

# Deerfield Elementary School Prairie Basins and Infiltration Basin Design

## Deerfield, Wisconsin

### Client:

Deerfield Community School District  
300 Simonson Boulevard  
Deerfield, WI 53531

### Contact:

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**MARS PM:** Jon Lefers

**MARS Key Staff:** Rob Montgomery

### Collaborating Firms:

Mayo Corporation

**Date of Service:** 2004-2005

### Project Description:

The Deerfield Elementary School is located within a closed-depression watershed. The adjacent property owners were concerned about flooding due to the increased runoff volume from the school site. Mayo Corporation, the project engineer, brought MARS into the project to design a large-scale infiltration basin to mitigate for the increase in runoff volume. Complicating matters was the fact that the site was already under construction with the most likely location for infiltration already serving as a construction-time sediment basin. MARS presented the proposed stormwater management approach at Village meetings to Village staff, Town representatives, and other stakeholders and obtained approval of the innovative stormwater approach. Construction of the infiltration basin included dewatering the sediment basin, diverting construction-time runoff around the infiltration basin, excavation of the accumulated sediment and native soils to reach the native sand and gravel, and preparing and placement of the engineered soil mixture. To provide long-term water quality improvement, two prairie detention basins were constructed upstream of the infiltration basin. The basins were planted in Fall 2004 and are currently functioning well. This infiltration basin was part of a county-wide review of infiltration practices and was one of the few basins, especially on a large-scale, to receive a “not-failed” status.



Preparing Native Soil Beneath Infiltration Basin



Infiltration Basin after One Growing Season