



Tree Condition Assessment for Lady Smyth's Almshouses, Long Ashton

Inspected and prepared by

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Prepared for

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Site address

Lady Smyth's Almshouses
13-27 Long Ashton Road
Long Ashton
Bristol
BS41 9HW

Report reference

Almshouses_Cedar_TCA_112023

Project

Tree condition assessment

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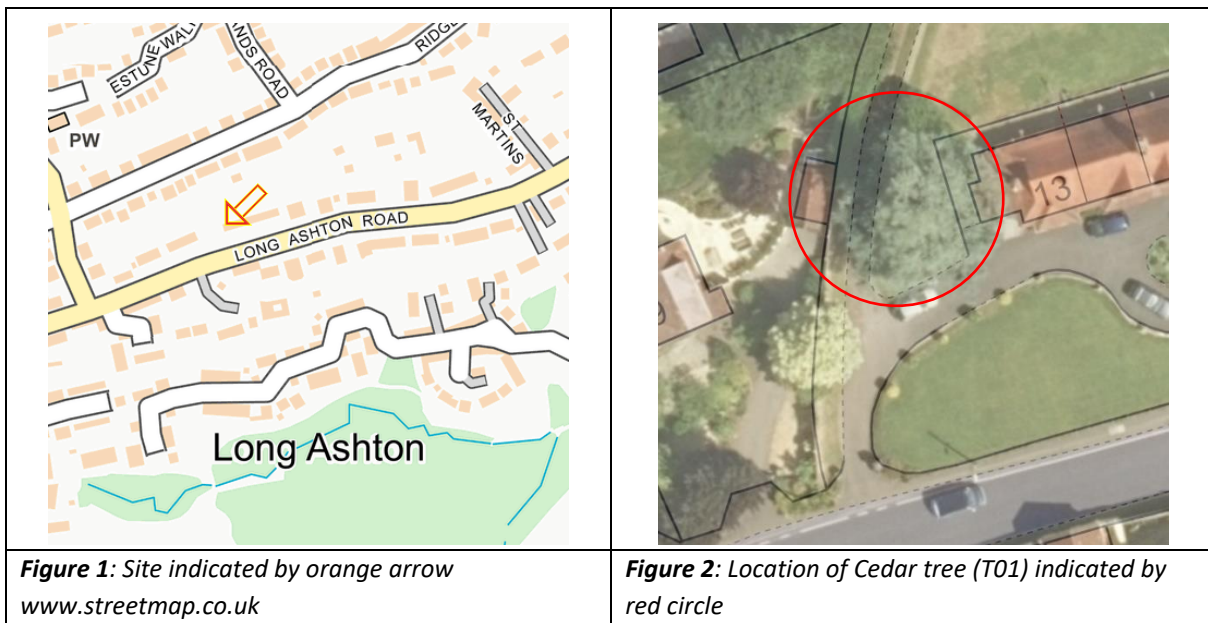
Appendices

- A Tree Survey Schedule and Tree Location Plan

1.0 Instructions

1.1 I am Stuart Roberts, a chartered arboricultural consultant, and I have been instructed by Sarah Leong to make a site visit to Lady Smyth's Almshouses in Long Ashton (figure 1), assess a mature Cedar (figure 2) and comment on the following:

- The health and condition of the tree.
- An assessment of the risk presented by identified structural or health issues.
- Management recommendations appropriate to mitigate an identified risk or in the interest of good arboricultural management.
- Statutory designations relevant to carrying out works on the tree.



2.0 Introduction

2.1 The Cedar (T01) is a Blue Atlas Cedar (*Cedrus atlantica* 'Glauca') located on a raised bank to the west of number 13 Lady Smyth's Almshouses in Long Ashton (figure 3), to the north of a tarmac access drive and to the west of a gravel access road leading to a property to the north.

2.2 I initially assessed T01 in October 2020, following an incident where the tree was deliberately wounded with a chainsaw and produced a report that included pruning recommendations to mitigate the likely impact of the wounding. Recently a large branch failed causing significant damage to an adjacent building and to electrical infrastructure, consequently Long Ashton Parochial Charity wish to have T01 reassessed.

3.0 Statutory constraints

- 3.1 A review of on-line resources (<http://map.n-somerset.gov.uk/dande.html>) reveals that T01 lies within the limits of the Long Ashton Westleaze & Wyke and Yanley Conservation Area and that it is the subject of Tree Preservation Order (TPO 976). Currently permission is required from North Somerset Council to carry out works on the tree.
- 3.2 The Wildlife and Countryside Act 1981 (as amended), Countryside and Rights of Way Act 2000, and The Conservation of Habitats and Species Regulations 2017, afford statutory protection for listed species of flora and fauna including birds and bats which are likely to use trees for nests and roosts. It is essential that any tree works to T01 do not disturb a nesting bird, bat or bat roost. If there is potential for nesting birds or roosting bats to be using T01 at the time works are scheduled a qualified ecologist should be consulted.

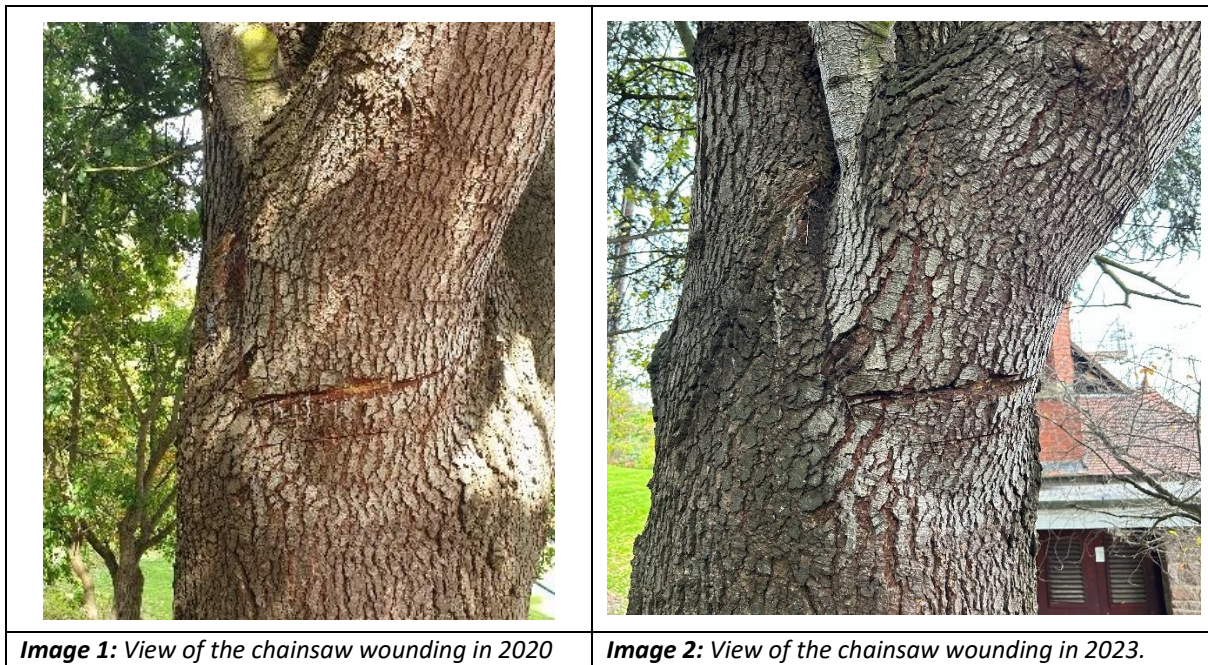
4.0 Report limitations

- 4.1 This tree condition survey is a preliminary assessment from ground level and observations have been made solely from visual inspection with the use of non-invasive hand tools. No decay detection equipment has been used in assessing tree condition.
- 4.2 The assessment findings, conclusions and work recommendations contained within this report relate to the condition of T01 at the time of inspection. T01 will need to be re-assessed if there are any significant changes to the site that may affect the trees such as building works, changes in ground level, excavations within the crown spread of the tree or extreme weather events.
- 4.3 T01 has been assessed considering health and condition, no assessment has been made regarding the potential for T01 to cause subsidence or below ground damage to structures on or adjacent to the site.

5.0 Findings

- 5.1 I conducted the site visit on the 23rd November 2023, I visually assessed the tree from ground level using the Visual Tree Assessment (VTA) method (Matthcek and Breloer, 1994), I did not tag the tree.
- 5.2 T01 is a mature Blue Atlas Cedar (*Cedrus atlantica* 'Glauca') with a height of 17 metres, a crown spread of 15.5 metres north to south and 15.5 metres east to west, with a stem diameter of 870mm as measured at 1.5 metres from adjacent ground level.
- 5.3 T01 is growing on a grass area raised from the level of the Almshouses by 1.2 metres and retained by a stone wall to the east that is likely to have prevented root growth beyond. There is a gravel access road within the crown spread to the west causing localised ground compaction.

- 5.4 There is a large south facing limb at 2 metres that was deliberately and significantly wounded in 2020 with a chainsaw at the branch collar (images 1 and 2). Following my 2020 assessment I considered it likely that the large south facing limb would slowly die back from the ends and potentially die altogether, this has not happened and the foliage on the south facing limb appears relatively unaffected with normal size needles, no dieback and dead wood that is relatively normal for the species.



- 5.5 A large scaffold branch had recently failed from the east side of the crown causing significant damage to the adjacent building and bringing down power lines and a utility pole. The fallen branch had been stacked at the base of the tree so I was able to inspect the failure wound and I found there was no decay evident at the point of failure (image 3). A resident informed me that the branch failed the day after a 'very windy day' and a further resident showed me photographs taken of the failed branch on the 29th September suggesting that the failure occurred at between 3.00am and 4.00am on the 29th.
- 5.6 Storm Agnes impacted the UK on the 27th and 28th September, although winds in the south-west were not particularly strong, with wind speeds recorded at the Bristol Airport Station¹ of 22mph with gusts of up to 37mph (moderate gale). It is likely that these winds resulted in damage to the limb on the 28th that resulted in the subsequent failure on the 29th.

¹ <https://www.wunderground.com/history/daily/gb/bristol/EGGD/date/2023-9-27>



Image 3: The recently failed east facing limb with no visible decay at the point of failure.

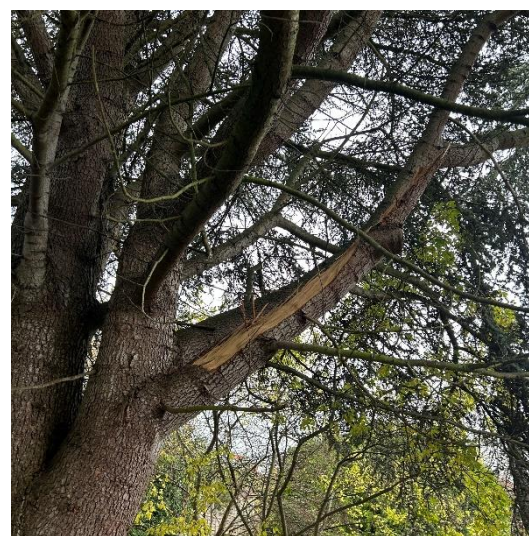


Image 4: The remaining stub of the failed east facing limb with no visible decay at the point of failure.

5.7 In my 2020 assessment the limb that recently failed along with three further limbs were identified as protruding from the crown form, with heavy end weight and in a position exposed to wind stress. A recommendation was included for the reduction of the length and end weight of these branches in combination with the removal of the wounded branch, the recommendations were not implemented. Following the recent failure of the large west facing limb, there are now three remaining branches that are extended from the crown form (images 5 and 6) and are exposed to a significant increase in wind stress with potential for failure during future high wind events.



Image 5: View of T01 from the south with exposed branches extended from the crown form to the east (right of picture).



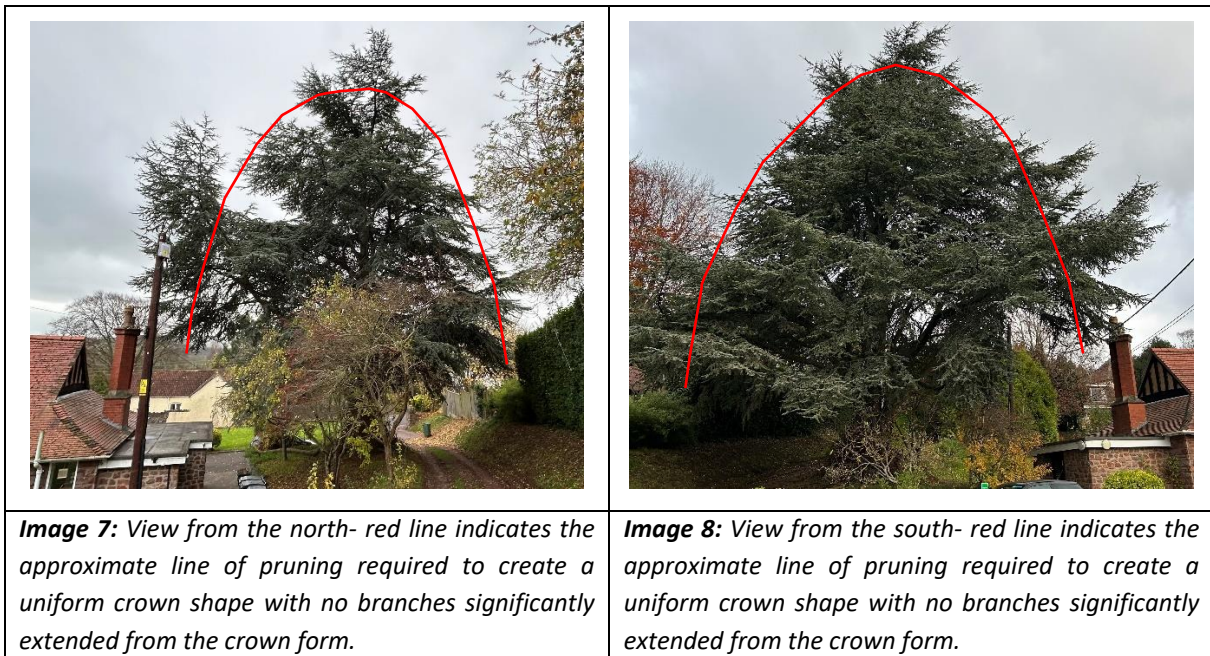
Image 6: View of T01 from the north with exposed branches extended from the crown form to the east (left of picture).

- 5.8 There are several branches around the remainder of the crown (images 7 and 8) that are also extended from the general crown form and subject to wind stress which could potentially cause failure, which would result in small diameter branches failing into the access roads to the south and west.



6.0 Discussion

- 6.1 The chainsaw wounding inflicted on T01 in 2020 has had remarkably little impact on the branch and has not resulted in the anticipated level of dieback and dead wood. Considering the current condition of the branch I do not consider any mitigation works are now necessary in response to the wounding.
- 6.2 The recent large limb failure to the east has exposed the remaining east facing branches to a significant change in wind stress dynamics and it is likely that if left unpruned there will be further branch failures to the east which have the potential to cause significant issues as the branches overhang the building and power lines that have recently been repaired.
- 6.3 The exposed branches around the remainder of the crown have potential for failure but with less consequence than the branches to the east that overhang the building and electrical infrastructure. A minor reduction of extended branches to create a uniform crown shape will help to evenly dissipate wind stress and help prevent further branch failures as a result of high winds. Images 09 and 10 below are an approximate indication of where pruning will be necessary to produce a uniform crown shape. This is an indication only and the exact location of pruning cuts will have to be determined by a skilled climbing arborist.



7.0 Recommendations


- 7.1 Reduce 3 x extended and exposed lateral limbs to the east by 3-4 metres to create a uniform crown shape as feasible.
- 7.2 Reduce all limbs extended from the crown form around the remainder of the crown by 1-2 metres to create a uniform crown shape as feasible.
- 7.3 Reduce height by 2 metres.
- 7.4 Tree works must be carried out by reputable, skilled and insured tree work contractors working in accordance with the guidance contained within BS3998: 2010 Recommendations for Tree Work. A list of contractors approved by the Arboricultural Association can be found at the following link: <https://www.trees.org.uk/ARB-Approved-Contractor-Directory>

8.0 References

- Diagnosis of ill health in trees. *R G Strouts and T G Winter*
- Principles of Tree Hazard Assessment and Management. *Dr David Lonsdale*
- The Body Language of Trees: A handbook for failure analysis. *Mattheck, C. and Breloer, H. (1995).*

Appendix A: Tree Survey Schedule and tree location plan



Tree Survey Schedule and Tree Location Plan					 ASSURED TREES
Location: Lady Smyth's Almshouses, 13-27 Long Ashton Road, Long Ashton, Bristol, BS41 9HW					
Surveyor: Stuart Roberts					
Date of Survey: 23 rd November 2023					

Tree Number	Tree Name (species)	Height (m)	Stem Diameter (mm)	Number of Stems	North (m)	South (m)	East (m)	West (m)	Age Class	Condition Notes	Recommendations
01	Blue Atlas Cedar	17	870	1	6.5	9	8.5	7	M	<p>Growing on raised area with limited rooting to the east due to retaining wall and ground level differential, gravel access track within crown spread to west and tarmac drive to south.</p> <p>Multi stem from 2m from narrow unions, Large south facing limb at 2 metres to the south-west has historic chainsaw wounds at junction with trunk inflicted in 2020. Foliage remains largely unaffected with major dead wood in the lower crown (due to shading) and minor dead wood throughout, no tip dieback as would be expected due to wounding, recent wound from small limb failure to the south.</p> <p>Failure of significant branch in 2020 from the large south facing limb at 4 metres with tear damage on stem.</p> <p>large limb to the south-east subdivides 1m out from the trunk, the lowest branch at the point of subdivision has failed causing damage to the adjacent building and electrical lines and utility pole. No decay at the point of failure. Remaining lateral branches on the south-west limb are now extended from the crown form and exposed to a significant increase in wind stress.</p> <p>low foliage over access road to west, limbs to the west are less extended from the general crown form.</p>	<p>Reduce 3 x extended and exposed lateral limbs to the east by 3-4 metres to create a uniform crown shape as feasible.</p> <p>Reduce all limbs around the remainder of the crown that extend from the crown form, by 1-2 metres to create a uniform crown shape as feasible.</p> <p>Reduce height by 2 metres.</p>

Tree location plan

