

**ARBORICULTURAL REPORT  
AND  
ARBORICULTURAL IMPACT ASSESSMENT  
to BS 5837:2012  
at  
198 Barnsley Road  
Denby Dale  
Huddersfield  
West Yorkshire  
HD8 8TS**

**Client:**  
Techwill Ltd

**Client Address:**  
198 Barnsley Road  
Denby Dale  
Huddersfield  
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**JCA Ref:**  
22265d/DK

**JCA** Limited  
Arboricultural & Ecological Consultants

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## 1. Introduction

### 1.1 Purpose of the Report

- 1.1.1 JCA Limited has been instructed by **Techwill Ltd** to survey the trees at **198 Barnsley Road, Denby Dale, Huddersfield** and prepare the findings in a report.
- 1.1.2 This report provides detailed, independent, arboricultural advice on the trees in the context of potential development, conducted in accordance with the guidelines contained within BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS5837:2012).
- 1.1.3 The specific design of the proposed development has been considered within the Arboricultural Impact Assessment in **Section 4** and is detailed on the Arboricultural Implications Plan at **Appendix 6**.
- 1.1.4 Where necessary, recommendations will be given with a view to the long-term management of sustainable tree cover and to uphold the interests of health and safety.

### 1.2 Terms of Reference

- 1.2.1 For this purpose, a topographical survey (Ref: **DENBYD.dwg**) has been supplied, which forms the basis for the Tree Constraints Plan at **Appendix 5**. The topographical survey, along with all other documents supplied to JCA, is assumed to be correct. No checking of such documents will be undertaken and JCA cannot be held responsible for incorrect data supplied by other parties.

### 1.3 Tree Survey Details and Methodology

- 1.3.1 The survey took place during August 2024 and was conducted by **Dan Kemp FdSc (Arboriculture)**, *BTEC Dip (Arb)*, *Lantra accredited PTI*, *MArborA*.
- 1.3.2 During this survey, all trees were inspected from ground level. Further investigations, such as a climbed inspection or a decay detection survey, have not been undertaken.
- 1.3.3 Only those trees within the site boundary with a stem diameter above 75mm have been included. Where applicable, trees outside the site boundary, but close enough to be affected by a proposed development, are also included.
- 1.3.4 Tree data was collected in accordance with **Section 4.4** and **Section 4.5** of BS5837: 2012. Full details of all trees surveyed are recorded in the tables at **Appendix 1** which can be cross referenced with the Tree Constraints Plan at **Appendix 5**. A full explanation of the tables can be found at **Appendix 2**.
- 1.3.5 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible, due to restricted access or other mitigating circumstances, measurements were estimated to the best ability of the surveyor. Where measurements have been estimated, these are clearly highlighted at **Appendix 1** with a '#' symbol.

## 2. Status of the Trees

- 2.1 A check was made with **Kirklees Metropolitan Borough Council** in August 2024 to determine whether any of the trees surveyed as part of this report are subject to any statutory controls.
- 2.2 We are informed that there is a Group Tree Preservation Order (TPO Ref: **08/17/G5**).
- 2.3 The vegetation identified as **T1, G2, T3, T9** and **G10** in this report are subject to the TPO. No work must be undertaken to these trees until an approved Works to Protected Trees application has been granted, or until planning permission has been granted which includes accurately specified tree works.
- 2.4 Prior to any works being undertaken to trees, those instructing and proposing to carry out the work should satisfy themselves that all appropriate consents are in place to prevent potential breach of legislation.
- 2.5 The presence of a Tree Preservation Order (TPO) represents the Local Authority's desire to retain trees within the landscape. As such, trees covered by a TPO are generally more likely to require retention within a proposed scheme and this should be taken into account during the design process. In some cases, the removal of TPO trees may be agreed upon, providing the benefits of the proposed development are deemed greater than the material loss of the trees. The value of existing vegetation is just one factor in the decision making process; all benefits of the proposed development will be taken into consideration in the usual manner.

### 3. Tree Survey Details

#### 3.1 Tree Retention Categories

3.1.1 Below is a summary of the surveyed vegetation with retention categories identified in accordance with BS5837: 2012. For a full explanation of the retention categories, please refer to **Appendix 2 (Section A2.3)**.

| Retention Categories of the Vegetation Surveyed |          |           |           |
|---|----------|-----------|-----------|
| Retention Category                              | Tree (T) | Group (G) | Totals    |
| B   | 6        | 2         | 8         |
| C   | 0        | 1         | 1         |
| U   | 1        | 0         | 1         |
| <b>Totals</b>                                   | <b>7</b> | <b>3</b>  | <b>10</b> |

3.1.2 As a general rule, of the surveyed items of vegetation, those listed as retention category 'A' or retention category 'B' are the most valuable items of vegetation and as such the removal of these is likely to be met with resistance by the Local Planning Authority (LPA).

3.1.3 Those items listed as retention category 'C' are of lesser value and the removal of these is generally less likely to be met with resistance by the LPA.

3.1.4 Items listed as retention category 'U' comprise of dead trees or trees of limited safe life expectancy and are often recommended for removal, irrespective of any proposals.

## 3.2 Recommended Work for Arboricultural Reasons

3.2.1 Where necessary, recommendations have been prescribed for reasons of public safety or to benefit the trees. Such recommendations have been made for Arboricultural reasons and should be undertaken irrespective of development, as follows.

| Arboricultural Recommendations |            |            |                    |  |
|--------------------------------|------------|------------|--------------------|--|
| Ref No.                        | Species    | Height (m) | Stem Diameter (cm) | Recommendations  |
| T4                             | Rowan      | 6 est.     | 30, 18             | Remove; fell and treat stump – this tree is likely to decline and is of low value. |
| T6                             | Common Ash | 14 est.    | 45                 | Remove the deadwood and monitor annually due to the Ash Dieback.                   |

3.2.2 Full details of all recommended works are detailed in the 'Recommendations Column' of the Tree Data Tables at **Appendix 1**.

3.2.3 For an explanation of the priority ratings, see **Appendix 2 (A2.2.5)**.

3.2.4 All trees which are to be retained within the proposed development should be inspected on a regular basis in the interests of risk management. They should have a biennial re-inspection regime, ideally with each inspection being undertaken during a different season, in order to observe any defects, pests and diseases that are only evident at certain times of year.

## 4. Arboricultural Impact Assessment (AIA)

### 4.1 Proposed Development

- 4.1.1 The proposed development will consist of the construction of two detached residential properties with associated drive, parking and garden areas.
- 4.1.2 We have been supplied with **Drawing: 1744 ACU (100)02 - PROPOSED SITE PLAN Revit Conversion** which details the proposed development. The tree data has been overlaid onto the proposed designs to create the Arboricultural Implications Plan, which can be found at **Appendix 6**. This provides the basis for which this Arboricultural Impact Assessment has been prepared.

### 4.2 Tree Removals for Development

- 4.2.1 No trees are required to be removed to accommodate the proposed scheme.

### 4.3 Pruning for Development

- 4.3.1 In this case, no pruning works are required to accommodate the proposed layout.

### 4.4 Temporary Protection Measures

#### 4.4.1 The Protective Barrier

- 4.4.1.1 In order to ensure the effective protection of retained trees during development, protective fencing will be installed, in accordance with BS5837: 2012. This will be the first job on site following the tree removal and pruning works. The fencing should ideally be positioned to protect the entire **Root Protection Area (RPA)** of the retained trees, in order to create a **Construction Exclusion Zone (CEZ)**.
- 4.4.1.2 Routes for pedestrian and site traffic will be located outside, and diverted away from, the RPAs of the retained trees wherever possible. Where this is not practicable, temporary protective surfaces (ground protection) must be laid over the unprotected RPAs to prevent/limit soil compaction. The ground protection must therefore distribute the weight of site vehicles, machinery or pedestrians whilst allowing moisture to reach the tree rooting area beneath. Such surfaces must be constructed in accordance with BS5837: 2012.

### 4.5 Implications for Retained Trees

#### 4.5.1 Works within the RPA

- 4.5.1.1 Where the proposals require work to be undertaken within the RPA of a tree which is to be retained, specialist measures must be adopted during the construction phase to avoid ground compaction and minimise root damage.
- 4.5.1.2 Such areas are highlighted in **blue** on the Arboricultural Implications Plan at **Appendix 6** and are addressed in the following sections.

## **4.5.2 Demolition**

- 4.5.2.1 In order to meet the needs of this proposal, demolition of existing structures is required. Whilst the structures in question are located outside the RPA of retained trees, no demolition will commence until full protective measures (e.g. fencing and/or ground protection) are installed. This is to prevent foreseeable damage to trees, either by the demolition itself, or relating to vehicular movement over RPAs.
- 4.5.2.1 It is proposed to remove some relatively minor areas of existing hard surfaces within the RPAs of **G2**, **T3**, **G5** and **T6**. This operation will require the supervision of an arboriculturalist.
- 4.5.2.2 For this method, the existing hard surface will first be broken by mechanical means. Care will be taken to only break the existing hard surface and not to disturb the underlying soil (where the tree roots are located). Once the surfacing has been broken into manageable sizes, it will be carefully removed from the area.
- 4.5.2.3 Once all the rubble has been removed from the area, it will be re-instated with new hard standing.
- 4.5.2.4 Some of the existing structures areas of hard standing that are to be removed as part of the development proposals will provide ground protection for the retained trees outlined at point 4.5.2.2 above. Due to this, the structures can alternatively be retained during the construction process up until the final stages of development, at which point they may be removed. This will afford the maximum protection to these trees.

## **4.5.3 Access/Construction of Hard Surfacing**

- 4.5.3.2 Proposed hard surfaces are present within the RPAs of **4** of the retained trees/tree groups (**G2**, **T3**, **G5** and **T6**). In this case, the proposed surfaces are situated within the footprint of existing hard surfacing. Where this is applicable, the existing surface will be retained in situ to prevent damage to tree roots. If required, it may then be resurfaced as appropriate, providing that the base is retained, and no excavation takes place within the RPA.
- 4.5.3.3 Some of the existing surfaces that are to be removed as part of the development proposals are present within the RPA of **2 of the** retained trees and **2** of the retained tree groups (see **Section 4.5.2** on demolition). The existing surfaces provide ground protection for the rooting areas and as such, these are to be retained during construction up until the final stages of development, at which point they may be removed. This will afford the maximum protection to these trees.

## **4.5.4 Construction / Foundation Design**

- 4.5.4.1 The footprints of the proposed structures do not encroach into the RPA of retained trees. As such no specialist construction or foundation methods are considered necessary for the sole purpose of preventing damage to trees.

4.5.4.2 Despite this, specialist foundation designs may still be required for other reasons, and advice should always be sought from a suitably qualified structural expert. The water demand of trees can be an important consideration when determining the appropriate foundation design. Due to this, water demands for the trees identified on this site are included at **Appendix 1**, in accordance with current **NHBC Standards**, for use by the appointed structural expert.

#### **4.5.5 Tree Shade**

4.5.5.1 Shade cast by surrounding trees to the proposals has been considered. The proposals should be designed to reduce the amount of shade cast into the rooms with a view to maximising light levels.

4.5.5.2 Two shade cast diagrams (**Appendix 7**) have been provided by JCA as part of this report. This shows the general expected areas being shaded from trees being retained, however, if any further investigation and information is required, a shade cast analysis expert should be sought.

#### **4.5.6 Utilities**

4.5.6.1 Details on service routes are not available at this time. Where utilities need to be brought onto the site, these should be routed away from the RPAs of retained trees. Where this is not possible, methodologies on the installation of underground services without damage to tree roots should be considered.

4.5.6.2 All service providers should be consulted prior to commencement of works with the aim of minimising the number of service runs on the site. Any foreseeable incursions to RPAs should be communicated to the appointed arboricultural consultant and the LPA at the earliest possible time to prevent breach of planning conditions and damage to retained trees.

#### **4.5.7 Site Compound**

4.5.7.1 The site facilities, which typically includes the site office, mess facilities, toilets, storage of materials and parking, must be located away from the trees and outside the RPAs.

4.5.7.2 Care should also be taken to prevent soil contamination with chemical spillages, including petrol, diesel and oils.

#### **4.5.8 Landscaping**

4.5.8.1 Proposed fence lines may be constructed within the RPA of a tree if necessary, providing that appropriate considerations are taken with regards to the well-being of the effected tree. As such, no continual trenching is to be undertaken within the RPA (e.g. for small walls onto which panel fencing is installed). Excavations must be kept to a minimum and therefore only fence designs requiring intermittent posts will be acceptable within the RPA. Fences should also be kept as far away from the main stems of the trees as is reasonably possible.

- 4.5.8.2 Any patios, garden paths or other hard surfaces within RPAs which may not be shown on the projected layout (**Appendix 6**), and in addition to those mentioned in **Section 4.5 (hard surfaces)** may be constructed using no-dig techniques, providing that they do not cover more than 20% of the RPA and are implemented in accordance with BS5837: 2012. Such surfaces are to be kept as far away from the main stems of the trees as is reasonably practicable. If there is any concern of damaging retained trees, further advice should be sought from a qualified Arboriculturalist.
- 4.5.8.3 No ground level changes are to be undertaken within the RPAs of retained trees, unless otherwise stated or agreed with the appointed Arboricultural Consultant or the LPA. The requirement to raise/lower ground levels within RPAs must be communicated to these parties at the earliest practical convenience.

## 5. Summary

- 5.1 **T1, G2, T3, T9 and T10** are subject to a Group Tree Preservation Order. Prior to any works being undertaken to protected trees, those instructing and proposing to carry the work should satisfy themselves that all appropriate consents are in place to prevent potential breach of legislation.
- 5.2 Recommendations have been prescribed for reasons of public safety or to benefit the trees. Such recommendations have been made for Arboricultural reasons and should be undertaken irrespective of development.
- 5.3 The arboricultural implications of the development have been considered and discussed in **Section 4**.
- 5.4 All development work carried out in close proximity to trees must be executed in a manner sympathetic to their needs. Otherwise, the condition of the trees may deteriorate in the months and years following development, leading to a loss of amenity and resulting in potentially hazardous trees. Care must therefore be taken to ensure that the retained trees are suitably protected.
- 5.5 In accordance with **Section 6.1** of **BS 5837: 2012**, the next stage on this site should be the preparation of an **Arboricultural Method Statement (AMS)**, to ensure that all the retained trees survive the development process. An **AMS** confirms which trees are to be removed, which trees are to be retained and any other tree works which are required to facilitate development. The **AMS** will also advise on temporary protective barriers, temporary ground protection, site supervision, location of services and it will detail specialist construction techniques.
- 5.6 The data gained during the survey provides an indication of the health of the trees. However, it does not enable a comprehensive assessment of their condition over time. Trees are living organisms which are affected by many factors including weather conditions, diseases/disorders, light levels and human activities. Due to this, this report is only valid for a period of 1 year from the date of issuing. Should an update or revision of this report be required outside of this time period, JCA may require a further site visit to ensure that the condition of the trees has not significantly changed. It is advised that the trees are inspected regularly, in the interests of risk management.

# Appendices

## **Appendix 1: Tree Descriptions and Recommendations**

| Tree Ref | Age<br>Common Name<br><i>Botanical Name</i>                                   | Height (m) | Crown Height (m) | Height (m) and<br>Direction of the<br>Lowest Branch | No. of Stems     | Diameter (cm) | Crown Spread            |   |  | Observations   | Tree Works (Arboricultural<br>Recommendations) | Priority   | Tree Works<br>(To Facilitate The Development) | Physiological<br>Condition | Structural<br>Condition | Amenity<br>Value  | NHBC Water<br>Demand | Life Expectancy (yrs) | Retention<br>Category |
|----------|---|------------|------------------|---|------------------|---------------|-------------------------|---|--|--|--|--|---|----------------------------|-------------------------|-------------------|----------------------|-----------------------|-----------------------|
|          |   |            |                  |   |                  |               | N                       | W | E  |  |  |  |   |                            |                         |                   |                      |                       |                       |
| T 1      | Mature<br>European Lime<br><i>Tilia x europaea</i>                            | 18+ #      | 2 to 3 #         | 2 to 3 #<br><br>N/A                                 | 1                | 70 + #        | 7 #<br>7 #<br>7 #       |   | Vertical main stem and spreading crown. Utility lines extend through crown. A large primary limb extends from the main stem from the southwest side. Limited detailed inspection, viewed from Barnsley Road.   | No action required at present.   | N/A  | No action required.  | GOOD  | GOOD                       | HIGH                    | MOD               | 40+                  | B 1                   |                       |
| G 2      | Early mature to<br>Mature<br><br>Mixed species<br><br><i>See Observations</i> | To 20+ #   | 2 to 3 #         | 2 to 3 #<br><br>W                                   | See Plan         | To 50 + #     | See Plan                |   | Species noted include Ash, Sycamore, Oak, Cherry Laurel, Elder and Privet. Pine, Larch, Cypress and Hawthorn were noted to the rear of the property. A group TPO protects the trees. Limited detailed inspection, trees in neighbouring property, viewed over high wall and boundary fence from the west side. | No action required at present.   | N/A  | The existing hard surface is to be carefully removed and resurfaced as part of the development proposals.<br><br>As the existing hard standing will provide ground protection for the tree roots during the construction phase, it is advised that it is retained for as long as it is practical to do so. | GOOD  | GOOD                       | HIGH                    | HIGH<br>to<br>LOW | 40+                  | B 2                   |                       |
| T 3      | Early mature<br><br>Sycamore<br><br><i>Acer pseudoplatanus</i>                | 15+ #      | 4 #              | 4 #<br><br>N/A                                      | 3 at 2 to<br>3 m | 40, 35, 30 #  | 5.5 #<br>5.5 #<br>5.5 # |   | Vertical main stem divides at 2 to 3 metres into 3 fairly upright primary limbs with tight unions. Limited detailed inspection, tree in neighbouring property, viewed over high wall from the west side.   | No action required at present.   | N/A  | The existing hard surface is to be carefully removed and resurfaced as part of the development proposals.<br><br>As the existing hard standing will provide ground protection for the tree roots during the construction phase, it is advised that it is retained for as long as it is practical to do so. | GOOD  | FAIR                       | MOD                     | MOD               | 40+                  | B 1                   |                       |
| T 4      | Early mature to<br>Mature<br><br>Rowan<br><br><i>Sorbus aucuparia</i>         | 6 #        | 1 to 2 #         | 1 to 2 #<br><br>N/A                                 | 2                | 30, 18        | 2.5 #<br>2.5 #<br>2.5 # |   | Vertical stems and spreading crown. Tree growing in small rear garden area in corner. Some split branch wounds, stubs noted. Small <i>Daedaleopsis confragosa</i> bracket on base of tree to east side.  | Remove; fell and treat stump to prevent regrowth - this tree is likely to decline and is of low value. | LOW  | No action required.  | POOR  | FAIR                       | LOW                     | MOD               | <10                  | U                     |                       |

| Tree Ref | Age<br>Common Name<br><i>Botanical Name</i>              | Height (m) | Crown Height (m) | Height (m) and<br>Direction of the<br>Lowest Branch | No. of Stems | Diameter (cm)              | Crown Spread |     |     | Observations  | Tree Works (Arboricultural<br>Recommendations)                   | Priority | Tree Works<br>(To Facilitate The Development)  | Physiological<br>Condition | Structural<br>Condition | Amenity Value | NHBC Water<br>Demand | Life Expectancy (yrs) | Retention Category |
|----------|--|------------|------------------|---|--------------|----------------------------|--------------|-----|-----|---|--|----------|--|----------------------------|-------------------------|---------------|----------------------|-----------------------|--------------------|
|          |  |            |                  |   |              |                            | N            | W   | E   |   |  |          |  |                            |                         |               |                      |                       |                    |
| G 5      | Early mature<br>Mixed species<br><i>See Observations</i> | 14+ #      | 1                | 1<br><br>N/A  | 2            | 52 (Sycamore),<br>35 (Ash) | 4 #<br>5 #   | 6 # | 6 # | Two stems growing together with a homogenous crown. Ground level looked to be slightly raised, poor/no root flare - client advised property and garden had been developed/landscaped in the 90's.   | No action required at present.                                   | N/A      | The existing hard surface is to be carefully removed and resurfaced as part of the development proposals.<br><br>As the existing hard standing will provide ground protection for the tree roots during the construction phase, it is advised that it is retained for as long as it is practical to do so. | GOOD                       | FAIR                    | MOD           | MOD                  | 40+                   | B 2                |
| T 6      | Early mature<br>Common Ash<br><i>Fraxinus excelsior</i>  | 14 #       | 1                | 1<br><br>E  | 1            | 45                         | 6 #<br>5 #   | 7 # | 4 # | Vertical main stem and spreading crown. Ash Dieback, areas of deadwood generally noted within the crown area opposed to peripherally. Ground level looked to be slightly raised, poor/no root flare - client advised property and garden had been developed/landscaped in the 90's. | Remove the deadwood and monitor annually due to the Ash Dieback. | MOD      | The existing hard surface is to be carefully removed and resurfaced as part of the development proposals.<br><br>As the existing hard standing will provide ground protection for the tree roots during the construction phase, it is advised that it is retained for as long as it is practical to do so. | FAIR                       | FAIR                    | MOD           | MOD                  | 40+                   | B 1                |
| T 7      | Early mature<br>Sycamore<br><i>Acer pseudoplatanus</i>   | 11 #       | 1                | 1<br><br>N/A  | 1            | 59 at 1m                   | 6 #<br>6.5 # | 5 # | 6 # | Vertical main stem divides into 2 at about 1 metre and spreading crown. Small Ash sucker to east side of main stem. Ground level looked to be slightly raised, poor/no root flare - client advised property and garden had been developed/landscaped in the 90's.                   | No action required at present.                                   | N/A      | No action required.  | GOOD                       | GOOD                    | MOD           | MOD                  | 40+                   | B 1                |
| T 8      | Early mature<br>Sycamore<br><i>Acer pseudoplatanus</i>   | 11 #       | 0+               | 0+<br><br>N/A                                       | 1            | 57 at 1m                   | 6 #          | 6 # | 6 # | Vertical main stem divides into 4 at about 1m with tight unions but no significant signs of failing and spreading crown. An old wound was noted to the east side on the largest of the primary limbs, looked to be occluding well.  | No action required at present.                                   | LOW      | No action required.  | GOOD                       | FAIR                    | MOD           | MOD                  | 40+                   | B 1                |

| Tree Ref | Age<br>Common Name<br><i>Botanical Name</i>                        | Height (m) | Crown Height (m) | Height (m) and<br>Direction of the<br>Lowest Branch | No. of Stems | Diameter (cm) | Crown Spread      |     |     | Observations   | Tree Works (Arboricultural<br>Recommendations) | Priority | Tree Works<br>(To Facilitate The Development) | Physiological<br>Condition | Structural<br>Condition | Amenity Value | NHBC Water<br>Demand | Life Expectancy (yrs) | Retention Category |
|----------|--|------------|------------------|---|--------------|---------------|-------------------|-----|-----|--|--|----------|---|----------------------------|-------------------------|---------------|----------------------|-----------------------|--------------------|
|          |  |            |                  |   |              |               | N                 | W   | E   |  |  |          |   |                            |                         |               |                      |                       |                    |
| T 9      | Mature<br>Pedunculate Oak<br><i>Quercus robur</i>                  | 12+ #      | 3 #              | 3 #<br><br>N/A                                      | 1 #          | 50 #          | 6 #<br>7 #        | 2 # | 3 # | Vertical main stem. Oak tree growing within G2. The tree's crown has been suppressed to the south and east sides by some conifers and other parts of G2. Limited detailed inspection, tree viewed from west side at rear of client's building. | No action required at present.                 | N/A      | No action required.                           | FAIR                       | FAIR                    | MOD           | HIGH                 | 40+                   | B 1                |
| G 10     | Early mature to<br>Mature<br>Hawthorn<br><i>Crataegus monogyna</i> | 2 #        | N/A              | N/A   | 3+           | 15 x3+        | N/A<br>N/A<br>N/A | N/A | N/A | A linear group of stems, recently pruned, only minor growth on one or more. Growing within the neighbouring property. Potential to form a boundary hedge.  | No action required at present.                 | N/A      | No action required.                           | FAIR                       | FAIR                    | LOW           | HIGH                 | 40+                   | C 2                |

## **Appendix 2: Explanation of Tree Descriptions**

### **A2.1 Measurements/ Reference Information**

A2.1.1 *REF NUMBER*. All items surveyed are allocated a reference number preceded with a letter, identifying the type of vegetation surveyed: T = an individual tree, G = a group of trees or an area of vegetation, W = woodland, H = a hedgerow.

A2.1.2 *SPECIES: COMMON AND BOTANICAL NAME*. The common and botanical names of the species present are noted. If the species is not clear or identifiable, then a general common name and genus will be noted.

A2.1.3 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.

A2.1.4 *HEIGHT* of the tree is measured in metres from the stem base to the top of the crown.

A2.1.5 *CROWN HEIGHT* is an indication of the height above ground level at which the crown begins.

A2.1.6 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; diameter measurements are taken for each stem. If more than five stems are present, an average stem diameter is taken. If for whatever reason it is not practical to measure multiple-stemmed trees in this way, the diameter is measured close to ground level, just above the root buttress.

A2.1.7 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches to all four cardinal points.

A2.1.8 *HEIGHT AND DIRECTION OF LOWEST BRANCH*. The height and direction of the lowest significant branch is noted because of potential issues relating to clearances and the need for tree pruning.

A2.1.9 *NHBC WATER DEMAND*. The water demand of each tree is listed in accordance with current NHBC Standards. This is included to aid structural engineers, architects and other members of the design team as it determines foundation depth and other considerations with regard to trees.

## **A2.2 Evaluations**

A2.2.1 *PHYSIOLOGICAL CONDITION* is classed as good, fair, poor, or dead. This is an indication of the health and vitality of the tree and takes into account vigour, presence of disease and dieback.

A2.2.2 *STRUCTURAL CONDITION* is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

A2.2.3 *LIFE EXPECTANCY* is classed as; 0, less than 10 years, 10+ years, 20+ years, or 40 + years. This is an indication of the minimum number of years before removal of the tree is likely to be required.

A2.2.4 *AMENITY VALUE*. A general indication is given in respect to the amenity/landscape value of the tree/group within the surrounding area.

A2.2.5 *PRIORITIES*. A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

## **A2.3 Retention Categories**

A2.3.1 ***A (marked green on the Tree Constraints Plan) = Trees of high quality.***

These trees are of high quality and value with a good life expectancy (usually with an estimated remaining life expectancy of 40 years).

A2.3.2 ***B (marked in blue on the Tree Constraints Plan) = Trees of moderate quality.***

These trees are of moderate quality and value with a reasonable life expectancy (usually with an estimated life expectancy of at least 20 years).

A2.3.3 ***C (marked in grey on the Tree Constraints Plan) = Trees of low quality.***

These trees are of low quality and value but which are in adequate condition to remain or are young trees with a stem diameter below 15cm (usually with an estimated life expectancy of at least 10 years).

A2.3.4 Trees categorised as retention category 'A', 'B' or 'C' are then justified by being further divided into 3 subcategories:

1 = Mainly arboricultural qualities.

2 = Mainly landscape qualities.

3 = Mainly cultural values, including conservation value.

**A2.3.5 U (marked in red on the Tree Constraints Plan) = Trees usually unsuitable for retention due to poor condition.**

These trees are in such a condition that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. This may be due to any of the following:

- 1) Failure is likely due to serious, irredeemable, structural defects.
- 2) Removal of other category U trees will render them exposed and unstable.
- 3) They are in serious, overall decline or are dead.
- 4) They are of low quality and suppressing adjacent trees of better quality.
- 5) Diseases are present which may affect the health of adjacent trees.

These trees are to be removed or managed in a way which reduces their risk of failure, where they have high ecological value, such as in a woodland setting.

### **Appendix 3: General Guidelines**

- A3.1 All tree work must be undertaken to BS **3998**: 2010 '*Recommendations for tree work*' or other recognised industry practice.
- A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.
- A3.3 This report is based upon a visual inspection. The consultant shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.
- A3.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.
- A3.5 No liability can be accepted by JCA in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.
- A3.6 It is advisable to have trees inspected by an arboricultural consultant regularly.

## Appendix 4: Author Qualifications

### Principal Consultant and Managing Director

**Jonathan Cocking** *F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor.* Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years' experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

### Technical Director

**Toby Thwaites** *BSc (Hons), HND (Arboriculture), LANTRA Accredited PTI, MArborA.* Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

### Operations Director

**Charles Cocking** *FdSc (Arboriculture), LANTRA Accredited PTI, MArborA.* Charles joined JCA in January 2014 having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York, and is a Professional Member of the Arboricultural Association. Charles now oversees all internal operations for the company.

### Arboricultural Projects Director

**Luke Wickham** *FdSc (Arboriculture and Urban Forestry), LANTRA Accredited PTI, MArborA.* Luke joined JCA in 2021 after obtaining his Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. Having previously worked within the industry for the past 4 years, running his own small business and sub-contracting for local firms, Luke brings a sound knowledge and understanding of the practical and academic sides of the industry.

### Consulting Staff: Arboriculture

**Andrew Bussey** *LANTRA Accredited PTI, TechArborA.* Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications and is QTRA qualified.

**Emily Wilde** *FdSc (Arboriculture), LANTRA Accredited PTI, TechArborA.* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

**Mick Eltringham** *ND (Forestry), LANTRA Accredited PTI, TechArborA.* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

**Dan Kemp** *FdSc (Arboriculture), BTEC Dip (Arb), LANTRA Accredited PTI, MArborA.* Dan joined JCA in February 2019 with nearly 30 years' experience in arboriculture with extensive Botanical and Mycological expertise. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

**David de Peña** *BSc (Hons) Ecology and Conservation, TechArborA.* After earning his degree from Manchester Metropolitan University, David worked as an ecologist at various consultancies, contributing to a wide range of projects, including major infrastructure projects across the UK. More recently, David transitioned to arboriculture and served as a surveyor for Manchester City of Trees, where he participated in a project to quantify the value of Greater Manchester's woodlands and trees.

### Administrative Staff

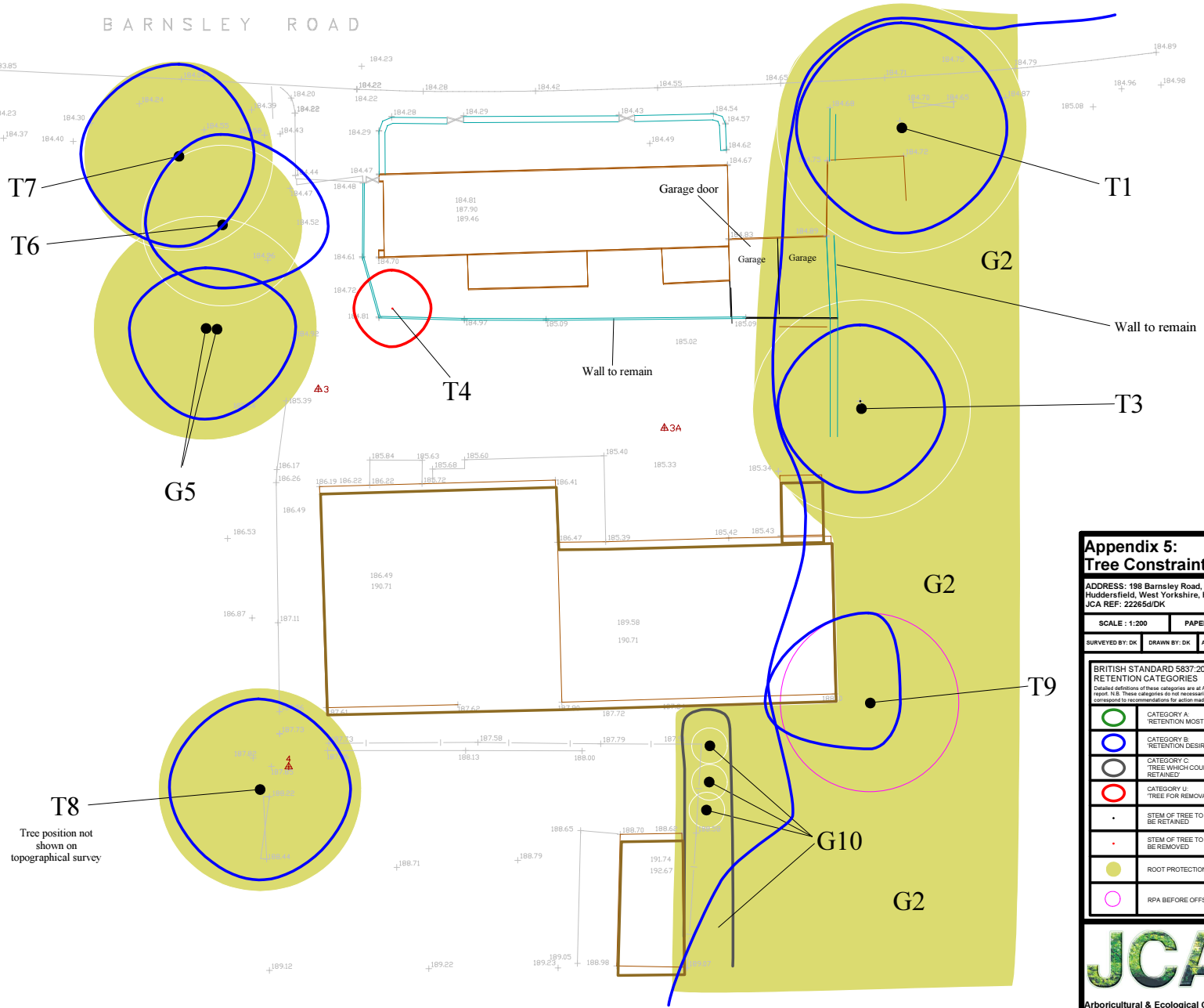
**Catherine Cocking** Accounts Manager.  
**Kelly Saunders** Credit Control Manager.  
**Adie Gray** I.T. Officer.

**Lorraine Spink** Administrative Assistant.  
**Alannah Chapman** Administrative Assistant.

## **Appendix 5: Tree Constraints Plan**



BARNSELEY ROAD



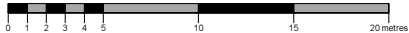
**Root Protection Area: RPA**

THE ROOT PROTECTION AREA SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCOACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 22265b/DK)



**Appendix 5: Tree Constraints Plan**

ADDRESS: 198 Barnsley Road, Denby Dale, Huddersfield, West Yorkshire, HD8 8TS.  
JCA REF: 22265d/DK

SCALE: 1:200      PAPER SIZE: A2

SURVEYED BY: DK      DRAWN BY: DK      APPROVED BY: TT

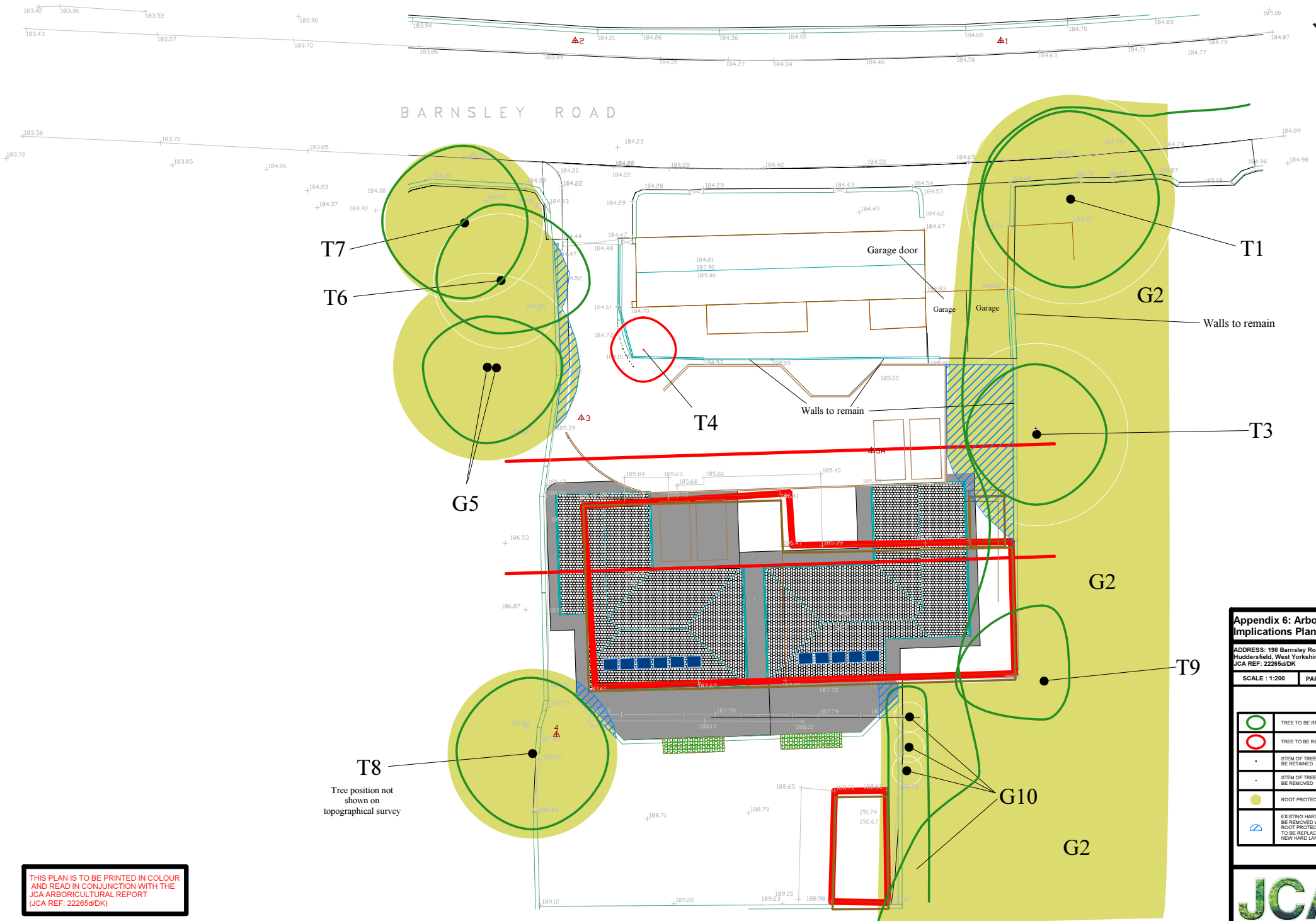
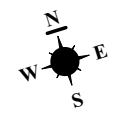
**BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES**

Detailed definitions of these categories are at Appendix 2 of our report 16.5. These categories do not necessarily represent or correspond to recommendations for action made in this report.

|  |  |
|--|--|
|  | CATEGORY A: 'RETENTION MOST DESIRABLE'     |
|  | CATEGORY B: 'RETENTION DESIRABLE'          |
|  | CATEGORY C: 'TREE WHICH COULD BE RETAINED' |
|  | CATEGORY U: 'TREE FOR REMOVAL'             |
|  | STEM OF TREE TO BE RETAINED                |
|  | STEM OF TREE TO BE REMOVED                 |
|  | ROOT PROTECTION AREA                       |
|  | RPA BEFORE OFFSET                          |

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## **Appendix 6: Arboricultural Implications Plan**



**Appendix 6: Arboricultural Implications Plan**

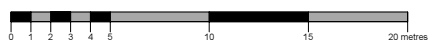
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JCA REF: 22265d/DK

SCALE: 1:200 PAPER SIZE: A2

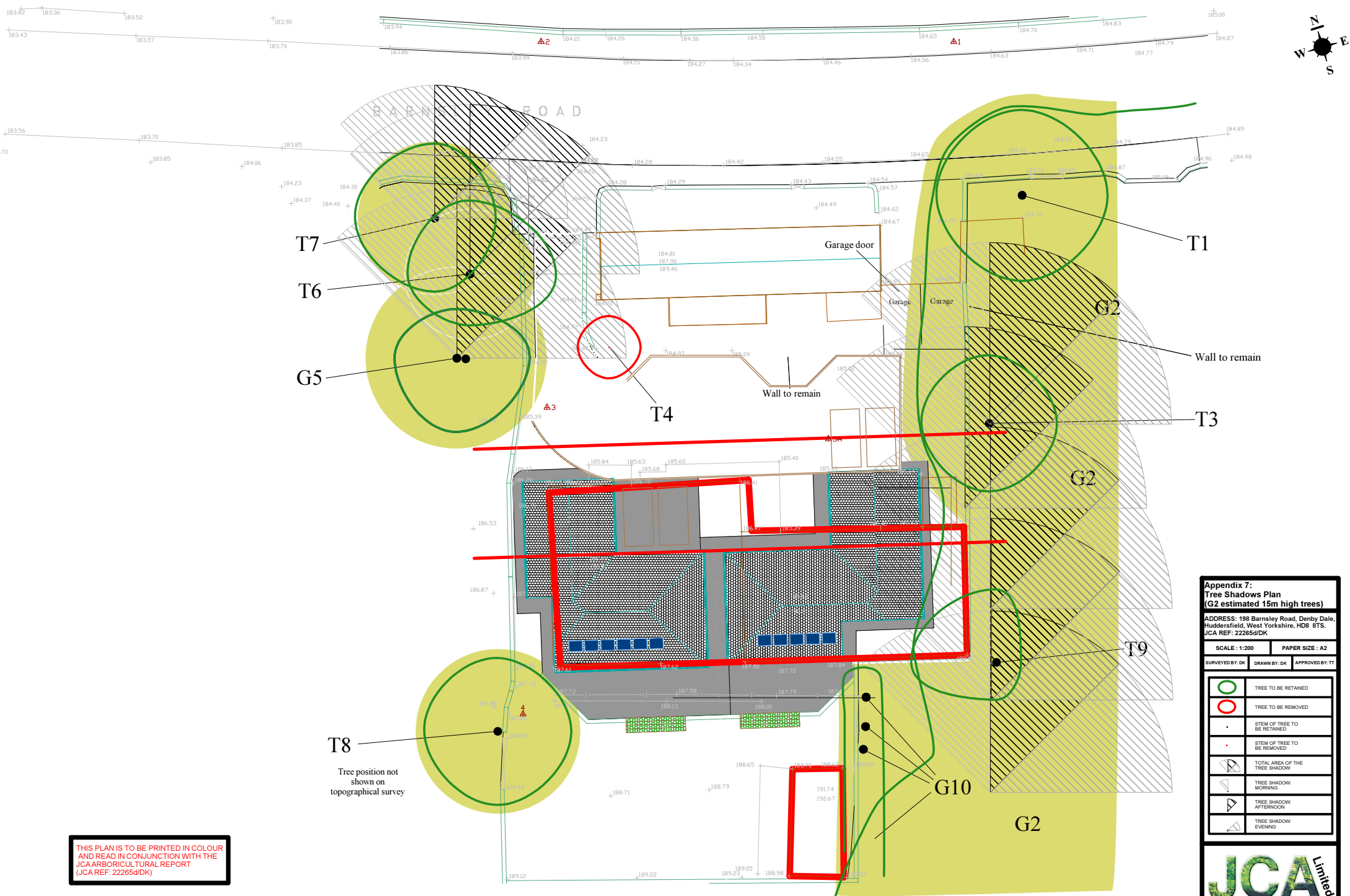
|  |   |
|--|---|
|  | TREE TO BE RETAINED   |
|  | TREE TO BE REMOVED  |
|  | STEM OF TREE TO BE RETAINED   |
|  | STEM OF TREE TO BE REMOVED  |
|  | ROOT PROTECTION AREA  |
|  | EXISTING HARD LANDSCAPE TO BE REMOVED WITHIN THE ROOT PROTECTION AREA. TO BE REPLACED WITH NEW HARD LANDSCAPING |



THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 22265d/DK)



## **Appendix 7: Shade Cast Diagrams**



T7

T6

G5

T4

Garage door

Garage

Garage

Wall to remain

T1

Wall to remain

T3

G2

G2

T9

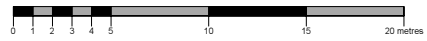
T8

Tree position not shown on topographical survey

G10

G2

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**Appendix 7:**  
**Tree Shadows Plan**  
 (G2 estimated 15m high trees)

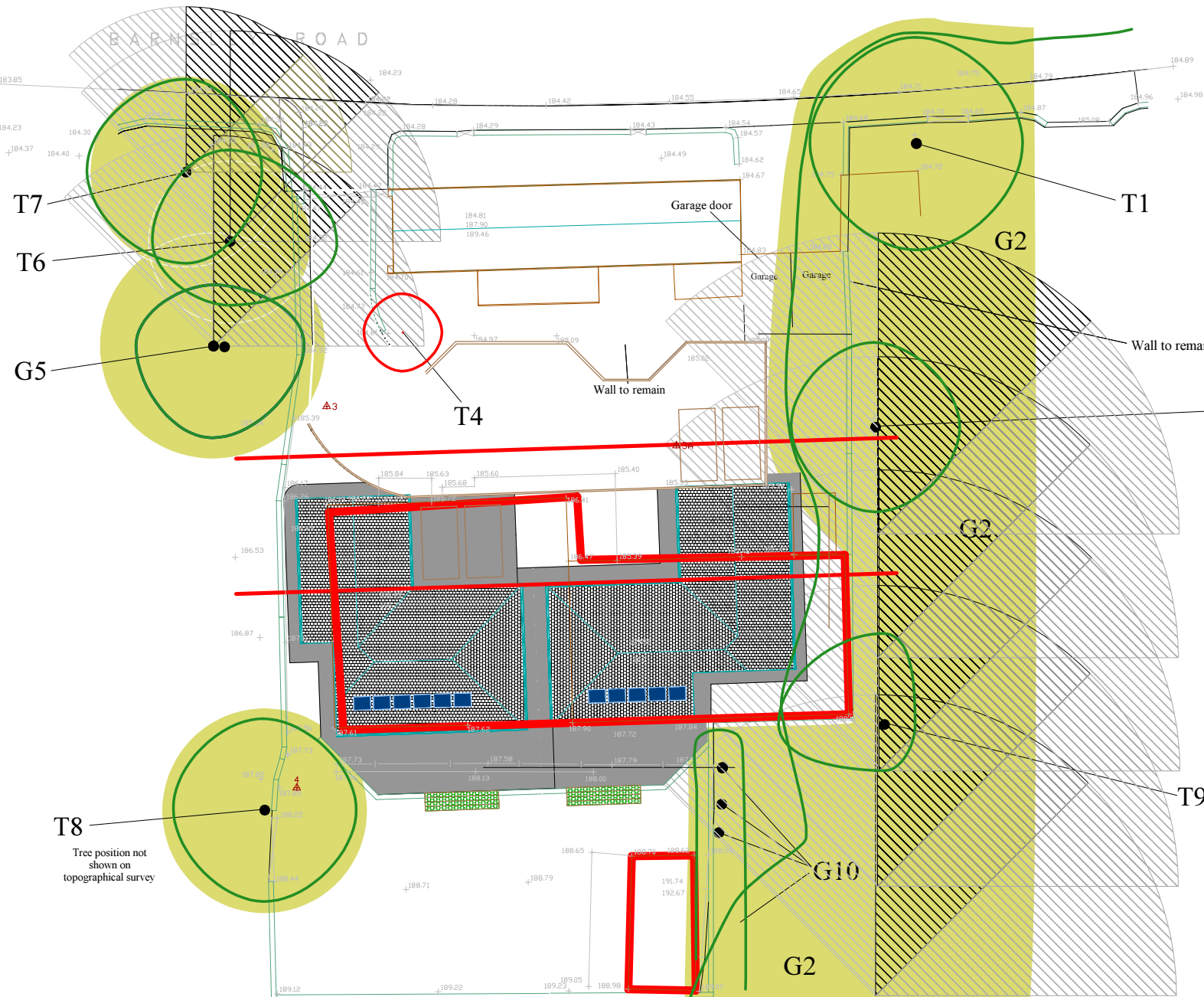
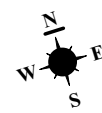
ADDRESS: 198 Barnsley Road, Derby Dale, Huddersfield, West Yorkshire, HD8 8TS.  
 JCA REF: 22265d/DK

SCALE: 1:200      PAPER SIZE: A2

SURVEYED BY: DK    DRAWN BY: DK    APPROVED BY: TT

|  |                               |
|--|-------------------------------|
|  | TREE TO BE RETAINED           |
|  | TREE TO BE REMOVED            |
|  | STEM OF TREE TO BE RETAINED   |
|  | STEM OF TREE TO BE REMOVED    |
|  | TOTAL AREA OF THE TREE SHADOW |
|  | TREE SHADOW: MORNING          |
|  | TREE SHADOW: AFTERNOON        |
|  | TREE SHADOW: EVENING          |

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T7

T6

G5

T4

Garage door

Garage

Garage

Wall to remain

Wall to remain

T3

G2

T8

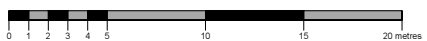
Tree position not shown on topographical survey

T9

G10

G2

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 22265d/DK)



**Appendix 7:  
Tree Shadows Plan  
(G2 estimated 20m high trees)**

ADDRESS: 189 Barnsley Road, Denby Dale, Huddersfield, West Yorkshire, HD8 8TS.  
JCA REF: 22265d/DK

SCALE: 1:200      PAPER SIZE: A2

SURVEYED BY: DK      DRAWN BY: DK      APPROVED BY: TT

|  |                               |
|--|-------------------------------|
|  | TREE TO BE RETAINED           |
|  | TREE TO BE REMOVED            |
|  | STEM OF TREE TO BE RETAINED   |
|  | STEM OF TREE TO BE REMOVED    |
|  | ROOT PROTECTION AREA          |
|  | TOTAL AREA OF THE TREE SHADOW |
|  | TREE SHADOW: MORNING          |
|  | TREE SHADOW: AFTERNOON        |
|  | TREE SHADOW: EVENING          |



I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Dan Kemp *FdSc (Arboriculture), Lantra accredited PTI, MArborA*

2<sup>nd</sup> July 2025

For and on behalf of **JCA Ltd**

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# JCA Ltd. Arboricultural and Ecological Consultants

## Professional Tree and Ecology Advice nationwide

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### ARBORICULTURAL SERVICES

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#### Guidance for Architects and Developers

- British Standard 5837 Tree Surveys
- Arboricultural Implication Assessments (AIA)
- Arboricultural Method Statements (AMS)

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#### Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

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#### Advice for Local Authorities and Social Housing

- Tree Condition Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

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#### Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

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#### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

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#### Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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### ECOLOGICAL SERVICES

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#### Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

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#### Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

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#### HEAD QUARTERS:

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