

# ISD 192 Farmington Area Schools Pine Street Stormwater Retrofit



## Project:

Two bioretention cells with a combined area of 2,020 square feet to provide water quality treatment for the runoff from approximately 0.76 acres of existing parking lot.



Cell 1 Before



Cell 1 After



Cell 2 Before



Cell 2 After

## Practice:

Stormwater Retrofit  
(Bioretention)

## Benefits:

Runoff volume reduction

Reduction in TSS and Phosphorus

## Partners:

Minnesota Board of Water and Soil Resources

Vermillion River Watershed JPO

City of Farmington

## Watershed:

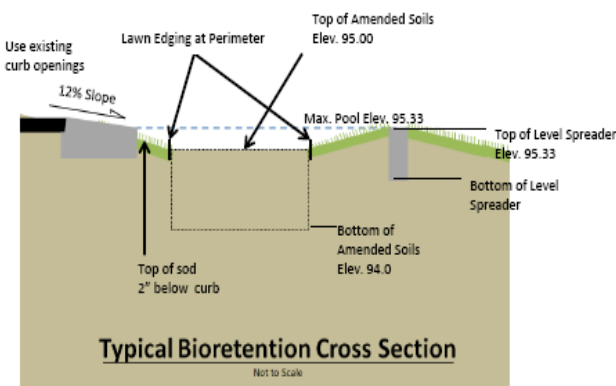
Vermillion River

## Funding:

Total project cost	\$17,989
State Clean Water Fund	\$ 7,871
Landowner	\$10,118

## Location:

Farmington  
Minnesota



## Construction 2010



Clean Water Fund:  
Protecting and restoring  
Minnesota's waters  
for generations to come.

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Existing utilities were located before removing turf layer.



The bioretention cells were over-excavated to provide soil to build the confining perimeter berms.



In existing soil was amended with coarse washed sand and leaf litter compost. Mixing to a 12" depth helped to remove soil compaction.



The cells were graded with a flat bottom to spread the stormwater flow more evenly. Native shrubs, wood mulch and perimeter sod were installed.



The designed water quality volume of  $\frac{1}{2}$  inch runoff depth fills the cells to capacity. The temporary pool infiltrates within 12 hours following the rain event.



Flows greater than  $\frac{1}{2}$  inch water quality volume bypass the cells through overflow weirs set at 9 inches higher than the surface elevation of the bioretention cells.