

H1



Town of Bristol, Rhode Island

Economic Development

March 02, 2022

TO: Melissa Cordeiro, Town Clerk

FROM: Chris Vitale, Economic Development
Michael DeMello, Fire Chief

VIA: Steven Contente, Town Administrator

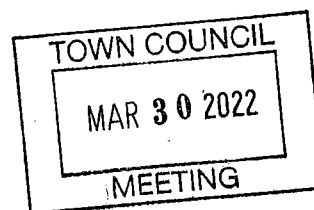
RE: Municipal Fiber Project ARPA Funding Request

We ask that the Bristol Town Council add an American Rescue Plan Act (ARPA) funding request to their March 30th, 2022, meeting. This funding would support the installation of fiber internet at key municipal sites.

Over the past six months, Town of Bristol representatives have had discussions with several service providers to determine the optimal fiber infrastructure for the municipality. After review, it is our recommendation that the Town works with OSHEAN, Inc to convert the municipality's internet services to fiber. OSHEAN, Inc. (Ocean State Higher Education Economic Development and Administrative Network) is a non-profit organization that provides Internet-based technology solutions to public institutions.

The total one-time project cost is approximately \$371,311.48. Following the completion of the project, the Town would see a \$175/month savings in internet service charges.

The full project overview is included with this memo.





Town of Bristol, Rhode Island

Economic Development

DATE: March 1, 2022

TO: Steven Contente, Town Administrator

FROM: Chris Vitale, Economic Development

CC: Michael Demello, Fire Chief

RE: Fiber Project Recommendation

In 2021, the Bristol Town Council approved the use of American Rescue Plan Act (ARPA) funds to install fiber at key municipal sites. At your request, I've provided an overview of the fiber project's scope, costs, and benefits.

Fiber Project Proposal

Over the past six months, the Town of Bristol has had discussions with several service providers to determine the optimal fiber infrastructure for the municipality. After review, it is my recommendation that the Town engages in formal discussions with OSHEAN, Inc to convert internet services to fiber. Founded in 1999, OSHEAN, Inc. (Ocean State Higher Education Economic Development and Administrative Network) is a non-profit organization dedicated to providing innovative Internet-based technology solutions for its member institutions and the communities they serve. OSHEAN currently provides services to several local entities including the Bristol-Warren Regional School District, Roger Williams University, and the Rogers Free Library. OSHEAN, Inc. is on the Rhode Island Master Price Agreement (MPA) #308 Contract List.

Under their proposal, OSHEAN would build Bristol a ring network and manage the town's network services, including 24/7/365 monitoring and alerts for all devices. The Town would have access to a member portal to view detailed reports on network traffic and bandwidth usage. The Town would no longer require firewalls at individual buildings because they would now operate on the same network. The total one-time project cost is approximately \$371,311.48. Following the completion of the project, the Town would see a \$175/month savings in internet service charges.

Handwritten: M 3-1-22

Fiber Project Benefits

Improved Internet Speeds & Bandwidth:

- With fiber, internet speeds at all town facilities would improve to a minimum of 100Mbps Download/100Mbps Upload.
- With symmetric speeds, file download and upload times are equal.
- Internet speeds are not throttled due to the fiber being less susceptible to overload.

Increased Security & Reliability:

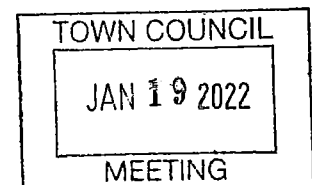
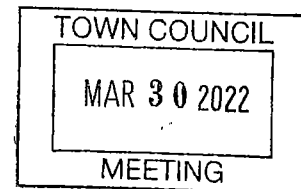
- Fiber helps mitigate Distributed Denial of Service (DDoS), which is a cyber-attack that overwhelms the network connection making it unusable.
- The only way to penetrate fiber-optic internet is to physically cut the fibers.
- Through a ring network design, there is built-in redundancy for internet access and services.

Streamlined & Expanded Services:

- The Town would be able to eliminate monthly service fees that would no longer be required. With a ring network, the Town would see a saving of approximately \$175/month.
- The Town would be able to offer public Wi-Fi at its various town facilities. The Town would be able to create a dedicated landing page to push out important updates and promote the local community. The Town would be also able to set parameters for use of the network, including data caps and service hours.
- Additional cost savings/improvements can be explored at a later date, such as a new town-wide Voice over Internet Protocol (VoIP) phone system.

- H1.** Economic Development Coordinator Vitale request for extension of meeting date re update ARP Broadband Fiber Project to February 9, 2022 meeting

Teixeira/Sweeney - Voted
unanimously to continue the
matter to a later date for
council consideration.



H1

Lori Hubbard

From: Christian Vitale
Sent: Wednesday, January 12, 2022 2:52 PM
To: Melissa Cordeiro; Lori Hubbard
Cc: Steven Contente; Michael Demello
Subject: ARPA Fiber Project Request to Continue

Good Afternoon Melissa,

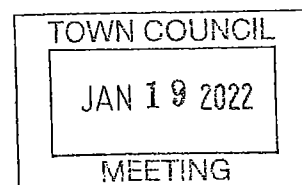
As you know, we were originally scheduled to give an update to the Bristol Town Council on the ARPA fiber project at their January 19th, 2022 meeting. Unfortunately, we are waiting for a proposal submission and do not expect to have it in time for next week's meeting. Therefore, I am respectfully requesting the matter be continued to the February 9th, 2022 meeting. Thank you.

Sincerely,

Chris Vitale | Economic Development Coordinator
Town of Bristol, Rhode Island
10 Court Street Bristol, RI 02809
P: 401-253-7000 | F: 401-396-5466
E: cvitale@bristolri.gov

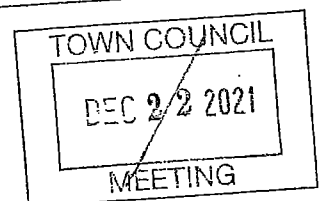
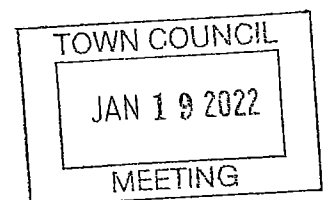


DISCLAIMER: This electronic mail, and any files transmitted with it, contains information intended solely for the use of the addressee(s). Any review, retransmission, dissemination or taking of any action in reliance upon this information by anyone other than the intended recipient(s) is strictly prohibited. If this message has been received in error, please notify the sender immediately and delete this message. Please note that any views or opinions presented in this email are solely those of the author and do not necessarily represent those of the Town of Bristol. The recipient should check this email and any attachments for the presence of viruses. The Town of Bristol accepts no liability for any damage caused by a virus transmitted by this email.



H1. Fire Chief DeMello re update ARP Broadband Fiber Project (continued from Oct. 20, 2021) request to continue the matter

Sweeney/Teixeira - Voted
unanimously continue the
matter to January 19, 2022.





Bristol Fire Department

Inter Office Memorandum

To: Honorable Town Council
From: Michael DeMello, Fire Chief
cc: File
Date: December 16, 2021
Re: Fiber Project Continuance, December 22 Council Meeting

The proposed ARP Broadband fiber project requires additional information and details that are currently still being gathered and analyzed.

It is for this reason I respectfully request a continuance in this matter to a future date to be determined once all pertinent information has been gathered and can be presented in its entirety for council consideration.

Thank you in advance for your continued support and consideration.

TOWN COUNCIL

DEC 22 2021

MEETING

**I3. Fire Chief DeMello re ARP Broadband Fiber Project
(continued from October 20, 2021)**

Sweeney/Teixeira- Voted
unanimously to continue
this matter to the
December 22, 2021 for
further consideration.





Bristol Fire Department

Inter Office Memorandum

To: Steven Contente, Town Administrator
From: Michael DeMello, Fire Chief
CC:
Date: October 6, 2021
Re: ARP Broadband Fiber Project Recommendation

MD
10/13/21

The following information describes Bristol's Broadband Fiber Project and its compliance with American Rescue Plan (ARP). Additionally, this memorandum provides guidance and recommendations to bring broadband to the community to assist businesses, allow access to underserved populations, and create a communication medium that can disseminate information during emergencies.

Current Environment

Current town operations rely on each separate public facility to install and pay for internet access. Most internet subscriptions are based on download and upload speeds, with higher-speed access plans costing more than low-speed plans. The town has multiple vendors that provide broadband or other access measures such as phone lines. This service structure is not cost-effective and, in some cases, does not meet the needs of today's technology requirements. The town does not currently own or have any fiber optic cables installed on its behalf. Current speeds for internet are 50/25 at best.

Future Environment

This fiber project has been designed to meet the current and future needs of the community. This project will connect the locations identified below and create improved operations through a mesh Wi-Fi network. This internet access will be available for residents, businesses, and visitors to utilize. In addition, the community's continuity of operations will be improved as the Town will have the ability to disseminate emergency information to network users. The network is fully adaptable, meaning that future additions can be implemented without difficulty.

The following locations have been identified to incorporate fiber optic or wi-fi equipment to support this initiative.

Town Hall (10 Court Street)	Maritime Center
Police Department	Reynolds School
Fire Department - All Stations	Quinta Gamelin Community Center
Department of Public Works	Wastewater Treatment
Independence Park (Public Wi-Fi Dish Only)	Vet's Park (Public Wi-Fi Dish Only)
Franklin Court (Public Wi-Fi Dish Only)	500 Wood St. (Public Wi-Fi Dish Only)
Town Common (Public Wi-Fi Dish Only)	Rogers Free Library (Public Wi-Fi Dish Only)
Benjamin Church Manor (Public Wi-Fi Only)	Town Beach

Cyber Security

Installation of this fiber network will provide enhanced cyber security. The fiber will allow components of town operations to be separated, reducing the ability for exploitation of the entire network should a breach in security occur. First and foremost, the equipment deployed with this network is monitored 24/7 and up-to-date technology reduces the risk of network infiltration. The fiber itself allows for the ability to separate networks, creating distinct modes of operation that will not conflict with each other. For example, an intranet within the town can be created that allows all town departments to share information or access programs without utilizing the internet. The improved speed and technology are important to public safety, enhancing Criminal Justice Information Systems (CJIS) and emergency medical healthcare information compliance. The architecture of the network provides failover and redundancy capability improving resiliency and continuity of critical services

Project Funding Requirements & Long-term Funding Outlook

Initial One-Time

This project requires components to be installed initially and account for one-time charges. Since the community does not have any existing fiber, the majority of initial costs are for the installation of new fiber lines to each location. The vendor will be responsible to install fiber and all required network equipment, including connections to existing network equipment in accordance with specifications set forth by the town's technology service provider. The vendor will also be responsible for the installation of all Wi-Fi equipment associated with the town's public internet access initiative. The vendor is also responsible for all associated testing and verification of performance once fiber and equipment have been installed. Cost for one-time installation is approximately \$450,000.

Monthly Services

The town currently pays for monthly services for internet and other technology services. A monthly cost will continue once the fiber and network are installed that will provide either slight savings in cost or remain just about the same at face value. However, the monthly service costs for the fiber network will include a single aggregate cost for internet access (Eliminates having a service at every location), managed network services, 100MB speed to all locations, a portal for detailed reporting, dedicated solutions engineer, public Wi-Fi management, and 24/7/365 monitoring of the entire system. The monthly cost is approximately \$4,500.

Long-Term Funding/Potential Cost Reductions

The vendor maintains an upgraded system of technology and at this time there is no forecasted significant long-term funding or capital outlay required. However, the field of technology changes rapidly and it is recommended that funding for future network additions be included in the town's capital plan for technology. As an example, if a new town building were erected, there would be a cost to run and connect fiber optic cable and equipment to the existing network.

It is likely that additional savings will be realized once the network is installed and operating. Opportunities exist to integrate other systems, such as phone systems, building security monitoring, & radio communications. The ability to utilize fiber for the aforementioned operations will reduce the need for monthly monitoring fees, expensive monthly landline fees for radio transmissions, and will likely provide additional cost savings of several thousand dollars annually.

Recommendation and Request for Authorization to Proceed

Though many vendor options exist, it was important to select a vendor consistent with American Rescue Plan (ARP) guidance, and a vendor that would be responsive to the needs of the community. Over the past several months Oshean Inc. is a non-profit member directed organization invested in the success of its members.

It is recommended that Oshean Inc. be allowed to proceed with the construction and installation of the town fiber network as proposed and as stipulated under the RI Master Price Agreement.