

27<sup>th</sup> August 2018

MICM Property  
Att: Kristen Riddell  
178 City Road  
Southbank 3006

Dear Kristen,

**Re: Willsmere Estate, 1 Wiltshire Drive, Kew.**

As requested, I have undertaken an inspection of four mature trees located within the subject site 1 Wiltshire Drive, Kew, with a view to determine the health, structure and condition, and provide recommendations as to the future management of the same. Please find herewith my findings and recommendations.

The initial inspection and observations were undertaken on the 4<sup>th</sup> August 2018, from the ground level only, no aerial or below ground inspections were performed in the undertaking of this assessment. All details were accurate and correct at this time.

Several of the trees are of great historical importance and form part of the Boroondara Significant Tree Register and are also listed on the National Trust.

The trees in question have the following details:

**Tree 1**

Botanical Name:	<i>Cedrus deodara</i>
Common Name:	Deodar Cedar
DBH:	1115mm
TPZ:	13.4m
Height:	18 m
Health:	Good
Structure:	Good
Condition:	Good
ULE:	20+ Years

Details: This mature exotic specimen is located within the central garden area of the subject site, growing in a compacted lawn area within the North-Eastern internal garden of Willsmere Estate. (Refer to Figure 1) The foot path and lawn area below the tree represent a high target presence, with pedestrian traffic frequenting the area also.



Figure 1. Overall structure of Tree 1.

The tree presents as a significant specimen and adds much value to the property and surrounding landscape, it represents a tree of good health, with good structure and condition, with a DBH of 1115mm and an approximate height of 18m.

The tree represents as an attractive tree with a well-balanced canopy, there are no visible faults or structural issues which can be observed through a ground-based inspection, however there does exist minor deadwood to approximately 30mm diameter which is typical for a tree of this species and age, however does not constitute significant health or safety issues.

Several steel cables have been previously installed in the upper canopy, to brace and support the weight of these large limbs, allowing them to share the load of the canopy instead of supporting the entire weight alone.

Several previous limb failures were observed within the North-Eastern canopy, with evidence of this in the upper canopy.

It is recommended that the tree undergo a thorough aerial inspection, at which time remedial pruning works can be undertaken which would remove all deadwood greater than 25mm, weight reduction of the extended lateral limbs growing over the footpath and lawn area and inspect the cables that are installed in the upper canopy.

It is also recommended that the tree and the steel cables installed within the canopy of this tree, be inspected and assessed annually for structural integrity and any signs of degradation.

All works must only be undertaken by a qualified arborist using correct arboricultural techniques. Permits will be required to perform such works from Boroondara Council, as the tree is considered significant under Boroondara local law. Permission may also be required from the National Trust.

## **Tree 2**

Botanical Name:	<i>Pinus radiata</i>
Common Name:	Monterey Pine
DBH:	1398mm
TPZ:	15.0m
Height:	20 m
Health:	Fair
Structure:	Fair
Condition:	Fair
ULE:	5-20 Years

Details: This mature exotic specimen is located within the South-Eastern garden area of the subject site. The footpath and lawn area directly below the tree represent a high target presence, with pedestrian traffic frequenting the area. (Refer to Figure 2)



Figure 2. Overall Structure of Tree 2.

The tree presents as a significant specimen and adds much value to the property and surrounding landscape. The tree is true to type and represents fair health, with fair structure and condition, with the a DBH of 1398mm and an approximate height of 20m.

The tree has developed with co-dominant stems and presents with several unfavorable attachments with included bark and heavy lateral limbs throughout the canopy. There have been approximately 10 steel cables previously installed in the upper canopy, to brace and support the weight of these large limbs, allowing them to share the load of the canopy instead of supporting the entire weight alone.

The dominant stem appears to be in decline, with evidence of dieback and excessive deadwood throughout the upper canopy. Previous minor failures were observed throughout the upper canopy and deadwood to approximately 50mm diameter, which is typical for a tree of this species and age.

It is recommended that the tree undergo a thorough aerial inspection, at which time remedial pruning works can be undertaken which would remove all deadwood greater than 25mm, and weight reduction of the extended lateral limbs growing over the footpath and grassed area.

It is also recommended the main stem in the upper canopy, that appears in decline, be removed. That the steel cables installed within the canopy of this tree should also be inspected and assessed annually for structural integrity and any signs of degradation.

This tree must be monitored regularly and inspected by a qualified arborist on an annual basis.

All works must only be undertaken by a qualified arborist using correct arboricultural techniques.

### **Tree 3**

Botanical Name:	<i>Cedrus deodara</i>
Common Name:	Himalayan Cedar
DBH:	1178 mm
TPZ:	14.0m
Height:	18m
Health:	Good
Structure:	Fair
Condition:	Fair
ULE:	5-20 Years

Details: This mature exotic specimen is located within the central garden area of the subject site, growing in a small compacted lawn area within the internal garden of Willsmere Estate. (Refer to Figure 3) The foot path and lawn area below the tree represent a high target presence, with pedestrian traffic frequenting the area also.



Figure 3. Overall structure of Tree 3.

The tree presents as a significant specimen and adds much value to the property and surrounding landscape, it represents a tree of good health, with fair structure and condition, with a DBH of 1178mm and an approximate height of 18m.

The tree presents with a co-dominant, extended lateral limb growing to the East. Previous minor failures were observed throughout the upper canopy and deadwood to approximately 50mm diameter, which is typical for a tree of this species and age.

It is recommended that the tree undergo a thorough aerial inspection, at which time remedial pruning works can be undertaken which would remove all deadwood greater than 25mm, weight reduction of the extended lateral limb growing to the East over the footpath and lawn area and inspect the cables that are installed in the upper canopy.

It is also recommended that the tree and the steel cables installed within the canopy of this tree, be inspected and assessed annually for structural integrity and any signs of degradation.

All works must only be undertaken by a qualified arborist using correct arboricultural techniques. Permits will be required to perform such works from Boroondara Council, as the tree is considered significant under Boroondara local law. Permission may also be required from the National Trust.

#### **Tree 4**

Botanical Name:	<i>Schinus molle</i>
Common Name:	Peppercorn
DBH:	2550mm
TPZ:	15.0m
Height:	10 m
Health:	Fair
Structure:	Poor
Condition:	Poor
ULE:	5-20 Years

Details: This mature exotic specimen is located within a small lawn area adjacent to the historical bluestone dungeons. (Refer to Figure 4) The footpaths directly below the tree represent a high target presence, with pedestrian foot traffic frequenting the area.

The tree presents as a significant specimen and adds much value to the property and surrounding landscape. The tree represents fair health, with poor structure and condition, with the a DBH of 2550mm and an approximate height of 10m.



Figure 4. Overall Structure of Tree 4.

The canopy consists of three major scaffold limbs, growing to the South-West, to the West overhanging the pathway, and to the North towards the nearby units, with a dominant leader located centrally within the canopy.

There are currently three cables within the tree canopy, one of which is attached to the South-Western limb, the other two are attached to the Western stem overhanging the footpath. All cables are attached to the main upright stem within the middle of the canopy as the main support. There is substantial tension within the cables, suggesting a reliance on them for structural stability and support.

The limb growing to the South-West represents a relatively lateral branch, with a heavily weighted end. The attachment of this branch to the main stem is structurally flawed with an active split present, which extends entirely to ground level. (Refer to Figure 4)



*Figure 5. Active split and associated decay.*

Upon inspection of this attachment, it was discovered that the cable is supporting the majority of the branch weight, with moving and twisting of the branch able to be achieved through manual manipulation.

The split which is present can be viewed from both sides of the trunk, confirming that the split is active, with the potential for total failure at this point. Extensive decay is also present within this area, further weakening the branch attachment and increasing the likelihood of failure. This branch is being supported by the previously installed cable which is putting excessive pressure on the attachment within the upper main trunk.

In order to reduce the risks associated with this branch, severe weight reduction works, and cable repositioning must be undertaken. These works will include the reduction of the branch back to the next major upright section, approximately 1m away from the main stem, with the cable also being moved beyond this point.

The branch growing to the West, overhangs the nearby footpath which provides access for pedestrians to the rear car park area.

This major limb is attached to the main stem, adjacent to the active split and associated decay present within this union. This has resulted in a poor attachment to the main trunk, with cabling works having been undertaken in an attempt to reduce the risk of total limb failure. This branch also represents an over extended and heavy ended lateral branch.

Upon investigation the cable attached to the limb was discovered to be under substantial tension, suggesting a reliance on this for structural stability and support. A wound from a

recent failure was observed in the upper canopy of this limb as well as decay from previous branch failures.

In order to reduce the risks associated with this branch attachment, severe weight reduction works, and cable repositioning must be undertaken.

The other major scaffold limb growing to the North, overhanging the nearby footpath and extending towards adjacent residences, is considered to be in the best condition, both structurally, and from a tree health perspective. It is attached to relatively sound wood within the main trunk, however is still considered to require weight reduction works to reduce the effects of leverage on the main attachment.

In conclusion, this tree is considered to be of great significance, particularly in relation to its age and history, and should be managed with retention in mind for as long as the risk can be managed effectively.

There are numerous structural faults present, as discussed throughout this report, which will need to be considered in regard to the management, safety and useful life expectancy of this tree.

The extensive decay within the main trunk, the presence of an active split, the overall poor structure of the tree and the target presence, all need to be considered in regard to the future management.

The primary consideration regarding the retention of this tree is to reduce the risk to an acceptable level. As there are numerous structural faults present which cant be rectified using arboricultural techniques, such as the split and associated decay, measures need to be undertaken in order to reduce risk, not totally remove it.

Thorough weight reduction works and the use of appropriately positioned cables can reduce this risk, with constant monitoring by garden staff and regular inspections made by a qualified arborist to determine any further changes to structural integrity.

Upon undertaking recommended pruning works, particularly regarding the South-Western and Western limbs, there will be a better indication as to the amount of weight removed and the resultant reduction of stress on the existing attachments.

The retention of this tree does require the acceptance of a level of risk, as does the retention of any mature tree within an area accessible to members of the public or tenants. Therefore, the condition of the tree will need to be monitored and regularly assessed to determine if the level of risk is acceptable.

If at any stage there are structural changes, which may result in an increased hazard to residents of the site, an appropriately qualified and experienced arborist should be contacted in order to make recommendations as required.

All works must only be undertaken by a qualified arborist using correct arboricultural techniques. Permits will be required to perform such works from Boroondara Council, as the tree is considered significant under Boroondara local law. Permission may also be required from the National Trust.

Should you wish to discuss these findings or recommendations further, please feel free to contact me via email to [joel@mcleodtrees.com.au](mailto:joel@mcleodtrees.com.au), or phone on 0427 163 618

Yours Sincerely

**Joel Hinck**  
Dip Hort/Arb