

JANUARY, 2002 - Restricted Access Foundation Remediation Using Minipiles, Jet and Compaction Grouting Techniques

Speaker: Dennis Boehm of Hayward Baker

At the FPA meeting on January 16, 2002, Dennis Boehm of Hayward Baker made a presentation entitled, "Restricted Access Foundation Remediation Using Minipiles, Jet and Compaction Grouting Techniques." His talk was very practical with three local case histories presented:

- 1) His company worked on a 16x26 ft tunnel at Houston's Bush International Airport in which they used jet grouting to make concrete piers in the soil by radially jetting grout from a 6" drill pipe. On this project they were able to effectively install 48" dia. pier shafts with capacities of 124 kips each under existing columns. They installed 16 per column.
- 2) At One Woodway Building near the Galleria, Hayward Baker used Minipiles (combined with Compaction Grouting) to lift a four-story building that had settled some 13 inches. They leveled it to within 1". For installation of the Minipiles, they used 7 5/8" drill pipe to drill in and grout through. They pulled the pipe as they cemented, leaving a steel bar for center reinforcing. They did load tests on the 80 ft long minipiles and achieved 178 kips with 0.25" deflection and 242 kips with 0.5" deflection.
- 3) At the Westin Galleria Hotel, Hayward Baker used jet grouting, minipiles and soil nailing to enlarge the underground mechanical room (what used to be the original cinema). At a 30 ft penetration, they achieved a 120 kip capacity on the minipiles. They also used 3 rows of soil nails and 5" of gunnite to hold back a 16 ft high soil wall.

[PAST PRESENTATIONS \(click here\)](#)