

Legislative Council Panel on Development

Development of Anderson Road Quarry Site Site Formation and Associated Infrastructure Works

Supplementary Information

Introduction

Among the follow-up actions of the Legislative Council (LegCo) Panel on Development, Members requested the Government to provide supplementary information about the traffic impact assessment (TIA) and proposed improvement measures for the site formation and associated infrastructure works of the Anderson Road Quarry (ARQ) site.

The Civil Engineering and Development Department (CEDD) commenced the site investigation and detailed design study for the development of ARQ site on 18 July 2014, and further reviewed the TIA undertaken at the previous feasibility study stage. CEDD subsequently presented the updated TIA findings and the associated improvement measures to the Kwun Tong District Council (DC) in the first half of 2015.

Traffic Impact

According to the findings of the TIA report under the “Development of Anderson Road Quarry site – detailed design and site investigations”, the ARQ site development will generate about 840 passenger car units/hour of traffic flow during morning peak hours. As the proposed residential areas will be located mainly in southeast of the development site, it is anticipated that about 70% of the traffic will use the eastern road access connecting Po Lam Road, Sau Mau Ping Road and Tseung Kwan O Road. The remaining 30% will use the access to On Sau Road connecting Clear Water Bay Road and New Clear Water Bay Road. The impact of additional traffic flows to local major roads and junctions arising from the proposed development are set out at **Table**.

Furthermore, the TIA findings indicated that the east-west traffic condition of Kowloon urban area will be effectively improved upon completion of Route 6, which comprises the Tseung Kwan O – Lam Tin Tunnel (TKO-LTT), Trunk Road T2 and Central Kowloon Route. TKO-LTT will be an alternative route of the existing Tseung Kwan O (TKO) Tunnel and will divert its traffic. It is anticipated that the traffic using TKO Tunnel to Kowloon will be significantly reduced, and the capacity of TKO Road could be spared for accommodating the traffic demand arising from the planned population intake of ARQ site development starting from 2023/24. It is envisaged that, including the traffic generated by ARQ site development, the volume/capacity (V/C) ratio of TKO Road in the morning peak hours in 2026 will be 0.98 (i.e. lower than the current v/c ratio of 1.13, and a V/C ratio smaller than 1.0 means that the road has sufficient capacity to cope with the anticipated volume of vehicular traffic).

The TKO-LTT project is proceeding with the tender invitation for its major part. If the funding application is approved by LegCo, TKO-LTT is anticipated to be completed in mid-2021 the earliest to cater for the regional traffic demand. The detailed design of Central Kowloon Route and Trunk Road T2 is in progress. The Highways Department is actively taking forward the Central Kowloon Route project, which is anticipated to take some 7 years to complete. The completion of Trunk Road T2 is planned to match with the commissioning of Central Kowloon Route.

Noting that the traffic flow of Clear Water Bay Road (Westbound) near Choi Hung Interchange has been disrupted by the boarding and alighting activities, the Transport Department has recently completed the extension of public light bus stop and removal of roadside railings to facilitate the passengers and shorten the duration of boarding and alighting activities, so as to rationalise the traffic of that section of road.

For the Kwun Tong town centre, most of the bus and public light bus stops will be relocated into the public transport interchange at Development

Areas 2 and 3 of the redevelopment project under the Urban Renewal Authority (URA) upon its completion. Besides, URA will widen a section of Hip Wo Street within the boundary of redevelopment project to facilitate the traffic in/out of the public transport interchange, so as to relieve the traffic of nearby roads. The Government will also continue to carry out local traffic improvement works and management measures to relieve the traffic condition in individual areas of Kowloon East.

Proposed Road Improvement Works

The TIA of ARQ site development has also proposed four road/junction improvement works, such that the traffic generated from the proposed development will not lead to negative impact on the traffic condition in the district. The proposed road/junction improvement works comprises –

- (a) alternation of the design of the junction of Sau Mau Ping Road/Lin Tak Road, and construction of a new vehicular flyover from Lin Tak Road to Sau Mau Ping Road, to provide a free-flow carriageway from Lin Tak Road and Sau Mau Ping Road into the sliproad to TKO Road (please refer to **Appendix 1**);
- (b) lengthening the roadside loading bay at the section of Lin Tak Road near Hong Wah Court and Hing Tin Estate in Lam Tin, to avoid the blockage of traffic flow due to pick-up and set-down of passengers (please refer to **Appendix 1**);
- (c) improving the junction arrangement of Clear Water Bay Road and On Sau Road, and addition of a U-turn facility at Clear Water Bay Road near Fei Ngo Shan Road (please refer to **Appendix 2**); and

- (d) widening of a section of New Clear Water Bay Road (Kowloon Bound) near Shun Lee Tsuen Road from single lane to two-lane, to reduce the queue length due to a bottle-neck section (please refer to **Appendix 3**);

Public Transportation

To encourage the residents to use public transport and hence reduce the traffic of private cars, a public transport terminus and public transport drop-off are included in the ARQ site for provision of public transport connection services, so as to divert the vehicular and pedestrian traffic to various drop-off points and MTR stations. Furthermore, we propose to provide new bus/public light bus routes connecting to nearby MTR stations (e.g. Yau Tong Station) and routes to/from districts in Kowloon to avoid additional traffic burden to the Kwun Tong town centre.

We also propose a bus-to-bus interchange (BBI) near the toll plaza of TKO Tunnel (Kowloon Portal) to facilitate the residents of Anderson area, Sau Mau Ping and Po Tat Estate using the bus services to/from TKO Tunnel. This could divert the traffic demand for other public transportation.

Proposed Pedestrian Connectivity Facilities

On the other hand, to further reduce the traffic burden, CEDD proposed to construct four pedestrian connectivity routes comprising footbridges, lift towers and/or escalators for reduction of the residents' demand for short-trip transportation in Kwun Tong. Three of the routes will pass through several housing estates in Kwun Tong and connects the ARQ development site with the Kwun Tong MTR Station. The fourth route will connect the proposed BBI at the toll plaza of TKO Tunnel via Po Tat Estate. The four proposed pedestrian connectivity routes are as below (please refer to **Appendix 4**) –

Route 1 (Hiu Lai Line): via west of On Tat Estate, north of Sau Mau Ping Shopping Centre, Hiu Lai Court, Tsui Ping (North) Estate to Kwun Tong MTR Station;

Route 2 (Hiu Wah Line): via west of On Tat Estate, north of Sau Mau Ping Shopping Centre, Hiu Wah Building, Tsui Ping (North) Estate to Kwun Tong MTR Station;

Route 3 (Sau Nam Line): via east of On Tat Estate, Po Tat Estate, Sau Mau Ping (South) Estate, Hiu Ming Street Football Court, Tsui Ping (North) Estate to Kwun Tong MTR Station; and

Route 4 (Po Tat Line): via east of On Tat Estate, Po Tat Estate to the proposed BBI at the toll plaza of TKO Tunnel.

Two of the pedestrian connectivity routes are barrier-free accesses and will facilitate the disable and elderly to travel to/from the ARQ development site, Kwun Tong MTR Station, the proposed BBI and locations along the routes. Through construction of a series of pedestrian connectivity facilities, the residents of ARQ site development and along the routes could choose to arrive at the MTR station or BBI on foot for travel to other districts. This could reduce the residents' demand for taking short-trip feeder transportation.

DC Consultation

CEDD consulted both Traffic and Transport Committees of the Kwun Tong and Sai Kung DCs on 29 January 2015, 19 March 2015, 24 March 2015, 21 May 2015 and 28 May 2015 on the above proposed traffic improvement measures. Both DCs supported the implementation of the proposed improvement measures.

Appendices

- Appendix 1** – Improvement of Junction of Lin Tak Road/Sau Mau Ping Road and Lin Tak Road
- Appendix 2** – Further Improvement of Junction of Clear Water Bay Road/On Sau Road
- Appendix 3** – Widening of Section of New Clear Water Bay Road near Shun Lee Tsuen Road
- Appendix 4** – Development of Anderson Road Quarry Site – Proposed Pedestrian Connectivity Facilities

Table

Location	Assuming both Route 6 and this Project <u>NOT</u> in place in 2026	Assuming Route 6 in place while this Project <u>NOT</u> in place in 2026	Assuming Route 6 and this project (including all the associated road/junction improvement works) in place in 2026
	RC or V/C	RC or V/C	RC or V/C
Junction of Lin Tak Road/Sau Mau Ping Road	RC < 0	RC = -9%	Changed to grade separated free-flow junction
Junction of On Sau Road/Clear Water Bay Road	RC > 0	RC = 1%	RC = 15%
New Clear Water Bay Road (near Shun Lee Tsuen Road)	V/C > 1.0	V/C = 1.08 1950 pcu/hr	V/C = 0.61 2180 pcu/hr
Tseung Kwan O Road	V/C = 1.39 5010 pcu/hr	V/C = 0.88 4210 pcu/hr	V/C = 0.98 4710 pcu/hr
Clear Water Bay Road near Ping Shek Estate	V/C > 1.0	V/C = 0.93 5020 pcu/hr	V/C = 0.99 5340 pcu/hr

- V/C (volume/capacity) ratio is an indicator which reflects the road capacity to cope with vehicular traffic flows. A V/C ratio not greater than 1.0 means that the road has sufficient capacity to cope with the volume of vehicular traffic under consideration. A V/C ratio above 1.0 indicates the onset of mild congestion and a ratio above 1.2 indicates more serious congestion with traffic speeds progressively deteriorating with further increase in traffic.
- The traffic condition of a signal-controlled junction is indicated by its reserve capacity (RC). A positive RC figure indicates that the junction is operating with spare capacity.

A negative RC figure indicates that junction is overloaded, hence resulting in traffic queues and longer travel time.

- Passenger car unit/hour (pcu/hr) is a unit for measuring traffic flow in equivalent number of private cars as design basis. For example, a pcu value of 1.0 is assigned to private cars and taxis. Heavy vehicles such as goods vehicles or buses which usually travel at a lower speed are assigned higher pcu values.



- 圖例 LEGEND:**
- 擬議道路改善工程
PROPOSED ROAD IMPROVEMENT WORKS
 - 擬議半開放式隔音罩
PROPOSED SEMI-NOISE ENCLOSURE
 - 擬議懸臂式隔音屏障
PROPOSED CANTILEVERED NOISE BARRIER
 - 擬議直立式隔音屏障
PROPOSED VERTICAL NOISE BARRIER

擬建的行車天橋
PROPOSED FLYOVER

擬議加長上落客處
PROPOSED LENGTHENED
ROADSIDE DROP-OFF LAYBY

Plot File by: TsuiWvy 4/29/2016
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圖則名稱 drawing title

改善連德道 / 秀茂坪道路口及連德道的措施

Improvement of Junction of Lin Tak Road/Sau Mau Ping Road and Lin Tak Road

項目編號 item no.
765CL

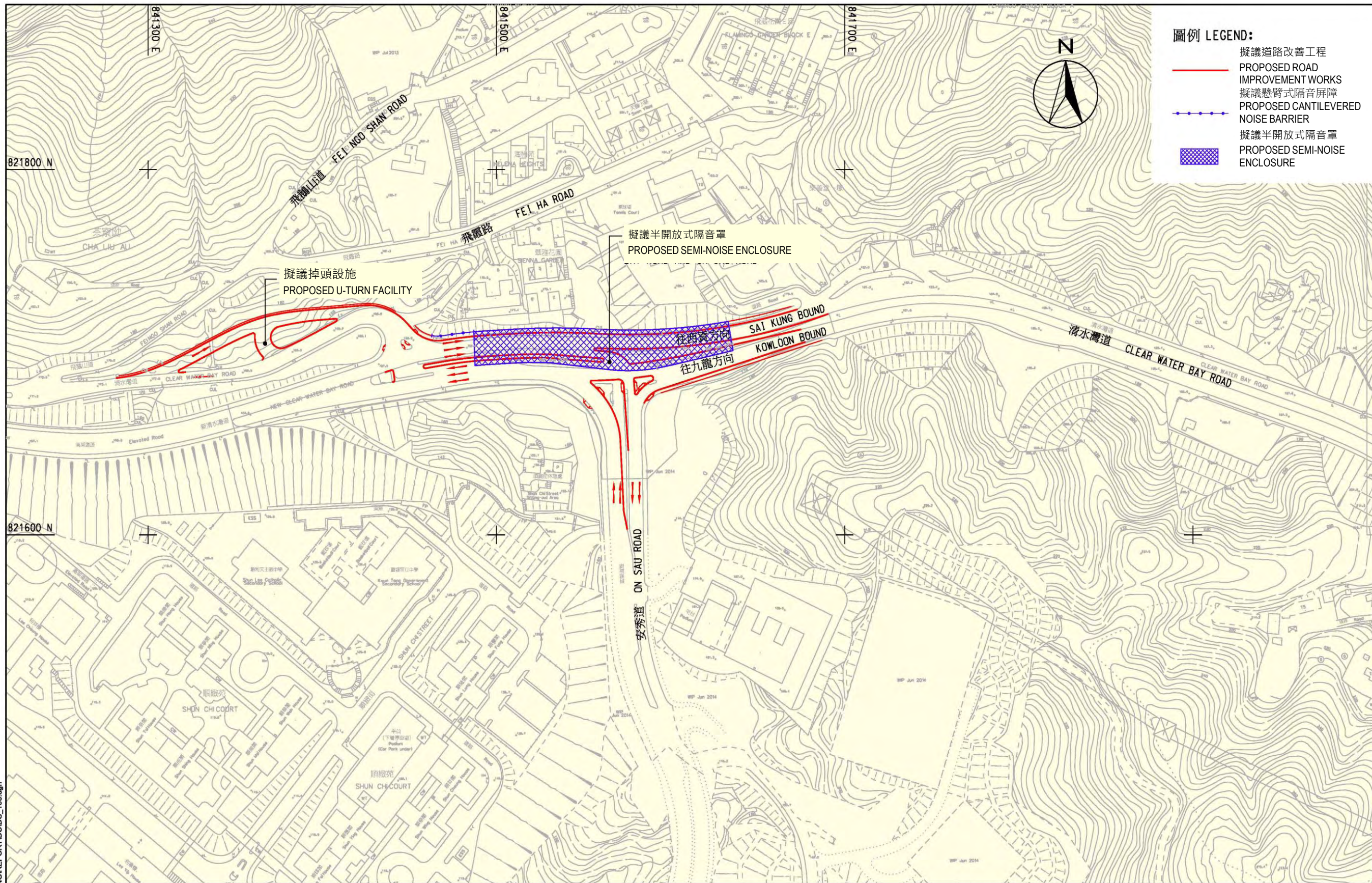
比例 scale
A3 1 : 2500

圖則編號 drawing no.
附件一 Appendix 1

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**

A3 420MM X 297MM



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圖則名稱 drawing title

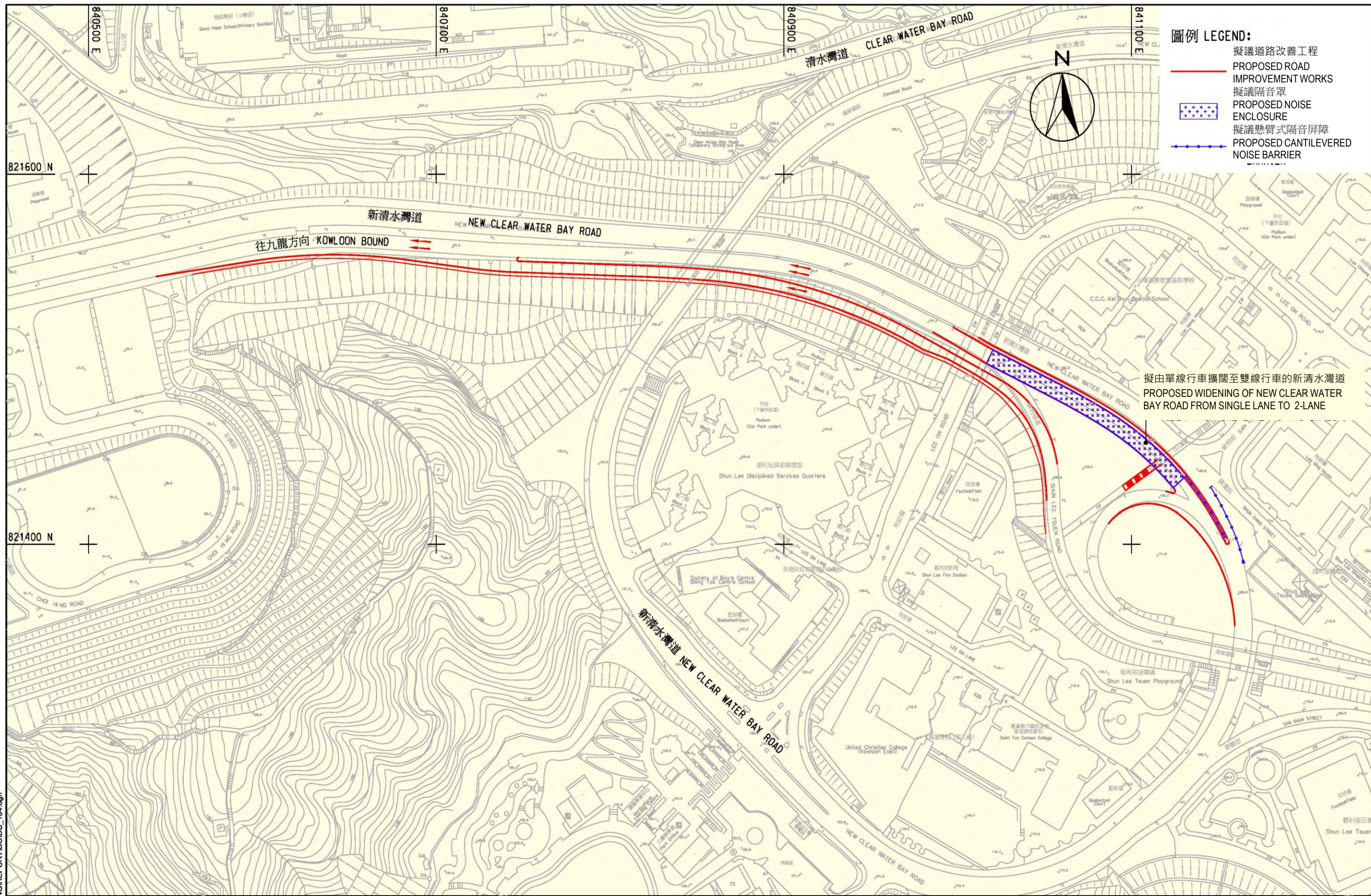
進一步改善清水灣道 / 安秀道路口的措施

Further Improvement of Junction of Clear Water Bay Road/On Sau Road

項目編號 item no.	765CL
比例 scale	A3 1 : 2000
圖則編號 drawing no.	附件二 Appendix 2

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

A3 420MM X 297MM



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圖則名稱 drawing title

擴闊新清水灣道近順利邨道路段的措施

Widening of Section of New Clear Water Bay Road near Shun Lee Tsuen Road

項目編號 item no.
765CL

比例 scale
A3 1 : 2000

圖則編號 drawing no.
附件三 Appendix 3

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

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

