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### Client

Reinhart Food Service

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### Project

Reinhart Food Services Building and Parking Lot  
Expansion

### Overview/Description

ESI Design Services contracted with SSE to prepare a stormwater management plan for stormwater runoff quality and quantity control.

### Concerns/Challenges

- Site is nearly surrounded by existing stream and wetlands.
- Very sandy soils in existing green area allow most rainfall to infiltrate and very little water “runs off” property. Proposed calculations showed a substantial increase in flows due to hard surfaces.
- Groundwater was within 5’ of the surface. DNR rule disallows infiltration flows from the proposed site if less than 5’ separation to groundwater.
- New driveway culvert was to be placed within navigable stream and wetlands

### Actions Addressing Challenges

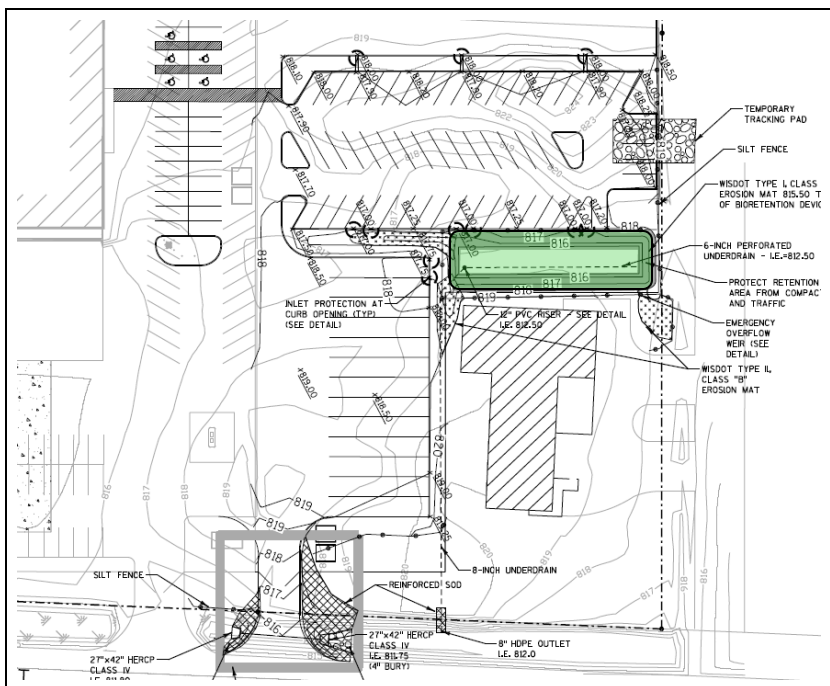
- Biofiltration/raingarden was designed for the site, with a geosynthetic liner to prevent infiltration. Biofiltration device was designed with an underdrain so that flows are held and slowly released to stream/ditch.
- SSE prepared the stormwater management plan which includes an evaluation of the existing and proposed site flows and water quality.
- Use of Wisconsin native landscaping within the constructed wetland allows for improved water quality, habitat and survival of the plants.
- A Wisconsin Department of Natural Resources WRAPP (Water Resources Application for Permit Projects) was prepared by SSE and approved by the WDNR and Army Corp of Engineers for the culvert installation crossing a waterway within a wetland.



Existing site with stream/wetland along property line



Expansion of parking/truck lot for proposed site



Biofiltration/Raingarden design for Proposed Site



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