

**ARBORICULTURAL IMPACT ASSESSMENT FOR 2022 DEVELOPMENT AT
21-25 NORTH PARADE WAGGA WAGGA NSW 2650.**

1. INTRODUCTION.

There is a planned development by NSW Department of Planning, Industry and Environment, Land and Housing Corporation at three joining properties identified as 21-25 North Parade Wagga Wagga NSW 2650.

A preliminary assessment of the tree vegetation was undertaken in October 2021 to identify trees on site, their condition, significance and recommendations for retention or removal within the planning process. Final design plan have been developed and an arboricultural impact assessment is now required for lodgement with the development application.

2. SCOPE AND PURPOSE.

The report has been commissioned by Mr. Adam Bower, Land and Housing Corporation Development Manager, Delivery South West Sydney and Southern NSW. He can be contacted on (02) 9374 3650.

The site was formally accessed on 21 September 2021.

The report is designed to provide;

- accurate identification of tree vegetation,
- tree condition, including any significant hazards present
- evaluation of the trees relative to their contribution to the environment, amenity and any other identified values
- evaluation of development impacts on the existing tree population
- interpretation of *WWCC Development Control Plan 2010 -PART B Section 5 Natural Resource and Landscape Management 5.2 preservation of trees.*
- recommendations for management of the issues identified.

Interpretation of impacts and recommendations are based on the author's interpretation of *Australian Standard 4970-2009 Protection of trees on development sites.*

[Diagram One](#) provides identification of the site/location.

The following Drawing was supplied.

*DUKE OF KENT HOUSING PROJECT – 21, 23 & 25 North Parade, WAGGA WAGGA BLK: 56, 57, 58 DP: 21115. **OVERALL SITE PLAN – North Parade.** SK 114. Issue P1. Dated 12/03/2022. CK Architecture Deakin ACT.*

This drawing contains existing trees on site, trees for retention and removal. Tree Protection Zones (TPZ) are also detailed. Some comments have been added and the drawing is provided at the conclusion of this report.

[Annexure 1 – Tree Data File](#) provides a detailed list of existing trees, their individual evaluation and development impact. Evaluation criteria is also provided. This annexure is also been included at the conclusion of the report.

3. SITE CONDITIONS AND BACKGROUND.

The site currently comprises 2 joining single story dwellings at 23 and 25 North Parade and one vacant block on the 3rd cited residential address. Number 21 is a recently demolished dwelling and now a cleared block. Each address is approximately 520 square meters in area – a total development area of about 1560 square meters. The general proposal is to demolish the existing dwellings and construct new buildings with greater occupancy capacity.



Diagram 1– Location of Assessment site – 3 lots -21-25 North Parade.

Adapted from WWCC IntraMaps 2021.

The tree vegetation across the three sites is generally described as follows.

- There are a total of 29 trees and shrubs or groups of trees located across the site.
- There are three small WWCC Street trees – 1 located at the front verge of each property. The trees are not evaluated as significant.
- The remaining tree vegetation is described as a mixture of small exotic species, mostly environmental weed species with very low environmental values.
- Whilst the tree species are mostly environmental weed species the trees do provide some amenity values.

There is no remnant vegetation identified. The three WWCC street trees are identified as exotic in origin with low environmental and amenity values.

4. SUMMARY OF INITIAL TREE EVALUATION.

- 29 Trees (or groups of trees) were identified as potentially impacted by the development.

- Each tree was individually graded for its retention value within the development based upon a range of criteria as detailed within Annexure 1 – Tree Data File.
- The following Table A is a summary of all 29 trees retention values.
- None of the trees are identified as significant as individual trees.
- The 3 WWCC street trees are considered to have low significance.
- Theoretical canopy coverage excluding the WWCC street trees is 540 square meters or 35% of the area. This percentage is considered good – although the species representation is mostly weed species with very low ecosystem value. Considerable opportunity exists to improve the species representation from development.

Table A – Summary of Tree Evaluation		
Evaluation Category	Descriptors	Tree No's
Retain Priority	• A Significant or Very Significant tree • Strong positive amenity and/or other values – normally long life expectancy. • Replacement very long term 60 - 100 years or more • Removal would be very difficult to justify	
Retain	• Tree with moderate significance • Positive Amenity values and/or other values with longer life expectancy • Replacement long term 40 - 80 years. • Removal would be difficult to justify.	
Retain if Possible	• Tree with some positive landscape, amenity or other values • In fair to good condition with some useful remaining life. • OR a younger semi mature tree in Excellent or good condition with long life expectancy or expected contribution. • However if the impost on the development of retention is very high or the development impact on the tree is high then removal or replacement can be considered a valid decision. • On balance of considerations the tree is worth retaining.	1, 7 and 25
Remove	• The tree is normally in poor condition with short useful life expectancy, or • Structurally unsound to a point not worth effort of ameliorating. - OR • A small tree where the impost of retention is not justified. It would easily be replaced in 0-5 years.	6,9,24,26 and 29

	At this point a new tree is normally considered a better long term option.	
Remove Priority	- An insignificant tree (shrub) - very small or - the tree is in very poor condition or a weed species or - structurally very poor or short useful life expectancy - a replacement tree/s is a far better option	2,3,4,5,8 10,11,12,13 14,15,16,17 18,19,20,21, 22,23,27,28

5. Development impacts and Discussion. On Review of the final drawings for the development and assessment of the impacts to the trees, the following is a summary of the arboricultural impact for the development.

A. Trees to be removed.

- i. All trees excluding 1, 7 and 25 are identified/evaluated as *remove priority* or *remove*.
 1. These trees are mostly weed species, in poor condition or small trees.
 2. NOTE that Overall Site plan has trees 13, 14 and 15 as retained – it is strongly recommended that these trees are removed and the Overall Site Plan has been marked up with this recommendation.
 3. Whilst the canopy coverage loss is somewhat notable the species composition is mostly weeds that have established on site and need to be removed for environmental reasons.
- ii. Only 4 trees meet the criteria of tree preservation *WWCC Development Control Plan 2010 -PART B Section 5 Natural Resource and Landscape Management 5.2 preservation of trees*.
 1. Trees 6, 24, 26 and 29.
 2. All these trees are recommended for removal on the basis of poor condition or unsuitable for location.

B. Trees to be retained.

- i. The three WWCC Street trees (Tree numbers 1, 7 and 25) are to be retained. These trees have general impacts to manage.

C. Canopy loss.

- i. The existing canopy coverage of the three lots is 35%. This is regarded as good canopy coverage; however given the poor species mixture – mostly environmental weeds, the tree population and therefore canopy coverage will need to be replanted and established from new.
- ii. The development landscape plan should strive to establish an anticipated mature canopy coverage in line with the existing as a quality benchmark.

6. Findings and General Recommendations.

A. Tree Retention or Removal Decisions.

Existing site trees that are of some age, have good structure and longer life expectancy should be considered for retention and protection unless there is a compelling reason to remove them. New trees cannot replace such trees within short space of time. The loss of tree benefits and public/private amenity is immediate and replacement time frames are in the order of decades for larger trees.

Alternatively trees in poor condition and/or with short useful life expectancy are normally recommended for removal on the basis that the effort and cost of retention through the development is not commensurate with short term amenity value, or risk a tree may pose if it fails. Removal of the tree and establishing a new tree with a long life expectancy is a better option. Additionally the tree in poor condition often has little ability to cope with significant changes in its root zone from the development impact.

Where trees have major impacts to the tree protection zone then removal is likely the best alternative unless the tree is significant and specific measure can be developed to assist the tree through the development.

It should be noted that the calculated tree protection zone (TPZ) is for the most part the minimum space required for the tree to maintain viability and stability, and the actual tree root zone will in most instances extend well past the calculated TPZ; meaning that if the development encroaches up to the TPZ a large amount of roots and root space is still lost for the tree.

- B. Trees to Retain. Trees 1, 7 & 25 – the three council street trees are recommended for retention with potential for general impacts to manage from site activity.
- C. All other trees within the lot boundaries are recommended for removal.
- D. Tree Protection Measures.
 - Tree Protection measures should form part of the site project demolition and construction plan – **A tree Protection Plan – for tree numbers 1, 7 and 25.**
 - The Tree protection Plan should be formulated as part of the demolition contract and reviewed as implemented by Council (or other relevant authority) prior to commencement of demolition.
 - It should remain current for the construction phase.
 - Trees identified for retention should have effective Tree Protection fencing erected prior to commencement of demolition and construction.
 - There should be no parking of vehicles, or plant or storage of any materials within the TPZ of the retained trees.
 - Other specific measures outlined in *Australian Standard 4970 -2009 protection of trees on development sites* may be appropriate once final works are determined.

- There should be no trenching or excavation works within the TPZ without prior consultation with Level 5 Arboricultural consultant to evaluate the impacts on the trees. This specifically includes, trenching for services, electricity, water, gas communications sewer or irrigation pipes, general earth works, including landscaping, that disturbs the soil profile.
- Any specified pruning, or clearance pruning of trees should be conducted before commencement of any works so that an effective tree protection barrier (fence) can be installed and the canopy not damaged by demolition or construction process.
 - The three retained trees are WWCC Trees; it should be considered to inform Council prior to commencement of demolition so that the Tree Management Officer has the opportunity to review the trees and conduct/supervise canopy pruning as necessary for installation of protection fencing as the canopy extension was well over the footpath and blocking pedestrian access.

There is little point in trying to preserve trees through a demolition and construction project if the development does not respect the requirements of the trees.

- E. The loss of the tree benefits should be offset at the conclusion of the construction phase by an appropriate landscaping plan. Trees can easily be expected to reduce radiant heat in the order of 5 to 7 degrees by shading hard stand and other ground surfaces (Kaluarachichi et al 2020).

References.

Kaluarachichi T.U.N., Tjoelker M.G. and Pfautsch S. (2020). *Temperature Reduction in Urban Surface Materials through Tree Shading Depends on Surface Type Not Tree Species*. Forests 2020, 11, 1141.

NSW DPI (2020). *NSW Weed Wise. NSW Department of Primary Industries Privet - broad-leaf (Ligustrum lucidum)*. Accessed online 6/10/2021 at;
<https://weeds.dpi.nsw.gov.au/Weeds/PrivetBroadleaf>

WWCC (2021). *Wagga Wagga Development Control Plan – Part B Natural Resource and Landscape Management Section 5.2 – Preservation of Trees*. Accessed online 6/10/2021 at:
https://wagga.nsw.gov.au/_data/assets/pdf_file/0015/112254/ECM_2509477_v25_Version-Control-Project-Wagga-Wagga-DCP-2010-as-amended-Section-5-Natural-Resource-and-Landscap.pdf



Photo 1 – Tree number 2 *Ligustrum lucidum* (Broad leaf privet)

Example of a long term environmental weed species that has seeded in location. Typically birds distribute seeds on fence lines and if left the tree damages the fence and the species proliferates.



Photo 2 – Tree number 6 – multiple stems – weed species as per photo 1.



Photo 3 – Tree 26 *Ulmus glabra* 'Lutescens' (Golden Elm) – front yard of number 25.
Tree with extensive stem dysfunction from borers (insert photo) tree is considered in early decline and the species is not considered suitable for the local environmental conditions unless significant irrigation is provided.



Photo 4 to 6

*Tree number 10 (4 stems) 13 and 26
Ligustrum lucidum (Broad leaf privet)
Boundary property and – hard against
fence lines as environmental weeds.*



Photo 7 and 8 – Tree 1 to left and tree 7 to right.

Examples of the 3 trees to be retained and protected.

WWCC Trees that may require pruning before demolition works commence. WWCC Tree Management Officer should be contacted and consulted.

Terms, Conditions and Limitations that apply.

Obviously, visual tree assessment from the ground has some limitation as every single portion of the tree cannot be observed or inspected. Most or the large majority of tree conditions, factors or issues can be observed from the ground. Where aerial inspection or other investigative means should be considered the report or email will recommend or provide those as an additional considerations. The integrity of the root zone of trees can often be difficult to determine from visual inspection – particularly on steep slopes and on shallow soil profiles. Unless there are indicators of some instability then most trees are effectively assessed as stable as part of Visual Tree Assessment.

Trees are a valuable asset and necessary part of both the urban and natural environment. They are the cornerstone of our environment and provide numerous benefits to our social wellbeing, biodiversity and ecology of any area. They provide water balance stability, salinity and erosion control, amenity, cultural, public health and aesthetic benefits; efforts should be made to preserve and plant new trees where possible. As an asset they require appropriate management and resource inputs.

It should be noted that trees cannot be guaranteed 'risk free'. All trees represent some degree of risk. Arboriculture is not an exacting science; rather it is an educated interpretation of the

interaction of biotic and environmental circumstances, which change over time. It is not possible to determine or predict all limb or tree failures. This report is such an interpretation at the time of inspection.

Unless Quantified Tree Risk Assessment (QTRA) has been specifically applied and reported, then this report or email does not constitute a risk assessment. The Author does not seek to determine what level of risk any individual or organisation is prepared to accept but serves to provide tree managers with tree condition, hazards and other salient issues or factors associated with the tree or trees; and provide or recommend management options.



3 August 2022

Wade Ryan Contracting – Independent Arboriculture Consultant AQF Level 5.

BAppSc(EnvHort) – AdvDip OH&S

Institute of Australian Consulting Arboriculturists (IACA) Accredited Member (ACM 0622018)

QTRA – Registered Advanced User (4519).

Member - International Society of Arboriculture

Associate Member – The Arboriculture Association (UK)



™ ISA Member : 257486



AS8205.



Quantified Tree Risk Assessment

4519

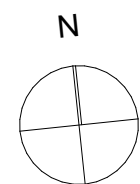
DUKE OF KENT HOUSING PROJECT
21, 23 & 25 NORTH PARADE, WAGGA WAGGA BLK: 56, 57, 58 DP: 21115

ISSUE P1 12 -03-22

SCALE 1:100 @ A1

OVERALL SITE PLAN - NORTH PARADE

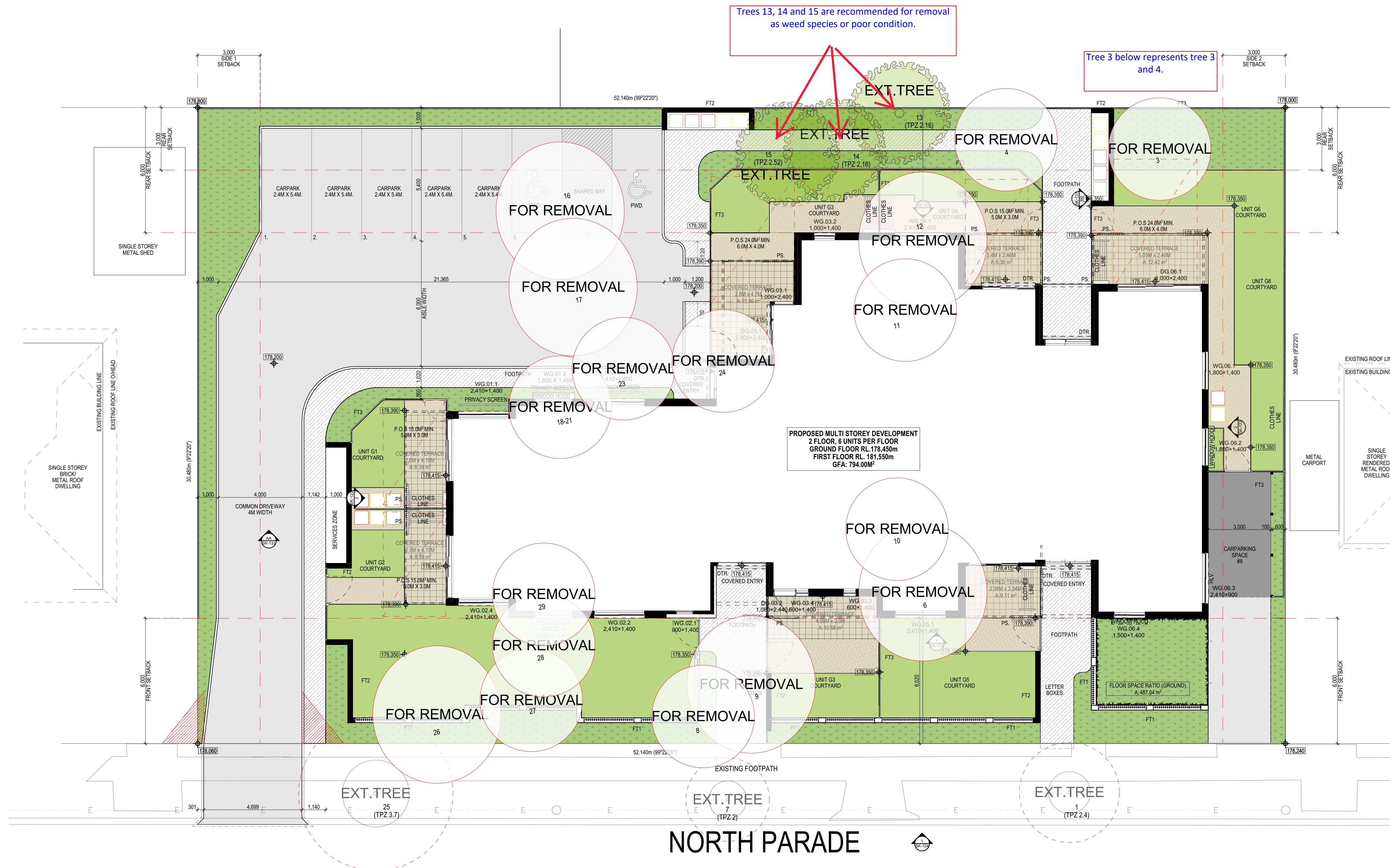
SK-114



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SITE PLAN LEGEND

- SITE BOUNDARY
- EXISTING TREE
- TREE TO BE REMOVED
- NEW COURTYARD WALL TO STREETScape
- NEW FENCE 1800MM "GOOD NEIGHBOUR"
- SOFT LANDSCAPING
- COMMON / DEEP SOIL LANDSCAPING
- CARPARK / DRIVEWAY
- PAVED BALCONY / TERRACE
- HARD LANDSCAPING ELEMENT
- CONCRETE FOOTPATH TYPE 1
- CONCRETE FOOTPATH TYPE 2
- COLOURED CONCRETE
- TYPICAL RESIDENTIAL BIN
- ALLOCATED DISABLED CARPARK
- NEW WALL
- NEW DOOR
- NEW WINDOW
- NEW HIGH LEVEL WINDOW
- NEW GATE
- DDA COMPLIANT ACCESS
- DRIVEWAY SIGHT LINE
- DTR - DOOR THRESHOLD RAMP
- PS - PRIVACY SCREEN
- PS - PRIVACY SCREEN AS TYPICAL IN ELEVATION -10 LENGTH OR BALCONY OR WIDTH OF CLOTHES LINE WHERE USED ADJACENT TO CLOTHES LINE ALWAYS FULL HEIGHT.

TYPICAL FENCE TYPES

- FT1 - COURTYARD WALL FENCE
- FT2 - INTERNAL PRIVACY SCREENING FENCE
- FT3 - LAHC STANDARD INTERNAL TIMBER PALING FENCE 15MM PALING SPACING

NOTES:

1. READ IN CONJUNCTION WITH SITE SURVEY
2. REFER ARBOREST ASSESSMENT OF EXISTING TREES
3. REFER SERVICES DRAWINGS FOR IN-GROUND SERVICES RETICULATION
4. REFER HYDRAULIC AND CIVIL DRAWINGS FOR DRAINAGE
5. REFER CIVIL DRAWINGS FOR CARPARKING AND OVERLAND FLOW MANAGEMENT
6. REFER TO STRUCTURAL PLANS FOR STRUCTURAL SETOUT, CONDITIONS AND STRUCTURAL DESIGN/DOCUMENTATION
7. REFER TO LANDSCAPE DRAWINGS FOR LANDSCAPE DESIGN
8. REFER TO BASIX CONSULTANT/ BASIX CERTIFICATE FOR FURTHER BASIX DETAILS

SCALE 1:100

Developed Wade Ryan Contracting 0408 300 989 waggatreeconsultancy.com.au waderyan1@bigpond.com			Annexure 1 - Tree Date File - 21 - 25 North Parade Wagga Wagga - 2021. Updated 03/08/2022 for Impact Assessment.																						
Tree No	Species	General Location	Species Origin	General Size	Age Class	Height M	Canopy Ø	DBH (m)	SRZ Radius in m	TPZ Radius in m	Canopy Area (M²)	Tree Vigour	General Condition	Defects/Hazards/Issues Present Commentary on tree	Enviro Rating (Values)	Expected Remaining Life	Replacement Time Frame	Significant Tree Status	Retention Value	Recommended Action for planning of development	Primary Reason for Recommendation	Development Proposal	Primary Reason	Other Comments	
1	Prunus cerasifera 'Nigra' (Ornamental Plumb)	21 North prd Council Verge	Exotic	Small	Mature	5	6	0.2	1.68	2.4	28.3	2 - Good	3 - Fair	Lopped for power line - Council Tree - forms a line of trees in street with others	5 - Very Low	5 to 15	5-10	Not Significant	3- Fair	Retain if possible	Positive amenity values	Retain - Impacts unlikely	Positive amenity values	If tree poses notable issue with development then approach council to remove and replace - could be replaced in 5 years.	
2	Ligustrum lucidum (Broad leaf privet)	21 North Prd Rear boundary fence - east	Exotic	Small	Over Mature	7	8	0.34	2.10	4.08	50.3	4 - Poor	4 - Poor	Tree hard against back fence - presents as seeded in this location some time ago - tree adjacent to sewer inspection point	5 - Very Low	0 to 5	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
3	Ligustrum lucidum (Broad leaf privet)	21 North Prd Rear boundary fence -	Exotic	Very Small	New	2	1	0.02	1.50	2	0.8	2 - Good	2 - Good	Tree hard against back fence - presents as seeded in this location	5 - Very Low	15 plus	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
4	Ligustrum lucidum (Broad leaf privet) (Count 2)	21 North Prd Rear boundary fence - west	Exotic	Very Small	New	2	1	0.03	1.50	2	0.8	2 - Good	4 - Poor	2 small trees as one tree Tree hard against back fence - presents as seeded in this location	5 - Very Low	15 plus	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
5	Ligustrum lucidum (Broad leaf privet) Count 14)	21 North prd West boundary fence -	Exotic	Small	Young	7	2	0.08	1.50	2	3.1	2 - Good	3 - Fair	14 stems in total in one group on boundary fence includes one Ficus sp.	5 - Very Low	15 plus	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
6	Acer negundo (Box Elder maple)	21 North prd West boundary fence -	Exotic	Medium	Young	9	9	0.36	2.15	4.32	63.6	2 - Good	2 - Good	Tree hard on boundary fence - tree has seeded in location - structure good	5 - Very Low	15 plus	0-5	Not Significant	4 - Poor	Remove	Unsuitable for location	Remove	Direct Conflict with DA	Demolition of fence and other trees will not allow this tree to be retained - tree can easily be replaced in 4-5 years.	
7	Prunus cerasifera 'Nigra' (Ornamental Plumb)	23 North Parade Council Verge	Exotic	Small	Mature	5	5	0.17	1.57	2.04	19.6	3- Fair	3 - Fair	Lopped for power line - Council Tree - forms a line of trees in street with others	5 - Very Low	5 to 15	5-10	Not Significant	3- Fair	Retain if possible	Positive amenity values	Retain - Impacts unlikely	Positive amenity values	If tree poses notable issue with development then approach council to remove and replace - could be replaced in 5 years.	
8	Ligustrum lucidum (Broad leaf privet)	23 North Parade Front Yard	Exotic	Small	Semi Mature	4	6	0.17	1.57	2.04	28.3	3- Fair	3 - Fair	Sound tree	5 - Very Low	15 plus	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
9	Acer negundo (Box Elder maple)	23 North Parade Front Yard	Exotic	Small	Semi Mature	7	8	0.23	1.79	2.76	50.3	2 - Good	2 - Good	Seeded in location hard against footpath - demolition can not occur with retention of tree	5 - Very Low	5 to 15	0-5	Not Significant	4 - Poor	Remove	Exempt height	Remove	Direct Conflict with DA	Demolition of fence and other trees will not allow this tree to be retained - tree can easily be replaced in 4-5 years.	
10	Ligustrum lucidum (Broad leaf privet) (count 4)	23 North Parade East boundary fence	Exotic	Small	Young	3	3	0.15	1.50	2	7.1	2 - Good	3 - Fair	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
11	Ligustrum lucidum (Broad leaf privet)	23 North Parade East boundary fence	Exotic	Small	Young	4	5	0.22	1.75	2.64	19.6	2 - Good	3 - Fair	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
12	Ligustrum lucidum (Broad leaf privet)	23 North Parade East boundary fence	Exotic	Small	New	3	2	0.06	1.50	2	3.1	2 - Good	2 - Good	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
13	Ligustrum lucidum (Broad leaf privet)	23 North Parade East boundary fence	Exotic	Small	Young	4	5	0.18	1.61	2.16	19.6	2 - Good	2 - Good	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Weed Species	Environmental Weed species (DPI 2020).	
14	Callistemon species (Bottle Brush)	23 North Parade Rear Yard middle	Aus Native	Small	Senescent	5	6	0.18	1.61	2.16	28.3	4 - Poor	4 - Poor	Small tree in early stages of decline	4 - Low	0 to 5	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt height	Remove	Poor Condition		
15	Ligustrum lucidum (Broad leaf privet)	23 North Parade Rear Yard middle	Exotic	Small	Young	5	7	0.21	1.72	2.52	38.5	2 - Good	2 - Good	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Weed Species	Environmental Weed species (DPI 2020).	
16	Ligustrum lucidum (Broad leaf privet)	23 North Parade West Fence	Exotic	Small	Young	4	4	0.11	1.50	2	12.6	2 - Good	2 - Good	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
17	Ligustrum lucidum (Broad leaf privet)	23 North Parade West Fence	Exotic	Small	Young	6	6	0.22	1.75	2.64	28.3	2 - Good	2 - Good	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
18	Ligustrum lucidum (Broad leaf privet)	23 North Parade West Fence	Exotic	Small	Young	7	3	0.18	1.61	2.16	7.1	2 - Good	2 - Good	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
19	Ligustrum lucidum (Broad leaf privet)	23 North Parade West Fence	Exotic	Small	Young	7	2	0.125	1.50	2	3.1	2 - Good	3 - Fair	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
20	Ligustrum lucidum (Broad leaf privet)	23 North Parade West Fence	Exotic	Small	Young	7	2	0.125	1.50	2	3.1	2 - Good	3 - Fair	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
21	Ligustrum lucidum (Broad leaf privet)	23 North Parade West Fence	Exotic	Small	Young	7	2	0.125	1.50	2	3.1	2 - Good	3 - Fair	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
22	Ligustrum lucidum (Broad leaf privet) (count 4)	23 North Parade West Fence	Exotic	Small	Young	7	2	0.1	1.50	2	3.1	2 - Good	3 - Fair	Seeded in location	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA	Environmental Weed species (DPI 2020).	
23	Citrus species (orange tree)	23 North Parade Rear dwelling	Exotic	Small	Mature	5	4	0.17	1.57	2.04	12.6	3- Fair	2 - Good	small fruit tree	5 - Very Low	5 to 15	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt species	Remove	Direct Conflict with DA		
24	Laurus nobilis (Bay Tree)	23 North Parade Rear dwelling	Exotic	Medium	Mature		9	0.32	2.05	3.84	78.6	1 - Excellent	2 - Good	Sound ornamental tree - located in middle of proposed development	5 - Very Low	15 plus	5-10	Not Significant	3- Fair	Remove	Allow development	Remove	Direct Conflict with DA	Tree is relatively small at only 9m height - tree located in middle of development site - retention would be of great impost and replacement time frame can be offset with appropriate landscape plan.	
25	Prunus cerasifera 'Nigra' (Ornamental Plumb)	25 North Parade Council Verge	Exotic	Small	Over Mature		3	0.31	2.02	3.72	12.6	4 - Poor	4 - Poor	lopped for power line - aged tree stem system now in decline	5 - Very Low	0 to 5	0-5	Not Significant	4 - Poor	Retain if possible	Positive amenity values	Retain - Impacts unlikely	Positive amenity values	If tree poses notable issue with development then approach council to remove and replace - could be replaced in 5 years.	
26	Ulmus glabra 'Lutescens' (Golden Elm)	25 North Parade Front Yard	Exotic	Small	Over Mature		8	0.22	1.75	2.64	28.3	3- Fair	3 - Fair	tree with moderate to heavy fruit tree borer over most of stem system - tree in early decline - species not suited to local environmental conditions	4 - Low	0 to 5	5-10	Not Significant	4 - Poor	Remove	Poor Condition	Remove	Direct Conflict with DA		
27	Cupressocyparis leylandii 'Leighton Green'	25 North Parade East boundary	Exotic	Small	Over Mature	5	5	0.25	1.85	3	19.6	4 - Poor	3 - Fair	Lopped for service line to dwelling - species not suited to local environment	5 - Very Low	0 to 5	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt height	Remove	Direct Conflict with DA		
28	Cupressocyparis leylandii 'Leighton Green'	25 North Parade East boundary	Exotic	Small	Dead	5	1	0.12	1.50	2	0.8	5 - Very Poor	5 - Very Poor	dead stump	5 - Very Low	0	0-5	Not Significant	5 - Very Poor	Remove Priority	Exempt height	Remove	Direct Conflict with DA		

Tree No	Species	General Location	Species Origin	General Size	Age Class	Height M	Canopy Ø	DBH (m)	SRZ Radius in m	TPZ Radius in m	Canopy Area (M²)	Tree Vigour	General Condition	Defects/Hazards/Issues Present Commentary on tree	Enviro Rating (Values)	Expected Remaining Life	Replacement Time Frame	Significant Tree Status	Retention Value	Recommended Action for planning of development	Primary Reason for Recommendation	Development Proposal	Primary Reason	Other Comments	
29	Cupressocyparis leylandii 'Leighton Green'	25 North Parade East boundary	Exotic	Medium	Mature			0.25	1.85	3	28.3	2 - Good	2 - Good		5 - Very Low	0 to 5	5-10	Not Significant	4 - Poor	Remove	Species not suited to Environment	Remove	Direct Conflict with DA	Tree located in middle of development site- tree has poor longer term prospects and would be of great impost to attempt to retain.	
												602.6	Total estimated canopy coverage												
												540	Estimated canopy lost												
												1560	Development Site Squaremeters												
												35%	Existing canopy coverage - less council trees												

Annexure 1 - Assessment and Evaluation criteria - Definitions.										
Origin		General Tree Size		Age Class		General Condition - summation of all considerations. Includes Stem/Canopy Structure Defects, Form, Canopy Vigour, Extent of any decay, Pest and Disease influences	ERL estimated remaining life in years under current Situation	Tree Vigour	Retention value	
Endemic	Species is native to this location	Very Large	> 25m	New	Recent Planting - last year or two	1 - Excellent	0	1 - Excellent	Interpretation Based on overall tree condition, species performance in local environment, expected remaining life and significance of tree in landscape	
Aus Native	Species native to Australia but not this location	Large	18-25m	Young	Sapling, extended growth remaining	2 - Good	0 to 5	2 - Good		
		Medium	10-18m	Semi Mature	Some remaining growth to reach maturity for the site and species	3 - Fair	5 to 15	3- Fair		
Exotic	Species introduced to Australia	Small	< 10m	Mature	Considered mature size for site and species - typically no sign of decline	4 - Poor	15 plus	4 - Poor		
		Very Small	< 3m	Over Mature	Tree has commenced to decline - obvious signs	5 - Very Poor	40 plus	5 - Very Poor		
				Senescent	Extended signs of decline - recovery not expected					
				Dead	Little or no metabolic function remaining					

Environmental Rating	Environmental Evaluation Considerations/criteria
1 -Very High	Normally Old growth Remnant Tree, multiple hollows important to endangered fauna, replacement would be well in excess of 150 years Mature or semi mature Endemic Tree with or without hollows, plays an important part in local ecology, or Australian Native that has high substitute values as endemic tree replacement would take 50-100 years Young or semi mature Endemic tree or Australian native species that has some positive values for local fauna/ecosystems - replacement would take 20 or more years. Large Exotic tree with elevated general values. Normally exotic species, or small, young endemic or native that could be replaced in the short term 5-10 years Listed Weed or nuisance species; or very small value or insignificant to local ecology - could be replaced within 5 years or readily replaced with species of greater value
2 - High	
3 - Medium	
4 - Low	
5 - Very Low	

Significant Tree value considerations/criteria	
Very Significant	Defined as Significant Tree by regulatory or other authority or
	Environmental rating 1 or
	Heritage Listed or
	Very High Cultural or heritage Values
Significant	Environmental rating 2 or
	Medium or large tree in good/excellent condition, suited to local environment or
	imposing within the local landscape with long life expectancy and or
	strong amenity values or some cultural or heritage links

Recommended Action for DA	Primary Reasons
Retain Priority	Very Significant tree
Retain	Significant Tree
Retain if possible	Sound tree suited to site
Remove	Positive amenity values
Remove Priority	Poor Condition
	Unsuitable for location
	Species not suited to Environment
	Condition & Safety
	Replaced in short term
	Direct Conflict with DA
	No impact
	Exempt species
	Exempt height
	Weed Species
	Other

Picks		
Replacement times	1	Very significant
0-5	2	Significant
5-10	3	Not Significant
10-20	4	
20+	5	Yes
50+		No
100+		
Known Development Impact		
Remove		
Retain - Impacts to Manage		
Retain - Impacts unlikely		
Not determined		

Tree Height and canopy spread is estimated unless otherwise specified.

Tree stem diameter is measured at approximately 1.4m above - or at a point indicative of the tree dimension where abnormal growth occurs at 1.4m above ground. Multi stemmed trees are calculated as per AS 4970

TPZ – Tree Protection Zone - specified area above and below ground and at a given distance from the trunk set aside for the protection of the tree’s roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.

SRZ - Structural Root Zone – the area around the base of a tree required for the tree’s stability in the ground - calculated in meters radially from stem centre.

From *Australian Standard 4970-2009 Protection of Trees on development sites*

TPZ and SRZ are calculated from AS 4970

Tree canopy area is a calculated area from the diameter of the of the canopy - some actual variation may exist in the calculation if the canopy is not symmetrical.