

For discussion  
on 18 December 2013

PWSC(2013-14)30

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

**HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT  
Transport – Footbridges/pedestrian tunnels**

**160TB – Footbridge across Po Yap Road linking Tseung Kwan O Area 55  
and Area 65**

Members are invited to recommend to Finance Committee the upgrading of **160TB**, entitled “Footbridge across Po Yap Road linking Tseung Kwan O Area 55 and Area 65”, to Category A at an estimated cost of \$80.5 million in money-of-the-day prices.

### **PROBLEM**

We need to construct a footbridge linking Tseung Kwan O Area 65 to Area 55 to form part of the grade-separated pedestrian networks, so as to connect Area 65 with the Tseung Kwan O Town Centre.

### **PROPOSAL**

2. The Director of Civil Engineering and Development (DCED), with the support of the Secretary for Development, proposes to upgrade **160TB** to Category A at an estimated cost of \$80.5 million in money-of-the-day (MOD) prices for the construction of the footbridge linking Tseung Kwan O Area 65 to Area 55.

**/PROJECT .....**

## PROJECT SCOPE AND NATURE

3. The scope of **160TB** comprises –
- (a) construction of a covered footbridge of about 40 metres long with a 5-metre clear width linking Tseung Kwan O Area 55 (The Grandiose) and Area 65 (Bauhinia Garden);
  - (b) construction of a passenger lift at the footbridge; and
  - (c) construction of the associated footpath, cycle track, drainage, water mains, as well as the landscaping, electrical and mechanical (E&M) works.

————— A layout plan and a photomontage showing the proposed works are at Enclosures 1 and 2 respectively.

4. Subject to funding approval of the Finance Committee, we plan to commence the construction works in June 2014 for completion in June 2016.

## JUSTIFICATION

5. At present, there is no grade-separated pedestrian linkage between Tseung Kwan O Area 65 and the Tseung Kwan O Town Centre. Residents of Area 65 can only access the Tseung Kwan O Town Centre via at-grade roads. As part of the recommendations under the “Feasibility Study for Further Development of Tseung Kwan O” completed in 2005 by the Civil Engineering and Development Department and Planning Department, a footbridge has been planned to connect Tseung Kwan O Area 65 to Area 55, which would form part of the grade-separated pedestrian networks linking Area 65 to the Tseung Kwan O Town Centre.

————— 6. As the population in Area 65 has been building up over the years, we consider it necessary to construct the planned footbridge linking the existing 24-hour pedestrian walkway at the Bauhinia Garden to The Grandiose in Area 55 to cater for the anticipated increasing pedestrian movement between Area 65 and the Tseung Kwan O Town Centre via Area 55. A plan showing the proposed footbridge and its adjacent grade-separated pedestrian networks is at Enclosure 3. Moreover, there have been strong requests from the local community and nearby residents for early implementation of the planned footbridge.

7. To enhance pedestrian connectivity and address the strong local demand, we propose to construct the planned footbridge together with the associated facilities. The design capacity of the footbridge will be able to cope with the estimated peak pedestrian flow (2-way) of about 5 800 pedestrians per hour in 2020.

8. To provide barrier-free access to the footbridge, we will construct a passenger lift with a capacity of about 12 persons at the side of the footbridge near the Bauhinia Garden. The lift will be designed with landing levels at the ground level, first floor of the Bauhinia Garden and deck level of the footbridge respectively. As for The Grandiose side, a lift is not required as the proposed footbridge will connect to the existing 24-hour public pedestrian walkway with lifts.

9. The proposed footbridge will be opened round-the-clock and will connect to the 24-hour public pedestrian walkways as required under the leases of the Bauhinia Garden and The Grandiose at both sides. The lease conditions of the two developments, i.e. the Bauhinia Garden and The Grandiose, have stipulated the relevant provisions concerning the said 24-hour public pedestrian walkways. An extract of the lease conditions of the Bauhinia Garden and The Grandiose are at Enclosures 4 and 5 respectively.

10. The existing footpath and cycle track at the side of the Bauhinia Garden will be relocated for the construction of supporting structures for the proposed footbridge and lift.

11. Upon completion, the footbridge (including the lift) which is owned by the Government will be managed and maintained by the relevant government departments. For the 24-hour public pedestrian walkways as required under the lease of the Bauhinia Garden and The Grandiose, they shall be managed and maintained by the respective lot owners under the respective lease conditions.

## **FINANCIAL IMPLICATIONS**

12. We estimate the capital cost of the project to be \$80.5 million in MOD prices (please see paragraph 13 below), broken down as follows –

/(a) .....

		<b>\$ million</b>	
(a)	Construction of a covered footbridge	38.6	
(b)	Construction of a lift tower and lift	7.5	
	(i) civil works	3.5	
	(ii) E&M works	4.0	
(c)	Construction of the associated footpath, cycle track, drainage, water mains, as well as the landscaping and E&M works	8.5	
(d)	Consultants' fees for	2.0	
	(i) contract administration	1.0	
	(ii) management of resident site staff	1.0	
(e)	Remuneration of resident site staff	6.6	
(f)	Contingencies	6.3	
	Sub-total	69.5	(in September 2013 prices)
(g)	Provision for price adjustment	11.0	
	Total	80.5	(in MOD prices)

Due to insufficient in-house resources, we propose to engage consultants to undertake the contract administration and site supervision of the proposed works. A breakdown of the estimates for consultants' fees and resident site staff costs by man-months is at Enclosure 6.

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

Year	\$ million (Sept 2013)	Price adjustment factor	\$ million (MOD)
2014 – 2015	8.0	1.06000	8.5
2015 – 2016	29.9	1.12360	33.6
2016 – 2017	21.4	1.19102	25.5
2017 – 2018	9.2	1.26248	11.6
2018 – 2019	1.0	1.32876	1.3
	69.5		80.5

14. 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 from 2014 to 2019. Subject to funding approval, we will deliver the works under a lump sum contract. The contract will provide for price adjustments.

15. We estimate the annual recurrent expenditure arising from the proposed works to be about \$363,000.

## **PUBLIC CONSULTATION**

16. We consulted the Transport and Traffic Committee of the Sai Kung District Council on the proposed footbridge on 2 August 2012 and 26 September 2013. Members supported the project and urged for its early implementation.

17. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 8 March 2013 and no objection has been received. The authorisation notice was then gazetted on 5 July 2013.

/18. ....

18. We consulted the Legislative Council Panel on Development on 26 November 2013. Members generally supported the proposed works.

## **ENVIRONMENTAL IMPLICATIONS**

19. This is not a designated project under the Environmental Impact Assessment (EIA) Ordinance (Chapter 499). The project will not cause any long-term adverse environmental impact. We have included in the project estimate the cost to implement standard pollution control measures during the construction.

20. For controlling the short-term environmental impacts caused by the proposed works during construction, mitigation measures will be implemented under the works contract. These measures include frequent watering of the site to reduce emission of fugitive dust, the use of movable noise barriers/enclosures and silenced plant to reduce noise generation, and the use of temporary drains to discharge the site runoff.

21. At the planning and design stages, we have considered the alignment, design level and construction method of the proposed works so as 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 and rock fill) 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<sup>1</sup>. We will encourage the contractor to maximise the use of recycled/recyclable inert construction waste and the use of non-timber formwork to further reduce the generation of construction waste.

22. 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 measures 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 the non-inert construction waste on site for disposal at appropriate facilities. Besides, 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.

/23. ....

---

<sup>1</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by DCED.

23. We estimate that the proposed works will generate about 1 450 tonnes of construction waste in total. Of these, we will reuse about 470 tonnes (32%) of inert construction waste on site and deliver about 930 tonnes (64%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 50 tonnes (4%) 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 \$31,360 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> for disposal at landfills).

## HERITAGE IMPLICATIONS

24. 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.

## TRAFFIC IMPLICATIONS

25. The proposed works will not cause any significant traffic impact. Temporary traffic arrangements will be implemented to facilitate the construction works which require a temporary road closure. We will display publicity boards on site giving details of the temporary traffic arrangements, and the anticipated completion dates of individual section of works. In addition, we will set up a telephone hotline to respond to public enquiries or complaints.

## LAND ACQUISITION

26. The proposed works require the creation of rights of temporary occupation of about 56.7 square metres (m<sup>2</sup>), and easements and other permanent rights of about 20.5 m<sup>2</sup>. The land acquisition costs, estimated at \$684,000, will be charged to **Head 701 – Land Acquisition**. A breakdown of the land acquisition costs is at Enclosure 7.

**/BACKGROUND .....**

---

<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.

**BACKGROUND INFORMATION**

27. We upgraded **160TB** to Category B in March 2007.

28. We engaged consultants in January 2013 to undertake the detailed design for the proposed works at an estimated cost of about \$2.2 million under the block allocation **Subhead 7100CX** “New Towns and urban area works, studies and investigations for items in Category D of the Public Works Programme”. We completed the detailed design for the proposed works mentioned in paragraph 3 above in November 2013.

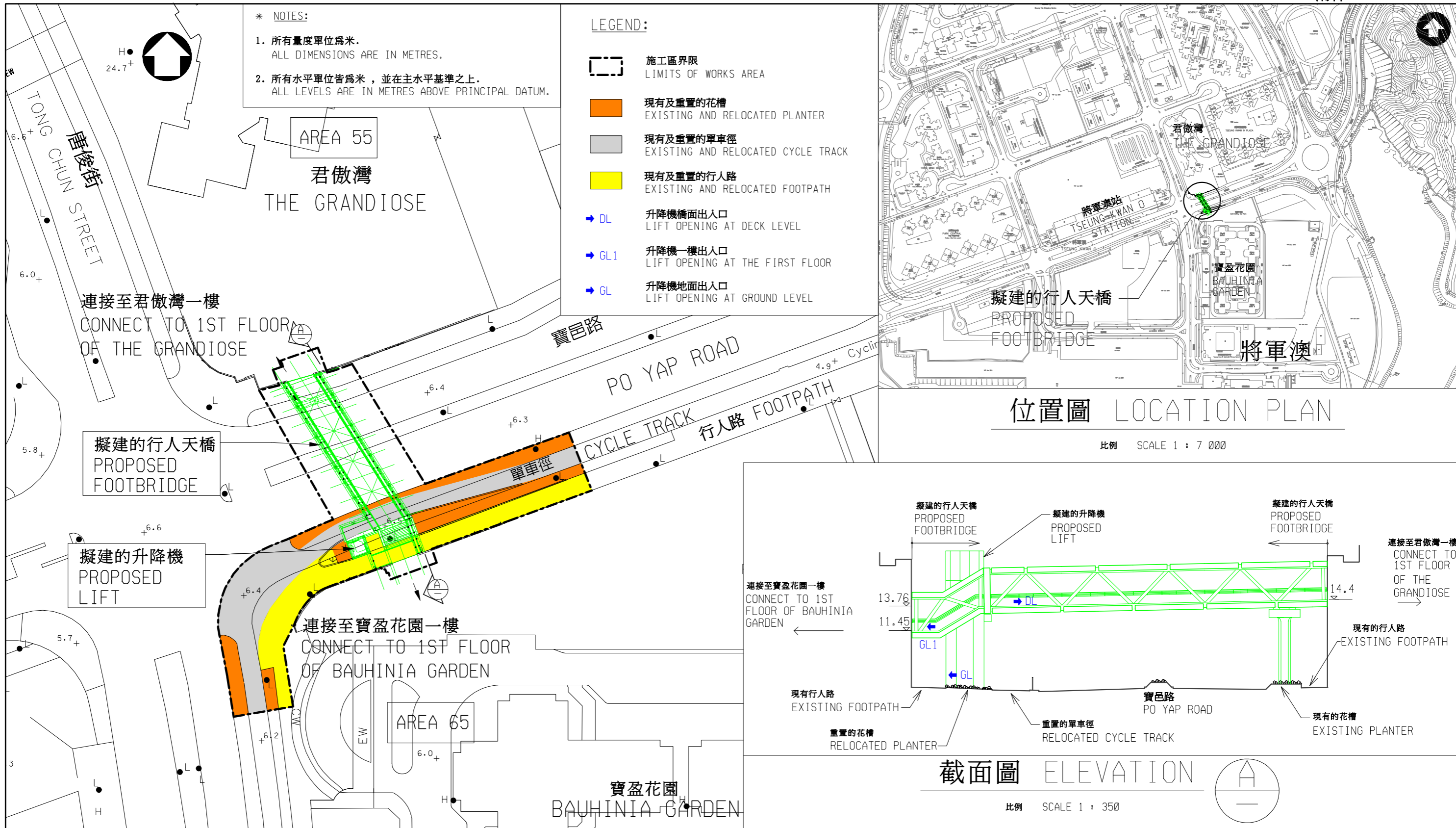
29. No old and valuable tree has been identified in the site. Also, the proposed works will not involve any tree removal. We will incorporate a planting proposal as part of the project, with an estimated quantity of 2 000 shrubs.

30. We estimate that the proposed works will create about 92 jobs (74 for labourers and another 18 for professional/technical staff) providing a total employment of 1 090 man-months.

-----

**Development Bureau**  
**December 2013**





二〇一三年至二〇一四年度工務小組委員會文件 PWSC SUBMISSION 2013-2014

圖則名稱 drawing title

工務計劃項目第160TB號—  
 橫跨寶邑路連接將軍澳第55區及第65區行人天橋—總平面及截面圖

PWP ITEM NO.160TB -  
 FOOTBRIDGE ACROSS PO YAP ROAD LINKING TSEUNG KWAN O AREA 55  
 AND AREA 65 - GENERAL LAYOUT AND ELEVATION

繪圖 drawn

Y T LAU

簽署 initial

SIGNED

日期 date

09.12.13

項目編號 item no.

160TB

核對 checked

S T KWONG

簽署 initial

SIGNED

日期 date

09.12.13

比例 scale

1 : 700

核准 approved

T S LI

簽署 initial

SIGNED

日期 date

09.12.13

圖則編號 drawing no.

TK2393

辦事處 office

新界東拓展處

NEW TERRITORIES EAST  
 DEVELOPMENT OFFICE



土木工程拓展署  
 CIVIL ENGINEERING  
 AND DEVELOPMENT  
 DEPARTMENT





擬建行人天橋  
PROPOSED FOOTBRIDGE

君傲灣  
THE  
GRANDIOSE

寶盈花園  
BAUHINIA  
GARDEN


寶邑路  
PO YAP ROAD

二〇一三年至二〇一四年度工務小組委員會文件 PWSC SUBMISSION 2013-2014

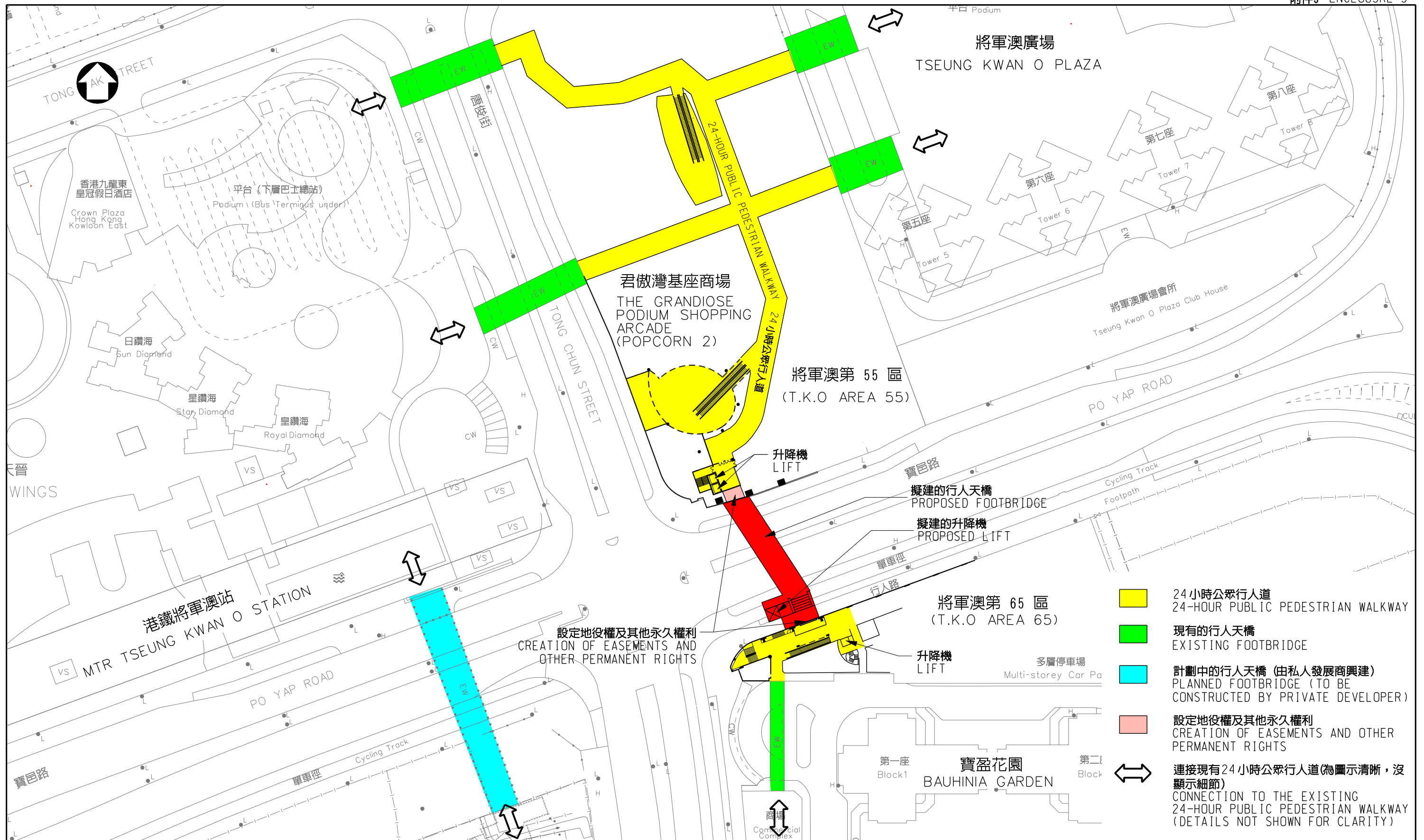
圖則名稱 drawing title

工務計劃項目第160TB號 -  
橫跨寶邑路連接將軍澳第55區及第65區行人天橋- 構想圖 (向東望)

PWP ITEM NO. 160TB -  
FOOTBRIDGE ACROSS PO YAP ROAD LINKING TSEUNG KWAN O AREA 55  
AND AREA 65 - PHOTOMONTAGE (LOOKING EAST)

繪圖 drawn Y T LAU	簽署initial SIGNED	日期 date 09.12.13	項目編號 item no. 160TB	辦事處 office 新界東拓展處 NEW TERRITORIES EAST DEVELOPMENT OFFICE
核對 checked S T KWONG	簽署initial SIGNED	日期 date 09.12.13	比例 scale N.T.S.	
核准 approved T S LI	簽署initial SIGNED	日期 date 09.12.13	圖則編號 drawing no. TK2394	
 土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT				





二〇一三年至二〇一四年度工務小組委員會文件 PWSC SUBMISSION 2013-2014

圖則名稱 drawing title	
工務計劃項目第 160TB 號 - 橫跨寶邑路連接將軍澳第 55 區及第 65 區行人天橋 - 平面圖 PWP ITEM NO. 160TB - FOOTBRIDGE ACROSS PO YAP ROAD LINKING TSEUNG KWAN O AREA 55 AND AREA 65 - PLAN	

繪圖 drawn	簽署 initial	日期 date	項目編號 item no.
Y W LO	SIGNED	9.12.13	160TB
核對 checked	簽署 initial	日期 date	比例 scale
S T KWONG	SIGNED	9.12.13	1 : 1000
核准 approved	簽署 initial	日期 date	圖則編號 drawing no.
T S LI	SIGNED	9.12.13	TK2395

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

**土木工程拓展署**  
 CIVIL ENGINEERING  
 AND DEVELOPMENT  
 DEPARTMENT



160TB – 橫跨寶邑路連接將軍澳第 55 區及第 65 區行人天橋

160TB – Footbridge across Po Yap Road linking Tseung Kwan O  
Area 55 and Area 65

顯示有關 24 小時行人道規定的寶盈花園

(將軍澳市地段 62 號) 契約條件摘錄

Extract of the lease conditions of the Bauhinia Garden (TKOTL 62) showing  
the relevant provisions concerning the 24-hour public pedestrian walkways

Footbridge  
links

(d) (i) The Purchaser shall provide at his own expense and to the satisfaction of the Director links at the perimeters of the building or buildings to be erected on the lot at such points and at such level as shall be approved by the Director to receive the Footbridges.

(ii) The Purchaser shall when providing footbridge links in accordance with sub-clause (d)(i) of this Special Condition provide and identify supports in the structure of the building or buildings to be erected on the lot that are in the opinion of the Director capable of accepting the loadings from the said footbridge links. Furthermore the level above the Hong Kong Principal Datum of the seating which will support the said footbridge links shall be subject to the approval of the Director.

(e) (i) The Purchaser shall provide at such level, in such alignment and of such design and standard in the building or buildings erected or to be erected on the lot as may be approved by the Director and keep open 24 hours a day a free public pedestrian way passage (together with such stairs, ramps, escalators and lifts as the Director in his absolute discretion may require for the purpose of the way passage) so as to link up the Footbridges, the building or buildings erected or to be erected on the said Tseung Kwan O Town Lot No. 61 and the integrated public pedestrian walkway system referred to respectively in sub-sub-clauses (b)(iii), (b)(iv) and (b)(v) of this Special Condition.

(ii) The Purchaser shall throughout the whole term hereby agreed to be granted at his own expense maintain the public pedestrian way passage referred to in sub-clause (e)(i) of this Special Condition in a tidy, clean, good and substantial condition and repair to the satisfaction of the Director.

(iii) It is hereby agreed and declared that any alienation of the lot or any part thereof or any interest therein shall be expressly subject to this sub-clause(e).

160TB – 橫跨寶邑路連接將軍澳第 55 區及第 65 區行人天橋

160TB – Footbridge across Po Yap Road linking Tseung Kwan O  
Area 55 and Area 65

顯示有關 24 小時行人道規定的君傲灣

(將軍澳市地段 75 號) 契約條件摘錄

Extract of the lease conditions of the Grandiose (TKOTL 75) showing the  
relevant provisions concerning the 24-hour public pedestrian walkways

Pedestrian footbridges  
and internal pedestrian  
walkway

(20) (a) The Grantee shall within the period specified in Special Condition No. (3) hereof at his own expense and to the satisfaction of the Director and in accordance with plans to be submitted to and approved by the Director, erect, construct and provide the following structures (hereinafter referred to as "the said structures") which structures shall in all respects comply with the Buildings Ordinance, any regulations made thereunder and any amending legislation:

- (i) supports and connections to such specifications of such design, with such materials and finishes and at such points and positions and at such levels, heights and widths as shall be required or approved by the Director for the proposed two pedestrian footbridges and a proposed covered walkway which are to be located at the approximate positions indicated on the plan annexed hereto and marked "Prop. Footbridge" and "Prop. Covered Walkway" so that construction of the said footbridges and covered walkway can be carried out thereon and that pedestrian access can be gained over the said footbridges and covered walkway into and from the internal pedestrian walkway or walkways referred to in sub-clause (a)(ii) of this Special Condition; and
- (ii) an internal pedestrian walkway or walkways which shall follow the shortest possible routes through the lot together with such associated access steps, ramps, stairways, escalators forming part thereof or pertaining thereto at such level, width and position and of such design and to such specifications as shall be required or to be approved by the Director connecting the proposed two pedestrian footbridges and the proposed covered walkway referred to in sub-clause (a)(i) above with the integrated public pedestrian walkway system referred to in Special Condition No. (22) hereof.

(b) The Grantee shall subject to sub-clause (c) of this Special Condition at his own expense upkeep, maintain, repair and clean the said structures and any supporting structures or columns thereof in good repair and condition to the satisfaction of the Director as if the Grantee were the absolute owner thereof.



## 附件 5 Enclosure 5

(c) The Government reserves the right to take possession of the whole or any portion or portions of the said structures for the purposes of a public pedestrian walkway or for any other purposes (as to which the decision of the Director shall be final and conclusive) without any payment or compensation to the Grantee provided always that the Government shall be under no obligation to take possession of the said structures or any part thereof at the request of the Grantee, but shall do so as and when it sees fit. Until such time as the Director shall confirm in writing that the possession of the said structures had been taken by the Government, the Grantee shall remain responsible for their upkeep maintenance repair and cleaning as specified in sub-clause (b) of this Special Condition.

24 hour pedestrian  
walkway

(d) The Grantee shall at all times during the day and the night or such hours as may be approved by the Director throughout the term hereby agreed to be granted permit all members of the public for all lawful purposes freely and without payment of any nature whatsoever to pass and repass on foot or by wheelchair only over, along and through the said structures or any part or parts thereof including but not limited to the internal pedestrian walkway or walkways referred to in sub-clause (a)(ii) of this Special Condition and through such part or parts of the lot and the building or buildings erected or to be erected on the lot as may be required by the Director to and from Ground Level with the two pedestrian footbridges and covered walkway referred to in sub-clause (a)(i) of this Special Condition and the integrated public pedestrian walkway system referred to in Special Condition No. (22) hereof. It is hereby agreed and declared that any alienation of the lot or any part thereof or any interest therein shall be expressly subject to the reservation to the public of the rights contained in this sub-clause.

(e) In the event of any re-development of the lot or any part thereof whereby the said structures or any part thereof are required to be demolished, the Grantee shall, within such time limit as shall be laid down by the Director, at his own expense and to the satisfaction of the Director, replace the same by the construction and completion of such new supports and connections, internal pedestrian walkway or walkways or a part or parts thereof of such design, with such materials and at such width, levels and positions as the Director shall approve or require.

(f) There is throughout the term hereby agreed to be granted excepted and reserved unto the Government, its tenants, occupiers, lessees and licensees of any adjoining or neighbouring land or premises and all other persons authorised by it in that behalf the right to connect the proposed two pedestrian footbridges and the proposed covered walkway referred to in sub-clause (a)(i) of this Special Condition to the building or buildings erected or to be erected on the lot at such level or levels as may be required or approved by the Director and in the approximate positions indicated on the plan annexed hereto and marked "Prop. Footbridge" and "Prop. Covered Walkway" together with a right of support and protection for the said two footbridges and covered walkway from such parts of the building or buildings erected or to be erected on the lot as are capable of affording the same.

**Enclosure 6 to PWSC(2013-14)30**

**160TB – Footbridge across Po Yap Road linking Tseung Kwan O  
Area 55 and Area 65**

**Breakdown of the estimates for consultants' fees and resident site staff costs  
(in September 2013 prices)**

		<b>Estimated man- months</b>	<b>Average MPS* salary point</b>	<b>Multiplier (Note 1)</b>	<b>Estimated fee (\$ million)</b>
(a) Consultants' fees for contract administration (Note 2)	Professional	--	--	--	0.7
	Technical	--	--	--	0.3
				Sub-total	1.0
(b) Resident site staff costs (Note 3)	Professional	36	38	1.6	3.9
	Technical	99	14	1.6	3.7
				Sub-total	7.6
Comprising –					
(i) Consultants' fees for management of resident site staff					1.0
(ii) Remuneration of resident site staff					6.6
				<b>Total</b>	<b>8.6</b>

\* MPS = Master Pay Scale

**Notes**

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff cost supplied by the consultants. MPS points 38 and 14 are used as the average MPS salary points for professionals and technical staff respectively. (As at now, MPS point 38 = \$67,370 per month and MPS point 14 = \$23,285 per month.)
2. The consultants' staff cost for the contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **160TB**. The construction phase of the assignment will only be executed upon Finance Committee's approval to upgrade **160TB** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

**Enclosure 7 to PWSC(2013-14)30**

**160TB – Footbridge across Po Yap Road linking Tseung Kwan O  
Area 55 and Area 65**

**Breakdown of Land Acquisition Costs**

	(\$)
<b>(a) Estimated Land Acquisition Costs</b>	
➤ Compensation for creation of rights of temporary occupation of about 56.7 m <sup>2</sup> , and easements and other permanent rights of about 20.5 m <sup>2</sup>	570,000
<b>(b) Contingency payment</b>	114,000
<b>Total</b>	<b>684,000</b>