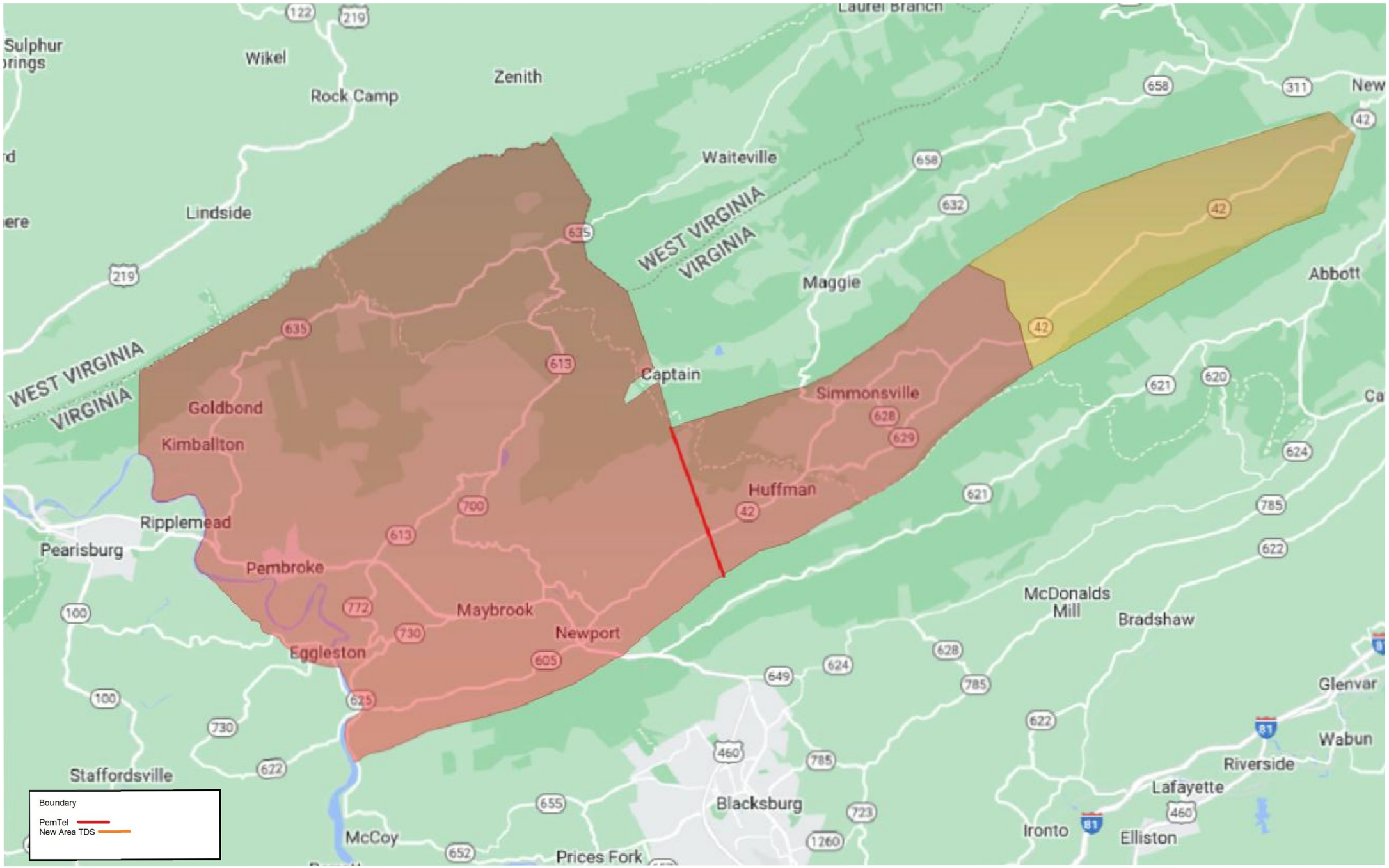
Customer Premise Equipment (CPE)(Year 2 - Qtr 2):	Quantity	Labor	Mat.	Labor Ext.	Mat. Ext.	Ext. Cost
ONT w/UPS Battery Backup (Installed)	76	$ 100	$ 325	$ 7,600	$ 24,700	$ 32,300
WiFi Router & Switch	76	$ 100	$ 125	$ 7,600	$ 9,500	$ 17,100
CPE Equipment Total			**Subtotal**	**$ 15,200**	**$ 34,200**	**$ 49,400**

New CPE Equipment Total	**476**			**$ 95,200**	**$ 214,200**	**$309,400**

Engineering Costs

Engineering:	Quantity	Labor Cost	Extended Cost
Equipment Design & Contract	1	$ 12,215	$ 12,215
OSP Engineering (Includes Contract Admin. & Inspection)	1	$ 344,776	$ 344,776
Engineering Total		$ 356,991	**$ 356,991**

Engineering Total	**$ 356,991**	**$ 356,991**



Boundary Design

Pembroke Telephone Cooperative
504 Snidow St
Pembroke, Virginia 24136
(540)626-7111

SCALE: NTS

Prepared By:
Mid-South Consulting Engineers, Inc.
a Subsidiary of
MID-STATE CONSULTANTS
3901 Rose Lake Drive, Charlotte, NC 28217
704-357-0004

PemTel
Neighbors Serving Neighbors

DESIGN BY: DATE:

COUNTY: ----

SHEET: 1 OF 1

MARKETING PLAN

PEMBROKE TELEPHONE COOPERATIVE'S (PEMTEL) PROJECT

Active Marketing and Community Outreach

PemTel, leveraging its deep-rooted community connections and recognition for exceptional customer service, adopts a grassroots marketing approach to enhance customer take rate in Craig County. Our comprehensive strategy includes a blend of direct and indirect marketing tactics:

Direct Marketing Efforts

Tailored Mail Campaigns

Utilizing data on residents and businesses, we dispatch informative letters across the project service area, detailing the scope of our broadband services and encouraging personal outreach for further information.

Targeted Follow-ups

A sequence of follow-up correspondence is initiated at key project milestones, including pre-sales, to keep the community informed and engaged.

Information/Outreach Booths

Set up information/outreach booths at local events in the targeted areas.

Indirect Marketing Channels

Digital and Print Media

We leverage diverse platforms such as social media, newsletters, the PemTel website, and local newspapers to reach a broad audience.

Word of Mouth

Building on our established reputation, we encourage current satisfied customers to share their experiences, fostering organic growth.

Customer Interaction and Support

Responsive Customer Service

Our local team stands ready to provide personalized assistance, ensuring every interaction reflects PemTel's commitment to quality service.

Installation Outreach

Proactive communication is established with residents for scheduling and facilitating home installations, including follow-up calls on unanswered outreach efforts.