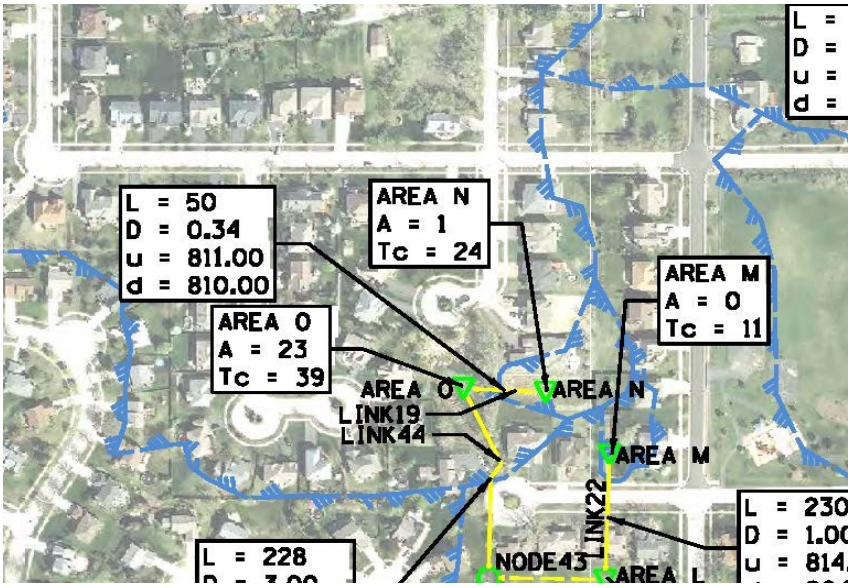
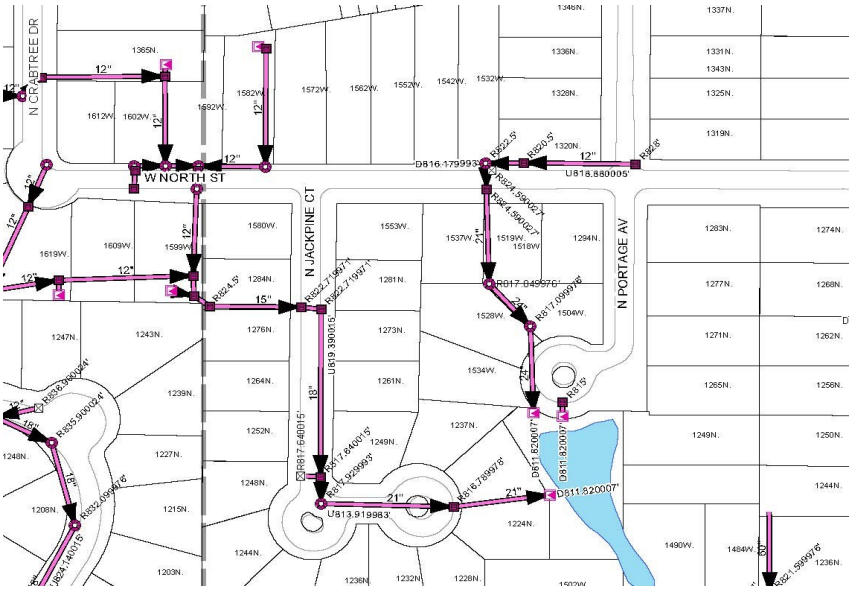
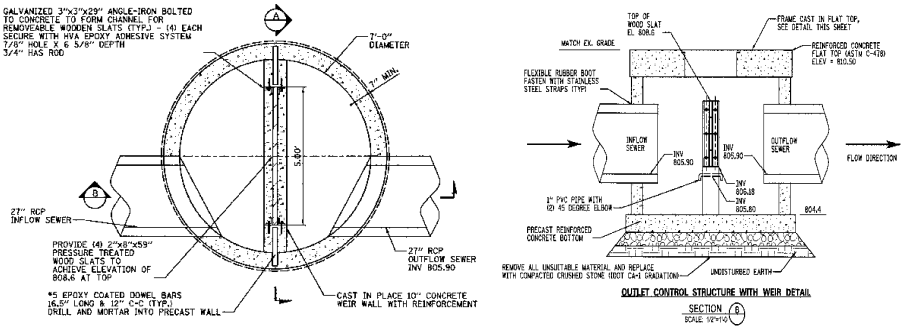
US ROUTE 14 / NORTHWEST HIGHWAY DRAINAGE INVESTIGATION
VILLAGES OF INVERNESS AND PALATINE







Client: IDOT, District 1
Programming - Hydraulics

Client Contact: Rick Wojcik, P.E.
Chief of Hydraulics

Project Manager: John Whitt, P.E.

Project Engineer: Brian Bennett, P.E., CFM

Project Description:

A field change in the construction drawings for US Route 14 / Northwest Highway resulted in a roadside ditch being revised to a closed conduit system (ie. storm sewer). Following construction, the Village of Inverness claimed that the change had adversely modified stormwater discharges into the Village and increased the severity of downstream flooding.

IDOT District 1—Hydraulics Section requested Rempe-Sharpe perform an analysis of the 260+ acre watershed drainage system to evaluate pre-project, post-project conditions and proposed / corrective scenarios. XP Solutions, XPSWMM software was utilized to model the watershed storm sewer drainage system.

Options to re-instate the function of the pre-project roadside ditch were developed. These included:

1) A variation of reconstructing the original ditch and,
2) A proposal to construct an in-line storm sewer structure that would mimic the conveyance control of the original ditch.

Project Status:

The final report was presented to IDOT, Inverness and Palatine in January 2016 with recommendations. Further action is still pending.

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