

**For discussion
on 28 March 2017**

**LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT**

**PWP Item No. 765CL –
Development of Anderson Road Quarry Site**

Road Improvement and Infrastructure Works

PURPOSE

This paper briefs Members on the proposal to upgrade part of PWP Item No. **765CL “Development of Anderson Road Quarry Site”** to Category (Cat) A, at an estimated cost of \$2,750.7 million in money-of-the-day (MOD) prices, for the road improvement and infrastructure works to support the proposed development at the Anderson Road Quarry (ARQ) site.

PROJECT SCOPE AND NATURE

2. The part of **765CL** which we propose to upgrade to Cat A comprises –
- (a) road improvement works including –
 - (i) improvement works at the junction of Lin Tak Road and Sau Mau Ping Road, including the construction of a new vehicular flyover of about 390 metres (m) long from Lin Tak Road to Sau Mau Ping Road, and lengthening of laybys at Lin Tak Road near Hong Wah Court and Hing Tin Estate in Lam Tin;
 - (ii) improvement works at the junction of Clear Water Bay Road and On Sau Road, including the provision of a U-turn facility at Clear Water Bay Road near Fei Ngo Shan Road;
 - (iii) widening of a section of New Clear Water Bay Road

(Kowloon bound) near Shun Lee Tsuen Road from single-lane to two-lane;

- (b) construction of an about 170 m long two-way escalator link between Hiu Yuk Path and Hiu Ming Street ;
- (c) greening, landscape works and ancillary facilities of the open spaces, of around 15.5 hectares (ha), at the ARQ site;
- (d) associated civil, geotechnical, structural, electrical and mechanical engineering and landscaping works for the works mentioned in (a) to (c) above; and
- (e) implementation of environmental mitigation measures, including installation of noise barriers for the road improvement works mentioned in (a) above, and an environmental monitoring and audit (EM&A) programme for the works mentioned in (a) to (d) above.

3. Layout plans and details of the proposed works are at **Enclosure 1**.

4. Subject to Finance Committee (FC)'s funding approval, we plan to commence the proposed works in early 2018 for completion in phases from early 2021 to end 2023.

5. We will retain the remainder of **765CL** in Cat B, the funding of which would be sought from FC in good time to meet the population intake programme. The scope of the remaining works mainly comprises the remaining off-site pedestrian connectivity facilities including footbridges, lift towers and escalators near Po Tat Estate, Sau Mau Ping (South) Estate and Sau Mau Ping Estate. A layout plan of the remaining pedestrian connectivity facilities is at **Enclosure 2**.

JUSTIFICATION

6. To meet the housing and other development needs of the community, we seek to increase land supply in the short, medium and long term. As set out in previous Policy Addresses, the development of ARQ site is one of the major initiatives to increase land supply in the short and medium term.

7. The development of ARQ site will provide about 12 ha of land for development of about 9,400 private and subsidised housing flats for a planned population of about 25,000. It is anticipated that the housing units will be ready for occupation progressively from 2023-24. Land will also be provided at the ARQ site for commercial uses, government, institution or community facilities, and amenity

areas, etc.

8. In addition to the site formation and infrastructure works within the ARQ site, a series of associated off-site road improvement works and pedestrian connectivity facilities are proposed to mitigate the potential cumulative traffic impact arising from the proposed ARQ development, as well as to enhance the pedestrian connectivity between the ARQ site and housing estates in the vicinity, Kwun Tong town centre, and the proposed bus to bus interchange (BBI)¹ at the toll plaza of the Tseung Kwan O (TKO) Tunnel.

9. According to the findings of the traffic impact assessment, the proposed development at the ARQ site will not cause any unacceptable impact on the traffic in Kwun Tong. The proposed road improvement works are anticipated to improve the traffic conditions as follows -

- (a) with the proposed new vehicular flyover, the junction of Lin Tak Road and Sau Mau Ping Road will be converted from a signalised junction to a free-flow junction, thus allowing smooth flow of traffic;
- (b) the lengthening of laybys at Lin Tak Road will avoid the blockage of traffic caused by on-street pick-up and drop-off activities;
- (c) with the proposed U-turn facility at Clear Water Bay Road near Fei Ngo Shan Road, the traffic performance at the junction of Clear Water Bay Road and On Sau Road will be improved; and
- (d) widening a section of New Clear Water Bay Road (Kowloon bound) near Shun Lee Tsuen Road from single lane to two-lane so as to solve the queuing problem at this bottleneck.

10. To support the development of the ARQ site, a network of pedestrian connectivity facilities is also proposed to enhance the pedestrian connectivity between the ARQ site and nearby areas. The pedestrian connectivity facilities are implemented in phases to tie in with the progress of the planning and statutory process. Funding for the phase 1 works, including the pedestrian connectivity facilities located near On Tat Estate, Hiu Lai Court, Hiu Wah Building, Fu Wah Court and the proposed BBI at the toll plaza of TKO Tunnel was approved by FC on

¹ The BBI is to reduce the public transport demand at Sau Mau Ping, Po Tat and Hing Tin areas and to mitigate the traffic impact generated from the proposed ARQ development. The construction of BBI is part of **803CL** "Development of Anderson Road Quarry site – site formation and associated infrastructure works" which will commence in end March 2017 for completion in 2020.

10 June 2016 and their construction will commence in end March 2017. Separately, the statutory process for the escalator link between Hiu Yuk Path and Hiu Ming Street was completed in December 2016, and funding is being sought under this application in order for the works to commence in early 2018.

11. For the remaining pedestrian connectivity facilities near Po Tat Estate, Sau Mau Ping (South) Estate and Sau Mau Ping Estate, more time is required to sort out land issues, such as potential land resumption or creation of easement. Once these issues are resolved, we plan to seek funding approval from FC so that their completion will tie in with the anticipated population intake of the ARQ development in 2023-24 as soon as practicable.

12. Under this project, greening, landscape works and ancillary facilities of about 15.5 ha for open space in the form of pedestrian corridors, pathways, green spine, and vegetated slopes plus an artificial stormwater attenuation lake, are proposed at the ARQ site to create a green and naturalistic environment for public enjoyment. The artificial stormwater attenuation lake of about 2 ha which includes floating bridge, viewing platforms and children water play area will be provided for recreational use.²

FINANCIAL IMPLICATIONS

13. We estimate the capital cost of the proposed works to be \$2,750.7 million in MOD prices. The breakdown is as follows –

	\$ million
(a) Road works	1,061.4
(i) road construction	955.3
(ii) construction of vehicular flyover	106.1
(b) Escalator link between Hiu Yuk Path and Hiu Ming Street	64.8
(c) Greening, landscape works and ancillary facilities for open spaces	266.7

² The lake will serve as a flood control facility to store and attenuate the stormwater discharge to downstream drainage system during rainy days. On the other hand, the lake will also serve as a recreational facility during non-rainy days. The lake will be operated, managed and maintained by the Drainage Services Department.

	\$ million	
(d) Environmental mitigation measures and EM&A programme for the works in (a) to (c) above	383.2	
(e) Consultants' fees for	35.9	
(i) contract administration	6.1	
(ii) management of resident site staff (RSS)	17.7	
(iii) EM&A programme	12.1	
(f) Remuneration of RSS	177.7	
(g) Contingencies	198.1	
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Sub-total	2,187.8	(in September 2016 prices)
(h) Provision for price adjustment	562.9	
	<hr/>	
Total	2,750.7	(in MOD prices)

PUBLIC CONSULTATION

14. In September 2013, we consulted the Traffic and Transport Committees (TTC) of the Kwun Tong District Council (KTDC) and Sai Kung District Council (SKDC) on the proposed development of ARQ site. Members of both committees supported the proposal.

15. Two public forums were held on 10 and 13 January 2015 at the Kwun Tong Community Hall for collecting views from members of the public on the proposed pedestrian connectivity facilities. The attendees generally supported the proposed facilities.

16. We consulted the KTDC TTC on the proposed pedestrian connectivity facilities on 29 January 2015, the SKDC TTC and the KTDC TTC on the proposed road improvement works on 21 and 28 May 2015 respectively. Members of both committees supported the project.

17. On 8 and 10 November 2016, we consulted the District Facilities Management Committees of SKDC and KTDC respectively on the proposed landscaping and ancillary works for open space at the ARQ site. Members of both

committees supported the proposal.

18. We gazetted the proposed road improvement works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 11 December 2015 and 20 May 2016. No objection was received. The works were authorised on 22 April 2016 and 2 September 2016 respectively.

19. We also gazetted the proposed escalator link between Hiu Yuk Path and Hiu Ming Street under Cap. 370 on 19 August 2016. No objection was received. The works were subsequently authorised on 2 December 2016.

ENVIRONMENTAL IMPLICATIONS

20. The proposed road improvement works as set out in paragraphs 2(a) is a designated project (DP) under Schedule 2 to the Environmental Impact Assessment (EIA) Ordinance (Cap. 499), requiring an environmental permit (EP) for their construction and operation. The Director of Environmental Protection (DEP) approved the EIA report on 22 March 2016 and issued an EP on 20 July 2016 for the construction and operation of the proposed works. The approved EIA report concluded that with the implementation of the recommended mitigation measures, the environmental impact of the proposed road improvement works could be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on EIA Process.

21. Other proposed works items as set out in paragraph 2(b), 2(c), and part of 2(d) are not DP under Cap. 499 but were assessed in the Schedule 3 EIA report for the Development of Anderson Road Quarry. The DEP approved the EIA report on 28 July 2014. The approved EIA report concluded that these proposed works will not cause any long-term environmental impact.

22. We will implement the mitigation measures and EM&A programme for the proposed works as recommended in the approved EIA reports and as required under the EP. The recommended mitigation measures mainly include installation of noise barriers at the vehicular roads. For the short-term environmental impacts caused by the proposed works during construction, we will control the construction dust, noise and surface run-off by mitigation measures including watering at site, use of quiet plant and working methods and close liaison with the nearby schools to avoid noisy construction works to be carried out during examination period, and the use of temporary drains to discharge the surface run-off. We estimate the cost of implementing the environmental mitigation measures and EM&A programme to be \$383.2 million. We have included this cost in the overall estimate of the proposed works.

23. At the planning and design stages, we have considered the design to optimise the slope cutting profile to reduce construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated materials) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities³. We will encourage the contractor to maximise the use of recycled and recyclable inert construction waste, and the use of non-timber formwork to further minimise the generation of construction waste.

24. At the construction stage for the proposed works, we will 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 also require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. Besides, we will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

25. We estimate that the proposed works will generate in total 321 400 tonnes of construction waste. Of these, we will reuse 173,700 tonnes (54.0%) of inert construction waste on site and 141,600 tonnes (44.1%) of inert construction waste on other construction sites. We will dispose of the remaining 1,100 tonnes (0.3%) inert construction waste to public fill reception facilities and 5,000 tonnes (1.6%) 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 \$1.08 million for the proposed works (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities, and \$200 per tonne for disposal at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

26. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites and buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

3 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 at public fill reception facilities requires a license issued by the Director of Civil Engineering and Development.

TRAFFIC IMPLICATIONS

27. The proposed works will not cause any significant traffic impact during the construction stage. Temporary traffic arrangements will be implemented to facilitate the construction works. We will display publicity boards on site giving details of the temporary traffic arrangements and the anticipated completion dates of individual sections of works. In addition, we will set up a telephone hotline to respond to public enquiries or complaints.

LAND ACQUISITION

28. The proposed works do not require land resumption and clearance, but require creation of easements and other permanent rights⁴ in about 137 square metres of private land. The compensation cost, estimated at \$10 000, will be charged to Head 701 – Land Acquisition.

BACKGROUND INFORMATION

29. We upgraded **765CL** to Cat B in September 2013.

30. On 21 February 2014, FC approved the upgrading of part of **765CL** to Cat A as **774CL** “Development of Anderson Road Quarry site – detailed design and site investigations” at an approved project estimate of \$187.2 million in MOD prices for engaging consultants to undertake the detailed design and site investigation works of the site formation and associated infrastructure works, off-site road improvement works, as well as pedestrian connectivity facilities for the proposed development at the ARQ site. The site investigation as well as detailed design for the proposed works have been substantially completed, while the detailed design for the remaining works is on-going.

31. On 10 June 2016, FC approved the upgrading of part of **765CL** to Cat A as **803CL** “Development of Anderson Road Quarry site – site formation and associated infrastructure works” at an approved project estimate of \$7,693.4 million in MOD prices for construction of the site formation and associated infrastructure works and part of off-site pedestrian connectivity facilities works for the proposed development of ARQ site.

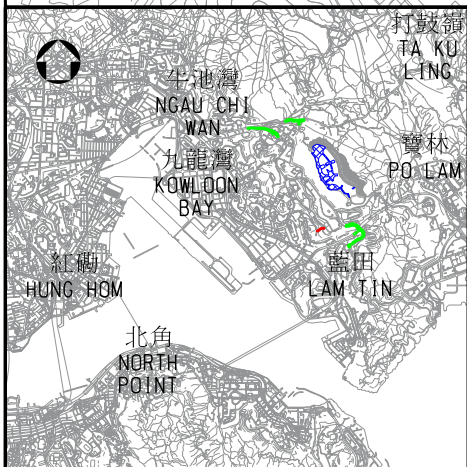
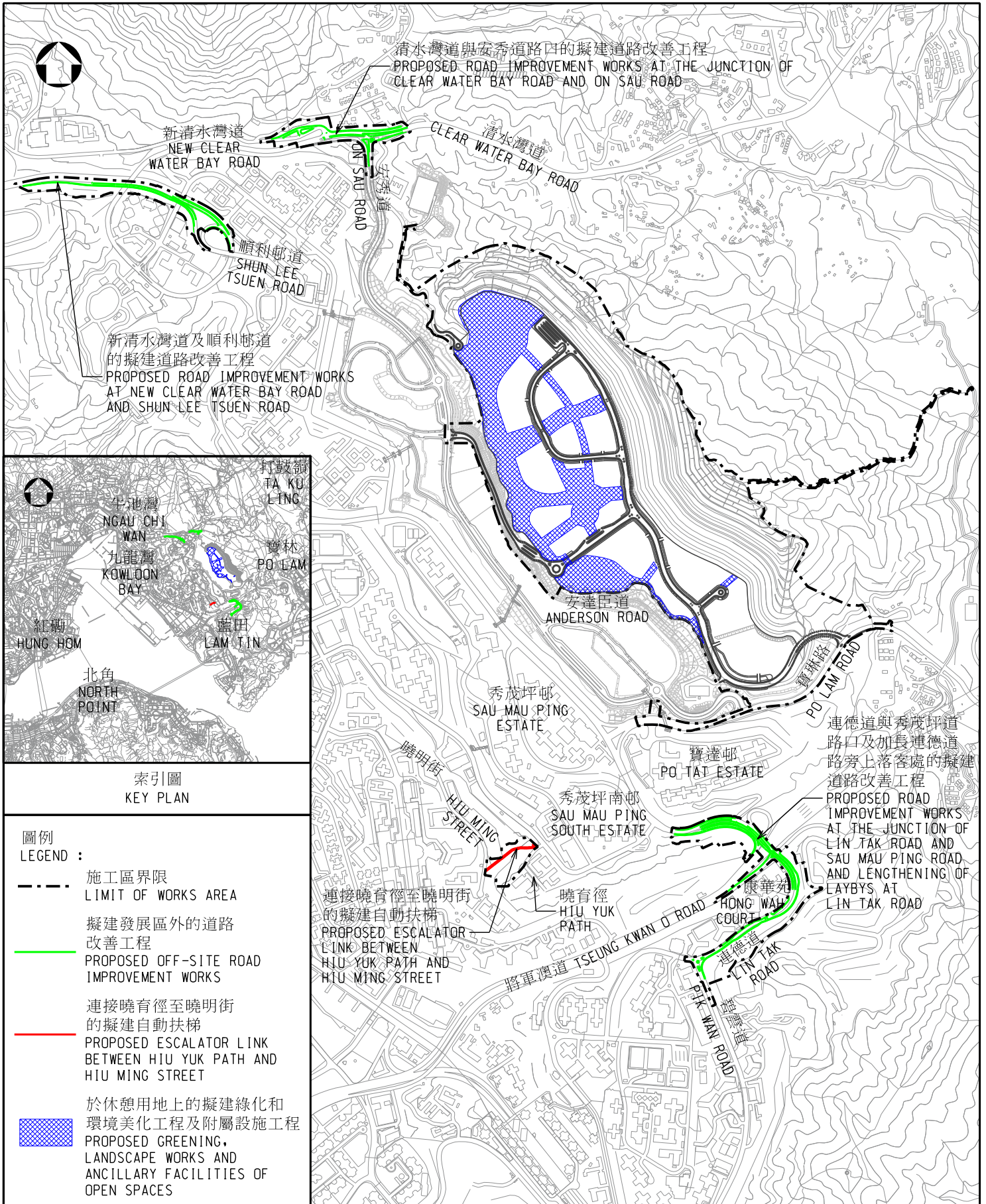
32. We estimate that the proposed works will create 520 jobs (420 for labourers and another 100 for professional or technical staff) providing a total employment of 30,000 man-months.

⁴ They are provided for the Government to have the right to enter, occupy or remain in the land for the purpose of carrying out the works including necessary management, maintenance and repairs.

WAY FORWARD

33. We plan to seek funding approval from FC for the proposed works under **765CL** in May 2017 after consulting the Public Works Sub-committee.

Development Bureau
Civil Engineering and Development Department
March 2017

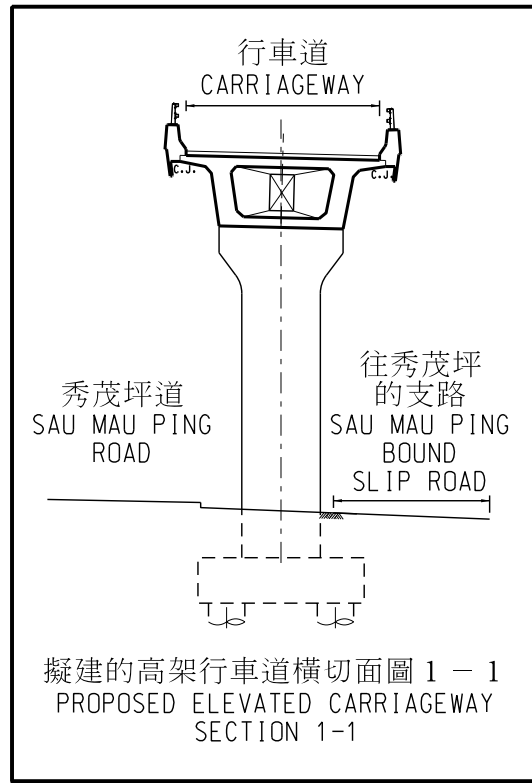
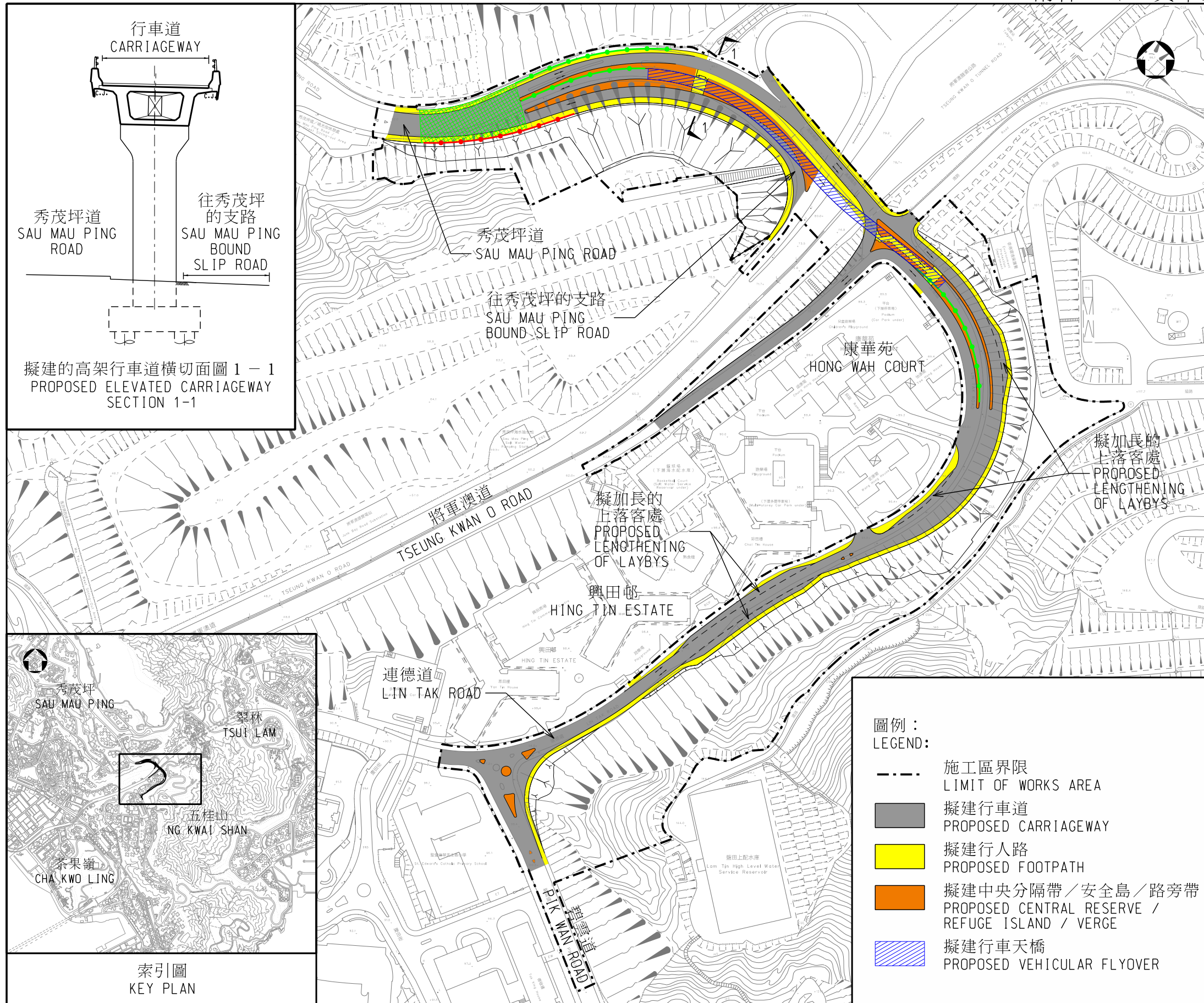


- 圖例
LEGEND :
- 施工區界限
LIMIT OF WORKS AREA
 - 擬建發展區外的道路改善工程
PROPOSED OFF-SITE ROAD IMPROVEMENT WORKS
 - 連接曉育徑至曉明街的擬建自動扶梯
PROPOSED ESCALATOR LINK BETWEEN HIU YUK PATH AND HIU MING STREET
 - 於休憩用地上的擬建綠化和環境美化工程及附屬設施工程
PROPOSED GREENING, LANDSCAPE WORKS AND ANCILLARY FACILITIES OF OPEN SPACES

圖則名稱 drawing title

工務計劃第765CL號－安達臣道石礦場用地發展
－擬建工程分布圖

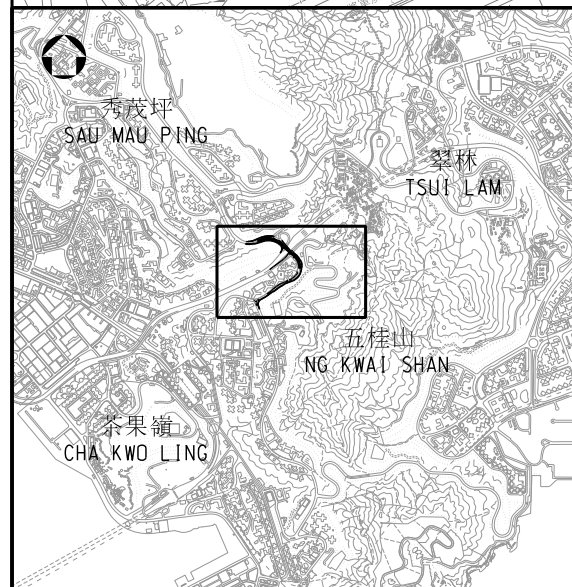
PWP ITEM NO. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
- PROJECT LAYOUT PLAN



半開放式隔音罩及隔音屏障模擬照片
NOISE SEMI-ENCLOSURE AND NOISE BARRIER PHOTOMONTAGE



行車天橋模擬照片
VEHICULAR FLYOVER PHOTOMONTAGE



索引圖
KEY PLAN

圖例：
LEGEND:

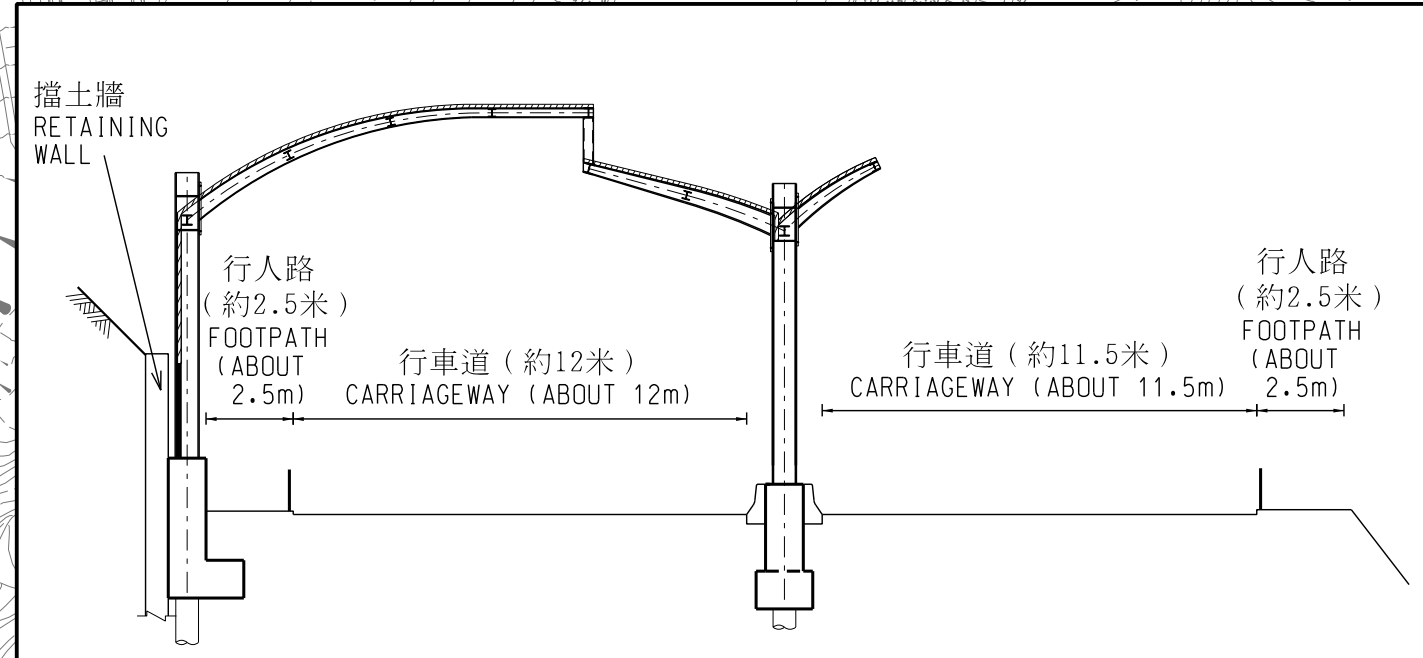
- 施工區界限
LIMIT OF WORKS AREA
- 擬建行車道
PROPOSED CARRIAGEWAY
- 擬建行人路
PROPOSED FOOTPATH
- 擬建中央分隔帶 / 安全島 / 路旁帶
PROPOSED CENTRAL RESERVE / REFUGE ISLAND / VERGE
- 擬建行車天橋
PROPOSED VEHICULAR FLYOVER
- Y Y 擬建斜坡
PROPOSED SLOPE
- 行車道的行車線 (每一箭嘴代表一行車線)
(ONE ARROW REPRESENTS ONE LANE)
- 擬建半開放式隔音罩
PROPOSED NOISE SEMI-ENCLOSURE
- 擬建懸臂式隔音屏障
PROPOSED CANTILEVER NOISE BARRIER
- 擬建直立式隔音屏障
PROPOSED VERTICAL NOISE BARRIER

圖則名稱 drawing title

工務計劃第765CL號－安達臣道石礦場用地發展
 一連德道與秀茂坪道路口及加長連德道路旁上落客處的擬建道路改善工程
 PWP ITEM NO. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
 - PROPOSED ROAD IMPROVEMENT WORKS AT THE JUNCTION OF LIN TAK ROAD AND SAU MAU PING ROAD AND LENGTHENING OF LAYBYS AT LIN TAK ROAD



半開放式隔音罩模擬照片
NOISE SEMI-ENCLOSURE PHOTOMONTAGE

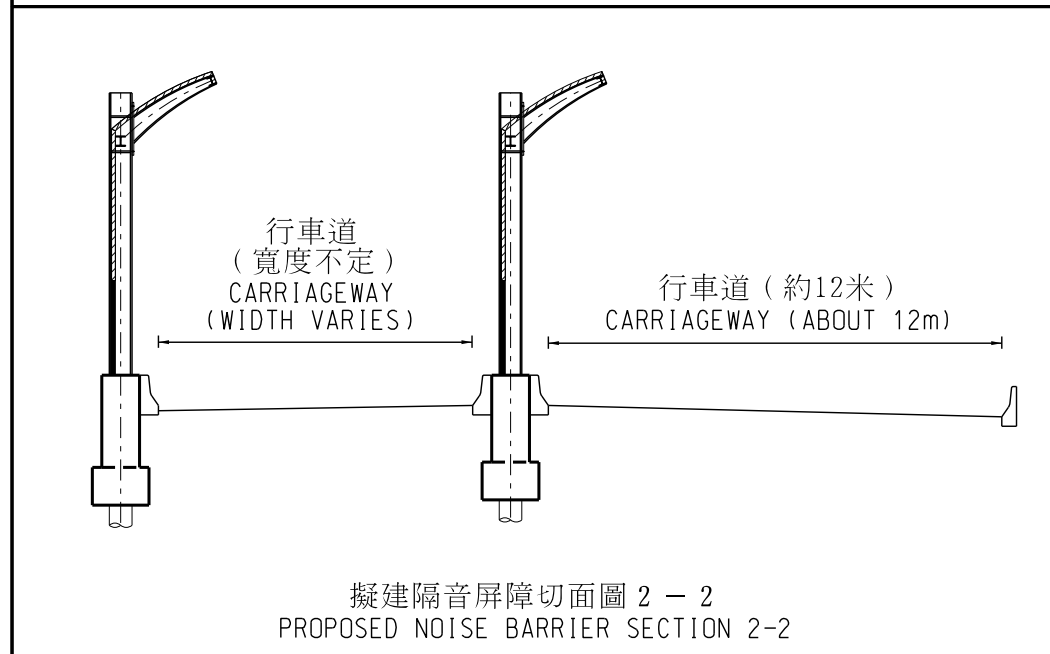
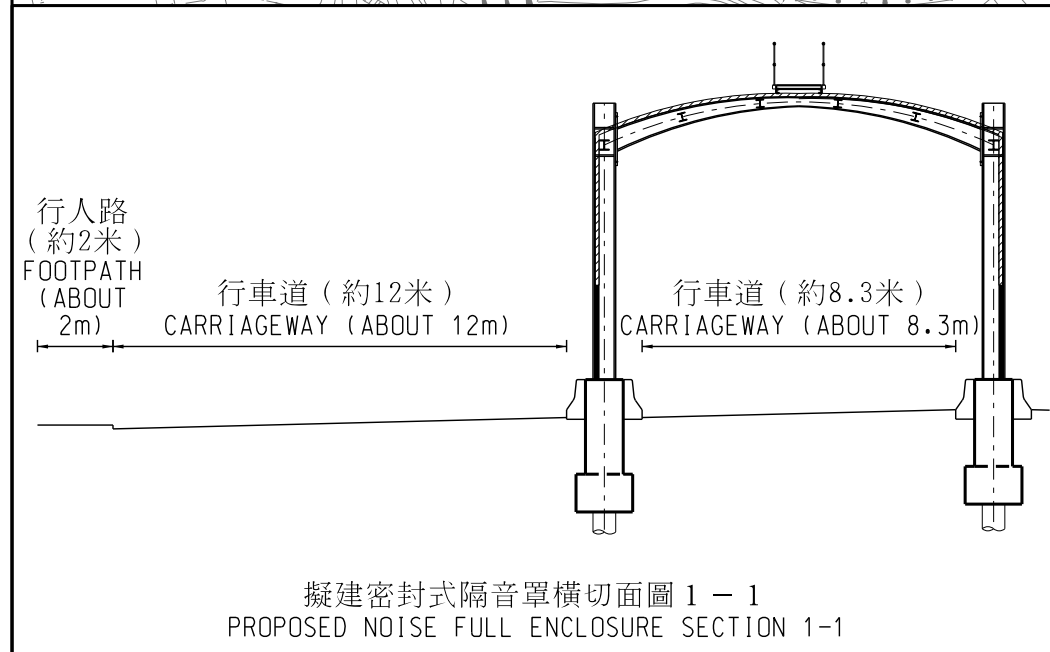
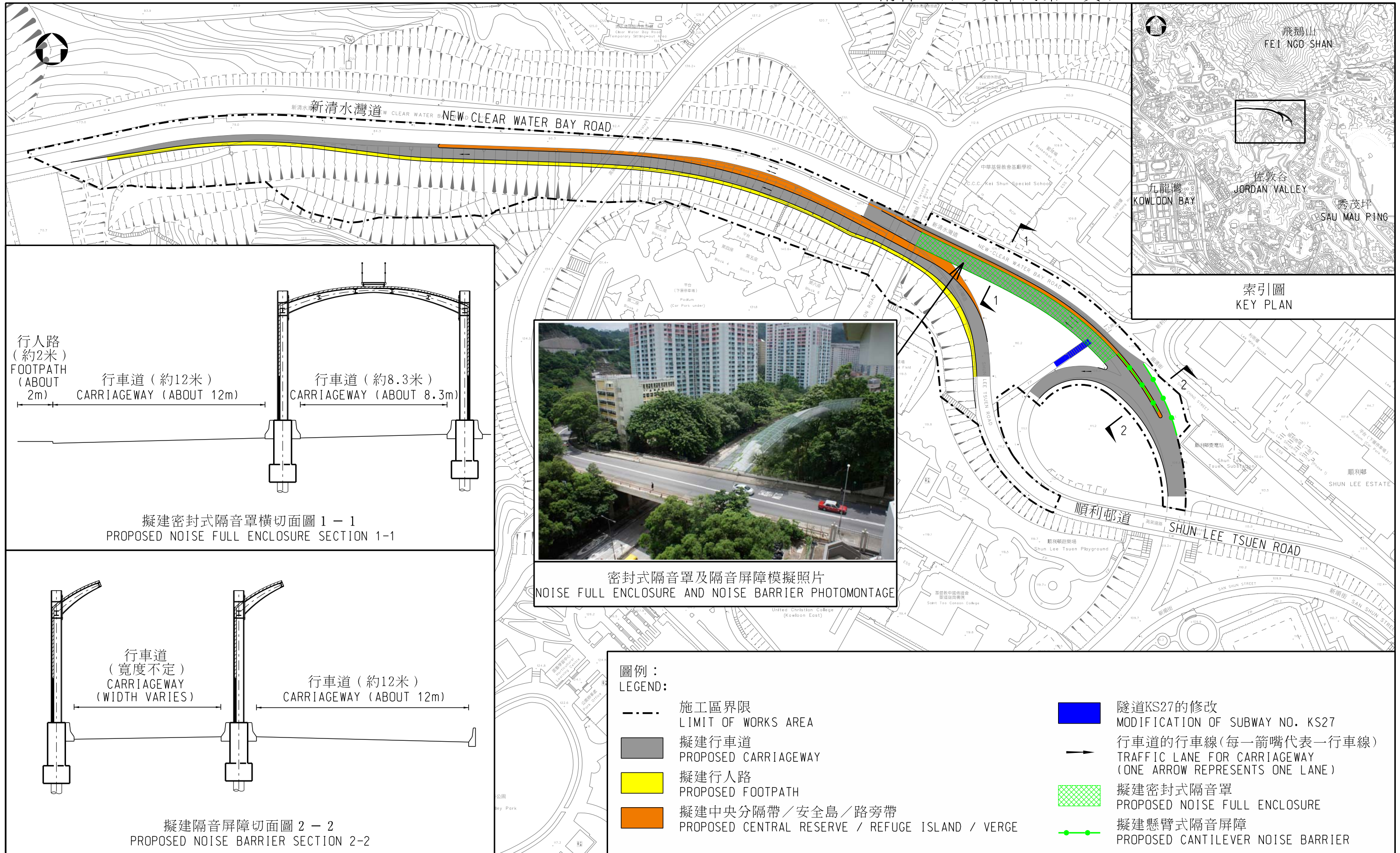


擬建的半開放式隔音罩橫切面圖 1-1
PROPOSED NOISE SEMI-ENCLOSURE SECTION 1-1

- 圖例：
LEGEND:
- | | | | |
|--|--|--|--|
| | 施工區界限
LIMIT OF WORKS AREA | | 擬建斜坡
PROPOSED SLOPE |
| | 擬建行車道
PROPOSED CARRIAGEWAY | | 行車道的行車線(每一箭嘴代表一行車線)
TRAFFIC LANE FOR CARRIAGEWAY
(ONE ARROW REPRESENTS ONE LANE) |
| | 擬建行人路
PROPOSED FOOTPATH | | 擬建半開放式隔音罩
PROPOSED NOISE SEMI-ENCLOSURE |
| | 擬建中央分隔帶/安全島/路旁帶
PROPOSED CENTRAL RESERVE /
REFUGE ISLAND / VERGE | | 擬建懸臂式隔音屏障
PROPOSED CANTILEVER NOISE BARRIER |

圖則名稱 drawing title

工務計劃第765CL號－安達臣道石礦場用地發展
－清水灣道與安秀道路口的擬建道路改善工程
PWP ITEM NO. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
- PROPOSED ROAD IMPROVEMENT WORKS AT THE JUNCTION OF CLEAR WATER BAY ROAD AND ON SAU ROAD



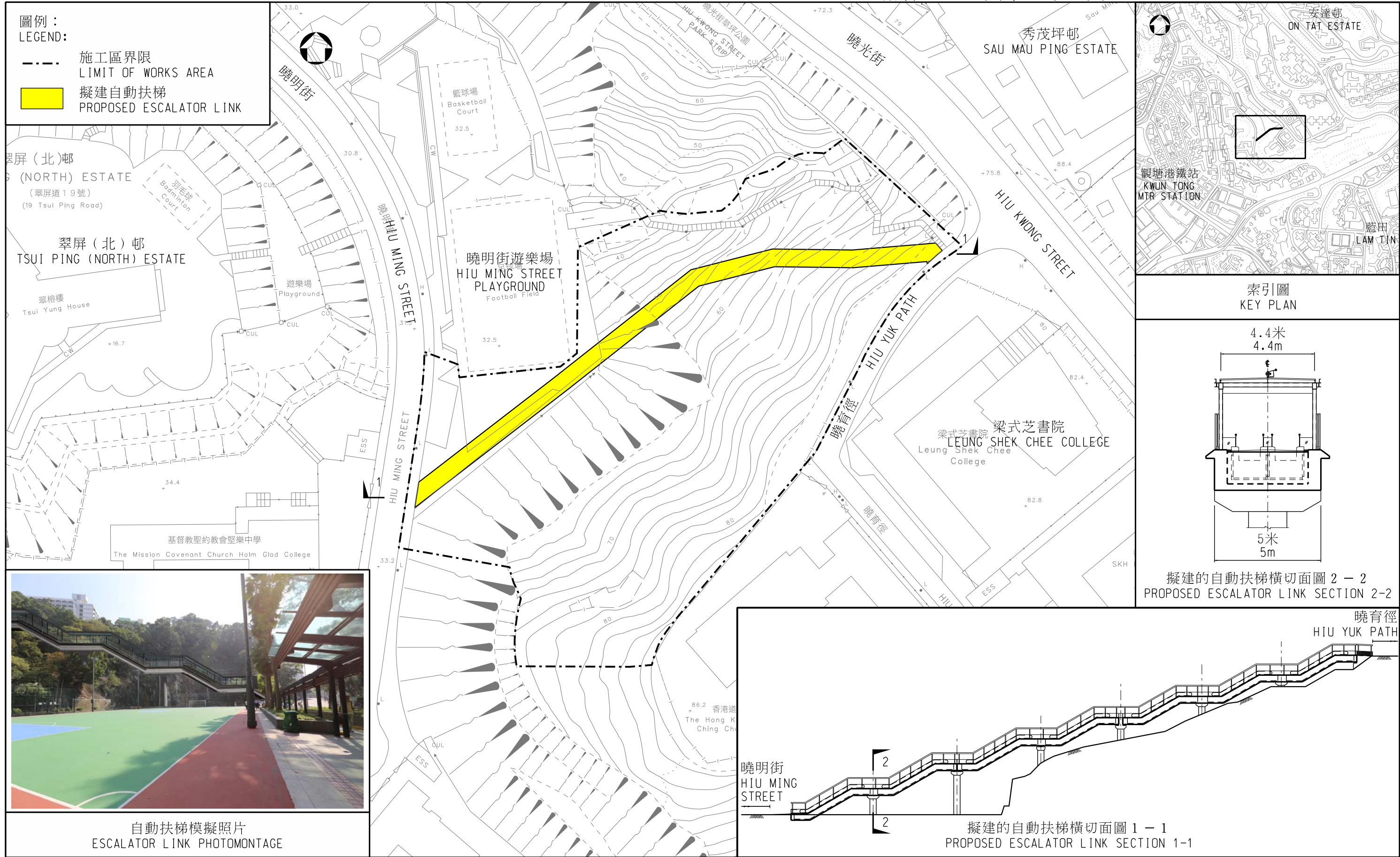
密封式隔音罩及隔音屏障模擬照片
NOISE FULL ENCLOSURE AND NOISE BARRIER PHOTOMONTAGE

圖例：
LEGEND:

- 施工區界限
LIMIT OF WORKS AREA
- 擬建行車道
PROPOSED CARRIAGEWAY
- 擬建行人路
PROPOSED FOOTPATH
- 擬建中央分隔帶 / 安全島 / 路旁帶
PROPOSED CENTRAL RESERVE / REFUGE ISLAND / VERGE
- 隧道KS27的修改
MODIFICATION OF SUBWAY NO. KS27
- 行車道的行車線 (每一箭嘴代表一行車線)
TRAFFIC LANE FOR CARRIAGEWAY (ONE ARROW REPRESENTS ONE LANE)
- 擬建密封式隔音罩
PROPOSED NOISE FULL ENCLOSURE
- 擬建懸臂式隔音屏障
PROPOSED CANTILEVER NOISE BARRIER

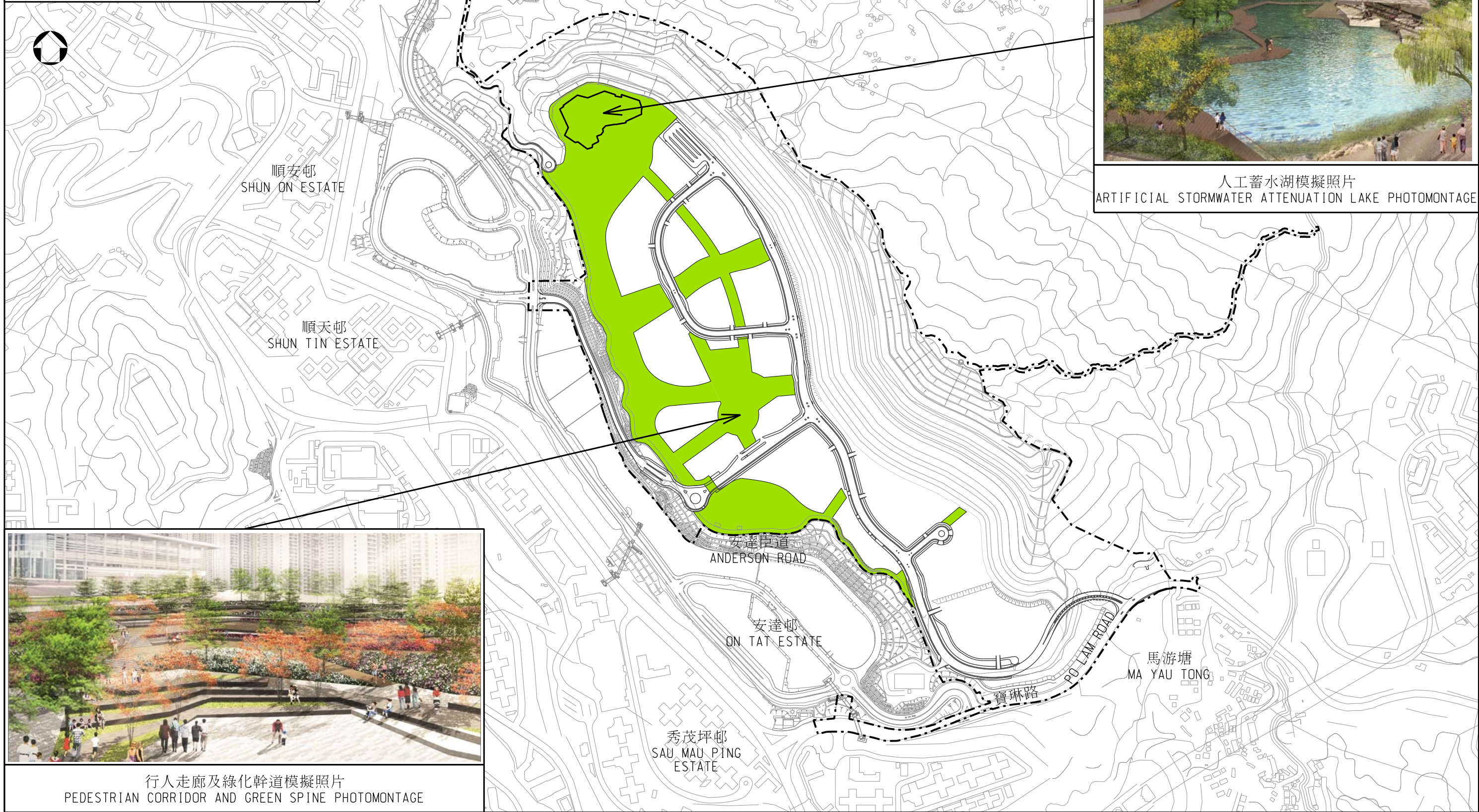
圖則名稱 drawing title

工務計劃第765CL號 - 安達臣道石礦場用地發展
- 新清水灣道及順利邨道的擬建道路改善工程
PWP ITEM NO. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
- PROPOSED ROAD IMPROVEMENT WORKS AT NEW CLEAR WATER BAY ROAD AND SHUN LEE TSUEN ROAD



圖則名稱 drawing title
 工務計劃第765CL號－安達臣道石礦場用地發展
 一 連接曉育徑至曉明街的擬建自動扶梯
 PWP ITEM NO. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
 - PROPOSED ESCALATOR LINK BETWEEN HIU YUK PATH AND HIU MING STREET

圖例：
LEGEND:
- - - 施工區界限
LIMIT OF WORKS AREA



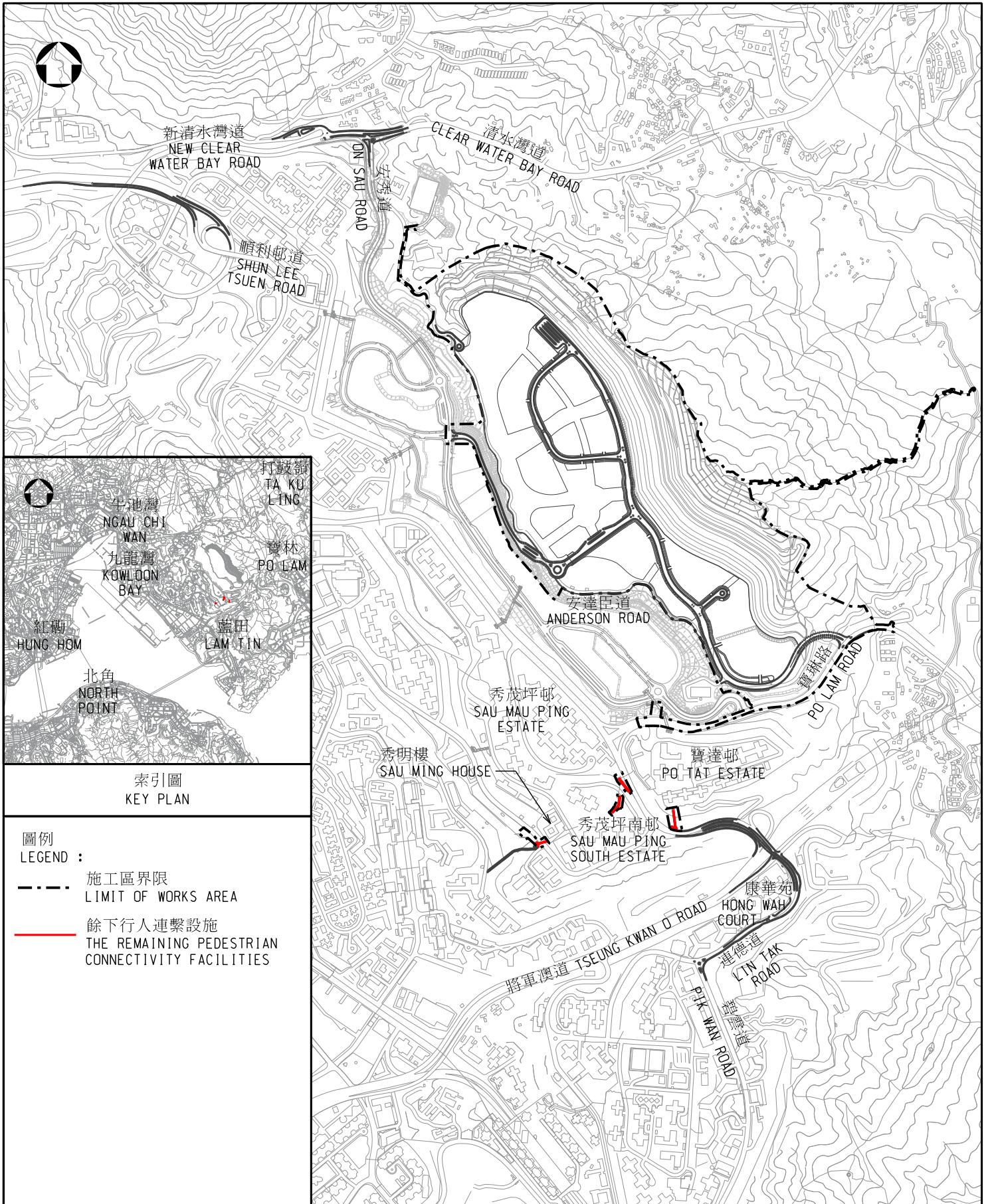
人工蓄水湖模擬照片
ARTIFICIAL STORMWATER ATTENUATION LAKE PHOTOMONTAGE



行人走廊及綠化幹道模擬照片
PEDESTRIAN CORRIDOR AND GREEN SPINE PHOTOMONTAGE

圖則名稱 drawing title

工務計劃第765CL號－安達臣道石礦場用地發展
－於休憩用地上的擬建綠化和環境美化工程及附屬設施工程
PWP ITEM NO. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
- PROPOSED GREENING, LANDSCAPE WORKS AND ANCILLARY FACILITIES OF OPEN SPACES



圖則名稱 drawing title

工務計劃第765CL號－安達臣道石礦場用地發展
－餘下行人連繫設施分布圖

PWP ITEM NO. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
- LAYOUT PLAN OF THE REMAINING PEDESTRIAN CONNECTIVITY FACILITIES