

**For discussion  
on 20 March 2020**

## **Legislative Council Panel on Transport**

### **853TH – Widening of Castle Peak Road – Castle Peak Bay**

#### **PURPOSE**

This paper seeks Members' views on the funding application for upgrading 853TH "Widening of Castle Peak Road – Castle Peak Bay" (the Project) to Category A.

#### **PROJECT SCOPE AND NATURE**

2. The proposed scope of works under the Project includes –
  - (a) widening of the section of Castle Peak Road – Castle Peak Bay (CPR – CPB) between Hoi Wing Road and Hong Kong Gold Coast Phase I, Tuen Mun (approximately 1.9 kilometers (km) long) from a single two-lane carriageway to a dual two-lane carriageway;
  - (b) improvement to nine existing road junctions and a roundabout<sup>1</sup>;
  - (c) modification of an existing footbridge near Sam Shing Estate and construction of lifts; and
  - (d) associated drainage, traffic aids, street lighting, environmental mitigation measures, landscaping works, slope works, retaining walls, electrical and mechanical works as well as other ancillary works.

— A layout plan and cross sections of the Project are at **Enclosure 1**.

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<sup>1</sup> The nine existing road junctions include (1) Castle Peak Road / Hoi Wing Road; (2) Castle Peak Road / Sam Shing Street (near Hoi Wing Road); (3) Castle Peak Road / Sam Shing Street (near Castle Peak Beach); (4) Castle Peak Road / Tsing Yan Street; (5) Castle Peak Road / Tsing Yung Street; (6) Castle Peak Road / Golden Beach Path; (7) Castle Peak Road / to Gold Coast; (8) Castle Peak Road / access road to Crossroads Foundation; (9) So Kwan Wat / Kwun Tsing Road. The roundabout is located at Castle Peak Road / Tsing Ying Road.

3. Subject to funding approval of the Finance Committee (FC) in the current legislative session, we plan to commence the proposed works in the second half of 2020 for completion by the second quarter of 2024.

## JUSTIFICATION

4. CPR (about 16 km long) connects Tsuen Wan and Tuen Mun. It runs parallel to Tuen Mun Road and serves the east-west traffic movements in the northwest New Territories. We completed the improvement works to the section of CPR from Siu Lam to So Kwun Tan (about 2.8 km long) in November 2000, the improvement works to the section of CPR from Ka Loon Tsuen to Siu Lam (about 2.8 km long) in April 2007, and the widening works to the section of CPR from Tsuen Wan Area 2 to Ka Loon Tsuen (about 8.5 km long) in June 2007. The Project is to widen the section of CPR - CPB between Hoi Wing Road and Hong Kong Gold Coast Phase I, Tuen Mun (about 1.9 km long) from the current single two-lane carriageway of approximately 10.3 metres (m) wide to a dual two-lane carriageway consistent with the configurations of those upgraded road sections of CPR so as to enhance the effectiveness of CPR in easing traffic and cope with the future traffic demand.

5. At present, the volume/capacity (v/c) ratio<sup>2</sup> of the relevant road section has reached 0.88 during morning peak hours on weekdays, indicating only slight spare capacity for this road section. According to traffic impact assessment, we anticipate that the traffic demand of relevant road section will increase significantly with the developments in Tuen Mun area leading to traffic congestion. Therefore, we need to widen the abovementioned road section of CPR - CPB to dual two-lane carriageway with a view to relieving the anticipated traffic congestion and coping with the increasing traffic demand. Upon completion of the Project, it is anticipated that the v/c ratios of CPR - CPB during morning peak hours in 2024 and 2031 will be improved as follows -

Year	v/c ratio of CPR-CPB	
	Without the Project	With the Project
At present (2020)	0.88	-
2024	1.08	0.54
2031	1.20	0.63

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<sup>2</sup> A preferable v/c ratio is 0.85. A v/c ratio equals to or less than 1.0 is considered acceptable. A v/c ratio between 1.0 and 1.2 indicates a manageable degree of congestion. A v/c ratio above 1.2 indicates more serious congestion.

6. Furthermore, for the concerned section of CPR-CPB which is currently a single two-lane carriageway, traffic congestion is inevitable upon traffic incident or emergency works (for example, repair of water main burst). The Project will strengthen the resilience of the relevant road section to traffic incident or emergency works. The Project also comprises improvement to nine existing road junctions and a roundabout to enhance the road safety; modification to an existing footbridge near Sam Shing Estate and construction of lifts to provide barrier-free access facilities; provision of noise barriers, noise semi-enclosures and low noise road surfacing to mitigate the noise impact on nearby residents; and construction of retaining walls in view of the road widening.

## **FINANCIAL IMPLICATIONS**

7. We estimate that the capital cost of the Project to be \$755.20 million in money-of-the-day (MOD) prices.

## **PUBLIC CONSULTATION**

8. The Highways Department (HyD) consulted the Traffic and Transport Committee (T&TC) of Tuen Mun District Council (TMDC) on the Project on 16 November 2012 and 13 September 2013. The T&TC had no in-principle objection to the Project. Having taken into account the views from the T&TC, the HyD further developed an improved scheme and consulted the T&TC and its working group again in 2014 and 2015. As mentioned in paragraph 10 below, the Project was subject to a case of judicial review in September 2015. Subsequent to the conclusion of the case in May 2019, the HyD reported the progress of the Project to the T&TC on 6 September 2019. T&TC expressed support for the early implementation of the proposed works.

9. We gazetted the scheme and plan of the Project under the Roads (Works, Use and Compensation) Ordinance (Cap 370) (“the Ordinance”) on 10 and 17 January 2014. During the statutory period, 281 objections were received with most of them in the form of standard letters. The objections mainly concerned the need, traffic and road design, and environmental impact of the Project. The HyD had held meetings with the objectors to explain the need and details of the Project. Despite efforts in resolving the objections, 280 objections remained unresolved, and only one objector agreed to withdraw the objection on the condition that the proposed noise barrier in front of Chu Hai College would be deleted. The proposed noise barrier in front of Chu Hai College is not a statutory requirement under the Environmental Impact Assessment (EIA) Ordinance (Cap 499) but a recommended noise mitigation measure. As paving of low

noise road surfacing at the road section concerned can also mitigate the noise impact on nearby residents, we have submitted the Project together with the proposed modification of deleting the concerned noise barrier to the Chief Executive-in-Council (CE-in-C) for consideration. The CE-in-C has, after considering the objections, authorised the Project in accordance with the Ordinance on 2 June 2015. The relevant Authorisation Notice was gazetted on 3 July 2015 and 10 July 2015.

10. In September 2015, implementation of the Project was suspended due to the judicial review, rendering the project unable to go ahead with the original schedule of tendering in 2015 and construction from 2016 to 2019. The applicant of the judicial review (file: HCAL 177/2015) mainly considered that the Government had not adopted the latest Air Quality Index to conduct environmental review. The High Court handed down its judgement on the judicial review on 17 May 2019, which was in favour of the Government. The HyD continued to implement the Project since then and the latest working timetable is set out in paragraph 3 above.

11. The HyD has consulted the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS)<sup>3</sup> on the proposed aesthetic designs of the noise mitigation measures and the retaining walls of the Project. The Committee accepted the proposed aesthetic designs.

## **ENVIRONMENTAL IMPLICATIONS**

12. The Project is not a designated project under the Schedule 2 of the EIA Ordinance (Cap 499). The HyD has completed an Environmental Review (ER) for the Project in February 2017 which concluded that the Project will not cause long-term environmental impact. The Director of Environmental Protection agreed to the above conclusion.

13. To minimize impacts during construction, the HyD will implement mitigation measures, including adoption of equipment silencers and moveable noise barriers or enclosures to minimise the noise impact brought about by the construction; regular water spraying at works sites and provision of wheel-washing facilities to minimise dust generation; and installation of temporary drains to discharge surface runoff off

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<sup>3</sup> The ACABAS, comprising representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, academic institutions, the Architectural Services Department, the HyD, the Housing Department, the 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.

sites in the relevant contract. The cost for implementation of the relevant measures has been included in the project estimate.

14. At the planning and design stages, the HyD has considered the proposed works and construction sequences to reduce the generation of construction waste as far as possible. In addition, the HyD 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, so as to minimise the disposal of inert construction waste at public fill reception facilities<sup>4</sup>. The HyD 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.

15. During the construction stage, the HyD will require the contractor to submit for the Government's approval a plan setting out the waste management measures, which will include appropriate mitigation measures to avoid, reduce, reuse and recycle inert construction waste. The HyD will ensure that the day-to-day operations on site comply with the approved plan and will require the contractor to separate inert portion from non-inert portion of construction waste on site for disposal at appropriate facilities. The HyD will monitor the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

16. The HyD estimates that the Project will generate a total of about 70,160 tonnes of construction waste. Of these, about 20,880 tonnes (29.8%) of inert construction waste will be reused on site and 48,760 tonnes (69.5%) of inert construction waste will be delivered to public fill reception facilities for subsequent reuse. The HyD will dispose of the remaining 520 tonnes (0.7%) 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 \$3.57 million for the Project (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

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<sup>4</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 the Director of Civil Engineering and Development.

## **HERITAGE IMPLICATIONS**

17. The Project will not affect any heritage sites, 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**

18. The Project does not require resumption of private land but about 2,778 m<sup>2</sup> of land needs to be returned by relevant grantees to the Government in accordance to lease conditions for the construction works, and clearance of about 73,100 m<sup>2</sup> of Government land is needed. The cost of land clearance, estimated to be \$0.288 million, will be charged to Head 701 "Land Acquisition".

## **TREE IMPLICATIONS**

19. There are about 692 trees within the project boundary. Among them, 403 trees will be preserved. In order to make way for the proposed road widening, 72 trees will be transplanted to other suitable locations within the site and the remaining 217 trees were assessed to be unsuitable for transplant after tree survey and will be felled. All trees to be removed are commonly found in Hong Kong and they are not large or important trees<sup>5</sup>. The HyD will incorporate planting proposals into the Project, including the compensatory planting of about 88 new trees and 218 palm trees.

## **TRAFFIC IMPLICATIONS**

20. The Project will not cause significant traffic impact during construction. To facilitate the related construction works, the HyD will implement temporary traffic arrangements (TTA) and discuss and set up a traffic management liaison group to

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<sup>5</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 important persons or events;
- (c) trees of precious or rare species;
- (d) trees of outstanding forms (taking account of overall tree sizes, shapes and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitats; or
- (e) trees with trunk diameter equal or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

discuss and vet the TTA. This group comprises representatives of the contractor, the Hong Kong Police Force, the Transport Department, public transport operators and other concerned Government departments. The HyD will specify requirements for implementing the TTA in the works contract to minimise the traffic impact during construction. The HyD will also display publicity boards on site to provide details of the TTA and the anticipated completion dates of individual sections of works. In addition, the HyD will set up a telephone hotline for public enquiries or complaints.

## **BACKGROUND INFORMATION**

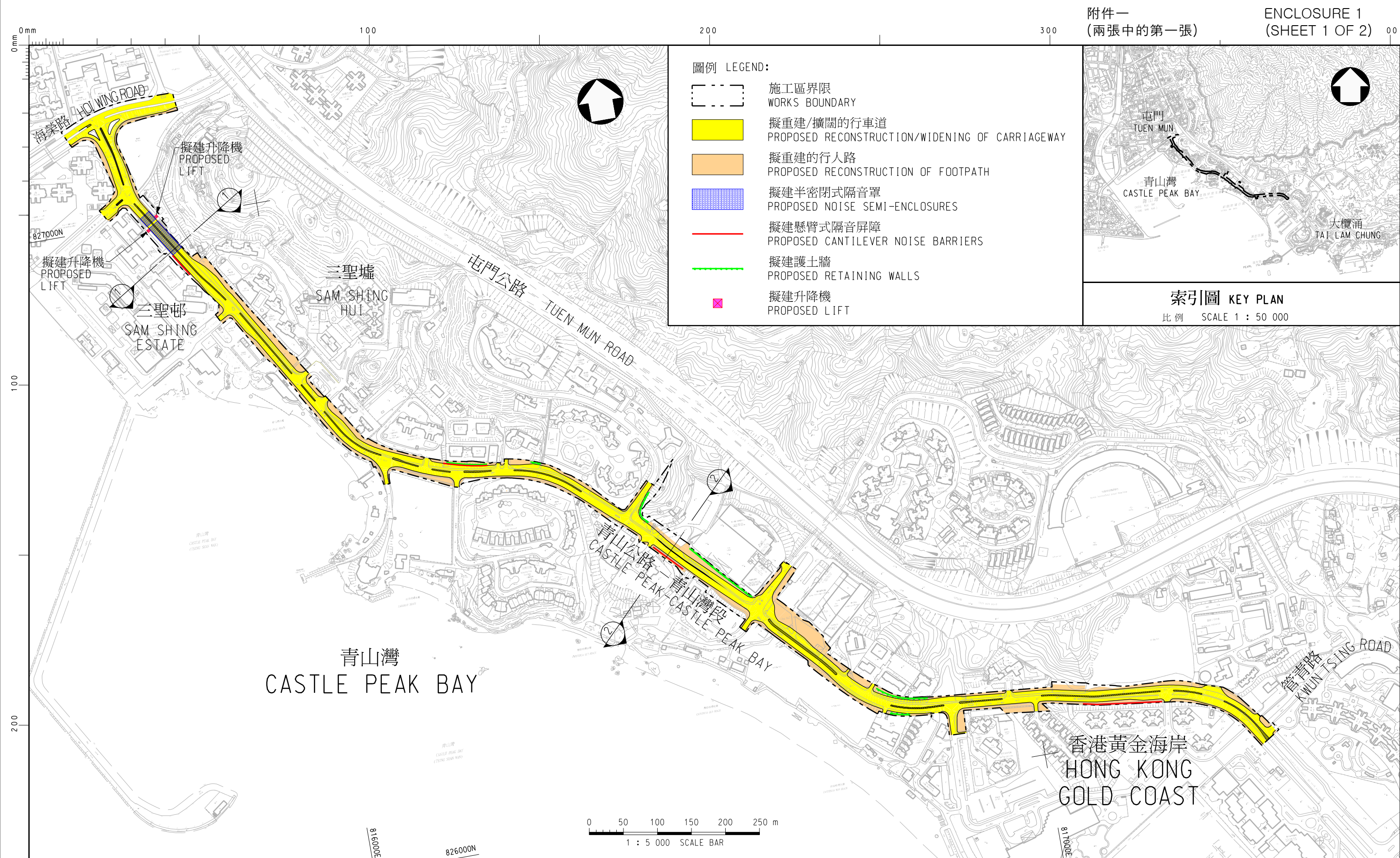
21. We upgraded **853TH** to Category B in July 2011. We engaged a consultant to carry out site investigation and detailed design of the Project in November 2013. The total cost of the above consultancy service was about \$9.83 million and was funded by block allocation Subhead 6100TX “Highway works, studies and investigations for items in Category D of the Public Works Programme”. The relevant site investigation and detailed design have been substantially completed.

## **WAY FORWARD**

22. After consulting the Panel on Transport, we plan to submit the proposal for upgrading the Project **853TH** as mentioned in paragraph 2 above to Category A to the Public Works Subcommittee to seek its support, and to seek funding approval from the FC in the current legislative session.

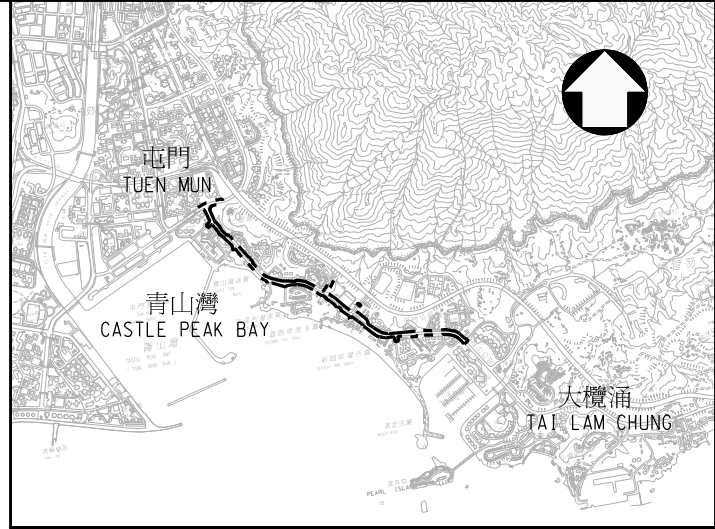
**Transport and Housing Bureau  
Highways Department  
March 2020**



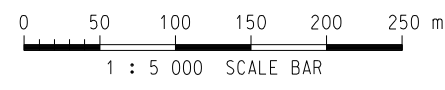


**圖例 LEGEND:**

- 施工區界限  
WORKS BOUNDARY
- 擬重建/擴闊的行車道  
PROPOSED RECONSTRUCTION/WIDENING OF CARRIAGEWAY
- 擬重建的行人路  
PROPOSED RECONSTRUCTION OF FOOTPATH
- 擬建半密閉式隔音罩  
PROPOSED NOISE SEMI-ENCLOSURES
- 擬建懸臂式隔音屏障  
PROPOSED CANTILEVER NOISE BARRIERS
- 擬建護土牆  
PROPOSED RETAINING WALLS
- ✕ 擬建升降機  
PROPOSED LIFT



**索引圖 KEY PLAN**  
比例 SCALE 1 : 50 000



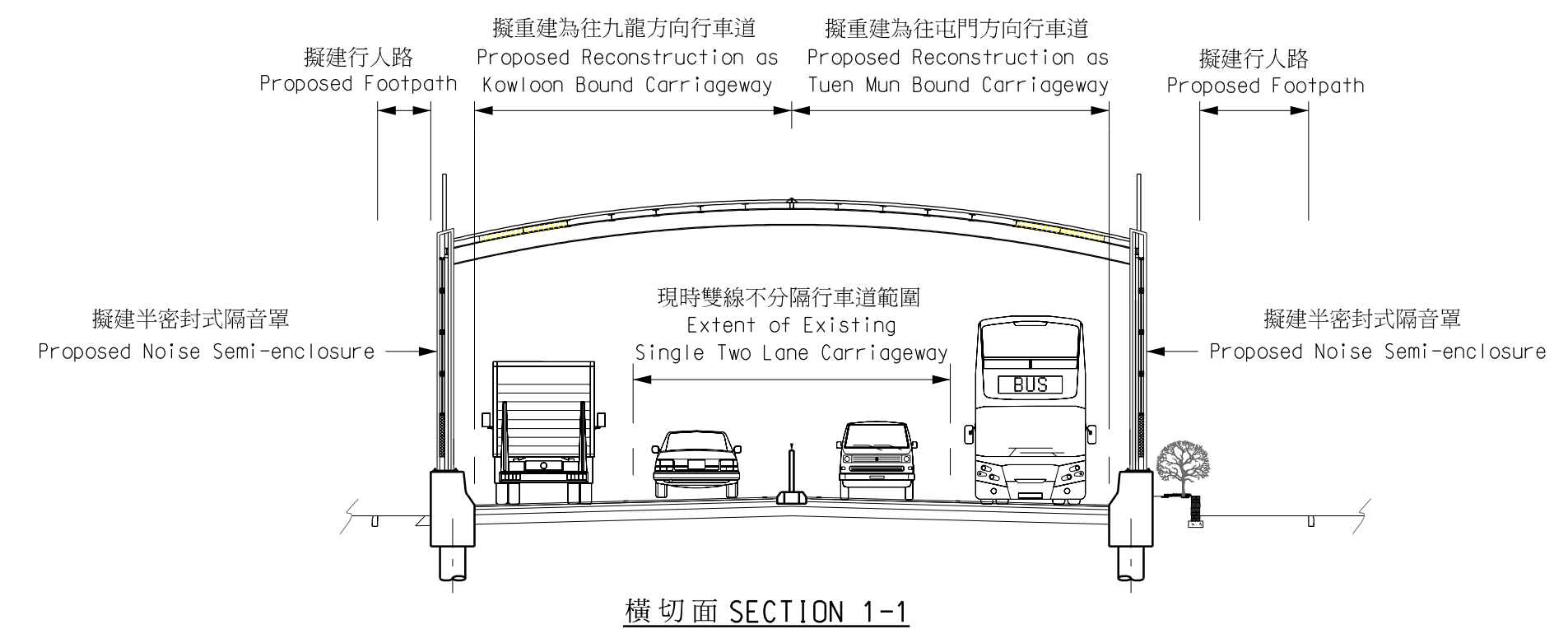
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青山公路青山灣段擴闊工程  
平面圖  
PWP ITEM No. 6853TH  
WIDENING OF CASTLE PEAK ROAD - CASTLE PEAK BAY  
LAYOUT PLAN

圖則編號 drawing no.  
HMW6853TH-SK0025  
比例 scale  
1:5000  
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**HIGHWAYS DEPARTMENT HONG KONG** 路政署 香港

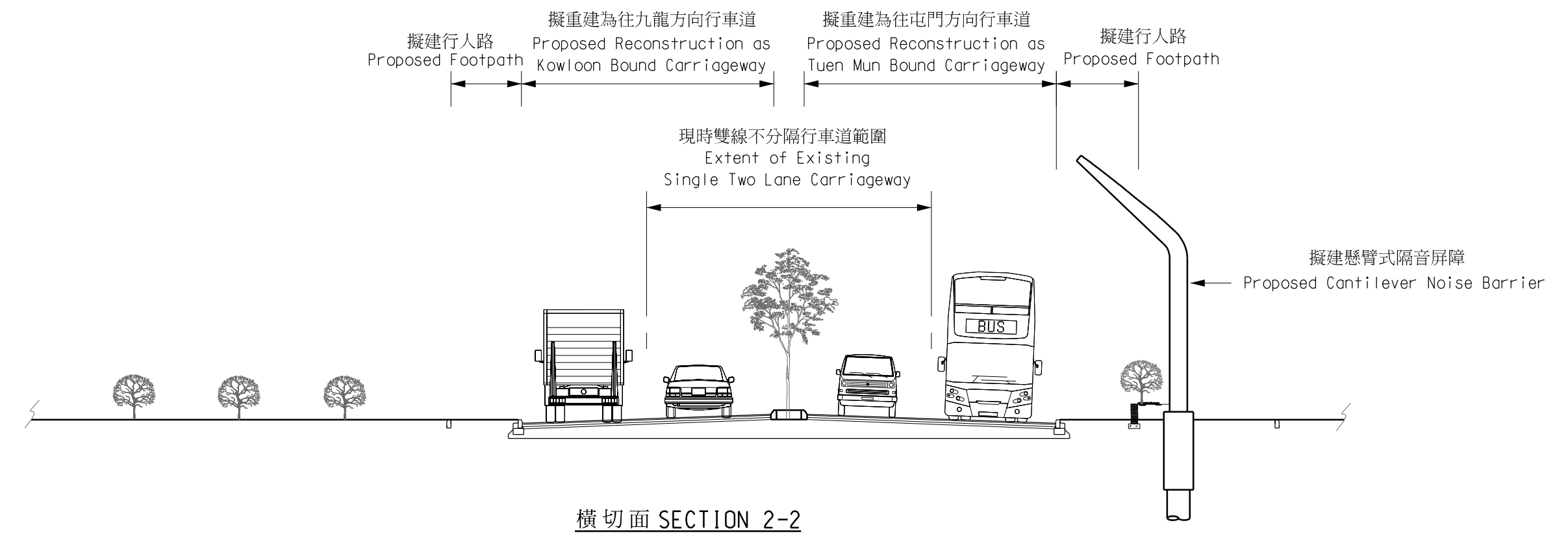
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橫切面 SECTION 1-1



橫切面 SECTION 2-2

圖則名稱 drawing title  
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 青山公路青山灣段擴闊工程  
 橫切面圖  
 PWP ITEM NO. 6853TH  
 WIDENING OF CASTLE PEAK ROAD - CASTLE PEAK BAY  
 CROSS SECTIONS

圖則編號 drawing no.  
 HMW6853TH-SK0026  
 比例 scale  
 示意圖  
 DIAGRAMMATIC

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