

CLIMB OF THE DITCH

Five years ago, the intersection of Fairview Avenue and Interstate 65 was home to a long-abandoned glass factory. Soil surrounding the site was polluted with oil and hydraulic fluids. Old concrete culverts built to contain an urban stream were clogged with trash. Nearby residents appropriately called the spot “Genetta Ditch”.

Today, the 4-acre site in the heart of West

Montgomery is in the midst of a three-phase project. What used to be called a ditch is now being called the Genetta Stream Restoration Project. When completed, the former vacant lot will help the city of Montgomery resolve long-standing issues with stormwater runoff and pollution.

The former industrial eyesore is being converted into an attractive inner-city

park with several unique environmental features. The park’s focal point is a man-made wetland designed to restore the water quality of the stream flowing through the site.

To further reduce pollutants reaching the stream, walking areas are being built with specially designed interlocking concrete pavers.

ING OUT TECH

For this part of the project, designers turned to Block USA for a new type of permeable paver called Eco-Priora. "This project is a first for the state of Alabama," says Block USA's Bobby Coffey. "Eco-Priora has a unique 8% void that's great for handling stormwater runoff while being well-suited to pedestrian areas like those found in the new Genetta Park."

Stewart says when installed, the Eco-Priora permeable units provide the classic look of a traditional brick-shaped paver. The resulting paved surface is smooth and compliant with all requirements of the Americans with Disabilities Act (ADA).

"The product is great looking but it also has great function," he says. "Eco-Priora allows stormwater to go through and be contained

on-site. This ensures storm drains won't be overwhelmed in a flash flood."

Beneath the pavers are several layers of stone. This open-graded base helps store water and slowly release it back into the soil. Permeable pavers and the crushed stone base work together to manage stormwater, stop sewer overflows and keep pollutants out of the water.



TOP LEFT: Preconstruction site

"The paver, along with the base and sub-base, cleans the rain water as it passes through. It takes away the total suspended solids and some of the phosphates," says Coffey.

The project is also lined with several concrete segmental retaining walls which seamlessly tie-in to the park's natural appearance.

"Because the walls are shorter, this project used a six-inch unit," says Coffey. "The retaining wall blocks are used to bring the right elevation and look to Genetta Park."

ABOUT THE PARK

Fairview Environmental Park is located on a four-acre site at the intersection of Fairview Avenue and Interstate 65. The site was a former brownfield containing petroleum and asbestos contamination.

Flowing through the site is the Genetta Stream, an urban waterway that is a major tributary of Catoma Creek, which was as a Clean Water Act Section 303(d) impaired

water body when the project started. Beginning in the 1960s, the stream was channelized underground using concrete pipes to facilitate urban development. This channelization led to an increase in

ECO PRIORA PAVERS



Eco-Priora® has become the permeable paver of choice among design professionals. This paver features interlocking spacers that offer advanced interlocking capability under traffic loads compared to other rectangular permeable pavement systems on the market. The flat surface and minimal chamfers of Eco-Priora make it well-suited to pedestrian areas and for ADA handicap-accessible pavements where a smoother surface is desired.

Eco-Priora® pavers are ideal for residential, municipal, and commercial applications, such as walkways, patios, driveways, courtyards, plazas, retail areas, entry areas, parking lots, and streets. It can be installed in a number of patterns such as herringbones, running bond, and basketweaves.





impermeable surfaces, the elimination of the stream and riparian habitat, and increased pollutant loading to the watershed.

The Fairview Environmental Park (Genetta Park) project began in 2009. The project consisted of three (3) original phases. Two of the original phases have been completed to date.

Phase I consisted of the remediation of contaminated soils and the creation of a constructed wetland, which included “daylighting” the Genetta Stream restoring the streams natural processes. The constructed wetland and stream daylighting will help remediate stormwater by removing urban debris, reduce sediment loads, and filter bacteria from sewage leaks in the sanitary sewer system before flowing to Catoma Creek. Based on the elevation, native shrubs, trees, and grasses were planted to create three distinct planting zones, stream ecology, riparian ecology, and the upland stream ecology. The \$1.5 million cost for Phase I of the project was funded through an ADEM Section 319 grant, a loan from Alabama’s EPA-funded Brownfields Revolving Loan Fund, and a HUD Community Development Block Grant. The city of Montgomery

also financed the design work, acquired the land in order to construct the park, and contributed matching-share funds for federal program dollars.

Phase II of the project, consisted of the construction of an urban plaza, which included green infrastructure and a variety of sustainable elements to assist in the collecting and remediation of stormwater before it enters into Genetta Stream. Green infrastructure included permeable pavers, silva cells for healthy trees, and native plants to form a rain garden and a shaded urban plaza. The goal of this phase was to use highly visible features to demonstrate how green infrastructure can be used as educational elements in an urban environment. Phase Two cost \$1.3 million and was funded with dollars from EPA’s Clean Water State Revolving Loan Fund and HUD CDBG funds.

The Fairview Environmental Park (Genetta Park) Project is part of a larger brownfields cleanup and community revitalization effort along the Selma to Montgomery National Historic Voting Rights Trail. The effort began as a partnership between EPA and ADEM, along with the U.S. Department of Transportation (DOT) and HUD, through the

Partnership for Sustainable Communities. The goal of the project was to preserve the history of the trail while also revitalizing the underserved neighborhoods it traverses. Work began with EPA conducting 18 brownfields site assessments along the trail to determine the sites in most need of revitalization. EPA, the U.S. Army Corps of Engineers, and the National Park Service supported nine community-visioning workshops, which allowed the communities to share their improvement and development ideas. The City of Montgomery also conducted community outreach sessions with HUD Community Development Block Grant funds. **CW**

DESIGN TEAM

- Judd Langham, 2D Studio, LLC. (Project Manager);
- Thomas Doyle, LA+South Inc. (Lead Landscape Architect);
- S&ME Inc. (Environmental Engineer);
- Krebs Engineering (Civil Engineer);
- Grant Engineering LLC. (Structural Engineer);