

For discussion on
(date to be confirmed)

PWSC(2015-16)31

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT
Civil Engineering – Land Development
754CL – Infrastructure Works for West Kowloon Cultural District, phase 1

Members are invited to recommend to the Finance
Committee –

- (a) the upgrading of part of **754CL**, entitled “Infrastructure Works for West Kowloon Cultural District, phase 1 – first construction package”, to Category A at an estimated cost of \$840.5 million in money-of-the-day prices; and
- (b) the retention of the remainder of **754CL** in Category B.

PROBLEM

We need to carry out the first package of the construction of public infrastructure works to dovetail the phased implementation of the West Kowloon Cultural District (WKCD) to support the commissioning of the Park, Xiqu Centre, M+ and other facilities in the Artist Square Development Area (ASDA).

/ PROPOSAL

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Home Affairs, proposes to upgrade part of **754CL** to Category A, at an estimated cost of \$840.5 million in money-of-the-day (MOD) prices to carry out the first package of the construction of public infrastructure works in WKCD.

PROJECT SCOPE AND NATURE

3. The part of **754CL** which we propose to upgrade to Category A (the proposed works) as first construction package comprises –

- (a) construction of an at-grade dual 2-lane carriageway of about 600 metres (m) long connecting the Park and ASDA to Austin Road West and Nga Cheung Road, two lay-bys totalling about 300 m long at Austin Road West, footpaths and associated underground protection works for Western Harbour Crossing (WHC)¹;
- (b) construction of two drainage outfalls of 2.5 m wide by 2.5 m high each, upgrading of an existing drainage outfall of 2.4 m in diameter, construction of drainage pipes up to about 2.5 m in diameter and a box culvert of 2.5 m wide by 2.5 m high totalling about 4 km long mainly underneath the Park, at-grade road and lay-bys;
- (c) construction of about 0.9 kilometres (km) sewage pipes up to 450 millimetres (mm) in diameter, and sewage pumping facilities below proposed ground level mainly underneath the Park, at-grade road and lay-bys;
- (d) laying of about 2.6 km water mains up to 450 mm in diameter mainly underneath the Park, at-grade road and lay-bys;

/ (e)

¹ Of the 600 m long carriageway and footpath, 32 m of which will be constructed on top of the existing WHC. Protection works in form of special filling material and construction method will be carried out in order not to affect the WHC tunnel during construction and operation of the proposed at-grade road.

- (e) diversion of existing underground drainage pipes of 900 mm in diameter within the site of Xiqu Centre and cooling mains of 600 mm in diameter within the site of ASDA;
- (f) ancillary works including earthworks, retaining walls, electrical and mechanical works, and landscaping works; and
- (g) necessary environmental mitigation measures, and related monitoring and auditing works.

—— A plan showing the proposed works is at Enclosure 1.

4. Subject to approval of the Finance Committee (FC) within the current legislative session, we plan to commence the proposed works in the fourth quarter of 2015 for completion in stages by the fourth quarter of 2018.

5. We will retain the remainder of **754CL** in Category B and will seek funding for the works according to the phased implementation programme of WKCD. The scope of the remainder mainly comprises –

- (a) a 2-lane flyover (including approaching roads) across the toll plaza of WHC;
- (b) four pedestrian linkage systems linking WKCD with Kowloon Station, Austin Station and Kowloon Park;
- (c) berthing/landing facilities for vessels and modification of existing seawall;
- (d) remaining underground drainage, sewerage and water supply systems; and
- (e) associated footpaths, lighting, ventilation, traffic system, landscaping, as well as related engineering and ancillary works.

/ JUSTIFICATION

JUSTIFICATION

6. In July 2008, FC approved a one-off upfront endowment of \$21.6 billion² for the West Kowloon Cultural District Authority (WKCDA) to implement the WKCD development covering the arts and cultural facilities, retail/dining/entertainment (RDE) facilities, public open space and certain transport facilities. As stated in the funding application for the endowment fund as approved by FC (vide PWSC(2008-09)31), other communal and government facilities and related engineering works, such as roads, drainage, fire station, public pier and other ancillary facilities to support the whole WKCD (including residential, commercial and hotel developments) would be undertaken by the Government with funding approval for such works to be sought separately.

Latest Implementation Programme of WKCD

7. Members of the Legislative Council Joint Subcommittee to Monitor the Implementation of the WKCD Project (Joint Subcommittee) were previously informed that WKCDA would, in view of its latest financial situation, adopt a pragmatic approach to implement the WKCD project in a timely and cost-effective manner with its facilities to be delivered in batches.

8. Batches 1 and 2 of WKCDA's facilities include, among others, the Park (with Arts Pavilion), Freespace (Black Box and Outdoor Stage), Xiqu Centre, M+ and Lyric Theatre Complex. The construction works for Arts Pavilion has commenced in April 2015 and targeted for completion in 2016. The Park and Freespace are under detailed design and are planned to be completed in 2017. The Xiqu Centre, with main construction works commenced in December 2014, is targeted for completion in mid-2017. The detailed design of the M+ is substantially completed and the construction works are targeted for completion in the second half of 2018. The design of the Lyric Theatre Complex commenced in May 2014 with construction targeted for completion by end 2020. To facilitate earlier public enjoyment of the open space, a temporary tree nursery park is under construction and planned for opening in the second half of 2015.

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² In 2008 Net Present Value which is equivalent to \$21.6 billion in MOD prices.

9. The area around the Artist Square, which includes M+, Lyric Theatre Complex and some hotel/office/residential (HOR) sites (referred to as ASDA) presents a good opportunity for early development into a “mini-WKCD”. The ASDA, with target completion date by around 2020, will form a precinct supported by a balanced mix of land uses including core arts and cultural facilities (CACF), office and residential developments, other arts and cultural facilities (OACF) and RDE facilities. The public spaces in ASDA, including the interfacing area within the Park, open space at the Artist Square and the waterfront promenade, will be developed to create a sense of place for the general public and to bring vibrancy to the area.

First Construction Package of Public Infrastructure Works

10. To facilitate commissioning of the early batches of WKCDA’s facilities especially the Park, Xiqu Centre, M+ and other parts of the ASDA, it is necessary to carry out the proposed works as mentioned in paragraph 3 above. Completion of these infrastructure works in time is essential for the commissioning and operation of the Park, Xiqu Centre and M+ and is indeed a pre-requisite to the issue of occupation permits for these venues targeted between 2017 and 2018.

Proposed Entrustment to WKCDA

11. The construction sites and programme for the proposed works have critical interface issues such as overlapped works sites and major programming interdependence with those of WKCDA’s earlier batches of facilities in particular the Park, Freespace, Xiqu Centre and M+. It will be necessary and cost-effective for the proposed works to be carried out in conjunction with the implementation of the WKCDA’s facilities in a holistic manner. Due to significant interfacing issues, a segregated approach will not only increase the cost and time required for the design and construction of the proposed works, but will also give rise to interface problems and delay to the implementation programmes of the WKCDA’s facilities. In view of the above, we plan to entrust the proposed works to WKCDA.

12. WKCDA will be reimbursed for the actual costs incurred in relation to the management, supervision and construction of the proposed works (viz. mentioned under paragraph 13(a) to (i)) provided by their consultants and contractors (i.e. third party costs), and separately for their actual in-house management cost incurred capped at a sum of \$12 million.

FINANCIAL IMPLICATIONS

13. We estimate the cost of the proposed works to be \$840.5 million in MOD prices (please see paragraph 14 below), broken down as follows –

	\$ million	
(a) Roadworks	107.7	
(i) at-grade road and lay-bys	84.1	
(ii) underground protection works for WHC	23.6	
(b) Construction of drainage pipes, box culvert and outfalls	180.2	
(c) Construction of sewage pipes and pumping facilities	123.9	
(d) Laying of water mains	42.8	
(e) Diversion of existing underground drainage pipes and cooling mains	55.0	
(f) Ancillary works including earthworks, retaining walls, electrical and mechanical works and landscaping works	37.1	
(g) Environmental mitigation measures and environmental monitoring and auditing (EM&A) works	8.2	
(h) Consultants' fees for –	11.0	
(i) contract administration	6.0	
(ii) management of resident site staff (RSS)	3.0 2.0	
(iii) EM&A programme		
(i) Remuneration of RSS	44.5	
(j) In-house management cost payable to the WKCDA for the entrusted works	12.0	
(k) Contingencies	62.2	
Sub-total	684.6	(in September 2014 prices)
(l) Provision for price adjustment	155.9	
Total	840.5	(in MOD prices)

— A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 2.

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

Year	\$ million (Sept 2014)	Price adjustment factor	\$ million (MOD)
2015 – 2016	9.1	1.05725	9.6
2016 – 2017	155.0	1.12069	173.7
2017 – 2018	210.0	1.18793	249.5
2018 – 2019	150.0	1.25920	188.9
2019 – 2020	95.0	1.33475	126.8
2020 – 2021	65.5	1.40483	92.0
	684.6		840.5

15. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output from 2015 to 2021.

16. We estimate the annual recurrent expenditure arising from the proposed works to be about \$2.9 million.

PUBLIC CONSULTATION

17. We consulted the Yau Tsim Mong District Council on 21 August 2014 and Members generally supported the proposed works.

18. The proposed works included, inter alia, the reconstruction of three sections of the existing seawall in WKCD for the purposes of upgrading an existing drainage outfall and constructing two drainage outfalls, which were gazetted under the Foreshore and Sea-bed (Reclamations) Ordinance (Cap. 127) on 9 January 2015. One objection was received during the statutory period, which was unconditionally withdrawn. The authorization notice was gazetted on 30 April 2015.

19. The proposed roadworks and sewerage works were gazetted respectively under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) and the Water Pollution Control (Sewerage) Regulation (Cap. 358) both on 13 February 2015. No objection was received during the statutory period. The authorization notices were gazetted on 30 April 2015.

20. We consulted the Joint Subcommittee on 19 May 2015 on the proposed works. Members had not raised objection to the proposal.

ENVIRONMENTAL IMPLICATIONS

21. The engineering feasibility study of the WKCD development is a designated project under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO), requiring an EIA report to be approved under the EIAO. The proposed works are not designated projects under Schedule 2 of the EIAO but form part of the WKCD development. In November 2013, the EIA report for the WKCD development (which includes the proposed works) was approved with a condition under the EIAO. The EIA report has concluded that the environmental impact of the proposed works can be controlled to within the criteria under the EIAO and the Technical Memorandum on EIA process. We shall implement the mitigation measures as recommended in the approved EIA report. The mitigation measures recommended for the construction phase mainly include adoption of quieter equipment and movable noise barriers or noise insulating fabric to minimize construction noise impact, and regular watering of the site and provision of wheel-washing facilities for dust control. We have allowed \$8.2 million (in September 2014 prices) in the project estimate for implementing the necessary environmental mitigation measures, monitoring and auditing works.

22. At the planning and design stages, we have considered the design level and construction method of the proposed works to reduce the generation of construction waste where possible. In addition, we will require the contractors to reuse inert construction waste (e.g. excavated soil and broken concrete) 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 facilities³. We will encourage the contractors 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.

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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. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

23. At the construction stage, we will require the contractors to submit plans for approval 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 require the contractors 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 at public fill reception facilities and landfills respectively through a trip-ticket system.

24. We estimate that the proposed works will generate in total 21 600 tonnes of construction waste. Of these, we will reuse 17 000 tonnes (79%) of inert construction waste on-site and 2 200 tonnes (10%) of inert construction waste on other construction sites. We will dispose of the remaining 2 400 tonnes (11%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at landfill sites is estimated to be about \$0.3 million for this project (based on a unit charge rate of \$125 per tonne for disposal at Landfills as stipulated in the Waste Disposal (Charge for Disposal of Construction Waste) Regulation).

HERITAGE IMPLICATIONS

25. The proposed works will not affect any heritage sites, 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.

LAND ACQUISITION

26. The proposed works do not require any private land acquisition.

BACKGROUND INFORMATION

27. In January 2013, FC approved the upgrading of **753CL** “Infrastructure Works for West Kowloon Cultural District, phase 1 – design and site investigation” to Category A at an estimated cost of \$478.0 million in MOD prices. We have entrusted to WKCD the design and site investigation of part of the government infrastructure works, including those under this item, which are proceeding in stages to suit the phased implementation of WKCD.

28. We upgraded **754CL** to Category B on 11 September 2013.

29. The proposed works involve removal of 39 trees including 32 trees to be felled and seven trees to be transplanted within the project site. All trees to be removed are not important trees⁴. We will incorporate planting proposals as part of the project, including 35 trees for compensatory planting related to the proposed works.

30. We estimate that the proposed works will create about 380 jobs (300 for labourers and another 80 for professional/technical staff) providing a total employment of 11 600 man-months.

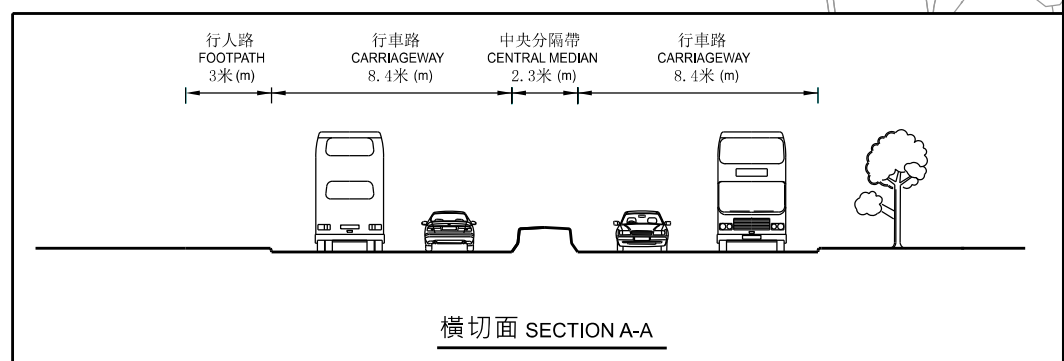
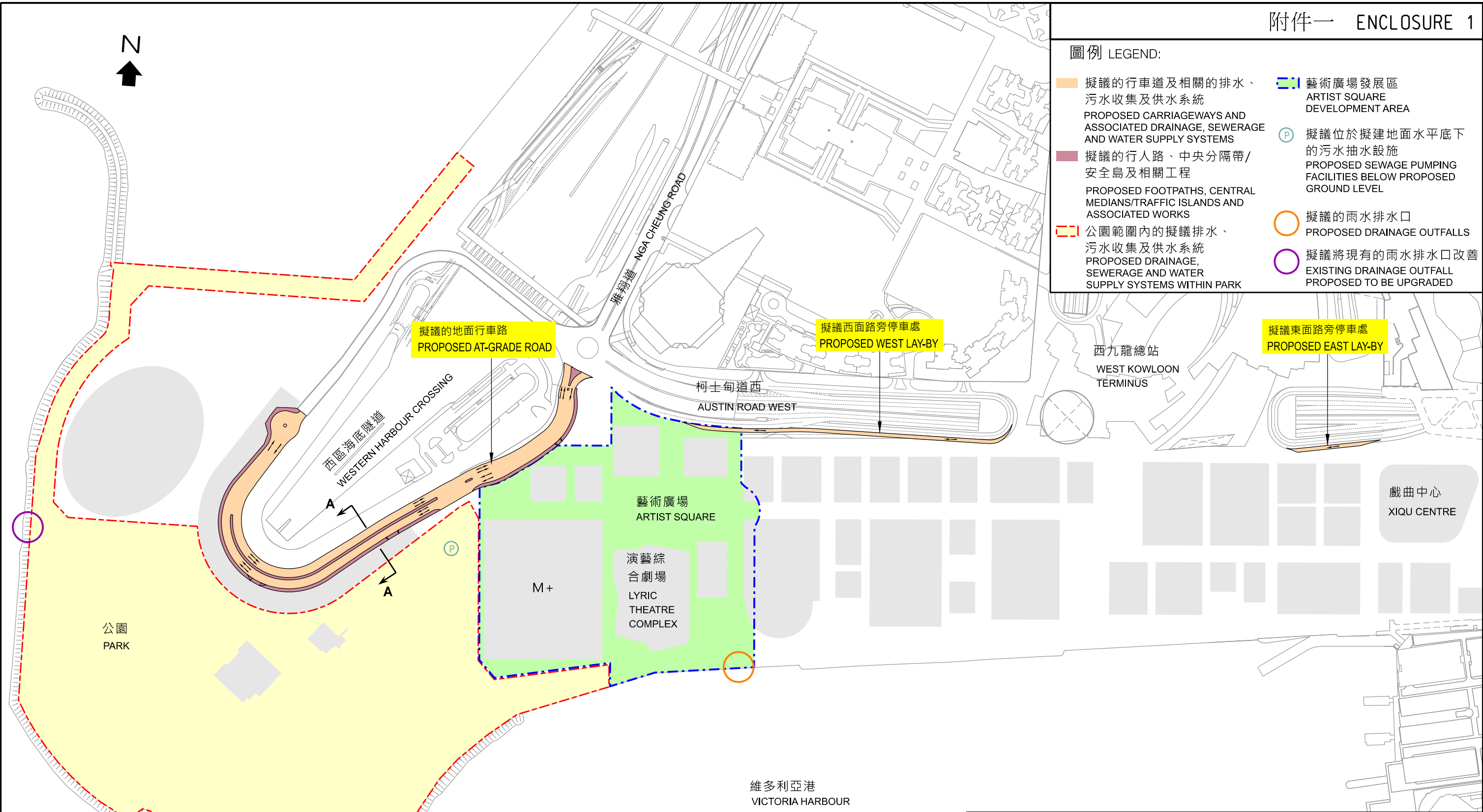
Home Affairs Bureau
June 2015

⁴ “Important trees” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one of more of the following criteria –

- (a) trees of 100 years 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 important persons or events;
- (c) trees of previous or rare species;
- (d) trees of outstanding form (taking account of overall tree size, 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 m (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

圖例 LEGEND:

- 擬議的行人道、中央分隔帶/安全島及相關工程
PROPOSED FOOTPATHS, CENTRAL MEDIANS/TRAFFIC ISLANDS AND ASSOCIATED WORKS
- 公園範圍內的擬議排水、污水收集及供水系統
PROPOSED DRAINAGE, SEWERAGE AND WATER SUPPLY SYSTEMS WITHIN PARK
- 藝術廣場發展區
ARTIST SQUARE DEVELOPMENT AREA
- 擬議位於擬建地面水平底下的污水抽水設施
PROPOSED SEWAGE PUMPING FACILITIES BELOW PROPOSED GROUND LEVEL
- 擬議的雨水排水口
PROPOSED DRAINAGE OUTFALLS
- 擬議將現有的雨水排水口改善
EXISTING DRAINAGE OUTFALL PROPOSED TO BE UPGRADED



<p>項目名稱 project title</p> <p>754CL (部分) - 西九文化區基礎建設工程第一期 - 第一組建造工程 754CL (PART) - INFRASTRUCTURE WORKS FOR WEST KOWLOON CULTURAL DISTRICT, PHASE1 - FIRST CONSTRUCTION PACKAGE</p>	<p>圖則名稱 drawing title</p> <p>擬議工程 PROPOSED WORKS</p>	<p>圖則編號 drawing no.</p> <p>KZ917</p>	<p>比例 scale</p> <p>不按比例 Not to scale</p>
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**754CL(part) – Infrastructure Works for West Kowloon Cultural District,
phase 1**

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2014 prices)**

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fees (\$ million)
(a) Consultants' fees for contract administration ^(Note 2)	Professional	35	38	2.0	5.0
	Technical	20	14	2.0	1.0
				Sub-total	6.0
(b) Resident site staff (RSS) costs ^(Note 3)	Professional	257	38	1.6	29.4
	Technical	465	14	1.6	18.1
				Sub-total	47.5
Comprising –					
	(i) Consultants' fees for management of RSS				3.0
	(ii) Remuneration of RSS				44.5
(c) Consultants' fees for environmental monitoring and auditing (EM&A) programme ^(Note 2)	Professional	9	38	2.0	1.3
	Technical	15	14	2.0	0.7
				Sub-total	2.0
				Total	55.5

* MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff cost including the consultants' overheads and profit for staff employed in the consultants' offices. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants (as at now, MPS salary point 38 = \$71,385 per month and MPS salary point 14 = \$24,380 per month).
2. The actual man-months and fees will only be known after the consultants have been selected.
3. The actual man-months and fees will only be known after the completion of the construction works.