Highway 400 Load Test

Barrie, Ontario, Canada

Keller installs CFA piles and performs a testing program to evaluate the use of CFA (auger cast) piles as a foundation method for MTO projects.

The project

Historically, CFA (auger cast) piles have not been the preferred foundation method for the Ministry of Transportation of Ontario (MTO) to use for bridge construction. However, with the increase in use of CFA (auger cast) piles for foundation construction across Canada, the MTO wanted to investigate the potential.

From previous work with the MTO and the geotechnical engineer, Thurber, Keller was contracted to install test CFA piles at a proposed bridge location. Keller first installed CFA piles ranging from 500mm to 900mm in diameter up to 26 m deep with full-length cage reinforcement.

To evaluate the use of the piles for bridge foundations, Keller performed a testing program consisting of two compression load tests and two lateral load tests, both of which met the MTO's specifications, allowing CFA piles to be considered by the MTO for further bridge construction.

Project facts

Owner(s)
Ministry of Transportation, Ontario

Main contractor(s)
Keller

Engineer(s)
Thurber
Keller

Solutions
Deep foundations

Markets
Infrastructure
Transportation

Techniques
CFA piles (auger cast / ACIP piles)

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