

DFI Committee Reports

Driven Pile Committee

By Michael H. Wysockey, Committee Chair



The Driven Pile Committee held a seminar in Baltimore, MD on June 17th. There was a committee meeting on Thursday the 16th followed by a hosted dinner in the Inner Harbor. The seminar attendance was over 100, and the group consisted of a broad spectrum of engineers, contractors, and suppliers. The committee thanks Bauer Equipment, Birmingham Foundation Solutions, L.B. Foster Company, Municon Consultants, and Timber Piling Council for their support of the event through underwriting.

The seminar started with a presentation given by Stan Merjan (Underpinning) and Ameir Altaee (Urkkada). They described an interesting project using 1465 Tapertube piles and an extensive amount of testing and analysis. They found very good agreement between static and dynamic testing, as well as from preconstruction wave equation results. They stressed the need for local knowledge in selecting parameters aid in the accuracy and effectiveness of dynamic methods, particularly with wave equations. John White (APE) gave the most controversial talk, which is not surprising. His comments on pile driving equipment ranged from interesting and patriotic to opinionated and promotional. It is safe to say that no one fell asleep. Garland Likins (PDI) spoke on pile testing and quality assurance. His talk was well presented and well received.

The morning wrap up had a panel of local experts, organized by Dave Kozera (D.W. Kozera, Inc.). The panel consisted of Xavier McGeady (Corman-Imbach), Peter Deming (Mueser Rutledge), Bill Fitchett (Whitman Requardt), Jeff Robert (Maryland State Highway Admin.), and Doug Suess (Whitney, Bailey). Each participant gave a brief overview in their area of expertise and together painted a picture of local practice.

Michael Justason (Birmingham) described the use of driven pipe piles for geothermal heating and cooling. This was an interesting approach and innovative application of driven piles. David Miller (Seismic Surveys) and Dave Kozera gave a joint presentation on vibrations from pile driving. They thoroughly reviewed the basics of vibrations, measurements, standards, and even prediction. Dean Matthews (Timber Piling Council) described timber piles in great detail.

Jerry DiMaggio (FHWA) gave an excellent presentation describing the effective use of dynamic analysis. He described the strengths and weaknesses of wave equation analysis. Specifically, he expressed concern for the quality of the analysis being performed, and the dependence on the skills of the person doing the analysis. He went on to describe the advantages to dynamic monitoring (PDA) in getting actual hammer/driving system data and detecting pile damage. He warned that PDA can under-predict or over-predict, is subject to QA/QC issues, should be used with some restrrike data, and should always be used with some signal matching (e.g., CAPWAP).

The final presentation was a local case history – the Woodrow Wilson Bridge, given by Nicklaus Graczyk (Potomac Constructors). He was candid in describing difficulties encountered, and showed some breathtaking photos lofting piles with one crane feeding another.

In all, the seminar went very well and received very good evaluations. Some constructive criticism was received and will be incorporated into next year's seminar. The organizing committee consisted of Xavier McGeady, Jill Sinner, Dean Matthews, and Jimmy Deemer. Their efforts are greatly appreciated.

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