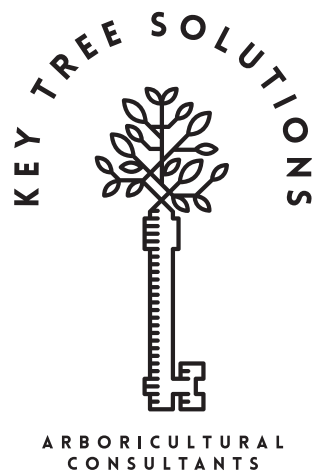




Arboricultural Report

Grenfell, Chapel Lane

Site Address:	Grenfell, Chapel Lane, Penistone, S36 6AQ	Client:	Jack Ridgwick
Report Ref:	GCL01-20	Report Date:	19th September 2020
Author:	Laurence Smith BSc (Hons) Arb, M Arbor A	Signed:	<i>Laurence Smith</i>

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1 Caveats and Limitations

1.1

All trees have been inspected from ground level using non-invasive techniques unless otherwise stated. In some instances a drone may have been used to capture images from the site or observe overall canopy health, however this does not constitute as an aerial inspection.

1.2

Climate conditions including storm, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees potentially pose a hazard, however they should be managed based on their level of risk. Whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety.

1.3

Comments on tree conditions and their associated risk relate to the date and time the survey was undertaken. Tree health and condition is subject to development which can be due to the biological nature of the tree or other mechanical or physical changes in close proximity. As such, trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE and Central Government guidance.

1.4

No reports regarding underground utilities or past construction works have been made available, and therefore it should be noted that it is possible that such documentation may affect the recommendations of the report.

1.5

As an arboricultural report, the author is not qualified to comment on damage to buildings or underground utilities that may or may not have been caused by roots. Any observations made regarding the condition of such structures are from a lay person's view.

1.6

In instances where trees are protected by Tree Preservation Orders (TPO) or other protective acts such as conservation areas, no tree works should be undertaken without first obtaining permission from the relevant organisation.

1.7

All works should be undertaken in accordance with the appropriate Duty of Care and carried out to the standards set out in the British standards document BS 3998:2010 '*Tree work - recommendations*'. This should include, for example, site specific risk assessments and due diligence inspections for the presence of protected species which includes all nesting birds and bats.

2. Introduction

2.1 Intention of the Report

Jack Ridgwick, working on behalf of the Grenfell property, requested that Key Tree Solutions conduct an independent arboricultural survey of the trees located along the property frontage running in parallel with Chapel Lane

This report will make recommendations for tree works within the region set out by the client in order to manage the risk to acceptable levels, with the view of maintaining a high quality of tree cover.

Trees with recommended works have been plotted onto a Site Plan and where applicable, have been referenced with a suitable image.

2.2 Scope of the Report

This report has been compiled in line with the primary recommendations given in BS 5837:2012 to give an impartial assessment of the trees and vegetation currently present on site. This excludes information relevant for site development such as Root Protection Areas (RPA) and tree classification.

All trees within the region set out by the client have been surveyed, however comment has only been given to those with recommendations or to those which are of arboricultural significance. Trees that are within this area but have not been included within the report are considered to be in good health at the time they were surveyed.

2.3 Survey Details

The arboricultural survey (Appendix 2) was undertaken on the 11th September 2020 which collected information on the tree stock and existing vegetation.

The survey took place during the summer season when the trees were in leaf-on conditions with low wind.

This allowed for a more comprehensive assessment of a tree's vigour. The volume of leaves on some large trees however, may have limited the ability to fully observe deadwood and structure.

All trees were visually inspected from ground level. In some instances, further investigations such as a climbing inspection or the use of decay detection tools may be necessary to provide additional information. These have been recommended if deemed appropriate.

Tree data was collected using an electronic distometer and specialist measuring tape in all reasonable situations. In some circumstances, such as where there was a lack of access, measurements have been estimated and clearly indicated with an asterisk (*).

3. Site Description

3.1 Land Use

The site is residential in nature with the property set back from Chapel Lane and accessed via a private driveway which runs alongside the formal garden situated at the front of the property.

3.2 Topography

The ground level rises slightly in height from south east to north west.

3.3 Soil

Information gathered from the Cranfield Soil and Agrifood Institute states that soils in the area are considered to be “Slowly permeable seasonally wet acid loamy and clayey soils” with a loamy and clayey texture.

3.4 Local Tree Cover

Tree cover on site is considered to be high with the trees along the property frontage having a high visual impact on the local amenity. Tree population in the region has benefitted from a number of the surrounding properties having large gardens, which have allowed a number of mature species to develop. In addition to this, directly to the south of the property is a large wooded area (Coal Pit Dike), which appears to be home to a large number of specimens.

3.5 Age Class Mix and Diversity

The trees on site display a wide range of ages from the semi mature to the mature. Species diversity has been focused around native broad-leafed species and ornamental varieties.

4. Tree Status

Information obtained from the Barnsley Metropolitan Borough Council map visited on the 19th September appears to show that the trees on site are covered by a blanket TPO. As such, any works recommended should not be undertaken without first obtaining permission from local planning authority.

5. Tree Descriptions and Recommendations

Trees have been described and allocated an ID alongside any relevant recommendations within the schedule found in Appendix 2. This can be cross referenced with images (Appendix 3) where applicable, and the site plan (Appendix 4).

An explanation for the schedule including any shorthand or acronyms can be found in Appendix 1.

6. Conclusions

Trees within the survey region are generally in good condition and play a considerable role in the local aesthetic (Figure 1). When combined with the trees on the opposing side of the road, they form part of a fragmented avenue.

The species are predominantly Lime trees (*Tilia x europea*) with the occasional Sycamore (*Acer pseudoplatanus*) mixed in. To the very east of the row, a single Ash (*Fraxinus excelsior*) and Horse Chestnut (*Aesculus hippocastanum*) are also present.

These stems are located on top of a stone retaining wall behind a privet hedge. Due to their location, root expansion appears to be exerting pressure on the wall, which can be visually observed in regions where the mortar is missing or cracked (Figure 2).

Despite the lack of rooting volume towards the road, it is generally considered that roots will expand in other directions to make up for this lack of soil. In addition, roots are stronger in tension than compression and have likely fused or tangled together. With these factors in mind, the risk of root plate failure towards the road is considered negligible.

While most of the Lime (*Tilia*) stems are in good condition, T7 is displaying reduced canopy health in comparison with the other trees of the same species. No fruiting fungal bodies were observed during the survey and the reason for the lack of vigour is currently unknown.

The tree in the worst condition is the Ash (*Fraxinus*) tree (T11) which is suffering from Ash Dieback (*Hymenoscyphus fraxineus*). This infection has reduced leaf material by approximately 30% (Figure 3). Another effect of this fungus is that stems and branches become brittle and have an increased likelihood of failure or fracture.

7. Recommendations

No significant works have been recommended for the Lime (*Tilia*) population, however minor improvements can be made with the removal of bark included unions on T1 (Figure 4) and maintaining the canopy height at 5m over the road in line with the Highways Act 1980.

Although not currently considered to be in such a condition as to justify works, the health of T7 should be monitored regularly for further signs of decline.

Unfortunately, due to the poor condition and severity of Ash Dieback, as well as the threat of transmission to nearby specimens, it has been recommended that T11 should be removed and replaced with a different species.

Signed

A handwritten signature in black ink that reads "Laurence Smith". The script is cursive and fluid, with the first letters of each name being capitalized and prominent.

Laurence Smith BSc (Hons) Arboriculture, M Arbor A

References

British Geological Survey (Online) <https://www.bgs.ac.uk>

British standards document BS 5837:2012 *'Trees in relation to design, demolition and construction – Recommendations'*

British standards document BS 3998:2010 *'Tree work - recommendations'*

Barnsley Metropolitan Borough Council (Online) <https://www.barnsley.gov.uk>

Highways Act 1980 (Online) <https://www.legislation.gov.uk>

Management of the risk from falling trees or branches - Health & Safety Executive (HSC) Document

Appendix 1: Survey Reference Information

Tree ID

Each tree/group has been given a unique number, which coincides with the plans given in Appendix 4. Where specifically instructed, small durable numbered metal tags have been applied to each tree/group surveyed. (T) Tree, (G) Group, (H) Hedge, (W) Woodland.

Age

The tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.

Common Name & Botanical Name

Where identifiable, the common name and full botanical name has been given. Where a cultivar, variety or species cannot be correctly identified, the genus name has been given only.

Height (m)

An indication of the tree's height measured in metres.

Diameter

The diameter of the tree when measured at 1.5 metres from ground level.

Crown Spread

The distance the live crown extends in each of the four cardinal directions.

Observations

Narrative comment on the general condition, significant defects and overall appearance (e.g. the presence of decay).

Recommendations

Any works recommended in order to minimise risk, improve form or maintain a high value.

Priority

Any recommendations made have been given a priority rating stated as Low, Medium or High.

Low priority has no timescale and is predominantly for remedial pruning works to improve form or defects over low use regions.

Medium priority - Should be acted upon within 12 months and is considered to pose a modest risk.

High priority - Should be acted upon immediately and poses a significant risk due to failure potential or a defect located over a high traffic area.

*

Indicates where tree data may have been estimated due to the tree being offsite / restricted access or dense vegetation hindering full inspection.

Appendix 2: Schedule

Tree ID	Age Class Species	Height (m) Diameter (mm)	N W E S	Observations and Comments	Recommendations	Work Priority
T1	Mature Lime <i>Tilia x europaea</i>	16 500	6 6 3 5	Stem located on top of a retaining wall approximately 1.5m above road level. No direct access around the base of stem due to vegetation. Retaining wall has multiple cracks most likely caused by root pressure. Tree has been historically pollarded at approximately 4m. Some cambial damage and tight union development around pollard point. Cambial damage is assumed to be as a result of squirrels. Minor broken branch on west side. Canopy height 4.5m.	Where two stems have bark included union, remove one stem and inspect old pollard point for decay.	Low
T2	Mature Lime <i>Tilia x europaea</i>	17 480	6 4 3 6	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. Minor stem lean to the north east not considered significant at this point. Minor pruning wounds which are occluding well. Canopy height 4.5m	None	N/A
T3	Mature Sycamore <i>Acer pseudoplatanus</i>	16 470	5 3 3 6.5	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. Minor rubbing branches with T2. Generally good physiology and structure.	None	N/A
T4	Mature Lime <i>Tilia x europaea</i>	18 470	5 3 3 6.5	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. Stem has a minor lean to the north east which is not considered significant. Unions are well formed with only very minor deadwood over the road.	None	N/A
T5	Mature Lime <i>Tilia x europaea</i>	18 500	6 3 3 6	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. Tall upright stem with good union development. Minor pruning wounds are occluding in a satisfactory manner.	None	N/A
T6	Mature Lime <i>Tilia x europaea</i>	17 460	5 3 2.5 6	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. bifurcation of main stem at 3m with the union considered to be adequately formed. Generally good physiology and structure.	None	N/A

Location: Grenfell, Chapel Lane, Penistone

Tree ID	Age Class Species	Height (m) Diameter (mm)	N W S	Observations and Comments	Recommendations	Work Priority
T7	Mature Lime <i>Tilia x europaea</i>	18 480	4.5 2.5 5	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. Canopy appears to have a reduced vigour in comparison with the neighbouring trees. No fruiting bodies observed at or around the stem base.	Monitor for further canopy decline.	Ongoing
T8	Mature Lime <i>Tilia x europaea</i>	16 390	4 2.5 5.5	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. Ivy starting to develop around stem base. Canopy at 4.5m. Good physiology and structure.	Remove Ivy.	Low
T9	Mature Lime <i>Tilia x europaea</i>	18 410	4 2.5 3	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. Tall upright stem with minimal lateral branching.	None	N/A
T10	Mature Sycamore <i>Acer pseudoplatanus</i>	18 420	6 6 7.5	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Historically pollarded at 4m. 5 stems have developed at the pollard point. Stems appear to be well attached with no significant defects. One limb is developing laterally over the road.	Consider removal of lateral stem to reduce the potential for failure.	Low
T11	Mature Ash <i>Fraxinus excelsior</i>	18 610	5 5 7	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Specimen not part of the original pollarding conducted on the aforementioned trees. Tree has good form but is suffering from Ash Dieback (<i>Hymenoscyphus fraxineus</i>) which has caused the loss of approximately 30% of the leaf matter.	Tree is likely to continue to decline and early removal should be undertaken.	Average
T12	Mature Sycamore <i>Acer pseudoplatanus</i>	16 590	5.5 3 5.5 7	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Specimen not part of the original pollarding conducted on the aforementioned trees. Good form and structure with no observed significant defects.	None	N/A
T13	Mature Horse Chestnut <i>Aesculus hippocastanum</i>	15 660, 550	6 4 6 7.5	Stem located on top of a retaining wall approximately 1.5m above road level with roots exerting pressure onto wall. Specimen not part of the original pollarding conducted on the aforementioned trees. Tree is in remarkably good condition for the species at this point it the year, with only minimal damage from the Horse chestnut leaf minor.	None	N/A

Appendix 3: Images



Figure 1.



Figure 2.

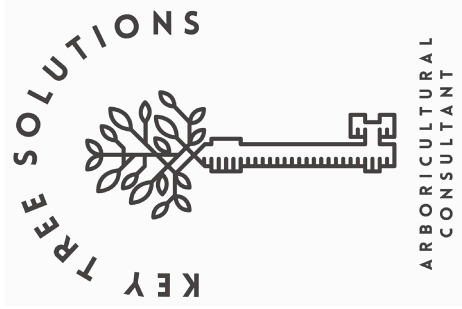
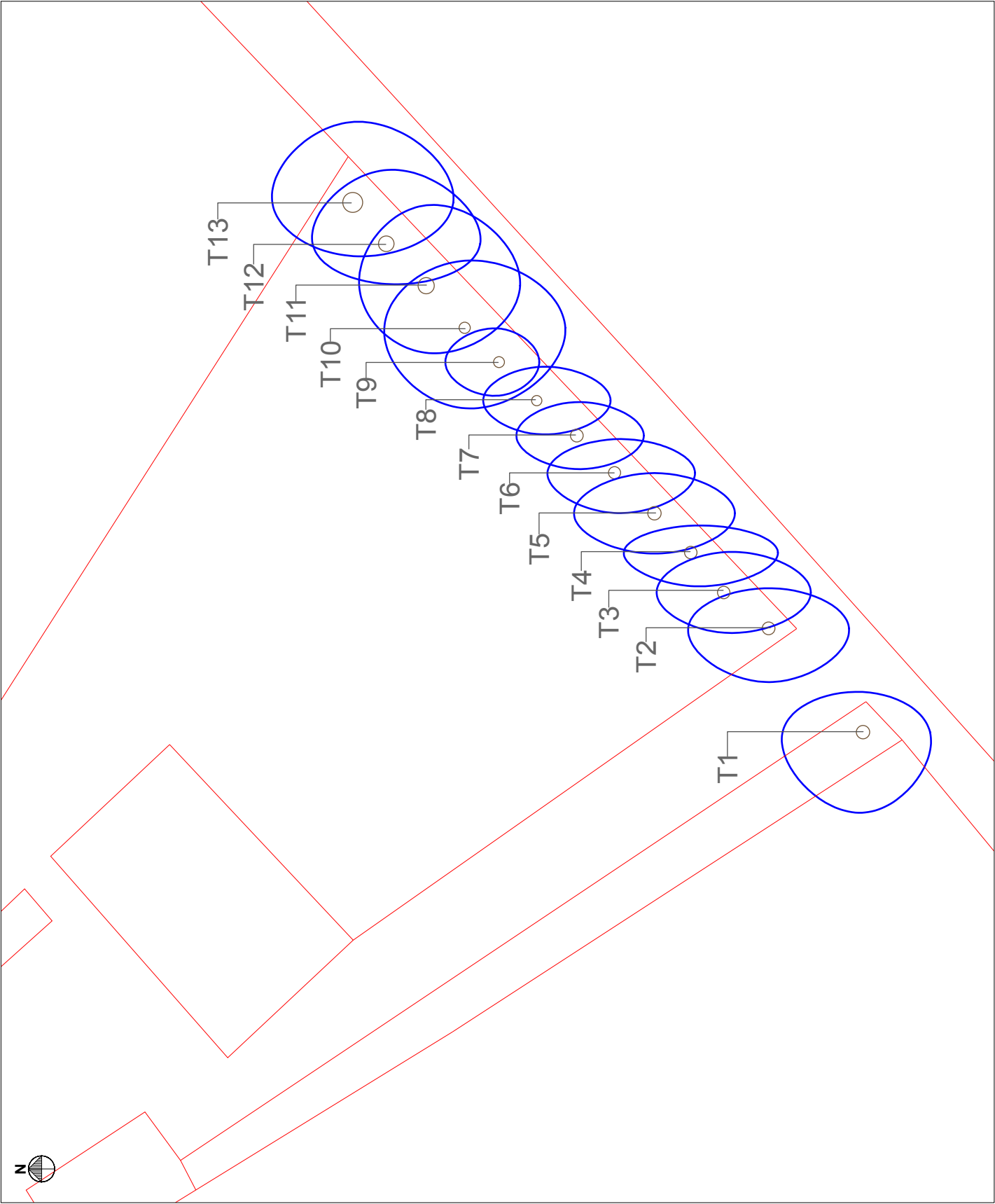


Figure 3.



Figure 4.

Appendix 4: Site Plan



KEY
To be read in conjunction with Key Tree Solutions arboricultural survey, report ref. GCL01-20)

Tree surveyed by Key Tree Solutions - tree location approximated by surveyor

Canopy extent

Site Location: Grenfell, Chapel Lane, Penistone, S36 6AQ			
Document Type: Arboricultural Report			
Plan Title: Site Plan			
Drawn By: L. Smith	Date / Version: 20/09/2020(1)	Scale at A3: N/A	Drawing: 1/1