



Green Infrastructure and Community Enhancement in Stoepel Park No. 1

Project Overview

What's happening in Stoepel Park No. 1 in 2016?

The Detroit Water and Sewerage Department (DWSD) is working with the Rosedale Grandmont Little League (RGLL), Grandmont Rosedale Development Corporation (GRDC), and Detroit Parks and Recreation Department to integrate green infrastructure storm water management practices with other planned improvements to Stoepel Park No. 1. Storm water from Stoepel Park No. 1 drains to Detroit's combined sewer system. DWSD is required to reduce the amount of storm water entering the combined sewer system using green infrastructure practices.



Current view of Stoepel Park No. 1 in Detroit

What is green infrastructure?

Green infrastructure is an approach to managing storm water that uses the natural processes of soils and plants to soak up storm water where it falls before it can enter and overwhelm the sewer system. DWSD is working with partners throughout Detroit to install a variety of green infrastructure practices, including bioswales, pervious pavement, rain gardens, bioretention, and tree planting.

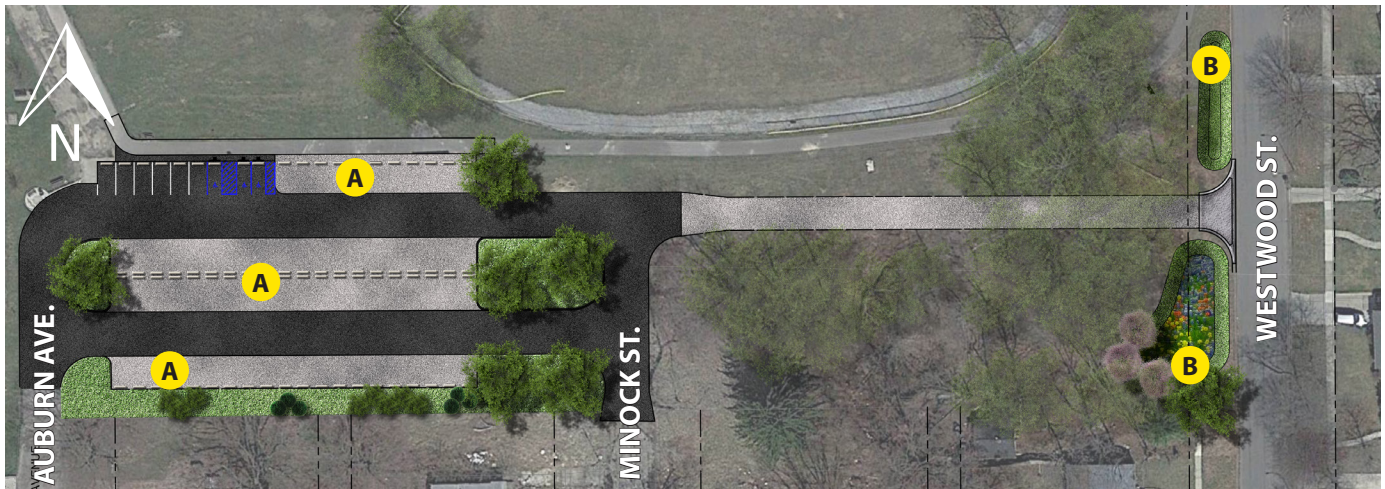


What type of green infrastructure is DWSD constructing in Stoepel Park No. 1?

Removal and expansion of the existing parking lot in 2016 will include 47 additional parking spaces and an access drive to Westwood Street and Minock Street. There are 33 existing parking spots. The parking lot will be constructed of pervious stone to allow storm water to drain through the parking lot surface. Bioretention features along Westwood Street will capture and treat storm water runoff from the street.



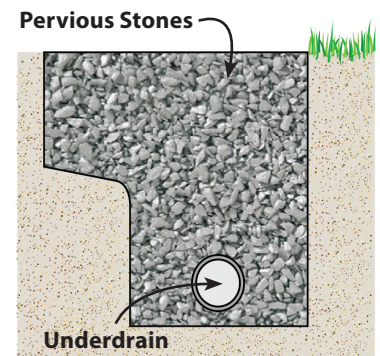
Bioretention area in the northeast corner of Stoepel Park near Westwood Street



Proposed locations of new pervious stone parking spaces (A) and bioretention areas (B) at Stoepel Park No. 1

How does pervious stone work?

Pervious stone is designed so that storm water passes through the spaces between the stones. The storm water is stored within the void spaces between the stones while the water slowly infiltrates into the underlying soil. A drain pipe is buried within the stone to help drain the stone layer. The drain pipe flows to the combined sewer.



How does bioretention work?

Bioretention (often referred to as a rain garden) is designed to capture and treat water, while allowing it to infiltrate into the ground slowly over a 24- to 48-hour period. Turf grass or native plants will be planted within the bioretention areas. Bioretention can help to reduce ponding and flooding on streets, as well as help to beautify neighborhoods and parks.

Bioretention features are specially designed to have a wide, porous bottom and a gentle slope that allows storm water to infiltrate the bioretention features, fill up, and then overflow back into the street and into the nearest catch basin. The catch basin is connected to the combined sewer.

Project Update (May 2016)

What is the project schedule?

The project construction is planned to begin the week of May 23, 2016. The overall construction is expected to take four to five months with a goal to ensure minimal disruption to park activities and surrounding neighborhoods during construction. The bioretention areas of the project (denoted with a "B" on the previous page), along Westwood will be constructed first. Temporary, single-lane closures along Westwood will occur the first two weeks of July 2016.

When will construction of the bioretention areas start?

Construction of the bioretention areas will start at the end of May 2016. The work will take approximately two months. Parking along portions of Westwood during the construction of the bioretention areas will be temporarily unavailable.

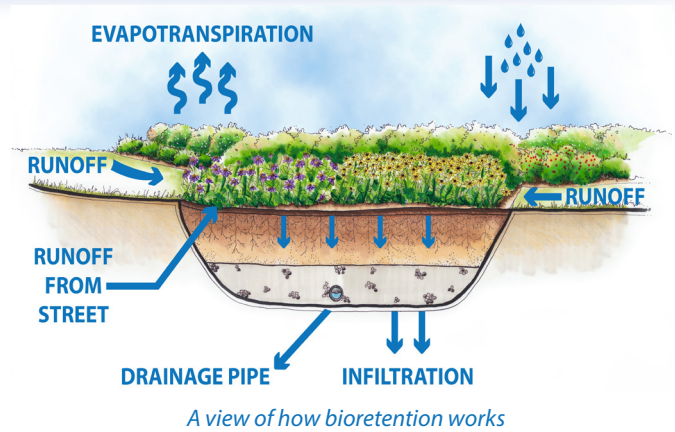
When will construction of the new parking lot start?

The construction activities in the parking lot will start at the beginning of July 2016. The work will take approximately two months. Parking in the parking lot during this period will not be available and alternative parking locations should be planned. Parking will be available along Westwood during the construction of the parking lot.

Frequently Asked Project Questions

Are there other examples of bioretention in Detroit and southeast Michigan?

Bioretention is not a new approach to managing storm water. Property owners are using this type of green infrastructure practice around Detroit, throughout southeast Michigan, and around the country. DWSD recently partnered with the University of Michigan Water Center and the Detroit Land Bank Authority to design and construct four bioretention gardens in the Cody Rouge neighborhood. These bioretention gardens not only capture storm water before it goes in the storm sewer system, they also beautify these vacant lots.



Are there other examples of pervious pavement in Detroit and southeast Michigan?

Pervious pavement is not a new approach to managing storm water. Property owners and municipalities are using this type of green infrastructure practice throughout southeast Michigan and around the country. Lawrence Tech has an interactive map that shows the location of pervious pavement projects in southeast Michigan. Please visit: <http://www.ltu.edu/lid/>.

How does bioretention perform?

Research has shown that, during smaller storms, bioretention practices along roads can completely absorb storm water runoff by infiltrating storm water to the groundwater table and releasing water to the atmosphere. In the case of large storms, bioretention practices are designed to direct excess storm water to the sewer system.

Will trees get cut down during bioretention construction?

A limited number of trees may be lost as a result of this community and park enhancement project. The City of Detroit Parks Department, along with the design team, have identified key trees that must be protected during construction. Trees will also be added along the perimeter of the parking lot as part of this project.

Who is responsible for maintaining bioretention practices?

DWSD will be responsible for maintaining the bioretention features constructed at Stoepel Park No. 1. However, it will be important to educate all community residents about the function and importance of these features to ensure that park visitors understand what they can do to keep them functioning properly.

Project Contact Information

Where can I get more information?

DWSD will provide updates about Stoepel Park No. 1 project, as well as other green infrastructure projects, on their website (www.detroitmi.gov/dwsd). More technical information about bioswales and how they work is available in Chapter 7 of SEMCOG's *Low Impact Development Manual for Michigan* (<http://www.semcog.org/lowimpactdevelopmentreference.aspx>).

Who can I contact to share my thoughts?

If you have questions or concerns about the Stoepel Park No. 1 project, please contact Parvez Jafri at 313.999.2716 or jafrip@detroitmi.gov.

