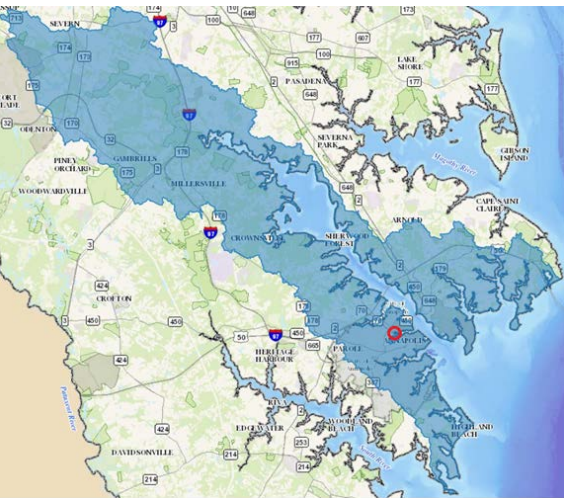




GREEN STREETS | GREEN JOBS | GREEN TOWNS INITIATIVE

The Green Streets, Green Jobs, Green Towns Partnership (G3) aims to stimulate the green jobs market and enable families to work where they live and play. Small to mid-sized communities can boost their local economies and protect water resources through the use of watershed planning, design and construction of stormwater best management practices.



CITY OF ANNAPOLIS

Green Infrastructure Plan for Historic Downtown Annapolis


This project involved the incorporation of various green infrastructure BMPs into the historic downtown area of Annapolis, Maryland. This historic area lacked shade from street trees, had seen increased flooding over time and had a large amount of impervious surface that was primarily managed by traditional stormwater management practices.


Some of the ideas considered include planting street trees in the newly extended portion of the sidewalk utilizing Silva Cells and engineered soil to allow for enhanced root growth and increased tree health and vigor. This would not only serve to beautify the area but also capture and treat stormwater and reduce the flow of water coming off Main Street. The project team also considered replacing some of the existing trees downtown in order to install Silva Cells for increased filtration and better growing conditions. At the bottom of Main Street and around the City Dock area, they envisioned bio-retention facilities and additional green infrastructure practices to capture and treat stormwater before it enters Spa Creek, which leads directly to the Chesapeake Bay.


While the primary goal of these BMPs would be to slow and treat stormwater, this plan also produces non-environmental benefits for anyone who uses or visits Main Street. Increased pedestrian traffic, enhanced aesthetics and new shady areas for people to sit could provide local businesses with economic benefits and an overall better experience for visitors of the area.

The City held three community meetings for this project and produced a conceptual plan vetted by the Historical Preservation staff, Public Works Department, Mayor, and City Manager.



 1 Conceptual plan created

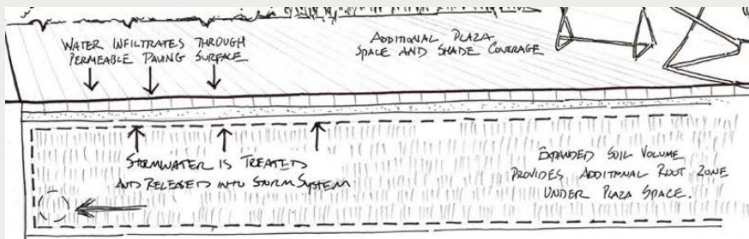
 3 workshops with 60 attendees

 1 local firm employed



PROJECT ELEMENTS

- **Conceptual plan** – The City of Annapolis contracted Campion Hubry Landscape Architects to create a conceptual plan for the main street area. The plan suggests reducing impervious surfaces, permeable pavers, silva cells, street trees, bioretention areas, green alleys, and many more green street features.
- **Permeable pavement**– This alternative to traditional black top allows surface water to flow into the ground where the volume can be held, infiltrate into the lower soil or conveyed through a stormwater system. Porous paving is a good application for areas that require a hardscape surface and have no viable options for stormwater management. There are various applications and styles making porous asphalt a good aesthetic option as well as functional.
- **Tree plantings**– Native trees and shrubs require less maintenance and absorb rainwater, hold soils in place, and provide food and habitat for birds, pollinators, and other wildlife.
- **Bioretention** – These features filter, store, and reduce stormwater runoff, allowing it to infiltrate into the ground before it enters into the storm drain system
- **Green Street**– Green Streets minimize the impact on the surrounding area through a natural system approach that incorporates a variety of water quality, energy-efficiency, and other environmental best practices.



SUSTAINABILITY & GROWTH

The project was integrated into the City Capital Improvement Program, which includes all capital projects planned for the 5 years following the project. In addition, the project was tied to an existing capital project planned by Public Works to re-brick Main Street. The City of Annapolis will be working closely with the Public Works Department on the timing of that project to ensure they are on the same schedule.

The long-term goal is for this project to serve as an example, for not only the local community but to visitors from all over the world, of how green infrastructure practices can be used in downtown areas to provide a range of benefits to the community. The project team hopes that the designs used and constructed in this part of Annapolis would be transferable to other areas of the City that are also in need of green infrastructure. While working on this project, the Department of Environmental Policy plans to create a green infrastructure guide that would be referenced in the City's construction specifications. This guide would serve as a reference for implementing green infrastructure practices into City projects as well as development projects within Annapolis.

Year Awarded: 2018

Award Amount: \$15,000

Opportunities for Upper Main Street



Current conditions



Conceptual Design



Project Partners: Campion Hubry Landscape Architects, Chesapeake Bay Trust, City of Annapolis, U.S. Environmental Protection Agency