



PERMEABLE PAVERS PROVIDE A WIN-WIN FOR 500-ACRE DEVELOPMENT

Community Benefits from Upscale Look, Reduced Infrastructure and Reduced Maintenance Costs

PROJECT:

BridgeTower Heights

PROJECT TYPE:

Residential Development

MANUFACTURED BY:

Sierra Building Products,
an Oldcastle® Company

PRODUCTS:

Aqualine™ 12"L, Aqua Roc™,
and Eco-Dublin®

QUANTITY:

Over 1 million square feet total

PROPERTY OWNER:

Cottonwood Investment, LLC

ENGINEER:

Munger Engineering

GENERAL CONTRACTOR:

Idaho Sand & Gravel

INSTALLERS:

Eastern States Paving (Phases 1-3),
Northwest Hardscape Specialties
(Phases 4-9)



The Challenge

Nestled in picturesque Treasure Valley sits Idaho's fastest-growing city, Meridian. The third largest city in the state with more than 85,000 residents, Meridian's fast-paced growth means high demand for new homes and increased competition among residential developers to find ways to differentiate their communities and appeal to selective buyers. With plans for a 500-acre master planned community in northwest Meridian, the

developer for BridgeTower Heights wanted to create an upscale look that would attract his target clientele. In addition, he was looking for ways to reduce infrastructure costs and maximize the amount of land available for development.

The Solution

BridgeTower Heights set itself apart from other neighborhoods with roadways paved with permeable interlocking concrete

pavement (PICP) systems. Providing the visual appeal of decorative pavers commonly used on patios and walkways, these permeable pavers also allowed the engineering team to incorporate a sophisticated underground stormwater management system and at a cost less than asphalt roadways with traditional stormwater system infrastructure.

Developer Michael McCollum was familiar with permeable pavers from using them

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in a variety of his commercial projects in California and Idaho. "They are more aesthetically pleasing for the upscale site we were developing and will appeal to future homeowners. While they look more expensive, they're actually proving to be the opposite, and they'll be easier to maintain. It's a win-win."

Permeable pavers with underground storage basins that lead to natural underground aquifers provide an alternative to stormwater detention ponds and traditional subsurface storage structures, both of which require extensive infrastructure including storm pipes and drainage inlets. Additionally, traditional management systems use otherwise developable space. And since municipalities manage stormwater basins, they often have strict rules that prevent developers from landscaping within close proximity to detention ponds, resulting in diminished aesthetics. With PICP stormwater systems, there is more space for community development, less infrastructure requirements and no landscaping limitations.

The idea of using permeable pavement in a residential community was new to the area,

so engineers from Belgard met with the developer and Ada County Highway District staff to address any questions. "We've seen PICP in commercial parking lots in Meridian so there was no question about the pavers structurally, but the county wanted to know what costs it might require to maintain the roadways and access the utilities underneath the pavers. The seminar assured the county that they could maintain permeable pavement, and it could in fact reduce maintenance costs," said Matt Munger, P.E., of Munger Engineering, the project's engineer.

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*Michael McCollum
Developer*

The Result

The PICP roadways are resistant to cracking, respond well to freeze-thaw cycles, filter road contaminants to reduce pollution of receiving waterways, and allow for melting snow to

drain, reducing reoccurring icy conditions. Additionally, rain immediately filters through the pavers at a cool temperature, reducing the temperature of local streams and ponds and protecting local aquatic life.

As these were the city's first PICP streets, Belgard worked with Munger Engineering, Idaho Sand & Gravel and Belgard's sister company Oldcastle Precast to provide a warranty for the entire system and installation, not just the paver product, delivering peace of mind to a city and developer embracing a new idea.

Construction began in 2013 with 250,000 square feet of roadways for Phase One of the master planned community. To date over 600,000 square feet of PICP have been installed, and the system is reportedly performing as designed. The final phases are scheduled to be completed by the end of 2019, bringing the total to over 1 million square feet of permeable pavement. Scheduled to begin in 2020, the developer is planning to use PICP for all pavement surfaces including streets, sidewalks and driveways on the development of another residential 400-acre site.

About Belgard® Hardscapes

Belgard, part of Oldcastle APG, offers a complete collection of paver and wall products for outdoor living spaces, walkways, driveways, parking areas and retaining walls. Available in a range of styles, premium Belgard products have been found in America's finest homes and award-winning commercial and retail properties since 1995. For more information, visit Belgard.com or call 1-877-Belgard (235-4273).

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