

## SmartDitch Helps Wisconsin Community Solve Long-Standing Drainage & Erosion Problem

### **PROBLEM: Lakeside Community Fights Poor Drainage, Battles Roadside Erosion**

Lake Redstone, in the town of La Valle, Wisconsin is located in a beautiful part of the the state. There are rock cliffs, rolling hills, residential landscapes, and tree lined roads leading in and out of this picturesque community. However, during heavy rainstorms parts of this scenic town would become flooded due to poor performing drainage ditches. In particular, a 130 LF drainage ditch on West Redstone Drive was a fairly shallow, eroded earthen channel and simply was not up to the task during these heavy rain events. All too often the channel quickly filled, forcing the stormwater to flow across the road and into yards. Each time, it would cause flooding, sediment build-up, and leave a lot of standing water after the storm had subsided. Correcting this problem became a priority.

### **SOLUTION: Town Board Approves SmartDitch for Permanent Solution**

Lake Redstone Protection District Board Member, Tom Happ, had recently heard about a product called SmartDitch™, a trapezoidal shaped, HDPE ditch lining system, engineered to improve stormwater flow and minimize erosion. It also happened to be manufactured by PendaForm in Portage, Wisconsin. SmartDitch has been installed all over the world to control erosion in stormwater, irrigation, mining, and landfill ditches. The board contacted the manufacturer, and Mark Maederer, a SmartDitch Engineer came out to inspect the drainage ditch.

After inspecting the ditch, Maederer presented a design to reline 130 LF of the earthen channel. The design called for 14 sections of the 12" SmartDitch channel. Each section is 9.5' in long and are overlapped, then joined together (with self-tapping screws), along the length of the ditch. Once in place, the sections are secured to the ground using anchors and stainless steel cables. Estimated installation time was less than a week and it could be done by the town's own maintenance crew. The board unanimously approved the design and expense.

### **RESULTS: Installation Goes Smoothly, Town Pleased With Results:**

SmartDitch Engineers provided installation supervision to ensure the town's maintenance crew installed the product properly. Including ditch cleaning, filling in eroded areas and excavation, the installation took only 5 days to complete.

For added erosion control, 30 mil HDPE Edge protection was installed on both sides of the channel to prevent erosion along the SmartDitch edges.

#### **QUICK FACTS:**

**Location:** Town of La Valle, WI - Lake Redstone Residential Community  
**Product:** 12" Depth SmartDitch  
**Installation Time:** 5 days (ditch prep thru installation)  
**Length:** 130 LF  
**Design Engineer:** PendaForm/SmartDitch  
**Installation Contractor:** Internal Maintenance Crew

SmartDitch Corporate Engineering Representative: [markmaederer@pendaform.com](mailto:markmaederer@pendaform.com)  
[www.smartditch.com](http://www.smartditch.com) / 1-866-5-SMARTD



*Drainage ditch was shallow, overgrown and had a large eroded section.*



*Sediment from slope erosion spilled onto the roadway.*



*The town of La Valle's own maintenance crew installed the 12" depth SmartDitch channels.*



*Vegetation has since grown up to the edge of the new SmartDitch channel.*