

# World's Largest H-Piles Debut

The very large new piles, HP16 and HP18, were accepted by ASTM in its standard specifications in 2010. **GRL Engineers, Inc.** was involved in the conception and testing of this innovation, notably the firm's vice president, Mohamad Hussein, P.E., since 2009. GRL engineers from the Chicago and Charlotte offices monitored the



**Inner Belt Bridge, Cleveland, OH**

installation of the first production piles during the initial investigation phase. At that time, GRL employed the Pile Driving Analyzer<sup>®</sup> (PDA) to conduct dynamic testing that evaluated the driveability and bearing capacity of the foundation elements. GRL's connection to the world's largest H-piles continues, as its Cleveland office had the opportunity to again use the PDA to test the HP18 piles during construction of the Inner Belt Bridge in Cleveland, Ohio. The dynamic load test of the 160 ft (48.7 m) long piles, which were driven to shale bedrock, required the use of the APPLE IV dynamic loading system during a restrike. The piles are manufactured by **Nucor-Yamato Steel**, Blytheville, Ark. and distributed by **Skyline Steel**.