

## **Legislative Council Panel on Transport**

### **West Rail Project Update**

#### **Introduction**

This paper sets out the progress of, and the key milestones that have been achieved on, the Kowloon-Canton Railway Corporation (KCRC)'s West Rail (Phase I) project. It also highlights the efforts made by the Corporation to tackle the community relations issues arising from the implementation of the railway project.

#### **Land Acquisition**

2. The West Rail (Phase I) provides a 30.5-km domestic railway line linking Tuen Mun and Yuen Long with West Kowloon, comprising 9 stations and a depot. (Alignment map at [Annex A](#)). Following authorisation of the project by the Chief Executive in Council in September 1998, resumption of about 380 hectares of land required for the railway project, including 83 hectares of private land, began and was substantially completed in June 1999. The land, which has been resumed and cleared, was handed over to KCRC's contractors for construction to begin.

#### **Detailed Design & Value Engineering**

3. Detailed design of the railway was completed in early 1999. Following a value engineering review, the Corporation has decided to adopt a 9-car train configuration, instead of a 12-car configuration in the original proposal, by adopting a state-of-the-art but proven signalling technology which enables West Rail trains to be run at a higher frequency. Compared against the original proposal for running longer trains at a lower frequency, this represents an improvement to the train services without reducing the railway's carrying capacity. The West Rail will initially run on 7-car train units before its patronage builds up. It is envisaged that the West Rail's daily patronage will be about 340 000 upon commissioning and increased to 500 000 by Year 2011.

## **Project Estimate**

4. Based on the value of the contracts awarded, the KCRC has estimated the project cost of West Rail (Phase I) to be adjusted downwards from \$64 billion to \$52 billion. This is mainly due to lower tender prices arising from keen competition among contractors, lower land costs, lower financing costs, lower inflation and value engineering.

## **Contracts & Tendering**

5. Civil construction work under the West Rail (Phase I) was originally packaged into five contracts. Subsequently they were broken down into 17 smaller construction contracts to provide more opportunities to local bidders.

6. The 17 civil construction contracts cover 14.7 km of tunnels, 13.4 km of viaducts, 2.4 km of at grade line segment, the nine stations, the depot, the West Rail Headquarters Building, and other ancillary structures. Construction of two major tunnels commenced in October 1998 and all 17 contracts have been awarded by early 2000.

7. There are about 20 major railway operating systems contracts under the West Rail project, of which 13 have been awarded so far. These include train cars, signalling system, track work, traction power & overhead line, and platform screen doors. All these contracts are awarded following open and competitive tender procedures.

## **Construction Progress**

8. The railway project will be serviced by a work force of about 2 000 professional, managerial and support staff from KCRC and the Corporation's consultants and contractors, and during the peak period about 11 000 construction workers will be working at West Rail sites. It is expected that the construction and railway system work, including testing, commissioning and trial running, will be completed by 2003.

9. As at January 2000, about 10 % of the works on the civil construction side have been completed and the major milestones have been achieved on schedule. For the tunnel section, drill-and-blast excavation of the 5.7-km Tai Lam Tunnel has made a total advance of about 1 000 metres (or 18%) from the northern portal in Kam Tin, and 100 metres (or 1.8%) from the southern Portal in Tsuen Wan.

10. For the 13.4-km viaduct section the first batch of viaduct columns have been completed and erected in Tin Shui Wai. Viaduct segment casting began in January 2000, and viaduct deck erection is expected to begin in May. Work for the nine West Rail stations and the depot has commenced on programme, most of which are now in the foundation stage.

11. At present, the Corporation has completed about 3 % of railway operating systems work. Design work for the Train Control & Signalling System, train cars, track work and platform screen doors is progressing.

### **Environmental Protection**

12. KCRC is taking every possible measure to ensure that the West Rail (Phase I) is an environmental friendly project during both construction and operation stages.

13. The Corporation has carried out a detailed Environmental Impact Assessment (EIA) study on the railway project, and has been implementing the mitigation measures recommended in the EIA report which was approved by the Advisory Council on Environment in 1998. During the construction stage, construction activities having an impact on the environment can start only after KCRC has examined the contractors' Environmental Management Plans and is satisfied that the proposed mitigation measures can meet the environmental requirements.

14. In addition to placing contractual obligation on the contractors to comply with environmental requirements, KCRC has established its own specialist Environmental Team to monitor and audit the performance of the contractors. On top of this, an independent environmental checker has been appointed by KCRC to oversee the whole environmental protection process and to carry out regular audits.

15. Where practicable, KCRC adopts construction methods which are more environmentally friendly to minimise the adverse impact on the local community. A case in point is the use of a Tunnel Boring Machine to avoid highly disruptive cut-and-cover tunnelling works, which would otherwise necessitate the digging up of the busy Kwai Fuk Road. The KCRC also maintains close contacts with the Environmental Protection Department and the local community to ensure any short-term impact on the environment will be kept to an acceptable level.

16. During the operation stage, the KCRC envisages that the West Rail will reduce road vehicle use and eliminate more than 1 000 tonnes of roadside vehicle emissions a year. West Rail has also adopted an innovative systems-based approach to the design of the viaduct, rail track and train cars - including a multi-plenum noise attenuation system using floating track slap - with an aim to make West Rail one of the quietest railways in the world.

### **Community Relations Programme**

17. The West Rail (Phase I) passes through densely populated areas and the scale of construction work is massive. Despite the best efforts, some adverse impacts on the local community are inevitable. To ensure a speedy response to community concern on the railway project, the Corporation has adopted a proactive community relations approach to consult local residents and handle their enquiries and complaints quickly and effectively. This includes -

- (a) the establishment of a 24-hour hotline to handle residents' enquiries and complaints;
- (b) the stationing of community liaison officers at major construction sites to deal with resident's enquiries and complaints promptly and a community liaison office has been set up in Mei Foo Sun Chuen since July 1999;
- (c) the setting up of community liaison co-ordination groups comprising local residents' representatives, which meet regularly to maintain a close dialogue between residents and the KCRC; and

- (d) regular consultation meetings, briefings, progress reports to District Councils, rural committees and various residents groups, and mail drops to keep local residents informed of any major construction activities. (In 1999, a total of 230 consultation meetings and briefing sessions were held.)

18. Station Naming - In 1999, the KCRC conducted a territory-wide "West Rail Stations Naming Competition" to solicit community's views on the station names and more importantly, to encourage a greater degree of the local community participation in this railway project. More than 1 500 entries were received and a panel of judges comprising local district leaders and academics was formed to decide on the results.

19. Train Car Design - A full-sized mock-up of a West Rail train car was put on public display in September and October last year to invite suggestions from the general public on the design features of the train car. Some 500 submissions have been received and the Corporation will take on board the suggestions from the public feedback as far as practicable.

20. Blasting/excavation work - The KCRC is fully aware of the concern of local residents about the blasting and excavation work along the West Rail (Phase I) alignment. The Corporation will ensure full compliance with the statutory safety and environmental requirements and inform local residents and address their concern as far as possible. For example, prior to the blasting of the Ha Kwai Chung tunnel near Lai Chi Kok Park and Ching Lai Court, the Corporation has put in place comprehensive monitoring devices to ensure the vibrations will not exceed the allowance limits. Before the first blasting took place on 22 June 1999, the KCRC consulted the relevant Government departments on the blasting work and the mitigation measures as well as traffic diversion required, and briefed the local residents and interested bodies on the detailed arrangements. The KCRC conducted in early June 1999 a drill in conjunction with the relevant departments to test the traffic arrangements during the blasting and other contingent measures. Residents' representatives were invited to attend as observers.

## **Conclusion**

21. West Rail (Phase I) is on track for opening in December 2003. Rigorous supervision is in place to ensure that the works standards are maintained in all areas of the project.

Kowloon-Canton Railway Corporation  
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