



## CHINA HONG KONG PERMANENT WAY SOCIETY LIMITED

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### **September Function: Train Simulation 10 September 2007**

**Mr. Calvin Kong (Railway Engineering Manager)** of KCRC will give a talk on the "Train Simulation" which focuses on the influence of track design on systems performance and line capacity.

For a high-speed railway line such as the Express Rail Link, the track design has a more profound significance on the overall systems performance as in contrast to that of a metro system. The primary difference is in the accelerating and braking distances, whereby at speeds of 200kph and above, the train requires several kilometers to achieve either feat. Any constraint within such acceleration and/or deceleration zones can greatly magnify the time needed.

Given the significance of such issues on the overall project proposal, we have employed train simulation models to compare different track layouts so as to predict their effects on the performance. RailPlan has been adopted as our standard modeling tool for mainline. In compliment to RailPlan, we have also developed a train performance calculator for terminus situation, using a multi-dimensional spreadsheet analysis model. The results from these simulation studies have considerable implications on the cost and operations, and they are use to support the committed line capacity of the project.

Calvin will highlight the synergies between track design and simulation, the features of RailPlan, and the in-house developed Train Performance Calculator for terminus study.

**Venue** : MTR HQ Level 2 Auditorium, Kowloon Bay  
**Date** : 10<sup>th</sup> September 2007 (Monday)  
**Time** : 6:00 pm for a prompt start at 6:30 pm

Secretary  
CHKPWS  
31 August 07