



Stormwater Master Plan, Retrofits, Wetland Restoration, and Flood Management for Peabody

City of Peabody, Massachusetts

The City of Peabody is working to improve small-scale stormwater storage capacity in locations upgradient of Downtown Peabody, an area that experiences severe flooding at an unsustainable frequency. The City of Peabody contracted with the Horsley Witten Group, Inc. (HW) on several different projects intended to address the State’s recommendations and improve flood storage and stormwater management upgradient of the downtown area.

HW designed and permitted retrofits to restore the functionality of four existing detention basins within Centennial Park while improving the natural capacity of the wetland system to provide flood storage. The Centennial industrial/office park was initially developed in the early 1980’s, and at that time, it was common to construct in-line stormwater detention basins within existing stream systems to capture and detain stormwater from the impervious surfaces in the park. Due to deteriorated outlet structures in combination with poor maintenance over the years, several of the detention basins are now failing and provides very little of the needed stormwater detention.

HW developed creative retrofit designs for each of four basins that provide additional stormwater detention capacity, while providing stormwater quality pretreatment and long-term maintenance access. HW secured the necessary permits on behalf of the City, finalized the design plans and construction specifications, and assisted the City with the construction bid process and construction oversight. This project moved along quickly from conceptual design to construction in order to accommodate a schedule mandated by available grant funding.

Design of the first retrofit was initiated in November 2009 and construction was completed in July 2010. Design of the remaining three basins was initiated in July 2010, and construction was initiated in November 2010. In addition, HW developed a Stormwater Retrofit Conceptual Master Plan followed by retrofit construction designs for Perkins Street in order to help alleviate a localized flooding problem and improve safety conditions at the intersection of Perkins Street and Allens Lane. HW designed a Conceptual Master plan with a variety of innovative, feasible and cost-effective stormwater Best Management Practices that could be installed on publically owned park land and rights-of-way along Perkins Street to better manage the stormwater and alleviate the flood occurrences.

HW supported the City in obtaining an Order of Conditions from the Conservation Commission for applicable portions of the project, and approvals from the Parks and Recreation Commission and the School Committee. We prepared final design plans and construction specifications, and assisted the City with the construction bid process and construction oversight. This project also moved quickly from conceptual design to construction in order to accommodate a schedule mandated by available grant funding. Construction began in June 2010 and was substantially complete in November 2010.

Client Contact:
Blair Haney, Assistant Director of Planning
City of Peabody
978-538-5781

HW Contact:
Ellie Baker

www.horsleywitten.com

- Civil & Environmental Engineering
- Wetlands Management
- Coastal Management
- Hydrogeology & Water Supply
- Stormwater Management
- Wastewater Management
- Site Assessment & Remediation
- Land Use Planning
- Education & Outreach



Sandwich, MA
90 Route 6A
Sandwich, MA 02563
tel: 508-833-6600

Newburyport, MA
30 Green Street
Newburyport, MA 01950
tel: 978-499-0601

Providence, RI
370 Ives Street
Providence, RI 02906
tel: 401-272-1717

Peabody SW Overview