

## 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 – village reprovisioning works”, to Category A at an estimated cost of \$51.3 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.

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**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 \$51.3 million in money-of-the-day (MOD) prices to provide a village resite area with supporting infrastructure at Ta Kwu Ling for reprovisioning of the existing Chuk Yuen Village to allow for the construction of the BCP.

**PROJECT SCOPE AND NATURE**

3. The scope of works under **13GB** 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 10-kilometre (km) long dual two-lane trunk road (with about 6.5 km of viaduct and 3.5 km 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;

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

4. The part of **13GB** that we propose to upgrade to Category A comprises –

- (a) formation of about 2.2 hectares of land for a village resite area at Ta Kwu Ling;
- (b) improvement of an existing access road of about 360 metres long between Lin Ma Hang Road and the village resite area;
- (c) diversion of an existing stream of about one metre wide; and
- (d) construction of parking spaces, watermains, drainage, sewerage, latrine, refuse collection point, sitting out area, landscaping works and other ancillary works.

5. The site plan of the proposed works is at Enclosure 1.

6. We plan to commence the proposed construction works in August 2010 for completion by February 2012.

## JUSTIFICATION

7. The Hong Kong Special Administrative Region Government and the Shenzhen Municipal Government jointly announced at the second meeting of the Hong Kong-Shenzhen Joint Task Force on Boundary District Development on 18 September 2008 the implementation of the Liantang/Heung Yuen Wai BCP for operation in 2018.

8. The BCP construction works will affect the existing Chuk Yuen Village, an indigenous village at Ta Kwu Ling, which will need to be cleared for

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the BCP project. The Lands Department has carried out pre-clearance survey at Chuk Yuen Village and conducted negotiations since September 2008 with the Village Removal Committee (VRC) formed by the indigenous villagers concerned. At the meeting held on 7 September 2009, the VRC agreed to the proposal of reprovisioning the village to a new resite area at Ta Kwu Ling (location shown at Enclosure 1).

9. We need to complete the proposed works to provide the resite area for subsequent reprovisioning of Chuk Yuen Village. After the completion of the reprovisioning works, the village is planned to be cleared for early commencement of the BCP construction works.

### FINANCIAL IMPLICATIONS

10. We estimate the cost of the proposed works to be \$51.3 million in MOD prices (please see paragraph 12 below), broken down as follows -

	<b>\$ million</b>	
(a) Site formation	21.6	
(b) Road works	4.6	
(c) Drainage works	5.5	
(d) Sewerage works	3.7	
(e) Waterworks	3.0	
(f) Landscaping works	0.8	
(g) Environmental mitigation measures	0.6	
(h) Consultants' fees	1.1	
(i) contract administration	0.9	
(ii) management of resident site staff	0.2	
(i) Remuneration of resident site staff	3.6	
(j) Contingencies	4.0	
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Sub-total	48.5	(in September 2009 prices)

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(k) Provision for price adjustment	2.8
	<u>2.8</u>
Total	<u>51.3</u> (in MOD prices)

11. Owing to insufficient in-house resources, we propose to engage consultants to supervise the proposed works. A breakdown by man-months of the estimate for consultants' fees and resident site staff costs is at Enclosure 2.

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

Year	\$ million (Sept 2009)	Price adjustment factor	\$ million (MOD)
2010 – 2011	16.7	1.02700	17.2
2011 – 2012	26.9	1.06551	28.7
2012 – 2013	4.9	1.10813	5.4
	<u>48.5</u>		<u>51.3</u>

13. We have derived the MOD estimate on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2010 to 2013. Subject to funding approval, we will deliver the works under standard re-measurement contract because the quantities of the works involved will vary depending on actual ground conditions. The contract will provide for price adjustments.

14. We estimate the annual recurrent expenditure arising from the proposed works to be about \$1.0 million.

## **PUBLIC CONSULTATION**

15. The VRC was consulted on 27 May and 7 September 2009 on the village reprovisioning proposal. At the meeting on 7 September 2009, the VRC agreed to the reprovisioning proposal. The Ta Kwu Ling District Rural Committee was consulted on 3 June 2009. Members generally supported the reprovisioning proposal. The Concern Group on the Construction of Liantang

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Boundary Control Point under the North District Council was consulted on 4 June and 17 November 2009. Members did not raise objection to the proposed reprovisioning works.

16. We circulated to the Legislative Council Panel on Development an information paper on the proposed works on 23 March 2010. Members raised no objection to the proposal.

## **ENVIRONMENTAL IMPLICATIONS**

17. The proposed works at Ta Kwu Ling will involve stream improvement works which is classified as a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (Cap 499) (EIAO). Having regard to a project profile submitted by the Civil Engineering and Development Department (CEDD), the Director of Environmental Protection was satisfied that the environmental impacts of the stream improvement works can meet the requirements of the Technical Memorandum on EIA Process. With the consent of the Secretary for the Environment, the permission to apply directly for an environmental permit was granted on 30 December 2009 to CEDD with conditions and an environmental permit for this work was issued to CEDD on 12 February 2010. Apart from the stream improvement works, the other proposed works are not a designated project under the EIAO. We have completed a Preliminary Environmental Review (PER) for the above works in February 2010. The PER concluded that, with the implementation of recommended mitigation measures, there would not be any significant environmental impacts.

18. We will incorporate the recommended mitigation measures as required under the environmental permit as well as those recommended in the PER into the works contract to control its environmental impact to within established standard and guidelines. These measures include frequent watering of the site, provision of wheel-washing facilities, covering of materials on trucks, use of silenced construction plant and provision of mobile noise barriers. We have included \$0.6 million in the project estimate for the implementation of the environmental mitigation measures.

19. We have considered the design of the proposed works and the construction sequence in the planning and design stages to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) on site or in other suitable

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construction sites as far as possible, in order to minimize the disposal of inert construction waste at public fill reception facilities<sup>1</sup>. We will encourage the contractor to maximize the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimize the generation of construction waste.

20. 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

21. We estimate that the project will generate in total about 25 160 tonnes of construction waste. Of these, we will reuse about 11 100 tonnes (44%) of inert construction waste on site and deliver 12 760 tonnes (51%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 1 300 tonnes (5%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be about \$0.5 million for this project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne<sup>2</sup> at landfills).

## HERITAGE IMPLICATIONS

22. 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>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.

<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 per 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

23. We have to resume 13 private agricultural lots (a total of about 19 462 square metres) for carrying out the proposed works. The land resumption and clearance will affect four agricultural structures and two irrigation ponds. The proposed works will also require the clearance of crops, fruit trees, fences, irrigation pipes and wells on both private agricultural land and Government land. The landowners will be offered ex-gratia cash compensation whereas displaced cultivators will be paid ex-gratia allowances. “Tun Fu” ceremonial fees will also be paid where appropriate. The cost of land acquisition and clearance is about \$62.0 million, which will be charged to **Head 701 – Land Acquisition**. A breakdown of the land acquisition costs is at Enclosure 3.

## BACKGROUND

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

25. We sought funding from the Finance Committee on 9 January 2009 for upgrading part of **13GB** to Category A as **14GB** “Liantang/Heung Yuen Wai Boundary Control Point and Associated Works – investigation and preliminary design” for carrying out investigation and preliminary design for the development of the BCP. We have completed the site investigation, detailed design and preparation of tender documents for the proposed works in paragraph 4 above.

26. In accordance with the prevailing policy for the removal of an indigenous village in the New Territories affected by public works, the Government will provide resite house entitlements to those indigenous villagers who owned building land or outsiders who acquired the building land before World War II, or the successors by inheritance of such indigenous villagers or outsiders. Accordingly, the Government is required to provide a village resite area with supporting infrastructure as proposed in paragraph 4 above to resite those eligible building lots owners at Chuk Yuen Village who are affected by the BCP project. The village resite area also provides land for small house sites to cater for the small house applicants of Chuk Yuen Village whose small house applications, submitted prior to the announcement of the BCP development on 18 September 2008, were withheld due to the BCP project.

27. Of the 112 trees within the boundary of the proposed works, six are dead. Of the remaining 106 trees, 51 will be preserved. The proposed works will involve the removal of 55 trees, including 48 trees to be felled and seven trees to be transplanted within the site as far as possible. All trees to be removed or

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transplanted are not important trees<sup>3</sup>. We will incorporate planting proposals as part of the proposed works, including estimated quantities of 80 trees and 7 500 shrubs.

28. We estimate that the proposed works will create about 63 jobs (49 for labourers and another 14 for professional/technical staff), providing a total employment of 1 012 man-months.

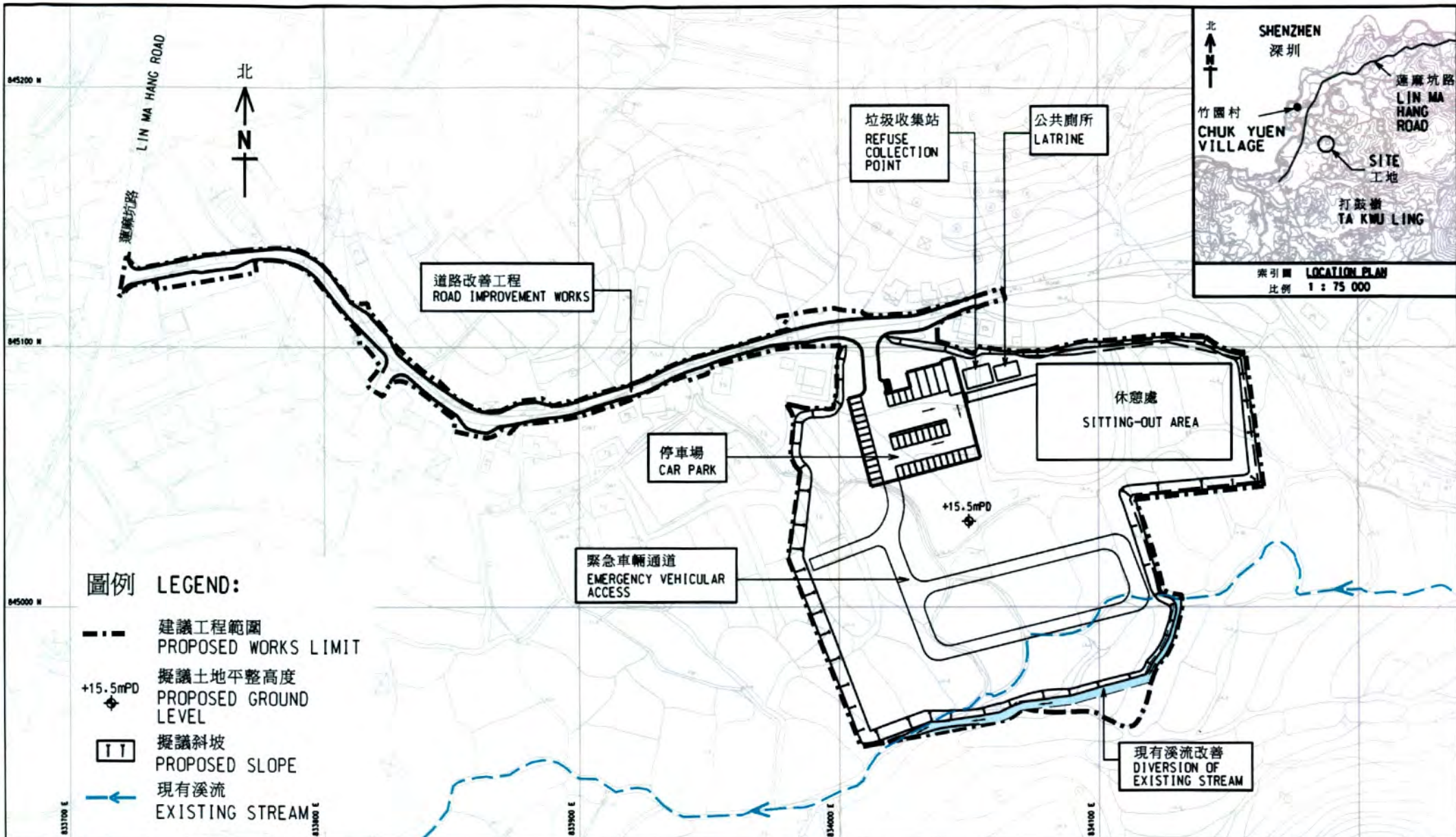
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**Development Bureau**  
**April 2010**

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



drawing title 圖則名稱

13GB (PART) - LIANTANG / HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS - VILLAGE REPROVISIONING WORKS - SITE PLAN

13GB (部份) - 蓮塘 / 香園圍口岸與相關工程 - 重置鄉村工程 - 工地平面圖

drawing no. 圖則編號

BCP - 016

scale

比例  
1 : 2 000



CIVIL ENGINEERING  
AND DEVELOPMENT  
DEPARTMENT  
HONG KONG

附件一  
ENCLOSURE 1

## Enclosure 2 to PWSC(2010-11)2

### **13GB (Part) – Liantang/Heung Yuen Wai Boundary Control Point and associated works – village reprovisioning works**

#### **Breakdown of estimates for consultants' fees and resident site staff costs (in September 2009 prices)**

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$million)
(a)	Consultants' fees for contract administration <sup>(Note 2)</sup>	Professional	–	–	–	0.8
		Technical	–	–	–	0.1
					Sub-total	0.9
(b)	Resident site staff costs <sup>(Note 3)</sup>	Professional	20	38	1.6	1.8
		Technical	62	14	1.6	2.0
					Sub-total	3.8
Comprising –						
	(i) Consultants' fee for management of resident site staff				0.2	
	(ii) Remuneration of resident site staff				3.6	
					<b>Total</b>	<b>4.7</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 supplied by the consultants. (As at now, MPS point 38 = \$57,280 per month and MPS point 14 = \$19,835 per month).
2. The consultants' staff cost for the contract administration is calculated in accordance with the existing consultancy agreement. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade part of **13GB** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

**Enclosure 3 to PWSC(2010-11)2**

**13GB (Part) – Liantang/Heung Yuen Wai Boundary Control Point and  
associated works – village reprovisioning works**

**Breakdown of the estimated land resumption and clearance costs**

	( \$ )	( \$ )
<b>Land resumption cost</b>		<b>51,953,268</b>
(a) Agricultural Land Ex-gratia Compensation (13 lots affected by the project are within Compensation Zone “C”. The total area involved is 19 461.7 square metres (m <sup>2</sup> ). - 19 461.7m <sup>2</sup> @ \$2,669.5/ m <sup>2</sup> (Note)	51,953,008	
(b) Interest payment on ex-gratia compensations for private land (at 0.001% annual rate for 1/2 year)	260	
<b>Clearance cost</b>		<b>4,122,019</b>
(a) Ex-gratia allowance for crops	3,526,999	
(b) Ex-gratia allowance for miscellaneous permanent improvements to farms	575,000	
(c) Interest payment on ex-gratia for crops and miscellaneous permanent improvements to farms	20	
(d) “Tun Fu” ceremonial fees	20,000	
<b>Contingency (10% of land resumption and clearance cost)</b>		<b>5,607,529</b>
<b>Total land resumption and clearance costs</b>		<b>61,682,816</b> <b>(Say \$62 million)</b>

Note: The land to be resumed in this project is agricultural land within Compensation Zone “C”. As published in the Gazette, the ex-gratia compensation rate effective from 1 April 2010 for this zone is \$248 per square foot (or \$2,669.5 per m<sup>2</sup>). Hence the ex-gratia compensation rate used for estimating the resumption cost of the lots affected by this project is \$2,669.5 per m<sup>2</sup>.