



NTH'S VALUE ADDED

When the estimate for the initial rock tunnel concept recommended by a different consultant was determined to be cost prohibitive, innovative thinking redeveloped the project to accomplish the same objectives within the original budget.

Innovative Design & Construction

Techniques Reduce Costs and Risk.

The Downriver Regional Storage and Transport System (DRSTS) is the regional component of a wastewater system improvement program undertaken by Wayne County and 13 suburban Detroit communities. The DRSTS includes a 10.5-mile main tunnel, 8.5 miles of relief sewer, and a 75 million gallon per day pump station. The DRSTS permits delivery of community flows to the Wyandotte WWTP during wet weather events, eliminating sanitary sewer overflows under design storm conditions and reducing basement flooding.

Several innovative techniques new to the Midwest and projects of this size were used during the construction phase of the main tunnel to reduce risk and control costs, including:

- A baseline geotechnical report that contractually established specific geotechnical considerations for construction bidding
- Contingency bid items and allowances
- Escrow bid documents
- Dispute Resolution Board
- Pre-bid and pre-award meetings

Innovative contracting techniques further reduced the final construction cost from \$116 to \$93.5 million. The techniques also allowed the team to improve design as the project progressed.

The NTH-Wade Trim Team won the Honorable Conceptor engineering award from ACEC Michigan and MSPE for our involvement in this project.