

**TOWN OF PLYMOUTH CAPITAL IMPROVEMENT PLAN REQUEST
FY26 SPRING ANNUAL TOWN MEETING**

Department: Information Technology	Priority #:	1
Project Title and Description: Fiber Over Lash Phase 3	Total Project Cost:	250,000

Department/Division Head: Joseph Young

Check if project is: New ☐ Resubmitted ☐ **Cost estimate was developed:** Internally ☐ Externally ☒

For project re-submittals, list prior year(s):

List any funding sources and amounts already granted: _____

Basis of Estimated Costs (attach additional information if available)			If project has impact on 5 Year Plan and future operating budgets, insert estimated amounts.		
Capital:	Cost	Comments	Fiscal Year:	Capital	Operations & Maintenance
<i>Planning and Design</i>			<i>FY27</i>		
<i>Labor and Materials</i>			<i>FY28</i>		
<i>Administration</i>			<i>FY29</i>		
<i>Land Acquisition</i>			<i>FY30</i>		
<i>Equipment</i>			<i>FY31</i>		
<i>Other</i>					
<i>Contingency</i>					
Total Capital	250,000				

Project Justification and Objective: This project will be phased over several years, total project cost is \$1,517,316.13. We have reached capacity with our current Infrastructure.

The increasing demands for building-to-building connectivity, especially for public safety radio and security, requires us to add to our Municipal Network

For Capital Project Requests:

Will this project be phased over more than one fiscal year? If yes, enter it on the 5 Year Plan

Yes ☒ No ☐

Can this project be phased over more than one fiscal year?

Yes ☐ No ☐

For Capital Equipment Requests:

☐ Check if equipment requested is replacement and enter the year, make & model, VIN and present condition of existing equipment

What is the expected lifespan of this new/replacement equipment: _____

Attach backup information, estimates, or justification to support this request.

Information Technology Capital FY 2026

Fiber Network Expansion Year 3

This project will be phased over several years, total project cost is \$1,517,316.13. We have reached capacity with our current Infrastructure. The increasing demand for building-to-building connectivity, especially for public safety radio and security, requires us to add to our Municipal Network

Strategic Plan

In 2019 we created a Strategic Plan for IT. This essential tool that produces the roadmap for the IT department; ensures that the org structure, IT projects and spending are properly aligned with the strategic vision of Town leadership. In order to deliver on all, the Plan must be an evergreen document that is reviewed and refreshed on a regular basis.

Laserfiche Upgrade and Expansion and Records Digitization Year 3

This project will be phased over several years, total project cost is \$ 1,892,993.36. Digitization and indexing of permanent Town records will promote social distancing and remote access which will protect town employees, residents, and businesses. It will also strengthen local businesses' ability to conduct business transactions during any health and emergency issues such as pandemics.

To date we have configured Laserfiche software to connect with Open Gov and will be finishing up with Inspectional records this year. Year 3 we will start with Planning, Fire and Engineering Very satisfied with the results.



Town of Plymouth
Budgetary Scope of Work ITC 68
Fiber Optic Municipal Area Network
Addition of Ring Topology Fiber Capacity

Prepared by:	Comm-Tract 235 Summer Road Bldg. 4 Boxborough, MA 01719	Contact: Telephone: Email:	Bryan Hopkins (781) 890-5070 x6952 bhopskins@comm-tract.com
Date:	September 8 th 2021		

Bid No.	Plymouth FMAN – Addition of Fiber Capacity V.01
SPIN:	143008129
ITC 54:	VC 6000166632
FCC Registration:	0024175408

Bill To:		Ship To:	
Company:	Town of Plymouth	Company:	Town of Plymouth
Address:	26 Court Street Plymouth, MA 02360	Address:	26 Court Street Plymouth, MA 02360
Contact Name:	Joe Young	Contact Name:	Joe Young
Phone:	(508) 747-1620 x190	Phone:	(508) 747-1620 x190
Fax:		Fax:	
Email:	jyoung@townhall.plymouth.ma.us	Email:	jyoung@townhall.plymouth.ma.us

Description of Work

This budgetary Scope of Work (SOW) that follows was developed in with information as provided by the Town of Plymouth personnel and has been supplemented by field site surveys and subsequent engineering as performed by Comm-Tract engineers.

Comm-Tract will provide and install the following fiber optic municipal area network (FMAN) addition for the 192 count increase in fiber capacity in the ring topology of the network.

A. Overview of the Project:

1. The existing network ring topology will be over-lashed with (1) new 192 count Single Mode Fiber (SMF) and (1) new 144 count SMF ring will be added to the north side of the network.
2. All work will be fully complete including all fiber backbone splicing at the pole locations on the rings, the fiber laterals into the Network Hub building, the fiber entrance cable, the fiber termination panels, the connectors, and all other materials for a complete and fully functional fiber termination in the communications room of the Network Hub.
3. The fiber optic municipal area network's passive optical design will accommodate all types of wireless, and/or Ethernet connectivity for future additional requirements on the core network.
4. The Town Hall Network Hub Communications Room will have (2) new high-density housings and associated coupler panels installed in the existing Customer rack or cabinet.
5. Both the backbone and lateral fiber cables will be field terminated using LC/PC single-mode connectors.



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6. All backbone fibers throughout the network will be fusion spliced.
7. All optical testing will conform to industry standards.
8. The customer shall receive OTDR traces and Power Meter Test results at both 1310nm and 1550nm.
9. All test data will be compiled in electronic copy.

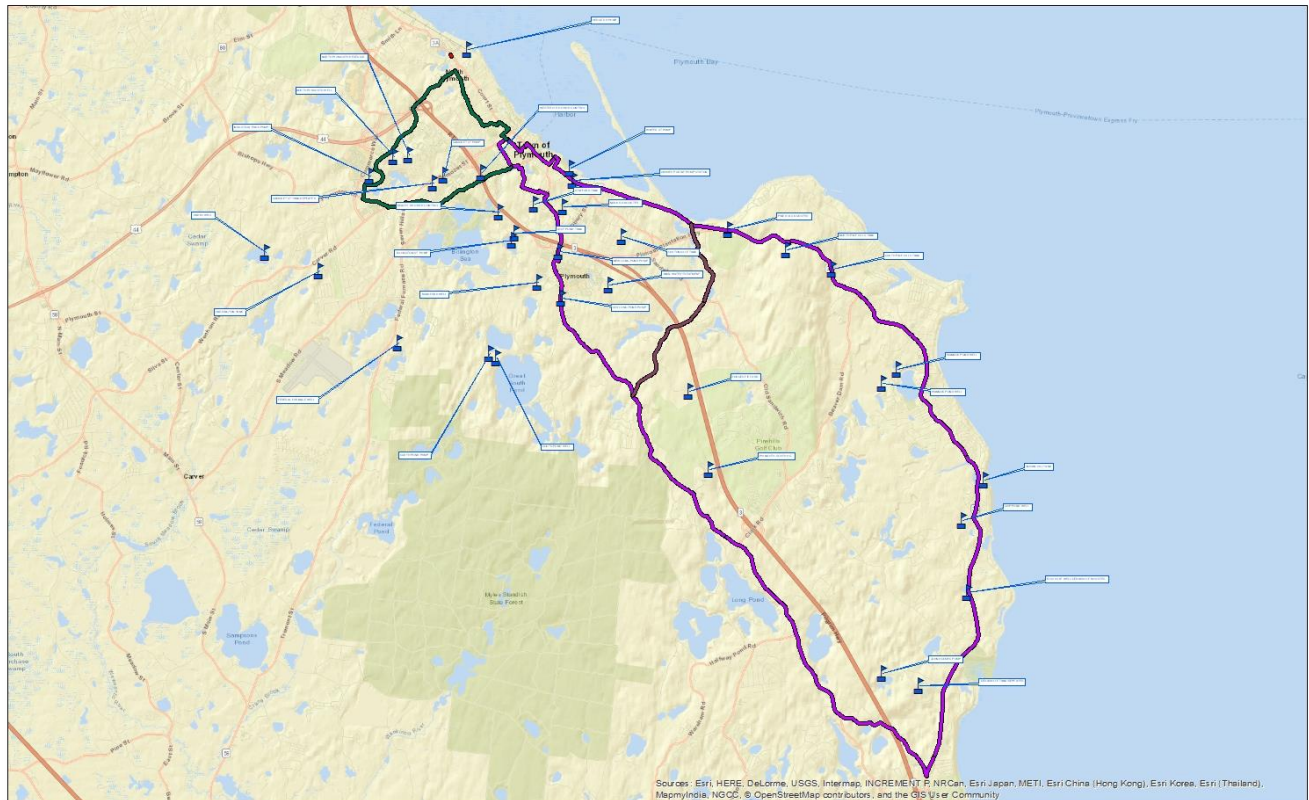
B. Notes:

1. Pricing is budgetary until such time as final engineering for the network addition is completed, and final SOW issued for contract purposes.
2. The design of this network mirrors the existing physical ring configuration and adds an additional ring to the north side of the network.
3. Pricing assumes access to the aerial routes, and/or conduit systems is not restricted in any way, and Comm-Tract will have free and clear access for installation purposes.
4. Pricing assumes the Customer would utilize existing location agreements with the carrier and/or utility for rights to the municipal space on the poles for the route(s).
5. Fiber strand assignments would have to be re-assigned in accordance with direction from Plymouth IT personnel.
6. Customer is responsible for providing trash container(s) for the disposal of non-hazardous waste such as fiber cable scrap, wooden fiber reels, and shipping boxes at the staging site for the project.



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C. Overview Map of Project:



TOWN OF PLYMOUTH, MA
MUNICIPAL FIBER OPTIC NETWORK
BACKBONE OVERBUILD FOR WATER/RF

PREPARED BY: C. AUCOIN
DATE: SEPTEMBER 1, 2021
PROPRIETARY AND CONFIDENTIAL



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Quantity	Bill of Materials Description
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To be provided with submittals on the project



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Warranty Information - Technical and Compliance Notes:

The Comm-Tract provided warranty and technical compliance with design and installation standards information is provided below as associated with this scope of work.

- Comm-Tract is a certified provider and partner for the Manufacturer and provides a 25 Year Warranty.
- The 25 Year Warranty commencing on the date of an accepted installation by the Customer covers all Manufacturer's products and materials, and covers the repair, and/or replacement of all installed components including, but not limited to fiber cable, fiber connectors, fiber patch panels, fiber jumpers and patch cords, and other materials as installed.
- The repair and/or replacement of any component in the certified and approved network solution as provided and installed by Comm-Tract under the 25 Year Warranty is provided at no cost to the Customer over the period of the 25 Year Warranty.

- Comm-Tract adheres to the following design and installation standards relative to the scope of work as provided.
- BICSI Design and Installation Applicable Standards
- Telecommunications Industry Association (TIA) Applicable Standards
- Electronics Industry Association (EIA) Applicable Standards
- ANSI/TIA/EIA – 568 Standards
- ANSI/TIA/EIA – 569 Standards
- TIA/EIA 604 Fiber Optic Standards
- TIA-492 Fiber Optic Installation Standards
- TSB-149 Fiber Optic Workmanship Standards
- IEEE 802.3 Standards



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Pricing and Terms

Customer agrees to the following payment schedule:

30% Initial Payment upon Delivery of Materials:	\$ 455,194.84
65% Payment upon actual Project Progress:	\$ 986,255.48
5% Final Balance upon Completion:	\$ 75,865.81

- The Project Price shall be subject to adjustment in the event of any mutually agreed upon written changes made to the Scope of Work.
- Prices are valid for 90-days.
- The Project Price does not include licensing of pole or underground facilities.
- The Project Price does not include police details.
- The Project Price does not include permitting if applicable.
- The Project Price does not include any new underground construction.
- The Project Price does not include any applicable taxes as the project is tax exempt.
- The Project Price includes shipping charges.
- The Project Price assumes access to each location is free and clear for installation and all sites are ready for installation under a single deployment. Should a site not be ready, and return trip(s) are required, additional charges will apply.
- Comm-Tract will perform during normal business hours – Monday through Friday, 7am to 3pm unless otherwise specified in the Description of Work.
- Customer hereby agrees to the terms and conditions set forth in the Scope of Work by signing below or issuing a Purchase order referencing this Scope of Work.
- This Scope of Work is governed by the terms and conditions of the Commonwealth of Massachusetts ITC 68 blanket contract.

Site Surveys, Design and Engineering:	Included
Materials:	Included
Labor:	Included
Certification and Warranty:	Included
Total	\$ 1,517,316.13

Customer Name:	
Authorized Signature:	
Name:	
Date:	