

**LegCo Panel on Transport
Subcommittee on matters relating to railways**

Project Update of the West Rail

This paper highlights the progress of West Rail and the preparatory works underway with respect to the opening of West Rail scheduled for Autumn 2003 for Members' information.

I. West Rail Overview

2. West Rail Phase I is a 30.5-km domestic twin-track passenger railway linking Nam Cheong in West Kowloon with Tuen Mun. It has nine stations and passes through five districts: Sham Shui Po, Kwai Tsing, Tsuen Wan, Yuen Long, and Tuen Mun. West Rail will interchange with the MTR system and KCRC's Light Rail, forming an integrated rail network.

3. West Rail will serve 300,000 passengers a day on system opening in Autumn 2003. The patronage is forecast to grow to 500,000 a day by the Year 2011.

4. The key features of West Rail are as follows:

- Journey time 30 minutes
- Daily hours of operation 19 hours
- Initial service 20 seven-car trains at 3-min intervals for peak hours, and 5-min to 8-min intervals for non-peak hours
- Ultimate capacity 33 nine-car trains per hour at 105-second intervals, carrying 100,000 passengers per peak hour in one direction
- Train capacity Maximum 335 passengers per car
- Number of stations 9
- Size of Maintenance Centre 32.5 hectares
- Construction commencement date Oct 1998
- Target opening date Autumn 2003

5. In September 2002, the Government invited the Corporation to proceed with the detailed planning and design of the Kowloon Southern Link, which will run from Nam Cheong Station at West Rail to Hung Hom Station at East Rail. The new railway link will have two new underground stations — West Kowloon Station and Canton Road Station. Preliminary studies for engineering design have already begun and the Corporation plans to complete the project by end 2008/early 2009. With the completion of the Kowloon Southern Link, West Rail passengers will be able to travel directly from the North West New Territories to urban Kowloon.

II. Progress of the Project

6. As at the end of March 2003, West Rail was 95% complete in overall terms. All major milestones have been achieved on time and the project is well on target to commence services to the public in Autumn this year.

7. All civil construction works are virtually complete and the focus is now on the timetable for completing statutory inspections, integration testing and full trial running prior to West Rail operation.

Stations

8. Station structural works have all been completed. Architectural builders works finishes and electrical and mechanical (E&M) works are 93% and 96% complete respectively.

9. Installation of facilities for use by passengers, including the automatic revenue collection system, passenger information display system, platform screen doors, lifts and escalators is near 100% completion. The various tests on individual systems and on their interfaces and integration with other systems are making good progress.

10. As regards progress of statutory inspections, up to the end of March, five stations (Kam Sheung Road, Tin Shui Wai, Tsuen Wan West, Mei Foo and Long Ping Stations) are being inspected by Fire Services Department. Hong Kong Railway Inspectorate has also started inspections at Kam Sheung Road Station and Tin Shui Wai Station, and Buildings Department has conducted audit inspections at Kam Sheung Road, Tsuen Wan West and Tin Shui Wai Stations. KCRC is now following up the outstanding issues identified in these inspections.

Railway Systems

11. Railway systems contracts are 94% complete, including the train car contract. Traction power supply for mainline train testing has been completed for the entire alignment from Nam Cheong to Tuen Mun.

12. Installation of train control and signalling, and telecommunications systems has been completed and testing of the systems is progressing well. Installation for Automatic Revenue Collection (ARC) and Electronic Access Control (EAC) equipment is nearing completion. Interface testing with other rail systems is well underway.

13. All stations and railway systems will be tested, commissioned and ready for operation by the start of June this year, ready for three months of trial operation under the control of the new West Rail Operating Division.

Trains

14. With regard to EMUs, a total of 20 7-car consists have been delivered to Hong Kong. Test running of the trains is now taking place inside the Pat Heung Maintenance Centre and between Nam Cheong Station and Tin Shui Wai Station. Further system integration tests will also be arranged. The final two consists are expected to arrive by April 2003. Upon energization of the entire alignment in May, test running of trains from Nam Cheong to Tuen Mun can take place.

Public Transport Interchanges

15. With the exception of Mei Foo Station, which will be well served by an existing public transport interchange (PTI), the other eight West Rail stations will be linked to purpose-built PTIs to enable passengers to connect conveniently with various feeder services including buses, mini-buses, taxis, and bicycles.

16. While KCRC is responsible for the construction, the PTIs will subsequently be managed by Transport Department. Construction of all PTIs has started and the PTI for Kam Sheung Road Station is substantially completed. The target is to have all the PTIs commissioned before Day One service of West Rail.

Testing and Commissioning

17. A comprehensive system of testing and commissioning is in place to ensure that all systems installed are up to the highest standard required. The first two stages are called “Partial Acceptance Test” and “System Acceptance Test”. These two tests are conducted for individual systems.

18. West Rail is now gradually entering the stage of “Tests On Completion”, the final stage of testing and commissioning. The objective is to test the integrated systems to see how the whole railway works together.

19. Three months of full trial operation have been scheduled, during which the trains will run according to the proposed West Rail timetable for public service. Simulated incidents and emergencies will be introduced to stress test the systems and the operating staff.

Wetland Recreation

20. Wetland recreation in Kam Tin is progressing well. The first phase works, including parcels of land near Chi Ho Road in Kam Tin, are substantially completed. The second phase works including parcels of land north of Kam Sheung Road Station, along the Main Drainage Channel and Tai Lam Tunnel North Portal, as well as earthworks for the construction of Permanent Marsh and Terrestrial Habitat are also well advanced.

Construction Safety

21. Overall safety performance remains very good with a cumulative incident rate for accidents of 30.73 per 1,000 workers per annum, which compares favourably with the Hong Kong construction industry average of 114.

III. Merger of Light Rail and West Rail Division

22. With the commissioning of West Rail, Light Rail will assume a different and more important role. It will become a major feeder service for West Rail. The two systems together will form a more comprehensive and complete public transportation network in the North West New Territories (NWNT), taking care of passengers travelling within the district and between Tuen Mun/Yuen Long and urban Kowloon.

23. To facilitate Light Rail's transformation into a major feeder system for West Rail, a HK\$2,300 million extension and upgrade project commenced in 2001. The project includes:

- Building new Light Rail extensions at a total length of 4.4km to connect the newly developed area in Tin Shui Wai
- Upgrade and modify three existing Light Rail stops, located at San Fat (later renamed as Tuen Mun), Siu Hong and Yuen Long terminus. A new stop will be built as an interchange stop at Tin Shui Wai.
- Two sections of grade separation works at Pui To Road and Tsing Lun Road
- Install a new signalling system for the entire Light Rail network.

24. To tie in with the integration, the existing Light Rail and Bus routes will be re-structured so that they can feed West Rail on one hand and maintain their role as a local commuter service provider on the other.

25. A new division, West Rail Division (Operations), will be established in April to manage the West Rail, Light Rail and the Corporation's feeder bus services. It is believed that this arrangement will ensure better integration of the West Rail and Light Rail services as well as the maximum benefits for the passengers.

26. The new Division will have about 2,000 staff, representing a synergy saving of about 600 staff as compared with the original projection of operating West Rail as an independent division.

27. Of the 2,000 staff, 1,100 of them are operations staff and 900 are engineering staff. 1,200 will be redeployed from the existing Light Rail Division while the remaining 800 staff are to be recruited.

Recruitment and Training

28. Both recruitment and training started in 2002. Out of the 800 staff to be recruited, about 700 have been identified.

29. All operations and maintenance personnel will be trained with the required skills and knowledge to ensure safe and efficient operation of West Rail. To achieve a high degree of competence and performance, a combination of classroom and on-the-job training is being provided.

30. At the end of March, about 550 engineering and operations staff had either completed or commenced their training. Our target is to have all required staff in place and fully trained by commencement of trial running in early June 2003.

IV. Operational Readiness

31. KCRC places top priority on ensuring that West Rail will operate safely and efficiently from the day it opens to the public. An Operational Readiness Steering Committee, chaired by the Chief Executive Officer, and an Operational Readiness Working Group, co-chaired by Director, West Rail and Director, Light Rail, were formed in late 2000. The Steering Committee is responsible for policy and strategy while the Working Group works out the myriad activities - numbering 1,200 in total - required to start up a new public transport system in Hong Kong.

32. Upon the completion of final testing, a three-month period of full trial running will follow. The whole railway system will be operated as if in service but with no passengers.

33. The full trial run will serve several purposes:

- Enable the staff to gain hands-on experience in operating the railway during normal operation and in handling mishaps and equipment failures through simulated events.
- Validate the effectiveness of various rules and procedures.
- Spot and resolve teething problems before opening to the public.
- Confirm that consistent punctuality of train service has achieved the desired target prior to public service.

V. Fare

34. In setting fares for West Rail, due regard will be given to prevailing market conditions, competition from other transport modes, and the Corporation's financial objectives. In addition, the Corporation plans to introduce an integrated fare structure for West Rail and Light Rail for the convenience of passengers, giving passengers who interchange between these two modes a discount. Consultation with District Councils and concerned community groups has begun to solicit their views before finalising the fare proposal. The detailed fares, however, will not be determined until close to the time of opening.

VI. Public Relations

35. An extensive public consultation exercise is being conducted at different community levels including Legislative Council, Transport Advisory Committee, District Councils, influential groups, political groups and potential passengers within the West Rail catchment areas so as to provide opportunities for the concerned groups to comment on various aspects of the proposed West Rail services, such as fare structure, fare level and the reorganisation of Light Rail / Bus service.

36. A public education programme, in the form of exhibitions, community briefings, station open days, will be organised starting from the middle of this year to familiarise potential passengers with the system and facilities.

VII. Conclusion

37. With the support of the community at large, West Rail is making good progress and is well on target to commence service for the people of Hong Kong in the Autumn of 2003.

Kowloon-Canton Railway Corporation
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