

RELATED EXPERIENCE

LAKETON TOWNSHIP SANITARY SEWER AND WATER MAIN EXTENSIONS WITH ROAD RECONSTRUCTION

Johnson & Anderson was contracted by Laketon Township to perform planning, surveying, design, and construction engineering services on the installation of two sanitary sewer and water main extensions. Contracts 1 and 2 were bid in 2008 and construction commenced on both in September. Construction was completed in October 2009.

Location:	Laketon Township Muskegon County, MI
Construction Date:	2008/2009
Project Cost:	\$10,000,000
Client:	Laketon Township
Contact:	Ms. Kim Arter (231) 744-2454

Contract 1 was a sanitary sewer extension and road reconstruction of Fenner and Horton Roads. The project consisted of approximately 3,100 L.F. of 21-inch sanitary sewer and 1,700 L.F. of 8-inch sanitary sewer. It also includes approximately 8,500

L.F. of force main along Dykstra Road and a duplex submersible pumping station with an emergency generator.

Contract 2 was a sanitary sewer and water main extension which includes the road reconstruction of Memorial Drive, Pennsylvania Avenue, Bear Lake Road, and the Green Creek and Bayshore Subdivision streets. It consisted of approximately 23,350 L.F. of sanitary sewer ranging in size from 8-inch to 18-inch, 23,650 L.F. of water main ranging in size from 8-inch to 16-inch, 5,000 L.F. of sanitary force main, and a duplex submersible pumping station with an emergency generator. The project also included a directional bore for both water and sewer piping under Green Creek, a distance of approximately 350 L.F.

J&A staff were instrumental in assisting Laketon Township and Muskegon County in obtaining the grant that was the driving force behind this project. The project team provided technical assistance in discussions with representatives from the Michigan Department of Environmental Quality (MDEQ) and assisted with correspondence and negotiations related to the grant.

In addition to the sanitary sewers and water main that were installed, the scope of the project involved the removal and replacement of approximately 5.4 miles of roadway under the jurisdiction of the Muskegon County Road Commission. These roads and streets were surveyed and staked for replacement in kind to Road Commission standards. The existing storm sewer system was replaced and enhanced in areas determined to have insufficient drainage during the design phase. Roadway slope modifications and additional catch basins were used to correct and improve the storm drainage prior to completing the roadway.

J&A staff was responsible for construction staking, inspection and documentation of the

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reconstruction of these roads and streets to Muskegon County Road Commission standards. The project team also scheduled and coordinated geotechnical and material testing activities associated with this work.

Our project team handled all aspects of construction engineering for the projects including topographic surveying and mapping; construction staking of the sanitary sewer, water main and roads; documentation of all sewer and water main related quantities; coordination with the material testing sub-consultant; resolution of citizen complaints; utility coordination with the various utilities encountered during construction; attending a pre-construction meeting and progress meetings; documentation of project record quantities; and development of contract punch lists.

