Muddy River Restoration Project wins Build America Award

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The Muddy River Flood Risk Management and Environmental Restoration Project in Boston, Massachusetts has been honored with the Associated General Contractors (AGC) of America's Alliant Build America Award.

According to AGC, the award honors AGC members who build the nation's most impressive construction projects ranging across the building, highway and transportation, utility infrastructure and federal and heavy divisions. "These projects, with their vision, scope and grandeur literally dare to change," said AGC's past President J. Doug Pruitt.

The Muddy River is a small waterway located in the Boston metropolitan area. Most of the 5.6 square mile watershed is located in the city of Boston and the town of Brookline, with a small portion located in the city of Newton.

The 3.5 mile long Muddy River flows through the heart of Frederick Law Olmsted's famed Emerald Necklace, one of the most carefully crafted park systems in America and the oldest remaining linear urban park system in the United States.

As a result of multiple floods, Boston's Parks and Recreation Department, working with the Boston Water and Sewer Commission, the Commonwealth of Massachusetts, the town of Brookline, the Federal Emergency Management Agency, and non-profit community groups such as the Emerald Necklace Conservancy and Fenway Alliance developed a comprehensive master plan to identify and address issues affecting the Muddy River. The Corps of Engineers was authorized to study the Muddy River by a series of legislative acts, and resulted in the 2003 Feasibility Study.

"The recommended plan from the Feasibility Study consisted of a combination of the 20-year flood risk management plan and extensive environmental dredging," said Project Manager Jennifer Flanagan. Due to high unit costs of the proposed restoration, the decision was made not to support the Environmental Restoration element of the project in 2005.

According to Flanagan, the major features of the current federally approved plan include: protection against a flood with a return frequency of 20 years to include channel improvements, removal of undersized culverts, installation of two new culverts, and daylighting two sections (about 700 linear feet) of the Muddy River; dredging approximately 96,000 cubic yards of sediment from five areas in the Riverway, Leverett Pond, and in the Back Bay Fens (the material will be dewatered on site and disposed of in licensed upland landfills); required removal of Phragmites from wetland and riparian areas affected by dredging for the flood risk management channel; and preservation and restoration of the historic park shoreline and vegetation in construction areas.

The project will be completed in two phases, with phase one already complete. Phase 1 is located from Riverway to Avenue Louis Pasteur. The work consisted of removal of undersized culverts with new Riverway and Brookline Avenue Culverts, daylighting of the former Sears Parking Lot and area upstream of Avenue Louis Pasteur to construct the FRM channel, removal of 2' of accumulated sediment from Upper Fens Pond, and the construction of the Avenue Louis Pasteur culvert extension. Construction of Phase 1 of the Muddy River project began in January 2013 and was completed in June 2016. Phase 1 was completed at a cost of $35.2 million.

In addition to Flanagan, District team members currently working on the project are Steve Umbrell, Technical Lead, Michelle O'Donoghue, Project Engineer and Mike Penko, Biologist.

"The Commonwealth of Massachusetts, the city of Boston and town of Brookline are the local sponsors for the project and will be responsible for long-term operation and maintenance of the project," said

Flanagan. “This will include monitoring water quality, removal of future accumulations of sediment to maintain flood control, water quality, and habitat benefits, and monitoring/treatment to guard against recolonization by Phragmites.”