

TRANSPORTATION ENGINEERING

MARCH 2009 - PRESENT

CONSTRUCTION COST:
\$13.5 MILLION

KEY PROJECT STAFF:

MINAL HAHM, PE, CFM
PROJECT MANAGER

MATT HAHM, PE
PROJECT ENGINEER

ANDY WELLS, EIT
STAFF ENGINEER

PRIME:
STV, INC.

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SERVICES & SOLUTIONS

- Location Drainage Study
- Drainage Right of Way Access
- Alternative Analysis
- Creative Solutions
- Hydrologic & Hydraulic Analyses



US ROUTE 150 LOCATION DRAINAGE STUDY URBANDALE AVENUE TO DETROIT AVENUE, TAZEVELL COUNTY, IL



The project will improve US Route 150 beginning at Urbandale Avenue, in East Peoria to Detroit Avenue, in Morton, Illinois. These improvements will increase the two-lane rural highway to a three-lane urban highway. M Squared Engineering (M^2) is responsible for the Location Drainage Study for this 6.0 mile corridor. Some site challenges include the meandering Dempsey Creek, located in a 40-50 foot deep ravine throughout the entire corridor. Floodplain encroachments were a concern and addressed during our analysis. The steep embankments and large offsite drainage areas required many unique and creative solutions for this project.

Numerous drainage alternatives were developed to accommodate the proposed roadway. Approximately forty (40) outlet discharge points were identified and analyzed to ensure no adverse impacts. Approximately 38 culverts were analyzed to guarantee capacity for proposed condition flows. Hydraulic analysis was performed for those culverts significant in size that required extensions. Although M^2 was able to utilize the existing corridor as much as possible, some drainage easements and ROW acquisition areas were identified early during the planning stages.



M SQUARED ENGINEERING, LLC
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