

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT Recreation, Culture and Amenities – Open spaces 417RO – Improvement works at Tai O

Members are invited to recommend to Finance Committee –

- (a) the upgrading of part of **417RO**, entitled “Improvement works at Tai O, phase 2 stage 1”, to Category A at an estimated cost of \$124.0 million in money-of-the-day prices; and
- (b) the retention of the remainder of **417RO** in Category B.

PROBLEM

We need to enhance traffic and pedestrian circulation and provide additional parking spaces at Tai O.

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade part of **417RO** to Category A at an estimated cost of \$124.0 million in money-of-the-day (MOD) prices to carry out improvement works for local facilities and provide additional parking spaces at Tai O.

/PROJECT

PROJECT SCOPE AND NATURE

3. The part of **417RO** which we propose to upgrade to Category A (the proposed works) comprises –

- (a) construction of a public open space¹, a public transport terminus (PTT), a public car park with about 100 parking spaces for private cars, a loading and unloading area, a cycle parking area for about 100 bicycles and associated roadworks at the western end of Tai O Road;
- (b) provision of 26 on-street parking spaces for coaches and goods vehicles at Lung Shing Street in Yim Tin; and
- (c) landscaping and ancillary works.

4. Layout plans of the proposed works are at Enclosure 1. The artist's impression of the proposed public open space is at Enclosure 2.

5. Subject to funding approval of the Finance Committee (FC) within this legislative session, we plan to commence the proposed works in the third quarter of 2016 for completion by the third quarter of 2019. To meet the programme, the Civil Engineering and Development Department invited tenders on 27 May 2016, but the contract will only be awarded upon obtaining FC's funding approval.

6. We will retain the remainder of **417RO** in Category B, which mainly covers works for improving local connectivity and facilities to help preserve the heritage and facilitate visitors' appreciation of natural attributes of Tai O. Funding for the remainder of **417RO** will be sought at a later stage.

/JUSTIFICATION

¹ The proposed public open space was previously known as an "entrance plaza" which was renamed taking into account comments received at the meeting of the Legislative Council Panel on Development on 26 April 2016 so as to reflect the nature of the proposed works more accurately.

JUSTIFICATION

7. Given its history as a fishing village and natural attributes, Tai O is a popular attraction on Lantau Island. The majority of visitors travel to and from Tai O by buses and coaches. At present, the Tai O bus terminus and public car park (layout plans of the existing arrangement are at Enclosure 3) for coaches, lorries and private cars are co-located in a small area at the western end of Tai O Road, right next to the entrance of Tai O town centre which is very narrow. It is often overcrowded during weekends and public holidays. The existing footways are also too narrow that pedestrian often walk on the carriageway, causing safety concerns. Further, there are currently no designated public parking spaces for bicycles and inadequate parking spaces for private cars.

8. To address the problems, we propose to rebuild the existing Tai O bus terminus and public car park into a public open space, a PTT, a loading and unloading area and a cycle parking area. We also propose to build a larger car park for private cars next to the proposed PTT and relocate parking spaces for coaches and goods vehicles affected by the proposed works at the western end of Tai O Road to Lung Shing Street in Yim Tin. Upon completion of the proposed works, traffic and pedestrian circulation outside the entrance of Tai O town centre will be improved, with pedestrian and vehicles segregated. We will also take the opportunity to raise the ground level of the area adjacent to the entrance of Tai O town centre to reduce the risk of flooding.

9. The provision of a public open space located outside the entrance of Tai O town centre aims to provide an area with soft landscape, benches, etc. which will serve as a buffer zone for the PTT and the loading and unloading area, thereby improving the pedestrian circulation. The design of the public open space will include extensive planting of trees and make maximum use of natural materials in view of the surrounding environment. No iconic structure or landmark would be created at the public open space under the proposed works.

10. The existing bus terminus only has two pick-up/drop-off bays shared by three bus routes². The proposed PTT will provide two additional bus bays to better serve passengers while the area to the west of the PTT will be dedicated for loading and unloading of passengers and goods for all types of vehicles (except buses). The segregated accesses for buses and other vehicles will enhance road safety and operational efficiency of the PTT.

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² The three bus routes are No. 11 between Tai O and Tung Chung, No. 1 between Tai O and Mui Wo, and No. 21 between Tai O and Ngong Ping.

11. The proposed car park will increase the number of parking spaces for private cars from 49 to around 100 at the western end of Tai O Road, which will be adequate to meet the prevailing demand of parking spaces in the close proximity to Tai O town centre. On the other hand, the parking spaces for coaches and goods vehicles at the existing public car park at the western end of Tai O Road will be re-provided at Lung Shing Street under the proposed works. Moreover, the new cycle parking area aims to provide about 100 designated parking spaces for bicycles to meet the prevailing demand as well as to improve the streetscape.

FINANCIAL IMPLICATIONS

12. We estimate the capital cost of the proposed works to be \$124.0 million in MOD prices (please see paragraph 14 below), broken down as follows –

	\$ million
(a) Construction of	88.0
(i) public open space	10.8
(ii) public transport terminus, public car park, loading and unloading area, cycle parking area and on-street parking spaces	72.4
(iii) landscaping works	4.0
(iv) ancillary works	0.8
(b) Environmental mitigation measures	3.0
(c) Consultants' fees for	0.7
(i) contract administration	0.5
(ii) management of resident site staff (RSS)	0.2

/ \$ million

		\$ million	
(d)	Remuneration of RSS	6.1	
(e)	Contingencies	9.7	
	Sub-total	<u>107.5</u>	(in September 2015 prices)
(f)	Provision for price adjustment	16.5	
	Total	<u>124.0</u>	(in MOD prices)

13. Due to insufficient in-house resources, we propose to engage consultants to undertake contract administration and site supervision of the proposed works. A breakdown of the estimate for consultants' fees and resident site staff costs by man-months is at Enclosure 4.

14. Subject to funding approval, we will phase the expenditure as follows –

Year	\$ million (Sept 2015)	Price adjustment factor	\$ million (MOD)
2016 – 2017	7.7	1.05775	8.1
2017 – 2018	45.3	1.12122	50.8
2018 – 2019	49.9	1.18849	59.3
2019 – 2020	4.6	1.25980	5.8
	<u>107.5</u>		<u>124.0</u>

15. 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 from 2016 to 2020. Subject to funding approval, we will deliver the proposed works under a re-measurement contract because the quantities of works described in paragraph 12(a) may vary depending on actual ground conditions. The contract will provide for price adjustments.

16. We estimate the annual recurrent expenditure arising from the proposed works to be about \$0.3 million.

PUBLIC CONSULTATION

17. As part of the "Improvement Works for Tai O Facelift – Feasibility Study" (Feasibility Study), two public forums were conducted in 2007 and 2009 to collect views of the public on Tai O improvement works. In view of the views collected, the improvement works were planned to be implemented in phases. Construction of "Improvement works at Tai O, phase 1" covering a riverwall at Yat Chung and the temple garden in front of Kwan Tai Temple commenced in August 2010 and was completed in March 2013. "Improvement works at Tai O, Phase 2 Stage 1" is the subject of this funding application. The remaining phases are under detailed design and planning.

18. We consulted the Tai O Rural Committee (TORC) on the proposed works on 4 December 2014, and the Traffic and Transport Committee of the Islands District Council (IsDC) and the IsDC on 17 November and 15 December 2014 respectively. TORC and IsDC supported the proposed works and local communities including TORC have written to us urging for early implementation of the proposed works.

19. We gazetted the proposed road scheme under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 27 March and 2 April 2015. We received a total of 1 499 objections to the proposed road scheme within the objection lodging period, in which 57 were duplicated. Out of the remaining 1 442 valid objections, all except five were lodged by using a proforma. The objectors' major concerns were related to the need of the proposed entrance plaza³, the impact on the culture and natural environment of Tai O, the way public consultation was conducted and the tourist reception capacity of Tai O.

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³ The proposed public open space was previously known as an "entrance plaza" when the road scheme was gazetted under the Roads Ordinance.

20. With a view to resolving the objections, we held seven objection resolution meetings with objectors to discuss their concerns. Altogether 56 objectors attended the objection resolution meetings in person or through representatives. Other objectors either declined the invitation or did not respond. We explained to the objectors that the proposed works aimed to bring improvement to local facilities with a view to addressing traffic problems. The entrance plaza would facilitate the access to and from Tai O town centre which would benefit Tai O residents and visitors. It was not expected that the proposed works would give rise to an influx of additional visitors. We also explained to the objectors the public consultation processes carried out for the proposed works. Ten objectors withdrew their objections unconditionally after receiving responses from the Civil Engineering and Development Department. The Transport and Housing Bureau submitted the road scheme as well as the unresolved objections to the Chief Executive in Council for consideration. The Chief Executive in Council authorised the road scheme on 5 April 2016 without modification.

21. We consulted the Legislative Council Panel on Development on 26 April 2016 on the proposed works. The Panel supported the proposed works. Supplementary information requested by Members was submitted to the Panel on 30 May 2016.

ENVIRONMENTAL IMPLICATIONS

22. This is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We completed a Preliminary Environmental Review (PER) under the Feasibility Study. The PER concluded that the proposed works will not have long-term environmental impacts. We have included in paragraph 12(b) a sum of \$3.0 million (in September 2015 prices) in the project estimate for implementing appropriate monitoring and mitigation measures during construction.

23. We will control potential noise, dust and site runoff nuisances arising from the construction works to within established standards and guidelines through implementation of monitoring and mitigation measures. These measures include use of silenced construction plant, frequent cleaning and watering of the site, covering of materials on trucks, provision of wheel-washing facilities and noise monitoring.

24. At the planning and design stages, we have considered the design and construction sequence of the proposed works to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. use of excavated material for filling within the site) 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 facilities⁴. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further reduce the generation of construction waste.

25. At the construction stage, we will require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigating 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 require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. 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.

26. We estimate that the proposed works will generate in total about 16 400 tonnes of construction waste. Of these, we will reuse about 1 500 tonnes (9%) of inert construction waste on site and deliver 14 800 tonnes (90%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 100 tonnes (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 \$0.4 million for the proposed works (based on a unit charge rate of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne for disposal at landfills as stipulated in the Waste Disposal (Charge for Disposal of Construction Waste) Regulation (Cap. 354N)).

/HERITAGE

⁴ 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.

HERITAGE IMPLICATIONS

27. The proposed works will not affect any declared monuments, proposed monuments, graded historic sites or buildings and Government historic sites identified by the Antiquities and Monuments Office (AMO). In constructing the proposed cycle parking area, we need to repave the adjacent footpath. About 10 square metres (m²) of this area for footpath reconstruction falls within the fringe of Tai O Site of Archaeological Interest. As only repaving of existing footpath is involved, there will be no adverse archaeological impact. AMO would be informed in case of discovery of antiquities or supposed antiquities in the course of footpath reconstruction.

TRAFFIC IMPLICATIONS

28. During construction, the proposed works will affect the existing traffic flow in localised area only. Suitable temporary traffic arrangements (TTAs) will be implemented to minimise the impact on traffic during construction. A traffic management liaison group comprising representatives of the Police, the Transport Department and other government departments will be set up to endorse the TTAs.

LAND ACQUISITION

29. The proposed works do not require any land acquisition.

BACKGROUND INFORMATION

30. With the upgrading of **417RO** in Category B in October 2006, we engaged consultants in June 2007 to carry out the Feasibility Study at a cost of about \$9.9 million charged under block allocation of **Subhead 7100CX** “New towns and urban area works, studies and investigation for items in Category D of the Public Works Programme”.

31. In 2008, we launched the “Design Competition for the Revitalisation of Tai O” (Design Competition) to encourage the public to provide active input to the development proposals of Tai O improvement works. Based on the design concepts collected through the Design Competition, we prepared the Tai O Improvement Works Concept Plan (Concept Plan). We then briefed Legislative Council Members on the Concept Plan on 28 July 2009, and completed the Feasibility Study based on the Concept Plan in December 2009.

32. To identify the best way forward for planning a better local environment for Tai O while aiming at preserving its local and natural characteristics, we have conducted a series of public consultations to seek the views of the relevant stakeholders, including the residents of Tai O, the TORC, the IsDC, professional institutes, green groups and other concern groups, on the Concept Plan. There is general support for Government to proceed as soon as practicable with those improvement proposals that would improve the livelihood of the locals of Tai O, and to undertake other improvements in a gradual and incremental manner.

33. We engaged consultants in December 2009 to undertake detailed design of the proposed improvement works under the Concept Plan for phased implementation at an estimated cost of about \$9.6 million in MOD prices under block allocation of **Subhead 7100CX**. We have completed the detailed design of the proposed works as set out in paragraph 3 above.

34. We have planned to implement various local improvement works in Tai O in phases. To address the most pressing needs of Tai O residents, part of the proposed improvement works under the Concept Plan were implemented as phase 1. On 18 June 2010, we upgraded part of **417RO** as **435RO** – “Improvement works at Tai O, phase 1” to Category A, at an estimated cost of \$151.0 million in MOD prices for the construction of a riverwall at Yat Chung and the associated drainage and sewerage improvement works, upgrading of the temple garden in front of Kwan Tai Temple, and improvement to the signage within the inner-core area of Tai O. Construction works started in August 2010 and were completed in March 2013.

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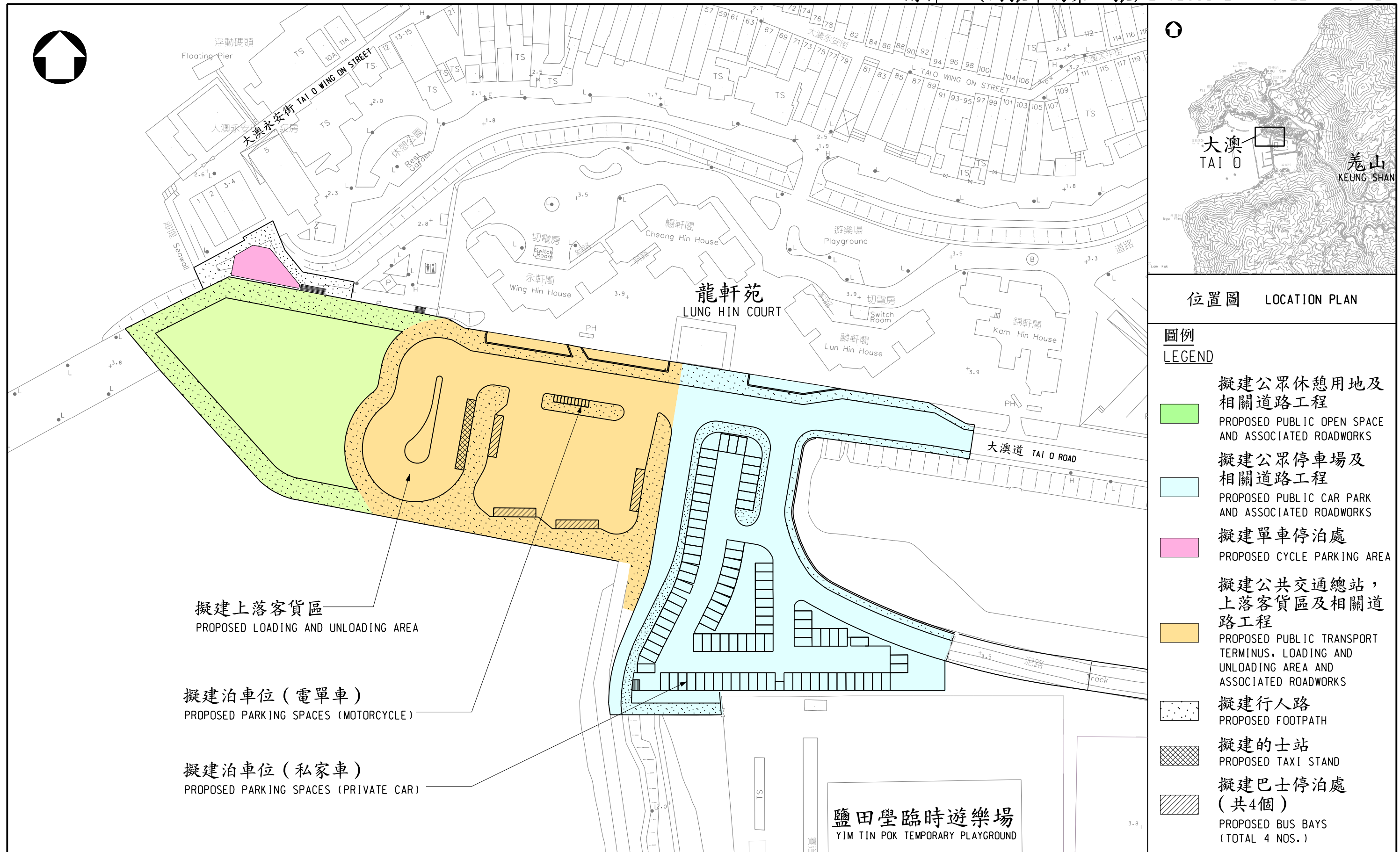
35. Of the 73 trees within the site boundary of the proposed works, 16 trees will be preserved. The remaining 57 trees will have to be felled and removed. All the trees to be removed are not important trees⁵. We would incorporate planting proposals as part of the proposed works, including 67 trees and 220 m² of grassed area.

36. We estimate that the proposed works will create about 85 jobs (70 for labourers and another 15 for professional or technical staff), providing a total employment of 1 800 man-months.

Development Bureau
June 2016

⁵ “Important trees” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

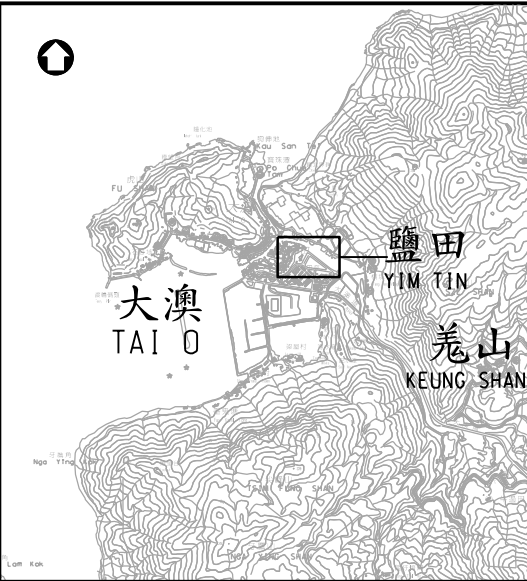
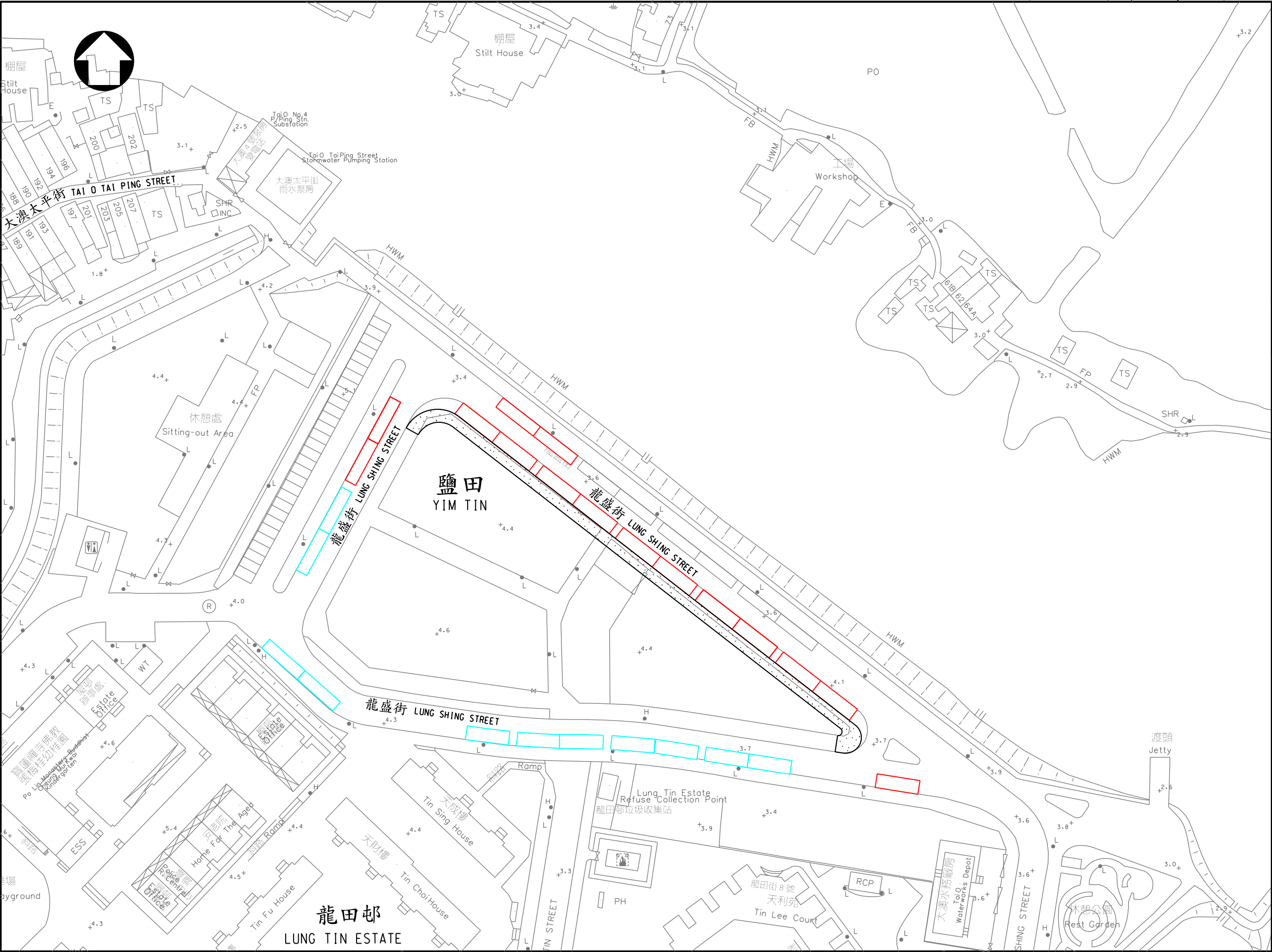
- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance, e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of the 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 a trunk diameter equal to or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with a height or canopy spread equal to or exceeding 25 m.



圖則名稱 drawing title

大澳改善工程(第二期第一階段) - 平面圖

IMPROVEMENT WORKS AT TAI O, PHASE 2 STAGE 1 – GENERAL LAYOUT PLAN



位置圖 LOCATION PLAN

- 圖例
LEGEND
- 擬建旅遊巴士泊車位
(共15個)
PROPOSED COACH PARKING SPACES
(TOTAL 15 NOS.)
 - 擬建貨車泊車位
(共11個)
PROPOSED GOODS VEHICLE
PARKING SPACES (TOTAL 11 NOS.)
 - 擬建行人路
PROPOSED FOOTPATH

圖則名稱 drawing title

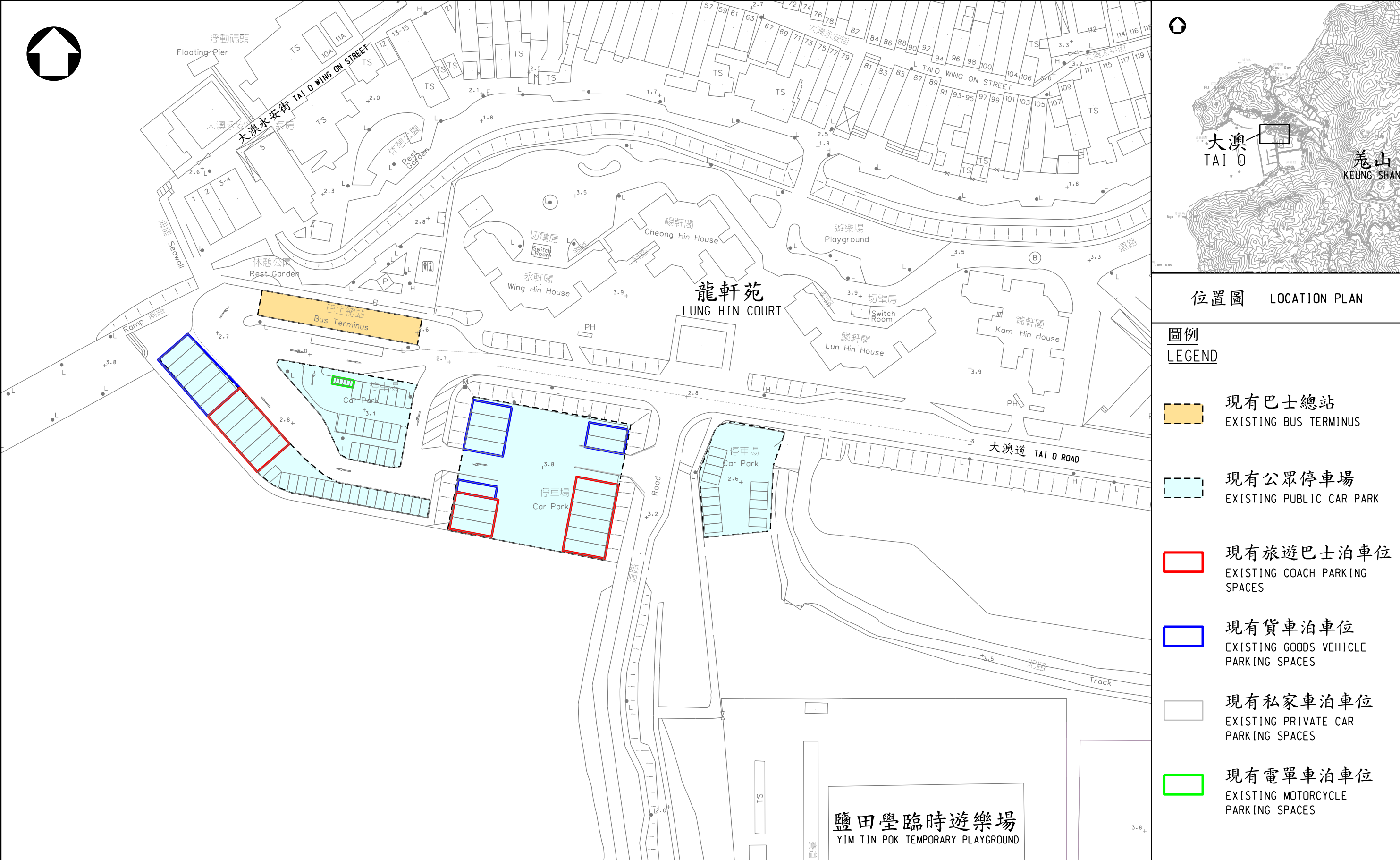
大澳改善工程(第二期第一階段) - 平面圖
IMPROVEMENT WORKS AT TAI O, PHASE 2 STAGE 1 - GENERAL LAYOUT PLAN



圖則名稱 drawing title

大澳改善工程(第二期第一階段) - 公眾休憩用地構想圖

IMPROVEMENT WORKS AT TAI O, PHASE 2 STAGE 1 - ARTIST'S IMPRESSION OF THE PUBLIC OPEN SPACE



圖則名稱 drawing title

大澳改善工程(第二期第一階段) - 現有設施平面圖
IMPROVEMENT WORKS AT TAI O, PHASE 2 STAGE 1 - LAYOUT PLAN OF EXISTING FACILITIES

417RO (Part) – Improvement works at Tai O, phase 2 stage 1**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2015 prices)**

			Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$million)
(a)	Consultants' fees for contract administration (Note 2)	Professional	--	--	--	0.4
		Technical	--	--	--	0.1
		Sub-total				
(b)	Resident site staff (RSS) cost (Note 3)	Professional	19	38	1.6	2.3
		Technical	98	14	1.6	4.0
		Sub-total				
Comprising -						
(i)	Consultants' fees for management of RSS					0.2
(ii)	Remuneration of RSS					6.1
Total						6.8

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of RSS supplied by the consultants (as at now, MPS point 38 = \$74,210 per month and MPS point 14 = \$25,505 per month).
2. The consultants' staff cost for the contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **417RO**. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade part of **417RO** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.