

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

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

#### **Civil Engineering – Land Development**

#### **715CL – Tseung Kwan O further development – Infrastructure works at Town Centre South and Tiu Keng Leng, Tseung Kwan O**

Members are invited to recommend to Finance Committee the upgrading of **715CL** to Category A at an estimated cost of \$546.7 million in money-of-the-day prices to carry out site formation and infrastructure works for the planned development at Town Centre South and Tiu Keng Leng, Tseung Kwan O.

### **PROBLEM**

We need to carry out site formation and infrastructure works to serve the planned development at Town Centre South and Tiu Keng Leng, Tseung Kwan O.

### **PROPOSAL**

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade **715CL** to Category A at an estimated cost of \$546.7 million in money-of-the-day (MOD) prices to carry out site formation and infrastructure works for the planned development at Town Centre South and Tiu Keng Leng, Tseung Kwan O.

**/PROJECT .....**

## PROJECT SCOPE AND NATURE

3. The scope of works of **715CL** comprises –
- (a) site formation for about 23 hectares (ha) of land and the associated earthworks;
  - (b) construction of about 2 700 metres (m) of local roads with improvement to adjoining existing roads and the associated footpaths, cycle tracks, cycle parking areas and planting areas;
  - (c) construction of associated drains, sewers and water mains;
  - (d) landscaping works;
  - (e) construction of landing steps, modification of existing seawall and an existing box culvert outfall; and
  - (f) implementation of environmental mitigation measures and an environmental monitoring programme for the works mentioned in (a) to (e) above.

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

4. We plan to commence the construction works in September 2009 for completion in March 2012.

## JUSTIFICATION

5. The Town Centre South area is a new reclamation and currently largely undeveloped, except for a housing development and two schools in Tseung Kwan O (TKO) Area 65. Tiu Keng Leng is now partly developed for residential uses and schools. We completed the “Feasibility Study on Further Development of Tseung Kwan O” (TKO Study) in December 2005 which recommends high quality medium-density commercial/residential developments in the undeveloped areas in Town Centre South and Tiu Keng Leng to

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accommodate a population of about 25 000, with a Civic Node with Government, Institution or Community facilities and various open spaces, including a landscaped corridor and waterfront promenade. Our target is to complete the site formation and infrastructure works so as to make available Town Centre South and Tiu Keng Leng for the planned development at the earliest.

## FINANCIAL IMPLICATIONS

6. We estimate the cost of the project to be \$546.7 million in MOD prices (see paragraph 7 below), made up as follows -

	<b>\$ million</b>	
(a) Site formation and earthworks	91.3	
(b) Road works	101.5	
(c) Drainage, sewerage works and water mains	159.4	
(i) drainage works	124.4	
(ii) sewerage works	7.2	
(iii) water mains	27.8	
(d) Landscaping works	5.0	
(e) Construction of landing steps, modification of existing seawall, box culvert outfall and associated works	57.2	
(f) Environmental mitigation measures	6.0	
(i) general mitigation measures	4.8	
(ii) environmental monitoring programme	1.2	
(g) Consultants' fees	2.3	
(i) contract administration	1.8	
(ii) management of resident site staff	0.5	
(h) Remuneration of resident site staff	41.5	
(i) Contingencies	46.4	
Sub-total	510.6	(in September 2008 prices)
		/(j) .....

\$ million

(j) Provision for price adjustment		36.1	
	Total	<u>546.7</u>	(in MOD prices)

A detailed breakdown of the estimate for the consultants' fees and resident site staff costs by man-months is at Enclosure 2.

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

Year	\$ million (Sept 2008)	Price adjustment factor	\$ million (MOD)
2009 – 2010	57.8	1.03500	59.8
2010 – 2011	160.0	1.05570	168.9
2011 – 2012	196.1	1.07681	211.2
2012 – 2013	73.8	1.09835	81.1
2013 – 2014	22.9	1.12032	25.7
	<u>510.6</u>		<u>546.7</u>

8. 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 2009 to 2014. We will tender the works under a standard re-measurement contract because the quantities of the earth works may vary depending on actual ground conditions. The contract will provide for price adjustments.

9. We estimate the annual recurrent expenditure arising from the proposed works to be about \$3.6 million.

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## **PUBLIC CONSULTATION**

10. The Sai Kung District Council was consulted on the proposed works under **715CL** on 30 March 2007 and 22 January 2008. We obtained the Council's support of the project on 22 January 2008.

11. We gazetted the proposed road scheme of **715CL** under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 25 April 2008 and the associated proposed sewerage scheme under the Water Pollution Control (Sewerage) Regulation (Cap. 358) on 2 May 2008. No objection to the two schemes was received. The road scheme and the sewerage scheme were authorized on 10 October 2008 and 31 October 2008 respectively.

12. We gazetted the proposed seafront infrastructure works under the Foreshore and Sea-bed (Reclamations) Ordinance (Cap. 127) on 9 May 2008. Two objections were received, with one withdrawn subsequently upon clarification by the Administration of the project details. The other objector requested additional landing facilities for leisure vessels, and provision of two finger piers along the seafront of Town Centre South which was proposed in previous feasibility and planning studies. The Administration explained that the construction of the infrastructure works at the seafront under **715CL** would not constrain the provision of additional landing facilities or piers if so required in the future. The objector however maintained his objection. On 10 March 2009, the Chief Executive in Council overruled this objection and authorised the proposed seafront infrastructure works.

13. We consulted the Legislative Council Panel on Development on the proposed works by circulation of an information paper on 20 April 2009. Members raised no objection to the proposal.

## **ENVIRONMENTAL IMPLICATIONS**

14. The proposed works under **715CL** do not constitute a Designated Project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). We completed an EIA report under Schedule 3 of the EIA Ordinance on the planned developments under the TKO Study. The EIA Report

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concluded that the planned developments, including the works proposed under **715CL** would be environmentally acceptable with the implementation of the mitigation measures recommended under the TKO Study during construction and operation phases. The Director of Environmental Protection approved the EIA report on 8 December 2005.

15. In 2007, we conducted a Preliminary Environmental Review (PER) to ascertain the findings and recommendations in the approved Schedule 3 EIA report for the TKO Study in relation to the proposed works under **715CL**. The PER reconfirmed that, with the appropriate mitigation measures in place during the construction and operational stages as recommended in the EIA Report, there would not be any significant environmental impacts.

16. We will incorporate into the works contract mitigation measures recommended in the EIA report to control pollution arising from the 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, use of movable noise barrier at particular plant during construction, and other procedures as recommended by the Environmental Protection Department. Furthermore, we will implement an environmental monitoring programme recommended in the EIA and PER reports. We have included \$4.8 million (in September 2008 prices) in the project estimate for implementing the environmental mitigation measures.

17. We have considered the alignment and the design level of the proposed works 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 sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities<sup>1</sup>. 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.

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<sup>1</sup> 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 in public fill reception facilities and landfills respectively through a trip-ticket system.

19. We estimate that there will be a total of about 1 243 000 tonnes of construction waste. This includes 1 100 000 tonnes of general fill which have already been deposited in the Town Centre South area for surcharging the reclamation and now have to be removed following the completion of settlement, as well as the 143 000 tonnes of construction waste generated by the project itself. Of the total 1 243 000 tonnes of construction waste, we will reuse about 90 600 tonnes (7.3%) of inert construction waste on site and deliver 1 039 400 tonnes (83.6%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 113 000 tonnes (9.1 %) 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 \$42.2 million for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne<sup>2</sup> at landfills).

## **HERITAGE IMPLICATIONS**

20. The proposed 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.

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<sup>2</sup> 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/m<sup>3</sup>), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

## LAND ACQUISITION

21. No land resumption is required for the project. Clearance for the project affects some fishermen. The estimated cost of clearance in the form of ex-gratia allowance is about \$54,000. The cost of clearance will be charged to **Head 701 – Land Acquisition**. A breakdown of the clearance cost is at Enclosure 3.

## BACKGROUND INFORMATION

22. We upgraded **715CL** to Category B in September 2005.

23. We engaged consultants to carry out site investigation and detailed design for the proposed works in September 2006. We have charged the cost of about \$9.2 million to block allocation **Subhead 7100CX** “New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme” for the site investigation and detailed design. We have completed the site investigation, detailed design and preparation of tender documents for the proposed works.

24. Of the 406 trees within the project boundary, 113 are *Leucaena leucocephala* (銀合歡), which are self-seeded trees that would affect growth of indigenous species and have to be felled. Of the remaining 293 trees, 163 will be preserved, 122 will be transplanted and 8 will be removed. All trees to be removed or transplanted are not important trees<sup>3</sup>. We will incorporate planting proposals as part of the project, including 614 trees and 55 000 shrubs.

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<sup>3</sup> “Important trees” 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 trees, trees 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 the 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 a trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with a height/canopy spread equal to or exceeding 25 m.

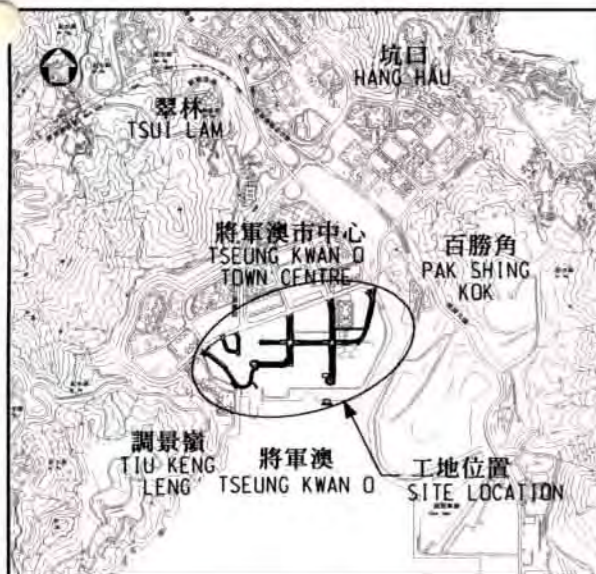


25. We estimate that the proposed works will create about 367 jobs (293 for labourers and another 74 for professional/technical staff), providing a total employment of 8 614 man-months.

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Development Bureau  
May 2009

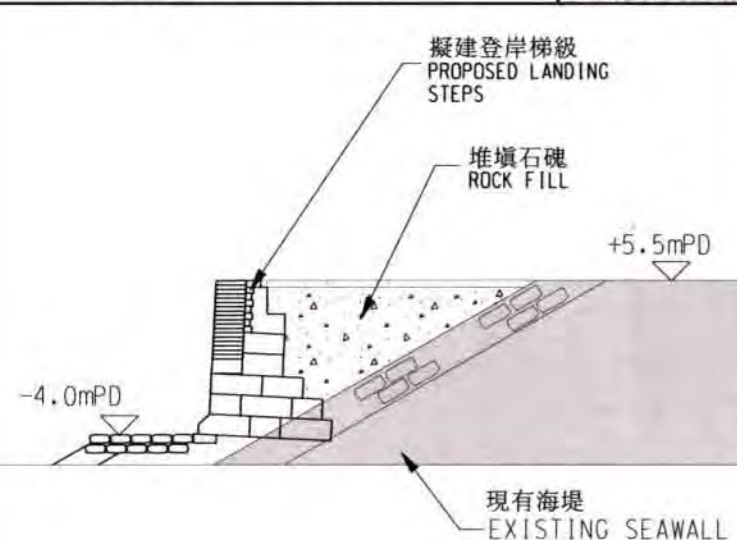
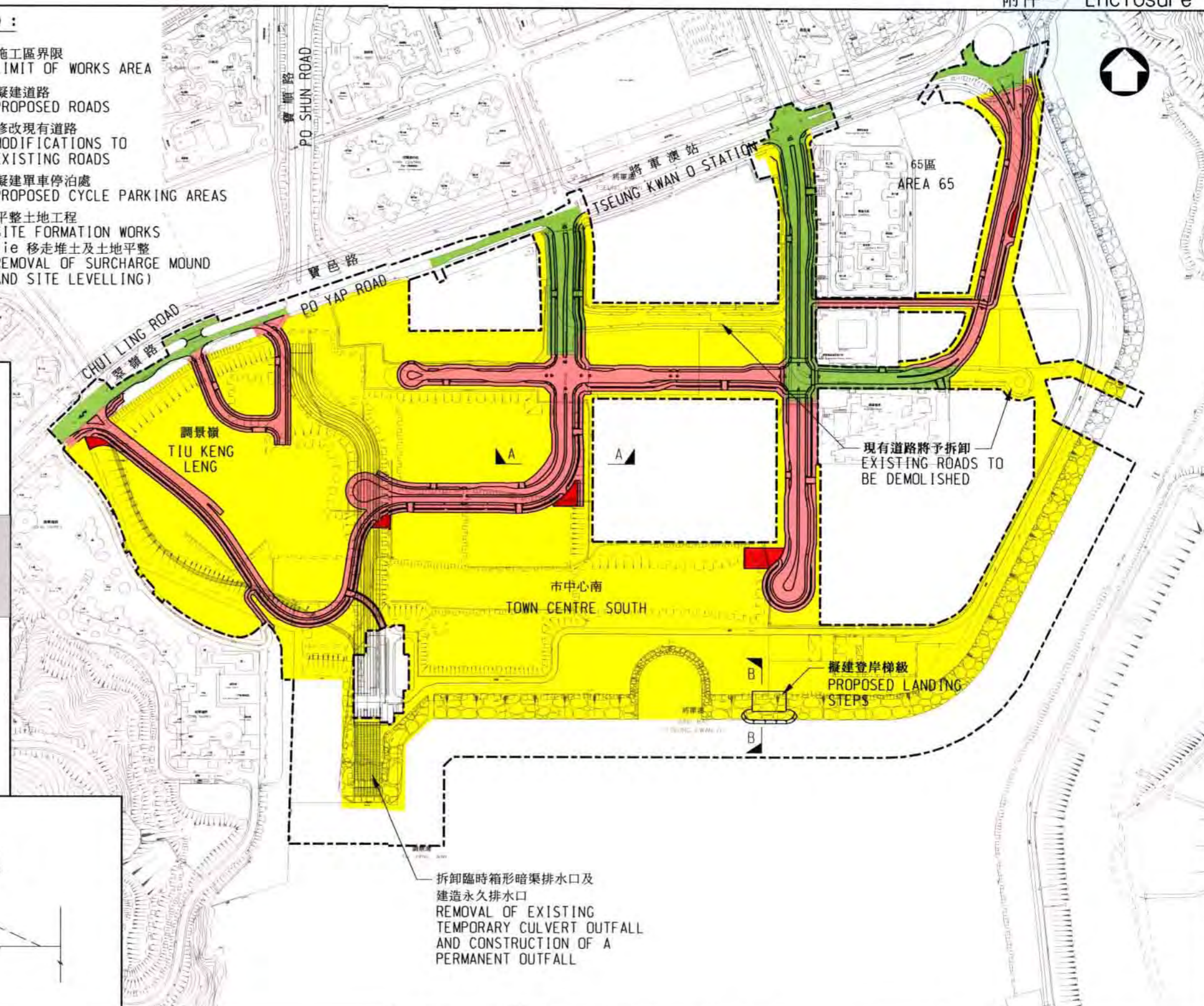




位置圖 LOCATION PLAN  
比例 SCALE 1 : 50 000

圖例 LEGEND :

- 施工區界限  
LIMIT OF WORKS AREA
- 擬建道路  
PROPOSED ROADS
- 修改現有道路  
MODIFICATIONS TO EXISTING ROADS
- 擬建單車停泊處  
PROPOSED CYCLE PARKING AREAS
- 平整土地工程  
SITE FORMATION WORKS  
(ie 移走堆土及土地平整  
REMOVAL OF SURCHARGE MOUND  
AND SITE LEVELLING)



SECTION B-B  
SCALE : 1:500



SECTION A-A  
SCALE : 1:500

拆卸臨時箱形暗渠排水口及  
建造永久排水口  
REMOVAL OF EXISTING  
TEMPORARY CULVERT OUTFALL  
AND CONSTRUCTION OF A  
PERMANENT OUTFALL

現有道路將予拆卸  
EXISTING ROADS TO  
BE DEMOLISHED

擬建登岸梯級  
PROPOSED LANDING  
STEPS

圖則名稱 drawing title

將軍澳未來發展 - 將軍澳市中心南及調景嶺的基礎設施工程 - 平面圖  
TSEUNG KWAN O FURTHER DEVELOPMENT - INFRASTRUCTURE WORKS AT TOWN  
CENTRE SOUTH AND TIU KENG LENG, TSEUNG KWAN O - LAYOUT PLAN

繪圖 drawn	簽署 initial	日期 date	項目編號 item no.
Y W LO	SIGNED	11.5.09	715CL
核對 checked	簽署 initial	日期 date	比例 scale
C F LO	SIGNED	11.5.09	1 : 5000 OR AS SHOWN
核准 approved	簽署 initial	日期 date	圖則編號 drawing no.
K C LEUNG	SIGNED	11.5.09	TK2364

辦事處 office  
新界東拓展處  
NEW TERRITORIES EAST  
DEVELOPMENT OFFICE

土木工程拓展署  
CIVIL ENGINEERING  
AND DEVELOPMENT  
DEPARTMENT



**Enclosure 2 to PWSC(2009-10)28**

**715CL – Tseung Kwan O further development – infrastructure works at  
Town Centre South and Tiu Keng Leng, Tseung Kwan O**

**Breakdown of the estimates for consultants' fees and resident site staff costs  
(in September 2008 prices)**

		<b>Estimated Man- months</b>	<b>Average MPS* salary point</b>	<b>Multiplier (Note 1)</b>	<b>Estimated fees (\$ million)</b>
(a) Consultants' fees for contract administration (Note 2)	Professional	--	--	--	1.1
	Technical	--	--	--	0.7
				Sub-total	1.8
(b) Resident site staff costs (Note 3)	Professional	207	38	1.6	20.0
	Technical	693	14	1.6	22.0
				Sub-total	42.0
Comprising:-					
(i) Consultants' fees for management of resident site staff					0.5
(ii) Remuneration of resident site staff					41.5
				<b>Total</b>	<b>43.8</b>

\* 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 cost supplied by the consultants. MPS points 38 and 14 are used as the average MPS salary points for professionals and technical staff respectively. (As at 1 April 2008, MPS pt. 38 = \$60,535 per month and MPS pt. 14 = \$19,835 per month.)

2. The consultants' staff cost for the contract administration and preparation of as-build drawings is calculated in accordance with the existing consultancy agreement. The construction phase of the assignment will only be executed upon Finance Committee's approval to upgrade the proposed works to Category A.
3. We will know the actual man-months and actual costs only after completion of the construction works.

**Enclosure 3 to PWSC(2009-10)28**

**715CL – Tseung Kwan O further development – infrastructure works at  
Town Centre South and Tiu Keng Leng, Tseung Kwan O**

**Breakdown of the estimated clearance cost**

	(\$)
<b>Clearance cost</b>	
- Ex-gratia allowance to fishermen	48,200.0
<b>Contingency (10% of clearance cost)</b>	4,820.0
<b>Total Clearance Cost:</b>	<hr/> 53,020.0 (Say \$54,000.0)