



# BANG KHEN CIRCULAR SHAFT MWA Contract G-MC-7A

## Object

A deep circular shaft constructed with cast in-situ diaphragm wall to launch a 4.62m diameter tunnel boring machine (TBM) for construction of the underground water transmission tunnel.

## Project Description

A 10m. inside diameter shaft formed with diaphragm wall panels of 1.0m in thickness. The toe level of diaphragm wall is 31.0m below the existing ground level to allow a maximum excavation depth of 25.0m inside the shaft. The top level of base slab is 23.8m below the ground.

## Type of Work

Diaphragm Wall Works.

## Owner

Metropolitan Waterworks Authority.

## Main Contractor

Asiatec Development Corporation Ltd. (member of TN Joint Venture).

## Project Schedule

November—December 2002

## Construction Details

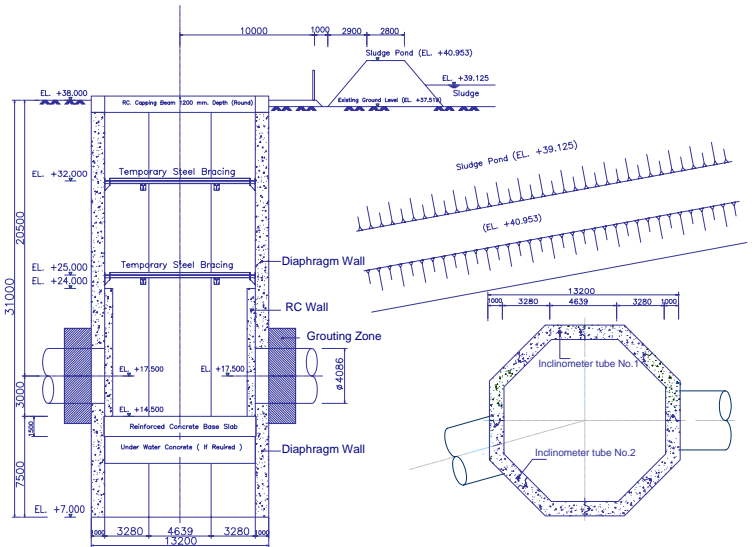
Diaphragm Wall: 1,193.5sq.m. (1.0m thick, 31.0m deep)

Steel Fabrication: ton

Concrete Casting: 1,003cu.m.

## Subsoil Conditions.7m

Soft clay:	0.0-12.0m
Medium clay:	12.0-15.7m
Stiff clay:	15.7-20.5m
Dense sand:	20.5-28.1m
Hard clay:	28.1-29.7m
Dense sand:	29.7m -



Section and Plan.



Diaphragm wall construction in progress.



Circular shaft formed by diaphragm wall panels.

## REFERENCES:

- Chanchai, S., Kamol, S. and Wiwat, W. (2002), "Deep Working Shaft Construction Techniques by Using Diaphragm Wall System". The 8<sup>th</sup> National Convention on Civil Engineering, Khon Kaen, Thailand. October 23-25, 2002, Pp. 334-345.