GENERAL

The Sathorn Complex project is planned for a multipurpose office and shopping complex. It is located at the Sathorn and Rama IV Road intersection. The foundation bored piles and barrettes are embedded 60m deep in sand layer to support the building. A 0.8m thick cast in-situ diaphragm wall 18.0m in depth, with three-level temporary bracing was initially planned for construction of a four-level basement. After completion of diaphragm construction, basement excavation was later modified with four level-bracing to allow excavation down to 15.5m below ground level for construction of five basement levels. For the foundation in the area of the main tower, barrettes were employed together with bored piles to increase load bearing capacity. Bored piles and barrettes were also incorporated as legs in the diaphragm wall to carry the load of building.

WORK UNDERTAKEN

BORED PILES: Dia. 1.2mx60.0m 443 nos.
BARRETTES: 0.8mX2.7mX60.0m 50 nos.
DIAPHRAGM WALL: 7,002sq.m. (0.8m Thick)
INSTRUMENTATION: 4 Inclinometer Tubes in the wall

TYPE OF WORK: Foundation Piles, Diaphragm Wall and Barrettes
OWNER: Quality Houses Public Company Limited.
MAIN CONTRACTOR: Kay-Thai Co., Ltd.
DESIGNER: K.C.S. Associates Co., Ltd.
PERIOD: 1995-1996
Lowering a reinforcement cage attached with inclinometer tube void former.

Subsoil conditions at the site.

Exposed diaphragm wall.

Exposed barrette top sections.

References: