

BS5837:2012 REPORT
1ST REPORT EDITION

Surveyor: Mr. Joseph Waite
Date: 20/05/2025

Client: Mr. Nazir Hussain

189 Spen Lane
Gomersal
Cleckheaton
BD19 4PJ

Site:

55 Bradford Road
Cleckheaton
BD19 3LB



WAITES
Tree
Surveys



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I. INTRODUCTION

- 1.1. Mr. Hussain, requested an independent arboricultural survey of the trees and vegetation located both within and around a proposed development at 55 Bradford Road, Cleckheaton. This report provides arboricultural information and advice in relation to the current health and safety of the trees inspected, and potential constraints that may impact the planning of a proposed development.
- 1.2. A tree condition survey was undertaken on the 04/04/2024, which collected information on the trees and existing vegetation in line with the recommendations set out in British standards document BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Data is presented in the **Tree Schedule**, posited in a table format.
- 1.3. In this case, the trees or hedgerows are located outside the property boundary but have the potential to impact on any development. Where this is the case, they have been included in the survey.
- 1.4. This report provides arboricultural information and advice in relation to the current health and safety of the trees inspected, and potential constraints, and impact should the proposed development occur. It also includes recommendations for any tree works within the site in line with the duty of care alongside construction factors; these will be located in the '**Recommendations**' column of the Tree Schedule.
- 1.5. Maps are included in the Appendices for identification and illustrative purposes.
- 1.6. A **Tree Constraints Plan** is included which shows the **proposed development** in relation to trees surveyed, how these are impacted. How the development would continue to impose on current or future tree stock after protections are enacted will be discussed in the **Arboricultural Impact Assessment**, alongside any further recommendations.

2. SCOPE OF REPORT

- 2.1. This report includes recommendations for any tree works within the site in line with the duty of care; these will be located in the 'Recommendations' column of the Schedule (4.3).
- 2.2. The Trees and Vegetation have been categorised as, A, B, C and U and 1, 2 and 3. An explanation of category is mentioned directly beneath the schedule.
- 2.3. The recommendation elude to any trees or vegetation to be removed prior to development and those to be retained along with any recommended works. Also provided are details of all measures recommended for planning of adequate tree protection including any special construction measures to be utilised in order to minimise potential damage to retained trees. This is intended to be used for guidance throughout the construction process.
- 2.4. Some trees or hedgerows located outside the property boundary could have the potential to impact on any development. Where this is the case, they have been included in the survey.
-

3. SITE INFORMATION

3.1. Figure 1 below shows the current site location within the landscape. The site is currently a building with limited outside space. The Bradford Road facing aspect (E) has a boundary directly onto public footpath, and the area to the W is an open concreted and gravelled area used as access and car parking.

3.2. To the North of the site is an area of trees in land belonging to 57 Bradford Road, currently used as a dental practice with pedestrian access.

3.3. The site is in a built up area with neighbouring properties situated to the N, S and E of the main building, with varying spacing between neighbouring buildings and the site boundary.

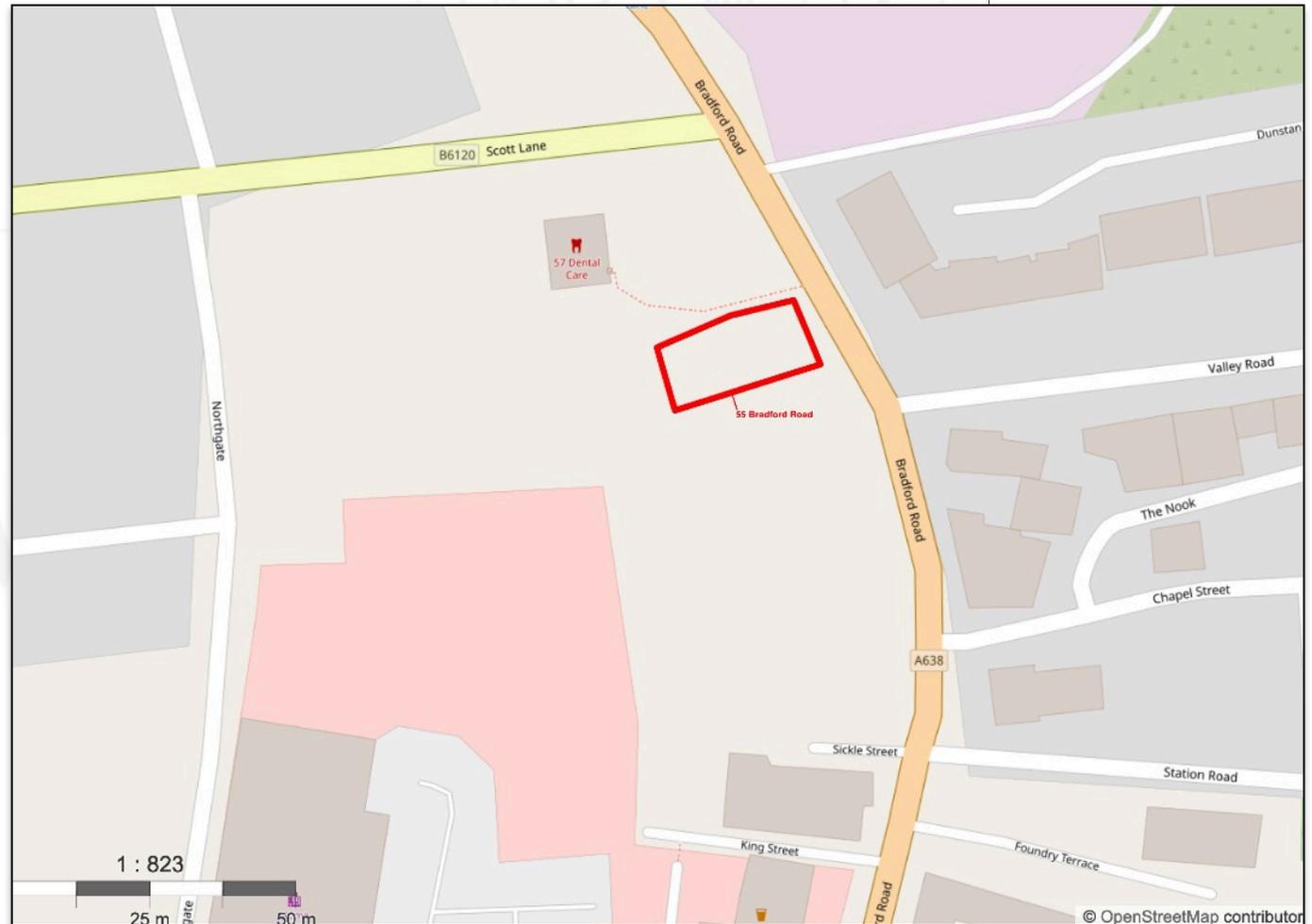


Figure 1 - Current Site

3.4. The soil information according to Cranfield University Soilsapes maps shows that it is likely “Slowly permeable seasonally wet acid loamy and clayey soils”. This means impeded drainage and low fertility.

- 3.5. A Tree Preservation Order TPO SP2/70/G25 covers some of the trees in the area of 57 Bradford that likely includes two trees surveyed (T002, and possibly T001)
- 3.6. This was checked directly with Kirklees Council on 09/05/2025 and again on 20/05/2025. There is no direct information available to ascertain whether T001 is within the group TPO and further investigation would be required.
- 3.7. A map showing the TPO is under Appendix 1

4. TREE INSPECTION DETAILS

4.1. The survey was performed whilst the site was clear, with good access to all areas. Conditions at time of survey were cloudy with light winds

4.2. TREE SCHEDULE

Ref.	Species	Full Structure	Measurements	Spread	Survey Notes	Retention Category	RPA	Comments	Physio' Condition	Structural Condition	Public Amenity Value	Bat Habitat	Recommendations
H001	Mixed species x7 (Mixed species)	Hedge 7 trees	Height (m): 2 7 stems Life Stage: Semi Mature Rem. Contrib.: 10+ Years	N:1 E:1 S:1 W:1	Low lying shrubs forming hedge style planting. Providing light screenage between buildings, minimal to road. Maintained to smaller size. Skimmia and laurel. 1m between T1 and T3	C2	Area: 84 sq m.		Fair	Fair	Moderate	None	
T001	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 14 Stem Diam(mm): 410 Crown Clearance (m): 3 Lowest Branch (m): 1(N) Life Stage: Early Mature Rem. Contrib.: 10+ Years	N:1 E:5 S:3 W:1	Heavily ivy clad, lowest branch epicormic growth. Heavily crown lifted on S (development side) with poor guy points leaving pruning stubs. Epicormic response up main stem. Minimal internal canopy due to ivy. Canopy favours E. Very close to boundary wall 180mm and corner of existing building (2.1m). Proximity to building leading to negative amenity.	C1	Radius: 4.9m. Area: 75 sq m.	This tree will not have to be removed to facilitate a proposed future development.	Fair	Fair	Moderate	Low	Remove tree.
T002	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 16 Stem Diam(mm): 810 Crown Clearance (m): 3 Lowest Branch (m): 4(S) Life Stage: Mature Rem. Contrib.: 30+ Years	N:4 E:9.5 S:8 W:7.5	Ivy clad main stem. Dual stemmed at 2m. Canopy favours E. Crown lifted over road. Broad form as part o line of trees.	A2	Radius: 9.7m. Area: 296 sq m.		Good	Good	Good	Low	

Ref.	Species	Full Structure	Measurements	Spread	Survey Notes	Retention Category	RPA	Comments	Physio' Condition	Structural Condition	Public Amenity Value	Bat Habitat	Recommendations
T003	Sycamore (Acer pseudoplatanus)	Tree	Height (m): 16 Stem Diam(mm): 620 Crown Clearance (m): 4 Lowest Branch (m): 3(S) Life Stage: Mature Rem. Contrib.: 30+ Years	N:5 E:8 S:9 W:0	Water shot growth at base. Moderate lean E. Historically crown lifted. Slightly non standard form. Lowest limb limb growing SSE towards building, with some contact with corner of building. Growing next to wall. Large hung up branch in canopy over ground to rear of 55.	B1	Radius: 7.4m. Area: 172 sq m.	Distance 1 lower building corner Distance 2 upper main building corner Distance 3 T2 13.2	Good	Fair	Moderate	Low	Reduce S Branches by 2m to ensure crossword from building.
T004	Common ash (Fraxinus excelsior)	Tree	Height (m): 21 Stem Diam(mm): 930 Crown Clearance (m): 7 Lowest Branch (m): 7(S) Life Stage: Mature Rem. Contrib.: 20+ Years	N:7 E:7 S:13 W:8	Ivy clad main stem. Slight lean S. Genius crown lifted historically leaning no lower canopy. Epicormic in internal crown. Good general bud development, slightly sparse upper crown. Minimal N canopy due o historic competition from neighbouring tree now removed. Pests and Diseases: Ash Dieback Infection Level 1: 0% to 25%	B1	Radius: 11.2m. Area: 394 sq m.	Distance 3 T2 - 16.3	Good	Good	Good	Low	

5. TREE CATEGORISATION

5.1. Trees have been surveyed and categorised using the methodology set out in BS 5837:2012 in order to identify them within a prioritised system of retention.

- A Category - Trees of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years.
- B Category - Trees of moderate quality and value in such a condition as to make a significant contribution for a minimum 20 years.
- C Category - Trees of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 meters above ground level.
- U Category - Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry

5.2. The following are the criteria to which it can be said the trees provide their amenity

- 1 - Mainly arboricultural qualities
 - 2 - Mainly landscape qualities
 - 3 - Mainly cultural values including conservation.
-

6. TREE CONSTRAINTS PLAN

6.1. Appendix 4 shows the trees locations, as well as their calculated Root Protection Area (RPA). Under BS5837:2012 guidance notes, this RPA line can be adjusted whilst keeping in mind relevant arboricultural factors, and may be adjusted after consultation with the architects upon reappraisal of design, and submitted to the local planning authority.

6.2. Note: No shade or root development estimate is given in the above drawing. This is due to the fact that all species surveyed are mature and at this stage is deemed unnecessary from proposal perspective, but may become valuable depending on the scale of the development.

6.3. Potential height: the chart in Figure 2 to the right shows the estimated potential height for each of the trees surveyed based on the data.

7. ARBORICULTURAL IMPACT ASSESSMENT

7.1.Introduction

7.1.1.The following paragraphs present a summary of the tree survey and discussion of particular trees and groups recorded in the context of any proposed development in the form of an Arboricultural Impact Assessment in accordance with section 5.4 of BS5837.

7.1.2.The AIA has been based on the Tree Constraints Plan and outlines the relationship between the proposed development and the existing trees and hedgerows.

7.1.3. As part of the proposals, existing structures will be part-demolished and there will some structural earthworks to create the development site and the landscaped zones including surfacing and hard landscaping. An overlay of the proposed development layout has been incorporated in the Tree Constraints Plan to assist in identifying the relationship and between the proposals and the existing trees and hedgerows and any impacts, which have been separated and discussed under the various sub headed sections.

7.2.Impact on Tree Stock

7.2.1.To facilitate the development the following trees and hedges have been scheduled for removal (direct impact): T001 - Sycamore

7.2.2.This removal is of a low quality tree that will have light to minimal impact on the arboricultural value of the site. The tree is neighbouring property and may be under Tree Protection Order, although the poor condition due to pruning and current close proximity to buildings at present minimises it's amenity. In line with Section 5.1.1 of BS5837:2012 that recognises that the competing needs of development, trees are only one factor requiring consideration. Retention of this low category younger specimen with poor form would be regarded as 'misplaced tree retention'.

7.3.Below Ground Constraints

7.3.1.The below ground constraints are generally summarised as the Root Protection Areas (RPA). BS5837:2012 defines the root protection area as 'the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability' and is an area within which the requirements of the tree 'must be given priority'.

7.3.2. The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees (DBHx12). For trees with more than one stem, other calculation methods were used, dependent on the number of stems and in accordance with Annex C and Annex D of BS5837:2012.

7.3.3. If a Tree Protection Plan and Method Statement are adhered to, the RPA's assigned to the retained trees will be areas in which no ground works would be undertaken without due care in relation to the retained trees. This will limit or avoid level change, soil compaction or contamination, all of which could alter the trees condition and/or stability.

7.3.4. Some works proposed would be within the RPAs of retained tree T003 and T004 although allowable under BS5837:2012 guidance which states that incursion "should not exceed 20% of any existing unsurfaced ground within the RPA". This work would still need to be limited to as low as practicable.

7.3.5. Tree Protection Fencing will likely not be required due to the boundary wall providing restricted access to the area which would require protections.

7.3.6. The RPAs of T003 and T004 would be impacted by the construction access and materials storage area to the W of the proposed development. This is currently already tarmac and likely subject to compaction that would not be unduly increased with smaller scale construction machinery. An Arboricultural Method Statement could be explicit about what size machinery is allowed. Should this area be adjusted in a landscape plan, a RPA friendly method and specification would be required.

7.4. Above Ground Constraints

7.4.1. The above-ground considerations primarily relate to the influence of retained tree canopies on the Site, including their dimensions, form, shading effects, and potential nuisance issues. Factors taken into account include: proximity to existing or proposed structures, the amount of open space beneath the crown, seasonal nuisance such as leaf and fruit drop, and levels of shade cast.

7.4.2. Given these points, it is concluded that the Above-Ground Constraints do not pose a substantial Arboricultural Impact that merits detailed analysis. This is largely due to the limited number of nearby trees that are either fully mature or capable of reaching a size and form that would have a notable influence on the proposed development.

7.4.3. Throughout demolition and construction phases, it is considered improbable that contractors will require greater working space than what is already shown in the Tree Constraints Plan.

7.4.4. No room has been allocated for external scaffolding. Any construction that would require external scaffolding within the RPA would need to be specified and approved by the Local Planning Authority. To safeguard adjacent trees from adverse effects, appropriate ground protection will be necessary. This will follow guidance set out in BS5837:2012 Clause 6.2.3.3 Note a, and could include a suspended timber walkway beneath the scaffold, or a build-up of 100mm of woodchip on a geotextile membrane topped with timber boards. These solutions are aimed at mitigating soil compaction risks and could be added to the Method Statement upon request.

7.5. Tree Planting and Green Infrastructure Compensation and Mitigation

7.5.1. The limited size of the site, provides few opportunities for additional planting. Nevertheless, given the minimal anticipated loss of trees and canopy cover due to the proposed development, compensatory and mitigation planting can still be undertaken to avoid any notable Arboricultural Impact. This planting should aim to:

7.5.1.1. Preserve or enhance the total canopy cover on-site.

7.5.1.2. Broaden species variety to improve the long-term resilience of the local tree population.

7.5.1.3. Adhere to the recommendations set out in BS8545:2014 concerning the establishment and aftercare of young trees. This will involve routine irrigation, formative pruning, and general maintenance practices. In addition annual formal inspection can be conducted to evaluate the condition and growth of young trees, with informal assessments then being carried out on an ongoing basis throughout the year to identify any emerging maintenance needs

7.5.1.4.A replacement tree to T001 should be planted to mitigate potential biodiversity loss and potentially under legislation governing trees under tree protection orders. A suitable replacement would be a smaller garden variety planted at a safe distance from the current property subject to permissions from landowners. A suggestion would be Prunus domestic, or Sorbus aucuparia

8. LIMITATIONS AND CAVEATS

- 8.1. Climate and other factors can cause damage and failure in apparently healthy trees. All trees potentially pose a hazard, however they should be managed based on their level of risk and no guarantee can be given as to their safety.
- 8.2. The assessment was made using the Visual Tree Assessment method. There are always factors that are beyond the observation and control of the writer; however this report is finalised with all the information required to reasonably make analysis and formulate professional opinion.
- 8.3. Comments on tree conditions and their associated risks relate only to the date, time and conditions under which the survey was performed. Trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE advice, especially when the site or local conditions undergo change.
- 8.4. No reports regarding underground utilities or past construction works have been used in the analysis of the tree stock and site conditions, and therefore it should be noted that it is possible that such documentation may affect the recommendations of the report. In addition the author is not qualified to comment on damage to buildings or underground utilities that may or may not have been caused by roots.
- 8.5. Trees protected by Tree Protection Orders (TPO) or another protection status such as being located within a conservation area, require attaining permissions or providing notifications of works to the local authority, something which Waite's Tree Surveys can perform upon request

8.6. All works to trees 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'

8.7. Works should be carried out with regards to legislation affecting protected species which includes bats and all nesting birds.

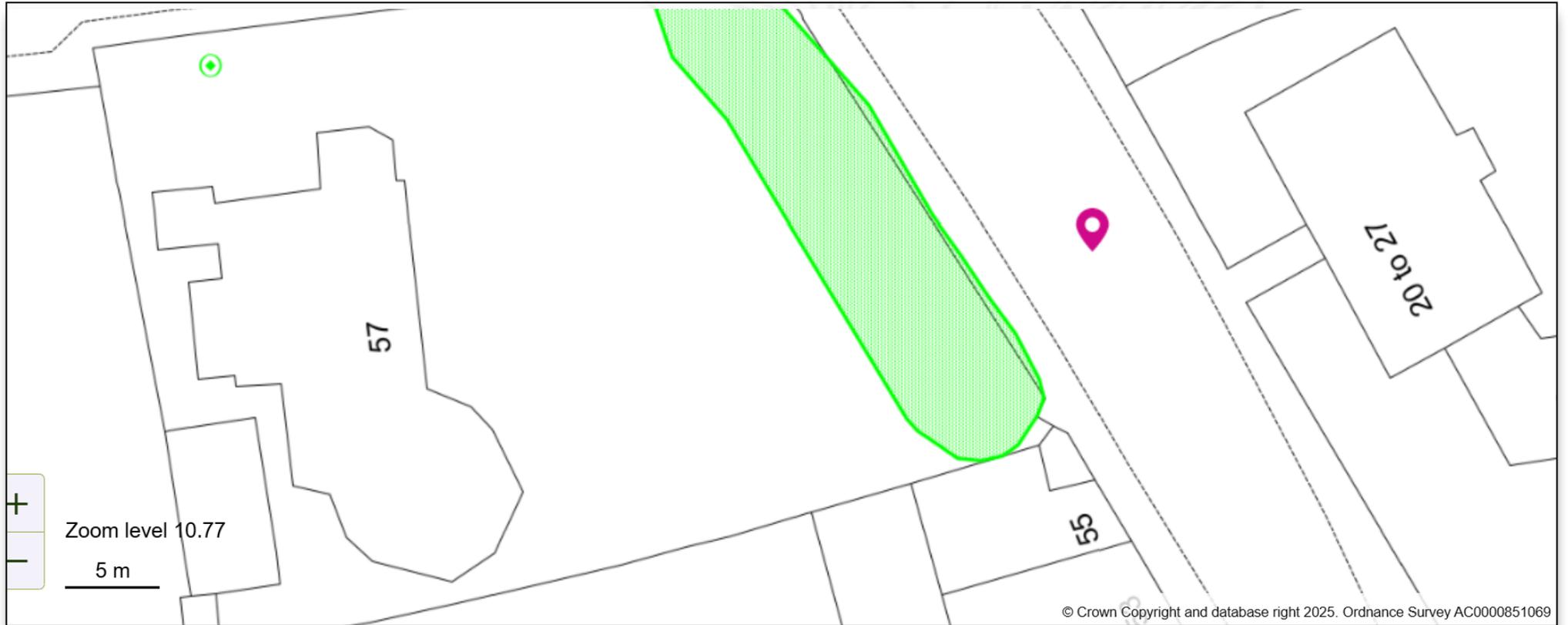
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WAITES

Prepared by:	Mr. Joseph Waite
Date:	20/05/2025



APPENDIX I - TPO MAP



APPENDIX 2 - IMAGES

Image	Description
	<p>T001: Sycamore (Acer pseudoplatanus)</p> <p>Showing location in proximity to building and poor form due to pruning works</p>
	<p>T001: Sycamore (Acer pseudoplatanus)</p> <p>Showing branch formation, and canopy remaining</p>

Image	Description
	<p>T002: Sycamore (Acer pseudoplatanus)</p> <p>Showing proximity to road, and form</p>
	<p>T003: Sycamore (Acer pseudoplatanus)</p> <p>Showing proximity to building with development proposal (55)</p>

Image	Description
	<p>T003 (L) and T004: Sycamore and Ash</p> <p>Showing form of both trees and proximity to building, also stone wall creating barrier.</p>

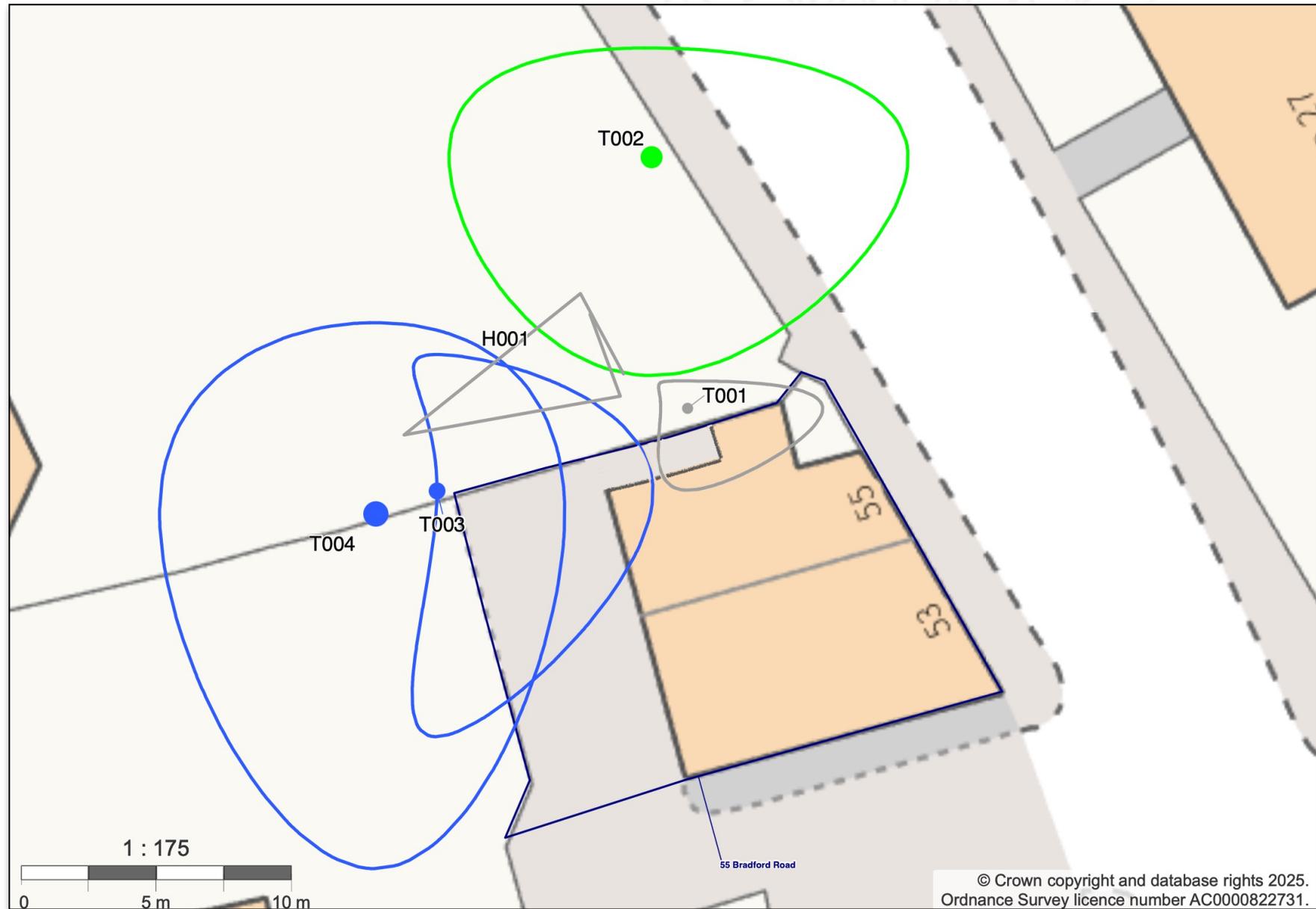
Image	Description
	<p>T004: Common ash (Fraxinus excelsior)</p> <p>Showing location in proximity to boundary (inaccessible)</p>

APPENDIX 3 - GLOSSARY OF TERMS

This glossary should help provide some clarity on commonly used terms in Construction related Arboricultural reports.

- **Arboriculture** – The study and management of trees, shrubs, and other perennial woody plants, particularly in urban and landscape settings.
- **Root Protection Area (RPA)** – The minimum area around a tree that must be protected during construction to prevent damage to roots and ensure the tree's long-term health.
- **Tree Protection Plan (TPP)** – A document outlining measures to safeguard trees during development, including fencing, root protection, and restricted zones.
- **British Standard BS 5837:2012** – The UK standard providing guidelines for trees in relation to design, demolition, and construction, ensuring their protection during development.
- **Tree Constraints Plan (TCP)** – A map identifying trees on a site and their potential impact on proposed construction projects.
- **Arboricultural Impact Assessment (AIA)** – An evaluation of how development will affect existing trees and recommendations for mitigating damage.
- **Crown Lifting** – The selective removal of lower branches to increase clearance beneath the tree, often for pedestrian or vehicular access.
- **Pollarding** – A pruning technique where the upper branches of a tree are removed to promote a dense head of foliage and control growth.
- **Coppicing** – A tree management technique involving cutting a tree down to near ground level to encourage new shoots from the base.
- **Protective Fencing** – Temporary barriers erected around trees during construction to prevent damage from machinery, soil compaction, and human activity.
- **Ground Protection Measures** – Techniques to prevent soil compaction and root damage, often involving specialised materials like geo-textiles and cellular confinement systems.
- **No-Dig Construction** – A method of installing surfaces or structures near trees without disturbing roots, typically using load-spreading materials.
- **Cellular Confinement System (CCS)** – A ground reinforcement system made of interconnected plastic cells filled with aggregate to distribute weight and protect roots.
- **Exclusion Zone** – A designated area around a tree where construction activities, storage, and machinery use are prohibited to protect tree roots and structure.
- **Retaining Wall** – A structure designed to hold soil in place, sometimes required to be built near trees with minimal root disturbance.
- **Topographical Survey** – A detailed mapping of land features, including trees, elevation, and existing structures, used in construction planning.
- **Soil Compaction** – The compression of soil particles, reducing air and water movement, which can severely impact tree health by restricting root growth.
- **Canopy** – The upper layer of a tree formed by its branches and leaves, providing shade and habitat for wildlife

APPENDIX 4 - TREE LOCATION PLAN



Appendix 5
Constraints Map

BS 5837

- Category A
- Category B
- Category C
- Category U
- RPA

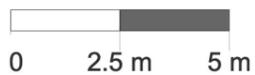


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Retaining drystone wall boundary creating barrier to access

T002

H001

T001

Proposed
development
blockplan

T004

T003

Construction Access and Materials
storage (already paved area)