

Providing Quality Engineering For Our Water Resources Since 2002

Client

Wisconsin Department of Transportation, SE District
 (SSE was a subconsultant to MTP, LLC)
 Contact: Bill Mohr, WisDOT, (414) 548-5666

Project

The Interchange at Ryan Road and I-94 and the Park and Ride Lot are to be reconstructed.

Overview/Description

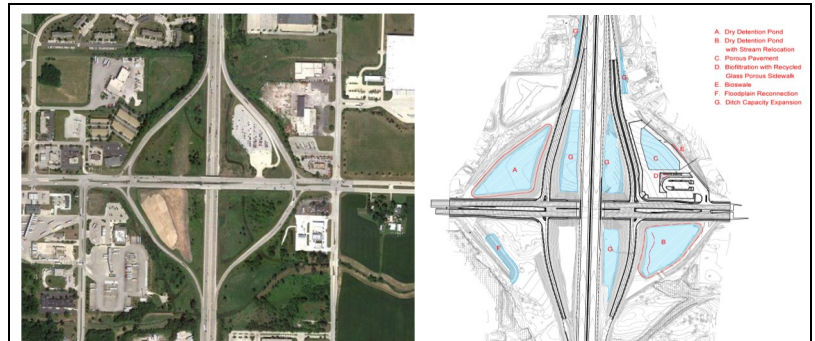
Stormwater Solutions Engineering, LLC contracted with the WisDOT to design the **ONLY** Green stormwater treatment on the entire I-94 North/South corridor. WisDOT desired to incorporate Green stormwater devices to passively treat and store stormwater runoff from the parking lot, with low-maintenance, low-cost

Concerns/Challenges

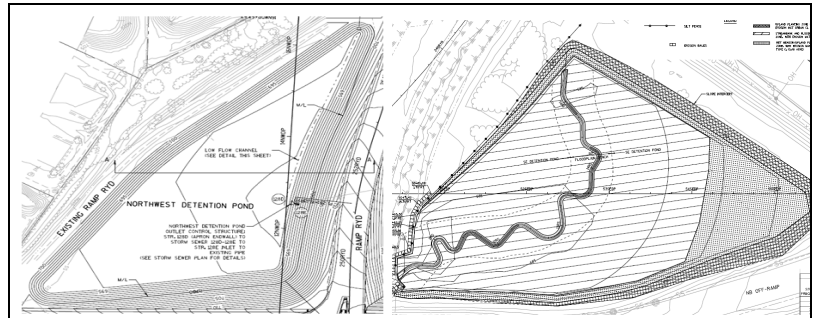
- Increased runoff quantity due to additional hard surface from interchange and park and ride projects
- Decreased water quality as a result of the increased hard surface and increased traffic volumes
- Limited land available and no acquisitions allowed for water quality-only projects
- Within 5-mile radius of Mitchell International Airport requires no ponding water for longer than 48 hours
- Navigable stream bisects the project site
- Mapped floodplain exists within SW quadrant

Actions Addressing Challenges

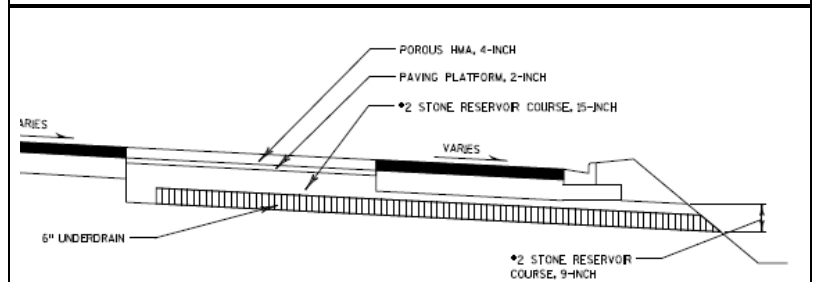
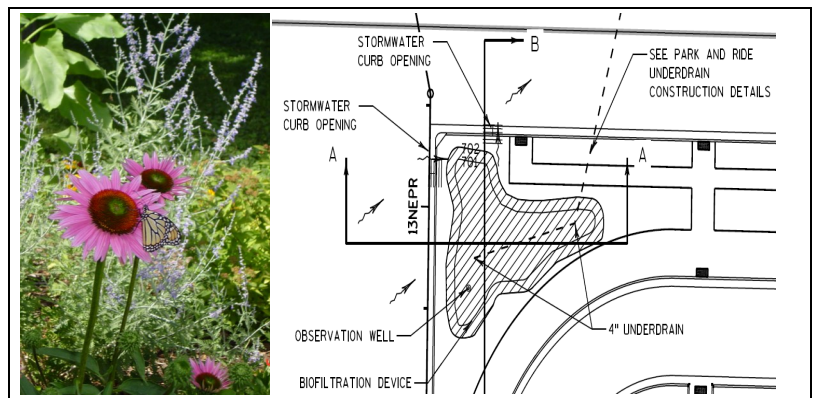
- SSE designed dry stormwater detention at the NW and SE quadrants, providing peak flow shaving to **protect** downstream flood elevations, while not attracting waterfowl (airport nuisance).
- Porous pavement provided at the Ryan Road Park and Ride lot, allows water to **infiltrate**, decreasing peak flows, cooling runoff waters and providing some treatment in the settlement of suspended particles.
- Use of Wisconsin **native** landscaping within Biofiltration devices allows for low-maintenance landscaping with water treatment through the engineered soils and root systems.
- **Stream** restoration project designed by SEWRPC, an agency-partner
- Removal of fill at the old ramp in SW quadrant allowed reconnection of previously separated **floodplain** zones



Existing and Proposed Interchange Layouts



NW and SE Ponds, Incorporating SEWRPC stream restoration



Biofiltration Device and Porous Pavement



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