

# MILLSDALE ROAD BRIDGE — JOLIET 2012

**Client: City of Joliet**

Rempe-Sharpe provided:

## H & H Phase

- ◆ Conducted field surveys to collect pertinent hydraulic cross-section, channel, and structure data
- ◆ Analyzed the existing culvert and size the proposed replacement in accordance with (IDNR) Section 3700 Rules; Prepared a hydraulic report for the crossing within the floodplain
- ◆ Calculated compensatory storage for new roadway fill/embankment placed in the floodplain
- ◆ Prepared IDNR permit application and compiled supporting documentation
- ◆ Prepared detailed grading plans for development of compensatory storage areas and coordinated with roadway design consultant
- ◆ Processed culvert analysis and hydraulic report through IDNR permitting and other review agency review/approvals



**Rempe-Sharpe experienced resident engineering provided professional interface with municipality and the Union Pacific Railroad.**

## Structural Phase

- ◆ Structural analysis of culvert opening for maximum shear and moment to determine box thickness and reinforcing requirements
- ◆ Detailed box culvert per IDOT Culvert Design Manual Standards
- ◆ Coordinated soil borings
- ◆ Detailed plan, cross sections, wing walls, parapets, guardrail and approaches
- ◆ Processed plan through review agency for review and approval
- ◆ Provided full specifications and detailed quantities per IDOT format. Engineer's Estimate, bid cycle assistance and shop drawing review of reinforcing rails and appurtenances

## REFERENCE::

Jim Trizna, P.E.  
City Engineer  
815.724.4210

