

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

### **HEAD 705 – CIVIL ENGINEERING**

#### **Support – Boundary facilities (other than road works)**

#### **13GB – Liantang/Heung Yuen Wai Boundary Control Point and associated works**

Members are invited to recommend to Finance Committee –

- (a) the upgrading of part of **13GB**, entitled “Liantang/Heung Yuen Wai Boundary Control Point and Associated Works – investigation and preliminary design”, to Category A at an estimated cost of \$89.0 million in money-of-the-day prices; and
- (b) the retention of the remainder of **13GB** in Category B.

### **PROBLEM**

We need to develop a new Boundary Control Point (BCP) at Liantang/Heung Yuen Wai in the boundary of North-eastern New Territories to meet the future cross-boundary transport demand.

**/PROPOSAL .....**

## PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade part of **13GB** to Category A at an estimated cost of \$89.0 million in money-of-the-day (MOD) prices to engage consultants to undertake an investigation and preliminary design (I&PD) for the development of the new BCP.

## PROJECT SCOPE AND NATURE

3. The scope of works under **13GB** (the Project) comprises –
- (a) site formation of about 18.3 hectares of land for the development of the BCP;
  - (b) provision of cargo processing facilities including kiosks for clearance of goods vehicles, customs inspection platforms, X-ray buildings, etc;
  - (c) provision of passenger related facilities including processing kiosks and examination facilities for private cars and coaches, passenger clearance building and halls, etc;
  - (d) provision of accommodation and facilities (including furniture and equipment) for the Government departments providing services in connection with the BCP;
  - (e) provision of transport and miscellaneous facilities inside the BCP including public transport interchange, transport drop-off and pick-up areas, vehicle holding areas, passenger queuing areas, internal road networks, fencing, sewage and drainage system, water supply system, utilities and electronic systems, etc;
  - (f) an approximately 10km long dual two-lane trunk road (with about 6.5km of viaduct and 3.5km of tunnels) connecting the BCP with Fanling Highway and the associated traffic control and surveillance system;
  - (g) associated diversion/modification works at Lin Ma Hang Road;

/(h) .....

- (h) site formation and civil engineering works for the resite of Chuk Yuen Village;
- (i) related improvement works for Shenzhen (SZ) River; and
- (j) associated environmental mitigation measures, landscaping works, drainage/sewerage, waterworks, utilities and traffic engineering works.

———— A plan showing the works under the Project is at Enclosure 1.

4. The part of the Project that we now propose to upgrade to Category A in connection with the proposed I&PD study comprises –

- (a) a review of the proposed BCP layout and alignment of the proposed connecting road developed under the previous planning studies;
- (b) impact assessments on environment, traffic, drainage, sewerage, geotechnical and other relevant aspects;
- (c) preliminary design of the works described in paragraph 3 above (except paragraph 3(i));
- (d) detailed design for the works described in paragraph 3(h) above; and
- (e) associated ground investigation and works supervision.

5. We plan to commence the proposed I&PD study in April 2009 for completion in December 2011.

## **JUSTIFICATION**

### ***Long-term Strategic and Economic Development***

6. Smooth and efficient people and cargo flows across the boundary are essential to support our sustained economic growth and promote further economic integration with the Mainland. The new BCP is of strategic importance to support our long-term economic growth. It is designed to enhance movements

/between .....

between Hong Kong (HK) and the eastern part of Guangdong (GD). Currently we need to rely on the two existing BCPs on the eastern side of the New Territories at Man Kam To and Sha Tau Kok, and all cross boundary traffic has to negotiate through congested local roads before joining the highway system in the Mainland. The new BCP will have direct linkage with the GD highway network via the Eastern Corridor in SZ. Traffic could reach GD East or adjacent provinces such as Jiangxi and Fujian using Shenzhen-Huizhou and Shenzhen-Shentou Expressways with a much shorter journey time. (A plan showing the linkage between the various BCP's with the GD highway network is at Enclosure 2.) At present, the journey to Longgang district in the eastern part of SZ after crossing into SZ takes more than 50 minutes. With the new BCP, we will reach there within half an hour.

### *Meeting Future Cross-boundary Transport Service Demand*

7. According to our forecast, there will be continuous growth in cross-boundary traffic in the long term. The results of the Cross-boundary Travel Survey 2007 released in September 2008 revealed that the average daily cross-boundary passenger trips have increased from about 383 000 in 2003 to 491 000 in 2007 (annual growth rate of about 6.4%) and the daily vehicle trips from 39 000 in 2003 to 44 700 in 2007 (annual growth rate of 3.5%). The share of passenger trips made by Mainland visitors increased quite significantly from 10.2% in 2003 to 15.6% in 2007. We also see a surge of cross-boundary students in recent years. There were 6 300 students crossing the boundary via various BCPs and Chung Ying Street in 2007, representing an increase of 28% when compared with 4 900 in 2006 survey. If these trends continue, over one million cross-boundary passenger trips and around 70 000 vehicle trips will take place in 2020. Details of the 2007 survey are at [http://www.pland.gov.hk/p\\_study/comp\\_s/index\\_e.html](http://www.pland.gov.hk/p_study/comp_s/index_e.html).

8. Besides, the Hong Kong Special Administrative Region (HKSAR) Government and the Central People's Government signed Supplement V to the Closer Economic Partnership Arrangement on 29 July 2008. As a further step to enhance HK-GD economic and trade co-operation, the Governments of GD and HKSAR will implement a total of 25 liberalisation and facilitation measures for early and pilot implementation in GD. On tourism, the coverage of "simplified entry arrangement for a period of 144 hours" will be extended to the whole of GD. Mainland-authorized HK travel enterprises will be allowed to organise group tours to HK for non-GD residents who have resided and worked in SZ for more than one year. There will also be closer tourism co-operation between HK and GD. These measures will enhance mobility of people between HK and GD and hence adding pressure on the demand for cross-boundary facilities.

9. The GD Provincial Government has been facilitating the relocation of traditional manufacturing enterprises in the Pearl River Delta Region to the western, northern and eastern parts of GD within the next five years. Shantou, Shanwei, Chaozhou and Jieyang are receiving areas and industrial parks are under construction to absorb the affected enterprises. There are also major developments on the eastern part of SZ to greet the 26<sup>th</sup> Summer Universiade in 2011, which include Dayun New Town and Pingshan New Town. All in all, we anticipate growing cross-boundary travel demand between GD East and HK.

10. Due to physical constraints, improvements to the existing Man Kam To and Sha Tau Kok BCPs could hardly meet the anticipated future demand in terms of capacity, convenience and level of comfort.

### *Optimizing Cross-boundary Traffic Distribution*

11. The new BCP will improve the total handling capacity of the BCPs in the east and hence achieving the provision of more balanced cross-boundary services along the boundary. The two existing BCPs at Man Kam To and Sha Tau Kok could only handle about 1% of the total cross-boundary passenger trips and 10% vehicle trips daily by 2030. With the addition of the proposed BCP, the shares of the three BCPs in the eastern side of New Territories on total cross-boundary passenger and vehicle trips could go up to 5% and 21% respectively. A more balanced distribution of cross-boundary traffic can thus be achieved.

### *Facilitating Future Development in New Territories East (NTE)*

12. The proposed connecting road will link up the BCP with Fanling Highway. It will also provide convenient access to the proposed Ping Che/Ta Kwu Ling New Development Area and thus enhance future development and improve the overall transport network in NTE. With the completion of the widening of Tolo Highway/Fanling Highway between Island House Interchange and Fanling in 2013, the capacity of Tolo Highway/Fanling Highway will be considerably increased.

*/I&PD .....*

*I&PD Study*

13. In order to take forward the development of the new BCP, we need to commission the proposed I&PD study to review the proposed BCP layout and alignment of the connecting road, develop the preliminary design for these works and conduct the relevant impact assessments. We will also conduct ground investigation works to provide geotechnical and geological information for the preliminary and subsequent detailed design work. In view of the multi-disciplinary nature of the Project and lack of in-house resources, we propose to employ consultants to undertake the proposed I&PD study including supervision of the ground investigation works.

**FINANCIAL IMPLICATIONS**

14. We estimate the cost for the proposed I&PD study (including the ground investigation works) to be \$89.0 million in MOD prices (see paragraph 15 below), made up as follows –

		<b>\$ million</b>	
(a)	Consultants' fees	48.5	
	(i) Engineering study including preliminary design	13.3	
	(ii) Impact assessments (environmental, traffic, drainage and sewerage, etc.)	32.5	
	(iii) Supervision of ground investigation	2.7	
(b)	Ground investigation	26.6	
(c)	Contingencies	7.5	
	Sub-total	82.6	(in September 2008 prices)
(d)	Provision for price adjustment	6.4	
	Total	89.0	(in MOD prices)

/A ....

A breakdown of the estimates for consultants' fees by man-months is at Enclosure 3.

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

Year	\$ million (Sep 2008)	Price Adjustment Factor	\$ million (MOD)
2009 – 2010	14.9	1.04000	15.5
2010 – 2011	59.4	1.08160	64.2
2011 – 2012	8.3	1.12486	9.3
	82.6		89.0

16. We have derived the MOD estimate on the basis of the Government's latest forecast of the trend rate of change in the prices of public sector building and construction output for the period from 2009 to 2012. We will engage consultants to undertake the proposed I&PD study on a lump-sum basis with provision for price adjustment as the duration of the consultancy will exceed 12 months. The consultants will supervise the ground investigation works under a contract to be awarded through competitive tendering.

17. The proposed I&PD study including ground investigation works will not give rise to any recurrent expenditure.

## **PUBLIC CONSULTATION**

18. The BCP development will affect private land and require resumption and resite of Chuk Yuen Village, an indigenous village in Ta Kwu Ling. To avoid land speculation, we could only launch the public consultation activities after the announcement of the BCP and completion of the pre-clearance survey at Chuk Yuen Village on 18 September 2008. Immediately after the announcement, we held a briefing to the affected villagers and concerned members of the North District Council (DC) and Rural Committees (RC) to explain the details of the proposed development and Government policies and

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procedures for village removal resumption and clearance. We also separately consulted Heung Yee Kuk on 6 October 2008, Ta Kwu Ling RC on 8 October 2008, North DC on 9 October 2008, Fanling RC on 10 October 2008, Tai Po RC on 11 October 2008, Sha Tau Kok RC on 17 October 2008, Sheung Shui RC on 22 October 2008 and Tai Po DC on 4 November 2008. Members raised no objection to the proposal, but they nonetheless reiterated the importance of balancing the need for such infrastructural developments and the legitimate requests of affected residents. They urged the Administration to address the concerns of the rural community, particularly those residing at Chuk Yuen Village and along the alignment of the connecting road. In addition, Tai Po DC members are particularly concerned about the traffic impact of the new connecting road to Tai Po at Fanling Highway.

19. Public views received generally indicated support to the BCP development and recognition of its strategic importance to the development of HK. Some local villagers are more concerned about the alignment of the connecting road and its impact on the adjacent area. The villagers affected by the proposed BCP and connecting road have expressed concern about land resumption, clearance, village removal and compensation arrangements.

20. We submitted a paper regarding the Project and the proposed I&PD study to the meeting of the Legislative Council Panel on Development (Development Panel) held on 28 October 2008. We also briefed members of the Development Panel on the Project through a site visit on 15 November 2008. Members raised no objection to the Project and the proposed I&PD study.

21. We will address the planning and environmental issues raised by the public in the proposed I&PD study and will further consult villagers in various stages of the study. On land issues, the Lands Department is responsible for handling village removal, land resumption and clearance matters arising from implementation of the BCP development and has set up a dedicated team on village removal to liaise closely with the affected villagers of Chuk Yuen Village.

## **ENVIRONMENTAL IMPLICATIONS**

22. Key components of the Project including realignment of Kong Yiu Channel and drainage discharging into the SZ River associated with the BCP, the dual two-lane trunk road connecting the BCP with Fanling Highway and the

/related .....



related SZ River improvement works are designated projects under Schedule 2 of Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and environmental permits are required for the construction and operation of these works. We will conduct Environmental Impact Assessment (EIA) studies to address the environmental impacts and prepare EIA reports to meet the requirements under the EIAO and propose mitigation measures if necessary. We will submit the EIA reports to the Director of Environmental Protection under the EIAO for approval and will follow the statutory procedures of making the EIA reports available for comment by the public and the Advisory Council on the Environment. The proposed I&PD study itself will have limited potential for environmental impacts.

23. The proposed I&PD study including ground investigation works will only generate very little construction waste. We will require the consultants to fully consider measures to minimize the generation of construction waste and to reuse/recycle construction waste as much as possible in the future implementation of the construction project.

#### **HERITAGE IMPLICATIONS**

24. The proposed I&PD study including ground investigation works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interests and Government historic sites identified by the Antiquities and Monuments Office. We will investigate in the proposed I&PD study whether the Project will affect any heritage site.

#### **LAND ACQUISITION**

25. The proposed I&PD study including ground investigation works do not require any land acquisition.

#### **BACKGROUND INFORMATION**

26. We upgraded **13GB** to Category B in July 2008.

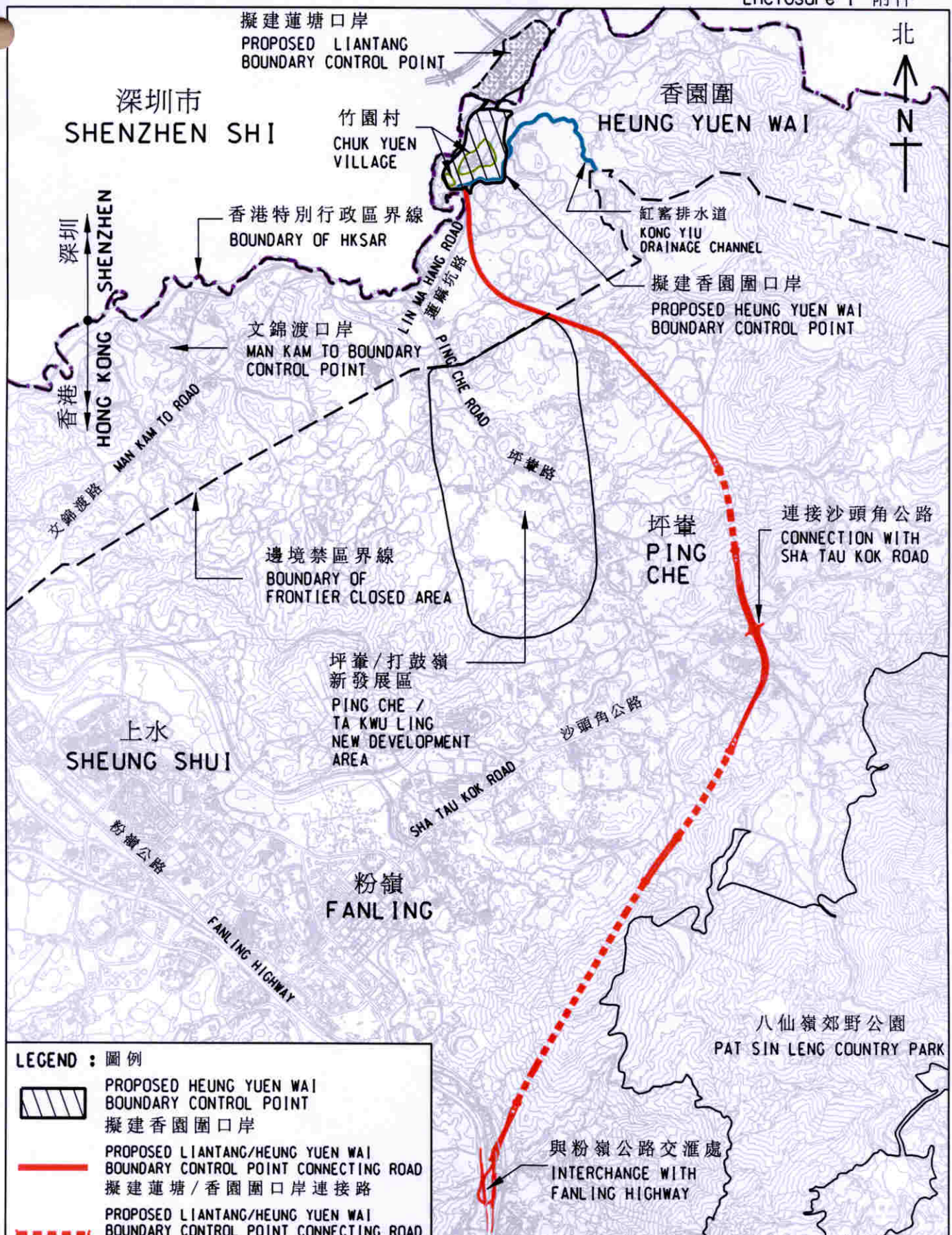
27. The proposed I&PD study including ground investigation works will not involve any tree removal or planting proposals. We will require the consultants to take into consideration the need for the tree preservation during the planning and design stages of the Project. We will also incorporate tree-planting proposals, where possible, in the construction phase.

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28. We estimate that the proposed I&PD study including ground investigation works will create about 80 jobs (22 for labourers and 58 for professional/technical staff) providing a total employment of about 1 340 man-months.

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Development Bureau  
November 2008



**LEGEND : 圖例**

-  PROPOSED HEUNG YUEN WAI BOUNDARY CONTROL POINT  
擬建香園圍口岸
-  PROPOSED LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT CONNECTING ROAD  
擬建蓮塘/香園圍口岸連接路
-  PROPOSED LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT CONNECTING ROAD (TUNNEL SECTION)  
擬建蓮塘/香園圍口岸連接路 (隧道部份)

A	19/11/08	GENERAL REVISION	SIGNED S.M. LI	SIGNED C.M. CHAN
編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved

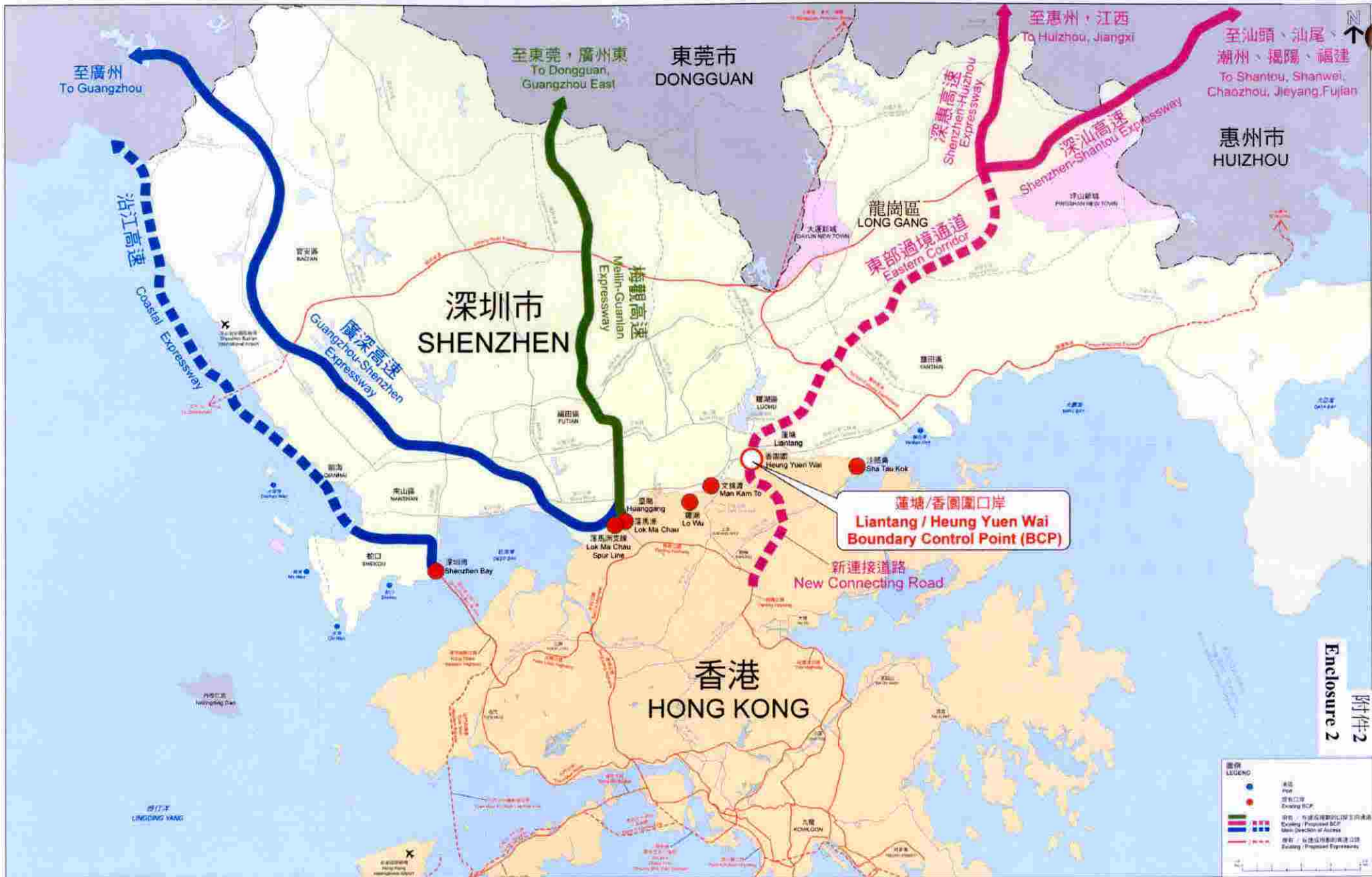
drawing title 圖則名稱  
**LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS**  
 蓮塘/香園圍口岸  
 與相關工程

	name 姓名	initial 簽署	date 日期
designed 設計	B.K. CHOW	SIGNED	13.11.08
drawn 繪圖	Y.M. CHEUNG	SIGNED	13.11.08
checked 核對	S.M. LI	SIGNED	13.11.08
approved 核准	C.M. CHAN	SIGNED	13.11.08
office 辦事處	土木工程處 CIVIL ENGINEERING OFFICE		

drawing no. 圖則編號  
**SD 2008-005A**

scale 比例  
 1:40 000

 土木工程拓展署  
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT



附件 2  
Enclosure 2

深圳連接口岸的主要道路

MAJOR BOUNDARY CONTROL POINT CONNECTING ROADS IN SHENZHEN

圖例 LEGEND

	港口
	邊境口岸
	現有/預期的邊境口岸連接道路
	現有/預期的口岸
	現有/預期的邊境口岸連接道路

規劃署  
PLANNING DEPARTMENT

圖則編號  
Plan No. M/CID/08/049

日期  
Date: 20/10/2008

此圖則係根據《香港測量師條例》及《測量師條例》而編製。圖則中所有資料均屬初步性質，且未經核實。圖則中所有資料均屬初步性質，且未經核實。圖則中所有資料均屬初步性質，且未經核實。

**Enclosure 3 to PWSC(2008-09)45**

**13GB–Liantang/Heung Yuen Wai Boundary Control Point and Associated Works**

**Breakdown of estimates for consultants' fees (in September 2008 prices)**

<b>Consultants' staff costs</b>		<b>Estimated man-months</b>	<b>Average MPS* salary point</b>	<b>Multiplier (Note 1)</b>	<b>Estimated fee (\$ million)</b>	
(a)	Engineering study	Professional	85	38	2.0	10.3
	including preliminary design	Technical	76	14	2.0	3.0
(b)	Impact assessments (environmental, traffic, drainage and sewerage, etc.)	Professional	193	38	2.0	23.4
		Technical	230	14	2.0	9.1
(c)	Supervision of ground investigation	Professional	12	38	1.6	1.2
		Technical	48	14	1.6	1.5
<b>Total consultants' staff costs</b>						<b>48.5</b>

\* MPS = Master Pay Scale

**Notes**

1. Multiplying factors of 2.0 and 1.6 are applied to the average MPS point for the staff employed in the consultants' office and the resident site staff supplied by the consultants respectively. (As at 1 November 2008, MPS pt. 38 = \$60,535 per month and MPS pt. 14 = \$19,835 per month).
2. The figures given above are based on estimates prepared by the Director of Civil Engineering and Development. We will know the actual man-months and fees only after we have selected the consultants through the usual competitive lump-sum fee bid system.