

For discussion
on 20 January 2010

PWSC(2009-10)81

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 – HIGHWAYS

Transport – Roads

76TI – Bus-bus interchanges on Tuen Mun Road

Members are invited to recommend to Finance Committee the upgrading of **76TI** to Category A at an estimated cost of \$162.3 million in money-of-the-day prices for the construction of the bus-bus interchanges on Tuen Mun Road.

PROBLEM

It is necessary to construct two bus-bus interchanges (BBIs) on Tuen Mun Road (TMR) to improve the efficiency of the bus network along Castle Peak Road (CPR) and TMR so as to provide a wider coverage of bus services to different parts of the territory for the commuters along CPR and TMR.

PROPOSAL

2. The Director of Highways, with the support of the Secretary for Transport and Housing (STH), proposes to upgrade **76TI** (the Project) to Category A at an estimated cost of \$162.3 million in money-of-the-day (MOD) prices for the construction of BBIs on TMR.

/ **PROJECT.....**

PROJECT SCOPE AND NATURE

3. The scope of **76TI** comprises –
- (a) construction of a BBI on TMR Kowloon-bound near Siu Lam Interchange comprising mainly –
 - (i) a road of about 220 metres (m) long and 8.5 m wide parallel to TMR;
 - (ii) a bus drop-off facility and a sheltered passenger holding area with floor area of about 1 040 square metres (m²) and 680 m² respectively;
 - (iii) modification of the signalised junction of CPR and the slip road from TMR Kowloon-bound and the junction of CPR and an unnamed road;
 - (iv) widening of the unnamed road of about 150 m long to a two-lane carriageway to connect to the bus drop-off area mentioned in paragraph 3(a)(ii) above;
 - (v) realignment and widening of a section of CPR of about 300 m in length; and
 - (vi) reprovisioning of the single-lane road between CPR and TMR Kowloon-bound;
 - (b) construction of a BBI on TMR Tuen Mun-bound near Tai Lam Kok roundabout comprising mainly –
 - (i) a road of about 280 m long and 8.5 m wide parallel to the TMR with a sheltered passenger holding area of about 560 m² in size;
 - (ii) a U-shaped road of a minimum width of 6 m at Tai Lam Kok roundabout together with a sheltered passenger holding area of about 250 m² in size;

/(iii).....

- (iii) construction of a link bridge of 2.5 m clear width and about 30 m long with two lifts to connect the two sheltered passenger holding areas mentioned in paragraphs 3(b)(i) and (b)(ii) above; and
 - (iv) widening of Brothers' Bridge by about 17 m to form part of the road mentioned in paragraph 3(b)(i);
- (c) associated works including road reconstruction, provision of shelters, drainage, landscaping, traffic aids and street lighting, and slope works; and
 - (d) implementation of an environmental monitoring and audit (EM&A) programme for the works mentioned in paragraphs 3(a) to 3(c) above.

———— A plan showing the proposed works with cross sections is at Enclosure 1.

4. We have substantially completed the detailed design for the Project. In the light of comments made by Members of the Public Works Subcommittee at its discussion on 16 December 2009, the design of the Project has been fine-tuned as appropriate so as to enhance the services to be provided to passengers using the BBIs (please see details in paragraph 14 below). We plan to commence construction works in April 2010 for completion by April 2013.

JUSTIFICATION

5. At present, there are 57 bus routes running along either CPR or TMR connecting Tuen Mun with other parts of Hong Kong. Residents of Tuen Mun, especially those living along CPR, have been repeatedly demanding the provision of a wider coverage of bus services to different parts of the territory. Instead of introducing additional bus routes, which will induce more traffic and cause inefficient use of the existing bus network, we consider that BBIs should be provided on TMR near Siu Lam to address the public's request. Indeed, during the consultation of the project on the "Reconstruction and Improvement of Tuen Mun Road" in November 2006, members of Tuen Mun District Council (TMDC) also proposed to provide BBIs along the TMR to improve the efficiency of bus networks.

/6.

6. The Project will provide two BBIs, one on Kowloon-bound and the other on Tuen Mun-bound of TMR. The proposed BBIs aim at providing a convenient interchanging facility for passengers to switch amongst bus routes from/to Northwest New Territories operating via CPR and TMR. This arrangement will not only provide the existing passengers with more choices of bus services at the BBIs, but also greatly enhance the overall efficiency of the bus network in the Northwest New Territories and provide opportunities for bus rationalization. The Administration has commenced discussion with the concerned bus companies to review bus routes along CPR and TMR with a view to coming up with reorganization proposals for further discussion with the TMDC. The actual number of bus routes to be diverted to use the BBIs and the consequential re-organization of existing routes that can be achieved will depend on the outcome of such discussion. That said, whatever the number of remaining bus routes operating along CPR and TMR, the Administration will make use of the interchanging arrangements at the BBIs to optimize passenger convenience and to reduce traffic congestion and road-side air pollution through better bus network efficiency.

7. For the Tuen Mun-bound BBI, there is a 7 m level difference between the holding area at TMR and the holding area at Tai Lam Kok. We have in fact considered whether there are other suitable locations along CPR and TMR for the facilities that could avoid the level difference for passengers interchanging between Tuen Mun-bound routes running along CPR and those running along TMR. However, taking into consideration the site selection criteria (i.e. the location should be near Sham Tseng and Gold Coast where population along CPR is centred; the BBI should be situated in an area where CPR and TMR are close to one another; sufficient area should be available for the construction of bus bays for both TMR and CPR; and resumption of private land or reclamation should be minimized), we came to the conclusion that the current location is the best option available. The construction of the link bridge (with sheltered walkway) will allow passengers to travel on foot from the holding area at TMR to the holding area at Tai Lam Kok to switch buses. Two lifts¹ will be constructed in connection with the link bridge to provide access to people with disabilities.

/FINANCIAL....

¹ The provision of escalators instead of lifts is not recommended because escalators are not accessible to wheelchair users and hence are not proper barrier-free access facilities for the disabled.

FINANCIAL IMPLICATIONS

8. We estimate the cost of **76TI** to be \$162.3 million in money-of-the-day (MOD) prices (please see paragraph 9 below), broken down as follows –

	\$ million	
(a) Roads and drains	27.6	
(b) Earthworks and slopeworks	30.1	
(c) Bridge widening works	34.2	
(d) Passenger holding areas	19.2	
(e) Link bridge with two lifts	14.5	
(f) Landscaping	3.5	
(g) Consultant's fees	1.1	
(i) construction supervision and contract administration	0.4	
(ii) management of resident site staff	0.1	
(iii) EM&A programme	0.6	
(h) Remuneration of resident site staff	13.0	
(i) Contingencies	<u>12.8</u>	
	Sub-total	<u>156.0</u> (in September 2009 prices)
(j) Provision for price adjustment	<u>6.3</u>	
	Total	<u>162.3</u> (in MOD prices)

A detailed breakdown of the estimates for the consultant's fees and resident site staff costs by man-months is at Enclosure 2.

9. Subject to approval, we will phase the expenditure as follows –
/Year.....

Year	\$ million (Sep 2009)	Price Adjustment Factor	\$ million (MOD)
2010 –11	50.7	1.02000	51.7
2011 –12	61.3	1.04040	63.8
2012 –13	42.0	1.06121	44.6
2013 –14	2.0	1.08243	2.2
	156.0		162.3

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 2014. We will implement the works under a standard remeasurement contract because the quantity of the foundation works for the link bridge and the slopeworks is subject to variation depending on actual ground conditions. We will allow for price adjustments in the contract.

10. We estimate the additional annual recurrent expenditure upon completion of the Project to be about \$1.0 million.

PUBLIC CONSULTATION

11. During the consultation of the project on the "Reconstruction and Improvement of Tuen Mun Road" in November 2006, members of the TMDC proposed to provide BBIs along the TMR to improve the efficiency of bus networks. We consulted the TMDC Traffic and Transport Committee on 14 March 2008 and 12 September 2008 on the conceptual plan and preliminary design of the Project respectively. Members were generally supportive of the proposed road scheme and hoped that the Administration would take it forward as soon as possible. On the other hand, some of the members were concerned about the longer travelling time due to bus interchange arrangements. In response to the request of the members, the Transport Department has agreed to carefully consider the routes and the fares of the interchange bus services.

12. We circulated an information paper on the proposed Project to the Legislative Council Panel on Transport on 24 November 2009. Members did not raise any objection.

/13.

13. The Public Works Subcommittee discussed **76TI** on 16 December 2009. While Members generally supported the BBIs scheme, they raised a number of suggestions and observations in respect of the Project. Apart from expressing concerns over the possible risk impact of a dangerous goods warehouse located near the proposed BBI on TMR Kowloon-bound, some Members suggested that the Administration should enhance the design of the BBIs.

14. In light of Members' concerns and suggestions, we have considered further the ancillary support services to be provided at the BBIs. A summary of the additional / enhanced facilities that we will provide is set out below. (Proposed locations of items (a), (c), (e) and (g) are set out in the plan at Enclosure 3.)

-
- (a) Seats for waiting passengers
Seats will be provided at the sheltered areas of the BBIs, on the basis that the queuing of passengers will not be obstructed.
 - (b) Covers
Covers with more extensive coverage will be provided to allow maximum possible protection for passengers from inclement weather.
 - (c) Fixed-line telephone services
Arrangements will be made for the provision of one fixed line telephone kiosk at each of the BBIs.
 - (d) Provision of passenger drop-off / pick-up area
The BBIs are currently designed for the sole use of bus passengers for interchanging buses. Hence, in the current design of the BBIs, space has not been provided for passengers taking other transport modes to drop-off / pick-up at the BBIs. That said, the Administration accepts that without undermining the efficiency of the BBI operation, it will be desirable to facilitate passengers arriving by other modes of transports to make use of the bus services at the BBIs by allowing passengers drop-off / pick-up. But whether the BBIs will be overloaded with too many vehicle trips thus affecting their operation can only be assessed when further discussion with the local community and relevant bus companies on the number of bus routes calling at the BBIs and the actual arrangements is completed (please refer to paragraph 6 above).

/Notwithstanding.....

Notwithstanding the above, even if not all passengers drop-off / pick-up activities could be accommodated inside the BBIs due to limited capacity, the Administration will strive to provide suitable locations near the BBIs to allow for passengers drop-off / pick-up. For the Tuen Mun-bound BBI, private cars may use the re-provisioned car parking spaces next to the BBI for drop-off and pick-up while the section of CPR just next to the BBI can also be used by all vehicle types for the purpose. For the Kowloon-bound BBI, the immediately adjacent section of CPR may be used for drop-off and pick-up if needed. The above-mentioned locations (as denoted on the plans at Enclosure 4) are within reasonable walking distance from the respective BBIs. Consultation with the TMDC on the arrangement will be carried out nearer the time.

- (e) Provision of bus and traffic information to passengers
To disseminate traffic congestion messages in respect of both ways of TMR to waiting passengers, three pairs of variable message signs will be provided at the two BBIs – one pair in Kowloon-bound direction and two pairs in Tuen Mun-bound direction (one pair on CPR and one pair on TMR). TD will also explore with the concerned bus companies further improvements to the mode of provision of bus route-related information for passengers (such as bus schedules, bus stops in the direction the bus is travelling and bus fares).
- (f) Provision of small office or similar facilities to facilitate the operation of the BBIs by the bus companies concerned
Depending on the operational needs, bus companies may erect kiosks for their staff at the major interchanges. At the currently proposed BBIs, we have reserved suitable sites for the kiosks. If required, we could arrange for the provision of basic facilities such as electricity and telephone line connection. Before the operation of the BBIs, TD will remind the bus companies to assess the need for erecting kiosks and assist the interested bus companies in seeking approvals from the concerned government departments.

/(g)

(g) Provision of public toilets

We will provide portable toilets upon the commissioning of the BBIs. The need for permanent toilet facilities will be assessed on the basis of the patronage of the portable toilets. We have reserved suitable sites at the BBIs for the construction of permanent public toilets.

15. On the dangerous goods warehouse located near the proposed Kowloon-bound BBI, the Administration has in fact carefully assessed the potential safety risk of the warehouse prior to taking forward the proposal. The warehouse has met the safety requirements of the Fire Services Department (FSD) and obtained the required licence for its operation. In particular, it is fenced off by a cladding wall and its entrance is controlled and restricted to authorized vehicles and personnel only. Moreover, the dangerous goods stored inside are placed in special units inside the premises with fire wall and protective doors to enhance safety. We are satisfied that the warehouse would not pose any additional risk to the passengers using, or staff of the bus companies stationing at, the BBIs. This notwithstanding, we have drawn to the attention of the FSD the public's concern over the potential safety risk of the warehouse. The Department has confirmed that it has paid special attention to the warehouse concerned.

16. We circulated an information paper to the Panel on Transport on 31 December 2009 setting out the above enhancements to the Project. Members did not raise any objections or comments.

17. We consulted the Advisory Committee on the Appearance of Bridges and Associated Structures² on the aesthetic design of the proposed extension of Brothers' Bridge, as well as the link bridge and lifts under the Project in March 2009. The Committee accepted the proposed aesthetic design. The artist's impressions showing the proposed link bridge and widening of Brothers' Bridge are at Enclosure 5.

/18.

² The Advisory Committee on the Appearance of Bridges and Associated Structures (which comprises representatives of the Hong Kong Institute of Architects; the Hong Kong Institution of Engineers; the Hong Kong Institute of Planners; an academic institution; Architectural Services Department; Highways Department; Housing Department; and Civil Engineering and Development Department) is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and enclosures, from the aesthetic and visual impact points of view.

18. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (the Ordinance) on 16 January 2009 and received one objection. The details of the objection and the Administration's response are at Enclosure 6. No response was received from the objector after we provided our response to his second round of questions. The objection is thus considered unresolved.

19. Having considered the unresolved objection, the Chief Executive-in-Council authorized the proposed works under the Ordinance on 3 November 2009. The authorization notice was gazetted on 20 November 2009.

ENVIRONMENTAL IMPLICATIONS

20. The Project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have nevertheless carried out an environmental review including noise, air and water quality impacts during construction as well as landscape, visual and waste management issues. The review concluded that the Project would not cause long-term environmental impacts. We will implement all the recommended mitigation measures to mitigate environmental impacts to within the established standards and guidelines.

21. In particular, during construction, we will control noise, dust and site run-off nuisance to comply with established criteria through the implementation of appropriate mitigation measures in the works contract. We will implement an EM&A programme during the course of construction to ensure that suitable measures are adopted to avoid the occurrence of adverse environmental impacts on the public.

22. We will require the contractor to reuse inert construction waste (e.g. excavated rock and soil materials) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of construction waste at public fill reception facilities³. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

/23.

³ 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.

23. 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.

24. We estimate that the Project will generate in total about 59 120 tonnes of construction waste. Of these, we will reuse about 30 000 tonnes (50.8%) of inert construction waste on site and deliver 28 220 tonnes (47.7%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 900 tonnes (1.5%) 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 \$0.9 million for this Project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne⁴ at landfills).

HERITAGE IMPLICATIONS

25. The Project 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

26. The proposed works do not require any land acquisition.

/BACKGROUND.....

⁴ This estimate has taken into account the cost of 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 m³), 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 **76TI** to Category B in April 2008.

28. We engaged consultants in June 2008 to undertake the investigation and design for the Project at an estimated cost of \$1.95 million in MOD prices under **Subhead 6100TX** “Highway works, studies and investigations for items in Category D of the Public Works Programme”. We have substantially completed the design for the Project.

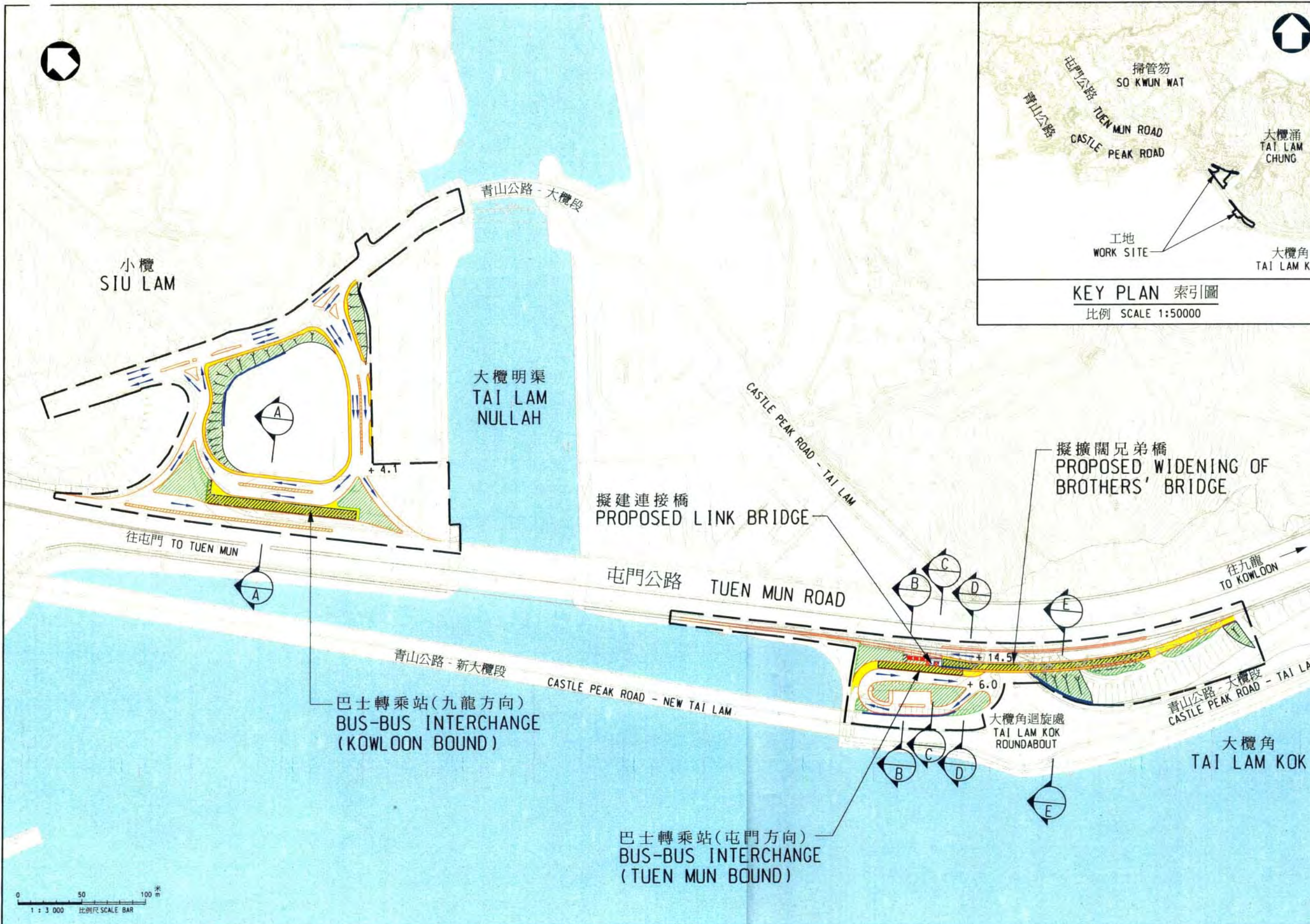
29. Of the 250 trees within the project boundary, 56 trees will be preserved while 194 trees will be removed (including 190 to be felled and four to be transplanted within the project site). None of the trees to be removed are important trees⁵. We will incorporate planting proposals as part of the Project, including an estimation of about 3 630 trees, 15 400 shrubs and 3 370 m² of grassed area.

30. We estimate that the proposed works will create about 184 jobs (34 for professional/technical staff and 150 for labourers) providing a total employment of about 3 187 man-months.

Transport and Housing Bureau
January 2010

⁵ “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 –

- trees of 100 years old or above;
- 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 important persons or events;
- trees of precious or rare species;
- trees of outstanding form (taking account of overall tree size, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25 metres.



註釋:
NOTES:
1. 所有水平均以米為單位, 並在香港主水平基準上。
ALL LEVELS ARE IN METRES ABOVE HONG KONG PRINCIPAL DATUM.

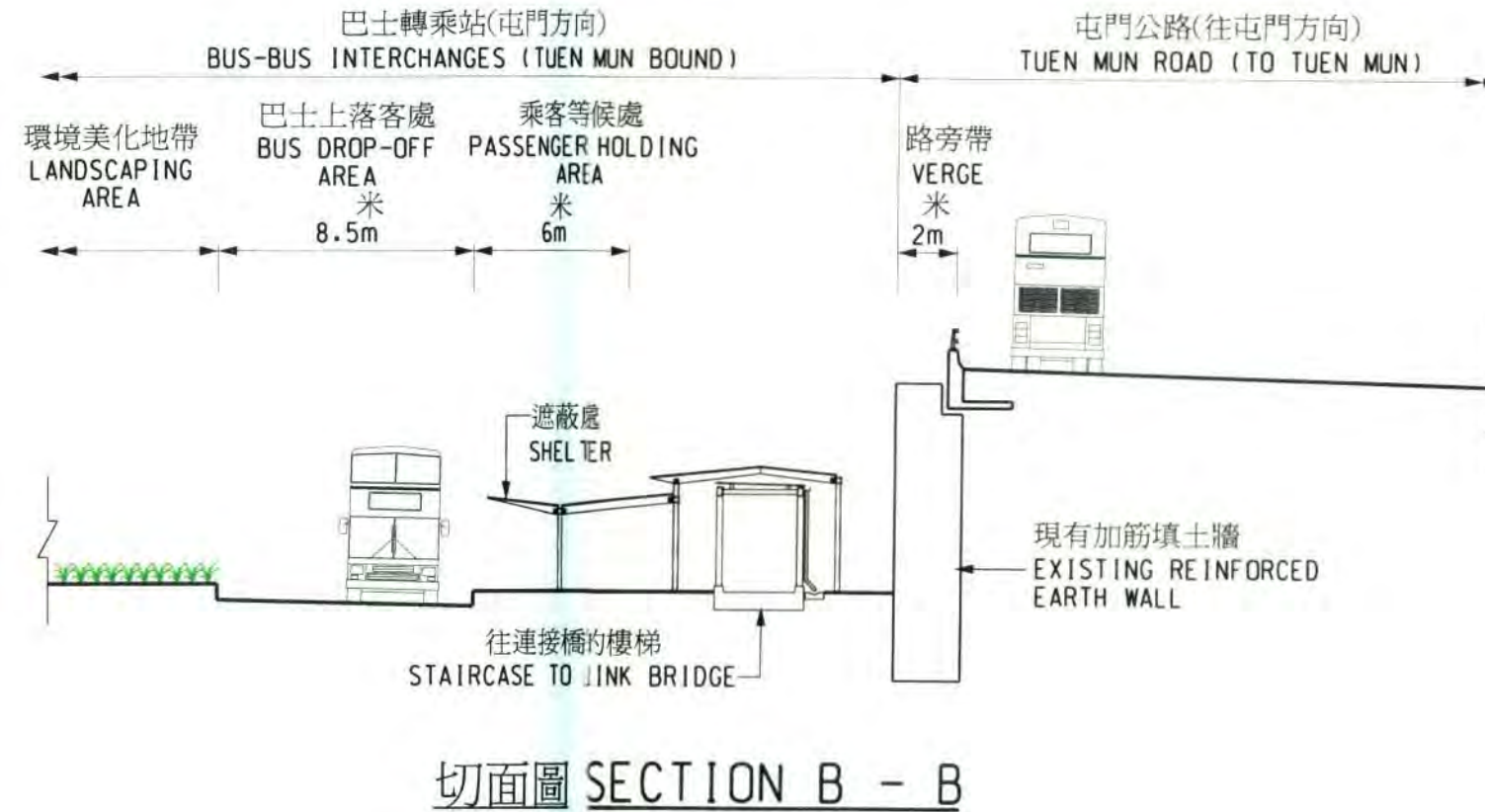
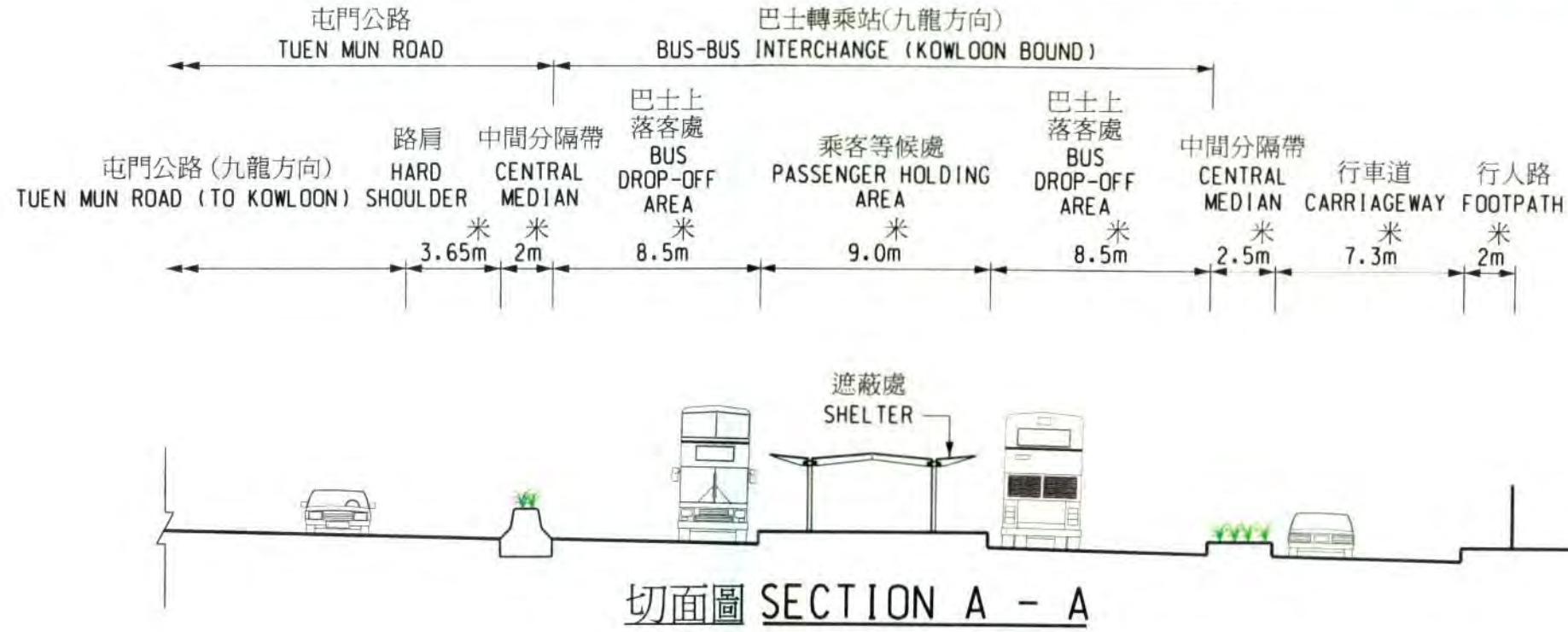
- 圖例:
LEGEND:
- 施工區界限
LIMIT OF WORKS AREA
 - 擬修改的行车道路線
PROPOSED ROAD ALIGNMENT
 - YYY 擬建填土斜坡
PROPOSED FILL SLOPE
 - 擬建擋土牆
PROPOSED RETAINING WALL
 - ☒ 擬建升降機
PROPOSED LIFT
 - ▨ 擬建樓梯
PROPOSED STAIRCASE
 - 擬建乘客等候處 / 行人路
PROPOSED PASSENGER HOLDING AREA / FOOTPATH
 - ▨ 擬建遮蔽處
PROPOSED SHELTER
 - ▨ 擬建環境美化地帶
PROPOSED LANDSCAPING AREA
 - 行车線數
NO. OF TRAFFIC LANE

圖則名稱 drawing title
工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 平面圖
PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - LAYOUT PLAN

圖則編號 drawing no. HMW6076TI-SK0024
比例 scale 1:3000 OR AS SHOWN
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HIGHWAYS DEPARTMENT HONG KONG 路政署

註釋 NOTES :

- 1. 所有量度均以米為單位。
ALL DIMENSIONS ARE IN METRES.



圖則名稱 drawing title

工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 切面圖
PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - SECTIONS

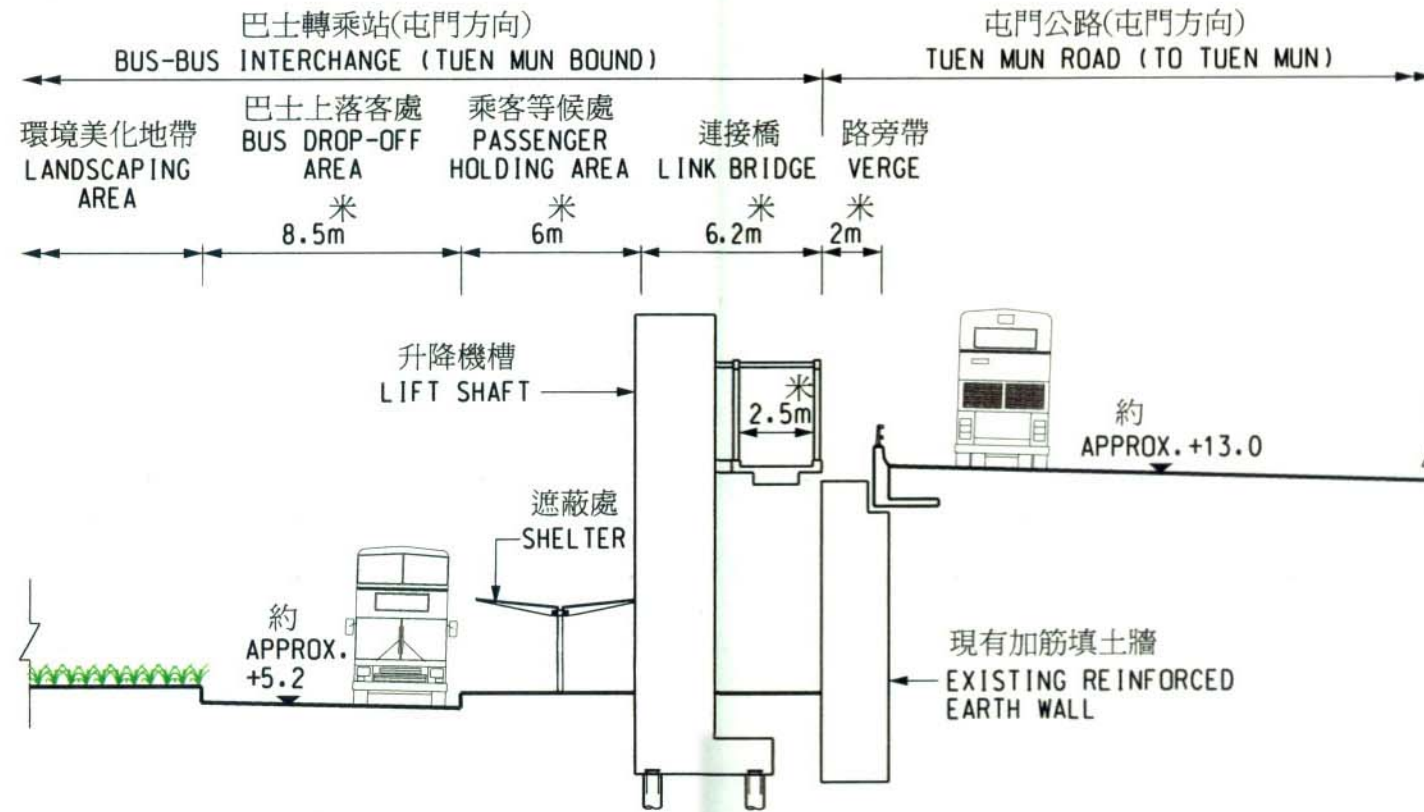
圖則編號 drawing no. HMW6076TI-SK0025 比例 scale 1:250

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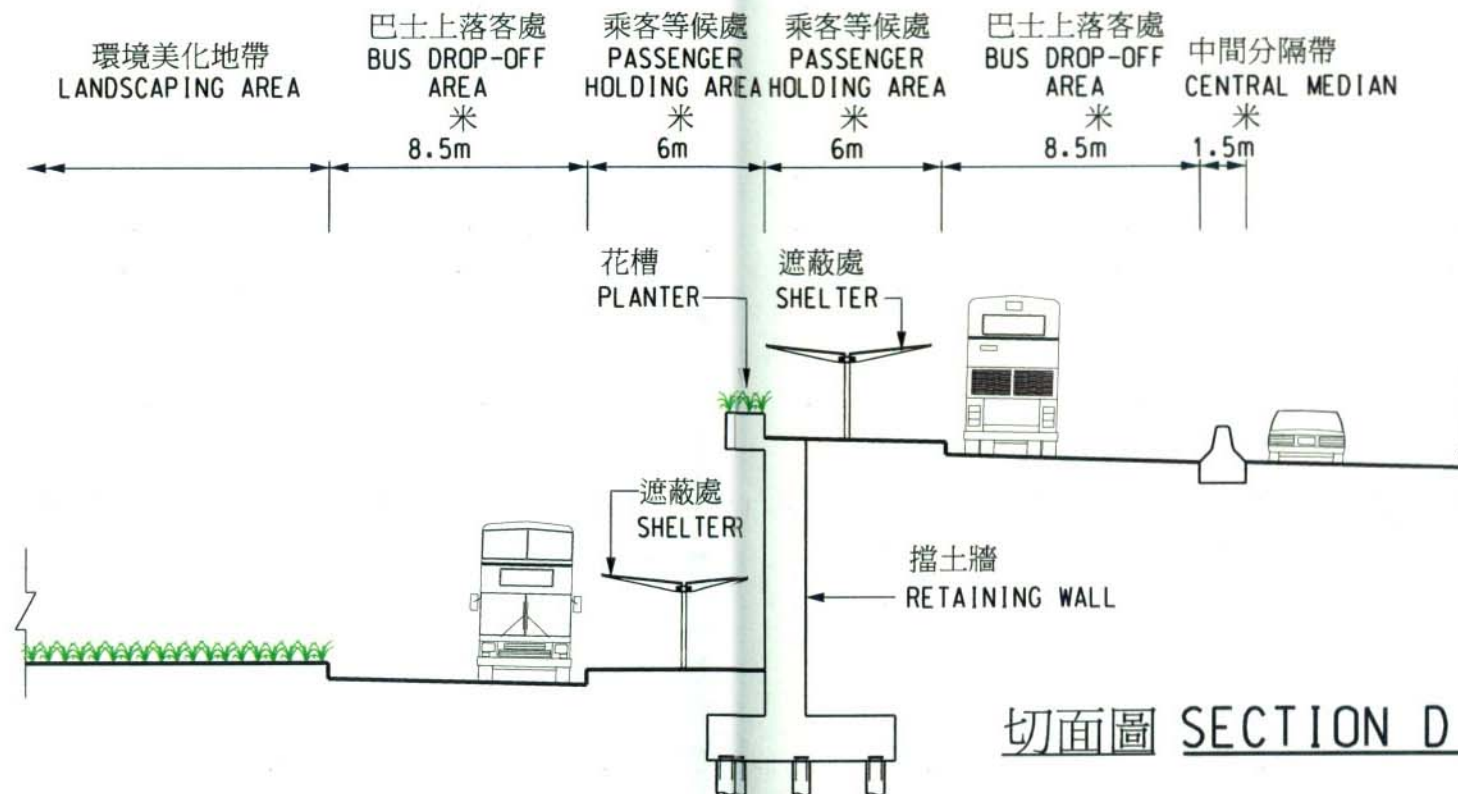
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1. 所有量度均以米為單位。
ALL DIMENSIONS ARE IN METRES.
2. 所有水平均以米為單位，並在香港主水平基準上。
ALL LEVELS ARE IN METRES ABOVE HONG KONG PRINCIPAL DATUM.



切面圖 SECTION C - C



切面圖 SECTION D - D

圖則名稱 drawing title

工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 切面圖
PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - SECTIONS

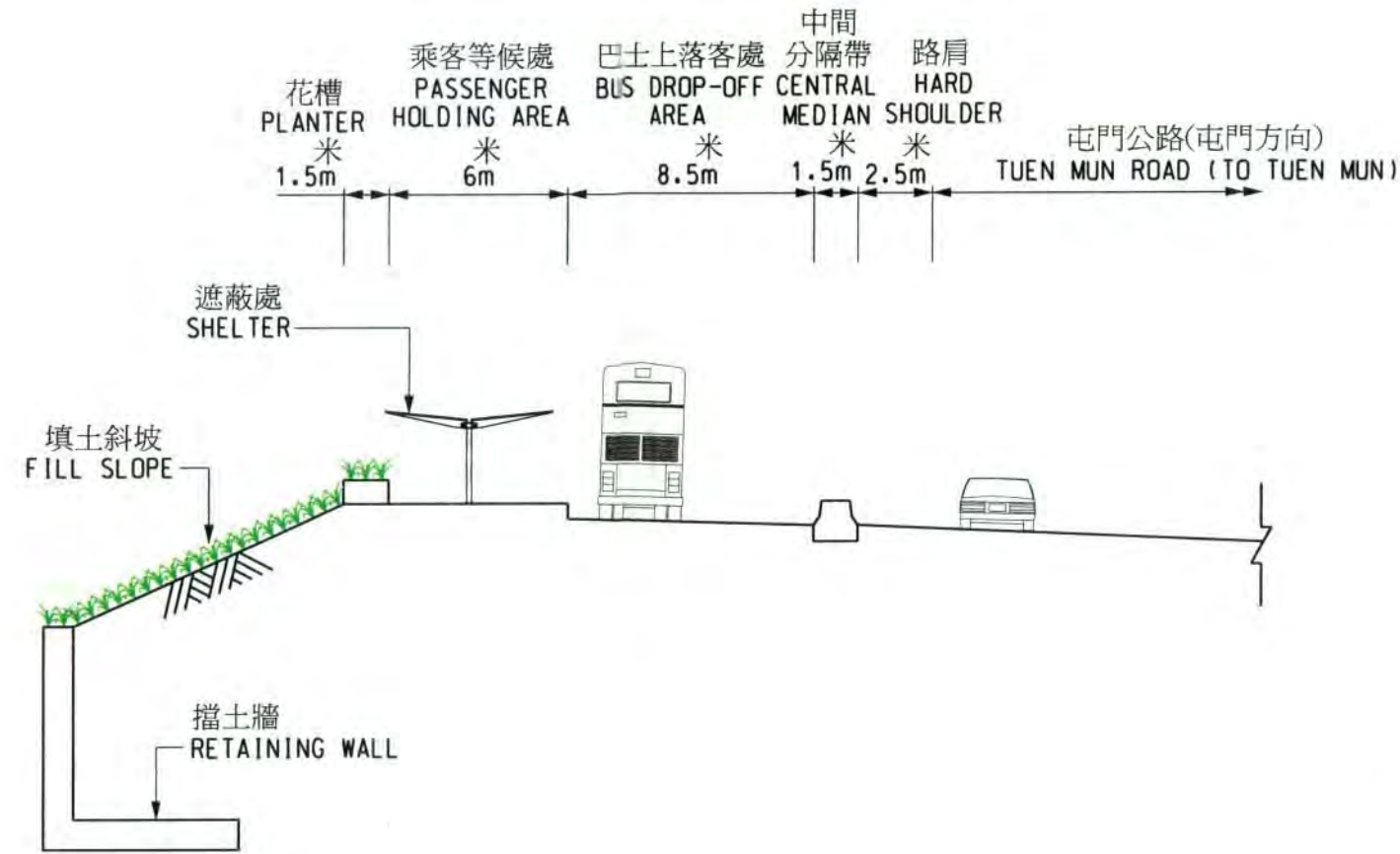
圖則編號 drawing no. HMW6076TI-SK0026 比例 scale 1:250

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註釋 NOTES :

- 除在其他方面表明外，所有量度均以米為單位。
ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.



切面圖 SECTION E - E

工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 切面圖
PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - SECTIONS

圖則編號 drawing no. HMW6076TI-SK0027 比例 scale 1:250

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HIGHWAYS DEPARTMENT HONG KONG 路政署

Enclosure 2 to PWSC(2009-10)81

76TI – Bus-bus interchanges on Tuen Mun Road

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

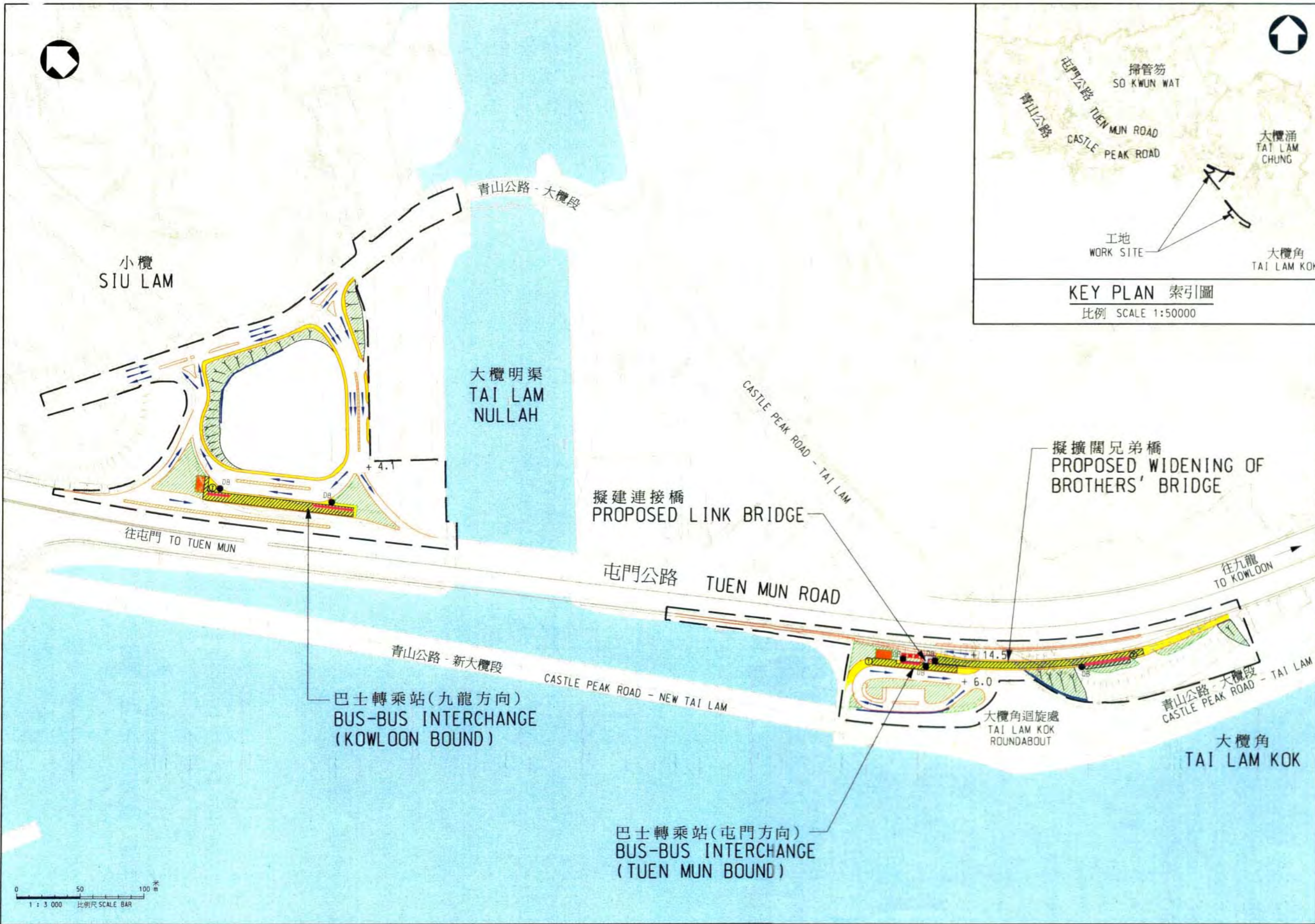
		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fees for construction supervision and contract administration (Note 2)	Professional	--	--	--	0.2
	Technical	--	--	--	0.2
				Sub-total	<hr/> 0.4
(b) Consultants' fees for EM&A programme	Professional	3.5	38	2.0	0.4
	Technical	6	14	2.0	0.2
				Sub-total	<hr/> 0.6
(c) Resident site staff costs	Professional	55	38	1.6	5.0
	Technical	255	14	1.6	8.1
				Sub-total	<hr/> 13.1
Comprising –					
(i) Consultants' fees for management of resident site staff					0.1
(ii) Remuneration of resident site staff					13.0
				Total	<hr/> 14.1

* MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to arrive at the full staff costs including the consultants' overheads and profit as the staff will be employed in the consultants' offices. A multiplier of 1.6 is applied to the average MPS point for resident site staff supplied by the consultants (as at now, MPS pt. 38 = \$57,280 per month, and MPS pt. 14 = \$19,835 per month).

2. The consultants' fees for construction supervision and contract administration are estimated in accordance with the terms stipulated in Supplementary Agreement No. 2 to CE 22/2005 (HY) titled "Improvement of Sham Tseng Interchange and Bus-Bus Interchanges on Tuen Mun Road – Investigation, Design and Construction". The construction phase of the assignment will be executed only subject to Finance Committee's approval to upgrade **76TI** to Category A.



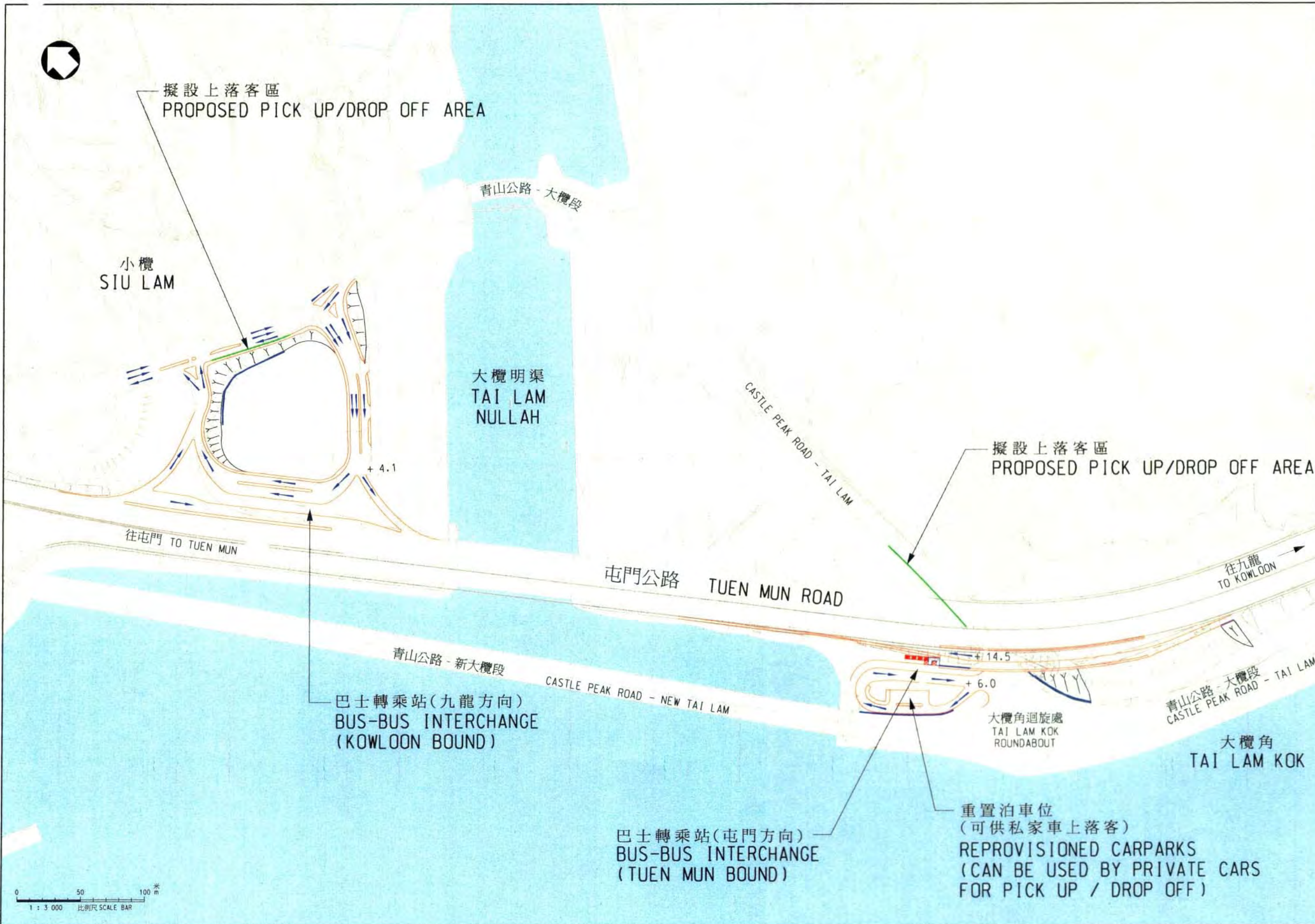
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PROPOSED ROAD ALIGNMENT
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 - ▨ 擬建遮蔽處
PROPOSED SHELTER
 - ▨ 擬建環境美化地帶
PROPOSED LANDSCAPING AREA
 - 行车線數
NO. OF TRAFFIC LANE
 - Ⓣ 電話亭
TELEPHONE KIOSK
 - 洗手間
WASHROOM
 - 電子顯示屏
ELECTRONIC DISPLAY BOARD
 - 長椅
BENCH

圖則名稱 drawing title

工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 平面圖
PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - LAYOUT PLAN

圖則編號 drawing no. HMW6076TI-SK0020
比例 scale 1:3000 OR AS SHOWN





註釋:
NOTES:
1. 所有水平均以米為單位, 並在香港主水平基準上。
ALL LEVELS ARE IN METRES ABOVE HONG KONG PRINCIPAL DATUM.

- 圖例:
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- 擬修改的行车道路線
PROPOSED ROAD ALIGNMENT
 - 擬建填土斜坡
PROPOSED FILL SLOPE
 - 擬建擋土牆
PROPOSED RETAINING WALL
 - 擬建升降機
PROPOSED LIFT
 - 擬建樓梯
PROPOSED STAIRCASE
 - 擬設上落客區
PROPOSED PICK UP/DROP OFF AREA
 - 行车線數
NO. OF TRAFFIC LANE

圖則名稱 drawing title

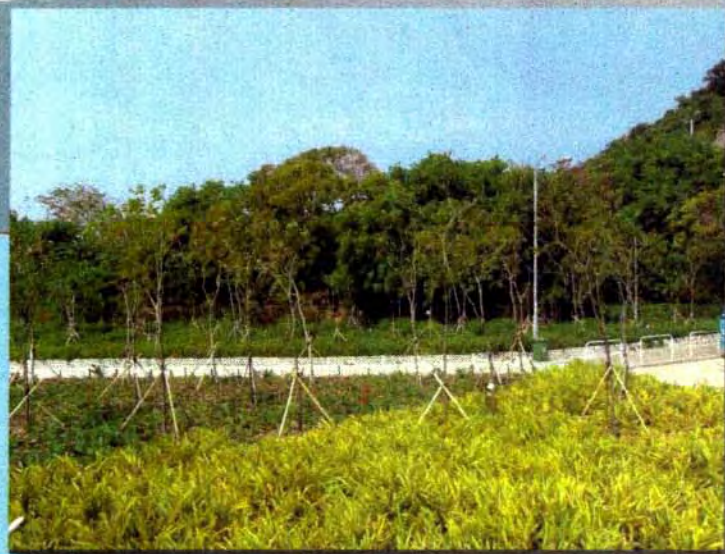
屯門公路巴士轉乘站 - 擬設上落客區
BUS-BUS INTERCHANGES ON TUEN MUN ROAD - PROPOSED PICK UP/DROP OFF AREA

圖則編號 drawing no.
HMW6076T1-SK0021

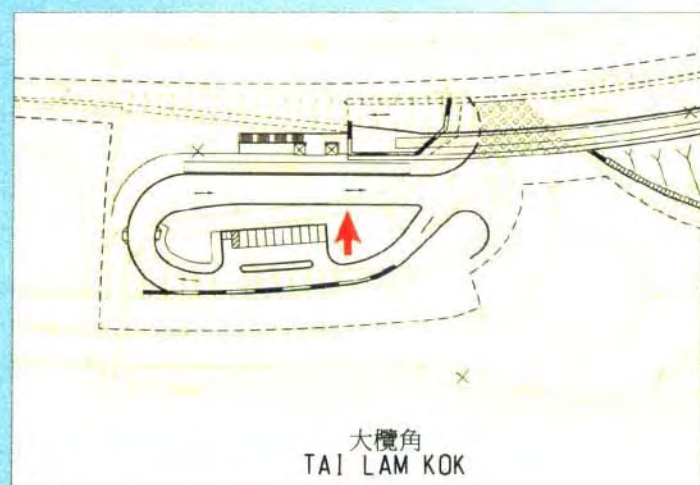
比例 scale
1:3000
OR
AS SHOWN

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現有的景觀
EXISTING VIEW



平面圖
LAYOUT PLAN

圖例 LEGEND:

→ 視點 VIEW POINT



擬建建築物的景觀
VIEW OF THE PROPOSED STRUCTURE

工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 擬建連接橋的合成照片
PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - PHOTOMONTAGE OF PROPOSED LINK BRIDGE

圖則編號 drawing no. 比例 scale
HMW6076TI-SK0022 示意圖
DIAGRAMATIC

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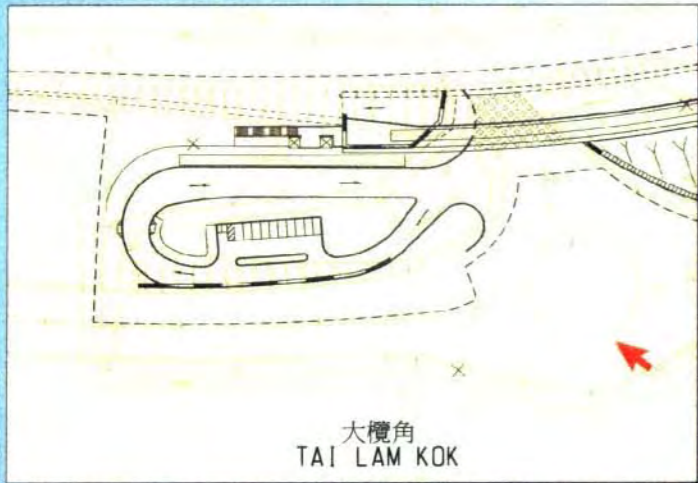
 HIGHWAYS DEPARTMENT 路政署
HONG KONG 香港



現有的景觀
EXISTING VIEW



擬建建築物的景觀
VIEW OF THE PROPOSED STRUCTURE



平面圖
LAYOUT PLAN

圖例 LEGEND:

→ 視點 VIEW POINT

工務計劃項目第76TI號 - 屯門公路巴士轉乘站 - 擬擴闊兄弟橋的合成照片

PWP ITEM NO. 76TI - BUS-BUS INTERCHANGES ON TUEN MUN ROAD - PHOTOMONTAGE OF PROPOSED WIDENING OF BROTHERS' BRIDGE

圖則編號 drawing no. HMW6076TI-SK0023 比例 scale 示意圖 DIAGRAMMATIC

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 HIGHWAYS DEPARTMENT HONG KONG 路政署 香港

Objection under the Roads (Works, Use and Compensation) Ordinance
in respect of 76TI – Bus-bus interchanges on Tuen Mun Road

The objector is a resident of Tuen Mun and objected to the locations of the proposed BBIs. The objector considered that the proposed Tuen Mun-bound BBI would affect the road safety and the public's leisure use of the waterfront at Tai Lam Kok. The objector counter-suggested that the proposed Tuen Mun-bound BBI be located on the western side of the entry to Tai Lam nullah by reclamation of land.

2. The objector also objected to the location of the proposed Kowloon-bound BBI which would be located near a dangerous goods warehouse. In addition to his concern over traffic safety, the objector considered that the proposed works would adversely affect the warehouse and create potential environmental impact. He suggested that the Government should review the land use of the warehouse.

3. We responded to the objector that the design of the proposed BBIs would comply with the current road standards to ensure smooth traffic circulation and road safety. The objector's counter-suggestion for the location of the proposed Tuen Mun-bound BBI was not recommended due to its considerable engineering and environmental impacts. In particular, the reclamation works suggested by the objector would likely cause adverse impacts on the marine ecology.

4. For the proposed Kowloon-bound BBI, we explained to the objector that the concerned dangerous goods warehouse was fenced off by cladding wall and its entrance was controlled and restricted to authorized vehicles and personnel only. The warehouse would not create additional risk to the Kowloon-bound BBI. Notwithstanding the above, and that the objector's request for reviewing the land use of the warehouse would be outside the scope of the proposed works, HyD has referred the case to concerned departments for future consideration.

5. The objector subsequently expressed further concern on a weather radar station on a hill top near the proposed Tuen Mun-bound BBI. He considered that the microwave to be emitted by the radar might impose health hazard on the passengers using the BBI.

Enclosure 6 to PWSC(2009-10)81

6. After consultation with the Hong Kong Observatory, it was confirmed that the proposed radar would only emit microwave in a horizontal or an upward direction. The radar would also be equipped with mechanical stops to prevent it from scanning downward. Hence, the microwave emission would not affect the health of the passengers using the proposed Tuen Mun-bound BBI.

7. Despite our explanation, the objector maintained his objection and expressed further concern over the location of the proposed Kowloon-bound BBI as a high-pressure gas main would be in its vicinity.

8. We explained to the objector that as advised by the gas company, the high-pressure gas main, which is connected to the gas main leading to the marine police station at Siu Lam, lies on the bed of the Tai Lam nullah. The gas main runs underneath water surface of the nullah and will not impose additional risk to the surrounding structures.

9. No further response was received from the objector to our further reply. The objection is, thus, considered unresolved.