CASE STUDY

Chehalem Cultural Center

The Chehalem Cultural Center needed a visitor parking lot that also provided the flexibility for hosting a variety of outdoor events. Serving as the main entrance to the Cultural Center Ballroom, permeable pavers were the answer providing a unique visual and textual richness not typically found on parking lots.

Chehalem Cultural Center PICP Parking Lot Demonstrates an Attractive Solution for Stormwater Runoff

Project Size	19,000 sq ft (~1765 m²)
General Contractor	Triplett Welman Contractors Woodburn, OR
Engineer	Larry Anderson Engineering Newburg, OR
Lead Architect	Hennebery Eddy Architects Portland, OR
Landscape Architect	Mayer/Reed Portland, OR
Contractor/ Installer	Eastern States Paving Portland, OR
Owner	Chehalem Parks and Recreation District Newburg, OR
Paver Type	Permeable Interlocking Concrete Pavement

Following a 1993 earthquake, the Newberg School District sold the school building to the Chehalem Parks and Recreation Department for $1 in 1997; the only stipulation was that the property had to remain in the public domain. The Chehalem Center Association (CCA), a volunteer, community-based support organization, planned a major rehabilitation to transform the school into the Chehalem Cultural Center as "a revitalized community asset open to all." The parking lot project was the first phase of the rehabilitation that enhanced a four block area called the Chehalem Cultural District. Permeable interlocking concrete pavement (PICP) provided the design team with a consistent surface throughout the Park District, while giving the design team freedom in the selection of complimentary patterns and colors to help visually define and articulate certain areas.

PICP provided an attractive alternative to the unsightly asphalt parking lot. It resolved the Center's stormwater runoff issues. The Center is located in Yamhill County with clay soils that do not drain well. The low permeability of the soils causes the sewer system to flood.

The design team compared renewing the asphalt paving, which required a stormwater detention facility, with permeable pavers that did not. Stormwater detention would have added significant cost and consumed valuable space on the property. The increased cost of permeable pavers was compensated by the savings in eliminating the detention facility and created valuable space for better uses.

Geotextile provides separation between the soil subgrade and subbase material

The subbase No. 2 stone provides surface infiltration and vehicular support

Mechanical paver installation reduces time and cost

Project Challenges

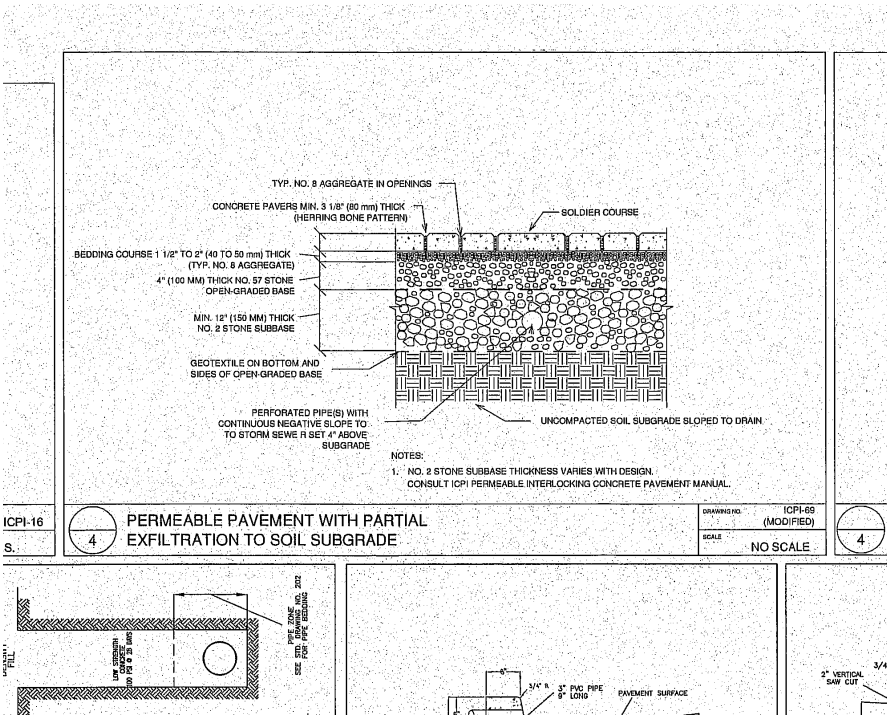
The project had to be completed before December 31, 2011 or the owner would lose grant funding. This meant the project had to be constructed during the rainy season. Fortunately, the rain held off until after the site was excavated. Geotextile and a deep, open-graded aggregate base allowed the contractor to place the base material over a damp subgrade without damage. Rather than hand placing the pavers, mechanized equipment was used to accelerate the construction. Mechanized equipment lifted and placed 13 sq ft every minute thereby decreasing installation time and costs.

The new permeable pavement parking lot serves as a functional parking area and also supports a variety of community events including a farmer's market, craft fairs, beer and wine tastings, book sales, musical performances and theater productions.

Other Information

The project allowed the Center to seize the opportunity to educate the community on the environmental benefits of permeable interlocking concrete pavement.

The Chehalem Cultural Center parking lot renovation project initiated the development of the surrounding area called the Newberg Cultural District. The vision of the City of Newberg is to identify and strengthen the cultural district as a community gathering place. In April 2012, the Newberg City Council accepted the Newberg Cultural District Master Plan. Based on the success of the Chehalem Cultural Center project their acceptance of the Master Plan includes direction to develop additional parking using permeable pavers.



The project modified ICPI detail drawings from the ICPI website (www.icpi.org)

ICPI INTERLOCKING CONCRETE PAVEMENT INSTITUTE

Interlocking Concrete Pavement Institute
13921 Park Center Road, Suite 270
Herndon, VA 20171

Tel: (703) 657-6900
Fax: (703) 657-6901
E-mail: icpi@icpi.org
Web: www.icpi.org

In Canada:
P.O. Box 1150
Uxbridge, ON L9P 1N4
Canada