For discussion **FCR(2015-16)12**
on 22 May 2015

ITEM FOR FINANCE COMMITTEE

CAPITAL WORKS RESERVED FUND
HEAD 703 – BUILDINGS
Support – Boundary facilities (other than road works)
13GB – Liantang/Heung Yuen Wai Boundary Control Point and associated works – construction of boundary control point buildings and associated facilities

Members are invited to approve the upgrading of **13GB** to Category A at an estimated cost of $8,811.9 million in money-of-the-day prices.

PROBLEM

We need to provide boundary control point (BCP) buildings and associated facilities within a new BCP at Heung Yuen Wai in the North District.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Development, proposes to upgrade **13GB** to Category A at an estimated cost of $8,811.9 million in money-of-the-day (MOD) prices (as detailed in the paper PWSC(2014-15)56 at Enclosure) for the construction of the BCP buildings and associated facilities on the Hong Kong side of the proposed Liantang/Heung Yuen Wai (LT/HYW) BCP.

Encl.

BACKGROUND

3. The scope of **13GB** covers the construction of BCP buildings and associated facilities of the proposed LT/HYW BCP. After securing the support of the Panel on Development on 5 January 2015, we invited the Public Works Subcommittee (PWSC) to examine the funding application of **13GB**. On 31 March 2015, PWSC did not render its support to the funding application.

/URGENCY …..

URGENCY

4. The proposed BCP will enhance the cross-boundary transport handling capability and bring about substantial strategic and economic benefits to Hong Kong. It will enhance our connection with the eastern part of Guangdong. The proposed BCP is expected to be beneficial to our external trade and logistics industries, as well as the ancillary or supporting industries. The proposed BCP will also help re-distribute the cross-boundary traffic amongst the crossings in the east.

5. We invited tenders for the construction of the proposed BCP buildings and associated facilities in August 2014. The tender invitation and assessment has been substantially completed. The contract is ready for award upon funding approval. The tender validity period of the contract will lapse on 16 August 2015. If funding approval is not available by the end of the current legislative session, the award of contract will be delayed to at least until the next legislative session. Significant further delay is possible due to expiry of the tender validity period. Given the escalating construction prices, the longer the delay, the more the Government needs to pay to complete the BCP project. Specifically, it will lead to the following undesirable implications on programme and cost –

(a) completion of the BCP buildings and associated facilities may be delayed. Various contracts for parts of the BCP are under way. Specifically, works under three existing contracts under **5019GB** are already under way[Note]. The delay of the current building project may lead to a waste or idling of the works underway when they are completed;

(b) the Shenzhen Municipal Government is proceeding with the construction works for the part of the BCP on its side based on the target completion date of 2018. If the whole LT/HYW BCP is delayed, there will be potential loss on the Shenzhen side due to wasted or idled construction works; and

(c) Government's rough estimation is that on average, a month's delay in commencing the works under **13GB** will add some $40 million to the total cost of the BCP project.

/6. …..

Note The scope of works under **5019GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – site formation and infrastructure works" comprises the site formation and infrastructure works (including the new connecting road connecting Fanling Highway and the proposed BCP) for the development of the new BCP. The three contracts underway are Contract 2 on the southern section of the Connecting Road, Contract 3 on the Fanling Highway Interchange and Contract 5 on site formation works of the BCP. The total cost of these three contracts is $12.3 billion.

6. Government sees an urgent need to invite Finance Committee (FC) to upgrade **13GB** although PWSC did not support the project. Subject to FC funding approval, we plan to commence work as soon as practicable and mitigate the delay of the project. At this stage, we cannot commit to the completion of the BCP in 2018 due to the delay already accrued, but we will strive to bringing forward the completion of the BCP as far as possible.

FINANCIAL IMPLICATION

7. Subject to FC's approval, the capital cost of the project remains to be $8,811.9 million in MOD prices and the annual recurrent expenditure arising from this project remains to be $710 million.

Development Bureau
May 2015

For discussion
on 28 February 2015

PWSC(2014-15)56

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS
Support – Boundary facilities (other than road works)
13GB – Liantang/Heung Yuen Wai Boundary Control Point and associated works – construction of boundary control point buildings and associated facilities

Members are invited to recommend to the Finance Committee the upgrading of **13GB** to Category A at an estimated cost of $8,811.9 million in money-of-the-day prices.

PROBLEM

We need to provide boundary control point (BCP) buildings and associated facilities within a new BCP at Heung Yuen Wai in the North District.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Development, proposes to upgrade **13GB** to Category A at an estimated cost of $8,811.9 million in money-of-the-day (MOD) prices for the construction of the BCP buildings and associated facilities on the Hong Kong side of the proposed Liantang/Heung Yuen Wai (LT/HYW) BCP.

/PROJECT ……

PROJECT SCOPE AND NATURE

3. The project site occupies an area of about 180 000 square metres (m^2) at Chuk Yuen near Heung Yuen Wai. The proposed scope of works includes –

(a) passenger-related clearance facilities including passenger terminal building, clearance kiosks and examination facilities for private cars and coaches, the interior fitting-out works for the pedestrian bridge spanning across Shenzhen River, etc.;

(b) cargo clearance facilities including clearance kiosks for goods vehicles, customs inspection platforms, X-ray vehicle examination buildings, etc.;

(c) accommodation for and facilities of the government departments providing services in connection with the BCP including offices, staff canteen, barracks, changing and amenity facilities, electrical and mechanical services workshops and car parking spaces;

(d) transport-related facilities inside the BCP including road networks, a public transport interchange, transport drop-off and pick-up areas, vehicle holding areas and associated road furniture etc.;

(e) a public car park; 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, a master layout plan and an artist's impression of the proposed BCP are at Annex A, B and C respectively. Subject to funding approval of the Finance Committee (FC), we plan to commence construction of the proposed works in early 2015 for completion in late 2018.

/**JUSTIFICATION** ……

JUSTIFICATION

4. The Hong Kong Special Administrative Region Government and the Shenzhen Municipal Government jointly announced after the second meeting of the Hong Kong-Shenzhen Joint Task Force on Boundary District Development in September 2008 the implementation of the LT/HYW BCP[1] for operation in 2018. The LT/HYW BCP is designed to handle 30 000 passenger trips and 17 850 vehicle trips daily.

5. Currently, the two existing BCPs on the eastern side of the New Territories at Man Kam To and Sha Tau Kok are mainly used to access eastern Shenzhen (SZ) and Guangdong. All cross-boundary traffic travelling from these two existing BCPs has to travel through congested local roads in Hong Kong (HK) and SZ before joining the highway systems. Owing to physical constraints, these two existing BCPs could hardly be expanded to meet the anticipated future demand for cross-boundary traffic. The proposed LT/HYW 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. This will significantly shorten the travelling time between HK and eastern Guangdong, southern Fujian and Jiangxi, and greatly facilitate future regional cooperation and development. The proposed LT/HYW BCP will facilitate smooth and efficient people and cargo flows across the boundary, and will play an important strategic role in supporting our long-term economic growth.

6. The proposed LT/HYW BCP will also help re-distribute the cross-boundary traffic amongst the crossings in the east and greatly enhance the overall handling capacity of the BCPs on the eastern side of HK and SZ. With the new connecting road to be constructed under Public Works Programme Item **5019GB** on site formation and infrastructure works for the LT/HYW BCP to link Fanling Highway and the proposed BCP, the existing road network in the North District as a whole will be improved.

/FINANCIAL ……

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

FINANCIAL IMPLICATIONS

7. We estimate the capital cost of the project to be $8,811.9 million in MOD prices (please see paragraph 8 below), broken down as follows –

		$ million
(a)	Site works	17.6
(b)	Piling[2]	559.0
(c)	Building[3]	3,267.8
(d)	Building services[4]	834.8
(e)	Drainage	69.2
(f)	External works[5]	378.8
(g)	Elevated roads[6]	292.2
(h)	Fitting-out works for pedestrian bridge	28.2
(i)	Additional energy conservation, green and recycled features	35.8
(j)	Furniture and equipment	750.0

/(k) …...

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[2] Piling covers the piling works of seven major BCP buildings.

[3] Building works cover construction of substructure and superstructure of the buildings.

[4] Building services works cover electrical installations, ventilation and air-conditioning installations, fire service installations, lift and escalator and other specialist installations, etc.

[5] External works cover construction works such as roadwork, pavement, staff link footbridges and soft landscape works.

[6] Elevated roads cover five vehicle bridges within the project site.

			$ million	
(k)	Consultants' fees		131.4	
	(i) contract administration, site supervision and quantity surveying services	123.9		
	(ii) management of resident site staff (RSS)	7.5		
(l)	Remuneration of RSS		89.7	
(m)	Contingencies		645.5	
	Sub-total		7,100.0	(in September 2014 prices)
(n)	Provision for price adjustment		1,711.9	
	Total		8,811.9	(in MOD prices)

We propose to engage consultants to undertake contract administration, site supervision and quantity surveying services for the project. A detailed breakdown of the estimate for consultants' fees by man-months is at Annex D. The construction floor area (CFA) of the project is about 157 390 m^2. The estimated construction unit cost, represented by the building and building services costs, is $26,066 per m^2 of CFA in September 2014 prices. We consider this comparable to that of similar projects built by the Government.

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

Year	**$ million (Sept 2014)**	**Price adjustment factor**	**$ million (MOD)**
2015 – 16	300.0	1.06000	318.0
2016 – 17	950.0	1.12360	1,067.4
2017 – 18	1,850.0	1.19102	2,203.4

/2018 – 19 ……

Year	$ million (Sept 2014)	Price adjustment factor	$ million (MOD)
2018 – 19	2,300.0	1.26248	2,903.7
2019 – 20	1,000.0	1.32876	1,328.8
2020 – 21	500.0	1.39519	697.6
2021 – 22	200.0	1.46495	293.0
	7,100.0		8,811.9

9. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2015 to 2022. Subject to funding approval, we will deliver the construction works through a lump sum contract because we can clearly define the scope of works in advance. The contract will provide for price adjustments.

10. We estimate the annual recurrent expenditure arising from the project to be about $710 million.

PUBLIC CONSULTATION

11. We consulted the Concern Group on the Construction of Liantang Boundary Control Point of the North District Council on 10 November 2014. While Members raised no objection to the proposed project, they asked the Administration to keep in view the adequacy of public parking spaces and boundary control facilities in the light of changes in the volume of cross-boundary traffic.

12. We consulted the Legislative Council Panel on Development on 5 January 2015. The Panel agreed that the funding proposal should be submitted to the Public Works Subcommittee (PWSC) for examination. The supplementary information on details of design and works items associated with the whole LT/HYW BCP project, an updated forecast of the numbers of daily passenger and vehicle trips of the proposed BCP, and the economic benefits of the project requested by Members was provided to the Panel on 27 January 2015. A copy of the information note is at Annex E.

ENVIRONMENTAL IMPLICATIONS

13. The whole LT/HYW BCP project is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and an Environmental Permit (EP) is required for its construction and operation. On 24 March 2011, the EIA report was approved with conditions and an EP was issued under the EIA Ordinance. The EIA report concluded that its environmental impact could be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on EIA Process.

14. We shall implement the mitigation measures recommended in the approved EIA report. The key mitigation measure is the provision of landscape features to the BCP. We estimate the cost of implementing the environmental mitigation measures including the soft landscaping and roof greening works to be $41.8 million in September 2014 prices. We have included this cost in the overall estimate of the project.

15. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These include the use of silencers, mufflers, acoustic lining or shields and the building of barrier walls for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

16. At the planning and design stages, we have considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). 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 minimise the disposal of inert construction waste at public fill reception facilities[7]. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

/17. ……

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[7] 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.

17. At the construction stage, we will 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

18. We estimate that the project will generate in total 67 395 tonnes of construction waste. Of these, we will reuse 43 765 tonnes (64.9%) of inert construction waste on site and deliver 6 535 tonnes (9.7%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 17 095 tonnes (25.4%) of non-inert construction waste at landfills. The total cost for accommodating the construction waste at public fill reception facilities and landfill sites is estimated to be about $2.3 million for this project (based on a unit charge rate of $27 per tonne for disposal at public fill reception facilities and $125 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

19. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites or buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

20. Site formation works, funded under **5019GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – site formation and infrastructure works", are being carried out to meet the construction schedule of the BCP building works. This building project per se does not require any additional land acquisition.

/ENERGY ……

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

21. This project will adopt various forms of energy efficient features and renewable energy technologies, in particular –

(a) water-cooled chiller (evaporative cooling tower using fresh water);

(b) automatic demand control of chilled water circulation system;

(c) automatic demand control of supply air;

(d) demand control of fresh air supply with carbon dioxide sensors; and

(e) heat recovery fresh air pre-conditioners in the air-conditioned space for heat energy reclaim of exhaust air.

22. For greening features, we will provide greening on appropriate areas of the BCP buildings for environmental and amenity benefits.

23. For recycled features, we will adopt rainwater recycling system for landscape irrigation.

24. The total estimated additional cost for adoption of the above energy conservation measures is around $35.8 million (including $16.6 million for energy efficient features), which has been included in the cost estimate of the project. The energy efficient features will achieve 8.7% energy savings in the annual energy consumption with a payback period of about 4.6 years.

BACKGROUND INFORMATION

25. **13GB** was upgraded to Category B in July 2008.

/26. ……

26. On 9 January 2009, the FC approved the upgrading of part of **13GB** to Category A as **5014GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – investigation and preliminary design" at an estimated cost of $89 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.

27. On 30 April 2010, the FC approved the upgrading of another part of **13GB** to Category A as **5016GB** "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 of the village resite area and related facilities was substantially completed in March 2012.

28. On 18 February 2011, the FC approved the upgrading of another part of **13GB** to Category A as **5017GB** "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 BCP site formation and the infrastructure works and the associated SZ River improvement works. The detailed design work was completed in phases from April 2012 to early 2013.

29. On 6 January 2012, the FC approved the upgrading of another part of **13GB** to Category A as **5018GB** "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.

30. On 13 July 2012, the FC approved the upgrading of another part of **13GB** to Category A as **5019GB** "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 the site formation and infrastructure works (including the new connecting road connecting Fanling Highway and the proposed BCP) for the development of the new BCP. The construction works commenced in April 2013 for completion by end 2018. As the approved project estimate (APE) of **5019GB** is not sufficient to cover the

/cost ……

cost of the works under the project, we invited the PWSC to recommend to FC the increase in the APE of **5019GB** by $8,719.9 million from $16,253.2 million to $24,973.1 million in MOD prices. At the meeting on 9 January 2015, the PWSC did not support the funding proposal. We are considering the way forward with a view to proceeding with the project.

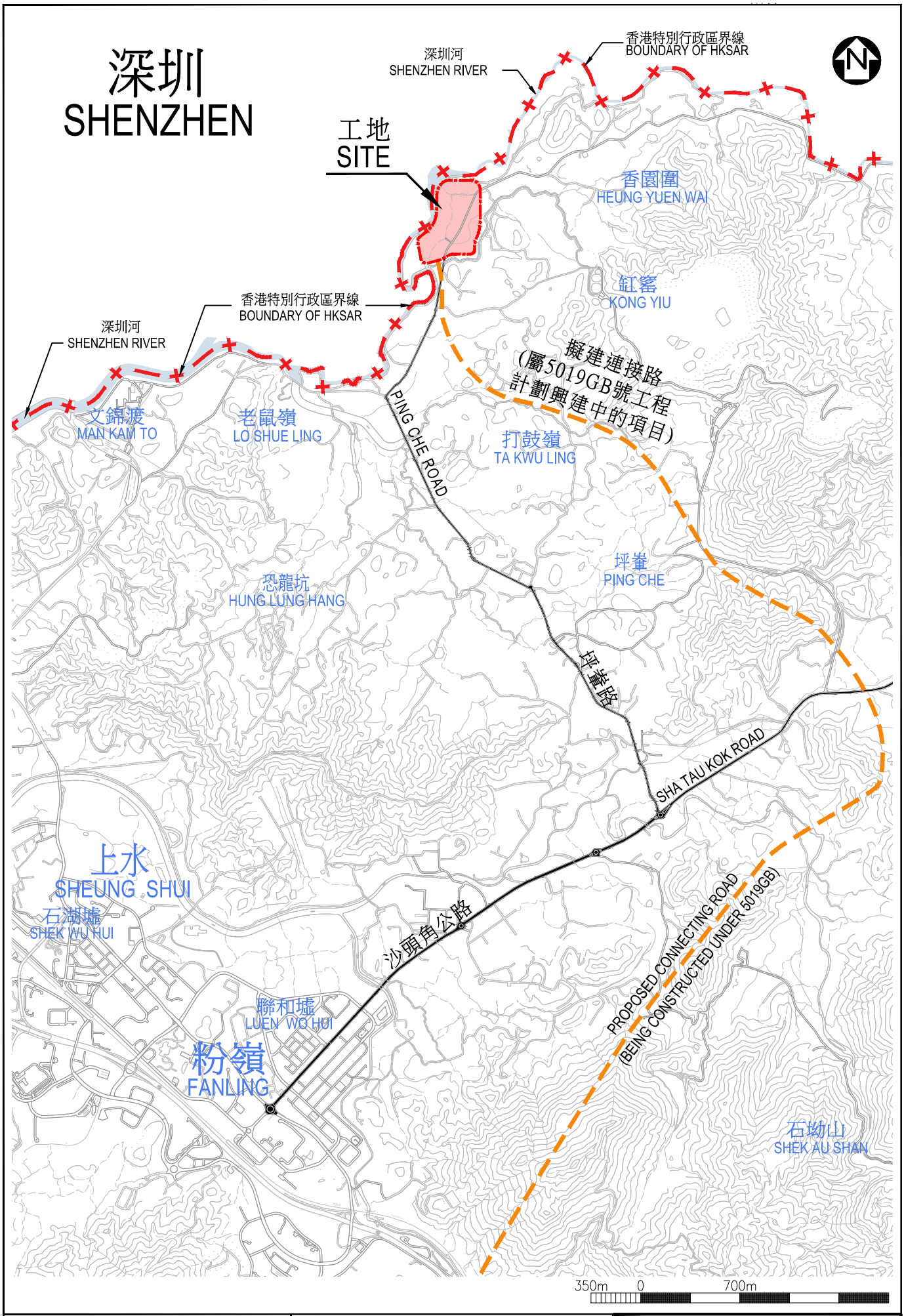
31. On 11 January 2013, the FC approved the upgrading of another part of **13GB** to Category A as **3020GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – boundary control point buildings and associated facilities – pre-construction consultancy services" at an estimated cost of $180 million in MOD prices for undertaking the design and site investigation works (pre-construction works) for the proposed BCP buildings and associated facilities. The pre-construction works commenced in January 2013 and were substantially completed in December 2014.

32. On 15 March 2013, the FC approved the upgrading of another part of **13GB** to Category A as **5168CD** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – regulation of Shenzhen River stage IV" 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 SZ River between Ping Yuen River and Pak Fu Shan for the development of the new BCP at Heung Yuen Wai. Construction commenced in August 2013 for completion in end 2017.

33. The proposed construction works under the project will not involve any tree removal. We will incorporate planting proposals as part of the project, including the planting of about 190 trees, 170 000 shrubs, 2 400 000 groundcovers and 150 m^2 grassed area.

34. We estimate that the proposed works under the project will create about 3 900 jobs (3 520 for labourers and 380 for professional/technical staff) providing a total employment of 67 600 man-months.

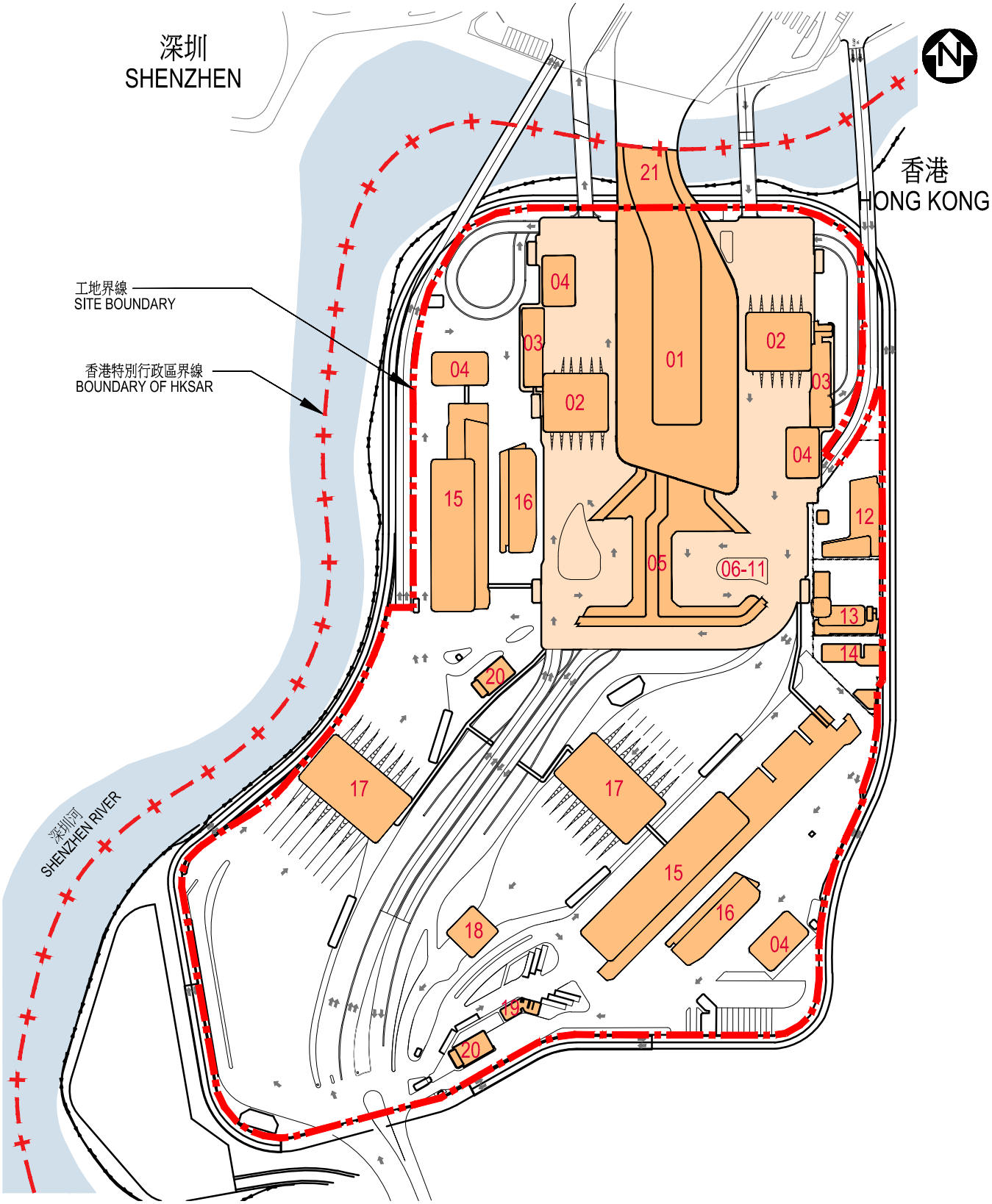
Development Bureau
February 2015



LOCATION PLAN
工地位置圖

TITLE 項目名稱 13GB
LIANTANG / HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS - CONSTRUCTION OF BOUNDARY CONTROL POINT BUILDINGS AND ASSOCIATED FACILITIES
蓮塘/香園圍口岸與相關工程 - 口岸建築及相關設施建造工程

ARCHITECTURAL SERVICES DEPARTMENT 建築署



圖例: LEGEND:

01	旅檢大樓 PASSENGER TERMINAL BUILDING	06 - 11	置於平台底層設施包括公眾停車場及私家車落客處及公共交通交滙處 UNDER PODIUM FACILITIES INCLUDE : PUBLIC TRANSPORT INTERCHANGE , PUBLIC CAR PARK & DROP OFF AREA BELOW PODIUM DECK	16	海關車輛X光檢查大樓 C&ED X-RAY VEHICLE EXAMINATION BUILDING
02	私家車和旅遊巴士清關亭 PRIVATE CAR / COACH CLEARANCE KIOSKS			17	貨車清關亭 CARGO VEHICLE CLEARANCE KIOSKS
03	私家車檢查站 PRIVATE CAR EXAMINATION BUILDING			18	警務處車底檢查站 HKPF ENHANCED UNDER VEHICLE SURVEILLANCE STATION
04	海關車輛移動X光檢查站 C&ED MOBILE X-RAY VEHICLE SURVEILLANCE STATION	12	消防局 FIRE STATION	19	警務處秤車站 HKPF WEIGH STATION
05	平台層學童過境巴士/旅遊巴士上落客區連有蓋行人通道 CROSS BOUNDARY SCHOOL BUS / COACH PICK UP / DROP OFF AREA WITH COVERED WALKWAY AT PODIUM LEVEL	13	警署 POLICE STATION	20	衞生署滅蟲站 DH DISINSECTION STATION
		14	海關偵緝犬基地 C&ED DETECTOR DOG BASE	21	行人橋室內裝修工程 INTERIOR FITTING-OUT WORKS FOR PEDESTRIAN BRIDGE 行人橋會在其他工程計劃興建 PEDESTRIAN BRIDGE TO BE CONSTRUCTED UNDER OTHER PWP ITEM
		15	海關貨物檢查大樓 C&ED CARGO EXAMINATION BUILIDING		

MASTER LAYOUT PLAN
總綱平面圖

TITLE 項目名稱 13GB
LIANTANG / HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS - CONSTRUCTION OF BOUNDARY CONTROL POINT BUILDINGS AND ASSOCIATED FACILITIES
蓮塘/香園圍口岸與相關工程 - 口岸建築及相關設施建造工程

ARCHITECTURAL SERVICES DEPARTMENT 建築署

旅檢大樓
Passenger Terminal Building

旅遊巴士/學童過境巴士
上落客處
Coach/Cross Boundary School
Bus Pick-up & Drop-off Area

公眾停車場
Public Car Park

公共運輸交匯處
Public Transport Interchange

從西南面俯瞰港方蓮塘/
香園圍口岸的外觀
BIRD'S EYE VIEW OF
THE LIANTANG/HEUNG YUEN WAI
BOUNDARY CONTROL POINT
IN HONG KONG
FROM SOUTH WESTERN DIRECTION

ARTIST'S IMPRESSION
外觀構思圖

TITLE 項目名稱 13GB
LIANTANG / HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS -
CONSTRUCTION OF BOUNDARY CONTROL POINT BUILDINGS AND ASSOCIATED FACILITIES
蓮塘/香園圍口岸與相關工程-口岸建築及相關設施建造工程

ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

13GB – Liantang/Heung Yuen Wai Boundary Control Point and associated works – construction of boundary control point buildings and associated facilities

Breakdown of the estimates for consultants' fees and resident site staff costs (in September 2014 prices)

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee ($ million)
(a)	Consultants' fees for contract administration, site supervision, quantity surveying and other related services (Note 2)	Professional	–	–	–	92.9
		Technical	–	–	–	31.0
					Sub-total	123.9
(b)	Resident site staff (RSS) costs (Note 3)	Professional	310	38	1.6	35.4
		Technical	1 585	14	1.6	61.8
					Sub-total	97.2
	Comprising –					
	(i) Consultants' fees for management of RSS				7.5	
	(ii) Remuneration of RSS				89.7	
					Total	**221.1**

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants. (As at now, MPS salary point 38 = $71,385 per month and MPS salary point 14 = $24,380 per month.)

2. The consultants' fees for contract administration, site supervision, quantity surveying and other related services are calculated in accordance with the existing consultancy agreement for the design and construction of the project. The construction phase of the assignment will only be executed subject to Finance Committee's funding approval to upgrade the project to Category A.

3. The actual man-months and actual costs will only be known after completion of the construction works.

Annex E

政府總部
發展局
工務科
香港添馬政府總部

Works Branch
Development Bureau
Government Secretariat
Central Government Offices, Tamar,
Hong Kong

本局網址 Our Website: http://www.devb.gov.hk
本局檔號 Our Ref.: *in* DEVB(CR)(W)1-150/59
來函檔號 Your Ref.:

電話 Tel No.: 3509 8276
傳真 Fax No.: 2810 8502
電郵 E-mail: francischau@devb.gov.hk

27 January 2015

Clerk to the Panel on Development
Legislative Council Complex
1 Legislative Council Road,
Central, Hong Kong
(Attn: Ms. Sharon Chung)

Dear Ms Chung,

Panel on Development
Follow-up to meeting on 5 January 2015
CB(1)354/14-15(03)

In considering the paper on the PWP Item No. **13GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works - construction of boundary control point buildings and associated facilities" at the above meeting, Members requested the Administration to provide further project information on details of design and works items associated with the whole Liantang/Heung Yuen Wai Boundary Control Point (BCP) project, an updated forecast of the numbers of daily passenger and vehicle trips of the proposed BCP, and the economic benefits of the project.

The requested information is set out at **Annex**. I should be grateful if you would kindly relay the above information to Members of the Panel on Development for reference.

Yours sincerely,

(Francis S H CHAU)
for Secretary for Development

cc Director of Civil Engineering and Development
Director of Architectural Services

Annex

Panel on Development
Follow-up to meeting on 5 January 2015
CB(1)354/14-15(03)

(a) **Given that the project to develop the Liantang/Heung Yuen Wai Boundary Control Point ("LT/HYW BCP") comprised various parts/items, a list of these parts/items, their respective details including the scope and progress, the original and updated cost estimates, and reasons for the difference between the two estimates, if any;**

The relevant project information is given at **Enclosure 1**.

(b) **The estimated expenditure for operating and maintaining LT/HYW BCP, including staff cost;**

The details of the estimated expenditure for operating and maintaining the LT/HYW BCP (i.e. the annual recurrent expenditure) are also shown at **Enclosure 1**.

(c) **Taking into account the information in (a) as well as the recurrent expenditure arising from the project, the estimated cost per vehicle trip and per passenger trip;**

The total project estimate and the recurrent expenditure of the whole LT/HYW BCP are shown at **Enclosure 1** whereas the details of the economic benefits of the project are given in paragraph (f) below. The LT/HYW BCP is designed to handle 30 000 passenger trips and 17 850 vehicle trips daily. As the BCP handles both passengers and vehicles, and the passenger/vehicle trips would vary with time, it would not be practicable to determine the "estimated cost per vehicle trip and per passenger trip". Such estimated cost, even if determined, may not be meaningful.

(d) **An updated forecast of numbers of daily passenger and vehicle trips using LT/HYW BCP during a certain period after its commissioning, with a breakdown by vehicle types including private cars, coaches, school buses, goods vehicles, etc; and in light of the above information, the projected utilization of LT/HYW BCP;**

Please refer to paragraph (e) below.

(e) **An updated forecast of numbers of daily passenger and vehicle trips using the existing BCPs and their utilization after the**

commissioning of LT/HYW BCP;

In response to members' request raised at the Finance Committee (FC) meeting on 11 January 2013, we provided the FC on 19 February 2013 the following information on the daily forecast passenger and vehicle trips in the existing vehicular boundary control points after commissioning of the LT/HYW BCP.

Boundary Control Point	Passengers/day	Vehicles/day
Shenzhen Bay	97 600	13 600
Lok Ma Chau	97 200	25 600
Man Kam To	9 000	4 700
Sha Tau Kok	7 100	2 000
LT/HYW	17 500	7 700

Of the 7 700 vehicles/day using the LT/HYW BCP at the early stage of its commissioning, 1 200 are private cars, 500 are coaches/shuttles and the remaining 6 000 are goods vehicles.

The trips using the LT/HYW BCP will thereafter increase to the design capacity of 30 000 passenger trips and 17 850 vehicle trips daily by around 2030.

Planning Department's latest assessment indicates that the above forecast daily passenger and vehicle trips using the LT/HYW BCP at the early stage of its commissioning and in 2030 still largely remain valid.

(f) An updated analysis of the benefits of the LT/HYW BCP project, in quantitative and qualitative (non-quantitative) terms, to Hong Kong;

The economic benefits could be in terms of quantifiable and non-quantifiable benefits as follows-

Quantifiable benefits

In response to members' request raised at the Panel on Development meeting on 30 October 2012, we provided to the Panel on Development on 20 November 2012 that the quantifiable benefits on the Hong Kong (HK) side on savings in vehicle operation costs and value of time saved for travellers over a 32-year period (from 2018 to 2050) would be about $50 billion at 2010 prices. Based on the updated price level, the updated quantifiable benefits on the same would be

about $64 billion at 2014 prices.

Non-quantifiable benefits

The LT/HYW BCP would have a substantive strategic value and bring about non-quantifiable benefits such as extending the economic hinterland of HK by enhancing HK's connection with eastern Guangdong. With the new BCP, we anticipate closer economic ties which will be beneficial to HK's external trade and logistics industries, as well as the ancillary/supporting industries.

Other non-quantifiable benefits of the LT/HYW project also include the overall improvement to the existing road network in the North District upon completion of the new connecting road linking Fanling Highway and the proposed BCP. This connecting road will form part of the essential infrastructures serving the planned housing development at Queen's Hill as well as other potential long-term developments, if any, in the New Territories North currently under feasibility study.

(g) A list of development and infrastructure projects underway, to be implemented or under planning that would be undertaken in New Territories North East such as Kwu Tung, Fanling, etc. and in the vicinity of LT/HYW BCP; the details of these projects including the scope, progress, the approved funding commitment, if any, the categories of the projects (say, category A or B) under the Capital Works Programme; and

A list of public works projects in the North District under detailed design and construction stages is shown at **Enclosure 2**.

(h) The current average daily vehicular traffic using the HK-Shenzhen Western Corridor (深港西部通道); a comparison of the figure with the Administration's original estimate.

From January to July 2014, the average daily cross-boundary vehicular and passenger flows of the HK-Shenzhen Western Corridor were about 10 100 vehicles and 98 100 passengers. The daily cross-boundary vehicular and passenger flows were originally estimated to be 29 800 vehicles and 30 800 passengers during the initial period of the opening of the HK-Shenzhen Western Corridor, increasing to some 60 300 vehicles and 61 300 passengers in 2016. Compared with the original estimates, the actual vehicular traffic flow was lower whilst the actual passenger flow was much higher.

Cost estimates and progress of the Liantang/Heung Yuen Wai Boundary Control Point project

Finance Committee Date	Public Works Programme No./Title	Scope	Approved Project Estimate ($ million) (in MOD price)	Latest Estimate ($ million) (in MOD price)	Progress and reasons for the difference in cost estimates, if any	Annual recurrent expenditure [Note 1] ($ million)
9.1.2009	**14GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – investigation and preliminary design"	Carrying out the investigation and preliminary design for the development of the Boundary Control Point (BCP)	89.0	76.3	Completed. Difference in cost estimate is due to the lower tender price outturn.	Nil
30.4.2010	**16GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – village reprovisioning works"	Reprovisioning of the existing Chuk Yuen Village for the construction of the BCP.	51.3	51.3	Substantially completed.	1.0
18.2.2011	**17GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – detailed design and ground investigation"	Carrying out the detailed design and ground investigation for the development of the BCP and the associated Shenzhen River improvement works.	265.8	265.8	Substantially completed.	Nil
6.1.2012	**18GB "**Liantang/Heung Yuen Wai Boundary Control Point and associated works – reprovisioning of boundary patrol road and associated security facilities	Reprovisioning of a section of boundary patrol road and the associated security facilities for the development of the new BCP.	393.5	393.5	Construction in progress and to be completed by early 2015.	Nil
13.7.2012	**19GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – site formation and infrastructure works"	Site formation of the BCP, construction of the connection road and the associated works.	16,253.2	24,973.1	Construction in progress. Difference in cost estimate is due to surge in construction prices, poor ground condition for tunneling works, tenderers' perception on higher risks associated with construction constraints, and associated increase in provision for price adjustment and contingencies.	237.1
11.1.2013	**20GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – BCP buildings and the associated facilities – pre-construction consultancy services"	Design, prepare tender documents and provide tender assessment for the BCP buildings and the associated facilities	180.0	180.0	Substantially completed.	Nil

Finance Committee Date	Public Works Programme No./Title	Scope	Approved Project Estimate ($ million) (in MOD price)	Latest Estimate ($ million) (in MOD price)	Progress and reasons for the difference in cost estimates, if any	Annual recurrent expenditure [Note 1] ($ million)
15.3.2013	**168CD** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – regulation of Shenzhen River stage IV"	Regulation of about 4.5 km long river channel of Shenzhen River between Ping Yuen River and Pak Fu Shan	595.1	595.1	Construction in progress and to be completed by end 2017.	4.1
To be determined	**13GB** "Liantang/Heung Yuen Wai Boundary Control Point and associated works – construction of building works and associated facilities"	Construction of the BCP buildings and the associated facilities	[8,811.9] [Note 2]	8,811.9	Tender assessment in progress. The Panel on Development supported the proposed works at the meeting on 5 January 2015.	710.0
		Total	26,639.8	35,347.0		

Note 1 : Staff costs included.

Note 2 : Funding application is yet to be made to the Finance Committee. The latest estimate is included for illustration purpose.

Major projects under design/construction in the North District (PWP Category A)

Public Works Programme no.	Project title	Project commencement [Note 1]	Project Completion [Note 1]
Road works			
6720TH	Widening of Tolo Highway/Fanling Highway between Island House Interchange and Fanling - Stage 2	July 2013	2019
3012GB	Construction of a secondary boundary fence and new sections of primary boundary fence and boundary patrol road - phase 2	1st Quarter of 2012	3rd Quarter of 2015
7279RS	Cycle tracks connecting North West New Territories with North East New Territories - Tuen Mun to Sheung Shui section (Stage 1)	September 2013	End 2016
Water supply, drainage and sewerage works			
4375DS	Sewerage in Ping Kong, Fu Tei Pai and Tai Wo	December 2011	November 2015
4378DS	North District sewerage stage 2 part 2A - Pak Hok Lam trunk sewer and Sha Tau Kok village sewerage	January 2012	August 2016
4395DS	Tolo Harbour sewerage of unsewered areas, stage 2 - phase 1	July 2013	September 2017
9237WF	Mainlaying along Fanling Highway and near She Shan Tsuen - stage 2	April 2012	December 2017
Site formation and engineering infrastructure works			
7772CL	Advance site formation and engineering infrastructure works at Kwu Tung North new development area and Fanling North new development area - detailed design and site investigation	August 2014	June 2018
Other facilities			
3037BA	Construction of a New Ambulance Depot at Choi Shun Street, Sheung Shui	February 2013	February 2015
5163DR	Northeast New Territories landfill extension	Mid 2016	Mid 2030 [Note 2]

Note 1 : The anticipated commencement and completion dates of the projects are those appear in relevant original PWSC papers or the latest submissions to LegCo panels if applicable.

Note 2 : Intake of waste is planned to commence in mid-2018 for completion in mid-2030.

Major projects under detailed design in the North District (PWP Category B)

Public Works Programme no.	Project title
Road works	
7259RS	Cycle tracks connecting North West New Territories with North East New Territories - Tuen Mun to Sheung Shui section (Remaining)
Sewerage works	
4388DS	Shek Wu Hui sewage treatment works - further expansion phase 1A - advance works, consultants' fees and investigation
Other facilities	
3354EP	A 36-classroom primary school in Area 36, Fanling
8019QW	Revitalisation Scheme - Revitalisation of the Former Fanling Magistracy into The Hong Kong Federation of Youth Groups Institute of Leadership Development