

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 – HIGHWAYS

Transport – Railways

52TR – Hong Kong section of Guangzhou–Shenzhen–Hong Kong Express Rail Link – design and site investigation

Members are invited to recommend to Finance Committee the upgrading of **52TR** to Category A at an estimated cost of \$2,782.6 million in money-of-the-day prices for the design and site investigation for the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link.

PROBLEM

We need to undertake the design and site investigation for the proposed Hong Kong section of the Guangzhou–Shenzhen–Hong Kong Express Rail Link (XRL).

PROPOSAL

2. The Director of Highways, with the support of the Secretary for Transport and Housing, proposes to upgrade **52TR** to Category A at an estimated cost of \$2,782.6 million in money-of-the-day (MOD) prices for the design and site investigation for the Hong Kong section of the XRL.

PROJECT SCOPE AND NATURE

3. The scope of **52TR** comprises –

/(a)

- (a) the design work for the Hong Kong section of the XRL including railway works, the reprovisioning, remedial and improvement works (RRIW) and the essential public infrastructure works (EPIW) in connection with the Hong Kong section of the XRL;
- (b) the associated site investigations, works supervision and geotechnical studies;
- (c) impact assessments on the environment, traffic, marine, ecology, heritage and other related aspects;
- (d) preparation of tender documents and assessment of tenders;
- (e) consultant's fee for vetting the MTR Corporation Limited (MTRCL)'s design and assessing the project cost estimate prepared by MTRCL; and
- (f) services provided by Electrical and Mechanical Services Trading Fund (EMSTF) in respect of checking MTRCL's submissions on all Electrical and Mechanical (E&M) installations and advising the Government on the technical aspects of all E&M works and their impacts on the project.

4. We plan to commence the design work in June 2008, and to commence construction of the Hong Kong section of the XRL in late 2009 for completion in 2014 or 2015. We intend to seek funding at the earliest possible time for construction of the XRL to ensure that the project can be completed within the above time frame.

JUSTIFICATION

5. The Hong Kong section of the XRL is one of the priority railways recommended for implementation in the Railway Development Strategy 2000¹. It is one of the ten major infrastructure projects announced in the 2007 Policy Address. As pledged in the 2007 Policy Address, we aim to complete further planning and design for the Hong Kong section of the XRL in 2008 and commence construction in 2009. The Hong Kong section of the XRL will connect

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¹ The Railway Development Strategy 2000 maps out the preferred railway network expansion plan for Hong Kong up to 2016.

Hong Kong with Guangzhou, with intermediate stations at Futian, Longhua and Humen. The XRL will form part of the National high-speed railway network. With the completion of the XRL, the travelling time between Hong Kong and Guangzhou will be reduced to about 48 minutes. Through connection with other National high-speed railways, the XRL will also provide direct high-speed train service to major cities outside Guangdong, such as Beijing, Shanghai etc. Through interchange with the Pearl River Delta (PRD) Rapid Transit System, the XRL will also facilitate easy access to PRD cities.

6. The Hong Kong section of the XRL is intended to comprise an approximately 26-km long rail link enclosed in an underground tunnel from the West Kowloon terminus to the boundary at Huanggang. Boundary crossing facilities will be included in the West Kowloon terminus. A plan showing the proposed alignment of the Hong Kong section of the XRL is at the Enclosure.

7. On 22 April 2008, the Executive Council (ExCo) decided that the MTRCL should be asked to proceed with the further planning and design of Hong Kong section of the XRL on the understanding that it would be invited to undertake the Hong Kong section of XRL under the concession approach. Under the concession approach, the Government will fund under the Capital Works Reserve Fund the construction of the railway and its ancillary infrastructures. Upon completion of the railway, the MTRCL will be granted a service concession for the operation of the railway and the Government will receive service concession payment from MTRCL. Hence, the Hong Kong section of the XRL will be implemented as a public works project.

8. The current proposed work covers the design of the railway works, the RRIW and EPIW, including all civil, architectural, building services, E&M, signalling and control works. We will also carry out impact assessments in respect of the environment, traffic, marine, ecology, heritage and other related aspects, in order to identify the impacts and the mitigation measures required. We shall entrust the proposed works to the MTRCL.

9. Under the principles agreed between Government and the MTRCL to be applied to such entrustments, the Entrustor (i.e. the Government in this project) will pay the actual costs based on prices established from verifiable procurement processes. Services to be provided by the Entrustee (the MTRCL in this project) for management and supervision of the Hong Kong section of the XRL will be covered by an on-cost.

10. We will employ independent consultants during the detailed design stage to establish checking and control procedure on the capital cost estimate of this project, including the on-cost.

FINANCIAL IMPLICATIONS

11. We estimate the cost of the design and site investigation of the Hong Kong section of the XRL to be \$2,782.6 million in MOD prices (see paragraph 12 below), made up as follows –

	\$ million
(a) Entrustment to the MTRCL	2,325.0
(I) design of railway works, RRIW, and EPIW	1,753.0
(i) civil works	1,064.0
- Tunnel and associated structures	596.0
- Terminus	372.0
- Emergency rescue station and Depot	96.0
(ii) architectural works for the above	167.0
(iii) building services for the above	100.0
(iv) E&M works including traction power system, trackworks and rolling stock, etc.	300.0
(v) signalling and control for railway operation and communication	72.0

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	\$ million	
(vi) other studies (including fire engineering, operation and Environmental Impact Assessment (EIA) studies)	50.0	
(II) site investigation and geotechnical studies for tunneling and foundation works	86.0	
(III) consultancies to assist in land administration	156.0	
(IV) On-cost payable to the MTRCL for project planning and management, overheads and management expenses of the MTRCL ²	330.0	
(b) Consultant's fees		57.0
(I) vetting the MTRCL's design, assessing the project cost estimate and to establish checking and control procedure on the capital cost estimate	33.0	
(II) EMSTF charges	24.0	
(c) Contingencies		235.5
	Sub-total	2,617.5 (in September 2007 prices)
(d) Provision for price adjustment		165.1
	Total	2,782.6 (in MOD prices)
		/12.

² Item IV includes, but is not limited to, staff cost for MTRCL's dedicated project management team and the headquarters for providing support for the project; accommodation costs for the dedicated project management team and consultants; and corporation costs (e.g. legal, financial, human resources, public relations, operating support, insurance, corporate governance and other relevant overheads).

12. Subject to approval, we will phase the expenditure as follows –

Year	\$ million (Sep 2007)	Price adjustment factor	\$ million (MOD)
2008 – 2009	610.3	1.02575	626.0
2009 – 2010	1,464.4	1.06293	1,556.6
2010 – 2011	<u>542.8</u>	1.10545	<u>600.0</u>
	<u>2,617.5</u>		<u>2,782.6</u>

13. We have derived the MOD estimate for the period 2008 to 2011 on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output. We will engage consultants to undertake the work described in paragraph 11(b)(I) above on a lump sum basis with the provision for price adjustment as the duration of the consultancy agreements will exceed 12 months.

14. The proposed design and site investigation works for the Hong Kong section of the XRL will not give rise to any annual recurrent expenditure.

PUBLIC CONSULTATION

15. We consulted the Subcommittee on Matters relating to Railways (the Subcommittee) of the Legislative Council Panel on Transport on 2 May 2008. Members did not raise any objection to the proposed design and site investigation for the project, but requested supplementary information including the financing arrangements for railway projects. We shall provide the information as quickly as possible.

ENVIRONMENTAL IMPLICATIONS

16. The Hong Kong section of the XRL is a designated project under Schedule 2 of the EIA Ordinance (Cap. 499) and an environmental permit is required for the construction and operation of the project. The MTRCL will carry out an EIA study to address the potential environmental impacts of the project in detail. The MTRCL will submit the EIA report to the Director of Environmental Protection for approval under the EIA Ordinance, including making the EIA report available for comments by the public and the Advisory Council on the Environment.

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17. The proposed site investigation works and design will only generate very little construction waste. We will require the MTRCL to fully consider measures to minimize the generation of construction waste and to reuse/recycle construction waste as much as possible in the future implementation of the construction projects for the Hong Kong section of the XRL.

HERITAGE IMPLICATIONS

18. The proposed design and site investigation works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office. As for whether the Hong Kong section of the XRL will affect any heritage site, we will investigate this in the design and site investigation study.

LAND ACQUISITION

19. The proposed design and site investigation works do not require any land acquisition.

BACKGROUND INFORMATION

20. On 5 January 2007, we briefed the Subcommittee on the latest progress of the proposed Hong Kong section of the XRL. We informed the Subcommittee that following the decision of the Executive Council in January 2006, we had asked the Kowloon-Canton Railway Corporation (KCRC) to proceed with further planning of the proposed Hong Kong section of the XRL. In addition, we informed the Subcommittee that KCRC would examine the latest patronage forecast, financial viability and economic implications, and preliminary site investigation with a view to submitting the study report on the proposed Hong Kong section of the XRL to the Government in 2007.

21. The decision of adopting the Dedicated Corridor Option for the Hong Kong section of the XRL was announced by the Chief Executive after the Tenth Plenary of the Hong Kong / Guangdong Co-operation Joint Conference on 2 August 2007.

22. The Executive Council decided on 22 April 2008 that the MTRCL should be asked to proceed with the further planning and design of the project on the understanding that it would be invited to undertake the Hong Kong section of the XRL under the concession approach. The further planning and design of the project will be funded by Government.

23. We upgraded **52TR** to Category B in April 2008.

24. The proposed design and site investigation works will not involve any tree removal or planting proposals.

25. We estimate that the works in paragraph 3 will create about 810 jobs (120 for labourers and 690 for professional/technical staff) providing employment of a total of about 14 500 man-months.

Transport and Housing Bureau
May 2008



索引圖
KEY PLAN



- 圖例
LEGEND
- + - 特別行政區界
BOUNDARY OF SPECIAL ADMINISTRATIVE REGION
 - 現有鐵路路線
EXISTING RAIL LINE
 - 擬建廣深港高速鐵路香港段
PROPOSED HONG KONG SECTION OF THE GUANGZHOU-SHENZHEN-HONG KONG EXPRESS RAIL LINK
 - - - 擬建廣深港高速鐵路內地段
PROPOSED MAINLAND SECTION OF THE GUANGZHOU-SHENZHEN-HONG KONG EXPRESS RAIL LINK

圖則名稱 drawing title

工務計劃項目第52TR號
廣深港高速鐵路香港段 - 設計及地盤勘測工作
PWP ITEM NO. 52TR
HONG KONG SECTION OF GUANGZHOU-SHENZHEN-HONG KONG EXPRESS RAIL LINK - DESIGN AND SITE INVESTIGATION

設計 designed
繪圖 drawn
Y. M. LAU, TOIC/JP
核對 checked
Esther YUNG, E/ERL(1)
核准 approved
W. T. MA, SE/ERL(3)

圖號 drawing no.
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