

RELATED EXPERIENCE

WEST BLOOMFIELD TOWNSHIP AWARD WINNING DRINKING WATER REVOLVING FUND PROJECT IMPLEMENTATION

West Bloomfield Township selected Johnson & Anderson, Inc. to perform topographic mapping, design and construction engineering services related to the implementation of a Drinking Water Revolving Fund (DWRF) Project Plan prepared by others. J&A services during the design phase included design of water mains for looping purposes, to increase reliability and to replace older mains that were experiencing numerous breaks.

Location:	West Bloomfield Township
Project:	Drinking Water Revolving Fund Water System Improvements
Construction Date:	2007 - 2009
Project Cost:	\$7,975,000
Client:	Charter Township of West Bloomfield
Contact:	Mr. Edwin Haapala, Director Water and Sewer Department (248) 451-4785

Other portions of the project included installing new Pressure Reducing Valves (PRVs) and Pressure Sustaining Valves to regulate the pressure throughout the system. West Bloomfield Township was experiencing very high feed pressures from the City of Detroit at numerous supply

points. Computer models prepared by J&A staff verified that fewer pressure districts were required than originally proposed in the Project Plan. The more reliable proposed system with fewer pressure districts along with strategic administration of bids resulted in approximately \$7 million in budget savings for West Bloomfield Township. There were five construction contracts related to PRV construction and one related to abandonment of existing valves. All of the PRV contracts included installation of Supervisory Control and Data Acquisition (SCADA) equipment to allow provisions for Township staff to monitor the PRVs remotely. Ultimately, the control system will allow West Bloomfield Township staff to, not only monitor the valves, but to change settings remotely, as may be required for seasonal operation.



PRV Installation



Meter and PRV Construction Site

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Tapping Sleeve and Valve



HDPE Pipe in Fusion Welding Machine

J&A was responsible for all aspects of design to include surveying and gathering of topographic information, preparation of final plans and specifications, acquisition of permits, easement preparation and acquisition, bidding and construction engineering. Permits acquired by J&A for the projects include Road Commission for Oakland County for work within their right-of-way, West Bloomfield Township for Soil Erosion and Sedimentation Control, and Michigan Department of Environmental Quality for construction permits under Act 399.

J&A provided construction engineering to consist of bidding, construction inspection and contract administration services on the 11 contracts. As part of the contract administration of the projects, J&A conducted periodic meetings with the various contractors to monitor compliance with contract requirements, verify that schedules were being met, and discuss items of work that needed clarification. A significant component of the contract administration effort was providing documentation and communication with the MDEQ relating to the requirements of the DWRF loan. J&A completed all submittals to the MDEQ and coordinated all applications for payment to insure that funds were adequately dispersed to West Bloomfield Township to meet their obligations to the various contractors.

There were five underground projects totaling approximately \$3.76 million, five PRV projects totaling approximately \$2.84 million and a security contract of \$139,000 for a total construction cost of approximately \$6.75 Million. The projects were completed on time and within budgetary requirements of the DWRF project budget.

The project won an American Council of Engineering Companies – Michigan Chapter 2011 Award of Merit for Engineering.