# Landscape Plan including Tree Preservation Proposal (Rev. 6.4)

### for

# Expansion of Wo Hop Shek Crematorium (Contract No.: AL G513)

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Date	13/02/2020	13/02/2020	13/02/2020





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By Email



Our Ref. : L202002004 Date : 14<sup>th</sup> February 2020

Shing Hing Construction Company Limited Unit 1, 28/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

Attn: Ms. Wong Ming Yip (Site Agent)

Dear Sir,

Contract No. AL G513

Expansion of Wo Hop Shek Crematorium (Programme No. 026NB)

Landscape Plan including Tree Preservation Proposal (Rev. 6.4)

I refer to the Landscape Plan including Tree Preservation Proposal (Rev. 6.4) issued on 13 February 2020, please note that we have no adverse comment on the said document. We herewith certify the captioned submission in accordance with Condition 2.5 of Environmental Permit EP-329/2009.

Should you have any queries, please do not hesitate to contact the undersigned at 2698 6833.

Yours faithfully,

For and on behalf of Acuity Sustainability Consulting Limited

Kevin Li

Environmental Team Leader

Encl.



Acuity Sustainability Consulting Limited Unit 1908, IPlace Nos. 301-305 Castle Peak Road Kwai Chung New Territories

For the attention of Mr Kevin Cheung

Dear Mr Cheung

13 February 2020

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**Quotation Contract No. CPM301\_03/18** 

Provision of Environmental Consultant (EC) and Independent Environmental Checker (IEC) Consultancy Service for Expansion of Wo Hop Shek Crematorium, Wo Hop Shek (Programme No.: 026 NB)

Landscape Plan including Tree Preservation Proposal (Rev. 6.4)

We refer to your ET's email dated 13 February 2020 for the submission of the captioned plan. We have no further comment and hereby verify the plan.

Should you require any further information, please do not hesitate to contact the undersigned or our Mr Fu Nam WONG at 2268 3307.

Yours sincerely

Sam Tsoi

Independent Environmental Checker

Encl.

### **Table of Contents**

1.	Introduction	2				
2.	Purpose of the Plan	2				
3.	3. Tree Preservation Proposal					
4.	Landscape Plan	4				
5.	Proposed Mitigation Measures	5				
6.	Maintenance and Management Schedules	11				
7.	Architectural and Chromatic Treatment of the Crematorium Building	11				
8.	Conclusion	12				
	List of Appendices					
Append	ix A – Site Layout Plan					
Append	ix B – Receptor Locations of Tree to be Transplanted					
Append	ix C – Master Planting Schedule & Soiling Plan					
Append	ix D – Particular Specification for Landscape Works					
Append	ix $E-Particular$ Specification for Preservation and Protection of Existing	g Trees				
Append	ix F – Approved Tree Preservation and Removal Proposal					
Append	ix G – Tree Survey Schedule and Photographic Record of Existing Tree					
Append	ix H – External Views of the Finished Project					
Append	ix I – Photos of Existing Wo Hop Shek Crematorium					
Append	ix J – Conceptual Drawing of the Finished Project					
Append	ix K – Planting Plan in the Previous Plan					
Append	ix L – Relevant Page of "Annex 9-f Tree Species for Tree Compensation"	" from the				
	Approved EIA Report					

### 1. Introduction

- 1.1 The Food and Environmental Hygiene Department (FEHD) is responsible for the operation of public crematorium in Hong Kong. The existing Wo Hop Shek Crematorium (WHSC) was reprovisioned in February 2013. It comprises six body cremators, one bone cremator and three service halls. At the design stage, areas had already been reserved for the addition of two body cremators and one service hall. In order to cope with increasing demand for cremation sessions, Expansion of Wo Hop Shek Crematorium (the Project) is being taken forward in this juncture. This Project shall provide two new cremators at WHSC and one service hall for commissioning. Architectural Services Department (ArchSD) acts as the works agent for FEHD, is responsible for the project management of the project. The site layout plan is attached in Appendix A.
- 1.2 The Project consists of three construction phases. Phase I of the project was substantially completed in October 2012 while Phase II of the project was substantially completed in November 2013. The Project has been re-initiated as Phase III and Shing Hing Construction Co. Ltd. (the Contractor) has been awarded the construction contract for the Project with contract no. AL G513.
- 1.3 The scope of the Project comprises:
  - a) two new body cremators;
  - b) one new multi-purpose service hall;
  - c) a full range of ancillary facilities; and
  - d) addition, alteration and modification works that are necessary for the additional cremators and service hall.

### 2. Purpose of the Plan

- 2.1 A Landscape Plan with Tree Preservation Proposal for Phase I and II (the previous Plan) of the Project had been submitted on 24 November 2009 and was approved by EPD on 4 December 2009. In the previous Plan, planting schedule was provided and implemented as one of the landscape mitigation measures proposed in the approved EIA Report. Plantings at the existing construction site area which are in direct conflict with the construction of Phase III were planted in accordance to the planting schedule, drawing no. AB/5549/LA003a, as included in the previous Plan and Appendix K.
- 2.2 This document serves as supplementary submission for updating information regarding Phase III which was not included in the previously approved version and proposing transplantation of trees that were planted as a compensatory planting during Phase I and Phase II in site area of Phase III. Same principle of mitigation measures as those in the previous Plan would be adopted by the Contractor as specified in this Plan.
- 2.3 Shing Hing Construction Co. Ltd. (the Contractor) has been awarded the contract of Expansion of Wo Hop Shek Crematorium (the Project) with contract no. AL G513. This Landscape Plan including Tree Preservation Proposal is prepared for fulfilling recommendations in the approved EIA Report, Condition 2.5 of the Environmental Permit (EP-329/2009) and Section 6 of the approved Environmental Monitoring and Audit (EM&A) Manual. The locations, size, number and species of planting, design details, implementation programme, maintenance and management schedules, and drawings in the scale of 1:1000 or other appropriate scale showing the landscape and visual mitigation measures of the Project, in particular the landscape and compensatory planting and architectural and chromatic treatment of the crematorium building under as required Condition 2.5 of the captioned EP are included in this submission.
- 2.4 This submission sets out in details the approach adopted by the Contractor in mitigating identified potential landscape and visual impacts during Phase III of construction in accordance to the approved EIA Report

and approved EM&A Manual. All requirements under Condition 2.5 of the Environmental Permit are included in this submission. This submission shall supersede the previous submissions dated 3 July 2019 & 27 September 2019.

### 3. Tree Preservation Proposal

### 3.1 Summary of Tree Condition

- 3.1.1 Latest tree survey was conducted on 2<sup>nd</sup> April 2019. There were nine *Terminalia mantaly* (小葉欖仁) trees, namely T041 T049, identified within the works boundary. The nine trees (T041 T049) were planted as compensatory planting during the previous construction phases according to species listed in Annex 9-f of the approved EIA report as shown in Appendix L and the previously approved Landscape Plan with Tree Preservation Proposal as shown in Appendix K. The black circles represent the trees in the previous Plan for Phase I and II project and the orange circles represent the existing trees as refer to the tree survey. Preservation of the nine trees shall follow requirement established in the latest Technical Circular (Works) of Tree Preservation (*DEVB TCW No.7/2015*) issued in October 2015. Tree survey schedule and photographs of existing trees are included in Appendix G.
- 3.1.2 All trees found in the survey are growing at-grade on a gentle slope within the site boundary. The nine *Terminalia mantaly* (小葉欖仁) trees were in generally good structural condition, as this exotic species were standardized and planted for ornamental purpose. Their overall health condition is fair, with some yellow foliage observed, while new leaf buds were growing to replace the fallen leaves.
- 3.1.3 There is neither registered/ potentially registrable OVT nor protected species. Layout of existing tree is attached in Appendix A.

### 3.2 Tree Transplantation Proposal

- 3.2.1 Compensatory plantings from Phase I & II which are in direct conflict with the construction of Phase III are indicated in the previous Plan as attached in Appendix K. The black circles represent the trees in the previous Plan for Phase I and II project and the orange circles represent the existing trees as refer to the tree survey.
- 3.2.2 A Tree Preservation and Removal Proposal (TPRP) for the Project prepared by ArchSD in accordance with *DEVB TCW 7/2015* was granted with blanket approval by the Director of Lands in January 2018. A tree survey was carried out on 23 June 2017 for the preparation of TPRP. The approved TPRP has been attached in Appendix F.
- 3.2.3 According to the approved TPRP, seven *Terminalia mantaly* (小葉欖仁) trees, T041 T047, will be transplanted permanently to a final receptor location which is outside the works boundary but within the WHSC. The remaining two *Terminalia mantaly* (小葉欖仁) trees, i.e. T048 and T049, will be transplanted permanently to a receptor location within the works boundary. Due to limited space of the project site, the two trees are proposed to be transplanted temporarily to the same field receiving T041 T047 until new planting field is constructed and become available. Receptor locations are attached in Appendix B.
- 3.2.4 Planting works shall be carried out under the supervision of an arboricultural/ tree specialist as defined in *DEVB TCW 7/2015*. According to the approved TPRP, method statement shall be provided for Architect's consideration and approval prior to the commencement of transplantation works.
- 3.2.5 Transplant preparation works shall be carried out as soon as possible after commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping shall be avoided. Rootball and crown pruning shall be carried out over at least 3 months.

### 3.3 Tree Protection Proposal

- 3.3.1 The nine Terminalia mantaly (小葉欖仁) trees proposed to be transplanted shall be protected during construction phase in accordance with the Particular Specification PS L02 Preservation and Protection of Existing Trees Including Transplanting and Tree Surgery; as well as Section 25 of the Landscape Work of the General Specification for Building 2017 Edition (GS). The Particular Specification is attached in Appendix E.
- 3.3.2 All trees shall be fenced off, before and after transplantation works for *Terminalia mantaly* (小葉欖仁), either in group or individually to prevent from being damaged or disturbed during any construction work. Nets, fence or hoarding of at least 1.5m high are recommended to be used to surround the robust fenced area under individual/ aggregated dripline as the tree protection zone (TPZ). Retained and preserved trees should be monitored regularly by an arboricultural/ tree specialist as defined in *DEVB TCW 7/2015* to ensure their condition throughout the construction phase.
- 3.3.3 All construction activities shall be restricted to designated Works Area. No working platform, equipment, waste or soil shall be placed or dumped near and within the TPZ. Runoff and discharge shall be controlled not to direct towards the preserved trees.
- 3.3.4 Temporary protective hessian armouring shall be put on tree trunks to protect against machinery damages. Protective mulching and/ or thick metal sheet coverings may be used to protect the root zones, which can be extended beyond the TPZ underground, against soil compaction.
- 3.3.5 In case, if any trees retained or transplanted within the site failed to survive, they should be replaced and compensated as required in *DEVB TCW 7/2015*.

#### 3.4 Tree Preservation Measures

- 3.4.1 No tree in associated with this project works is proposed to be felled and therefore compensatory planting is not required.
- 3.4.2 All nine *Terminalia mantaly (小葉欖仁)* trees will have unavoidable direct conflict with construction activities; they shall be retained/preserved on site with protection measures until transplantation.

### 4. Landscape Plan

### 4.1 Landscape Design

### **Background**

4.1.1 With reference to the Planting Plan in Appendix II of the previous Landscape Plan including Tree Preservation Proposal, 466.83 m² of *Zoysia japonica* – ZJA (朝鮮草) was planned covering almost the entire construction area of Phase III development and twelve *Terminalia mantaly* – *TM* (小葉欖仁) trees were planned at the southeast and west side of the construction area of Phase III development. The approved planting schedule for Phase I and II project at the construction area of Phase III development is shown in Table 4.1 for information.

Table 4.1 – Planting schedule in the previously approved landscape plan for the Phase III construction site

Species	Chinese Name	Size	Height (mm)	Spread (mm)	Spacing (mm)	Quantity
Zoysia	朝鮮草	-	-	-	-	466.83 m <sup>2</sup>
japonica						
Terminalia	細葉欖仁	-	6000	3000	-	12
mantalyi						

### Proposed Landscape Design

4.1.2 Planting schedule summarizing information of landscape plantings required under the EP for Phase III development of the Project is shown in Table 4.2. Corresponding Master Planting Schedule & Soiling Plan is attached in Appendix C. The planting schedule is updated to incorporate landscape design for the new structure and open area of the Phase III development.

Table 4.2 – Planting schedule in this landscape plan for the Phase III construction site

Species	Chinese Name	Size	Height (mm)	Spread (mm)	Spacing (mm)	Quantity
Bambusa Textilis	青皮竹	-	2000	-	200	65
Osmanthus Fragrans	桂花	-	500	500	400	60
Neomarica Northiana	新瑪麗雅	-	250	150	100	550
Selaginella Uncinata	翠雲草	-	150	150	100	675
Zephyranthes Candida	蔥蓮	-	250	150	100	1375
Zoysia Matrella	滿葉結縷草	-	-	-	-	57.29 m <sup>2</sup>
Parthenocissu s Dalzieli	爬牆虎	1000 mm	-	-	300	70

- 4.1.3 In order to align with the existing crematorium landscape design and to embrace the existing architectural design as required in the Environmental Permit. The following is currently proposed:
  - Existing trees are proposed to be preserved as far as practicable and to achieve an overall green coverage for the whole crematorium to be >20%.
  - Another 7 types of plant species are selected for the Phase III development design
  - Particular Specification for Landscape Works is attached in Appendix D.

### 5. Proposed Mitigation Measures

- Summary of construction phase mitigation measures extracted from the approved EIA report and EM&A Manual are listed in Table 5.1. Regarding to the Phase III development, LM06 & LM07 are not applicable due to there are no streams identified nearby the construction site and there will be no tree to be felled in the Phase III development, LM02 was partly applicable due to the lack of building services equipment such as antennas that may exceed 10 m in Phase III development, Open Space and Screen planting under LM09, LM10 & LM12 were implemented before the commencement of construction of the Phase III development. LM01-05, 08, 09, 11, 13 and 14 are applicable to this Phase and have been updated according to scope of Phase III development. Updated mitigation measures specific to the subject Phase, and their implementation schedule are demonstrated in Table 5.2.
- 5.2 Landscape works shall be supervised by Registered Landscape Architect (RLA) registered under the Landscape Architects Registration Ordinance (Cap. 516) for ensuring proper execution of approved

Landscape Plan and the associated works method statements.

Table 5.1 – Summary of proposed construction phase mitigation measures for the Project

Measure	EIA	y of proposed construction phase mitigation measures for the Project
ID	Ref#	Landscape and Visual Mitigation Measures
LM01	S.7.9.2 MC1	<ul> <li>Site offices and construction yards:</li> <li>Site offices shall have olive green roof and façade coating or colour matches with existing environment; and</li> <li>Site offices and the construction yard shall be decommissioned after construction.</li> </ul>
LM02	S.7.9.2 MC2	Height of site offices:  The height of site offices, including the rooftop shall not exceed 10m; and Building services equipment such as antennas may exceed 10 m and shall be coated in black.
LM03	S.7.9.2 MC 3	Where practical the site offices areas, construction yards and storage areas shall be screened using colour in harmony with the surrounding environment around the peripheries of the works area until the completion of relevant construction phases.
LM04	S.7.9.2 MC 4	<ul> <li>Construction plant and building material:</li> <li>Shall be orderly and carefully stored in order to appear neat and avoid visibility from outside where practical;</li> <li>Excess materials shall be removed from site as soon as practical; and</li> <li>All construction plants shall be removed from site upon completion of construction works.</li> </ul>
LM05	S.7.9.2 MC 5	<ul> <li>Construction light:</li> <li>To be oriented away from the viewing location of Visual Sensitive Receivers (VSRs); and</li> <li>All lighting facing sensitive receiver shall have frosted diffusers and reflective covers.</li> </ul>
LM06	S.7.9.2 MC 6	Silting traps:  • Silting traps shall be installed to minimize silting to streams.
LM07	S.7.9.3 MT 1	<ul> <li>Compensation for losses:</li> <li>The tree compensation to tree loss ratio shall be at least 1:1 in term of quantity.</li> <li>About 100 trees will be planted to compensate for the loss of 54 trees. 100 trees will be planted on site and others, in locations within the vicinity approved by the Architect.</li> </ul>
LM08	S.7.9.3 MT 2	Where practical, trees that require removal shall be transplanted on Site. If not practical, these trees will be transplanted in locations within the vicinity as approved by the Architect.
LM09	S.7.9.3 MT 3	<ul> <li>Amenity planting:</li> <li>Planting works shall be carried out under the supervision of a specialist landscape sub-contractor;</li> <li>The rooftop of the cremation plant room shall be planted with lawn;</li> <li>Open spaces shall be included in the Project;</li> <li>Screen planting such as planting a roll of trees along the site boundary butting Kiu Tau Road shall be carried out; and</li> <li>New trees, shrubs and groundcover shall be carefully selected and designed to homogenize with the environment.</li> </ul>

Measure ID	EIA Ref#	Landscape and Visual Mitigation Measures
LM10	S.7.9.3 MT 4	<ul> <li>Woodland mix planting:</li> <li>Woodland mix, comprising of tree seedlings and shrubs, shall be planted within the Wo Hop Shek Cemetery to enhance the ecological value and compensatory of tree loss.</li> </ul>
LM11	S.7.9.3 MT 5	<ul> <li>Preservation:</li> <li>No tree shall be transplanted or felled without prior approval by relevant Government departments;</li> <li>All trees that are marked for retention shall be fenced off with a 1.2m high fence around the dripline of trees or larger area as far as feasible;</li> <li>Transplant preparation works shall be carried as soon as possible after commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping shall be avoided. Rootball and crown pruning shall be carried out over at least 3 months; and</li> <li>Existing shrub and ground cover planting areas that will not be removed shall be maintained in good condition and enhanced where practical.</li> </ul>
LM12	S.7.9.4 MB 1	The 10m height headroom cremation plant room shall be half sunken to reduce the visual impact to pedestrians.
LM13	S.7.9.4 MB 2	The chimney shall be designed to have sculptural outlook and articulated. It shall also be kept in proportion with the rest of the building.
LM14	S.7.9.4 MB 3	The chimney stacks shall be designed to locate at the least conspicuous location of the site to VSRs.

Table 5.2 – Implementation programme of mitigation measures specific to Phase III development of the Project

Measure ID	Implementation Programme	Action Party	Action Period
LM01	Façade and roof of the site office will be painted with colour matches with existing environment.	Contractor	Dec 2018 - Mar 2019 NOTE1
	Site office and the construction yard will be decommissioned after construction.	Contractor	Aug 2022
LM02	The total height of site office and its building service equipment will be constructed no taller 10m.	Contractor	Mar 2019 NOTEI
LM03	• Site hoarding with 2.4m height and colour in harmony with the surrounding environment will be erected along the site boundary until the completion of relevant construction phases.	Contractor	Dec 2019
LM04	<ul> <li>Due to limited space of the construction site, number of machineries and plants on site will keep in minimal. They will be stored orderly and carefully in order to appear neat and avoid visibility from outside where practical;</li> <li>Excess materials will be removed from site as soon as practical; and</li> <li>All construction plants will be removed from site upon completion of construction works.</li> </ul>	Contractor	Dec 2019 – Aug 2022
LM05	<ul> <li>Construction light will be oriented away from the viewing location of Visual Sensitive Receivers (VSRs), if any; and</li> <li>Frosted diffusers and reflective covers will be installed on lightings facing VSRs, if any.</li> </ul>	Contractor	Dec 2019 – Aug 2022
LM06	No silting trap has to be installed as there are no streams identified nearby the construction site.	N.A.	N.A.
LM07	No tree will be felled in this construction Phase.	N.A.	N.A.
LM08	All nine trees within the site area will be transplanted within WHSC in accordance to Appendix B.	Contractor	Dec 2019 – May 2021
	Amenity Planting		
	Landscape specialist will be appointed to supervise landscape and planting works;	Contractor	Apr 2019 – Aug 2022
	The rooftop of the cremation plant room will be planted with lawn in accordance with Appendix C;	Contractor, AFCD	Mar 2021 – May 2021
LM09	Open spaces has been included in previous construction Phases;	N.A.	N.A. NOTE1
	Screen planting has been provided along the site boundary butting Kiu Tau Road in previous construction Phases; and	N.A.	N.A. NOTEI
-	Shrubs and groundcover will be carefully selected and designed to homogenize with the environment.	Contractor, ArchSD, AFCD	Dec 2019 – Aug 2022

Measure ID	Implementation Programme	Action Party	Action Period
LM10	Woodland mix planting was conducted during previous construction Phases.	N.A.	N.A. NOTEI
	<ul> <li>No tree will be transplanted or felled without prior approval by relevant Government departments. Approval has been sought to transplant T041-T049, in accordance to Appendix B. No tree would be felled;</li> </ul>	Contractor	Dec 2018 – Aug 2022
	<ul> <li>All trees that are marked for transplantation as shown in Appendix A will be fenced off with a 1.2m high fence around the dripline of trees or larger area as far as feasible before the transplantation;</li> </ul>	Contractor	Dec 2019 – Aug 2022
LM11	<ul> <li>Transplant preparation works will be carried out as soon as possible after commencement of construction. Over-pruning such as hard pruning of tree crown, pollarding or topping will not be performed. Rootball and crown pruning will be carried out over at least 3 months;</li> </ul>	Contractor	Oct 2019 – Aug 2022
	Existing shrub and ground cover planting areas within WHSC will be maintained in good condition and enhanced where practical.	AFCD, Contractor	Dec 2019 – Aug 2022
LM12	Cremation plant room has already been half sunken to reduce the visual impact to pedestrians.	N.A.	N.A. NOTE1
LM13	The chimney has been designed to have sculptural outlook and articulated. It is kept in proportion with the rest of the building.	AFCD, ArchSD	May 2019 – Aug 2022
LM14	The chimney stack is designed to locate at the least conspicuous location of the site to VSRs.	AFCD, ArchSD, Contractor	May 2019 – Aug 2022
-	Bi-weekly checking would be performed on the nine <i>Terminalia mantaly</i> trees within and outside the works area of the Project, or otherwise if the transplantations are not carried out according to the plan.	ArchSD, Contractor, ET	Feb 2020 – Aug 2022

NOTE1: Mitigation measures that have been implemented before the commencement of construction of the Phase III development; and out of the scope of the Phase III development.

- 5.3 Implementation of mitigation measures shall be audited by qualified third-party professional, e.g. the Environmental Team (ET), for reviewing the effectiveness of implemented measures. According to Section 6 of the EM&A Manual, bi-weekly environmental audit on landscape impact mitigation shall be undertaken during the construction phase. The findings of the bi-weekly environmental audit on landscape impact mitigation would be recorded in the relevant EM&A reports. The monitoring programme during construction phase is listed in Table 5.3.
- 5.4 When deficiency is identified in environmental audit on landscape mitigation, action shall be taken in accordance with the Event and Action Plan listed in Table 5.4.

Table 5.3 – Monitoring programme during construction phase

Monitoring Task	Period	Frequency	Form of Approval
Monitoring of the	Dec 2019 – Aug 2022	Bi-weekly	Counter-signature on
Contractor's	(the whole		inspection record by
performance regarding	construction period		IEC
the landscape impact	shall be covered)		

Table 5.4 – Event and Action Plan

Event	ent and Action Plan	Acı	tion	
	ET	IEC	ER/AR/SO	Contractor
When	1. Investigate the	1. Check the	1. Confirm receipt	1. Discuss remedial
deficiency is	cause of deficiency;	deficiency record;	of notification of	actions with ET,
identified	2. Inform IEC and	2. Review working	deficiency;	IEC and
	ER/AR/SO;	method;	2. Notify	ER/AR/SO;
	3. Propose and	3. Discuss remedial	Contractor;	2. Review working
	discuss remedial	actions with	3. Discuss remedial	methods and
	measures with	Contractor, ET and	actions with	propose alternative
	Contractor, IEC	ER/AR/SO;	Contractor, ET and	methods if
	and ER/AR/SO;	4. Advise ET and	IEC;	necessary;
	4. Monitor remedial	ER/AR/SO on the	4. Supervise and	3. Rectify the
	measures taken	effectiveness of the	ensure the proper	deficiency and
	until the	proposed remedial	implementation of	undertake any
	rectification	action;	remedial action.	necessary remedial
	satisfies the	5. Check the		action agreed with
	requirement;	implementation of		ET, IEC and
	5. Produce the	agreed remedial		ER/AR/SO.
	deficiency	action.		
	record/notification			
When	1. Investigate the	1. Check the	1. Confirm receipt	1. Stop the
same/similar	cause of deficiency;	deficiency record;	of notification of	corresponding
deficiency is	2. Inform IEC and	2. Review working	deficiency;	works/practice in
identified	ER/AR/SO;	method and	2. Notify	accordance with
repeatedly	3. Advise	remedial actions	Contractor;	instruction given by
	Contractor on	proposed;	3. Discuss remedial	ER/AR/SO.
	immediate action to	3. Discuss remedial	actions with	2. Take immediate
	avoid further	actions with	Contractor, ET and	action to avoid
	landscape	Contractor, ET and	IEC;	further landscape
	deterioration;	ER/AR/SO;	4. Supervise and	deterioration;
	4. Advise	4. Increase audit	ensure the proper	3. Discuss remedial
	ER/AR/SO on the	frequency until	implementation of	actions with ET,
	effectiveness of the	deficiency is	remedial action;	IEC and
	proposed remedial	properly rectified;	5. If the particular	ER/AR/SO;
	measures.	5. Advise ET and	deficiency	4. Review working
	5. Arrange meeting	ER/AR/SO on the	continues, consider	methods and
	to discuss remedial	effectiveness of the	stopping the	propose alternative

Event		Action				
	ET	IEC	ER/AR/SO	Contractor		
	actions with	proposed remedial	Contractor from the	methods according		
	Contractor, IEC	action;	corresponding	to		
	and ER/AR/SO;	6. Check the	works until the	advice/instruction		
	6. Increase audit	implementation of	deficiency is	given by		
	frequency until	agreed remedial	abated.	ET/IEC/ER/AR/SO;		
	deficiency is	action.		5. Rectify the		
	properly rectified;			deficiency and		
	7. Monitor remedial			undertake any		
	actions taken until			necessary remedial		
	the rectification			action agreed with		
	satisfies the			ET, IEC and		
	requirement;			ER/AR/SO.		
	8. Produce the					
	deficiency					
	record/notification					

### 6. Maintenance and Management Schedules

### 6.1 <u>Trees to be Transplanted</u>

Bi-weekly checking by ET shall be performed to see whether adequate protective measures are applied onto the nine *Terminalia mantaly* (小葉欖仁) trees and their general health conditions. Specialist shall be consulted before performing any construction activities that may potentially affect the trees. The contractor shall inform specialist immediately whenever they observe any abnormality conditions, e.g. falling of leaves in extremely short period of time.

### 6.2 Existing Landscape Plantings within WHSC

Although the scope of construction in this Phase does not cover the entire WHSC, the contractor shall also be responsible to take good care of existing landscape plantings within the WHSC. Bi-weekly inspection shall be performed by ET to ensure no planting in remaining parts of WHSC would be affected by the construction activities.

### 6.3 <u>Post-construction Phase</u>

After completion of the project, FEHD, as the facility owner of WHSC, shall be responsible in maintaining and managing the as-built landscape features of the entire WHSC.

### 7. Architectural and Chromatic Treatment of the Crematorium Building

Various architectural elements are introduced into different stages of the funeral process, taking into account the emotions and needs of the grieving families before and after the sacred funeral process. The project has been designed to allow the coaches and mortuary cars to drop off at the independent entrances of each hall. The chance of meeting another funeral group is minimized, and the grieving families could fully escort the deceased without separation. A reflecting pool at the facility entrance is intended to purify the mind of the visitors and prepares them for the ritual ceremony. Two rows of tall trees along the access road also help to calm down the grieving families and provide a sense of peace before they drop-off in front of the hall entrances from the coaches. Skylight right above the catafalque provides natural lighting to the casket resting on it. The casket would be the focus of the ceremony. Instead of having the casket delivered to the back through hanging curtains in the traditional way, the casket is designed to sink to the floor below. This recalls the most respectful Chinese tradition of burying the caskets underground. The visitors are guided to leave the halls and enter into a central landscape area instead of confronting the next grieving family. Individual toilets and joss paper burners are also provided for each hall. The relatives could finish their joss paper burning in private and undress their funeral costumes before they leave the ceremonial hall

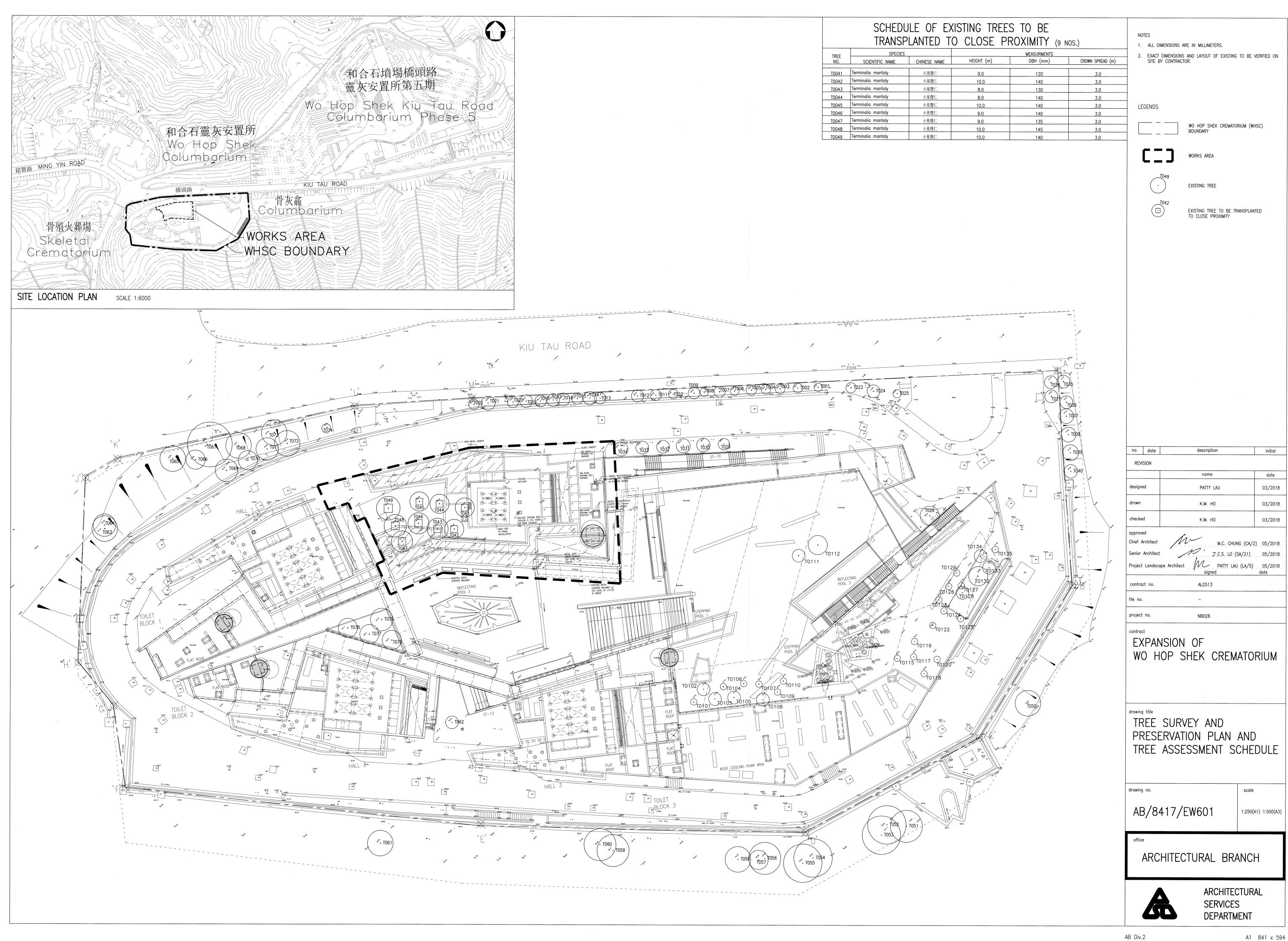
area. The central landscape area, which is the major part of the construction at this stage, is designed to allow people to rest and wait there upon finishing the ceremony. By making use of the roof of the cremation plant room, a large tilted lawn area with water features provides a place for meditation before the sad grieving families leave the premises. This nice landscape area with openness to Nature, sounds of falling water and distant mountain view helps to reduce the sadness of the grieving families, leading them back to the real world. Overall building height will not exceed existing buildings and there will be no sharp bulging out buildings and structure so that the harmony atmosphere within the WHSC can be maintained. External features of the design is attached in Appendix H.

7.2 Since this is the expansion of pre-existing facilities, theme colour of the new crematorium building will be kept consistent with existing facilities. Colours to be used will be mainly imitating common natural objects like rock, woods and water so as to bring peaceful sensation to visitors and facility users. No sharp brilliant colours, reflective and shiny texture façade and walls which would result in severe visual contradiction with existing buildings in WHSC will be used. Photos showing existing landscape of WHSC are attached in Appendix I and conceptual drawing showing finished view of this construction phase is attached in Appendix J.

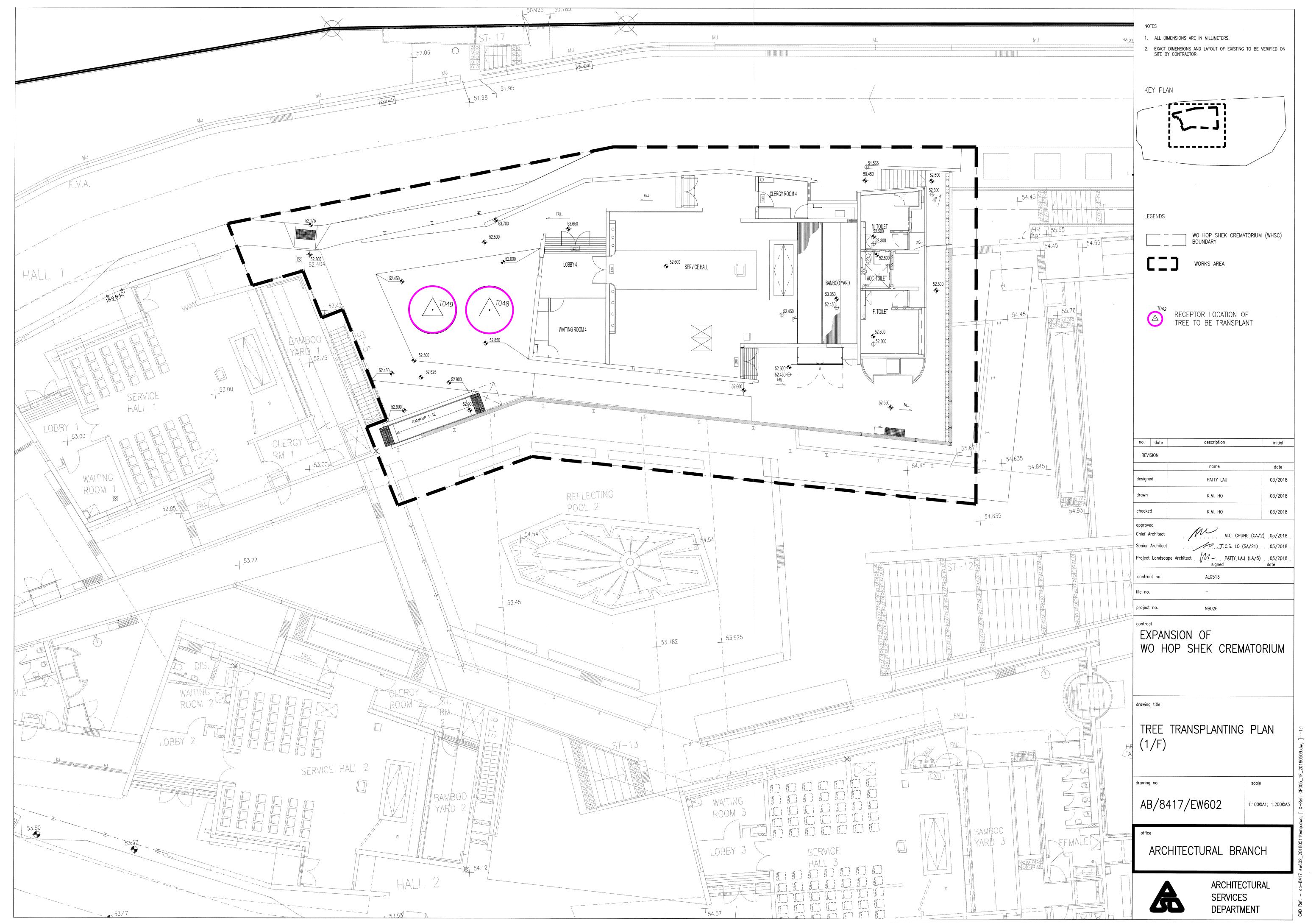
#### 8. Conclusion

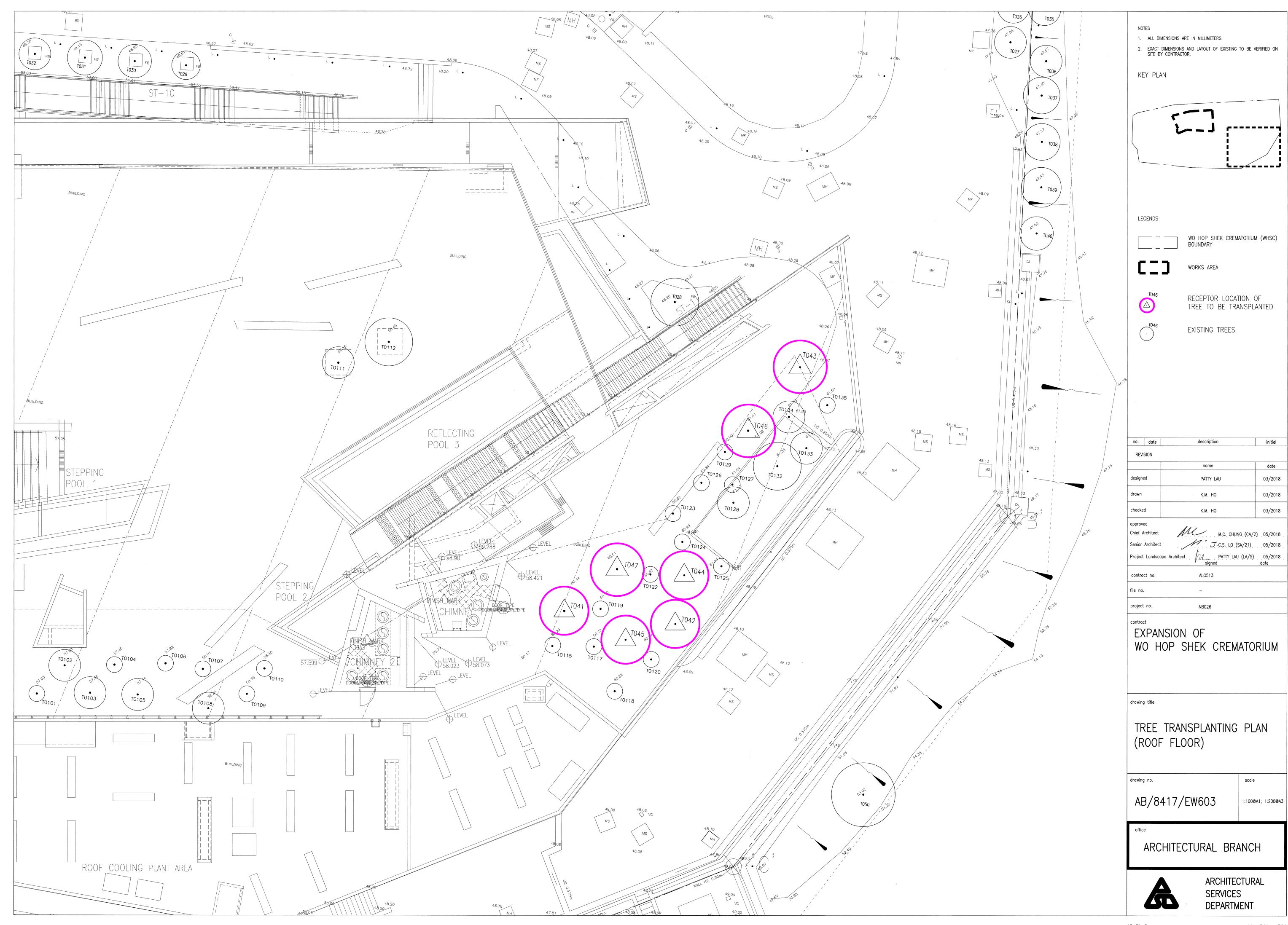
- 8.1 Landscape and visual impacts during Phase III of the construction of the Project should be mitigated if measures proposed in this Plan is properly implemented.
- 8.2 All requirements under Condition 2.5 of the Environmental Permit (EP-329/2009) are included in this submission. Recommendations in the approved EIA Report and EM&A Manual have also been fulfilled in this submission.
- 8.3 This submission provides information regarding tree preservation, landscape design, planting schedule, maintenance and management schedule established specifically for Phase III of the construction of the Project which were not included in the previous approved version in 2009.

Appendix A – Site Layout Plan

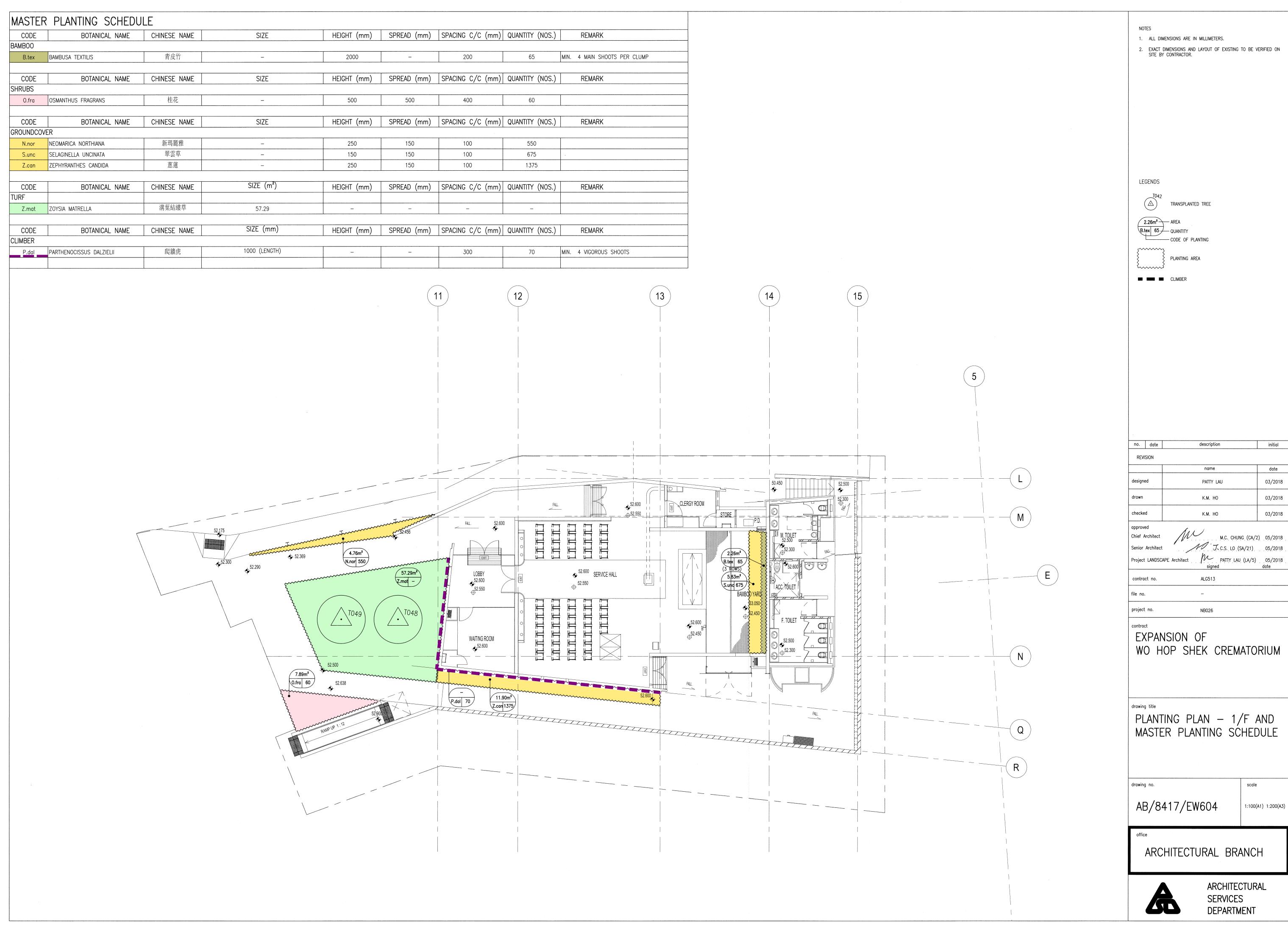


Appendix B – Receptor Locations of Tree to be Transplanted





Appendix C – Master Planting Schedule & Soiling Plan	



SOILING SCHEDULE									
PLANTING DEPTH (m	nm)	PLANTING AREA (m²)	PLANTING VOLUMN (m³)	REMARK				•	NOTES  1. ALL DIMENSIONS ARE IN MILLIMETERS.
300		16.66	4.998						2. EXACT DIMENSIONS AND LAYOUT OF EXISTING TO BE VERIFIED ON SITE BY CONTRACTOR.
600		16.00	9.600						
1200		57.29	68.748						
									LEGENDS
									T042  TRANSPLANTED TREE
									BACKFILL 300mm FABRICATED SOIL MIX FOR LAWN
									BACKFILL 600mm FABRICATED SOIL MIX
									BACKFILL 1200mm FABRICATED SOIL MIX
			11	(12)	(13)	(14)	(15)		
					. 1				
								5	
									no. date description initial
						50.450	52.500		no. date description initial  REVISION
				FALL.	52.600 CLERGY ROOM	OTODE (	52.300		designed PATTY LAU 03/2018
		52,175	T	52.600		P.D. O		- $        -$	drawn K.M. HO 03/2018
						52.500 52.300	FML.		checked K.M. HO 03/2018
		52.300	52.369	OBBY \$52.600 SERVIC		52.600			approved  Chief Architect  M.C. CHUNG (CA/2) 05/2018
			•	2.600 52.550 \$\int 52.550		RAMBO NAPPO ACC. TOILET			Senior Architect  T.C.S. LO (SA/21) 05/2018  Project Landscape Architect  PATTY LAU (LA/5) 05/2018  signed date
						DAINDOUT ARC			contract no. ALG513
					52.600 52.450	F. TOILET			file no. –
			WA	TING ROOM  52.600		52.500 52.300			project no. NB026
					EXT			N	EXPANSION OF
			52.638		FALL.				WO HOP SHEK CREMATORIUM
			52/90		5,2,70,00	FAIL			
			RAMP UP 1:12					$\overline{Q}$	drawing title
								R	SOILING PLAN
									drawing no. scale
									AB/8417/EW605 1:250 & 1:20(A1) 1:500 & 1:40(A3)
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Appendix D – Particular Specification for Landscape Works

# Particular Specification PS.L01 Landscape Works

### Particular Specification for Landscape Works

### General

This Particular Specification shall be read in conjunction with Section 25 of "General Specification for Building 2017 Edition issued by the Architectural Services Department, Hong Kong Special Administrative Region" referred to as "the GS" and any subsequent corrigendum issued. Where this Particular Specification conflicts with the GS, this Particular Specification shall take precedence.

## Soil for turf pitch

Add the following sub-clauses 25.02(l) and 25.02(m) after GS Clause 25.02(k):

25.02(1)

1

Soil for turf pitch shall be evenly textured; clean friable decomposed granite containing no weed growth, visible clay crumb, other foreign matter or contamination. Soil for turf pitch shall have a crumbly structure and contain no toxic elements, salt or growth inhibiting materials. Prior to use, declaration of analysis, in accordance with BS 3882 shall be produced from an approved laboratory to show compliance with the following:

- (i) textural range at a premium grade with < 27% clay and < 50% silt;
- (ii) contains no stone greater than 10mm diameter. Stones under 10mm diameter shall make up no more than 5% of total volume; and
- (iii) free from any soil contaminants.

Any subsequent change of origin of soiling materials shall be subject to submission of laboratory test for approval.

# Soil mix for turf pitch

3 25.02(m)

Soil mix shall be made up of the following components percentage volume:

(1)	River sand	50%
(ii)	Soil for turf pitch	30%
(iii)	Manufactured soil conditioner	20%

The soil mix shall be evenly mixed and attains a pH value between 6.5 and 7.0. Assessment of pH value of soil mix to be carried out on Site and before application. If the mixture is tested to be too acidic, raise the pH by mixing horticultural used limestone into the mixture. As a rough guide, the approximate amount of limestone to raise the pH of soil is 100 g/m2.

### **Pebbles**

Add the following sub-clause 25.04(f) after GS Clause 25.04(e):

### 25.04(f)

- (1) Pebble areas shall remain course and well-drained so that plant growth will not spontaneously germinate within it. Pebbles shall comprise only rounded shape, ranging in size as specified in drawings, or otherwise as specified by the Supervising Officer.
- (2) Pebbles color as specified in drawings, or otherwise as specified by the Supervising Officer.
- (3) The depth of pebble layer shall be within the structural loading limit of the roof.
- (4) The Contractor shall submit pebble samples to the Supervising Officer for approval.

### Cleaning of subsoil at new planter before planting

Add the following sub-clause 25.05(h) after GS Clause 25.05(g):

25.05(h) Clean the sub-soil to a depth of 400mm for at grade planter and full depth for on slab planter. All new planters shall be free of rubbish, pernicious and/or perennial weeds, metal, deleterious matter, and all stone exceeding 25mm in any direction before backfill material.

## Material submission

6 Add the following sub-clause 25.13(e) after GS Clause 25.13(d):

- 25.13(e) (1) Nursery visit is required to be conducted in the Contractor's Holding Nursery in Hong Kong. A list of sample materials, including shrub and trees shall be prepared with photograph and description shall be submitted to the Supervising Officer prior to the nursery visit.
  - (2) Sample and certificate of pine bark mulch, fertilizers, insecticide, etc shall be submitted to the Supervising Officer for approval prior to ordering.

# Substitution of plant material

7 GS Clause 25.17 is deleted and replaced by the following:

- 25.17 (1) In the event that the specified plant material is not available, the Contractor shall notify the Supervising Officer and shall provide the following information:
  - (i) documentary evidence substantiating the non-availability of the specified plant material; and
  - (ii) proposed substitute, which shall be of same or similar growth habit and size of the plant material originally specified.
  - (2) No substitution shall be made without approval of the Supervising Officer.
  - (3) Any changes arising from the need for substituting species, such as increasing the planting densities to meet the original design intent shall be at the Contractor's cost.

Landscape
edgings for
planting area

8 Add the following sub-clause 25.24(h) after GS Clause 25.24(g):

- 25.24(h) (1) The Contractor shall install polyvinyl chloride (PVC) or other approved materials as landscape edgings. The Contractor shall take into account the following requirements and prepare shop drawings of landscape edgings for the approval of the Supervising Officer:
  - (i) The height of the landscape edging shall be minimum 45mm. The top level of the landscape edgings shall be at least 15 mm above the adjacent pebble area or top level of soil
  - (ii) The landscape edgings shall adequately separate and demarcate different plantings, colour pebbles, paving blocks and prevent them from mixing with each other.
  - (iii) The landscape edgings shall be easily laid to curves or straights.

### Planting season

9

10

GS Clause 25.25(a) is deleted and replaced by the following:

- 25.25(a) (1) Planting shall take place in suitable weather conditions. Planting shall not take place in weather conditions which will result in initial drying out of root systems and/or scorching of leaves. Ideally planting shall take place in overcast or moist conditions. If planting has to be carried out in sun or drying winds, plants awaiting planting shall at all times be covered to prevent drying out.
  - (2) The Contractor shall cease planting immediately when in the opinion of the Supervising Officer the weather conditions are not as defined above. Planting shall be carried out between 1st April and 31st October, unless otherwise agreed in writing by the Supervising Officer.

### Pit planting of light standard, standard, heavy standard, trees, conifers, palms

GS Claus 25.29(k) is deleted and replaced by the following:

Type of Tree/ Palm/ Conifer

25.29(k) Dig tree pits to size as specified below:

Type of free/ family confree	SIZC OI I IL
(a) Light standard,	1000 mm Ø x 600 mm deep
standard, small	
conifers, small palms	
•	
(b) Heavy standard, large	1500 mm Ø x 750 mm deep
palms, large conifers	-
(c) Semi-mature trees	2000 mm Ø x 900 mm deep

Size of Pit

Soak the rootball of the plant, and fork over the base of the tree pit to a depth of 150 mm. Prepare backfill materials by adding and mixing in fertilizer in the quantities as specified in Clause 25.33(c) with Fabricated Soil Mix or Topsoil or Lightweight Soil Mix. Backfill the base in layers and firm in, adjusting the planting depth so that the soil is level with the root collar of the plant.

Remove all strings, burlaps, bags or plastic that used to contain the root ball carefully to expose the root ball. The Contractor shall arrange a site inspection with the Supervising Officer to carry out an inspection to verify all strings, burlaps, bags or plastic that used to contain the root ball are completely removed prior to tree planting works.

Place the tree, adjust orientation of the crown and check planting depth, adjusting as necessary. Fix vertical stakes or guying stakes or as specified. Tie tree to stakes or secure trees with guys. Backfill in layers, firming in each layer with heel and water thoroughly. Adjust tree ties or guy wires as necessary. Mulch to a depth of 75 mm, water again and continue to water as required.

Root flare of planted trees shall be visible after planting.

## Heavy standard trees

- 11 GS Clause 25.32(e) is deleted and replaced by the following:
  - 25.32(e) Heavy standard trees shall comply with the Appendix I to this PS and have all the following characteristics:
    - (i) A sturdy straight stem at least 2000 mm high from the root collar to the lowest branch;
    - (ii) Total height above the root collar exceeding 3500 mm but not exceeding 6000 mm;
    - (iii) Stem diameter exceeding 75 mm but not exceeding 150 mm measured at a height of 1300 mm from the root collar:
    - (iv) According to species, either a well balanced branching head, or a well defined straight and upright leader with branches growing out from the stem with good symmetry, and a minimum length of 800 mm;
    - (v) A rootball not less than 750 mm in diameter and 400 mm in depth;
    - (vi) When container grown trees are required, grown in a container not less than 750 mm in diameter and 600 mm deep; and
    - (vii) Free from any kind of pest, fungi, disease and parasitic plants.

### **Ground cover** 12 GS Clause 25.34(a) is deleted and replaced by the following:

- 25.34(a) Ground cover plants shall comply with the Appendix I to this PS and have all the following characteristics:
  - (i) Well developed, vigorous multiple shoots;
  - (ii) A well-developed vigorous root system; PS.L01/4

- (iii) Minimum dimensions not less than those specified, with a tolerance which shall not deviate from the specified dimension by more than  $\pm 25$  mm;
- (iv) Grown in a container not less than 125 mm in diameter and 150 mm deep; and
- (v) Free from any kind of pest, fungi, disease and parasitic plants.

### Small shrubs 13 GS Clause 25.34(b) is deleted and replaced by the following:

- 25.34(b) Small shrubs are seedlings or rooted cuttings. They shall comply with the Appendix I to this PS and have all the following characteristics:
  - (i) A minimum of three vigorous, one-year old shoots with a well balanced shape, and bushy habit;
  - (ii) A well-developed, vigorous root system;
  - (iii) Minimum dimensions not less than those specified, with a tolerance which shall not deviate from the specified dimension by more than  $\pm$  100 mm;
  - (iv) Grown and supplied in a container not less than 125 mm in diameter and 150 mm deep; and
  - (v) Free from any kind of pest, fungi, disease and parasitic plants.

### **Large shrubs** 14 GS Clause 25.34(c) is deleted and replaced by the following:

- 25.34(c) Large shrubs are transplanted seedlings or rooted cuttings. They shall comply with the Appendix I to this PS and have all the following characteristics:
  - (i) A minimum of five vigorous, one-year old shoots with a well balanced shape and bushy habit, to produce a diameter 2/3 of the height;
  - (ii) A well-developed, vigorous root system;
  - (iii) Minimum dimensions above soil level exceeding 600 mm and not less than those specified, with a tolerance which shall not deviate from the specified dimension by more than  $\pm$  200 mm;
  - (iv) Grown and supplied in a container not less than 200 mm in diameter and 250 mm deep; and
  - (v) Free from any kind of pest, fungi, disease and parasitic plants.

### **Climbers**

- 15 GS Clause 25.34(d) is deleted and replaced by the following:
  - 25.34(d) Climbers shall comply with the Appendix I to this PS and have all the following characteristics:
    - (i) A minimum of four vigorous, one year old shoots not less than 600 mm long except when specified otherwise;
    - (ii) A well developed vigorous root system;
    - (iii) Grown and supplied in a container not less than 125 mm in diameter and 150 mm deep; and
    - (iv) Free from any kind of pest, fungi, disease and parasitic plants.

### **Bamboos**

- 16 GS Clause 25.34(e) is deleted and replaced by the following:
  - 25.34(e) Bamboos shall comply with the Appendix I to this PS and have all the following characteristics:
    - (i) For multi-stemmed species, a clump of at least four main shoots sprouting from the base at the height specified;
    - (ii) For single stem species, at least one single shoot with total height above soil level not less than the height specified;
    - (iii) A well developed vigorous root system with a healthy rhizome capable of shooting fresh culm;
    - (iv) Grown and supplied in a container not less than 450 mm in diameter and 450 mm deep; and
    - (v) Free from any kind of pest, fungi, disease and parasitic plants.

### Supports for non-self clinging climbers

17

GS Clause 25.35 (a)&(b) is deleted and replaced by the following:

25.35(a) Rot proof ties shall be used to fix/secure the climbers to the & (b) cables or other supporting system installed in planter at 300mm interval or as directed by the Supervising Officer.

### **Turf**

Add the following sub-clause 25.46(c) (vii) after GS Clause 25.46(c)(vi):

25.46(c) (vii) The turf shall be of high quality and shall be of the species Axonopus compressus, Cynodon dactylon, Cynodon dactylon 'Tifway T419', Zoysia japonica, and Zoysia matrella or as specified in a mixed ratio or single species. Each piece measures in size approximately 300mm x 300mm and cut of an even soil thickness of 25mm and to be free from weeds, impurities, pests or disease, clay crumbs, or soil attached to the turf should be thoroughly removed before laying. Density of sod shall be sufficient so that no soil is visible when mown to height of 25mm. Not less than 95% of the turf in any turf should be the specified species. The whole turf plank should be of the specified species without excess of dead fibre but with healthy fibrous one year old stolons. Each plank shall demonstrate healthy fibrous root system to hold together when handled. Both sample and turfing materials are to be inspected and

### approved before laying.

Place soil mixture for turf pitch	19	Add the following sub-clauses 25.47(e)(i), 25.47(e)(ii), 25.47(e)(iii) 25.47(e)(iv), 25.47(e)(v), 25.47(e)(vi), 25.47(e)(vii), 25.47(e)(viii) 25.47(f) after GS Clause 25.47 (d):		
		25.47(e) (i)	Place layers of soil mixture over the pitch area and firm the soil mixture with a light roller at every layer of 150mm thick. Grade to the required levels, to eliminate rough spots and depressions, and falls (1:100 away from central axis of the pitch) and ensure good drainage. Consolidate soil mixture to the required bulk density using appropriate equipment. Leave surfaces smooth, uniform and firm against deep foot printing. Grade to conform to contours and elevations indicated on grading plans. Allow for settlement, and adjust any depression or undesirable high spots.	
Pre-turfing fertilizing of turf pitch	20	25.47(e) (ii)	Apply evenly 25g/m <sup>2</sup> of pre-turfing fertilizer and evenly rake into the finished soil surface, 4 to 7 days prior to turfing.	
Turfing of turf pitch	21	25.47(e) (iii)	Lay turf within 36 hours after being lifted. Lay turf sections on the prepared soil bed in longitudinal rows, joints staggered. Butt sections closely without overlapping or leaving gaps between sections. Lay turfs off planks working over turfs previous laid. Where necessary, lightly and evenly firm turfs with wooden beaters, the bottom of the beaters being frequently scrapped clean of accumulated soil or mud. Turf edges and margins to be laid with whole turfs. Cut out irregular or thin section with sharp implements. Apply a dressing of finely sifted soil mix and well brush into joints. Roll Turfs. Care should be taken to ensure good contact between the turfs and underlying soil. Provide close contact between turfs and soil bed by light rolling. Adjust any inequalities in finished levels owing to variation in turf thickness or uneven consolidation of soil by raking and by packing fine soil under the turfs. Use of heavy roller to correct irregularities in grade is not permitted.	
Make good settlement and defects	22	25.47(e) (iv)	Cordon off the turfed area. Allow settling and making good levels of sunken area by top-dressing when necessary. Reinstate bare patches, cut out irregular or thin section with sharp implements. Rake and fine grade soil surface. Lay new turfs. Roll turf with light roller in transverse direction not more than four passes for each operation.	
Turf cutting of turf pitch	23	25.47(e) (v)	First cut shall be made when the grass sward is 150mm high and then gradually through 5 cuts. Each time reduce cutting by 25mm and cut grass as often as necessary, so that approximately one half of growth is removed in a single cut, to maintain the final height at 25mm	

Aeration of turf for turf pitch	24	25.47(e) (vi)	Four operations of spiking using appropriate machinery to provide aeration to the turf are required during maintenance period of turf pitch.
Acceptance of turf pitch	25	25.47(e) (vii)	Turf area shall be accepted as complete only when an evenly close green growth of grass is established. Turf should be free of bare patches, dead spots and weeds. No surface soil is visible when grass is cut to 25mm in height.
Laboratory test for soil material	26	25.47(e) (viii)	Laboratory tests on soil mixture and imported subsoil layer for permeability, and soil conditioner to be carried out as directed.

# Appendix I : Supplementary Requirement for Trees (for Light Standard Trees, Standard Trees, Heavy Standard Trees, and Semi-mature Trees)

Tree shall comply with the following requirements:

- I. Trunk, branch, crown:
- a) Good trunk and branch taper from base to tip.
- b) A prominent, relatively straight, vertical central leader from base to tip (except decurrent trees).
- c) Good structure with good branch spacing.
- d) Free of co-dominant stems and structural defect.
- e) A live crown ratio, which is the height of the living crown with foliage divided by the total height of tree, shall be over 60%. The diameter of the lateral branch shall be less than 50% of the diameter of the trunk at the branch union for the development of a strong branch attachment.
- f) No topping at central leader or branches.
- g) Branching plentiful and uniformly distributed to form a well-balancing tree. The tree shall be free from vigorous, upright branches that compete with the central leader.
- h) Shoot growth (length and diameter) throughout the crown shall be appropriate for the age and size of the species or cultivar. The crown shall be free from dieback, dead, diseased, broken, distorted or injured branches.
- i) A balanced crown with full foliage for even weight distribution and wind loading.
- j) The form and density of the crown shall be typical for a young specimen of the species or cultivar. Changes in form caused by wind, pruning practices, or other factors shall not substantially alter the form for the species or cultivar.
- k) No included bark at any point of branch attachment in trunk and branches.
- l) Pruning wound / graft union shall be completely compartmentalized. There should be no flush cuts anywhere on the tree and no open injuries on the trunk or major branches.
- m) Free from physical damage, or canker and cavity on trunk or branches or other conditions that would prevent vigorous growth, such as bark abrasions, sunburned areas, disfiguring knots, girdling ties, conks, wood cracks, bleeding areas, or wounds (except properly-made pruning cuts).
- n) Free of pest and disease.

### II. Foliage:

- a) Evenly distributed on the upped 2/3 of the tree and not concentrated at the top.
- b) The size, shape, color, texture and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. The tree shall not show signs of prolonged moisture and/or nutrient stress as indicated by wilted, shrivelled, or dead leaves, or chlorosis.
- c) Free from physical damage or other conditions that would prevent vigorous growth.

### III. Root System:

- a) Sufficient rootball size.
- b) No circling roots, girdling roots, kinked roots, or defective roots.
- c) Strucutral roots present and root collar shall be properly formed.
- d) The uppermost roots or root collar shall be within the upper 50mm of the soil of the rootball.
- e) Roots shall be healthy and living, showing a white color appearance in general. Roots shall not show signs of excess soil moisture conditions as indicated by stunted, discolored, distorted, or dead roots.
- f) Rotoball shall be filled with roots and be compact. Root distribution shall be uniform throughout the rootball, and growth shall be appropriate for the species or cultivar. When the container is removed, the rootball shall ramin intact. When the trunk is lifted, both the trunk and rootball shall move as one.
- g) Foreign soil filing to enlarge rooball shall not be allowed.
- h) Roots on the periphery and bottom of the rootball shall be less than 5mm in diameter.
- i) The tree shall have been previously root pruned and/or contain sufficient roots for continued growth without resulting shock.
- j) At time of inspection and delivery, the rootball shall be moist throughout.
- k) The tree shall be able to stand up on its own without staking.
- 1) Free from root-bound condition, that is having many roots circling around the outside of the rootball.
- m) Free from physical damage or other conditions that would prevent vigorous growth, such as injury from biotic and abiotic agents.

### a. Illustration Photos – Typical acceptable and not acceptable forms

### A. Tree



Acceptable



Not Acceptable



Not Acceptable



Not Acceptable



Not Acceptable



Not Acceptable

### B. Conifer



Acceptable



Not Acceptable

## C. Palm



Acceptable



Not Acceptable



Not Acceptable



Not Acceptable

## D. Groundcover



Acceptable



Not Acceptable



Acceptable



Not Acceptable

# E. Shrub



Acceptable



Not Acceptable



Not Acceptable



Not Acceptable

## F. Climber



Acceptable



Not Acceptable

## G. Bamboo



Acceptable



Not Acceptable

## H. Herbaceous plant



Acceptable



Not Acceptable



Acceptable



Not Acceptable

- End -

Appendix E – Particular Specification for Preservation and Protection of Existing Trees

# **Particular Specification PS.L02**

# Preservation and Protection of Existing Trees Including Transplanting and Tree Surgery

## Particular Specification for Preservation and Protection of Existing Trees including Transplanting and Tree Surgery

#### General

 This Particular Specification shall be read in conjunction with Section 25 – Landscape Work of the General Specification for Building 2017 Edition (GS). Where this Particular Specification conflicts with the GS, This Particular Specification shall take precedence.

#### Protection from physical damage and soil compaction by construction activities

2. GS Clause 25.69.3(a) is deleted and replaced by the following:

25.69.3(a) The Contractor shall erect, secure and maintain in good condition temporary protective fencing to protect the preserved trees. Details of the temporary protective fencing are shown in Drawing No. TP1 attached to this Particular Specification. The Contractor shall submit method statements including construction details to the SO for approval and obtain such

fencing.

# Temporary protective hessian armouring

3. GS Clause 25.69.3(f) is deleted and replaced by the following:

25.69.3(f)

The Contractor shall provide temporary protective hessian armouring around tree trunks to protect the preserved trees. When instructed by the SO, the Contractor shall provide temporary protective hessian and plank armouring as an alternative to the same trees for enhanced protection. Details of the temporary protective hessian armouring and hessian and plank armouring are shown in Drawing No. TP2 attached to this Particular Specification.

approval before commencing the erection of the protective

# **Temporary protective mulching**

4. GS Clause 25.69.3(g) is deleted and replaced by the following:

25.69.3(g)

Unless otherwise agreed by the SO, the ground of the TPZ(s) of the trees referred to in Clause 25.69.3(f) shall be protected from damage by construction activities through the use of temporary protective mulching. When instructed by the SO, double, overlapping, thick metal sheet coverings, or other materials of equivalent strength as agreed by the SO, 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. Details of the temporary protective mulching are shown in Drawing No. TP3 attached to this Particular Specification.

# Protection from changes in ground levels

5. GS Clause 25.69.4(b)(i) is deleted and replaced by the following:

25.69.4(b)(i) Construct a retaining wall as shown in Drawing No. TP4 attached to this Particular Specification or similar measures as agreed by the SO to accommodate the reduction in the existing ground level around the tree,

GS Clause 25.69.4(c)(i) and (ii) are deleted and replaced by the following:

25.69.4(c)(i) Construct a dry well and soil aeration system as shown in Drawing No. TP5 attached to this Particular Specification or similar measures as agreed by the SO to accommodate minor to moderate rise of up to 300 mm in the existing ground level around the tree.

25.69.4(c)(ii) Construct a dry well and soil aeration system as shown in Drawing No. TP6 attached to this Particular Specification or similar measures as agreed by the SO to accommodate major rise of more than 300 mm in the existing ground level around the tree,

# Protection from excavation including trenching

6. Replace "Excavate the trench on the paved side of the tree if one exists, or tunnel the service in the manner and as shown in BS 5837 close to the tree trunk on one side:" in GS Clause 25.69.5(d) with "excavate the trench on the paved side of the tree if one exists, or tunnel the service in the following manner and as shown in Drawing No. TP7 attached to this Particular Specification close to the tree trunk on one side:"

# Personnel involved in pruning

7. Add the following paragraph at the end of GS Clause 25.87:

25.87

..... For tree pruning works involving the use of chainsaw, the Contractor shall assign worker(s) with relevant training to undertake such works. The assigned worker(s) must have passed the Vocational Assessment in Safety Use and Maintenance of Chainsaw Operation and Basic Tree Pruning for the Arboriculture Industry organised by the Vocational Training Council ("VTC") or possesses equivalent qualification from a recognised local/overseas training institute or professional body. The Contractor shall submit to the Supervising Officer for approval of the particulars of the assigned worker(s) (including the name and position) together with a copy of the certificate(s) issued by VTC or other recognised training institute or professional body confirming that worker(s) has/have obtained the required qualification.

#### **Tree Transplanting**

Add the following sub-clauses 25.71(g) after GS Clause 25.71(f):

8. 25.71(g)

Method statement, transportation route, protection measure to the floor finishing during transportation and program for tree transplanting and all the materials related to such works shall be submitted to the Supervising Officer for approval within 21 days of the date for commencement of the Works. Method statement shall be carefully considered and prepared with reference to the drawings of hoarding works.

9. 25.71(h) Contractor shall submit method statement for transplanting and maintenance schedule of the transplanted trees for approval by the Supervising Officer prior to the commencement of transplantation works. Contractor shall attain approval for Excavation Permits and/or Temporary Traffic Arrangements from relevant authorities prior to the commencement of

transplantation works.

- 10 25.71(i) The Contractor is required to transplant all existing trees within the Lot boundary and those as indicated in the Drawings or otherwise as specified by the Supervising Officer. Approval from the Supervising Officer is required prior to the commencement of transplanting.
- All the transplanted trees shall be relocated only once, i.e. the contractor is required to put all the affected trees to their final position once they are up-rooted or otherwise as specified and approved by the Supervising Officer to replant from holding nursery to recipient site. All the affected trees will be planted on the earth mounds as shown in the drawings, the Contractor shall prepare the recipient site including its level, soil conditions, etc to the satisfaction of the Supervising Officer before the transplanting of trees.
- 12. 25.71(k) The Contractor is requested not to remove any branch of the trees to retain their natural appearance. The Contractor can only remove the branch unless it is dead, disease or unhealthy and approval from the Supervising Officer shall be obtained.
- 13. 25.71(1) Reports on trees condition shall be submitted to the Supervising Officer according to the conditions as set out in the General Specification.
- 14. 25.71(m) Contractor shall submit monthly progress report for the maintenance schedule/record of all transplanted and preserved tree(s) within the area shown in the Tree Protection Plan. The report shall include photographic record of the trees and their maintenance operation history. The format shall submit for approval by the Supervising Officer 14days in advance of the works.
- 15. 25.71(n) Contractor shall submit photographic record of each stage of the transplanting work, which include excavating trenches for root ball preparation, construction of supporting measures, root pruning, maintenance during root pruning period, preparation of receptor site, crown thinning, wrapping of rootball, protection before lifting and transplanting, uplifting, protection during transit, planting in receptor site, immediate maintenance and watering, placement, backfilling, mulching and securing at receptor site.

#### Anchoring

- 16. Add the following sub-clause 25.72.4(c) after GS Clause 25.72.4(b):
  - 25.72.4(c) A metal frame and physical support are required for all necessary support the tree during the pre-transplanted stage to ensure its stability, unless otherwise specified by the Supervising Officer. Contractor shall subject to approval on submitted method statement of such works.

#### Root ball preparation

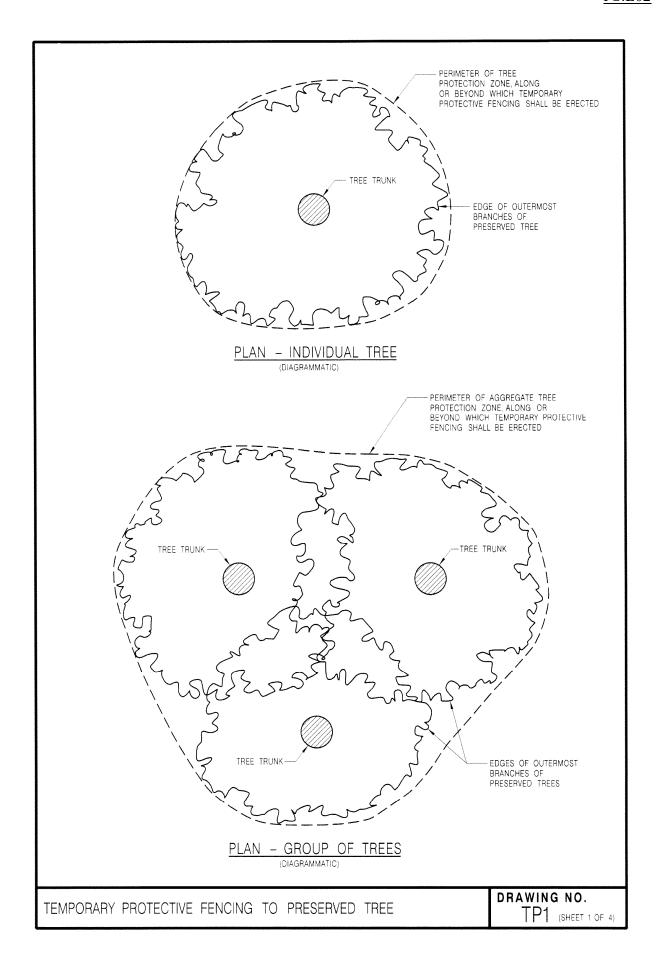
- 17. GS Clause 25.72.5(a) is deleted and replaced by the following:
  - 25.72.5(a) The dimensions for the rootball shall be determined by the Supervising Officer, based on the tree species/size and site specific conditions. Minimum 2m radius rootball shall be included or otherwise as specified by the Supervising Officer. Contractor shall subject to approval on submitted method statement of such works.
- 18. Add the following sub-clause 25.72.5(c) after GS Clause 25.72.5(b):
  - 25.72.5(c) The rootball shall be prepared and pruned by hand tools carefully.

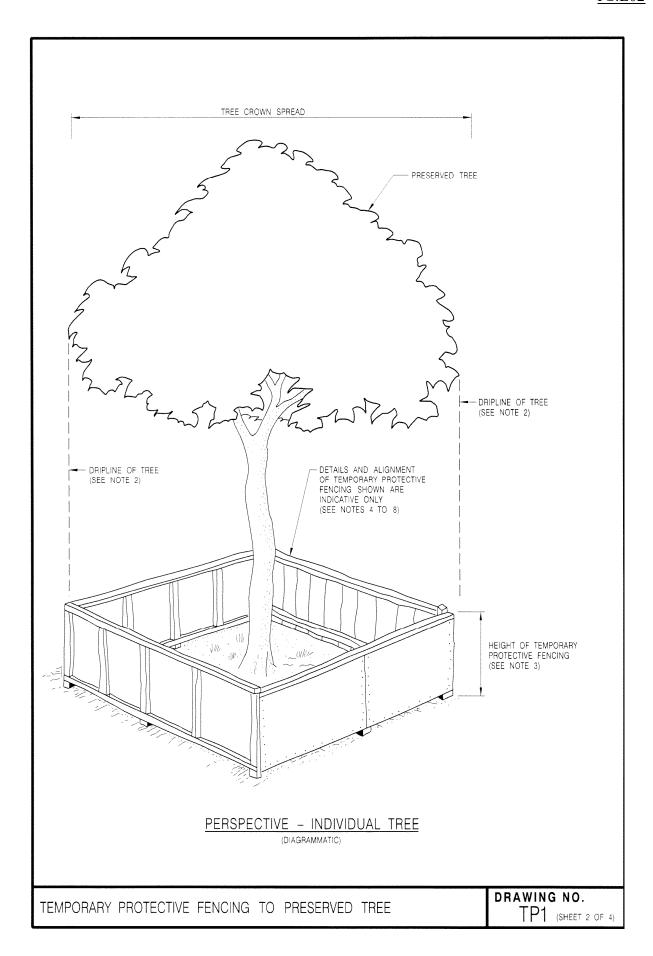
#### **Uplifting**

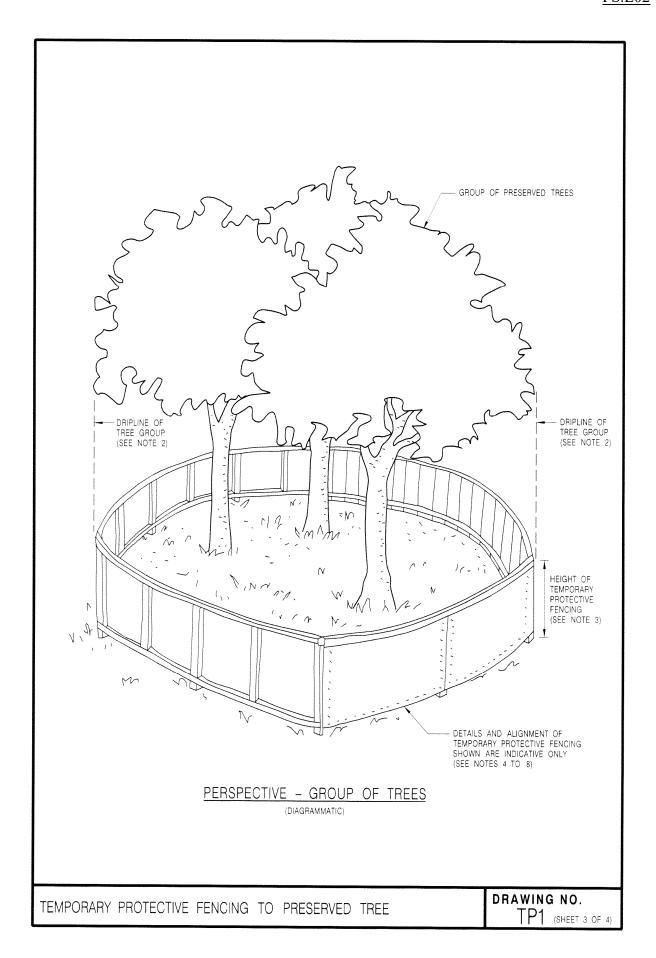
- 19. GS Clause 25.73.3 is deleted and replaced by the following:
  - 25.73.3 Plants shall be lifted carefully to avoid damage to root ball. Roots shall be cut free from ground, not pulled, using a suitable implement to give a clean cut. All roots greater than 50 mm diameter shall be treated with an approved sealant.

The rootball shall be wrapped and tied intact in order to retain the form of rootball and without loosening of soil from rootball while lifting. Do not lift by the tree trunk. The crane or other heavy lifting equipment shall be used. The chains or slings shall place around the the wrapped rootball which covered by laced and rope and uplift the tree vertically. Contractor shall subject to approval on submitted method statement of such works.

The lace and wraps must be removed before the planting.





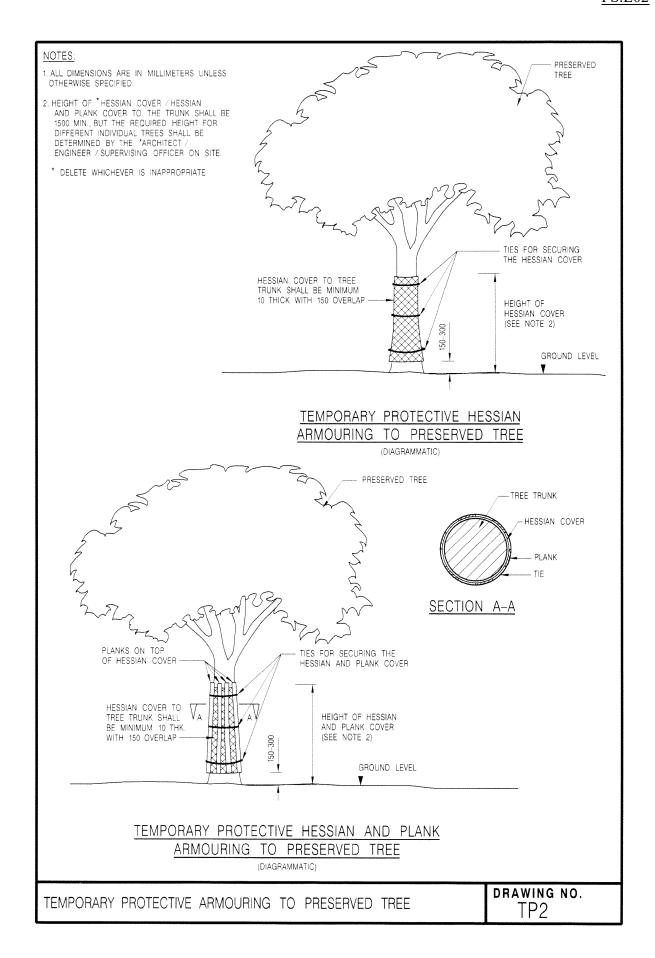


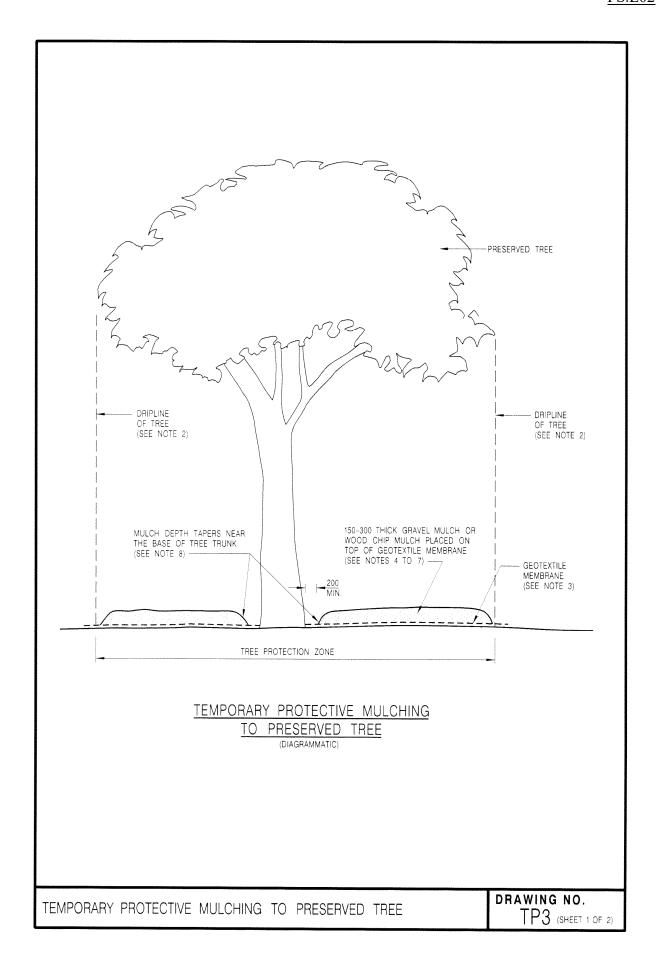
- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
- 2. DRIPLINE OF \*TREE / TREE GROUP EXTENDS TO THE OUTERMOST BRANCHES OF THE \*TREE / TREE GROUP, DEFINING THE PERIMETER OF THE \*TREE PROTECTION ZONE / AGGREGATE TREE PROTECTION ZONE
- 3. HEIGHT OF TEMPORARY PROTECTIVE FENCING SHALL BE 1500 MINIMUM. BUT THE REQUIRED HEIGHT SHALL BE DETERMINED BY THE \*ARCHITECT / ENGINEER / SUPERVISING OFFICER WHEN APPROVING THE CONSTRUCTION DETAILS OF THE FENCING AS REFERRED TO IN NOTE 8.
- 4. TEMPORARY PROTECTIVE FENCING SHALL BE STRONG AND APPROPRIATE FOR RESISTING THE IMPACTS OF CONSTRUCTION ACTIVITIES ON THE SITE. IT SHALL BE MADE OF ROBUST MATERIALS AND SHALL COMPRISE A VERTICAL AND HORIZONTAL SCAFFOLDING FRAMEWORK, WELL BRACED AND SUPPORTING \*\*CHAIN LINK FENCING / STEEL SHEET FENCING, OR OTHER FENCING AS APPROVED BY THE \*ARCHITECT / ENGINEER / SUPERVISING OFFICER. ONLY IN EXCEPTIONAL CIRCUMSTANCES SHALL PLASTIC WEBBING BE CONSIDERED.
- 5. THE ALIGNMENT OF TEMPORARY PROTECTIVE FENCING CAN BE IN CIRCULAR, SQUARE, RECTANGULAR OR ANY OTHER SHAPE SO LONG AS THE FENCING INCLUDING ITS FOUNDATIONS DOES NOT ENCROACH INTO THE TREE PROTECTION ZONE.
- 6. A LOCKABLE GATE SHALL BE PROVIDED TO THE TEMPORARY PROTECTIVE FENCING TO ALLOW ENTRY FOR CARRYING OUT THE NECESSARY ARBORICULTURAL WORKS OR MAINTENANCE WORKS TO THE TREE OR ANY OTHER APPROVED WORKS WITHIN THE TREE PROTECTION ZONE.
- 7. WARNING NOTICE GUARDING AGAINST UNAUTHORISED OPERATIONS WITHIN FENCED AREA SHALL BE ERECTED ON THE TEMPORARY PROTECTIVE FENCING.
- 8. THE CONTRACTOR SHALL SUBMIT THE CONSTRUCTION DETAILS OF THE TEMPORARY PROTECTIVE FENCING TO THE \*ARCHITECT / ENGINEER / SUPERVISING OFFICER FOR APPROVAL PRIOR TO ERECTION OF THE FENCING.
- \* DELETE WHICHEVER IS INAPPROPRIATE.
- \*\* DELETE WHICHEVER IS INAPPROPRIATE STEEL SHEET FENCING SHALL BE USED IN CIRCUMSTANCES WHERE THE CONCENTRATION OF CONSTRUCTION ACTIVITY IS PARTICULARLY INTENSE OR THE PRESERVED TREE IS EITHER PARTICULARLY VALUABLE OR PARTICULARLY VULNERABLE.

TEMPORARY PROTECTIVE FENCING TO PRESERVED TREE

DRAWING NO.

 $\mathsf{TP1}$  (sheet 4 of 4)



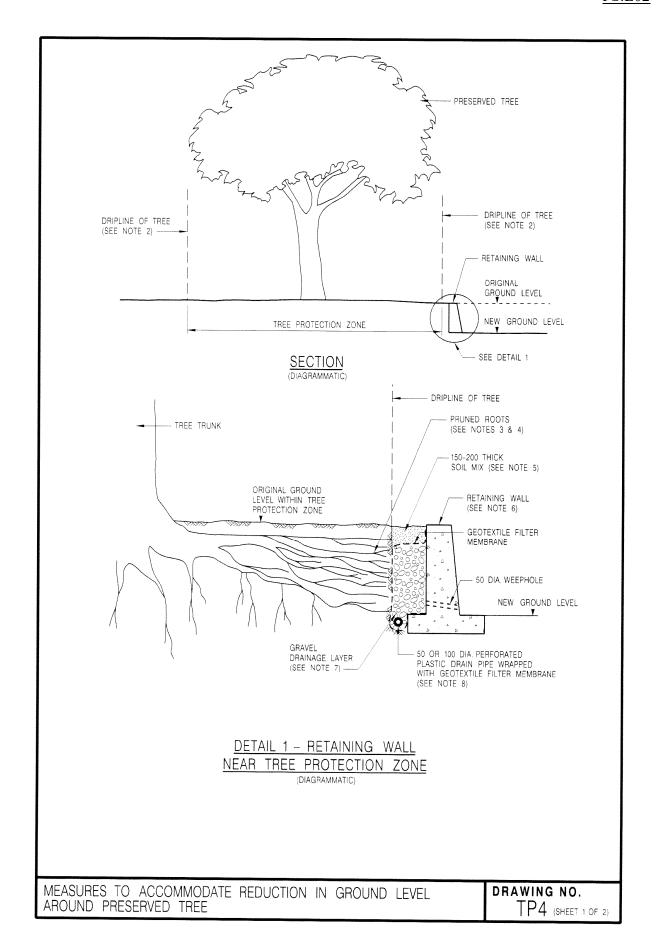


- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED
- 2. DRIPLINE OF TREE EXTENDS TO THE OUTERMOST BRANCHES OF THE TREE, DEFINING THE PERIMETER OF THE TREE PROTECTION ZONE.
- 3. THE GROUND BENEATH THE GEOTEXTILE MEMBRANE WITHIN THE TREE PROTECTION ZONE SHALL BE LEFT UNDISTURBED. BUT THE DEBRIS AND THE EXISTING UNDERGROWTH ON THE GROUND SHALL BE CLEARED PRIOR TO APPLYING THE GEOTEXTILE MEMBRANE. THE \*ARCHITECT / ENGINEER / SUPERVISING OFFICER'S AGREEMENT SHALL BE OBTAINED PRIOR TO CLEARANCE OF THE EXISTING UNDERGROWTH.
- 4. WHERE GRAVEL MULCH IS USED, THE NOMINAL SIZE OF GRAVEL SHALL BE OF 20 DIAMETER AND THE GRAVEL SHALL BE OF INERT, LIME-FREE MATERIALS WITH NO FINES
- 5. WHERE WOOD CHIP MULCH IS USED THE NOMINAL PARTICLE SIZE SHALL BE IN THE RANGE 2mm TO 20mm AND THE WOOD CHIPS SHALL BE FREE FROM PERNICIOUS WEEDS, CHEMICAL CONTAMINATION, RUBBISH AND OTHER DELETERIOUS MATERIAL.
- 6 TEMPORARY PROTECTIVE MULCHING SHALL BE INSPECTED AT MONTHLY INTERVALS AND, IF NECESSARY, SHALL BE REPLENISHED TO THE SPECIFIED THICKNESS.
- 7. WHERE, IN ADDITION TO PEDESTRIAN LOADS, THE PASSAGE OR PARKING OF VEHICLES OR THE OPERATION OF EQUIPMENT OR MACHINERY WITHIN THE TREE PROTECTION ZONE HAS BEEN AGREED BY THE "ARCHITECT / ENGINEER / SUPERVISING OFFICER, DOUBLE, OVERLAPPING THICK METAL SHEET COVERINGS, OR OTHER MATERIALS OF EQUIVALENT STRENGTH AS AGREED BY THE "ARCHITECT / ENGINEER / SUPERVISING OFFICER, SHALL BE LAID ON TOP OF THE TEMPORARY PROTECTIVE MULCHING TO PROVIDE ADDITIONAL PROTECTION FROM SOIL COMPACTION.
- 8. MULCH SHALL BE KEPT AWAY FROM THE BASE OF TREE TRUNK TO PREVENT ROOT COLLAR ROT.
- 9. WHERE THE PRESERVED TREE IS ON SLOPING GROUND, 300 HIGH TIMBER EDGE SHALL BE PEGGED ON DOWNSLOPE SIDE OF THE TREE PROTECTION ZONE TO HOLD THE MULCH.
- \* DELETE WHICHEVER IS INAPPROPRIATE.

TEMPORARY PROTECTIVE MULCHING TO PRESERVED TREE

DRAWING NO.

TP3 (SHEET 2 OF 2)



- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
- 2. DRIPLINE OF TREE EXTENDS TO THE OUTERMOST BRANCHES OF THE TREE, DEFINING THE PERIMETER OF THE TREE PROTECTION ZONE.
- 3. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED IN ROOT PRUNING TO AVOID TEARING AND SHREDDING OF THE ROOTS BY GRADING EQUIPMENT:

  (i) BEFORE GRADING, TRENCH AROUND THE TREE AT LEAST 200 BEYOND THE PERIMETER OF THE TREE PROTECTION ZONE WITH HAND-HELD TOOLS SUCH AS HOE AND SPADE,

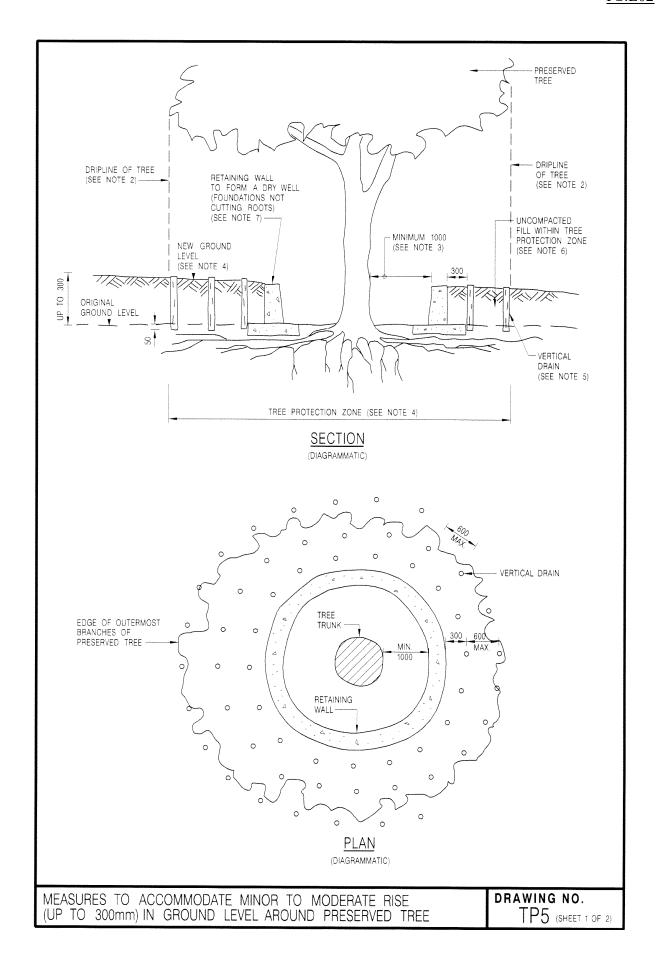
  (ii) CAREFULLY FORK THE SOIL AWAY FROM THE ROOTS USING HAND-HED TOOLS UP TO THE EDGE DEFINED BY THE PERIMETER OF THE TREE PROTECTION ZONE, AND

  (iii) PRUNE THE ROOTS USING HAND-HELD TOOLS UP TO THE EDGE DEFINED BY THE PERIMETER OF THE TREE PROTECTION ZONE.
- 4. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED IMMEDIATELY AFTER ROOT PRUNING UNTIL BACKFILLING IS COMPLETE TO PREVENT THE CUT AND EXPOSED ROOTS FROM DRYING
  - (i) HANG THICK HESSIAN OR OTHER POROUS, ABSORBENT FABRIC FROM THE TOP OF THE CUT SURFACE OVER THE EXPOSED ROOTS AND SOIL, AND
    (ii) MIST THE HESSIAN OR FABRIC IN A FREQUENCY THAT KEEPS THE ROOTS AND SOIL
  - AT THE CUT SURFACE MOIST ALL THE TIME.
- 5. SLOW RELEASE FERTILIZER SHALL BE INCORPORATED INTO THE SOIL MIX AT A RATE OF 500 G / M $^2$  OR AT A RATE AS DIRECTED BY THE \*ARCHITECT / ENGINEER / SUPERVISING OFFICER.
- 6. THE ALIGNMENT OF THE RETAINING WALL MAY VARY TO ACCOMMODATE THE ROOTS THAT ARE TO BE RETAINED, INCLUDING BUT NOT LIMITED TO TAP ROOTS, SINKER ROOTS, SUPPORT ROOTS AND ROOTS WITH DIAMETER EXCEEDING 50.
- 7. THE NOMINAL SIZE OF GRAVEL SHALL BE OF 20 DIAMETER AND THE GRAVEL SHALL BE OF INERT, LIME-FREE MATERIALS WITH NO FINES.
- 8. THE DRAIN PIPE SHALL BE CONNECTED TO A SUITABLE NEARBY DRAINAGE OUTLET SUCH AS SURFACE CHANNEL OR STORM WATER DRAIN AS AGREED BY THE \*ARCHITECT / ENGINEER / SUPERVISING OFFICER
  - \* DELETE WHICHEVER IS INAPPROPRIATE

MEASURES TO ACCOMMODATE REDUCTION IN GROUND LEVEL AROUND PRESERVED TREE

DRAWING NO.

TP4 (SHEET 2 OF 2)

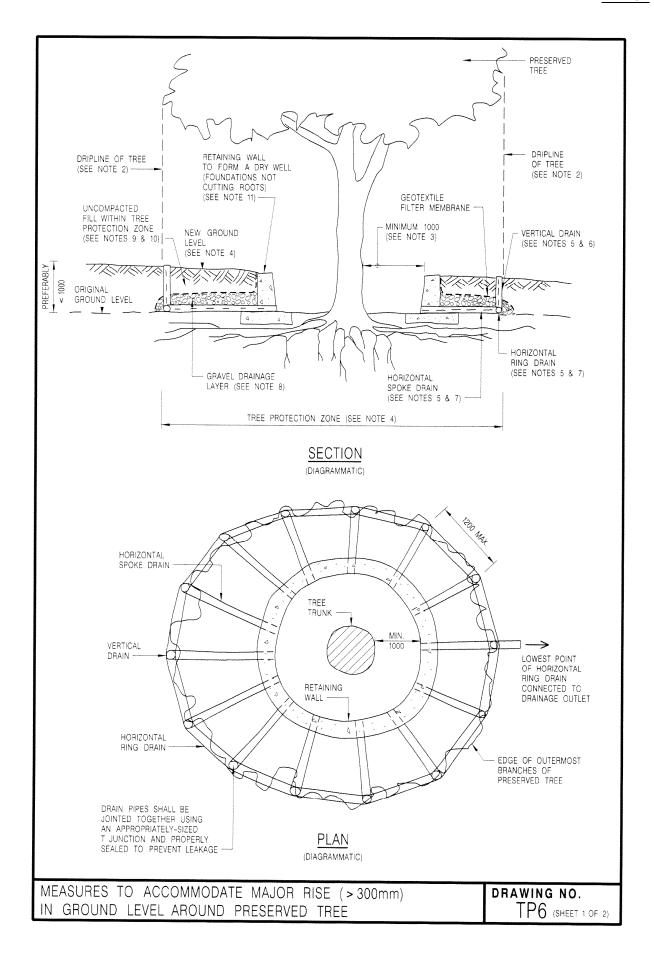


- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
- 2. DRIPLINE OF TREE EXTENDS TO THE OUTERMOST BRANCHES OF THE TREE, DEFINING THE PERIMETER OF THE TREE PROTECTION ZONE.
- 3. UNDER NO CIRCUMSTANCES SHALL THE FILL BE PLACED AGAINST THE TREE TRUNK WHERE ONLY PART OF THE DRY WELL IS FORMED SUCH THAT PART OF THE AREA NEXT TO THE TRUNK BASE IS CONNECTED TO THE ADJACENT PAVING AREA AT THE ORIGINAL GROUND LEVEL, THE AREA NEXT TO THE TRUNK BASE SHALL BE COVERED WITH OPEN JOINT PAVING OR LOOSE COBBLES
- 4. GRADING WITHIN THE TREE PROTECTION ZONE SHALL DRAIN AWAY FROM THE TREE TRUNK. WHERE THE TREE IS ON SLOPING GROUND, A SOIL BERM SHALL BE FORMED BETWEEN THE RETAINING WALL OF THE DRY WELL AND THE PERIMETER OF THE TREE PROTECTION ZONE ON THE UPSLOPE SIDE OF THE WELL TO DIRECT EXCESSIVE WATER FROM ENTERING THE WELL.
- 5. THE VERTICAL DRAINS SHALL BE 50 OR 100 DIAMETER PERFORATED PLASTIC DRAIN PIPES WRAPPED WITH GEOTEXTILE FILTER MEMBRANE. THE OPENINGS OF THE DRAINS TO THE AIR SHALL BE COVERED WITH A TIGHTLY-FITTED GRATE OR THE DRAINS SHALL BE FILLED WITH COARSE GRAVEL OF INERT, LIME-FREE MATERIALS WITH NO FINES, FOR SAFETY, EXCLUSION OF ANIMALS, AND TO ALLOW AIR AND WATER MOVEMENT. THE VERTICAL DRAINS SHALL BE PLACED IN 600 MAXIMUM HORIZONTAL SPACING WITHIN THE TREE PROTECTION ZONE AND SHALL EXTEND AT LEAST TO THE DRIPLINE OF THE TREE.
- 6. THE SOIL FOR FILLING WITHIN THE TREE PROTECTION ZONE SHALL BE OF A COARSER TEXTURE THAN THE UNDERLYING SOIL BELOW THE ORIGINAL GROUND LEVEL.
- 7. THE DETAILS OF THE RETAINING WALL FOUNDATION SHOWN ARE INDICATIVE ONLY.

  TO MINIMIZE ROOT DAMAGE, EXCAVATION FOR FOUNDATION SHALL BE CARRIED OUT
  BY HAND AND SLAB FOUNDATION SHALL BE AVOIDED, WHERE DISCONTINUOUS FOUNDATION
  IS USED, THE LOCATION OF THE FOUNDATION SHALL BE AGREED BY THE \*ARCHITECT /
  ENGINEER / SUPERVISING OFFICER.
  - \* DELETE WHICHEVER IS INAPPROPRIATE.

MEASURES TO ACCOMMODATE MINOR TO MODERATE RISE (UP TO 300mm) IN GROUND LEVEL AROUND PRESERVED TREE

DRAWING NO.
TP5 (SHEET 2 OF 2)

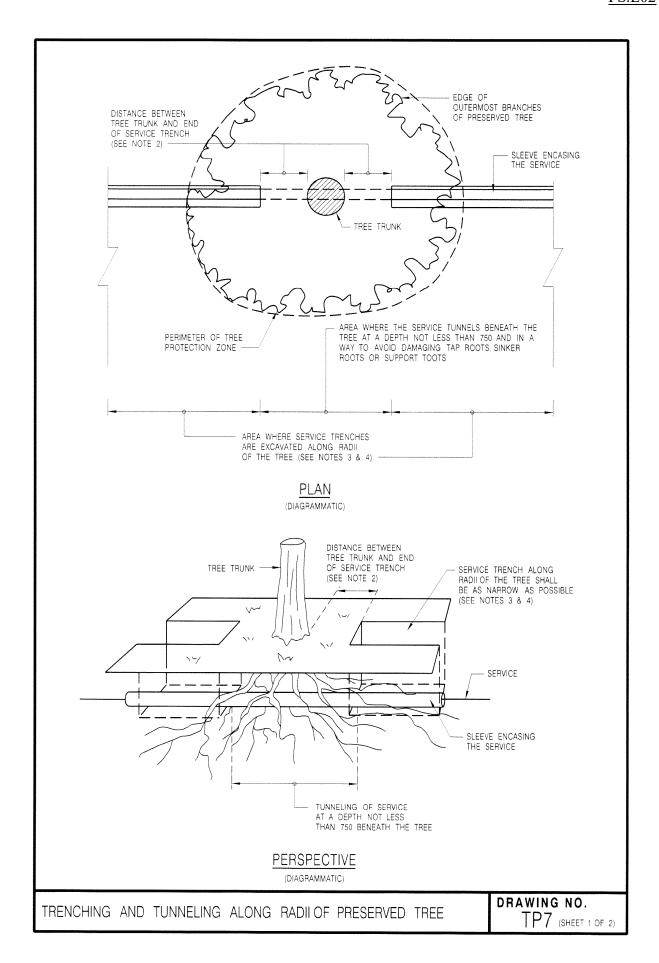


- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
- 2. DRIPLINE OF TREE EXTENDS TO THE OUTERMOST BRANCHES OF THE TREE, DEFINING THE PERIMETER OF THE TREE PROTECTION ZONE,
- 3. UNDER NO CIRCUMSTANCES SHALL THE FILL BE PLACED AGAINST THE TREE TRUNK WHERE ONLY PART OF THE DRY WELL IS FORMED SUCH THAT PART OF THE AREA NEXT TO THE TRUNK BASE IS CONNECTED TO THE ADJACENT PAVING AREA AT THE ORIGINAL GROUND LEVEL, THE AREA NEXT TO THE TRUNK BASE SHALL BE COVERED WITH OPEN JOINT PAVING OR LOOSE CORBLES
- 4. GRADING WITHIN THE TREE PROTECTION ZONE SHALL DRAIN AWAY FROM THE TREE TRUNK. WHERE THE TREE IS ON SLOPING GROUND, A SOIL BERM SHALL BE FORMED BETWEEN THE RETAINING WALL OF THE DRY WELL AND THE PERIMETER OF THE TREE PROTECTION ZONE ON THE UPSLOPE SIDE OF THE WELL TO DIRECT EXCESSIVE WATER FROM ENTERING THE WELL.
- 5. BOTH VERTICAL DRAINS AND HORIZONTAL DRAINS SHALL BE 100 DIAMETER PERFORATED PLASTIC DRAIN PIPES WRAPPED WITH GEOTEXTILE FILTER MEMBRANE HORIZONTAL DRAINS SHALL HAVE NON-PERFORATED INVERT TO HELP DIRECTION OF WATER TO THE DRAINAGE OUTLET. THE OPENINGS OF THE VERTICAL DRAINS TO THE AIR SHALL BE COVERED WITH A TIGHTLY-FITTED GRATE OR THE DRAINS SHALL BE FILLED WITH COARSE GRAVEL OF INERT, LIME-FREE MATERIALS WITH NO FINES, FOR SAFETY, EXCLUSION OF ANIMALS, AND TO ALLOW AIR AND WATER MOVEMENT.
- THE VERTICAL DRAINS SHALL BE PLACED IN 1200 MAXIMUM HORIZONTAL SPACING ALONG THE PERIMETER OF THE TREE PROTECTION ZONE.
- 7. THE HORIZONTAL SPOKE DRAINS SHALL DRAIN TOWARDS THE HORIZONTAL RING DRAIN. THE LOWEST POINT OF THE HORIZONTAL RING DRAIN SHALL BE CONNECTED TO A SUITABLE NEARBY DRAINAGE OUTLET SUCH AS SURFACE CHANNEL OR STORM WATER DRAIN AS AGREED BY THE \*ARCHITECT / ENGINEER / SUPERVISING OFFICER.
- 8. THE GRAVEL DRAINAGE LAYER IS NOT REQUIRED IF THE RISE IN GROUND LEVEL IS NOT MORE THAN 450, WHERE THE DRAINAGE LAYER IS REQUIRED, THE NOMINAL SIZE OF GRAVEL SHALL BE OF 20 DIAMETER AND THE GRAVEL SHALL BE OF INERT, LIME-FREE MATERIALS WITH NO FINES.
- 9. THE CAP OF FILL ABOVE THE GRAVEL DRAINAGE LAYER, IF PRESENT, SHALL BE 300 THICK.
- 10. THE FILL SHALL BE CAREFULLY ADDED TO BUILD THE NEW GROUND LEVEL SO THAT THE INTEGRITY OF THE DRAIN SYSTEM SURROUNDING THE DRY WELL IS MAINTAINED. THE SOIL FOR FILLING WITHIN THE TREE PROTECTION ZONE SHALL BE OF A COARSER TEXTURE THAN THE UNDERLYING SOIL BELOW THE ORIGINAL GROUND LEVEL.
- 11. THE DETAILS OF THE RETAINING WALL FOUNDATION SHOWN ARE INDICATIVE ONLY.

  TO MINIMIZE ROOT DAMAGE, EXCAVATION FOR FOUNDATION SHALL BE CARRIED OUT
  BY HAND AND SLAB FOUNDATION SHALL BE AVOIDED, WHERE DISCONTINUOUS FOUNDATION
  IS USED, THE LOCATION OF THE FOUNDATION SHALL BE AGREED BY THE \*ARCHITECT /
  ENGINEER / SUPERVISING OFFICER.
  - \* DELETE WHICHEVER IS IN APPROPRIATE.

MEASURES TO ACCOMMODATE MAJOR RISE (>300mm) IN GROUND LEVEL AROUND PRESERVED TREE

TP6 (SHEET 2 OF 2)



- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
- 2. THE SERVICE TRENCH SHALL BE EXCAVATED DIRECTLY TOWARDS THE TREE ALONG A RADIUS TO AT LEAST 1000 FROM THE TRUNK OR TO A DISTANCE WHERE ROOTS LARGER THAN 25 DIAMETER ARE ENCOUNTERED, WHICHEVER DISTANCE IS FARTHER AWAY FROM THE TRUNK.
- 3. THE SERVICE TRENCH WITHIN TREE PROTECTION ZONE SHALL BE EXCAVATED USING HAND-HELD TOOLS.
- 4 ANY ROOT CUTTING DURING TRENCH EXCAVATION WITHIN TREE PROTECTION ZONE SHALL BE CARRIED OUT USING HAND-HELD TOOLS, AND THE FOLLOWING PROCEDURES SHALL BE FOLLOWED IMMEDIATELY AFTER ROOT PRUNING UNTIL BACKFILLING IS COMPLETE TO PREVENT THE CUT AND EXPOSED ROOTS FROM DRYING OUT:
  - (i) HANG THICK HESSIAN OR OTHER POROUS, ABSORBENT FABRIC FROM THE TOP OF THE CUT SURFACE OVER THE EXPOSED ROOTS AND SOIL, AND
  - (ii) MIST THE HESSIAN OR FABRIC IN A FREQUENCY THAT KEEPS THE ROOTS AND SCIL AT THE CUT SURFACE MOIST ALL THE TIME.

TRENCHING AND TUNNELING ALONG RADII OF PRESERVED TREE

DRAWING NO.
TP7 (SHEET 2 OF 2)

- End -

Appendix F – Approved Tree Preservation and Removal Proposal

#### ARCHITECTURAL SERVICES DEPARTMENT

### Expansion of Wo Hop Shek Crematorium 026 NB



Tree Preservation and Removal Proposals (Tree Transplanting Proposal)

**Revision 00** 

January 2018

### **Revision History**

Revision	Submission	То	Reason of revising the	Revised area	Remarks
no.	(dd.mm.yyyy)		document		

#### **Table of Contents**

1.	Introduction			P.1
2.	Project Background and Information F			P.1
3.	Submission History and Program			P.1
4.	Impact to Existing Trees on Site			P.2
5.	Proposed treatment to existing trees on site and rationale to support the proposal P			P.3
6.	Transplanting Proposal P			P.4
7.	Cond	clusion		P.5
<u>Annexes</u>				
Annex 1	-	Existing Condition of Site		
Annex 2	-	- Blanket Approval for ArchSD from LandsD (Memo dated 4 January 2018)		
Annex 3	- Email from FEHD (dated 12 January 2018)			
Annex 4	- Tree Assessment Schedule			
Annex 5	- Photographs of Existing Trees			
Annex 6	- Tree Transplanting Specifications			
Annex 7	-	Drawings:		
		Location and Tree Survey Plan	(Drawing No. AB/8417/EW101)	
		Tree Transplanting Plans	(Drawing No. AB/8417/EW102 & 103)	

#### 1. Introduction

- (i) This Tree Transplanting Proposal was prepared in accordance to Development Bureau Technical Circular (Works) No. 7/2015 "Tree Preservation". The proposal contains the tree identification and assessment of existing trees that will be affected by the expansion of Wo Hop Shek Crematorium. Please refer to **Annex 1** for the existing condition of the site and **Annex 7** for the location of the affected trees within site boundary. The site boundary demarcates the extent of works area/ affected area.
- (ii) This tree survey and assessment of the existing trees within the works area was used to make recommendations regarding the treatment of existing trees in response to the design proposals and was used to retain as a tree condition record.
- (iii) This proposal outlines the approach and findings of the tree survey, describe the type, extent and conditions of the existing trees that will be affected by the proposed expansion works, makes recommendations for the preservation of these trees.

#### 2. Background

- (i) This project proposes to install two additional coffin cremators and one service hall in the existing Wo Hop Shek Crematorium (WHSC). The site of the proposed expansion works is located within the existing WHSC which was already allocated to Director of Food and Environmental Hygiene under Permanent Government Land Allocation No. DN 421. Part of the project scope that affects the layout is extracted as follows:
  - (a) Provision of two standard coffin cremators;
  - (b) Provision of one additional multi-purpose service hall'
  - (c) Provision of full range of ancillary facilities including one additional joss paper burner, toilets and refuse storage area for the new services hall, additional anti-burglary devices and anti-bumping devices inside the cremation room; and
  - (d) Provision of landscaping for the additional provisions.
- (ii) The expansion works are tentatively scheduled to commence in December 2018 for completion in January 2023.
- (iii) According to DEVB TCW No. 7/2015 paragraph 29, the Tree Unit of LandsD should provide expert advice for government departments that do not have departmental tree expertise. Since there is no departmental tree expertise under FEHD, LandsD should provide expert advice in this case. Notwithstanding that, blanket approval for ArchSD to process the TPRP for this project was granted (Annex 2).
- (iv) The draft of this Tree Transplanting Proposal had been forwarded to FEHD and they expressed no comment on the proposal (**Annex 3**).

#### 3. Submission History and Program

(i) This is the first submission of the proposal.

#### 4. <u>Impact to Existing Trees on Site</u>

(i) A tree survey was carried out on 23 June 2017. A total of 9 trees to be affected by the expansion works were surveyed and all of them were of 1 species.

Tree No. (Total no. of Trees)	Species	Management and Maintenance Department
T41 – T49 (9)	Terminalia mantaly (小葉欖仁)	FEHD

- (ii) All trees (T41 to T49) found in the survey are *Terminalia mantaly* (小葉欖仁) growing at-grade on a gentle slope within site boundary. They are growing in healthy condition with fair form and structural condition, with 3m spread in general, heighted from 8 -10m, and individual DBH ranging from 120 140mm.
- (iii) There are no potentially registrable trees and no trees included in the Register of Old and Valuable Trees in accordance with ETWB TCW No. 29/2004 and all the existing trees are not important trees according to DEVB TCW No. 7/2015.
- (iv) The Tree Assessment Schedule, Photographs of Existing Trees, Tree Survey and Preservation Plan, and Tree Transplanting Plan are included in **Annex 4**, **5** and **7** of this report respectively.

#### 5. Proposed Treatment to Existing Trees and Justification

- (i) As mentioned in Section 4, 9 nos. of trees **T41 T49** found within site boundary are growing at-grade in healthy condition.
- (ii) The proposed scheme has thoroughly taken the health and structural conditions of the existing trees within site into consideration. Due to the leveling works to be carried out at the existing lawn area, all the 9 nos. of trees are proposed to be transplanted. 2 of them, **T48 T49**, both with 10 x 3 m (height x spread) are proposed to be transplanted in-situ upon completion of forming the level for the new development.

Amongst all the surveyed trees within site boundary, 7 nos. of trees **T41 – T47** are in conflict with the proposed development. They are assessed as fair in amenity value, form, and structural condition. Therefore, the suitability for transplanting them are considered as medium, and hence, they are proposed to be transplanted.

The proposed receptor sites for all the 9 nos. of trees are within the existing Wo Hop Shek Crematorium and agreement had been sought from FEHD (**Annex 3**).

- (iii) No trees is proposed to be felled within nor outside the site boundary of this development project.
- (iv) Of the 9 nos. of surveyed trees (T41 T49), the proposed treatments to them are as follows:

#### Within Site Boundary:

No. of trees proposed for retention 0 nos.
No. of trees proposed for transplanting 9 nos.
No. of trees proposed for felling 0 nos.

(vii) Summary of Treatment to Surveyed Trees

Onlaw (ISIn Name	Chinese name	Proposed Treatment			Total
Scientific Name		Retain	Transplant	Fell	Quantity
Within Site Boundary					
Terminalia mantaly	小葉欖仁	0	9	0	9

(viii) Please refer to the Tree Assessment Schedule in **Annex 4**, Photographs of Existing Trees in **Annex 5** and Drawings in **Annex 7**.

#### 6. <u>Transplanting Proposal</u>

(i) According to DEVB TCW No. 7/2015, "For transplant and pruning operations, a method statement should be provided. In particular, pruning proposals for trees to be retained or transplanted should include reasons and proposed extent of pruning, such as canopy and root pruning."

Considering the health and structural conditions of the trees that are in conflict with the development and the suitability for transplanting of the trees mentioned in Section 5 (ii), 9 nos. of trees are recommended to be transplanted. (refer to **Annex 7** – Tree Transplanting Plans).

- (ii) For **T48 T49**, in-situ transplant is proposed. Please refer to *Dwg No. EW102* in **Annex 7**.
- (iii) For **T41 T47**, the receptor sites are located on the southeast part of the Roof Level within Wo Hop Shek Crematorium development. Please refer to *Dwg No. EW103* in Annex 5. Its existing condition is shown in the image below.



Existing condition of the receptor sites, southeast part of the Roof Level, Wo Hop Shek Crematorium

- (iv) In all tree-transplanting areas, sufficient soil depth (minimum 1200mm excluding drainage layer) with adequate drainage will be provided to ensure healthy growth of plants. The specification of soil will follow the General Specification for Building published by ArchSD.
- (v) The tree transplanting works and/or tree surgery works will be carried out according to General Specification for Building 2017 Section 25 Clauses 25.71 to 25.79 (Refer to Annex 6 for the extracted GS).

The Method Statement (including temporary and /or permanent measures) for transplant and pruning operations, including programme for transplanting the existing trees, outlining the method, sequencing, timing of operations, will be submitted by the contractor to the Architect for approval prior to commencement of such works.

A 1-year establishment period will be provided by the contractor for the transplant and pruning operations according to GS 25.93. The works would be maintained after the completion date for a period of twelve months. All measures necessary will be carried out to ensure that all plants shall thrive and become established within this period.

#### 7. <u>Conclusion</u>

The proposed expansion works will affect 9 trees within the site boundary. 2 nos. of trees are recommended to be transplanted in-situ, while 7 nos. of trees are proposed to be transplanted within the existing lot boundary under the same maintenance party.

No trees are proposed to be felled therefore no compensatory planting proposal is proposed.

Summary of Proposed Treatment to Existing Trees is as follows:

Proposed Treatment	Total Quantity (Within Site)
Retain	0
Transplant	9
Fell	0
Total	9

# Annex 1 Existing Condition of Site



Overview of the surveyed trees (northeast)



Overview of the surveyed trees (northwest)

## Annex 2 Blanket Approval for ArchSD from LandsD Memo dated 4 January 2018

#### By fax and email

## **MEMO**

From'	Director of Lands
Ref. (136)	in LD SD/GEN/29/17 Pt. 4
Tel. No.	2231 3030
Fax. No	2868 4707
Date	4 January 2018

	Parcolo	ULAI	chitectural	GCIVICUS	
(Attn	Ms. YE	UNG I	ai Fong, A	Alice	)
Your Ref.		_ In _	ASD51/8417	/IC/FEHD/904/1(L2)	
dated _	24.11.	2017	Fax. No.	2523 4693	
Total Pag	es	2			

لل 2018 AN 2018 الم

# Blanket Approval for ArchSD to process Tree Preservation and Removal Proposals arising from Project No. 026NB Expansion of Wo Hop Shek Crematorium, North ("the Project") (GLA – DN 421)

With reference to your memo dated 24.11.2017, I hereby grant you a blanket approval pursuant to paragraph 29 of the Development Bureau Technical Circular (Works) No. 7/2015 on Tree Preservation ("TC") for your processing of the tree preservation and removal proposals ("Proposals") arising from the Project.

- 2. With the blanket approval, you can duly consider, process and directly approve or disapprove the respective Proposals. You will vet the Proposals to prevent abuse of the exemption under paragraph 37 of the TC and endorse the Proposals under paragraph 29 and paragraph 38 of the TC.
- Please note that the TC has stipulated that the Tree Unit of LandsD should provide expert advice for government departments that do not have departmental tree experts. As ArchSD has in-house tree experts, the processing of the Proposals does not fall within the ambit of LandsD as defined in the TC.
- 4. By copy of this memo, District Lands Office/ North is requested to take note of the above blanket approval. The above blanket approval should cover all the Proposals arising from the Project. No separate approval is required from District Lands Office/ North to these Proposals.
- 5. Should you have any queries, please contact our Miss Ruth Lee (SES/SD1, EM Section) at 2231 3280.

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LA/5					
LA/					
LAG/			B.U,	FILE AWAY	FILE AND RETURN

(Ms Rita LAI)
for Director of Lands

-2-

C.C.

CA/2, ASD (Fax No.: 2877 0656)

GLTMS/DEVB (Attn.: AS(TM)2) (Fax No.: 2186 6932)

Internal DLO/N SLA/TU

SES/SD1, EM Section

90%

Annex 3 Email from FEHD dated 12 January 2018

	Urgent	Return receipt	Sign	Encrypt	☐ Mark Subject Restricted
ш	Orgeni	Return receipt	□ Sign	∟ ⊑ncrypι	



Re: 026NB Expansion of Wo Hop Shek Crematorium - Tree Preservation and Removal Proposals

12/01/2018 07:18 PM

From: Bonnie SY FUNG/FEHD/HKSARG@FEHD
To: Yau Yee LAU/ARCHSD/HKSARG@ARCHSD

Cc: Tracy Yuen YIU/ARCHSD/HKSARG@ARCHSD, Wing Yin

KWOK/ARCHSD/HKSARG@ARCHSD, Ming Wai LAM/FEHD/HKSARG@FEHD, Tsz

Ching YAN/FEHD/HKSARG@FEHD

### Dear Patty,

I refer to your mail of 10 Jan 2018. Mr Patrick Lam, CHI(C&C)1/FEHD, has been consulted. Please note that we have no comment on the draft TPRP. Thanks.

Bonnie Fung SEO(Planning)3 FEHD

Tel: 3141 1226

Yau Yee LAU Dear Bonnie and Mr Lam A blanket approval has... 10/01/2018 11:29:58

From: Yau Yee LAU/ARCHSD/HKSARG@ARCHSD

To: Bonnie SY FUNG/FEHD/HKSARG@FEHD, Ming Wai LAM/FEHD/HKSARG@FEHD

Cc: Wing Yin KWOK/ARCHSD/HKSARG@ARCHSD, Tracy Yuen

YIU/ARCHSD/HKSARG@ARCHSD

Date: 10/1/2018 11:32

Subject: 026NB Expansion of Wo Hop Shek Crematorium - Tree Preservation and Removal Proposals

#### Dear Bonnie and Mr Lam

A blanket approval has been granted from LandsD to ArchSD for processing the Tree Preservation and Removal Proposals (TPRP) and the memo is attached for your information.

[attachment "Blanket approval from LandsD\_Jan 2018.pdf" deleted by Bonnie SY FUNG/FEHD/HKSARG]

Before a formal submission to be made to ArchSD vetting panel, a draft TPRP is attached for your comment. As discussed and agreed in the coordination meeting held on 12.9.2017, 7 of the 9 existing trees are proposed to be transplanted to the roof garden of the existing WHS Crematorium, while 2 of them are proposed to be transplanted back to the new landscape area in the expansion site. I would be very much grateful if you could let me have your comment by 17 Jan 2018.

[attachment "Tree Preservation and Removal Proposals\_ Application\_full set.pdf"

## deleted by Bonnie SY FUNG/FEHD/HKSARG]

Should you have any question, please don't hesitate to contact me at 2867 3885

Regards
Patty LAU
LA/5
ArchSD
2867 3885

## Annex 4 Tree Assessment Schedule



## ARCHITECTURAL SERVICES DEPARTMENT 建築署

### QUEENSWAY GOVERNMENT OFFICES, 66 QUEENSWAY, HONG KONG 香港金鐘道六十六號金鐘道政府合署

InForm No.: 8417 Project No.: 026 NB Surveyed by: Charles KUNG (SFO/1/2)

Project Title: Expansion of Wo Hop Shek Crematorium Date of Survey: 23/06/2017

-																			
	TREE ASSESSMENT SCHEDULE																		
	Specie	S	Tr	ee Size							Suitability for Ti	ansplanting				Re	commendat	tion	
	Scientific Name	Chinese Name	DBH (mm)	Height (m)	Crown Spread (m)		Health Condition (Good/Fai r/Poor)	Tree Form (Good /Fair / Poor)	Amenity Value (Good/Fair/ Poor)	Condition	Survival Rate after transplanting (High/Medium/Lo w)	Remarks #	Conserv ation Status	Register of Old and Valuable Trees (Yes/No)	Rare and Precious Plants of Hong Kong (Yes/No)	Retain	Transplant	Fell	Department to provide expert advice to LandsD
T0041	Terminalia mantaly	小葉欖仁	120	9	3	52.09	Fair	Fair	Fair	Fair	Medium		C	ommon spec	ies		Transplant		
T0042	Terminalia mantaly	小葉欖仁	140	10	3	52.27	Fair	Fair	Fair	Fair	Medium		C	ommon spec	ies		Transplant		
T0043	Terminalia mantaly	小葉欖仁	130	8	3	52.23	Fair	Fair	Fair	Fair	Medium		C	ommon spec	ies		Transplant		
T0044	Terminalia mantaly	小葉欖仁	140	8	3	52.04	Fair	Fair	Fair	Fair	Medium		C	ommon speci	ies		Transplant		
T0045	Terminalia mantaly	小葉欖仁	140	10	3	52.08	Fair	Fair	Fair	Fair	Medium		C	ommon speci	ies		Transplant		ArchSD*
T0046	Terminalia mantaly	小葉欖仁	140	9	3	52.29	Fair	Fair	Fair	Fair	Medium		C	ommon spec	ies		Transplant		
T0047	Terminalia mantaly	小葉欖仁	135	9	3	52.54	Fair	Fair	Fair	Fair	Medium		C	ommon speci	ies		Transplant		
T0048	Terminalia mantaly	小葉欖仁	145	10	3	52.39	Fair	Fair	Fair	Fair	Medium		С	ommon speci	ies		Transplant		
T0049	Terminalia mantaly	小葉欖仁	140	10	3	52.27	Fair	Fair	Fair	Fair	Medium		C	ommon spec	ies		Transplant		

<sup>\*</sup> According to DEVB TCW No. 7/2015 paragraph 29, the Tree Unit of LandsD should provide expert advice for government departments that do not have departmental tree expertise. Since there is no departmental tree expertise under FEHD, LandsD should provide expert advice in this case. Notwithstanding that, blanket approval for ArchSD to process the TPRP for this project was granted

Annex 5
Photographs of Existing Trees

Tree No. T41 Terminalia mantaly 小葉欖仁



Tree No. T43 *Terminalia mantaly* 小葉欖仁 Proposed treatment: Transplant



Tree No. T42 Terminalia mantaly 小葉欖仁



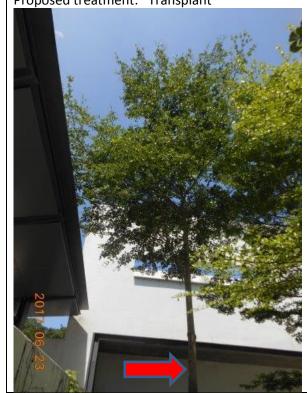
Tree No. T44 *Terminalia mantaly* 小葉欖仁 Proposed treatment: Transplant



Tree No. T45 Terminalia mantaly 小葉欖仁



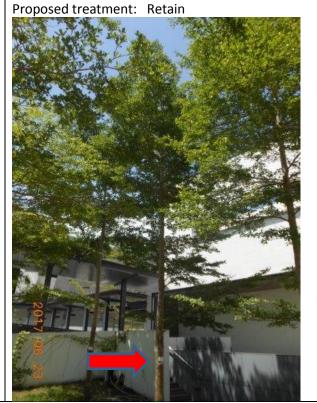
Tree No. T47 *Terminalia mantaly* 小葉欖仁 Proposed treatment: Transplant



Tree No. T46 Terminalia mantaly 小葉欖仁



Tree No. T48 Terminalia mantaly 小葉欖仁



Tree No. T49 Terminalia mantaly 小葉欖仁



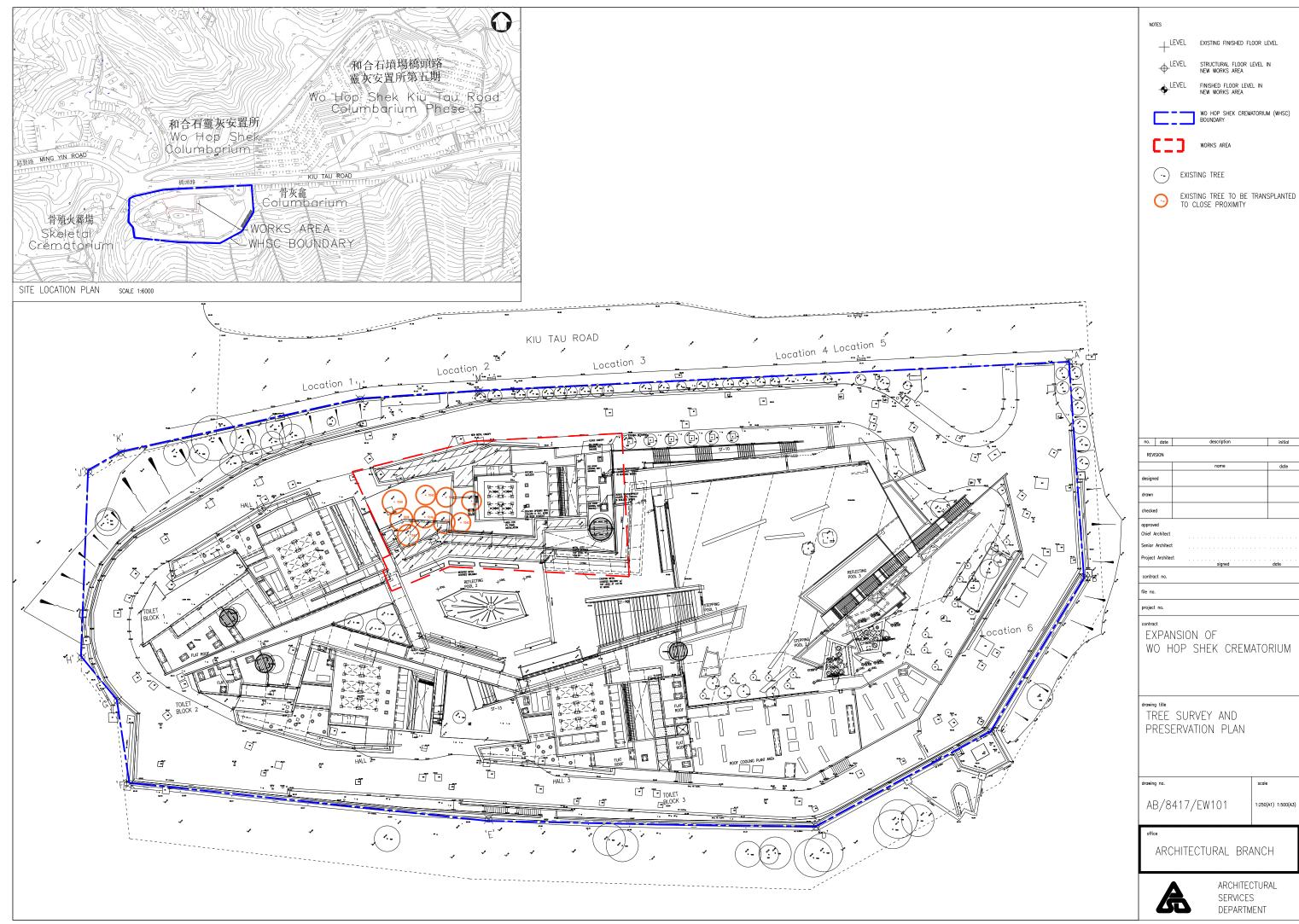
## Annex 6

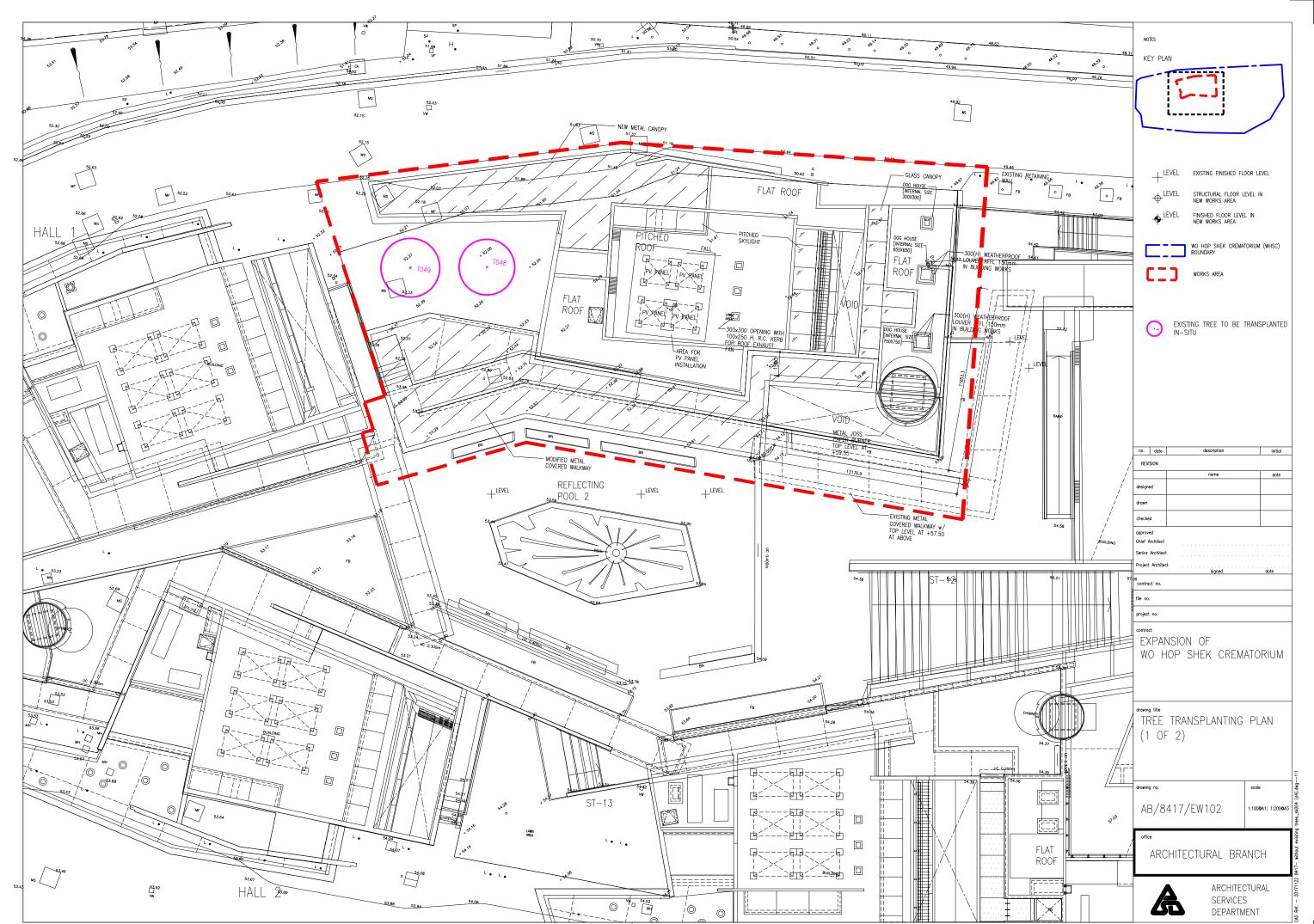
Tree Transplanting Specifications
(refer to General Specification for Building 2017 Section 25 Clauses 25.71 to 25.79)

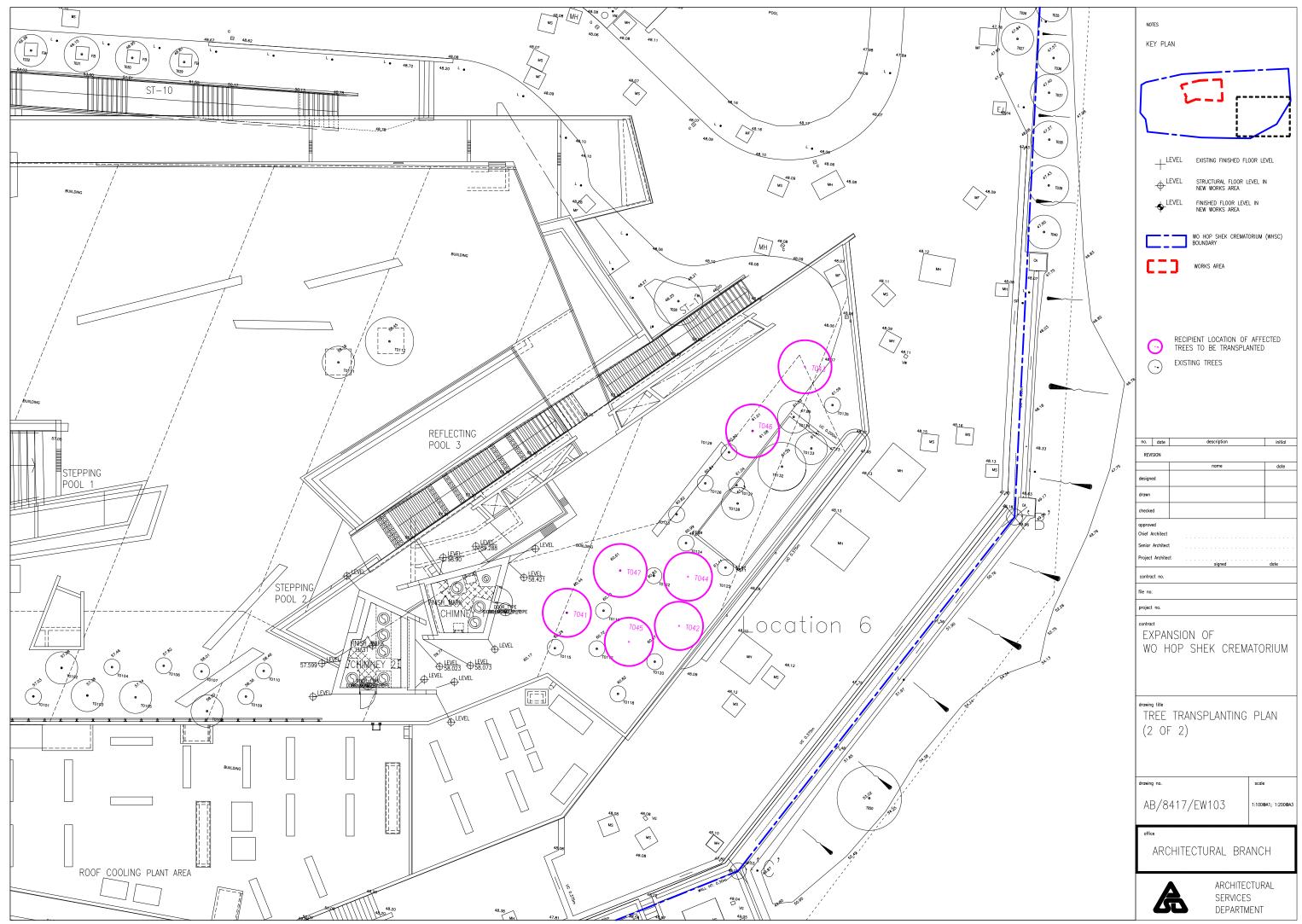
(no hard copy provided)

## Annex 7 Drawings

Tree Survey and Preservation Plan (Drawing No. AB/8417/EW101)
Tree Transplanting Plans (Drawing No. AB/8417/EW102 & 103)







Appendix G – Tree Survey Schedule and Photographic Record of Existing Trees

## **Tree Survey Schedule**

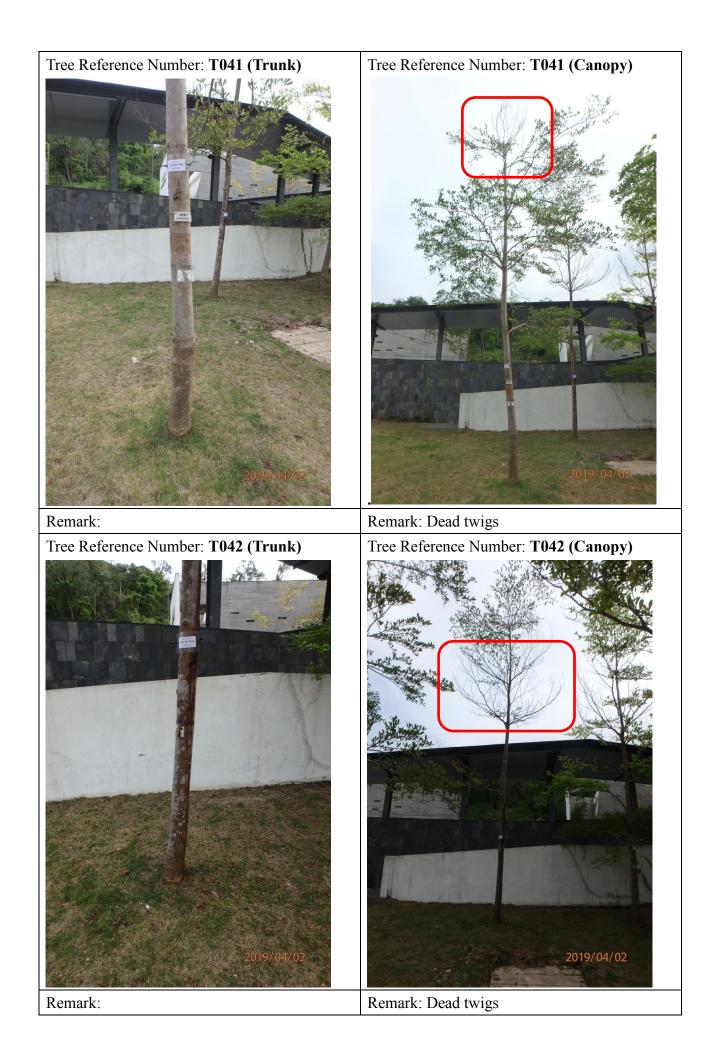
Project: Contract No. AL G513 Expansion of Wo Hop Shek Crematorium (Programme No. 26NB)

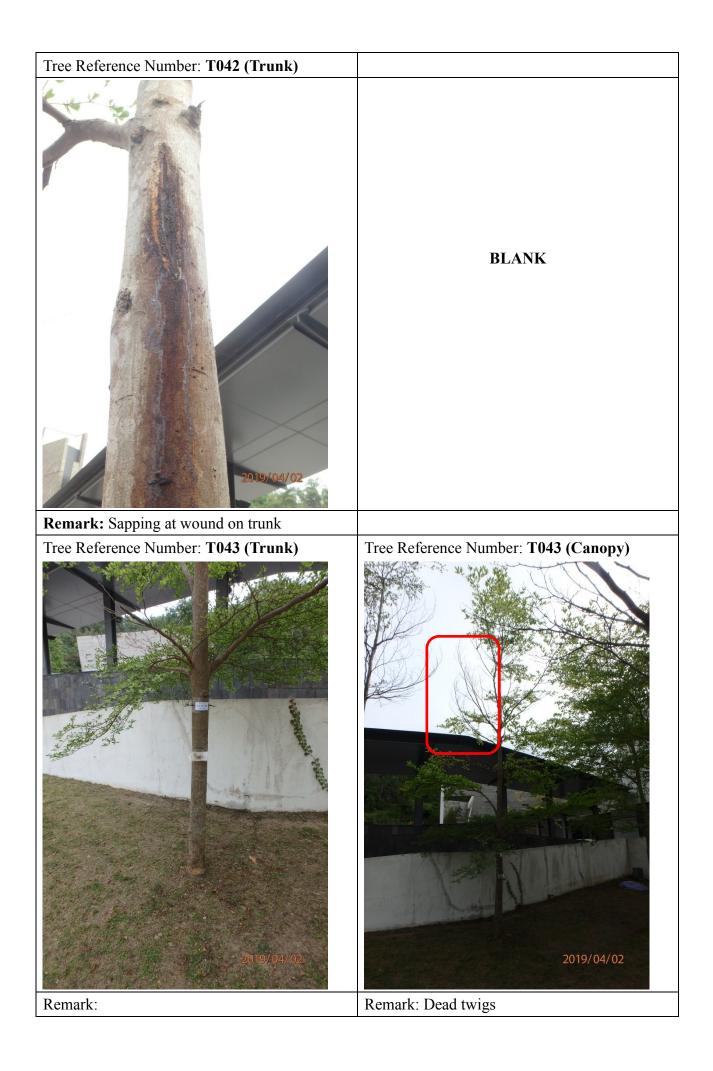
Date of Tree Survey: 2 April 2019 Surveyed by: Jay Wan Certified Arborist 1269A

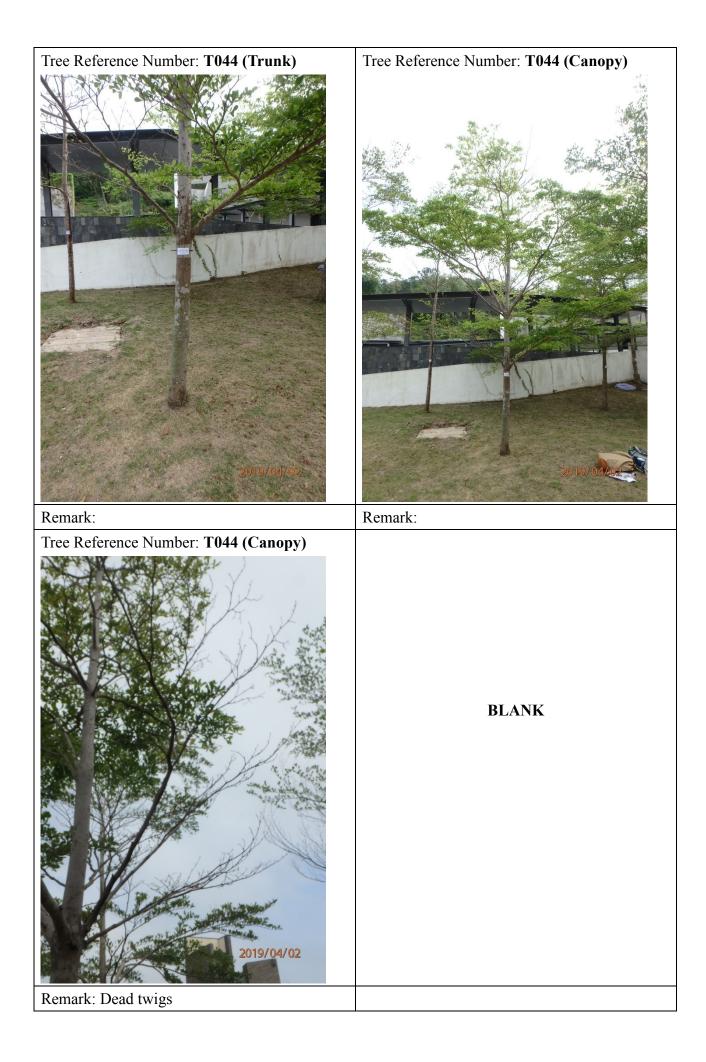
Т		Chinasa	Es	timated S	Size	Character and	Thorm Thealth I I I I I		Commetica	IRecommendation I -	Dept. to			
Tree No.	Scientific Name	Chinese Name	Height (m)	Trunk DBH (mm)	Spread (m)	Structural Condition			,	,		(Retain/Transplant /Fell)	provide expert advice to LandsD	Remarks
T041	Terminalia mantaly	小葉欖仁	7	120	3	Fair	Fair	Fair	Fair	Medium	Nil	Transplant	ArchSD	Dead twigs
T042	Terminalia mantaly	小葉欖仁	8	140	3	Fair	Fair	Fair	Fair	Medium	Nil	Transplant	ArchSD	Dead twigs; sapping at wound on trunk
T043	Terminalia mantaly	小葉欖仁	7	130	3	Fair	Fair	Fair	Fair	Medium	Nil	Transplant	ArchSD	Dead twigs
T044	Terminalia mantaly	小葉欖仁	7	140	3	Fair	Fair	Fair	Fair	Medium	Nil	Transplant	ArchSD	Dead twigs
T045	Terminalia mantaly	小葉欖仁	8	140	3.5	Fair	Fair	Fair	Fair	Medium	Nil	Transplant	ArchSD	
T046	Terminalia mantaly	小葉欖仁	7	140	3.5	Fair	Fair	Good	Fair	Medium	Nil	Transplant	ArchSD	
T047	Terminalia mantaly	小葉欖仁	9	160	4	Fair	Fair	Good	Fair	Medium	Nil	Transplant	ArchSD	
T048	Terminalia mantaly	小葉欖仁	10	170	4	Fair	Fair	Fair	Good	Medium	Nil	Transplant	ArchSD	Extensive root zone
T049	Terminalia mantaly	小葉欖仁	9	165	4	Fair	Fair	Good	Good	Medium	Nil	Transplant	ArchSD	Extensive root zone

## Appendix 1

Photographic Record of Existing Tree

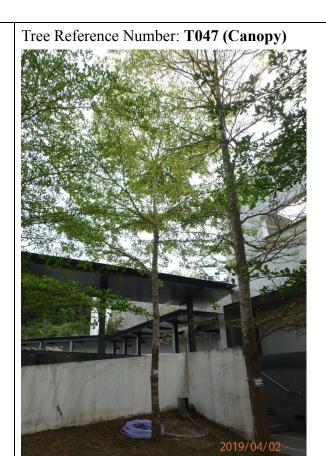


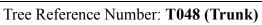








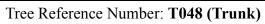




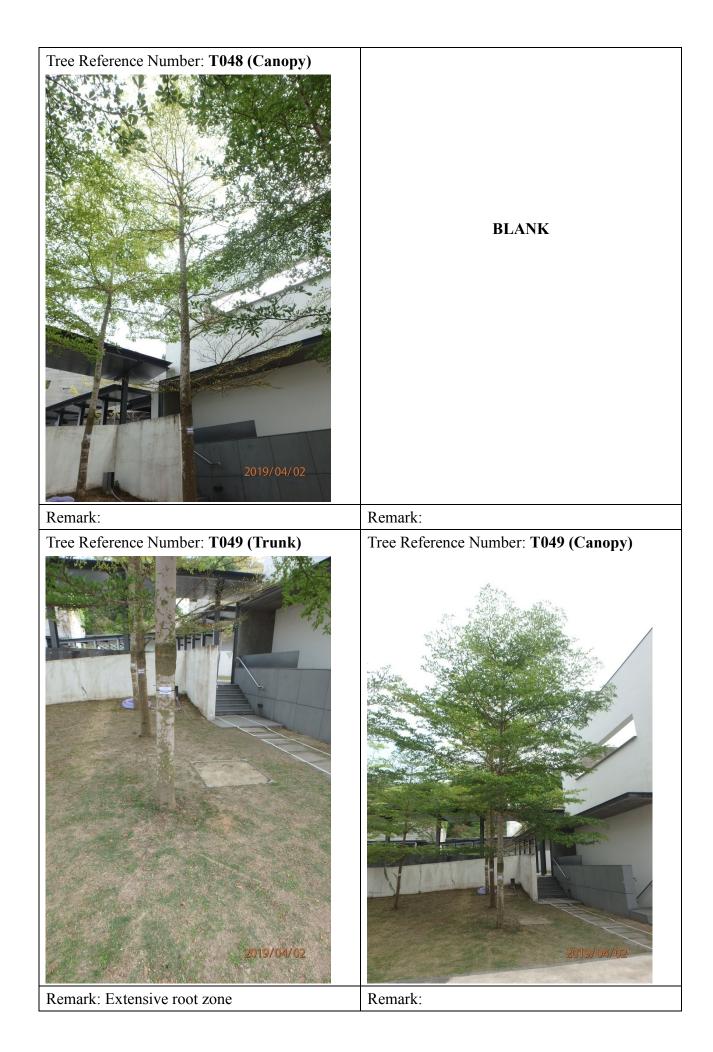


Remark: Extensive root zone

Remark:

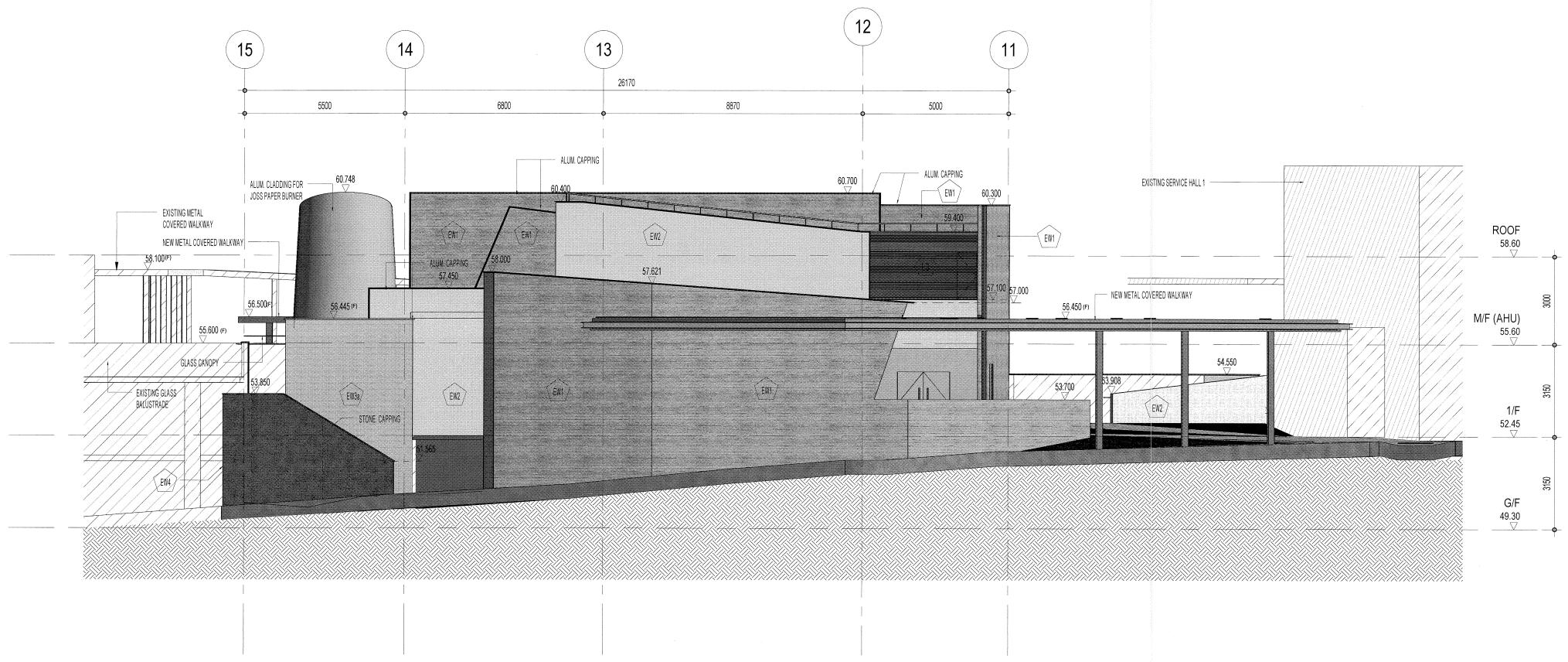






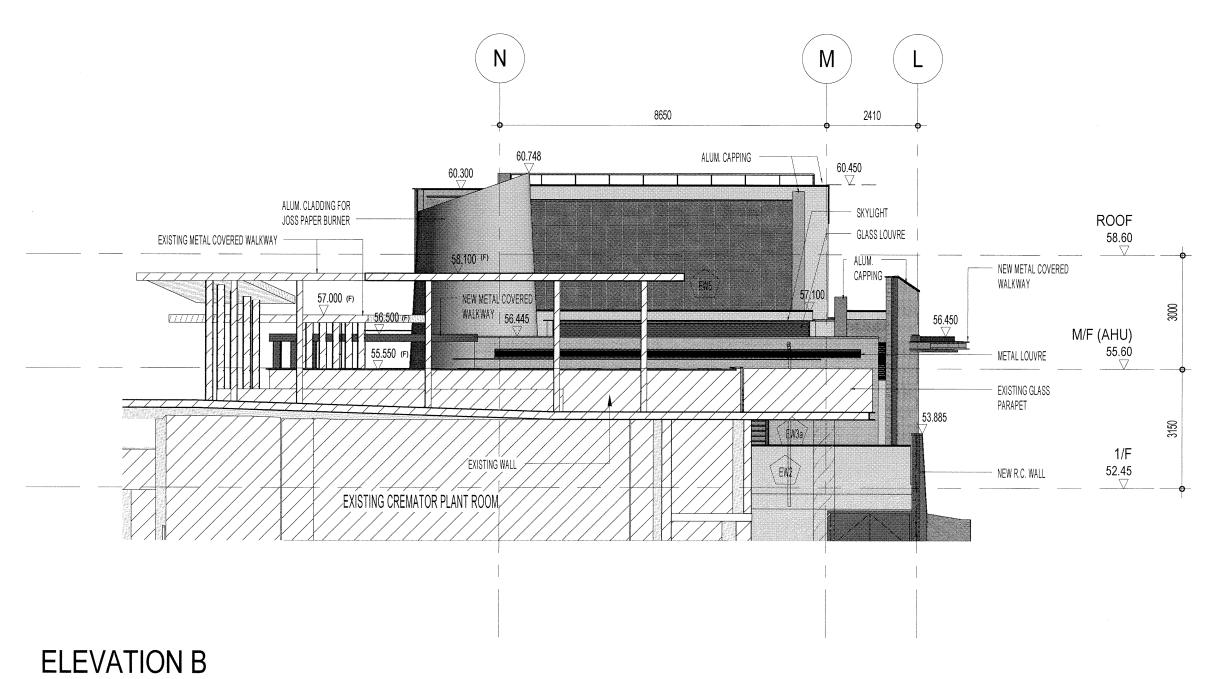
Appendix H – External Views of the Finished Project	





**ELEVATION A** 

1:100



1:100

name  designed  T.Y. YIU  drawn  T.M. WONG  Checked  K.Y. CHEUNG  approved  Chief Architect  Senior Architect  Project Architect  T.Y. YIU (A/206)  signed  file no.	no. date	description	in
designed  T.Y. YIU  drawn  T.M. WONG  K.Y. CHEUNG  Approved  Chief Architect  Senior Architect  Project Architect  T.Y. YIU (A/206)  signed	REVISION		
drawn  T.M. WONG  Checked  K.Y. CHEUNG  Approved  Chief Architect  M.C. CHUNG (CA/2)  Senior Architect  Project Architect  T.Y. YIU (A/206)  contract no.		name	d
checked  K.Y. CHEUNG  Approved  Chief Architect  Senior Architect  Project Architect  T.Y. YIU (A/206)  signed	lesigned	T.Y. YIU	
approved Chief Architect M.C. CHUNG (CA/2) Senior Architect Project Architect T.Y. YIU (A/206) signed  contract no.	Irawn	T.M. WONG	
Chief Architect  M.C. CHUNG (CA/2)  Senior Architect  Project Architect  T.Y. YIU (A/206)  contract no.	hecked	K.Y. CHEUNG	
Project Architect T.Y. YIU (A/206) signed contract no.	pproved		
Project Architect T.Y. YIU (A/206) Signed contract no.	Chief Architect	M.C. CHUNG (CA/2)	(
signed / contract no.	Senior Architect	J.C.S. LO (SA/21)	
	Project Architect		date
file no.	ontract no.		А
	le no.		
project no.	roject no.		

EXPANSION OF WO HOP SHEK CREMATORIUM

drawing title

**ELEVATIONS A & B (SHEET 1 OF** 

AB/8417/GP007

As indicated

scale

ARCHITECTURAL BRANCH



ARCHITECTURAL SERVICES DEPARTMENT

Appendix I – Photos of Existing Wo Hop Shek Crematorium







Appendix J – Conceptual Drawing of the Finished Property of the Finishe	oject



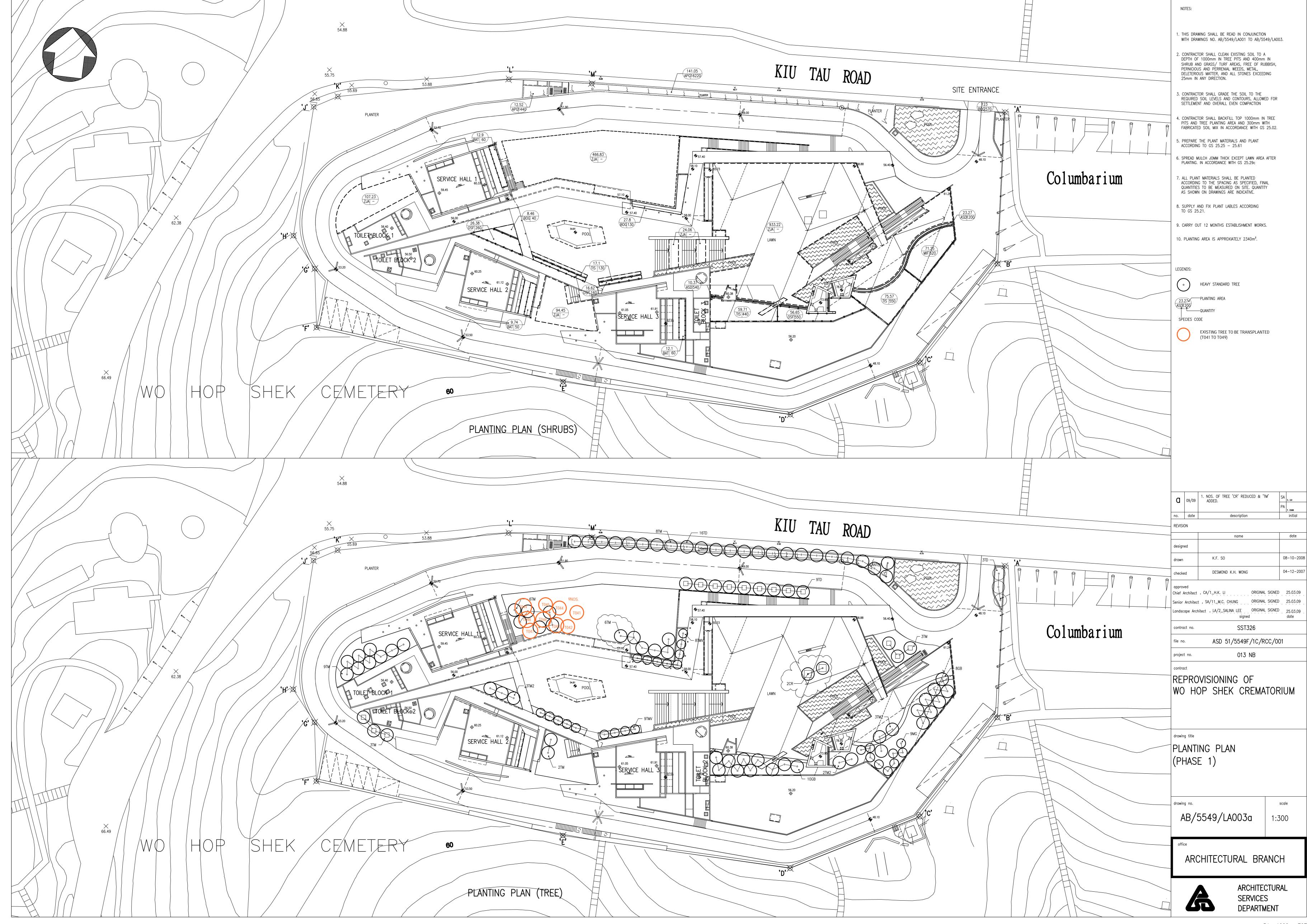
PERSPECTIVE VIEW FROM NORTHERN DIRECTION (ARTIST'S IMPRESSION)

從北面望向新四號禮堂的構思圖

構思圖 ARTIST'S IMPRESSION 26NB EXPANSION OF WO HOP SHEK CREMATORIUM 和合石火葬場擴展工程



Appendix K – Planting Plan in the Previous Plan



Appendix L – Relevant Page of "Annex 9-f Tree Species for Tree Compensation" from the Approved EIA Report

Preliminary Landscape Proposals for Wo Hop Shek Crematorium								
A. Planting palette for new planting areas within the whole Wo Hop Shek Cemetery Area								
BOTANICAL NAME	CHINESE NAME	SIZE (Ht. mm)	Remark					
Tree (Total Nos.: 112 including		Heavy standard	The planting species					
palms)	rees, congers una	(3500- 6000)	specified are not					
			exhaustive, others may					
Acacia confusa	台灣相思		be added as appropriate					
Alstonia scholaris	黑板樹		subject to detailed					
Bombax malabaricum	木棉		design					
Celtis sinensis	朴樹							
Cinnamonum burrmannii	陰香							
Cinnamonum camphora	樟							
Delonix regia	鳳凰木	7						
Elaeocarpus hainanensis	水石榕							
Elaeocarpus chinensis	尖葉杜英	7						
Ficus benjamina 'variegata'	花葉垂榕	7						
Ficus religiosa	菩提樹							
Grevillea robusta	銀樺	7						
Liquidambar formosana	楓香	7						
Magnolia denudata	王堂春	7						
Magnolia grandiflora	荷花玉蘭	7						
Melia azedarach	苦棟	7						
Schefflera heptaphylla	鴨腳木	7						
Schima superba	木何樹	7						
Terminalia mantalyi	細葉欖仁							
Conifer			-					
Araucaria heterophylla	南洋杉	Small 1500-2500	1					
Thuja orientalis	側柏	Large 2500-3500						
Juniperus chinensis Kaizuca	龍柏							
Podocarpus macrophyllus	羅漢松		-					
Palm			1					
Chrysalidocarpus lutescens	散尾葵	1500 to2000						
Caryota ochlandra	魚尾葵							
Livistonia chinensis	蒲葵							
			1					