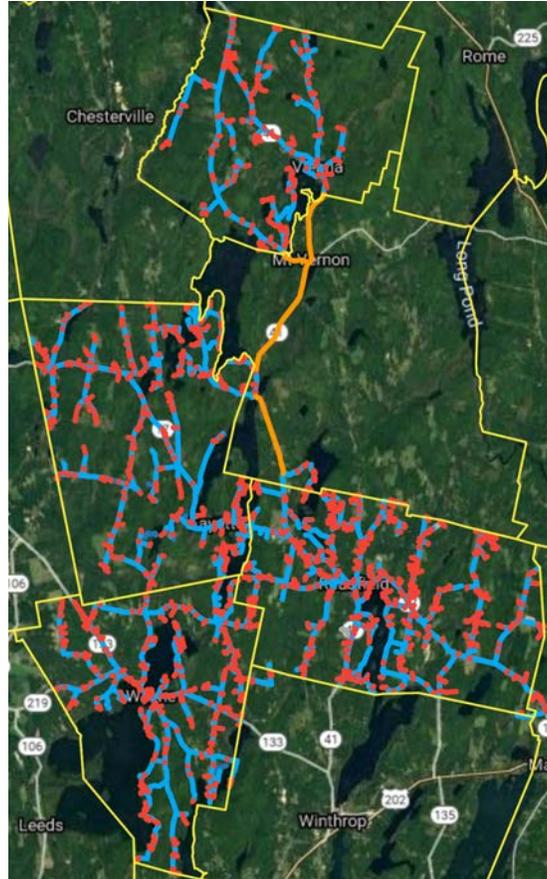




Casco Bay Advisors, LLC
Broadband/Telecom Consulting

Request for Proposal Fiber Optic Construction Services & Network Operator Services



West Kennebec Lakes Community Broadband Association *the Towns of* Vienna, Readfield, Wayne, Fayette

Prepared by

Casco Bay Advisors, LLC

NOVEMBER 22, 2021

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1 Overview

1.1 General Information

West Kennebec Lakes Community Broadband Association (“WKLCA”) is a collaboration between the Towns of Fayette, Leeds, Mount Vernon, Readfield, Vienna, and Wayne (“member-Towns”). Four (4) of the member-Towns, Vienna, Readfield, Wayne, and Fayette (“RFP-Towns”) are seeking a fiber optic design and construction firm (“Construction Contractor”) to construct a Gigabit Passive Optical Network (“GPON”) Fiber-to-the-Premise (“FTTP”) Network (“Network”) and a (“Network Operator”) to operate the Network to serve virtually all potential subscriber locations within the limits of each RFP-Town.

All the potential subscriber locations and utility poles required to service those locations have been identified through a detailed field audit and incorporated into VETRO Fibermap’s cloud-based GIS/Engineering system (“VETRO”). A strand map has been created for each RFP-Town and is shared as either a Google KMZ or Shapefile as part of this Request for Proposal (“RFP”). With the strand maps based on actual utility pole locations, each bidder can develop their proposal with actual / accurate strand routing helping to ensure bids can be compared on an equal basis.

Each RFP-Town intends to own the portion of the Network within their respective town boundaries, with the 4-Town Network operated as a single Network but designed such that each town Network can be operated individually. Each bidder is requested to submit bids as both a combined network implementation and individually by Town. The fiber design for Readfield, Wayne and Fayette may be either centralized-split or distributed-split at the discretion of the bidder. The fiber design for Vienna shall be centralized-split.

Bidders are invited to submit proposals for both the Construction Contractor scope of work and Network Operator scope of work as a combined proposal, or individually for either scope of work. Bidders are also invited to propose alternative bids that may not necessarily be anticipated in this RFP. For bids consisting of teams of firms, one firm must identify itself as the Principal. The Principal shall be responsible for the scope of work proposed, as well as insurance and bonding.

- *The member-Town of Mount Vernon is considering issuance of a separate RFP using a different methodology at a later date.*
- *The member-Town of Leeds has already issued a RFP and has selected a combined construction contractor / network operator pending finalization of community funding.*



1.2 RFP Schedule

All deadlines are 4:00 PM Eastern Time on the date listed.

RFP Schedule	
RFP Released	November 22, 2021
Pre-Bid Meeting (Mandatory) via Zoom at 2:00 PM	November 29, 2021
Questions due	December 6, 2021
Notification of Intent to Respond (Mandatory)	December 6, 2021
Responses to Questions Posted Online	December 13, 2021
RFP Responses due	January 17, 2022
Finalists Named (Expected)	January 24, 2022
Bid Award Announced (Expected)	January 31, 2022

1.3 Single Point of Contact

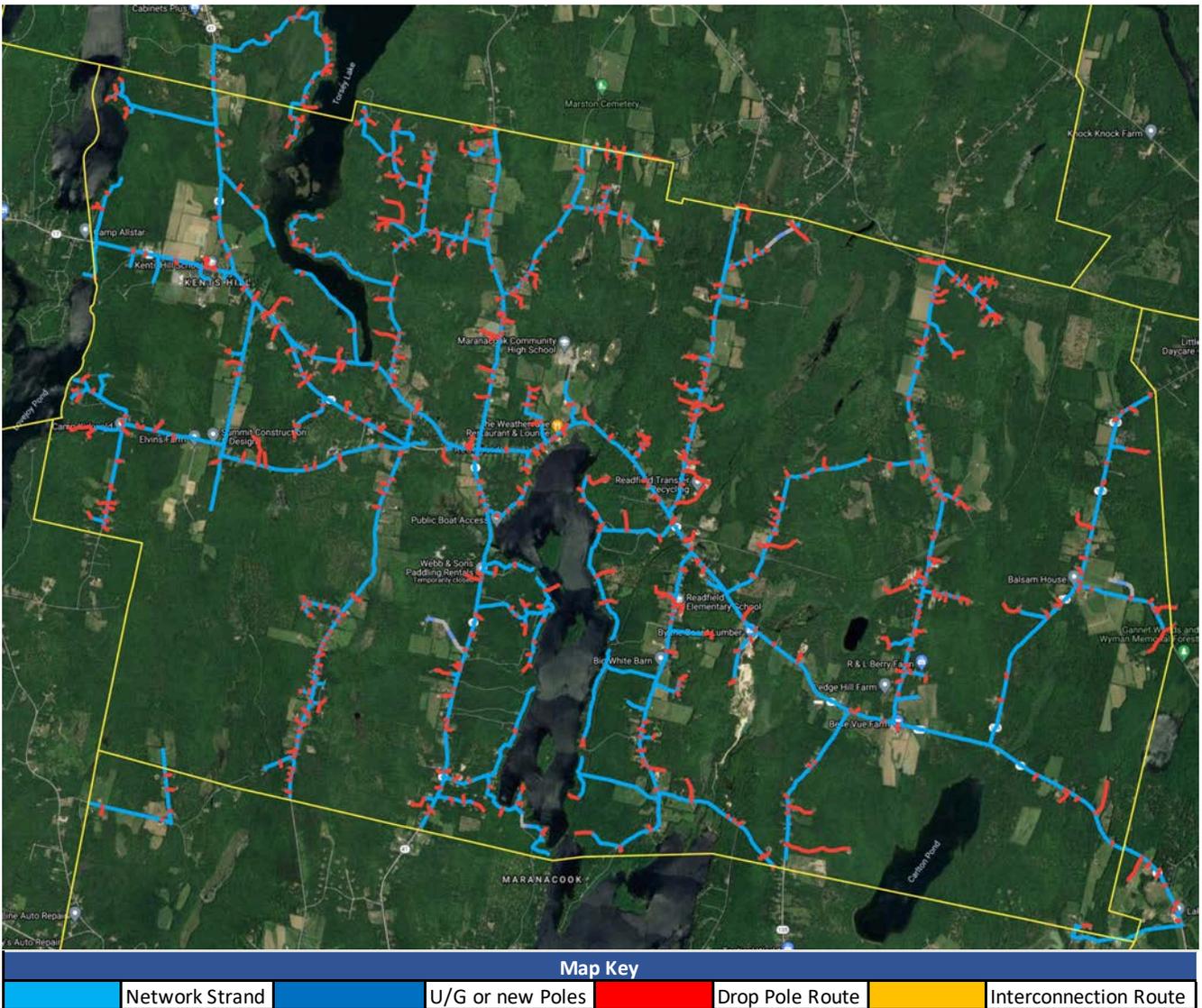
All communications concerning this Request for Proposal (RFP) are to be sent by email to:

Brian Lippold
President
Casco Bay Advisors, LLC
2 Streamside Ln
Gardiner, ME 04345
207-233-2976
brian@cascobayadvisors.com

2 Network Architecture

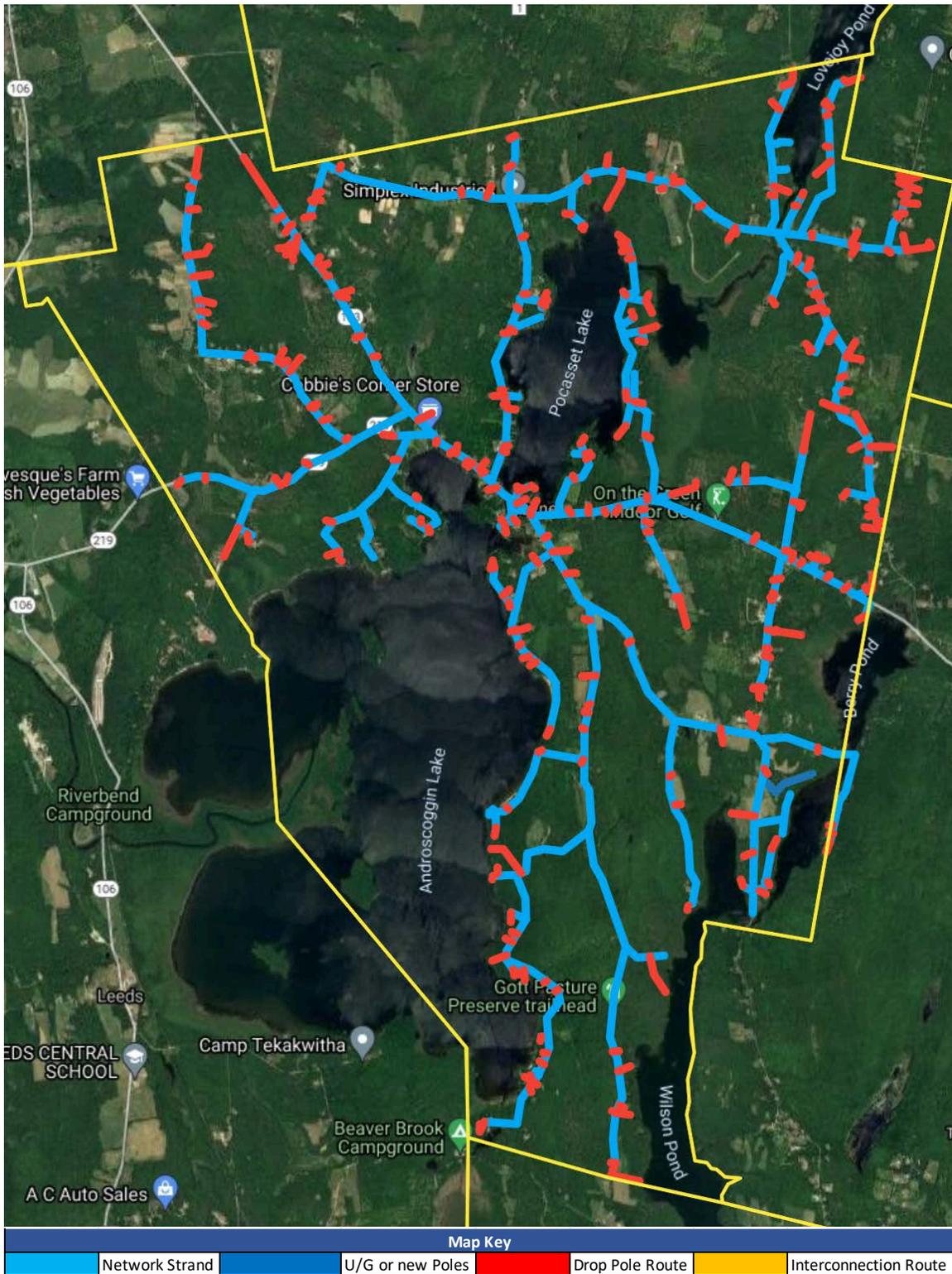
2.1 Strand Maps

2.1.1 Readfield

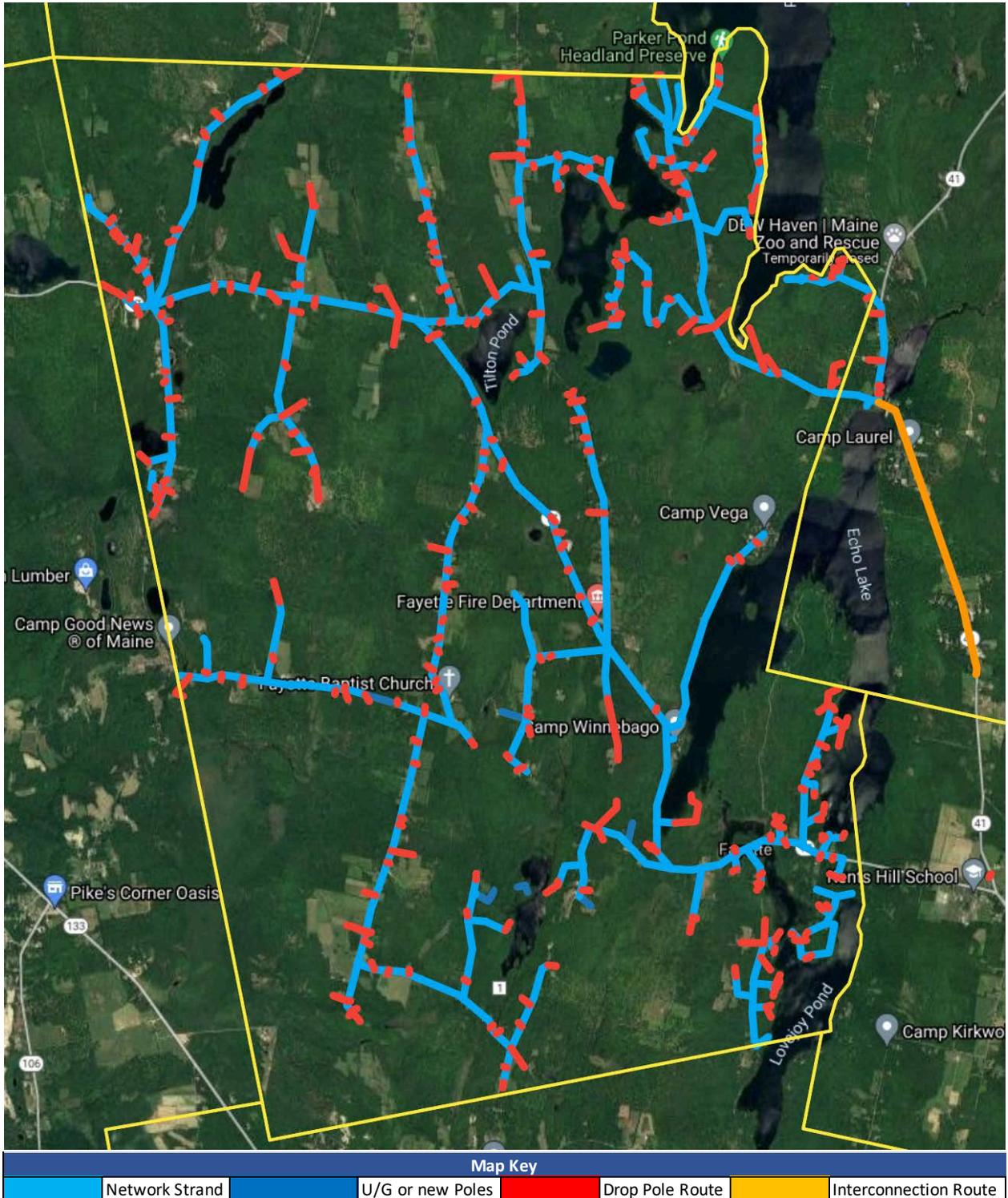




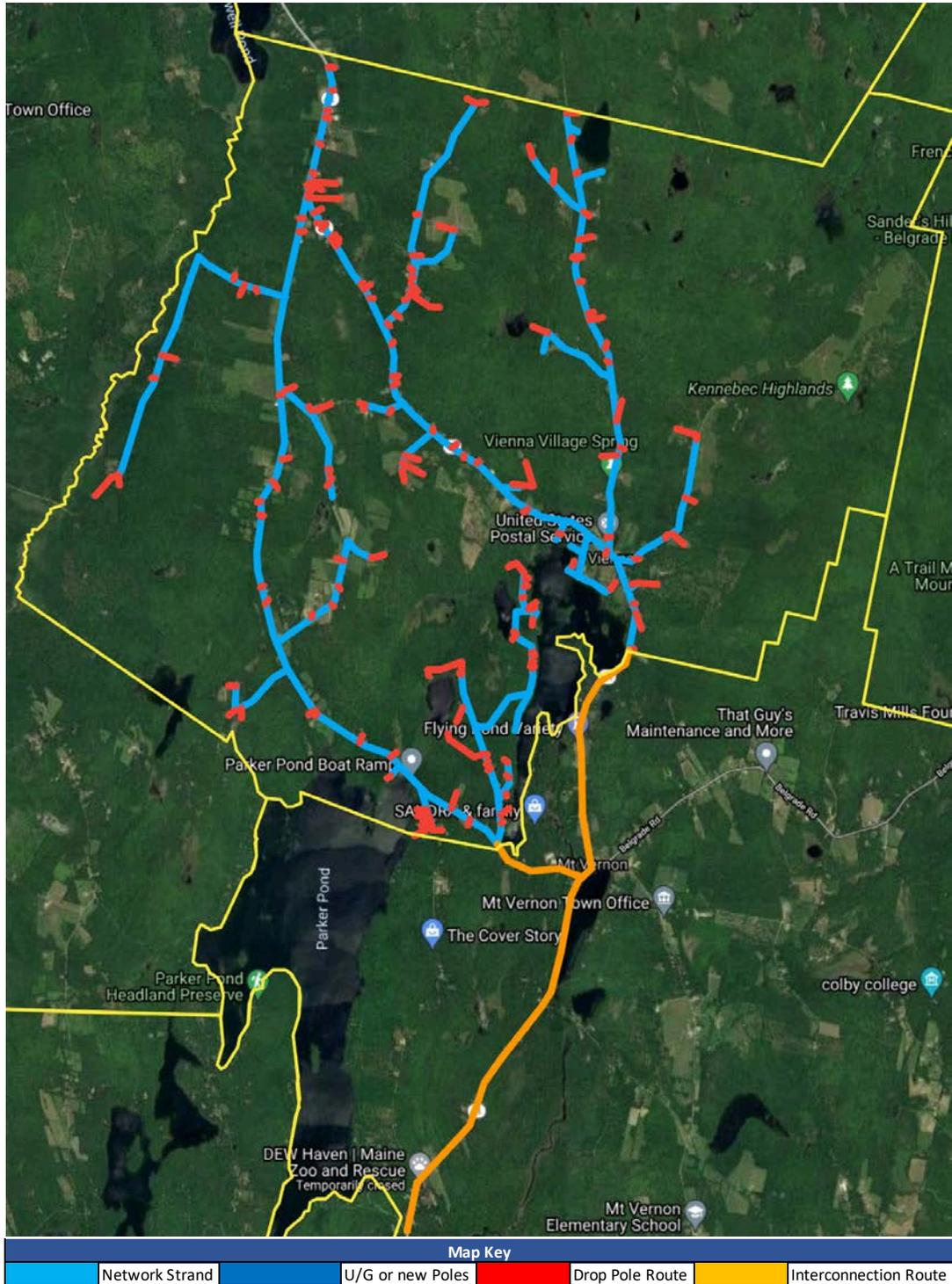
2.1.2 Wayne



2.1.3 Fayette



2.1.4 Vienna



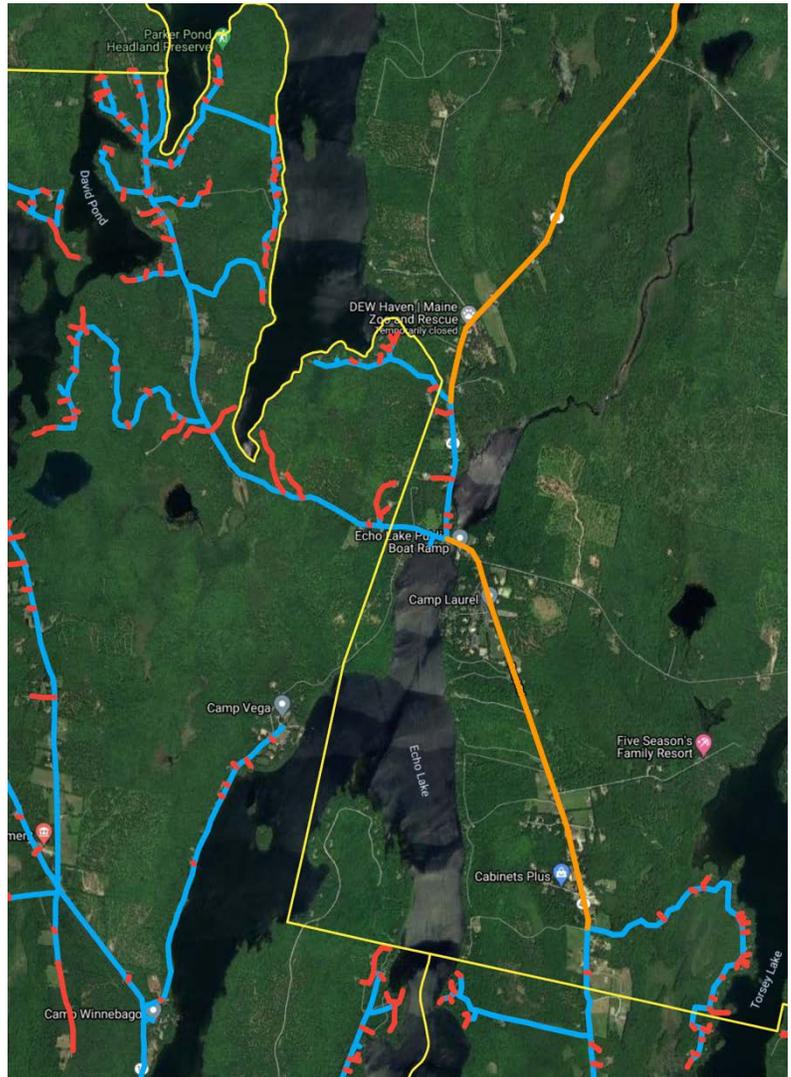


2.2 Metrics & Demographics

Network Metrics					
	Readfield	Wayne	Fayette	Vienna	Total
Total Network Backbone Feet	371,423	262,694	291,138	161,936	1,087,191
Total Network Backbone Miles	70.3	49.8	55.1	30.7	205.9
Network Strand Feet	369,869	260,515	287,579	161,739	1,079,702
Network Duct feet (or new poles)	1,554	2,178	3,560	197	7,489
Network Strand Miles	70.1	49.3	54.5	30.6	204.5
Total Poles	2,724	1,853	1,907	1,079	7,563
Network Poles	1,899	1,298	1,301	752	5,250
Network Poles per Mile	27	26	24	25	26
Drop Poles	825	555	606	327	2,313
Potential Subscriber Locations	1,525	905	926	472	3,828
Aerial drop	1,083	672	671	308	2,734
Underground drop	442	230	252	138	1,062
Off-Grid		3	3	26	32
Total Potential Subscribers	1,529	910	930	472	3,841
Residential	1,473	883	921	467	3,744
Commercial	56	27	9	5	97
CATV Locations passed	1,248	665	77	0	1,990
Fayette Interconnect to Readfield Network					
Strand Feet			10,659		
Strand Miles			2.0		
Pole Estimate			52		
Vienna Interconnect to Fayette Network					
Strand Feet				28,972	
Strand Miles				5.5	
Pole Estimate				141	

2.3 Fayette Interconnect to Readfield Network

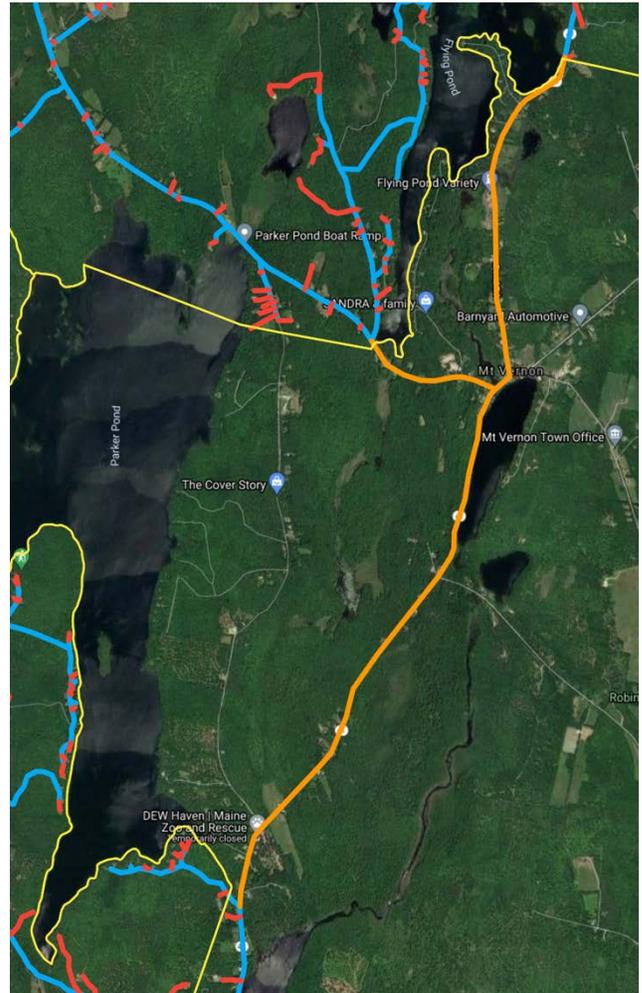
To serve the northeast portion of Fayette, an interconnection through Mount Vernon to the Readfield network will be required which is illustrated in orange in the adjacent image.

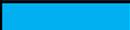


Map Key							
	Network Strand		U/G or new Poles		Drop Pole Route		Interconnection Route

2.4 Vienna Interconnect to Fayette Network

To connect Vienna to the remaining RFP-Towns, an interconnection through Mount Vernon to the Fayette network will be required which is illustrated in orange in the adjacent image.



Map Key							
	Network Strand		U/G or new Poles		Drop Pole Route		Interconnection Route

2.5 Central Office Locations

A prefabricated reinforced concrete central office shall be located in each RFP-Town. The proposed location for each central office is identified below. Each location is centrally located within the RFP-Town boundary on town-owned property, but the RFP-Towns are willing to consider alternative locations.

- Readfield – Transfer Station area on Recycle Rd
- Wayne – Fire Station, 486 Main Street
- Fayette – Town Office, 2589 Main Street
- Vienna – Fire station, 16 Kimball Rd

Each central office location shall include an automatic standby propane generator, automatic transfer switch, 24-hour battery backup, and security fencing.

2.6 GPON Splitter Locations

For the RFP-Towns of Readfield, Wayne and Fayette, bidders may propose either a centralized split with all GPON splitters located in the central offices, or a distributed split architecture with GPON splitters located in the central office and strategically located Fiber Distribution Hub (FDH) cabinets at the discretion of the bidder. For the Town of Vienna, all splitters shall be centralized in the central office.

2.7 Project Implementation – Division of Responsibility

Project Implementation - Division of Responsibility	
Contractor	Scope of Work
Construction	Utility Pole Make-ready Project Management
	Outside Plant - Construction
	Central Office & FDH Site Development - Project Management
	Central Office & FDH Structure - Acquisition & Delivery
	Presubscribed Subscriber Drop Installation (<i>termination & activation by network operator</i>)
	Fiber Testing
	Fiber Optic Splicing
	On-call Restoration and Outside Plant Maintenance for 3 years post construction
Network Operator	Central Office GPON Equipment and Internet Connectivity - Installation & Turn-up
	Splice Diagrams
	Subscriber Drop Termination (<i>drop install by construction contractor</i>)
	ONT Installation & Subscriber Activation
	Sales & Marketing
	Customer Service, Billing, Collections, Equipment Maintenance
Owners Project Manager	RFP Process Administration
	Construction Oversight & Project Management
	Construction Inspection
	Subscriber Presubscription - Process Management
	Network Operator Oversight & Coordination

2.7.1 Construction Contractor

The Construction Contractor will be responsible for:

- Utility pole make-ready project management (*application submission, joint-ride-out, and project management of make-ready process to pole license issuance*)
- Deployment of all outside plant assets, splicing and fiber optic testing, from the Fiber Termination Panel (FTP) in the CO, to installation of presubscribed customer drops delivered to the exterior of the subscriber location (*the Network Operator will be responsible for pulling the drop into the subscriber location*).
- Project management, site engineering and site development of CO and FDH sites
- Project management of CO and FDH structure acquisition, configuration, delivery, and placement

The Construction Contractor will be responsible for testing each fiber on the reel before deployment and testing of each fiber after deployment and splicing.

The Construction Contractor shall include a pricing proposal for on-call restoration and maintenance for all outside plant for a period of 3-years post construction.

2.7.2 Network Operator

The Network Operator will be responsible for:

- Acquisition, installation, and turn-up of all GPON equipment within the CO and at the subscriber location
- Termination of the subscriber drop at the subscriber location, installation of the ONT and service activation
- Creation of splice diagrams at each splice point to be provided to the Construction Contractor prior to construction
- Marketing, sales, customer service, billing, collections, and equipment maintenance

2.7.3 Owners Project Manager

The Owners Project Manager (OPM) will be responsible for:

- Administration of the RFP process
- Outside Plant construction oversight, status reporting and issue resolution
- Inspection of outside plant construction, creation of punch-lists and validation of completion
- Coordination and administration of subscriber presubscription process and coordination with Construction Contractor for installation of drops to presubscribed subscriber locations



- Oversight and coordination with Network Operator through project completion

2.8 Project Commencement

Based on the responses to this RFP, RFP-Towns will seek approval to proceed with the project at its member annual or special Town Meetings, anticipated to be scheduled no later than July 30, 2022.

Contracts arising from this RFP will be conditionally awarded and executed, with payment and performance obligations subject to Town Meeting approval of the contract price.



3 General Bidder Information

3.1 Response Information

3.1.1 Mandatory Pre-Bid Meeting

Each Proposer to this RFP must attend the mandatory pre-bid meeting via Zoom at the date/time listed in Section 1.2. Those wishing to attend the pre-bid meeting should email the Single Point of Contact for the Zoom link. The RFP-Towns disclaim all responsibility for injury to Proposers, their agents or others while examining the site or at any other time. Proposers are responsible for all their costs in preparing and submitting proposals hereunder.

3.1.2 Questions and Answers

Questions about the RFP and the proposal contents need to be in writing and submitted to the Single Point of Contact on or before the date listed in Section 1.2. All questions and answers will be answered in writing and posted to the WKLCBA website (<https://www.wklcba.org/>).

3.1.3 Revisions to RFP

If RFP-Towns determine it is necessary to revise any part of this RFP, or if additional data is necessary to clarify any of its provisions, a supplement will be posted to the WKLCBA website. The RFP-Towns reserve the right to amend the RFP at any time prior to the deadline for submission of responses and will notify all bidders who are on the mandatory pre-bid meeting attendance sheet.

3.1.4 Proposal Deadline

Please provide an original plus eight (8) copies of the firm's proposal in a sealed envelope, marked "WKLCBA Broadband Proposal", addressed to the Single Point of Contact on or before the date and time listed in Section 1.2. Proposals must be submitted in hardcopy form and supplemented with an electronic copy on a thumb drive within the sealed bid envelope. Proposals received after that date and time will not be considered.

3.1.5 Bid Opening

Bids shall be opened by the Single Point of Contact, or their designee, in public via Zoom and at a specific time to be determined, but no later than seven (7) calendar days after the Proposal Deadline. A tabulation of all received bids will be made available for public inspection.



3.2 Other Preparation Information

3.2.1 Proposal Acceptance

The RFP-Towns reserve the right to accept or reject any or all proposals, in whole or in part, as deemed to be in the best interest of the RFP-Towns. The RFP-Towns may elect to negotiate with multiple entities prior to making final decisions.

3.2.2 Business Good Standing

To be awarded a contract by the RFP-Towns, a Respondent must demonstrate that it is authorized to conduct business in Maine as evidenced by a certificate of good standing from the Maine Secretary of State's Office.

3.2.3 Costs of Preparation

The Respondent shall be solely responsible for all expenses incurred in the preparation of a response to this RFP and shall be responsible for all expenses associated with any presentations or demonstrations associated with this request and/or any proposals made.

3.2.4 Other Response Information

Unless otherwise specified in the RFP, all communications responses, and documentation must be in English, and all cost proposals or figures in U.S. currency. All responses must be submitted in accordance with the specific terms of this RFP.

The RFP-Towns may provide reasonable accommodations, including providing material in an alternative format, for qualified Respondents with disabilities or other hardships. Respondents requiring accommodations shall submit requests in writing, with supporting documentation justifying the accommodations, to the Single Point of Contact.

3.3 Contract Award Information

The RFP-Towns may award one or more contracts and reserve the right to make additional awards to the same bidder at any time during the contract term if such award is deemed to be in the best interest of the RFP-Towns.

3.4 Contract Evaluation

The RFP-Towns intend to evaluate all submitted proposals as quickly as possible. Upon completion of the evaluation process, the RFP-Towns may select one or more Construction Contractors with which to



simultaneously execute contracts, based on the evaluation findings and other criteria deemed relevant for ensuring that the decision made is in the best interest of the RFP-Towns.

3.5 Standard Terms and Conditions

The successful Proposer(s) shall be required to sign a Contract with the RFP-Towns. Bidders shall provide a template of such proposed contract as part of their proposal.

3.6 Public Records

The successful response will become part of the contract file and will become a matter of public record as will all other responses received.

4 Information on the Network

4.1 Proposed Network

Google KMZ files of the strand map and potential subscriber locations shall be posted on the WKLCBA website along with this RFP.

4.2 Pole Attachment Licensing

At the time of this RFP issuance, while the utility pole data (*coordinates, owner IDs, street and town*) have been collected, the RFP-Towns have not commenced the process of licensing pole attachments on the utility poles. Upon contract signing with the selected Construction Contractor, all utility pole data will be provided to the Construction Contractor for submission of the pole applications in a format to be determined between the Construction Contractor and the RFP-Towns.

5 Construction Contractor - Scope of Work

5.1 Construction Scope

The network is designed as four (4) distinct networks, one each for the Towns of Readfield, Wayne, Fayette, and Vienna, with a fiber dedicated to each potential subscriber location. As mentioned previously, 32:1 PON splitters will be located in the optional FDH locations as well as the CO with Passive Optical Network (PON) backhaul fibers from the FDHs to the CO. The fiber design is comprised of SMF-28e+ fiber for all fiber routes.

The FDH locations are passive locations without optical/electronics with Optical Line Termination (OLT) electronics located in the CO.

Network strand has been defined as strand to a serving pole where two (2) or more potential subscriber are served, with 100% of the network strand to be constructed as part of this scope of work.

Down guys and anchors are to be placed in accordance with the engineering design and the pole attachment licenses issued by Consolidated Communications and Central Maine Power. Placement of down guys and anchors should be included in the respondents pricing on a unit basis. Actual quantities of down guys and anchors will not be known until final pole licenses are received from the pole owners.

All serving terminals shall be placed eighteen (18) inches to the right of the serving pole. The only exceptions will be dead end poles and road crossings, where the terminal will be placed eighteen (18) inches to the left of the serving pole. During the construction process, all terminal locations will require one hundred (100) feet of slack to enable all splicing to occur on the ground. Remaining slack not used for splicing will be lashed to the strand with one or more snowshoes. All terminals will require proper labeling inside the terminal, such as fiber direction, cables, fiber assignments, etc. Outside plant labeling and naming standards will be developed by the Network Operator in collaboration with the Construction Contractor and OPM.

Presubscribed subscriber drops will be installed and spliced at the serving terminal with the subscriber end of the drop coiled and temporarily attached to the subscriber structure for the Network Operator to terminate at the Network Operator installed Optical Network Terminal (ONT). Placement of subscriber drops should be included in the respondents pricing on a unit basis and will only be constructed as part of this scope of work if the potential subscriber contracts for service during a presubscription phase completed prior to the commencement of construction.

5.2 Installation Materials

The construction phase of this project will consist of all materials. The Construction Contractor shall be responsible for procuring both major and minor materials, and providing warranty for all the major materials, or their functional equivalents.

The Construction Contractor is held responsible for all materials through the RFP-Towns acceptance of the network. If the materials supplied by the Construction Contractor are found to be defective, or do not conform to the specifications upon testing, the RFP-Towns reserve the right to have the Construction Contractor immediately replace the materials at the Construction Contractor's expense, and through its procurement process. Excess materials purchased but not used during the construction will be property of the RFP-Towns upon acceptance of the network.

5.3 Installation Requirements

The Construction Contractor shall be experienced in outside plant facilities installation on utility poles and conduits. The Construction Contractor shall install fiber optic cable and associated items according to the following:

1. All fiber optic cable to be installed along the aerial pole line and in conduit shall be outside plant fiber optic cables.
2. All fiber optic cable shall be installed as per manufacturer's best practices and tensioned as per manufacturer's specifications.
3. The Construction Contractor is responsible for installing all necessary pole hardware suitable for the provided cable.
4. High visibility cable tags or markings containing the RFP-Towns contact information shall be installed at every pole, splice enclosure and riser guard, and be visible while standing on the ground.
5. All fiber optic cable installed, or to be installed in a building must be riser rated cable.
6. Industry approved cable lubrication shall be used as required during the cable placement in innerduct or conduits.
7. All conduits shall be weather sealed at both ends.
8. Serving terminals are to be installed approximately 18 inches to the right of the pole, and drop ports are to be installed on the left side of the terminal.
9. A 100-foot slack loop shall be placed at all serving terminal locations for splicing. The remaining slack not used for splicing is to be over-lashed to the strand and supported by snowshoe(s).
10. Labeling of the cable sizes and direction is required. All fiber strands spliced will be tagged and identified per terminal splice design.

The Construction Contractor shall follow the cable manufacturer's installation recommendations and guidelines. At a minimum, fiber optic cables shall be installed and tested in accordance with NECA/FOA 301, *Standard for Installing and Testing Fiber Optic Cables*.



All Work shall conform to the current National Electrical Code, National Electrical Safety Code and all state and local codes and ordinances. ANSI/TIA/EIA Standards shall be adhered to during all installation activities.

5.4 Splicing Requirements

1. All fibers and connector assemblies shall be fusion spliced.
 - a. All splices are to be organized and secured within an approved fiber optic splice closure.
 - b. The Construction Contractor shall follow the manufacturer's recommended cable preparation and routing procedures for cable entry into the provided fiber optic splice closure.
2. All splicing shall be completed as per splice details provided prior to the start of construction for each identified splice location. Any changes shall be approved by the OPM prior to completion.
3. The Construction Contractor shall maintain a Splice Log Book for each splice enclosure.
 - a. Each splice enclosure will have a unique identifier as per the design prints and shall be large enough to be visible from the ground.
 - b. The Splice Log Book shall include a copy of the original splice detail sheet, a red-lined copy of the as-built detail, LID readings from the fusion splicer, Optical Time Domain Reflectometer (OTDR) test results of the fibers spliced at that location, pictures of the organization and layout of the interior of the enclosure, and pictures of the enclosure on the cable or strand.
 - c. The Splice Log Book shall also include any additional pertinent information not listed.
 - d. The Splice Log Book shall be delivered to the OPM electronically upon request and at the end of the project.
4. All splicing shall be monitored with an OTDR and tested to ensure acceptable splice loss values are achieved.
5. Labeling of cable sizes and direction is required. All fiber strands spliced will be tagged and identified per terminal splice design.
6. All tools and equipment used shall be in excellent working order.
 - a. The Construction Contractor's cleaving, splicing and cable preparation equipment will be reviewed and approved by the OPM prior to the beginning of any splicing work.
 - b. All splicing equipment shall be calibrated within 6-months of use on this project. Certificates of calibration for splice equipment shall be submitted to the OPM for review and approval.

5.5 Testing Requirements

1. The Construction Contractor shall test all optical fiber cables upon receipt at the project site prior to installation.



2. Optical fiber cables shall be tested while on reels with an OTDR to verify the cable length and locate cable defects, splices, and abnormalities, recording the loss value of each.
3. The Construction Contractor shall compare all pre-installation reel test data with factory results provided by the cable manufacturer and report any deficiencies to the OPM.
4. The Construction Contractor shall retain pre-installation reel test data and include in the record with as-built data.
5. All completed fiber spans shall be acceptance tested to determine cable length and splice attenuation using an OTDR. Each strand shall be tested bi-directionally @ 1310nm and 1550nm.
6. Each strand shall be tested for end-to-end dB loss and continuity using a Single mode light source and power meter @ 1310nm and 1550nm.
7. Optical fiber end-to-end link tests shall be performed in accordance with TIA/EIA-568-B.1 and TIA/EIA-568-B.3.
8. The Construction Contractor shall prepare loss budget calculations for each circuit. The loss budget shall itemize expected dB loss. The following formulas shall be used:
 - i. Measuring at a wavelength of 1310 nm:
 - ii. _____ km X .35 dB/km = _____
 - iii. _____ SC connectors X 0.4 dB/mated pair = _____
 - iv. _____ Splices X 0.05 dB = _____
 - v. _____ Total maximum (end-to-end) loss = _____
 - vi. Measuring at a wavelength of 1550 nm:
 - vii. _____ km X .25 dB/km = _____
 - viii. _____ SC connectors X 0.4 dB/mated pair = _____
 - ix. _____ Splices X 0.05 dB = _____
 - x. _____ Total maximum (end-to-end) loss = _____
9. Strands shall meet current EIA/TIZ-568 specifications.
10. Attenuation test results shall be less than that calculated according to equation in TIA/EIA-568-B.1.
11. The Construction Contractor shall correct any fiber strands that demonstrate excessive attenuation due to breaks, bends, bad splices, defective connectors, and bad installation practices.
12. The Construction Contractor shall submit test results in electronic format and in hard copy to the OPM for acceptance and sign off. The Construction Contractor shall perform any repair required by the OPM to correct any deficiencies, at no additional cost to the RFP-Towns.



5.6 Documentation Requirements

The Construction Contractor will provide an as-built package design using, or be compatible with, the VETRO Fibermap Fiber Management and Design system (VETRO) at the completion of this project. This package shall include at a minimum the following items:

- Splice documentation consisting of:
 - Network
 - FDHs
 - CO
 - Splice cases
 - Terminals
- Fiber span footages
- Terminal splice locations
- Strand grounding locations
- Slack loop locations
- Routes of all strand/cables installed

The Construction Contractor shall also provide:

- Test results for optical fiber testing
- Warranty Package to include dates (Product Warranty)
- Certificate of Acceptance (pre- and post-installation)
- Summary sheet of test results for quick reference

5.7 Job Completion

Job completion of the network construction occurs when the Construction Contractor:

1. Submits last invoice
2. Notifies the OPM that construction is complete
3. Final inspection has occurred
4. All punch list items have been completed
5. All equipment and materials warranties have been transferred to the RFP-Towns
6. All construction materials and fiber reels have been returned to the staging area with a list of remaining items
7. All the documentation for the project is submitted

5.8 Safety Requirements

The Construction Contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions to reasonably protect the public and private property in connection with the performance of the work covered by the contract.

The Construction Contractor shall take the necessary precautions and bear the sole responsibility for the safety of the methods employed in performing the work. The Construction Contractor shall always comply with the regulations set forth by Federal, State, or local laws, rules, and regulations concerning “OSHA” and all applicable state labor laws, regulations, and standards.

5.9 Warranty Requirements

1. The Construction Contractor shall warrant that all materials furnished shall be new, and free from defects.
2. The Construction Contractor shall warrant that the materials and workmanship used in the installation are as herein specified and shall provide all material and labor required to make good any defects due to faulty materials or workmanship which becomes apparent within a one-year period from completion.
3. The equipment and materials manufacturers are expected to recognize that they are responsible for the failure of their products to perform in accordance with data furnished by them or their authorized representatives, as well as misrepresentations of such data. When the products have been installed in accordance with the manufacturer’s published or written instructions and recommendations, and such products fail, then the Construction Contractor and the manufacturers are responsible for replacement of the products and all associated work and materials without additional cost to the RFP-Towns.
4. Warranty information is required for all materials supplied by the Construction Contractor.
5. Damage by vandals, fire, traffic accidents or “acts of God” is excluded from warranty.

5.10 Schedule Requirements

The contract period is expected to begin on or around July 2022 and extend through the close-out of the project in December 2023.

	Date
Selection Notification	<i>See Section 1.2</i>
Contract Execution	30 days after notification
Begin Construction	when utility pole make-ready is complete
Complete Construction	9 months after begin construction
OPM's Acceptance of System	Coincident with construction complete



6 Network Operator - Scope of Work

6.1 Pre-operation Support

With the Network Operator responsible for all aspects of the continuing operation of the Network, it is imperative the Network Operator collaborate with the RFP-Towns, the OPM and the Construction Contractor as decisions are made that will impact the operation of the Network. For this Pre-operation Support phase of the Scope of Work, bidders should expect to provide support services on a time and expense basis, provide a schedule of hourly rates and provide an estimate of the overall cost of providing such support. The type of support services anticipated are described below.

6.1.1 Collaboration with Construction Contractor and OPM

The Network Operator will be expected to review all Construction Contractor change orders and provide comments and/or recommendations to the OPM regarding change order requests.

6.1.2 Collaboration with the RFP-Towns and OPM during Presubscription

A subscriber presubscription period of at least 90 days will be conducted prior to construction commencement to maximize the quantity of subscriber drops installed as part of the initial Construction contract. The Network Operator will be expected to collaborate with the RFP-Towns and the OPM to develop a marketing plan and participate in the marketing efforts of the presubscription period.

6.1.3 Splice documentation

While the Construction Contractor will be responsible for all splicing up to and including the presubscribed subscriber drops, the Network Operator will be required to provide instructions to the Construction Contractor regarding the splice plan and documentation requirements for each splice point. The Network Operator will be required to configure the splicing plan within the RFP-Towns instance of its VETRO Fibermap Fiber Management and Design system (VETRO).

6.2 Product

6.2.1 Internet

The RFP-Towns have identified the following goals for providing improved Internet service. These goals reflect our primary criteria.

- Must deliver minimum symmetrical speeds of 100Mbps, with options to increase to 1Gbps symmetrical.
- Reliability must meet a standard of 99% availability during any 24-hour period.
- Availability must be provided to 100% of the potential subscribers within each community.
- Discounted service must be available for low-income households with demonstrated need.

6.2.2 IP Address and Domain Name Service

The Network Operator shall have the capacity to provide subscribers with dynamic addressing by default, and a permanent static IP address if requested by the subscriber. The Network Operator shall have the ability to manage DNS in such a way that all assigned IP addresses have fully consistent forward and reverse lookups.

6.2.3 Net Neutrality

The Network Operator shall demonstrate understanding and commitment to abiding by the provisions in Maine revised statutes Sec. 1. 35-A MRSA c. 94 – BROADBAND INTERNET ACCESS SERVICE CUSTOMER PRIVACY and Sec. 1. 5 MRSA c. 143 §1541-B-NET NEUTRALITY and shall assure all regulatory agency compliance.

6.2.4 Voice Telephone Service

Voice telephone service, voicemail and optional calling features shall be provided as an optional service in addition to the Broadband Internet service. Voice services will not be offered on a standalone basis. Voice service shall include the capacity to provide “Plain Old Telephone Service” (POTS) connectivity utilizing the subscriber’s built-in connections for premise copper wire connections and retention of existing telephone numbers. The Network Operator shall have the ability to manage routing of telephone calls throughout the public switched telephone network (PSTN) and interconnection points of the PSTN.

6.2.5 Additional Services

The Network Operator may be required to offer additional services as may be mutually agreed by the RFP-Towns and the Network Operator on a case-by-case basis.



6.3 Presubscription Turn-up

During the Outside Plant construction phase performed by the Construction Contractor, the Network Operator will be responsible for providing and installing the Central Office equipment necessary to activate the subscriber services, termination of the drops installed by the Construction Contractor, and installation, activation and testing of the customer premise equipment. Those responsibilities are further described below.

6.3.1 Central Office equipment

The Construction Contractor will be responsible for managing the acquisition, delivery and placement of the Central Office and FDH structures and all peripheral equipment, including but not limited to, frames and ironwork, DC power distribution panels, rectifiers, batteries, transfer switches, generator and fiber management / cross-connect frames. The Network Operator will be responsible for providing and installing ADTRAN TA5000 Multi Service Access Platforms, or equivalent.

6.3.2 Internet Capacity

The Network Operator will be responsible for providing at least two (2) diverse bandwidth paths with sufficient upstream/peering capacity to handle the load of the Network, including voice services, on either path, as well as any equipment required to facilitate such capacity.

6.3.3 Customer Premise Equipment

The Network Operator will be responsible for providing, installing, activating, and testing all materials installed at the presubscribed subscriber location, including termination of the drop installed by the Construction Contractor. Those responsibilities are further described below. Any service or equipment provided beyond the ONT Network Interface Device (NID) is not included in this Scope of Work for the Network Operator, and if offered by the Network Operator, shall not be performed under the terms of the Network Operator contract.

6.3.3.1 Drop termination

The Construction Contractor will be responsible for placing and splicing all presubscribed drop cables and coiling sufficient drop cable slack as specified by the Network Operator on the side of the subscriber structure. The Network Operator will be responsible for terminating the drop cable into either an exterior or interior ONT configuration.

6.3.3.2 *ONT installation*

The majority of ONT installations are intended to be installed on the exterior of the structure. Exceptions to this policy with the ONT installed on the inside of the structure will be made on a case-by-case basis by the OPM or the RFP-Towns. All subscribers who subscribe to voice services shall have a battery backup installed on the interior of the structure. Wireless routers will be provided as an option.

6.3.3.3 *Service activation and testing*

The Network Operator will be responsible for all service activation and testing.

6.4 Network Operation – Post Construction

At the completion of the Construction Contractors scope of work, the operation of the Network will be the responsibility of the Network Operator. For purposes of this RFP, it is assumed that many of the presubscribed customers will have been activated prior to completion by the Construction Contractor and the remainder of the presubscribed customers will be activated as soon as possible after the commencement of operation of the Network by the Network Operator. Following is an itemization of responsibilities of the Network Operator post construction.

6.4.1 Marketing & Sales

The Network Operator will be responsible for all marketing and sales of Broadband Internet and telephone services. The Network Operator shall make full efforts to market and sell Internet and optional services on the Network to all potential subscribers within the service territory. It is expected that the Network Operator will begin marketing and sales efforts after the completion of the presubscription period.

6.4.2 Service Activation

The Network Operator will be responsible for activation of all services in the same manner as described in the Presubscription Turn-up process described in Section 6.3 above. The Network Operator will also be responsible for installation of subscriber drop cables not installed as part of the Presubscription drops by the Construction Contractor after the initial construction has been completed.

6.4.3 Billing & Collections

The Network Operator will be responsible for all billing and collections and ensure proper billing and collections. Flexible methods of monthly billing and payment shall be offered. Billing methods shall include paper statements sent via US Mail and statements sent by electronic means. Payment



methods shall be accepted by US Mail, credit or debit card and automatic checking account withdrawals.

6.4.4 Credit Checks

The Network Operator will be required to perform credit checks, as needed, before contracting subscribers for service.

6.4.5 Subscriber - Service Level Agreements

The Network Operator shall provide (*defined in collaboration with the RFP-Towns*) clearly defined service level agreements as part of subscriber contracts, covering every aspect of subscriber service, usage and billing, including an acceptable use policy.

6.4.6 Network Operator – Service Level Agreement

The Network Operator will be required to enter into a Service Level Agreement (SLA) with the RFP-Towns, which shall be negotiated as part of the Network Operator contract. Such SLA will include subscriber satisfaction and network performance metrics.

6.4.7 Network Monitoring

The Network Operator will be responsible for providing 24 hour per day / 7 day per week proactive monitoring of the network.

6.4.8 Repair & Restoration

The Network Operator will be responsible for providing 24 hour per day / 7 day per week, timely and efficient subscriber troubleshooting and technical support.

6.4.9 Outside Plant Maintenance Coordination

The Network Operator will be responsible for coordinating all Outside Plant maintenance, repair, pole transfers and pole attachment rearrangements.

6.4.10 VETRO

The Network shall be engineered using VETRO FiberMap (VETRO), or an equivalent application where the data can be imported accurately into VETRO. All splice documentation and as-built information is required to be updated by the Construction Contractor within this application. The Network Operator will be required to maintain the Network within this application.



6.4.11 Backups

The Network Operator will be responsible for maintaining backup configurations of all network elements and provide such backups to the RFP-Towns on a monthly basis or as otherwise agreed, in a format approved by the RFP-Towns.

7 Proposal Requirements

Each Proposal must answer each of the following sections to be considered for evaluation. If a Respondent fails to meet any material terms, conditions, requirements or procedures, its response may be deemed unresponsive and disqualified.

7.1 Company Information

1. Provide your company information, including legal name, state of incorporation, year of incorporation, type of entity, all contact information, and a list of affiliated companies or other names you have done business as.
2. Please identify whether you are currently authorized to operate in the State of Maine and whether you maintain a physical presence within the state.
3. What other states or locations, if any, do you maintain an office or operations?
4. How many employees comprise your workforce: a) full time; b) part time; c) contract?
5. Please identify awards or recognition received by your company in the past 3 years.
6. Please list any licenses, certifications or accreditations awarded to your company.
7. Are you currently under contract or negotiations for a contract with the State of Maine? Any other state or municipality? Please list.
8. If selected as a vendor of choice, how soon can your company begin providing construction services for the RFP-Towns?
9. Please provide evidence that you can comply with the bond and insurance requirements of this project.

7.2 Industry Experience

Please provide the following for your company and all sub-Construction Contractors:

1. Please provide three (3) customer/client references including name, email, address, project timeline, and description of work.
2. Please list the training certifications that your technicians hold and any experience with standards such as NECA 301 Standard and OTDR/loss testing.
3. Please provide your company's safety program, as well as any OSHA reportable within the past 3 years.
4. Which activities of the Scope of Work will your company sub-contract?
5. Are your technicians trained and experienced with NECA 301 standards?
6. Are your technicians trained in OTDR/Loss testing?
7. Do your technicians hold certifications for splicing?



7.3 Insurance Requirements

Proof of insurance is required upon notification of award. The successful bidder shall provide proof of workers compensation insurance, comprehensive general liability insurance, and comprehensive automobile insurance in their response.

7.4 Conformance to Requirements

Please identify how your company will conform to all requirements identified in the Scope of Work. Please identify any subsections you do not believe you can or will conform to. Please identify any subsections that you do not believe are necessary or will change your proposal.

7.5 Value Engineering

Respondents are invited and encouraged to submit an alternative design or operating model on all or part of this RFP for the RFP-Towns to review that provides equal or greater function at lower cost.

7.6 Project Management

1. List what primary tools, equipment, software, and hardware you use for project management.
2. Identify how you make your work effective and efficient.
3. Describe your recommended project management approach for coordination and communication.

7.7 Schedule Requirements

Describe the schedule you will meet for this project. Also, specifically describe how you intend to meet that schedule and what kind of guarantees or assurances you can provide.

7.8 Approvals and Certifications

Affirm that your proposal to the RFP will be valid for all parts of the network identified even if some of that work must be completed by a subcontractor.

7.9 Safety

The Construction Contractor and Network Operator shall provide all safeguards, safety devices and protective equipment and take any other needed actions to reasonably protect the public and private property connection with the performance of the work covered by the contract.

7.10 Warranty

Please describe how you will meet the minimum warranty requirements specified and appropriate within the document. Description must meet minimum requirements, but additional items or lengths of time will be viewed favorably.

7.11 Pricing

Please provide proposed pricing for the work described in the Scope of Work. The RFP-Towns are municipalities organized and existing under the laws of the State of Maine. The sales tax exemption number(s) will be provided to the selected Contractors.

The table below provides a suggested format and components for pricing. If bidders have a proposed alternative format you would like to suggest, please submit the proposed format as a question prior to the question deadline identified in Section 1.2.

7.12 Bill of Materials (BOM)

Please provide a Bill of Materials for the entire project.

Suggested Pricing Breakdown	
	Pricing Type
Construction Contractor	
Fixed fee for entire project except the per unit items noted below	Fixed
Fixed fee for Readfield only	Fixed
Fixed fee for Wayne only	Fixed
Fixed fee for Fayette only	Fixed
Fixed fee for Vienna only	Fixed
Fayette Interconnection	Fixed
Vienna Interconnection	Fixed
Down guy - installed	per unit
Anchor - installed	per unit
Drop Enclosures - Installed	per unit
Drop cables - installed	per unit or per foot
Drop splicing	per splice
Drop Risers - installed	per unit
Drop Duct - installed	per unit or per foot
Network Operator	
Pre-operation Support	Hourly per function
Splice documentation	per unit
Monthly or annual base operating fee	Fixed
Monthly per subscriber fee	per unit
Central Office optronics per Town	Fixed
Drop Enclosures - installed	per unit
Drop cables - installed	per unit or per foot
Drop splicing	per splice
Drop Risers - installed	per unit
Drop Duct - installed	per unit or per foot
Exterior ONT installed	per unit
Interior ONT installed	per unit
Battery backup installed	per unit
Wi-Fi Router installed	per unit

8 Proposal Evaluation Criteria

The RFP-Towns will review the RFP responses in accordance with the submittal requirements and using the criteria generally described as follows. Criteria are not necessarily listed in order of importance.

1. The thoroughness and comprehensiveness of each response.
2. The ability to meet the construction requirements, network installation and testing requirements.
3. The qualifications, experience and knowledge of the Respondent and the proposed project personnel.
4. Ability to meet schedules and deadlines.
5. Price of the work.
6. Familiarity with the proposed project areas and areas of similar geography.
7. Ability to work in a safe manner.
8. Ability to control and minimize costs as demonstrated in the response and through experience in prior projects.