

## TREEHOUSE30

### RESOURCE CONSENT APPLICATION AEE

13 March 2021

#### RESOURCE MANAGEMENT ACT 1991

The purpose for this application includes taking into consideration the purpose of the Resource Management Act for the Health and Safety of people and communities. The potential health and safety risk of the Tilia tomentosa and 30 Queens Drive, Allenton is causing great stress socially and economically on the Tree owner and the immediate neighbours.

##### 5 Purpose

- (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
- (2) In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—
  - (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
  - (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
  - (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

#### ASHBURTON DISTRICT COUNCIL - HERITAGE TREE CRITERIA - 34 POINTS

##### 12.9.2 Protected Trees - Ashburton District Plan

##### 1. 12.9.2 a) Any adverse effects of the proposed activity on the values of the listed tree.

There are many effects that this proposed activity will have on the values of the listed tree, however the Health & Safety benefits of removing the Tilia tomentosa outweigh the potential catastrophic negatives if the Tree would fail and fall on persons or property.

This report should be read in conjunction with the following Appendices

- a) Mr. Walter Fielding-Cotterell report dated 21 January 2014 (WFC 1)
- b) Treotech report - Mr. Martin Göhns dated 31 October 2014 (MG)
- c) Treotech report - Mr. Ed Sard dated 2nd July 2015 (ES)

- d) Mr. Walter Fielding-Cotterell report dated 21 August 2015 (WFC 2)
- e) Four Seasons Treecare - Mr Lyall Jemmett dated 14 May 2020 (LJ)
- f) Crombie Lockwood - Karen Weir email dated 14 December 2020
- g) ADC Heritage Tree Criteria/Evaluation System report

## 2. Heritage/historic factor - 0 points - No heritage/historic value

No effect

## 3. Scientific/ botanical - 2 points - Few good specimens of particular species in particular township or local community.

Minor effect

Given that the Species identified as part of the Heritage Tree Criteria/Evaluation system of the Tree being a *Tilia x europa* (Common Lime) this appears to be incorrect according to three qualified arborists who have identified the Species as *Tilia tomentosa* (Silver Lime/Linden). There is also the matter of the incorrect location and legal description of the property the Lime is situated on, which raises questions around the quality of the information gathered and used by the ADC to add the lime tree to the District plan as a Protected Tree.

*Tilia tomentosa* trees are generally large trees that are used for shade in summer and lose their leaves in winter to avoid winter shading. Therefore they are likely to be rare in a 780sqm suburban section in Ashburton because they are better suited to larger properties like the property the Tree was originally part of prior to the Queens Drive subdivision in the 1960s and City Parks.

There are two notable specimens in the Christchurch Botanical garden's of lime tree that have no notable effects to the public, which are listed as having one main central trunk and appear to lack any structural defects.

*The ADC were originally offered a cutting of the tree back in 2006 as the species would make a positive addition to the Ashburton Domain, where a structurally sound specimen could be grown in an ideal planting site. This offer was declined and a protection order was placed on the existing tree instead.*

## 4. Importance of position in landscape - 8 points - Fine avenue or street planting or tree/s growing in areas where large trees are scarce.

Minor Effect.

Queens Drive runs parallel with Walnut Avenue, which is abundant with large trees, which is also adjacent to the Ashburton Domain, also abundant with large trees.

In Queens Drive specifically, when entering Queens Drive from the Creek Road, the lime tree is a dominant figure in the landscape when looking head on, however to the right you can clearly see an abundance or larger trees to the right.



When entering Queens Drive from the East off State Highway 1, in the far distance you can see the tree, however there are more significant trees to the right and other large trees to the left that are visible.



*It appears that the correct evaluation for the Tree based on the Importance of position in landscape should be 4 Points - Roadside or park tree or tree/s in well frequented public place or private property.*

#### 5. Cultural, ethnical, social or spiritual values - 0 points

No effect

#### 6. Size - 4 points - 50 - 150sqm

Major effect.

Cannot mitigate this effect, however the Health & Safety benefits outweigh the effect.

#### 7. Age - 4 points - 50 - 100 years

Major effect.

Cannot mitigate this effect, however the Health & Safety benefits outweigh the effect.

#### 8. Form and condition - 8 points - Good form, healthy condition, making good growth or interesting character

Major effect.

See below 12.9.2.b-f) in relation to the condition and future life expectancy of the tree.

*It appears that the correct evaluation for the Tree based on form and condition should have been be 0 Points - Dying, Dead, diseased, **bad structural defects or dangerous and cannot be rectified.***

*Regardless of the healthy condition of the Tree at the time of the evaluation, three qualified arborists have identified two major defects in the lime tree that cannot be rectified and are dangerous to persons and property if the tree fails.*

*It was also noted by Mr Walter Fielding-Cotterell in his report dated 21 January 2014 that the same criteria/evaluation system is used by both the Christchurch City and Selwyn District Councils, however Ashburton District Council have removed the criteria that a Tree must be **structurally sound** and healthy for its species (copy below), which the lime tree is not.*

#### 9.4.2.2.1 Policy - Identification and assessment of significant trees for scheduling in the District Plan

- a. Identify trees, including groups of trees, and assess them for significance and/or exceptional values according to the following:
  - i. botanical value;
  - ii. historic heritage value;
  - iii. amenity value;
  - iv. landscape value;
  - v. cultural value; and
  - vi. ecological and/or environmental value.
- b. For a tree, or group of trees, to have potential to be listed in [Appendix 9.4.7.1](#) as a significant tree or group of trees, it:
  - i. must be significant in terms of one or more of the values under [Policy 9.4.2.2.1](#) (a)(i) - (vi); and
  - ii. must be structurally sound and healthy for its species.
- c. For a tree to have potential to be listed in [Appendix 9.4.7.1](#) as having exceptional values, it:
  - i. must be exceptional in terms of one or more of the values under [Policy 9.4.2.2.1](#) (a)(i) - (vi); and
  - ii. need not meet the overall level to be considered as a significant tree; and
  - iii. must be structurally sound and healthy for its species.
- d. Schedule trees, or groups of trees, that are significant, and trees with exceptional values, in [Appendix 9.4.7.1](#), except where:
  - i. the tree poses any unacceptable risk, including likely future risk, to health and safety, property, buildings, strategic infrastructure or electricity distribution lines, taking into account potential mitigation measures and their costs;
  - ii. scheduling the tree may unreasonably restrict the reinstatement of buildings and/or property required to remedy damage incurred as a result of the Canterbury earthquakes of 2010 and 2011; or
  - iii. the location and characteristics of the tree (e.g. density of foliage, actual and potential size) are such that it does or will:
    - A. compromise either the reasonable use and/or amenity values of a property and surrounds; or
    - B. unreasonably restrict development potential of the site.

### 9. Suitability in relation to setting or site conditions - 8 points - Good juxtaposition and harmony with important buildings, objects, structures and essential services or utilities.

Minor effect.

At the time of the evaluation, the Tree was part of a larger land area where two titles were considered one property being approximately 1500 sqm.

The Tree is situated on a section of approximately 780sqm and this may not have been used as the base for making a determination on the score of this factor. The lime Tree covers approximately 40% of the 780 sqm section.

### 10. Functional value - 0 points - No functional value

No effect

### 11. Summary of Criteria/Evaluation System

Below is a comparison of the points attributed to the lime Tree by the ADC to have the Tree added to the Protected Tree register in the District plan to a more accurate assessment. Not taking into consideration the current Form & condition of the Tree.

Ashburton District Council

### Heritage Tree Criteria / Evaluation System

Used to have Tree added to the District Plan

| Factor                                                                                  | ADC Points | Owner Points |
|-----------------------------------------------------------------------------------------|------------|--------------|
| Heritage/historic                                                                       | 0          | 0            |
| Scientific / botanical                                                                  | 2          | 2            |
| Importance of position in Landscape                                                     | 8          | 4            |
| Cultural, ethnical, social, or spiritual values or to commemorate a personal sacrifice. | 0          | 0            |
| Size                                                                                    | 4          | 4            |
| Age                                                                                     | 4          | 4            |
| Form and condition                                                                      | 8          | 2            |
| Suitability in relation to setting or site conditions                                   | 8          | 2            |
| Functional value                                                                        | 0          | 0            |
|                                                                                         | <b>34</b>  | <b>18</b>    |

#### 12.12.9.2 b) The condition and future life expectancy of the tree including any potential hazard to persons and property

Three qualified Arborists were engaged to assess the Health & Structural safety of the Tree and provide recommendations for risk management to meet the Owners duty of care that people and property are not exposed to unreasonable levels of risk.

The Tree was inspected on 11th January 2014 by Mr Walter Fielding-Cotterell (WFC) for the Ashburton District Council, 3rd April 2014 by Mr Martin (MG) on behalf of the owner and on the 15th June 2015 by Ed Sard (ES) on behalf of the owner. All three Arborists agree under the Structural condition of the Lime Tree that there are two major defects.

##### Major structural defect 1:

The Tree has instead of one main trunk, three stems that have grown much larger and at angles than what a normal single trunk would grow.

*'Instead of a single main trunk, it has grown three large trunks that arise from the base, close to ground level' (WFC)*

*'What is of most concern is the degree of lean of stem #1' towards the house (#28) (MG)*

*Multi-stemmed trees are potentially weaker than single stemmed trees (MG)*



## **Major structural defect 2:**

The Tree has included bark which is considered a major defect in a multi stem tree.

*'Where the trunks/stems have grown together at the base, they are separated by a condition known as "included bark". This condition is considered a major structural defect where the trunks meet and continue to grow, the living tissue becomes trapped between the individual stems. Because of this the stem at the point of contact is unable to form annual rings and form a proper fusing of the wood tissues. Instead, the stems continue to grow as individual stems, becoming larger in size and weight above the point where they touch compared with size and strength of the stem where they arise. As well the bark continuing to grow between the stems acts like a wedge, driving the stems apart. (WFC)*

*'In this case, the condition is exacerbated by the significant leans of the stems away from each other and the imbalance of branch growth/weight where they grown out towards the light. (WFC)*

Commenting on the existing cobra bracing at the time *'the inadequate attempt to mitigate the structural defect (included bark). (MG)*

*The multi stems are 'exacerbated in this instance by the presence of included bark preventing the incremental wood growth fusing together. Included bark is considered to be a significant structural defect in trees with the potential to give rise to stem failure due to the weak union created' (MG)*

## **Previous attempts to mitigate risks**

Cobra bracing was originally installed by the previous owner and subsequently upgraded because the system was inadequate and had failed for the size and strain on the stems of the Tree.

*'There appears to be some difference of opinion between Mr Gohns and Mr Fielding-Cotterell with regard to appropriate bracing techniques and it's use in private trees. (ES)*

In August 2018 the Ashburton District Council were asked why they hadn't installed the galvanised eyebolts and cables as recommended by their independent arborist Mr Walter Fielding-Cotterell in 2015. After another inspection by Ashburton District Council Arborists the galvanised eyebolts and cables were installed by the Ashburton District Council in December 2018.

Four Seasons Treecare report May 2020 appendix e) which forms an annual inspection process by the Ashburton District Council. The scope of the report was to assess the condition of which all inspections were taken at ground level and no samples have been taken. it was noted that the inspection didn't include an

inspection of the eyebolts and testing for disease, which was one of the concerns of installing this system by Mr Walter Fielding-Cotterell.

A key concern for the owner of the property is how much more bracing or upgrading of existing bracing is required to ensure the safety of the tree. This is not a situation where the bracing will suffice for many years it seems. there is always going to be maintenance and replacements or upgrades. This is seen as a significant effect and surely this is a band aid on a potential disaster.

*The Insurance letter annexed to this application is telling. They are non-experts but they only had to read the expert documents and to see photos of the Silver Lime tree to determine they would provide no liability cover. Why is that? because there is too higher risk!*

### **Summary**

Mr Walter Fielding-Cotterell carried out an independent evaluation of the tree using the Ashburton District Council Heritage Tree criteria/evaluation system and made the note: *'Under the score sheet factor form and condition I gave the lime a two (2) point score relating to the criteria "poor condition or form, no bad defects. Any hazardous and other conditions can be rectified"*

The important point here is that there is **no way to rectify** the major defects of the multi stems and included bark, there are recommended bracing techniques that **MIGHT** mitigate the chance of stem failure but no can guarantee it.

In the words of Mr Walter Field-Cotterell (from appendix d)

*'No matter what efforts ADC make to improve the safety of the lime the questions of the risks of tree failure, the protection of the public and property and accountability for injury in the event of failure will remain and continue to be used as leverage for the removal of the tree'*

### **13.12.9.2 c) The effect of any pruning, damage or disturbance to the crown or root system of the tree on its appearance and health.**

When contacting the ADC in regards to pruning, I was advised that the Tree had reached it's mature height and no longer required pruning, when asked for technical evidence of this recommended stance, none was provided.

Based on the Arborists reports, excessive pruning in the past to increase the height of the canopy and reduce the crown width has caused further problems with the Tree in relation to wind sway.



It appears that excessive pruning in the past may have been done to mitigate the stress on the trees defects, however this has made the branches more susceptible to wind sway.

#### **Arborist recommendation**

*'In my opinion the lime has already received excess pruning to raise it's canopy to its present height. The pruning has also lead to branches being concentrated mainly on the ends of limbs which cause them to sway excessively in winds. Any future pruning should therefore be aimed at progressively shortening the length of branches to achieve an overall reduction in crown size and a more compact crown. (WFC 2)*

#### **Possible result**

*'Full crown reduction is another option that would reduce the wind loads on the tree and make it safer in terms of stem failure and wind throw. However this silver lime is a mature tree and such an operation will reduce vigour and energy reserves also making it more susceptible to disease.*

*Unlike the common lime the silver lime does not have the ability to produce prodigious new shoot growth after pruning that can provide the basis for developing a more compact crown form.*

*Even if the crown work is carried out to industry standards, the current attractive natural appearance of the tree will be lost, diminishing the values for which the tree was originally protected. (WFC 2)*

#### **14.12.9.2 d) Whether the tree is currently causing, or likely to cause, significant damage to buildings, services or property, whether public or privately owned.**

If any of the stems fail there will be extensive damage caused to residential buildings on neighbouring properties. Three separate dwellings plus ancillary buildings and fences are within the 23m falling zone of the protected lime.

The most affected is the property at #32 Queens Drive, where the neighbour has hobby sheds, a greenhouse where he spends a majority of his time and his dwelling are very close to Stem #2

Currently during high wind speeds, there is frequent danger from falling branches that can be 10-20 metres long. To date none of them have been thrown over to the neighbours and the mature garden on the property catches a lot of these branches.

There is no statement to say there would be no potential effect on this landowner. From a health and safety perspective the tree should be removed. There is a real risk here that should tree failure occur and damage is caused to other property then with the expert reports being completed and comments within one of the said reports raising the issue of legal discussion then surely this is an indicator that Council need to factor.

**15.12.9.2 e) For removal of a tree: the condition of the tree, including whether it poses a danger to people or property, or whether its condition is such that it is unable to be maintained.**

The inspections of the Tree have shown that the Tree has major defects as stated above.

These defects cannot be rectified. There is debate amongst the qualified Arborists and no guarantee that they can be 100% mitigated in order to protect persons and property.

The only 100% guarantee that the Tree will not damage persons or property is to have it removed.

**16.12.9.2.f) Whether the applicant has the ability to undertake a complying development without the work detrimentally affecting the tree, and whether the tree or trees seriously restrict the development of the site for its zoned purpose.**

To build a residential home, the owner is unlikely to be able to secure any funding or mortgage to do so, without the possibility of being able to protect their investment with insurance. Liability insurance has been declined due to the risk being too high because of the lime tree.

Regardless of whether the ADC would consider a building permit to allow a residential dwelling to be built on any part of the section, without insurance, the section cannot be used for its zoned purpose.

*Copy of decline to offer cover for insurance due to the size, proximity to neighbours and cables holding the tree together attached Appendix f).*

In addition: As per Section 4: Residential Zones from the Ashburton District plan, 4.1 Introduction. Housing is one of the most fundamental needs of the District's population. People's wellbeing is amongst other things a reflection of their quality of housing and general living environment.

*The current and previous landowner have both been put under a great deal of stress over the potential disaster that the lime tree could cause. Being powerless makes it right and having to live everyday waiting for the hammer to fall and blow up a person's life, is simply not fair and not in the spirit of Section 4. No District Council should be allowed to put any of their ratepayers in this situation.*