

**For discussion
on 21 June 2019**

Legislative Council Panel on Transport

850TH – New Wang Tong River Bridge

PURPOSE

This paper seeks Members' views on the funding application for upgrading **850TH** "New Wang Tong River Bridge" (the Project) to Category A.

PROJECT SCOPE AND NATURE

2. The proposed scope of works under the Project includes –
- (a) construction of a twin-bridge of approximately 35 metres (m) in length comprising a footbridge and a cycle bridge with clear widths of 2m and 3.5m respectively across Wang Tong River in Mui Wo, and demolition of the existing Wang Tong River Bridge;
 - (b) construction of approach footpaths and cycle tracks at the two ends of the proposed twin-bridge to connect with existing roads;
 - (c) construction of a cycle parking area at the northern end of the proposed twin-bridge;
 - (d) ancillary works including associated demolition, geotechnical, drainage, public utilities, public lighting and landscaping works, etc.; and
 - (e) implementation of an environmental monitoring and audit (EM&A) programme for the works mentioned in the above items 2 (a) to (d).

3. A layout plan and artist's impression of the Project are at Annex.

4. Subject to funding approval of the Finance Committee (FC) by the fourth quarter of 2019, the Highways Department (HyD) plans to commence the construction works in the second quarter of 2020 for completion in the fourth quarter of 2023.

JUSTIFICATIONS

5. The existing Wang Tong River Bridge serves as an essential public access between Wang Tong and Silver Mine Bay Beach in Mui Wo and the area to the south of Wang Tong River. The existing Wang Tong River Bridge is only about 1.8m in clear width. Such narrow deck width gives rise to road safety concerns as pedestrians and cyclists often come into conflict with each other particularly during peak hours and holidays.

6. Besides, the Civil Engineering and Development Department (CEDD) has commenced the project "Improvement works at Mui Wo" since 2014 to improve the environment and facilities in the area, and enhance the attractiveness of Mui Wo to tourists and visitors. The CEDD has completed phase 1 of "Improvement works at Mui Wo" in June 2017, which comprises the construction of a 230m-long segregated pedestrian walkway and cycle track along the waterfront between Mui Wo Cooked Food Market and River Silver, and a 35m-long footbridge across River Silver to segregate pedestrians from cyclists. The Project will complement the improvement works at Mui Wo to provide safer and more comprehensive cycle track and footpath networks connecting Mui Wo Ferry Pier to Wang Tong and Silver Mine Bay Beach areas to meet the needs of local residents and tourists.

7. The Project will replace the existing Wang Tong River Bridge with a new twin-bridge to enhance road safety by widening the river crossing to accommodate the new footpath cum cycle track and to segregate pedestrians from cyclists. We expect that the hourly usage rate of the proposed twin-bridge will be about 650 pedestrian trips and 250 cyclist trips during peak hours.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the Project to be \$110.5 million in money-of-the-day (MOD) prices.

PUBLIC CONSULTATION

9. The HyD consulted the Traffic and Transport Committee of the Islands District Council on the Project on 22 May 2017. The Committee expressed support for the implementation of the Project.

10. We gazetted the scheme and plan of the Project under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 23 and 30 November 2018. During the statutory period, no objection was received and the scheme was subsequently authorised. The relevant authorisation notice was gazetted on 22 February and 1 March 2019.

11. The HyD has consulted the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS)¹ on the aesthetic design of the twin-bridge of the Project. The Committee accepted the proposed aesthetic design.

¹ ACABAS, comprising representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, the Architectural Services Department, the HyD, the Housing Department, the Civil Engineering and Development Department, and a representative from an architectural or relevant faculty from a local academic institution, 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.

ENVIRONMENTAL IMPLICATIONS

12. The Project is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and an Environmental Permit (EP) is required for the construction of the Project. The EIA report for the Project was approved on 23 September 2016 and an EP was issued on 23 March 2018 under the EIA Ordinance. The EIA report concluded that with the implementation of the recommended mitigation measures, the environmental impact of the Project could be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on the EIA Process.

13. The HyD shall implement the mitigation measures and EM&A programme during the construction phase, which include the adoption of quality powered mechanical equipment and movable temporary noise barriers to minimise the noise impact brought about by the construction; regular water spraying for dust control; and the installation of temporary cofferdams to minimise impact on the water quality when carrying out excavation or dredging works, and demolition of piers and abutments of existing bridge within Wang Tong River. The HyD has included the cost for the implementation of the necessary environmental mitigation measures and the EM&A programme in the project estimate.

14. At the planning and design stages, the HyD has considered all the proposed works and construction procedures to reduce generation of construction waste as far as possible. In addition, the HyD will require the contractor to reuse inert construction waste (e.g. use of excavated materials for backfilling) 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 facilities². The HyD will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

15. At 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

² 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 license issued by the Director of Civil Engineering and Development.

ensure that the day-to-day operations on site comply with the approved plan and will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. The HyD 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.

16. The HyD estimates that the Project will generate in total about 2 302 tonnes of construction waste. Of these, we will reuse about 806 tonnes (35.0%) of inert construction waste on site and deliver about 1 332 tonnes (57.9%) of inert construction waste to public fill reception facilities for subsequent reuse. The HyD will dispose of the remaining about 164 tonnes (7.1%) 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 \$127 000 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)).

17. In addition, we estimate that the proposed works will generate about 87 m³ of marine sediment to be disposed of at designated site allocated by the Marine Fill Committee (MFC) or other disposal sites agreed by the MFC and the Environmental Protection Department.

HERITAGE IMPLICATIONS

18. 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

19. The Project does not require acquisition of private land.

TREE IMPLICATIONS

20. There are about 24 trees within the project boundary. Among them, 17 trees will be preserved. In order to make way for the proposed facilities, the Project will require removal of about 7 trees, including about 5

trees to be felled and about 2 trees to be transplanted to the proximity of the project boundary. According to the established guidelines, tree preservation and removal proposal will be submitted to the Lands Department for approval. All trees to be removed are not important trees³. The HyD will incorporate planting proposals into the Project, including the compensatory planting of about 5 new trees.

TRAFFIC IMPLICATIONS

21. The Project will not cause significant traffic impact during construction. To facilitate the related construction works, the HyD will implement appropriate temporary traffic arrangements (TTA) and set up a traffic management liaison group to discuss and vet the TTA. This group comprises representatives from the contractor, the Hong Kong Police Force, the Transport Department and other concerned government departments. The HyD will specify requirements for implementing the TTA in the works contracts to minimise the traffic impacts during construction. The HyD will also display publicity boards on site, providing 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

22. We upgraded the Project to Category B in September 2011, and engaged a term contractor in December 2012 to undertake the ground investigation works. The total cost of the investigation works was about \$0.27 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 investigation works have been completed.

³ “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 –

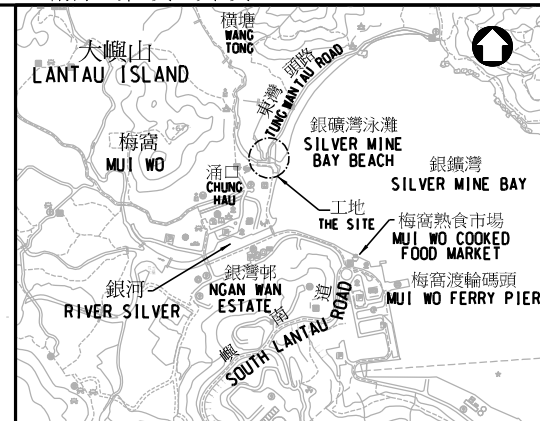
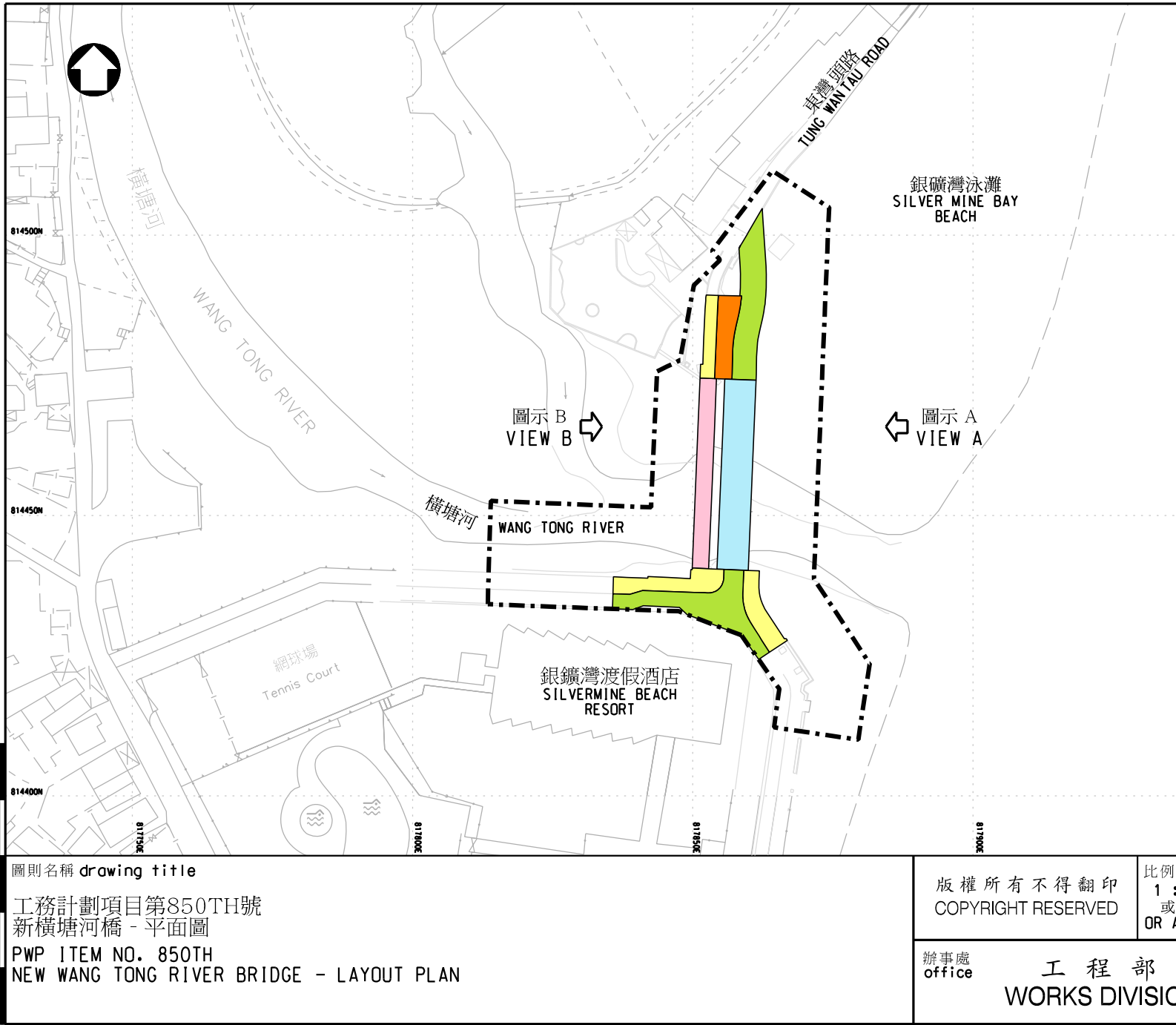
- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or events;
- (c) trees of precious or rare species;
- (d) trees of outstanding forms (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.

23. We engaged engineering consultants in June 2014 to undertake the environmental and drainage impact assessment studies. The total cost of the above consultancy service was about \$2.2 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 consultancy service has been completed.

WAY FORWARD

24. After consulting the Panel on Transport, we plan to submit the proposal for upgrading the project of **850TH** 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 next legislative session.

Transport and Housing Bureau
Highways Department
June 2019



位置圖 LOCATION PLAN
比例 SCALE 1 : 25 000

- 圖例 LEGEND**
- 施工區界限
LIMIT OF WORKS AREA
 - 擬建行人天橋以取代現有橫塘河橋
PROPOSED FOOTBRIDGE IN REPLACEMENT OF EXISTING WANG TONG RIVER BRIDGE
 - 擬建單車橋
PROPOSED CYCLE BRIDGE
 - 擬建行人路
PROPOSED FOOTPATH
 - 擬建單車徑
PROPOSED CYCLE TRACK
 - 擬建單車停泊處
PROPOSED CYCLE PARKING AREA

50 mm SCALE 1 : 1
30
40
20
10

圖則名稱 drawing title
工務計劃項目第850TH號
新橫塘河橋 - 平面圖
PWP ITEM NO. 850TH
NEW WANG TONG RIVER BRIDGE - LAYOUT PLAN

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比例 scale A4
1 : 1 000
或如圖示
OR AS SHOWN

圖則編號 drawing no.
HWDIS101A-SP0001

辦事處 office
工程 部
WORKS DIVISION

HIGHWAYS DEPARTMENT
HONG KONG 路 香 港 政 署

0 10 20 30 40 50 mm SCALE 1 : 1



圖示 A
VIEW A



圖示 B
VIEW B

50 mm SCALE 1 : 1

30
20
10

圖則名稱 drawing title

工務計劃項目第850TH號
新橫塘河橋 - 構思圖

PWP ITEM NO. 850TH
NEW WANG TONG RIVER BRIDGE - ARTIST'S IMPRESSION

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比例 scale A4
或如圖示
N/A

圖則編號 drawing no.

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0 10 20 30 40 50 mm SCALE 1 : 1