

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT
New Territories North and West Development
Civil Engineering – Land Development
723CL – Engineering infrastructure works for Pak Shek Kok development,
stage 2D – Road L3 and Road L7

Members are invited to recommend to Finance Committee the upgrading of **723CL** to Category A at an estimated cost of \$306.9 million in money-of-the-day prices for the construction of Road L3 and Road L7 at Pak Shek Kok and Tai Po Areas 12 and 39.

PROBLEM

There is no direct vehicular access between Pak Shek Kok (PSK) Development Area and Tai Po Areas 12 and 39. Road L3 and Road L7 are crucial traffic links between the road networks in PSK Development Area and Tai Po Areas 12 and 39 to serve the traffic generated from the existing and planned developments in both development areas.

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Housing, Planning and Lands, proposes to upgrade **723CL** to Category A at an estimated cost of \$306.9 million in money-of-the-day (MOD) prices for the construction of Road L3 and Road L7.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of **723CL** comprises –
- (a) construction of about 65 metres (m) long and 10.3 m wide single two-lane carriageway (Road L3) with one traffic lane in each direction connecting to the road network in PSK;
 - (b) construction of about 510 m long and 10.3 m wide single two-lane carriageway (Road L7) with one traffic lane in each direction linking Road L3 at PSK and Tai Po Areas 12 and 39, including a section of about 250 m long elevated road (Road L7 Bridge) crossing over Tolo Highway and Kowloon-Canton Railway Corporation East Rail tracks;
 - (c) construction of associated footpaths, cycle tracks, cycle parks, drainage works, sewerage works, fire mains, fire hydrants, roadside amenities, retaining walls, slope works and landscaping works; and
 - (d) implementation of environmental mitigation measures and an Environmental Monitoring and Audit (EM&A) programme for the works mentioned in items (a) to (c) above.

———— The site plans and section diagram of the proposed works are at Enclosures 1 and 2.

4. We plan to commence the construction works in January 2008 for completion in May 2011.

JUSTIFICATION

5. We need to complete the planned road networks in PSK Development Area and Tai Po Areas 12 and 39 to serve the existing and future developments there. Upon completion, Road L3 and Road L7 will serve as a direct vehicular access between PSK Development Area and Tai Po Areas 12 and 39.

6. In addition, Road L3 and Road L7 will also serve as a convenient alternative route for emergency service vehicles as well as a relief route for the traffic on Tolo Highway and Tai Po Road via Yau King Lane in the event of severe traffic congestion on Tolo Highway or Tai Po Road. In particular, emergency service vehicles such as fire appliances and ambulances can use Road L3 and Road L7 to shorten their response time to Tai Po Areas 12 and 39.

FINANCIAL IMPLICATIONS

7. We estimate the cost of the project to be \$306.9 million in MOD prices (see paragraph 8 below), made up as follows -

	\$ million	
(a) Road works	29.6	
(b) Bridge works	171.6	
(c) Retaining walls and slope works	22.7	
(d) Drainage and sewerage works	8.2	
(e) Fire mains and hydrants	4.4	
(f) Landscaping works	1.5	
(g) Environmental mitigation measures and EM&A programme	8.0	
(i) mitigation measures at construction stage	6.0	
(ii) EM&A programme	2.0	
(h) Consultants' fees	25.8	
(i) construction stage	1.5	
(ii) resident site staff costs	24.3	
(i) Contingencies	27.2	
	<hr/>	
Sub-total	299.0	(in September 2006 prices)
(j) Provision for price adjustment	7.9	
	<hr/>	
Total	306.9	(in MOD prices)
	<hr/>	

/Due

Due to insufficient in-house resources, we propose to engage consultants to supervise the works. A breakdown by man-months of the estimate for consultants' fees is at Enclosure 3.

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

Year	\$ million (Sept 2006)	Price adjustment factor	\$ million (MOD)
2007 – 2008	3.5	0.99900	3.5
2008 – 2009	40.0	1.00649	40.3
2009 – 2010	75.0	1.01656	76.2
2010 – 2011	90.5	1.02672	92.9
2011 – 2012	55.0	1.03699	57.0
2012 – 2013	35.0	1.05514	37.0
	<u>299.0</u>		<u>306.9</u>

9. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices for public sector building and construction output from 2007 to 2013. We will invite tenders for the proposed works under a lump-sum contract because we can clearly define the scope of the majority of the works in advance. The contract will provide for price adjustments as the contract period will exceed 21 months.

10. We estimate the annual recurrent expenditure arising from this project to be about \$920,000.

PUBLIC CONSULTATION

11. We consulted the Development and Housing Committee of the Sha Tin District Council (DC) on 31 October 2000, and the Tai Po DC on 7 November 2000. Both DCs supported the proposed works.

12. We gazetted on 26 October 2001 the proposed road works and sewerage works of **658CL (part)** “Remaining engineering infrastructure works for Pak Shek Kok development Work Package 2 Phase 2 – Construction of Roads L3, L4(Part), L5(Part), L7 and extension of Yau King Lane at Pak Shek Kok”, the parent project of **723CL**, under the Roads (Works, Use and Compensation) Ordinance (RO) and under the RO as applied by the Water Pollution Control (Sewerage) Regulation respectively. We received two objections from Villa Castell, a residential development at Yau King Lane, against the road works at Yau King Lane and construction of Road L7. On 22 October 2002, the Chief Executive in Council (CE in C) considered and overruled these objections and authorised the road and sewerage scheme with modifications (i.e. re-aligning the section of Yau King Lane in front of Villa Castell). The objectors were notified of the scheme modifications and authorisation on 5 November 2002.

13. We consulted the Incorporated Owners of Villa Castell (IOVC) in April 2006 on **714CL** “Engineering infrastructure works for Pak Shek Kok development, stage 2B – improvement and extension of Yau King Lane”. The IOVC objected to Road L3 and Road L7 lest these roads would attract additional traffic to the area, thereby worsening both the traffic and environmental conditions at Yau King Lane. Notwithstanding our explanation to them that the maximum peak hour traffic at Yau King Lane would be reduced with the implementation of Road L7 because some of the traffic from the Tai Po Areas 12 and 39 would choose to use Road L7 to Tolo Highway for accessing to other districts, the IOVC reiterated their views, among others, that they objected to Road L3 and Road L7.

14. In considering the proposed upgrading of part of **714CL** at the PWSC meeting on 3 January 2007, some Members noted the IOVC’s objection against Road L3 and Road L7 and requested the Administration to further consult the local residents and IOVC prior to seeking funding for **723CL**.

15. On 26 January 2007, we circulated an information paper to members of the Environment, Housing and Works Committee of the Tai Po DC. We did not receive any further comment on the project. On 22 March 2007, we consulted the Village Representatives (VRs) of Cheung Shue Tan Village and Tai Po Mei Village, the TPDC member of the constituency concerned and a representative of the Tai Po Rural Committee (TPRC) on the proposed works and they all supported the project and urged for its early implementation because the proposed works would improve the road network in the area.

16. We continued to consult IOVC on **723CL** in 2007, including sending them an information paper on 31 January 2007 and meeting them on 12 April 2007 to explain the proposed works under **723CL**. On 17 April 2007, the IOVC replied that they maintained their objection to Road L3 and Road L7. On 24 April 2007, we further explained to IOVC in writing the justification for and the benefit of the project as described in paragraphs 5 and 6.

17. Since late 2000, we have consulted the local community fully and tried to address their concerns. We have obtained the support of the DCs and the VRs, and completed all the necessary statutory procedures. We need to implement the project without further delay for completing the planned network in PSK Development Area. Except for the objection from IOVC over Road L3 and Road L7, there is consensus on and community support for the proposed road works.

18. We circulated an information paper to the LegCo Panel on Planning, Lands and Works on 17 May 2007. We have not received any adverse comments on the proposed works.

ENVIRONMENTAL IMPLICATIONS

19. The PSK Development is a designated project under Schedule 3 to the Environmental Impact Assessment (EIA) Ordinance. However, all works under **723CL** (part of former **658CL**) are not designated projects under Schedule 2 of the EIA Ordinance and no environmental permit is required for the construction and operation of the proposed works.

20. In June 1998, we completed an EIA report on “PSK Development Area” which includes the proposed works of the subject project. On 6 July 1998, the Advisory Council on the Environment endorsed the findings and recommendations of the EIA report. The Director of Environmental Protection approved the EIA report on 10 August 1998.

21. We will incorporate into the works contract mitigation measures recommended in the EIA report to control pollution arising from construction works to within established standards and guidelines. These measures include the use of quiet plant (silenced equipment) and frequent watering of the site and provision of wheel-washing facilities to reduce emission of fugitive dust, and other procedures as recommended in Environmental Protection Department's Recommended Pollution Control Clauses. Furthermore, we will implement the EM&A programme recommended in the EIA report. We have included \$6.0 million in the project estimate for implementing the environmental mitigation measures.

22. We have considered the level and layout of the proposed works and construction sequence in the planning and design stages to reduce the generation of construction and demolition (C&D) materials where possible. In addition, we will require the contractor to reuse inert C&D materials (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of C&D materials to public fill reception facilities¹. We will encourage the contractor to maximise the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimise the generation of construction waste.

23. We will also require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the approved WMP. We will control the disposal of public fill, C&D materials and C&D waste to public fill reception facilities, sorting facilities and landfills through a trip ticket system. We will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

/24.

¹ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

24. We estimate that the project will generate about 9 500 tonnes of C&D materials. Of these, about 3 300 tonnes (35%) will be reused on site. The remaining 6 200 tonnes (65%) are C&D waste and they will be disposed of at landfills. The total cost for accommodating C&D waste at landfill sites is estimated to be \$775,000 for this project (based on a unit cost of \$125/tonne² for disposal at landfills).

LAND ACQUISITION

25. The proposed works do not require any land acquisition.

BACKGROUND INFORMATION

26. We upgraded **658CL** “Remaining engineering infrastructure works for Pak Shek Kok development”, the parent item of **723CL**, to Category B in September 1999. We included part of **658CL** for the construction of Road L3 and Road L7 as a new item of **723CL** in Category B in October 2006.

27. We upgraded part of **714CL** “Engineering infrastructure works for Pak Shek Kok development – stage 2B – improvement and extension of Yau King Lane” as **727CL** “Engineering infrastructure works for Pak Shek Kok development – stage 2B – extension of Yau King Lane” to Category A on 26 January 2007 for the construction of the extension of Yau King Lane, and retained the remaining part under **714CL** in Category B for the improvement works at existing Yau King Lane.

/28.

² This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

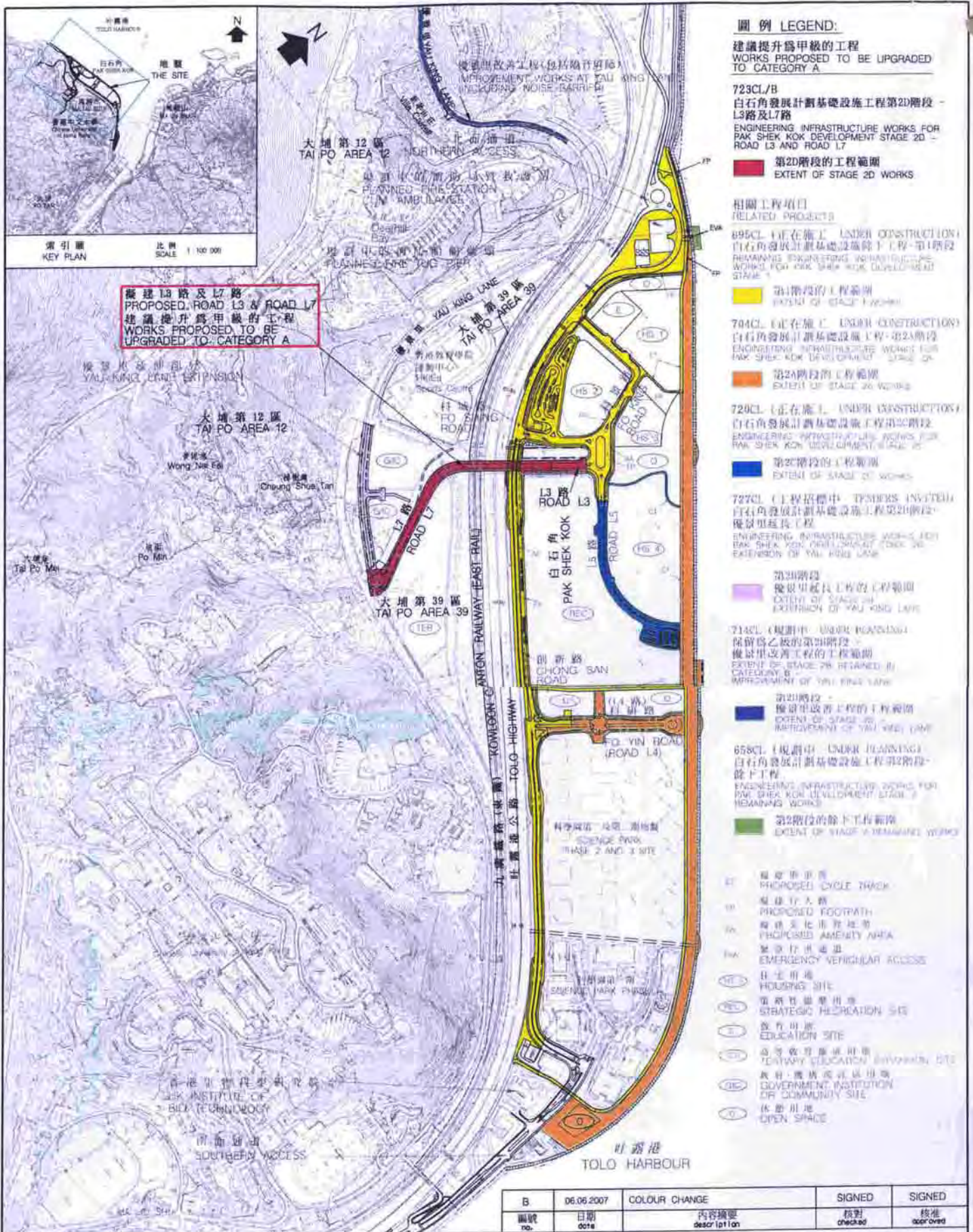
28. Of the 97 trees within the project boundary, no tree will be preserved. The proposed construction of Road L3 and Road L7 will involve the removal of 97 trees including 69 trees to be felled and 28 trees to be replanted within the project site. All trees to be removed are not important trees³. We will incorporate planting proposals as part of the project, including estimated quantities of 144 trees, 2 000 shrubs and 4 800 m² of grassed area.

29. We estimate that the proposed works will create about 164 jobs (132 for labourers and another 32 for professional/technical staff) providing a total employment of 5 000 man-months.

Housing, Planning and Lands Bureau
June 2007

³ An “important tree” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria :-

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25 m.



圖例 LEGEND:
 建議提升為甲級的工程
 WORKS PROPOSED TO BE UPGRADED TO CATEGORY A

723CL/B
 白石角發展計劃基礎設施工程第2階段 - L3路及L7路
 ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT STAGE 2D - ROAD L3 AND ROAD L7

相關工程項目
 RELATED PROJECTS

695CL (正在施工 UNDER CONSTRUCTION)
 白石角發展計劃基礎設施工程第1階段
 REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT STAGE 1

704CL (正在施工 UNDER CONSTRUCTION)
 白石角發展計劃基礎設施工程第2階段
 REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT STAGE 2

720CL (正在施工 UNDER CONSTRUCTION)
 白石角發展計劃基礎設施工程第2階段
 REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT STAGE 2

727CL (工程招標中 TENDERS INVITED)
 白石角發展計劃基礎設施工程第2階段 - 擴展單車徑工程
 ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT STAGE 2 - EXTENSION OF YAU KING LAKE

714CL (規劃中 UNDER PLANNING)
 保留為乙級的單車階段 - 擴展單車改善工程的工程範圍
 EXTENT OF STAGE 2B RETAINED BY CATEGORY B IMPROVEMENT OF YAU KING LAKE

658CL (規劃中 UNDER PLANNING)
 白石角發展計劃基礎設施工程第2階段 - 餘下工程
 ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT STAGE 2 REMAINING WORKS

714CL (規劃中 UNDER PLANNING)
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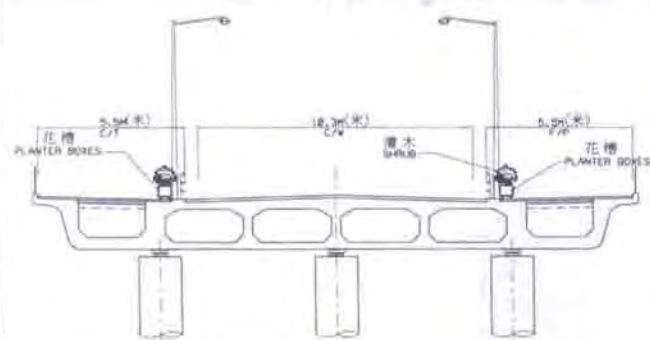
修訂 REVISION				
繪圖 drawn	簽署 initial	日期 date	項目編號 item no.	辦事處 office 新界西及北拓展處 NEW TERRITORIES NORTH AND WEST DEVELOPMENT OFFICE
K H LO	SIGNED	27.03.2007	723CL	
核對 checked	簽署 initial	日期 date	比例 scale	土木工程拓展署 CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
H K MO	SIGNED	28.03.2007	1:7 500	
核准 approved	簽署 initial	日期 date	圖則編號 drawing no.	
H W LAU	SIGNED	28.03.2007	NTN 2176B	

二〇〇七至二〇〇八年度工務小組委員會文件 P.W.S.C. SUBMISSION 2007/2008
 圖則名稱 drawing title
 白石角發展計劃基礎設施工程第2階段 - L3路及L7路
 ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT, STAGE 2D - ROAD L3 AND ROAD L7

附件 1 ENCLOSURE 1

圖例 LEGEND

-  工程範圍
LIMIT OF WORKS
-  擬建行車道
PROPOSED CARRIAGEWAY
-  擬建 L7 路高架橋
PROPOSED ROAD L7 BRIDGE
-  擬建行人路
PROPOSED FOOTPATH
-  擬建單車徑
PROPOSED CYCLE TRACK
-  擬建單車停放處
PROPOSED CYCLE PARK
-  擬建美化市容地帶
PROPOSED AMENITY AREA




L7 路橋截面圖 A-A
SECTION A-A OF ROAD L7 BRIDGE
北例 scale 1 : 200

二〇〇七年至二〇〇八年度工務小組委員會文件 P.W.S.C. SUBMISSION 2007/2008

白石角發展計劃基礎設施工程第 2D 階段 - L3 路及 L7 路
ENGINEERING INFRASTRUCTURE WORKS FOR
PAK SHEK KOK DEVELOPMENT, STAGE 2D -
ROAD L3 AND ROAD L7

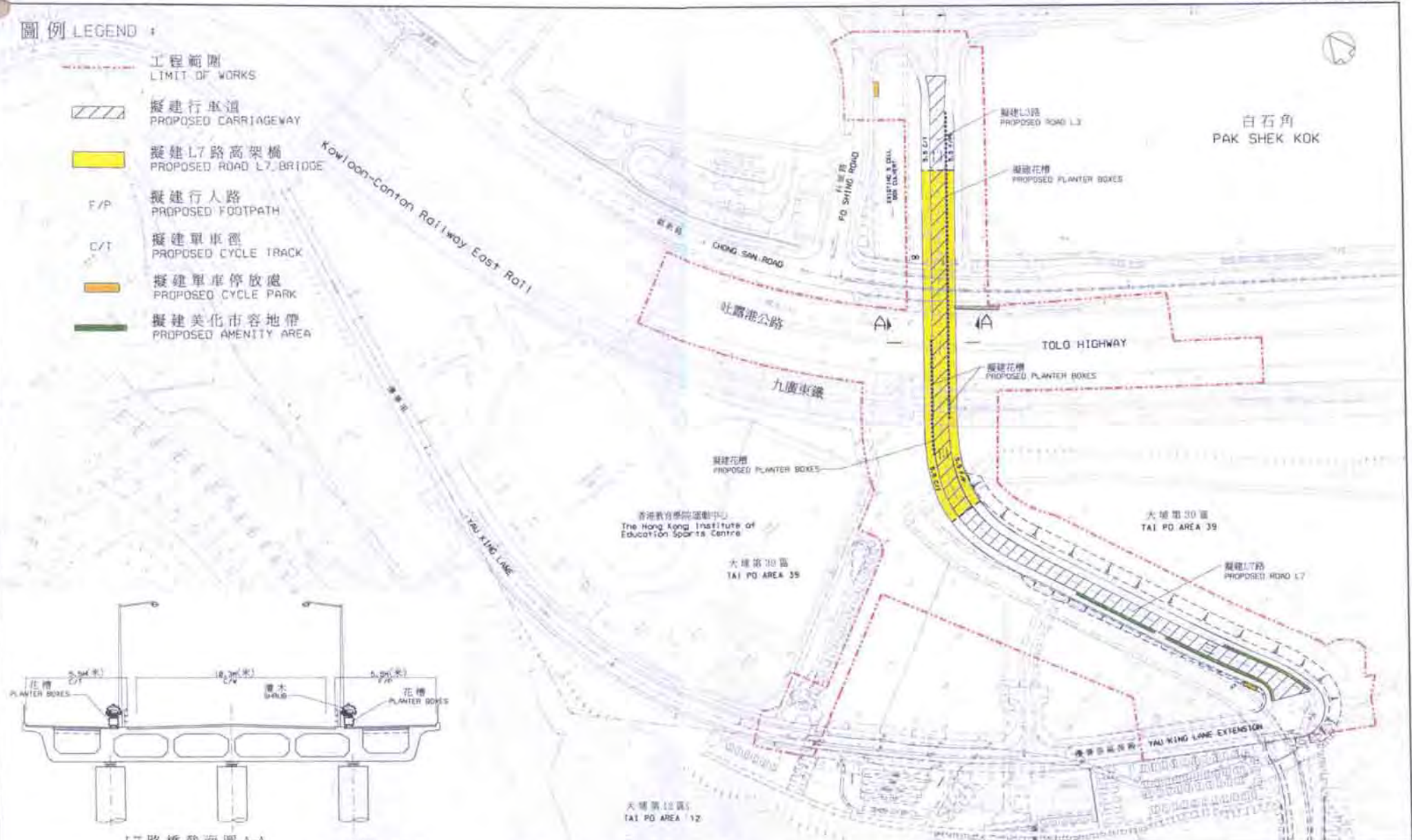
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K H LO	SIGNED	27.03.2007	723CL
核對 checked	簽署 initial	日期 date	比例 scale
H K MO	SIGNED	28.03.2007	1 : 2 500
核准 approved	簽署 initial	日期 date	圖則編號 drawing no.
H W LAU	SIGNED	28.03.2007	NTN 2177

辦事處 office
新界西及北拓展處
NEW TERRITORIES NORTH AND
WEST DEVELOPMENT OFFICE



土木工程拓展署
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
修訂 REVISION				



Enclosure 3 to PWSC(2007-08)32

723CL – Engineering infrastructure works for Pak Shek Kok development, stage 2D – Road L3 and Road L7

Breakdown of the estimates for consultants' fees

Consultants' staff costs		Estimated Man-months	Average MPS* salary point	Multiplier <small>(Note 1)</small>	Estimated fees (\$ million)
(a) Consultants' fees for construction stage <small>(Note 2)</small>	Professional	--	--	--	1.1
	Technical	--	--	--	0.4
(b) Resident site staff <small>(Note 3)</small>	Professional	145	38	1.6	12.6
	Technical	406	14	1.6	11.7
Total					25.8

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 January 2007, MPS pt. 38 = \$54,255 per month and MPS pt. 14 = \$18,010 per month.)
2. The consultants' staff cost for the contract administration and preparation of as-built drawings is calculated in accordance with the existing consultancy agreement. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade **723CL** to Category A.
3. We will only know the actual man-months and actual costs after completion of the construction works.