

## **ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE**

### **HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT**

#### **Civil Engineering – Land development**

#### **753CL – Infrastructure works for West Kowloon Cultural District, phase 1 – design and site investigation**

Members are invited to recommend to Finance Committee the upgrading of **753CL** to Category A at an estimated cost of \$478 million in money-of-the-day prices for the proposed design and site investigation of government infrastructure works for supporting phase 1 of West Kowloon Cultural District development.

### **PROBLEM**

We need to carry out the proposed design and site investigation of government infrastructure works for supporting phase 1 of West Kowloon Cultural District (WKCD) development.

### **PROPOSAL**

2. The Director of Civil Engineering and Development, with the support of the Secretary for Home Affairs, proposes to upgrade **753CL** to Category A at an estimated cost of \$478 million in money-of-the-day (MOD) prices for the design and site investigation of government infrastructure works for supporting phase 1 of WKCD development.

/ **PROJECT .....**

**PROJECT SCOPE AND NATURE**

3. The scope of **753CL** comprises –
- (a) the design and associated site investigation works of the following government infrastructure works for supporting phase 1 of WKCD development –
    - (i) underground 2-lane and 4-lane roads linking WKCD with Lin Cheung Road, Austin Road West and Nga Cheung Road of about 1.5 kilometres (km) long;
    - (ii) at-grade 2-lane and 4-lane roads linking WKCD with Austin Road West and Nga Cheung Road, including two lay-bys at Austin Road West of about 1.1 km long;
    - (iii) a 2-lane flyover (including approaching roads) across the toll plaza of Western Harbour Tunnel of about 440 metres long;
    - (iv) four pedestrian linkage systems linking WKCD with Kowloon Station, Austin Station and Kowloon Park;
    - (v) berthing/landing facilities for vessels and modification of existing seawall;
    - (vi) underground stormwater and sewerage systems;
    - (vii) underground salt and fresh water supply systems and related facilities; and
    - (viii) associated footpaths, lighting, ventilation, traffic system, landscaping, as well as related engineering and ancillary works.
  - (b) environmental, traffic, marine, heritage and other related impact assessments for the construction of works described in paragraphs 3(a)(i) to (viii) above;
  - (c) supervision of associated site investigation works for the construction of works described in paragraphs 3(a)(i) to (viii) above; and

/ (d) .....

- (d) preparation of tender documents and assessment of tenders for the construction of works described in paragraphs 3(a)(i) to (viii) above.

4. A layout plan showing the proposed sites for the government infrastructure works in paragraph 3 above are at Enclosure 1.

5. Subject to the funding approval of the Finance Committee (FC), we plan to start the proposed design and site investigation of the government infrastructure works in January 2013 for staged completion from early 2014 to December 2017 to tie in with the commissioning of the core arts and cultural facilities of phase 1 of WKCD development from 2015 to 2020.

## JUSTIFICATION

6. The WKCD development is one of the ten major infrastructure projects included in the Chief Executive's 2007-08 Policy Address for promoting long-term development of arts and culture, and supporting Hong Kong as a creative economy and Asia's world city.

7. FC approved on 4 July 2008 a one-off upfront endowment of \$21.6 billion<sup>1</sup> for the West Kowloon Cultural District Authority (WKCDA) to implement the WKCD development covering the arts and cultural facilities, retail / dining / entertainment facilities, public open space and some transport facilities. As foreshadowed in the funding submission for the \$21.6 billion endowment fund approved by FC (vide PWSC(2008-09)31), the other communal and government facilities and related engineering works, such as roads, drainage, fire station, public pier and other ancillary facilities, etc. for supporting the whole WKCD (including residential, commercial and hotel developments) will be undertaken by the Government with funding approval for such works to be sought separately. These government infrastructure works will be implemented in phases to dovetail with the WKCD development. **753CL** will cover design and site investigation of these government infrastructure works.

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<sup>1</sup> In 2008 Net Present Value which is equivalent to \$21.6 billion in MOD prices.

8. In March 2011, WKCDA selected the preferred Conceptual Plan, based on which the draft Development Plan (DP) was prepared indicating the key development principles, the broad land use zonings and major development restrictions for WKCD. The draft DP was exhibited in the Stage 3 Public Engagement Exercise, which was completed in October 2011. With general support from the public, WKCDA submitted in December 2011 the draft DP to the Town Planning Board (TPB) for consideration.

9. After consideration by TPB in March 2012, the draft DP (No. S/K20/WKCD/1) and its Notes and Explanatory Statement had been exhibited for public inspection in accordance with the Town Planning Ordinance. TPB decided in September 2012 not to propose any amendment to the draft DP. The draft DP is targeted for approval under the Town Planning Ordinance by early 2013.

10. WKCDA has completed the technical assessments establishing the technical feasibility of the draft DP for the WKCD development. Phase 1 of the WKCD development includes the Xiqu Centre (Phase I), Freespace, Centre for Contemporary Performance, M+ (Phase I), Lyric Theatre, Medium Theatre I, Music Centre, Mega Performance Venue / Exhibition Centre and Musical Theatre targeted to be commissioned in stages between 2015 and 2020. The government infrastructure works in paragraph 3(a) above are essential for supporting phase 1 of the WKCD development and / or enhancing accessibility to WKCD as well as WKCD's connectivity with adjacent areas. We propose to carry out the design and site investigation of the government infrastructure works in stages starting from early 2013 to tie in with phase 1 of the WKCD development. We will also carry out impact assessments and further studies in respect of the environment, traffic, marine, heritage and other related aspects, in order to identify mitigation measures required for the construction of the government infrastructure works and firm up the implementation programme.

11. We plan to seek funding approval in stages starting from mid-2014 for the construction of the government infrastructure works to tie in with the phased completion of the design and site investigation works.

#### **PART OF DESIGN AND SITE INVESTIGATION WORKS TO BE ENTRUSTED TO WKCDA**

12. The selected Conceptual Plan features an integrated two-level basement between Western Harbour Crossing Toll Plaza and Canton Road to accommodate part of the government infrastructure works which will interface

/ with .....

with the underground arts and cultural facilities, and facilities for the topside hotel / office / residential developments in WKCD. Other government infrastructure works are located above ground, some of which are integrated with WKCD facilities. For effective implementation of the integrated design of WKCD, we plan to entrust to WKCDA the design and site investigation of the government infrastructure works integrated with the facilities inside WKCD (including those to be located underground). Such infrastructure works mainly comprise the underground roads, the at-grade roads, three pedestrian linkage systems across Austin Road West and Canton Road and associated works<sup>2</sup>. WKCDA will carry out the entrusted works under **753CL** as part of the overall design and site investigation study for phase 1 of the WKCD development. This will help meet the implementation programme of the WKCD development and better co-ordinate interface issues between the government infrastructure works and WKCD development. Services to be provided by WKCDA for management and supervision of the entrusted works will be covered by an on-cost capped at an assumed rate of 16.5%<sup>3</sup> (adopted for budgeting purposes). We will reimburse WKCDA the actual cost incurred in relation to the consultants' fees, cost of site investigation works and on-cost.

13. As for the remaining infrastructure works, mainly comprising the flyover across the toll plaza of Western Harbour Tunnel and the pedestrian linkage system across the West Kowloon Highway and associated works<sup>4</sup>, the Civil Engineering and Development Department (CEDD) will employ consultants to undertake the design and site investigation of such works due to lack of necessary in-house resources.

## FINANCIAL IMPLICATIONS

14. We estimate the cost of the proposed design and site investigation works to be \$478 million in MOD prices (please see paragraph 15 below), broken down as follows –

/ \$ million.....

<sup>2</sup> The design and site investigation of works to be entrusted to WKCDA cover: (I) the whole of (a)(i) and (a)(ii); and (II) part of (a)(iv), (a)(v), (a)(vi), (a)(vii), (a)(viii), (b), (c) and (d) in paragraph 3 above.

<sup>3</sup> An assumed on-cost rate of 16.5% comparable to that applicable to essential public infrastructure works entrusted to MTRCL is adopted for budgeting purposes only. The actual amount of on-cost payable to WKCDA for the management and supervision of the entrusted works is subject to further discussion with WKCDA.

<sup>4</sup> The design and site investigation of works to be carried out by CEDD cover : (I) the whole of (a)(iii); and (II) the remaining part of (a)(iv), (a)(v), (a)(vi), (a)(vii), (a)(viii), (b), (c) and (d) in paragraph 3 above.

		<b>\$ million</b>	
(I)	<u>To be entrusted to WKCDA</u>		260.7
(a)	Consultants' fees for design of infrastructure works and impact assessments	184.6	
	(i) impact assessments (environment, traffic, marine, heritage, etc.)	37.0	
	(ii) design	143.9	
	(iii) supervision of site investigation works	3.7	
(b)	Site investigation works	39.2	
(c)	On-cost payable to the WKCDA for management and supervision of the entrusted works	36.9	
(II)	<u>To be carried out by CEDD</u>		97.9
(a)	Consultants' fees for design of infrastructure works and impact assessments	80.8	
	(i) impact assessments (environment, traffic, marine, heritage, etc.)	16.2	
	(ii) design	63.0	
	(iii) supervision of site investigation works	1.6	
(b)	Site investigation works	17.1	
(III)	Contingencies		35.8
	Sub-total		394.4 (in September 2012 prices)
(IV)	Provision for price adjustment		83.6
	Total		478.0 (in MOD prices)

— A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 2.

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

/ Year.....

Year	\$ million (Sept 2012)	Price adjustment factor	\$ million (MOD)
2012 – 2013	3.3	1.00000	3.3
2013 – 2014	43.7	1.06250	46.4
2014 – 2015	107.4	1.12625	121.0
2015 – 2016	77.3	1.19383	92.3
2016 – 2017	70.3	1.26545	89.0
2017 – 2018	62.8	1.34138	84.2
2018 – 2019	29.6	1.41180	41.8
	<u>394.4</u>		<u>478.0</u>

16. We have derived the MOD estimates on the basis of the Government's latest set of assumptions of the trend rate of change in the prices of public sector building and construction output for the period from 2013 to 2019. Subject to funding approval, we will engage consultants to undertake the works described in paragraph 14(II)(a) above on a lump sum basis because the scope of the works can be clearly defined in advance. We will procure the site investigation works described in paragraph 14(II)(b) above under a standard re-measurement contract because the quantity of works involved may vary depending on actual ground conditions. The consultancy agreement and contract for site investigation works will provide for price adjustment as the duration of the consultancy / contract will each exceed 12 months.

17. The proposed design and site investigation works will not give rise to any recurrent expenditure.

## **PUBLIC CONSULTATION**

18. On 26 April 2012, we consulted the Yau Tsim Mong District Council on the proposed design and site investigation works. Members supported in principle the implementation of the project.

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19. We issued two information papers to the Panel on Home Affairs of the Legislative Council in May and November 2012 respectively. Panel Members did not request discussion or raise any comments on the proposed design and site investigation works.

### **ENVIRONMENTAL IMPLICATIONS**

20. The engineering feasibility study of the whole WKCD development is a Schedule 3 designated project under the Environmental Impact Assessment (EIA) Ordinance. WKCD undertakes to assess the environmental impacts of the construction and operation of the government infrastructure works for WKCD, and to include these environmental assessments in the EIA report of WKCD to meet the requirements under the EIA Ordinance. Environmental permits will be required for the construction and operation of those government infrastructure works which are identified as designated projects under Schedule 2 of the EIA Ordinance. The proposed design and site investigation works will not cause direct long-term environmental impact. We have included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts during site investigation.

21. The proposed design and site investigation works will only generate very little construction waste. We will adopt measures to minimize the generation of construction wastes and to reuse / recycle construction waste as much as possible in the construction stage.

### **HERITAGE IMPLICATIONS**

22. The proposed design and site investigation works will not affect any heritage sites, 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.

### **LAND ACQUISITION**

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

### **BACKGROUND INFORMATION**

24. We upgraded **753CL** to Category B in September 2011.

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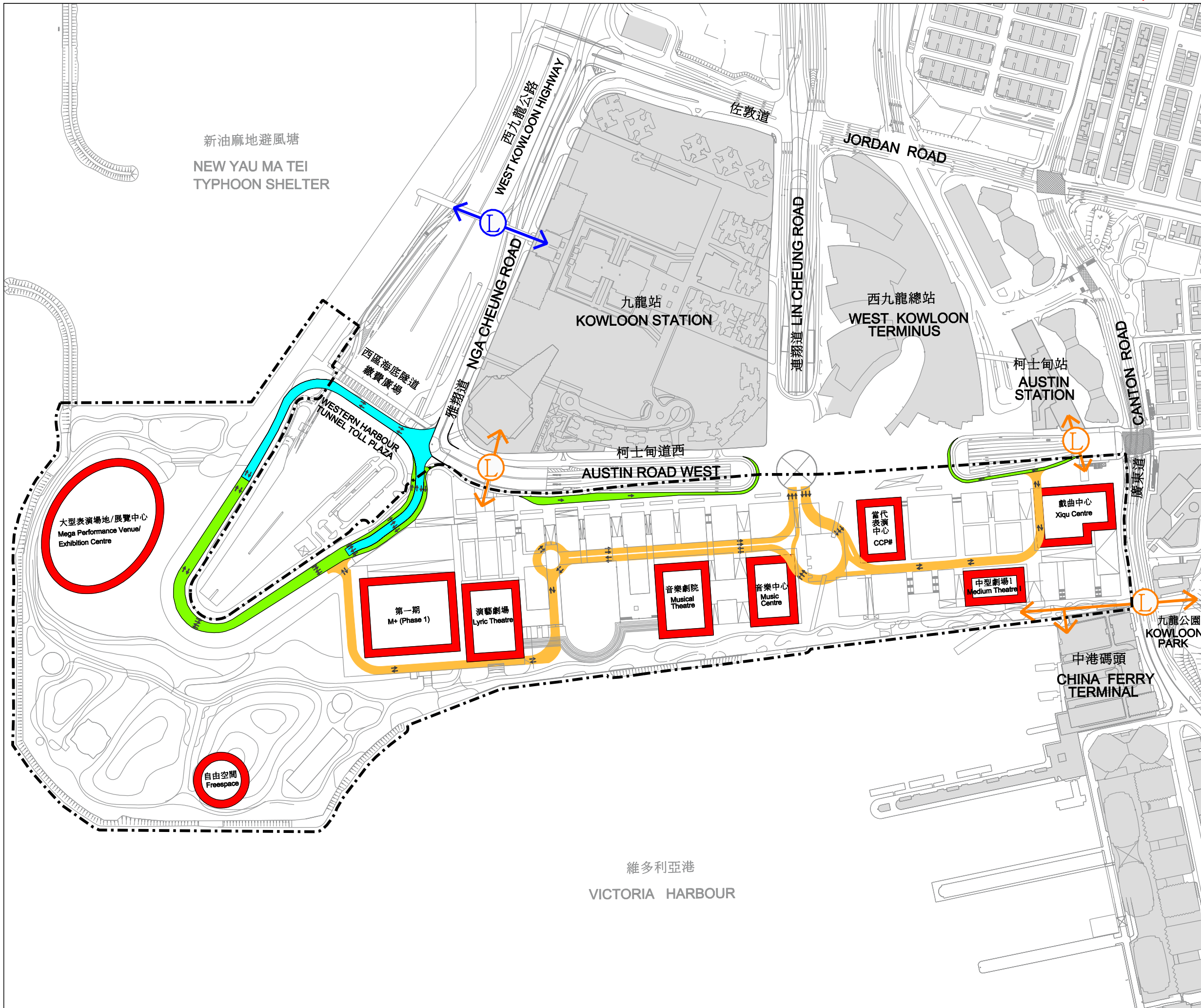


25. The proposed design and site investigation works will not directly involve any tree removal and planting proposal. We will take into consideration the need for tree preservation during the planning and design stages of the project. We will also incorporate tree planting proposals, where possible, in the construction phase.

26. We estimate that the proposed design and site investigation works will create about 41 jobs (10 for labourers and another 31 for professional / technical staff) providing a total employment of 2 070 man-months.

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Home Affairs Bureau  
December 2012



- LEGEND:**
- CORE ARTS AND CULTURAL FACILITIES (PHASE 1)  
核心文化藝術設施(第一期)
  - BOUNDARY OF WKCD DEVELOPMENT  
西九發展界線
  - PROPOSED AT-GRADE ROAD (TO BE ENTRUSTED TO WKCD)  
擬建地面道路 (將委託給西九管理局)
  - PROPOSED UNDERGROUND ROAD (TO BE ENTRUSTED TO WKCD)  
擬建地下道路 (將委託給西九管理局)
  - ↔ (L) PROPOSED PEDESTRIAN LINKAGE SYSTEM (TO BE ENTRUSTED TO WKCD)  
擬建行人連接系統 (將委託給西九管理局)
  - ↔ (L) PROPOSED FLYOVER (TO BE CARRIED OUT BY CEDD)  
擬建行車天橋 (由土木工程拓展署負責)
  - ↔ (L) PROPOSED PEDESTRIAN LINKAGE SYSTEM (TO BE CARRIED OUT BY CEDD)  
擬建行人連接系統 (由土木工程拓展署負責)
  - CCP# CENTRE FOR CONTEMPORARY PERFORMANCE

工程名稱 project title  
**PWP ITEM NO. 753CL**  
**INFRASTRUCTURE WORKS FOR WEST KOWLOON CULTURAL DISTRICT PHASE 1- DESIGN AND SITE INVESTIGATION**  
 工程計劃項目第753CL號  
 西九文化區基礎建設工程第一期  
 -設計及工地勘測

圖則名稱 drawing title  
**PROPOSED GOVERNMENT INFRASTRUCTURE WORKS**  
 擬議政府基礎建設工程

圖則編號 drawing no.	比例 scale
001	Not to scale 不按比例

辦事處 office  
**九龍拓展處**  
 KOWLOON DEVELOPMENT OFFICE

**土木工程拓展署**  
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

**753CL – Infrastructure works for West Kowloon Cultural District,  
phase 1 – design and site investigation**

**Breakdown of the estimate for consultants' fees  
(in September 2012 prices)**

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fees (\$ million)
<b><u>(I) To be entrusted to WKCDA</u></b>					
Consultants' fees for <sup>(Note 2)</sup>					
(i) impact assessments (environment, traffic, marine, heritage, etc.)	Professional	196	38	2.0	25.8
	Technical	251	14	2.0	11.2
(ii) design	Professional	764	38	2.0	100.4
	Technical	971	14	2.0	43.5
(iii) supervision of site investigation works	Professional	18	38	2.0	2.4
	Technical	30	14	2.0	1.3
Total					184.6
<b><u>(II) To be carried out by CEDD</u></b>					
Consultants' fees for <sup>(Note 2)</sup>					
(i) impact assessments (environment, traffic, marine, heritage, etc.)	Professional	86	38	2.0	11.3
	Technical	109	14	2.0	4.9
(ii) design	Professional	335	38	2.0	44.0
	Technical	424	14	2.0	19.0
(iii) supervision of site investigation works	Professional	8	38	2.0	1.1
	Technical	12	14	2.0	0.5
Total					80.8

\* MPS = Master Pay Scale

**Notes**

1. A multiplier of 2.0 is applied to the average MPS salary point to arrive at the full staff costs, including the consultants' overheads and profit as the staff will be employed in the consultants' offices (as at now, MPS pt. 38 = \$65,695 per month and MPS pt. 14 = \$22,405 per month).
2. The actual man-months and fees will only be known after the consultants have been selected.