Bringing Green Infrastructure to Artesian Street in 2015

Project Overview

This fact sheet provides details on the Green Infrastructure projects for sections of Artesian Street proposed by the Detroit Water and Sewerage Department (DWSD) in summer 2015. As more project information becomes available, DWSD will update this fact sheet.

What's happening on Artesian Street in 2015?

The Detroit Department of Public Works (DPW) plans to resurface Artesian Street, as well as other surrounding residential streets, in 2015. Construction will start in early summer. DPW and DWSD identified an opportunity to work together to incorporate innovative green infrastructure projects to help manage storm water runoff more effectively.

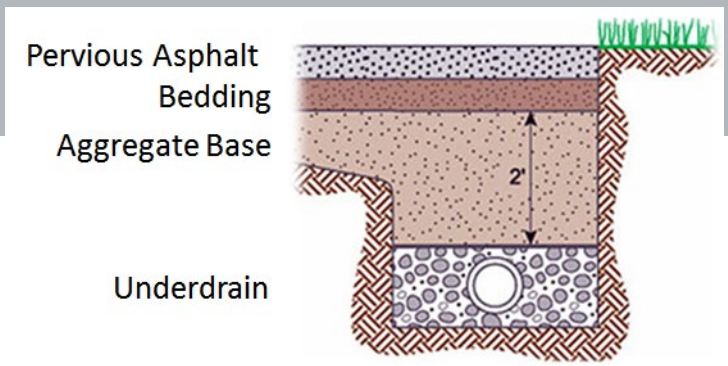
What is green infrastructure?

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 asphalt, rain gardens, and tree planting.

What type of green infrastructure would DWSD construct on Artesian Street?

DWSD proposes to install pervious asphalt on portions of Artesian Street.

Pervious asphalt looks very much like ordinary pavement except it has small openings that allow water to pass through and eventually soak into the ground. Pervious asphalt significantly reduces the amount of storm water runoff compared to conventional pavement. It can help to reduce ponding and flooding on the streets as well as improve public safety by reducing ice formation. DWSD proposes to install pervious asphalt along Artesian Street between Joy Road and Cathedral Street.



How does pervious asphalt work?

Pervious asphalt is like most standard roads except that the manufacturers leave out the very fine material from the asphalt mix creating open spaces that allow water to flow through it. Under the pervious asphalt pavement surface is a 12 to 30-inch layer of 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 existing sewer.

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

Pervious asphalt 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 asphalt projects in southeast Michigan.
http://www.ltu.edu/lid/

How well does pervious asphalt perform?

Research from existing pervious asphalt roads and parking lots has demonstrated that this green infrastructure practice can infiltrate a high percentage of storm water volume. In the case of large storms, pervious asphalt roads will still drain excess storm water to the sewer system. The lifespan of pervious asphalt is 10 to 20 years, which is comparable to a conventional asphalt road. More information on the performance of pervious asphalt is available on EPA's website at http://water.epa.gov/polwaste/npdes/swbmp/Porous-Asphalt-Pavement.cfm

Can pervious asphalt cause basement flooding?

Pervious asphalt can actually help reduce basement flooding caused by storms that overload the sewer system. The pervious asphalt sections of Artesian will be located more than 10 feet from homes and at least 2 feet above the groundwater table so as not to cause seeping into basements. Drain pipes beneath the pervious asphalt also help direct storm water to the sewer during heavy rains. Residents with concerns about basement flooding should remember to direct downspouts 6 feet away from the house and ensure that the ground slopes away from the house.

Where will residents park during road resurfacing and pervious asphalt construction?

Construction of the pervious asphalt segments will take place on one side of the street at a time. This will allow for parking on one side of the street while the contractor installs pervious asphalt on the other side. Driveways will remain accessible most of the time.

Who can residents call if there are questions or problems with the pervious asphalt once installed?

If residents on Artesian Street have questions or concerns about the pervious asphalt in front of their property or in the neighborhood, they can call DWSD at the 24 hour emergency hotline (313-267-7401) or email public.affairs@dwsd.org. It is important to DWSD to know if there are problems with the pervious asphalt or any questions on proper maintenance or functioning.

Who is responsible for maintaining the pervious asphalt?

DWSD is responsible for maintaining the pervious asphalt using street vacuums. This will be done twice a year to remove small particles from the pervious asphalt to prevent clogging and ensure it effectively soaks up storm water.

What is the project schedule?

The project would begin in May or June 2015 and last approximately 3–4 months. Residents will receive notification 2 weeks prior to construction.

Where can I get more information and how can I share my thoughts?

DWSD will provide updates about the Artesian Street pervious asphalt project, as well as other Green Infrastructure projects, on their website (www.dwsd.org). More technical information about pervious asphalt and how it works is available in Chapter 7 of SEMCOG's *Low Impact Development Manual for Michigan* (http://www.semcog.org/lowimpactdevelopmentreference.aspx).

If you have questions or concerns about the pervious asphalt project,
please contact Dan Schechter at 313-297-6408 or dschecht@detroitmi.gov.

If you have questions or concerns about road resurfacing,
please contact Jihad Slim 313-224-3947 or slimj@detroitmi.gov.