

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

721CL - Kau Hui development - engineering works in Area 16, Yuen Long, phase 2 – extension of Road L3

Members are invited to recommend to Finance Committee the upgrading of **721CL** to Category A at an estimated cost of \$33.4 million in money-of-the-day prices for the extension of Road L3 (Long Wo Road) in Kau Hui, Yuen Long Area 16.

PROBLEM

There is no proper vehicular access in the area to cope with existing and future developments in the nearby villages. The area is also low-lying and prone to flooding during severe rainstorms.

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade **721CL** to Category A at an estimated cost of \$33.4 million in money-of-the-day (MOD) prices for the extension of Road L3 in Kau Hui, Yuen Long Area 16.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of 721CL comprises –
- (a) the extension of Road L3 (Long Wo Road), a single two-lane two-way carriageway, by about 220 metres (m) to connect to the existing village access track;
 - (b) the construction of associated footpaths, drainage, sewerage and landscape works; and
 - (c) the implementation of environmental mitigation measures for the works mentioned in items (a) and (b) above.

———— The site plan and section diagram of the proposed works are at Enclosure 1.

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

JUSTIFICATION

5. We need to complete the planned road networks in Kau Hui to serve existing and future developments in the area. At present, there is a village access track which serves as the only vehicular access to Wong Uk Tsuen. Upon completion, Road L3 will provide a direct vehicular access to Wong Uk Tsuen. Part of the existing village access track will then be converted to a cycle track forming part of the cycle track network in Yuen Long.

6. In addition, the area in which the proposed Road L3 extension is situated is a low-lying flood plain susceptible to flooding during severe rainstorms. Provision of drainage facilities associated with the proposed road project will reduce the flood hazard of the area.

FINANCIAL IMPLICATIONS

7. We estimate the cost of the project to be \$33.4 million in MOD prices (see paragraph 8 below), made up as follows –

/(a)

		\$ million
(a)	Road works	14.7
(b)	Drainage and sewerage works	8.5
(c)	Landscaping works	1.3
(d)	Environmental mitigation measures and monitoring	0.5
(e)	Consultants' fees	2.9
	(i) construction stage	0.3
	(ii) resident site staff costs	2.6
(f)	Contingencies	<u>2.8</u>
	Sub-total	30.7 (in September 2007 prices)
(g)	Provision for price adjustment	<u>2.7</u>
	Total	<u>33.4 (in MOD prices)</u>

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 2.

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

Year	\$ million (Sept 2007)	Price adjustment factor	\$ million (MOD)
2008 – 2009	3.0	1.02575	3.1
2009 – 2010	13.0	1.06293	13.8
2010 – 2011	9.0	1.10545	9.9
2011 – 2012	<u>5.7</u>	1.14967	<u>6.6</u>
	<u>30.7</u>		<u>33.4</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 2008 to 2012. We will invite tenders for the proposed works under a lump-sum contract because we can clearly define the scope and quantity of 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 \$230,000.

PUBLIC CONSULTATION

11. We consulted the Shap Pat Heung Rural Committee on 7 April 2006 and the Town Planning and Development Committee of Yuen Long District Council on 24 May 2006 respectively. Both Committees supported the proposed works.

12. On 27 October 2006, the proposed road works and sewerage works of **721CL** were gazetted under the Roads (Works, Use and Compensation) Ordinance (RO) and under the RO as applied by the Water Pollution Control (Sewerage) Regulation respectively. No objection from the public was received during the gazettal period. The proposed road and sewerage works were authorised under the RO on 13 February 2007.

13. On the draft Yuen Long Outline Zoning Plan No. S/YL/17 gazetted on 23 November 2007, the proposed extension to Road L3 was shown on the plan to reflect the authorisation of the works for public information. During the gazettal period, Town Planning Board received a representation objecting to the proposed road extension from the villagers of Tai Wai Tsuen on the grounds of adverse impacts on local traffic, pedestrian safety and the environment. As the authorised Road Scheme is deemed to be approved under the Town Planning Ordinance, the representation was ruled invalid under the Town Planning Ordinance.

14. With regard to the villagers' concerns, the proposed road alignment has already been planned as far away from the villages as possible to minimize any environmental nuisance. Based on the results of the Environmental Impact Assessment (EIA), it is concluded that the proposed works would not have any long term adverse environmental impact. Also, two pedestrian crossings and railings would be provided along the road to enhance pedestrian safety.

15. We consulted the Legislative Council Panel on Development on the proposed works by circulation of an information paper on 19 May 2008. Members raised no objection to the proposed works.

ENVIRONMENTAL IMPLICATIONS

16. The project is not a designated project under the Environmental Impact Assessment Ordinance. We completed the EIA for Yuen Long Kau Hui development in November 1992. We completed a further review of the EIA for the proposed works in January 2008. 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. We have included \$500,000 in the project estimate for implementing the environmental mitigation measures.

17. 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 waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities¹. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

/18.

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

18. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip ticket system.

19. We estimate that the project will generate in total about 8 600 tonnes of construction waste. Of these, we will reuse about 7 000 tonnes (81%) of inert construction waste on site and deliver 1 200 tonnes (14%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 400 tonnes (5%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$82,400 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne² at landfills).

HERITAGE IMPLICATIONS

20. The project 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.

LAND ACQUISITION

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

/BACKGROUND

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.

BACKGROUND INFORMATION

22. We upgraded **278CL** “Kau Hui development – engineering works in Area 16, Yuen Long”, the parent item of **721CL**, to Category B in February 1995. On 12 November 1999, the Finance Committee approved the part upgrading of **278CL** to Category A as **659CL** “Kau Hui development – engineering works in Area 16, Yuen Long, phase 1”. The works under **659CL** were completed in December 2004. In November 2005, we upgraded the part of **278CL** for the extension of Road L3 as a new item of **721CL** to Category B.

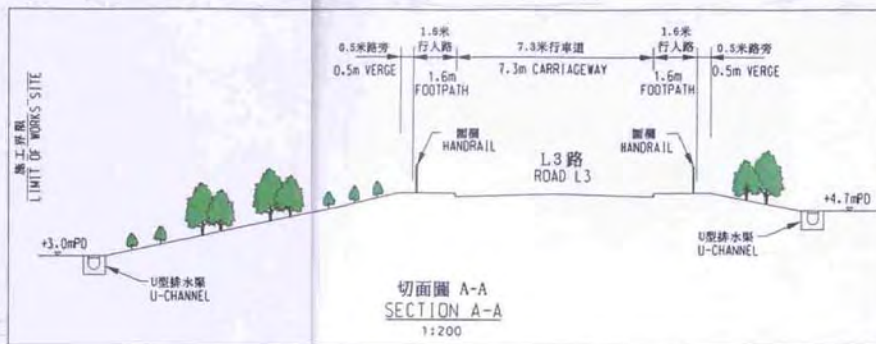
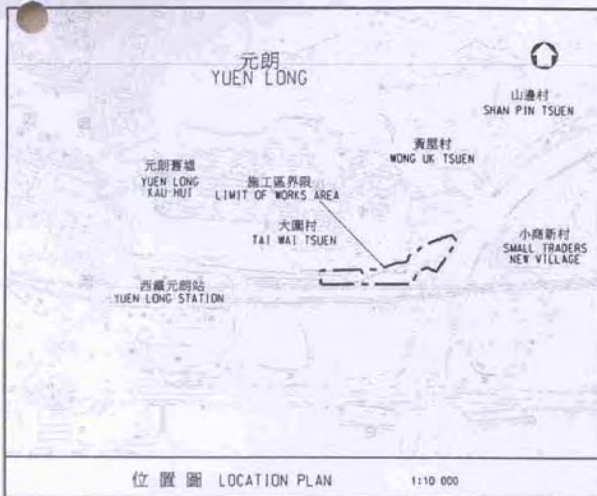
23. There are 66 trees within the project boundary. The proposed extension of Road L3 will involve the removal of 26 trees including 16 trees to be felled and 10 trees to be replanted within the project site. All trees to be removed are not important trees³. We will incorporate planting proposals as part of the project, including an estimate quantities of 36 trees, 8 000 shrubs and 1 000 m² of grassed area.

24. We estimate that the proposed works will create about 38 jobs (30 for labourers and another 8 for professional/technical staff) providing a total employment of 740 man-months.

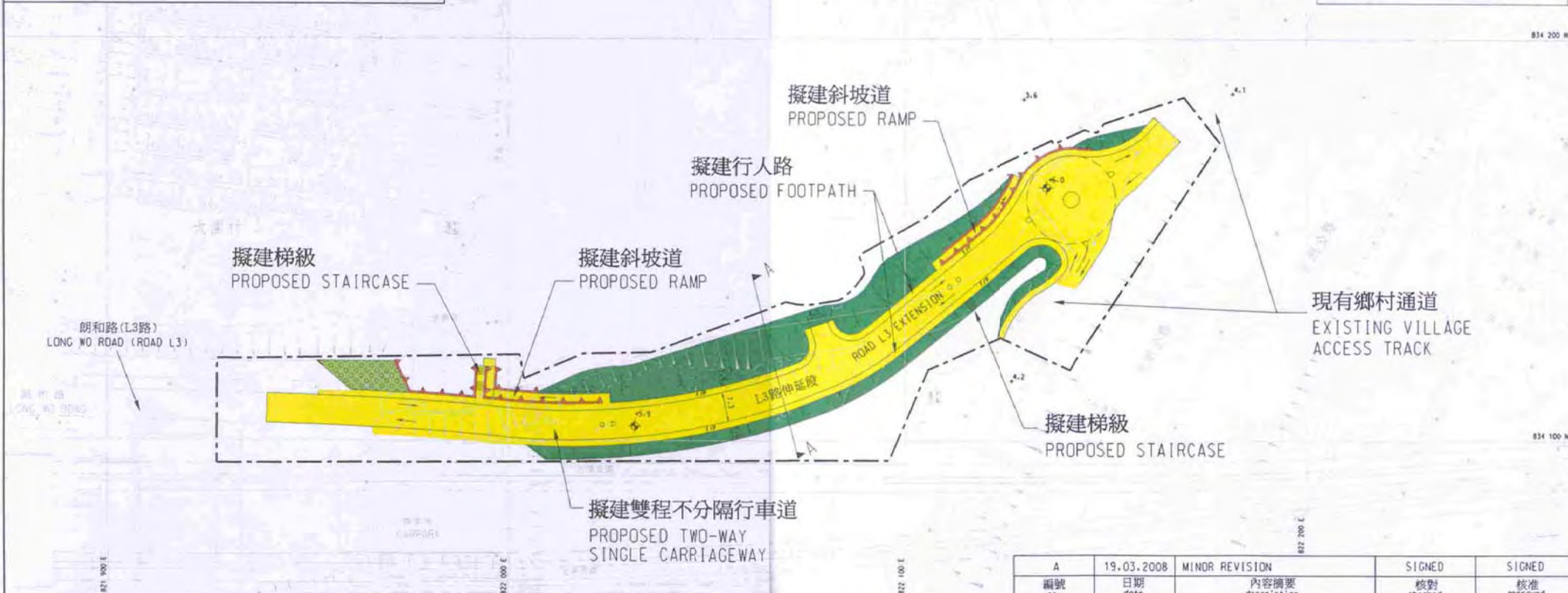
Development Bureau
June 2008

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 LEGENDS:
- 將提升為甲級的工程
WORKS TO BE UPGRADE TO CATEGORY A
- [- - -] 工程範圍 PROJECT LIMIT
 - [---] 擬建行車道 (每一箭咀代表一行車線)
PROPOSED CARRIAGEWAY (EACH ARROW REPRESENTS ONE LANE OF CARRIAGEWAY)
 - [---] 擬建行人路 PROPOSED FOOTPATH
 - [---] 擬建環境美化地帶 PROPOSED LANDSCAPED AREA
 - [---] 擬建綠化斜坡 PROPOSED LANDSCAPED SLOPE
 - [---] 擬建擋土牆 PROPOSED RETAINING WALL



A	19.03.2008	MINOR REVISION	SIGNED	SIGNED
編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved

修訂 REVISION

二〇〇八至二〇〇九年度工務小組委員會文件 P.W.S.C. SUBMISSION 2008/2009

圖則名稱 drawing title 舊墟發展計劃 - 元朗第16區工程第2期 - L3路伸延段 KAU HUI DEVELOPMENT - ENGINEERING WORKS IN AREA 16, YUEN LONG, PHASE 2 - EXTENSION OF ROAD L3	繪圖 drawn Y C LAM	簽署 initial SIGNED	日期 date 12.02.2008	項目編號 item no. 721CL	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 CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
	核對 checked C K CHOI	簽署 initial SIGNED	日期 date 12.02.2008	比例 scale 1:1000	
	核准 approved S K LAM	簽署 initial SIGNED	日期 date 17.03.2008	圖則編號 drawing no. NTN 2237A	

Enclosure 2 to PWSC(2008-09)29

721CL – Kau Hui development - engineering works in Area 16, Yuen Long, phase 2 – extension of Road L3

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	--	--	--	0.24
	Technical	--	--	--	0.06
(b) Resident site staff <small>(Note 3)</small>	Professional	14	38	1.6	1.28
	Technical	44	14	1.6	1.33
Total					2.91

* 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 April 2007, MPS pt. 38 = \$56,945 per month and MPS pt. 14 = \$18,840 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 **721CL** to Category A.
3. We will only know the actual man-months and actual costs after completion of the construction works.