

ARBORICULTURAL IMPACT ASSESSMENT AND TREE MANAGEMENT PLAN



PROPOSED DUAL OCCUPANCY DEVELOPMENT APPLICATION

**47 CRAGG STREET
CONDELL PARK, NSW**



Report prepared for:

Rabi Deheini
Visual Concepts Pty Ltd

Report prepared by:

Scott Freeman - Principal
Horticultural Management Services
Diploma of Arboriculture (AQF L5)
ISA Tree Risk Assessment (TRAQ) Certified
Diploma of Horticulture
Diploma of Conservation and Land Management

21st November 2023 – Version 1

DISCLAIMER

This report has been prepared in accordance with the scope of services described in agreement between Horticultural Management Services and the client.

This report relies upon data, surveys and site inspections results taken at or under the particular time and or conditions specified herein.

Any representation, statement, opinion or advice, expressed or implied in this publication is made in good faith but on the basis that Horticultural Management Services, its agents and employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement, or advice referred to above.

Every effort has been made in this report to include, assess, and address all defects, structural weaknesses, and instabilities of the subject trees. All inspections were made from ground level using only visual means and no intrusive or destructive means of inspection were used. For many structural defects such as decay and inclusions, internal inspection is required by means of resistograph or similar. No such investigation has been made in this case. Trees are living organisms and are subject to failure through a variety of causes not able to be identified by means of this inspection and assessment.

Information contained in this report covers only the subject tree that was assessed and reflects the condition of the subject tree at the time of inspection. Any finding, conclusion or recommendations only apply to the aforementioned and no greater reliance should be assumed or drawn by the Client.

There is no warranty or guarantee, expressed or implied that problems or deficiencies regarding the subject trees or the subject site may not arise in the future.

Furthermore, this report has been prepared solely for the use by the Client. The Client acknowledges that this assessment, and any opinions, advice or recommendations expressed or given in it, are based on the information supplied by the Client, and based on the data observations, measurements and analysis carried out or obtained by Horticultural Management Services and referred to in the assessment.

Horticultural Management Services accepts no responsibility for its use by other parties.

TABLE OF CONTENTS

1.0	INTRODUCTION	4
2.0	AIMS	4
3.0	SITE DESCRIPTION AND OBSERVATIONS.....	5
3.1	HERITAGE SIGNIFICANCE	5
3.2	TREES ON ADJOINING LAND	5
3.3	SITE LOCATION	6
3.4	AERIAL SITE LOCATION	6
4.0	METHODOLOGY	7
5.0	IMPACT ASSESSMENT	8
6.0	TREE ASSESSMENT SUMMARY	9
7.0	TREE IDENTIFICATION BASED ON PROPOSED DEVELOPMENT	13
8.0	TREES TO BE RETAINED OR REMOVED BASED ON DEVELOPMENT LOCATION	14
9.0	TREE MANAGEMENT PLAN	15
10.0	SITE PHOTOGRAPHS	16
11.0	CONCLUSION	21
12.0	RECOMMENDATIONS	22

APPENDICIES

APPENDIX A: PROPOSED DEVELOPMENT LAYOUT	23
APPENDIX B: SUPPORTING INFORMATION FOR TREE ASSESSMENT TABLE	34
APPENDIX C: TREE PROTECTION ZONES	39
APPENDIX D: TERMINOLOGY	41
APPENDIX E: REFERENCES	43
APPENDIX F: CERTIFICATION	44

1.0 INTRODUCTION

Horticultural Management Services were engaged to conduct an Arboriculture Impact Assessment and Tree Management Plan for 47 Cragg Street, Condell Park NSW (the site).

It is understood that this report is to form part of a Development Application for the proposed Dual Occupancy residential development under this Development Application, which includes the demolition of the existing dwelling and structures, approved tree and minor shrub removal and tree protection and management of Council Street tree, construction of residential dwellings, new driveways, and associated landscaping as per APPENDIX A Proposed Development Layout.

The purpose of this report is to identify the trees within and or adjoining the site, provide information on their individual current health and condition, determine their remaining life expectancy and significance in the landscape, and assess their suitability for retention/preservation or removal. The scope of this report includes the allocation of SULE ratings (Safe Useful Life Expectancy), and identification of arboricultural work required.

The potential impact of the proposed development has also been assessed, together with recommendations for amendments to the design or construction to ensure the retention of trees considered worthy of preservation.

A site investigation was undertaken on Friday 17th November 2023 to assess the trees onsite and those adjoining which may be affected by the proposed design. Information contained in this report covers only the subject trees that were assessed and reflects the condition of the subject trees on site at the time of inspection.

Assessment has been conducted with consideration of the Biodiversity Conservation Act 2016, Biosecurity Act 2015, and Canterbury Bankstown City Council Development Control Plan 2015–Part B11 2 Draft – July 2015. Part B11 of the Bankstown Development Control Plan 2015 contains the controls for tree management in the City of Bankstown. Part B11 is made pursuant to clause 5.9(2) of the Bankstown Local Environmental Plan 2015.

2.0 AIMS

To detail the condition of the trees and consider the location and condition of such in relation to their surrounds.

To complete the following:

- Inspect the subject trees within and adjacent to the site/s and site conditions,
- Assess the condition of the subject tree(s),
- Observe and describe the trees and other vegetation on the subject site,
- Discuss the trees within their current landscape,
- Determine the subject trees' Landscape Significance including cultural, environmental, and aesthetic values,
- Consider the benefits of retention or removal of the trees for the medium to long-term benefit of the trees and on-going public safety,
- Provide recommendations for Tree Management, if or as required, within the context of a development application, and
- Prepare site specific tree protection specifications for trees recommended for retention.

3.0 SITE DESCRIPTION AND OBSERVATIONS

The site is identified as 47 Cragg Street, Condell Park NSW.

Relevant site plans and/or documents reviewed prior to undertaking the Arborist Assessment include:

- *Visual Concepts, Job Number 2023009, Demolition Plan, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Subdivision Plan, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Site Plan, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Ground Floor Plan, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, First Floor Plan, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Elevations, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Sections, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Landscape Plan, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Site Analysis, Issue 0, Date 20.11.2023,*
- *Visual Concepts, Job Number 2023009, Schedule of Finishes, Issue 0, Date 20.11.2023,*
- *Canterbury Bankstown City Council Development Control Plan 2015–Part B11 2 Draft – July 2015,*

Included within this report is a site plan showing the locations of the site trees based on the proposed development layout.

Site observations noted a mixture of introduced (planted) exotic and native/remnant vegetation. The herbaceous or grass vegetation consists of a mixture of introduced pastoral grasses/weed species due to the site's location within a residential precinct.

3.1 HERITAGE SIGNIFICANCE

There are no trees within the site that have been identified as Heritage Items under Council Planning Instrument or identified within a Significant Tree Register.

3.2 TREES ON ADJOINING LAND

In accordance with Council's requirements, trees adjoining the development have been assessed as part of this report.

There are no trees on adjoining properties that will be affected by this development.

3.3 SITE LOCATION

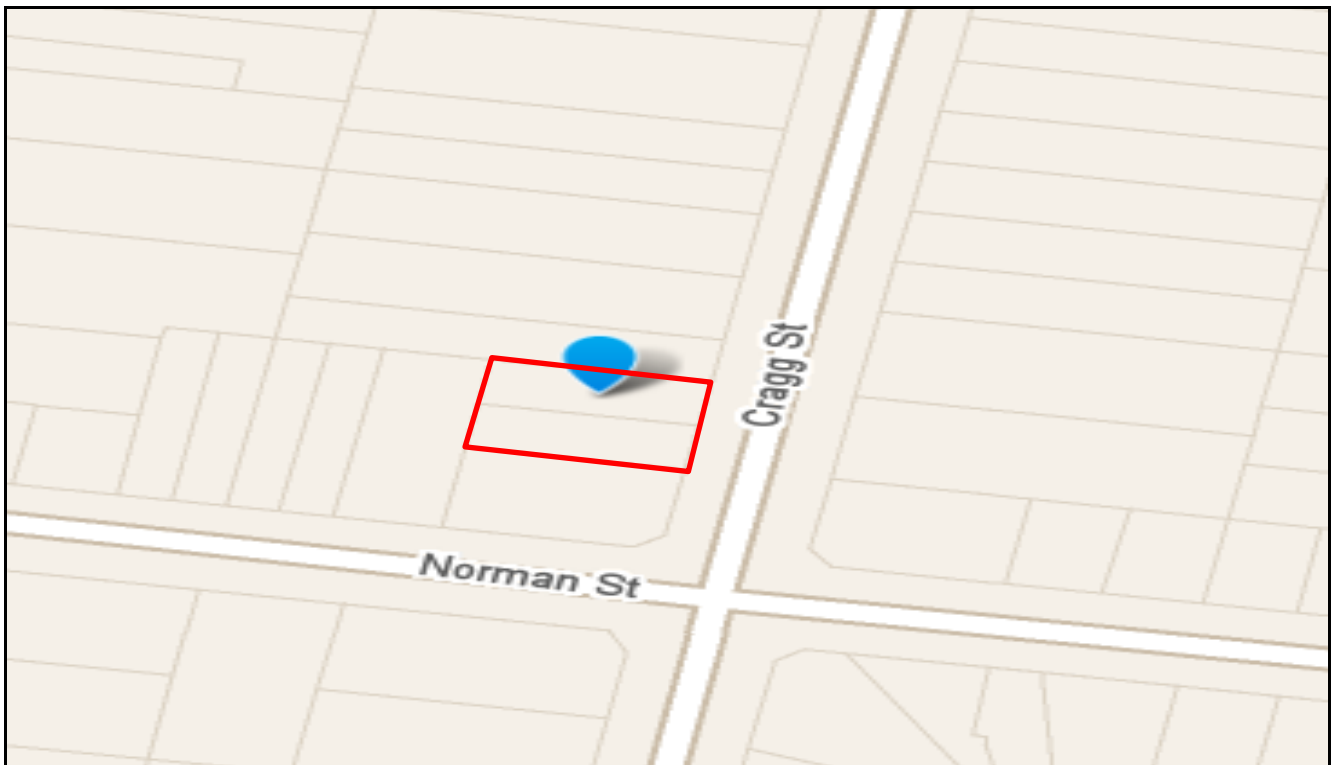


Figure 1 Shows the location of the site. Source whereis.com.au

3.4 AERIAL SITE LOCATION



Figure 2 Shows an aerial location of the site. Source Nearmaps.com.au

4.0 METHODOLOGY

This report is the result of a comprehensive site inspection undertaken on Friday 17th November 2023 by Horticultural Management Services (HMS).

The following tree assessment was undertaken using criteria based on the Tree Risk Assessment Guidelines by the International Society of Arboriculture. A Level 2 Visual Tree Assessment (VTA) was used as described in 'The Body language of trees – A handbook for Failure Analysis'. This involves inspection from ground height and includes only the external features of the trees. Trees on adjoining sites were assessed from within the site boundaries only and only within 5m of the site boundaries.

For reference throughout the report, each tree has been allocated an identification number listed in the Tree Assessment Summary table and identified on the tree location site plan.

Assessment of individual trees includes the following:

- Species identification (botanical and common),
- Height and form,
- Observations made including an evaluation of the tree's health and vigour using Crown spread and cover, foliage size, colour, extension growth, presence of disease or pest infestation, canopy density, presence of deadwood, dieback and epicormic growth as indicators,
- Condition, using visible evidence of structural defects, instability, evidence of previous pruning and physical damage as indicators,
- Suitability of the tree to the site and its existing location; in consideration of damage or potential damage to services or structures, available space for future development and nuisance issues,
- Likely future amenity based on a visual assessment,
- The trees tolerance to development impacts based on surface observations,
- Significance -specific heritage, cultural or intrinsic importance,
- Amenity value -as shade, windbreak etc or subjective, aesthetic values,
- Habitat value -both as an individual tree and as part of an ecological community,
- Observations of soil conditions and likely root spread,
- Overall condition assessment and suitability,
- Hazard/failure potential of tree to damage property or result in death,
- Safe Useful Life Expectancy (SULE) after Barrell (1995),

Retention Value was based on the subject tree's Remaining Life Expectancy Range and Landscape Significance. The Retention Value was modified where necessary to take in consideration the subject tree's health, structure, and site suitability.

Landscape Significance was determined by assessing the combination of the cultural, environmental, and aesthetic values of the subject trees. A subjective rating of high, moderate, low, or nil has been allocated to the trees. This provides a relative value of the trees' Landscape Significance which may aid in determining their Retention Value. A more detailed explanation is outlined Appendix B.7.

Tree height and canopy spread, were estimated only. Diameter at Breast Height (DBH) was determined by measuring the main stem at 1.4m above ground. Photos were taken of the subject trees and subject site for the inclusion in this tabled report.

The components of **tree risk assessment** include the trees failure potential or in the case of the proposed, an environment conducive to tree failure.

5.0 IMPACT ASSESSMENT

A summary of each tree identified within the site is outlined in section 6.0 TREE ASSESSMENT SUMMARY.

The assessment in each case has considered the following:

- Structural Root Zones (SRZ),
- Building works or footprint within TPZ or SRZ,
- Optimum Tree Protection Zones (TPZ) and Structural Root Zones (SRZ),
- SULE Rating for value of the tree assessed,
- Assessment of the likely impact of the proposed works,
- Recommendations for retention, management, or removal.

The components of tree risk assessment include the trees failure potential or in the case of land clearing/management, an environment conducive to tree failure.

Other factors are also considered related to the site, such as potential development or land use, soil condition and prevailing winds must be considered in conjunction when assessing the potential of failure for any tree.

6.0 TREE ASSESSMENT SUMMARY

Risk Matrix	Catastrophic Urgent- Tree requires immediate removal due to WH&S concerns.	Major Tree requires removal as part of development application.	Moderate TPO Exempt due to species, height requirements and or approved to be removed by Council.	Low Tree to be retained, protected, and monitored	Tree approved to be removed by Council.
--------------------	--	---	---	---	--

Tree Number	Tree Species Common Name Botanical name	Height (m)	DBH @ 1.4m	DAB (mm)	SRZ Required (m)	TPZ Required (m)	Tree Age * Young * Semi Mature * Mature * Over Mature	Tree Health * Good * Fair * Poor * Dead	Tree Structure * Good * Fair * Poor	SULE Rating	Ecological Significance * High * Medium * Low * Nil	Landscape Visual Significance * High * Moderate * Low * Nil	Retention Value * H 40yrs + * M 15 - 40yrs * L 5 to 15ys * Nil Less 5ys * Dead	To Be Retained
1	Weeping Bottlebrush <i>Callistemon viminalis</i> Council Street Tree	5	550	690	2.9	6.6	Mature	Good to Fair	Good to Fair	3	Nil to Low	Low	Low	No
	Comments: Based on the plans tabled, this Council Street tree is required to be removed as it is located within the proposed new Lot 2 driveway building envelope, excavation works area and considered site modifications to its TPZ, thus this minor street tree is supported to be removed. No roosting or habitat hollows were observed and in summary, this tree is required to be removed. It is anticipated this tree will be replaced in the Council verge upon completion with a 75lt advance stock to assist with any considered loss of visual amenity.													
2	Weeping Bottlebrush <i>Callistemon viminalis</i> Council Street Tree	5	370	400	2.3	4.5	Good to Fair	Good to Fair	Good to Fair	3	Nil to Low	Low	Low	Yes
	Comments: Based on AS4970-2009 Protection of Trees on Development Sites, this Council Street tree is sufficiently distanced to be safely retained, protected, and monitored. Tree protection fencing is recommended at this trees SRZ being 2.3m to ensure no building materials or chemicals be stored within this area. This tree will be protected, managed, and monitored by a AQF L5 project Arborist.													
3	Golden Biota <i>Platycladus orientalis</i>	4.8	M/T	300	N/A	N/A	Mature	Good	Good	5	Nil	Nil to Low	Low	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this ornamental conifer is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													

Tree Number	Tree Species Common Name Botanical name	Height (m)	DBH @ 1.4m	DAB (mm)	SRZ Required (m)	TPZ Required (m)	Tree Age * Young * Semi Mature * Mature * Over Mature	Tree Health * Good * Fair * Poor * Dead	Tree Structure * Good * Fair * Poor	SULE Rating	Ecological Significance * High * Medium * Low * Nil	Landscape Visual Significance * High * Moderate * Low * Nil	Retention Value * H 40yrs + * M 15 - 40yrs * L 5 to 15ys * Nil Less 5ys * Dead	To Be Retained
4	Majesty Palm <i>Ravenea rivularis</i>	3	290	300	N/A	N/A	Mature	Good	Good	5	Nil	Nil to Low	Low	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this planted palm tree is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													
5	Hinoki False Cypress <i>Chamaecyparis obtusa 'aurea'</i>	4.5	M/T	300	N/A	N/A	Mature	Good	Good	5	Nil	Nil to Low	Low	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this ornamental tree is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													
6	Sago/Cycad Palm <i>Cycas revoluta</i>	1	300	350	N/A	N/A	Mature	Good	Good	5	Nil	Nil	Low	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this ornamental palm tree is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													
7	Camellia <i>Camellia japonica</i>	2	60	100	N/A	N/A	Mature	Good	Good	5	Nil	Nil	Nil	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this planted large shrub is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													
8	Oriental Arborvitae <i>Thuja orientalis</i>	2.5	M/T	260	N/A	N/A	Mature	Good to Fair	Good	3	Nil	Low	Low	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this ornamental tree is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													

Tree Number	Tree Species Common Name Botanical name	Height (m)	DBH @ 1.4m	DAB (mm)	SRZ Required (m)	TPZ Required (m)	Tree Age * Young * Semi Mature * Mature * Over Mature	Tree Health * Good * Fair * Poor * Dead	Tree Structure * Good * Fair * Poor	SULE Rating	Ecological Significance * High * Medium * Low * Nil	Landscape Visual Significance * High * Moderate * Low * Nil	Retention Value * H 40yrs + * M 15 - 40yrs * L 5 to 15ys * Nil Less 5ys * Dead	To Be Retained
9	Hinoki False Cypress <i>Chamaecyparis obtusa</i>	3	M/T	250	N/A	N/A	Mature	Good	Good	3	Nil	Low	Low	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this ornamental tree is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													
10	Hinoki False Cypress <i>Chamaecyparis obtusa</i>	3	M/T	250	N/A	N/A	Mature	Good	Good	3	Nil	Low	Low	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.3 Prescribed Trees, this ornamental tree is TPO Exempt as it is less than 5m in height and does not meet the definition and it is anticipated to be replaced in the new landscape plan.													
11	Peach Tree <i>Prunus persica</i>	4	210	230	N/A	N/A	Mature	Good	Good	5	Nil	Nil	Nil	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.4 Exemptions, this species of fruit tree is Exempt, and it may be removed without any further consideration and or approval. It is anticipated this tree will be replaced in the landscape upon completion with a 45lt advance stock to assist with any considered loss of amenity.													
12	Eureka Lemon <i>Citrus limon 'Eureka'</i>	2	60	100	N/A	N/A	Mature	Fair	Fair	5	Nil	Nil	Nil	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.4 Exemptions, this species of fruit tree is Exempt, and it may be removed without any further consideration and or approval. It is anticipated this tree will be replaced in the landscape upon completion with a 45lt advance stock to assist with any considered loss of amenity.													

Tree Number	Tree Species Common Name Botanical name	Height (m)	DBH @ 1.4m	DAB (mm)	SRZ Required (m)	TPZ Required (m)	Tree Age * Young * Semi Mature * Mature * Over Mature	Tree Health * Good * Fair * Poor * Dead	Tree Structure * Good * Fair * Poor	SULE Rating	Ecological Significance * High * Medium * Low * Nil	Landscape Visual Significance * High * Moderate * Low * Nil	Retention Value * H 40yrs + * M 15 - 40yrs * L 5 to 15ys * Nil Less 5ys * Dead	To Be Retained
13	Orange Tree <i>Citrus x sinensis</i>	1.5	60	100	N/A	N/A	Mature	Fair	Fair	5	Nil	Nil	Nil	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.4 Exemptions, this species of fruit tree is Exempt, and it may be removed without any further consideration and or approval. It is anticipated this tree will be replaced in the landscape upon completion with a 45lt advance stock to assist with any considered loss of amenity.													
14	Common Fig <i>Ficus carica cv</i>	2	100	150	N/A	N/A	Mature	Good	Good	5	Nil	Nil	Nil	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.4 Exemptions, this species of fruit tree is Exempt, and it may be removed without any further consideration and or approval. It is anticipated this tree will be replaced in the landscape upon completion with a 45lt advance stock to assist with any considered loss of amenity.													
15	Eureka Lemon <i>Citrus limon 'Eureka'</i>	2	M/T	200	N/A	N/A	Mature	Good	Good to Fair	5	Nil	Nil	Nil	No
	Comments: Based on Councils DCP 2015–Part B11 2 Draft – July 2015, Tree Management Policy, Section 2, 2.4 Exemptions, this species of fruit tree is Exempt, and it may be removed without any further consideration and or approval. It is anticipated this tree will be replaced in the landscape upon completion with a 45lt advance stock to assist with any considered loss of amenity.													

Key. Multi trunk (M/T)

Table 1: Shows a list of trees observed and assessed in relation to this development application by a Qualified Horticulturist and AQF Level 5 Arborist (Dip Arb).

[illegible]

HORTICULTURAL
Management Services

[illegible]

HORTICULTURAL
Management Services





Figure 6 Shows looking at the property from the street.



Figure 7 Shows Council's Street Trees 1 and 2 in the Council verge.



Figure 8 Shows Tree 1 location to the existing driveway that is required to be removed.



Figure 9 Shows minor TPO Exempt ornamental shrubs 2 to be removed.



Figure 10 Shows minor TPO Exempt palm, shrubs and conifers that are required to be removed.



Figure 11 Shows minor shrubs being Trees 9 and 10 to be removed.



Figure 12 Shows the peach tree that is TPO Exempt to be removed from a distance.



Figure 13 Shows the common table fig tree that is TPO Exempt to be removed from a distance.



Figure 14 Shows minor planted Lemon tree and vegetables in planter beds.

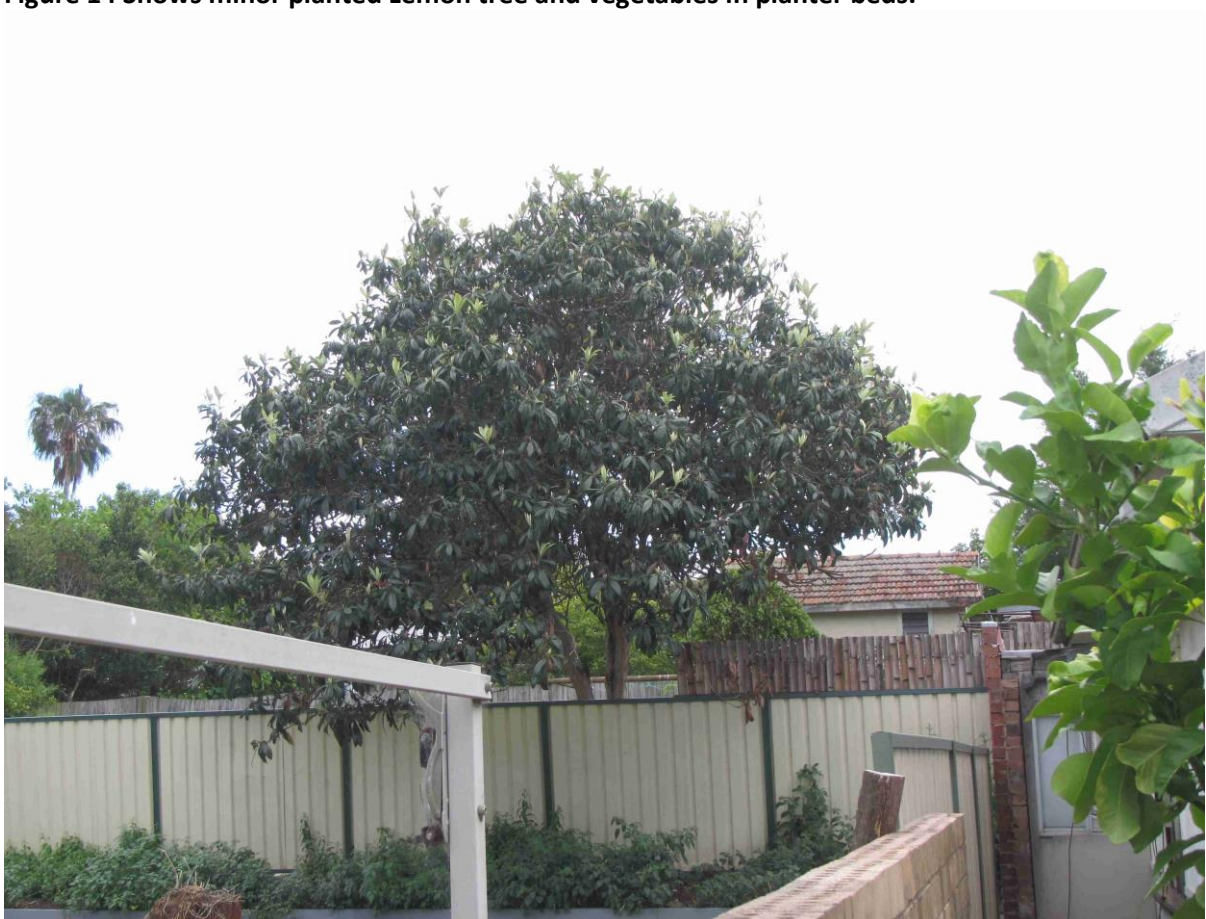


Figure 15 Shows an adjoining Loquat tree with Number 45 that is sufficiently distanced.

11.0 CONCLUSION

The trees which are subject of this report are protected under Canterbury Bankstown City Council Development Control Plan 2015–Part B11, Tree Preservation Order.

Consideration of retaining mature significant vegetation to the area was paramount. After close visual and physical investigation of the various trees condition the results from field investigations are as follows;

Subject to Council process, approval is recommended for the removal of Fourteen-(14) trees, shrub and fruit trees numbered 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15 including minor TPO Exempt shrubs, based on their location within the tabled building, envelope, construction requirements, landscaping and considered scope of works within the development.

Trees Numbered 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15 are TPO Exempt ornamental trees, shrubs, and fruit trees due to height requirements, or being species listed as Exempt in Councils TMO.

No roosting or habitat hollows were observed in any of the site trees proposed to be removed.

Adjoining Council Street tree numbered 2 is sufficiently distanced to be safely retained, protected, and monitored in conjunction with the erection of tree protection fencing.

As stated, this tabled report is a snapshot of the existing trees structural condition, health, and condition at that particular point in time on site and should be used as a guide when assessing this Development Application.

In summary, no objections to these TPO Exempt shrubs, ornamental conifers, palm, and fruit trees' removal are raised, subject to appropriate environmental safeguards and relevant replacement plantings where appropriate.

12.0 RECOMMENDATIONS

After close visual and physical investigation of the trees condition (VTA), results from the field investigations indicated the following:

Subject to Council process, approval is recommended for the removal of Fourteen-(14) trees, shrub and fruit trees numbered 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15 including minor TPO Exempt shrubs, based on their location within the tabled building, envelope, construction requirements, landscaping and considered scope of works within the development.

Trees Numbered 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15 are TPO Exempt ornamental trees, shrubs, and fruit trees due to height requirements, or being species listed as Exempt in Councils TMO.

Adjoining Council Street tree numbered 2 is sufficiently distanced to be safely retained, protected, and monitored in conjunction with the erection of tree protection fencing.

The following points may be considered for the proposed development and retention of the trees under this application;

- Tree Numbered 2 is to be retained, protected, and managed on site as per the Tree Management Plan,
- Avoid large changes to the surface structure due to modification of the tree's moisture / surface feeding roots,
- A Qualified Arborist/Horticulturalist undertakes all Arboricultural works,
- **ANY** excavation that is required within any of the trees TPZ will be hand dug to ensure minimal disturbance to anchorage and or surface feeding roots,
- Any tree roots discovered are cut cleanly with root pruning devices,
- No tree roots over 40mm in diameter will be cut without project arborist and Council approval,
- Any proposed work located near the trunk or outer canopy of the trees drip line, where services are known to be in the vicinity, any excavation for services should be hand dug to ensure minimal impact to the trees surface feeding and support roots,
- No building waste is to be disposed of/or stored near the tree trunk or drip zone,
- Regular watering is to be undertaken in hot dry periods to alleviate any short-term stress or loss of available water,
- Erection of a chain mesh safety fence be installed to ensure the protection of Trees Critical Root Zone as per APPENDIX E.4,

The proposed works will conform to AS4970 -2009. No adverse impacts and or long-term effects are anticipated to these trees, based on best practise Arboricultural techniques tabled.

APPENDICES

APPENDIX A: PROPOSED DEVELOPMENT LAYOUT



01- SELECTED RENDER



02- SELECTED ALUMINIUM
WINDOWS & DOORS



03- SELECTED CLADDING



04- SELECTED
CLADDING

NOTE:
On all scale off drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.

© Copyright
This plan is subject to copyright and remains the property of NTZ Design. This plan must not be copied, copied, reproduced, disseminated or redistributed, in whole or part without the prior written consent of NTZ Design.



PROPOSED DUAL OCCUPANCY		JOB NUMBER	2023009	PRICE PLANNO	16	OFFICIAL DATE	AS
47 CRAGO ST. CONDELL PARK		REVISION		DATE	20-11-2023		
SCHEDULE OF FINISHES		NO.		NO.			
		NO.		NO.	AS SHOWN		



1 FRONT
1 : 200



3 LEFT
1 : 200



2 REAR
1 : 200



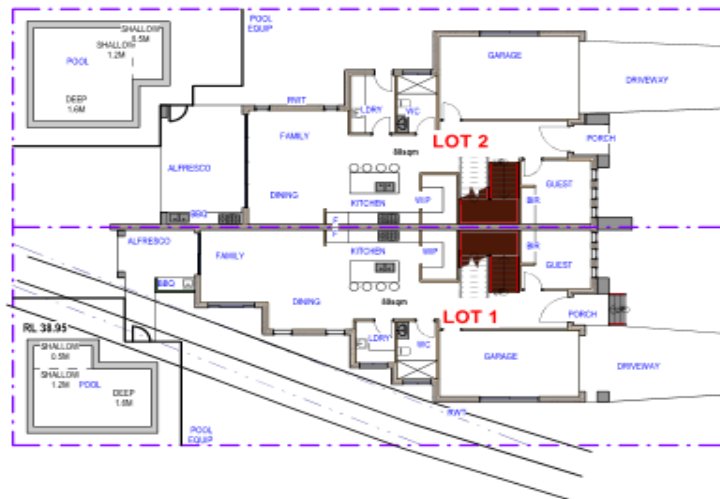
4 RIGHT
1 : 200

REV	DATE	DESCRIPTION	BY

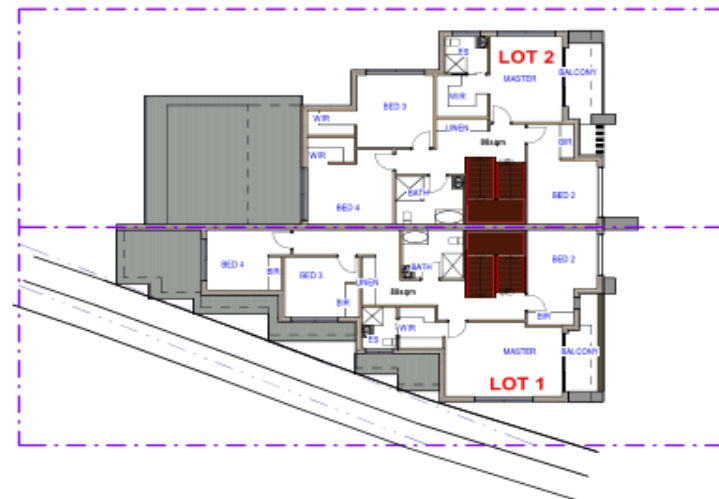
NOTE:
On no scale of drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.
© Copyright
This plan is subject to copyright and remains the property of MTZ Design. The plans must not be used, copied, reprinted, reproduced, disseminated or redistributed, in whole or part, without the prior written consent of MTZ Design.



PROPOSED DUAL OCCUPANCY		JOB NUMBER	2023009	PAGE NUMBER	17	ORIGINAL SIZE	A3
47 CRAGO ST, CONDELL PARK		DESCRIPTION	R.D.	DATE	20-11-2023		
NEIGHBOUR NOTIFICATION ELEVATION		DRAWN BY	R.D.	SCALE	AS SHOWN		



1 **Ground Floor**
1 : 200



2 **First Floor**
1 : 200

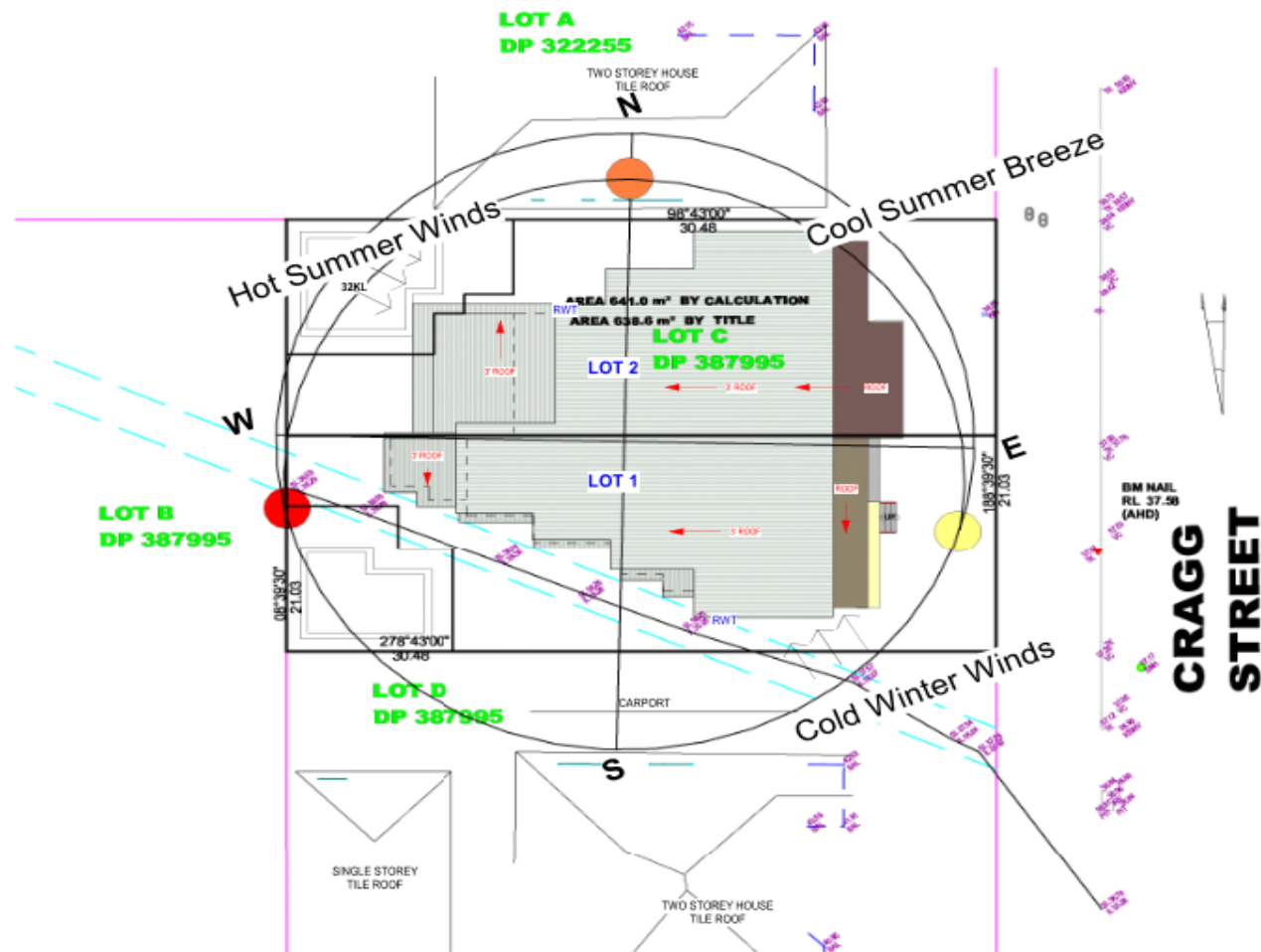
REV	DATE	DESCRIPTION	BY

NOTE:
Do not scale off drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.
© Copyright
This plan is subject to copyright and remains the property of MTZ Design. The plans must not be used, copied, edited, reproduced, disseminated or redistributed, in whole or part without the prior written consent of MTZ Design.



PROPOSED DUAL OCCUPANCY
47 CRAIG ST, CONDELL PARK
NEIGHBOUR NOTIFICATION PLAN

JOB NUMBER 2023009	PAGE NUMBER 16	OPTIONAL SIZE A3
DESIGNER R.D.	DATE 20-11-2023	
DRAWN BY R.D.	SCALE AS SHOWN	



1 X- Site Analysis

1 : 200

REV	DATE	DESCRIPTION	BY

NOTE:
On site scale of drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.

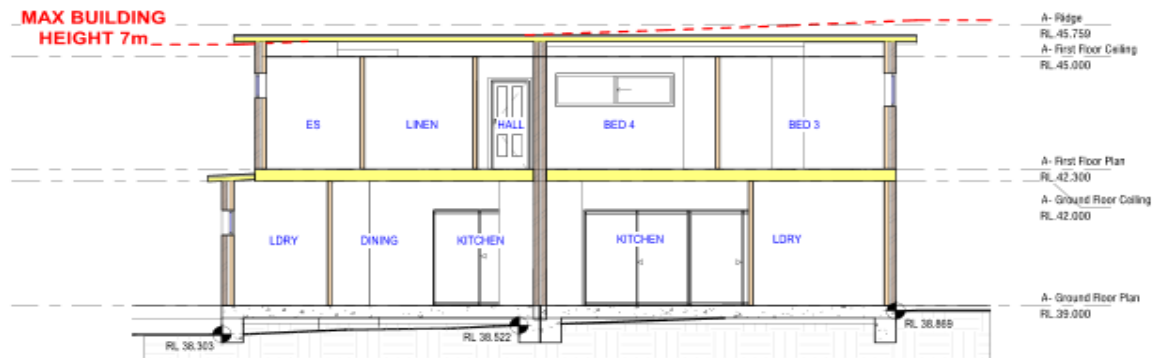
© Copyright
This plan is subject to copyright and remains the property of MTZ Design. The plans must not be used, copied, reprinted, reproduced, disseminated or redistributed, in whole or part, without the prior written consent of MTZ Design.



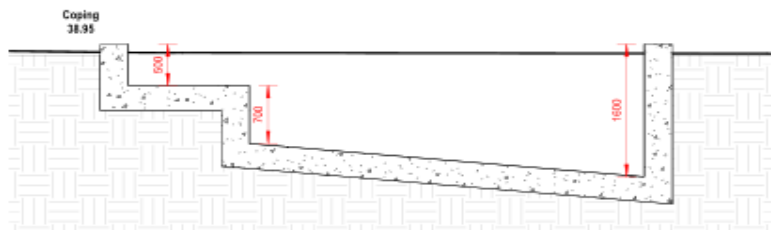
PROPOSED DUAL OCCUPANCY
47 CRAGG ST, CONDELL PARK

SITE ANALYSIS

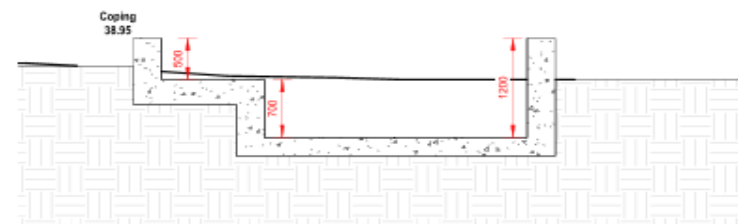
JOB NUMBER 2023009	PRICE NUMBER 12	ORIGINAL SIZE A3
REVISION R.D.	DATE 20-11-2023	
DRAWN BY R.D.	SCALE AS SHOWN	



1 CROSS SECTION 1
1 : 100



2 LOT 1 POOL
1 : 50



3 LOT 2 POOL
1 : 50

REV	DATE	DESCRIPTION	BY

NOTE:
On site scale off drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.
© Copyright
This plan is subject to copyright and remains the property of MTZ Design. This plan must not be used, copied, without reproduction, dissemination or redistribution, in whole or part without the prior written consent of MTZ Design.

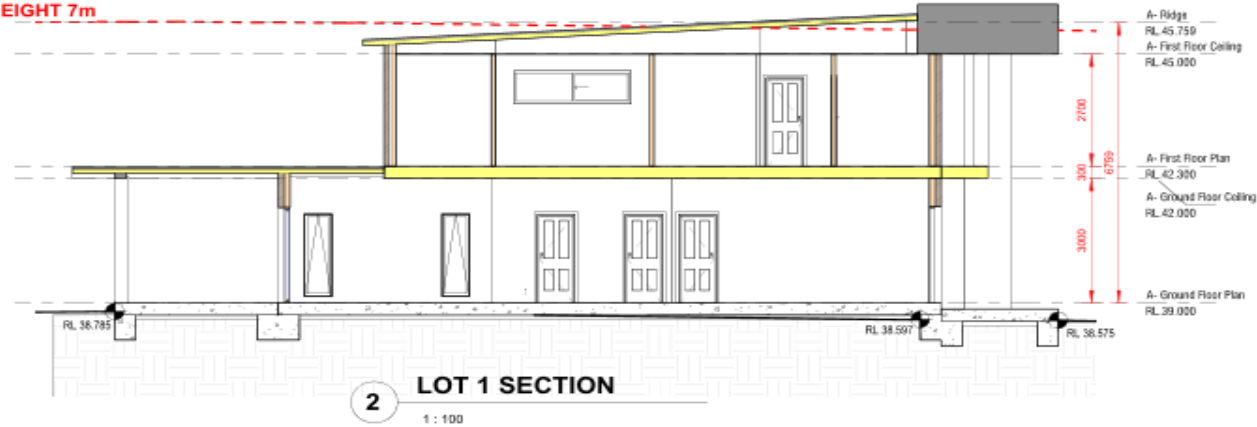


PROPOSED DUAL OCCUPANCY
47 CRAIG ST, CONDELL PARK

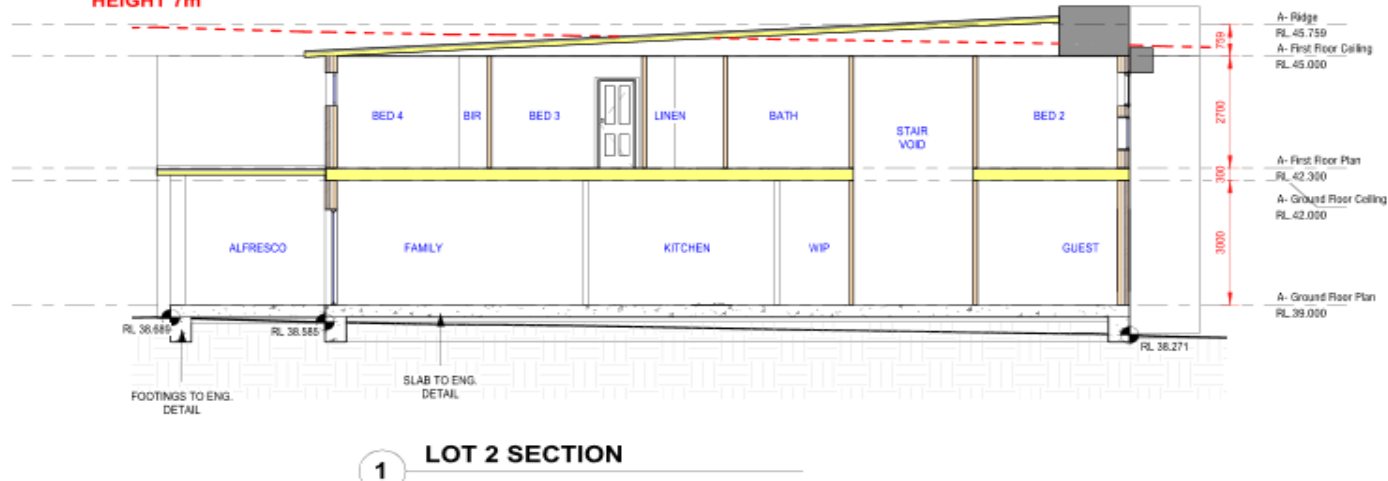
SECTIONS

JOB NUMBER 2022003	PAGE NUMBER 10	ORIGINAL SIZE A3
REVISION R.D.	DATE 20-11-2023	
DRAWN BY R.D.	SCALE AS SHOWN	

MAX BUILDING
HEIGHT 7m



MAX BUILDING
HEIGHT 7m



REV	DATE	DESCRIPTION

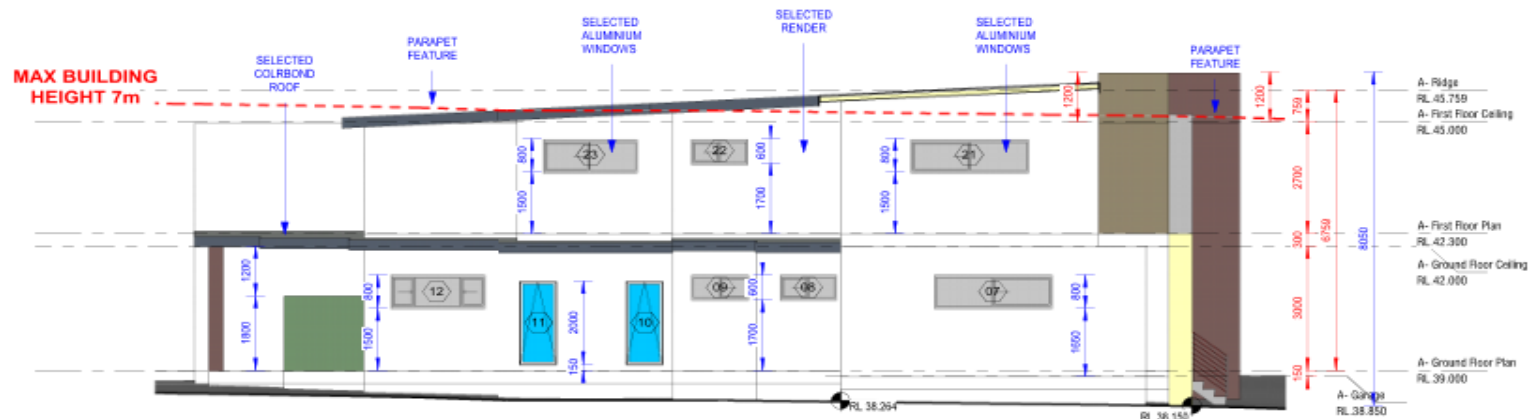
NOTE: 1 : 100
On the scale of drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.
© Copyright
This plan is subject to copyright and remains the property of MTZ Design. This plan must not be used, copied, altered, reproduced, disseminated or redistributed, in whole or part, without the prior written consent of MTZ Design.



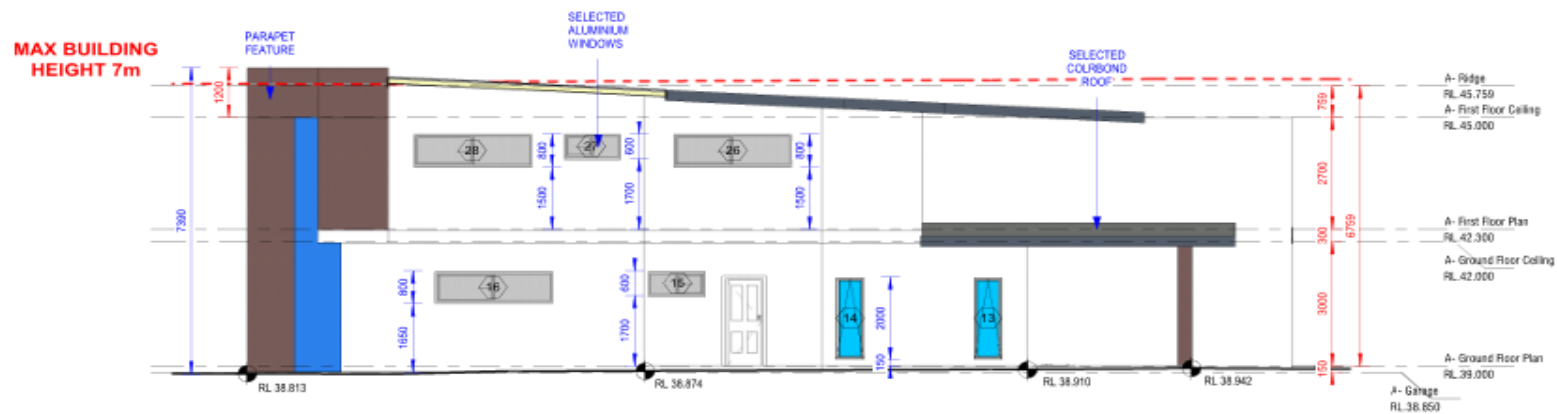
PROPOSED DUAL OCCUPANCY
47 CRAGG ST, CONDELL PARK

JOB NUMBER 2023009	PRICE NUMBER 00	OFFERING SIZE A3
REVISIONS R.D.	DATE 20-11-2023	
DRAWN BY R.D.	SCALE AS SHOWN	

SECTIONS



1 RIGHT LOT 1- SOUTH ELEVATION
1 : 100



2 LEFT LOT 2- NORTH ELEVATION
1 : 100

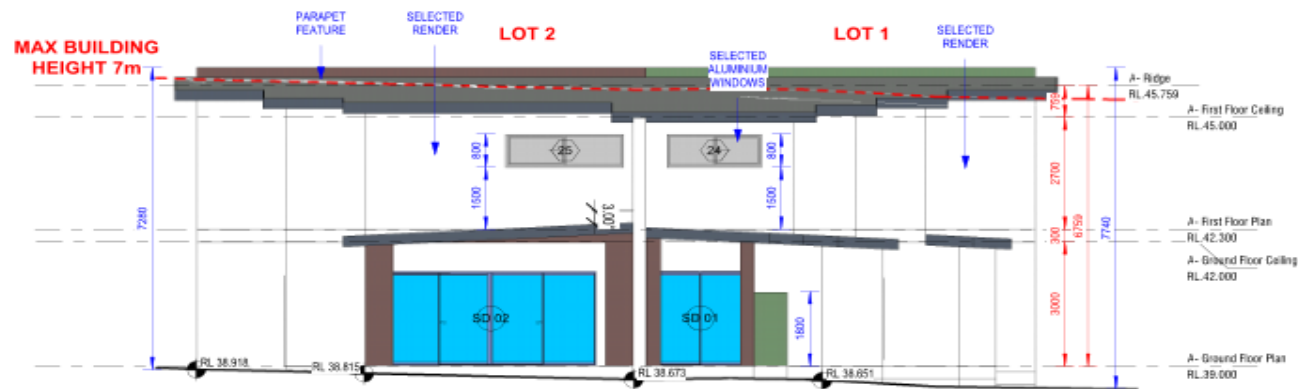
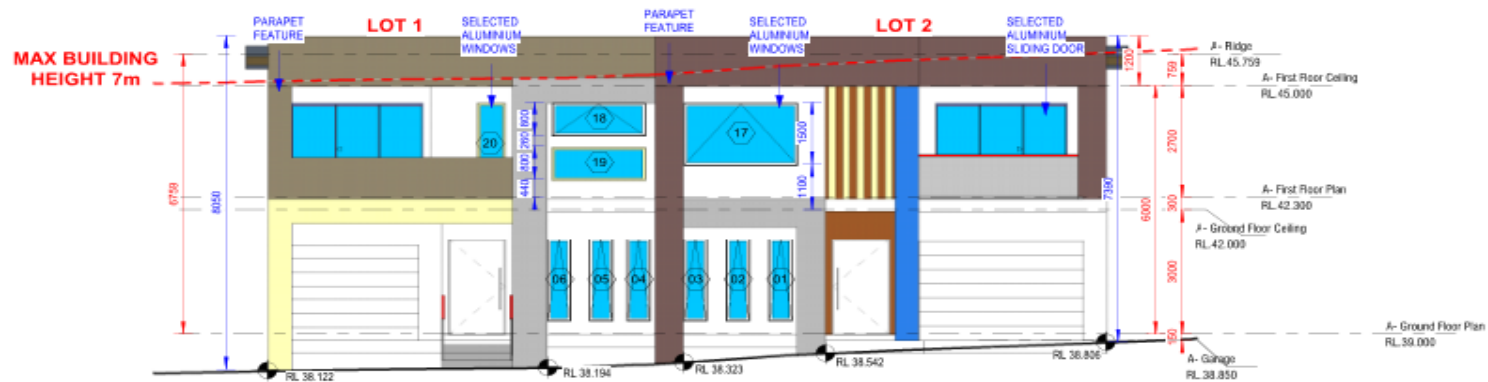
REV	DATE	DESCRIPTION	BY

NOTE:
On this scale off drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.
© Copyright
This plan is subject to copyright and remains the property of MTZ Design. This plan must not be used, copied, edited, reproduced, disseminated or redistributed, in whole or part without the prior written consent of MTZ Design.



PROPOSED DUAL OCCUPANCY
47 CRAIG ST, CONDELL PARK
ELEVATIONS

JOB NUMBER 2023009	PRICE NUMBER 00	OFFERING DATE N/A
REVISION KID	DATE 20-11-2023	
DRAWN BY KID	SCALE A3 SHOWN	



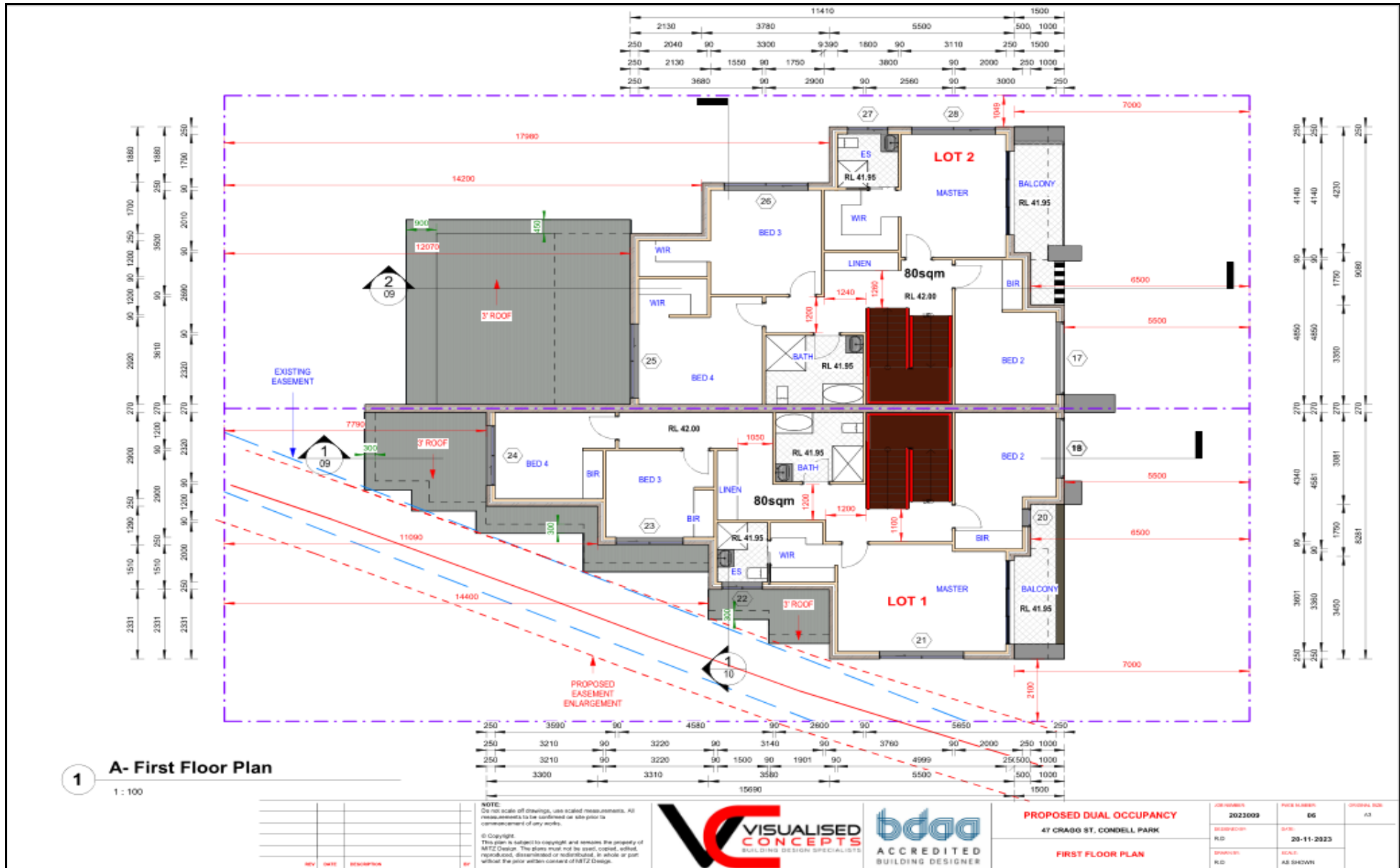
REV	DATE	DESCRIPTION	BY

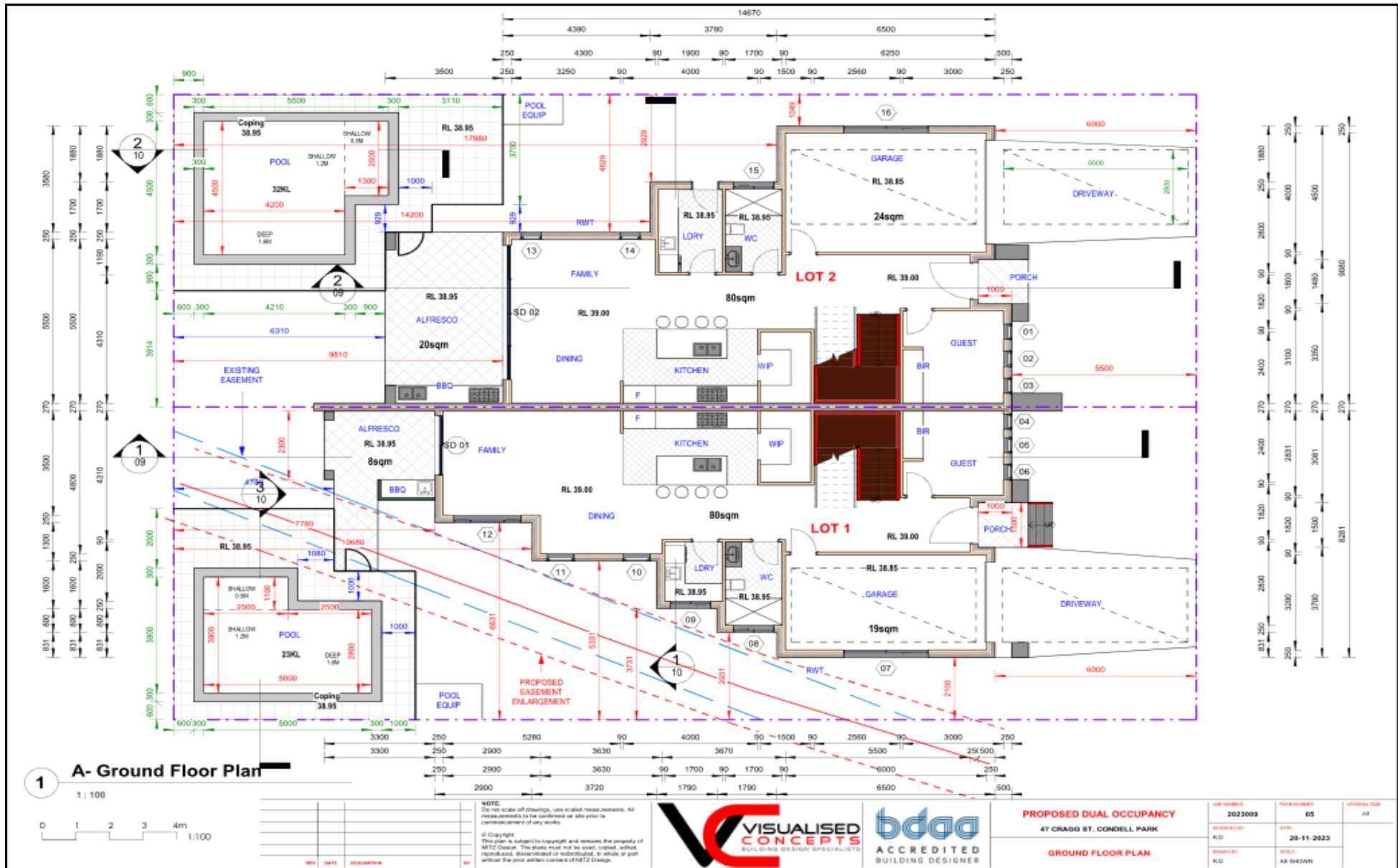
NOTE:
Do not scale off drawings, use scaled measurements. All measurements to be confirmed on site prior to commencement of any works.
© Copyright
This plan is subject to copyright and remains the property of MTZ Design. The plans must not be used, copied, reprinted, reproduced, disseminated or redistributed, in whole or part, without the prior written consent of MTZ Design.

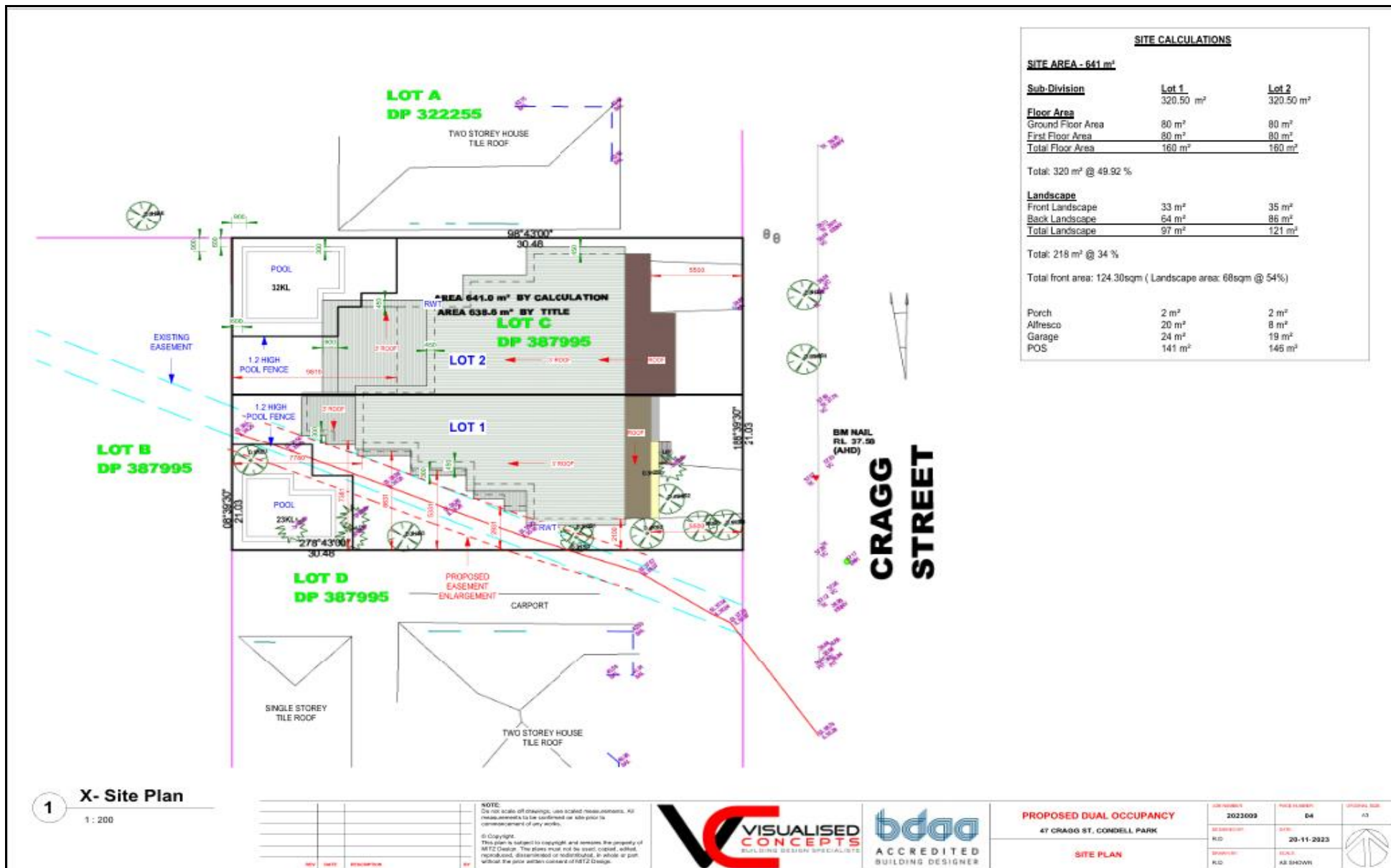


PROPOSED DUAL OCCUPANCY
47 CRAGO ST, CONDELL PARK
ELEVATIONS

JOB NUMBER 2023009	PRICE NUMBER 07	ORIGINAL SIZE A3
REVISION R.D.	DATE 20-11-2023	
DRAWN BY R.D.	SCALE AS SHOWN	







APPENDIX B: SUPPORTING INFORMATION FOR TREE ASSESSMENT TABLE

B.1 TREE PROTECTION ZONE CALCULATION

A Tree Protection Zone (TPZ) is a radial distance measured from the centre of the trunk of the tree. The intention of the TPZ is to minimise incursions to the root system and canopy to ensure the long-term health and stability of the tree.

A commonly used delineation for the TPZ is the dripline (extent of the crown spread projected to the ground plane). However, this may not provide adequate protection for trees that have prominent leans or distorted imbalanced or narrow crowns. A more appropriate guideline is the trunk diameter.

The Tree trunk measurement is recorded and known as the Diameter at Breast Height (DBH) at 1.4 metres from ground level using a metric tape measure. The TPZ area is then calculated by $DBH \times 12$.

The TPZ incorporates the Structural Root Zone (SRZ). The SRZ is the area required for tree stability and has a standard calculation formula. The SRZ calculation is only used when a major encroachment into a TPZ is proposed.

B.2 TREE AGE TERMINOLOGY

Rating	Description
Juvenile	Less than 20% of the life expectancy for the species
Semi-mature	Middle age trees, 20% to 50% of life expectancy
Mature	Greater than 50 – 80% of the life expectancy for the species
Over-mature	Greater than 80% of the life expectancy for the species, senescent tree, or those declining irreversibly to death

B.3 DEFINITION OF ASSESSED HEALTH AND CONDITION OF TREE

The condition of each tree has been rated in overall terms as one of the following:

Rating	Description
Good	The tree is generally healthy, vigorous, and free from the presence of major disease, obvious structural weaknesses, and fungal or insect infestation. It is expected to continue to live in the same condition as at the time of the inspection. Only small recommendations may be required to help continue the trees longevity.
Fair	The tree is generally vigorous but has some indication of decline possibly due to the early effects of disease, fungal or insect infestation, affected by physical (storm damage) or mechanical damage (Vandalism or involved in an accident by a vehicle), or is faltering due to the modification of the tree's environment essential for its survival. This tree group may recover with remedial work undertaken by a Qualified Arborist where appropriate or without intervention and may regain some vigour and stabilise over time. Medium recommendations are required to bring this tree up to a satisfactory standard.
Poor	The tree is exhibiting symptoms of advanced and irreversible decline due to possible factors such as fungal infestation, termite damage, ring barking of the tree's trunk due to borer infestation. Symptoms observed can include major die-back in branches, foliage thinning in the crown, and epicormic growth throughout the inner canopy. This tree group will normally decline further to death regardless of remedial works or modifications undertaken.
Dead	The tree is no longer alive and is in poor structural condition, that may cause damage to people or property and removal is strongly recommended.

B.4 ASSESSED STRUCTURAL CONDITION

This refers to the tree's form and growth habit, modified by its environment, including the state of the trunk and main structural branches. It considers the presence of defects such as decay, weak branch junctions and other visible abnormalities. Although some trees without defects fail in major storms, the presence of any defect will increase the chances of failure.

Rating	Description
Good	Trees with a single dominant trunk along which evenly spaced branches are spread. Branches have properly formed collars which provide strong attachment to the trunk and are about 25% of the trunk diameter. Minor structural defects may be present with low failure potentials.
Average	Trees with structural defects with low failure potential.
Fair	Trees with structural defects with medium failure potentials and require monitoring on an annual basis.
Poor	Trees with defects which have failed, or have a high risk of failing soon, and corrective action must be taken soon as possible.

B.5 SAFE USEFUL LIFE EXPECTANCY (SULE)

The remaining Safe Useful Life Expectancy of a tree is an estimate of the sustainability of the tree within the site/landscape, calculated based on an estimate of the average age of the species in an urban area, compared with its estimated current age. SULE ratings are estimated in line with the following table:

	1 LONG - 40+ yrs	2 MEDIUM - 15 to 40 yrs	3 SHORT- 5 to 15 yrs	4 REMOVAL - < 5 yrs	5 MOVED OR REPLACED
	Likely to be useful for over 40 years with acceptable risk and assuming reasonable maintenance	Likely to be useful for 15-40 years with acceptable risk and assuming reasonable maintenance	Trees that appeared to be retainable at the time of assessment for 5 to 15 years with acceptable level of risk.	Tree to be removed within the next 5 years	Tree which can be reliably moved or replaced.
A	Structurally sound trees growing in positions that can accommodate future growth	Trees which may only live 15-40 years	Trees that may only live between 5 and 15 more years.	Dead, dying, suppressed or declining trees through disease or inhospitable conditions.	Small tree less than 5m in height.
B	Trees which could be made suitable for long term retention by further care	Trees which may live for more than 40 years but which would be removed for safety or nuisance reasons	Trees which may live for more than 15 years but which would be removed for safety or nuisance reasons	Dangerous trees through instability or recent loss of adjacent trees.	Young trees less than 15 years old but over 5m in height.
C	Trees of special significance for history, commemorative or rarity reasons that warrant extraordinary efforts to secure their long-term future	Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting	Trees that may live for more than 15 years but should be removed to prevent interference with more suitable individuals or to provide space for new plantings	Dangerous trees through structural defects including cavities, decay included bark, wounds or poor form.	Trees that have been pruned to artificially control growth.
D		Trees which could be made suitable for medium term retention by remedial care	Trees which require substantial remediation tree care and are only suitable for retention in the short term.	Damaged trees that are clearly not safe to retain.	
E				Trees that may live for more than 5 years but should be removed to prevent interference with more suitable individuals or to provide space for new plantings	
F				Trees damaging Or which may cause damage to existing structures within the next 5 years	
G				Trees that will become dangerous after removal of other trees for reasons given in A) to F)	

SULE table adapted from Barrell (1995).

NOTE: No tree is “safe” i.e. entirely without hazard potential. The SULE rating given to any tree in this report assumes that reasonable maintenance will be provided by & qualified arborist using correct and acknowledged techniques. Retained trees are to have a reasonable setback and be protected from root damage. Incorrect practices can significantly accelerate tree decline and increase hazard potential.

B.6 ECOLOGICAL SIGNIFICANCE

These categories are based upon the criteria used in the Thyer Tree Valuation Method (1996) to evaluate a tree's ecological benefit.

Rating	Description
None	Weed species
Low	Restricts desirable plants or of little benefit to fauna.
Medium	Beneficial to flora & fauna provides food source and/or shelter.
High	Remnant /indigenous species of native vegetation.
Very High	Indigenous species being an integral part of a natural ecosystem.

B.7 LANDSCAPE SIGNIFICANCE

The site's **Landscape Significance** is a subjective value determined by assessing a combination of cultural, environmental, and aesthetic values of the subject trees. This may aid in determining their overall retention value. Generally, the Landscape Significance of the subject trees has been determined using the following criteria:

RATING	DESCRIPTION
HIGH	The subject tree is listed as a Heritage Item under the <i>Local Environmental Plan</i> with a local or state level of significance.
	The subject tree forms part of the curtilage of a heritage item.
	The subject tree creates a 'sense of place' or is considered 'landmark' tree.
	The subject tree is of local, cultural, or historical importance or is widely known.
	The subject tree is listed on Council's Significance Tree Register.
	The subject tree is scheduled as a Threatened Species or Threatened Plant Community under replaced by the Biodiversity Conservation Act (2016)
	The subject tree is a remnant tree.
	The subject tree is a locally indigenous species and is representative of the original vegetation of the area.
	The subject tree provides habitat to a threatened species.
MODERATE	The subject tree is an excellent representative of the species in terms of aesthetic value.
	The subject tree makes a positive contribution to the visual character or amenity of the area.
	The subject tree provides a specific function such as screening or minimising the scale of a building.
	The subject tree has a known habitat value.
LOW	The subject tree is a good representative of the species in terms of aesthetic value.
	The subject tree is an environmental pest species or is exempt under the provisions of the local Council's Tree Preservation Order.
	The subject tree makes little or no contribution to the amenity of the locality.
NIL	The subject tree is a poor representative of the species in terms of aesthetic value.
	The subject tree is declared a Noxious Weed under the Biosecurity Act (2015)

*NOTE: If the tree can be categorised into more than one value, the higher value should be allocated.

B.8 RETENTION VALUE WITHIN THE LANDSCAPE

The Retention Values of the trees have been determined based on the estimated longevity of the individual tree with consideration of its landscape significance rating. Together with recommendations contained within this report, the information should be used to determine the most appropriate action for trees considered for either retention or removal.

Retention Value Rating	Landscape/Environmental Significance						
Estimated Life Expectancy	1- Very High	2- Very High to High	3- High to Moderate	4 - Moderate	5- Moderate to Low	6- Low	7- Nil
HIGH – (H) Greater than 40 Years	High Retention Value			Moderate Retention Value		Low Retention Value	Low Retention Value
MEDIUM- (M) 15 to 40 Years							
LOW – (L) 5 to 15 years							
Less than 5 Years							
Dead or Hazardous	Low Retention Value						

APPENDIX C: TREE PROTECTION ZONES

The Tree Protection Zone (TPZ) is the designated area around a tree where optimum protection and preservation efforts should be implemented.

Root systems have two major functions, which are to obtain water and minerals from the soil and to give anchorage support to the tree. Most of the root system is in the surface 600mm to 800mm deep, extending radially for distances which are frequently in excess of the tree height. Unless conditions are uniform around the tree, which would be highly unusual, the extent of the root-systems can be irregular and difficult to predict. As tree roots are very opportunistic, they will not generally show the symmetry seen in the aerial parts.

On average, the tree's roots will extend to the outer reaches of their canopies, depending on morphology and disposition of the individual tree roots, and known to be influenced by past or existing site conditions including but not limited to;

- The individual tree species,
- Soil type, structure, and location,
- Topography and existing drainage,
- Location of either manmade hard structures or environment
- Pruning requirements, if required,

No disturbance should occur within this area. It is calculated by using a formula that considers the tolerance level of the species to disturbance, its age class, and its condition and trunk diameter.

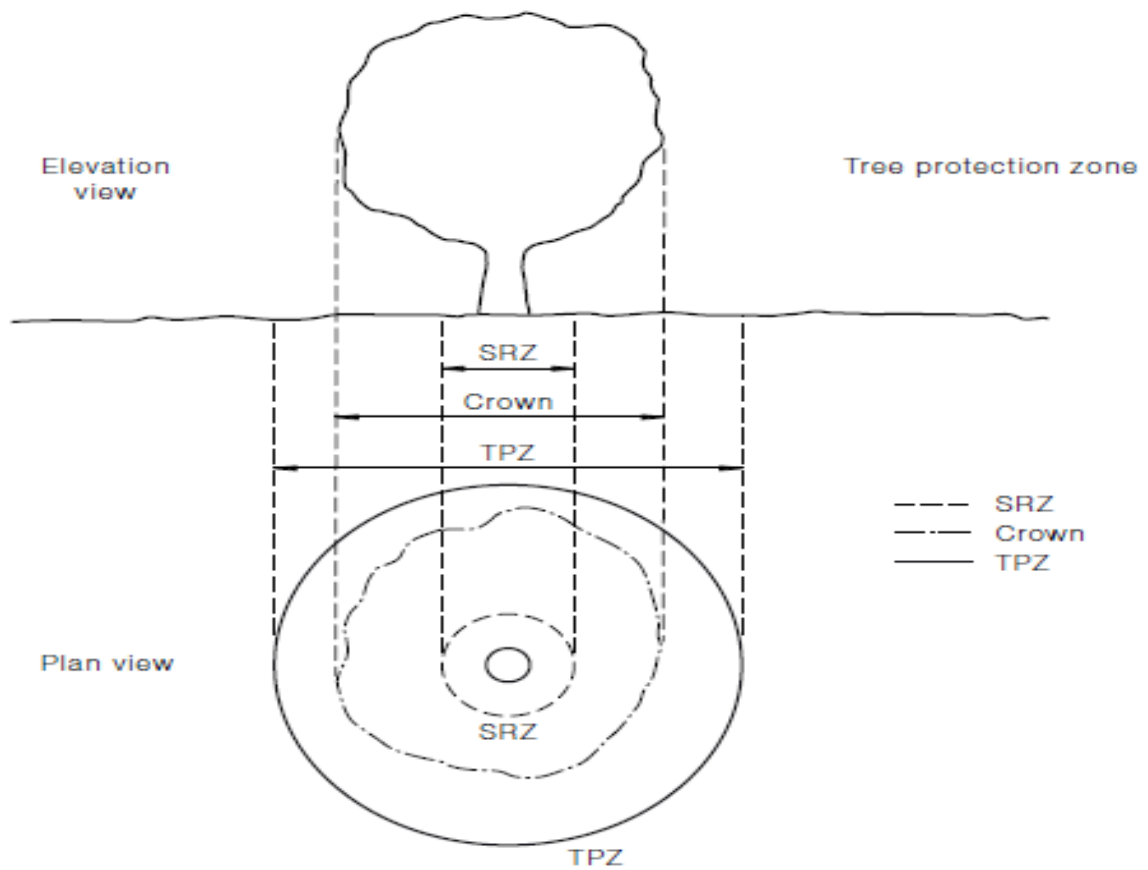
The main area for surface feeding roots to occur is from the tree trunk to the outer canopy known as the drip zone. These fibrous roots are less likely to occur under or near other buildings, as there is little surface moisture or soil air presence for root survival. These fibrous roots are those that take up water and nutrients.

While some tree roots will deeply penetrate the soil profile, in search of available water, most will occupy the first 60-80cm of the soil, as to obtain the needed sustenance. At times, it will not be possible to retain the optimum TPZ around each tree and any activities proposed within this area must be carefully analysed to minimise any effects on its health and/or stability.

The actual spread of the root system is largely dependent on the species involved, and their localised environment. Any work carried out within the TPZ should be reviewed and supervised by an appropriately qualified Arborist.

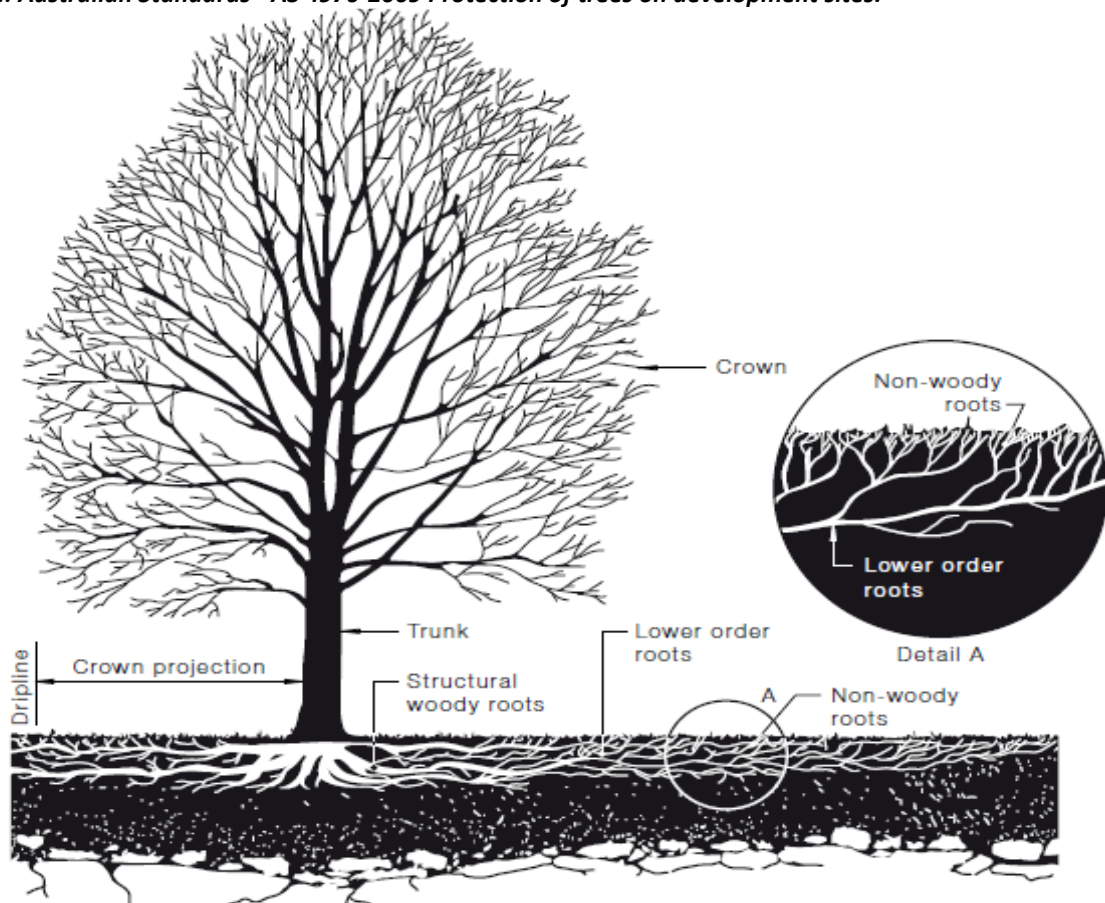
Construction works proposed to be undertaken around the trees if not correctly assessed may modify the natural water table and reduce the amount of soil air and moisture present/available to the trees and their longevity may be greatly diminished. Changing the drainage patterns around a tree by constructing a building, driveways, road, and paths etc will alter the amount of water the tree receives and may cause root death or damage. Trenches dug beside or adjoining large trees for water, sewer or services may also damage the roots and will make a tree unstable.

Older trees will tolerate far less stress than younger trees as with age they become less responsive and find it very strenuous to respond to changes in their environment.



C.1. Diagram of the TPZ and SRZ of a typical tree.

Source: Australian Standards - AS 4970-2009 Protection of trees on development sites.



C.2. Diagram of a typical tree root structure.

Source: Australian Standards - AS 4970-2009 Protection of trees on development sites.

APPENDIX D: TERMINOLOGY

CO-DOMINANT STEMS: The term 'co-dominant' is used to describe two or more stems or leaders that are approximately the same diameter and emerge from the same location on the main trunk. The junction where the two stems meet is a common location of above ground tree failure (Harris, Clark & Matheny, 1999).

CONDITION: An evaluation of the structural status of the tree including defects that may affect the useful life of an otherwise healthy specimen. Influencing factors include cavities and decay, weak unions between scaffolds (major branches) or trunks and faults of form or habit.

DBH: Acronym for trunk diameter at breast height (1.4m from ground level).

DEADWOOD: Deadwood is a normal function for plant growth and development. The safety of the target, namely pedestrians, is considered the primary basis for deadwood removal. As deadwood has an ecological value, the removal of deadwood is usually only carried where it is a potential hazard to site users. Deadwooding a tree does not increase its life expectancy.

DIEBACK: Dieback is the progressive death of branches or shoots originating from the tips. Dieback and decline are parts of a disease complex that have similar causal agents. Crown dieback is a recognizable, visible symptom of the early stages of decline and potential tree death.

DOMINANT: Trees with crowns above the upper layer of the canopy and generally receiving light from above and the sides.

EDGE: Trees located on the edge of a more dominant canopy of trees, and frequently possessing asymmetrical crowns, (heavier on the open side) and trunks that may be distorted due to competing with others for valuable nutrients i.e. soil air, water, light.

EPICORMIC GROWTH: Epicormic growth comes from dormant buds held in the cambium. Under normal growth conditions, these buds are held in a dormant state by hormones produced in the canopy. These shoots are often produced by the tree in response to injury or environmental stress. Epicormic growth has implications for tree structure as the attachment of an epicormic shoot is much weaker than that of a 'naturally' developed branch.

FOREST: Trees that have grown in a forest setting and only have about 1/3 of their canopy located on tall straight trunks.

INCLUDED BRANCH JUNCTIONS: Included branch junctions often form when two branches or trunks grow together at sharply acute angles, producing a wedge of inward-rolling bark. Junctions with included bark form weak attachments, as there is little connective tissue between the two stems.

INTERMEDIATE: Trees that have been overtopped, and become part of the understorey canopy

MYCORRHIZAE: Mycorrhizae are fungi that grow in symbiotic association with tree roots (especially the fine root hairs) and are attributed with increasing the uptake of nutrients, particularly phosphorus, and reducing infection from soil borne pathogens. They greatly increase the surface area of a tree's root system. Mycorrhizae require aerobic soil conditions and are reduced in number by compaction, waterlogging, and over-use of soil fertilisers. Forest litter or similar mulch provides ideal conditions for the proliferation of mycorrhizae.

NON-WOODY ROOTS: Extending from the woody root system, a mass of non-woody, fine feeder roots develop. These non-woody roots are active in water and nutrient uptake, are fine in structure, typically less than 0.5mm diameter, and include mycorrhizal associations with some soil fungi.

PROJECT ARBORIST: The person responsible for carrying out the tree assessment, report preparation, consultation with designers, specifying tree protection measures, monitoring, and certification. The project arborist will be suitably experienced and competent in arboriculture, having acquired through training, qualification (minimum Australian Qualification Framework (AQF) Level 5, Diploma of Horticulture (Arboriculture)) and/or equivalent experience, the knowledge and skills enabling that person to perform the tasks required by this Standard.

ROOT PLATE: This forms the main structural woody roots which provides overall anchorage for the tree. It is this central part of the root-system (large root mass with sub-soil normally attached) which may tilt over or rotates in storm events.

STRUCTURAL ROOT ZONE (SRZ): The area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres. This zone considers a tree's structural stability only, not the root zone required for a tree's vigour and long-term viability, which will usually be a much larger area.

TREE HAZARD POTENTIAL: An assessment of the risks associated in retaining a tree in its existing or proposed surrounds. Factors to consider are the growth characteristics of the species, tree vitality, condition and the frequency and type of potential targets. The impact the proposed works may have on tree vitality can only be assumed.

TREE PROTECTION ZONE (TPZ): A specified area above and below ground, and at a given distance from the trunk, set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained.

TREE: Long lived woody perennial plant greater than (or usually greater than) 3 m in height with one or relatively few main stems or trunks (or as defined by the determining authority).

VIGOUR: Ability of a tree to sustain its life processes. The term 'vigour' in this document is synonymous with commonly used terms such as 'health' and 'vitality'.

VITALITY: Indicates the energy reserves of the tree and is determined by the observed crown colour and density, the percentage of dead / dying branches and epicormic growth. The vitality of the canopy and that of the root system is interdependent. Root damage or heavy pruning draws on a tree's energy reserves. The tree's ability to initiate internal defence systems (compartmentalisation of damage) is reduced and it can also become predisposed to attack by insects and pathogens.

WOODY ROOTS: Beyond the root plate the root system rapidly subdivides into smaller diameter woody roots (hydrotropic) which conduct water and nutrients from the non-woody roots.

WORK: Any physical activity in relation to land that is specified by the determining authority.

WOUNDING: Wounding may be the result of mechanical injury from construction equipment; branch failure, splitting or cracking during high wind events. The long-term effects of tree wounding are the potential development of decay and loss of wood strength.

APPENDIX E: REFERENCES

American Society of Consulting Arborists (1995), *A Guide to Report Writing for Consulting Arborists*, International Society of Arboriculture, USA,

Australian Standard, 4970; 2009 – Protection of Trees on Development Sites, Australia,

Barrell, J., (1993) 'Pre-planning Tree Surveys: Safe Useful Life Expectancy {SULE} is the Natural Progression' *Arboricultural Journal* Vol. 17, pp 33-46, AB Academic Publishers, Great Britain,

Barrell, J., (2001) 'Safe Useful Life Expectancy Categories updated 4/01' from Management of Mature Trees, proceeding of the 4th NAAA Tree Management Seminar, National Arborists Association of Australia, Sydney, Australia, Appendix 3,

Bradshaw, Hunt & Walmsley (1995), *Trees in the Urban Landscape*, E & FN Spon, London,

Dunster, J. A., Smiley, E. T., Matheny, N. P., & Lilly, S. (2017). *Tree Risk Assessment Manual*. International Society of Arboriculture,

Hadlington & Johnston (1988), *Australian Trees: Their Care & Repair*, UNSW Press, Sydney,

Harris, Clark & Matheny (1999), *Arboriculture: Integrated Management of Landscape Trees*,

Heatwole, H. & Lawman, M. (1986) 'Dieback. death of an Australian landscape' Reed Books Pty Ltd. Frenchs Forest, NSW,

Matheny & Clark (1994), *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas*, International Society of Arboriculture, USA,

Mattheck & Breloer (1994), *The Body Language of Trees: A Handbook for Failure Analysis*, The Stationary Office, London,

Thyer, P. (1996) 'Thyer Tree Valuation Method',

www.whereis.com.au,

www.Nearmaps.com,

Canterbury Bankstown City Council Development Control Plan 2015–Part B11 2 Draft – July 2015. Part B11 of the Bankstown Development Control Plan 2015,

APPENDIX F: CERTIFICATION

I certify that the enclosed "Arboricultural Impact Assessment and Tree Management Plan" for the proposed development at 47 Cragg Street, Condell Park NSW has been prepared by Horticultural Management Services.

To the best of my knowledge and professional integrity, it is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

Qualifications:

- *Diploma of Arboriculture (AQF L5)*
- *International Society of Arboriculture (ISA) Tree Risk Assessment TRAQ Certified*
- *Diploma of Horticulture*
- *Diploma of Conservation and Land Management*

Scott Freeman

Scott Freeman
Principal
Horticultural Management Services

© Copyright Horticultural Management Services 2023