

Capital City at the Moscow International Business Center

Capital City is a multifunctional residential complex located not far away from the Kremlin, along the banks of the Moscow River. It spans an area of over 260.000 m² at the heart of the Moscow International Business Center and consists of two towers, the 73 floor Moscow Tower and the 64 floor St. Petersburg Tower. The project will be completed by 2008, when its futuristic look will serve as a stunning backdrop for the view of the Kremlin. It is financed by Moscow-based Capital Group and its main contractor is **Ant Yapi** from Istanbul, Turkey.



The foundations for the towers consist of 504 bored piles of 1200 mm diameter and approximately 20 m long. Istanbul-based geotechnical engineering contractor **Kasktas** is testing every single of one of them with a Cross-Hole

Analyzer (CHA) it purchased especially for the job. The equipment, manufactured by **Pile Dynamics, Inc.** and commercialized in Turkey by **Forsen Machinery Services & Trading, Inc.**, inspects the shafts by the cross hole sonic logging method.

The scope of the work may seem daunting, but Kasktas says that safety and quality are their first priorities in foundation design and execution. The shafts were built with four testing tubes to permit cross hole sonic logging, and Kasktas engineers received special-training in using the CHA and interpreting its results.

They have been inserting probes into the tubes - a transmitter into one and a receiver into another - and analyzing the data collected by these probes with the CHA.

The quality of the concrete between pairs of tubes is directly related to the time it takes sonic waves to travel from the transmitter to the receiver and to the strength of the received signal. The engineers test each pair of tubes in each bored pile, and scan their entire 20 m depth with the probes. Pile Dynamics, Inc., a leading manufacturer of instruments that assure the quality of deep foundations, manufactures the Cross Hole Analyzer. ■

مشروع Capital City هو عبارة عن مجمع سكني يقع بالقرب من الكرملين على مساحة ٢٦٠ ألف م^٢ ويتألف من برجين أحدهما ٧٣ طابق والثاني ١٤ طابق. المعدات الفاحصة المستخدمة في المشروع هي من صنع Pile Dynamics. يشرف على المشروع المتعهد Kaktas الذي يعتبر السلامة والنوعية من أهم العناصر المتوجب توفرها في الأساسات والتصاميم. من المتوقع اكتمال المشروع في العام ٢٠٠٨.