Municipal Vulnerability Preparedness Program Action Grant Case Study

Municipality: Spencer
Project Title: Green Infrastructure Implementation in Downtown Spencer, Mechanic Street Parking Lot
Award Year (FY): FY19
Grant Award: $322,921 (total), $315,227.79 (spent)
Match: $ 130,212.48 (total)
Match Source: $48,764.00 (Cash), $81,448.48 (In-Kind)
One or Two Year Project: Two Year
Municipal Department Leading Project: Utilities & Facilities Department
Project Website URL: https://www.spencerma.gov/project-status/municipal-vulnerability-preparedness-program

Community Overview:
The Town of Spencer is located in the central part of Massachusetts just west of Worcester and just North of the Massachusetts Turnpike (I90). The Town consists of rolling hills and rough terrain which creates many bucolic ponds and streams throughout the Town. According to State data, Spencer qualifies as an Environmental Justice (EJ) Community based upon Income.

With the rural setting and rolling hill terrain of Spencer, the community as a whole is vulnerable to Climate Change. Flash Floods will become severe and will have the ability to disrupt private property and transportation systems such as bridges or culverts. Likewise because much of the Town is wooded, icing of roadways can be problematic along with potential significant forest fires.

Project Description and Goals:
The Project was the creation of a Municipal Parking Lot at 18 Mechanic Street, in the heart of Downtown Spencer. The parking lot incorporates rain gardens/bioretention and below ground infiltration systems to reduce runoff and pollutant loads from the parking lot, as well as green stormwater practices along Mechanic Street (i.e., “green streets” practices) to capture and treat additional runoff from the street.

In addition to flood resilience and water quality benefits, the project created a highly-visible public green space in the downtown area, provides aesthetic improvements and reduces heat island impacts. The project showcases green stormwater techniques and offers opportunities for public education and outreach through signage and general use by the public. The project demonstrates the application of green infrastructure practices in the downtown area and serves as an example for other potential retrofit sites in the community. The project also advances the Town’s broader downtown revitalization and overall economic development initiatives as an Environmental Justice community.

The Project met the established goals of providing a green infrastructure in a densely populated area while educating the users of the facility. As Spencer is an EJ Community, the project

provided a mechanism to build partnerships with the Community through improvements and education. The Public Meetings held prior to and during project design and construction facilitated public involvement and worked well with the community engagement set forth in the application.

The project timeline was affected as a result of COVID-19, and municipal staffing changes which pushed the schedule back one year.

Results and Deliverables:
The scope of the project took 3 parcels of land totaling approximately 0.5 acres in the heart of downtown Spencer and converted it into a parking lot with structural stormwater BMPs that can provide a low impact development approach to handle stormwater flows, and provide an electric vehicle charging station.

After property Acquisition, the project started to take shape with a Concept Layout Plan prepared by our consulting engineers Fuss & O'Neill, Inc. (F&O). Field work including Test Pits and Land Surveying allowed us to proceed with Permitting for Site Plan Review and Stormwater Management. Upon certification, some site cleanup occurred. Community Meetings occurred throughout the project which contributed to the shape and design of the project along with the Planning Board Review to culminate in a Final Design Plan.

Lessons Learned:
Here in Spencer, we had several key/lead staff changes which caused some confusion and disruption in the project continuity. Better file management in the office is a key component to this. Improved record keeping and File management are essential components of all projects.

Partners and Other Support:
The Town of Spencer would like to thank the following parties that assisted in the project success:

Fuss & O'Neill, Inc. – Consulting Engineers
Lenard Engineering – Peer Review Engineers
John S. Lane & Son – Construction Materials
Hylka Construction – Construction Materials
Bond Construction – Construction Materials
Cyn Environmental – Site Cleanup
Win Supply – Construction Materials
Howe Lumber – Construction Materials
E.M. Thibault – General Contractor
Scituate Concrete – Construction Materials
Sherman & Frydryk – Surveying
Kennedy Recycling – Construction Materials
Morse Engineering – Construction
Central Mass Signal, LLC. – Construction
Morrison Fence – Construction
Pannier Graphics - Signage
Bigelow Nurseries - Landscaping
PJ ALBERT - Construction
New England Wetland Plants - Landscaping
Sansoucy Stone - Landscaping
K5 Corporation – Line Striping
Smart Sign - Signage
Tom Berube - Signage

Project Photos:
Project Photos may be viewed and downloaded at the following link: https://tinyurl.com/Spencer2020MVP