Hyder-Meinhardt Joint Venture Chief Resident Engineer's Office

Address c/o: 17/F., Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon Site Office Tel : (852) 2149 8500 Site Office Fax : (852) 2575 1011 www.arcadis.com



Your Ref. : (5) in EP2/K2/A/21 pt. 10 Our Ref. : ED/2018/04/M45/150/15096

17 November 2022

Environmental Impact Assessment Ordinance Register Office Environmental Protection Department 27th floor Southorn Centre, 130 Hennessy Road, Wan Chai, Hong Kong

Attn: Ms. Mandy Yau (EPO (Metro Assessment)23, EPD)

Dear Madam,

Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Environmental Permit No. EP-451/2013 Specific Condition 2.5 – Submission of Landscape Mitigation Plan (Rev. F)

We refer to your above referenced letter dated 21 October 2022 regarding the captioned subject. In accordance with Specific Condition 2.5 of EP-451/2013, we, on behalf of CEDD, attach four hard copies and one electronic copy of the updated Landscape Mitigation Plan (Rev. F) for your perusal. ETL's certification letter ref. MA20003/Corres/Out/ks221110_LMP_RevF dated 10 November 2022 and IEC's verification letter ref. CEDKTDT2EM00_0_0396L.22 dated 11 November 2022 are also attached for your record.

If you have any questions on the above matters, please do not hesitate to contact our Resident Engineer, Ms. Hazel Tang at Tel. 2149 8524, the ETL Mr. K S Lee at Tel. 2151 2091 or the IEC Mr. Y H Hui at Tel. 3465 2850.

Yours faithfully,

Édwin Ching Chief Resident Engineer

Encl.

C.C.	PlanD	(Attn: Ms. Peggy I sui	 – w/encl. one hard copy)
	PlanD	(Attn: Mr. Jeff Leung	- w/encl. one hard copy)
	CEDD	(Attn: Mr. Tommy Wong	– w/o encl.)
	Hyder	(Attn: Mr. Taj Ishola	– w/o encl.)
	Meinhardt	(Attn: Mr. Stephen Mak	– w/o encl.)
	BTP	(Attn: Mr. Ivan Chau	– w/o encl.)
	Ramboll	(Attn: Mr. Y H Hui	– w/o encl.)
	Cinotech	(Attn: Mr. K S Lee	– w/o encl.)
A.J	chi		
EC/AJV	V/BH/HJGXN	1KN//kwu	

Registered office: 17/F., Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong



Our Ref: MA20003/Corres/Out/ks221110_LMP_RevF

Civil Engineering and Development Department East Development Office East Division 1 Project Division (1) 8/F, South Tower, West Kowloon Government Offices, 11 Hoi Ting Road, Yau Ma Tei, Kowloon

By E-Mail 10th November 2022

Attn: Mr. CHOI Chung Keung

Dear Mr. Choi,

Contract No. ED/2018/04-Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron Environmental Team for Trunk Road T2 and Infrastructure Works for Development at the Former South Apron Environmental Permit No. EP-451/2013 EP Condition 2.5- Landscape Mitigation Plan (Rev. F)

We refer to the Landscape Mitigation Plan (Rev. F) submitted by Bouygues Travaux Publics on 10th November 2022 via email.

We are pleased to inform you that we have no further comment on your plan.

Should you have any queries, please contact our Mr. Alex Ng at 2151 2076 or the undersigned at 2151 2083.

Yours faithfully,

c.c.

For and on behalf of Cinotech Consultants Limited

Mr. K.S Lee Environmental Team Leader

Hyder	Mr. Taj Ishola	By E-Mail
Meinhardt	Mr. Stephen Mak	By E-Mail
Ramboll	Mr. YH Hui	By E-Mail



11 November 2022

By Post and Email

Ref.: CEDKTDT2EM00_0_0396L.22

Hyder-Meinhardt Joint Venture 17/F, Two Harbour Square 180 Wai Yip Street, Kwun Tong Kowloon, Hong Kong

Attention: Mr. Edwin Ching

Dear Mr. Ching,

Re: Agreement No. EDO 01/2019 Independent Environmental Checker for Contract No. ED/2018/04 – Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

Landscape Mitigation Plan (Rev. F) for EP-451/2013

Reference is made to the submission of Landscape Mitigation Plan (Rev. F) certified by the ET Leader (ET's ref.: "MA20003/Corres/Out/ks221110_LMP_RevF" dated 10 November 2022) provided via email on 10 November 2022.

We are pleased to inform you that we have no adverse comments on the captioned submission. We hereby verify the Landscape Mitigation Plan in accordance with Condition 2.5 of EP-451/2013.

Thank you for your attention. Please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely, For and on behalf of Ramboll Hong Kong Limited

Y H Hui Independent Environmental Checker

c.c. CEDD BTP Cinotech Attn.: Mr. Tommy Wong Attn.: Mr. Ivan Chau Attn.: Mr. K. S. Lee By Fax: 2739 0076 By Email By Fax: 3107 1388

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Ramboll Hong Kong Limited 英環香港有限公司

21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899 www.ramboll.com

Trunk Road T2 and Infrastructure Works for Developments at The Former South Apron Contract No.: ED/2018/04 Tile of Submission: Landscape Mitigation Plan Submission No.: HKT2/BTP/PLN/000026/F

Response-to-Comment on Landscape Mitigation Plan Rev C (HKT2/BTP/PLN/000026/E)

1	EPD (21 Oct 2022)	Appendix D	With reference to Appendix D- Shurb Planting Plans of West Ventilation Building, West Portal and East Ventilation Building (Dwg Nos HKT2-AEC-DDWG- ALL-PRW-225011-E-DDA, 225013-A-DDA & 225012-B-DDA), please provide sections across the buildings to demonstrate the proposed roof geenery and vertical greening on the West Ventilation Building, West Protal and East Ventilation Building.	Please refer to revised Appendix D.
2	EPD (21 Oct 2022)	General	Appendix F (Tree Preservation and Remval Proposal)- For the proposed tree preservation/removal application including compensatory proposal, the EP holder is reminded to approach relevant authority/government department(s) direct to obtain any necessary approval.	Noted.
3	ET (8 Nov 2022)	Appendix D	Page 4, 8, and 11 - Please include the cutting plane line in the layout plan to indicate different sections (page 5-7, page 9-10 and page 12-13) for easy reference.	Revised.





Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

PROJECT PLAN

LANDSCAPE MITIGATION PLAN

(Under Environmental Permit EP-451/2013 - Specific Condition 2.5)

DOCUMENT REFERENCE NUMBER:

HKT2	=	втр	-	PLN	-	ALL	-	QE	-	000026	-	F
Project Code		Issuer Code		Doc. Type		Location		Subject		Sequential No.		Rev

		INTERNAL REVIEW AND APPROVAL						
PREPARED BY:		Reviewed & Endorsed by:	Approved by:					
COMPANY	BTP	ВТР	BTP	ВТР				
NAME	Ken KWOK	Marcus CHEUNG	Mathieu GONAZYEZ	Ivan CHAU				
POSITION	Environmental Officer	Quality and Environmental Manager	Technical Manager	Project Director				
SIGNATURE	Ken	els	\neg	Jour				
DATE	11/11/2022	15/11/22	1 5 NOV 2022	15 NOV 2022				

DOCUMENT STATUS

Details of Revision

Revision	Rev. Date	Sections	Amendment Source and/or Details
А	27 Apr 2020	ALL	First Issue for Use
В	11 May 2021	ALL	Address EPD's comment
С	24 Jan 2022	Section 5, Appendix C & F	Address EPD's comment
D	6 May 2022	Appendix A-H	Address EPD's comments
E	19 July 2022	Section 5, Appendix B-I	Address EPD's comments
F	9 Nov 2022	<mark>Appendix D</mark>	Address EPD's comments

Status of Section Revision

	Rev.	Α	В	С	D	Е	F
Section No.							
1.0		Х	Х				
2.0		Х	Х				
3.0		Х	Х				
4.0		Х	Х				
5.0		Х	Х	Х		Х	
6.0		Х	Х				

Rov	Δ	R	C	П	F	F
Section No.		D	C	U	L	'
Appendix A	Х	Х		Х		
Appendix B	Х	Х	Х	Х	Х	
Appendix C	Х	Х		Х	Х	
Appendix D	Х	Х		Х	Х	Х
Appendix E	Х	Х		Х	Х	
Appendix F	Х	Х	Х	Х	Х	
Appendix G	Х	Х		Х	Х	
Appendix H	Х	Х		Х	Х	
Appendix I	Х	Х			Х	



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Abbreviations List

ACABAS	Advisory Committee on the Appearance of Bridges and Associated Structures
ArchSD	Architectural Services Department
BD	Building Department
BTP	Bouygues Travaux Publics
C&D	Construction & Demolition
CEDD	Civil Engineering and Development Department
CKR	Central Kowloon Route
СМ	Construction Manager
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring & Audit
EMIS	Environmental Mitigation Implementation Schedule
EIAO	Environmental Impact Assessment Ordinance
EO	Environmental Officer
EPD	Environmental Protection Department
EP	Environmental Permit
ES	Environmental Supervisor
ET	Environmental Team
ETL	Environmental Team Leader
HMJV	Hyder Meinhardt Joint Venture
HyD	Highways Department
IEC	Independent Environmental Checker
LMP	Landscape Mitigation Plan
ТВМ	Tunnel Boring Machine
TPRP	Tree Preservation Removal Proposal
TKO-LTT	Tseung Kwan O – Lam Tin Tunnel and Associated Works



1.0 PROJECT DESCRIPTION

1.1 SCOPE OF WORKS

Contract Title:	Trunk Road T2 and Infrastructure Works for Developments at the
	Former South Apron
Contract No.:	ED/2018/04

The works are to be executed for the Civil Engineering and Development Department (CEDD). The Trunk Road T2, together with the proposed Central Kowloon Route (CKR) and Tseung Kwan O- Lam Tin Tunnel (TKO-LTT) will form the Route 6 alignment in the Kowloon strategic road network. Route 6 will provide and east-west express link between West Kowloon and Tseung Kwan O and provide the necessary relief to the existing heavily utilized road network in the central and eastern Kowloon areas.

The Works under Contract ED/2018/04 encompasses two primary groups of Works, namely A) the Trunk Road T2 Works, and B) the Infrastructure Works for Developments at the Former South Apron.

- A) The Trunk Road T2 Works:
- (i) Design and construction of Sub-sea Tunnel Boring Machine (TBM) tunnel (two tubes with cross passages) under the Kwun Tong Typhoon Shelter and Victoria Harbour, connecting between the South Apron (of the Kai Tak Development) and Cha Kwo Ling, of approximately 2.1km in length with dual 2-lane carriageway.
- Design and construction of Cut-and-Cover tunnel at the South Apron of approximately 0.10km in length connecting the Supporting Underground Structure (SUS) constructed under Contract KL/2014/03 to the Launching Shaft.
- (iii) Design and construction of the Launching and Retrieval Shafts at the South Apron and Cha Kwo Ling landfalls, respectively, including the permanent tunnel structures within the Launching and Retrieval Shafts.
- (iv) Design and construction of Drill-and-break Tunnel and Drill-and-blast Tunnel (two tubes with cross passages) under Cha Kwo Ling, of approximately 0.4km in length with dual 2-lane carriageway connecting between Cha Kwo Ling landfall and Lam Tin Interchange. This section also includes an East Ventilation Building and Branch Tunnel to accommodate the slip road connecting the eastbound carriageway of the Trunk Road T2 to the Lam Tin Interchange. This item is under the Environmental Permit EP-458/2013/C, and a separate Landscape Mitigation Plan will be prepared for the relevant scope of works, therefore it will not be described in this Landscape



Mitigation Plan.

- (v) Design and construction of associated civil, structural, building, geotechnical, marine, environmental protection, landscaping, drainage and sewerage, waterworks and utility works for the Trunk Road T2 necessary for the commissioning of the Trunk Road T2.
- (vi) Design and construction of Electrical & Mechanical (E&M) Works, including ventilation, lighting, fire services, mechanical ventilation & air-conditioning, high voltage power supply, low voltage power supply, fire services, plumbing & drainage, central monitoring & control system for the Trunk Road T2.
- B) Infrastructure Works for Developments at Former South Apron
- (i) Design and construction of Stage 5 Infrastructure works at the Former South Apron of Kai Tak Development, including:
 - Single 2-lane Road L10 (Southern Section) and Road L18 of about 420m length;
 - > a single 2-lane Road S20 of about 230m in length;
 - ➤ a landscaped elevated walkway FB02 of about 140m in length with associated lifts and staircase;
 - > a section of at-grade road
 - demolition of an existing footbridge KF64;
 - demolition of an existing building at Road S20;
 - construction of drainage, sewerage and waterworks; construction of outfalls and modification of existing seawalls and associated footpaths;
 - street lighting, traffic aids, landscaping, electrical and mechanical works.
- Design and construction of associated roadworks and street furniture, electrical and mechanical works, utility works, drainage and sewerage, waterworks and landscaping for works to be constructed.
- (iii) Implementation of environmental mitigation measures and related monitoring and auditing works.

The general layout plan for the project is shown in **Appendix A**.



1.2 CONDITION LISTED IN ENVIRONMENTAL PERMIT

- (i) Specific Condition 2.5 of Environmental Permit EP-451/2013 specified that at least one month before the commencement of construction of the corresponding component of the Project, the Permit Holder shall deposit with the Director of Environmental Protection four hard copies and one electronic copy of a Landscape Mitigation Plan.
- (ii) This Landscape Mitigation Plan (LMP) is prepared to comply with Condition 2.5 of EP-451/2013. The LMP under EP-451/2013 shall include, but not limited to, the design of the tunnel portals and all above ground structures to ensure that the elements with colour, texture and tonal quality are compatible to the existing urban context. Also, trees and shrub planting to minimize the potential adverse landscape and visual impacts shall be included where space permits. Roof top greening and vertical greening plan shall also be provided.
- (iii) This Plan is to identify the landscape and visual impacts that will potentially rise during the construction phase and operation phase of the Project under EP-451/2013, and to ensure that all proposed landscape and visual impact mitigation measures are fully and effectively implemented on site, according to the EM&A Manual requirements of AEIAR-174/2013 (Ref. no. F0145-EB000560-MIEL-HKR-02) for the Kai Tak Development Trunk Road T2 and Infrastructure at South Apron.

2.0 ENVIRONMENTAL LEGISLATION, STANDARDS AND GUIDELINE

2.1 LEGISLATION, STANDARDS AND GUIDELINE

- (i) The following legislation, standards and guidelines are applicable to landscape and visual impact assessment associated with the construction and operation of the Project:
 - EIAO (Cap.499.S.16) and the TM on EIA Process, particularly Annexes 10 and 18;
 - EIAO Guidance Note 8/2010;
 - Protection of Endangered Species of Animals And Plants Ordinance (Cap 586);
 - Town Planning Ordinance (Cap 131);
 - Protection of the Harbour Ordinance (Cap 531);
 - Hong Kong Planning Standards and Guidelines (HKPSG);
 - Study on Landscape Value Mapping of Hong Kong;
 - Land Administration Office Instruction (LAOI) Section D-12 Tree Preservation;

- > DEVB TC(W) No.2/2012 Allocation of Space for Quality Greening on Roads;
- Project Administration Handbook for Civil Engineering Works (2020 Edition)
- ETWB TC(W) No. 13/2003 Guidelines and Procedures for Environmental Impact Assessment of Government Projects and Proposals;
- ETWB TC(W) No. 13/2003A Guidelines and Procedures for Environmental Impact Assessment of Government Projects and Proposals; Planning for Provision of Noise Barriers;
- DEVB TC(W) No.6/2015 Maintenance of Vegetation and Hard Landscape Features;
- DEVB TC(W) No.5/2020 Registration and Preservation of Old and Valuable Trees;
- > ETWB TCW No. 8/2005 Aesthetics Design of Ancillary Buildings in Engineering Projects;
- ETWB TC(W) No. 36/2004 The Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS);
- DEVB TC(W) No.4/2020 Tree Preservation;
- DEVB TC(W) No. 1/2018 Soft Landscape Provisions for Highway Structures;
- > DEVB TC(W) No. 3/2012- Site Coverage of Greenery for Government Building Projects
- Highways Department Structures Design Manual for Highways & Railways, Third Edition. Section 15.

2.2 ORDINANCES AND REGULATIONS

- (i) Ordinances and Regulations related to Tree Survey and Tree Risk Assessment include:
 - > Forests and Countryside Ordinance (Cap. 96) and its subsidiary legislations
 - Plant Varieties Protection Ordinance (Cap. 490)
 - Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)



3.0 AESTHETIC DESIGN OF TUNNEL PORTALS AND OTHER RELATED WORKS

3.1 TUNNEL PORTALS

- (i) There are two key issues to be considered for the design of tunnel portal: being practical and aesthetic structures. The illustration of the aesthetic design and overall appearance of Tunnel Portal is included in **Appendix H**.
- (ii) Practically, the pattern on the retaining wall of tunnel portal is intended to mitigate the potential abrupt change perceived by drivers entering and leaving the tunnel. This is achieved by gradual change of concrete texture on the retaining wall, therefore drivers will have a sense of threshold when they are approaching or leaving the portal entrance.
- (iii) A welcoming architectural feature for tunnel entrance is created by visually joining the side walls and portal together, with a simple incline detail at the top. The new architectural feature gives an impressive and welcoming symbol to match the tunnel entrance. In order to echo with the vehicular nature of this project, the gradual change of concrete texture on retaining wall creates a sense of dynamics to the drivers.
- (iv) The design of Tunnel Portal will be submitted to ACABAS for review and approval, for illustration of Tunnel Portal refers to **Appendix H**.

3.2 OTHER RELATED WORKS

- (i) Detailed Design Approval Drawings will be reviewed by Bouygues Travaux Publics (BTP) and Hyder-Meinhardt Joint Venture (HMJV), and submitted to Governmental Department (ArchSD/HyD/BD) afterwards.
- (ii) Introduction of green roof and vertical planting to the Ventilation Building and Portal envelope can further enhance the building quality and harmonise the diversity and distinguish land use. The illustration of the green measures is included in **Appendix H**.

4.0 TREE PROTECTION WORKS

4.1 TREE SURVEY

(i) Initial Tree Survey was conducted by HMJV in May and June 2018 to inspect all the trees within the Tree Study Area and delineate clearly the Works area boundaries. The Tree Study Area covered the Project site, the area within 2 m of the site boundary, and any trees likely to be affected by the Works. A Tree Preservation and Removal Proposal (TPRP) was prepared to demonstrate the methodology and results of the Tree survey conducted (Appendix F). The TPRP also reflected the impacts of the proposed development to the trees within the Survey Area. The proposed treatment for all trees within the Tree Survey Area is summarized below:

Proposed Tree	Tree Vetted by	Tree vetted by	Total
Treatment	LCSD	AFCD	
Retain	46	25	71
Transplant	0	0	0
Fell	24	16	40
Total	70	41	111

- (ii) A further Tree Survey will be conducted by BTP before the commencement of construction works, in order to reflect the updated conditions of all existing trees, review the proposed tree treatment methodology and numbers of retain/transplant/fell tree, and implement all necessary tree protection measures.
- (iii) A master program for Tree Survey, Tree Felling Works, Tree Protection Works, Tree Transplanting Works, Compensatory Planting Works and Establishment/Maintenance Works will be prepared and submitted to Supervising Officer/ Landscape Architect for comments. The program shall allow the required time for all necessary Contractor's submissions, Supervising Officer's comments on the submissions, including the tree protection proposal, method of construction, vehicular access for the works, and implementation of the Works etc.

4.2 TREE PROTECTION

- (i) As a responsible Contractor, BTP will erect, secure and maintain in good conditions robust temporary protective fencing with a minimum height of 1.5m or similar provision as agreed by the Supervising Officer at the tree protection zone throughout the construction period. Method statements including proposed design and construction details of the robust temporary protective fencing will be submitted to the Supervising Officer for approval and obtain such approval before commencing the erection of the fencing.
- (ii) If, in the opinion of the Supervising Officer, installation of robust temporary protective fencing is not practicable at a particular area, or the robust temporary protective fencing has to be temporarily removed due to genuinely unavoidable conditions, temporary protective hessian and plank armouring around tree trunks will be provided to protect the preserved trees. The minimum height of the hessian and plank armouring from the ground shall be 1.5m. The Contractor shall submit details of the temporary hessian and plank armouring or similar protection measures to the Supervising Officer for approval and obtain such approval before commencing installing such protection measures. The Contractor shall remove the temporary protective hessian and plank armouring and reinstate the robust temporary protective fencing immediately upon completion of the related site works unless otherwise agreed by the Supervising Officer.



(iii) The ground of the tree protection zones of the trees shall be protected from damage by construction activities through the use of temporary protective mulching or similar protection measures as agreed by the Supervising Officer to cover the entire tree protection zone. When instructed by the Supervising Officer, double, overlapping, thick metal sheet coverings, or other materials of equivalent strength as agreed by the Supervising Officer, shall be laid on top of the temporary protective mulching to provide additional protection from soil compaction due to passage or parking of vehicles or operation of equipment or machinery. To prevent soil compaction or affecting soil aeration and drainage, the Contractor shall remove the temporary protective mulching immediately upon completion of the related site works unless otherwise agreed by the Supervising Officer.

4.3 MAINTENANCE OF VEGETATION AND HARD LANDSCAPE FEATURES WITHIN THE PROJECT BOUNDARY

- (i) Based on Technical Circular (Works) No. 6/2015, for hard landscape features located on allocated Government land, the allocatee department should be responsible for their maintenance.
- (ii) In any event, the project department should continue to maintain the vegetation until it is properly handed over to a maintenance party.
- (iii) For landscaped areas along existing non-expressway public roads outside country parks, LCSD is responsible for the trimming of vegetation at an appropriate time to prevent obstruction to the traffic, sightlines to traffic, and traffic light signals/signs.
- (iv) For vegetation growing within DSD's stormwater drainage systems and facilities, the vegetation maintenance works including cutting and trimming of the overgrowth should be carried out by DSD unless another department has agreed to undertake the works.
- (v) For landscaped areas along existing non-expressway public roads within country parks, AFCD is responsible for the maintenance of the vegetation.
- (vi) The department responsible for the maintenance of the vegetation should also maintain the associated facilities, such as the irrigation system, tree guard, tree guy, tree tie, tree stake, temporary fencing etc. Irrigation will be applied to the trees within our construction area.

5.0 MITIGATION MEASURES

(i) The list of mitigation measures as proposed in the AEIAR-174/2013 EM&A Manual (Ref. no.: F0145-EB000560-MIEL-HKR-02) Section 7.2.1.2 with a summary of achievement of the proposed mitigation measures are listed in Table 5.1.

Table 5.1	Summary Table of Mitigation Measures to be Implemented under AEIAR-
174/2013	

ID No.	Construction Phase Mitigation Measures	Summary of Achievement of the Proposed Mitigation Measures
CM1	All works shall be carefully designed to minimize impacts on existing landscape resources and visually sensitive receivers. Existing trees within works area shall be retained and protected.	All trees marked in tender drawings were surveyed on site to record the condition of those trees. Existing trees within the site area of the Project will be protected by tree protection fences which is in accordance with the requirements of local standard and guidelines. For those trees at any road works or shafts nearby, design of excavation area will be minimized.
		Further Tree Survey will be conducted prior to the commencement of construction works to update the conditions of the trees in the Project site.
CM2	Existing trees of good quality and condition that are unavoidably affected by the works should be transplanted.	Within the Tree Survey Area, 111 trees with Diameter at Breast Height (DBH) ≥95mm were surveyed. 71 nos. of trees are proposed to be retained and 40 nos. of trees are proposed to be felled. Right amount of compensatory tree and an acceptable tree species and size will be provided in order to comply with the approved Tree Preservation Removal Proposal (TPRP) which enclosed in Appendix F .
		Further Tree Survey would be conducted prior to the commencement of construction works to review the proposed tree treatment methodology and to update the numbers of trees to be retained/ transplanted/felled. Total 58 nos. of trees are proposed to be compensated in this Contract.

CM3	Not used.	Not used.
CM4	Not used.	Not used.
CM5	Large temporary stockpiles of excavated material shall be covered with unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance.	Keep sufficient stock of impervious sheeting for covering stockpiles of dusty materials, and to create a neat and tidy visual appearance. Also, minimize the stockpiles area by delivering stockpile material offsite effectively and efficiently. Green color impervious sheeting will be used to ensure visually unobtrusive. Location refers to Appendix B.
СМб	Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance.	Allocate designated areas with proper fencing for segregation of C&D waste and other recycle materials. Unused materials, chemicals, other unnecessary plants and equipment will be stored in warehouse. Maintain good housekeeping in order to minimize the visual impacts. Location refers to Appendix B .
CM7	Erection of decorative screen hoarding should be designed to be compatible with the existing urban context.	Pursuant to EP-451/2013 Condition 2.6, decorative screen hoarding shall be designed to be compatible with the existing urban context. Erection of decorative screen hoarding with "Current of Vitality" will be adopted. The design of the hoarding is illustrated in Appendix G and location of mitigation measure refers to Appendix B.
CM8	All lighting in construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residences and GIC user. The contractor shall consider other security measures, which shall minimize the visual impacts.	All lighting in construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residences. Avoid over-illumination. Trim down any unnecessary lighting on site. Brief the frontline staff to switch off unnecessary lighting on site. All lights shall not project skyward. For those lighting that may spill out into the sky, they should be capped at the top to avoid causing glare.

BOUYGUES TRAVAUX PUBLICS

Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

ID No.	Operation Phase Mitigation Measures	
OM1	Compensatory tree planting shall be incorporated along roadside amenity areas affected by the construction works. The required numbers of compensatory trees shall follow the requirements of ETWB TCW No. 3/2006.	The compensatory planting will be implemented, detail of tree planting can be found in Appendix E .
OM2	Compensatory tree planting shall be incorporated by the Project. The required numbers of compensatory trees shall follow the requirements of ETWB TCW No. 3/2006. Loss of amenity area adjacent to the Kwun Tong By-pass and planting areas in KTD South Apron will be mitigated by the creation of the Kai Tak South Apron: Amenity Area, which will be equal to or larger than the current provision.	The original Kai Tak South Amenity Area was abutted by the extension of New Acute Hospital Development and since most of the planting areas had been reserved for other parties of different projects, the compensatory tree planting will be implemented at the later stage when available open space is identified.
OM3	Trees, shrubs and climbers shall be planted to soften and screen proposed roads, central medians and associated structures, and to enhance streetscape greening.	Various types of trees, shrubs and climbers were proposed along the roadside amenity strips and central dividers to enhance the streetscape greening and the appreciation of road landscape by passing glance in short duration. Appendix H illustrates the streetscape greening. The planting schedule refers to Appendix D and E .
OM4	All works areas, excavated areas and disturbed areas for tunnel construction and temporary road diversion or any other proposed works shall be reinstated to former conditions or better, with landscape treatment and to the satisfaction of the relevant Government departments.	All works areas, excavated areas and disturbed areas for depressed road, shafts, tunnel construction, temporary road diversion or other proposed works will be reinstated with landscape treatment according to the Contract. Rectification works will be carried out and up to the satisfaction of the relevant Government Departments prior to handover.
OM5	Tunnel portals and all above ground structures shall be sensitively designed to ensure the element with colour, texture and tonal quality being compatible to the existing urban context.	Tunnel portals and all above ground structures will be designed and constructed as per the Contractual requirement under EP-451/2013, to ensure the element with colour, texture and tonal

Trees and shrub planting to minimize the potential adverse landscape and visual impacts shall be included where space	quality being compatible to the existing urban context. Aesthetic design of tunnel
permits. Roof top greening and vertical greening shall also be provided.	Appropriate building materials and colours in buildings and structure will be adopted.
Use appropriate (visually unobtrusive and non-reflective) building materials and colours in buildings and structures.	Appendix H illustrates the aesthetic design and overall appearance.

Remarks:

*Locations of mitigation measures for construction and operation phase refers to Appendix B.

*To foster a visually cohesion identity, reference shall be made to the Kai Tak Brand Identity Manual and Public Creatives Guidelines.

*For any proposed tree preservation/removal application including compensatory proposal, the permit holder shall approach relevant authority/ government department(s) to obtain the necessary approval.

(ii) The Landscape and Visual Impact Assessment (LVIA) Section of the EIA issued September 2013 has suggested the mitigation measures for operation phase (OMs). However, to cater the Kai Tak Development as well as reviewed on the proposed work under Contract ED/2018/04, some of planting design has been amended.



(Source: Master Landscape Plan of Trunk Road T2 & South Apron (Figure 9.11.2 of EIA)



(Source: Master Landscape Plan of Trunk Road T2 & South Apron (Figure 9.11.2 of EIA)

iii) The Government has implemented a Ten-year Hospital Development Plan and construction of a new acute hospital (NAH) at the KTD is one of the planned projects. The location of NAH (Phase II) is indicated below and the extension part of NAH area (Site A) is abutting the proposed Kai Tak South Amenity Area which has been allocated to the Hospital Authority.



(Source: WTSDC Paper No. 4/2018 (9.1.2018))



- iv) According to the approved TPRP conducted for this Contract (Contract No.: ED/2018/04) by CEDD appointed consultant (Appendix F refers). It was reflected in the report the impacts of the proposed development under Contract ED/2018/04 and the actual conditions had restricted some of the originally proposed tree planting work:
- The proposed drainage along Trunk Road T2 outside Western Ventilation Building renders insufficient soil depth for tree planting;
- Roadside planting along the Trunk Road T2 may induce sight line issues to driver;
- Due to very limited space allowed within the site areas including those at the Former South Apron in Kai Tak mass planting of trees is not feasible;
- There is insufficient soil depth along the sides of Trunk Road T2 at Kai Tak side that limits the quantity of new trees, and the rest of the planting area within Trunk Road T2 has been already reserved for other projects.
- v) According to the approved ACABAS prepared by HMJV conducted in August 2018, within the Slip Road S5 and Road L10, depressed road planters, no tree planting are proposed within the planting verges, due to restrictions of planter sizes along the edge of the trunk road T2, large areas of underground utilities and the loading constraints on the Jordan Valley Viaduct, as well as long term safety concerns for trees in adverse weather conditions, overhanging the Trunk Road T2 fast moving traffic.



Fig. 9.11.2 of EIA Report



Proposed Master Landscape Plan

- vi) An Environmental Mitigation Implementation Schedule (EMIS) presenting the corresponding mitigation measures relevant to Landscape Mitigation Plan is shown in **Appendix I**.
- vii) The Landscape Design Report (Detailed Design Approval) which prepared by the Project Designer is enclosed in **Appendix C**. It illustrated all proposed landscape design and drawings related to the operational phase.

6.0 CONCLUSION

(i) This Landscape Mitigation Plan for Contract No. ED/2018/04 is prepared with the latest design and engineering information and the approved EIA report AEIAR-174/2013 (Ref no.: F0143-EB000560-MIEL-HKR-02) as far as practicable and in accordance with Specific Condition 2.5 of Environmental Permit EP-451/2013.



APPENDIX A -

GENERAL LAYOUT PLAN



Contract No.ED/2018/04 P:\PROJEC1 Default P:\PROJEC1 Trunk Road T2 and Infrastructure Works

for Developments at the Former South Apron

General Layout-Trunk Road

PLOT DRV: MODELNAME: FILENAME:





APPENDIX B -

LANDSCAPE MITIGATION DETAILS



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CAD FILE : K:\EB000560 Trunk Road T2 and Infrastructure at South Apron\F-Reports\superseded\Hyder input for EIA Text\TBM option\Figure\DGN\FIGURE 3.1b.dgn





OM3

ID No.	Operation Phase Mitigation Measures	ID No.	Operation Phase Mitigation Measures
OM1	Compensatory tree planting shall be incorporated along roadside amenity areas affected by the construction works. The required numbers of compensatory trees shall follow the requirements of ETWB TCW No. 3/2006.	OM4	All works areas, excavated areas and disturbed areas for tunnel construction and temporary road diversion or any other proposed works shall be reinstated to former conditions or better, with landscape treatment and to the satisfaction of the relevant Government departments.
OM3	Trees, shrubs and climbers shall be planted to soften and screen proposed roads, central medians and associated structures, and to enhance streetscape greening.		Tunnel portals and all above ground structures shall be sensitively designed to ensure the element with colour, texture and tonal quality being compatible to the existing urban context. Trees and shrub planting to minimize the potential adverse landscape and visual impacts
	* *	OM5	shall be included where space permits. Roof top greening and vertical greening shall also be provided. Use appropriate (visually unobtrusive and non- reflective) building materials and colours in buildings and structures.



OM5



APPENDIX C-

LANDSCAPE DESIGN REPORT



Contract No. ED/2018/04 Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron

<u>Detailed Design Submission (DDA) –</u> Landscape Design Report

Report No.: HKT2-AEC-DREP-ALL-PRW-225000-D

May 2022

ED/2018/04 Trunk Road T2 and Infratstructure Works for Development at South Apron

Quality Information

Prepared by

Christie Li ~

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Checked by

Approved by Clayton CHAN th on ((19

Revision History

Revision	Revision date	Details	Authorized	Name	Position
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С	14-01-2022	3 rd Issue	СҮКС	Clayton CHAN	РМ
D	18-05-2022	4 th Issue	СҮКС	Clayton CHAN	РМ

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Appendices

Appendix A – (Not Used) Appendix B – Hard Landscape Design Drawings extracted from Other Submissions Appendix C - Tree Label Design

Drawings

DRAWINGS	REV	DRAWING TITLE	
HKT2-AEC-DDWG-ALL-PRW-225001	C	Tree Planting Plan Along Road L10(N)	
HKT2-AEC-DDWG-ALL-PRW-225003	C	Shrub Planting Plan Along Road L10(N)	
HKT2-AEC-DDWG-ALL-PRW-225005	C	Tree Planting Plan Along Road L10(S) & L18	
HKT2-AEC-DDWG-ALL-PRW-225006	C	Shrub Planting Plan Along Road L10(S) & L18	
HKT2-AEC-DDWG-ALL-PRW-225007	А	Shrub Planting Plan on Footbridge FB02	
HKT2-AEC-DDWG-ALL-PRW-225009	А	Shrub Planting Plan Along At-grade Road	
HKT2-AEC-DDWG-ALL-PRW-225010	E	Tree Planting Plan of West Ventilation Building	
HKT2-AEC-DDWG-ALL-PRW-225011	E	Shrub Planting Plan of West Ventilation Building	
HKT2-AEC-DDWG-ALL-PRW-225012	C	Shrub Planting Plan of East Ventilation Building	
HKT2-AEC-DDWG-ALL-PRW-225013	А	Shrub Planting Plan of West Portal	
HKT2-AEC-DDWG-ALL-PRW-225016	А	Planting Plan At-Grade at Footbridge FB02	
HKT2-AEC-DDWG-ALL-PRW-225017	C	Soiling Placement Plan Along Road L10(N)	
HKT2-AEC-DDWG-ALL-PRW-225018	C	Soiling Placement Plan Along Road L10(S) & L18	
HKT2-AEC-DDWG-ALL-PRW-225020	А	Soiling Placement Plan Along At-grade Road	
HKT2-AEC-DDWG-ALL-PRW-225021	C	Soiling Placement Plan of East Ventilation Building	
HKT2-AEC-DDWG-ALL-PRW-225022	А	Soiling Placement Plan of West Portal	
HKT2-AEC-DDWG-ALL-PRW-225023	E	Soiling Placement Plan of West Ventilation Building	
HKT2-AEC-DDWG-ALL-PRW-225024	А	Soiling Placement Plan on Footbridge FB02	
HKT2-AEC-DDWG-ALL-PRW-225025	А	Soiling Placement Plan at grade at Footbridge FB02	
HKT2-AEC-DDWG-ALL-PRW-225026	С	Shrub Planting Plan for Small Park Along Road L10(S) & L18	
HKT2-AEC-DDWG-ALL-PRW-225027	В	Soiling Placement Plan for Small Park Along Road L10(S) & L18	
HKT2-AEC-DDWG-ALL-PRW-225028	А	Typical Tree Pit and Planting Detail	

1. Introduction

1.1 Background

The Trunk Road T2 (Contract ED/2018/04), together with the proposed Central Kowloon Route (CKR) and Tseung Kwan O - Lam Tin Tunnel (TKO-LTT) will form the Route 6 alignment in the strategic road network. Route 6 will provide an east-west express link between West Kowloon and Tseung Kwan O and provide the necessary relief to the existing heavily utilised road network in the central and eastern Kowloon areas

The scope of the project comprises: -

- a dual two-lane trunk road of approximately 3.0 km long with about 2.7 km of the trunk road is in the form of a tunnel;
- ventilation buildings, installation works at the administration building and a traffic control and surveillance system; and
- associated civil, electrical, mechanical, landscaping, environmental protection and mitigation works.

The Civil Engineering and Development Department (CEDD) is the Owner of the Trunk Road T2 project. Bouygues Travaux Projects (BTP) is awarded the design and construct the T2 project. BTP has engaged AECOM to provide the detailed design for this project.

Soft Landscape Works is part of the works in the Trunk Road T2 project. This report presents the designs for the shrubs and trees planting.

1.2 Scope of Work

The Trunk Road T2 Works under contract ED/2018/04 includes the design, construction and commissioning of the following major items:

- the Depressed Road and At-grade Road sections on the South Apron of about 0.29km;
- connections to the Supporting Underground Structure (SUS) constructed under Contract No. KL/2014/03;
- the cut-and-cover tunnel at the South Apron of approximately 20m in length connecting the Supporting Underground Structure (SUS) constructed under Contract KL/2014/03 to the Launching Shaft;
- the Launching and Retrieval Shafts at the South Apron and Cha Kwo Ling landfalls, respectively, including the permanent tunnel structures within the Launching and Retrieval Shafts;
- the Sub-sea TBM tunnel (two tubes with cross passages) under the Kwun Tong Typhoon shelter and Victoria Harbour, connecting between the South Apron (of the Kai Tak Development) and Cha Kwo Ling, of approximately 2.1km in length with dual 2-lane carriageway;
- the Drill-and-break Tunnel and Drill-and-blast Tunnel (two tubes with cross passages) under Cha Kwo Ling, of approximately 0.4km in length with dual 2-lane carriageway connecting between Cha Kwo Ling landfall and Lam Tin Interchange. This section also includes the Branch Tunnel to accommodate the slip road connecting the eastbound carriageway of the Trunk Road T2 to the Lam Tin Interchange;
- the West Ventilation Building (WVB) at the South Apron and the East Ventilation Building (EVB) at the Lam Tin Interchange. The WVB is to have an Air Purification System (APS) designed, installed and commissioned under this contract;
- the South Apron Adits from the adits constructed under Contract No. KL/2014/03 to the Western Ventilation Building;

- the LTI Adits from Branch Tunnel to the EVB;
- the associated civil, structural, building, geotechnical, marine, environmental protection, landscaping, drainage and sewerage, waterworks and utility works for the Trunk Road T2 necessary for the commissioning of the Trunk Road T2;
- the E&M Works, including ventilation, lighting, fire services, mechanical ventilation & airconditioning, high voltage power supply, low voltage power supply, fire services, plumbing & drainage, central monitoring & control system for the Trunk Road T2 necessary for the commissioning of the Trunk Road T2;
- the civil provisions for the TCSS for the Trunk Road T2 from the South Apron to Lam Tin Interchange necessary for the installation and commissioning of the Trunk Road T2;
- the section of the Government Optical Fibre System (GOFS) within the limits of the Trunk Road T2 necessary for the Route 6 wide commissioning of the GOFS;
- the Works under this contract must be designed and constructed to tie-in with both ends of the KL/2014/03 works and must include completion of the design and construction of all finishing works for the SUS constructed under Contract KL/2014/03 including but not limited to:
 - OHVD slab;
 - Cross-passage doors;
 - o Walkways;
 - o Vitreous enamel panels;
 - o Drainage and sewerage;
 - Fire Protection;
 - o E&M for the Trunk Road T2; and
 - Road surfacing, traffic signs, white lining.
- the Works under this Contract must be designed and constructed to tie-in with the TKO-LTT at the LTI as constructed under contract NE/2015/01. The Works under the Contract include but are not limited to:
 - Finishing civil and structural works for a length of the Branch Tunnel that is constructed by NE/2015/01 adjacent to the location of the Administration Building;
 - Footbridge connecting the EVB to the maintenance access from the Administration Building;
 - o Slope works and Site Formation works;
 - Alignment, roadworks, traffic signs, white lining;
 - TCSS provisions;
 - o Drainage, and Sewerage Utilities;
 - Landscaping; and E&M works.
- the Works under this Contract must be designed and constructed to tie-in with the Central Kowloon Route at the South Apron constructed under Contract HY/2018/02 including but not limited to:
 - Slope works;
 - o Roadworks, traffic signs, white lining;
 - TCSS provisions;
 - Drainage and Sewerage;

AECOM

- o Utilities;
- o Landscaping; and
- E&M works.
- Implementation of environmental mitigation measures and related monitoring and auditing works.

1.3 Scope of Report

This Design Report presents the soft landscape design for the Local Distributor Road L10 North, Road L10 South & Road L18, footbridge FB02, at grade road, footbridge FB03, and East Ventilation Building (EVB), West Ventilation Building (WVB) & West Portal (WP) which includes an assessment of the existing landscape condition and proposed planting for improved biodiversity and aesthetic effect. It is noted that this reports only presents soft landscape design. Drainage design, irrigation plan and details to be submitted in separate submission. Hard landscape works including road paving pattern and Public Creative design for street furniture are submitted in separate submissions as listed below:

- 1. Detailed Design Approval (DDA) T2 At Grade Road Roadworks Design (Report no. HKT2-AEC-DREP-RAG-PRW-043000-A)
- 2. Detailed Design Approval (DDA) Road L10(S) and L18 Roadworks Design (Report no. HKT2-AEC-DREP-KAA-PRW-079000-B)
- 3. Detailed Design Approval (DDA) Road Lighting for At-grade Road, Road L10 and Road L18 (Report no. HKT2-AEC-DREP-KAA-PRW-114000-C)
- 4. Detailed Design Approval (DDA) Road L10(N) Roadworks Design (Report no. HKT2-AEC-DREP-KAA-PRW-196000-A)

Drawings related to hard landscape works extracted from the above submissions are enclosed in Appendix B for reference.

The landscape design for the Local Distributor Road S20 is not included in this submission. It is presented in the separate submission "Detailed Design Approval (DDA) – Road S20 Landscape Design" (Report no. HKT2-AEC-DREP-KAA-PRW-105000-B).
2. Landscape Design

2.1 Site Location

Road L10(N) will be situated on the former Southern Apron along the future at-grade road of Central Kowloon Route (CKR) and Road L10(S) and L18 is designed to serve the operating Hong Kong Children's Hospital and the future New Acute Hospital.

The proposed footbridge FB02 provide connection between the southern footpath of Kai Fuk Road and the future waterfront promenade at South Apron Area and Road L18, crossing the proposed Slip Road S5, Trunk Road T2 and Road L10. The FB02 also provides pedestrian access to New Acute Hospital (NAH) and future development site 3B4 from the existing footbridge KF64. In addition, the FB02 strides over the existing DSD Kowloon Bay Sewage Interception Station (KBSIS).

The At-grade Road sections will be located on the South Apron of about 0.29km;

West Ventilation Building and West portal will be located at Kai Tak Area and the East Ventilation Building at Cha Kwo Ling.

2.2 Existing Landscape Condition

According to the approved TPRP dated Oct 2019, the survey recorded 111 trees within the Tree Survey Area, and 60 nos. of trees are located within the site boundary. No registered Old and Valuable Tree, No protected species and No rare species were recorded. Findings are listed below:

Road L10(N), L10(S) and L18

There is no tree located in the area of the planned roads L10(N), L10(S) and L18.

Footbridge FB02

There are a total of **34 nos.** of trees located within the building site of FB02. Species identified are mainly common amenity species including dominant species of Delonix regia (4no.), Thevetia peruviana (7 nos.), Acacia confusa (2nos.), Melia azedarach (2no.), Archontophoenix alexandrae (3no.), Murraya paniculata (1no.), Bauhinia Variegata (5no.), Sterculia lanceolate (3no.), Macaranga tanarius var. tomentosa (2no.) and Liquidambar formosana (5no.) and Most of the trees are of poor form and low amenity value. Some leaning, with broken trunk and has potential tree risk. **10 nos.** of trees are proposed to be retained, and **24 nos.** of existing trees proposed for felling.

The surveyed trees are all common species with no endangered or rare species. No Champion Tree (trees identified in the book 'Champion Trees in Urban Hong Kong' published by Urban Council in 1994) or tree included in the "Register of Old and Valuable Trees" is identified within the proposed development boundary.

At-grade Road

There is no tree located in the area of the planned At-grade Road.

EVB, WVB & WP

There are a total of **26 nos.** of trees located within the building site of WVB and there is no tree in the building site of EVB&WP. Species identified are mainly common amenity species including dominant species of Leucaena leucocephala (2no.), Spathodea campanulate (11no.), Macaranga tanarius var. tomentosa (1no.), Ficus virens (1no.), Bischofia javanica (2no.), Melaleuca cajuputi subsp. Cumingiana (4no.), Ficus hispida (1no.), Bombax ceiba (1no.), Celtis sinensis (1no.), Syzygium jambos (1no.), and Morus alba (1no.) and Most of the trees are of poor form and low amenity value. Some leaning, with broken trunk and has potential tree risk.

The surveyed trees are all of common species with no endangered or rare species. No Champion Tree (trees identified in the book 'Champion Trees in Urban Hong Kong' published by Urban Council in 1994) or tree included in the "Register of Old and Valuable Trees" is identified within the proposed development boundary.

2.3 Proposed Landscape Design

The theme of new proposed planting for areas in Road L10 North, L10 South & L18, footbridge FB02, footbridge FB03, at grade road and East Ventilation Building (EVB), West Ventilation Building (WVB) & West Portal (WP) - FLOW & MOTION was inspired by the aeronautical heritage characteristic of Kai Tak development area. With wavy, flow planting design pattern, the scheme comprise a mix of dominantly native species for improved biodiversity and compatibility within the setting, as well as exotic flowering trees and shrubs that have established in Hong Kong for long period of time for aesthetic effect and naturalist linkage to the nearby existing natural setting.

The new species will be chosen to provide colour and seasonal variation, and with interesting structure & form to create a lush appearance in order to enhance the urban environment and to form a setting compatible with the implementation of Greening Master Plans (GMPs) in the district. To provide seasonal interest with adequate green in winter, flowering species such as *Rhaphiolepis indica*, *Caesalpinia pulcherrima, Heliconia psittacorum 'Rainbow'* are proposed; and evergreen species such as *Ligustrum sinense cv.'Variegatum'*, *Rhapis multiflorum, Rhododendron simsii* are proposed. Species such as *Dicranopteris pedata*, *Zephyranthes candida* and *Ophiopogon japonicus* are proposed with interesting form and foliage.

Establishing an appropriate soft landscape is considered one of the critical success factors of the overall design. To achieve these objectives, the following factors will be considered:

- Maximize visual interest and seasonal change through flowering species.
- Improve the local microclimate through shading and transpiration.
- Utilize robust native with practical minimum of maintenance requirements.
- Low maintenance planting species will be used to reduce energy costs of maintenance operations.
- Pest control
- Avoidance of thorny species

According to the approved TPRP dated Oct 2019, 40 trees are proposed for felling as they are not suitable for transplantation. The loss of existing trees is proposed to be compensated by 24 new trees of which 13 nos. are heavy standard and 11 nos. are standard size. Quantity compensation ratio of 1:0.6 and quality compensation ratio of 1:0.15 are achieved.

In conclusion, there are 34 nos. of proposed tree and 24 nos. of compensatory tree in total.

Greenery coverage of various areas is designed to comply with ER Part 4 Clause 4.18.5. Greenery coverage of various areas is listed in Table 1 below:

Areas	Location *ER part 4 table 4.18.5 refers	Min. Green Area Required	Greenery Coverage of Proposed Landscape
Road L10(N), L10(S) and L18	Local Road	<mark>10%</mark>	<mark>12%</mark>
Footbridge FB02	Landscaped Elevated Walkway	<mark>15%</mark>	<mark>20%</mark>
At-grade Road	Local Distributor	<mark>15%</mark>	<mark>22%</mark>
WVB	West Ventilation Building	<mark>20%</mark>	<mark>41%</mark>
EVB	East Ventilation Building	<mark>15%</mark>	<mark>36%</mark>
WP	West Tunnel Portal	<mark>20%</mark>	<mark>53%</mark>

Table 1 – Greenery Coverage of Various Areas

Tree and Shrub planting are proposed for amenity and visual effect as well as minimizing long term maintenance requirements (The maintenance matrix after establishment period is tabled in Table 3&4).

 The planting strategy of Road L10&L18 and small park(hammer head) is illustrated on the tree planting plans and shrub planting plans in HKT2-AEC-DDWG-ALL-PRW-225001, HKT2-AEC-DDWG-ALL-PRW-225003, HKT2-AEC-DDWG-ALL-PRW-225005, HKT2-AEC-DDWG-ALL- PRW-225006 and HKT2-AEC-DDWG-ALL-PRW-225026. Proposed soil depth is illustrated on the soiling placement plans in HKT2-AEC-DDWG-ALL-PRW-225017, HKT2-AEC-DDWG-ALL-PRW-225018 and HKT2-AEC-DDWG-ALL-PRW-225027;

- The planting strategy of Footbridge FB02 is illustrated on the shrub planting plan in HKT2-AEC-DDWG-ALL-PRW-225007 and HKT2-AEC-DDWG-ALL-PRW-225016. Proposed soil depth is illustrated on the soiling placement plans in HKT2-AEC-DDWG-ALL-PRW-225024 & HKT2-AEC-DDWG-ALL-PRW-225025;
- The planting strategy of At-grade Road is illustrated on the shrub planting plans in HKT2-AEC-DDWG-ALL-PRW-225009. Proposed soil depth is illustrated on the soiling placement plans in HKT2HKT2-AEC-DDWG-ALL-PRW-225020;
- The planting strategy of EVB, WVB, WP and Footbridge FB03 is illustrated on the tree planting and shrub planting plans in HKT2-AEC-DDWG-ALL-PRW-225010, HKT2-AEC-DDWG-ALL-PRW-225011, HKT2-AEC-DDWG-ALL-PRW-225012 and HKT2-AEC-DDWG-ALL-PRW-225013. Proposed soil depth is illustrated on the soiling placement plans in HKT2-AEC-DDWG-ALL-PRW-225021, HKT2-AEC-DDWG-ALL-PRW-225022 & HKT2-AEC-DDWG-ALL-PRW-225023.

The proposed shrub plant species and tree species are presented in Table 2 and Table 3 respectively below:

Code	Botanical Name	Chinese	Origin (Native/ Exotic)	Height (mm)	Spread (mm)	Spacing (mm)	Quantity	
		Sł	nrub					
Cri.ama.	Crinum amabile	紅花文殊蘭	Native	500	400	400	<mark>7448</mark>	
Cor. fru.	Cordyline fruticosa	朱蕉	Exotic	600	400	400	1500	
Die.bic.	Dietes bicolor	非洲鸢尾	Exotic	500	300	300	286	
Hel.psi. 'Rai'	Heliconia psittacorum 'Rainbow'	小天堂鳥蕉	Exotic	600	400	400	<mark>4905</mark>	
Hym.lit.	Hymenocallis littoralis	蜘蛛蘭	Exotic	400	300	300	<mark>1053</mark>	
Lig.sin.'Var'	Ligustrum sinense cv.'Variegatum'	花葉山指甲	Exotic	<mark>500</mark>	<mark>500</mark>	<mark>400</mark>	<mark>2503</mark>	
Phi.xan.	Philodendron selloum 'xanadu' 佛手蔓結		Exotic	300	400	400	<mark>844</mark>	
Rha.ind. 1	Rha.ind. 1 Rhaphiolepis indica		Native	600	400	400	301	
Rha.mul.	Rha.mul. Rhapis multiflorum		Native	750	400	400	<mark>2182</mark>	
	Ground Cover							
Asp.coc.	Asparagus cochinchinensis	天門冬	Native	200	200	300	<mark>2343</mark>	
Asp.den.'Spr' 1	Asparagus densiflorus 'Sprengeri'	非洲天門冬	Exotic	200	300	300	<mark>4848</mark>	
Asp.den.'Spr' 2	Asparagus densiflorus 'Sprengeri'	非洲天門冬	Exotic	100	100	200	<mark>1235</mark>	
Ble.ori.	Blechnum orientale	烏毛蕨	Native	600	600	600	<mark>286</mark>	
Dic.ped.	Dicranopteris pedata	芒萁	Native	300	300	200	<mark>921</mark>	
Lir.spi. 1	Liriope spicata	麥冬 1	Native	100	100	100	<mark>26268</mark>	
San.tri. 1	A. 1 Sansevieria trifasciata 短葉金邊虎尾蘭 'Golden Hahnii' 1		Exotic	150	100	100	12697	
Smi. gla	Smilax Glabra	土茯苓	Native	300	300	300	<mark>411</mark>	
Nep.hir.	Nephrolepis hirsutula	毛葉腎蕨	Native	300	300	300	<mark>4946</mark>	
Lig.sin.	Ligustrum sinense	<mark>山指甲</mark>	Exotic	<mark>600</mark>	<mark>400</mark>	<mark>400</mark>	<mark>741</mark>	
Oph.jap. 1	Ophiopogon japonicus	沿階草1	Native	150	150	150	<mark>36426</mark>	

Table 2 – Proposed Shrub, Groundcover and Climber Planting

ED/2018/04				
Trunk Road	Γ2 and Infratstructure	Works for	Development a	t South Apron

DDA – Landscape Design Report

Code	Botanical Name	Chinese	Origin (Native/ Exotic)	Height (mm)	Spread (mm)	Spacing (mm)	Quantity
Tra. Jas.1	Trachelospermum jasminoides	絡石 1	Native	900	400	400	<mark>555</mark>
Rha. Ind. 2	Rhaphiolepris indica	車輪梅2	Native	300	350	300	<mark>5290</mark>
Turf							
Zoy. mat.	Zoysia matrella	溝葉結縷草	Native	50	-	-	<mark>161 sqm.</mark>

Ground Cover Mix 1							
Lir.mus.	Liriope muscari	闊葉山麥冬	闊葉山麥冬 Native		150	150	<mark>17857</mark>
Lir.spi. 2	Liriope spicata	麥冬 2	Native	100	100	100	<mark>23810</mark>
Oph.jap. 2	2 Ophiopogon japonicus 沿階草 2		Native	150	150	150	<mark>7930</mark>
	Ground Cover Mix 2						
San.tri.2	Sansevieria trifasciata 'Golden Hahnii'	短葉金邊虎尾蘭 2	Exotic	200	300	100	<mark>17412</mark>
Tra. Jas. 2	Trachelospermum jasminoides	絡石 2	Native	150	150	400	<mark>8156</mark>
Climber/ Hanging							
Par. Tri	Parthenocissus tricuspidata	<mark>爬牆虎</mark>	Exotic	<mark>1000</mark>	<mark>300</mark>	<mark>500</mark>	<mark>235</mark>

Table 3 – Proposed Tree Planting

Code	Botanical Name	Chinese	Origin (Native/ Exotic)	Height (mm)	Spread (mm)	Dia. (mm)	Planting Space	Qty.	Category
BAU. VAR.	Bauhinia x blakeana	洋紫荊	Native	<mark>4000-</mark> 5000	<mark>2000-</mark> 2500	<mark>100</mark>	<mark>5000-6000</mark>	<mark>6</mark>	Heavy Standard
ELA.BAL.	Elaeocarpus balansae	大葉杜英	Native	<mark>4000-</mark> 5000	<mark>2000-</mark> 2500	<mark>75/</mark> 100	<mark>5000-7000</mark>	<mark>31</mark>	Heavy Standard
JAC.MIM	Jacaranda mimosifolia	藍花楹	Exotic	<mark>4000-</mark> 5000	<mark>2000-</mark> 2500	<mark>100</mark>	<mark>5000-6000</mark>	<mark>12</mark>	Heavy Standard
STE.LAN.	Sterculia lanceolata	假蘋婆	Native	<mark>4000-</mark> 5000	<mark>2000-</mark> 2500	<mark>100</mark>	<mark>5000-6000</mark>	<mark>5</mark>	Heavy Standard
PYR. CAL.	Pyrus calleryana	豆梨	Native	4000- 5000	<mark>2000-</mark> 2500	<mark>100</mark>	<mark>5000-6000</mark>	<mark>4</mark>	Heavy Standard
*Th	e Greening Master Plan f	or Urban A	Areas - Ko	wloon Cit	v (CEDD) and S	Street Tree S	electio	on Guide

*The Greening Master Plan for Urban Areas - Kowloon City (CEDD) and Street Tree Selection Gu (DEVB - GLTMS) have been consulted for the above planting proposals.

Maintenance Works Description	Frequency
Watering	2-3 times /week
Weeding	1 time /month
Pruning	When necessary / after flowering / before typhoon season
Firming up and staking	Before and after inclement weather
Fertilizing	When necessary
Pest Control	As required
Inspection on tree health	2 times /year
Tree Risk Assessment for Individual Trees	1 time /year

Table 4 – Tree Maintenance Matrix

Table 5 – Shrub, Groundcover and Turf Maintenance Matrix

Maintenance Works Description	Frequency
Watering	2-3 times/week
Weeding	1 time /month
Grass cutting	1 time /month
Pruning	When necessary / after flowering / before typhoon season
Firming up and staking	Before and after inclement weather
Fertilizing	2 times /year
Pest Control	As required
Rubbish removal	2 times /month
Top up Mulching	1 time before expiry of establishment period

2.4 Environmental Legislation, Standards and Guidelines

The following legislation, standards and guidelines which have been identified, reviewed and updated for the Detailed Design of the Remaining Phase Works:

- Development Bureau TCW No. 2/2012- Allocation of Space for Quality Greening on Roads
- Development Bureau TCW No. 1/2018 Soft Landscape Provisions for Highway Structures;
- Development Bureau TCW No. 4/2020 Tree Preservation;
- Development Bureau TCW No. 5/2020- Registration and Preservation of Old and Valuable Trees;
- Management Guidelines for Mature Trees by DEVB (GLTMS), December 2014;
- Guidelines for Tree Risk Assessment and Management Arrangement (TRAM) 9th edition (Rev. 2A), 20 April 2021 promulgated by DEVB (GLTMS);
- Guidelines on tree transplanting by DEVB (GLTMS)
- Street Tree Selection Guide by DEVB (GLTMS)
- Clause 3.97 Transplanting of existing trees in General Specification for Civil Engineering Works by CEDD
- Greening Master Plan for Urban Areas Kowloon City by CEDD
- Requirements for Handover of Vegetation to Highways Department (2020 version)
- Development Bureau TCW No. 6/2015 Maintenance of Vegetation and Hard Landscape Features
- GEO Publication No. 1/2011 Technical Guidelines on Landscape Treatment of Slopes
- GEO Publication No. 1/2009 Prescriptive Measures for Man-made Slopes and Retaining Walls (2009)
- General Specification for Civil Engineering Works 2006 Section 3



APPENDIX D -

SHRUBS PLANTING SCHEDULE





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Sections of West Ventilation Building **A**



Sections of West Ventilation Building ${f B}$



Aerial View of West Ventilation Building

Sections of West Ventilation Building **C**



North Western View of West Ventilation Building





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Planter for Roof Top Greening

Sections of Western Portal **A**









Top View of Western Portal





leight (mm)	Spread (mm)	Spacing (mm)	Qty	Remark		
600	400	400	120	-		
200	300	300	1402	-		
150	150	150	4000	-		
900	400	400	555	min. 4 shoots		
300	150	150	17857	-		
100	100	100	23810	-		
150	150	150	7930	-		
		Draw	ng no.			
S			HKT2-AE	C-DDWG-ALL-PRW-2250)12-B-DDA	
oron		Scale	,	l:150 @ A1	Revision	
NG		CADE HK 1	2-AEC-DDV	l B		
		Issue	Status		Sheet	

Sections of East Ventilation Building **A**



Side View of East Ventilation Building





Sections of East Ventilation Building **B**







APPENDIX E -

TREE PLANTING SCHEDULE









APPENDIX F -

TREE PRESERVATION AND REMOVAL PROPOSAL







Civil Engineering and Development Department

Agreement No. CE 38/2008 (HY)

Kai Tak Development - Trunk Road T2 and Infrastructure at South Apron Investigation, Design and Construction

Tree Preservation and Removal Proposal Revision 4 for Contract 2 (ED/2018/04) Hyder-Meinhardt Joint Venture 17/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong Tel: +852 2911 2000 Fax: +852 2911 2002 www.arcadis.com



Civil Engineering and Development Department Agreement No. CE 38/2008 (HY)

Kai Tak Development - Trunk Road T2 and Infrastructure at South Apron Investigation, Design and Construction

Tree Preservation and Removal Proposal Revision 4 for Contract 2 (ED/2018/04)

Author	Chinam Lam
Checker	Cherryl Nadela
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Report No	F0318-EB00560-HCL-HKR-04
Date	4 October 2019

This report has been prepared for Civil Engineering and Development Department in accordance with the terms and conditions of appointment for Kai Tak Development - Trunk Road T2 and Infrastructure at South Apron Investigation, Design and Construction dated June 2018. Hyder-Meinhardt Joint Venture cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.



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AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION



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 $EB000560\text{-}C2\text{-}SH\text{-}1001 \ \text{rev.}2-Contract\ 2 \ \text{Tree Planting Schedule for LCSD}$

EB000560-C2-CP-1001 rev.1 - Contract 2 Compensatory Planting Plan (Road L10)

EB000560-C2-CP-1002 rev.2 - Contract 2 Compensatory Planting Plan (Road T2)

EB000560-C2-SH-1002 rev.2 – Contract 2 Tree Planting Schedule (Western Ventilation Building)

EB000560-C2-CP-1003 rev.1 – Contract 2 Compensatory Planting Plan (Western Ventilation building)

- APPENDIX H ARCHITECTURAL DRAWINGS (FOR REFERENCE ONLY)
- APPENDIX I WESTERN VENTILATION BUILDING AT SOUTH APRON TREE PLANTING DETAIL
- APPENDIX J RESPONSE TO COMMENT





1 INTRODUCTION

- 1.1 General
- 1.1.1 Civil Engineering and Development Department (CEDD) appointed Hyder-Meinhardt JV (HMJV) under Agreement No CE38/2008 (HY) to provide professional services in respect of Kai Tak Development Trunk Road T2 and Infrastructure at South Apron Investigation, Design and Construction. The date of commencement of the Assignment was 31st July 2009.
- 1.1.2 This report follows the requirements as per Agreement No CE38/2008 (HY), section: 6.3.4, Tree Preservation, and Appendix H EIA Study brief -203/2009, Section: 3.4.9.4 Landscape Visual Impact Tree survey information. Regarding the above information, two separate tree survey reports have been prepared for the Trunk Road T2 works, namely Contract 1 (KL/2014/03) and Contract 2 (EB/2018/04), to delineate clearly between the two works area boundaries.

1.2 Description of Project

- 1.2.1 The background to the approval of the Kai Tak Outline Zoning Plan (OZP) and associated studies related to Kai Tak Development (KTD) is summarised in Sections 2.1.1 to 2.1.11 of the Brief. As a part of the strategic road network within the South East Kowloon Development, Route 6 forms an east west express link between West Kowloon and Tseung Kwan O. Route 6 comprises the Central Kowloon Route (CKR), Trunk Road T2 and Tseung Kwan O Lam Tin Tunnel (TKO-LTT).
- 1.2.2 This Assignment covers the provision of Trunk Road T2. The main elements of the works comprise the construction of Trunk Road T2 (T2), connecting with the Central Kowloon Route (CKR) at the north apron area and the Tseung Kwan O Lam Tin Tunnel (TKO-LTT) at the Cha Kwo Ling area.
- 1.2.3 Under the current scheme, about 2.7 km of Road T2 would be in the form of tunnel and about 2.0 km of the tunnel was to be in the form of TBM tunnel placed under the seabed. After its connection with CKR, the Road T2 alignment runs briefly at-grade along the South Apron. After crossing the Jordan Valley Box Culvert (JVBC), Road T2 descends into tunnel under the Shing Cheong Road towards the seabed in the Kwun Tong Typhoon Shelters (KTTS). Within the KTTS, the Road T2 scheme comprises a fully embedded tunnel in the seabed that passed under the KTTS, breakwaters and sewage submarine outfall at the Kwun Tong Preliminary Treatment Works (KTPTW) at a gentle gradient before making landfall at Cha Kwo Ling (CKL). At CKL the Road T2 comprises a cut and cover tunnel section to allow connection with the TKO-LTT.
- 1.2.4 The Strategic Transport Link Route 6 is scheduled for completion in 2025.





1.3 Structure of this Report

- 1.3.1 This report comprises, in addition to this Introduction, the following sections:
 - Section 2 Objectives;
 - Section 3 Site Description and Proposed Development;
 - Section 4 Vegetation Description and The Tree Inventory;
 - Section 5 Proposed Treatment of Tree;
 - Section 6 Compensatory Planting Proposal; and
 - Section 7 Summary.

1.4 Abbreviations

1.4.1 The following abbreviations are used in this report:

Bureaus and Government Departments

AFCD	Agriculture, Fisheries and Conservation Department
CEDD	Civil Engineering and Development Department
ETWB	Environment, Transport and Works Bureau
EPD	Environmental Protection Department
HyD	Highways Department
LandsD	Lands Department
LCSD	Leisure and Cultural Services Department
PlanD	Planning Department
TD	Transport Department

Roads and Bridges

	0
CKR	Central Kowloon Route
T2	Trunk Road T2
TKO-LTT	Tseung Kwan O to Lam Tin Tunnel
Place	
KTD	Kai Tak Development
CKL	Cha Kwo Ling
Others	
MOm	Management, Operation and Maintenance
WVB	Western Ventilation Building



2 OBJECTIVE

2.1 Background

- 2.1.1 For T2 project, the works area of T2 project has been separated into two Contracts ED/2018/04 and ED/2018/02. The scope of work in ED/2018/02 includes footpath and carriageway roadworks, landscaped elevated walkway, landscaping and drainage works. The scope of work in ED/2018/04 includes tunnelling works, roadworks and building works. This Tree Preservation and Removal Proposal applies for the tree issues related to Contract 2.
- 2.1.2 In Contract 2, it is proposed to develop a western ventilation building (WVB) and tunnel portal near the intersection of T2 and CKR. It is also proposed to develop a retrieval shaft at Cha Kwo Ling for the construction of tunnel connecting T2 trunk road and TKO-LTT.
- 2.1.3 The Tree Survey Area is defined by the works area, within 2m of the works area, and any other areas where trees are likely to be affected by the Works as shown in Tree Survey and Treatment Plan (Refer to Appendix B).
- 2.1.4 This Tree Preservation and Removal Proposal has been completed in accordance with DEVB TC(W) No. 7/2015.

2.2 General

- 2.2.1 Tree survey inspections were conducted in May and June 2018 covering the trees within the Tree Survey Area based on the topographical survey prepared by a survey team engaged by HMJV.
- 2.2.2 The Tree Preservation and Removal Proposal describes the methodology (Appendix A) and results of the tree inventory surveyed on the Site. It also reflects the impact of the proposed development to the trees surveyed within the Tree Survey Area.
- 2.2.3 The arboricultural and topographical characteristics of all trees within the Survey Area are described and form the basis for the value assessment and the recommendation of treatments.

Survey Details			
The Site	Within the former Kai Tak South Apron and its surrounding vicinity and the Former Public Cargo Working Area at Cha Kwo Ling - Contract 2 works limit (Refer to Tree Survey and Treatment Plan in Appendix B)		
The proposed development	Trunk Road T2 & associated work areas		
Survey Area	2 meters offset from Works limit of Contract 2		
Tree Survey Date	May and June 2018		

Tree Preservation and Removal Proposal Rev.4 for Contract 2 (ED/2018/04) October 2019



2.3 Objective of Tree Survey Report

- 2.3.1 To record the existing trees in the Survey Area in accordance with Government's technical circulars, related publications and professional practices (refer to Appendix A);
- 2.3.2 To evaluate the condition, value and to estimate the survival rate of the trees if transplanted;
- 2.3.3 To propose tree treatment (retain, fell or transplant) for the proposed development that complies with Government legislations and practices (refer to Appendix A) and
- 2.3.4 To recommend compensation of tree loss (where necessary) due to the proposed development

3 SITE DESCRIPTION AND THE PROPOSED DEVELOPMENT

3.1 Tree Survey Area

- 3.1.1 The Tree Survey Area covers relevant portions of the former Kai Tak South Apron and highly developed urban land at its surrounding vicinity. At the present time, the majority of the infrastructures made up the former Kai Tak South Apron have been decommissioned and demolished and the vacant land is now predominantly used as construction site for stockpiling as well as ongoing development works. All these areas are predominantly concreted but there are some landscape patches fringing the apron area.
- 3.1.2 Some periphery areas of the Kai Tak Airport and its vicinity are entirely made up of highly developed urban land with some amenity planting along roadsides and in some residential estates.
- 3.1.3 The whole site of Contract 2 is currently composed of South Apron of Kai Tak Airport, existing roadside planting area maintained by LCSD at Kai Fuk Road, current site of TKO-LTT along Cha Kwo Ling Road as well as Private Land Lot, Unleased and Unallocated Government Land (UUGL) and Temporary Land Allocation (TLA) near Cheung Yip Street and Kai Hing Road.
- 3.1.4 This Contract includes the development of western ventilation building and tunnel portal near the intersection of T2 and CKR.
- 3.1.5 A temporary stockpile is proposed to be set up at UUGL located at the intersection of Cheung Yip Street, Lam Chak Street and Kai Hing Street.
- 3.1.6 A retrieval shaft at Cha Kwo Ling is also proposed to develop for the construction of tunnel connecting T2 trunk road and TKO-LTT.



4 VEGETATION DESCRIPTION AND THE TREE INVENTORY

4.1 General Description

- 4.1.1 Within the Tree Survey Area, **111** trees with $DBH \ge 95mm$ were surveyed. They belong to **19** tree species, which include **10** natives and **9** exotics.
- 4.1.2 The area was dominated with exotic species such as *Leucaena leucocephala* (31 nos.) as well as native species such as *Macaranga tanarius* var. *tomentosa* (30 nos.).
- 4.1.3 Undersized trees / plants with DBH less than 95mm were observed within the works boundary. They will not be recorded in this Tree Preservation and Removal Proposal. All undersized trees and any undesirable species which are in conflict with the proposed development, will be removed as site clearance works.
- 4.1.4 The species composition of the Tree Survey Area is summarized below:

Deterior Nome	Chinese	Native /	Protected by	Protected by	Quantity
Botanical Ivanie	Name	Exotic	Cap 96	Cap 586	
Acacia confusa	台灣相思	Exotic	No	No	5
Bischofia javanica	秋楓	Native	No	No	2
Bombax ceiba	木棉	Exotic	No	No	1
Casuarina equisetifolia	木麻黃	Exotic	No	No	1
Celtis sinensis	朴樹	Native	No	No	10
Ficus hispida	對葉榕	Native	No	No	2
Ficus microcarpa	細葉榕	Native	No	No	1
Ficus subpisocarpa	筆管榕	Native	No	No	1
Ficus virens	黃葛樹	Native	No	No	1
Leucaena leucocephala	銀合歡	Exotic	No	No	31
Ligustrum sinense	山指甲	Native	No	No	1
Litsea glutinosa	潺槁樹	Native	No	No	2
Macaranga tanarius var. tomentosa	血桐	Native	No	No	30
Mangifera indica	芒果	Exotic	No	No	1
Melaleuca cajuputi subsp. Cumingiana	白千層	Exotic	No	No	4
Melia azedarach	苦楝	Exotic	No	No	4
Morus alba	桑	Native	No	No	2
Spathodea campanulata	火焰木	Exotic	No	No	11
Syzygium jambos	蒲桃	Exotic	No	No	1
				Total	111





4.1.5 Since LCSD and AFCD will provide expert advice for DLO processing, Appendix of Tree Assessment Schedule and Tree Photographs will be separated to provide clearer identification for related department.

4.2 **Overall Condition of Trees**

- 4.2.1 The general health and form of the existing trees within the tree survey area were poor to fair.
- 4.2.2 Most trees have an overall low to medium rating in amenity value and one tree is rating in good amenity value.
- 4.2.3 No registered Old and Valuable Tree was recorded in the Tree Survey Area.
- 4.2.4 No protected species was recorded within the Tree Survey Area.
- 4.2.5 No rare or protected species under Chapter 96 Forests and Countryside Ordinance and/or Chapter 586 Protection of Endangered Species of Animals and Plants Ordinance was recorded within the Tree Survey Area.
- 4.2.6 No trees listed in the "Champion Trees in Urban Hong Kong", published by the Urban Council, were recorded within the Tree Survey Area.
- 4.2.7 Details of tree condition are recorded in Appendix C and D Tree Assessment Schedule for LCSD and AFCD respectively.
- 4.2.8 Photographic records for individual trees are recorded in Appendix E and F for LCSD and AFCD respectively.

5 PROPOSED TREATMENT OF TREES

5.1 Impact of the proposed development

- 5.1.1 Conflicts between the proposed development and the existing trees are as follows:
 - Proposed western ventilation building and tunnel portal at south apron of Kai Tak Airport
 - Proposed launching shaft and future roundabout at Kwun Tong Typhoon Shelter near Cheung Yip Street and Kai Hing Street.
 - TLAs at Cheung Yip Street are proposed as future barging point for ingress and egress for haulage trucks.
 - UUGL at the intersection of Cheung Yip Street, Lam Chak Street and Kai Hing Street is proposed as future works area, work cabins and stockpile.
 - Proposed retrieval shaft at Cha Kwo Ling





5.1.2 The details of the impacts are shown in the Tree Survey and Treatment Plan superimposed with the proposed development in Appendix B.

5.2 Trees to be Retained

- 5.2.1 71 trees in total within the Tree Survey Area, of which 46 trees are vetting by LCSD and 25 trees are vetting by AFCD, will be retained and protected.
- 5.2.2 The preservation and protection of retained trees will be carried out according to the requirements as stipulated in the General Specification for Civil Engineering Works 2006 Edition Section 26 Clause 26.08 to 26.13.
- 5.2.3 Tree Protection Zones (TPZ) will be erected to eliminate the risk of construction damage to retained trees according to Guidelines on Tree Preservation During Development published by DEVB. The extent of TPZ is indicated in the Tree Survey and Treatment Plan in Appendix B.

5.3 Trees to be Transplanted

- 5.3.1 No tree within the Tree Survey Area will be recommended for transplanting since no tree possesses acceptable tree form, tree health, amenity/ecological value, high practicability of root ball formation and/ or high survival rate after transplantation while access for transplantation machineries is available.
- **5.4** Trees to be Felled
- 5.4.1 Where it is neither possible to retain trees in-situ nor transplant them to other permanent locations within the site or off-site, felling is recommended.
- 5.4.2 **40** trees in total, of which 24 trees are vetted by LCSD and 16 trees are vetted by AFCD, are recommended for felling. The species composition of tree to be felled is summarized below (The detail can refer to Tree Assessment Schedule in Appendix C and D).

Botanical Name	Chinese Name	Quantity
Bischofia javanica	秋楓	2
Bombax ceiba	木棉	1
Casuarina equisetifolia	木麻黄	1
Celtis sinensis	朴樹	3
Ficus hispida	對葉榕	1
Ficus virens	黄葛樹	1
Leucaena leucocephala	銀合歡	4
Litsea glutinosa	潺槁樹	2
Macaranga tanarius var. tomentosa	血桐	3
Mangifera indica	芒果	1





	Total	40
Syzygium jambos	蒲桃	1
Spathodea campanulata	火焰木	11
Morus alba	桑	2
Melia azedarach	苦楝	3
Melaleuca cajuputi subsp. Cumingiana	白千層	4

- 5.4.3 For the surveyed trees, the considerations for felling and the justifications are summarized as follows (refer to Appendix A and C for details):
 - Tree is in direct conflict with the proposed works;
 - Preparation of intact and sufficient-sized root ball not practical due to the topography (e.g. on rock, shallow substratum, structures);
 - Undesirable species, weedy species without special ecological significance or species creating maintenance problem;
 - Tree with poor health, structure or form (e.g. imbalanced form, leaning, with major cavity/cracks/splits);
 - Species with low survival rate after transplanting;
 - Tree has structural problem and may create hazard to public during root ball preparation and/or after transplantation, while auxiliary support will not be sufficient / practical.
 - Irrecoverable form after transplanting (e.g. if substantial crown and root pruning are necessary to facilitate the transplanting);
 - Low amenity value and;
 - Very large size (unless the feasibility to transplant has been considered financially reasonably and technically feasible).

Moreover, none of the proposed felled trees are

- 1. Irreplaceable rare species;
- 2. The species listed in the "Champion Trees in Urban Hong Kong" published by the Urban Council." or;
- 3. Important Tree as defined in DEVB TC No. 7/2015.



5.5 Summary of Proposed Treatment

5.5.1 Proposed treatment for all trees within Tree Survey Area is summarized below:

Proposed Tree Treatment	Tree vetted by LCSD	Tree vetted by AFCD	Total
Retain	46	25	71
Transplant	0	0	0
Fell	24	16	40
Total	70	41	111

5.5.2 The locations and the proposed treatment to each individual tree are indicated in the Tree Survey and Treatment Plan superimposed with the proposed development (Appendix B). Detailed justifications of tree felling shall refer to the Recommendation Methodology in Appendix A and Tree Assessment Schedule in Appendix C and D.

6 COMPENSATORY PLANTING PROPOSAL

6.1 Principle

6.1.1 Reference is made to DEVB TC No. 7/2015, Tree Preservation, Appendix A section I pt (v) and Agreement No. CE35/2006 (CE) Kai Tak Development Engineering Study – *Final Report on Planning, Landscape and Urban Design Study* in preparation of compensatory planting proposal.

6.2 Quantity of Compensatory Planting

- 6.2.1 No. of proposed fell tree (DBH≥95mm) is 40. To compensate for the loss, 13 nos. of heavy standard tree (DBH of 75mm, Overall Height of 3.5m and Crown Spread of 1.6m) and 11 nos. of standard tree (DBH of 50mm, Overall Height of 2m and Crown Spread of 1.2m) will be planted (planting density shall be at minimum 5m spacing) at the Western Ventilation Building. The planting area for compensatory tree will have a soil depth of 1200mm excluding drainage layer. Please refer to the Tree Planting Detail in Appendix I.
- 6.2.2 No compensatory tree will be proposed for LCSD's maintenance because of the following reasons:
 - the proposed drainage along Trunk Road T2 outside western ventilation building renders insufficient soil depth for planting of trees (Please refer to Appendix G EB000560/C2/CP/1002 rev. 1 for detail).
 - 38 nos. of *Elaeocarpus balansae*, which have been proposed to be planted along Road L10, are excluded from the compensatory proposal since those trees but to be integrated into General Landscape Design for PWP Item no. 7702CL (Part) Kai Tak Development Remaining Infrastructure Works




For Developments at the Former Runway and South Apron, Phase 1 (Gazette Plan no: CEDD/GZ7702/002 & 003).

- 6.2.3 The soil-mix for all planting area shall comply with the requirements as stipulated in the General Specification for Civil Engineering Works 2006 Edition Section 3.
- 6.2.4 The summary of proposed receptor for compensation planting is shown below:

		Vetting dep this T	partment of TPRP	Comp 1	ensatory tre- nanding ove	e to be r
	District [#] /			HyD /	LCSE	D LSO
	Liocation	LCSD	AFCD	MOm Agent*	Kowloon City	Kwun Tong
	Kwun Tong	24	10			
Tree proposed to be felled	Kowloon City	0	6			
	Total	24	16			
	Road L10			0	0	0
New tree to be compensated	WVB			24	0	0
rmanea	Total			24	0	0

The district is referring to the division of District Council. Please refer to Appendix B for detail.
 * The maintenance responsibility of the compensatory tree at WVB will be further discussed and agreed with TD and HyD.

6.2.5 The detailed calculation is shown below:

No. of Proposed Fell Tree	40	no.
Loss in DBH	10150	mm
Proposed DBH of Compensatory Trees (Heavy Standard)	75	mm
Proposed Number of Compensatory Trees	13	no.
Proposed DBH of Compensatory Trees (Standard)	50	mm
Proposed Number of Compensatory Trees	11	no.
Accumulated DBH of Compensatory Trees	1525	mm
Quantity Compensation Ratio (1:x)	1:0.6	
DBH Compensation Ratio (1:x)	1:0.15	

6.2.6 Since there are several constraints for compensatory planting, additional tree planting to achieve the compensatory planting ratio of 1:1 in terms of aggregated DBH cannot be provided. The difficulties to achieve additional planting are detailed below:

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- 1. due to very limited space allowed within the site areas including those at the Former South Apron in Kai Tak, Cha Kwo Ling and Lam Tin Interchange, mass planting of trees is not feasible;
- 2. roadside planting along the Trunk Road T2 may induce sight line issues to drivers;
- 3. there is insufficient soil depth along the sides of Trunk Road T2 at Kai Tak side that limits the quantity of new trees (please refer to drawing no.: EB000560-C2-CP-1002 rev.2 in Appendix G), and the rest of the planting area within Trunk Road T2 has been already reserved for other projects and new planting of tree under PWP Item no. 7702CL (Part) Kai Tak Development Stage 5 Infrastructure at the Former Runway and South Apron (Gazette Plan no: CEDD/GZ7702/001); and
- 4. roadside planting area along Road L10 has been already reserved for the 38 nos. new planting of tree under PWP Item no. 7702CL (Part) Kai Tak Development – Remaining Infrastructure Works For Developments at the Former Runway and South Apron, Phase 1 (Gazette Plan no: CEDD/GZ7702/002 & 003) as mentioned in Para. 6.2.2.

6.3 Species of Compensatory Planting

- 6.3.1 Felling of trees will be compensated by planting of new trees. The species used for compensatory planting should be:
 - High in amenity / ecological value;
 - Functional to the public / users (e.g. provide shading and screening);
 - Diverse;
 - Blend in with the site environment and fit the site; and
 - Available in the market place.

6.3.2	The propose	l species for cor	npensation planting	g are as follows:
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Botanical Name	Chinese Name	Native / Exotic	Spacing (m)	Size	Quantity to LCSD	Quantity to HyD	Total
Bauhinia variegata var. candida	白花洋紫荊	Native	6	Standard (50mm DBH) (2m Height x 1.2m Spread)	N.A.	6	6
Pyrus calleryana	豆梨	Native	6	Standard (50mm DBH) (2m Height x 1.2m Spread)	N.A.	5	5
Cinnamomum burmannii	陰香	Native	6	Heavy Standard (75mm DBH) (3.5m Height x 1.6m Spread)	N.A.	3	3

CEDD Civil Enginee Development	岳展署 ering and t Department	A K IN IN	GREEMENT I AI TAK DEVE FRASTRUCI VESTIGATIO	NO: CE 38/2008 (HY) LOPMENT - TRUNK ROAD T2 AND TURE AT SOUTH APRON N, DESIGN AND CONSTRUCTION	Hyder	Ier-Meinhardt JV	1/ARDT
Lagerstroemia speciosa	大花紫薇	Exotic	6	Heavy Standard (75mm DBH) (3.5m Height x 1.6m Spread)	N.A.	5	5
Reevesia thyrsoidea	梭羅樹	Native	6	Heavy Standard (75mm DBH) (3.5m Height x 1.6m Spread)	N.A.	5	5
Elaeocarpus balansae	大葉杜英	Exotic	5	Heavy Standard (75mm DBH) (3.5m Height x 1.6m Spread)	N.A.	N.A.	N.A.
					N.A.	24	24

- 6.3.3 The compensatory trees locations are indicated in the Compensatory Planting Plans in Appendix G.
- 6.3.4 The planting works shall comply with the requirements as stipulated in the General Specification for Civil Engineering Works 2006 Edition Section 3.
- 6.3.5 12-month establishment works for the compensatory trees at WVB will be provided before handing over back to HyD or TD's MOm Agent. The maintenance responsibility of the compensatory tree at WVB will be further discussed and agreed with TD and HyD.
- 6.3.6 Proper Planting Practices promulgated by DEVB will be followed.

7 SUMMARY

- 7.1.1 This survey recorded **111** trees within the Tree Survey Area. No registered Old and Valuable Tree, No protected species and No rare species were recorded.
- 7.1.2 71 trees will be protected from the impact of the proposed development.
- 7.1.3 No tree is recommended for transplantation.
- 7.1.4 40 trees are recommended for felling as they are not suitable for transplantation.
- 7.1.5 The loss of existing trees is proposed to be compensated by 24 new trees of which 13 nos. are heavy standard and 11 nos. are standard size. Quantity compensation ratio of 1:0.6 and quality compensation ratio of 1:0.15 are achieved.



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APPENDIX A TREE SURVEY AND RECOMMENDATION METHODOLOGY

Tree Preservation and Removal Proposal Rev.4 for Contract 2 (ED/2018/04) October 2019



TREE SURVEY AND RECOMMENDATION METHODOLOGY

1 **DEFINITIONS**

- 1.1.1 Scope of Survey: To survey all 'trees' within the Survey Area in accordance to government requirement.
- 1.1.2 Tree: A woody plant with a stem diameter over 95mm measured at a point 1.3m above the root collar (DBH).
- 1.1.3 DBH: Diameter at Breast Height as defined in the Practice Note Issue No. 2/2006 issued by AFCD.

2 TOPOGRAPHIC SURVEY AND BASIC TREE DATA

- 2.1.1 An accurate Topographic Survey will be carried out by a qualified Surveyor appointed by the HMJV. Measurements of three dimension and location are recorded by topographic surveyor. The tree survey area should cover the Works Area within site boundary.
- 2.1.2 Within the designated works areas, all living trees with a stem diameter over 95mm measured at a point 1.3m above the root collar (hereafter referred to as the DBH) are included in the Tree Survey. Each tree will be allocated a tree number and clearly marked on site with an identity label showing the tree number and its position plotted on topographic plans. All trees shall be identified by species or in some cases by genus if full identification is not possible. Measurements will record the DBH, overall height and overall spread of each tree and a photograph taken of each tree. A tree The Tree Assessment Schedule includes the following information for each tree surveyed:
 - Allocated Tree Number;
 - Species Name (Scientific name and Chinese common name);
 - DBH (in millimetres)
 - Overall Height (in metres)
 - Overall Crown Spread (in metres)
 - Amenity Value (Good/ Fair/ Poor);
 - Form (Good/ Fair/ Poor);
 - Health Condition (Good/ Fair/ Poor/ Dead);
 - Structural Condition (Good/ Fair/ Poor);
 - Suitability for Transplanting (High/ Med/ Low);
 - Conservation Status (indicates rarity and protection status under relevant ordinances of a species in Hong Kong);
 - Proposed Treatment (Retain/ Transplant/ Fell);
 - Justification for Felling; and



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- Other Remarks.
- 2.1.3 The tree survey plan will include the following details:
 - The location of trees together with their crown spread within the Works Area showing the existing levels and above ground features, together with an identification number provided adjacent to each tree;
 - The trees to be retained, transplanted or felled; and
 - An overlay of site formation plan showing the proposed layout of the Trunk Road T2 and Infrastructure at South Apron, the formation or finished levels as well as the extent of temporary works.
- 2.1.4 The proposed permanent and temporary works will be superimposed on the existing topographic survey and all affected trees will be assessed and recommended treatments proposed. Trees not affected by the temporary or permanent construction works will be retained and protected throughout the construction period. Trees conflicting with the works will be assessed on their suitability for successful transplantation. Trees not suitable transplant shall be proposed to be felled (with adequate justification). The following information will also added to the tree schedule:
 - Suitability for Transplantation;
 - Recommended Treatment (Retain/Transplant/Fell);
 - Justification in the case of felling and transplanting.

3 ASSESSMENT ON SUITABILITY FOR TRANSPLANTING

- 3.1.1 No trees within the designated works areas shall be unnecessarily felled or pruned. For trees are unavoidably required removal, the order of priority for tree removal consideration should be given from transplanting the affected trees to other permanent locations within the site, transplanting the affected trees to other permanent locations off site and finally felling of the affected trees. The hierarchy for tree removal consideration is referred to the **DEVB TC 7/2015**. Only "transplantable" trees will be considered for transplanting and their assessments are described below.
- 3.1.2 In order to be considered successfully transplanted, a tree must maintain good health throughout and after the transplantation process AND must at no time be structurally unstable or present any threat to public safety. The assessment of the feasibility of the successful transplantation of a tree is based on the following factors:
 - The size of the tree: Generally the larger and older a tree is, the more difficult it is to transplant successfully. Since the large and older tree is over mature that has less chance to recover from root and crown pruning during transplanting.
 - The health of the tree: If the tree is already in poor health it is highly unlikely to withstand the stress of transplantation. By the same token, a tree that has a balanced form and is in good health has a higher feasibility of successful transplantation.



- The survival rate of that particular species: Some species are much more tolerant of the stress of transplantation than others. The assessment of the survival rate of a species after transplantation is based on the observed performance of that species in previous transplantation programmes. Species with insufficient transplantation data will be assessed together with other factors such as health, size and location of the tree.
- **Feasibility of root-ball preparation**: site topography, the proximity of above and below ground utilities and whether the tree is crowded by other trees are all major factors determining the feasibility of preparing a sufficiently large root-ball for successful transplantation;
- **Root Extent:** A tree growing in rocky ground, surrounded by hard paving or which is crowded by other trees is likely to have a distorted root system seriously reducing the feasibility of preparing a sufficiently large root-ball for successful transplantation;
- Accessibility: large machinery is required to lift trees so steep slopes and rocky terrain drastically reduce the feasibility of successful transplantation. As the existing trees are beside or within the Kai Fuk Road, Hoi Bun Road, Cha Kwo Ling Road and Kwun Tong By-pass, large machinery (crane lorry, carrying trunks) must be reviewed for practicability and feasibility for manoeuvring close to the tree then lifting the tree within the traffic lanes and non-building areas.
- Maximum width and height of transplantable trees: Due to the limitation of the existing roads and by-pass and physical limitation of the transporting lorries, the maximum final width and length of trees that to be transplanted off site must not exceed 3m and 7m respectively. Based on the current practice to allow canopy pruning to only 1/3 of the existing tree crown, this means any tree with an existing canopy of over 4.5m cannot be proposed for transplanting off site. Such trees will be considered to be transplanted to other permanent locations within current site boundary.

4 CRITERIA FOR RECOMMENDED TREATMENT OF EXISTING TREES

- 4.1.1 The preferred option for all trees is to be retained in-situ unless they pose a threat to the public or they are undesirable species (e.g. *Leucaena leucocephala*), or they genuinely conflict with the Project.
- 4.1.2 A recommendation to transplant a tree will be made under conditions such as the following:
 - It is impossible to retain the tree in-situ due to the unavoidable proximity of proposed retaining walls, viaducts, roads or other structures, including their foundations, which pose major conflicts with its branches, root system or the tree in its entirety.
 - It is impossible to retain the tree in-situ due to changes to surrounding ground levels on a macro scale which affect the ground water table thereby severely



stressing the tree or where large areas of proposed cut and fill unavoidably affect the tree.

- Transplantation of the tree is feasible.
- The Overall Amenity Value of the tree justifies transplanting.
- Replacement with a new nursery grown specimen of the same species and comparable size is deemed less cost effective than transplanting, particularly in the case of common pioneer or cultivated species.
- 4.1.3 The felling of a tree will be justified by criteria such as the following:
 - No irreplaceable, rare or protected species (under Forestry Regulation Cap.96) is felled.
 - The felling would not cause a serious loss of species diversity in the subject area.
 - A genuine development or traffic need exists, which cannot be reasonably overcome.
 - Adequate compensatory tree planting is to be implemented.
 - The tree is not an unusually large or fine example of its species.
 - The tree is in poor condition or is unsuitable for transplanting due to its low survival potential.
 - The tree is not in the list of Champion Trees (Ref: Jim, C.Y. 1994. Champion Trees in Urban Hong Kong. Urban Council, Hong Kong) nor Unusual Trees (Ref: AFCD's Register of Unusual Trees in Rural Areas).
 - The tree is neither a significant landmark tree and does not have special fung shui or cultural significance.
 - Existing site conditions are such that transplantation would be hazardous to the public.
 - The tree is dead, hazardous or diseased.
 - A tree that has been rendered unstable because of the removal of neighbouring trees may be considered for felling.
 - The tree possesses invasive habits.

5 TREE PHOTOGRAPHY

- 5.1.1 With respect to the objectives of photo recording and the possible function of the photos, shot of each tree follows the below standards:
 - Where practical (within reasonable distance and within safety location), the whole form of an individual tree will be shown;
 - Where obstacle(s) present (e.g. structures, other trees / vegetation nearby, dense climber covering, etc.), the main tree trunk(s) from the base level to at least 3m in height will be shown;





• Where special feature(s) at the trunk base present (e.g. exposed roots, special rooting medium, etc.), the photo shot of a tree is taken from the location where such feature as well as the largest possible part of the tree can be displayed.

6 **REFERENCE**

- 6.1.1 Ordinances, Circulars and Practice Notes:
 - The Law of Hong Kong Chapter 96 Forest and Countryside Ordinance
 - The Law of Hong Kong Chapter 586 Animals and Plants (Protection of Endangered Species) Ordinance
 - ETWB TCW No. 29/2004 Registration of Old and Valuable Trees, and Guidelines for their Preservation
 - DEVB TCW No. 7/2015 Tree Preservation
 - AFCD Conservation Practice Note No. 2 *Measurement of Diameter at Breast Height (DBH)*
 - AFCD Conservation Practice Note No. 3 The Use of Plant Names
 - HyD TC No. 3/2008 Independent Vetting of Tree Works under the Maintenance of Highways Department
 - Landscape Unit, HyD Requirements for Handover of Vegetation to Highways Department 2013 - https://www.hyd.gov.hk/en/publications_and_publicity/publication/technical_document/handover_of_vegetation/doc/Requirement.pdf
 - LCSD General Standard and Maintenance Requirements for Roadside Landscape Works to be Handed Over to LCSD for Maintenance (May 2018)

6.1.2 Publications:

- HU, Q. et al (2003). *Rare and Precious Plants of Hong Kong. AFCD, Hong Kong.*
- Jim, C.Y. (1994). Champion Trees in Urban Hong Kong. Urban Council, Hong Kong.
- Leisure and Culture Services Department. Register of Old and Valuable Trees. Website: http://ovt.lcsd.gov.hk/ovt/
- Webb, R. (1991). *Tree Planting and Maintenance in Hong Kong*. Standing Interdepartmental Landscape Technical Group, Hong Kong Government, Hong Kong.
- GEO Publication No. 1/2011 Technical Guidelines on Landscape Treatment for Slopes, GEO, CEDD, HKSAR



AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION



APPENDIX B TREE SURVEY AND TREATMENT PLAN (TRUNK ROAD T2 – CONTRACT 2 – ED/2018/04)

EB000560-C2-LP-1001 rev.1 - Contract 2 Tree Treatment and Compensatory Location Plan

EB000560-C2-TS-1001 rev.1 – Contract 2 Tree Survey and Treatment Plan (Sheet 1 of 5)

EB000560-C2-TS-1001 rev.1 – Contract 2 Tree Survey and Treatment Plan (Sheet 2 of 5)

EB000560-C2-TS-1001 rev.2 – Contract 2 Tree Survey and Treatment Plan (Sheet 3 of 5)

EB000560-C2-TS-1001 rev.1 – Contract 2 Tree Survey and Treatment Plan (Sheet 4 of 5)

EB000560-C2-TS-1001 rev.1 – Contract 2 Tree Survey and Treatment Plan (Sheet 5 of 5)



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AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION

APPENDIX C TREE ASSESSMENT SCHEDULE FOR LCSD REV.3 (TRUNK ROAD T2 – CONTRACT 2 – ED/2018/04)

<u>ee As</u>	sessment Schedule																										A
	Tree Species			м	Tree Siz easurem	ze ients	Amenity Value	Form	Health Condition	Structural Condition		Su Tr	uitability f ansplant	for ing		Conser-		Proposed Treatment		Au	Ithority	Department	t to		 Remarks		
e No.	Scientific Name	Chinese Name	Drawing No	Overall Height (m)	DBH (mm)	Average Crown Spread (m)	Good /Fair /Poor	Good /Fair /Poor	Good /Fair /Poor /Dead	Good /Fair /Poor	High /Med /Low	Rer Fa Site Condition	narks (Ma actors for Tree Conditio	ajor Detern the low rat Tree Size	nining ting) Tree Specie	Status (Protected by C 96, Cap586 et	Cap Re tc) F	in this revision etain/Transplant/ Fell/Retain with pruning	Justification for Tree Felling**	depa p ap	rtment to rovide pproval	provide exp advice	pert	General^		Others^^	
	Abbreviations in the tree so	<u>chedule</u>																									
	** Justification for Tree Felling: 1. Tree is in direct conflict with the p	proposed works.																									
	2. Preparation of intact and sufficier	nt-sized root ball no	t practical du	e to the to	pograph	ny (e.g. on r	ock, steep s	lope, shallo	ow substratu	m, structures).																	
	 Undesirable species, weedy spec Tree with poor health structure of 	cies without special r form (e.g. imbala	ecological signced form le	gnificance aning witl	e or spec h maior d	cavity/cracl	g maintenan ks/splits)	ce problem																			
	5. Lack of access for transplantation	n machinery or vehi	icle.	annig, with	in major (ouvity/oraci	(0,00100).																				
	 Species with low survival rate after Tree has structural problem and problem and problem. 	er transplanting. may create hazard	to public duri	ng root ba	all prepar	ration and/o	or after trans	plantation,	while auxilia	y support will	not be suff	ficient / pra	ctical.														
	8. Irrecoverable form after transplar	nting (e.g. if substar	ntial crown ar	nd root pru	uning are	e necessary	to facilitate	the transpl	anting).																		
	10. Tree with evidence of over-matu	urity and onset of se	enescence.																								
	11. Very large size (unless the feasi	ibility to transplant h	has been con	sidered fir	nancially	reasonably	/ and technic	ally feasibl	e).																		
	A General Remarks:																										
	GENERAL CONDITION				BRANC	CH/CRON	/N CONDIT	ON			TRUNK C	CONDITIO	V														
	le	leaning seriously leanir	na (> 45°)		br ch		broken bran	iches hes			dec		decay cavity														
	fe	fallen down	ig (> io)		db		dead branc	nes			tw		twisting	trunk													
	be	crook / abrupt l	bends		dtw		dieback twi	js			cod		codomir	nant stem	S												
	un	unbalanced cro	own		han		hangers				mul		multiple	attachme	ent												
	mu	multi-trunk			hlb		heavy latera	al limb			inc		included	d bark													
	18	Torked			to		topped				cr		v-snape	e crotch / splits													
	LOCATION				CO		attached by	climber / p	arasitic plan	t	wou		wound	opino													
	con	on concrete			ері		epicormics	water spr	out		bul		bulge														
	roc	on rock																									
	sho	on shotcrete			DISEAS	SE / PEST		6 J . C			ROOT CO	ONDITION															
	sio	on slope	slopo		ab		abnormal d	efolation			rot		root rot	urface root	+												
	top	on top of wall /	slope		ter		termites / b	orers iniurv	,		art		airdlina	root	L												
	wal	on wall	0.000								exp		exposed	d root													
	rin	in tree ring			SIZE						spr		root spr	reading on	n wall												
	pit	in tree pit			ma		mature																				
	pla	in planter			ve		very mature	•																			
	^^ Other remarks																										
		Agreement No.	. CE 38/2008	(HY)																							
		Kai Tak Develo	opment - Trur	nk Road T	2 and Int		e at South A	pron - Inves	stigation, Des	sign and																	
	ree surveyor(s): Field Survey was conducted in:	Chinam Lam, C May and June	Certified Arbo	orist (ISA H	<u>нк-1471</u>	A); Alex No	a, Certified A	rborist (ISA	<u>а нк-1032А)</u>																		
	To be read in conjunction with draw	ings <u>EB000560-C2-</u>	<u>-LP-1001 rev.</u>	<u>1 & EB0</u> 0	0560-C2	<u>2-TS-1001</u>	to EB00056) <u>-C2-TS-10</u>	0 <u>05 rev.1</u>																		
	Notes: Amenity Value, Form, Hea	Ith Condition and	Structural C	Condition	of trees	s were obt	ained by Vi	sual Asses	ssment Only	.																	

Tree As	sessment Schedule																			ACLA
	Tree Species			Me	Tree Size easureme	e ents	Amenity Value	Form Health Conditior	Structural Condition		Suitability fo Transplantii	or ng		Conser-	Proposed Treatment		Authority			Remarks
Tree No.			Drawing No.	Overall	ррц	Average	Good	Good Good	Good	High	Remarks (Ma Factors for t	jor Determ	ining na)	vation Status	in this revision	Justification for Tree Felling**	department to provide	Department to provide expert advice		
	Scientific Name	Chinese Name		Height (m)	(mm)	Spread (m)	/Fair /Poor	/Fair /Poor /Poor /Dead	/Fair /Poor	/Med /Low	Site Tree Condition Condition	Tree Size	Tree Species	96, Cap586 etc)	Fell/Retain with pruning		approval		General^	Others^^
T007	Mangifera indica	芒果	Sheet 3	6.5	600	7.0	Good	Fair Fair	Poor	Low	х			-	Fell	12478	DLO	LCSD	pla, inc, wou, grt, cod, db	restricted root, conflict with wall, drooping
T010	Melia azedarach	苦楝	Sheet 3	10.0	650	10.5	Poor	Poor Fair	Poor	Low	Х			-	Fell	124789	DLO	LCSD	db, dtw, cod, le, grt	restricted root
T011	Melia azedarach	苦楝	Sheet 3	10.0	520	5.5	Poor	Poor Poor	Poor	Low	x			-	Fell	12 4 67 9	DLO	LCSD	epi, dtw, un, wou, db	restricted root, multiple trunks, broken trunks,
T012	Melia azedarach	苦楝	Sheet 3	10.5	550	6.5	Poor	Poor Poor	Poor	Low	Х			-	Fell	124679	DLO	LCSD	le, cod, epi, db, dtw, un wou	restricted root, sparse foliage
T018	Spathodea campanulata	火焰木	Sheet 2	5.0	200	3.9	Fair	Fair Poor	Fair	Low	X		X	-	Fell	126	DLO	LCSD	han, cod	sparse foliage
T020	Spatnodea campanulata	火焰不 	Sheet 2	4.5	200	0.3 10.0	Fair	Poor Poor	Fair	Low	X	x		-	Fell	12 0 8			epi blb, ch	restricted root, drooping branches, canopy
T021	Pischofia iovanica	—————————————————————————————————————	Cheet 2	10.0	260	F 0	- Tair		Fair	Low			+							conflict with T20 restricted root, drooping branches, canopy
T022	Spothodoo componulato		Sheet 2	5.0	200	5.0	Fair	Foir Poor	Fair	LOW				-	Fell					conflict with T21
T023	Melaleuca cajuputi subsp. cumingiana	<u>火焰不</u> 白千層	Sheet 2	5.0 6.0	200	2.0	Fair	Poor Fair	Fair	Low				-	Fell	1 2 4 7 8	DLO	LCSD	cod, be	restricted root
T025	Spathodea campanulata	火焰木	Sheet 2	8.0	207	3.0	Fair	Fair Poor	Fair	Low	Х		Х	-	Fell	12 6	DLO	LCSD	cod, wou	sparse foliage
T026	Melaleuca cajuputi subsp. cumingiana	白千層	Sheet 2	8.0	340	2.0	Fair	Fair Fair	Fair	Low				-	Fell	12 7 <mark>8</mark>	DLO	LCSD	be, mul	restricted root
T027	Spathodea campanulata Melaleuca caiunuti subsp. cumingiana	火焰木 白毛属	Sheet 2	8.0	130 400	2.0	Fair	Poor Poor Fair Fair	Fair	Low	X		X	-	Fell	1246 1278	DLO		le, db	sparse foliage
T028	Spathodea campanulata	 火焰木	Sheet 2	9.0	110	3.9	Fair	Fair Poor	Fair	Low	X		x	-	Fell	12 67	DLO	LCSD		sparse foliage
T031	Melaleuca cajuputi subsp. cumingiana	白千層	Sheet 2	8.0	350	4.1	Fair	Fair Fair	Fair	Low				-	Fell	12 78	DLO	LCSD	cod, cav, inc	restricted root
T032	Spathodea campanulata	火焰木	Sheet 2	7.0	220	3.5	Fair	Poor Poor	Fair	Low	Х		Х	-	Fell	12 4 6	DLO	LCSD	db, le, wou	sparse foliage
T033	Bombax ceiba	木棉	Sheet 2	15.0	460	6.7	Fair	Fair Fair	Fair	Low				-	Fell	1 2 7 <mark>8 11</mark>	DLO	LCSD	he eed	invisible root flare
T034	Spathodea campanulata	火焰不 火焰木	Sheet 2	7.0	240	5.5 3.7	Fair	Fair Poor	Fair	Low			X	-	Fell	12 67	DLO	LCSD	be, cod be, un	sparse foliage
T037	Bischofia javanica	秋楓	Sheet 2	10.0	240	5.0	Fair	Poor Fair	Fair	Low	X			-	Fell	1 2 <mark>4</mark> 7 <mark>8</mark>	DLO	LCSD		low live crown ratio, drooping branches
T039	Spathodea campanulata	火焰木	Sheet 2	8.0	130	3.2	Fair	Fair Poor	Fair	Low	Х		Х	-	Fell	12 6	DLO	LCSD	bul	sparse foliage
T040	Syzygium jambos	蒲桃	Sheet 2	11.0	300	10.5	Fair	Poor Fair	Fair	Low	X			-	Fell	12 78	DLO	LCSD	cod, wou, be, le	
T041	Spathodea campanulata	火焰木	Sheet 2	11.5	280	5.0	Fair	Fair Poor	Fair	Low	X		X	-	Fell	1246	DLO		epi, db	sparse foliage
T054A	Celtis sinensis		Sheet 4	5.5	120	4.0	Poor	Poor Fair	Poor	Low				-	Retain		DLO	LCSD	be, epi	restricted root
T057	Leucaena leucocephala	銀合歡	Sheet 4	4.0	120	7.0	Poor	Poor Fair	Poor	Med	X			-	Retain		DLO	LCSD	le, cod, wou	cross trunks
T060	Leucaena leucocephala	銀合歡	Sheet 4	5.5	220	8.0	Poor	Poor Poor	Poor	Low	Х			-	Retain		DLO	LCSD		collapsed
T061	Leucaena leucocephala	銀合歡	Sheet 4	5.0	190	4.5	Poor	Poor Poor	Poor	Low	X			-	Retain		DLO	LCSD		collapsed exposed dead wood, cross trunks, sparse
T062	Leucaena leucocephala	銀合紙	Sheet 4	4.5 4.5	180	5.0	Poor	Poor Poor	Poor	Low				-	Retain		DLO	LCSD	le, db, exp. cr. wou	foliage sparse foliage, restricted root, uproot
T064	Macaranga tanarius var. tomentosa	血桐	Sheet 4	4.0	110	6.0	Poor	Poor Poor	Poor	Low	Х		Х	-	Retain		DLO	LCSD	mu	restricted root, abnormal leaf size
T065	Leucaena leucocephala	銀合歡	Sheet 4	7.0	210	4.0	Poor	Poor Fair	Poor	Med	X			-	Retain		DLO	LCSD	cod, le	restricted root
T066	Macaranga tanarius var. tomentosa	血桐	Sheet 4	4.5	250	5.0	Fair	Poor Fair	Fair	Low	X		X	-	Retain		DLO		cb	restricted root
T069	Ecucaena leucocephala Ficus hispida		Sheet 4	2.5	90 90	3.5	Poor	Poor Poor	Poor	Low				-	Retain		DLO	LCSD	cod, wou	restricted root
T071	Leucaena leucocephala	銀合歡	Sheet 4	4.0	110	3.0	Poor	Poor Poor	Fair	Low	X X			-	Retain		DLO	LCSD	co, be	restricted root, sparse foliage
T074	Leucaena leucocephala	銀合歡	Sheet 4	4.5	110	3.0	Poor	Poor Fair	Fair	Low	X X			-	Retain		DLO	LCSD	со	restricted root
T076	Leucaena leucocephala	銀合歡	Sheet 4	3.0	230	4.5	Poor	Poor Fair	Poor	Low	X X			-	Retain		DLO	LCSD	se, db	uproot, restricted root, conflict with fencing
T120	Iviacarariga tanarius var. tomentosa	Ш.啊 銀 <i>会</i> 藪	Sheet 5	3.U	300 284	5.0 6.0	Poor	Poor Fair	Poor					-	Retain			LCSD	slo, cod, br, db	restricted root conflict with fencing
T121	Leucaena leucocephala	銀合歡	Sheet 5	5.0	156	5.0	Poor	Poor Fair	Fair	Low	x x			-	Retain		DLO	LCSD	slo,mu, wou, br	restricted root
T122	Leucaena leucocephala	銀合歡	Sheet 5	6.0	263	7.0	Poor	Poor Fair	Poor	Low	X X			-	Retain		DLO	LCSD	le, inc, epi, db, slo	conflict with concrete wall
T123	Leucaena leucocephala	銀合歡	Sheet 5	6.0	220	6.0	Poor	Poor Poor	Poor	Low				-	Retain		DLO	LCSD	slo	collapsed
T123A	Leucaena leucocephala		Sheet 5	4.0 5.0	127	4.0	Poor	Poor Poor	Poor				+	-	Retain			LCSD	slo, eni dh cod	conflict with concrete wall
T124A	Leucaena leucocephala	銀合歡	Sheet 5	3.0	100	2.0	Poor	Poor Poor	Poor	Low	X X			-	Retain		DLO	LCSD	db, epi, slo, tp	
T125	Leucaena leucocephala	銀合歡	Sheet 5	7.0	381	8.0	Poor	Poor Poor	Poor	Low	X X			-	Retain		DLO	LCSD	slo, mu, le, un, inc, epi, co	
T126	Leucaena leucocephala	銀合歡	Sheet 5	5.0	120	3.5	Poor	Poor Fair	Poor	Low	X X			-	Retain		DLO	LCSD	co, le, db, dtw, epi, slo	
1126A T127	Leucaena leucocephala	銀合歡 组合動	Sheet 5	5.0	120 170	3.5	Poor	Poor Fair	Poor	Low				-	Retain				co, le, db, epi, slo	
T128	Leucaena leucocephala	銀合歡	Sheet 5	7.0	180	6.0	Poor	Poor Fair	Poor	Low	X X		1	-	Retain		DLO	LCSD	mul, db, slo	restricted root
T129	Leucaena leucocephala	銀合歡	Sheet 5	6.0	150	4.5	Poor	Poor Fair	Poor	Low	X X			-	Retain		DLO	LCSD	han, cod, wou, db, slo	restricted root
T129A	Leucaena leucocephala	銀合歡	Sheet 5	4.0	110	2.0	Poor	Poor Fair	Poor	Low	X X			-	Retain		DLO	LCSD	epi, wou, br	restricted root, sparse foliage
T130	Leucaena leucocephala	銀合歡	Sheet 5	6.0	140	4.0	Poor	Poor Fair	Poor	Low				-	Retain Retain		DLO	LCSD	slo, le	restricted root
T132	Macaranga tanarius var. tomentosa	<u></u>	Sheet 5	6.5	180	4.0	Poor	Poor Poor	Poor	Low	x x		x x	-	Retain		DLO	LCSD	be, le, slo, epi, ci	sparse foliage
T133	Macaranga tanarius var. tomentosa	血桐	Sheet 5	4.0	150	3.5	Poor	Poor Poor	Poor	Low	X		Х	-	Retain		DLO	LCSD	co, be, dtw, slo	sparse foliage
T134	Macaranga tanarius var. tomentosa	血桐	Sheet 5	6.5	170	5.5	Poor	Poor Poor	Poor	Low	X		X	-	Retain		DLO	LCSD	cod, dtw, be, slo	sparse foliage
T135	Acacia confusa	台灣相思 ム 濰 坦 思	Sheet 5	8.0	380	7.0	Fair	Poor Fair	Poor	Low				-	Retain Rotain		DLO	LCSD	cod, han	Invisible root flare, conflict with concrete wall
T139	Acacia confusa	 台灣相思	Sheet 5	5.0	320	5.5	Poor	Poor Poor	Poor	Low			x	-	Retain		DLO	LCSD	hlb, db. cod. inc. epi. slo	sparse rollage, restlicted root
T143	Macaranga tanarius var. tomentosa	血桐	Sheet 5	5.0	200	5.0	Poor	Poor Poor	Poor	Low	X	1	X	-	Retain		DLO	LCSD	epi, le, be, wou	sparse foliage, restricted root

	Tree Species			М	Tree Size easureme	e ents	Amenity Value	Form	Health Condition	Structural Condition		Su Tra	uitability fo ansplantir	or Ig		Conser-	Proposed Treatment		Authority	Department to		Remarks
Tree No.	Scientific Name	Chinese Name	Drawing No.	Overall Height (m)	DBH (mm)	Average Crown Spread (m)	Good /Fair /Poor	Good /Fair /Poor	Good /Fair /Poor /Dead	Good /Fair /Poor	High /Med /Low	Rer Fa Site Condition	narks (Maj actors for tl Tree Condition	or Determine low ratin Tree Size	ning ig) Tree Species	Status (Protected by Cap 96, Cap586 etc)	in this revision Retain/Transplant/ Fell/Retain with pruning	Justification for Tree Felling**	department to provide approval	provide expert advice	General^	Others^^
T144	Acacia confusa	台灣相思	Sheet 5	7.5	220	6.0	Poor	Poor	Fair	Poor	Low		Х		Х	-	Retain		DLO	LCSD	bul, le, cod, db, un, slo	
T149	Celtis sinensis	朴樹	Sheet 5	3.5	220	4.5	Fair	Poor	Fair	Fair	Med		Х			-	Retain		DLO	LCSD	cav, un, db	
T164	Macaranga tanarius var. tomentosa	血桐	Sheet 5	4.0	270	5.0	Poor	Poor	Poor	Poor	Low		Х		х	-	Retain		DLO	LCSD	pla, un, wou, cod, le	sparse foliage, abnormal leaf size, restricted root, conflict with railing
T165	Macaranga tanarius var. tomentosa	血桐	Sheet 5	5.5	350	5.5	Poor	Poor	Poor	Poor	Low		Х		Х	-	Retain		DLO	LCSD	epi, cr, slo, br, cod, wou, un	abnormal leaf size, restricted root
T166	Macaranga tanarius var. tomentosa	血桐	Sheet 5	7.0	300	6.5	Fair	Poor	Fair	Fair	Low		Х		Х	-	Retain		DLO	LCSD	le, cod, epi	
T167	Macaranga tanarius var. tomentosa	血桐	Sheet 5	6.0	200	4.5	Poor	Poor	Poor	Poor	Low		Х		Х	-	Retain		DLO	LCSD	wou, cod, epi, le	abnormal leaf size
T168	Macaranga tanarius var. tomentosa	血桐	Sheet 5	6.0	150	5.0	Fair	Fair	Poor	Fair	Low		Х		Х	-	Retain		DLO	LCSD	slo, cod, epi	sparse foliage

AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION

APPENDIX D TREE ASSESSMENT SCHEDULE FOR AFCD REV.1 (TRUNK ROAD T2 – CONTRACT 2 – ED/2018/04)

T004 Macaranga tanarius var. tomentosa

Celtis sinensis

Morus alba

T005

T006

血桐

朴樹

桑

Sheet 3 6.0 200 5.0 Poor

140

Sheet 3 6.0 150 5.0 Poor

4.2

Fair

4.5

Sheet 3

Poor

Fair

Poor

Fair

Fair

Poor

<u>Tree As</u>	sessment Schedule																					ACLA
	Tree Species		N	Tree Siz Measureme	:e ents	Amenity Value	Form	Health Condition	Structural Condition		Suit Trai	tability for nsplanting	ır Ig		Conser-	Proposed Treatment			Authority	Demostment to		Remarks
Tree No.	Scientific Name	Drawing I Chinese Name	No. Overall Height (m)	ll DBH t (mm)	Average Crown Spread (m)	Good /Fair /Poor	Good /Fair /Poor	Good /Fair /Poor /Dead	Good /Fair /Poor	High /Med /Low	Rema Fac Site Condition C	arks (Majo ctors for th Tree Condition	or Determining te low rating Tree Size	ing J) Tree Species	vation Status (Protected by Cap 96, Cap586 etc)	in this revisior Retain/Transpla Fell/Retain wit pruning	n Justification n Felli ant/ th	on for Tree ing**	department to provide approval	provide expert advice	General^	Others^^
	Abbreviations in the tree so ** Justification for Tree Felling: 1. Tree is in direct conflict with the p 2. Preparation of intact and sufficien 3. Undesirable species, weedy spec 4. Tree with poor health, structure of 5. Lack of access for transplantation 6. Species with low survival rate after 7. Tree has structural problem and r 8. Irrecoverable form after transplan 9. Low amenity value. 10. Tree with evidence of over-matu 11. Very large size (unless the feasi	hedule roposed works. t-sized root ball not practical of ies without special ecological form (e.g. imbalanced form, machinery or vehicle. er transplanting. may create hazard to public d ting (e.g. if substantial crown rity and onset of senescence bility to transplant has been c	due to the t significanc leaning, wi uring root b and root pr onsidered f	topography ce or speci vith major o ball prepara runing are financially	y (e.g. on ro ies creating cavity/crack ration and/o e necessary reasonably	ock, steep e 3 maintenan (s/splits). or after trans 7 to facilitate 7 and techni	slope, shallond ace problem splantation, the transpl cally feasibl	ow substratu while auxilia anting). e).	ım, structures) ıry support will	not be suffic	cient / pract	tical.										
	^ General Remarks:																					
	GENERAL CONDITION le se fe be un mu fo <i>LOCATION</i> con roc sho slo toe top wal rin pit pla ^^ Other remarks	leaning seriously leaning (> 45°) fallen down crook / abrupt bends unbalanced crown multi-trunk forked on concrete on rock on shotcrete on slope on toe of wall / slope on top of wall / slope on wall in tree ring in tree pit in planter		BRANC br cb db dtw han hlb lio tp co epi DISEAS ab fug ter SIZE ma ve	Ή / CROW	N CONDITI broken bran cross branc dead branc dieback twig hangers heavy latera lion's tailing topped attached by epicormics abnormal d fungal fruiti termites / b mature very matur	ION nches ches igs al limb y climber / p / water spre lefolation ng bodies porers injury	parasitic plan out	nt	TRUNK Co dec cav tw cod mul inc vc cr wou bul ROOT CO rot drt grt exp spr	ONDITION c t t o n i i v v t v t v t v t v v t t v v t t t t	decay cavity wisting tru codomina multiple at ncluded b /-shape c cracks / s wound bulge root rot dead surfa girdling ro exposed r root sprea	unk nt stems ttachment park potch plits ace root pot root ading on wa	all								
	Project Title: Tree surveyor(s): Field Survey was conducted in: To be read in conjunction with drawi Notes: Amenity Value, Form, Hea	pron - Inves Arborist (ISA 0-C2-TS-10 sual Asses	stigation, De A HK-1032A 005 rev.1 ssment Only	<u>sign and </u>)) y.																		
T001	Celtis sinensis	朴樹 Sheet :	3 5.5	250	5.0	Fair	Fair	Fair	Fair	Low	х				-	Fell	1 2	7	DLO	AFCD	wou	restricted root, conflict with fencing, invisble root flare
T002 T002A	Litsea glutinosa Litsea glutinosa	漏槁樹Sheet 3漏槁樹Sheet 3	3 4.0 3 4.0	130 130	5.5 5.5	Fair Fair	Poor Poor	Fair Fair	Poor Poor	Low Low	X X	X X			-	Fell Fell	1 2 4 1 2 4	7 7	DLO DLO	AFCD AFCD	cod, un cod, un, be	restricted root, conflict with fencing restricted root, conflict with fencing
T003	Leucaena leucocephala	銀合歡 Sheet 3	3 7.5	180	6.0	Poor	Poor	Poor	Poor	Low		Х			-	Fell	1234 6	9	DLO	AFCD	cod, exp, db	sparse foliage

	-	Fell	12 7		DLO	AFCD	wou	restricted root, conflict with fencing, invisble root
	-	Fell	1247		DLO	AFCD	cod, un	restricted root, conflict with fencing
	-	Fell	1247		DLO	AFCD	cod, un, be	restricted root, conflict with fencing
	-	Fell	1234 6	9	DLO	AFCD	cod, exp, db	sparse foliage
Х	-	Fell	12 4 67	9	DLO	AFCD	be, le, wou, mul, un	restricted root
	-	Fell	127		DLO	AFCD	db, ffb, co	restricted root, conflict with lamppost, invisble root flare
	-	Fell	12 4 67	9	DLO	AFCD	wou, inc, cod, db	restricted root, sparse foliage

Х

Х

Low X X

Low

Low

Poor

Fair

Poor

	Tree Species			Me	Tree Size easureme	e ents	Amenity Value	Form	Health Condition	Structural Condition		Suitability for Transplantin	or ng		Conser-	Proposed Treatment		Authority	Department to		Remarks
Tree No.	Scientific Name	Chinese Name	Drawing No.	Overall Height	DBH	Average Crown	Good /Fair	Good /Fair	Good /Fair	Good /Fair	High /Med	Remarks (Ma Factors for t	jor Determi he low ratir	ning ng)	Status (Protected by Cap	in this revision Retain/Transplant/	Justification for Tree Felling**	department to provide approval	provide expert advice	General^	Others^^
				(m)	(mm)	(m)	/Poor	/Poor	/Dead	/Poor	/Low	Site Tree Condition Condition	Tree Size	Tree Species	30, Cap300 etc)	pruning					
T017	Leucaena leucocephala	銀合歡	Sheet 2	4.0	96	3.0	Poor	Poor	Fair	Poor	Low	Х			-	Fell	1234 7 9	DLO	AFCD	со	restricted root, cross with fencing
T019	Macaranga tanarius var. tomentosa	血桐	Sheet 2	3.8	117	3.8	Poor	Poor	Poor	Poor	Low	X		Х	-	Fell	12 4 67 9	DLO	AFCD	mul, wou, cr	restricted root, cross with fencing
T030	Ficus hispida	對葉榕	Sheet 2	2.5	100	4.1	Poor	Poor	Poor	Fair	Low	х			-	Fell	124679	DLO	AFCD	cod	cross trunks, restricted root, sparse foliage, cross with fencing
T035	Celtis sinensis	朴樹	Sheet 2	3.5	120	4.2	Fair	Fair	Fair	Fair	Low				-	Fell	12 7	DLO	AFCD	un	restricted root, cross with fencing
T038	Leucaena leucocephala	銀合歡	Sheet 2	3.5	120	4.0	Poor	Poor	Poor	Poor	Low	X			-	Fell	1234 6789	DLO	AFCD	le, be, epi	restricted root, sparse foliage, cross with fencing
T042	Morus alba	桑	Sheet 2	3.0	100	2.0	Poor	Poor	Fair	Poor	Low	Х			-	Fell	12479	DLO	AFCD	cr, wou, epi, tp	restricted root
T043	Ficus microcarpa	細葉榕	Sheet 1	8.5	5500	10.5	Fair	Fair	Fair	Fair	Low		x		-	Retain		DLO	AFCD	co, epi, mu, cb	restricted root, this tree is proposed as retain tree in other Tree Preservation and Removal Propsal with report no. F0302-EB000560-HCL- HKR-00
T079	Leucaena leucocephala	銀合歡	Sheet 4	5.0	200	6.0	Poor	Fair	Poor	Fair	Low	Х			-	Retain		DLO	AFCD	cod	
T083	Ficus subpisocarpa	筆管榕	Sheet 4	4.0	190	5.0	Fair	Fair	Fair	Fair	Med				-	Retain		DLO	AFCD	cod, epi	restricted root, conflict with fencing
T084	Casuarina equisetifolia	木麻黃	Sheet 4	4.5	120	4.5	Poor	Poor	Fair	Fair	Low	Х		Х	-	Fell	12469	DLO	AFCD	mul, mu, epi	restricted root
T085	Macaranga tanarius var. tomentosa	血桐	Sheet 4	4.5	170	7.0	Poor	Poor	Fair	Poor	Low	Х		Х	-	Fell	124679	DLO	AFCD	mu, wou, epi, mul	restricted root, conflict with fencing
T086	Leucaena leucocephala	銀合歡	Sheet 4	4.0	127	4.0	Poor	Poor	Poor	Poor	Low	X			-	Fell	1234 67 9	DLO	AFCD	le, sf	restricted root
T136	Acacia confusa	台灣相思	Sheet 5	4.0	330	8.0	Poor	Poor	Poor	Poor	Low	X		Х	-	Retain		DLO	AFCD	db, cod, inc, be, bul, cb	
T137	Celtis sinensis	朴樹	Sheet 5	4.0	140	3.5	Poor	Poor	Poor	Fair	Low	X			-	Retain		DLO	AFCD	cb, wou, be	sparse foliage
T140	Macaranga tanarius var. tomentosa	血桐	Sheet 5	6.0	210	5.0	Poor	Poor	Fair	Poor	Low	X		Х	-	Retain		DLO	AFCD	mul, db, dec,epi, wou	restricted root
T140A	Macaranga tanarius var. tomentosa	血桐	Sheet 5	6.0	190	5.0	Poor	Poor	Poor	Poor	Low	X		Х	-	Retain		DLO	AFCD	le, be, epi, db, wou	sparse foliage, restricted root
T141	Macaranga tanarius var. tomentosa	血桐	Sheet 5	6.0	220	5.0	Poor	Poor	Fair	Fair	Low	X		Х	-	Retain		DLO	AFCD	le, mul, wou, db, epi, ffb	sparse foliage
T142	Macaranga tanarius var. tomentosa	血桐	Sheet 5	5.0	180	3.0	Poor	Poor	Fair	Fair	Low	X		Х	-	Retain		DLO	AFCD	be, epi, wou	sparse foliage, conflic with wire, restricted root
T145	Macaranga tanarius var. tomentosa	血桐	Sheet 5	5.0	381	8.0	Poor	Poor	Fair	Poor	Low	X		х	-	Retain		DLO	AFCD	mu, inc, db, un, le, cb, epi, wou, ffb	
T146	Macaranga tanarius var. tomentosa	血桐	Sheet 5	4.5	226	4.5	Poor	Poor	Fair	Poor	Low	X		Х	-	Retain		DLO	AFCD	cod, inc, le, db, epi, ffb	restricted root
T147	Macaranga tanarius var. tomentosa	血桐	Sheet 5	3.5	150	5.5	Poor	Poor	Poor	Poor	Low	X		Х	-	Retain		DLO	AFCD	be, le, db, epi, wou	
T148	Macaranga tanarius var. tomentosa	血桐	Sheet 5	3.5	150	4.5	Poor	Poor	Poor	Poor	Low	X		Х	-	Retain		DLO	AFCD	cav, cod, epi, be, wou	uproot, restricted root, sparse foliage
T150	Macaranga tanarius var. tomentosa	血桐	Sheet 5	4.0	200	7.0	Fair	Poor	Fair	Fair	Low	X		Х	-	Retain		DLO	AFCD	epi, wou, un, le, hlb	restricted root, conflict with steel waste
T151	Celtis sinensis	朴樹	Sheet 5	4.0	210	8.0	Fair	Poor	Fair	Poor	Med	X			-	Retain		DLO	AFCD	be, wou, epi, un	
T152	Celtis sinensis	朴樹	Sheet 5	5.0	290	6.0	Fair	Poor	Fair	Fair	Med	X			-	Retain		DLO	AFCD	be, epi, un, br	invisible root flare
T153	Celtis sinensis	朴樹	Sheet 5	3.5	180	5.5	Fair	Poor	Fair	Poor	Med	X			-	Retain		DLO	AFCD	be, wou	conflict with temporary structure
T154	Ligustrum sinense	山指甲	Sheet 5	4.5	90	3.0	Fair	Fair	Fair	Fair	Low			X	-	Retain		DLO	AFCD	mul, epi	restricted root, conflict with fencing
1155 T150		朴樹	Sheet 5	6.5	200	3.5	Fair	Poor	Fair	Fair	Med	X		X	-	Retain		DLO	AFCD	be, db, exp, ffb, epi	de se in a base ab se
1156	Macaranga tanarius var. tomentosa	皿桐	Sheet 5	6.5	220	3.5	Poor	Poor	Poor	Poor	LOW	X		X	-	Retain		DLO	AFCD	be, mui, un, db	drooping branches
T157	Macaranga tanarius var. tomentosa	血桐	Sheet 5	4.0	100	3.5	Poor	Poor	Fair	Poor	LOW				-	Retain			AFCD	ie, cav, dec, db, iib	sparse foliage
T150	Melia azodarach	山川門	Sheet 5	5.0	400	4.0	Foir	Poor	Fair	Four	Mod			^	-	Potoin				dh mul cod lo ho un	sparse rollage
T160	Macaranga tanarius var tomentosa	<u>古</u> 探	Sheet 5	9.0 7.0	150	4.0	Fair	Poor	Fair	Fair				v	-	Retain				un he cod eni ffh	under T159 capopy
T160A	Macaranga tanarius var. tomontosa	血烟	Sheet 5	7.0	120	3.5	Fair	Poor	Fair	Fair					-	Retain					under T159 canopy
TIOUA	wacaranya tanànus val. tomentosa	山山们町	Sheet S	7.0	130	3.5	Fall	F001	Fail	Fail				^	-	Netalli	1	DLO	AFOD		under 1153 canopy, connict with steel waste

AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION

APPENDIX E TREE PHOTOGRAPHS FOR LCSD REV.1 (TRUNK ROAD T2 – CONTRACT 2 – ED/2018/04)

T007 (1) - Fell

T007 (2) - Fell

T007 (3) - Fell

T007 (4) - Fell

T007 (5) - Fell

T007 (6) - Fell

T007 (7) - Fell

T007 (8) - Fell

T011 (6) - Fell

T011 (7) - Fell

T011 (4) - Fell

T012 (1) - Fell

T011 (5) - Fell

T012 (2) - Fell

T020 (1) - Fell

T020 (2) - Fell

T020 (3) - Fell

T020 (4) - Fell

T020 (5) - Fell

T021 (1) - Fell

T021 (2) - Fell

Page 7 of 21

T025 (1) - Fell

T025 (2) - Fell

T025 (3) - Fell

T025 (4) - Fell

T026 (1) - Fell

T026 (2) - Fell

T026 (3) - Fell

T027 (1) - Fell









T062 (1) - Retain



T063 (1) - Retain



T064 (1) - Retain



T065 (1) - Retain



T066 (1) - Retain



T069 (1) - Retain



T070 (1) - Retain



T071 (1) - Retain



T121 (1) - Retain

Page 17 of 21





T133 (1) - Retain

T134 (1) - Retain

T135 (1) - Retain

T138 (1) - Retain



T164 (1) - Retain

T165 (1) - Retain

T166 (1) - Retain

T167 (1) - Retain



AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION



APPENDIX F TREE PHOTOGRAPHS FOR AFCD (TRUNK ROAD T2 – CONTRACT 2 – ED/2018/04



T001 (1) - Fell



T001 (2) - Fell





T001 (5) - Fell



T002 (1) - Fell



T002 (2) - Fell

T002 (3) - Fell



T001 (4) - Fell





T002A (1) - Fell



T002A (2) - Fell



T003 (2) - Fell



T003 (3) - Fell



T002A (3) - Fell



T003 (4) - Fell



T003 (1) - Fell



T004 (1) - Fell



T004 (2) - Fell



T004 (3) - Fell



T004 (4) - Fell



T005 (1) - Fell



T005 (2) - Fell



T005 (3) - Fell



T004 (5) - Fell





T006 (1) - Fell



T006 (2) - Fell



T006 (5) - Fell



T017 (1) - Fell



T006 (3) - Fell



T017 (2) - Fell

T017 (3) - Fell







T019 (1) - Fell



T019 (2) - Fell



T019 (3) - Fell



T030 (1) - Fell



T030 (2) - Fell



T030 (3) - Fell

T030 (4) - Fell







T035 (1) - Fell



T035 (2) - Fell



T035 (3) - Fell



T038 (2) - Fell



T038 (3) - Fell



T038 (4) - Fell



T038 (1) - Fell



T042 (1) - Fell



T042 (2) - Fell



T042 (3) - Fell



T043 (1) - Retain



T083 (1) - Retain



T084 (1) - Fell



T084 (2) - Fell



T079 (1) - Retain



T084 (3) - Fell



T084 (4) - Fell



T084 (5) - Fell



T085 (3) - Fell



T085 (4) - Fell



T085 (1) - Fell



T085 (5) - Fell



T085 (2) - Fell



T085 (6) - Fell



T085 (7) - Fell



T086 (1) - Fell



T086 (2) - Fell



T136 (1) - Retain



T137 (1) - Retain



T140 (1) - Retain



T086 (3) - Fell



T140A (1) - Retain



T141 (1) - Retain



T147 (1) - Retain



T142 (1) - Retain



T148 (1) - Retain



T145 (1) - Retain



T150 (1) - Retain



T146 (1) - Retain



T151 (1) - Retain



T152 (1) - Retain



T156 (1) - Retain



T153 (1) - Retain



T157 (1) - Retain



T154 (1) - Retain



T158 (1) - Retain



T155 (1) - Retain



T159 (1) - Retain



T160 (1) - Retain



T160A (1) - Retain



AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION



APPENDIX G COMPENSATORY PLANTING PLAN (TRUNK ROAD T2 – CONTRACT 2 – ED/2018/04)

EB000560-C2-SH-1001 rev.2 - Contract 2 Tree Planting Schedule for LCSD

EB000560-C2-CP-1001 rev.1 - Contract 2 Compensatory Planting Plan (Road L10)

EB000560-C2-CP-1002 rev.2 - Contract 2 Compensatory Planting Plan (Road T2)

EB000560-C2-SH-1002 rev.2 – Contract 2 Tree Planting Schedule (Western Ventilation Building)

EB000560-C2-CP-1003 rev.1 – Contract 2 Compensatory Planting Plan (Western Ventilation Building)

TREE PLANTING SCHEDULE

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Vestern Ventilation Building							
Origin Code		Botanical Name	Chinese Name	Size: Height x Spread x DBH (mm)	Spacing (mm)	Quantity(Nos.	
Exotic	BVC	Bauhinia variegata L. var. candida	白花洋紫荊	STANDARD	As Shown	6	
Native	СВ	Cinnamomum burmannii	陰香	HEAVY STANDARD	As Shown	3	
Exotic	LSP	Lagerstroemia speciosa	大花紫薇	HEAVY STANDARD	As Shown	5	
Native	PCA	Pyrus calleryana	豆梨	STANDARD	As Shown	5	
Native	RT	Reevesia thyrsoidea	梭羅樹	HEAVY STANDARD	As Shown	5	
					TOTAL	24	

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AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION



APPENDIX H ARCHITECTURAL DRAWINGS (FOR REFERENCE ONLY)





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AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION



APPENDIX I WESTERN VENTILATION BUILDING AT SOUTH APRON – TREE PLANTING DETAIL





AGREEMENT NO: CE 38/2008 (HY) KAI TAK DEVELOPMENT - TRUNK ROAD T2 AND INFRASTRUCTURE AT SOUTH APRON INVESTIGATION, DESIGN AND CONSTRUCTION



APPENDIX J

RESPONSE TO COMMENT

C&R No.		Comments Received		
	Comments from	Letter Ref.	Letter Dated	
1	Highways Department Urban Region District and Maintenance Section (Kowloon Office), Structures Maintenance Section (Kowloon), Tunnels Section	<u>Fax (KSBM8)HyD UK/10-</u> <u>10/2/40(PCKEP)</u>	08 August 2019 B19815	
2	Highways Department (HyD) Headquarters Landscape Division	Fax (6DC0) in HyD LSC/14-8/2/3	02 August 2019 B19815	
3	Leisure and Cultural Services Department Administration Division Planning Section	Email	17 July 2019 B19663	
	(LCSD/Kowloon City)	<u>Email</u>	02 August 2019 B19766 B19810	
4	Leisure and Cultural Services Department Administration Division Planning Section (LCSD/Kwun Tong)	<u>Email</u>	6 August 2019 B19786 B19808	
5	Leisure and Cultural Services Department Leisure Services Branch Leisure Services Branch - Division 1 Leisure Management/Kowloon Kowloon Tree Team			

C&R No.		Comments Received		
	Comments from	Letter Ref.	Letter Dated	
6	Drainage Services Department (DSD) Operations & Maintenance Branch Mainland South Division Mainland South 4(Yau Tong, Wong Tai Sin, Kwun Tong, Kowloon City, Kai Tak Development and District R & R Works)			
7	Drainage Services Department (DSD) Electrical and Mechanical Branch Sewage Treatment Division 2 Sewage Treatment Division 2 Sub-Division 1 Sewage Treatment Division 2 Sub-Division 1/2			
8	Lands Department (LandsD) Lands Administration Office District Lands Office Kowloon East			
9	Agriculture, Fisheries and Conservation Department (AFCD) Headquarters Conservation Branch Nature Conservation (South) Division Nature Conservation Section (Kowloon)	Fax (2) in AF GR TF/K 3/2018 pt. 2	22 July 2019 B19698	
10	Civil Engineering and Development Department (CEDD) Headquarters Technical Branch Landscape Unit			

C&R No.		Comments Receive	ed
	Comments from	Letter Ref.	Letter Dated
11	Home Affairs Department (HAD) Kowloon City District Office		
12	Home Affairs Department (HAD) Kwun Tong District Office		

C&R No.	Comments	Responses
1	Highways Department Urban Region District and Maintenance Section (Kowloon Office), Structures Maintenance Section (Kowloon), Tunnels Section Via fax dated 08 August 2019 by Chan Chi Kin for Chief Highway Engineer/Kowloon.	
	2. Please note that this Office has no comment on the captioned submission from highways maintenance point of view.	Noted.
	 Attached please find a copy of the memo ref: (6DC0) in HyD LSC/14- 8/2/3 dated 02 August 2019 from the Landscape Division of this Department enclosing their comment on the submission for your considerations. 	Noted.
2	Highways Department (HyD) Headquarters Landscape Division Via fax dated 02 August 2019 by So H. Y. Ada for Chief Landscape Architect/Landscape Division.	
	 Please note our advisory comments from highways landscape point of view are as follows for your consideration. (a) Misinterpretation of HyD SIMAR Slope(s)- 	
	- The Consultant stated in item 2(a) of the R-to-C that "Highways/Slope is proposed to maintain the retaining	Noted

C&R No.	Comments	Responses
	wall around the Western Ventilation Building, hence Highways/Landscape is considered to be the appropriate authorities to maintain the vegetation around the retaining wall". However, this interpretation had conflict with the relevant TC (including but not limited to DEVB TCW No. 6/2015). The proposed planting areas were not on HyD SIMAR Slope(s) but on the ventilation building.	
	 It was clearly stated in DEVB TCW No. 6/2015 THAT, "SIMAR slopes" means the man-made sloped registered in the SIMAR database set up by the Lands Department (LandsD) to identify the maintenance responsibility of every sizable man-made slope registered in the Catalogue of Slopes. "SIMAR" refers to the study called the "Systematic Identification of Maintenance Responsibility of Man-made Slopes in Hong Kong" carried out by LandsD in 1996" and HyD/LandscapeD is not responsible for the vegetation maintenance for HyD SIMAR slopes, landscape area within the boundary of expressways, landscaped deck/noise enclosure of public roads without pedestrian or vehicular access and SIMAR slopes maintained by HyD. However, the trees mentioned in this submission were none of the said categories. The Consultant to seek comments/agreement from other relevant parties. 	Noted. See response to (b) below.

C&R No.	Comments	Responses
	 Therefore, our previous comments via memi ref. (673S) in HyD LSC/14-8/2/3 dated 13.03.2019 was still valid: 	
	"The proposed compensatory trees are outside HyD'S jurisdiction in accordance with DEVB TCW no. 6/2015."	
	(b) MOM contract provisions on maintenance of soft landscape within tunnel area-	
	 We reiterated our previous comments via memos ref. (5L4U) in HyD LU/14-8/2/3 dated 19.10.2017 and (5XU4) in HyD LU/14-8/2/3 dated 01.08.2018, that "since the vegetation on the Western Tunnel Portal, WVB and EVB within the tunnel area, this Division would like to reiterate that, "for effective operation and maintenance of the tunnel, consideration should be given to include all vegetation maintenance works within the tunnel control area, including the vegetation on SIMAR slope(s)/ventilation building(s)/tunnel portal, etc. in the proposed MOM implemented in Central Wanchai Bypass (CWB) project, FYI, TD agreed to take up the maintenance of soft landscape works for CWB tunnel buildings. 	 HyD/LU's view on MOM contract provisions on maintenance of soft landscape is noted and the TPRP is revised accordingly. According to the Management and Maintenance Schedule (Issue 7) of CWB received from CEDD/EDO on 13 February 2019, it is noted that TD have no objection on TD's MOm agent to take up the maintenance of the soft landscape works for CWB tunnel building (CWB's M&M Item D. Ventilation Building (5) & (9) refers), but TD suggested that HyD agree to take up the monitoring role (see extract of the CWB's M&M below). In this regard, we suggest a similar arrangement be made for the WVB. The maintenance responsibility of the compensatory tree at WVB will be further discussed and agreed with TD and HyD.

C&R No.	Comments	R	esponses	
		Completed Work Items	Management Authorities	Maintenance Authorities
		(4) E&M installations including mechanical ventilation system, air-conditioning system, power supply system, generator, fuel tank, earthing and lighting, Air Purification System, DAB System, UPS and battery, PABX and public address system	TD	TD's MOm agent
		(5) Soft landscape (including associated horticultural) within the boundary of tunnel buildings including greening of building structures on roofs and on walls	TD	TD's MOm agent (TD suggested that HyD agree to take up the monitoring role)
		(6) Hard landscape, (including water point and irrigation system) within the boundary of tunnel buildings	TD	TD's MOm agent
		(7) Hard landscape (planters), Boundary Wall and Security Fence within the boundary of West / Middle / East Ventilation Building	TD	HyD/U
		(8) Hard landscape (planters) surrounding East Ventilation Building	TD	HyD/U
		(9) Soft landscape surrounding East Ventilation Building	TD	TD's MOm agent (TD suggested that HyD agree to take up the monitoring role)
	3. Presumably, you would provide your comments from technical and maintenance point of view.			
	4. Thank you for your coordinated reply.			
3	Leisure and Cultural Services Department			
	Administration Division			
	Planning Section			

C&R No.	Comments	Responses
	Via email dated 17 July 2019 by Karrie Cheng for SEA(Planning)6.	
	One extra copy is required for circulation. Please despatch one copy to the following address for our consideration.	Noted. An extra copy was sent to LCSD under the transmittal ref. A3848-EB000560-HCL-HKT-00 on 17 July 2019.
	Landscape Sub-Section Green Campaign Section Leisure Services Branch - Division 3 Leisure Services Branch Leisure and Cultural Services Department 11/F, Leisure and Cultural Services Headquarters 1-3 Pai Tau Street, Sha Tin, N.T. (Attn: Ms Elsa TSENG, LM(L))	
	Via email dated 02 August 2019 by Karrie Cheng for SEA(Planning)6.	
	I refer to your letter dated 12 July 2019 with reference A3842-EB000560- HCL-HKL-00 on the captioned, please find our comments in respect of Kowloon City District only:-	
	District Management angle (Kowloon City)	
	KCDLSO has no adverse comment on the TPRP for Contract 2 due to no existing tree is under the management of KCDLSO and no compensatory tree will be managed by this office for this project.	Noted with thanks
	Tree Management angle	
	Please find our comments as below:	

C&R No.	Comments	Responses
C&R No.	Comments Tree Assessment Schedule 1. T024, T026, T028, T031 T033 and T037. These trees are rated fair in all aspects but proposed to be felled. Please review and provide further justification for supporting the proposal. Felling of trees will only be considered under the following circumstances: a If both retaining and transplanting are considered not practicable; or b The tree has unrecoverable health problem, structural problem or poor form; or c The tree has low survival rate after transplanting/ is not suitable for transplanting, or d Other reasonable justifications provided by the project department.	Responses The condition of those trees is reviewed and please refer to the Tree Assessment Schedule for LCSD (rev. 3) in Appendix C. As all trees are conflicted with proposed construction, further justification for not transplanting the tree is listed below: T024: Located adjacent to the U-channel hinders the preparation of sufficient-sized root ball due to root restricted. The form of tree is poor as there is a codominant trunk at the lower part of tree. Potential hazard, such as trunk split, may be created during transplantation if the root ball is not well-formed. T026: Located adjacent to the U-channel hinders the preparation of sufficient-sized root ball due to root restricted. Multiple attemprepare of ball due to root
	uepartment.	 Total adjacent to the U-channel hinders the preparation of sufficient-sized root ball due to root restricted. Multiple attachment of branches limits the growing space of each branch, as a result the structural integrity of tree is diminished and potential hazard, such as branch broken, may be created during transplantation. Total Located adjacent to the U-channel hinders the preparation of sufficient-sized root ball due to root restricted. Codominant branches with included bark limit the structural integrity of tree, potential hazard, such as branch broken, may be created during
		transplantation.

C&R No.	Comments	Responses
		T031: Located adjacent to the U-channel hinders the preparation of sufficient-sized root ball due to root restricted. Codominant branches with included bark limit the structural integrity of tree, potential hazard, such as branch broken, may be created during transplantation.
		T033: Tree with large size will limit the feasibility of transplantation since substantial crown pruning is required to facilitate the transplantation leading to irrecoverable tree form. Otherwise, potential hazard, such as branch broken, may be created during transplantation.
		T037: The form of tree is poor as its live crown ratio is low and the branches at the lower crown is drooping. It will limit the feasibility of transplantation as potential hazard, such as branch broken, may be created during transplantation. Crown pruning is required to prevent the risk of branch broken; however, it will lead to an irrecoverable form of tree.
	Please provide the method statement of tree felling/ preservation of existing trees in the TPRP.	The preservation and protection of retained trees will be carried out according to the requirements as stipulated in the General Specification for Civil Engineering Works 2006 Edition – Section 26 Clause 26.08 to 26.13. Method statement of tree felling will subject to the submission of landscape contractor after the work commence.
	As no compensatory planting (tree) will be proposed for LCSD's maintenance, we register a nil return in this aspect.	Noted with thanks

C&R No.	Comments	Responses
	Landscape angle	
	Please register a nil return from Landscape Sub-section as there is no compensatory trees to be handed over to LCSD.	Noted with thanks
	Comments in respect of Kwun Tong District shall be provided by Team 5 separately, if any.	Noted
	Please also add Kowloon City District Leisure Services Office in your distribution list for our consideration.	
	Kowloon City District Leisure Services Office Leisure and Cultural Services Department 10/F, To Kwa Wan Market and Government Offices 165 Ma Tau Wai Road Kowloon (Attn: Ms. Jacqueline LAU, M(KTCTP&RP))	
4	Leisure and Cultural Services Department Administration Division Planning Section (LCSD/Kwun Tong)	
	Via email dated 6 August 2019 by David Lee for SEA(P)5/2.	
	Having consulted with our Kwun Tong District Leisure Services Office, please note that our previous comment is still valid and from Kwun Tong District perspective only.	

C&R No.	Comments	Responses	
	Previous comment is attached for your easy reference.		
	KTDLSO	Noted	
	This office would like to remind CEDD to follow the principle "right tree at the right place" in the alternative compensatory planting proposal to "other project sites owned by EDO of CEDD", no matter where these alternative receptor sites are.		
	Without the exact locations of the proposed receptor sites indicated by CEDD, this office can only assume that CEDD is fully responsible for the suitability of tree planting at those "other project sites owned by EDO of CEDD" and CEDD will take care of and maintain these trees. Otherwise, CEDD may wish to consult the relevant parties if the compensatory trees are intended for hand-over to such parties.		
	Again, if no suitable receptor sites are identified, would CEDD please review the need of such compensatory tree planting. Please do not plant just for the sake of fulfilling the figures.		
	24 felled trees could be compensated within Kwun Tong District under other projects also owned by East Development Office of CEDD, e.g. Anderson Road Quarry or Tseung Kwan O - Lam Tin Tunnel, and if no. of compensatory trees can be kept at 24.	The proposal is no longer applying in the TPRP revision 3.	
5	Leisure and Cultural Services Department Leisure Services Branch Leisure Services Branch - Division 1 Leisure Management/Kowloon		

C&R No.	Comments	Responses
	Kowloon Tree Team	
6 7	Drainage Services Department (DSD) Operations & Maintenance Branch Mainland South Division Mainland South 4(Yau Tong, Wong Tai Sin, Kwun Tong, Kowloon City, Kai Tak Development and District R & R Works) Drainage Services Department (DSD) Electrical and Mechanical Branch Sewage Treatment Division 2	
	Sewage Treatment Division 2 Sub-Division 1 Sewage Treatment Division 2 Sub-Division 1/2	
8	Lands Department (LandsD) Lands Administration Office District Lands Office Kowloon East	
9	Agriculture, Fisheries and Conservation Department (AFCD) Headquarters Conservation Branch Nature Conservation (South) Division Nature Conservation Section (Kowloon) Via fax dated 22 July 2019 by Josephine Cheng for Director of Agriculture, Fisheries and Conservation.	
	I have no comment on the revised TPRP.	Noted with thanks
10	Civil Engineering and Development Department (CEDD)	

C&R No.	Comments	Responses
	Headquarters	
	Landscape Unit	
11	Home Affairs Department (HAD) Kowloon City District Office	
12	Home Affairs Department (HAD) Kwun Tong District Office	



APPENDIX G -

DECORATIVE SCREEN HOARDING AND STREET FURNITURE AT TRUNK ROAD T2





Landscape Mitigation Plan HKT2 / BTP / PLN / ALL / QE / 000026/ D

















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NOTES:

- 1. DRAWING PIT COVER PATTERN DESIGN DETAIL IS INDICATIVE AND FOR REFERENCE ONLY. THE CONTRACTOR SHALL REFER TO KAI TAK BRAND IDENTITY MANUAL AND PUBLIC CREATIVES GUIDELINE AND SUBMIT TO HIGHWAYS DEPARTMENT AND ENGINEERS FOR APPROVAL DEVOLUTION TO AN A TANK PRIOR TO INSTALLATION.
- 2. DRAWING PIT DETAIL SHALL REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWINGS HLDSDGE01- CL0025F AND HLDSDGE01- CL0026F.







05

PUBLIC LIGHTING DRAW-PIT COVER FOR ROAD L18, L10 & L10S

FIL	Rev.	Date	Drawn	Design.	Verif.	Description	Approved	
ENAM	А	14/SEP/20	EL	TC	DT	ISSUED FOR FIRST SUBMISSION	СҮКС	
E.	— — — B	14/DEC/20	 EL	TC		ISSUED FOR FIRST SUBMISSION	CYKC	Main Contractor
P:\PROJECT								
S\6								Client



HYGROSCOP	I	С
n		

ITEM NO.	DESCRIPTION
1.	CRIMPING LUG
2.	EARTH CU CABLE
3.	25mm ² POST SEAL CABLE GLAND C/W LOCK NUT
4.	мсв
5.	STREET LIGHTING CUT-OUT BOX
6.	CABLE GLAND ANCNOR PLATE

E-ARM ROAD LIGHT				
ks	Drawing no. HKT2-AEC-DDWG-KAA-PRW-114032-B-DDA			
pron	scale NTS	Revision		
JAD JAD	CADD Ref. KAA-PRW-114032-B-DDA			
D RUAD	Issue Status	Sheet 03/03		

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APPENDIX H -

ILLUSTRATION OF AESTHETIC DESIGN

Aerial View of Trunk Road T2 Structure in Kai Tak Development Area



OM5- Mulching System with Shrubs and Grass



OM5- Green Roof System

OM1

Operation Phase Mitigation Measures Compensatory tree planting shall be incorporated along roadside amenity areas affected by the construction works. The required numbers of compensatory trees shall follow the requirements of ETWB TCW No. 3/2006.

OM3

Trees, shrubs and climbers shall be planted to soften and screen proposed roads, central medians and associated structures, and to enhance streetscape greening.

Tunnel portals and all above ground structures shall be sensitively designed to ensure the element with colour, texture and tonal quality being compatible to the existing urban context. Trees and shrub planting to minimize the potential adverse landscape and visual impacts shall be included where space permits. Roof top greening and vertical greening shall also be provided.

Use appropriate (visually unobtrusive and nonreflective) building materials and colours in buildings and structures.

OM5

Elevation View of Western Portal

ID No.	Operation Phase Mitigation Measures	
0142	Trees, shrubs and climbers shall be planted to	
	soften and screen proposed roads, central	
UNIS	medians and associated structures, and to	
	enhance streetscape greening.	
0.145	Tunnel portals and all above ground structures	Ulv Western Portal
	shall be sensitively designed to ensure the	
	element with colour, texture and tonal quality	
	being compatible to the existing urban context.	
	Trees and shrub planting to minimize the	
	potential adverse landscape and visual impacts	
	shall be included where space permits. Roof top	Intega di sa
	greening and vertical greening shall also be	EUX BUX
	provided.	
	Use appropriate (visually unobtrusive and non-	
	reflective) building materials and colours in	
Second (buildings and structures.	
2	ZHZH	

M5- Green Roof System

OM5- Mulching System with Shrubs and Grass

Street View of Western Portal and Depressed Road



Overall Entrance View





Driveway View Entering the Depressed Road

Driveway View Exiting the Depressed Road



Operation Phase Mitigation Measures

Compensatory tree planting shall be incorporated along roadside amenity areas affected by the construction works. The required numbers of compensatory trees shall follow the requirements of ETWB TCW No. 3/2006.

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Trees, shrubs and climbers shall be planted to soften and screen proposed roads, central medians and associated structures, and to enhance streetscape greening.

Tunnel portals and all above ground structures shall be sensitively designed to ensure the element with colour, texture and tonal quality being compatible to the existing urban context. Trees and shrub planting to minimize the potential adverse landscape and visual impacts shall be included where space permits. Roof top greening and vertical greening shall also be provided.

Use appropriate (visually unobtrusive and nonreflective) building materials and colours in buildings and structures.

Elevation view of West Ventilation Building


Aerial view of East Ventilation Building



Operation Phase Mitigation Measures Tunnel portals and all above ground structures shall be sensitively designed to ensure the element with colour, texture and tonal quality being compatible to the existing urban context. Trees and shrub planting to minimize the potential adverse landscape and visual impacts shall be included where space permits. Roof top greening and vertical greening shall also be

Use appropriate (visually unobtrusive and nonreflective) building materials and colours in

> Eastern Harbour Crossing

Close up of East Ventilation Building



East Ventilation Building Roof and Surrounding



East Ventilation Building South Elevation

East Tunnel Portal



*The East Tunnel Portal also adopts subtle vertical fins which takes reference from the TKO-LTT portal façade, allowing the East Portal to act as an intermediate transitional structure from TKO-LTT to Trunk Road T2, and further into the Kai Tak Development Area as a whole.



APPENDIX I –

ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

ID No.	EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Objectives of Measures and Main Concern to Address	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stage		
								D	С	0
Landscape and Visual										
CM 1	9.9.1.1	7.2.1.2	All works shall be carefully designed to minimize impacts on existing landscape resources and visually sensitive receivers. Existing trees within works area shall be retained and protected.	To minimise impact on existing trees	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM	Y	Y	
CM 2	9.9.1.1	7.2.1.2	Existing trees of good quality and condition that are unavoidably affected by the works should be transplanted.	To minimise impact on existing trees	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM	Y	Y	
CM 3				N/A						
CM4				N/A						
CM 5	9.9.1.1	7.2.1.2	Large temporary stockpiles of excavated material shall be covered with unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance.	To prevent unnecessary dust and dirt contaminating the air and adjacent areas.	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM		Y	
CM 6	9.9.1.1	7.2.1.2	Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance.	To mitigate potential visually obtrusive areas	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM		Y	
CM7	9.9.1.1	7.2.1.2	Erection of decorative screen hoarding should be designed to be compatible with the existing urban context.	To mitigate and screen any potential visually obtrusive areas and enhance urban environment	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM		Y	
CM 8	9.9.1.1	7.2.1.2	All lighting in construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residences and GIC user. The contractor shall consider other security measures, which shall minimize the visual impacts.	To mitigate light pollution and adverse visual impacts on surrounding environment	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM		Y	
OM 1	9.9.1.1	7.2.1.2	Compensatory tree planting shall be incorporated along all roadside amenity areas affected by the construction works. The required numbers and locations of compensatory trees shall be determined and agreed with the Government during Tree Removal Application process under ETWB TCW No.	To reinstate and maximise compensatory tree numbers to equal or greater conditions	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM		Y	
OM2	9.9.1.1	7.2.1.2	Compensatory tree planting shall be incorporated by the Project. The required numbers of compensatory trees shall follow the requirements of ETWB TCW No. 3/2006. Loss of amenity area adjacent to the Kwun Tong By-pass and planting areas in KTD South Apron will be mitigated by the creation of the Kai Tak South Apron: Amenity Area, which will be equal to or larger than the current provision.	To reinstate and maximise compensatory tree	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM		Y	
OM3	9.9.1.1	7.2.1.2	Trees and shrubs and climbers etc. shall be planted to soften and screen proposed roads, central strip and associated structure, and to enhance streetscape greening effect where appropriate.	To mitigate hard surfaces and hard standing landscape areas and to soften and enhance proposed design features	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM	Y		Y
OM4	9.9.1.1	7.2.1.2	All works area, excavated area and disturbed area for tunnel construction and temporary road diversion or any other proposed works shall be reinstated to former conditions or better, with reasonable landscape treatment and to the satisfaction of the relevant Government departments.	To reinstate and maximise hard and soft landscape areas to equal or greater conditions	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM	Y		Y
OM5	9.9.1.1	7.2.1.2	Tunnel portals and all above ground structures shall be sensitively designed to ensure the element with colour, texture and tonal quality being compatible to the existing urban context. Trees and shrub planting to minimize the potential adverse landscape and visual impacts shall be included where space permits. Roof top greening and vertical ereening shall also be provided.	To mitigate hard surfaces and hard standing landscape areas and to soften and enhance proposed design features	All relevant works sites	Under Work Contract ED/2018/04	EIAO TM	Y		Y

Legend: D= Design, C=Construction, O=Operation, Y=Yes * Reference: EM&A Manual – Appendix A EMIS (F0145-EB000560-MIEL-HKR-02)