## AN ACTIVITY JOINTLY ORGANIZED BY

## Technical Visit to

## Circle Line Underground Depot/Control Centre



| Date | $: 13$ January 2007, Saturday |
| :--- | :--- |
| Time | $: 9$ a.m. to 12 p.m. |
| Venue | $:$ Kim Chuan Depot |
| Fee | $: \$ 10$ for IES members |
|  | \$25 for non-members |
| PDUs | $: 1$ PDU |

## INTRODUCTION

Kim Chuan Depot is an underground Depot to serve the MRT Circle Line (CCL) and the future Eastern Regional Line (ERL).

## Project Statistics

The Depot is about 800 m long, 160 m wide and 17 m deep. The site area is $110,000 \mathrm{sqm}$. A total of $2.16 \mathrm{mil}^{3} \mathrm{~m}^{3}$ of material was removed from the site and $340,000 \mathrm{~m}^{3}$ of concrete was used. There are more than 1000 nos. of bored piles constructed. Pre-cast concrete elements are extensively used in the project for labour-saving consideration. More than 6000 items, ranging from precast beams to hollow-core slabs are detailed for the completion of the project.

The building electrical supply is distributed through 3 load centres via 200 sub main and distribution boards.
Due to the vast area 70 fire rated smoke extract fans, 130 intake air fans and 132 exhaust air fans are required to ventilate the depot.

The fire protection system consisted of 3 clean gas systems, 4 wet riser pumps of capacity over $780 \mathrm{l} / \mathrm{s}, 9$ sub alarm panels and 35 control valves for the 21,500 sprinkles.

## Unique Features

- KCD has a capacity to stable 70 three-car trains and provides maintenance workshop facilities for the entire CCL.
- Houses the Operation Control Centre (OCC) for CCL.
- Provision for two future OCCs.
- Provision for future development on part of the Depot roof to maximise land-use.
- A section of Bartley Road Extension (BRE) running above the Depot is also constructed under the contract.



## REGISTRATION

Registration is on a first-come-first-serve basis and is limited to 30 participants only.
Please submit the registration form to Christina (christina@iesnet.org.sg) or send/fax to:
Institution of Engineers, Singapore, 70 Bukit Tinggi Road Singapore 289758 Tel : 64695000 Fax : 64671108
Participant Details

| Name | PE No. (if any) |
| :---: | :---: |
| NRIC | Designation : |
| Company |  |
| Address | Postal Code |
| Tel | Fax |
| Email |  |

Please indicate :

- IES members
- Non-members

IES M'ship No.: $\qquad$
Sponsored by company

Date $\qquad$ Signature: $\qquad$
Contact Person Details (if different from participant)
Name $\quad: \quad$

Designation: $\qquad$
Tel $\qquad$ Fax: $\qquad$
Email

## Payment Details

Bank/Cheque no: $\qquad$ Amount: $\qquad$

Cheque should be made payable to: "Institution of Engineers, Singapore"
Confirmation of events will be given 1 week prior to the commencement of the event. In the event that you are not able to attend the event, please kindly inform us in writing at least three days before the commencement date otherwise the full payment is still applicable even if you did not turn up for the event. Replacement is allowed, however, when a member is replaced by a nonmember, the participant has to pay the difference in the fee.
The Institution reserves the right to make appropriate changes at its discretion although every effort will be made to inform participants in time.

