



BOBAE CENTER Bumrung Muang Plaza

Object

Deep foundations, comprising large bored piles with steel stanchions, barrettes and diaphragm walls for construction of underground car park for the Bobae Center (Bumrung Muang Plaza).

Project Description

5 level basements for car parking. Deep excavation up to -19.10m with diaphragm walls using top-down method.

Type of Work

Foundation Piling and Diaphragm Walling.

Owner

Bumrung Muang Plaza Company Limited.

Main Contractor

Powerline Engineering Public Company Limited.

Project Schedule

August 2003– May 2004

Construction Details

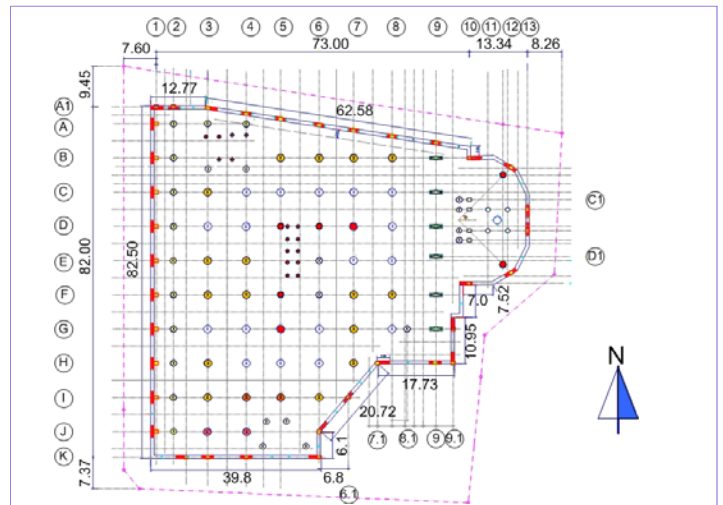
Foundation bored pile: 16 (ϕ 0.80mx60m)
 4 (ϕ 1.00mx60m)
 8 (ϕ 1.20mx60m)
 22 (ϕ 1.50mx60m)
 2 (ϕ 1.65mx60m)
 38 (ϕ 1.80mx60m)
 Barrette: 40 (0.80mx3.00mx60m)
 Stanchion: 74 steel stanchions
 Diaphragm Wall: 7,600sq.m. (0.80m thick, 24.00m deep)

Subsoil Conditions

Soft clay: 0.0-11.5m
 Medium clay: 11.5-13.5m
 Stiff silty clay: 13.5-31.5m
 Medium dense sand: 31.5m-37.5m
 Hard clay: 37.5m-42.0m
 Dense sand: 42.0m-

REFERENCES:

- Submanee Wong, C., Worapong, A., and Somsak, S. (2004), "Case Study: Excavation Technique for Deep Basement by Using Top-Down Construction Method". The 10th National Convention on Civil Engineering, Thailand, Pattaya, Chonburi, 2005, Pp.283-288.



Layout of diaphragm walls, bored piles and barrettes.



Diaphragm wall construction in progress.



Exposed diaphragm wall faces, laterally supported by basement slabs.