

### Green Infrastructure Comes to Ashland, Va.

In 2010, the town of Ashland, Va., decided to retrofit its deteriorating municipal parking lot to create a storm water demonstration project as an example of environmental stewardship. The town hired A. Morton Thomas & Associates Inc. for site planning and engineering design. The firm worked with Filterra Bioretention Systems of Ashland, Va., and Eagle Bay USA of Richmond, Va., to produce the first “boxless” Filterra BioPave installation in North America.

The project combines the functional, heavy-duty wearing surface of Eagle Bay Aqua Bric Type 4 “L” permeable interlocking concrete pavers, which detains, infiltrates and drains storm water to a boxless Filterra bioretention system. The system significantly reduces pollutants in storm water, including sediment, nutrients, heavy metals, and oil and grease. Consequently, the system provides complete management up to and including 25-year storm events—along with a usable parking lot.

BioPave provided a complete storm water solution for the town of Ashland, which was able to meet all necessary regulatory requirements with the multi-functioning design. The merging of two storm water BMPs provided robust pollutant removal rates. The treatment train established detention, retention, volume control, channel protection and pretreatment in its section. The boxless bioretention solution ensures high pollutant removal rates, as documented in its TARP white paper.

An additional benefit of the system is its fully functioning wearing surface. Special machinery is used to install the BioPavers at rates of 5,000 to 7,000 sq ft daily. Historical data gathered from around the world allow for the economical installation process of any parking lot, plaza or secondary road. These pavers are not being used as an aesthetic aspect of design, but as a superior wearing surface to traditional asphalt and poured concrete wearing surfaces; the aesthetic benefits, once installed, are secondary. This installation process affords the owner, developer or local jurisdiction



an economical solution to costly storm water planning and regulation. The system uses dollars already budgeted for an impervious wearing surface and converts them into part of the storm water management plan, replacing the impervious asphalt or concrete with a permeable paver section.

The system has many regulatory approvals throughout the East Coast. Tying the two field-proven BMPs together creates a treatment train that is LID and multi-functioning in design, and provides a vital role in restoring the ecosystem.

Built in the fall of 2012 in about six weeks, the parking lot was completed just in time for the community’s important Train Day festival. The project was co-funded by the town of Ashland and a Chesapeake Bay Trust “Green Streets, Green Jobs, Green Towns” grant. Public information brochures, field tours and an onsite information sign provide continuing public outreach for the project.

The town of Ashland’s effort in cleaning up the Chesapeake Bay is evident. The town’s proactive environmental stewardship has set a standard for all communities in the commonwealth of Virginia.

In March 2013, the project was awarded the 2013 Dave Pearson Watershed Excellence Award at the Virginia Lakes and Watersheds Assn. annual conference. **SWS**

**Filterra Bioretention Systems**  
866.349.3458 • [www.filterra.com](http://www.filterra.com)  
Write in 806