

The Green Alleys of Dubuque

The City of Dubuque, IA has hundreds of alleys. Running between the city streets and behind the homes and businesses that line them, the alleys of the Midwest provide a convenience and charm that dwellers of the eastern states have never known.

But Dubuque's alleys are paved with asphalt and concrete, materials that are impervious to water and contribute to the rapid overloading of the storm sewers and flooding during heavy rain events.

Dubuque experienced heavy rain events in 1999, 2002, 2004, 2008, 2010 and, most recently, in July of 2011. Six Presidential Disaster Declarations have been issued with total damage estimates of almost \$70 million.

As part of a larger plan to mitigate flood damage, the City launched its Green Alleys initiative. This 20-year program will create almost 250 'green alleys'. These environmentally friendly alleys feature specially-designed permeable, interlocking concrete pavers that allow stormwater to pass through the pavers and to the soil below. Because the local soil does not soak up the water quickly, retention chambers under the alleys also hold water until the soil has time to disperse it naturally. Overflows are channeled to the storm sewer in buried pipes. Finally, the alleys are graded so stormwater that does not pass through the surface will flow to the street, and then into the storm sewer system.

To date, the firm has been asked to survey, design, and monitor the construction of nine of the alley conversions.

Completing the construction of all 250 alleys is a massive undertaking that will take 20 years and the assistance of State Revolving Funds (SRF) grants from the Federal government. But it will also provide massive benefits. The mitigated flood damage and water quality are the major paybacks. But the fact that the completed alleys look so much better is a nice side benefit for homeowners and their neighbors.



Completed alley

