Legislative Council Panel on Development Liantang/Heung Yuen Wai Boundary Control Point and associated works

PURPOSE

This paper seeks Members' support for upgrading two parts of **13GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works" to Category A separately-

- a) at an estimated cost of \$180 million in money-of-the-day (MOD) prices for carrying out the design and site investigations of the buildings works and the associated facilities of the Liantang/Heung Yuen Wai (LT/HYW) Boundary Control Point (BCP); and
- b) at an estimated cost of \$595.1 million in MOD prices for carrying out river regulation works to upgrade the flood protection standard of a section of Shenzhen River between Ping Yuen River and Pak Fu Shan.

JUSTIFICATIONS

- 2. The Hong Kong Special Administrative Region (HKSAR) Government and the Shenzhen Municipal Government (SZMG) jointly announced at the second meeting of the Hong Kong-Shenzhen Joint Task Force on Boundary District Development in September 2008 the implementation of the LT/HYW BCP¹ for operation in 2018. The LT/HYW BCP is designed to handle 30,000 passengers and 17,850 vehicles trips daily.
- 3. Currently, to access the eastern Shenzhen and Guangdong, we need to rely on the two existing BCPs on the eastern side of the New Territories at Man Kam To (MKT) and Sha Tau Kok (STK), and all cross-boundary traffic have to travel through congested local roads in Hong Kong (HK) and Shenzhen (SZ) before joining the respective highway systems. Due to physical constraints, the existing MKT and STK BCPs could hardly meet the anticipated

The project is featured in the Framework Agreement of Hong Kong/Guangdong Cooperation signed in April 2010 and included as one of the seven major cooperation projects in the National 12th Five-Year Plan.

future demand in terms of capacity, convenience and level of comfort even with improvements. The proposed BCP will connect with the Shenzhen Eastern Corridor in SZ and will provide an access to eastern Guangdong via the Shenzhen-Huizhou and Shenzhen-Shantou Expressways (Annex 1). This will significantly shorten the travelling time between HK/SZ and eastern Guangdong, and southern Fujian and Jiangxi, and greatly facilitate future regional cooperation and development. The proposed BCP will facilitate smooth and efficient people and cargo flows across the boundary and is of strategic importance to support our long-term economic growth.

- 4. The proposed BCP will also help re-distribute the cross-boundary traffic amongst the crossings in the east. The overall handling capacity of the BCPs at the eastern side of HK and Guangdong will be greatly enhanced. With the new connecting road to be constructed linking Fanling Highway and the proposed BCP, the existing road network in the North East New Territories as a whole will be improved.
- 5. The main infrastructure work packages for the development of the BCP comprise
 - (a) site formation for the BCP and construction of connecting road;
 - (b) BCP buildings and the associated facilities; and
 - (c) improvement of SZ River and reprovisioning of boundary patrol road.

A plan showing the location of the proposed BCP and the main infrastructure work packages is at **Annex 2**.

Site formation for the BCP and construction of connecting road

6. The detailed design of the BCP site formation and infrastructure works including the connecting road was completed in April 2012. The funding for construction at an estimated cost of \$16,253.2 million in MOD prices was approved by the Finance Committee (FC) on 13 July 2012. The tender exercise is in progress. Construction work is scheduled to commence in January 2013 for completion by June 2018.

BCP buildings and the associated facilities

7. We have to provide the necessary operational and supporting facilities for use by Government departments and travellers at the BCP. They include provision of passenger clearance and cargo processing facilities,

accommodation and facilities for Government departments providing services at the BCP, a public carpark and a public transport interchange and miscellaneous facilities. To tie in with the scheduled commissioning of the BCP in 2018, we propose to seek the Public Works Subcommittee (PWSC)/FC's approval for upgrading another part of 13GB, entitled "Liantang/Heung Yuen Wai Boundary Control Point and associated works - BCP buildings and the associated facilities – pre-construction consultancy services" to Category A in January 2013 to engage consultants for carrying out the design and site investigations of the buildings works and the associated facilities of the LT/HYW BCP. to approval of the FC, we plan to commence the design and site investigations in February 2013 for completion in early 2015, so that construction of the BCP buildings and the associated facilities could commence in early 2015 for commissioning the BCP in 2018. Details of the proposed design and site investigations are set out at **Annex 3**. A location plan and a conceptual master layout plan of the proposed BCP are attached at Annex 4 and Annex 5 respectively.

Improvement of SZ River and reprovisioning of boundary patrol road

- 8. The SZ River is the boundary river between HK and SZ. An existing section of SZ River between Ping Yuen River and Pak Fu Shan can only withstand a rainstorm with a return period² of one in two to five years which only meets the flood protection standard for agricultural land uses. To cater for the development of the BCP, the above section of SZ River has to be upgraded to withstand a rainstorm with a return period of one in 50 years.
- 9. As the river improvement works will encroach upon the land occupied by the existing boundary patrol road alongside the SZ River, it is necessary to reprovision the boundary patrol road and the associated security facilities on a shifted alignment to make way for the river improvement works and the BCP development. The reprovisioning works at an estimated cost of \$393.5 million in MOD prices commenced in March 2012 for completion in early 2015 so that adequate works space will be made available timely to suit the construction programme of the river improvement works and the site formation works for the BCP.
- 10. The detailed design of the SZ River improvement works will be substantially completed in early 2013. We propose to seek PWSC/FC's approval for upgrading another part of **13GB**, entitled "Liantang/Heung Yuen

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[&]quot;Return period" is the average number of years during which a certain severity of flooding will occur once statistically. A longer return period means a rarer chance of occurrence of a more severe flooding.

Wai Boundary Control Point and associated works – regulation of SZ River stage IV" to Category A in March 2013 for carrying out river regulation works at a section of SZ River between Ping Yuen River and Pak Fu Shan and provision of a water storage basin to attenuate the peak flow. Subject to approval of the FC, we plan to commence the proposed works in August 2013 for completion in September 2017. Details of the proposed works are set out at **Annex 6**. A site layout plan is at **Annex 7**.

BACKGROUND INFORMATION

- Since the announcement of the LT/HYW BCP project in 11. September 2008, we submitted information/discussion papers to the Panel on Development on 28 October 2008, 16 December 2010, 22 November 2011 and 24 April 2012 to collect views from Members on the implementation of the proposed BCP project. A list of information/discussion papers is shown at To date, Members supported the funding applications for Annex 8. implementation of the LT/HYW BCP project with a total sum of \$17,052.8 million in MOD prices. Members welcomed the Administration's decision to design the proposed BCP with direct access facilities for pedestrian and private Members noted that the proposed BCP would be close to one of the North East New Territories New Development Areas under planning and expressed concerns if the planned capacity of the road network could cater for the increased population in these areas as well as the operation of the proposed The Administration provided supplementary information about the traffic arrangement and the traffic impact assessment in the north New Territories for Members' reference.
- 12. On 9 January 2009, the FC approved the upgrading of part of **13GB** to Category A as **14GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works investigation and preliminary design" at an estimated cost of \$89.0 million in MOD prices for carrying out the investigation and preliminary design for the development of the BCP. The preliminary design was completed in December 2010.
- 13. On 30 April 2010, the FC approved the upgrading of another part of **13GB** to Category A as **16GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works village reprovisioning works" at an estimated cost of \$51.3 million in MOD prices to provide a village resite area with supporting infrastructure for reprovisioning of the existing Chuk Yuen Village to make way for the construction of the BCP. Construction was substantially completed in March 2012.

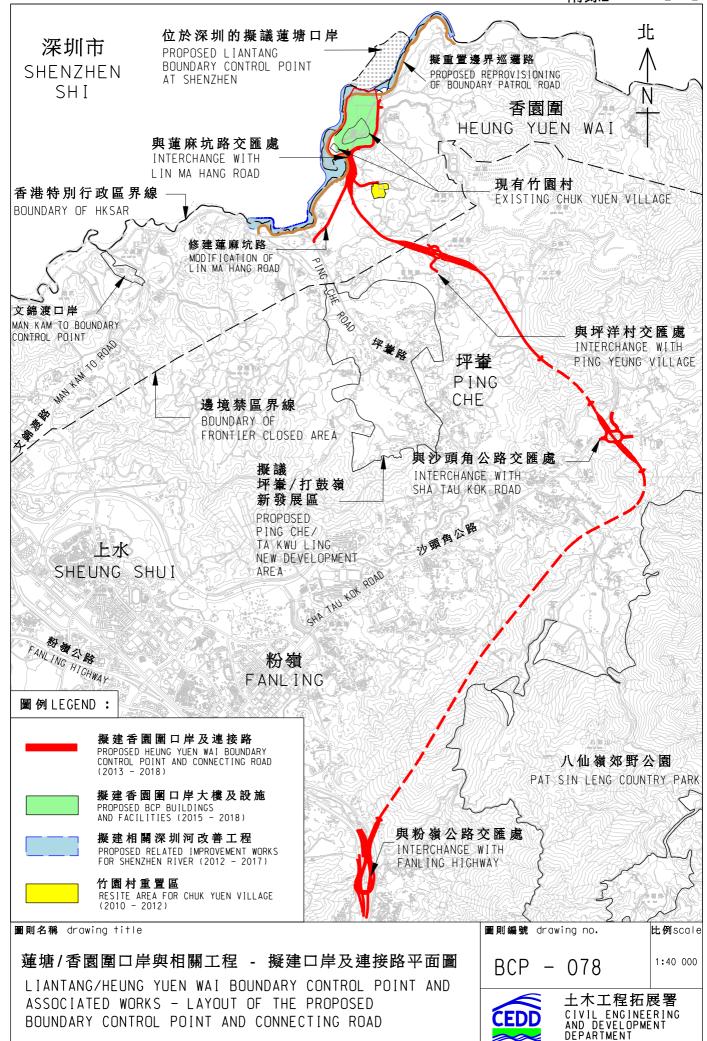
- 14. On 18 February 2011, the FC approved the upgrading of another part of **13GB** to Category A as **17GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works detailed design and ground investigation" at an estimated cost of \$265.8 million in MOD prices for carrying out the detailed design and ground investigation for the development of the BCP and the associated SZ River improvement works. The detailed design of the BCP site formation and the connecting road was completed in April 2012, and the detailed design of the SZ River improvement works will be substantially completed in early 2013.
- On 6 January 2012, the FC approved the upgrading of another part of **13GB** to Category A as **18GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works reprovisioning of boundary patrol road and associated security facilities" at an estimated cost of \$393.5 million in MOD prices for the reprovisioning of a section of boundary patrol road and the associated security facilities for the development of the new BCP. Construction commenced in March 2012 for completion in early 2015.
- 16. On 13 July 2012, the FC approved the upgrading of another part of **13GB** to Category A as **19GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works site formation and infrastructure works" at an estimated cost of \$16,253.2 million in MOD prices for carrying out site formation and infrastructure works for the development of the new BCP. Construction will commence in January 2013 for completion by June 2018.

ADVICE SOUGHT

17. Members are invited to support our funding proposals mentioned in paragraphs 7 and 10 above. We plan to submit the funding applications to the PWSC and FC in November 2012/January 2013 (for BCP buildings and the associated facilities – pre-construction consultancy services) and February 2013/March 2013 (for regulation of SZ River stage IV) respectively.

Development Bureau October 2012





13GB – Liantang /Heung Yuen Wai Boundary Control Point (BCP) and associated works

BCP Buildings and the Associated Facilities

SCOPE OF WORKS

The scope of works for BCP buildings and the associated facilities (part of 13GB) includes-

- (a) passenger-related facilities including processing kiosks and examination facilities for private cars and coaches, passenger clearance building and halls, the interior fitting works for the pedestrian bridge crossing Shenzhen River, etc;
- (b) cargo processing facilities including kiosks for clearance of goods vehicles, customs inspection platforms, X-ray buildings, etc;
- (c) accommodation for and facilities of the Government departments providing services in connection with the BCP;
- (d) transport-related facilities inside the BCP including road networks, public transport interchange, transport drop-off and pick-up areas, vehicle holding areas and associated road furniture etc;
- (e) a public carpark; and
- (f) other ancillary facilities such as sewerage and drainage, building services provisions and electronic systems, associated environmental mitigation measures and landscape works.

A location plan and a conceptual master layout plan of the proposed BCP are attached at **Annex 4** and **Annex 5** respectively.

- 2. The part of **13GB** that we propose to upgrade to Category A comprises
 - (a) design of the works described in paragraph 1 above;
 - (b) site investigations; and
 - (c) preparation of tender documents (including detailed tender drawings) and assessment of tenders.

3. Subject to approval of the Finance Committee, we plan to commence the design and site investigations in February 2013 for completion in early 2015 so that construction of the BCP buildings and the associated facilities could commence in early 2015 for commissioning the BCP in 2018.

FINANCIAL IMPLICATIONS

4. We estimate the cost of the proposed consultancy and site investigations to be \$180 million in money-of-the-day (MOD) prices, broken down as follows –

		\$ million		
(a)	Consultants' fees for	138.2		
	(i) design	65.7		
	(ii) preparation of tender documentation (including detailed tender drawings) and assessment of tenders	72.5		
(b)	Site investigations	8.0		
(c)	Contingencies	14.6		
	Sub-total	160.8	(in September 2012 prices)	
(d)	Provision for price adjustment	19.2	2012 prices)	
	Total	180.0	(in MOD prices)	

PUBLIC CONSULTATION

5. We consulted the Rural Committees of Ta Kwu Ling, Sha Tau Kok, Sheung Shui, Tai Po and Fanling on 5 January, 16 January, 8 February, 14 February and 7 March 2012 respectively. All the relevant Rural Committees raised no objection to the proposed works of the BCP buildings and the associated facilities.

6. We consulted the North District Council (NDC) on 9 February 2012 and the Concern Group on the Construction of Liantang Boundary Control Point of the NDC on 12 October 2012. While Members of NDC and the Concern Group raised no objection to the proposed works of the BCP buildings and the associated facilities, they expressed concerns if there would be adequate pick-up and drop-off areas for school buses of the cross-boundary students at the public transport interchange. We will liaise with the relevant authorities and review the associated facilities to address the concerns at the design stage.

ENVIRONMENTAL IMPLICATIONS

- 7. The Liantang/Heung Yuen Wai BCP and associated works is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and an Environmental Permit (EP) is required for the construction and operation of the project. On 24 March 2011, the EIA report for the project was approved with conditions under EIA Ordinance and an EP was issued on the same day. The EIA report concluded that the environmental impact of the project can be controlled to within the criteria under EIA Ordinance and the Technical Memorandum on EIA Process.
- 8. The proposed consultancy and site investigations is not a designated project under the EIA Ordinance and will not cause any adverse environmental impacts.
- 9. The site investigations will only generate an insignificant quantity of construction waste. We will require the consultants to fully consider measures to be implemented in future construction stage to minimise the generation of construction waste and to reuse/recycle construction waste as much as possible.

HERITAGE IMPLICATIONS

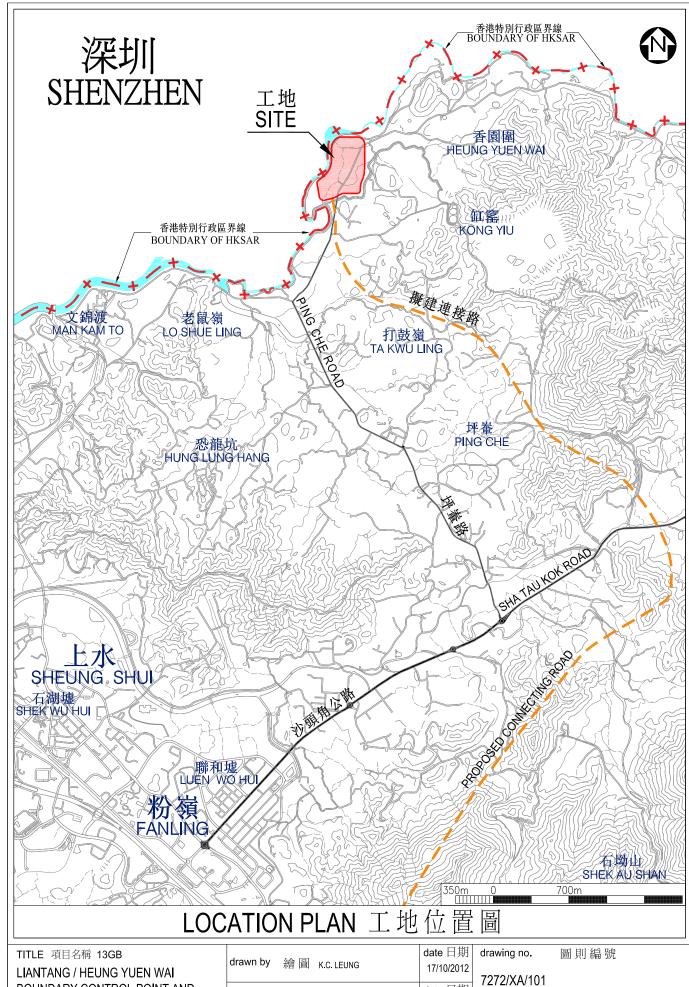
10. The proposed consultancy and site investigations will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

11. The proposed consultancy and site investigations do not require any land acquisition.

BACKGROUND INFORMATION

- 12. The proposed consultancy and site investigations will not involve any tree removal or planting proposals. We will require the consultants to take into consideration the need for tree preservation and formulate tree removal proposals during the design stage of the project. We will also include tree planting proposals, where possible, in the construction phase.
- 13. We estimate that the proposed consultancy and site investigations will create about 57 jobs (5 for labourers and another 52 for professional/technical staff) providing a total employment of 1 160 man-months.



BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

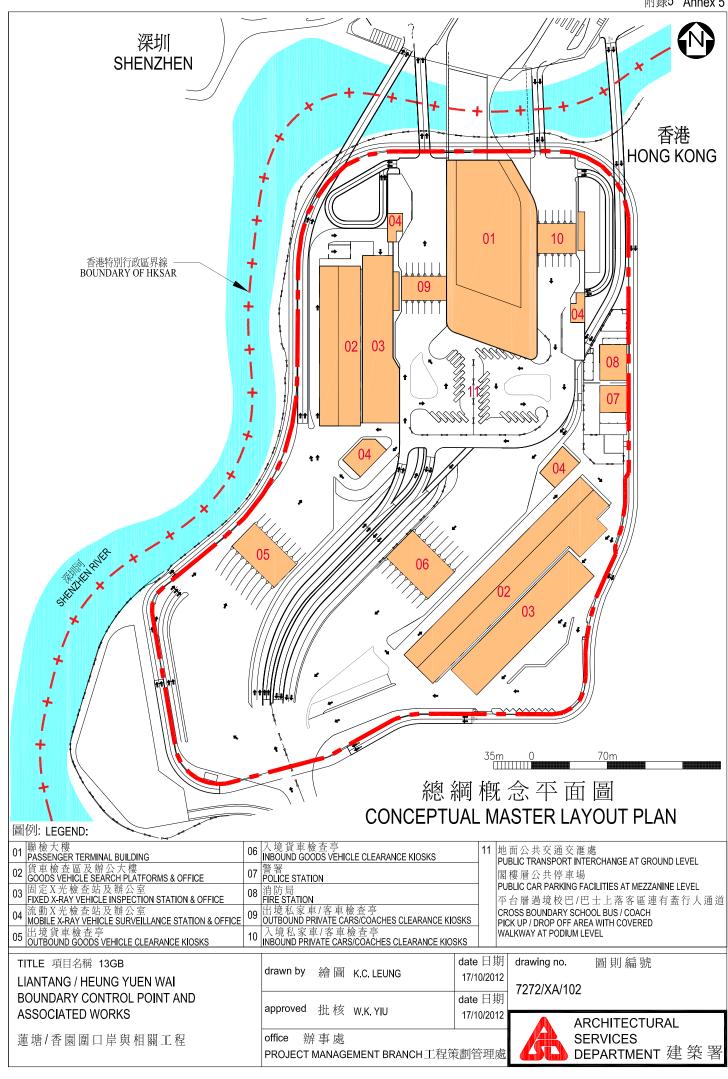
蓮塘/香園園口岸與相關工程

date 日期 17/10/2012

approved 批核 W.K.YIU

office 辦事處 PROJECT MANAGEMENT BRANCH工程策劃管理處





13GB – Liantang/Heung Yuen Wai Boundary Control Point (BCP) and associated works

Regulation of Shenzhen River stage IV

SCOPE OF WORKS

The scope of regulation of Shenzhen (SZ) River stage IV (part of **13GB**) that we propose to upgrade to Category A comprises –

- (a) regulation of about 4.5 kilometres long river channel of SZ River between Ping Yuen River and Pak Fu Shan;
- (b) construction of a water storage basin with a capacity of about 80 000 cubic metres; and
- (c) ancillary works including drainage and landscaping works.

A site layout plan is at **Annex 7**.

2. Subject to approval of the Finance Committee (FC), we plan to commence the proposed works in August 2013 for completion in September 2017.

FINANCIAL IMPLICATIONS

3. We estimate the cost of the proposed works¹ to be funded by the Hong Kong Special Administrative Region (HKSAR) Government is \$595.1 million in money-of-the-day (MOD) prices, broken down as follows –

(a)	Construction works			\$ million 366.2
()	(i)	river channel	291.0	5 5 5
	(ii) (iii)	water storage basin ancillary works	28.6 46.6	

In September 1992, a Joint Working Group was set up between Hong Kong Special Administrative Region Government and Shenzhen Municipal Government to oversee the implementation of the regulation of the SZ River. The Joint Working Group agreed in July 2000 that funding for regulating the River should be equally shared between the two governments (figures only reflect the Hong Kong Special Administrative Region Government's share of the cost).

		\$ million	
(b)	Environmental mitigation measures and environmental monitoring and audit programme	43.6	
(c)	Consultants' fees for construction stage ²	3.0	
(d)	Contract management and supervision cost ³	23.5	
(e)	Contingencies Sub-total	43.6 479.9	(in September 2012 prices)
(f)	Provision for price adjustment	115.2	
	Total	595.1	(in MOD prices)

ENTRUSTMENT ARRANGEMENTS

4. Since the proposed river regulation works and the ancillary works straddle Hong Kong and SZ, it is neither practicable nor cost-effective for each side to implement separately the proposed works falling within its own territory. Taking into account the problems associated with access to the site and the existing usage and management of the SZ River, both governments agreed to employ a single contractor to carry out the proposed works on the same section of the SZ River. To achieve effective contract management and carry out the daily supervision of the construction works, we plan to entrust the proposed works in paragraph 1 to the Shenzhen Municipal Government (SZMG) for implementation subject to funding approval of the FC and internal procedures being cleared. The Shenzhen River Regulation Office (the Office) of the SZMG will take up the role of the employer of the works contracts and will be responsible for inviting tenders for the works contracts on the basis of tender documents agreed between the HKSAR Government and the SZMG. Qualified contractors of both sides will be invited to submit tenders for the works contracts. The Office will be responsible for daily supervision of the works and carrying out of environmental monitoring

The total consultants' fees for the design of the river improvement works is \$16.6 million of which \$6.0 million is for professional services during the construction stage. Hence, our share of the cost is \$3.0 million.

³ The estimated total cost of contract management and supervision to be entrusted to SZMG is \$47.0 million i.e. 5.7% of the total cost of the entrusted works. Our share of the cost is \$23.5 million.

and audit during construction. The works contracts will be subject to overall control and monitoring by the Joint Working Group formed by the HKSAR Government and the SZMG. The river regulation works for SZ River stages I, II and III have been smoothly completed under similar arrangements.

PUBLIC CONSULTATION

- 5. We consulted the Ta Kwu Ling District Rural Committee, the North District Council and the Concern Group on the Construction of Liantang BCP of the North District Council on 8 April 2011, 14 April 2011 and 12 October 2012 respectively. Members generally supported the implementation of the proposed works.
- 6. We consulted the Legislative Council Panel on Development on the advance works of regulation of SZ River, stage IV, i.e. the reprovisioning of a section of boundary patrol road and the associated security facilities for the development of the new BCP, on 22 November 2011. Members supported the reprovisioning works and the associated security facilities.

ENVIRONMENTAL IMPLICATIONS

- 7. The regulation of SZ River between Ping Yuen River and Pak Fu Shan is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and an Environmental Permit (EP) is required for the construction and operation of the project. The EIA report for the project was approved on 22 March 2011 with conditions under EIA Ordinance and an EP was issued 21 November 2011. The EIA report concluded that the environmental impact of the project can be controlled to within the criteria under EIA Ordinance and the Technical Memorandum on EIA Process.
- 8. We will implement the mitigation measures and the environmental monitoring and audit (EM&A) programme during the construction and operation stages of the project as set out in the approved EIA report, such as landscape planting, watering of the site, covering of materials on trucks, and use of silenced construction plant. We have included \$43.6 million (in September 2012 prices) in the project estimate for the implementation of the environmental mitigation measures and the EM&A programme to be funded by the HKSAR Government.
- 9. At the planning and design stages, we have considered ways to optimise the design and construction sequence in order to reduce the generation of construction waste where possible. In addition, we will require the contractor to

reuse inert construction waste (e.g. use of excavated materials for filling within the site) on site or in other suitable construction sites as far as possible, in order to minimize the disposal of inert construction waste at Huangmao Dao in Zhuhai. We will encourage the contractor to maximize the use of recycled / recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

10. We estimate that the proposed works will generate in total about 1.02 million tonnes of construction waste. Of these, we will reuse about 0.06 million tonnes (5.9%) of inert construction waste on site and deliver 0.94 million tonnes (92.1%) of inert construction waste to Huangmao Dao in Zhuhai. We will dispose of the remaining 0.02 million tonnes (2.0%) of non-inert construction waste at SZ landfills. The total cost for accommodating construction waste at Huangmao Dao in Zhuhai and SZ landfill sites is estimated to be \$84.4 million for the proposed works (based on a unit cost of \$89 per tonne for disposal at Huangmao Dao in the Mainland and \$37 per tonne at SZ landfills).

HERITAGE IMPLICATIONS

11. 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.

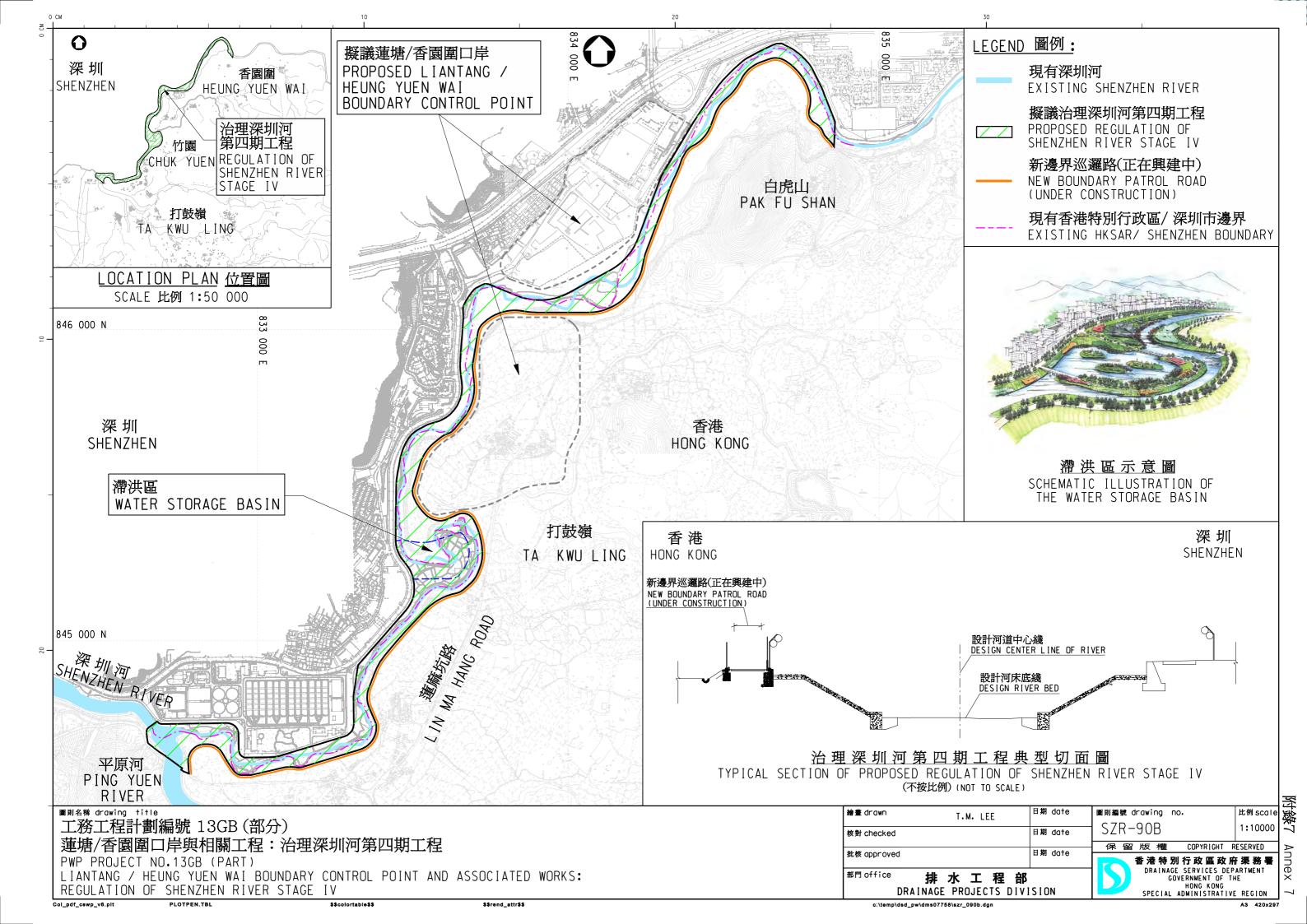
LAND ACQUISITION

12. We have resumed a total of about 12 451 square metres (m²) of private agricultural land and clear about 80 200 m² of government land for the proposed works. All the three structures affected by the proposed works were of non-domestic nature. As such, no re-housing commitment is required. The cost of land acquisition and clearance is about \$123.9 million comprising \$121.6 million for resumption of land and \$2.3 million for clearance, and will be charged to **Head 701 - Land Acquisition**.

BACKGROUND INFORMATION

13. The proposed works do not involve removal, felling or transplanting of trees. We will incorporate planting proposals as part of the proposed works, including the planting of about 450 trees.

14. We estimate that the proposed works will create about 155 jobs (125 for labourers and another 30 for professional/technical staff), providing a total employment of 6 730 man-months.



Liantang/Heung Yuen Wai Boundary Control Point and associated works

List of the Panel on Development papers seeking support for funding applications

Date	References
28 October 2008	Development of Liantang/Heung Yuen Wai Boundary Control Point (LC Paper No. CB(1)90/08-09(05)) http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/dev1028cb1-90-5-e.pdf
16 December 2010	13GB Liantang/Heung Yuen Wai Boundary Control Point and associated works (LC Paper No. CB(1)735/10-11(06)) http://www.legco.gov.hk/yr10-11/english/panels/dev/papers/dev1216cb1-735-6-e.pdf
22 November 2011	Progress report on the development of Liantang/Heung Yuen Wai Boundary Control Point (LC Paper No. CB(1)346/11-12(04)) http://www.legco.gov.hk/yr11-12/english/panels/dev/papers/dev1122cb1-346-4-e.pdf
24 April 2012	13GB Liantang/Heung Yuen Wai Boundary Control Point and associated works - Site formation and infrastructure works (LC Paper No. CB(1)1607/11-12(04)) http://www.legco.gov.hk/yr11-12/english/panels/dev/papers/dev0424cb1-1607-4-e.pdf