ARBORICULTURE CONSULTANCY
AUSTRALIA

ARBORICULTURAL IMPACT ASSESSMENT

PROPOSED RESIDENTIAL DEVELOPMENT OF 141 COMUR STREET, YASS

PREPARED FOR:

Elise Croker

ASSESSMENT AREA:

Lot 1 – DP 224341

141 Comur Street

Yass NSW 2582

REFERENCE:

Croker – 141 Comur Street

PREPARED BY:

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EXECUTIVE SUMMARY

Elise Croker, acting on behalf of the property owner, has commissioned this Arboricultural Impact Assessment to accompany an application to the Yass Valley Shire Council for the proposed residential development of 141 Comur Street, Yass NSW 2582.

The proposal calls for the restoration and extension of the existing stable block, an item of local heritage significance.

Additionally, it includes the selective removal of invasive weed species and specific trees to facilitate the implementation of the proposed landscaping works.

The purpose of this assessment is to quantify the potential impact of the proposed development on the site's tree population, ensuring conservation of the character, scenic quality, and cultural significance is the primary objective.

The site assessment was undertaken on 25th June 2024 by Principal Arborist Sibone Nadin.

- Twenty-five (25) individual trees are adversely impacted and are not retainable under the current proposal.
- Seventeen (17) individual trees, including neighbouring trees, are retainable under the current proposal.

The Tree Protection Conditions have been prepared in accordance with *Australian Standard AS 4970-2009 Protection of Trees on Development Sites*.

Subject only to the Tree Protection Conditions being implemented as prescribed, the author is satisfied that all retained trees will remain sustainable.

The author is satisfied that the proposed landscaping plan will adequately compensate for any ecological loss from the required tree removal and improve the visual amenity of the site and surrounding streetscape.

Therefore, a design review is not recommended under the current proposal.

The author's support for the proposal in its current format is contingent upon the landscaping works being undertaken as described.

This Executive Summary intends only to provide the reader with an overview of the findings and recommendations outlined in this report and must be read in conjunction with the entire report.

Sibone Nadin *Dip. (Arboriculture) AQF Level 5*
Principal Arborist
Arboriculture Consultancy Australia
20th November 2024

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TABLES & FIGURES

1. INTRODUCTION

This report acknowledges the traditional owners of this land and pays respect to the Elders, past, present and emerging of the land on which the site is located.

Elise Croker, acting on behalf of the property owner, has commissioned Arboriculture Consultancy Australia to undertake an Arboricultural Impact Assessment (AIA) of forty-two (42) individual trees located within and adjacent to the subject site located at 141 Comur Street, Yass NSW 2582.

The proposal calls for restoration and extension of the existing stable block – an item of local heritage significance and associated landscaping works. Additionally, it includes the selective removal of invasive weed species and specific trees to facilitate the implementation of the proposed landscaping works.

2. OBJECTIVES

The purpose of this assessment is to quantify the potential impact of the proposed development on the site's tree population, ensuring the preservation of the amenity, biodiversity, cultural, and heritage value is the primary objective.

3. SCOPE

This Arboricultural Impact Assessment (AIA) will identify all trees within the site boundary and adjacent properties (including public lands) that may be impacted by the proposed development and recommend tree protection measures necessary to protect retained trees throughout the project's construction phases.

In accordance with industry standards, the author will establish the arboricultural merit (value) of trees and provide an understanding of their relative significance in the landscape to determine priorities for retention, removal, and protection.

The assessment applies to vegetation defined as a tree under Part K – Natural Resources of Yass Valley Council's *Yass Valley Council Development Control Plan (DCP)* and any other vegetation that the author may consider fundamental to the conclusions drawn in this report.

This report has been prepared in accordance with section 2.3.5 of the *Australian Standard for Protection of Trees on Development Sites (4970-2009)* and Wingecarribee Shire Council's *Submission Requirements for Consulting Arborists Report*.

4. LIMITATIONS OF THE ASSESSMENT

Limitations are matters and occurrences which are outside of the Authors' control. The following limitations may influence the extensity of the study and the conclusions which can be drawn:

- ACA was not commissioned to undertake a preliminary arboricultural report to guide the development layout. Therefore, this impact assessment is based on the Landscape Plan prepared by SC Design Solutions and will only comment on "*design and construction methods proposed to minimise impacts on retained trees where there is encroachment into the calculated TPZ*" (AS 4970-2009, 2009).

- Trees are biological entities subject to changes in their environment. Conclusions derived from the Visual Tree Assessment (VTA) are the Author's professional opinion, resulting from observations made on the day of inspection. Therefore, any subsequent observations may differ.

5. DESCRIPTION OF STUDY AREA

The site is situated in the locality of Yass, within the local government area (LGA) of Yass Valley.

The site is formally defined as Lot 1 – DP 224341 and zoned E1 – Local Centre by the Yass Valley Council.

The site is approximately 1,802m^2 and is described as a highly modified, mixed-use allotment containing the former Westpac Bank building, stables, shared access driveway, car park and gardens.

The site is devoid of native vegetation. The exotic species are mid-canopy ornamental specimens such as European Nettle Tree *(Celtis australis)*, Atlantic Cypress *(Chamaecyparis thyoides)*, Ash *(Fraxinus)* and English Elm *(Ulmus procers)*.

The rear of the site is bordered by overgrown and unmaintained hedgerows of Sawtooth Photinia *(Photinia serratifolia)* and Broad-leaved Privet *(Ligustrum lucidum)*– a state-listed environmental weed species.

The property boundary has been defined by cadastral datasets extracted from Nearmap aerial imagery and cross-referenced with the NSW Government Planning Portal (Property Report).

The study area is confined to the rear of the property encompassing the stable block and driveway.

For the purposes of this assessment, the study area will be referred to as "the site".

The extent of the study area is approximated in red, as shown in Figure 1 and will include all adjacent properties (including public lands) that may be impacted by the proposal.

Figure 1: Area of assessment denoted in red (NearMaps, 2024).

5.1 SITE PLAN

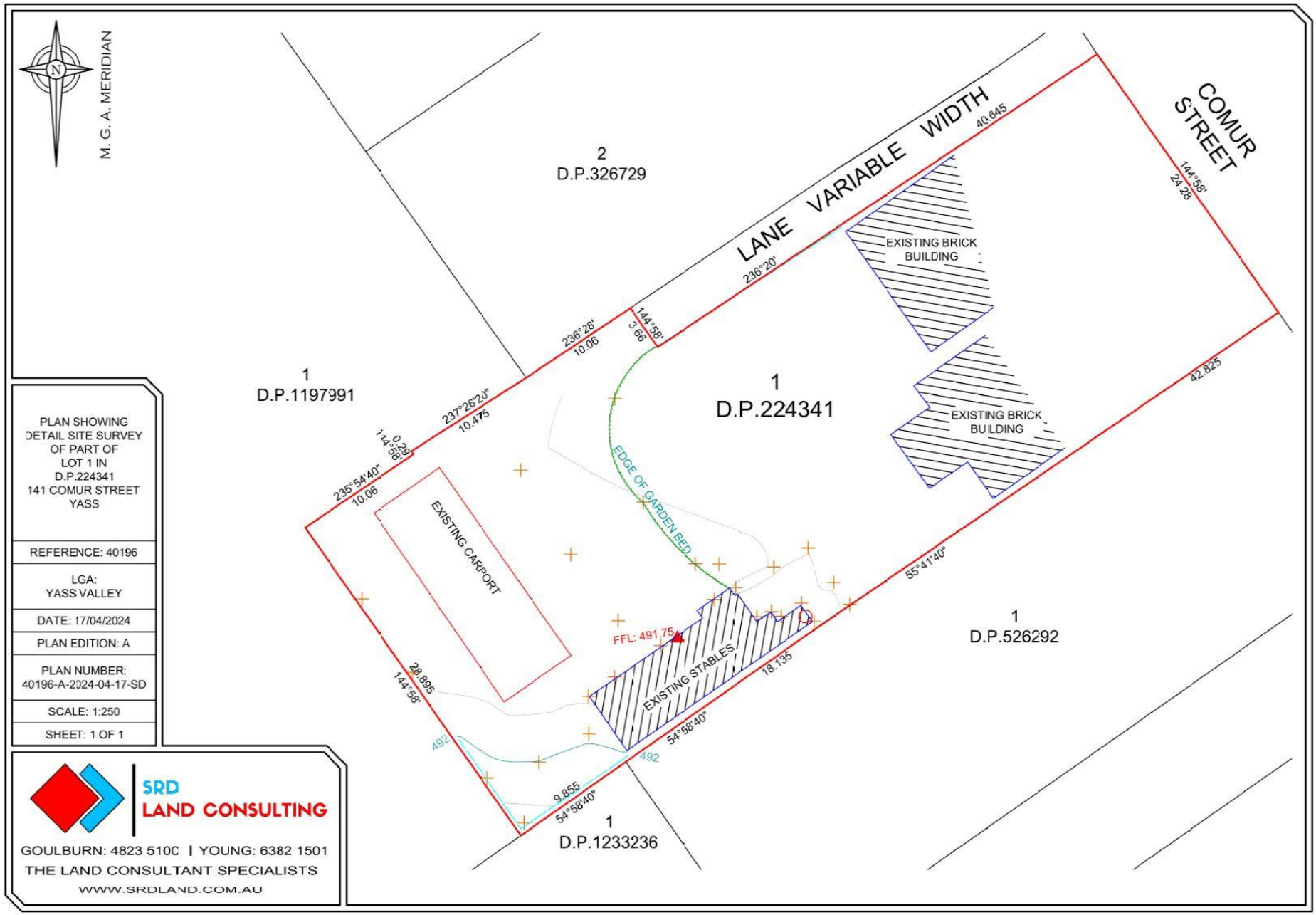

Figure 2: Survey plan (SRD Land Consulting, 2024).

6. PROPOSED DEVELOPMENT

The proposal calls for restoration and extension of the existing stable block – an item of local heritage significance and associated landscaping works.

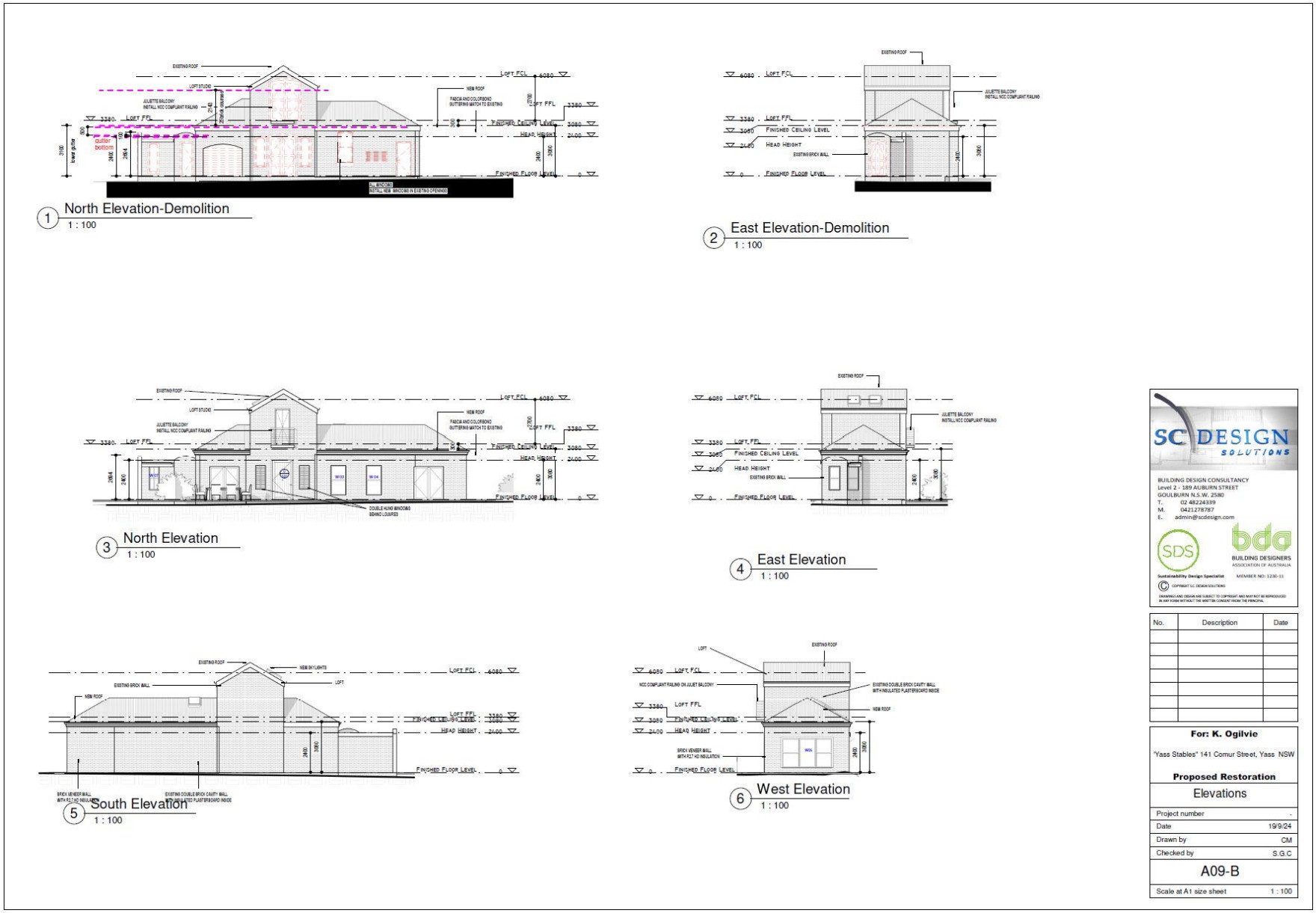

Figure 3: Proposed elevations (SC Design Solutions, 2024).

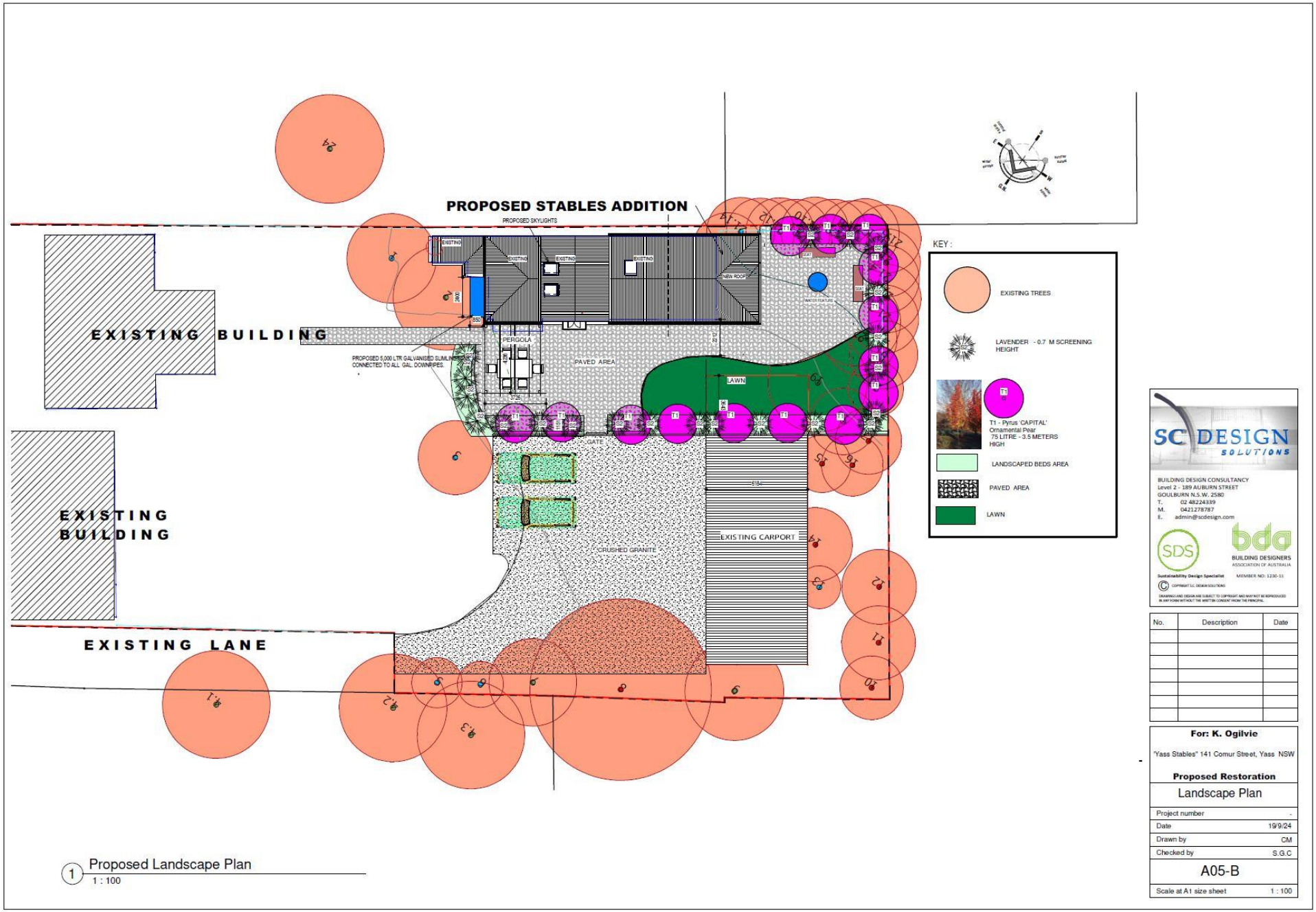

Figure 4: Landscaping plan (SC Design Solutions, 2024) .

7. LEGISLATION REVIEW

A Legislation Review was undertaken to ensure that the recommendations outlined in this report:

- Meet the provisions of applicable Federal, State, and Local Government environmental legislation.
- Comply with all relevant Australian Standards
- Identify potential non-conformance.

This legislative review process directs the author to establish the heritage, cultural, and ecological significance of the tree population.

Additionally, it determines whether further expert evaluation is necessary, particularly for matters beyond the scope of an Arboricultural Impact Assessment (AIA).

At the time of the assessment, the following legislation and environmental planning instruments were applied and form the foundation of the recommendations outlined in this report:

7.1 FEDERAL, STATE AND LOCAL PLANNING REVIEW

- *Biodiversity Conservation Act 2016;*
- *Environment Planning and Assessment Act, 1979;*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021;*
- *Biosecurity Act, 2015;*
- *Yass Valley Local Environmental Plan 2010;*
- *Yass Valley Council Development Control Plan;*
- *Planning For Bushfire Protection 2019;*

7.2 STANDARDS REVIEW

- *AS 4970:2009 Protection of Trees on Development Sites;*
- *AS 4373-2007 Pruning of Amenity Trees;*
- *AS 4454-2003 Composts, soil conditioner and mulches;*
- *AS 2303:2018 Tree Stock for Landscape Use; and*
- *Safe Work Australia Guide to Managing Risks of Tree Trimming and Removal Work.*

7.3 NSW GOVERNMENT PLANNING TOOLS

- *The Central Resource for Sharing and Enabling Environmental Data in NSW (SEED);*
- *Department of Agriculture, Water and the Environment - A Protected Matters Report;*
- *NSW Planning Portal – Property Report;*
- *Aboriginal Heritage and Information Management System (AHIMS); and*
- *Biodiversity Values Map and Threshold Tool (BMAT).*

7.4 DOCUMENT REVIEW

The following resources and documents relating to the study area were used to conduct the review:

Table 1: Document Review Schedule

DOCUMENT	AUTHOR	REFERENCE	DATE	VERSION
Plan Showing Detail Site Survey of Part of Lot 1 in D.P.224341 141 Comur Street Yass	SRD Land Consulting	40196	17/04/2024	A
Site Plan	SC Design Solutions	A04-B	19/09/2024	B
Landscape Plan	SC Design Solutions	A05-B	19/09/2024	B

8. METHODOLOGY

8.1 FIELD ASSESSMENT

The field assessment was undertaken on 25th June 2024, by Principal Arborist Sibone' Nadin.

In accordance with section 2.3.2 of *AS 4970:2009*, the following data was systematically collected and presented in a tabulated form in Appendix 1.

- Botanical name and common name;
- Dimensions: Canopy (m), crown density and class;
- Age class, health and structure;
- Safe Useful Life Expectancy (SULE)
- Landscape Significance (LS) and Retention Values (RV);
- Ecological and habitat values;
- Tree Protection Zone (TPZ) and Structural Root Zone (SRZ);
- Encroachment values and impact; and
- Comments and results.

8.2 DATA COLLECTION METHODOLOGY

Diameter at Breast Height (DBH) and Diameter Above Root Buttress (DAB) were measured in millimetres using a diameter tape or Vernier callipers. Heights were estimated by the author and expressed in metres. Canopy orientation was determined with a compass, and canopy dimensions were estimated by the author.

Field assessment tools included Trimble GPS survey equipment, a Teflon hammer, binoculars, steel probes, and a telescopic torch. Data was digitally recorded, and photographs were taken by the author unless otherwise indicated. Photos may be cropped for clarity.

GPS plotting and GIS software were used with the site survey to create the tree location plan. Trees not included in the survey were plotted using GPS, which may vary in accuracy due to signal quality.

The author makes no representation of the accuracy of these positions. Marginal deviations may occur, resulting in variations in specified encroachment values.

8.3 TREE SPECIES IDENTIFICATION

In some instances, a complete taxonomical identification process is not possible, given that mature foliage is not always accessible.

The author will specify the genus of the tree in the tree assessment schedule (e.g., *Euc sp.*) Such incomplete identification will have no bearing on the tree protection provisions provided by the author.

8.4 NEIGHBOURING TREES

Where access is available, the Tree Protection Zone (TPZ) and canopy encroachment onto the site will be quantified in accordance with *AS4970:2009 Protection of Trees on Development Sites.*

When access is limited or denied, neighbouring trees will not be subject to a thorough Visual Tree Assessment. The author will estimate the DBH and document this estimation within the Tree Assessment Schedule.

8.5 ARBORICULTURAL MERIT

The following methodology describes the author's process to establish the arboricultural merit (value) of trees and provide an understanding of the tree's relative significance in the landscape to determine priorities for retention, removal, and protection (Morton, Determining the Retention Value of Trees, 2003).

8.5.1 VISUAL TREE ASSESSMENT

The physical structure and vigour were evaluated using the Visual Tree Assessment (VTA) procedure by Mattheck and Breloer.

The assessment was undertaken from the ground level and will not utilise the employment of any digital diagnostic equipment or electronic equipment of any kind upon the subject tree or trees unless specified.

8.5.2 CROWN CLASS

Crown class is a term used to describe the position of an individual tree in the forest canopy and refers to the bulk of the tree crowns in the size class or cohort being examined. Crown classes are used to generally describe tree vigour, tree form, growing space, and access to sunlight (DeYoung, 2021).

8.5.3 LANDSCAPE SIGNIFICANCE

Landscape Significance has been determined using Morton's Criteria for Determining Landscape Significance.

The Landscape Significance is a combination of the amenity, environmental, and heritage values of the subject tree and other factors that increase or diminish amenity, heritage and environmental values (Morton, Determining the Retention Value of Trees, 2003).

To ensure a consistent approach, the assessment criteria shown in Appendix 2 have been used in this assessment.

8.5.4 SAFE USEFUL LIFE EXPECTANCY (SULE)

SULE and SULE Sub Ratings are determined using an adapted version of Barrell's SULE methodology. This approach estimates the tree's sustainability in the landscape based on the species' average age, less its estimated current age in an urban environment. The tree's life expectancy can be further modified to consider the current health, structural integrity, vigour, and suitability to the site (Barrell, 2009).

The criteria for the assessment of SULE are attached in Appendix 3.

8.5.5 RETENTION VALUE

Retention Value is a combination of the Landscape Significance values (heritage, ecological and amenity value) together with the estimated SULE. This method provides a consistent approach when determining trees' Retention Values.

The Retention Value rating is further applied to each tree to assist in determining priorities for retention, removal, and protection (Morton, Determining the Retention Value of Trees, 2003).

The Retention Value Matrix is attached in Appendix 3.

8.6 TREE PROTECTION ZONES

The Tree Protection Zone (TPZ) is established to safeguard trees on development sites, combining both root and crown areas requiring protection.

Each tree has been allocated a TPZ according to Australian Standard *AS:4970-2009*. The TPZ radius is calculated by multiplying the Diameter at Breast Height (DBH) by 12.

TPZ distances are measured from the trunk's centre at or near ground level, with a maximum radius of 15 metres and a minimum of 2 metres.

8.6.1 STRUCTURAL ROOT ZONES

The structural root zone (SRZ) is the specified area around the base of a tree required for the tree's stability in the ground.

Each tree on the subject site has been allocated an SRZ according to *Australian Standard AS4970-2009*.

8.6.2 TPZ AND IMPACT CATEGORIES

The following categories define the levels of encroachment into a Tree Protection Zone (TPZ):

- NO IMPACT - There is no encroachment within the TPZ of the subject tree. No further investigation is required.

- MINOR IMPACT - The proposed encroachment is less than 10% (total area) of the TPZ and outside the SRZ. Typically, no further investigation is required. The area lost to encroachment should be compensated for elsewhere (AS 4970-2009, 2009).

- MAJOR IMPACT - The proposed encroachment is greater than 10% (total area) of the TPZ or within the SRZ. The project arborist must demonstrate that the subject trees(s) would remain viable, and the area lost to this encroachment should be compensated for elsewhere (AS 4970-2009, 2009).

9. LEGISLATIVE REVIEW RESULTS

9.1 CONSENT AUTHORITY

The site has been assessed under the provisions of the *State Environmental Planning Policy (Biodiversity & Conservation) 2021*. This policy applies to land zoned E1 within the Local Government Area of Yass Valley.

Removal of or any actions regarding the subject trees is not permitted without consent from the Yass Valley Council.

It is incumbent on the property owner to seek all appropriate approvals prior to any tree works within the subject site. The recommendations outlined in this report are ***not*** an assurance of removal or retention.

9.2 ENVIRONMENTAL SIGNIFICANCE

To aid in the environmental assessment of ecological communities, all ecological communities have key diagnostic characters and condition thresholds. These characteristics and conditions determine whether the referral, assessment, approval and compliance provisions are likely to apply.

Where an endangered ecological community has been identified, the author will use the key indicator species of the ecological community to apply the appropriate Landscape Significance rating to the site trees.

A Protected Matters search was undertaken using the Australian Government - Department of Agriculture, Water and the Environment Protected Matters Search Tool.

The search has identified that the following two (2) endangered or critically endangered ecological communities *may* occur in the study area:

- *Natural Temperate Grassland of the South Eastern Highlands; and*
- *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland.*

A further search was undertaken using the NSW Government Central Resource for Sharing and Enabling Environmental Data in NSW (SEED) map. The study area is not mapped as containing an ecological community.

Figure 5: SEED map search result (NSW Government, 2024).

9.3 CULTURAL SIGNIFICANCE

A search conducted using the Office of the Environment and Heritage Aboriginal Heritage Information Management System (AHIMS) was performed. The search parameters were extended to include a 200 m buffer surrounding the site.

There were no Aboriginal sites declared as culturally significant on or within 200 metres of Lot 1 – DP 224341.

It is an offence to harm or desecrate an Aboriginal object or declared Aboriginal Place. Therefore, it is incumbent on the property owner to ensure any works on this subject site do not modify, harm or desecrate a declared Aboriginal Place without an Aboriginal Heritage Impact Permit issued under the National Parks and Wildlife Act 1974 (NPW Act).

9.4 HERITAGE AND COMMEMORATIVE SIGNIFICANCE

The State Heritage Inventory under the *Heritage Act 1977* holds information about protected heritage items in NSW. Items of State Significance are listed on the State Heritage Register. The site is not listed, nor is it located in the vicinity of any State Heritage items.

Local items of environmental heritage throughout the local government area are listed under the provisions of Schedule 5 of the *Yass Valley Local Environmental Plan 2013*.

The site contains the former Westpac Bank building and hitching posts, which are heritage items of local significance under this plan. It is also noted that the site is located in the Yass Heritage Conservation Area - a general conservation precinct.

The author will consider the original character of the Conservation Area to apply the appropriate Landscape Significance rating to the site trees.

A search of the National Trust of Australia, Register of Significant Trees, was conducted on 26th June 2024. The site trees were not listed on the register.

The author could find no historical reference or evidence to indicate that the subject tree population forms part of a commemorative planting.

9.5 KOALA HABITAT PROTECTION

State Environmental Planning Policy (Biodiversity and Conservation) 2021 aims to encourage the conservation and management of natural vegetation areas that provide habitat for Koalas to support a permanent free-living population over their present range and reverse the current trend of Koala population decline.

The SEPP applies to the Local Government Area (LGA) of Yass Valley; however, as the subject site is less than one (1) hectare, and there is no approved koala management plan, it is understood that no further application of this policy is required.

9.6 WILDLIFE & HABITAT

On the day of the assessment, no native animals were sighted, and the subject trees contained no visible hollows suitable for arboreal animals. However, as a precautionary approach, the author will assume that native fauna utilises the subject trees.

Any clearing of trees, shrubs or groundcovers (including weeds) within the site lands should be conducted to ensure no animals are harmed or displaced in accordance with the *Prevention of Cruelty to Animals Act, 1979*. Any injured native animals shall be rescued and transferred to the care of the Wildlife Information, Rescue and Education Service (WIRES) -Ph: 1300 094 737.

9.7 BIODIVERSITY OFFSET SCHEME (BOS) THRESHOLD

The Biodiversity Offsets Scheme (BOS) Threshold is used to determine when an accredited assessor will be required to determine the impact of a proposal.

The *Biodiversity Conservation Regulation 2017* sets out threshold levels for when the BOS applies. The threshold has two elements:

- whether the amount of native vegetation being cleared exceeds a threshold area, or
- whether the impacts occur on an area mapped on the Biodiversity Values Map.

If clearing or other impacts exceed either trigger, a Biodiversity Development Assessment Report (BDAR) will be required.

The site was assessed using the NSW Government BVM Threshold Tool.

The impacts do not occur in an area mapped on the State Biodiversity Values Map (BVM), and the proposal does not exceed the native vegetation clearing threshold; therefore, it is understood that a Biodiversity Development Assessment Report (BDAR) is not required.

9.8 BUSHFIRE PRONE LAND

The NSW Rural Fire Service document *Planning for Bush Fire Protection 2019* (PBP) provides the development standards for designing and building on bushfire-prone land in New South Wales.

In accordance with section 4.14 of the *Environmental Planning and Assessment Act 1979*, all Development Applications on bushfire-prone land must meet the requirements of PBP 2019.

The subject site has not been identified as bushfire-prone land by the NSW Rural Fire Service; therefore, the author will not consider the requirements of the PBP 2019 when determining the impact of the proposal.

9.9 BIOSECURITY DUTY

All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. *Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable* (NSW Legislation, 2015).

Under the *Biosecurity Act 2015*, *Ligustrum lucidum* (Broad-leaved Privet) is classified as an environmental weed species.

To address potential biosecurity risks, it is advised that these trees be removed irrespective of the proposed development footprint.

This measure aims to prevent, eliminate, or minimise the identified biosecurity hazards.

10. FIELD RESULTS

10.1 TREE LOCATION AND TPZ INCURSION PLAN

GPS plotting and GIS software were utilised to prepare the following tree location plan.

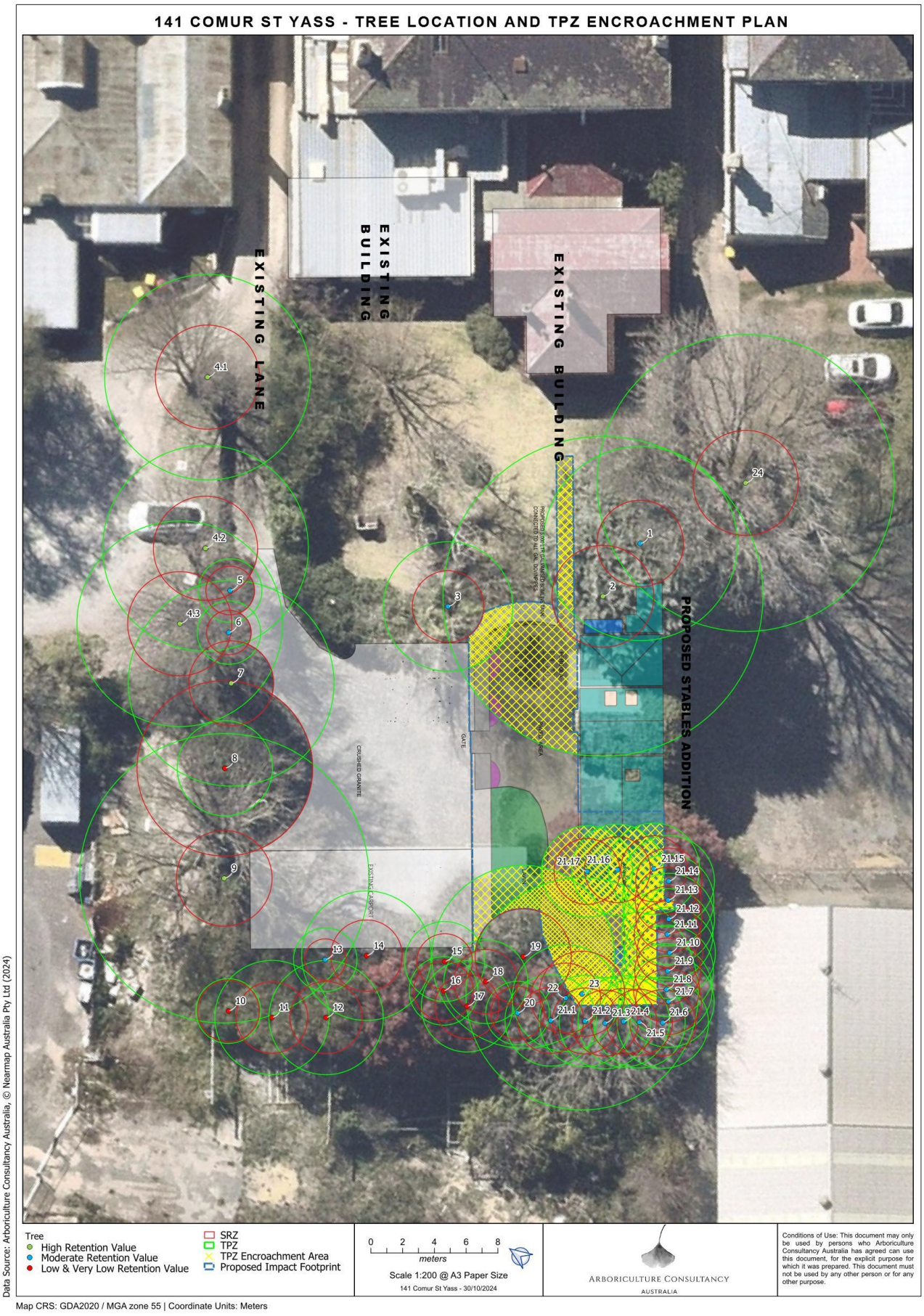

Figure 6: TPZ Incursion Plan- Overlaid by the author (NearMaps, 2024).

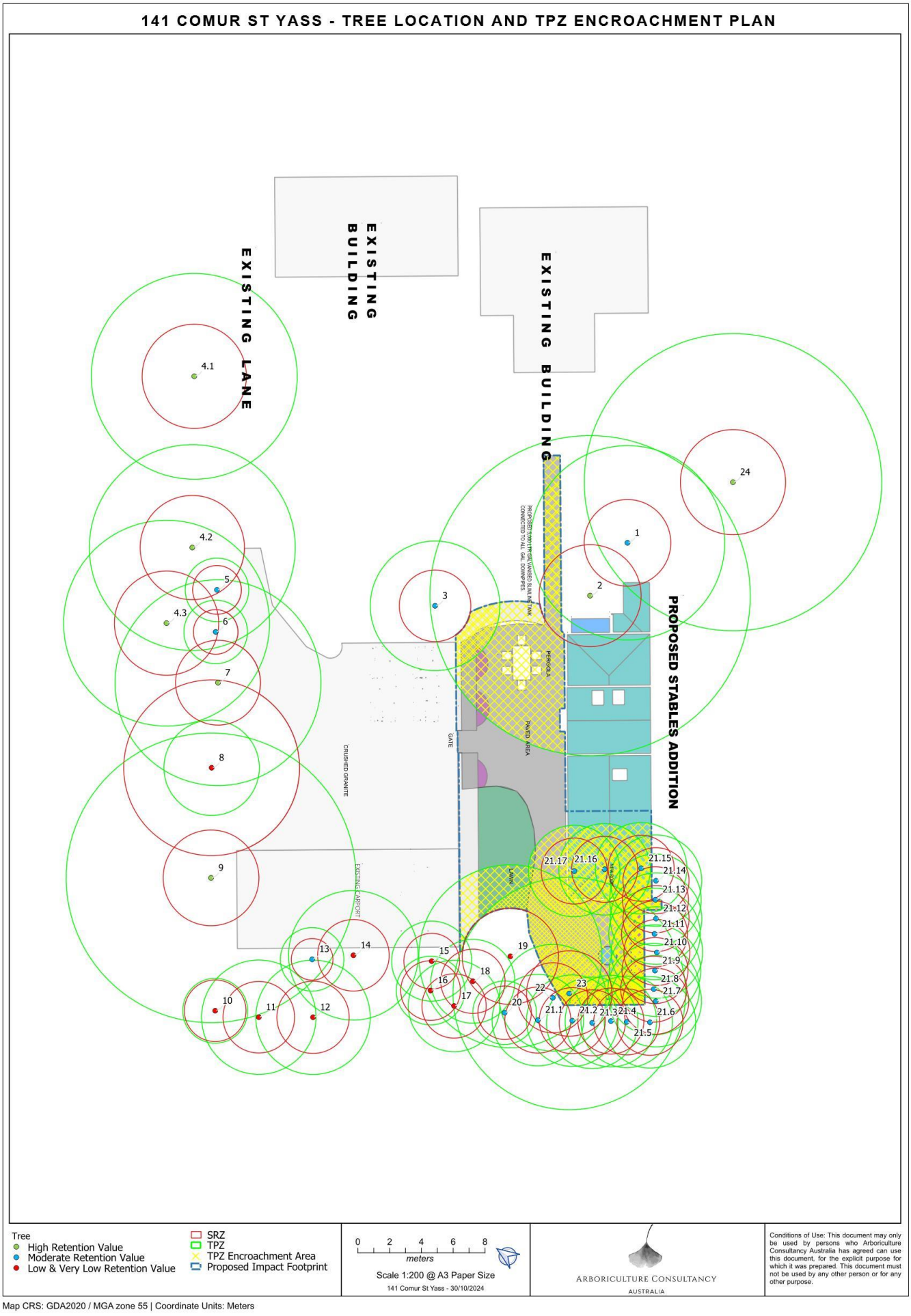

Figure 7: TPZ encroachment plan (Arboriculture Consultancy Australia, 2024).

10.2 IMPACT SUMMARY

For ease of interpretation, the following summary identifies impacted trees to be removed, or retained, and protected. The data is presented in a tabulated form in Appendix 1 - Tree Assessment Schedule.

As per section 3.3.4 of *AS 4970:2009*, if the author can demonstrate that the percentage of encroachment is acceptable, the tree may be retained.

If the author cannot demonstrate that the tree will remain viable, the tree will require removal.

Table 2: Impact Schedule

TREE No.	TYPE	RETENTION VALUE	LIKELY IMPACT	INCURSION %	RESULT
1	EXOTIC	MODERATE	MINOR < 10%	6.87%	RETAIN & PROTECT
2	EXOTIC	HIGH	MAJOR > 10%	19.29%	RETAIN & PROTECT
3	EXOTIC	MODERATE	MAJOR > 10%	12.55%	RETAIN & PROTECT
15	WEED SPECIES	LOW	MINOR < 10%	1.20%	REMOVE
16	WEED SPECIES	LOW	MAJOR > 10%	100%	REMOVE TO FACILITATE THE LANDSCAPING PLAN
17	WEED SPECIES	LOW	MAJOR > 10%	100%	REMOVE TO FACILITATE THE LANDSCAPING PLAN
18	EXOTIC	LOW	MAJOR > 10%	100%	REMOVE TO FACILITATE THE LANDSCAPING PLAN
19	EXOTIC	LOW	MAJOR > 10%	100%	REMOVE TO FACILITATE THE LANDSCAPING PLAN
20	EXOTIC	MODERATE	MAJOR > 10%	100%	REMOVE TO FACILITATE THE LANDSCAPING PLAN
21 (x17)	EXOTIC	MODERATE	VARIOUS	6.78% - 100%	REMOVE
22	EXOTIC	MODERATE	MAJOR > 10%	100%	REMOVE TO FACILITATE THE LANDSCAPING PLAN
23	EXOTIC	MODERATE	MAJOR > 10%	100%	REMOVE TO FACILITATE THE LANDSCAPING PLAN

10.3 TREES REQUIRING REMOVAL UNDER THE CURRENT PROPOSAL

The following twenty-five (25) trees are subject to a major encroachment and are not retainable under the current proposal:

- T15, T16, T17, T18, T19, T20, T21 (x17), T22, and T23.

10.4 TREES RETAINABLE UNDER THE CURRENT PROPOSAL

The following seventeen (17) trees are retainable subject to the prescribed Tree Protection Conditions in Appendix 4.

- T1, T2, T3, T4.1, T4.2, T4.3, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, and T24.

11. DISCUSSION

It is understood that the current application is for DA purposes and not for Construction Certification. Final engineering and bulk earthwork plans are yet to be provided.

Therefore, this impact assessment will make no assumptions and is based on the current footprint of the proposed landscaping plan prepared by SC Design Solutions, dated 19th September 2024.

11.1 The proposal calls for the restoration and extension of the existing stable block, an item of local heritage significance (Figure 8).

Additionally, the project includes the selective removal of weed species and specific trees to facilitate the implementation of the associated landscaping plan.

Figure 8: Existing Stable block (Nadin, 2024).

11.2 The mid-canopy vegetation consists of a collective mixture of exotic and invasive species, including overgrown hedgerows of *Photinia serratifolia* (Sawtooth Photinia) and self-seeded *Ligustrum lucidum* (Broadleaf Privet) throughout the south and southeastern extent of the site.

The exotic tree species observed include *Celtis australis* (European Nettle Tree), *Ulmus procera* (English Elm), and *Schinus molle* (Peppercorn Tree).

The tree population surrounding the rear of the existing stables and carport is rated as having low landscape significance and low retention value due to either the weed species status, poor live crown ratio due to overplanting or substantial encroachment by *Hedera helix* (English ivy) (Figure 9).

Figure 9: Southern extent of the garden (Nadin, 2024).

11.2 T1 is a suckered *Celtis australis* (European Nettle Tree) positioned on the Western boundary, adjacent to T2, a High Retention Valued *Chamaecyparis thyoides* (Atlantic Cypress).

T1 is subject to a minor impact of 6.87%, which remains within the acceptable threshold of 10% as outlined in *AS 4970:2009 – Protection of Trees on Development Sites*.

However, the subject trees' position and growth adversely impact the form and integrity of T2.

Irrespective of the proposed development footprint, it is recommended that T1 be removed to ensure the long-term sustainability of T2.

11.3 T2, the *Chamaecyparis thyoides* (Atlantic Cypress), is theoretically impacted by 19.29% due to the proposed landscaping plan, which exceeds the acceptable threshold of 10% as per *AS 4970:2009*.

To mitigate and achieve an acceptable level of impact, it is recommended that the pathway be repositioned outside the Structural Root Zone (SRZ) of T2 and that the paved area be constructed above grade using porous paving.

Subject to the prescribed tree protection measures, the author is satisfied that the subject tree will remain sustainable.

11.4 T3 is Moderate Retention Value *Fraxinus spp.* (Ash spp.) currently encroached 80% with *Hedera helix* (English ivy) (Figure 10).

The proposed landscaping plan impacts T3 by 12.55%, exceeding the acceptable threshold by a marginal 2.55%.

To mitigate and achieve an acceptable level of impact, it is recommended that the paved area be constructed above grade using porous paving and that the vine be removed.

Subject to the prescribed tree protection measures, the author is satisfied that T3 will remain sustainable.

11.5 T4.1, T4.2, and T4.3 (neighbouring trees) and T5, T6, T7, T8, and T9 (Figure 11) are not impacted by the proposed development footprint and can be retained under the current design.

Hedera helix (English ivy) encroaches on many of the on-site trees. The author is satisfied that these trees will remain sustainable subject to the removal of this invasive weed species.

Figure 10: T3 to be retained and protected (Nadin, 2024).

Figure 11: T9 to be retained with remedial maintenance (Nadin, 2024).

11.6 T10, T11, T12, T15, T16, T17 are *Ligustrum lucidum* (Broad-leaved Privet). *Under the Biosecurity Act 2015*, Broad-leaved Privet is classified as an environmental weed species. Irrespective of the proposed development footprint, the subject trees are recommended for removal.

11.7 T13, *Ulmus procers* (English Elm) and T14 *Schinus molle* (Peppercorn Tree) are located on the western side of the existing carport and are not impacted by the proposal.

T13 is an inappropriately positioned suckered tree that will cause damage to the existing infrastructure, and T14 is approximately 90% encroached in *Hedera helix* (English ivy) and exhibits a poor live crown ratio.

Irrespective of the proposed development footprint, the author has recommended that the subject trees be removed and replaced with a more appropriate species to improve the site's visual amenity.

11.8 T18, T19, T20, T21 (x17), T22, and T23 are a collective mixture of *Schinus molle* (Peppercorn Tree), overgrown *Photinia serratifolia* (Sawtooth Photinia) hedge, and self-seeded *Celtis australis* (European Nettle Tree) located along the southern and southeastern boundaries (Figure 9).

The subject trees are 100% impacted by the proposed development footprint and landscaping plan.

T18 and T19 are small *Schinus molle* (Peppercorn Tree), and T21.7 and T21.16 are *Photinia serratifolia* (Sawtooth Photinia) that are inappropriately positioned and pose a risk to the foundations on the northeastern side of the existing stable wall (Figure 12).

The remaining partial hedgerows are significantly encroached upon by *Hedera helix* (ENGLISH ivy) and show varying levels of suppression due to their position within the canopy line and vine intrusion. As a result, they have been assessed as having low retention value.

The author is satisfied that the proposed landscaping plan provides adequate compensation for the removal of the subject trees and will significantly enhance the visual amenity of the site and neighbouring properties.

Figure 12: T21.7 adjacent to existing stables (Nadin, 2024).

11.9 The proposal will not have an impact on any neighbouring trees.

11.10 The author has reviewed the Landscaping Plan and is satisfied that the canopy loss associated with the proposal has been adequately compensated and significantly will improve the visual amenity of the site and manage the biosecurity risk associated with the *Ligustrum lucidum* (Broadleaf Privet) and *Hedera helix* (ENGLISH ivy).

The author is satisfied that the proposed replacement trees, *Pyrus calleryana* (Capital Pears), are suitable for the context of the site and will not conflict with on-site or neighbouring infrastructure.

12. RECOMMENDATIONS

The following recommendations are based on the plans specified in section 7.4 – Document Review and observations made on the day of assessment. The author cannot comment on subsequent revisions and design alterations which have not been provided for review.

12.1 CONSENT AUTHORITY

Consent from the Yass Valley Shire Council must be obtained prior to the pruning or removal of any trees on the site. Upon the issue of development consent, any conditions regarding tree management must be carefully reviewed.

The recommendations outlined in this report are ***not*** an assurance of removal or retention.

12.2 PROJECT ARBORIST

Prior to the commencement of any civil works, a Project Arborist, holding a minimum Australian Qualification Framework Level 5 (AQF5) as a Consulting Arborist, must be appointed to oversee any activities within the Tree Protection Zones of the subject trees to be retained.

The Project Arborist is responsible for supervising and inspecting works as recommended in this report or as specified in any Conditions of Consent associated with the approved development application.

Upon completion of the works, including any remediation measures, the Project Arborist must provide the Council with certification of compliance with regulatory requirements and prescribed standards.

12.3 TREE PROTECTION

Prior to any work commencing, a TPZ exclusion zone must be established. TPZ fencing should be installed around these zones in accordance with *AS 4970:2009 Protection of Trees on Development Sites*.

This directive encompasses T1, T2, T3, T4.1, T4.2, T4.3, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, and T24.

Any deviation from the designated design, type of fencing, or movement of the TPZ fencing is strictly prohibited unless authorised by the project arborist.

The project arborist must supervise all activities within the TPZ of retained trees. They are tasked with advising on any necessary remedial pruning or works to safeguard the trees. Compliance Certification demonstrating adherence to these conditions must be provided to the Council.

Detailed tree protection conditions are outlined in Appendix 4, Tree Protection Conditions. These measures must be adhered to and form part of the Conditions of Consent.

12.4 TREE REMOVAL

Clearing of trees should be conducted to ensure no animals are harmed or displaced in accordance with the Prevention of Cruelty to Animals Act, 1979 and in accordance with the NSW and the Office of Environment and Heritage's Appendix 12 - Hollow Bearing Tree Removal Guidelines (Appendix 6).

- This directive encompasses T15, T16, T17, T18, T19, T20, T21 (x17), T22, and T23.

The trees to be removed are to be identified using fluorescent tape prior to removal.

The subject trees are to be felled by an arborist with a minimum AQF III qualification in arboriculture, ensuring that adjacent tree canopies are not damaged. Stumps are to be ground (grubbed) to protect adjacent tree roots, not removed mechanically.

12.5 SUBSURFACE UTILITIES

Final sub-surface plans have not been provided. Therefore, any sub-surface utilities shall be routed to avoid the Tree Protection Zones (TPZ) of the retained tree population. All excavation within the TPZ must be under the project arborist's direct supervision.

Before Construction Certification, the author shall review all proposed engineering and bulk earthwork plans to ensure no additional impact will occur.

12.6 REMEDIAL WORKS

Any remedial maintenance works should be performed in accordance with *Section 7.2 Crown Maintenance of AS: 4373-2007 Pruning of Amenity Trees* and performed by an AQF level III Arborist.

12.7 REPLACEMENT PLANTING

The author has reviewed the proposed landscaping plan and plant schedule prepared by SC Design Solutions and is satisfied that the plan will adequately compensate for any ecological or amenity loss associated with the required tree removal and that the species selection is consistent with the existing character and streetscape of the surrounding area.

13. CONCLUSION

This Arboricultural Impact Assessment has been prepared for the proposed residential development of 141 Comur Street, Yass NSW 2582.

- Twenty-five (25) moderate - low retention value trees are not retainable under the current proposal.
- Seventeen (17) Individual trees and all neighbouring trees are retainable under the current proposal.

The author has reviewed the proposed landscaping plan and is satisfied that the plan will adequately compensate for any ecological or amenity loss associated with the required tree removal and that the species selection is consistent with the existing character and streetscape of the surrounding area.

The author's support for the proposal in its current format is contingent upon the landscaping works being undertaken as described.

rboriculture) AQF Level 5

Principal Arborist
Arboriculture Consultancy Australia
20th November 2024.

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APPENDIX 1: TREE ASSESSMENT SCHEDULE

Table 3: Tree Assessment Data – 25th June 2024.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
1	ON-SITE	*Celtis australis*	European Nettle Tree	15	5.0	2.0	5.0	2.0	DORMANT	SUPPRESSED	0.510	0.630	EXOTIC	MATURE	UNDETERMINED	ENGLISH IVY (Hedera)	1. LONG - OVER 40 YEARS	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	6.12	2.73	MINOR IMPACT < 10%	6.87%	WALKWAYS/PAVING	The subject tree is biased to the North due to its suppressed position in the canopy line. The tree is 80% encroached by English ivy; therefore, the author could not determine any structural defects within the canopy. The second order Southern leader has failed, requiring remedial maintenance.	REMOVE. Irrespective of the proposed development footprint, the subject tree is not considered appropriate to the context of the site, and removal is recommended.
2	ON-SITE	*Chamaecyparis thyoides*	Atlantic Cypress	14	10.0	>10	8.0	>10	FULL 85 - 100%	DOMINANT	0.840	0.930	EXOTIC	MATURE	UNDETERMINED	ENGLISH IVY (Hedera)	1. LONG - OVER 40 YEARS	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	3. HIGH	HIGH	NO HABITAT SIGHTED	10.08	3.21	MAJOR IMPACT > 10%	19.29%	LANDSCAPING PLAN	The subject tree is approximately 80% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.

4.3	4.2	4.1	3	TREE NUMBER	
NEIGHBOURING PROPERTY	NEIGHBOURING PROPERTY	NEIGHBOURING PROPERTY	ON-SITE	LOCATION	
Celtis australis	*Celtis australis*	*Celtis australis*	*Fraxinus*	BOTANICAL NAME	
European Nettle Tree	European Nettle Tree	European Nettle Tree	Ash spp.	COMMON NAME	
14	14	14	8	HEIGHT (m)	
7.0	7.0	7.0	6.0	NORTH	CANOPY (m)
5.0	5.0	5.0	6.0	SOUTH	
4.0	4.0	4.0	6.0	EAST	
4.0	4.0	4.0	6.0	WEST	
DORMANT	DORMANT	DORMANT	DORMANT	CROWN DENSITY	
CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	INTERMEDIATE	CROWN CLASS	
0.540	0.540	0.540	0.340	DBH (m)	
0.980	0.980	0.980	0.400	BASE (m)	
EXOTIC	EXOTIC	EXOTIC	EXOTIC	TYPE	
MATURE	MATURE	MATURE	MATURE	AGE CLASS	
POOR	POOR	POOR	UNDETERMINED	STRUCTURE	
ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	PEST OR DISEASE	
1. LONG - OVER 40 YEARS	1. LONG - OVER 40 YEARS	1. LONG - OVER 40 YEARS	1. LONG - OVER 40 YEARS	SULE RATING	
1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	SULE SUB-RATING	
3. HIGH	3. HIGH	3. HIGH	5. LOW	L/ SIGNIFICANCE	
HIGH	HIGH	HIGH	MODERATE	RETENTION VALUE	
NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	HABITAT	
6.48	6.48	6.48	4.08	TPZ (m)	
3.28	3.28	3.28	2.25	SRZ (m)	
NO IMPACT	NO IMPACT	NO IMPACT	MAJOR IMPACT > 10%	ENCROACHMENT	
0.00%	0.00%	0.00%	12.55%	ENCROACHMENT %	
NO IMPACT	NO IMPACT	NO IMPACT	LANDSCAPING PLAN	PRIMARY IMPACT	
Pruning has been undertaken for carpark clearance.	Pruning has been undertaken for carpark clearance.	Pruning has been undertaken for carpark clearance.	The subject tree is approximately 90% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	COMMENT	
RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	RESULT	

TREE NUMBER	5	6	7	8
LOCATION	ON-SITE	ON-SITE	ON-SITE	ON-SITE
BOTANICAL NAME	*Photinia serratifolia*	*Photinia serratifolia*	*Ulmus procers*	*Ligustrum lucidum*
COMMON NAME	Sawtooth Photinia	Sawtooth Photinia	English Elm	Broad-leaved Privet
HEIGHT (m)	< 5m	< 5m	15	< 5m
CANOPY (m) NORTH	1.5	1.5	8.0	3.0
CANOPY (m) SOUTH	1.5	1.5	8.0	3.0
CANOPY (m) EAST	1.5	1.5	6.0	3.0
CANOPY (m) WEST	1.5	1.5	9.0	3.0
CROWN DENSITY	FULL 85 - 100%	FULL 85 - 100%	DORMANT	FULL 85 - 100%
CROWN CLASS	CO-DOMINANT	CO-DOMINANT	DOMINANT	CO-DOMINANT
DBH (m)	0.150	0.110	0.540	0.250
BASE (m)	0.160	0.130	0.600	3.400
TYPE	EXOTIC	EXOTIC	EXOTIC	WEED SPECIES
AGE CLASS	MATURE	MATURE	MATURE	MATURE
STRUCTURE	FAIR	FAIR	UNDETERMINED	UNDETERMINED
PEST OR DISEASE	NO EVIDENCE	NO EVIDENCE	ELM BEETLE	ENGLISH IVY (Hedera)
SULE RATING	1. LONG - OVER 40 YEARS	1. LONG - OVER 40 YEARS	1. LONG - OVER 40 YEARS	2. MEDIUM - 15 TO 40 YEARS
SULE SUB-RATING	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	2C - 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 plantings.
L/ SIGNIFICANCE	4. MODERATE	4. MODERATE	3. HIGH	5. LOW
RETENTION VALUE	MODERATE	MODERATE	HIGH	LOW
HABITAT	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED
TPZ (m)	2.00	2.00	6.48	3.00
SRZ (m)	1.53	1.40	2.67	5.53
ENCROACHMENT	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
ENCROACHMENT %	0.00%	0.00%	0.00%	0.00%
PRIMARY IMPACT	NO IMPACT	NO IMPACT	NO IMPACT	NO IMPACT
COMMENT	The subject tree exhibits characteristics typical of its species, with no notable defects observed.	The subject tree exhibits characteristics typical of its species, with no notable defects observed.	The tree is approximately 80% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	The subject tree is approximately 40% encroached by English ivy; therefore, a full structural assessment could not be undertaken.
RESULT	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
9	ON-SITE	*Ulmus procers*	English Elm	16	>10	>10	>10	>10	DORMANT	DOMINANT	0.760	0.800	EXOTIC	MATURE	UNDETERMINED	ENGLISH IVY (Hedera) | ELM BEETLE	1. LONG - OVER 40 YEARS	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	3. HIGH	HIGH	NO HABITAT SIGHTED	9.12	3.01	NO IMPACT	0.00%	NO IMPACT	The subject tree is approximately 60% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
10	ON-SITE	*Ligustrum lucidum*	Broad-leaved Privet	< 5m	2.0	2.0	2.0	2.0	FULL 85 - 100%	SUPPRESSED	0.170	0.280	WEED SPECIES	MATURE	FAIR	ENGLISH IVY (Hedera)	2. MEDIUM - 15 TO 40 YEARS	2C - 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 plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.04	1.94	NO IMPACT	0.00%	NO IMPACT	The subject tree exhibits characteristics typical of its species, with no notable defects observed.	REMOVE. This tree is listed as an environmental weed and is exempt from requiring consent for removal.
11	ON-SITE	*Ligustrum lucidum*	Broad-leaved Privet	< 5m	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.300	0.400	WEED SPECIES	MATURE	UNDETERMINED	ENGLISH IVY (Hedera)	2. MEDIUM - 15 TO 40 YEARS	2C - 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 plantings.	5. LOW	LOW	NO HABITAT SIGHTED	3.60	2.25	NO IMPACT	0.00%	NO IMPACT	The subject tree is approximately 80% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	REMOVE. This tree is listed as an environmental weed and is exempt from requiring consent for removal.
12	ON-SITE	*Ligustrum lucidum*	Broad-leaved Privet	13	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.300	0.410	WEED SPECIES	MATURE	UNDETERMINED	ENGLISH IVY (Hedera)	2. MEDIUM - 15 TO 40 YEARS	2C - 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 plantings.	5. LOW	LOW	NO HABITAT SIGHTED	3.60	2.28	NO IMPACT	0.00%	NO IMPACT	The subject tree is approximately 80% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	REMOVE. This tree is listed as an environmental weed and is exempt from requiring consent for removal.

TREE NUMBER	13	14	15	16
LOCATION	ON-SITE	ON-SITE	ON-SITE	ON-SITE
BOTANICAL NAME	*Ulmus procers*	*Schinus molle*	*Ligustrum lucidum*	*Ligustrum lucidum*
COMMON NAME	English Elm	Peppercorn Tree	Broad-leaved Privet	Broad-leaved Privet
HEIGHT (m)	12	7	6	6
CANOPY (m) NORTH	1.5	3.0	2.0	1.5
CANOPY (m) SOUTH	1.5	1.0	2.0	1.5
CANOPY (m) EAST	1.5	2.0	2.0	1.5
CANOPY (m) WEST	1.5	2.0	2.0	1.5
CROWN DENSITY	DORMANT	SPARSE <40%	FULL 85 - 100%	PARTIAL 40 - 85%
CROWN CLASS	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT
DBH (m)	0.090	0.340	0.210	0.180
BASE (m)	0.110	0.400	0.220	0.260
TYPE	EXOTIC	EXOTIC	WEED SPECIES	WEED SPECIES
AGE CLASS	SEMI-MATURE	MATURE	MATURE	MATURE
STRUCTURE	FAIR	UNDETERMINED	FAIR	UNDETERMINED
PEST OR DISEASE	NO EVIDENCE	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)
SULE RATING	2. MEDIUM - 15 TO 40 YEARS	3. SHORT - 5 TO 15 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS
SULE SUB-RATING	2C - 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 plantings.	3A - Trees that may only live between 5 and 15 more years.	2C - 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 plantings.	2C - 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 plantings.
L/ SIGNIFICANCE	5. LOW	5. LOW	5. LOW	5. LOW
RETENTION VALUE	LOW	LOW	LOW	LOW
HABITAT	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED
TPZ (m)	2.00	4.08	2.52	2.16
SRZ (m)	1.31	2.25	1.75	1.88
ENCROACHMENT	NO IMPACT	NO IMPACT	MINOR IMPACT < 10%	MAJOR IMPACT > 10%
ENCROACHMENT %	0.00%	0.00%	1.20%	100.00%
PRIMARY IMPACT	NO IMPACT	NO IMPACT	LANDSCAPING PLAN	LANDSCAPING PLAN
COMMENT	Suckered specimen from the adjacent failed tree on the Eastern side.	The subject tree is approximately 90% encroached by English ivy; therefore, a full structural assessment could not be undertaken. DBH and base estimated due to encroachment.	The subject tree is approximately 20% encroached by English ivy.	The subject tree is approximately 80% encroached by English ivy; therefore, a full structural assessment could not be undertaken.
RESULT	REMOVE. Irrespective of the proposed development footprint, the subject tree is not considered appropriate to the context of the site, and removal is recommended.	REMOVE. Irrespective of the proposed development footprint, the subject tree deviates from typical form, detracting from the site's amenity.	REMOVE. Irrespective of the proposed development footprint, the subject tree is no longer sustainable, and removal is recommended.	REMOVE. Irrespective of the proposed development footprint, the subject tree is no longer sustainable, and removal is recommended.

TREE NUMBER	17	18	19	20
LOCATION	ON-SITE	ON-SITE	ON-SITE	ON-SITE
BOTANICAL NAME	*Ligustrum lucidum*	*Schinus molle*	*Schinus molle*	*Photinia serratifolia*
COMMON NAME	Broad-leaved Privet	Peppercorn Tree	Peppercorn Tree	Sawtooth Photinia
HEIGHT (m)	7	6	8	6
CANOPY (m) NORTH	2.0	1.0	3.0	1.5
CANOPY (m) SOUTH	2.0	1.0	3.0	1.5
CANOPY (m) EAST	2.0	1.0	3.0	1.5
CANOPY (m) WEST	2.0	1.0	3.0	1.5
CROWN DENSITY	FULL 85 - 100%	SPARSE <40%	SPARSE <40%	FULL 85 - 100%
CROWN CLASS	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT
DBH (m)	0.240	0.220	0.480	0.150
BASE (m)	0.310	0.310	0.810	0.200
TYPE	WEED SPECIES	EXOTIC	EXOTIC	EXOTIC
AGE CLASS	MATURE	MATURE	MATURE	MATURE
STRUCTURE	FAIR	UNDETERMINED	UNDETERMINED	FAIR
PEST OR DISEASE	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)
SULE RATING	2. MEDIUM - 15 TO 40 YEARS	3. SHORT - 5 TO 15 YEARS	3. SHORT - 5 TO 15 YEARS	2. MEDIUM - 15 TO 40 YEARS
SULE SUB-RATING	2C - 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 plantings.	3D - Trees that require substantial remedial tree care and are only suitable for retention in the short term.	3D - Trees that require substantial remedial tree care and are only suitable for retention in the short term.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
L/ SIGNIFICANCE	5. LOW	5. LOW	5. LOW	5. LOW
RETENTION VALUE	LOW	LOW	LOW	LOW
HABITAT	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED
TPZ (m)	2.88	2.64	5.76	2.00
SRZ (m)	2.02	2.02	3.03	1.68
ENCROACHMENT	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%
ENCROACHMENT %	100.00%	100.00%	100.00%	100.00%
PRIMARY IMPACT	LANDSCAPING PLAN	LANDSCAPING PLAN	LANDSCAPING PLAN	LANDSCAPING PLAN
COMMENT	The subject tree is approximately 80% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	The subject tree is approximately 90% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	The subject tree is approximately 60% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	The subject tree is approximately 10% encroached by English ivy; therefore, a full structural assessment could not be undertaken.
RESULT	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	21.1	21.2	21.3	21.4
LOCATION	ON-SITE	ON-SITE	ON-SITE	ON-SITE
BOTANICAL NAME	*Photinia serratifolia*	*Photinia serratifolia*	*Photinia serratifolia*	*Photinia serratifolia*
COMMON NAME	Sawtooth Photinia	Sawtooth Photinia	Sawtooth Photinia	Sawtooth Photinia
HEIGHT (m)	8	8	8	8
CANOPY (m) NORTH	3.0	3.0	3.0	3.0
CANOPY (m) SOUTH	3.0	3.0	3.0	3.0
CANOPY (m) EAST	3.0	3.0	3.0	3.0
CANOPY (m) WEST	3.0	3.0	3.0	3.0
CROWN DENSITY	FULL 85 - 100%	FULL 85 - 100%	FULL 85 - 100%	FULL 85 - 100%
CROWN CLASS	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT
DBH (m)	0.240	0.240	0.240	0.240
BASE (m)	0.330	0.330	0.330	0.330
TYPE	EXOTIC	EXOTIC	EXOTIC	EXOTIC
AGE CLASS	MATURE	MATURE	MATURE	MATURE
STRUCTURE	POOR	POOR	POOR	POOR
PEST OR DISEASE	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)
SULE RATING	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS
SULE SUB-RATING	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
L/ SIGNIFICANCE	5. LOW	5. LOW	5. LOW	5. LOW
RETENTION VALUE	LOW	LOW	LOW	LOW
HABITAT	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED
TPZ (m)	2.88	2.88	2.88	2.88
SRZ (m)	2.08	2.08	2.08	2.08
ENCROACHMENT	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%
ENCROACHMENT %	100.00%	100.00%	100.00%	100.00%
PRIMARY IMPACT	LANDSCAPING PLAN	LANDSCAPING PLAN	LANDSCAPING PLAN	LANDSCAPING PLAN
COMMENT	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%
RESULT	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

21.8	21.7	21.6	21.5	TREE NUMBER	
ON-SITE	ON-SITE	ON-SITE	ON-SITE	LOCATION	
Photinia serratifolia	*Photinia serratifolia*	*Photinia serratifolia*	*Photinia serratifolia*	BOTANICAL NAME	
Sawtooth Photinia	Sawtooth Photinia	Sawtooth Photinia	Sawtooth Photinia	COMMON NAME	
8	8	8	8	HEIGHT (m)	
3.0	3.0	3.0	3.0	NORTH	CANOPY (m)
3.0	3.0	3.0	3.0	SOUTH	
3.0	3.0	3.0	3.0	EAST	
3.0	3.0	3.0	3.0	WEST	
FULL 85 - 100%	FULL 85 - 100%	FULL 85 - 100%	FULL 85 - 100%	CROWN DENSITY	
CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CROWN CLASS	
0.240	0.240	0.240	0.240	DBH (m)	
0.330	0.330	0.330	0.330	BASE (m)	
EXOTIC	EXOTIC	EXOTIC	EXOTIC	TYPE	
MATURE	MATURE	MATURE	MATURE	AGE CLASS	
POOR	POOR	POOR	POOR	STRUCTURE	
ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	PEST OR DISEASE	
2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	SULE RATING	
3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	SULE SUB-RATING	
5. LOW	5. LOW	5. LOW	5. LOW	L/ SIGNIFICANCE	
LOW	LOW	LOW	LOW	RETENTION VALUE	
NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	HABITAT	
2.88	2.88	2.88	2.88	TPZ (m)	
2.08	2.08	2.08	2.08	SRZ (m)	
MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	ENCROACHMENT	
100.00%	100.00%	100.00%	100.00%	ENCROACHMENT %	
LANDSCAPING PLAN	LANDSCAPING PLAN	LANDSCAPING PLAN	LANDSCAPING PLAN	PRIMARY IMPACT	
The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	COMMENT	
REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	RESULT	

21.12	21.11	21.10	21.9	TREE NUMBER	
ON-SITE	ON-SITE	ON-SITE	ON-SITE	LOCATION	
Photinia serratifolia	*Photinia serratifolia*	*Photinia serratifolia*	*Photinia serratifolia*	BOTANICAL NAME	
Sawtooth Photinia	Sawtooth Photinia	Sawtooth Photinia	Sawtooth Photinia	COMMON NAME	
8	8	8	8	HEIGHT (m)	
3.0	3.0	3.0	3.0	NORTH	CANOPY (m)
3.0	3.0	3.0	3.0	SOUTH	
3.0	3.0	3.0	3.0	EAST	
3.0	3.0	3.0	3.0	WEST	
FULL 85 - 100%	FULL 85 - 100%	FULL 85 - 100%	FULL 85 - 100%	CROWN DENSITY	
CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CROWN CLASS	
0.240	0.240	0.240	0.240	DBH (m)	
0.330	0.330	0.330	0.330	BASE (m)	
EXOTIC	EXOTIC	EXOTIC	EXOTIC	TYPE	
MATURE	MATURE	MATURE	MATURE	AGE CLASS	
POOR	POOR	POOR	POOR	STRUCTURE	
ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	PEST OR DISEASE	
2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	SULE RATING	
3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	SULE SUB-RATING	
5. LOW	5. LOW	5. LOW	5. LOW	L/ SIGNIFICANCE	
LOW	LOW	LOW	LOW	RETENTION VALUE	
NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	HABITAT	
2.88	2.88	2.88	2.88	TPZ (m)	
2.08	2.08	2.08	2.08	SRZ (m)	
MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	ENCROACHMENT	
39.48%	100.00%	100.00%	100.00%	ENCROACHMENT %	
CONSTRUCTION ACTIVITY	MULTIPLE IMPACTS	LANDSCAPING PLAN	LANDSCAPING PLAN	PRIMARY IMPACT	
The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	COMMENT	
REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	RESULT	

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
21.13	ON-SITE	*Photinia serratifolia*	Sawtooth Photinia	8	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.240	0.330	EXOTIC	MATURE	POOR	ENGLISH IVY (Hedera)	2. MEDIUM - 15 TO 40 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	2.88	2.08	MAJOR IMPACT > 10%	42.37%	CONSTRUCTION ACTIVITY	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
21.14	ON-SITE	*Photinia serratifolia*	Sawtooth Photinia	8	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.240	0.330	EXOTIC	MATURE	POOR	ENGLISH IVY (Hedera)	2. MEDIUM - 15 TO 40 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	2.88	2.08	MAJOR IMPACT > 10%	43.69%	CONSTRUCTION ACTIVITY	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
21.15	ON-SITE	*Photinia serratifolia*	Sawtooth Photinia	8	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.240	0.330	EXOTIC	MATURE	POOR	ENGLISH IVY (Hedera)	2. MEDIUM - 15 TO 40 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	2.88	2.08	MAJOR IMPACT > 10%	65.52%	CONSTRUCTION ACTIVITY	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
21.16	ON-SITE	*Photinia serratifolia*	Sawtooth Photinia	8	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.240	0.330	EXOTIC	MATURE	POOR	ENGLISH IVY (Hedera)	2. MEDIUM - 15 TO 40 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	2.88	2.08	MAJOR IMPACT > 10%	100.00%	CONSTRUCTION ACTIVITY	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

24	23	22	21.17	TREE NUMBER	
NEIGHBOURING PROPERTY	ON-SITE	ON-SITE	ON-SITE	LOCATION	
Liquidambar styraciflua	*Celtis australis*	*Celtis australis*	*Photinia serratifolia*	BOTANICAL NAME	
Liquid Amber	European Nettle Tree	European Nettle Tree	Sawtooth Photinia	COMMON NAME	
18	12	8	8	HEIGHT (m)	
>10	4.0	4.0	3.0	NORTH	CANOPY (m)
>10	4.0	4.0	3.0	SOUTH	
>10	4.0	4.0	3.0	EAST	
>10	4.0	4.0	3.0	WEST	
DORMANT	DORMANT	DORMANT	FULL 85 - 100%	CROWN DENSITY	
DOMINANT	CO-DOMINANT	CO-DOMINANT	CO-DOMINANT	CROWN CLASS	
0.780	0.610	0.280	0.240	DBH (m)	
1.000	0.610	0.380	0.330	BASE (m)	
EXOTIC	EXOTIC	EXOTIC	EXOTIC	TYPE	
MATURE	MATURE	MATURE	MATURE	AGE CLASS	
FAIR	FAIR	UNDETERMINED	POOR	STRUCTURE	
NO EVIDENCE	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	ENGLISH IVY (Hedera)	PEST OR DISEASE	
1. LONG - OVER 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	2. MEDIUM - 15 TO 40 YEARS	SULE RATING	
1A - Structurally sound trees located in positions that can accommodate future growth.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	SULE SUB-RATING	
3. HIGH	5. LOW	5. LOW	5. LOW	L/ SIGNIFICANCE	
HIGH	LOW	LOW	LOW	RETENTION VALUE	
NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	NO HABITAT SIGHTED	HABITAT	
9.36	7.32	3.36	2.88	TPZ (m)	
3.31	2.69	2.20	2.08	SRZ (m)	
NO IMPACT	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	MAJOR IMPACT > 10%	ENCROACHMENT	
0.00%	100.00%	100.00%	100.00%	ENCROACHMENT %	
NO IMPACT	LANDSCAPING PLAN	LANDSCAPING PLAN	CONSTRUCTION ACTIVITY	PRIMARY IMPACT	
The subject tree exhibits characteristics typical of its species, with no notable defects observed.	The subject tree is approximately 20% encroached by English ivy.	The subject tree is approximately 90% encroached by English ivy; therefore, a full structural assessment could not be undertaken.	The subject trees form part of an unmaintained and overgrown hedgerow. The majority of the trees are encroached by English ivy, up to approximately 90%	COMMENT	
RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	RESULT	

APPENDIX 2: CRITERIA FOR ASSESSMENT OF LANDSCAPE SIGNIFICANCE

Table 4: Criteria for Landscape Significance Assessment Matrix (Morton, Determining the Retention Value of Trees, 2006).

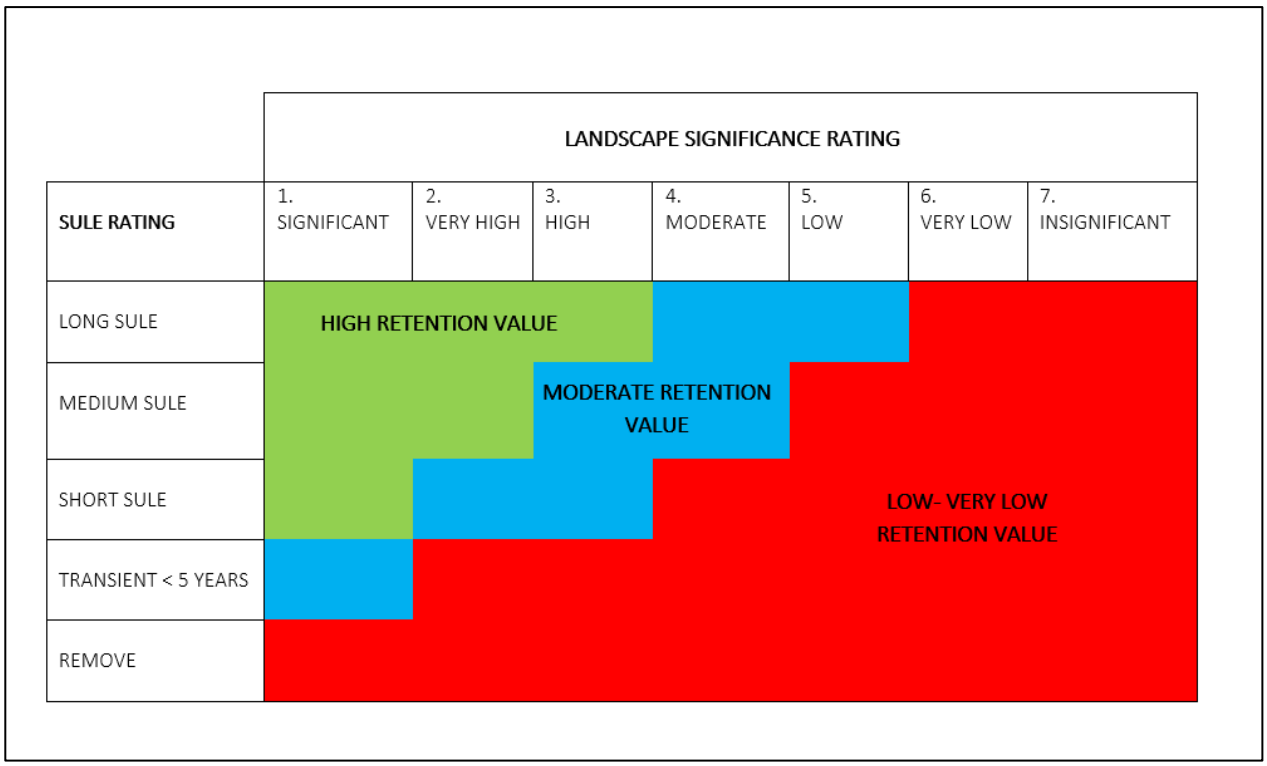
1. SIGNIFICANT	• The subject tree is listed as a Heritage Item under the Local Environment Plan (LEP) with a local, state or national level of significance; **or** • The subject tree forms part of the curtilage of a Heritage Item (building /structure /artifact as defined under the LEP) and has a known or documented association with that item; **or** • The subject tree is a Commemorative Planting having been planted by an important historical person (s) or to commemorate an important historical event; **or** • The subject tree is scheduled as a Threatened Species or is a key indicator species of an Endangered Ecological Community as defined under the Threatened Species Conservation Act 1995 (NSW) or the Environmental Protection and Biodiversity Conservation Act 1999; **or** • The tree is a locally indigenous species, representative of the original vegetation of the area and is known as an important food, shelter or nesting tree for endangered or threatened fauna species; **or** • The subject tree is a Remnant Tree, being a tree in existence prior to development of the area; **or** • The subject tree has a very large live crown size exceeding 300m² with normal to dense foliage cover, is located in a visually prominent in the landscape, exhibits very good form and habit typical of the species and makes a significant contribution to the amenity and visual character of the area by creating a sense of place or creating a sense of identity; **or** • The tree is visually prominent in view from surrounding areas, being a landmark or visible from a considerable distance.
2. VERY HIGH	• The tree has a strong historical association with a heritage item (building/structure/artifact/garden etc) within or adjacent the property and/or exemplifies a particular era or style of landscape design associated with the original development of the site; or • The subject tree is listed on Council's Significant Tree Register; or • The tree is a locally indigenous species and representative of the original vegetation of the area and the tree is located within a defined Vegetation Link / Wildlife Corridor or has known wildlife habitat value; **or** • The subject tree has a very large live crown size exceeding 200m²; a crown density exceeding 70% Crown Cover (normal-dense), is a very good representative of the species in terms of its form and branching habit or is aesthetically distinctive and makes a positive contribution to the visual character and the amenity of the area.
3. HIGH	• The tree has a suspected historical association with a heritage item or landscape supported by anecdotal or visual evidence; **or** • The tree is a locally indigenous species and representative of the original vegetation of the area; **or** • The subject tree has a large live crown size exceeding 100m²; **and** • The tree is a good representative of the species in terms of its form and branching habit with minor deviations from normal (eg crown distortion/suppression) with a crown density of at least 70% Crown Cover (normal); **and** • The subject tree is visible from the street and surrounding properties and makes a positive contribution to the visual character and the amenity of the area.
4. MODERATE	• The subject tree has a medium live crown size exceeding 40m²; **and** • The tree is a fair representative of the species, exhibiting moderate deviations from typical form (distortion/suppression etc) with a crown density of more than 50% Crown Cover (thinning to normal); **and** • The tree makes a fair contribution to the visual character and amenity of the area; **and** • The tree is visible from surrounding properties but is not visually prominent – view may be partially obscured by other vegetation or built forms. • The tree has no known or suspected historical association.
5. LOW	• The subject tree has a small live crown size of less than 40m² and can be replaced within the short term with new tree planting; **or** • The tree is a poor representative of the species, showing significant deviations from the typical form and branching habit with a crown density of less than 50% Crown Cover (sparse); **and** • The subject tree is not visible from surrounding properties (visibility obscured) and makes a negligible contribution or has a negative impact on the amenity and visual character of the area.
6. VERY LOW	• The subject tree is listed as an Environment Weed Species in the relevant Local Government Area, being invasive, or a nuisance species. • The subject tree is scheduled as exempt (not protected) under the provisions of the local Council's Tree Preservation Order due to its species, nuisance or position relative to buildings or other structures.
7. INSIGNIFICANT	• The tree is a declared Noxious Weed under the Noxious Weeds Act (NSW) 1993

APPENDIX 3: CRITERIA FOR THE ASSESSMENT OF SULE AND RETENTION VALUE

Table 5: Criteria for SULE and Sub-categories (Barrell, 2009).

SAFE USEFUL LIFE CATEGORIES & SUBCATEGORIES				
1. LONG SULE Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.	**2. MEDIUM SULE** Trees that appeared to be retainable at the time of assessment for 15-40 years with an acceptable level of risk.	**3. SHORT SULE** Trees that appeared to be retainable at the time of assessment for 5-15 years with an acceptable level of risk.	**4. REMOVE** Trees that should be removed within the next 5 years.	**5. SMALL, YOUNG OR PRUNED** Trees that can be reliably moved or replaced.
(A) Structurally sound trees located in positions that can accommodate future growth	(A) Trees that may only live between 15 and 40 more years.	(A) Trees that may only live between 5 and 15 more years.	(A) Dead, dying, suppressed or declining trees because of disease or inhospitable conditions.	(A) Small trees less than 5 meters in height.
(B) Trees that could be made suitable for retention in the long-term by remedial tree care.	(B) Trees that may live for more than 40 years but may be removed for safety or nuisance reasons.	(B) Trees that may live for more than 15 years but may be removed for safety or nuisance reasons.	(B) Dangerous trees through instability or the recent loss of adjacent trees.	(B) Young trees less than 15 years old but over 5 meters.
(C) Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.	(C) 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 plantings.	(C) Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	(C) Dangerous trees through structural defects including cavities, decay, included bark, wounds or poor form.	(C) Formal hedges and trees intended for regular pruning to artificially control growth.
	(D) Trees that could be made suitable for retention in the medium term by remedial tree care	(D) Trees that require substantial remedial tree care and are only suitable for retention in the short term.	(D) Damaged trees that are clearly not safe to retain.	
			(E) Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for a new planting.	
			(F) Trees that are damaging or may cause damage to existing structures within 5 years.	
			(G) Trees that will become dangerous after removal of other trees for the reasons given in in (a) to (e).	
			(H) Trees in category (a) to (g) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review.	

Table 6: Retention Value Matrix (Morton, Determining the Retention Value of Trees, 2003).



APPENDIX 4: TREE PROTECTION CONDITIONS

A copy of these conditions must be available to all contractors associated with the project prior to the commencement of works and made available throughout the duration of the project.

1. CONDITIONS OF CONSENT

Consent from the Yass Valley Council ***must*** be obtained prior to the pruning or removal of any trees on the site.

Upon the issue of development consent for the proposed development, the Conditions of Consent regarding tree management must be carefully reviewed. The recommendations outlined in this report are ***not*** an assurance of removal or retention.

A copy of this Arboricultural Impact Assessment Report is to be available at the development work site at all times for reference in accordance with the Development Consent issued by the Council in respect of the proposed development.

2. SCHEDULE OF WORKS

The proposed work schedule has been prepared to ensure that the recommendations presented in this report are strictly observed.

It is the intention of this report that actions are to be undertaken in accordance with the following:

- *Work Health and Safety Act, 2011,*
- *Work Health and Safety Regulations; 2011,*
- *Safe Work Australia Guide to Managing Risks of Tree Trimming and Removal Work, 2016*
- *AS: 4970-2009 Protection of Trees on Development Sites, 2009*
- *AS: 4373 -2007 Pruning of Amenity Trees, and*
- *AS: 4454 -2012 Composts, Soil Conditioners and Mulch* (Standards Australia, 2015).

3. PROJECT MANAGEMENT

Prior to the commencement of any civil works, an AQF V Consulting Arborist shall be appointed to oversee the tree protection works and <u>any</u> works within the Tree Protection Zones or Root Protection Zones of the subject trees.

Supervision of all works within the TPZ is required to ensure that protection measures specified in these conditions are adhered to and, mitigate any potential decline in tree health and recommend any remediation measures required.

Certification of the works, including any remediation measures, are to be provided to the Council.

3.1 ON-SITE PERSONNEL

It is the principal contractor's responsibility to ensure the Tree Protection Measures are strictly adhered to and that all construction personnel (supervisors, contractors, labourers, machinery operators, and truck drivers) are made aware of these Tree Protection Conditions.

Figure 13: Indicative TPZ fencing layout denoted in red (Nadin, 2024).

5. TREE-SENSITIVE CONSTRUCTION METHODOLOGY

5.1 PERMEABLE ROAD SURFACES AND PAVING

A passive and permeable cellular confinement system (Geo Cell) is an above-grade (no-dig) system to be installed where construction within the TPZ cannot be avoided.

The construction methodology protects the root system from load-bearing construction activities that typically require strip footings (trenching) to construct a foundation.

The system must be installed within the provisions of these TPC and:

- be installed above the existing natural gradient (no-dig);
- be appropriate for the site conditions and anticipated load requirements;
- encompass the area of TPZ encroachment;
- be installed as per manufacturers' or engineers' specifications, and
- be installed under the supervision of the project arborist.

Figure 14: Example of Geo Cell System (CORE Landscape Products, 2023).

6. GENERAL TREE PROTECTION WORKS

All trees to be retained must be protected in accordance with *Australian Standards- Protection of Trees on Development Sites (AS 4970-2009).*

Prior to any tree removal, the project arborist and site manager should confirm that all marked trees correspond with trees denoted in section 10.1 - Tree Location and TPZ Incursion Plan.

Trees approved for removal or transplanting should be marked on-site and documented in the Tree Location Plan.

An exclusion zone must be established along the TPZ perimeters of the subject trees prior to work commencing.

The TPZ fencing is to be installed around the perimeter of these zones and in accordance with *AS: 4373:2007.*

Variations to the design and type of the fencing or any movement of the TPZ fencing are strictly prohibited unless authorised by the project arborist.

6.1 RESTRICTED ACTIVITY WITHIN THE TREE PROTECTION ZONE

The following activities are strictly prohibited within the specified Tree Protection Zone:

- mechanical removal of vegetation, including the extraction of stumps;
- mechanical excavation, including trenching;
- erection of site sheds and waste receptacles;
- storage or dumping of building materials such as gravel, road base and the like;
- preparation or disposal of any toxic chemicals, including cement, fuel, oil and solvents;
- movement and parking of vehicles and plant without ground protection;
- refuelling of mechanical equipment;
- wash down and cleaning of equipment;
- stockpiling demolition waste, spoil or fill;
- the lighting of fires;
- soil level changes;
- temporary or permanent installation of utilities and signs, and
- any other activity likely to cause physical damage to the tree or roots.

  (Standards Australia, 2009).

6.2 BRANCH AND TRUNK PROTECTION

No pruning of branches is to occur without prior consent from the Council.

Where deemed necessary, trunk and branch protection must be installed prior to any works commencing, and the project arborist will specify the materials and methodology.

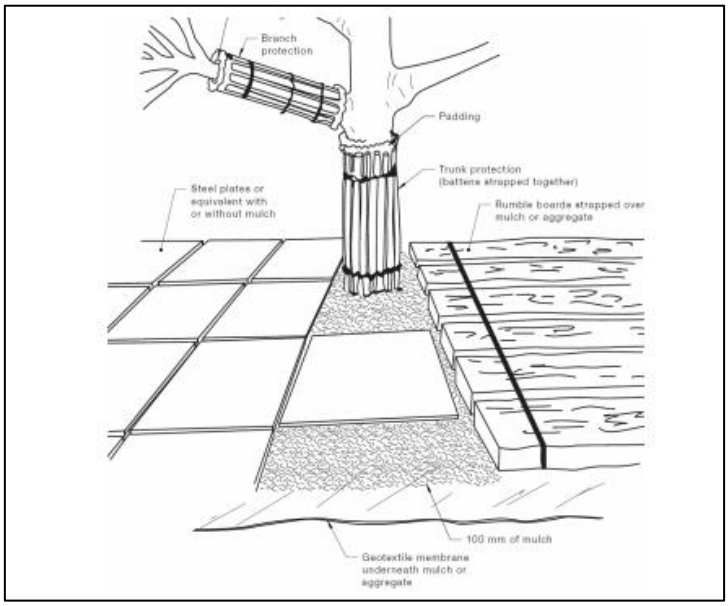


Figure 15: Branch and trunk Protection example (Standards Australia, 2009).

6.3 FENCING AND SCAFFOLDING TYPE

All TPZ fencing or scaffolding is to be installed prior to any works commencing and designed and installed in accordance with 4.3 of *AS 4970-2009*, prior to any works commencing, and:

- Any variations to the fencing or scaffolding type and any movement are strictly prohibited unless authorised by the project arborist;
- Fencing is to be constructed of chain wire mesh panels (minimum 1.8m) with shade cloth (if specified), located outside of the SRZ and held in place by temporary concrete-filled fence bases;
- Where scaffolding is required, it should be erected outside the TPZ;
- Where it is essential for scaffolding to be erected within the TPZ, branch removal should be minimised. This can be achieved by designing scaffolding to avoid branches or tying back branches;
- Where pruning is unavoidable, it must be specified by the project arborist in accordance with *AS 4373-2007*;
- The ground below the scaffolding should be protected by boarding (e.g. scaffold board or plywood sheeting) and
- Any boarding should be placed over a layer of mulch and waterproof sheeting to prevent soil contamination and compaction and remain in situ during the construction phase.

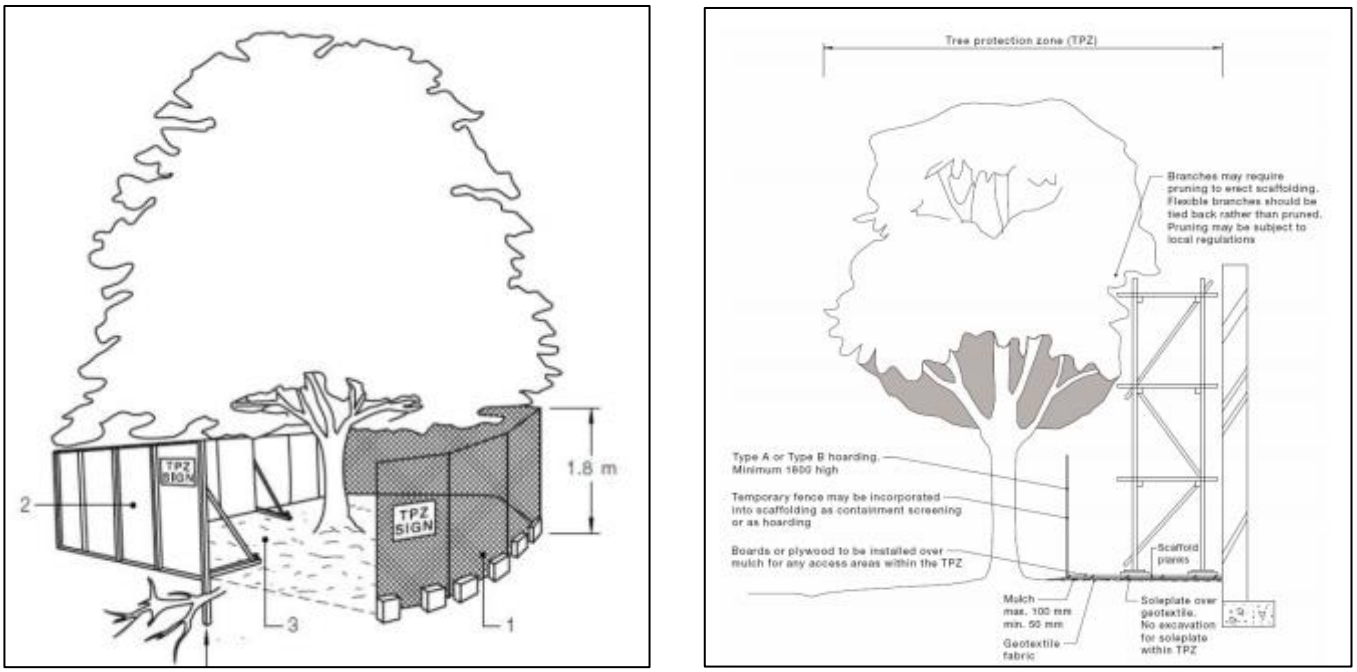


Figure 16: TPZ Fencing and Scaffolding Specifications (Standards Australia, 2009).

6.4 SIGNS

Signs identifying the Tree Protection Zone are to be placed around the Tree Protection Fencing perimeter to prevent unauthorised access.

The signs are to have the project arborist's contact details clearly identifiable and shall be highly visible throughout the duration of the project and securely attached using cable ties or an equivalent product.

6.5 SITE ACCESS AND EGRESS

Access and egress shall be reduced to one area to minimise compaction and encroachment of the site's TPZ areas. The erection of fencing is not permitted around any TPZ zones for means of access or egress without the prior consent of the project arborist.

6.6 INSTALLING UNDERGROUND SERVICES WITHIN THE TPZ

If applicable, all excavation within the TPZ must be undertaken under the project arborist's direct supervision.

All excavation within the TPZ must be either undertaken by hand or using non - destructive dry hydro excavation methodology and under the project arborist's direct supervision.

There shall be no use of strip excavation construction adjacent to or within the TPZ of any retained tree.

If machinery is required, the trenching must be undertaken with a gummy bucket and rubber skid steer tracks with a maximum weight of three (3) tonnes. The machinery is to be operated in a backward direction toward the extremity of the defined TPZ area.

Natural soil levels are to be retained with no change to the gradient. Topsoil removed from the site is preferable for backfilling the trench. If adequate topsoil cannot be retrieved from the site, general-purpose garden soil is to be used.

Upon completion of backfilling, the area of the TPZ is to be watered, and the area of excavation is to be mulched to a depth no greater than 100 mm.

6.7 BOARDING OF TEMPORARY ROADWAYS

Where the protection zone requires a reduction to accommodate a temporary road, the road surface should be boarded to a distance agreed to by the arborist and the project manager.

An alternative to boards would be 150mm of mulch or 100mm of gravel on a geotextile base. If scaffolding is necessary close to or within a protection zone, erect additional fencing to provide sufficient space for the scaffolding.

Leave the ground between the fence and the building works undisturbed and protected by boarding. Cover the ground first with geotextile fabric and then a layer of sand (50mm plus) to allow levelling of the boards. Leave the boards in place until the building works are completed.

6.8 GROUND PROTECTION

To prevent possible soil compaction and root damage within the TPZ, all machinery is to operate, where possible, outside the defined TPZ zone and operate in a backward direction toward the extremity of any defined TPZ area.

For temporary access within the TPZ, a layer of mulch no greater than 150 mm, timber boards or interlocked steel plates on 100 - 150 mm of mulch or gravel on a geotextile base is to be applied at the indiscretion of the Project Arborist.

All machinery must use rubber-tracked skid steer tracks to distribute the machinery's weight and reduce the likelihood of compaction.

6.9 TREE WORKS

All tree removal, pruning, crown uplifting, crown reduction, thinning, dead wooding and stump grinding must be conducted by an AQF level III Arborist.

If applicable, trees that have been approved for removal or transplanting should be marked on-site and documented in the Tree Location Map.

Before removal, the Project Arborist and Site Manager should confirm that all marked trees correspond with trees denoted in the Tree Location Map.

6.10 ROOT PROTECTION

Where the project arborist identifies roots to be pruned within or on the outer edge of the TPZ, they shall be pruned with a final cut to undamaged wood. Pruning cuts shall be made with a sharp tool. Pruning wounds shall NOT be treated with dressings or paints (Standards Australia, 2009).

No roots are to be cut without prior consent from the project arborist, regardless of size.

The cutting of roots is to be avoided, with the preference for the installation of the service pipe to go under all roots where possible.

Where roots are exposed within the TPZ by excavation, multiple layers of damp hessian sheeting shall be used to cover all exposed roots to prevent drying. The moisture levels are to be maintained throughout this process.

6.11 TREE PRUNING

The minimum pruning required to accommodate any proposal is preferable. For example, removing a small portion of the crown (foliage and branches) is acceptable, provided that the extent of pruning is less than 10% of the total foliage volume and does not alter the natural form and habit of the tree.

All tree removal, pruning, crown uplifting, crown reduction, thinning, dead wooding and stump grinding must be conducted by an AQF level III Arborist.

6.12 STUMP REMOVAL

Stumps located within the TPZs of trees to be retained shall be grubbed-out by hand or using a mechanical stump grinder and in a manner that does not damage the roots of the retained tree.

Where trees or stumps are to be removed within the SRZ of any trees to be retained, consideration should be given to cutting the stump close to ground level and retaining the root crown intact.

Trees and stumps within the Tree Protection Zone of other trees to be retained shall not be pulled out using excavation equipment.

All directional drilling, if required, shall be undertaken at a minimum depth of 1200 mm and in accordance with *AS 4970-2009* section 4.5.5.

6.13 FAUNA PROTECTION

Any clearing of trees, shrubs or groundcovers (including weeds) within the site lands should be conducted to ensure no fauna is harmed or displaced.

Any injured native fauna shall be rescued and transferred to the care of the NSW Wildlife Information, Rescue and Education Service WIRES (Ph: 1300 094 737).

6.14 HYGIENE PROTOCOL

As a precautionary measure, hygiene procedures are essential across the site. Such hygiene protocols have the additional benefit of limiting the potential to facilitate the introduction or spread of weed propagules throughout the area of the site.

Basic principles include avoiding the transport of sediment onto and off-site by cleaning all work clothing, gloves, tools and machinery. In some cases, a solution of 70% ethanol or methylated spirits in 30% water may be sufficient to disinfect equipment prior to use.

The report, 'Arrive Clean, Leave Clean' (Commonwealth of Australia , 2015) provides further information and best practice methods to reduce the spread of these pathogens from the adjoining lands.

6.15 GREEN WASTE

All green waste derived from the project shall either be retained and used on-site or chipped and removed from the site and treated at a licenced green waste facility.

6.16 MULCH

The area within the Tree Protection Zone shall be mulched as instructed by the Project Arborist. The mulch must be maintained to a maximum depth of 100 mm using a material that complies with *AS: 4454 -2012 Composts, Soil Conditioners and Mulch* (Standards Australia, 2015).

6.17 WATERING

The Project Arborist shall regularly monitor soil moisture levels. Temporary irrigation or watering may be required within the Tree Protection Zone. Any form of irrigation should be installed and maintained by a competent individual (Standards Australia, 2009).

6.18 WEED REMOVAL

Weed management aims to remove and control all environmental and priority weeds that occur within the subject site and prevent further encroachment of weeds from adjoining areas.

Specific "duties" under the *Biodiversity Act (2015)* regarding mandatory measures, regional measures, prohibited matters or biosecurity zones may apply.

The control and management protocols outlined by the NSW Department of Primary Industries will be followed where a weed species is identified.

Ground weeds should be removed by hand and without soil disturbance or controlled by a suitable herbicide.

6.19 REPLACEMENT PLANTING

As per Council requirements, replacement planting must be undertaken prior to final Arboricultural Certification, and evidence of the replacement planting is to be provided with the certification.

7. REPORTING AND KEY PERFORMANCE INDICATORS

The project arborist determines the required Key Performance Indicators (KPIs). The Project Arborist will produce a certification report based on the monitoring undertaken within the site.

7.1 Following each hold point, the project arborist shall prepare a report detailing the Tree Protection Zones and retained trees' condition.

7.2 Reports should certify whether the works have been completed according to the Tree Protection Conditions prepared according to *AS: 4970-2009 Protection of Trees on Development Sites*.

7.3 Reports will contain photographic evidence to demonstrate that the work has been carried out as specified.

7.4 Matters to be monitored and included in these reports should consist of tree condition, tree protection measures and the impact of site works which may arise from changes to the approved plans.

7.5 Any areas of non-compliance shall be notified to the Council if tree protection conditions have been breached.

7.6 Reports should contain remedial action and specifications to mitigate any adverse impact on the subject trees.

7.7 Certification will be granted upon the final inspection and completion of any remedial works.

Table 7: Certification Phases and Hold Points

STAGE	WORKS TO BE CERTIFIED
PRE-CONSTRUCTION	• Pre-construction inspection with all representatives prior to works commencing. • Documentation review of the conditions of consent issued by the consent authority. • Trees approved for removal are clearly marked. • Any variations to the consent conditions are addressed. • TPZ is established, fenced and mulched. • HOLD POINT • PRE-CONSTRUCTION CERTIFICATION IS ISSUED.
CONSTRUCTION PHASE	• Briefing with all relevant representatives by the project arborist prior to the commencement of works. • Inspection of all equipment is as specified in the Tree Protection Conditions. • All works within the TPZ are to be supervised by the project arborist. • Periodic inspections as per Conditions of Consent. • The area of trenching has been restored and mulched. • Remediation works are undertaken if required. • HOLD POINT • STAGE 2 PROGRESS CERTIFICATION COMPLETED.
POST-CONSTRUCTION	• Final inspection of trees by Project Arborist after all construction works have been completed and all landscaping- remedial works have been undertaken. • Removal of TPZ fencing. • FINAL CERTIFICATION IS ISSUED.