For discussion **PWSC(2020-21)11**
on 10 June 2020

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 711 – HOUSING
Transport– Footbridges and pedestrian tunnels
194TB – Transport infrastructure works for development at Diamond Hill

Recreation, Culture and Amenities – Open spaces
472RO – Water feature park and landscaped walk at Diamond Hill

Members are invited to recommend to the Finance Committee the upgrading of **194TB** and **472RO** to Category A at estimated costs of $1,850.4 million and $615.9 million in money-of-the-day (MOD) prices respectively.

PROBLEM

2. We need to carry out the following projects to support the developments at the Diamond Hill Comprehensive Development Area (CDA) –

(a) **194TB** to provide transport infrastructure at the Diamond Hill CDA; and

(b) **472RO** to provide a water feature park (WFP) and a landscaped walk (LW) at the Diamond Hill CDA.

PROPOSAL

3. The Director of Highways, with the support of the Secretary for Transport and Housing, proposes to upgrade **194TB** to Category A at an estimated cost of $1,850.4 million in MOD prices for the provision of transport infrastructure at the Diamond Hill CDA.

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4. The Director of Architectural Services, with the support of the Secretary for Transport and Housing, proposes to upgrade **472RO** to Category A at an estimated cost of $615.9 million in MOD prices for the provision of a water feature park and a landscaped walk at Diamond Hill CDA.

5. Details of **194TB** and **472RO** projects are provided at **Enclosures 1** to **2** respectively.

Transport and Housing Bureau
June 2020

194TB – Transport infrastructure works for development at Diamond Hill

PROJECT SCOPE AND NATURE

The proposed scope of works includes –

(a) construction of three footbridges –

(i) a footbridge FB1 of about 80 metres long across Lung Cheung Road and Tai Hom Road near Plaza Hollywood, connecting Lung Poon Street and the Diamond Hill CDA;

(ii) a footbridge FB2 of about 65 metres long across Lung Cheung Road and Tai Hom Road, connecting Sheung Yuen Street and the Diamond Hill CDA; and

(iii) a footbridge FB3 of about 190 metres long across Choi Hung Road and Po Kong Village Road, connecting Choi Hung Road, Choi Hung Road Playground and the Diamond Hill CDA;

(b) demolition of the existing temporary footbridge across Lung Cheung Road after FB2 commences service;

(c) construction of a pedestrian subway SW1 of about 160 metres long across Choi Hung Road, connecting the future Mass Transit Railway (MTR) - Shatin to Central Link (SCL) Diamond Hill Station, the Diamond Hill CDA and Sze Mei Street;

(d) construction of a public transport interchange (PTI) for buses, minibuses and taxis, with a public toilet and noise mitigation structures, replacing the existing public transport terminus at Sze Mei Street;

/(e) …..

(e) road improvement works in the vicinity of the Diamond Hill CDA; and

(f) associated works including public lighting facilities, drainage, sewerage, water supply and landscaping.

2. A site plan and artist's impression of the proposed works are at **Annexes 1 to 6 to Enclosure 1** respectively.

3. Subject to timely funding approval by the Finance Committee (FC) of the Legislative Council, we expect that the construction of the proposed works can commence in the fourth quarter of 2020 for completion in phases from 2022 to 2025. In order to meet the tight construction schedule, we plan to invite tenders in parallel to enable early commencement of the works of **194TB**. Tenders will only be awarded after obtaining FC's funding approval.

JUSTIFICATION

4. The Diamond Hill CDA comprises public housing development, public open space, religious facility and PTI. We propose to carry out **194TB** for the provision of transport infrastructure works to connect the Diamond Hill CDA and its neighbourhood, improve connectivity of communities in the vicinity, and address the anticipated increase in traffic brought by the developments at the Diamond Hill CDA.

5. We plan to entrust the design and construction of the proposed works to the Hong Kong Housing Authority (HA), to facilitate better design coordination and construction interface between the proposed works and the adjacent public housing development under construction in parallel. The key development parameters of the public housing development area are at **Annex 7 to Enclosure 1**. Upon completion, the transport infrastructure facilities will be handed over to relevant government departments for management and maintenance.

/FINANCIAL …..

FINANCIAL IMPLICATIONS

6. We estimate the capital cost of the project to be $1,850.4 million in MOD prices, broken down as follows –

		$ million (in MOD prices)
(a)	Three Footbridges	
	(i) Foundation	247.1
	(ii) Footbridge deck	160.9
	(iii) Lift tower	111.6
	(iv) E&M system	101.0
	(v) Associated works, including drainage, landscaping works and public lighting facilities	83.1
(b)	Demolition of Existing Temporary Footbridge	4.3
(c)	Pedestrian Subway	
	(i) Foundation	131.0
	(ii) Subway structure	141.7
	(iii) E&M Systems	71.5
	(iv) Associated works, including drainage, landscaping works and public lighting facilities	34.3
(d)	PTI and Roadworks	
	(i) Foundation	42.0
	(ii) Noise mitigation structures	155.8
	(iii) E&M Systems	19.5
	(iv) Roadworks	83.6
	(v) Associated works, including drainage, landscaping works and public lighting facilities	107.7

/(e) …..

		$ million (in MOD prices)
(e)	On-cost payable to HA[1]	187.0
(f)	Contingencies	168.3
	Total	1,850.4

7. Subject to funding approval, we plan to phase the expenditure as follows –

Year	**$ million (in MOD prices)**
2020 – 2021	52.4
2021 – 2022	348.7
2022 – 2023	516.2
2023 – 2024	533.5
2024 – 2025	187.8
2025 – 2026	126.0
2026 – 2027	52.6
2027 - 2028	33.2
	1,850.4

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[1] This is the estimated cost (12.5% of the estimated construction cost) payable to HA for the design, administration and supervision of the project.

8. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period from 2020 to 2028. HA will deliver the proposed works under a lump sum contract because the scope of the works can be clearly defined in advance. The contract will provide for price adjustments.

9. We estimate the annual recurrent expenditure arising from this project to be $41.0 million.

PUBLIC CONSULTATION

10. We consulted the Wong Tai Sin District Council on 7 November 2017 and 8 May 2018 about the proposed works. The District Council raised no objection.

11. We consulted the Advisory Committee on the Appearance of Bridges and Associated Structures[2] (ACABAS) on 16 October 2018 and 20 November 2018 about the aesthetic design of the proposed footbridges. We also consulted ACABAS about the aesthetic design of the proposed PTI and pedestrian subway on 15 January and 16 April 2019, and 19 February and 16 April 2019 respectively. ACABAS has accepted the aesthetic design of the above proposed works.

12. We gazetted the proposed road works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 30 November 2018. After the gazettal, we received five objections regarding the proposed road works. We met with the objectors to explain the details of the works. In the end, five objectors maintained their objections. The unresolved objections were mainly related to the impacts of pedestrian flow arising from the proposed works. We subsequently submitted the objections and the correspondence with the objectors (including meeting minutes) to the Chief Executive in Council for consideration. On 8 October 2019, the Chief

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[2] The ACABAS comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, an academic institution, 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, from the aesthetic and visual impact points of view.

Executive in Council authorised the proposed road works without modification. The notice of authorisation was subsequently gazetted on 25 October 2019.

13. We consulted the Legislative Council Panel on Housing on the proposed works on 6 May 2019. The Panel supported the submission of the funding proposal for the project to the Public Works Subcommittee for consideration. Supplementary information requested by the Members has been submitted to the Panel.

ENVIRONMENTAL IMPLICATIONS

14. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). HA has completed a Preliminary Environmental Review (PER) for the project. The PER has concluded and the Director of Environmental Protection (DEP) agreed that the proposed works would not cause long-term environmental impacts with the implementation of mitigation measures such as low noise road surfacing at the concerned section of east bound of Choi Hung Road.

15. HA has incorporated into the works contracts the mitigation measures that the contractor should implement to control noise, dust, and site run-off nuisances during construction to within established standards and guidelines. These include the use of silencers, mufflers, movable noise barriers or enclosures and quiet plants to reduce noise generation, frequent cleaning and watering of the site, installations of sprinklers and the provision of wheel-washing facilities to minimise dust generation, and use of temporary drains to collect site runoff for on-site treatment before discharge.

16. At the planning and design stages, HA has considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, HA will require the contractor to reuse inert construction waste (e.g. excavated soil and rock fill) on site or at other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public

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fill reception facilities[3] (PFRF). HA will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formworks to further reduce the generation of construction waste.

17. At the construction stage, HA will also 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. HA will ensure that the day-to-day operations on site comply with the approved plan. HA will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. HA will control the disposal of inert and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

18. HA estimates that the project will generate in total 99 310 tonnes of construction waste. Of these, HA will reuse 9 960 tonnes (10.0%) of inert construction waste on site and deliver 87 200 tonnes (87.8%) of inert construction waste to PFRF for subsequent reuse. HA will dispose of the remaining 2 150 tonnes (2.2%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRF and landfill sites is estimated to be $6.6M for this project (based on a unit charge rate of $71 per tonne for disposal at PFRF and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

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

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

LAND ACQUISITION

20. The project does not require any land resumption.

BACKGROUND INFORMATION

21. We upgraded **194TB** to Category B in September 2017. The detailed design of the proposed works has been completed.

22. Of the 382 numbers of trees within the project boundary, 48 numbers of trees will be preserved. The proposed works will involve removal of 334 numbers of trees, including 310 numbers of trees to be felled and 24 numbers of trees to be transplanted. Among the affected trees, three numbers of trees are important trees[4], of which the details were summarised at **Annex 8 to Enclosure 1**. HA will incorporate planting proposals as part of the proposed works, including estimated quantities of 32 numbers of trees, 980 numbers of shrubs and 2 670 numbers of ground covers.

23. We estimate that the proposed works will create 620 jobs (500 for labourers and 120 for professional/technical staff) providing a total employment of 19 100 man-months.

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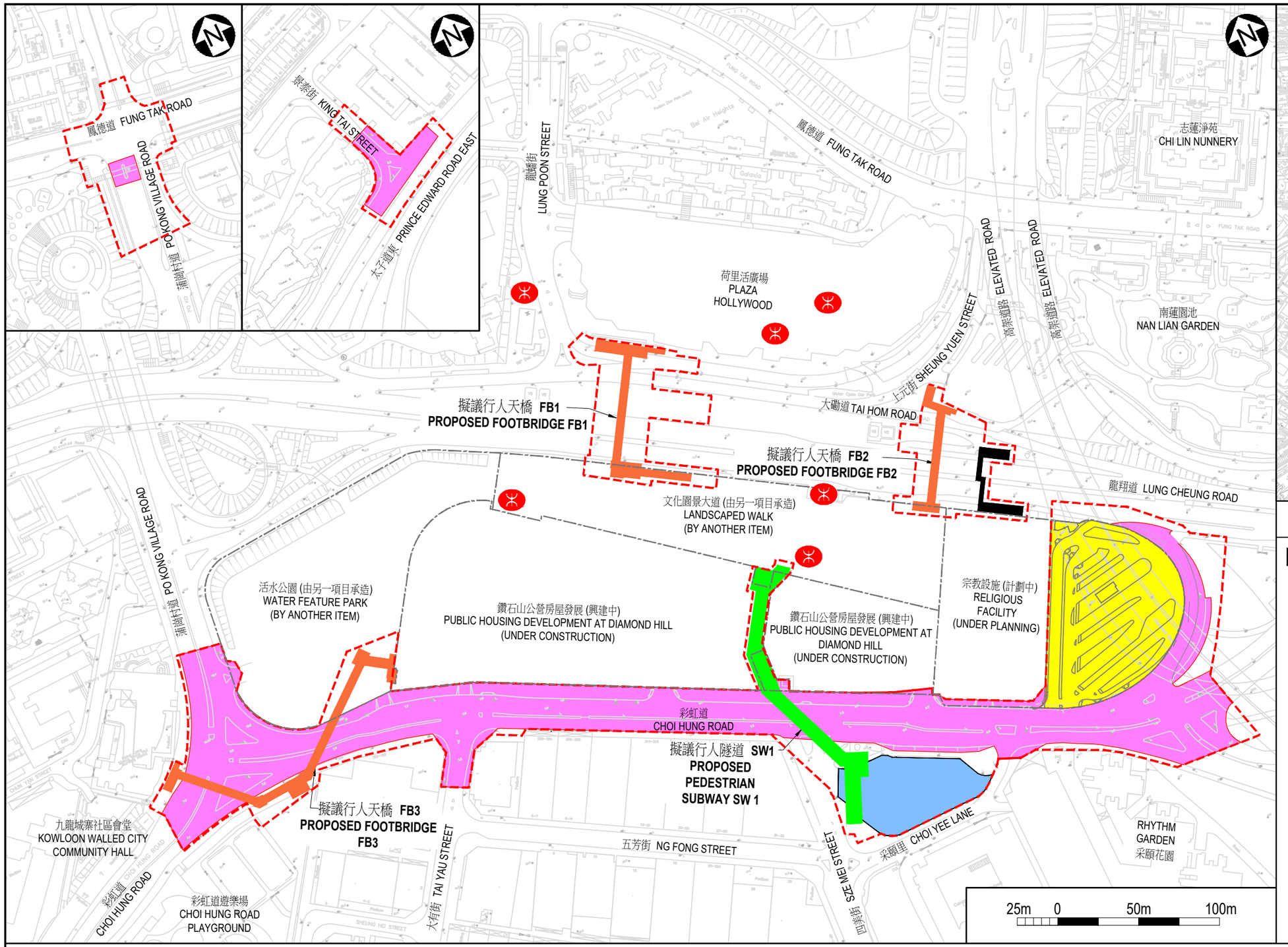
[4] "Important trees" refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

(a) trees of 100 years old or above;
(b) trees of cultural, historical or memorable significance e.g. Fung Shui 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 or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25m.



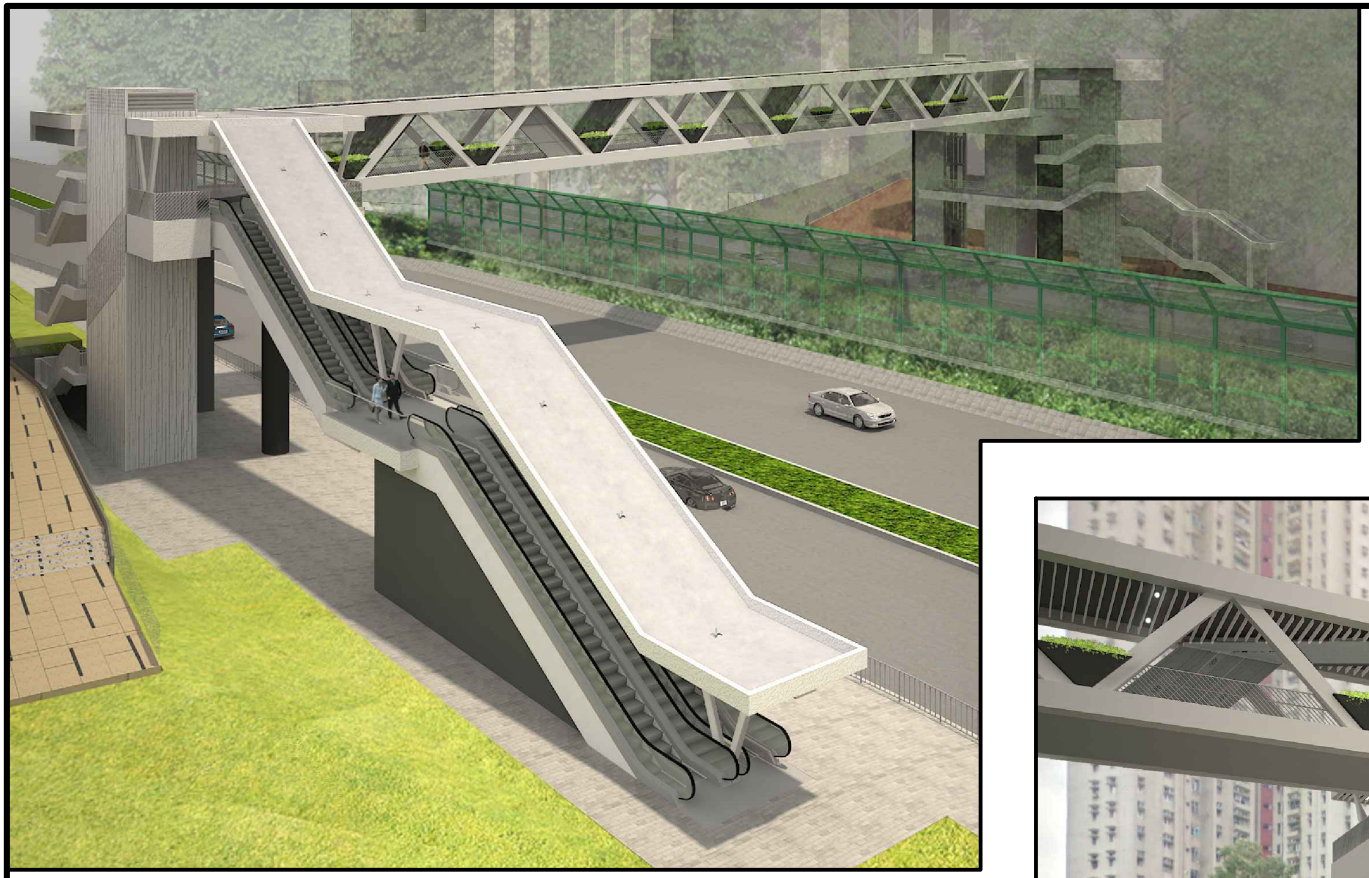
位置圖 LOCATION PLAN

圖例 LEGEND

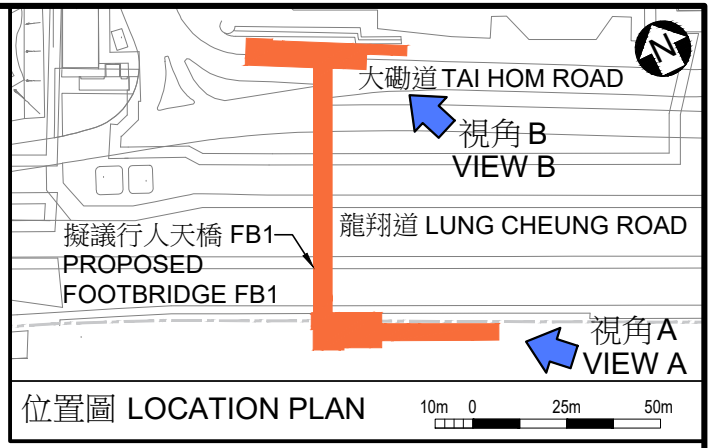
- 工地界線 SITE BOUNDARY
- 鑽石山綜合發展區 DIAMOND HILL COMPREHENSIVE DEVELOPMENT AREA
- 港鐵出入口 MTR ENTRANCE / EXIT
- 擬議道路改善工程 PROPOSED ROAD IMPROVEMENT WORKS
- 擬議封閉公共運輸總站 PROPOSED CLOSURE OF PUBLIC TRANSPORT TERMINUS
- 擬議公共運輸交匯處 PROPOSED PUBLIC TRANSPORT INTERCHANGE
- 擬議行人天橋 PROPOSED FOOTBRIDGE
- 擬議行人隧道 PROPOSED PEDESTRIAN SUBWAY
- 擬議拆卸現有臨時行人天橋 PROPOSED DEMOLITION OF EXISTING TEMPORARY FOOTBRIDGE

工務計劃項目編號 194TB
鑽石山發展區的運輸基礎設施工程
PWP ITEM NO. 194TB
TRANSPORT INFRASTRUCTURE WORKS FOR DEVELOPMENT AT DIAMOND HILL

工地平面圖 SITE PLAN



視角 A VIEW A

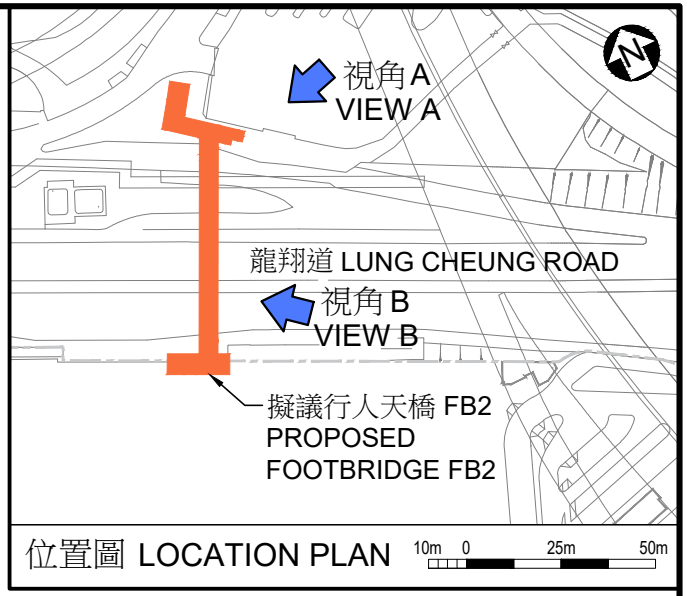


視角B VIEW B

工務計劃項目編號 194TB
鑽石山發展區的運輸基礎設施工程
PWP ITEM NO. 194TB
TRANSPORT INFRASTRUCTURE WORKS FOR DEVELOPMENT AT DIAMOND HILL

構思圖
ARTIST'S IMPRESSION

視角 A VIEW A



視角B VIEW B

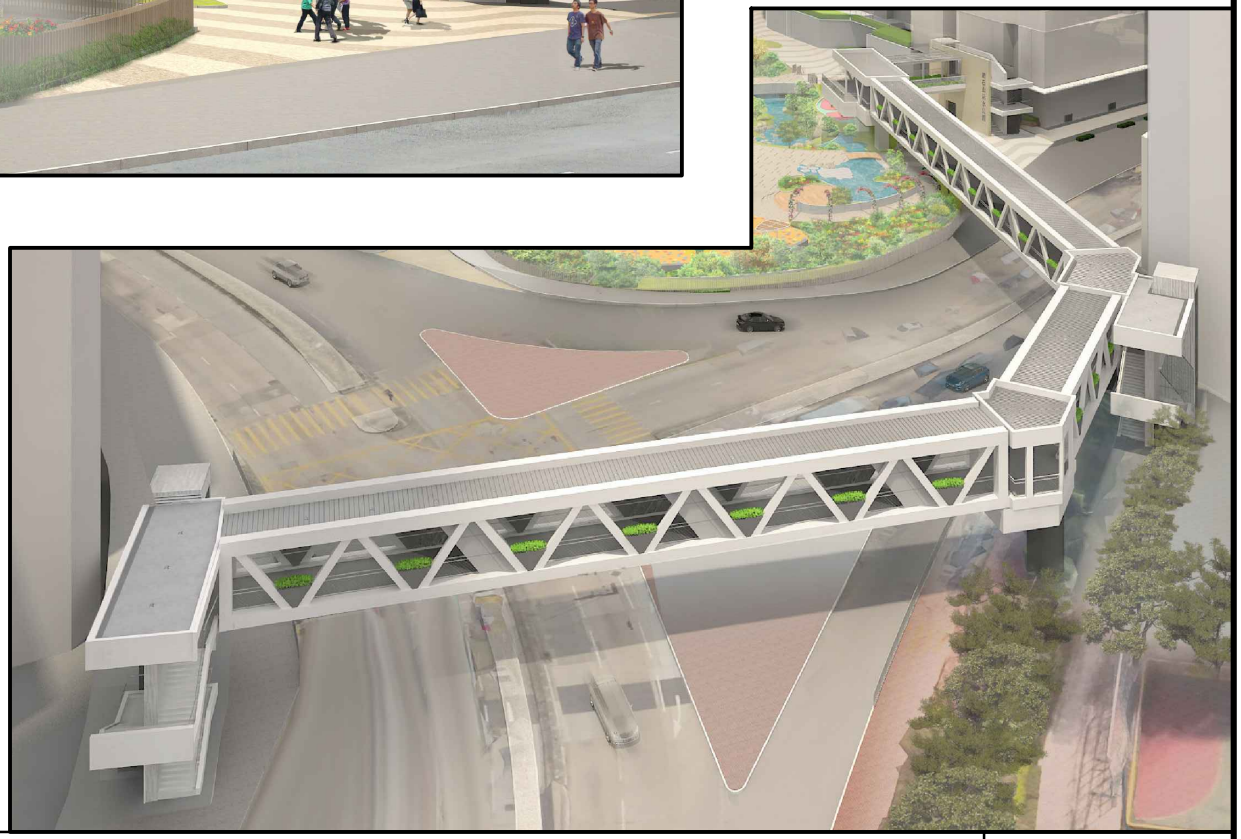
工務計劃項目編號 194TB
鑽石山發展區的運輸基礎設施工程

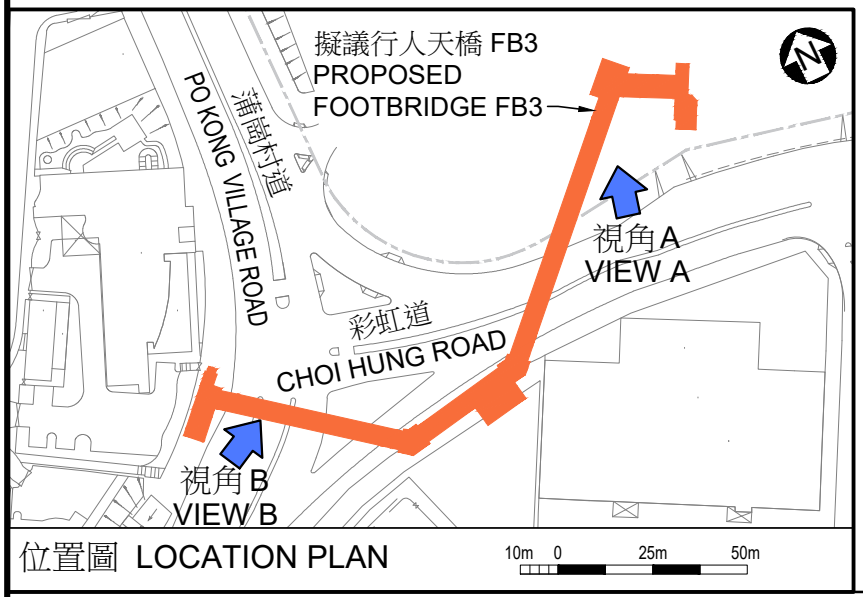
PWP ITEM NO. 194TB
TRANSPORT INFRASTRUCTURE WORKS FOR DEVELOPMENT AT DIAMOND HILL

構思圖
ARTIST'S IMPRESSION

視角 A VIEW A

視角B VIEW B





位置圖 LOCATION PLAN

工務計劃項目編號 194TB
鑽石山發展區的運輸基礎設施工程
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構思圖
ARTIST'S IMPRESSION

視角 A VIEW A

視角B VIEW B

工務計劃項目編號 194TB
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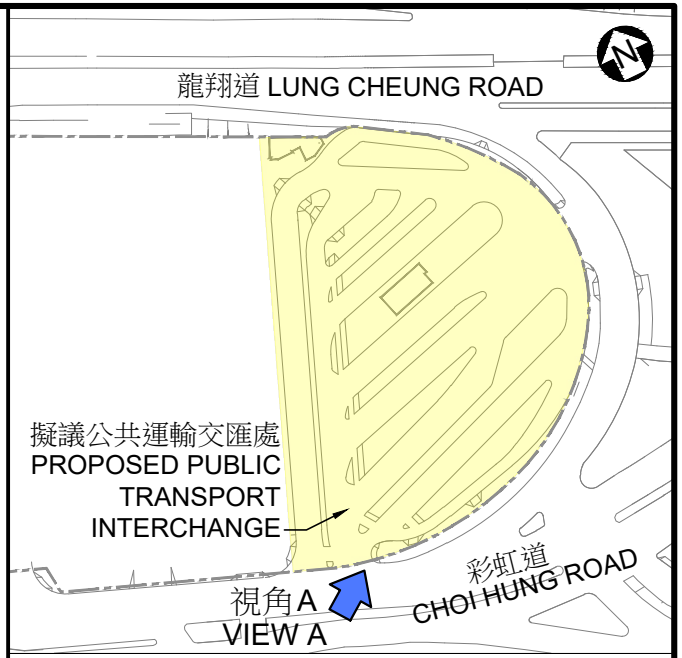
PWP ITEM NO. 194TB
TRANSPORT INFRASTRUCTURE WORKS FOR DEVELOPMENT AT DIAMOND HILL

構思圖
ARTIST'S IMPRESSION

視角 A VIEW A



工務計劃項目編號 194TB
鑽石山發展區的運輸基礎設施工程
PWP ITEM NO. 194TB
TRANSPORT INFRASTRUCTURE WORKS FOR DEVELOPMENT AT DIAMOND HILL

構思圖
ARTIST'S
IMPRESSION

Key development parameters of the public housing development at Diamond Hill Comprehensive Development Area

Site area	About 2.8 hectares
Gross floor area	About 218 000 square metres
Allowable maximum building height	120 or 140 metres above principal datum
No. of domestic block	7
Flat number	About 4 050
Anticipated population	About 11 000
Commencement date	July 2016
Completion date	In phases from 2021 to 2023
Ancillary facilities	Retail and commercial spaces, a 8-classroom kindergarten, a basement car park, a basketball court, a badminton court, children's play area, open spaces, etc.

Annex 8 to Enclosure 1

194TB - Transport infrastructure works for development at Diamond Hill
Summary of "Important Tree" Affected

Tree ref. no.	Species		Measurements			Amenity value	Form	Health condition	Structural condition	Suitability for transplanting		Conservation Status	Recommendation	Department to provide expert advice to LandsD	Additional Remarks
	Scientific name	Chinese name	Height (m)	Trunk diameter[1] (mm)	Crown Spread (m)	(Good/Fair/Poor)				(High/ Medium /Low)	Remarks		(Retain/ Transplant/ Fell)		
T0548A	*Ailanthus fordii*	福氏臭椿 (常綠臭椿)	6	170	2	Poor	Poor	Fair	Poor	Low	Lion's tailing, low live crown ratio, decay on wound	Yes[2]	Fell	Leisure and Cultural Services Department	It is not a registered Old and Valuable Tree.
T1176	*Ficus microcarpa*	細葉榕	6	1760	6	Poor	Poor	Poor	Poor	Low	Root exposed, on slope, dieback twigs, mature tree	No	Fell	Leisure and Cultural Services Department	It is not a registered Old and Valuable Tree.
T1189	*Ficus religiosa*	菩提樹	7	1002	4	Poor	Poor	Poor	Poor	Low	Root exposed, topped, on slope, wound on trunk, dieback twigs,	No	Fell	Leisure and Cultural Services Department	It is not a registered Old and Valuable Tree.

1 Trunk diameter of a tree refers to its diameter at breast height (i.e. measured at 1.3 m above ground level).

2 *Ailanthus fordii* is a rare and precious plant, scheduled under the Forestry Regulations (Cap. 96 sub. leg. of Laws of Hong Kong); also included in “Rare and Precious Plants of Hong Kong” (2003) published by AFCD and status in China: Near Threatened.

472RO – Water feature park and landscaped walk at Diamond Hill

PROJECT SCOPE AND NATURE

The proposed project occupies an area of around 26 400 square metres. The proposed scope of works includes ─

Water feature park (WFP)

(a) reinstatement of three historic buildings –

(i) the Old Pillbox (Grade 2 Historic Building);

(ii) the Former Royal Air Force Hangar (Grade 3 Historic Building); and

(iii) the Stone House;

(b) construction of –

(i) water ponds and a water feature resembling natural stream courses;

(ii) a covered multi-purpose area and a multi-purpose activity room;

(iii) water filtration plants and relevant display items for educational purpose;

(iv) landscaped areas with a children's play area, fitness areas, shelters, benches and greening; and

(v) ancillary facilities such as a park office, a babycare room, toilets, a first aid room, a store room, a plant room, etc.;

Landscaped walk (LW)

construction of –

(i) landscaped areas with shelters, benches, a multi-purpose pavilion and greening; and

(ii) ancillary facilities such as a babycare room, toilets, plant room, etc.

/2. …..

2. A location plan, a site plan, an artist's impression and the barrier-free access plan of the proposed works are at **Annexes 1 to 4 to Enclosure 2** respectively.

3. Subject to timely funding approval by the Finance Committee (FC), we expect that the construction of the proposed works can commence in the fourth quarter of 2020 for completion in phases from 2023 to 2024. In order to meet the tight construction schedule, we plan to invite tenders in parallel to enable early commencement of the works of **472RO**. Tenders will only be awarded after obtaining FC's funding approval.

JUSTIFICATION

4. The Diamond Hill CDA comprises public housing development, public open space, religious facilities and a public transport interchange. We propose carrying out **472RO** for the provision of a WFP and a LW to address the need of the local community including the population increase arising from the public housing development at the Diamond Hill CDA.

5. We plan to entrust the design and construction of the proposed works to the Hong Kong Housing Authority (HA), to facilitate better design coordination and construction interface between the proposed works and the adjacent public housing development under construction in parallel. The key development parameters of the public housing development are at **Annex 5 to Enclosure 2**. Upon completion of the works, the WFP and LW will be handed over to relevant government departments for management and maintenance.

FINANCIAL IMPLICATIONS

6. We estimate the capital cost of the project to be $615.9 million in MOD prices, broken down as follows –

/(a) …..

		$million (in MOD prices)
(a)	Site works	52.6
(b)	Building[1]	176.4
(c)	Building services	70.1
(d)	Drainage	36.3
(e)	External works[2]	152.4
(f)	Additional energy conservation, green and recycled features	8.7
(g)	On-cost payable to HA[3]	62.1
(h)	Furniture and equipment[4]	1.3
(i)	Contingencies	56.0
	Total	615.9

7. Subject to funding approval, we plan to phase the expenditure as follows –

/**Year** …..

[1] Building works cover construction of substructure and superstructure of the ancillary facilities and reinstatement of the three historic buildings.

[2] External works cover construction of water features, landscaped areas with a children's play area, fitness areas, shelters, benches, a multi-purpose pavilion and greening.

[3] This is the estimated cost (12.5% of the construction cost) payable to HA for the design, administration and supervision of the project.

[4] The estimated cost is based on an indicative list of furniture and equipment required.

Year	$ million (in MOD prices)
2020 – 2021	5.2
2021 – 2022	71.5
2022 – 2023	132.8
2023 – 2024	269.2
2024 – 2025	44.4
2025 – 2026	35.8
2026 – 2027	30.5
2027 – 2028	26.5
	615.9

8. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period 2020 to 2028. HA will deliver the proposed works under a lump sum contract because the scope of the works can be clearly defined in advance. The contract will provide for price adjustments.

9. We estimate the annual recurrent expenditure arising from this project to be $21.9 million.

PUBLIC CONSULTATION

10. We consulted the Wong Tai Sin District Council on 3 January and 7 November 2017, 3 July 2018 and 8 January 2019 about the proposed works. The District Council raised no objection.

/11. …..

11. We consulted the Legislative Council Panel on Housing on the proposed works on 9 March 2020. The Panel supported the submission of the funding proposal for the project to the Public Works Subcommittee for consideration. Supplementary information requested by Members has been submitted to the Panel.

ENVIRONMENTAL IMPLICATIONS

12. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). HA had completed a Preliminary Environmental Review (PER) for the project in 2018 which concluded that the project will not cause long-term environmental impacts. HA have included in the project estimates the cost to implement suitable mitigation measures to control short-term environmental impacts.

13. HA has incorporated into the works contracts the mitigation measures that the contractor should implement to control noise, dust and site run-off nuisances during construction to within established standards and guidelines. These include the use of silencers, mufflers, movable noise barriers or enclosures and quiet plants to reduce noise generation, frequent cleaning and watering of the site, installations of sprinklers and the provision of wheel washing facilities to minimise dust generation, and use of temporary drains to collect site runoff for on-site treatment before discharge.

14. At the planning and design stages, HA has considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, HA will require the contractor to reuse inert construction waste (e.g. excavated materials and rock fill) on site or at other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities[5] (PFRF). HA 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. …..

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[5] 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 licence issued by the Director of Civil Engineering and Development.

15. At the construction stage, HA 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. HA will ensure that the day-to-day operations on site comply with the approved plan. HA will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. HA will control the disposal of inert and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

16. HA estimates that the project will generate in total 56 440 tonnes of construction waste. Of these, HA will reuse 8 240 tonnes (14.6%) of inert construction waste on site and deliver 46 660 tonnes (82.7%) of inert construction waste to PFRF for subsequent reuse. HA will dispose of the remaining 1 540 tonnes (2.7%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at PFRF and landfill sites is estimated to be $3.6 million for this project (based on a unit charge rate of $71 per tonne for disposal at PFRF and $200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

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

18. However, the project scope includes the reinstatement of two graded historic buildings previously affected by other projects, namely the Old Pillbox (Grade 2) and the Former Royal Air Force Hangar (Grade 3) which will be implemented in accordance with the Conservation Management Plan.

LAND ACQUISITION

19. The project does not require any land resumption.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

20. This project will adopt various forms of energy efficient features and renewable energy technologies, in particular -

/(a) …..

(a) solar powered light fittings; and

(b) photovoltaic system.

21. For greening features, we will provide green roofs at the covered areas for environmental and amenity benefits.

22. For recycled features, HA will adopt a rainwater harvesting system for landscape irrigation.

23. The total estimated additional cost for adoption of the above features is around $ 8.7 million, which has been included in the cost estimate of the project.

BACKGROUND INFORMATION

24. We upgraded **472RO** to Category B in September 2018. The detailed design of the proposed works has been completed.

25. Of the 199 numbers of trees within the project boundary, 68 numbers of trees will be preserved. The proposed works will involve removal of 131 numbers of trees, including 130 numbers of trees to be felled and one number of tree to be transplanted. Among the affected trees, one number of tree is an important tree[6], of which the details were summarised at **Annex 6 to Enclosure 2**. HA will incorporate planting proposals as part of the proposed works, including estimated quantities of 130 numbers of trees, 14 000 numbers of shrubs, 23 500 numbers of groundcovers and 2 900 square metres of grassed area.

/26. …..

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[6] "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;

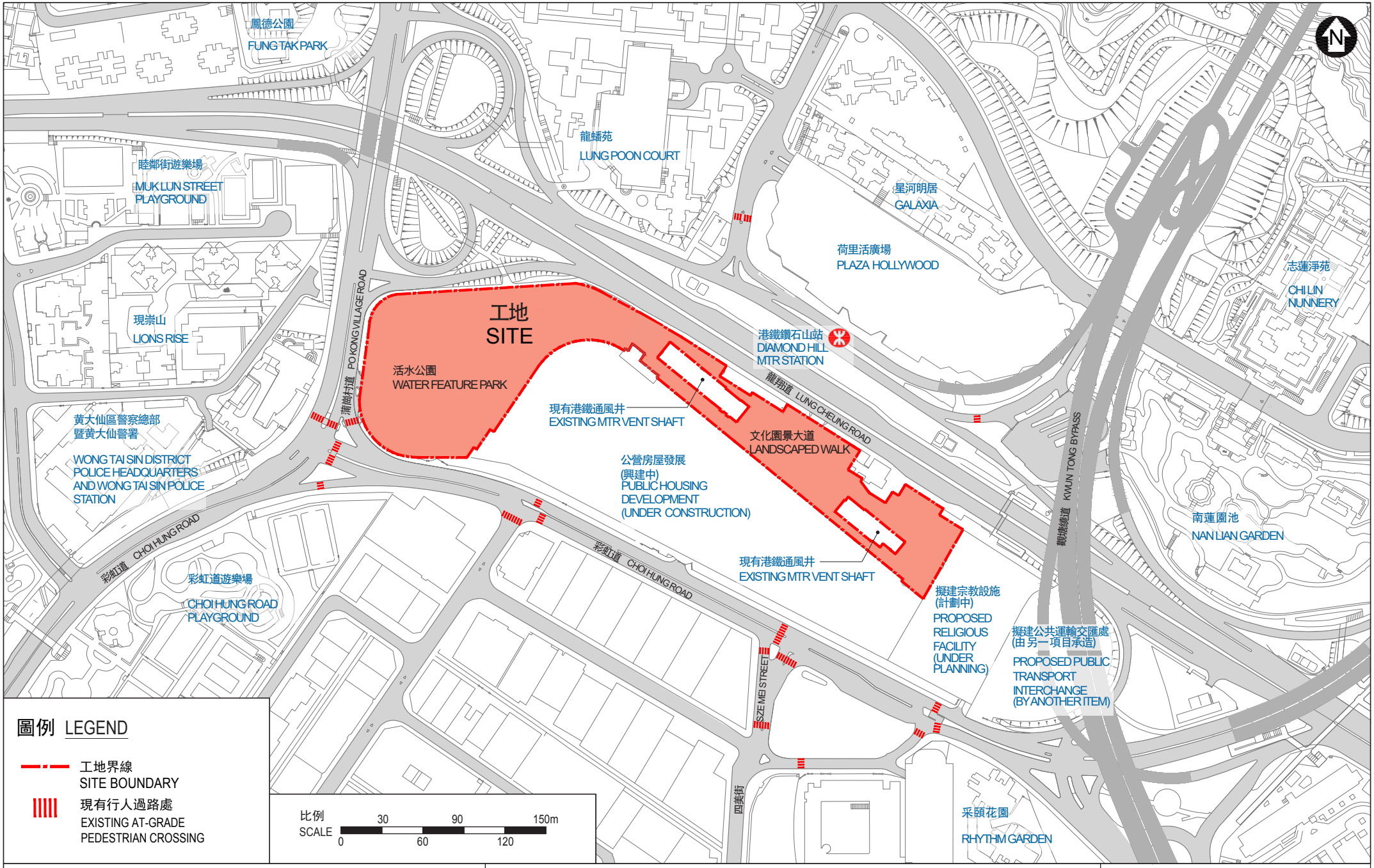
(b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;

(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 or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

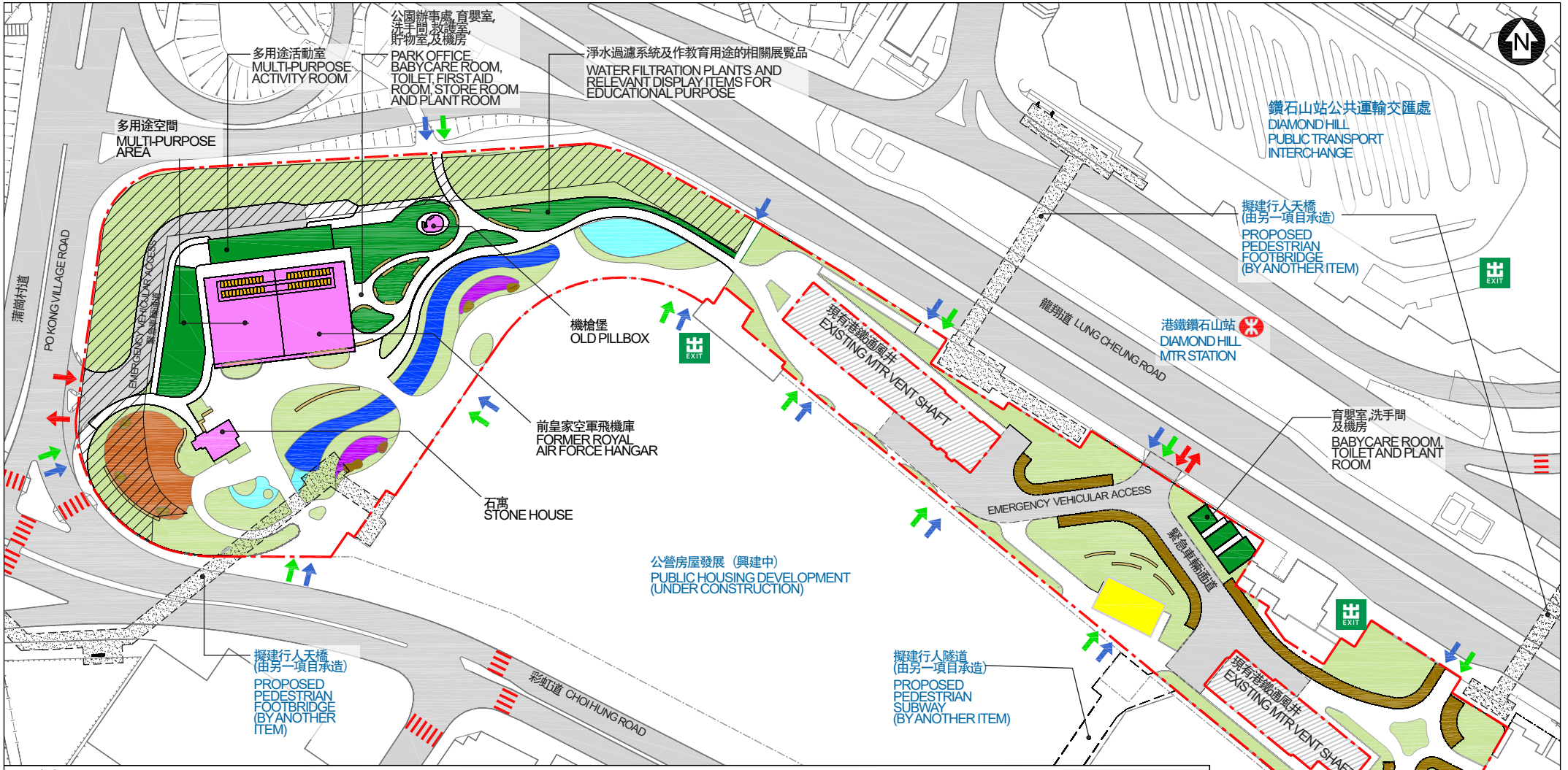
26. We estimate that the proposed works will create about 130 jobs (120 for labourers and ten for professional or technical staff) providing a total employment of 4 050 man-months.



位置圖
LOCATION PLAN

472RO
鑽石山活水公園及文化園景大道
WATER FEATURE PARK AND LANDSCAPED WALK AT DIAMOND HILL

ARCHITECTURAL SERVICES DEPARTMENT 建築署



圖例 LEGEND

- 無障礙出入口 BARRIER FREE ENTRANCE/ EXIT
- 行人出入口 PEDESTRIAN ENTRANCE/ EXIT
- 車輛出入口 VEHICULAR INGRESS/ EGRESS
- 港鐵站出入口 MTR STATION ENTRANCE / EXIT
- 工地界線 SITE BOUNDARY
- 渠務保留地 DRAINAGE RESERVE
- 現有行人過路處 EXISTING AT-GRADE PEDESTRIAN CROSSING
- 歷史建築物 HISTORIC BUILDING
- 兒童遊樂場 CHILDREN'S PLAY AREA
- 健身區 FITNESS AREA
- 天台綠化 LANDSCAPED ROOF
- 地面綠化 AT-GRADE GREENING
- 太陽能光伏板 PHOTOVOLTAIC PANEL
- 水景 WATER FEATURE
- 池塘 WATER POND
- 多用途涼亭 MULTI-PURPOSE PAVILION
- 蔭棚 SHELTER
- 長櫈 LONG BENCH

比例 SCALE 0 15 30 45 60m

工地平面圖
SITE PLAN

472RO
鑽石山活水公園及文化園景大道
WATER FEATURE PARK AND LANDSCAPED WALK AT DIAMOND HILL

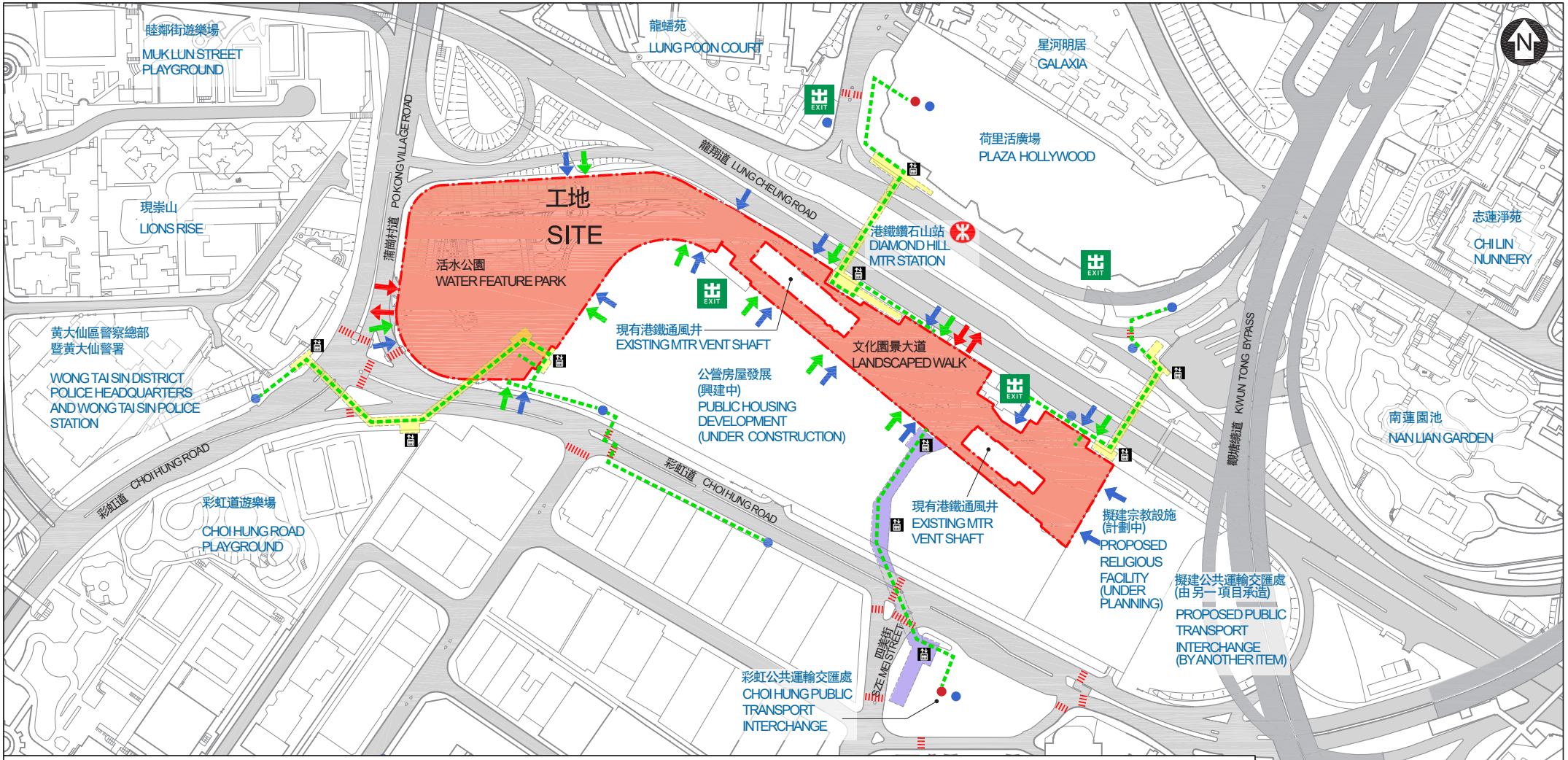
ARCHITECTURAL SERVICES DEPARTMENT 建築署

從南面望向活水公園及文化園景大道的透視圖
PERSPECTIVE VIEW FROM SOUTHERN DIRECTION

構思圖
ARTIST'S IMPRESSION

472RO
鑽石山活水公園及文化園景大道
WATER FEATURE PARK AND LANDSCAPED WALK AT DIAMOND HILL

ARCHITECTURAL SERVICES DEPARTMENT 建築署



圖例 LEGEND

- 工地界線 SITE BOUNDARY
- 現有行人過路處 EXISTING AT-GRADE PEDESTRIAN CROSSING
- 暢通易達升降機 ACCESSIBLE LIFT
- 無障礙出入口 BARRIER FREE ENTRANCE/ EXIT
- 行人出入口 PEDESTRIAN ENTRANCE/ EXIT
- 車輛出入口 VEHICULAR INGRESS/ EGRESS
- 現有港鐵站 EXISTING MTR STATION
- 現有港鐵站出入口 EXISTING MTR STATION ENTRANCE/ EXIT
- 無障礙通道 BARRIER-FREE ACCESS
- 擬建行人天橋(由另一項目承造) PROPOSED PEDESTRIAN FOOTBRIDGE (BY ANOTHER ITEM)
- 擬建行人隧道(由另一項目承造) PRPPOSED PEDESTRIAN SUBWAY (BY ANOTHER ITEM)
- 現有巴士站 EXISTING BUS STOP
- 現有小巴站 EXISTING MINIBUS STOP

比例 SCALE 0 30 60 90 120 150m

無障礙通道平面圖
PLAN OF BARRIER FREE ACCESS

472RO
鑽石山活水公園及文化園景大道
WATER FEATURE PARK AND LANDSCAPED WALK AT DIAMOND HILL

ARCHITECTURAL SERVICES DEPARTMENT 建築署

Key development parameters of the public housing development at Diamond Hill Comprehensive Development Area

Site area	About 2.8 hectares
Gross floor area	About 218 000 square metres
Allowable maximum building height	120 or 140 metres above principal datum
No. of domestic block	7
Flat number	About 4 050
Anticipated population	About 11 000
Commencement date	July 2016
Completion date	In phases from 2021 to 2023
Ancillary facilities	Retail and commercial spaces, a 8-classroom kindergarten, a basement car park, a basketball court, a badminton court, children's play area, open spaces, etc.

Annex 6 to Enclosure 2

472RO - Water feature park and landscaped walk at Diamond Hill
Summary of "important tree" affected

Tree ref. no.	Species		Measurements			Amenity value	Form	Health condition	Structural condition	Suitability for transplanting		Conservation Status	Recommendation	Department to provide expert advice to LandsD	Additional Remarks
	Scientific name	Chinese name	Height (m)	Trunk Diameter[1] (mm)	Crown Spread (m)	(Good/Fair/Poor)				(High/ Medium /Low)	Remarks		(Retain/ Transplant/ Fell)		
T0499A	*Ailanthus fordii*	福氏臭椿 (常綠臭椿)	5	220	2	Fair	Fair	Fair	Fair	Medium	Being overcrowded	Yes[2]	Transplant	Leisure and Cultural Services Department	It is not a registered Old and Valuable Tree.

1 Trunk diameter of a tree refers to its diameter at breast height (i.e. measured at 1.3 m above ground level).

2 *Ailanthus fordii* is a rare and precious plant, scheduled under the Forestry Regulations (Cap. 96 sub. leg. of Laws of Hong Kong); also included in "Rare and Precious Plants of Hong Kong" (2003) published by AFCD and status in China: Near Threatened.