MOTORWAY NO.9
Bangkok East Outer Ring Road

Object
To improve shear strength of soft clay for foundation soil of Motorway No. 9 widening works, Bangkok East Outer Ring Road.

Project Description
To improve soft clay up to –12.0m with soil-cement columns between Km 48+350 and Km 49+397for widening of the existing motorway.

Type of Work
Construction of soil-cement columns.

Owner
Department of Highways, Thailand.

Main Contractor
Prayoonvisava Engineering Co., Ltd.

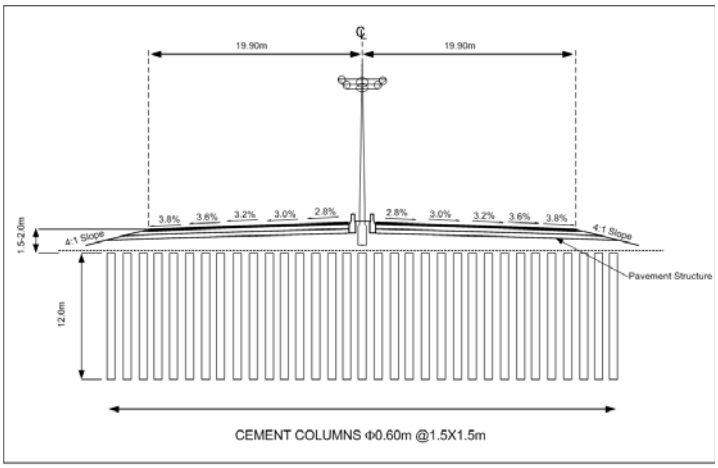
Project Schedule
July 2006 to March 2007

Construction Method
- Mechanical Deep Soil Mixing

Construction Details
Soil-Cement Columns: 18,948 (0.6mx12m)

Subsoil Conditions

Silty fine sand:	0.0– 3.0m
Soft clay:	3.0-12.0m
Medium clay:	12.0-13.5m
Stiff silty clay:	13.5-19.0m
Silty fine sand:	19.0-



Cross Section of Motorway showing soil-cement column foundation.

Deep soil mixing (soil-cement column works) in progress.




Quality control tests— Column extraction, UCS test on core samples and static load test.

REFERENCES:

- Thasnanipan, N., Win M. A. and Thayanan Boonyarak (2007) “Minimizing Ground Movement by Using Deep Soil Mixing Technique” (in Thai). The 12th National Convention on Civil Engineering. Phitsanulok, Thailand. pp 240-246.

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