



CITY OF PINELLAS PARK PERFORMING ARTS CENTER

PICP Makes Performing Arts Center a Win-Win

LOCATION:

Pinellas Park, Florida

PRODUCTS:

Eco-Holland® Permeable Pavers

COLORS:

Harvest Blend

INSTALLED AREA:

70,000+ sq. ft.

INSTALLER:

Paver Crafters

CONTRACTOR:

MTM Construction

ENGINEER:

Cardino TBE Engineering



Background

The City of Pinellas Park is a vision. With its small lakes and nearby blue waters of the Gulf of Mexico, swaying palm trees and frequent festive gatherings, this beautiful Tampa Bay suburb is enjoyed by its nearly 45,000 residents. The City of Pinellas Park also had a vision—an eye to find an innovative solution for a community gathering space but with low impact development (LID) benefits.

The Challenge

The parking was next to a youth soccer field, but the property's flood zone status added complication when the project team evaluated this option. If the planners were to use this space, they would need to convert the soccer field into a small detention pond to accommodate stormwater management needs and as a result, the community would lose a valuable amenity for its youth.

The Solution

The solution was to use permeable interlocking concrete pavement (PICP) to build a usable parking area with a built in stormwater detention system underneath, preserving the soccer field and creating a durable, attractive and ADA-compliant parking area for the performance arts center and adjacent park.

"I feel it's more environmentally friendly

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any time you can build with two functions,” said Dan Hubbard, Director, City of Pinellas Park Public Works - Facilities and Project Management Division. “In this case, the low impact development means there’s less discharge into surface waters in the county.”

Low impact development is a leading Best Management Practice (BMP) design strategy used to reduce the negative impacts of traditional development on watershed areas and receiving waters. The goal of LID is to mimic a site’s predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate and detain runoff close to its source.

For the Pinellas Park Performing Arts Center, permeable pavers proved to be a very effective best management practice for controlling stormwater runoff to the point of eliminating the need for detention and retention ponds and sewer pipes. Permeable pavers create a pervious surface allowing water to infiltrate the ground, naturally filtering pollutants and replenishing ground water reserves. With this design, the permeable parking lot will limit the 25-year/24-hour discharge rate to the predevelopment 25-year/24-hour discharge rate.

Constructed over three months, the parking area at Pinellas Park Performing Arts Center included over-excavation of two

feet of unsuitable subgrade soil (muck) and replacement with two feet of clean fill. A layer of non-woven geotextile material was installed and covered with eight inches of #4 stone and a four-inch layer of #57 stone; these layers serve as the open graded aggregate reservoir, where water can be temporarily stored until it percolates in the soil and recharges the aquifer. Once the stone was compacted, two inches of #89 aggregate were added to serve as a bedding course for the Belgard® Eco-Holland pavers. The pavers were hand installed and compacted into the bedding course to create a smooth pavement surface; a small aggregate then was swept into the joints to lock everything into place.

The project was good not only from an environmental perspective but also that we’ll never have to repave it or restripe it since the parking lines were done in white pavers... Architecturally, it’s really nice. It’s a win-win.

*Dan Hubbard
Director, City of Pinellas Park Public Works*

The Result

Pinellas Park Performing Arts Center was the county’s first PICP project and only the second to be permitted by South West Florida Water

Management District (SWFWMD), which closely monitored it using several imbedded single ring infiltrometers that were installed during construction. These test rings feature a tube on top that shows at what rate the water is drawn down.

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About Belgard Commercial®

Belgard Commercial, part of Oldcastle® APG, offers a complete collection of paver and wall products for plazas, terraces, parking areas, roadways, rooftops and retaining walls. Available in a range of styles, premium Belgard Commercial products have been found in the nation’s finest developments and award-winning commercial and retail properties since 1995.

Oldcastle APG is part of CRH’s Building Products division. As the largest building materials company in North America, CRH provides a single-source solution for commercial construction projects with a full portfolio that also includes structural masonry, masonry veneers, dry mix products, hardscape jointing sands and sealants, stormwater management systems, concrete infrastructure, architectural glass, lawn & garden products, and composite decking.

