

Replacing The Main Street Bridge

Pile driving analyzers used to measure stress

By Aram Kalousdian, editor

Replacement of the Main Street Bridge over Mill Creek near the village of Dexter in Scio Township is under way. The project includes the staged removal of the Mill Creek Dam in Scio Township and the village of Dexter. MacKenzie is the prime contractor for the project. The approximately \$2.5-million project began in the spring and is expected to be completed in 2009.

The new bridge will be 101 feet long and 62 feet wide with a 47-foot, 9-inch clear roadway and 6-foot-wide sidewalks. The existing bridge, constructed in the early 1930s, is 75 feet long, 52 feet wide and has a 40-foot clear roadway with 5-foot-wide sidewalks. With the associated road improvements, the new bridge will be striped for three lanes, including a left-turn lane for westbound traffic. This will match the existing three-lane configuration in the village. Adjacent Dexter-Chelsea Road will include left- and right-turn pockets and will be stop-controlled.

MacKenzie hired GRL, of Cleveland, Ohio, that is using pile driving analyzers (PDAs) in order to measure stress and



Work proceeds on the Main Street Bridge project in Scio Township near the village of Dexter.

the depth that the piling is capable of going to in order to meet the criteria in the contract.

"PDAs are very accurate. They take into consideration the soils that you are driving through," Chuck Argersinger, bridge manager for MacKenzie, said.

Project: Replacement of the Main Street Bridge in Scio Township near Dexter and removal of the Mill Creek Dam

Prime contractor: MacKenzie

Cost: \$2.5 million

"The sheet driving for the cofferdam was extremely difficult due to rock," Don Hughes, foreman for MacKenzie, said. He added that excessive rain has also been a challenge for the project.

"The bridge will have some very nice architectural railings and concrete staining. It will be very appealing," Argersinger said.

Ace Steel is a subcontractor on the project and is tying steel for the footers and walls. The project includes 4,000 feet of 14-inch steel piling; 700 cubic yards of substructure concrete; 400 cubic yards of superstructure concrete; and 140,000 pounds of steel reinforcement. ■



MacKenzie's 85-ton Link-Belt crane drives H-pile for the Main Street Bridge replacement project in Scio Township near the village of Dexter.