

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

720CL – Engineering infrastructure works for Pak Shek Kok development, stage 2C – Road L5 and adjoining parking and loading/unloading areas

Members are invited to recommend to Finance Committee the upgrading of **720CL** to Category A at an estimated cost of \$46.5 million in money-of-the-day prices for the construction of Road L5 and adjoining parking and loading/unloading areas at Pak Shek Kok.

PROBLEM

There is at present no transport and related infrastructure to serve the planned uses in Pak Shek Kok Development Area (the Area), comprising waterfront promenade and open space, private residential development (Housing Site D) and the recreation site. There are also insufficient public parking and loading/unloading facilities in the Area.

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Housing, Planning and Lands, proposes to upgrade **720CL** to Category A at an estimated cost of \$46.5 million in money-of-the-day (MOD) prices for the construction of Road L5 and the adjoining parking and loading/unloading areas in the Area.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of **720CL** comprises –
- (a) construction of about 280 metres (m) of a one-lane each way carriageway (Road L5);
 - (b) construction of about 5 000 square metres (m²) car parking and loading/unloading areas between Road L5 and the waterfront promenade;
 - (c) construction of footpaths, cycle track, drainage works, sewerage works, fire mains and landscaping works associated with the works mentioned in paragraphs (a) and (b) above;
 - (d) construction of about 220 m cycle track abutting the northern boundary of Housing Site D between Fo King Road and the waterfront promenade; and
 - (e) implementation of environmental mitigation measures during construction period and an Environmental Monitoring and Audit (EM&A) programme for the works mentioned in items (a) to (d) above.

———— The site plan and section diagrams of the proposed works are at Enclosures 1 and 2 respectively.

4. We plan to commence the construction works in December 2006 for completion in December 2008.

JUSTIFICATION

5. We need to provide transport and other essential engineering infrastructure including Road L5 and the associated sewerage, drainage and landscape works to serve Housing Site D and the recreation site in the Area.

6. We also need to construct the parking and loading/unloading areas at the eastern end of Road L5 to serve the adjacent waterfront promenade, public landing steps and open spaces in the Area. The waterfront promenade and public landing steps are under construction and scheduled for completion in early 2007. Before completion of the proposed parking and loading/unloading areas, we will provide a temporary car parking area in the vicinity adjacent to Fo Yin Road to tie in with the opening of the waterfront promenade and public landing steps.

7. We plan to construct the cycle track adjoining the northern boundary of Housing Site D between Fo King Road and the waterfront promenade to complete the local cycle track network in the Area.

FINANCIAL IMPLICATIONS

8. We estimate the cost of the project to be \$46.5 million in MOD prices (see paragraph 9 below), made up as follows -

	\$ million	
(a) Road works	17.8	
(b) Drainage and sewerage works	15.2	
(c) Landscaping works	1.0	
(d) Environmental mitigation measures and EM&A programme	2.6	
(e) Consultants' fees	3.9	
(i) construction stage	0.4	
(ii) resident site staff costs	3.5	
(f) Contingencies	4.0	
	<hr/>	
Sub-total	44.5	(in September 2005 prices)
(g) Provision for price adjustment	2.0	
	<hr/>	
Total	46.5	(in MOD prices)
	<hr/>	

/Due

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

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

Year	\$ million (Sept 2005)	Price adjustment factor	\$ million (MOD)
2006 – 2007	2.0	1.01500	2.0
2007 – 2008	15.0	1.03023	15.5
2008 – 2009	19.0	1.04568	19.9
2009 – 2010	6.0	1.06136	6.4
2010 – 2011	2.5	1.07728	2.7
	<u>44.5</u>		<u>46.5</u>

10. 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 2006 to 2011. We will tender 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.

11. We estimate the annual recurrent expenditure arising from this project to be about \$500,000.

PUBLIC CONSULTATION

12. The scope of works under the subject item forms part of the original scope of **658CL** for the implementation of the engineering infrastructure works in the Area.

13. 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.

14 We further consulted the Tai Po and the Sha Tin DCs on 8 July 2003 and 14 July 2003 respectively. Both DCs supported the proposed works and suggested that amongst other things, parking facilities for coaches and private cars in the Area should be provided. We will provide temporary parking facilities in the vicinity adjacent to Fo Yin Road in early 2007 before the permanent facilities under this project become available.

15. We gazetted on 26 October 2001 the full scope of the proposed roadworks of **658CL** under the Roads (Works, Use and Compensation) Ordinance (RO) and received two objections from Villa Castell concerning the road works at Yau King Lane. Despite our explanation and proposed modifications, the objectors maintained their objections. On 22 October 2002, the Chief Executive in Council (CE in C) overruled these objections and authorised the road scheme with modifications. The modifications mainly involve shifting the road realignment of Yau King Lane away from Villa Castell and are not related to the proposed works under this project.

16. We gazetted on 26 October 2001 the full scope of the proposed sewerage works of **658CL** under the RO as applied by Water Pollution Control (Sewerage) Regulation and received two objections from the same objectors as under the RO (see paragraph 15 above). On 22 October 2002, the CE in C overruled these objections.

17. We circulated an information paper to the Legislative Council Panel on Planning, Lands and Works in March 2006 to brief Members on the proposed works. We have not received any adverse comments.

ENVIRONMENTAL IMPLICATIONS

18. Pak Shek Kok Development (PSKD) is designated under Schedule 3 of the Environmental Impact Assessment (EIA) Ordinance. However, all works under the subject project - **720CL** (part of former **658CL**) are not designated under Schedule 2 of the EIA Ordinance and no environmental permit is required for the construction and operation of the proposed works.

19. In May 1998, we completed an EIA report on the PSKD 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.

20. We will incorporate into the works contracts mitigation measures recommended in the EIA report to control pollution arising from construction works to within established standards and guidelines. These measures include 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 in the project estimate a sum of \$2.6 million for implementing the environmental mitigation measures (\$1.6 million) and the EM&A programme (\$1.0 million).

21. We have designed the formation level of the roadworks 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 facilities. 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.

22. 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 respectively 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.

/23.

23. We estimate that the project will generate about 43 800 tonnes of C&D materials. Of these, we will reuse about 37 200 tonnes (84.9%) on site, deliver about 6 100 tonnes (13.9%) to public fill reception facilities¹ for subsequent reuse. In addition, we will dispose of about 500 tonnes (1.2%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be \$227,200 for this project (based on an unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne² at landfills).

LAND ACQUISITION

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

BACKGROUND INFORMATION

25. We upgraded **658CL**, the parent item of the subject item, to Category B in September 1999.

26. In January 2000, Finance Committee approved the upgrading of part of **658CL** to Category A as **663CL** “Site investigation works and consultants’ fees for remaining engineering infrastructure works for Pak Shek Kok development” at an estimated cost of \$30.3 million in MOD prices for engaging consultants to carry out the site investigation and detailed design of the project. The consultants have completed the site investigation, detailed design and preparation of tender documents for the proposed works.

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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.

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.

27. In December 2001, we upgraded another part of **658CL** to Category A, as **695CL** “Remaining engineering infrastructure works for Pak Shek Kok development – stage 1” at an estimated cost of \$537.0 million in MOD prices, to provide access and supporting services to part of Science Park Phase 2 and the planned housing sites in the area. The works commenced in April 2002 for completion in phases from October 2003 to December 2006.

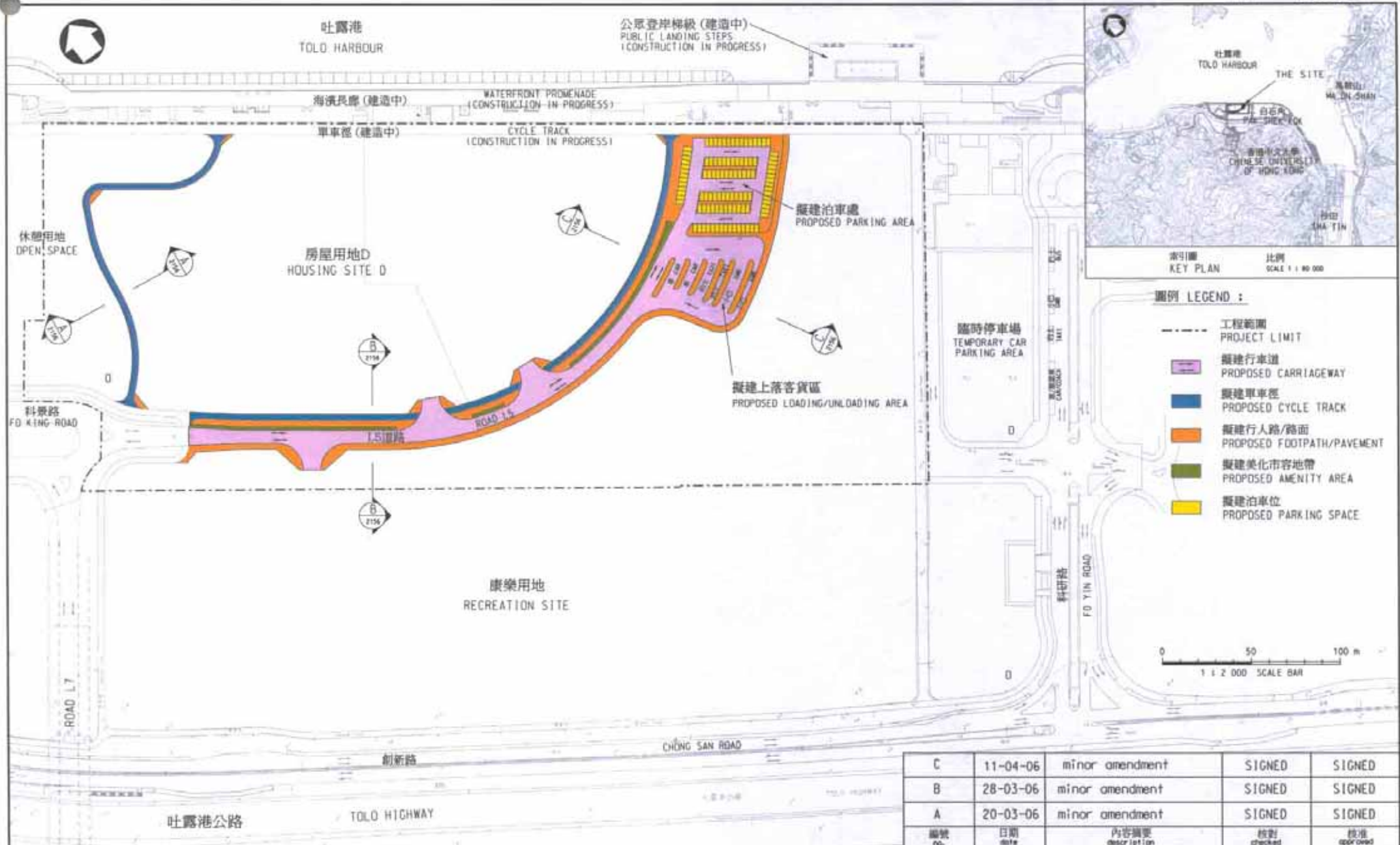
28. In July 2003, we upgraded another part of **658CL** to Category A, as **704CL** “Engineering infrastructure works for Pak Shek Kok development – stage 2A” at an estimated cost of \$191.8 million in MOD prices, to provide access and supporting services to Science Park Phase 2 and to construct the waterfront promenade and the public landing steps in the Area. The works commenced in June 2004 for completion in phases from early 2006 to mid 2007.

29. We included part of **658CL** for the construction of Road L5 and the adjoining parking and loading/unloading areas as a new item of **720CL** in Category B in September 2005.

30. The proposed construction works will not involve any tree removal proposal. We will incorporate planting proposal as part of the project, including estimated quantities of 60 trees and 3000 shrubs.

31. We estimate that the proposed works will create about 55 jobs (44 for labourers and another 11 for professional/technical staff) providing a total employment of 900 man-months.

Housing, Planning and Lands Bureau
Civil Engineering and Development Department
April 2006



- 圖例 LEGEND :
- 工程範圍 PROJECT LIMIT
 - █ 擬建車道 PROPOSED CARRIAGEWAY
 - █ 擬建單車徑 PROPOSED CYCLE TRACK
 - █ 擬建行人路/路面 PROPOSED FOOTPATH/PAVEMENT
 - █ 擬建美化市容地帶 PROPOSED AMENITY AREA
 - █ 擬建泊車位 PROPOSED PARKING SPACE

C	11-04-06	minor amendment	SIGNED	SIGNED
B	28-03-06	minor amendment	SIGNED	SIGNED
A	20-03-06	minor amendment	SIGNED	SIGNED
編號 no.	日期 date	內容摘要 description	核對 checked	批准 approved

二00六至二00七年度工務小組委員會文件 P.W.S.C. SUBMISSION 2006/2007

白石角發展計劃基礎設施工程第2C階段 - L5道路及毗鄰泊車和上落客貨區 ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT, STAGE 2C - ROAD L5 AND ADJOINING PARKING AND LOADING/UNLOADING AREAS	繪圖 drawn	簽署 initial	日期 date	項目編號 item no.	辦事處 office
	核對 checked	簽署 initial	日期 date	比例 scale	新界西及北拓展處 NEW TERRITORIES NORTH AND WEST DEVELOPMENT OFFICE 土木工程拓展署 CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
	批准 approved	簽署 initial	日期 date	圖則編號 drawing no.	
				720CL	
				1:2 000	
				NTN 2155C	

Enclosure 3 to PWSC(2006-07)4

720CL – Engineering infrastructure works for Pak Shek Kok development, stage 2C – Road L5 and adjoining parking and loading/unloading areas

Breakdown of the estimates for consultants' fees

Consultants' staff costs		Estimated Man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fees (\$ million)
(a) Consultants' fees for construction stage (Note 2)					
(i) contract administration	Professional	--	--	--	0.1
	Technical				0.1
(ii) preparation of as-built drawings	Professional	--	--	--	0.0
	Technical				0.1
(b) Resident staff (Note 3)	site				
	Professional	22	38	1.6	1.9
	Technical	60	14	1.6	1.7
Total					3.9

* 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 2005, 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 No. CE 24/99 "Remaining Engineering Infrastructure Works for Pak Shek Kok Development". The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade 720CL to Category A.
3. We will only know the actual man-months and actual costs after completion of the construction works.