District Department of Transportation

Bloomingdale
Surface Water Management Project
Final Community Update: November 12, 2013

Project Overview

In response to the flooding events in July 2012, the Mayor formed a Flood Prevention Task Force to develop recommendations to reduce the likelihood of flooding in the Bloomingdale and LeDroit Park neighborhoods. In October of 2012, the District Department of Transportation began implementing a mix of gray infrastructure (pipes and storm drains) and green infrastructure (rain garden, permeable pavement) solutions to provide short term mitigating solutions to overland flooding occurring in the Bloomingdale neighborhood. This work complemented the medium and long-term infrastructure improvements underway by DC Water to resolve the flooding issue in the area. DDOT is proud to bring the Surface Water Management Project to a conclusion having implemented several infrastructure solutions in the process.

Public Involvement

The public involvement process consisted of the following efforts: community walkthrough with Bloomingdale residents to show areas where improvements would be implemented, canvassing the neighborhood with project fact sheets, periodic electronic community updates, traffic advisories, attendance at monthly ANC and Civic Association meetings and responding to individual resident concerns.

Double Catch Basins

One reason flooding occurred was that the openings of the existing catch basins were not long enough to capture the water from the roadway, sidewalk and surrounding properties during heavy rain events. The result was standing water on the roadway. Many of the catch basins in the Bloomingdale neighborhood were single catch basins. DDOT installed double catch basins in the unit block of T St. NW and 100 block of Rhode Island Ave. NW.

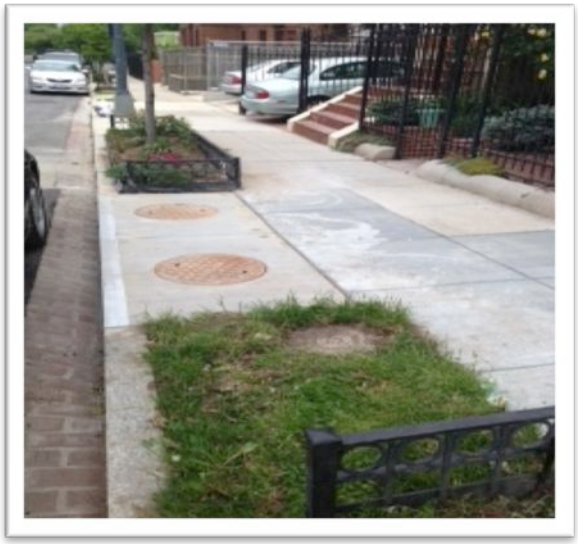

Figure 1: Double Catch Basins Unit Block of T St. NW

Storm Sewer Lines

An 18-inch stormwater pipe installed near the SE corner of the intersection of 2nd St. NW and Rhode Island Ave. NW. This storm sewer line will also collect water from the roadway and release it to the 2nd Street Combined Sewer relieving pressure on the overburdened First Street Combined Sewer.

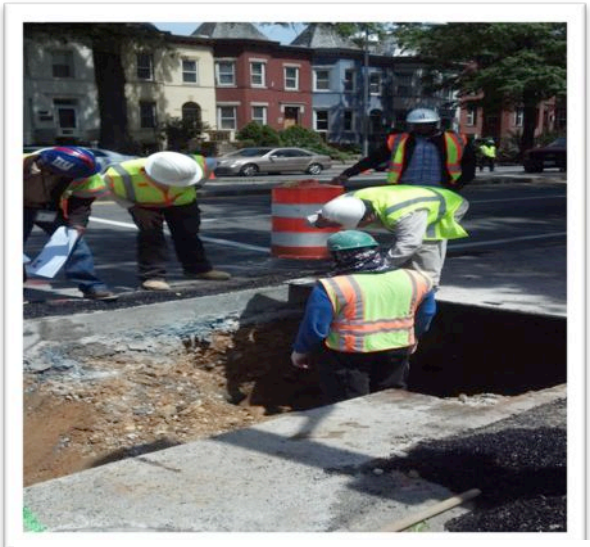

Figure 2: Excavation at Rhode Island Ave. NW and 2nd St. NW for 18-inch storm sewer

DDOT installed a 60 inch wide underground storage pipe beneath the median of the 100 block of Rhode Island Ave. NW leading to 2nd St. This pipe has the ability to collect water and store it. The stormwater pipe is reduced from 60 inches to 8 inches to allow water to intermittently release into the sewer system. This method will capture surface water while also slowly releasing water into the sewer system.

Figure 3: Schematic of 60" storm pipe

Figure 4: 60" inch Storm Sewer Line underneath median

Rain Garden

The new bioretention cell (rain garden) in the 100 block of Rhode Island Ave. NW and T St. NW will collect and hold storm water and allow it to slowly infiltrate back into the ground. The plants, mulch and soil will naturally remove pollutants from the runoff. The rain garden will reduce the amount of runoff pollutants collected and flowing into storm drains and relieves the amount of stormwater ultimately flowing into the system. The picture below shows some plants others will bloom in the Spring.

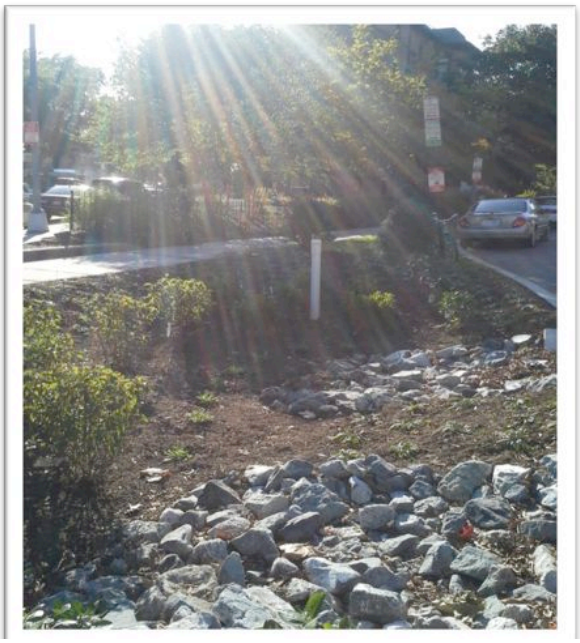

Figure 5: Bioretention Cell (Rain Garden) at the Triangle Garden 100 Block of Rhode Island Ave. NW

Permeable Brick Alley

DDOT installed it's first permeable brick alley for the District in the Bloomingdale neighborhood. The permeable alley is located adjacent to the Mount Bethel Baptist Church in the 1900 Block of 1st St. NW. It allows water to slowly seep through its porous material to underground storage pipes, which slowly release into the sewer system.

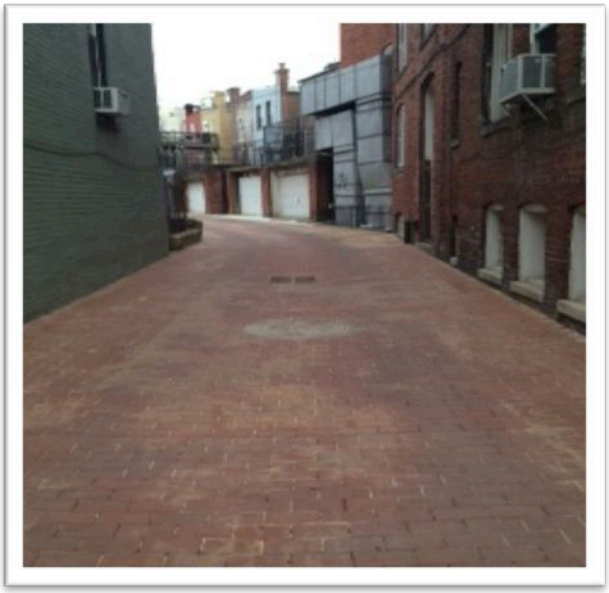

Figure 6: Permeable Brick Alley 1900 Block of 1st St. NW

Conclusion

DDOT has officially completed implementing all of the short-term solutions to decrease overland flooding that were promised to the Bloomingdale neighborhood in November of 2012. To the residents and commuters in the Bloomingdale neighborhood we thank you for your patience during the construction phase. If you have any questions about this project, please do not hesitate to contact the public outreach coordinator.

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