For discussion
on 19 January 2018

Legislative Council Panel on Transport
861TH – Widening of Tai Po Road (Sha Tin Section)

PURPOSE

This paper seeks Members' views on the funding application for upgrading **861TH** "Widening of Tai Po Road (Sha Tin Section)" (the Project) to Category A.

PROJECT SCOPE AND NATURE

2. The Project which we propose to upgrade to Category A comprises –

(a) widening of a section of Tai Po Road (Sha Tin Section) of about 1.1 kilometres between Sha Tin Plaza near Sha Tin Rural Committee Road and Man Wo House of Wo Che Estate near Fo Tan Road from dual two-lane to dual three-lane carriageway;

(b) modification of Sha Tin Rural Committee Road interchange, including modification of cycle track and footpath, and provision of lifts to cater for the widening of Tai Po Road (Sha Tin Section);

(c) modification of two footbridges across Tai Po Road (Sha Tin Section) near Wo Che Street and near Fung Wo Lane respectively to cater for the widening of Tai Po Road (Sha Tin Section); and

(d) associated drainage works, landscape works, noise mitigation measures, lighting works, traffic control and surveillance system.

3. Location plan, layout plan and photomontage of the Project are at **Enclosures 1 to 4**[1] respectively.

4. Subject to the funding approval of the Finance Committee (FC) in this legislative year, we plan to commence the construction works in the second quarter of 2018 for completion in the second half of 2023. To meet the programme, the Civil Engineering and Development Department (CEDD) plans to initiate parallel tendering for the contract since January 2018 in order to start the construction works as soon as possible. The construction contract will be awarded only after obtaining funding approval from FC.

JUSTIFICATION

5. Tai Po Road (Sha Tin Section) is an important primary distributor road linking the Northeast New Territories with West Kowloon (through Tsing Sha Highway) and Tsuen Wan (through Shing Mun Tunnel).

6. At present, Tai Po Road (Sha Tin Section) between Sha Tin Plaza near Sha Tin Rural Committee Road and Man Wo House of Wo Che Estate near Fo Tan Road is a dual two-lane carriageway. Traffic congestion frequently occurs at this section of Tai Po Road (Sha Tin Section) during peak hours. According to the traffic impact assessment of the Project, it is envisaged that the congestion will worsen in view of the continued development in Sha Tin and northern New Territories.

7. We therefore need to carry out the widening works of the above road section of Tai Po Road (Sha Tin Section) and modify the Sha Tin Rural Committee Road Interchange to meet the traffic demand. Upon completion of the Project, it is anticipated that the v/c ratios[2] during peak hours at Tai

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[1] Another project administrated by the Highways Department (HyD) (PWP Item 804TH – Retrofitting of Noise Barriers on Tai Po Road (Sha Tin Section)) will retrofit noise barriers at two ends of the proposed widening of Tai Po Road (Sha Tin section), i.e. the road sections between Citylink Plaza and Scenery Court and between Wo Che Estate and Fo Tan Road. In order to minimize disturbance to the road users and residents concerned, HyD will entrust the noise barrier works under Item 804TH to CEDD for implementation under the works contract of Item 861TH in one go..

[2] A volume/capacity (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.

Po Road (Sha Tin Section) in 2026 will be improved as follows:

Existing v/c ratio		**v/c ratio in 2026 without the Project**		**v/c ratio in 2026 with the Project**	
Morning peak hour Kowloon bound	Afternoon peak hour Tai Po bound	Morning peak hour Kowloon bound	Afternoon peak hour Tai Po bound	Morning peak hour Kowloon bound	Afternoon peak hour Tai Po bound
1.12	1.25	1.34	1.39	1.07	1.01

8. With regard to the southbound morning traffic from Ma Liu Shui to New Town Plaza, which is adjacent to the Project and more concerned by the public, it is estimated that the travelling time can be reduced from about 20 minutes to about 10 minutes upon the completion of the Project.

FINANCIAL IMPLICATIONS

9. We estimate the cost of the proposed works to be $2,739.7 million in money-of-the-day (MOD) prices.

PUBLIC CONSULTATION

10. CEDD commenced an investigation study for the Project in early 2013, which comprises the study on the environmental impact of the Project and technical investigations of the Project. CEDD conducted a two-stage public engagement exercise in Sha Tin district in 2013 and 2014, including focus group meetings and a public forum. CEDD developed the Project scheme having taken into account views collected from the public engagement exercise, environmental impact and engineering considerations. CEDD consulted the Traffic and Transport Committee (T&TC) of Sha Tin District Council on the scheme on 6 January 2015 and obtained its support.

11. We gazetted the road scheme for the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 14 and 21 August 2015. During the statutory period, no objection was received and the scheme was thus authorised accordingly. The authorisation notice of the Project was gazetted on 4 and 11 December 2015.

12. Subsequently, CEDD developed an amendment scheme to enhance the arrangement of the pedestrian route and to modify the location of the lift

at the Sha Tin Rural Committee Road Interchange. CEDD consulted the T&TC on 5 July 2016 and obtained its support. We then gazetted the amendment scheme under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 25 November and 2 December 2016. During the statutory period, no objection was received and the scheme was thus authorised accordingly. The authorisation notice of the Project was gazetted on 3 and 10 March 2017.

13. CEDD consulted the Advisory Committee on the Appearance of Bridge and Associated Structures[3] on the aesthetic design of the proposed noise mitigation measures, vehicular bridge and modified piers of footbridges under the Project. The Committee accepted the proposed aesthetic design.

ENVIRONMENTAL IMPLICATIONS

14. 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 its construction and operation. The Environmental Protection Department approved the EIA Report for the Project and issued the EP for the construction and operation of the Project on 20 December 2016. The EIA Report concluded that the environmental impacts of the Project can be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on EIA Process.

15. CEDD will implement the environmental mitigation measures and environmental monitoring and audit (EM&A) programme recommended in the approved EIA Report, and comply with relevant conditions under the EP and other statutory requirements for environmental protection. The recommended mitigation measures include installation of noise barriers and noise enclosures, low noise road surfacing, and implementation of the construction noise control measures including adopting quiet powered mechanical equipment and temporary noise barriers. CEDD has included the cost for the provision of the necessary environmental mitigation measures and implementation of the EM&A programme in the project

[3] The Advisory Committee on the Appearance of Bridges and Associated Structures comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, the Hong Kong Institute of Landscape Architects, academic institutions, the Architectural Services Department, the Highways Department, the Housing Department and the Civil Engineering and Development Department. It 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.

estimate.

16. At the planning and design stages, CEDD has considered all the proposed works and construction sequences to reduce generation of construction waste where possible. In addition, CEDD will require the contractors to reuse inert construction waste (e.g. materials excavated within site area for backfilling use) on site or in other suitable construction sites as far as practicable, in order to minimise the disposal of inert construction waste to public fill reception facilities[4]. CEDD will require the contractors to maximise the use of recycled or recyclable inert construction waste, as well as encourage the use of non-timber formwork to further minimise the generation of construction waste.

17. At the construction stage, CEDD will require the contractors to submit for approval a plan setting out the waste management measures. The plan will include appropriate mitigation measures to avoid and reduce the generation of inert construction wastes, and to reuse and recycle such waste. CEDD will ensure that the day-to-day operations on site comply with the approved plan. CEDD will require the contractors to separate inert construction waste from non-inert construction waste on site to facilitate their transportation to appropriate facilities for disposal. CEDD will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively for disposal through a trip-ticket system.

18. We estimate that the Project will generate in total about 86 000 tonnes of construction waste. Of these, we will reuse 15 000 tonnes (17 %) of inert construction waste on site and deliver 68 500 tonnes (80%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of the remaining 2 500 tonnes (3%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites for the Project is estimated to be $5.36 million (based on a unit cost of $71 per tonnes 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).

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[4] 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 license issued by the Director of Civil Engineering and Development.

HERITAGE IMPLICATIONS

19. 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

20. The Project only concerns Government Land.

BACKGROUND

21. We upgraded **861TH** to Category B in September 2012.

22. CEDD engaged consultants to carry out an investigation study for the Project at an estimated cost of $9.9 million in MOD prices. The cost was charged to the block allocation **Subhead 7100CX** "New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme". The relevant investigation works have been completed.

23. On 10 July 2015, the FC approved the upgrading of part of the **861TH** to Category A as **869TH** as "Widening of Tai Po Road (Sha Tin Section) – detailed design and site investigation" at an estimated cost of $43.2 million in MOD prices. CEDD engaged consultants in December 2015 to carry out the detailed design and site investigation. The detailed design and site investigation have been largely completed.

24. There are 351 trees within the project boundary, among them, 87 trees including 3 important trees[5] will be preserved. The Project will require removal of 264 trees, including 256 trees to be felled and 8 trees to

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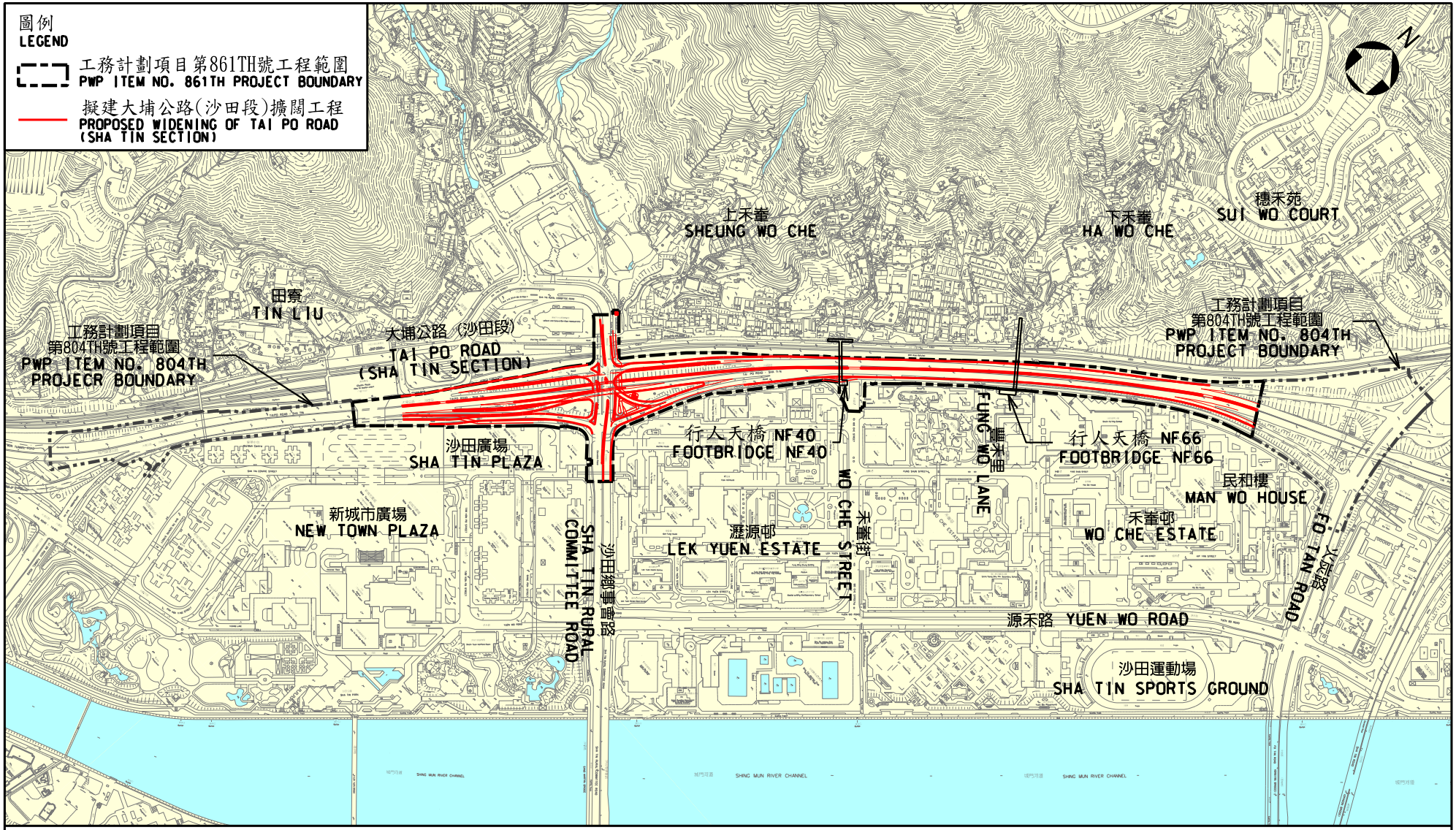
[5] An "important tree" refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –
(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or 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 trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25m.

be transplanted within the project boundary. CEDD will incorporate planting proposals into the Project, including the planting of 256 whips at various locations and about 30 000 shrubs.

WAY FORWARD

25. We plan to submit the proposal for upgrading the works of **861TH** as detailed in paragraph 2 above to Category A to the Public Works Subcommittee to seek its support, and to seek funding approval from the FC.

Transport and Housing Bureau
Civil Engineering and Development Department
January 2018

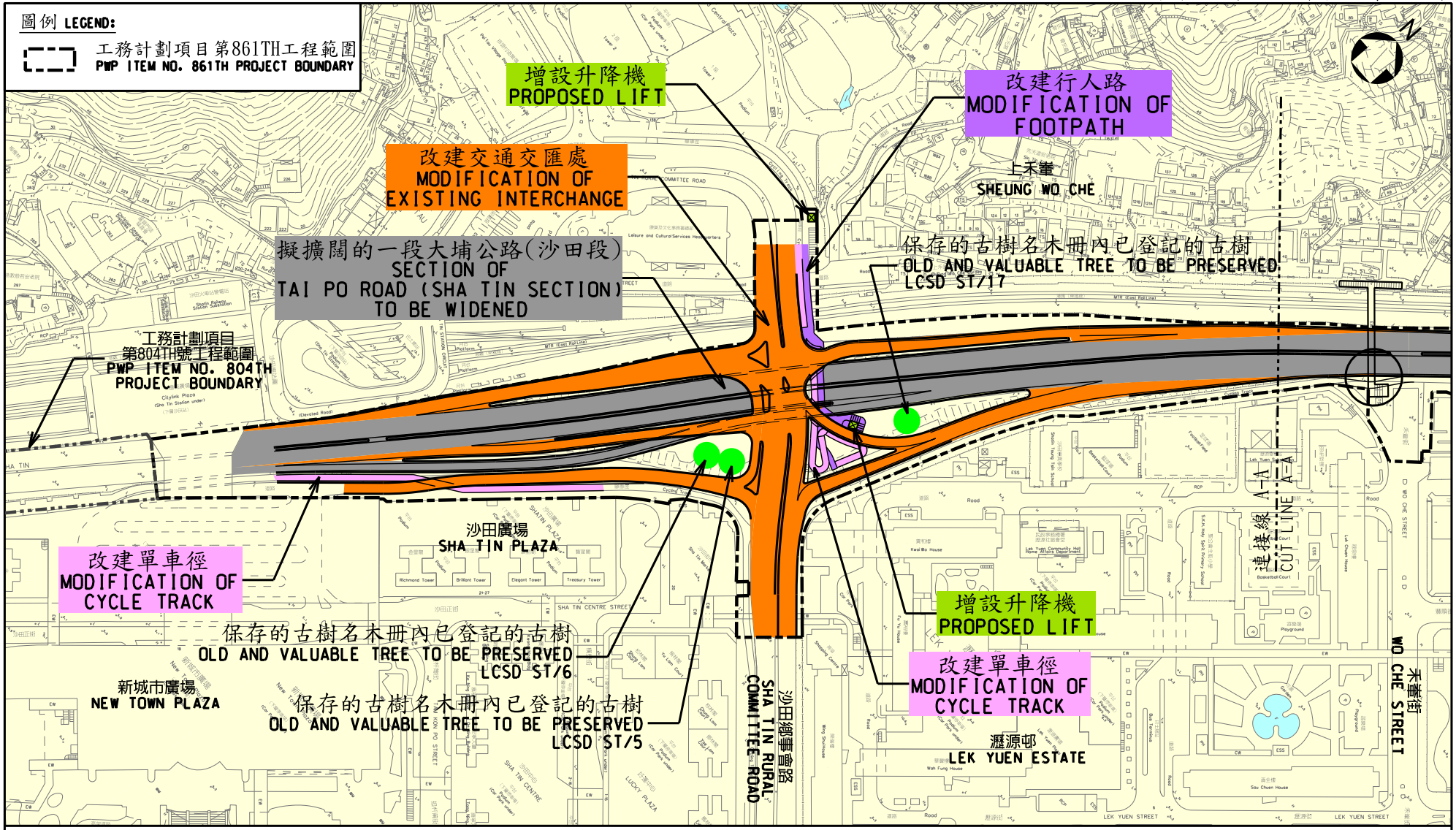


圖則名稱 drawing title

工務計劃項目第861TH號 - 大埔公路（沙田段）擴闊工程 - 位置圖
PWP ITEM NO. 861TH - WIDENING OF TAI PO ROAD (SHA TIN SECTION) - LOCATION PLAN

FILE

A4 297MM X 210MM



圖則名稱 drawing title

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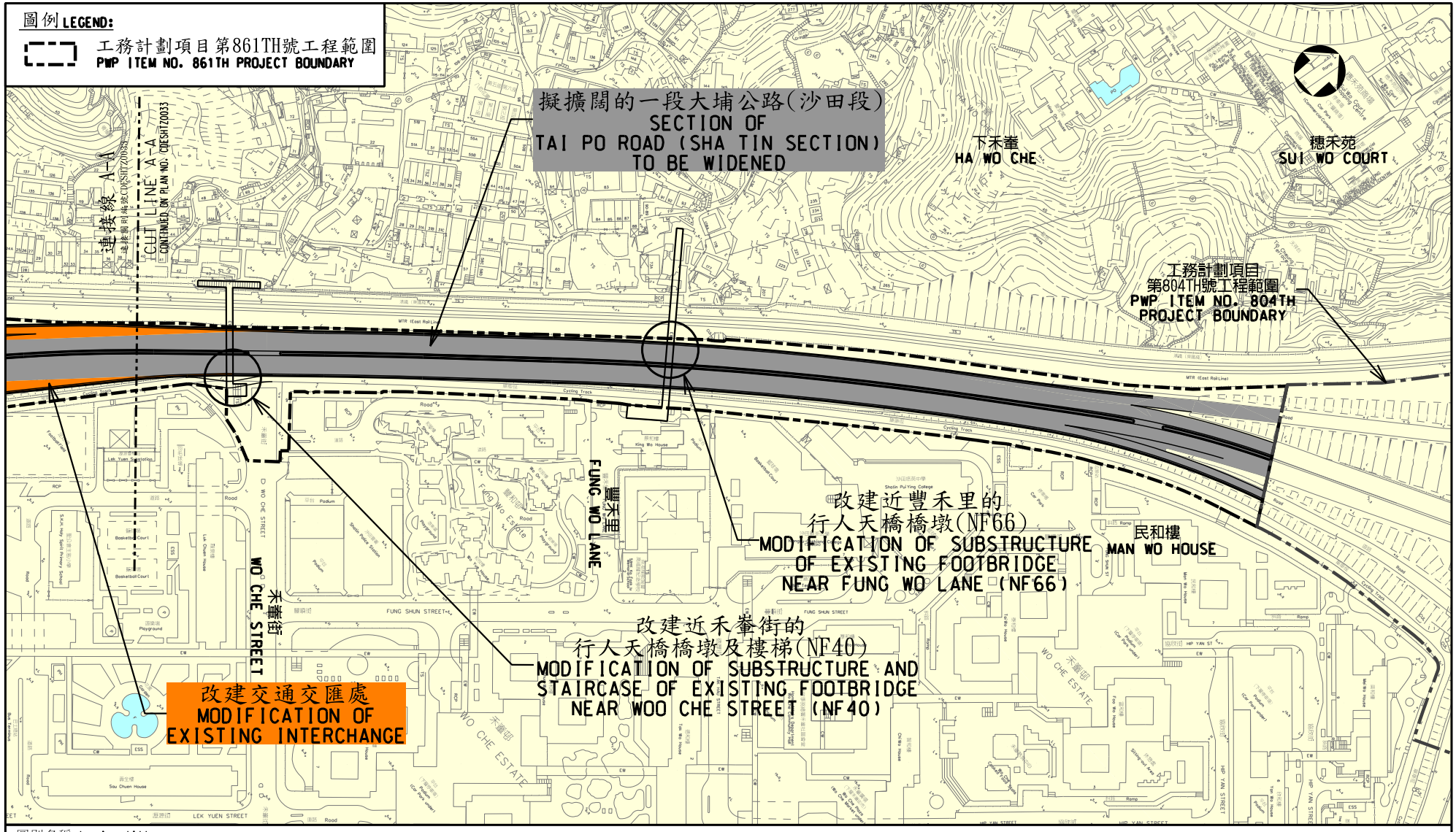
PWP ITEM NO. 861TH - WIDENING OF TAI PO ROAD (SHA TIN SECTION) - LAYOUT PLAN
（兩張圖中的第一張）(SHEET 1 OF 2)



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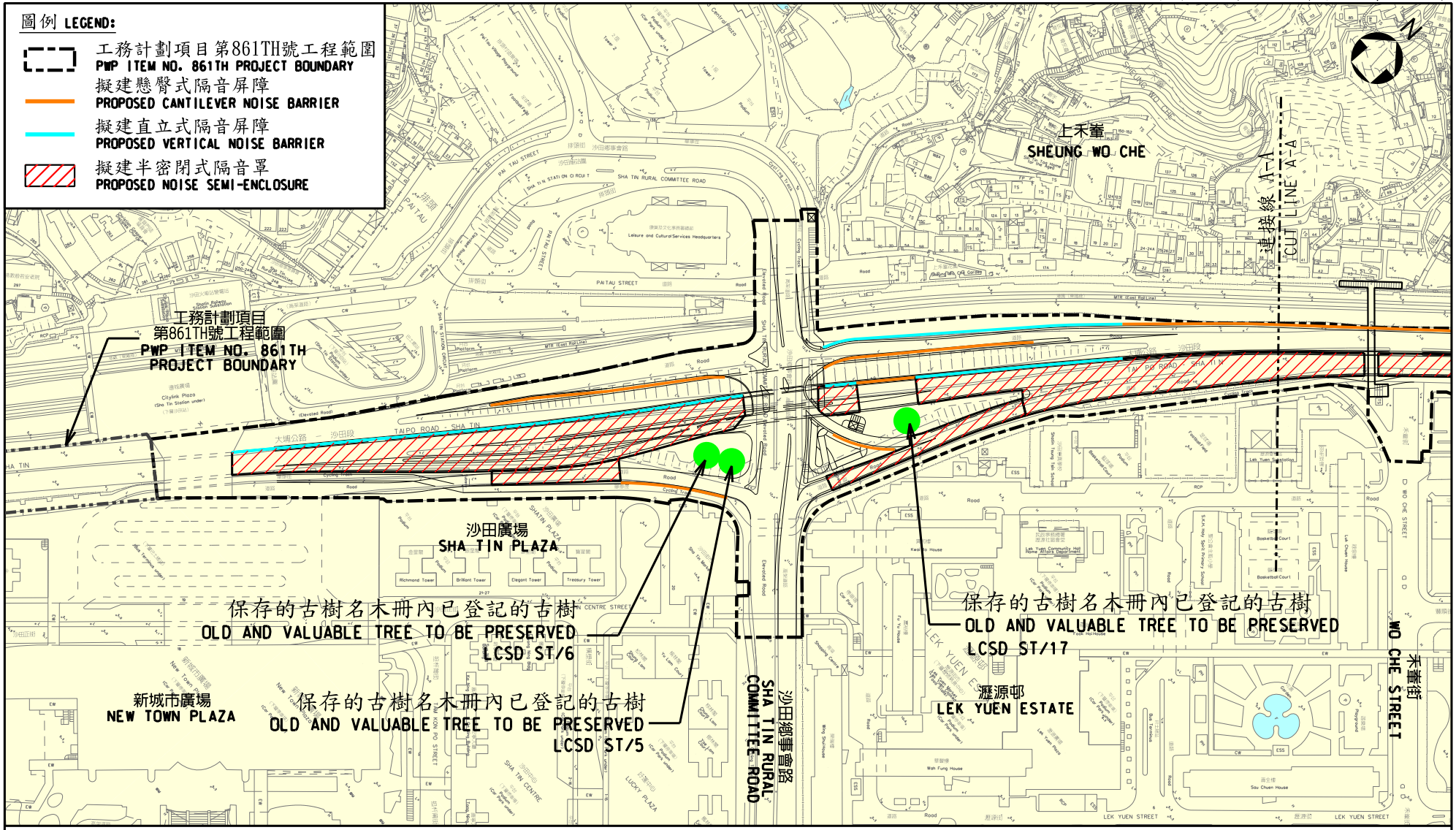
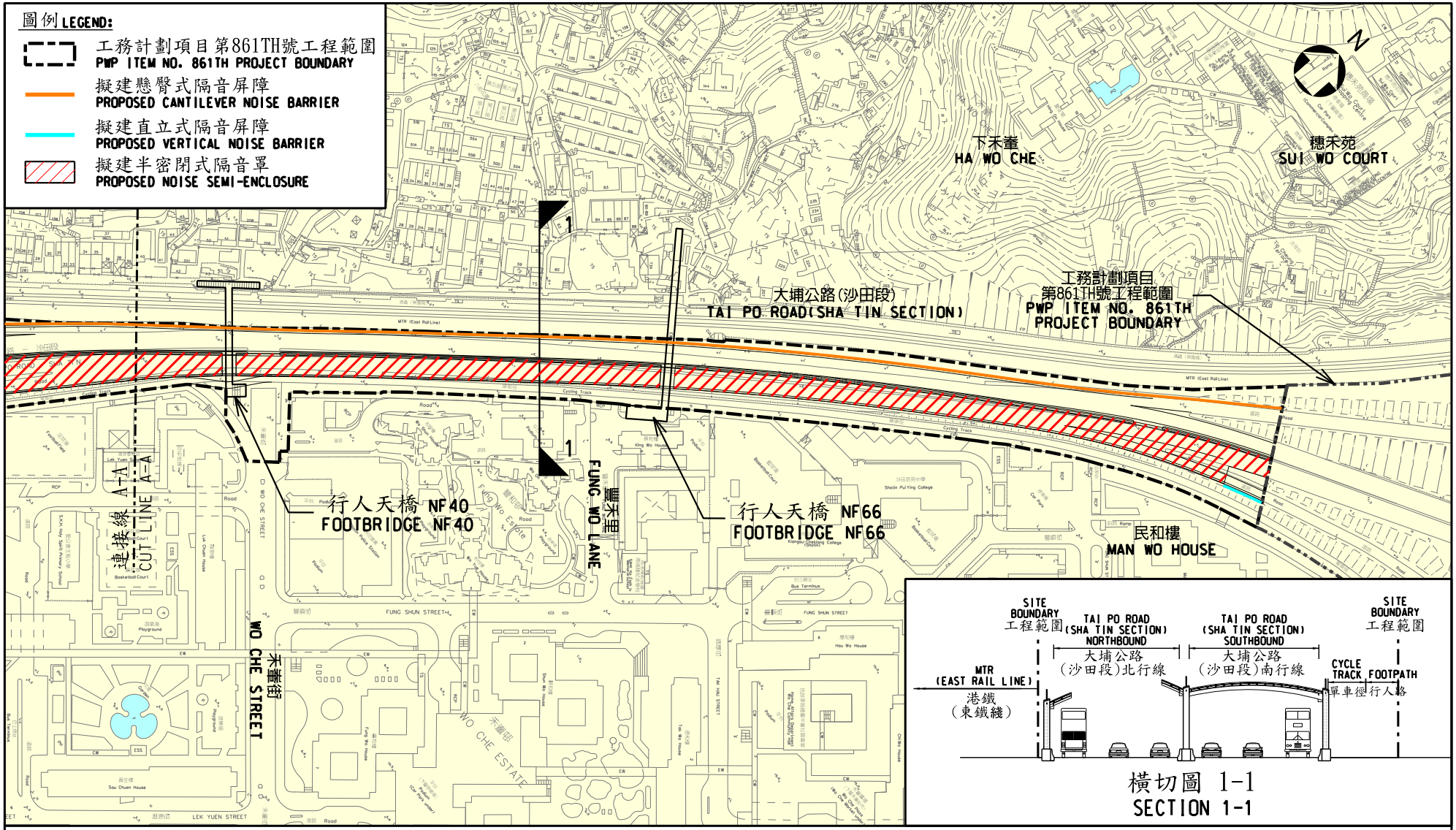
PWP ITEM NO. 861TH - WIDENING OF TAI PO ROAD (SHA TIN SECTION) - LAYOUT PLAN
(兩張圖中的第二張)(SHEET 2 OF 2)



圖則名稱 drawing title

工務計劃項目第861TH號 - 大埔公路（沙田段）擴闊工程 - 噪音緩解措施平面圖
PWP ITEM NO. 861TH - WIDENING OF TAI PO ROAD (SHA TIN SECTION) - NOISE MITIGATION MEASURES LAYOUT PLAN
（兩張圖中的第一張）(SHEET 1 OF 2)



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PWP ITEM NO. 861TH - WIDENING OF TAI PO ROAD (SHA TIN SECTION) - NOISE MITIGATION MEASURES LAYOUT PLAN
（兩張圖中的第二張）(SHEET 2 OF 2)

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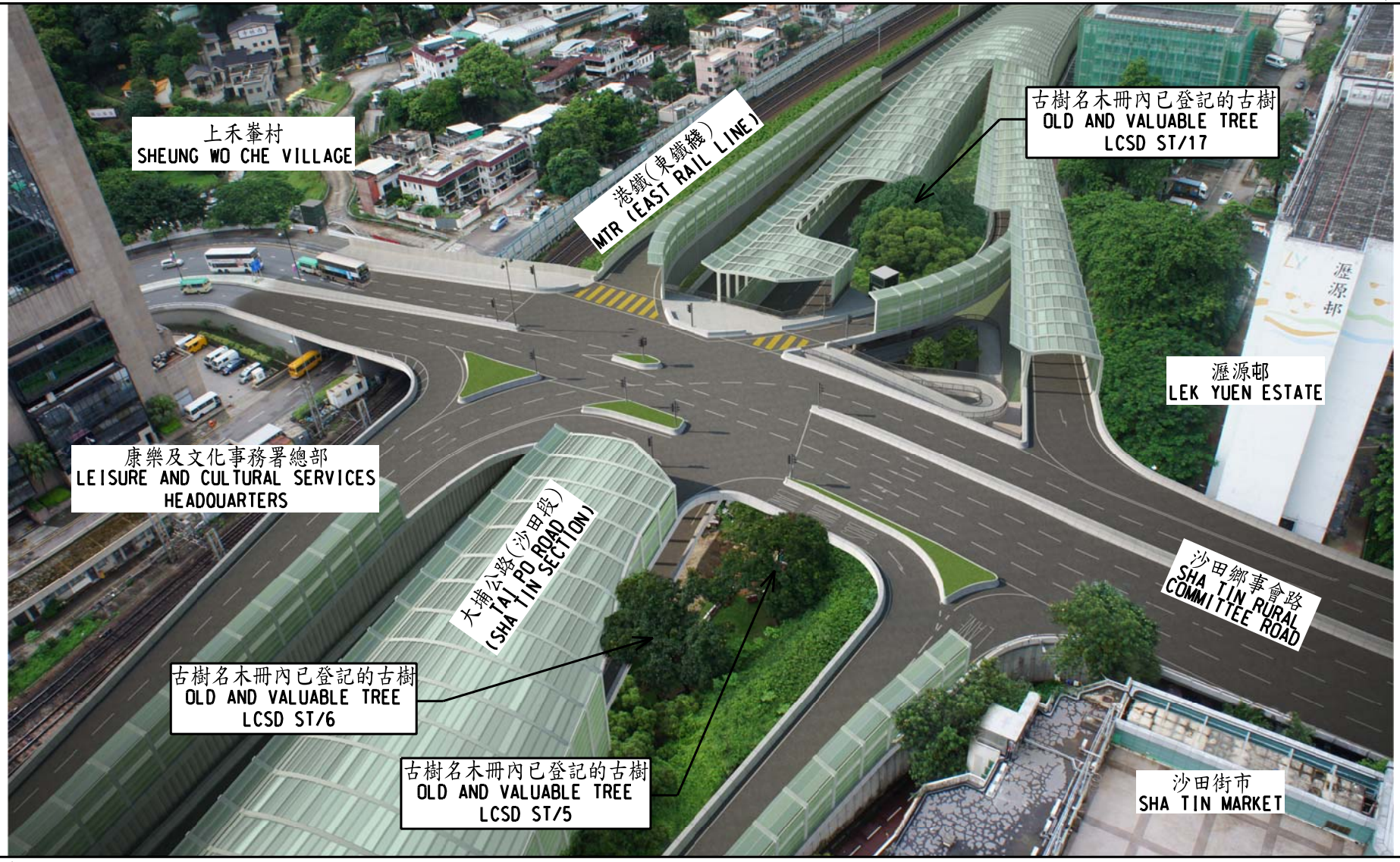

圖則名稱 drawing title

工務計劃項目第861TH號 - 完工後的沙田鄉事會路交匯處模擬照片

PWP ITEN NO. 861TH - PHOTOMONTAGE OF SHA TIN RURAL COMMITTEE ROAD INTERCHANGE AFTER COMPLETION